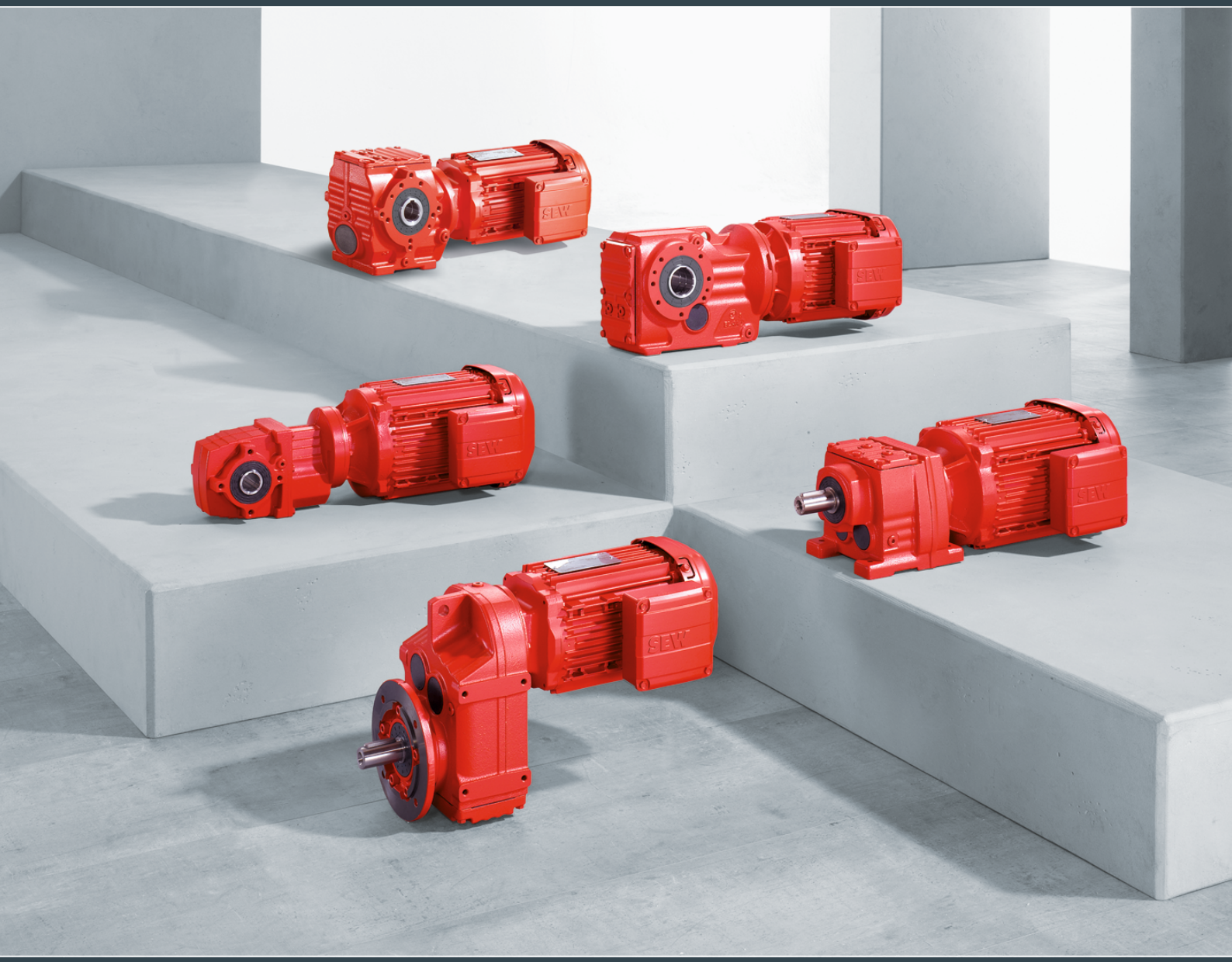
SEW EURODRIVE

Catalog



DRN.. Gearmotors (IE3)

Edition 11/2015

21933189/EN



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1 Introduction

1.1 The SEW-EURODRIVE group of companies

1.1.1 Global presence

Driving the world – with innovative drive solutions for all industries and for every application. Products and systems from SEW-EURODRIVE are used all over the world. Be it in the automotive, building materials, food and beverage or metal-processing industry: The decision to use drive technology "made by SEW-EURODRIVE" stands for reliability for both functionality and investment.

We are represented in the most important branches of industry all over the world: with 14 manufacturing plants and 79 Drive Technology Centers worldwide as well as our customer support, which we consider an integrative service that continues our commitment to outstanding quality.

1.1.2 Always the right drive

The SEW-EURODRIVE modular concept offers millions of combinations. This wide selection enables you to choose the correct drive for all applications, each based on the required speed and torque range, available space, and ambient conditions. Gear units and gearmotors offering a unique and finely tuned performance range and the best economic prerequisites to meet your drive requirements.

The modular DR.. motor series includes the energy-efficient motor types IE1 to IE4 and was designed and constructed with all worldwide requirements for energy efficiency classes in mind. The DR.. motor easily meets the requirements for approval and certification in all relevant countries. The energy-efficient drives achieve the highest efficiency in combination with SEW-EURODRIVE gear units.

The gearmotors are electronically enhanced by MOVITRAC® frequency inverters, MOVIDRIVE® drive inverters, and MOVIAXIS® multi-axis servo inverters – a combination that blends perfectly with the existing SEW-EURODRIVE program. As is the case with the mechanical systems, all development, production, and assembly is carried out entirely by SEW-EURODRIVE. In combination with our drive electronics, these drives provide the utmost in flexibility.

Products of the servo drive system, such as low backlash servo gear units, compact servomotors, or MOVIAXIS® multi-axis servo inverters ensure precision and dynamics. From single-axis or multi-axis applications to synchronized process sequences, servo drive systems from SEW-EURODRIVE enable flexible and customized implementation of your applications.

For economical, decentralized installations, SEW-EURODRIVE offers components from its decentralized drive system, such as MOVIMOT®, the gearmotor with integrated frequency inverter, or MOVI-SWITCH®, the gearmotor with integrated switching and protection function. SEW-EURODRIVE has developed hybrid cables to provide cost-effective functional solutions, irrespective of the system philosophy or scope. The latest developments from SEW-EURODRIVE: DRC.. electronic motor, MOVIGEAR® mechatronic drive system, MOVIFIT® decentralized drive controller, MOVIPRO® decentralized drive, positioning, and application controller, as well as MOVITRANS® system components for contactless energy transfer.

Power, quality, and robustness combined in a single standard product: with SEW-EURODRIVE, powerful movements are delivered by industrial gear units with high torques. The modular concept once again ensures optimum adaptation of industrial gear units to meet a wide range of different applications.

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1.1.3 Your ideal partner

Its global presence, extensive product range and broad spectrum of services make SEW-EURODRIVE the ideal partner for the machinery and plant construction industry when it comes to providing drive systems for demanding drive tasks in all industries and applications.

1.2 Products and systems from SEW-EURODRIVE

The products and systems by SEW-EURODRIVE are divided into the following product groups:

- Industrial gear units
- Gearmotors and frequency inverters
- Servo drive systems
- Decentralized drive systems
- MAXOLUTION®

Products and systems used in applications of several groups are listed in a separate group entitled "products and systems covering several product groups". The following tables indicate the products and systems included in the respective product group:

Industrial gear units
• X, MC, ML series helical and bevel-helical gear units • P002 – 102 series planetary gear units • XP130 – 250 series planetary gear units • P.X.. series planetary bevel-helical gear units • Application solutions with connections – Girth gears – Swing base – Gearmotor – Motor – Coupling – Brake – Lubrication system For conveyor drives, bucket conveyors, agitators, cooling towers, crane systems, and much more

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Gearmotors and frequency inverters		
Gear units / gearmotors	**Motors**	**Frequency inverters**
• Helical gear units / helical gearmotors • Parallel-shaft helical gear units / parallel-shaft helical gearmotors • Helical-bevel gear units / gearmotors • Helical-worm gear units / helical-worm gearmotors • SPIROPLAN® right-angle gearmotors • EMS drives • Geared torque motors • Pole-changing gearmotors • Variable-speed gear units / variable-speed gearmotors • Aseptic gearmotors • Explosion-proof gear units / gearmotors • Explosion-proof variable-speed gear units / variable-speed gearmotors	• Asynchronous AC motors / AC brakemotors • Pole-changing AC motors / AC brakemotors • Energy-efficient motors • Explosion-proof AC motors / AC brakemotors • Torque motors • Single-phase motors / single-phase brakemotors • Asynchronous linear motors	• MOVITRAC® frequency inverters • MOVI4R-U® frequency inverters • MOVIDRIVE® drive inverters • Control, technology and communication options for inverters

Servo drive systems		
Servo gear units / gearmotors	**Servomotors**	**Servo drive inverters / servo inverters**
• Low backlash planetary servo gear units / planetary gearmotors • Low backlash helical-bevel servo gear units / helical-bevel gear units • R, F, K, S, W gear units / gearmotors • Explosion-proof servo gear units / servo gearmotors	• Asynchronous servomotors / servo brakemotors • Synchronous servomotors / servo brakemotors • Explosion-proof servomotors / servo brakemotors • Synchronous linear motors	• MOVIDRIVE® servo drive inverters • MOVIAXIS® multi-axis servo inverter • Control, technology and communication options for servo drive inverters and servo inverters

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Decentralized drive systems		
Decentralized drives	**Communication and installation**	**Contactless energy transfer**
• DRC.. electronic motors / MOVIGEAR® mechatronic drive systems – DBC – Direct Binary Communication – DAC – Direct AS-Interface Communication – DSC – Direct SBus Communication – SNI – Single Line Network Installation • MOVIMOT® gearmotors with integrated frequency inverter • MOVIMOT® motors / brakemotors with integrated frequency inverter • MOVI-SWITCH® gearmotors with integrated switching and protection functions • MOVI-SWITCH® motors / brakemotors with integrated switching and protection function • Explosion-proof MOVIMOT® and MOVI-SWITCH® gearmotors	• Fieldbus interfaces • Field distributors for decentralized installation • MOVIFIT® product range – MOVIFIT® FDC for controlling MOVIGEAR® and DRC.. drive units – MOVIFIT® MC for controlling MOVIMOT® drives – MOVIFIT® SC with integrated electronic motor switch – MOVIFIT® FC with integrated frequency inverter • MOVIPRO® product range – MOVIPRO® SDC decentralized drive and positioning control	• MOVITRANS® system – Stationary components for energy supply – Mobile components for energy consumption – Line cables and installation material

MAXOLUTION®
• MAXOLUTION® packages for predefined application solutions
• MAXOLUTION® systems for customer-specific system solutions and plants

Products and systems covering several product groups
• Operator panels
• MOVI-PLC® drive-based control system
• Components of the type "functional safety"
• Diagnostic units

In addition to its products and systems, SEW-EURODRIVE offers a comprehensive range of services. These include:

- Technical consulting
- User software
- Seminars and training
- Extensive technical documentation
- Worldwide customer service

Visit our website at

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→ **www.sew-eurodrive.com**

The website provides comprehensive information and services.

1.3 Documentation

1.3.1 Content of this publication

This "DRN.. gearmotors (IE3)" catalog describes the following product groups from SEW-EURODRIVE in detail:

- DRN.. helical gearmotors
- DRN.. parallel-shaft helical gearmotors
- DRN.. helical-bevel gearmotors
- DRN.. helical-worm gearmotors
- DRN.. SPIROPLAN® gearmotors

1.3.2 Additional documentation

In addition to this "DRN.. Gearmotors (IE3)" catalog, you can order or download other documents from the SEW-EURODRIVE homepage. The complete range of technical documentation is available in various languages for download from the web at **www.sew-eurodrive.com**.

Catalogs

- Gear units
- Servo gear units
- AC motors
- DRS.. gearmotors (IE1)
- DRE.. gearmotors (IE2)
- Synchronous servomotors
- Synchronous servo gearmotors
- Asynchronous servo gearmotors
- DRC.. gearmotors
- Gearmotors with single-phase motor
- Variable-speed gearmotors
- Pole-changing gearmotors
- Geared torque motors
- Explosion-proof drives
- Explosion-proof AC motors

Drive Engineering – Practical Implementation

You find detailed documentation about the entire topic of electrical drive engineering in the publications of the "Drive Engineering - Practical Implementation" series:

- Project planning for drives

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- EMC in Drive Engineering – Basic Theoretical Principles and EMC-Compliant Installation in Practice
- Efficient Plant Automation with Mechatronic Drive Solutions
- SEW encoder systems
- Servo technology
- Explosion-Proof Drives to EU Directive 94/9/EC

1.4 Product names and trademarks

All product names included in this documentation are trademarks or registered trademarks of the respective titleholders.

1.5 Copyright

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2 Product description

2.1 Product features

2.1.1 Operating temperatures

Gear units and gearmotors from SEW-EURODRIVE can be operated in a wide ambient temperature range.

Gear unit

The following standard temperature ranges are permitted for filling the gear units according to the lubricant table:

Gear unit	Filled with	Permitted standard temperature range
K..19 , K..29, K..39, K..49	CLP(PG) VG460	-20 °C to +60 °C
K..37 , K..47, K..57– K..187 **RX.57 – RX.107** **R.07 – R.167** **F..27 – F..157**	CLP(CC) VG220	-15 °C to +40 °C
S..37 – S..97	CLP(CC) VG680	0 °C to +40 °C
W..10 – W..30, W..37, W..47	CLP(SEW-PG) VG460	-20 °C to +40 °C

The rated data of the gear units and gearmotors specified in the catalog refer to an ambient temperature of +25 °C.

Gear units from SEW-EURODRIVE can be operated outside the standard temperature range if project planning is adapted to ambient temperatures from as low as up to -40 °C in the intensive cooling range until up to +60 °C. Project planning must take special operating conditions into account and adapt the drive to the ambient conditions by selecting suitable lubricants and seals.

This kind of project planning is generally recommended for increased ambient temperatures as of size 97 and for helical-worm gear units with small gear ratios. SEW-EURODRIVE will gladly carry out this project planning for you.

Motors

The motors of the DR.. series are designed for use in a temperature range from -20 °C to +40 °C.

This expands the standardized temperature range required by IEC 60034.

Using the motors outside the above temperature range is possible with some special adjustments. Please contact SEW-EURODRIVE to find out which options are available.

INFORMATION

If the drive is to be operated on a frequency inverter, you must also consider the project planning notes for the inverter and take into account the thermal effects of inverter operation.

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2.1.2 Installation altitude

Due to the low air density at high installation altitudes, heat dissipation on the surface of motors and gear units decreases. The rated data listed in the catalog applies to an installation altitude of maximum 1000 m above sea level. Installation altitudes > 1000 m asl must be taken into account for project planning of gear units and gearmotors.

2.1.3 Power and torque

The power and torque ratings refer to mounting position M1 and similar mounting positions in which the input stage is not completely submerged in oil. In addition, the gearmotors are assumed to be standard versions with standard lubrication and under normal ambient conditions.

2.1.4 Speeds

The quoted output speeds of the gearmotors are recommended values. You can calculate the rated output speed based on the rated motor speed and the gear unit reduction ratio. Please note that the actual output speed depends on the motor load and the supply system conditions.

2.1.5 Noise

The noise levels of all SEW-EURODRIVE gear units, motors and gearmotors are well within the maximum permitted noise levels set forth in the VDI guideline 2159 for gear units and IEC/EN 60034 for motors.

2.1.6 Painting

The gear units, motors and gearmotors from SEW-EURODRIVE are coated as follows:

Gear unit	Coating according to standard 1843
R, F, K, S, W gear units	blue/gray RAL 7031

Exception: SPIROPLAN® W..10DT56 gearmotors have an aluminum housing and are supplied unpainted as standard.

Special coatings are available on request.

2.1.7 Surface and anti-corrosion protection

If required, all gear units, motors and gearmotors from SEW-EURODRIVE can also be supplied with surface protection for applications in extremely humid and chemically aggressive environments.

2.1.8 Heat dissipation and accessibility

Make sure to maintain adequate distance from heat-sensitive components when installing gearmotors/geared brakemotors to the driven machine. The distance is necessary for air circulation for the heat dissipation, for maintenance of the brake and of the MOVIMOT® inverter, if installed.

Please also observe to the notes in the motor dimension sheets in the "AC Motors" catalog.

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2.1.9 Weights

Please note that all weight specifications in the catalogs apply to gear units and gearmotors without lubricant. The weights vary according to gear unit design and gear unit size. The lubricant fill depends on the mounting position selected, which means that in this case no universally applicable information can be given. Guide values for lubricant fill quantities based on the mounting position are provided in the chapter "Lubricant fill quantities" (→ 🗎 108). The exact weight is given in the order confirmation.

2.1.10 Reduced backlash variant

Helical, parallel-shaft helical and helical-bevel gear units with reduced backlash are available as of gear unit size 37. The rotational clearance of these gear units is considerably less than that of the standard designs so that positioning tasks can be solved with great precision. The rotational clearance is specified in angular minutes in the chapter "Geometrically possible combinations" (see chapter "Structure of the combination tables" (→ 🗎 152)). The rotational clearance for the output shaft is specified without load (max. 1 % of the rated output torque); the gear unit input end is blocked. For further information, refer to chapter "Reduced backlash gear unit design / R" (→ 🗎 114).

2.1.11 Multi-stage gearmotors

You can achieve particularly low output speeds by using compound gear units or compound gearmotors. This requires a helical gear unit on the input end as a second gear unit.

It may be necessary to limit the motor power to match the maximum permitted output torque of the gear unit.

2.1.12 RM gear units, RM gearmotors

RM gear units and RM gearmotors are a special type of helical gear units with an extended output bearing hub. They were designed especially for agitating applications and allow for high overhung and axial loads and bending moments. The other data are the same as for standard helical gear units and standard helical gearmotors. You can find special project planning notes for RM gear units in the chapter "Project planning for RM gear units" (→ 🗎 57).

2.1.13 SPIROPLAN® gearmotors

SPIROPLAN® gearmotors are robust, single- and two-stage right-angle gearmotors with SPIROPLAN® gearing. They have three main differences from the helical-worm gear units: the material combination of the steel-on-steel gearing, the special tooth meshing relations and the aluminum housing. As a result, SPIROPLAN® right-angle gearmotors are wear-free and lightweight.

The particularly short design and the aluminum housing make for very compact and lightweight drive solutions.

The wear-free gearing and the life-long lubrication facilitate long periods of maintenance-free operation. The identical hole spacing and axle height of the foot and face allows for a number of mounting options.

Two different flange diameters are available. On request, SPIROPLAN® gearmotors can be equipped with a torque arm.

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2.1.14 Brakemotors

On request, motors and gearmotors can be supplied with an integrated mechanical brake. The SEW-EURODRIVE brake is an electromagnetic disk brake with a DC coil that releases electrically and brakes using spring force. Due to its operating principle, the brake is applied if the power fails. It meets the basic safety requirements. The brake can also be released mechanically if equipped with manual brake release. For this purpose, the brake comes with either a hand lever with automatic reset or an adjustable setscrew. The brake is controlled with a brake control that is either installed in the motor wiring space or the control cabinet.

A characteristic feature of the brakes is their very short design. The brake bearing endshield is a part of both the motor and the brake. The integrated construction of the SEW-EURODRIVE brakemotor permits particularly compact and robust solutions.

2.1.15 International markets

USA and Canada

On request, SEW-EURODRIVE supplies UL registered motors or CSA certified motors with connection conditions according to CSA and NEMA standard.

Eurasian Economic Union / Customs Union between Russia, Belarus, and Kazakhstan.

Motors marketed in Russia, Belarus or Kazakhstan after March 15th, 2015 must bear the EAC mark (Eurasian Conformity), similar to the European CE mark.

Similar to the CE mark, manufacturers and suppliers use the EAC mark to confirm that a product has undergone a conformity process and meets the specified technical requirements. Conformity is issued by an authorized certifying body. The requirements for the conformity evaluation procedure are set forth in the technical regulations of the Customs Union (TR CU). These regulations refer to standards that must be applied for a manufacturer to meet the requirements. SEW-EURODRIVE motors meet the requirements of the technical regulations of the customs union for low-voltage systems. Contact your sales representative to assist you in such cases.

2.1.16 Components on the input side

The following components on the input side are available for the gear units from SEW-EURODRIVE:

- **Input shaft assembly with input shaft end,** optionally with
  - Centering shoulder
  - Backstop
  - Motor platform
- **Adapter**
  - For mounting IEC or NEMA motors with the option of a backstop
  - For mounting servomotors with a square flange
  - With torque limiting safety couplings and speed or slip monitor
  - With hydraulic start-up coupling, also available with disk brake or backstop

2.1.17 Swing base

A swing base is a drive unit consisting of helical-bevel gear unit, hydraulic centrifugal coupling and electric motor. The complete arrangement is mounted to a rigid mounting rail.

Swing bases are available with the following optional accessories:

- Torque arm
- Mechanical thermal monitoring unit
- Contactlaess thermal monitoring unit

2.2 Corrosion and surface protection

2.2.1 General information

For motor and gear unit operation in aggressive environments, SEW-EURODRIVE optionally offers the following preventive measure:

- KS corrosion protection for motors
- Surface protection OS for motors and gear units

For motors, optimum protection is offered by a combination of KS corrosion protection and OS surface protection.

Optional preventive measures are also available for the output shafts.

2.2.2 KS corrosion protection

KS corrosion protection for motors comprises the following measures:

- All retaining screws that are loosened during operation are made of stainless steel.
- The nameplates are made of stainless steel.
- Various motor parts are coated with a finishing varnish.
- The flange contact surfaces and shaft ends are treated with a temporary rust preventive.
- Additional measures are performed for brakemotors.

A sticker labeled "KORROSIONSSCHUTZ" (corrosion protection) on the fan guard indicates special treatment has been applied.

INFORMATION

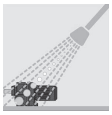
The following motor options are not available with KS corrosion protection:

- /V forced cooling fan
- Shaft-centered encoders /ES, /ES7, /EG, /EG7, /EV7, /AS, /AS7, /AG, /AG7, /AV7

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2.2.3 OS surface protection

As an option for standard surface protection, motors and gear units are also available with surface protection OS1 to OS4. The special measure "Z" is also available in addition. Special measure "Z" means that large contour recesses are filled with rubber before painting.

Surface protection[1) 2)]		Ambient conditions	Sample applications
Standard		Suitable for machines and systems within buildings and interior rooms with neutral atmospheres. Similar to corrosivity category[3)]: • C1 (negligible)	• Machines and systems in the automobile industry • Transport systems in logistics • Conveyor belts at airports
OS1		Suited for environments prone to condensation and atmospheres with low humidity or contamination, such as applications outdoors under roof or with protective device. According to corrosivity category[3)]: • C2 (low)	• Systems in saw mills • Hall gates • Agitators and mixers
OS2		Suitable for environments with high humidity or mean atmospheric contamination, such as applications outdoors subject to direct weathering. According to corrosivity category[3)]: • C3 (moderate)	• Applications in amusement parks • Funiculars and chair-lifts • Applications in gravel plants • Systems in nuclear power plants
OS3		Suitable for environments with high humidity and occasionally severe atmospheric and chemical contamination. Occasionally acidic or caustic wet cleaning. Also for applications in coastal areas with moderate salt load. According to corrosivity category[3)]: • C4 (high)	• Sewage treatment plants • Port cranes • Mining applications
OS4		Suitable for environments with permanent humidity or severe atmospheric or chemical contamination. Regular acidic and caustic wet cleaning, also with chemical cleaning agents. According to corrosivity category[3)]: • C5-1 (very high)	• Drives in malting plants • Wet areas in the beverage industry • Conveyor belts in the food industry

1) Motors/brakemotors in degree of protection IP56 or IP66 are only available with OS2, OS3, or OS4 surface protection.

2) Gearmotors with OS2 – OS4 surface protection are only offered in combination with KS corrosion protection.

3) According to DIN EN ISO 12944-2, classification of ambient conditions

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2.2.4 Special protection measures

Gearmotor output shafts can be treated with special optional protective measures for operation subject to severe environmental pollution or in particularly demanding applications.

Measure	Protection principle	Suitable for:
FKM oil seal	High quality material	Drives subject to chemical contamination
Coating on output shaft end	Surface coating of the contact surface of the oil seal	Severe environmental impact and in conjunction with FKM oil seal
Stainless steel output shaft	Surface protection due to high-quality material	Particularly demanding applications in terms of surface protection

2.2.5 NOCO® fluid

As standard, SEW-EURODRIVE supplies NOCO® fluid corrosion protection and lubricant with every hollow shaft gear unit. Use NOCO® fluid when installing hollow shaft gear units. Using this fluid helps prevent contact corrosion and makes it easier to disassemble the drive at a later time. NOCO® fluid is also suitable for protecting machined metal surfaces that do not have corrosion protection, such as parts of shaft ends or flanges. You can also order NOCO® fluid in larger quantities from SEW-EURODRIVE.

Batch size	Packaging type	Part number
5.5 g	Sachet	09107819
100 g	Tube	03253147
1 kg	Tub	09107827

NOCO® fluid is a food grade substance according to NSF-H1. The food-grade NOCO® fluid has a corresponding NSF-H1 label on the packaging.

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2.3 Extended storage

2.3.1 Variant

SEW-EURODRIVE recommends the "extended storage" gear unit design for storage periods longer than 9 months. The lubricant of gear units for extended storage is mixed with a VCI anti-corrosion agent (**v**olatile **c**orrosion **i**nhibitors). Please note that this VCI anti-corrosion agent is only effective in a temperature range of -25 °C to +50 °C. The flange contact surfaces and shaft ends are also treated with an anti-corrosion agent. As standard, the gear unit with "extended storage" option will be supplied with OS1 surface protection. Instead of OS1, you can order OS2, OS3 or OS4.



INFORMATION

To prevent the VCI anti-corrosion agent from evaporating, the gear units in "extended storage" design must remain tightly sealed until startup.

The gear units come with the oil fill according to the specified mounting position (M1 – M6). Always check the oil level before you take the gear unit into operation.

2.3.2 Storage conditions

Observe the storage conditions specified in the following table for extended storage:

Climate zone	Packaging[1)]	Storage[2)]	Storage duration
Temperate (Europe, USA, Canada, China and Russia, excluding tropical zones)	• Packed in containers • With desiccant and moisture indicator sealed in the plastic wrap	• Roofed • Protected against rain and snow • Shock-free	Up to 3 years with regular checks of the packaging and moisture indicator (rel. humidity < 50%)
	Open	• Under roof and enclosed at constant temperature and atmospheric humidity (5 °C < ϑ < 50 °C, < 50% relative humidity) • No sudden temperature variations • Controlled ventilation with filter (free from dust and dirt) • No aggressive vapors • No shocks	2 years or more with regular inspections • Check for cleanness and mechanical damage during the inspection • Check corrosion protection

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Climate zone	Packaging[1)]	Storage[2)]	Storage duration
Tropical (Asia, Africa, Central and South America, Australia, New Zealand excluding temperate zones)	• Packed in containers • With desiccant and moisture indicator sealed in the plastic wrap • Protected against insect damage and mildew by chemical treatment	• Roofed • Protected against rain and snow • Shock-free	Up to 3 years with regular checks of the packaging and moisture indicator (rel. humidity < 50%)
	Open	• Under roof and enclosed at constant temperature and atmospheric humidity (5 °C < ϑ < 50 °C, < 50% relative humidity) • No sudden temperature variations • Controlled ventilation with filter (free from dust and dirt) • No aggressive vapors • No shocks • Protected against insect damage	2 years or more with regular inspections • Check for cleanness and mechanical damage during the inspection • Check corrosion protection

1) The packaging must be carried out by an experienced company using the packaging materials that have been explicitly specified for the particular application.

2) SEW-EURODRIVE recommends to store the gear units according to the mounting position.

2.4 Condition monitoring: Oil aging sensor

2.4.1 DUO10A diagnostic unit

The diagnostic unit consists of a temperature sensor and the actual evaluation unit. The service life curves of the oil grades common in SEW-EURODRIVE gear units are stored in the evaluation unit. SEW-EURODRIVE can customize any oil grade in the diagnostic unit. Standard parameterization is performed directly on the evaluation unit. During operation, the evaluation unit uses the oil temperature to continuously calculate the remaining service life in days until the next oil change. The remaining service life is displayed directly on the evaluation unit. When the service life is expired, a binary signal can be sent to a higher-level system and evaluated or visualized in the system.

Using the DUO10A diagnostic unit, the system operator no longer has to replace the oil within predefined intervals, but can adapt the replacement interval individually to the actual load. The benefits are reduced maintenance and service costs, and increased system availability.

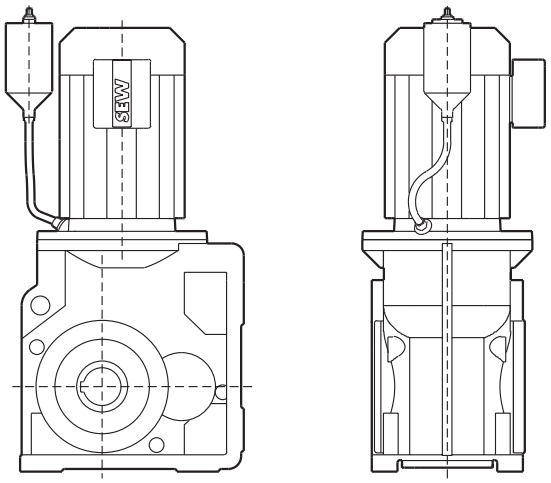
2.5 Oil expansion tank

The oil expansion tank allows the lubricant or air space of the gear unit to expand. This means no lubricant can escape the breather valve at high operating temperatures.

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SEW-EURODRIVE recommends to use oil expansion tanks for gear units and gearmotors in M4 mounting position and for input speeds > 2000 min^{-1}.

The following figure shows the oil expansion tank of a gearmotor.



4979181323

The oil expansion tank is delivered as assembly kit for mounting onto the gearmotor. In case of limited space or of gear units without motor , the oil expansion tank can also be mounted to nearby machine parts.

For further information, contact your SEW-EURODRIVE sales representative.

3 Overview of types and type designations

3.1 Variants and gear unit options

Below an overview of type designations for R, F, K, S, and W gear units and their options.

3.1.1 Helical gear units

Designation	Description
RX..	Single-stage foot-mounted design
RXF..	Single-stage B5 flange-mounted design
R..	Foot-mounted design
R..F	Foot-mounted and B5 flange-mounted design
RF..	B5 flange-mounted design
RZ..	B14 flange-mounted design
RM..	B5 flange-mounted design with extended bearing hub

3.1.2 Parallel-shaft helical gear units

Designation	Description
F..	Foot-mounted design
FA..B	Foot-mounted design and hollow shaft
FH..B	Foot-mounted design and hollow shaft with shrink disk
FV..B	Foot-mounted design and splined hollow shaft to DIN 5480
FF..	B5 flange-mounted design
FAF..	B5 flange-mounted design and hollow shaft
FHF..	B5 flange-mounted design and hollow shaft with shrink disk
FVF..	B5 flange-mounted design and hollow shaft with splined hollow shaft to DIN 5480
FA..	Hollow shaft
FH..	Hollow shaft with shrink disk
FT..	Hollow shaft with TorqLOC® hollow shaft mounting system
FV..	Splined hollow shaft to DIN 5480
FZ..	B14 flange-mounted design
FAZ..	B14 flange-mounted design and hollow shaft
FHZ..	B14 flange-mounted design and hollow shaft with shrink disk
FVZ..	B14 flange-mounted design and hollow shaft with splined hollow shaft to DIN 5480

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3.1.3 Helical-bevel gear units

Designation	Description
K..	Foot-mounted design
KA..B	Foot-mounted design and hollow shaft
KAF..B	B5 flange-mounted design, hollow shaft and foot-mounted design
KF..B	Foot-mounted design, B5 flange-mounted design
KH..B	Foot-mounted design and hollow shaft with shrink disk
KHF..B	B5 flange-mounted design and hollow shaft with shrink disk and foot-mounted design
KV..B	Foot-mounted design and splined hollow shaft to DIN 5480
KF..	B5 flange-mounted design
KAF..	B5 flange-mounted design and hollow shaft
KHF..	B5 flange-mounted design and hollow shaft with shrink disk
KVF..	B5 flange-mounted design and hollow shaft with splined hollow shaft to DIN 5480
KA..	Hollow shaft
KH..	Hollow shaft with shrink disk
KT..	Hollow shaft with TorqLOC® hollow shaft mounting system
KV..	Splined hollow shaft to DIN 5480
KZ..	B14 flange-mounted design
KAZ..	B14 flange-mounted design and hollow shaft
KHZ..	B14 flange-mounted design and hollow shaft with shrink disk
KVZ..	B14 flange-mounted design and hollow shaft with splined hollow shaft to DIN 5480

3.1.4 Helical-worm gear units

Designation	Description
S..	Foot-mounted design
SF..	B5 flange-mounted design
SAF..	B5 flange-mounted design and hollow shaft
SHF..	B5 flange-mounted design and hollow shaft with shrink disk
SA..	Hollow shaft
SH..	Hollow shaft with shrink disk
ST..	Hollow shaft with TorqLOC® hollow shaft mounting system
SAZ..	B14 flange-mounted design and hollow shaft
SHZ..	B14 flange-mounted design and hollow shaft with shrink disk

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3.1.5 SPIROPLAN® gear units

Designation	Description
W..	Foot-mounted design
WF..	B5 flange-mounted design
WAF..	B5 flange-mounted design and hollow shaft
WA..	Hollow shaft
WA..B	Foot-mounted design and hollow shaft
WH..B	Foot-mounted design and hollow shaft with shrink disk
WHF..	B5 flange-mounted design and hollow shaft with shrink disk
WH..	Hollow shaft with shrink disk
WT..	Hollow shaft with TorqLOC® hollow shaft mounting system

3.1.6 Options

R, F and K gear units:

Designation	Description
/R	Reduced backlash

K, S and W gear units:

Designation	Description
/T	With torque arm

F gear units:

Designation	Description
/G	With rubber buffer

3.1.7 Condition monitoring

Designation	Description
/DUO	Diagnostic Unit Oil = Oil aging sensor

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3.2 Designs and options for the DRN.. motor series

3.2.1 Designation of the motors

Designation	Description
DRN..	Energy-efficient motors of energy efficiency class IE3
80 – 315	Sizes: 80 / 90 / 100 / 112 / 132 / 160 / 180 / 200 / 225 / 250 / 280 / 315
S, M, ME, LS, L, H	Lengths: S = Short; M = Medium; L = Long; H = Extra-long design ME = longer variant of length M LS = Length S with shorter package
4	Number of poles 4

3.2.2 Output variants

Designation	Description	Size DRN..
/FI	IEC foot-mounted motor	80M – 315H
/F.A, /F.B	Universal foot-mounted motor	80M – 132S 225S – 315H
/FG	7 series integral motor, as stand-alone motor	80M – 315H
/FF	IEC flange-mounted motor with bore	80M – 315H
/FT	IEC flange-mounted motor with threads	80M – 100L
/FL	Flange mounted motor (deviating from IEC)	80M – 315H
/FM	7-series integral motor with IEC feet	80M – 315H
/FE	IEC flange-mounted motor with bore and IEC feet	80M – 315H
/FY	IEC flange-mounted motor with threads and IEC feet	80M – 100L
/FK	Flange-mounted motor (deviating from IEC) with feet	80M – 280M
/FC	C-face flange-mounted motor, dimensions in inch	80M – 160L[1)]

1) in preparation

3.2.3 Mechanical attachments

Designation	Description	Size
/BE..	Spring-loaded brake with specification of size	80M – 315H
HR	Manual brake release of the brake, automatic re-engaging function	80M – 315H
HF	Manual brake release, lockable	80M – 315H
/RS	Backstop	80M – 315H
/MSW	MOVI-SWITCH®	80M – 100L
/MI	Motor identification module for MOVIMOT®	80M – 112M
/MM03 – MM40	MOVIMOT®	80M – 112M
/MO	MOVIMOT® option(s)	80M – 112M

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3.2.4 Connection alternatives

Designation	Description	Size
/IS	Integrated plug connector	80M – 132S
/ASE.	HAN 10ES plug connector on terminal box with single locking latch (cage clamp contacts on the motor side)	80M – 132S
/ASB.	HAN 10ES plug connector on terminal box with double locking latch (cage clamp contacts on the motor side)	80M – 132S
/ACE.	HAN 10E plug connector on terminal box with single locking latch (crimp contacts on the motor side)	80M – 132S
/ACB.	HAN 10E plug connector on terminal box with double locking latch (crimp contacts on the motor side)	80M – 132S
/AME.	HAN Modular 10B plug connector on terminal box with single locking latch (crimp contacts on the motor side)	80M – 132S
/ABE.		80M – 225M
/ADE.		80M – 225M
/AKE.		132M – 225M
/AMB.	HAN Modular 10B plug connector on terminal box with double locking latch (crimp contacts on the motor side)	80M – 132S
/ABB.		80M – 225M
/ADB.		80M – 225M
/AKB.		132M – 225M
/AND.	Harting Han® Q8/0, single locking latch	80M – 132S
/AFQ.	Round plug connector Molex/Amphenol, 4-pole power 1 3/8" (AFQ8 housing Al), 3-pole brake connection 7/8", 3 fixed ends, max. 25 A, BG/BGE/BSR/BUR brake	80M – 132S
/AFL.	Round plug connector Molex/Amphenol, 4-pole power 7/8" (AFL8 housing Al), 3-pole brake connection 7/8", 3 ends, max. 25 A, BG/BGE/BSR/BUR brake	80M – 100L
/KCC	6 or 10-pole terminal strip with cage clamp contacts	80M – 132S
/KC1	C1-profile-compliant connection of the electrified monorail system drive (VDI guideline 3643) (for DR71, 80). Alternatively for DR.90 – 132 for a more compact connection range	80M – 132S
/IV	Other industrial plug connectors according to customer specifications	80M – 225M

3.2.5 Temperature sensor / temperature detection

Designation	Description	Size
/TF	Temperature sensor (PTC thermistor or PTC resistor)	80M – 315H
/TH	Thermostat (bimetallic switch)	80M – 315H
/KY	1 KTY84 – 130 sensor	80M – 315H
/PT	1 / 3 PT100 sensor(s)	80M – 315H

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3.2.6 Encoders

Designation	Description	Size
/ES7S[1)]	Add-on speed sensor with Sin/Cos interface	80M – 132S
/EG7S[1)]		132M – 280M
/EV7S		80M – 280M
/EH7S		315S – 315H
/ES7R	Add-on speed sensor with TTL (RS-422) interface, V = 9 – 26 V	80M – 132S
/EG7R		132M – 280M
/EV7R		80M – 280M
/EH7R		315S – 315H
/EI7C[1)]	Built-in incremental encoder with HTL interface, 24 periods	80M – 132S
/EI76	Built-in incremental encoder with HTL interface and 6 / 2 / 1 period(s)	80M – 132S
/EI72		80M – 132S
/EI71		80M – 132S
/AS7W[1)]	Add-on absolute encoder, RS-485 interface (multi-turn)	80M – 132S
/AG7W[1)]		132M – 280M
/AV7W		80M – 280M
/AS7Y[1)]	Add-on absolute encoder, SSI interface (multi-turn)	80M – 132S
/AG7Y[1)]		132M – 280M
/AV7Y		80M – 280M
/AH7Y		315S – 315H
/ES7A	Mounting adapter for speed sensor from the SEW-EURODRIVE portfolio	80M – 132S
/EG7A		132M – 280M
/EV7A		80M – 280M
/EH7A		315S – 315H
/ES7C	Add-on speed sensor with HTL interface	80M – 132S
/EG7C		132M – 280M
/EV7C		80M – 280M
/EH7C		315S – 315H
/EH7T	Add-on speed sensor with TTL(RS422) interface	315S – 315H
/XV.A	Mounting adapter for non-SEW speed sensors	80M – 280M
/XH1.	Mounted non-SEW speed sensor	80M – 132S[2)]
/XV..		80M – 280M

1) also available in safety-rated design

2) in preparation

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3.2.7 Ventilation

Designation	Description	Size
/V	Forced cooling fan	80M – 315H
/Z	Additional inertia (flywheel fan)	80M – 132L
/AL	Metal fan	80M – 315H
/U	Non-ventilated (without fan)	80M – 315H
/OL	Non-ventilated (closed B-side)	80M – 132S
/C	Canopy for the fan guard	80M – 315H

3.2.8 Bearings

Designation	Description	Size
/NS	Relubrication device	225S – 315H
/ERF	Reinforced bearings on A-side with rolling bearing	250M – 315H
/NIB	Insulated bearing B-side	200L – 315H

3.2.9 Condition monitoring

Designation	Description	Size
/DUE	Diagnostic Unit Eddy Current = function/wear monitoring for BE1 – BE122 brake	80M – 315H

3.2.10 Other additional features

Designation	Description	Size
/DH	Condensation drain hole	80M – 315H
/RI	Reinforced winding insulation	80M – 315H
/RI2	Reinforced winding insulation with increased resistance against partial discharge	112M – 315H
/2W	2nd shaft end on the motor/brakemotor	80M – 315H

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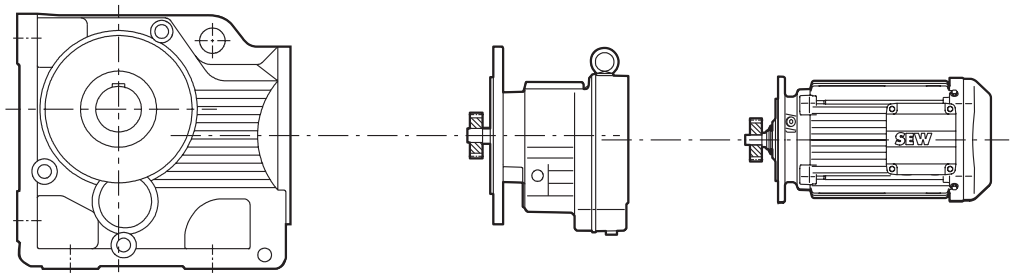
3.3 Example type designation of a DRN.. gearmotor

The type designation of the gearmotor starts from the component on the output end.

For instance, a multi-stage helical-bevel gearmotor with temperature sensor in the motor winding has the following type designation:

Example: K107R77DRN90L4 /TF		
Gear unit type	K	1. Gear unit
Gear unit size	107	
Gear unit series	R	2. Gear unit
Gear unit size	77	
Motor series	DRN..	Motor
Motor size	90	
Length	L	
Number of poles	4	
Motor option temperature sensor	/TF	Option

Example: DRN.. gearmotor

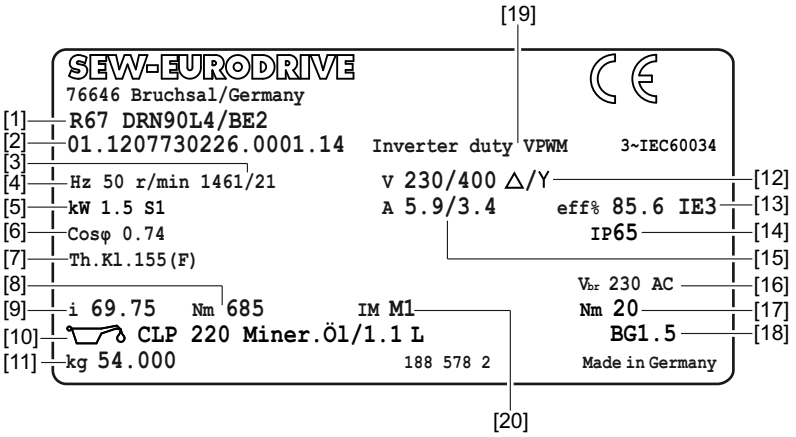


K107 R77 DRN90L4/TF

9007212622923531

3.4 DRN.. gearmotor nameplate

The following figure shows an example of the nameplate of a DRN.. gearmotor.



27021611137296651

[1]		Type designation gearmotor
[2]		Serial number
[3]	min^{-1}	Rated speed of the motor / speed of the gear unit output shaft
[4]	Hz	Nominal frequency
[5]	kW	Rated power/operating mode
[6]		Power factor
[7]		Thermal class
[8]	Nm	Output torque
[9]		Gear unit ratio
[10]		Oil type and oil fill volume
[11]	kg	Weight
[12]	V	Nominal voltage
[13]		Efficiency and energy efficiency class
[14]		Degree of protection according to IEC 60034-5
[15]		Rated current
[16]	V	Brake voltage
[17]	Nm	Nominal braking torque
[18]		Brake control
[19]		Suitability for inverter operation
[20]		Mounting position

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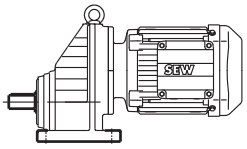
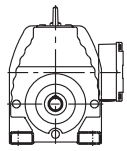
3.5 Gearmotor types

INFORMATION

The variants described in this chapter refer to DR.. gearmotors from SEW-EURODRIVE. They also apply to gear units without motors.

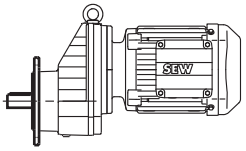
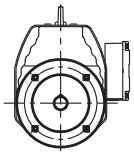
3.5.1 Helical gearmotors

The following designs of helical gearmotors are available:

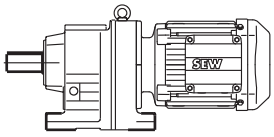
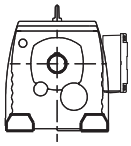
RX..DR..

Single-stage, helical gearmotor in foot-mounted design

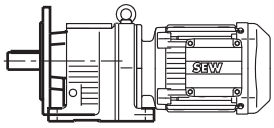
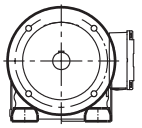
RXF..DR..

Single-stage helical gearmotor in B5 flange-mounted design

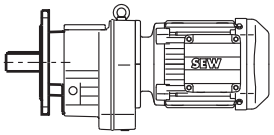
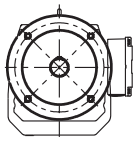
R..DR..

Helical gearmotor in foot-mounted design

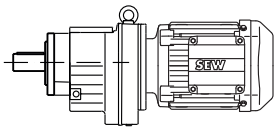
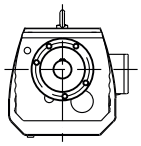
R..F DR..

Helical gearmotor in foot-mounted and B5 flange-mounted design

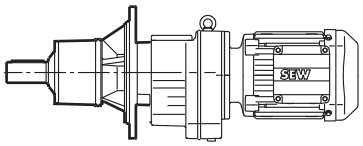
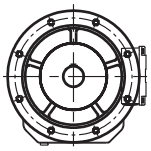
RF..DR..

Helical gearmotor in B5 flange-mounted design

RZ..DR..

Helical gearmotor in B14 flange-mounted design

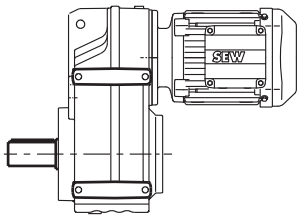
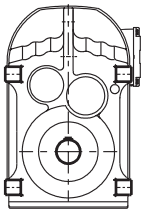
RM..DR..

Helical gearmotor in B5 flange-mounted design with extended bearing hub

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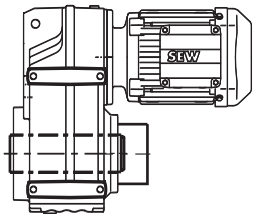
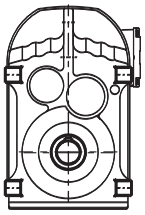
3.5.2 Parallel-shaft helical gearmotors

The following types of parallel-shaft helical gearmotors are available:

F..DR..

Parallel-shaft helical gearmotor in foot-mounted design

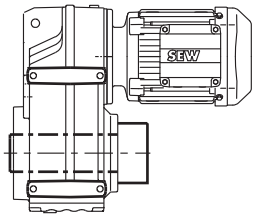
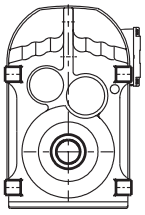



FA..B DR..

Parallel-shaft helical gearmotor in foot-mounted design with hollow shaft

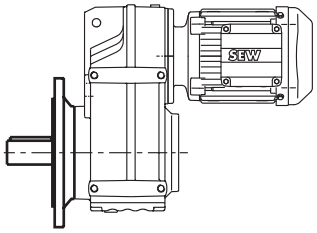
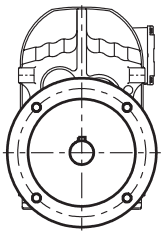
FV..B DR..

Parallel-shaft helical gearmotor in foot-mounted design with hollow shaft and splining to DIN 5480

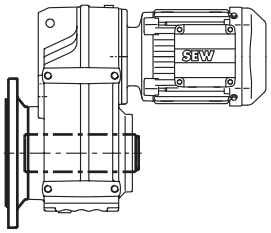
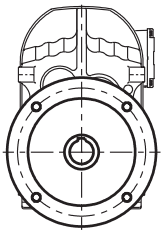
FH..B DR..

Parallel-shaft helical gearmotor in foot-mounted design with hollow shaft and shrink disk

FF..DR..

Parallel-shaft helical gearmotor in B5 flange-mounted design

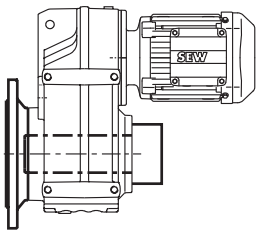
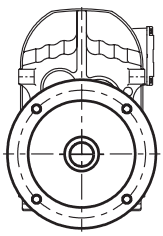



FAF..DR..

Parallel-shaft helical gearmotor in B5 flange-mounted design with hollow shaft

FVF..DR..

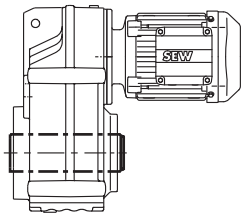
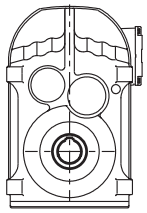
Parallel-shaft helical gearmotor in B5 flange-mounted design with hollow shaft and splining to DIN 5480

FHF..DR..

Parallel-shaft helical gearmotor in B5 flange-mounted design with hollow shaft and shrink disk

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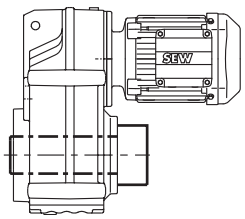
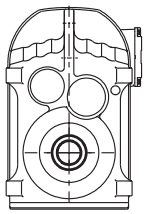



FA..DR..

Parallel-shaft helical gearmotor with hollow shaft

FV..DR..

Parallel-shaft helical gearmotor with hollow shaft and splining to DIN 5480

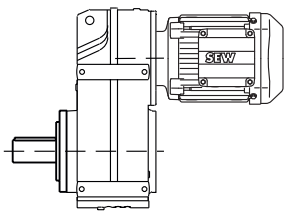
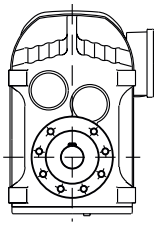



FH..DR..

Parallel-shaft helical gearmotor with hollow shaft and shrink disk

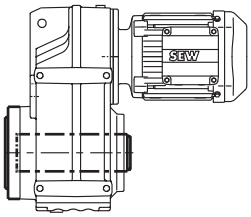
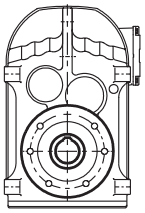
FT..DR..

Parallel-shaft helical gearmotor with hollow shaft and TorqLOC® hollow shaft mounting system

FZ..DR..

Parallel-shaft helical gearmotor in B14 flange-mounted design.

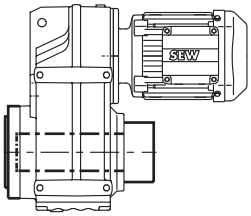
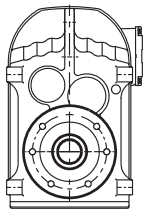



FAZ..DR..

Parallel-shaft helical gearmotor in B14 flange-mounted design with hollow shaft

FVZ..DR..

Parallel-shaft helical gearmotor in B14 flange-mounted design with hollow shaft and splining to DIN 5480

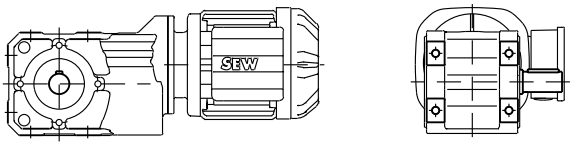
FHZ..DR..

Parallel-shaft helical gearmotor in B14 flange-mounted design with hollow shaft and shrink disk

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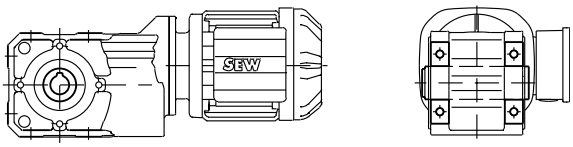
3.5.3 Helical-bevel gearmotors, gear unit sizes K..19 and K..29

The following designs of helical-bevel gearmotors with gear units of size K..19 and K..29 are available:



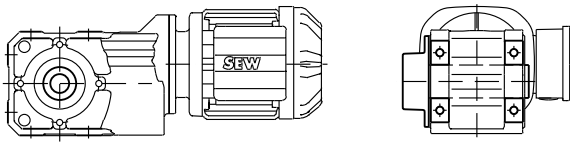
K19 DR.., K29 DR..

Helical-bevel gearmotor in foot-mounted design



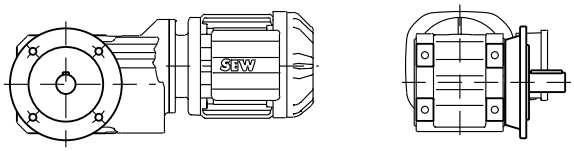
KA19B DR.., KA29B DR..

Helical-bevel gearmotor in foot-mounted design with hollow shaft in foot-mounted design



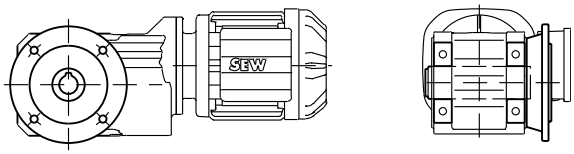
KH19B DR.., KH29B DR..

Helical-bevel gearmotor in foot-mounted design with hollow shaft and shrink disk



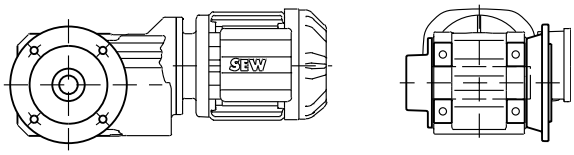
KF19B DR.., KF29B DR..

Helical-bevel gearmotor in B5 flange-mounted design in foot-mounted design



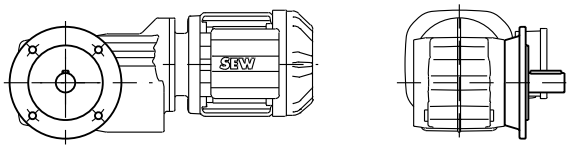
KAF19B DR.., KAF29B DR..

Helical-bevel gearmotor in B5 flange-mounted design with hollow shaft in foot-mounted design



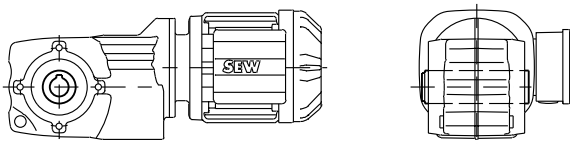
KHF19B DR.., KHF29B DR..

Helical-bevel gearmotor with B5 flange-mounted design with hollow shaft and shrink disk in foot-mounted design



KF19 DR.., KF29 DR..

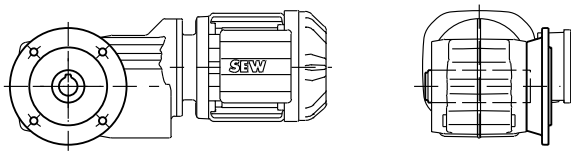
Helical-bevel gearmotor in B5 flange-mounted design



KA19 DR.., KA29 DR..

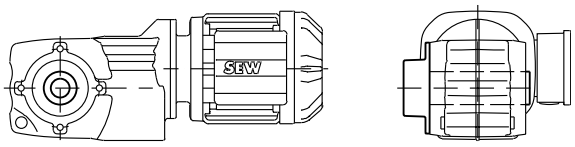
Helical-bevel gearmotor with hollow shaft

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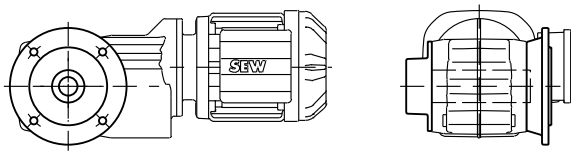
KAF19 DR.., KAF29 DR..

Helical-bevel gearmotor in B5 flange-mounted design with hollow shaft



KH19 DR.., KH29 DR..

Helical-bevel gearmotor with hollow shaft and shrink disk

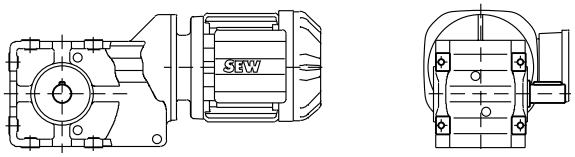


KHF19 DR.., KHF29 DR..

Helical-bevel gearmotor in B5 flange-mounted design with hollow shaft and shrink disk

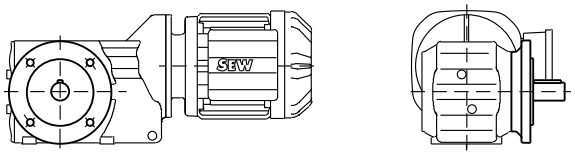
3.5.4 Helical-bevel gearmotors, gear unit sizes K..39 and K..49

The following types of helical-bevel gearmotors with gear units of size K..39 and K..49 are available:



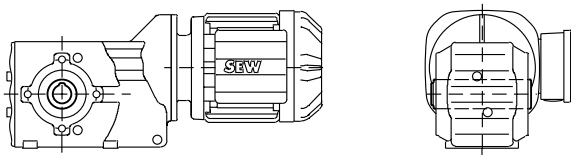
K39 DR.., K49 DR..

Helical-bevel gearmotor in foot-mounted design



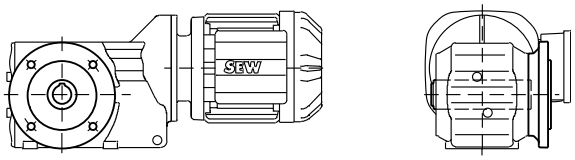
KF39 DR.., KF49 DR..

Helical-bevel gearmotor in B5 flange-mounted design



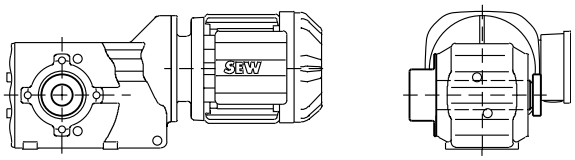
KA39 DR.., KA49 DR..

Helical-bevel gearmotor with hollow shaft



KAF39 DR.., KAF49 DR..

Helical-bevel gearmotor in B5 flange-mounted design with hollow shaft



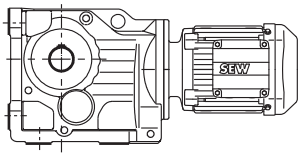
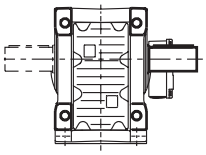
KT39 DR.., KT49 DR..

Helical-bevel gearmotor with hollow shaft and TorqLOC® hollow shaft mounting system

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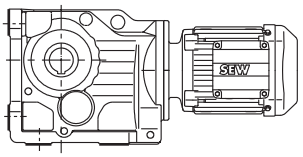
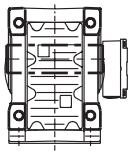
3.5.5 Helical-bevel gearmotors, gear unit sizes K..7

The following types of helical-bevel gearmotors with gear units of size K..7 are available:

K..7 DR..

Helical-bevel gearmotor in foot-mounted design

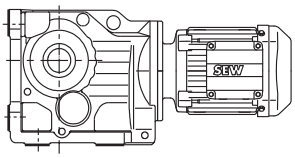
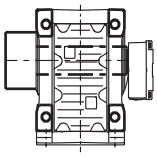



KA..7B DR..

Helical-bevel gearmotor in foot-mounted design with hollow shaft

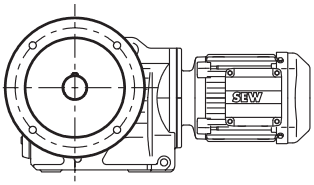
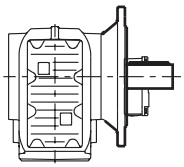
KV..7B DR..

Helical-bevel gearmotor in foot-mounted design with hollow shaft and splining to DIN 5480

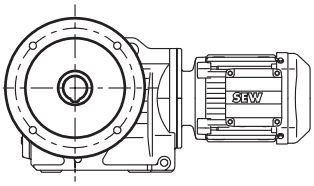
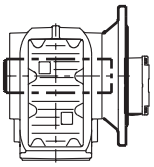
KH..7B DR..

Helical-bevel gearmotor in foot-mounted design with hollow shaft and shrink disk

KF..7 DR..

Helical-bevel gearmotor in B5 flange-mounted design

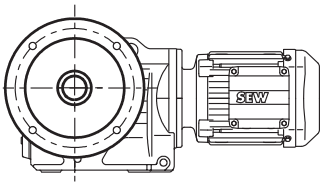
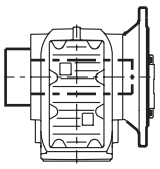



KAF..7 DR..

Helical-bevel gearmotor in B5 flange-mounted design with hollow shaft

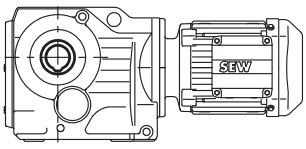
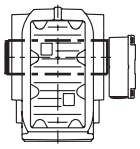
KVF..7 DR..

Helical-bevel gearmotor in B5 flange-mounted design with hollow shaft and splining to DIN 5480

KHF..7 DR..

Helical-bevel gearmotor in B5 flange-mounted design with hollow shaft and shrink disk

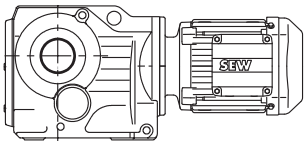
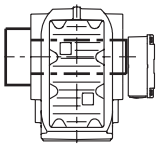
KA..7 DR..

Helical-bevel gearmotor with hollow shaft

KV..7 DR..

Helical-bevel gearmotor with hollow shaft and splining to DIN 5480

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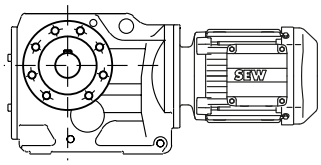
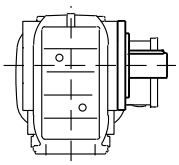



KH..7 DR..

Helical-bevel gearmotor with hollow shaft and shrink disk

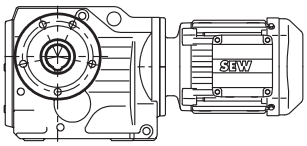
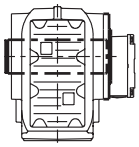
KT..7 DR..

Helical-bevel gearmotor with hollow shaft and TorqLOC® hollow shaft mounting system

KZ..7 DR..

Helical-bevel gearmotor in B14 flange-mounted design.

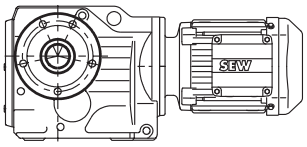
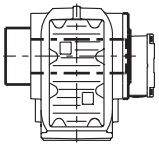



KAZ..7 DR..

Helical-bevel gearmotor in B14 flange-mounted design with hollow shaft

KVZ..7 DR..

Helical-bevel gearmotor in B14 flange-mounted design with hollow shaft and splining to DIN 5480

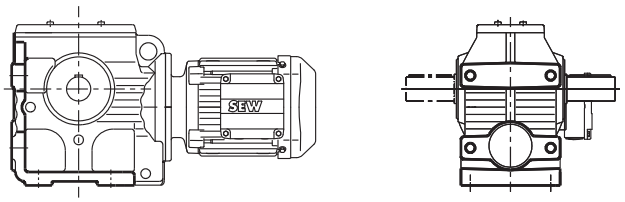
KHZ..7 DR..

Helical-bevel gearmotor in B14 flange-mounted design with hollow shaft and shrink disk

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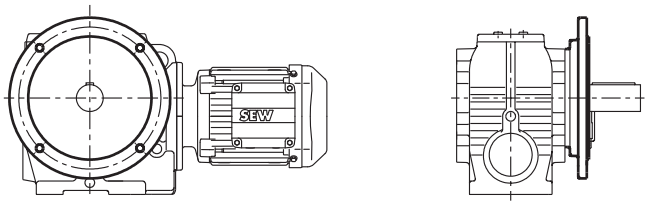
3.5.6 Helical-worm gearmotors

The following types of helical-worm gearmotors can be supplied:



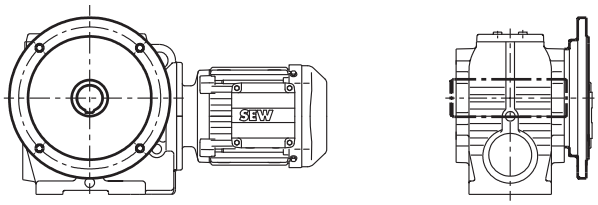
S..DR..

Helical-worm gearmotor in foot-mounted design



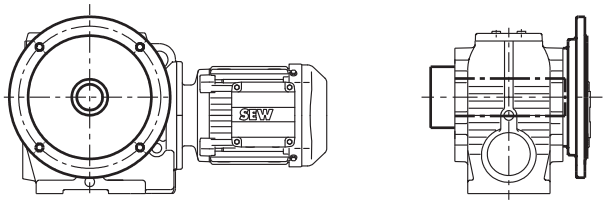
SF..DR..

Helical-worm gearmotor in B5 flange-mounted design



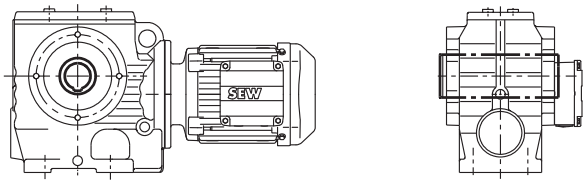
SAF..DR..

Helical-worm gearmotor in B5 flange-mounted design with hollow shaft



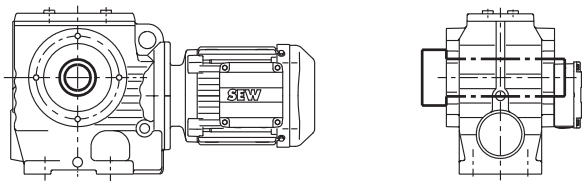
SHF..DR..

Helical-worm gearmotor in B5 flange-mounted design with hollow shaft and shrink disk



SA..DR..

Helical-worm gearmotor with hollow shaft

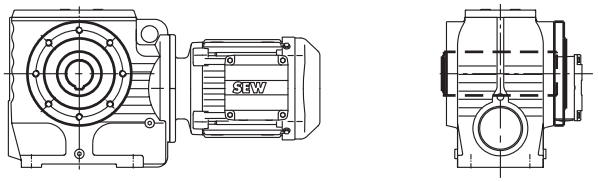


SH..DR..

Helical-worm gearmotor with hollow shaft and shrink disk

ST..DR..

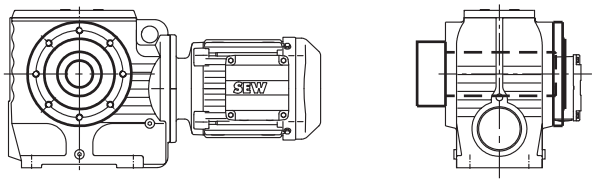
Helical-worm gearmotor with hollow shaft and TorqLOC® hollow shaft mounting system



SAZ..DR..

B14 flange-mounted helical-worm gearmotor with hollow shaft

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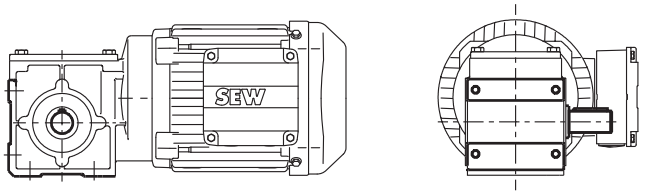
SHZ..DR..

Helical-worm gearmotor in B14 flange-mounted h design with hollow shaft and shrink disk

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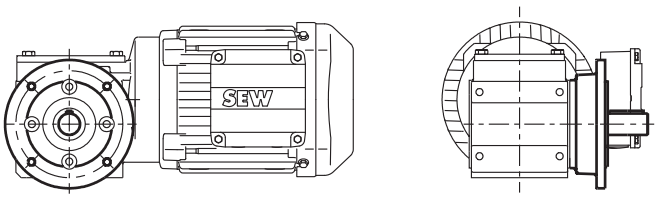
3.5.7 SPIROPLAN® gearmotors, gear unit sizes W..10, W..20, W..30

The following designs of SPIROPLAN® gearmotors with gear units in sizes W..10, W..20, and W..30 are available:



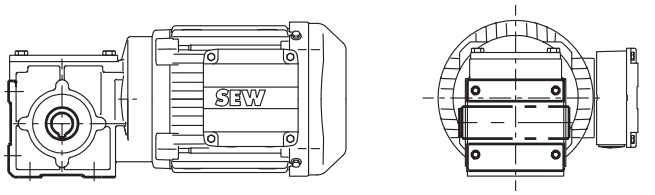
W10 DR.., W20 DR.., W30 DR..,

SPIROPLAN® gearmotor in foot-mounted design



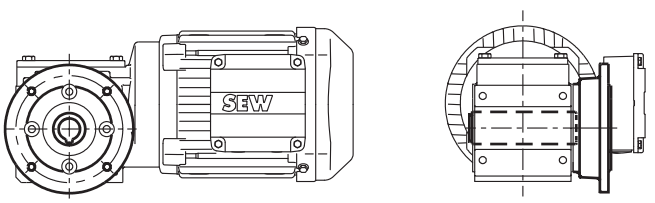
WF10 DR.., WF20 DR.., WF30 DR..

SPIROPLAN® gearmotor in B5 flange-mounted design



WA10 DR.., WA20 DR.., WA30 DR..

SPIROPLAN® gearmotor with hollow shaft

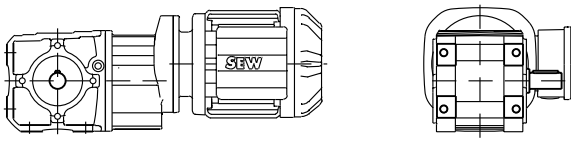


WAF10 DR.., WAF20 DR.., WAF30 DR..

SPIROPLAN® gearmotor in B5 flange-mounted design with hollow shaft

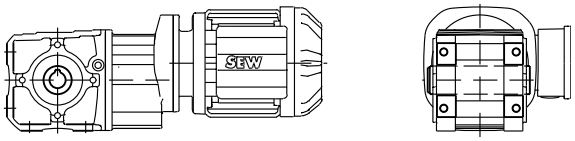
3.5.8 SPIROPLAN® gearmotors, gear unit sizes W..37 and W..47

The following designs of SPIROPLAN® gearmotors with gear units in sizes W..37 and W..47 are available:



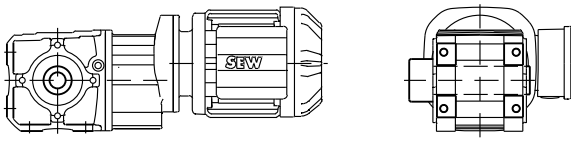
W37 DR.., W47 DR..

SPIROPLAN® gearmotor in foot-mounted design



WA37B DR.., WA47B DR..

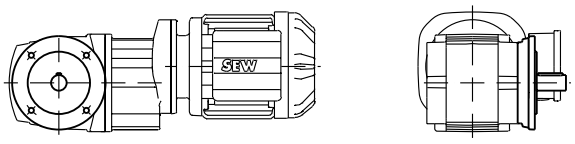
SPIROPLAN® gearmotor in foot-mounted design with hollow shaft



WH37B DR.., WH47B DR..

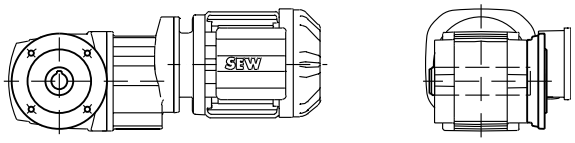
SPIROPLAN® gearmotor in foot-mounted design with hollow shaft and shrink disk

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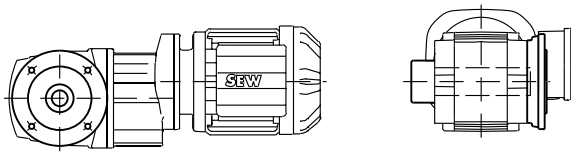
WF37 DR.., WF47 DR..

SPIROPLAN® gearmotor in B5 flange-mounted design



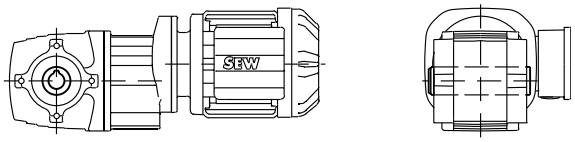
WAF37 DR.., WAF47 DR..

SPIROPLAN® gearmotor in B5 flange-mounted design with hollow shaft



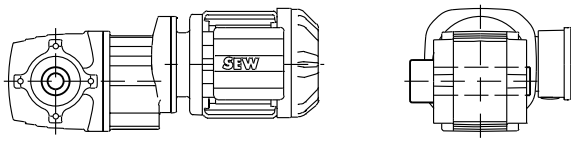
WHF37 DR.., WHF47 DR..

SPIROPLAN® gearmotor in B5 flange-mounted design with hollow shaft and shrink disk



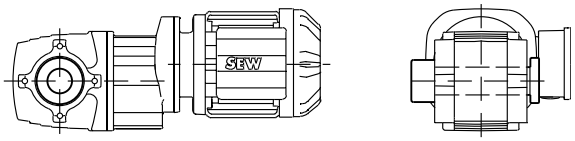
WA37 DR.., WA47 DR..

SPIROPLAN® gearmotor with hollow shaft



WH37 DR.., WH47 DR..

SPIROPLAN® gearmotor with hollow shaft and shrink disk



WT37 DR.., WT47 DR..

SPIROPLAN® gearmotor with hollow shaft and TorqLOC® hollow shaft mounting system

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4 Project planning for drives

4.1 Additional publications

For more details on the subject of project planning for drives, visit the SEW-EURODRIVE website where you can order or download the following publications of the "Drive Engineering – Practical Implementation" series:

- Project Planning for Drives
- EMC in Drive Engineering – Basic Theoretical Principles and EMC-Compliant Installation in Practice
- Efficient Plant Automation with Mechatronic Drive Solutions
- SEW encoder systems
- Servo Technology
- Drive Engineering - Practical Implementation: Explosion-Proof Drives to EU Directive 94/9/EC

4.2 Drive and gear unit selection data

Determining the application data

First, you require the data (mass, speed, setting range, etc.) of the machine to be driven to select the correct drive (see following table). These data help determine the required power, torque and speed. Refer to the "Drive Engineering – Practical Implementation, Project Planning" publication or the SEW Workbench project planning software for assistance.

Selecting the correct drive

After calculating the performance, speed, torque and overhung load of the drive, while considering all mechanical requirements, a suitable drive can be determined.

Application data required for project planning:

Designation	Meaning	Unit
n_{a_min}	Minimum output speed	min^{-1}
n_{a_max}	Maximum output speed	min^{-1}
P_a at n_{a_min}	Output power at minimum output speed	kW
P_a at n_{a_max}	Output power at maximum output speed	kW
M_a at n_{a_min}	Output torque at minimum output speed	Nm
M_a at n_{a_max}	Output torque at maximum output speed	Nm
F_A	Axial load (tension and compression) on the output shaft	N
F_R	Overhung loads acting on the output shaft	N
J_{load}	Mass moment of inertia to be driven	10^{-4} kgm^2
R, F, K, S, W M1 - M6	Mounting position and required gear unit type, see chapter "Gear unit mounting positions" (→ 🗎 60) and "Project planning notes R, F, K, S, W gear units" (→ 🗎 46)	-
IP..	Required degree of protection	-
$\vartheta_{ambient}$	Ambient temperature	°C
H	Installation altitude	m above sea level sea level
S.., ..% cdf	Duty type and cyclic duration factor cdf – the exact load cycle can be entered instead	-
Z	Starting frequency – or exact load cycle can be specified	1/h
f_{line}	Line frequency	Hz
V_{Mot} V_{brake}	Operating voltage of motor and brake	V
M_B	Required braking torque	Nm
For inverter operation: required control mode and setting range		

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4.3 Project planning procedure for DR.. gearmotors

4.3.1 Drive selection – non-controlled operation

The following flow diagram illustrates the project planning procedure for a non-controlled drive. The drive consists of a gearmotor operated on the grid.

Necessary information regarding the machine to be driven

- Technical data and ambient conditions
- Stopping accuracy
- Output speed
- Starting acceleration and deceleration
- Cyclic duration factor and starting frequency

↓

Calculation of the relevant application data

- Static and dynamic power
- Speeds
- Torques, power ratings
- Travel diagram, if required
- Determine the necessary service factor f_B

↓

Motor selection

- Torque/power/speed (number of poles)
- Acceleration torque/starting torque
- Switching frequency
- Determine energy efficiency class IE
- Mechanical brake (braking work, braking torque, brake service life)
- Motor equipment (brake, plug connector, thermal motor protection, etc.)

↓

Gear unit selection

- Definition of gear unit type, gear unit size, gear unit ratio, and gear unit design
- Check the positioning accuracy
- Check the service factor f_B

↓

Make sure that all requirements have been met.

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4.3.2 Drive selection – controlled operation

The following flow diagram illustrates the project planning procedure for a positioning drive. The drive consists of a gearmotor that is powered by an inverter.

Necessary information regarding the machine to be driven

- Technical data and ambient conditions
- Positioning accuracy
- Speed setting range
- Travel cycle calculation

↓

Calculation of the relevant application data

- Travel diagram
- Speeds
- Static, dynamic torques
- Regenerative power

↓

Gear unit selection

- Definition of gear unit type, gear unit size, gear unit ratio, and gear unit design
- Check the positioning accuracy
- Checking the gear unit utilization ($M_{a\,max} \geq M_a$)
- Check the input speed (churning losses)

↓

Motor selection

- Maximum torque
- With dynamic drives: effective torque at medium speed
- Maximum speed
- Determine energy efficiency class IE
- Observe dynamic and thermal torque curves
- Selection of the correct encoder
- Motor equipment (brake, plug connector, TF selection, etc.)

↓

Inverter selection

- Motor/inverter assignment
- Continuous current and peak current for current-controlled inverters/axes

↓

Braking resistor selection

- Based on the calculated regenerative power, cdf and peak braking power

↓

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Options

- EMC measures
- Operation/communication
- Additional functions

↓

Make sure that all requirements have been met.

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4.4 Project planning information – R, F, K, S, W gear units

4.4.1 Efficiency of gear units

General information

The efficiency of gear units is mainly determined by the gearing and bearing friction. Keep in mind that the starting efficiency of a gear unit is always less than its efficiency at operating speed. This applies in particular to helical-worm and SPIROPLAN® right-angle gear units.

R, F, K gear units

Depending on the number of gear stages, the gearing efficiency of helical, parallel-shaft and helical-bevel gear units is up to 96% (3-stage), 97% (2-stage) and 98% (1-stage).

S and W gear units

The gearing in helical-worm and SPIROPLAN® gear units produces a high proportion of sliding friction. This is the reason why these gear units have higher gearing losses and lower efficiency than R, F or K gear units.

Other factors influencing the efficiency:

- Gear ratio of the helical-worm or SPIROPLAN® stage
- Input speed
- Gear unit temperature

Helical-worm gear units from SEW-EURODRIVE are helical gear/worm combinations that have a significantly higher efficiency than plain worm gear units, see chapter "Technical data S. SF. SA. SAF 37" (→ 🗎 710) and following.

The efficiency may reach $\eta < 0.5$ if the helical-worm gear stage has a very high gear ratio.

Self-locking

Retrodriving torque in helical-worm or SPIROPLAN® gear units produces an efficiency of $\eta' = 2 - 1/\eta$, which is significantly less favorable than the forward efficiency η. The helical-worm or SPIROPLAN® gear unit is self-locking if the forward efficiency is ≤ 0.5. Some SPIROPLAN® gear units are also dynamically self-locking. Contact SEW-EURODRIVE if you want to make technical use of the braking effect of self-locking characteristics.

INFORMATION

Note that the self-locking effect of helical-worm and SPIROPLAN® gear units is not permitted as the sole safety function for hoists.

Run-in phase

The tooth flanks of new helical-worm and SPIROPLAN® gear units are not yet completely smooth. That fact makes for a greater friction angle and less efficiency than during later operation. This effect intensifies with increasing gear ratio.

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During the run-in phase, the nominal efficiency of the gear unit is reduced by the relevant value from the following tables.

	Worm	
	i range	η reduction
1-start	approx. 50 – 280	approx. 12%
2-start	approx. 20 – 75	approx. 6%
3-start	approx. 20 – 90	approx. 3%
5-start	approx. 6 – 25	approx. 3%
6 start	approx. 7 – 25	approx. 2 %

SPIROPLAN® W10 to W30	
i range	η reduction
approx. 35 – 75	approx. 15%
approx. 20 – 35	approx. 10%
approx. 10 – 20	approx. 8%
approx. 8	approx. 5%
approx. 6	approx. 3%

SPIROPLAN® W37 and W47	
i range	η reduction
-	-
-	-
approx. 30 – 70	approx. 8%
approx. 10 – 30	approx. 5%
approx. 3 – 10	approx. 3%

The run-in phase usually lasts 48 hours. The following conditions must be met for helical-worm and SPIROPLAN® gear units to achieve their nominal efficiency ratings:

- The gear unit has been completely run-in.
- The gear unit has reached nominal operating temperature.
- The recommended lubricant has been filled.
- The gear unit is operating in the nominal load range.

Churning losses

In certain gear unit mounting positions, see chapter "Gear unit mounting positions" (→ 🗎 60), the first gearing stage is completely immersed in the lubricant. When the circumferential velocity of the input gear stage is high, considerable churning losses occur in larger gear units that must be taken into account. Contact SEW-EURODRIVE in such a case.

To reduce churning losses to a minimum, use gear units in M1 mounting position.

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4.5 Service factor

4.5.1 Determining the service factor

The effect of the driven machine on the gear unit is taken into account to a sufficient level of accuracy using the service factor f_B. The service factor is determined according to the daily operating time and the starting frequency Z. Three load classifications are taken into account depending on the mass acceleration factor. You can read the service factor applicable to your application from the following diagram. The determined service factor must be smaller than or equal to the service factor according to the selection tables (see chapter "Structure of the selection tables" (→ 🗎 153)).

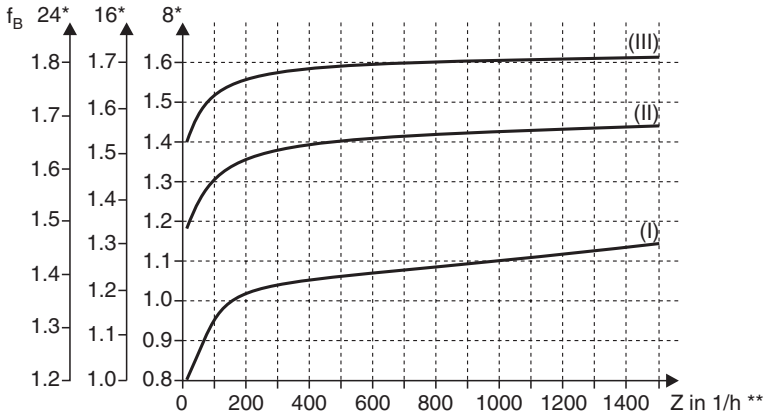
Conditions for the service factor

$$M_a \times f_B \leq M_{amax}$$

M_a Output torque in Nm

f_B SEW service factor

M_{amax} Maximum output torque in Nm



* Service factor in relation to the daily operating time in hours/day

** Starting frequency Z: The cycles include all starting and braking procedures as well as changeovers from low to high speed and vice versa.

I, II, III Load classification

Load classification

Three load classifications are distinguished:

(I) Uniform, permitted mass acceleration factor ≤ 0.2

(II) Non-uniform, permitted mass acceleration factor ≤ 3

(III) Non-uniform, permitted mass acceleration factor ≤ 10

Mass acceleration factor

The mass acceleration factor is calculated as follows:

$$\text{Mass acceleration factor} = \frac{\text{All external mass moments of inertia}}{\text{Mass moment of inertia at motor end}}$$

"All external mass moments of inertia" are the mass moments of inertia of the driven machine and the gear unit, scaled down to the motor speed. The calculation for scaling down to motor speed is performed using the following formula:

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Scaling down the mass moment of inertia on the motor shaft

$$J_X = J \times \left(\frac{n}{n_M} \right)^2$$

J_X Reduced mass moment of inertia on the motor shaft
J Mass moment of inertia with reference to the output speed of the gear unit
n Output speed of the gear unit
n_M Motor speed

"Mass moment of inertia at the motor end" is the mass moment of inertia of the motor and, if installed, the brake and the flywheel fan (Z fan).

Service factors f_B > 1.8 may occur with large mass acceleration factors (> 10), high levels of backlash in the transmission elements or large overhung loads. Contact SEW-EURODRIVE in such a case.

4.5.2 Service factor SEW f_B

The method for determining the maximum permitted continuous torque M_{amax} and using this value to derive the service factor $f_B = M_{amax}/M_a$ is not defined in a standard and varies greatly from manufacturer to manufacturer. Even at a SEW service factor $f_B = 1$, the gear units afford an extremely high level of safety and reliability in the fatigue strength range (exception: wearing of the worm gear in helical-worm gear units). The service factor may differ from specifications of other gear unit manufacturers. If in doubt, contact SEW-EURODRIVE.

Example

Mass acceleration factor 2.5 (load classification II), operating time 14 hours/day (read off at 16 h/d) and 300 cycles/hour produce a service factor $f_B = 1.5$, as shown in the figure on the previous page. According to the selection tables, the selected gearmotor must have an SEW-f_B value of 1.5 or greater.

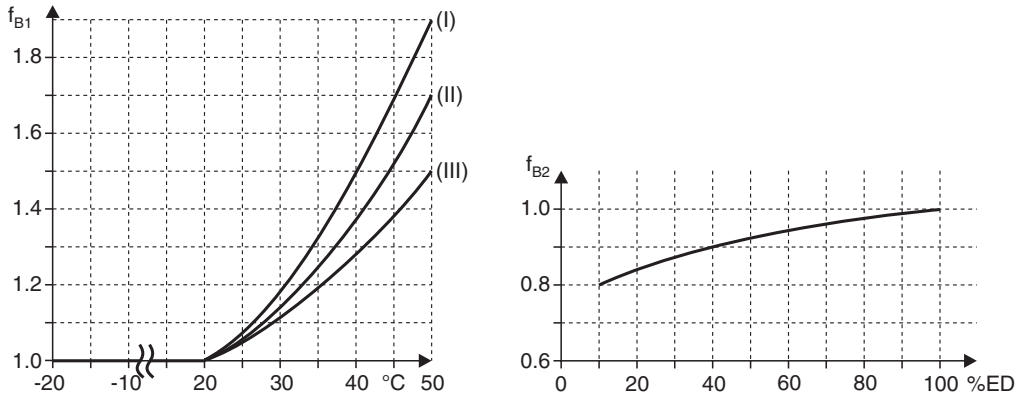
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4.5.3 Helical-worm gear unit

In the case of helical-worm gear units, two further service factors have to be taken into account in addition to the service factor f_B shown the above diagram. They are:

- f_{B1} = Service factor from ambient temperature
- f_{B2} = Service factor from cyclic duration factor

The additional service factors f_{B1} and f_{B2} can be determined by referring to the diagram below. For f_{B1}, the load classification is taken into account in the same way as for f_B. The following diagram shows the additional service factors f_{B1} and f_{B2}:



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Cyclic duration factor

$$CDF = \frac{Time\ under\ load\ in\ min\ /\ h}{60} \times 100$$

CDF Cyclic duration factor in %

Contact SEW-EURODRIVE in the case of temperatures below -20°C (→ diagram f_{B1}).

The total service factor for helical-worm gear units is calculated as follows:

Total service factor

$$f_{Btot} = f_B \times f_{B1} \times f_{B2}$$

f_{Btot} Total service factor

f_B SEW service factor

f_{B1} Service factor from ambient temperature

f_{B2} Service factor from cyclic duration factor

Example

The gearmotor with the service factor f_B = 1.51 in the previous example is to be a helical-worm gearmotor.

Ambient temperature ϑ = 40°C → f_{B1} = 1.38 (read off at load classification II)

Time under load = 40 min/h → CDF = 66.67% → f_{B2} = 0.95

The total service factor is f_{Btot} = 1.51 × 1.38 × 0.95 = 1.98

According to the selection tables, the selected helical-worm gearmotor must have an SEW f_B service factor of 1.98 or greater.

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4.6 Overhung and axial loads

4.6.1 Determining the overhung load

When determining the resulting overhung load, the type of transmission element mounted on the shaft end must be considered. The following transmission element factors f_Z have to be considered for various transmission elements.

Transmission element	Transmission element factor f_Z	Comments
Gears	1.15	< 17 teeth
Sprockets	1.40	< 13 teeth
Sprockets	1.25	< 20 teeth
Narrow V-belt pulleys	1.75	Influence of the pre-tensioning force
Flat belt pulleys	2.50	Influence of the pre-tensioning force
Toothed belt pulleys	1.50	Influence of the pre-tensioning force
Gear rack pinion, pre-tensioned	2.00	Influence of the pre-tensioning force

The overhung force load exerted on the motor or gear unit shaft is then calculated as follows:

$$F_R = \frac{M_d \times 2000}{d_0} \times f_Z$$

F_R Overhung load in N

M_d Torque in Nm

d_0 Mean diameter of the installed transmission element in mm

f_Z Transmission element factor

4.6.2 Permitted overhung load

The basis for determining the permitted overhung loads is the rolling bearing calculation of the rated bearing service life L_{10h} (according to ISO 281).

For special operating conditions, the permitted overhung loads can be determined on the basis of the modified service life L_{na} on request.

The permitted overhung loads F_{Ra} for the output shafts of foot-mounted gear units with a solid shaft are listed in the selection tables for gearmotors. For other designs, please contact SEW-EURODRIVE.

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INFORMATION

The values refer to force applied to the center of the shaft end (in right-angle gear units as viewed onto the A-side output). The values for the force application angle α and direction of rotation are based on the most unfavorable conditions.

- Only 50% of the F_{Ra} value specified in the selection tables is permitted in mounting position M1 with wall attachment on the front face for K and S gear units.
- Helical-bevel gearmotors K167 and K187 in mounting positions M1 to M4: A maximum of 50% of the overhung load F_{Ra} specified in the selection tables is permitted in the case of gear unit mounting other than as shown in the mounting position sheets.
- In case of helical-bevel gear units K167 and K187 in mounting position M5 and M6 only the mounting surface at the defined output end without restriction of F_{Ra} is possible. For other mounting designs, please contact SEW-EURODRIVE.
- Helical gearmotors in foot and flange-mounted design (R..F): A maximum of 50 % of the overhung load F_{Ra} specified in the selection tables is permitted in the case of torque transmission via the flange mounting.

4.6.3 Higher permitted overhung loads

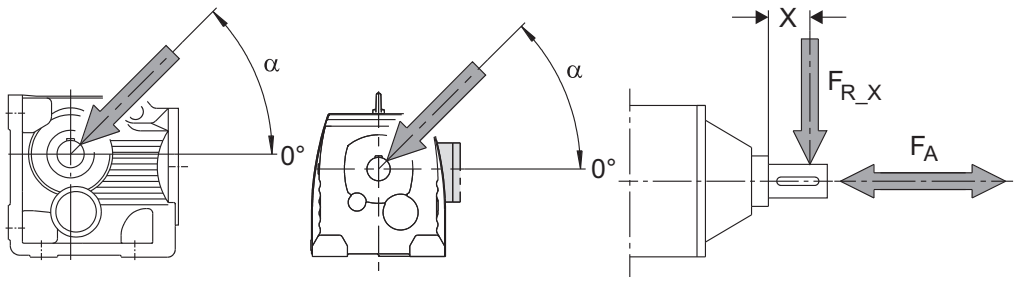
Exactly considering the force application angle α and the direction of rotation makes it possible to achieve a higher overhung load than listed in the selection tables.

Furthermore, higher output shaft loads are permitted if heavy duty bearings are installed, especially with R, F and K gear units.

Contact SEW-EURODRIVE in such cases.

4.6.4 Definition of the force application

Force application is defined according to the following figure:



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F_{R_X} Permitted overhung load at point x in N

F_A Permitted axial load in N

α Force application angle

4.6.5 Permitted axial forces

If there is no overhung load, then an axial load F_A (tension or compression) amounting to 50 % of the overhung load given in the selection tables is permitted. This condition applies to the following gearmotors:

- Helical gearmotors except for R..137... to R..167...

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- Parallel shaft and helical-bevel gearmotors with solid shaft except for F97...
- Helical-worm gearmotors with solid shaft

INFORMATION

Contact SEW-EURODRIVE for all other types of gear units and in the event of significantly greater axial forces or combinations of overhung load and axial force.

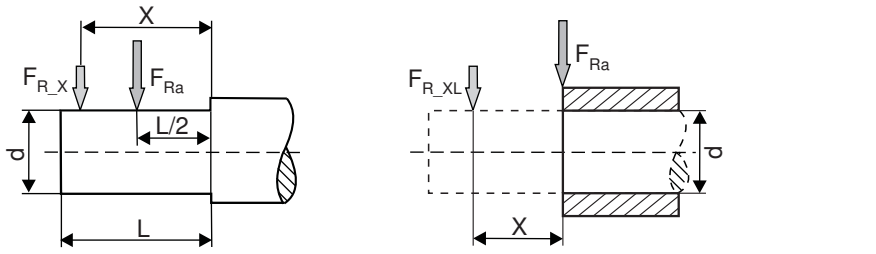
4.6.6 Input end: Overhung load conversion for off-center force application

INFORMATION

Contact SEW-EURODRIVE with regard to the project planning of gear units with input shaft assemblies and off-center force application.

4.6.7 On the output side: Overhung load conversion for off-center force application

The permitted overhung loads must be calculated according the selection tables using the following formula in the event that force is not applied at the center of the shaft end. The smaller of the two values F_{R_XL} (according to bearing service life) and F_{R_RW} (according to shaft strength) is the permitted value for the overhung load at point X. Note that the calculations apply to M_{a_max}.



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Overhung load F_{R_x} for off-center force application

F_{R_XL} based on bearing service life

$$F_{R_XL} = F_{Ra} \times \frac{a}{b + X}$$

F_{R_XW} based on shaft strength

$$F_{R_XW} = \frac{c}{f + X}$$

F_{Ra}	Permitted overhung load (X = L/2) based on M_{a_max} in N for foot-mounted gear units according to selection tables
X	Distance from the shaft shoulder to the force application point in mm
a, b, f	Gear unit constants for overhung load conversion in mm
c	Gear unit constant for overhung load conversion in Nmm

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Gear unit constants for overhung load conversion

Gear unit type	a mm	b mm	c Nmm	f mm	d mm	l mm
RX57	43.5	23.5	1.51×10^5	34.2	20	40
RX67	52.5	27.5	2.42×10^5	39.7	25	50
RX77	60.5	30.5	1.95×10^5	0	30	60
RX87	73.5	33.5	7.69×10^5	48.9	40	80
RX97	86.5	36.5	1.43×10^6	53.9	50	100
RX107	102.5	42.5	2.47×10^6	62.3	60	120
R07	72.0	52.0	4.67×10^4	11	20	40
R17	88.5	68.5	$6{,}527 \times 10^4$	17	20	40
R27	106.5	81.5	1.56×10^5	11.8	25	50
R37	118	93	1.24×10^5	0	25	50
R47	137	107	2.44×10^5	15	30	60
R57	147.5	112.5	3.77×10^5	18	35	70
R67	168.5	133.5	2.65×10^5	0	35	70
R77	173.7	133.7	3.97×10^5	0	40	80
R87	216.7	166.7	8.47×10^5	0	50	100
R97	255.5	195.5	1.06×10^6	0	60	120
R107	285.5	215.5	2.06×10^6	0	70	140
R137	343.5	258.5	4.58×10^6	0	90	170
R147	402	297	8.65×10^6	33	110	210
R167	450	345	1.26×10^7	0	120	210
F27	109.5	84.5	1.13×10^5	0	25	50
F37	123.5	98.5	1.07×10^5	0	25	50
F47	153.5	123.5	1.40×10^5	0	30	60
F57	170.7	135.7	2.70×10^5	0	35	70
F67	181.3	141.3	4.12×10^5	0	40	80
F77	215.8	165.8	7.87×10^5	0	50	100
F87	263	203	1.06×10^6	0	60	120
F97	350	280	2.09×10^6	0	70	140
F107	373.5	288.5	4.23×10^6	0	90	170
F127	442.5	337.5	9.45×10^6	0	110	210
F157	512	407	1.05×10^7	0	120	210
K19	103.7	83.7	8.66×10^4	0	20	40
K29	124.5	99.5	1.26×10^5	0	25	50
K37	123.5	98.5	1.30×10^5	0	25	50
K39	155.5	125.5	2.25×10^5	0	30	60
K47	153.5	123.5	1.40×10^5	0	30	60
K49	183.5	148.5	2.63×10^5	0	35	70
K57	169.7	134.7	2.70×10^5	0	35	70
K67	181.3	141.3	4.12×10^5	0	40	80
K77	215.8	165.8	7.69×10^5	0	50	100
K87	252	192	1.64×10^6	0	60	120
K97	319	249	2.80×10^6	0	70	140
K107	373.5	288.5	5.53×10^6	0	90	170
K127	443.5	338.5	8.31×10^6	0	110	210
K157	509	404	1.18×10^7	0	120	210
K167	621.5	496.5	1.88×10^7	0	160	250
K187	720.5	560.5	3.04×10^7	0	190	320
S37	118.5	98.5	6.0×10^4	0	20	40
S47	130	105	1.33×10^5	0	25	50
S57	150	120	2.14×10^5	0	30	60
S67	184	149	3.04×10^5	0	35	70
S77	224	179	5.26×10^5	0	45	90
S87	281.5	221.5	1.68×10^6	0	60	120
S97	326.3	256.3	2.54×10^6	0	70	140
W10	84.8	64.8	3.6×10^4	0	16	40
W20	98.5	78.5	4.4×10^4	0	20	40
W30	109.5	89.5	6.0×10^4	0	20	40
W37	121.1	101.1	6.95×10^4	0	20	40
W47	145.5	115.5	4.26×10^5	35.6	30	60

Values for types not listed are available on request.

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4.7 Multi-stage gearmotors

4.7.1 General information

You can achieve particularly low output speeds by using compound gear units or compound gearmotors. This means an additional second gear unit, usually a helical gear unit, is installed in front of the gear unit or between gear unit and motor.

The resulting total reduction ratio might make protecting the gear unit from high output torques necessary.

4.7.2 Limiting the motor power

Reduce the maximum output motor power according to the maximum permitted output torque on the gear unit (M_{amax}). For this purpose you first have to determine the maximum permitted motor torque (M_{Mot_max}).

You can calculate the maximum permitted motor torque as follows:

Maximum permitted motor torque

$$M_{Mot_max} = \frac{M_{amax}}{i_{tot} \times \eta_{tot}}$$

M_{Mot_max}	Maximum permitted motor torque in Nm
M_{amax}	Permitted maximum output torque in Nm
i_{tot}	Total gear unit ratio
η_{tot}	Overall efficiency

Use this maximum permitted motor torque M_{Mot_max} and the load diagram of the motor to determine the associated value for the motor current.

Take appropriate measures to prevent the continuous current consumption of the motor from exceeding the pre-determined value for the motor torque $_{Mot_max}$. An appropriate measure would be to set the tripping current of the motor protection switch to this maximum current value. A motor circuit breaker offers the option to compensate for a brief overload, for example during the startup phase of the motor. A suitable measure for inverter drives is to limit the output current of the inverter according to the determined motor current.

4.7.3 Checking brake torques

If you use a multi-stage brakemotor, you have to limit the braking torque (M_B) according to the maximum permitted motor torque M_{Mot_max}. The maximum permitted braking torque is 200% M_{Mot_max}.

Maximum braking torque

$$M_{B_max} \leq 200\%\ M_{Mot_max}$$

M_{B_max}	Maximum braking torque in Nm
M_{Mot_max}	Maximum permitted motor torque in Nm

If you have questions regarding the starting frequency of multi-stage brakemotors, please contact SEW-EURODRIVE.

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4.7.4 Preventing blocking

Blockage on the output side of the double gear unit or multi-stage gearmotor is not permitted. The reason is that indeterminable torques and uncontrolled overhung and axial loads may occur. The gear units may suffer irreparable damage as a result.

INFORMATION

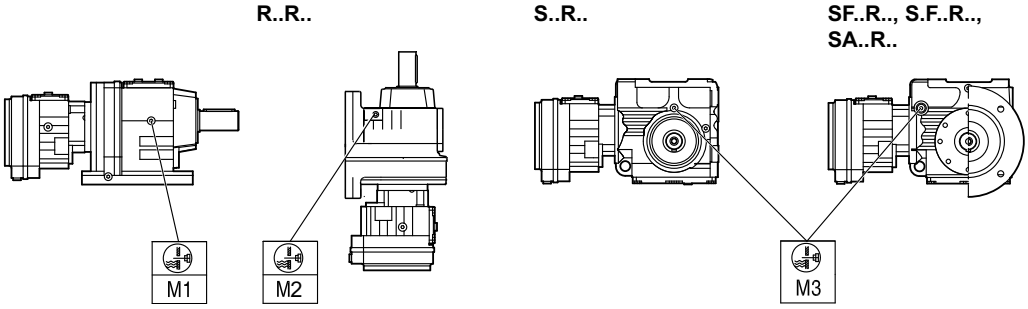
Contact SEW-EURODRIVE if blockages of the double gear unit or multi-stage gearmotor cannot be avoided due to the application.

4.7.5 Position of the oil level plug of compound gear units

To ensure a sufficient lubrication of the first gear unit (larger gear unit) in case of compound gear units, the following gear units have a higher oil level in the specified mounting positions:

- Helical gear unit type R..R in mounting position M1 and M2
- Helical-worm gear unit type S..R in mounting position M3

The oil level plugs are located at the following positions, deviating from the specifications on the mounting position sheets:



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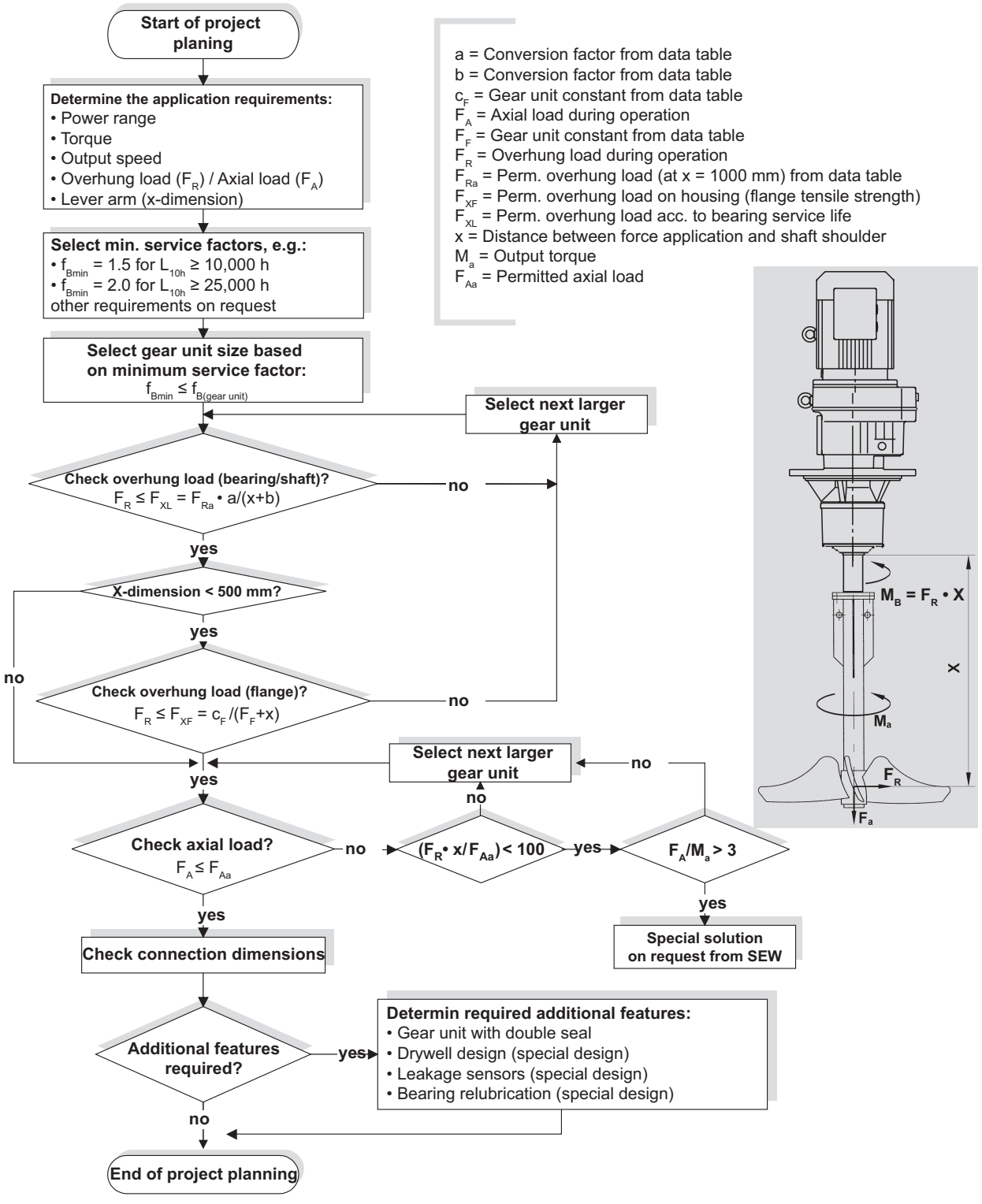
Icon	Meaning
	Oil level plug

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4.8 Project planning for RM gear units

4.8.1 Project planning procedure

You must take account of the higher overhung and axial loads when planning projects with RM helical gearmotors with an extended bearing hub. Observe the following project planning procedure:



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4.8.2 Permitted overhung loads and axial forces

The following table shows the permitted overhung loads F_{Ra} and axial loads F_{Aa} for various service factors f_B and nominal bearing service life L_{10h}.

f_{Bmin} = 1.5; L_{10h} = 10,000 h

		n_a in rpm							
		< 16	16-25	26-40	41-60	61-100	101-160	161-250	251-400
RM57	F_{Ra} in N	400	400	400	400	400	405	410	415
	F_{Aa} in N	18800	15000	11500	9700	7100	5650	4450	3800
RM67	F_{Ra} in N	575	575	575	580	575	585	590	600
	F_{Aa} in N	19000	18900	15300	11900	9210	7470	5870	5050
RM77	F_{Ra} in N	1200	1200	1200	1200	1200	1210	1210	1220
	F_{Aa} in N	22000	22000	19400	15100	11400	9220	7200	6710
RM87	F_{Ra} in N	1970	1970	1970	1970	1980	1990	2000	2010
	F_{Aa} in N	30000	30000	23600	18000	14300	11000	8940	8030
RM97	F_{Ra} in N	2980	2980	2980	2990	3010	3050	3060	3080
	F_{Aa} in N	40000	36100	27300	20300	15900	12600	9640	7810
RM107	F_{Ra} in N	4230	4230	4230	4230	4230	4230	3580	3830
	F_{Aa} in N	48000	41000	30300	23000	18000	13100	9550	9030
RM137	F_{Ra} in N	8710	8710	8710	8710	7220	5060	3980	6750
	F_{Aa} in N	70000	70000	70000	57600	46900	44000	35600	32400
RM147	F_{Ra} in N	11100	11100	11100	11100	11100	10600	8640	10800
	F_{Aa} in N	70000	70000	69700	58400	45600	38000	32800	30800
RM167	F_{Ra} in N	14600	14600	14600	14600	14600	14700	–	–
	F_{Aa} in N	70000	70000	70000	60300	45300	36900	–	–

f_{Bmin} = 2.0; L_{10h} = 25,000 h

		n_a in rpm							
		< 16	16-25	26-40	41-60	61-100	101-160	161-250	251-400
RM57	F_{Ra} in N	410	410	410	410	410	415	415	420
	F_{Aa} in N	12100	9600	7350	6050	4300	3350	2600	2200
RM67	F_{Ra} in N	590	590	590	595	590	595	600	605
	F_{Aa} in N	15800	12000	9580	7330	5580	4460	3460	2930
RM77	F_{Ra} in N	1210	1210	1210	1210	1210	1220	1220	1220
	F_{Aa} in N	20000	15400	11900	9070	6670	5280	4010	3700
RM87	F_{Ra} in N	2000	2000	2000	2000	2000	1720	1690	1710
	F_{Aa} in N	24600	19200	14300	10600	8190	6100	5490	4860
RM97	F_{Ra} in N	3040	3040	3040	3050	3070	3080	2540	2430
	F_{Aa} in N	28400	22000	16200	11600	8850	6840	5830	4760
RM107	F_{Ra} in N	4330	4330	4330	4330	4330	3350	2810	2990
	F_{Aa} in N	32300	24800	17800	13000	9780	8170	5950	5620
RM137	F_{Ra} in N	8850	8850	8850	8830	5660	4020	3200	5240
	F_{Aa} in N	70000	59900	48000	37900	33800	31700	25600	23300
RM147	F_{Ra} in N	11400	11400	11400	11400	11400	8320	6850	8440
	F_{Aa} in N	70000	60600	45900	39900	33500	27900	24100	22600
RM167	F_{Ra} in N	15100	15100	15100	15100	15100	13100	–	–
	F_{Aa} in N	70000	63500	51600	37800	26800	23600	–	–

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4.8.3 Conversion factors and gear unit constants

The following conversion factors and gear unit constants apply to calculating the permitted overhung load F_{xL} at point x ≠ 1000 mm for RM gearmotors:

Gear unit type	a	b	c_F (f_B = 1.5)	c_F (f_B = 2.0)	F_F
RM57	1047	47	1220600	1260400	277
RM67	1047	47	2047600	2100000	297.5
RM77	1050	50	2512800	2574700	340.5
RM87	1056.5	56.5	4917800	5029000	414
RM97	1061	61	10911600	11124100	481
RM107	1069	69	15367000	15652000	554.5
RM137	1088	88	25291700	25993600	650
RM147	1091	91	30038700	31173900	756
RM167	1089.5	89.5	42096100	43654300	869

4.8.4 Additional weight of RM gear units

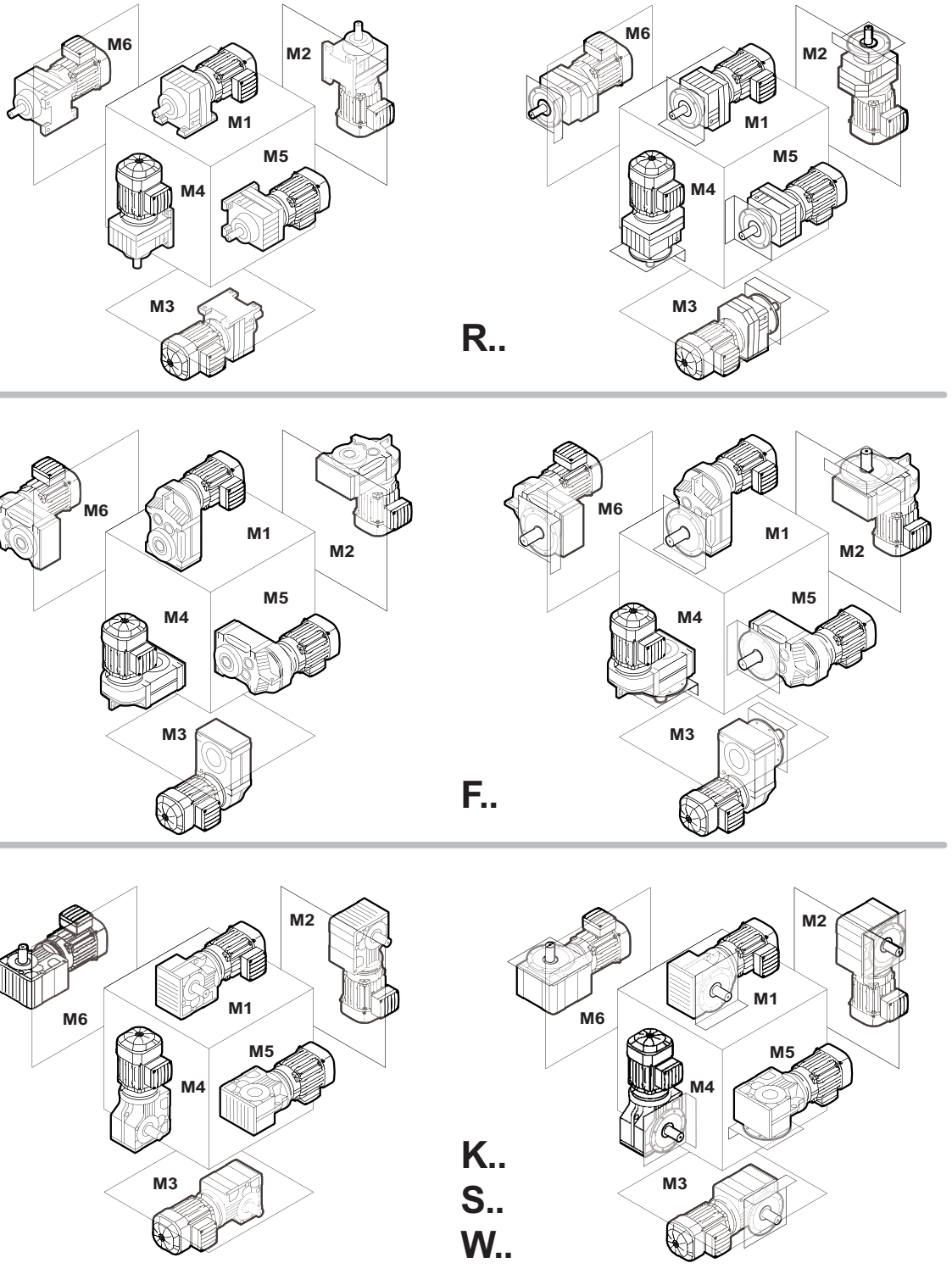
Type	Additional weight compared to RF with reference to the smallest RF flange Δm in kg
RM57	12.0
RM67	15.8
RM77	25.0
RM87	29.7
RM97	51.3
RM107	88.0
RM137	111.1
RM147	167.4
RM167	195.4

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5 Gear unit mounting positions and order information

5.1 General mounting position information – R, F, K, S, W gear units

The following illustration shows the SEW-EURODRIVE mounting positions M1 – M6 of the gear units:



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5.2 Order information

INFORMATION

The following order information is required for R, F, K, S, and W gear units or gearmotors in addition to the mounting position to exactly determine the drive design.

This information is also required for gearmotors that do not depend on a particular mounting position.

5.2.1 Order information for all gear units and gearmotors

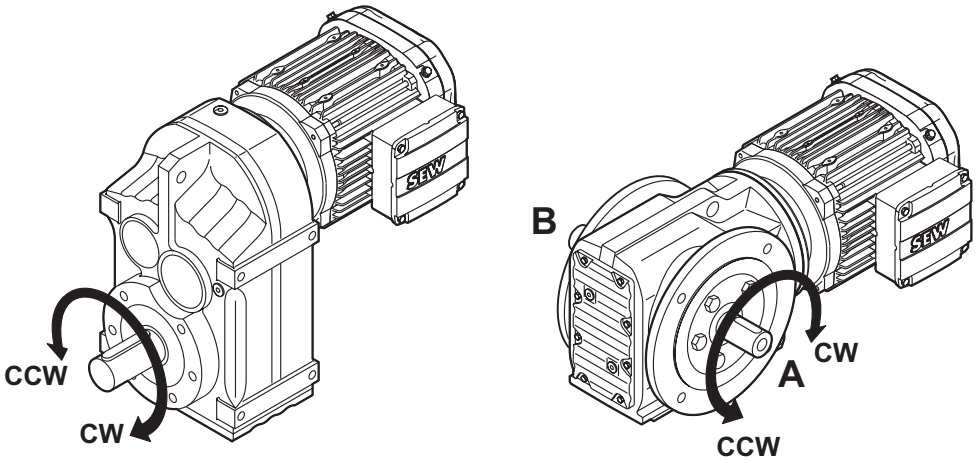
Observe the following notes for all gear units and gearmotors from SEW-EURODRIVE.

Output direction of rotation with backstop

The purpose of a backstop is to prevent unwanted directions of rotation. During operation, the backstop permits rotation only in the specified direction. If the drive has an RS backstop, you have to indicate the direction of rotation of the output for the drive.

The direction of rotation is specified as viewed onto the output shaft (LSS):

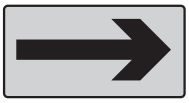
- CW rotation
- CCW rotation



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In right-angle gear units, you also have to indicate whether the direction of rotation is given looking onto the A or B-side.

The permitted direction of rotation is indicated by a direction arrow on the housing:



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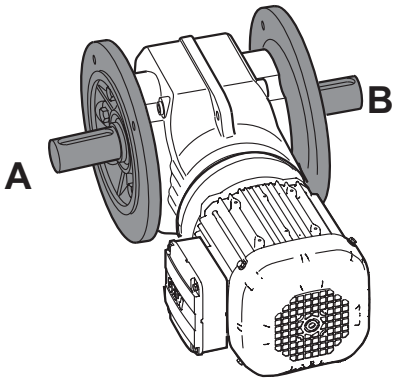
A replacement label is enclosed for the customer.

Position of the output shaft and the output flange

In right-angle gear units, you also have to indicate the position of the output shaft and the output flange:

- A or B or AB

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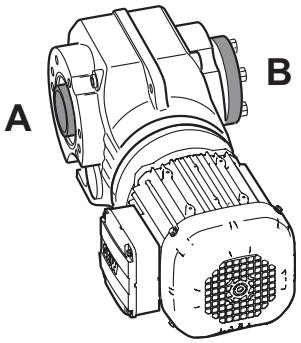


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Position of the output end in right-angle gear units

In shaft mounted right-angle gear units with a shrink disk, you also have to indicate whether the A or B-side is the output end. In the figure below, the A-side is the output end. The shrink disk is located opposite the output end.

In shaft mounted right-angle gear units, the designation "output end" is equivalent to the designation "shaft position" used for right-angle gear units with solid shaft.



4579730955

INFORMATION

For the permitted mounting surfaces (= hatched area), refer to the mounting position sheets (see chapter "Mounting position sheets" (→ 🗎 71)).

5.2.2 Position of motor terminal box and cable entry

The standard EN 60034 specifies the following designations for motor terminal box positions:

- As viewed onto the output shaft = A-side.
- Designation as R (right), B (bottom), L (left) and T (top).

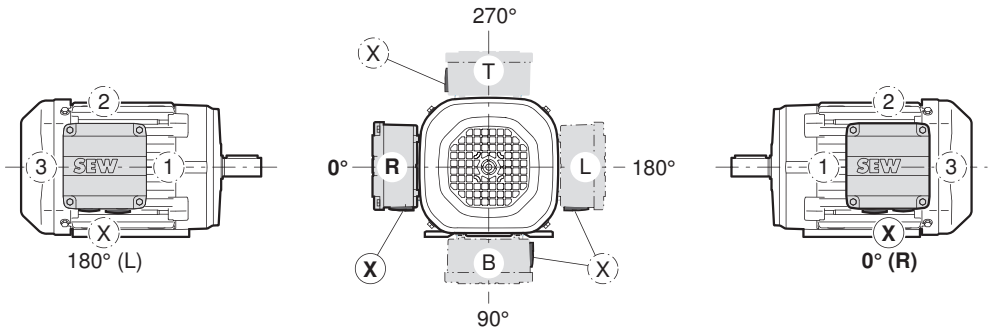
This new designation applies to motors without a gear unit in mounting position B3 (= M1).

Deviating from this standard, in case of gearmotors the position of the motor terminal box is specified with 0°, 90°, 180° or 270° as viewed onto the fan guard = B-side.

The following figure shows both designations. Where the mounting position of the motor changes, R, B, L and T are rotated accordingly.

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The cable entry position is specified with x, 1, 2, 3.



3975310859

INFORMATION

Unless indicated otherwise in your order, you will receive the terminal box type 270° with "x" cable entry.

5.2.3 Sample orders

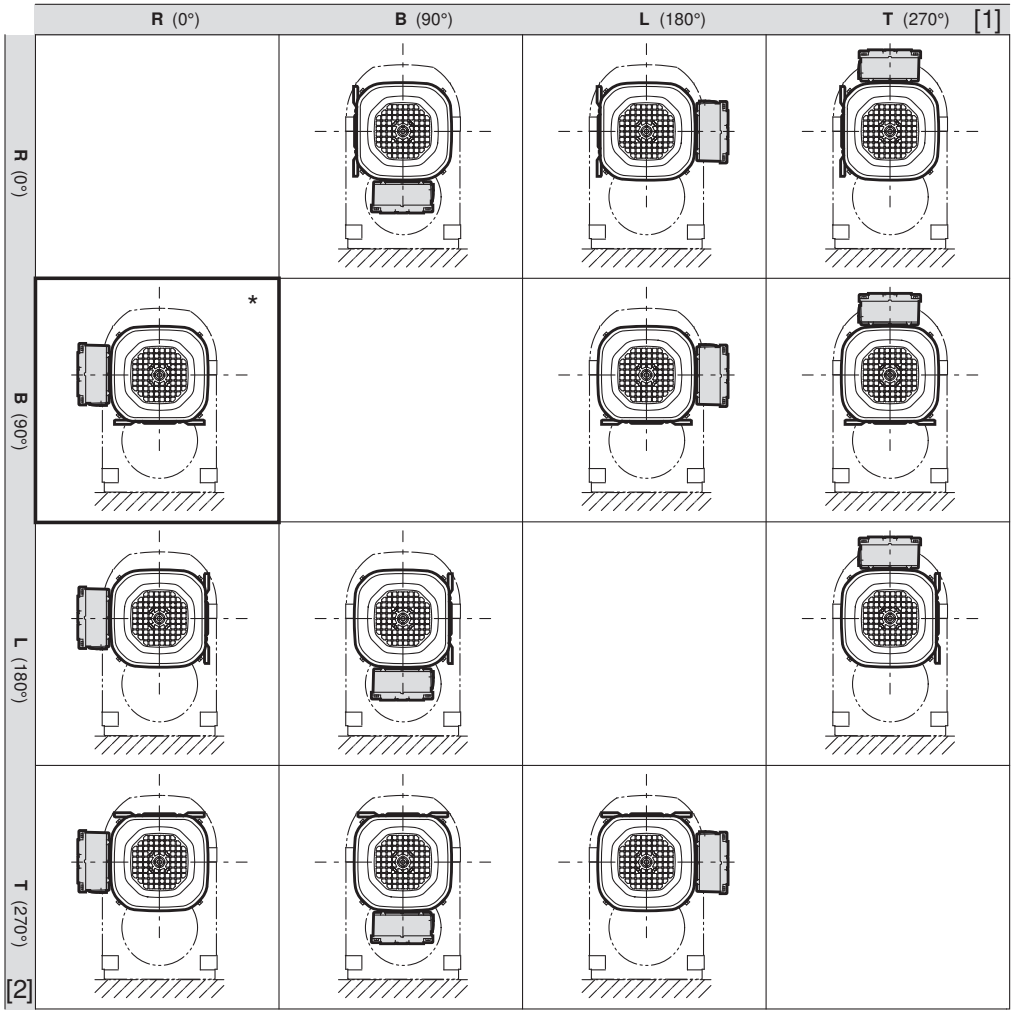
Type (examples)	Mounting position	Shaft position	Flange position	Terminal box position	Cable entry position	Output direction of rotation
K47DRK71M4/RS	M2	A	-	0°	"X"	Clockwise
SF77DRS90L4	M6	AB	AB	90 °	"3"	-
KA97DRE132M4	M4	B	-	270 °	"2"	-
KH107DRN160M4	M1	A	-	180 °	"3"	-
KAF67AM90	M3	A	B	-	-	-
K47DRE90MJ4	M2	A	-	0°	"X"	Clockwise

5.2.4 Position motor terminal box and foot for gearmotors with motor option /FM

With gearmotors, the motor is designed as flange-mounted motor for mounting to gear units. It is also possible to provide the motor with feet that can be used for customer components. The load values of the feet are available from SEW-EURODRIVE on request. The position of the foot must be specified in the order.

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The following figure shows the possible positions of the terminal box and the feet for gearmotors with motor option /FM.



13588943243

[1] Terminal box positions [2] Foot positions

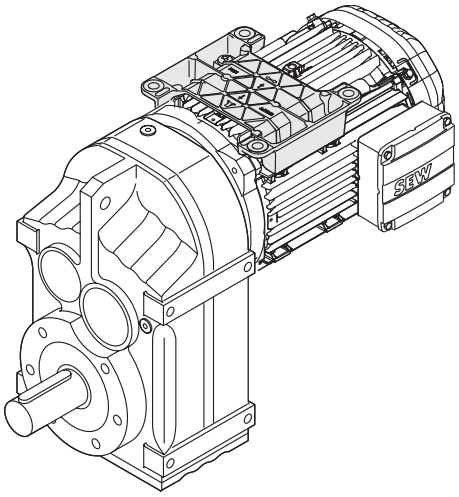
*) If not specified otherwise in the order, the gearmotor is delivered with foot position B (90°) and terminal box position R (0°).

INFORMATION

The foot on the motor is not suited to attach a complete gearmotor.

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Example: Gearmotor with motor option /FM:



13678896779

Order information on mounting position of the complete drive, foot positions, terminal box and cable entry:

Mounting position complete drive:	M1
Terminal box position:	R (0°)
Cable entry:	X
Foot position:	T (270°)

5.2.5 Change of mounting position

Make sure to read the following information when you operate the gearmotor in a mounting position other than the one indicated in the order:

- Adjust the lubricant fill quantity to the changed mounting position.
- Adjust the position of the breather valve.
- When changing the mounting position to M4: Contact SEW-EURODRIVE. Depending on the drives operating mode, an oil expansion tank might be necessary (see chapter "Oil expansion tank" (→ 🗎 20)).
- For helical-bevel gearmotors: Contact SEW-EURODRIVE if you want to change to mounting position M5 or M6, independent of the initial mounting position.
- For helical-worm gearmotors: Contact the SEW-EURODRIVE when changing to mounting position M2 or M3.

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5.3 Key to the mounting position sheets

INFORMATION

The positions of the breather valve, oil level plug, and oil drain plug specified in the mounting position sheets are binding and comply with the assembly specifications.

The motors are only depicted symbolically on the mounting position sheets.

INFORMATION

For gear units with solid shaft: The displayed shaft is always on the A-side.

For shaft-mounted gear units: The shaft with dashed lines represents the customer shaft. The output end (= shaft position) is always shown on the A-side.

INFORMATION

SPRIOPLAN® gearmotors are not dependent on the mounting position, except for W..37 and W..47 gearmotors in mounting position M4. However, mounting positions M1 to M6 are also shown for SPIROPLAN® gearmotors to assist you in working with this documentation.

INFORMATION

SPIROPLAN® gearmotors W..10 to W..30 cannot be equipped with breather valves, oil level plugs or oil drain plugs.

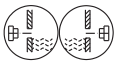
SPIROPLAN® gear units W..37 and W..47 are equipped with breather valves in mounting position M4 and with oil drain plugs in mounting position M2.

INFORMATION

Some gear units can be supplied in mounting position M0. In this case, the gear unit is delivered in a universal mounting position and can be adjusted to various mounting positions by the customer. It may be necessary to contact SEW-EURODRIVE.

5.3.1 Symbols used

The following table shows the symbols used in the mounting position sheets and what they mean:

Icon	Meaning
	Breather valve
	Oil level plug[1)]
	Oil drain plug

1) Does not apply to the 1st gear unit (large gear unit) of compound gear units.

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5.3.2 Churning losses

* (→ 📄 X)

Some gearmotors are marked with a ***** in the mounting position sheets (see chapter "Mounting position sheets" (→ 📄 71)). Churning losses may occur at gearmotors in those mounting positions. Contact SEW-EURODRIVE in case of the following combinations:

Mounting position	Gear unit type	Gear unit size	Input speed [min^{-1}]
M2, M4	R	97 – 107	> 2500
		> 107	>1500
M2, M3, M4, M5, M6	F	97 – 107	> 2500
		> 107	>1500
	K	77 – 107	> 2500
		> 107	>1500
	S	77 – 97	> 2500

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5.3.3 Position of breather valve/oil drain plug in motor flange

As shown in the mounting position sheets in chapter "Mounting position sheets" (→ 🗎 71), the position of the breather valve and oil drain plug depend on the gearmotor mounting position.

The following table shows the position of the breather valve and the oil drain plug depending on the mounting position:

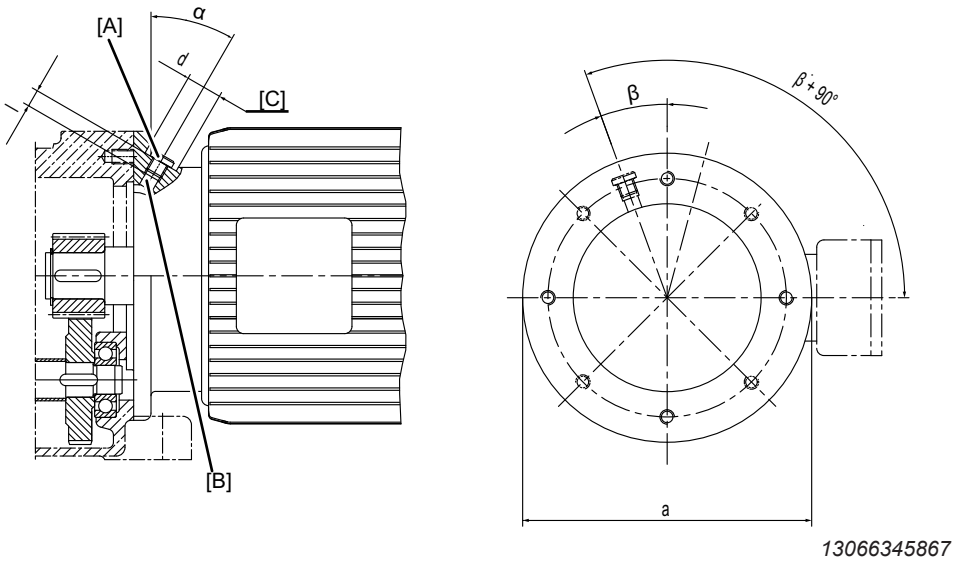
Mounting position	Breather valve position	Oil drain plug position
M1, M3, M5, M6	In the gear unit housing	In the gear unit housing
M4	**In the motor flange**	In the gear unit housing
M2	In the gear unit housing	**In the motor flange**

If the breather valve (M4 mounting position) or the oil drain plug (M2 mounting position) is positioned in the motor flange, the position depends on the terminal box position.

INFORMATION

The positions of the breather valve/oil drain plug in the mounting position sheets in chapter "Mounting position sheets" (→ 🗎 71) and the following chapters always refers to the standard terminal box position 0°. Note that the position of the breather valve / oil drain plug is changed depending on the possible terminal box positions (90°, 180°, 270°).

The following illustration shows the exact position of the breather valve/oil drain plug in the motor flange.



13066345867

[A] Position of breather valve / oil drain plug
[B] Continuous core drilling
[C] Counterbored bore
[α] Drill angle
[d] Diameter of the countersinking
[l] Thread length
[a] Flange diameter
[β] Position angle

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Dimension tables

The following tables contain the dimensions regarding the position of the breather valve and the oil drain plug depending on the motor size.

DR.. motor type	a in mm	α in °	β in °	Thread designation	Ø d in mm	l in mm
DR63	120	30	45	M10x1	15	10
	160		22.5			
	200			M12x1.5	18	12
DR..71	120	0	45	M10x1	15	10
	160	30	22.5			
	200			M12x1.5	18	12
	250					
	300	90		M22×1.5	28	14

DRN80 – 132 motor type	a in mm	α in °	β in °	Thread designation	Ø d in mm	l in mm
DRN80	120	30	22.5	M10x1	15	10
	160					
	200			M12x1.5	18	12
	250					
	300	90		M22×1.5	28	14
DRN90	120	30	22.5	M10x1	15	12
	160					
	200			M12x1.5	15	16
	250				18	12
	300			M22×1.5	28	
DRN100	120	30	22.5	M10x1	15	10
	160					12
	200			M12x1.5	18	
	250					
	300			M22×1.5	28	14
	350					
DRN112M DRN132S	160	30	22.5	M10x1	15	10
	200			M12x1.5	18	12
	250					
	300			M22×1.5	28	14
	350					
	400	45				10
	450			M33x2	40	16
DRN132M/L	160	30	22.5	M10x1	15	10
	200	15		M12x1.5	18	14
	250	30				
	300			M22×1.5	28	12
	350					14
	400					13
	450	75		M33x2	40	16
	550	90		M42x2	50	18

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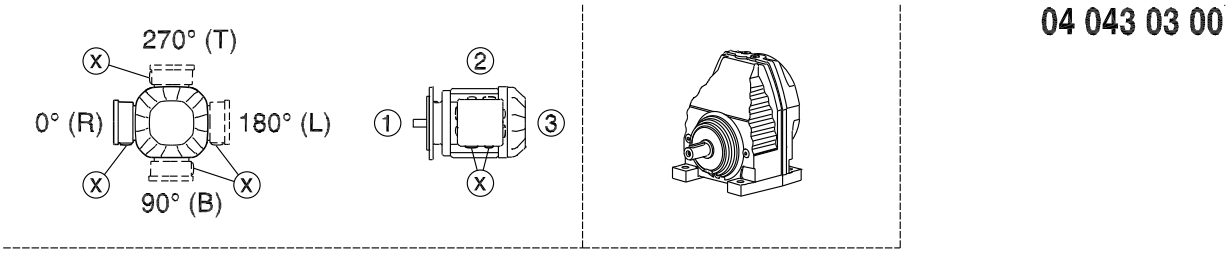
DRN160 – 315 motor type	a in mm	α in °	β in °	Thread designation	Ø d in mm	l in mm
DRN160	200	30	22.5	M10x1	15	17
	250			M12x1.5	18	15
	300			M22×1.5	28	12
	350					
	400					16
	450			M33x2	40	
	550	90		M42x2	50	
DRN180	250	30	22.5	M12x1.5	18	15
	300			M22×1.5	28	
	350					
	400					16
	450			M33x2	40	
	550	90		M42x2	50	17
DRN200	250	30	22.5	M12x1.5	18	15
	300			M22×1.5	28	
	350					14
	400					16
	450			M33x2	40	
	550			M42x2	50	19
DRN225	300	30	22.5	M22×1.5	28	15
	350					14
	400					16
	450			M33x2	40	17
	550			M42x2	50	29
DRN250 DRN280	350	15	22.5	M22×1.5	28	14
	400		21			
	450		22.5	M33x2	40	16
	550			M42x2	50	
DRN315	450	30	22.5	M33x2	40	30
	550		11.25	M42x2	50	20

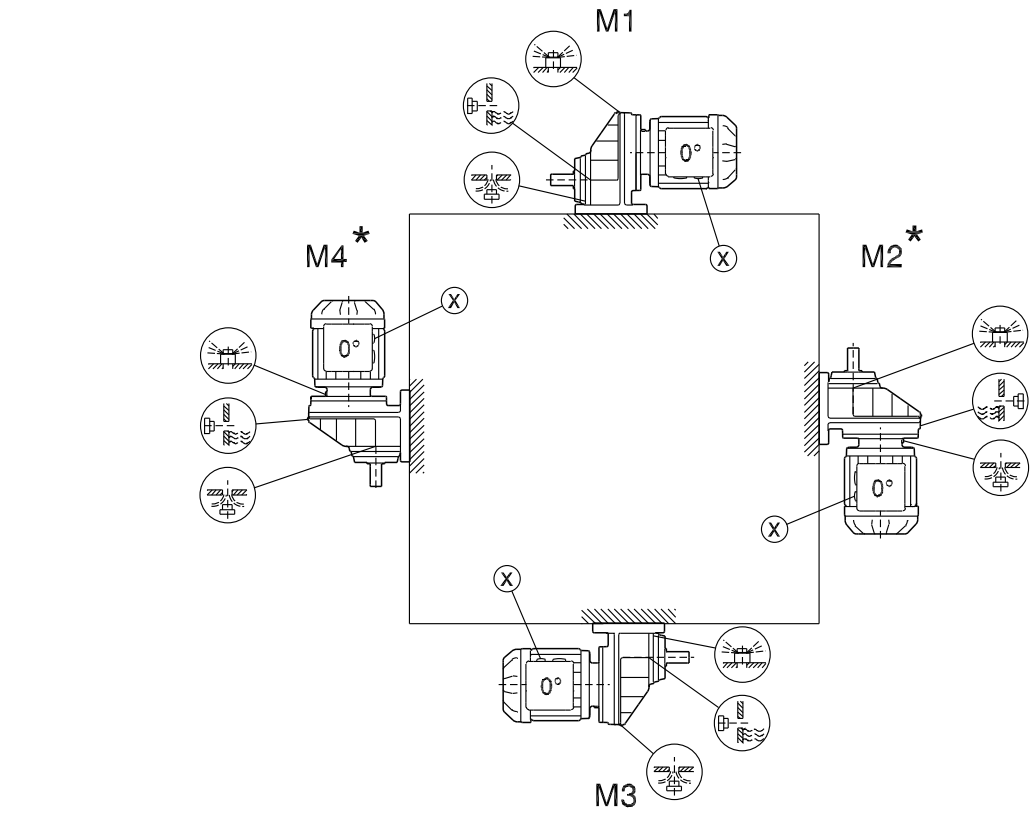
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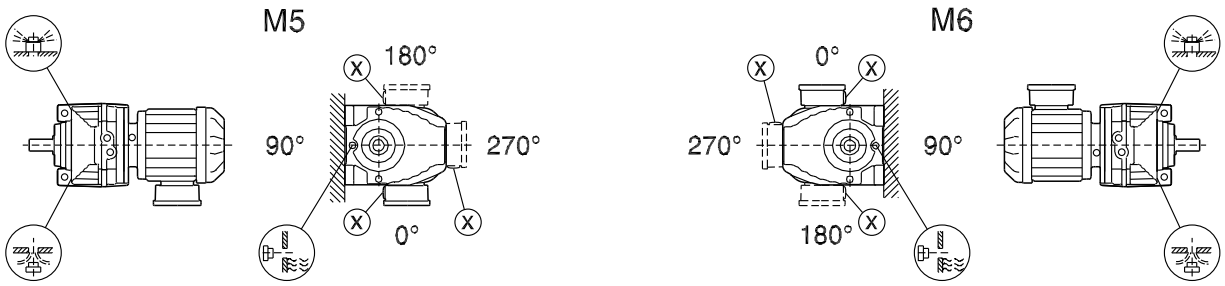
5.4 Mounting position sheets

5.4.1 Mounting positions of helical gearmotors

RX57-RX107



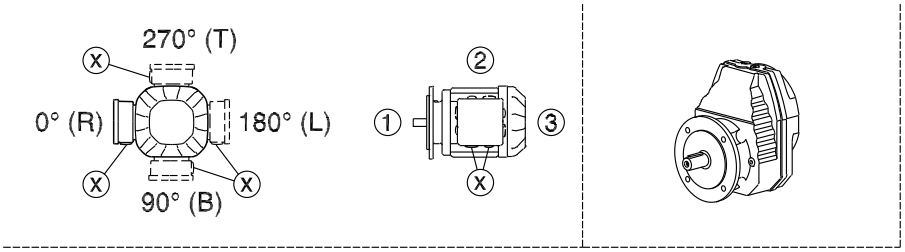


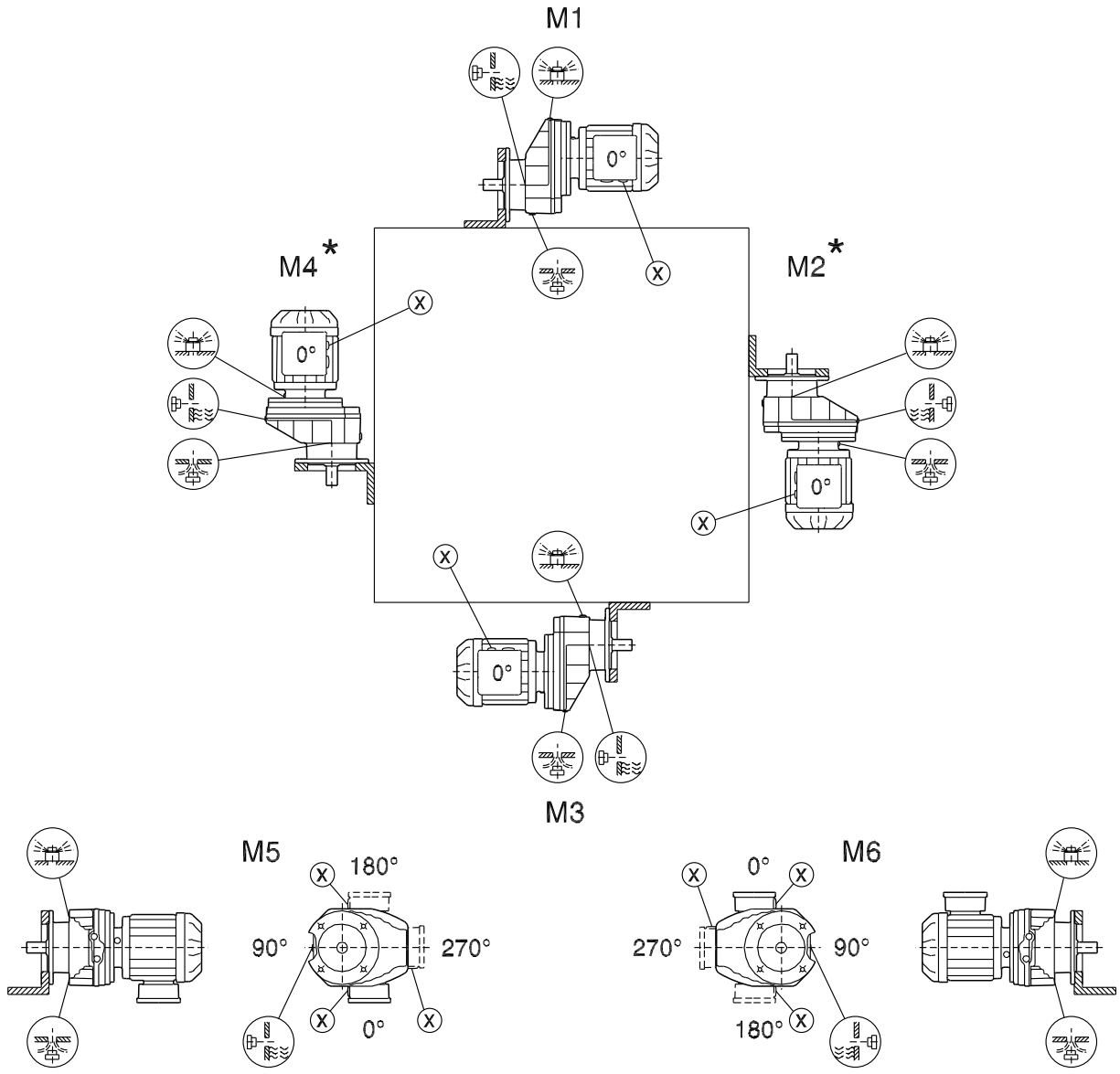


* (→ 67)

RXF57-RXF107

04 044 03 00

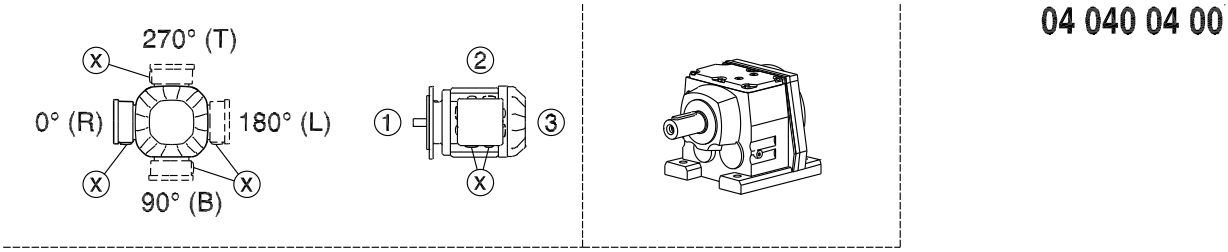


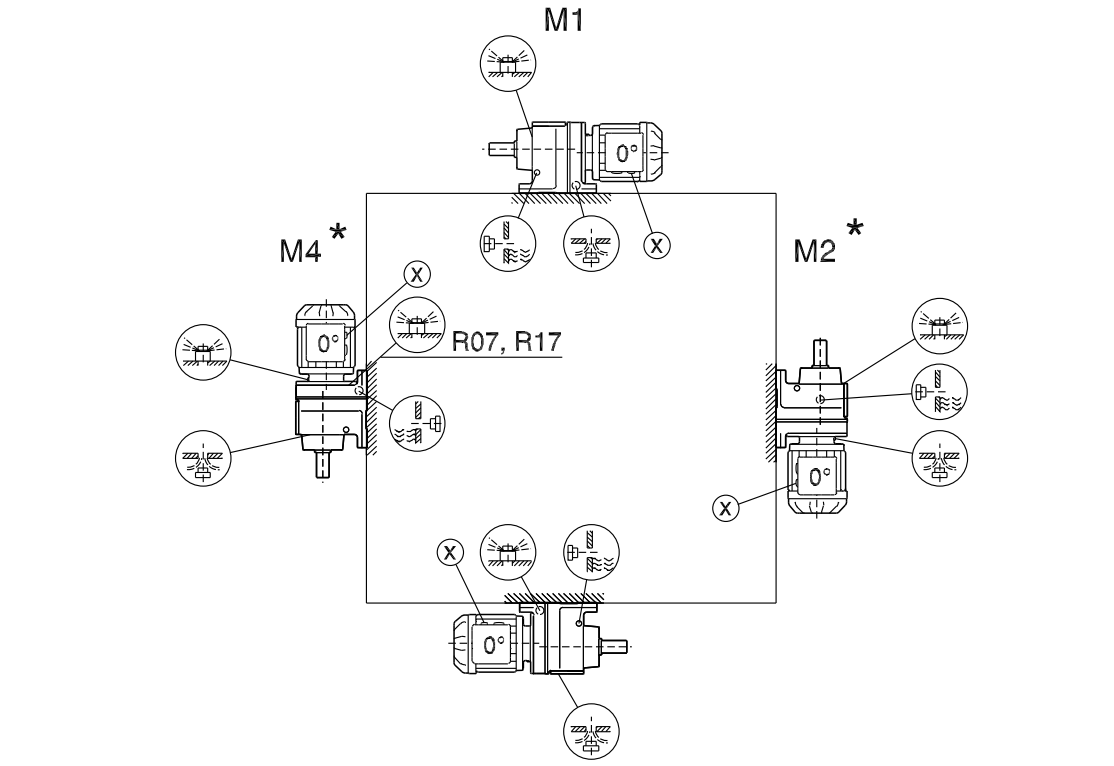


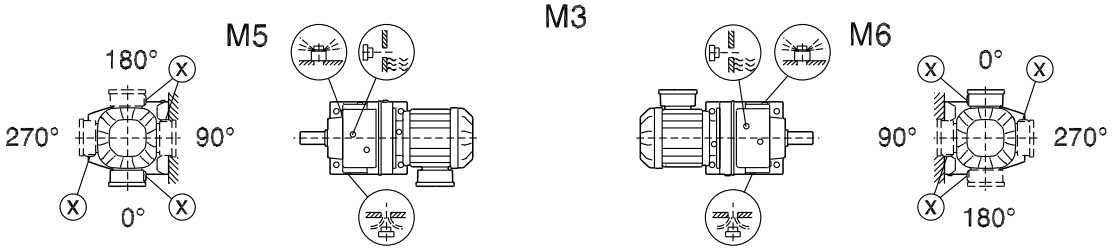
* (→ 67)

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R07-R167







R07	⊗	M1, M2, M3, M5, M6
R17, R27	⊗	M1, M3, M5, M6
R07, R17, R27	⊗ ⊗	
R47, R57	⊗	M5

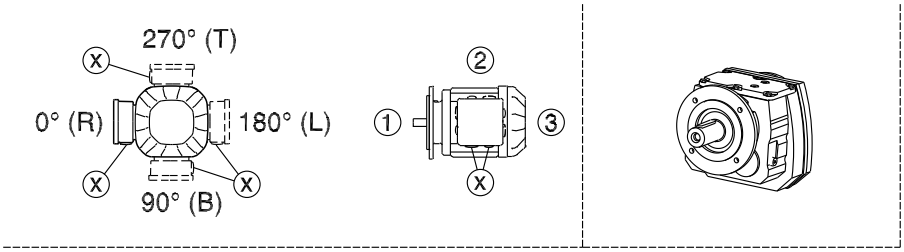
* (→ 🗎 67)

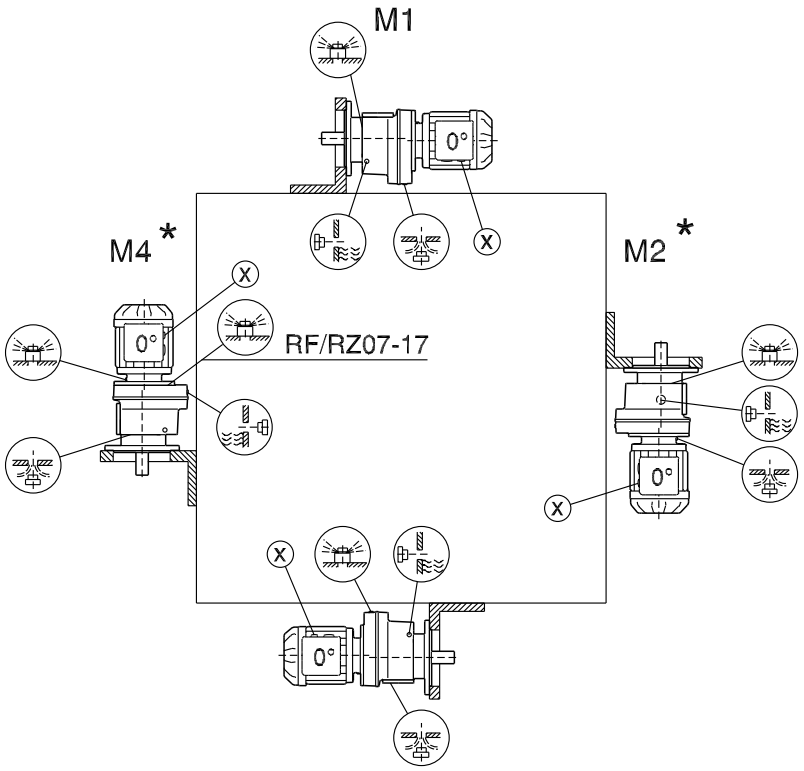
Also refer to the information in chapter "Overhung and axial loads" (→ 🗎 51).

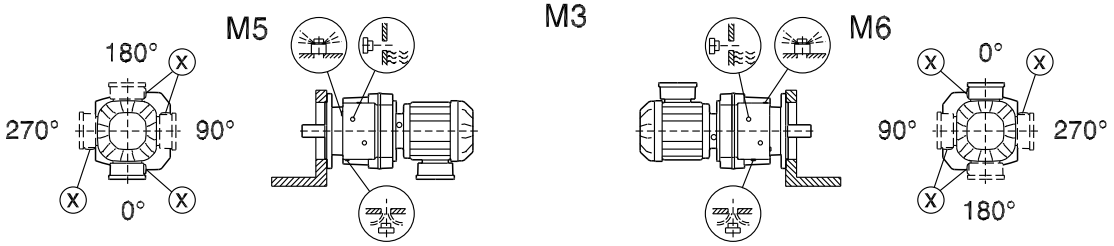
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RF07-RF167, RZ07-RZ87

04 041 04 00





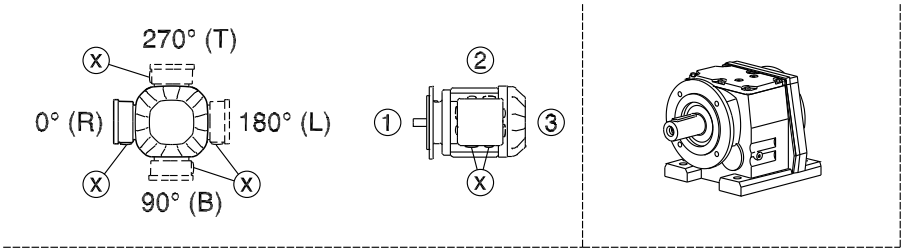


RF/RZ07	⊘	M1, M2, M3, M5, M6
RF/RZ17, 27	⊘	M1, M3, M5, M6
RF/RZ07, 17, 27	⊘ ⊘	
RF/RZ47, 57	⊘	M5

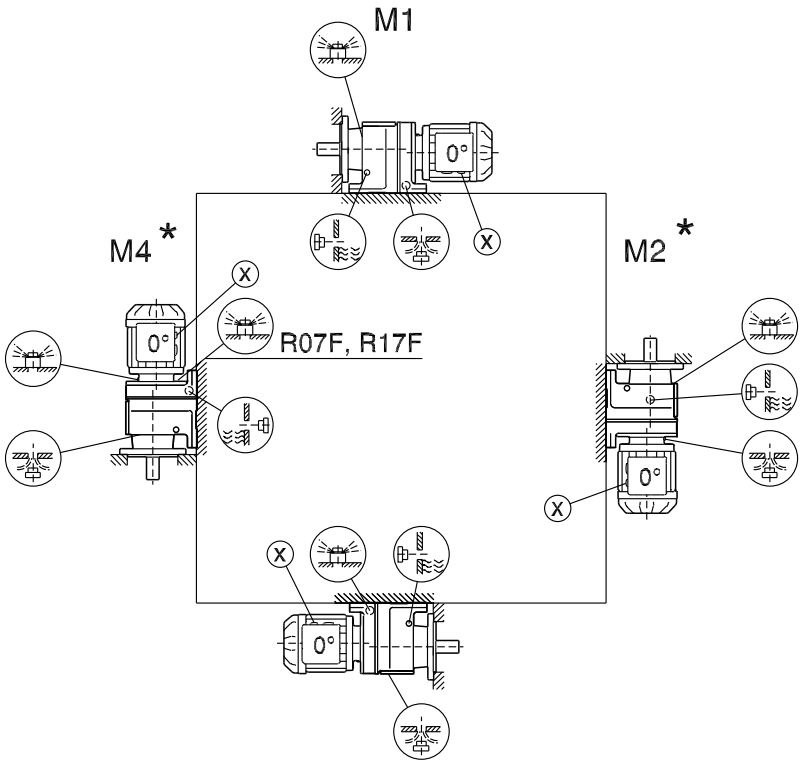
* (→ 67)

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R07F-R87F



04 042 04 00



R07F		M1, M2, M3, M5, M6
R17F, R27F		M1, M3, M5, M6
R07F, R17F, R27F		
R47F, R57F		M5

* (→ 67)

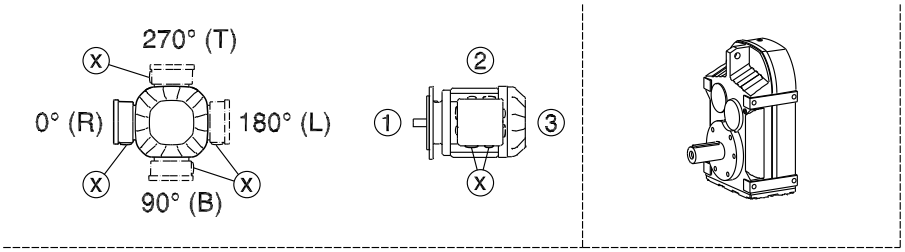
Also refer to the information in chapter "Overhung and axial loads" (→ 51).

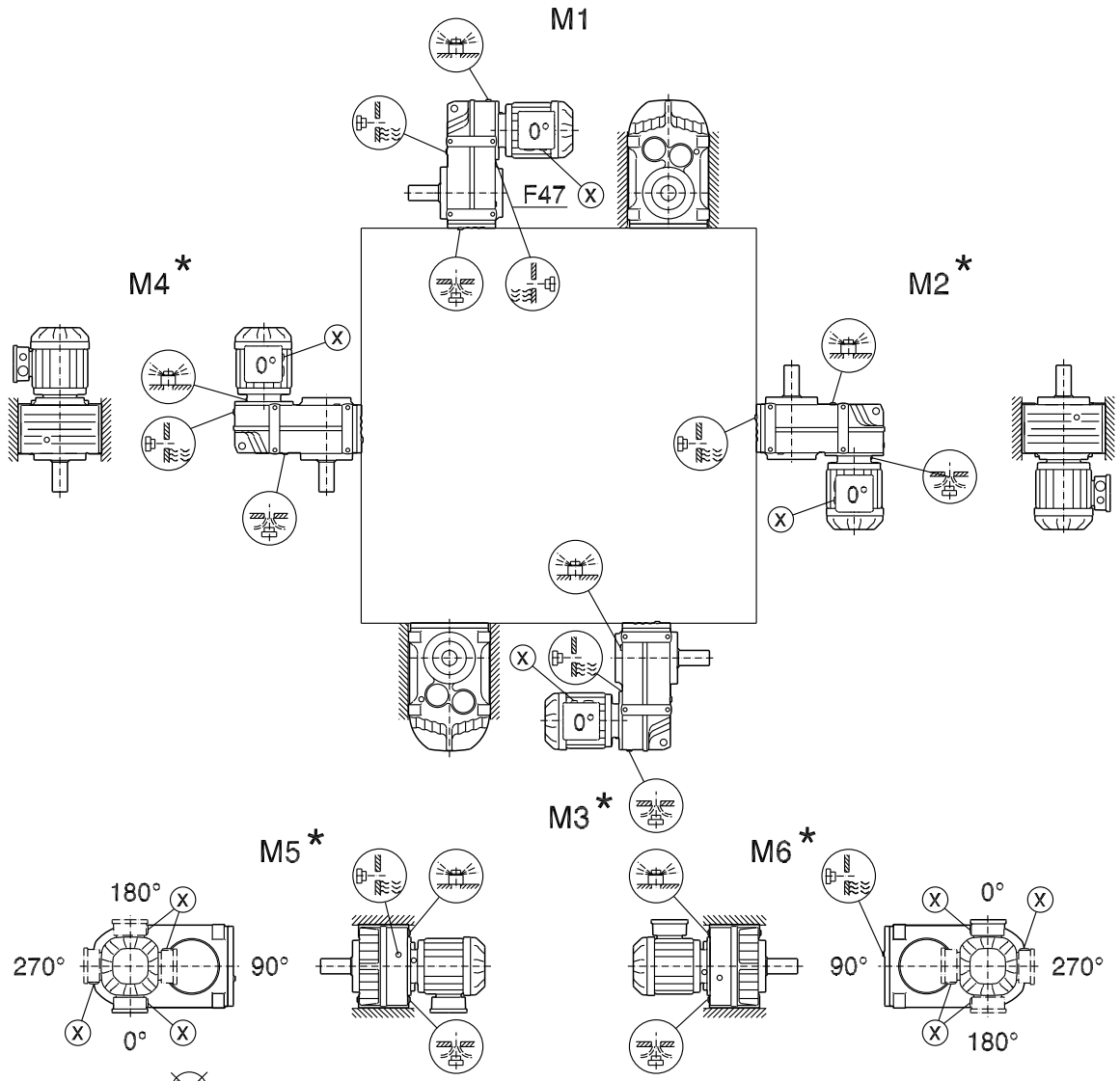
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5.4.2 Mounting positions of parallel-shaft helical gearmotors

F/FA..B/FH27B-157B, FV27B-107B

42 042 04 00





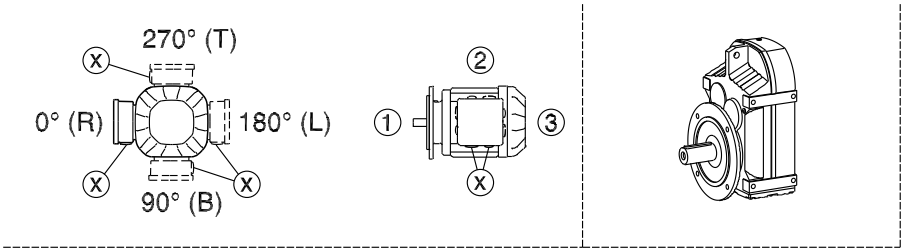
F..27		M1, M3, M5, M6
F..27		M1 - M6
F..27		M1, M3, M5, M6

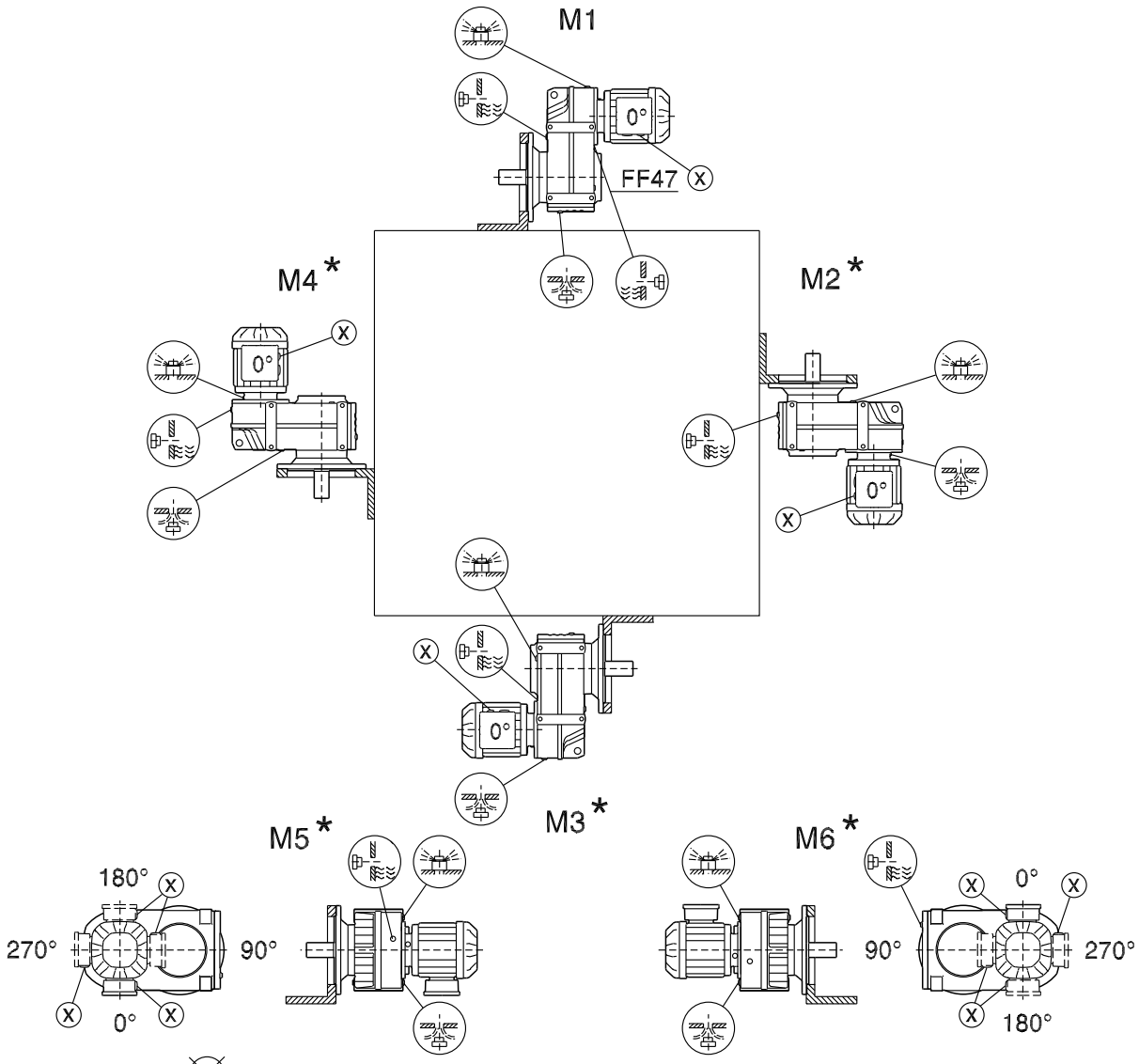
* (→ 67)

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FF/FAF/FHF/FZ/FAZ/FHZ27-157, FVF/FVZ27-107

42 043 04 00





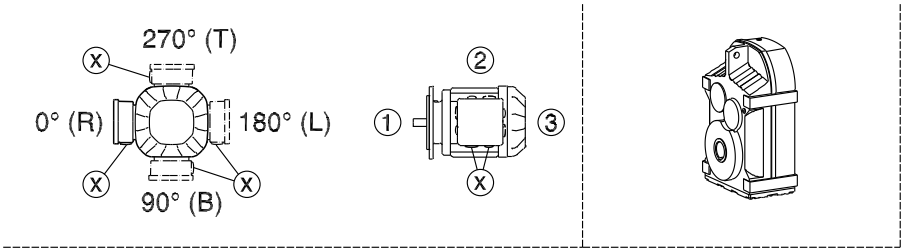
F..27		M1, M3, M5, M6
F..27		M1 - M6
F..27		M1, M3, M5, M6

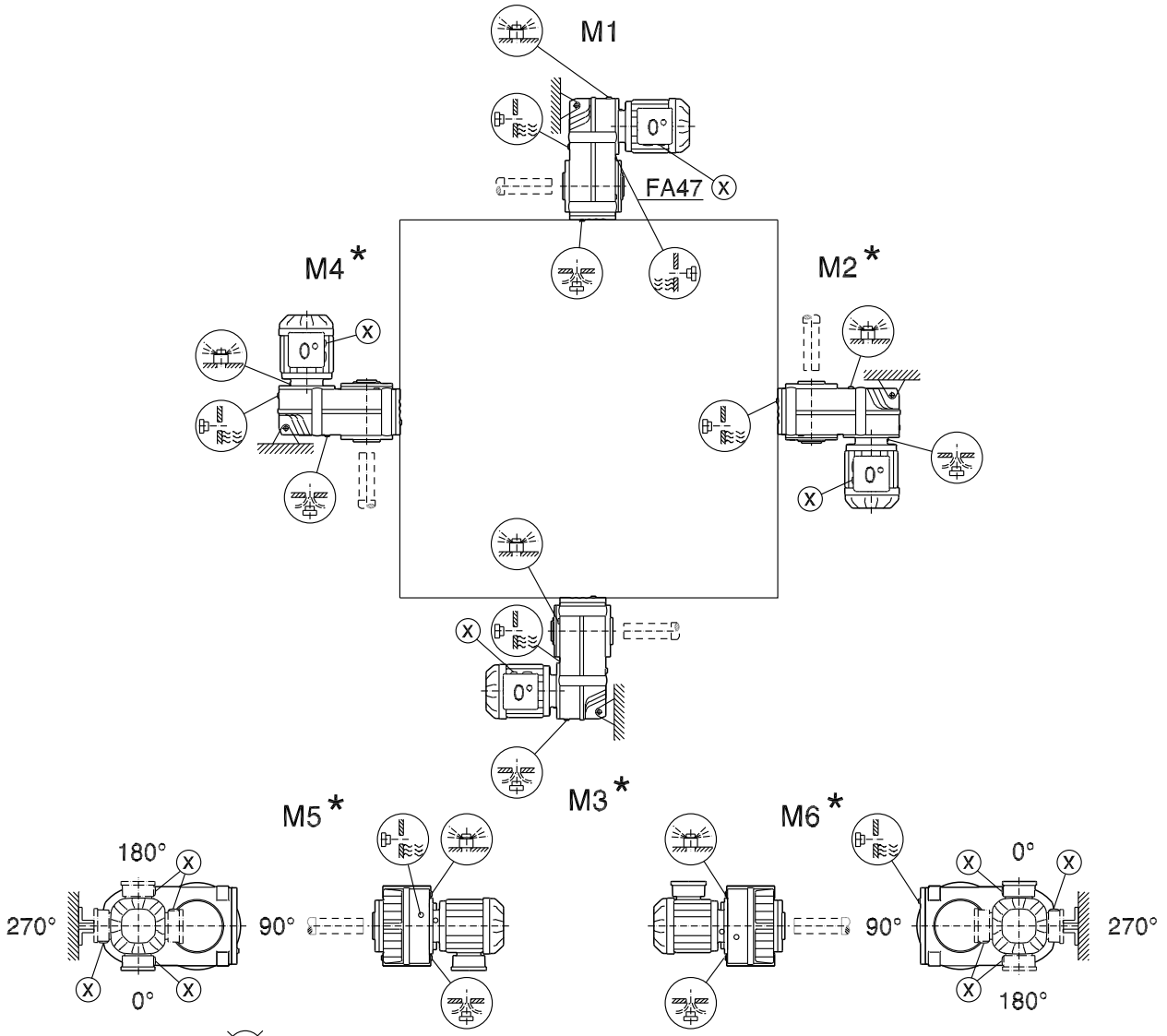
* (→ 67)

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FA/FH27-157, FV27-107, FT37-97

42 044 04 00





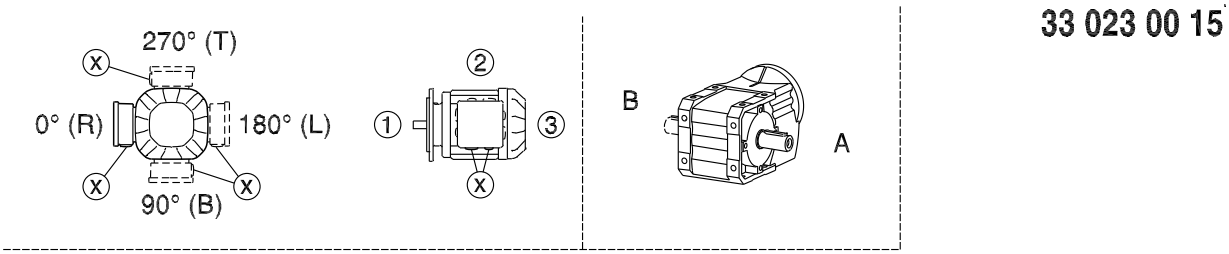
F..27		M1, M3, M5, M6
F..27		M1 - M6
F..27		M1, M3, M5, M6

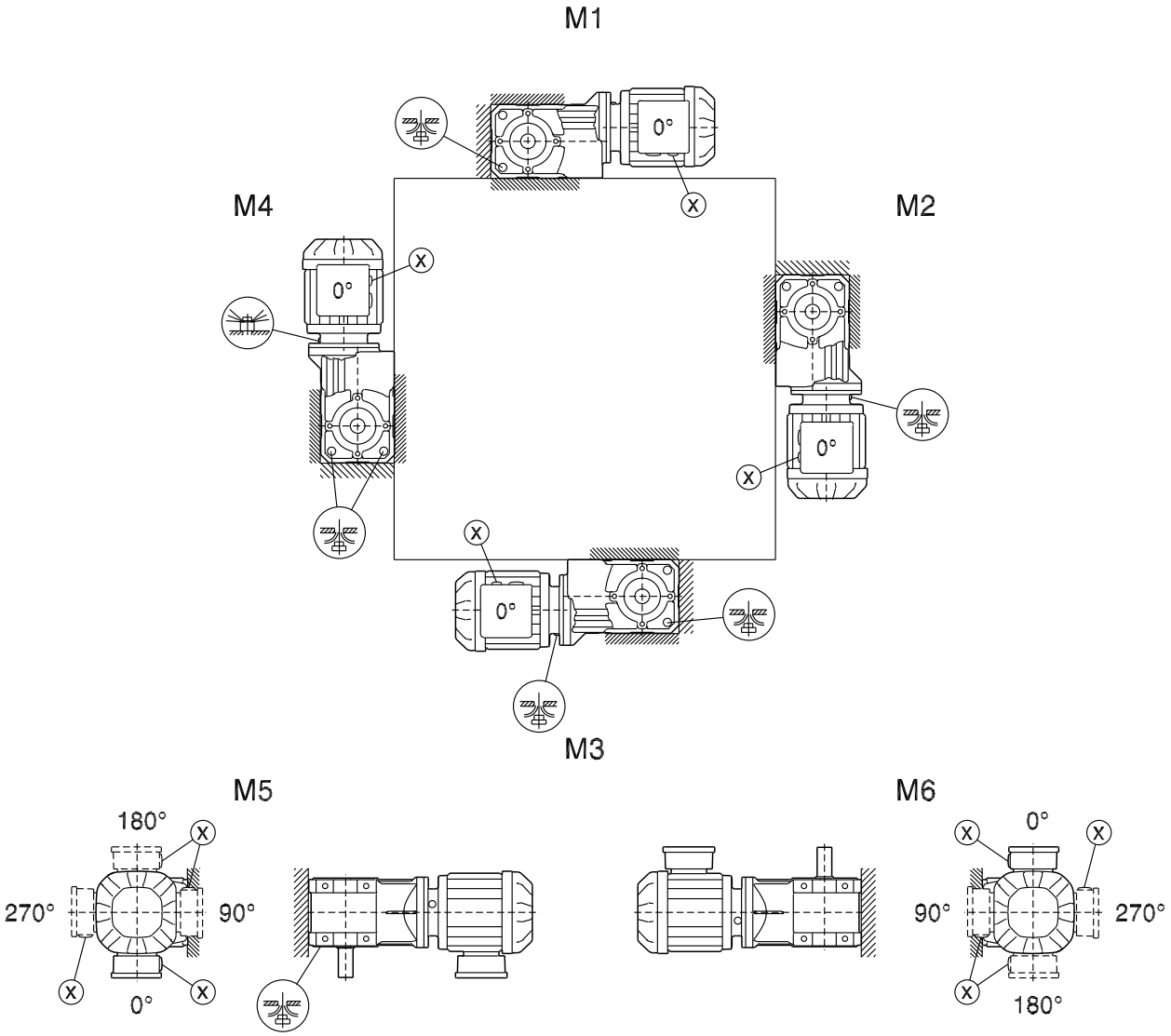
* (→ 67)

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5.4.3 Mounting positions of helical-bevel gearmotors

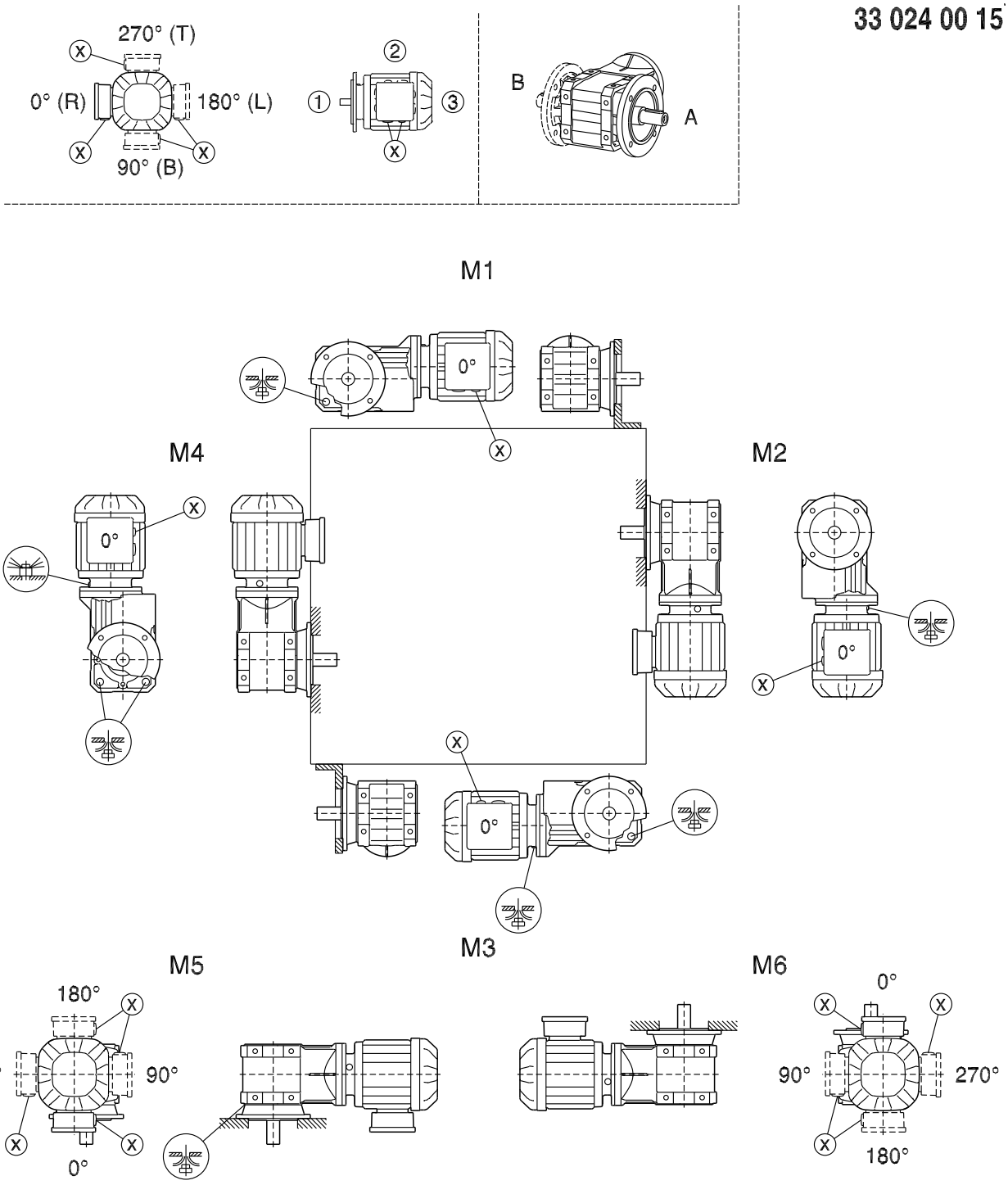
K/KA..B/KH19B-29B





Also refer to the information in chapter "Overhung and axial loads" (→ 🗎 51).

KF..B/KAF..B/KHF19B-29B

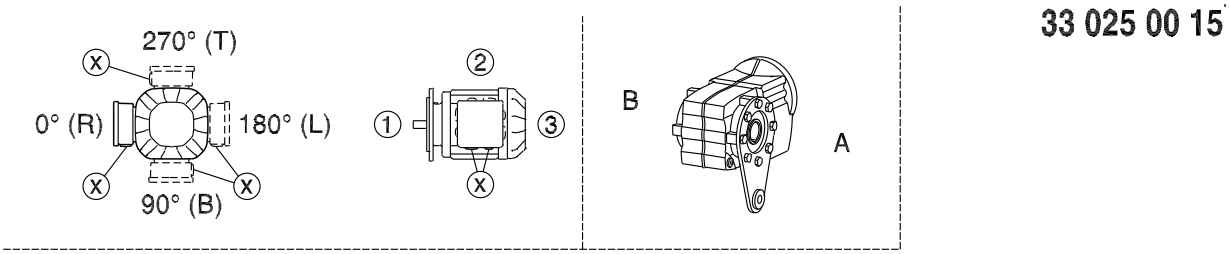


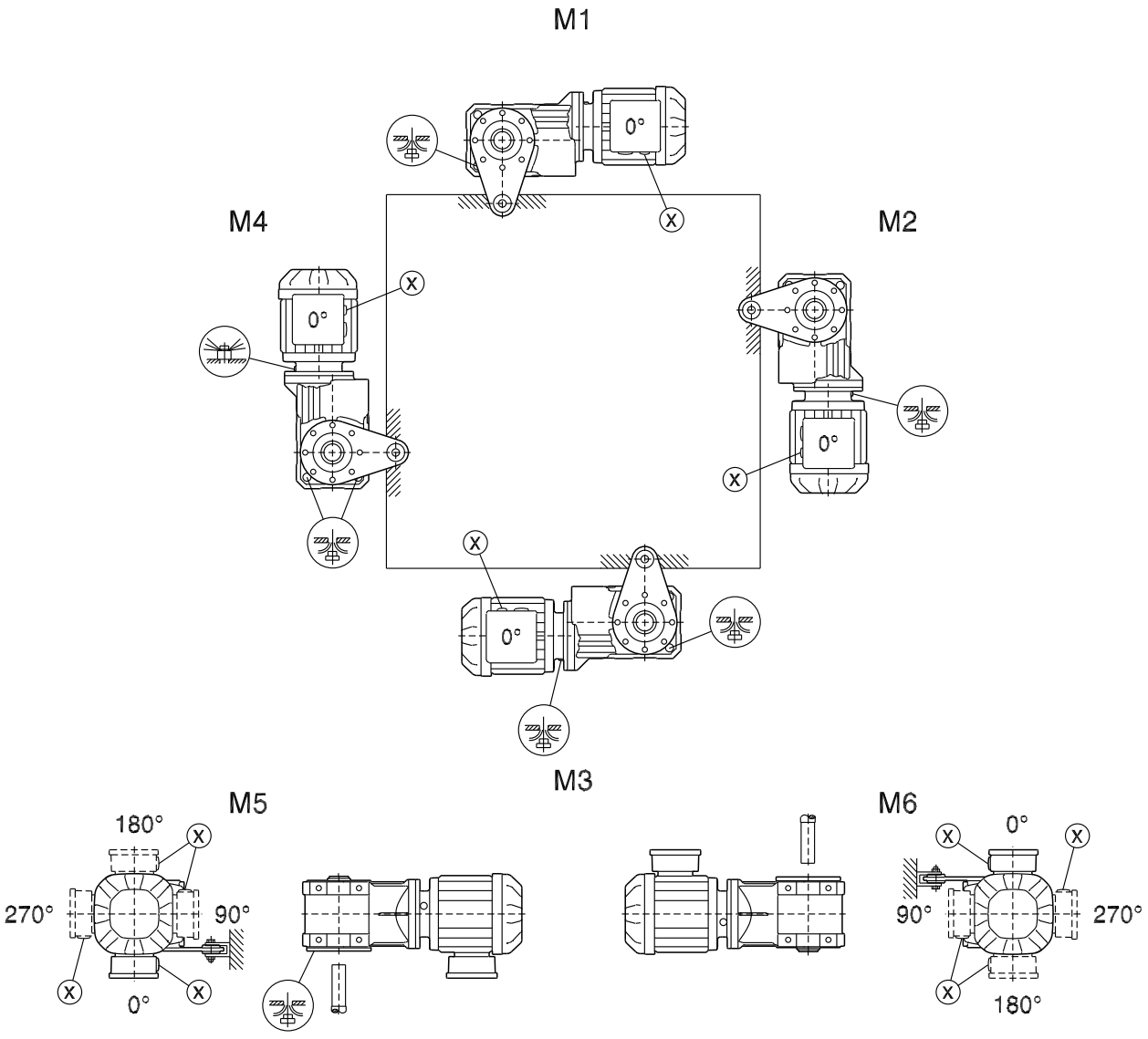
Also refer to the information in chapter "Overhung and axial loads" (→ 🗎 51).

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KA..B/KH19B-29B

33 025 00 15

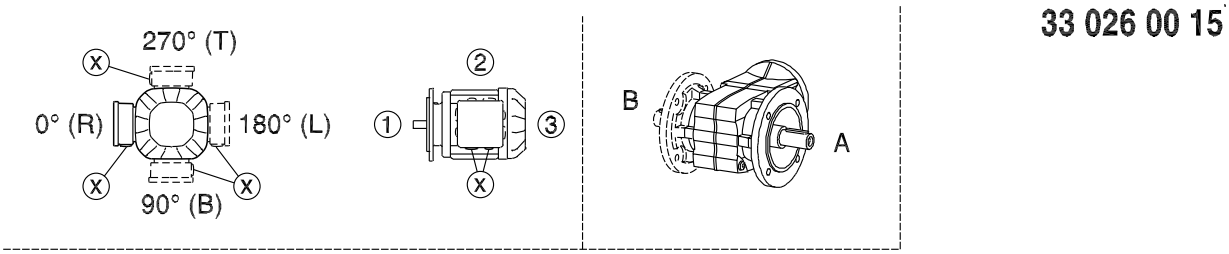


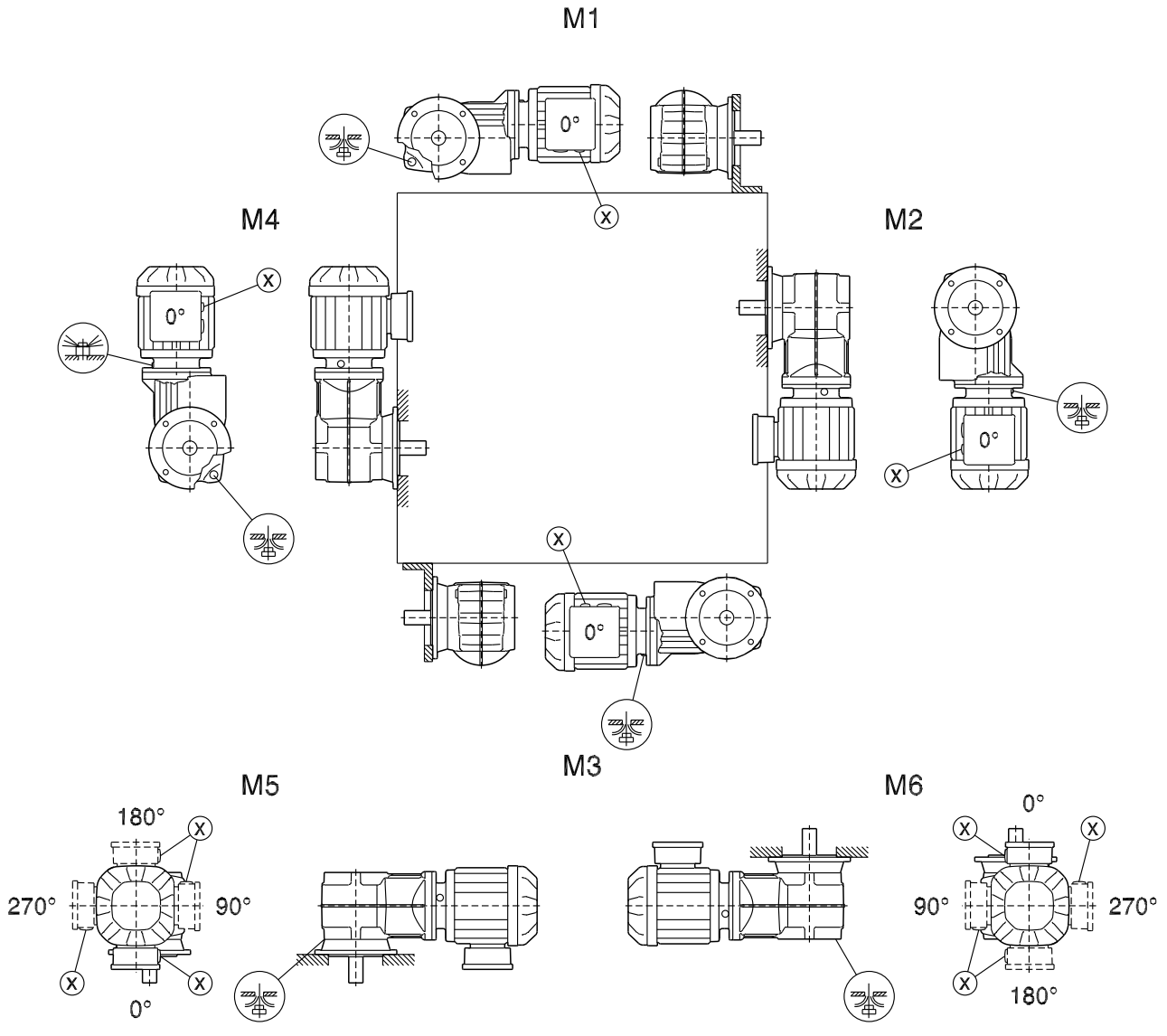


Also refer to the information in chapter "Overhung and axial loads" (→ 🗎 51).

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KF/KAF/KHF19-29



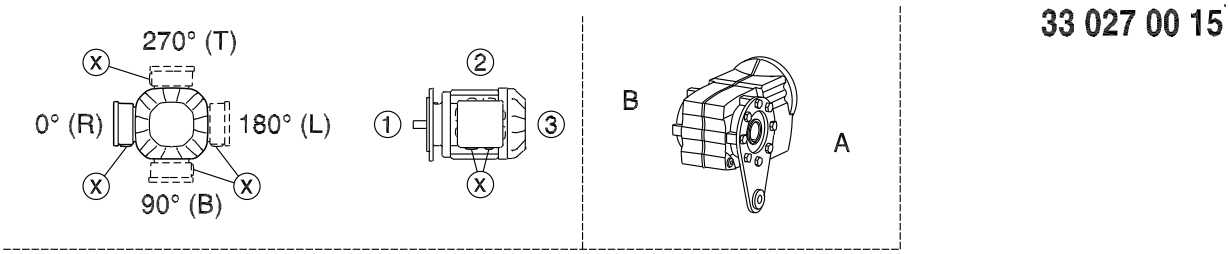


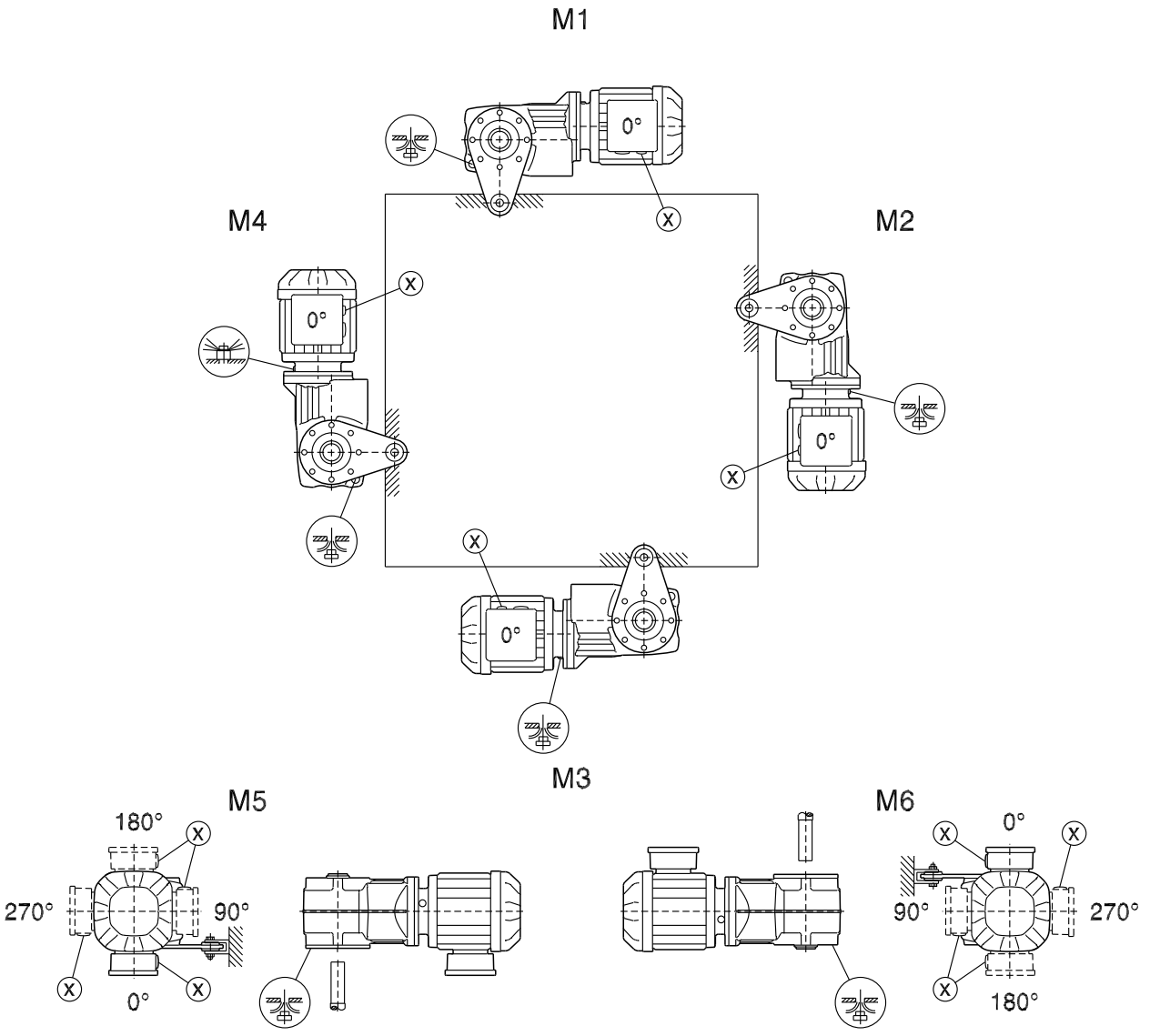
Also refer to the information in chapter "Overhung and axial loads" (→ 🗎 51).

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KA/KH19-29

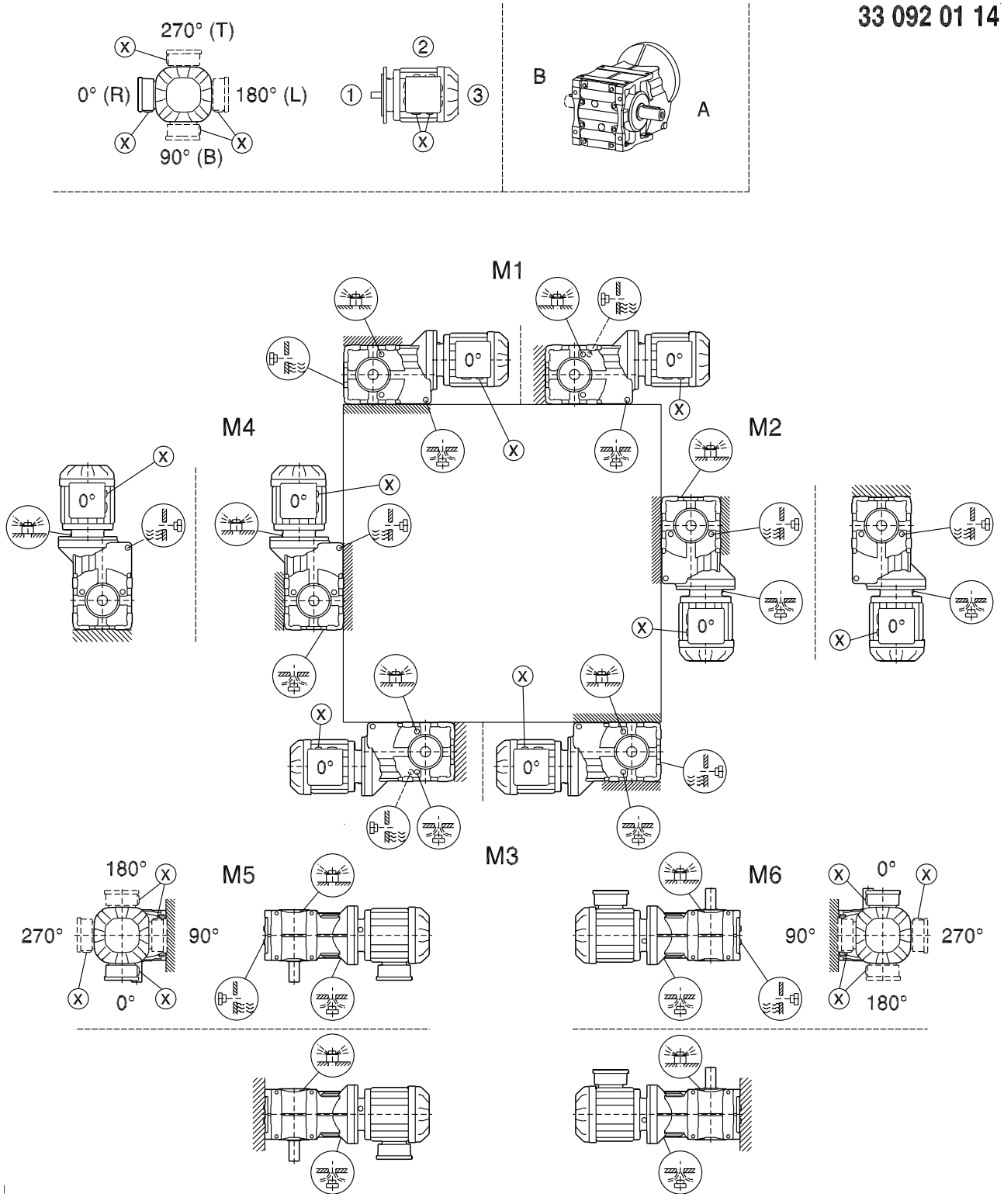
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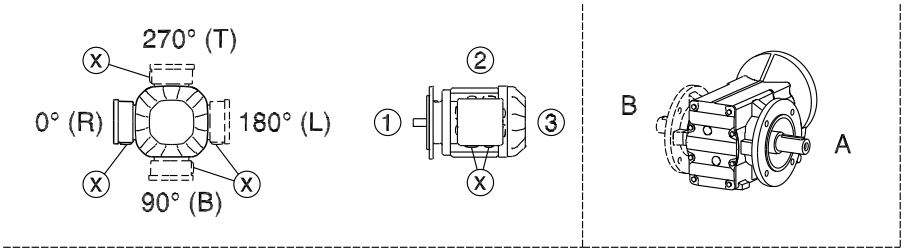
K39-49

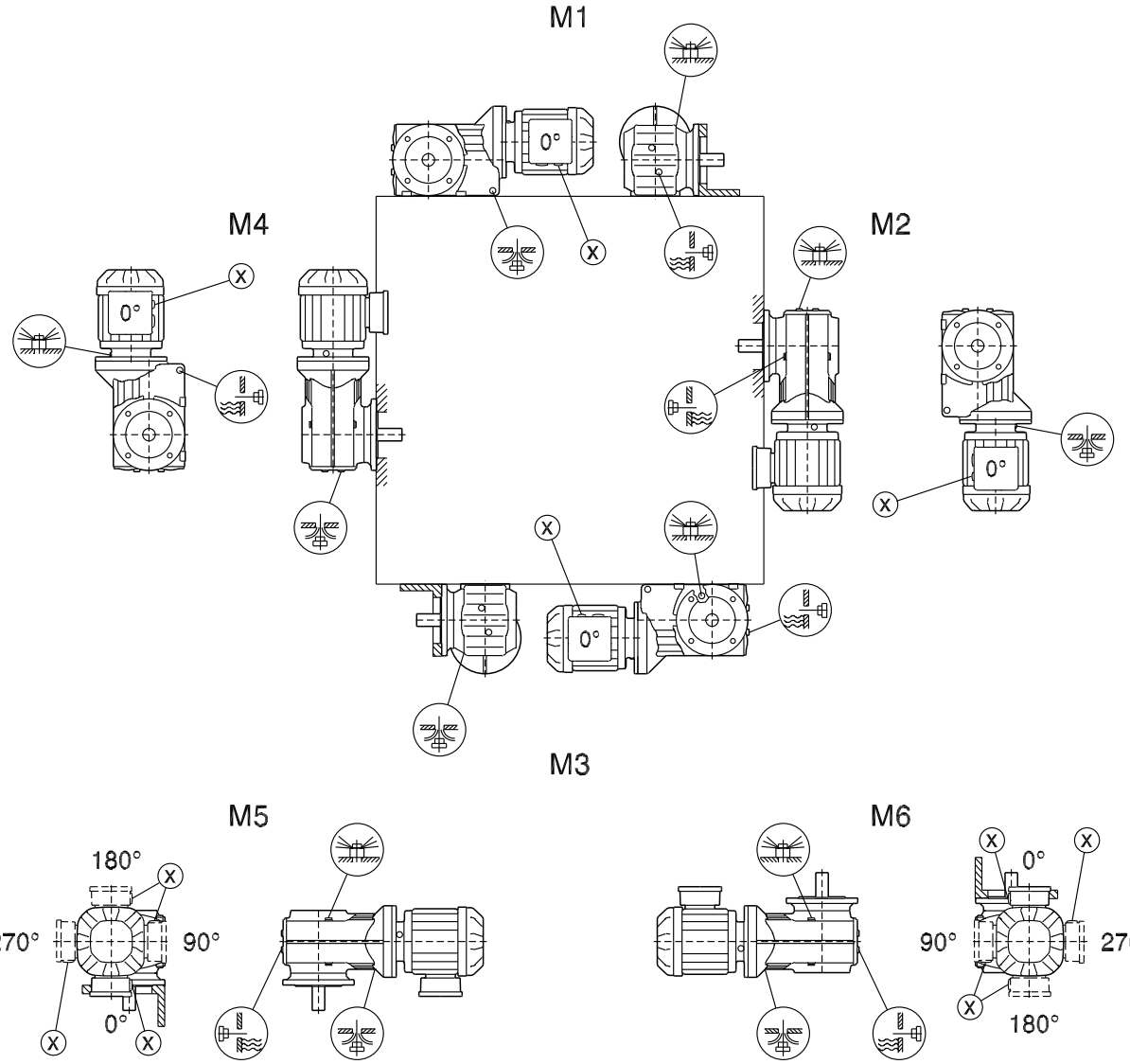
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KF/KAF39-49

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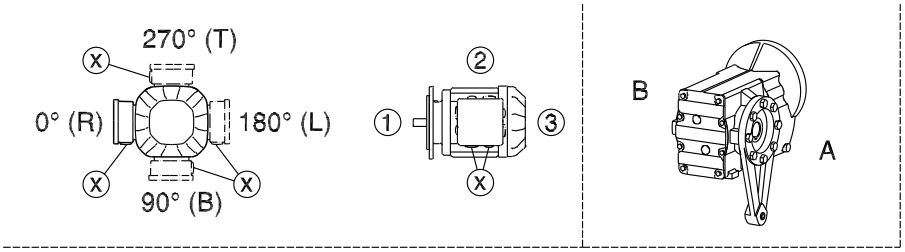


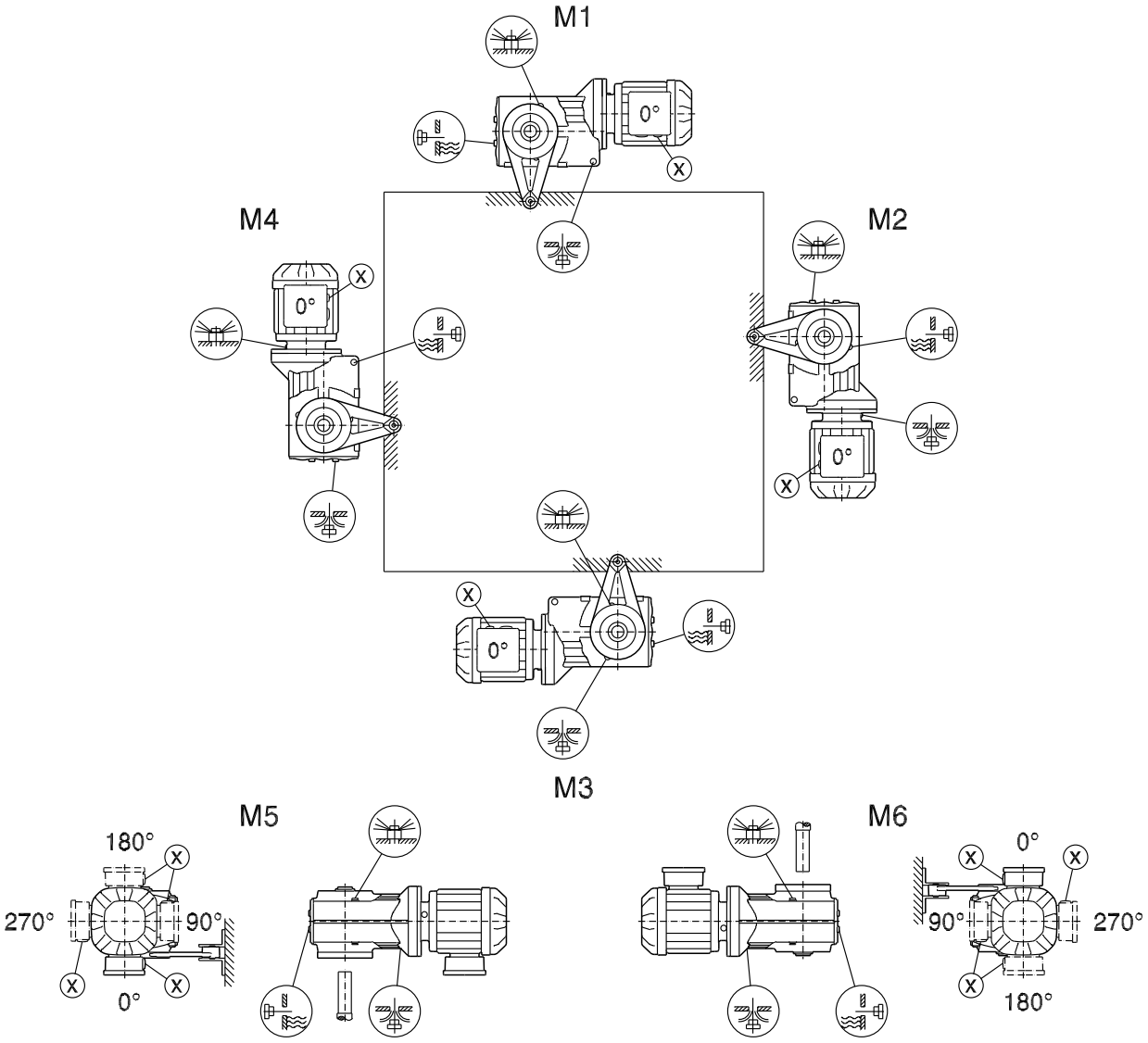


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KA/KT39-49

33 094 00 14

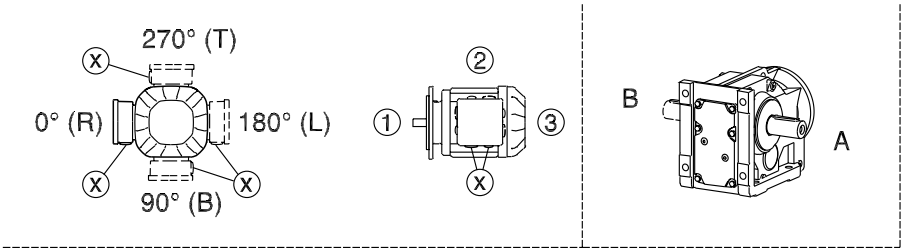


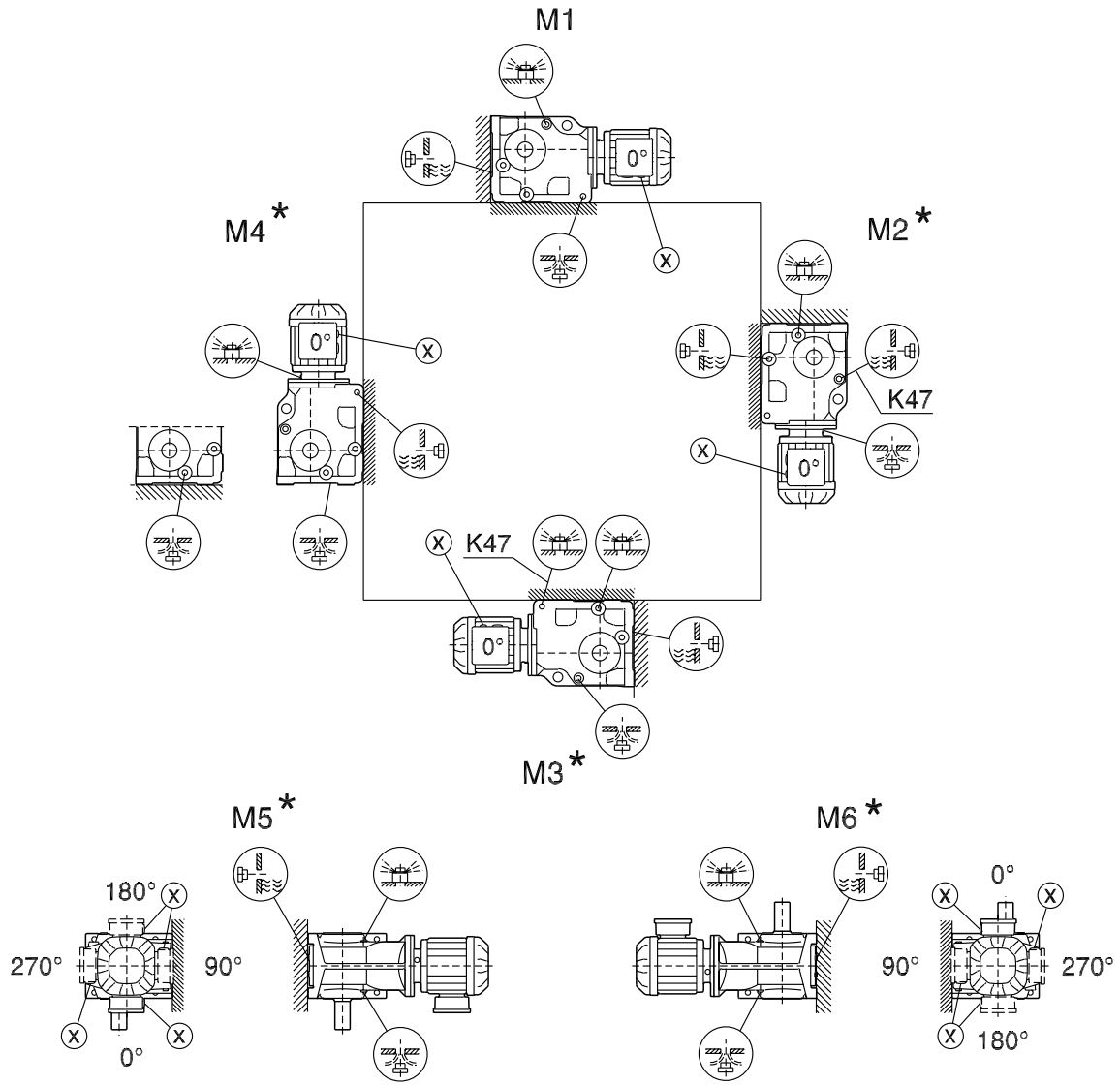


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K/KA..B/KH47B-157B, KV47B-107B

34 025 05 00





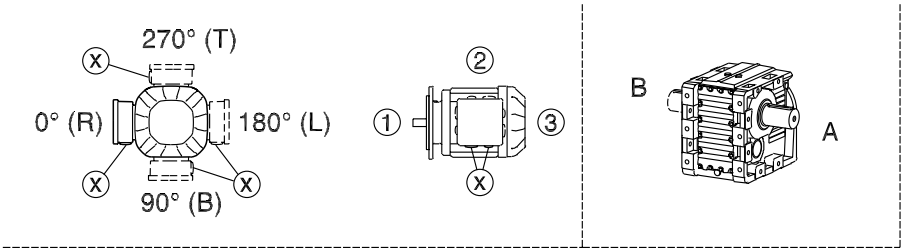
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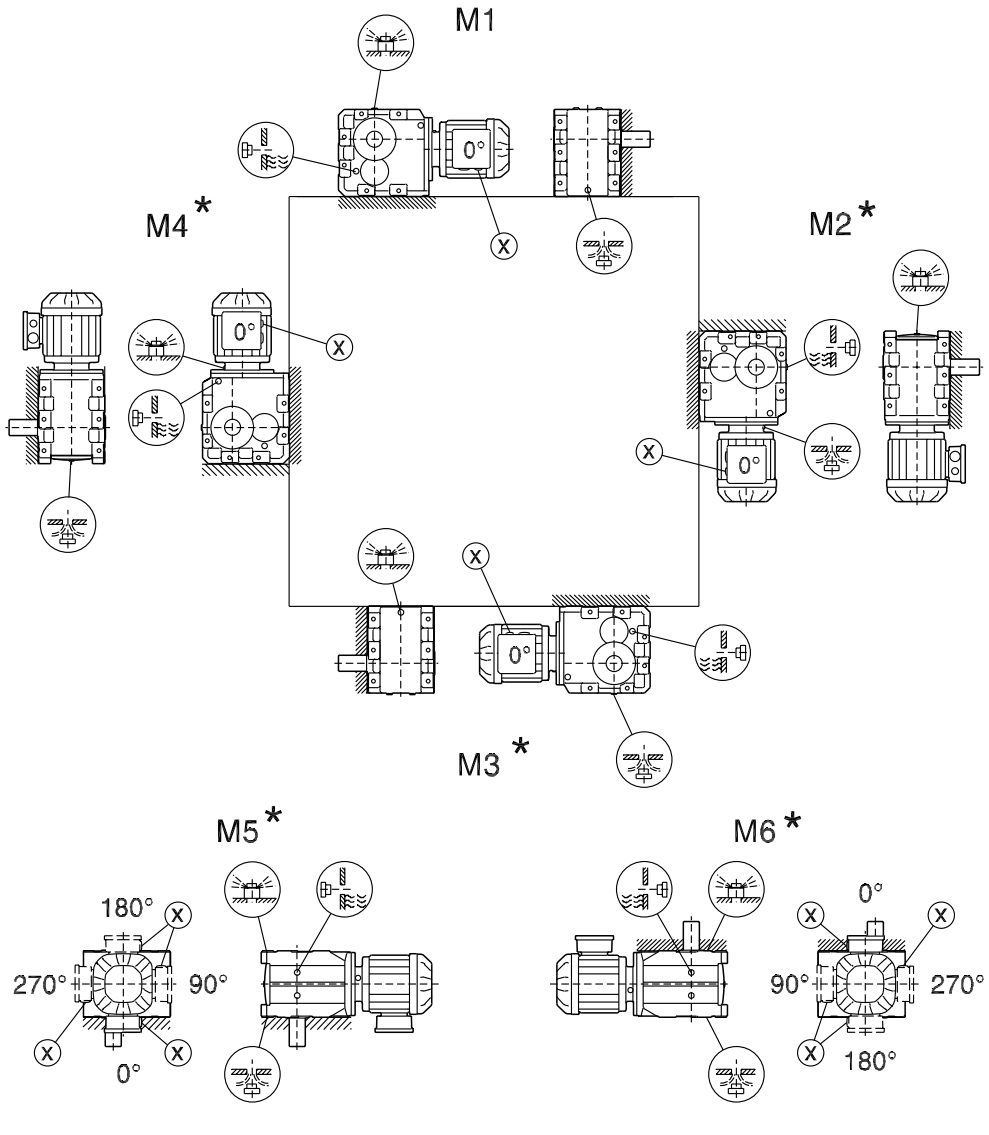
Also refer to the information in chapter "Overhung and axial loads" (→ 🗎 51).

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K167-187, KH167B-187B

34 026 05 00





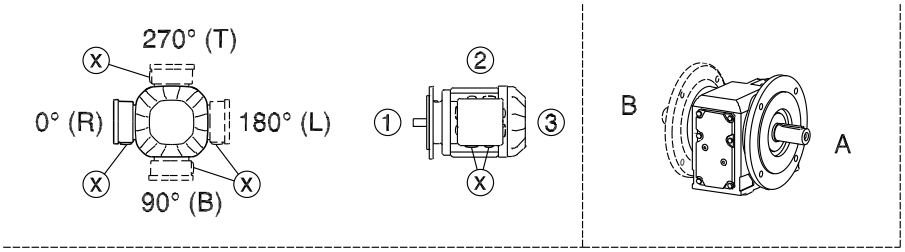
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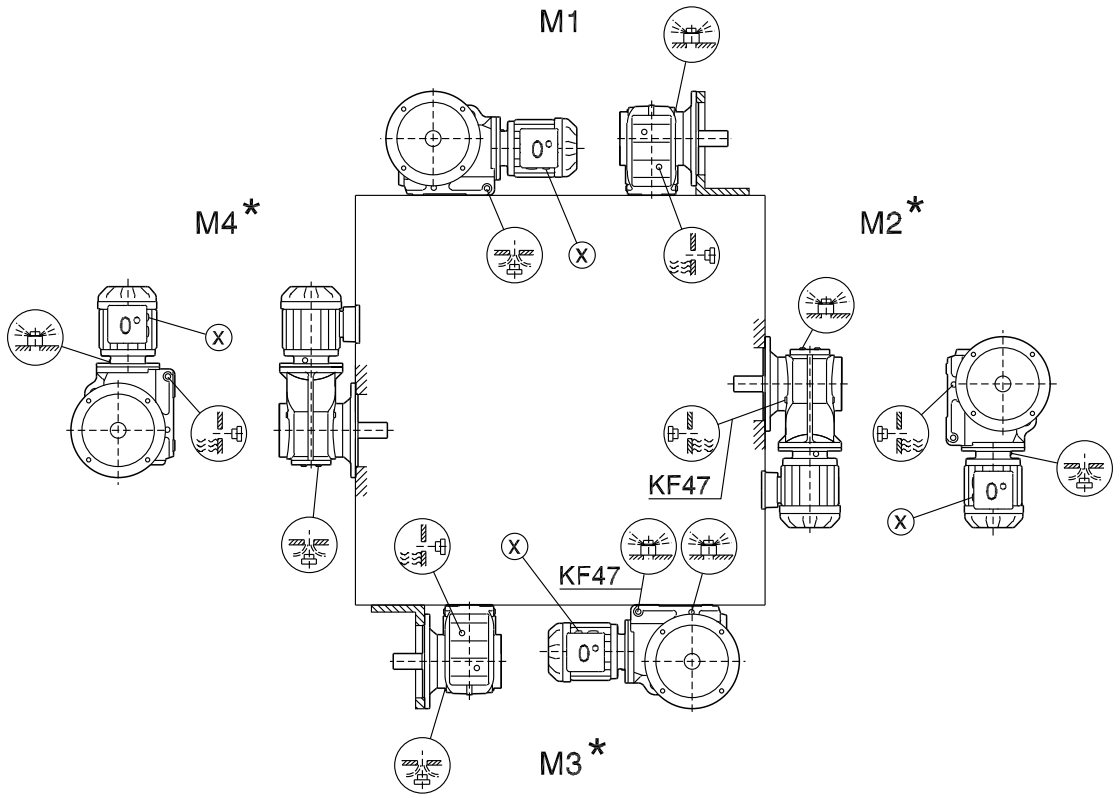
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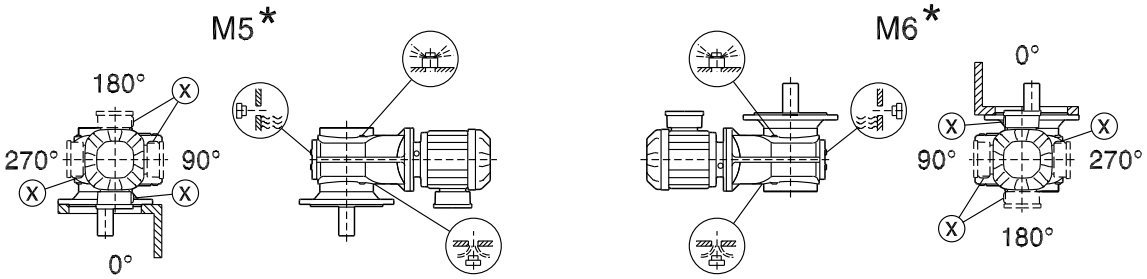
21933189/EN – 11/2015

KF/KAF/KHF/KZ/KAZ/KHZ37-157, KVF/KVZ37-107

34 027 04 00



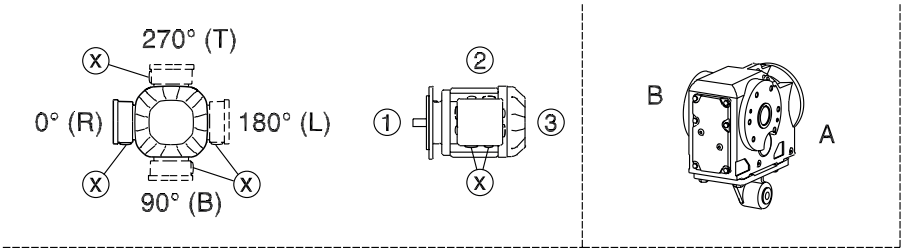


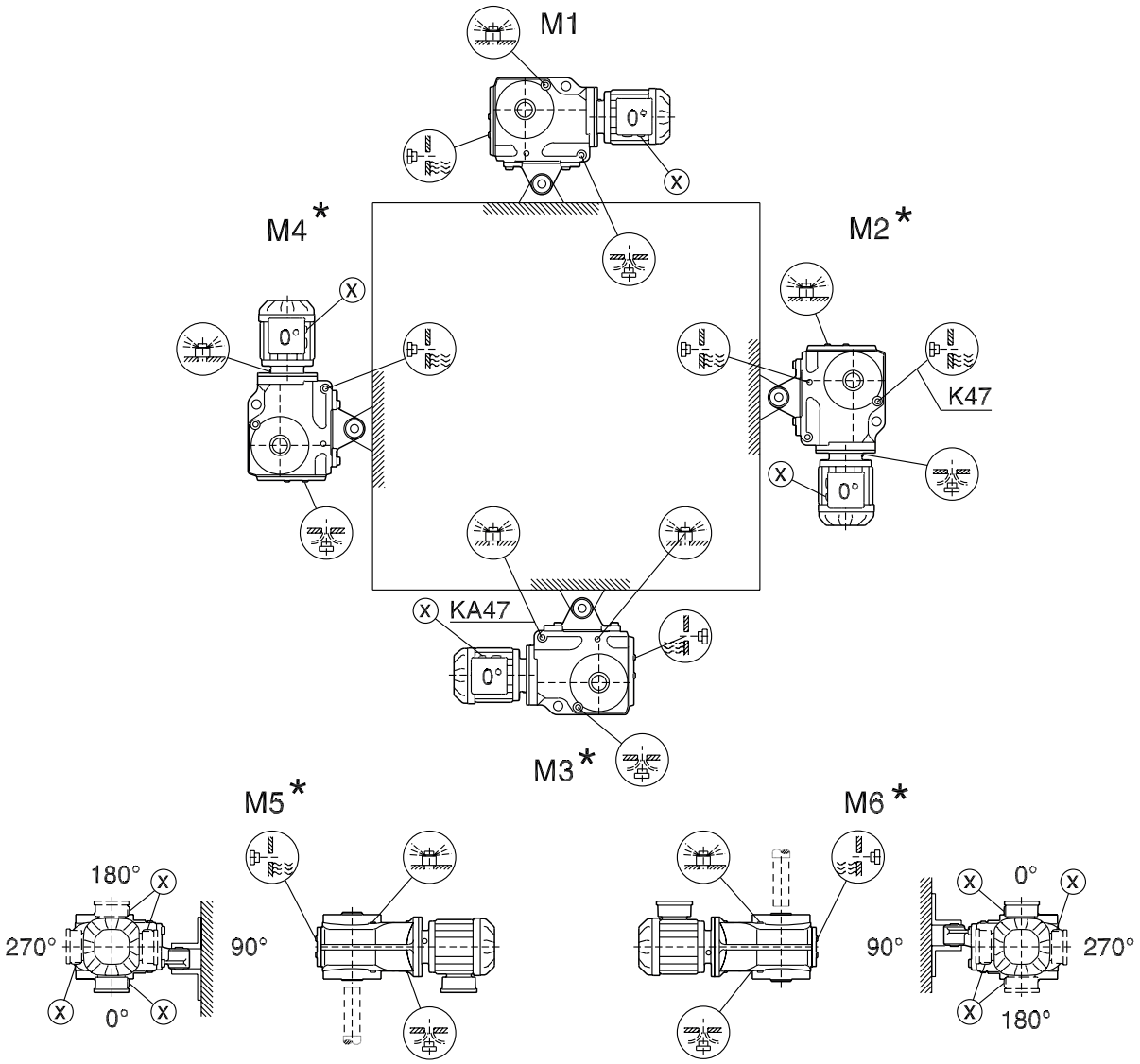


* (→ 67)

KA/KH37-157, KV37-107, KT37-97

39 025 05 00



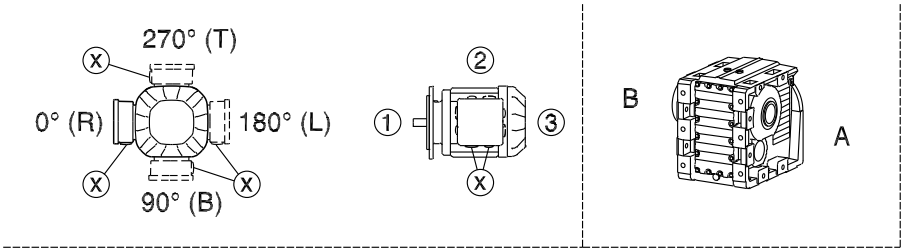


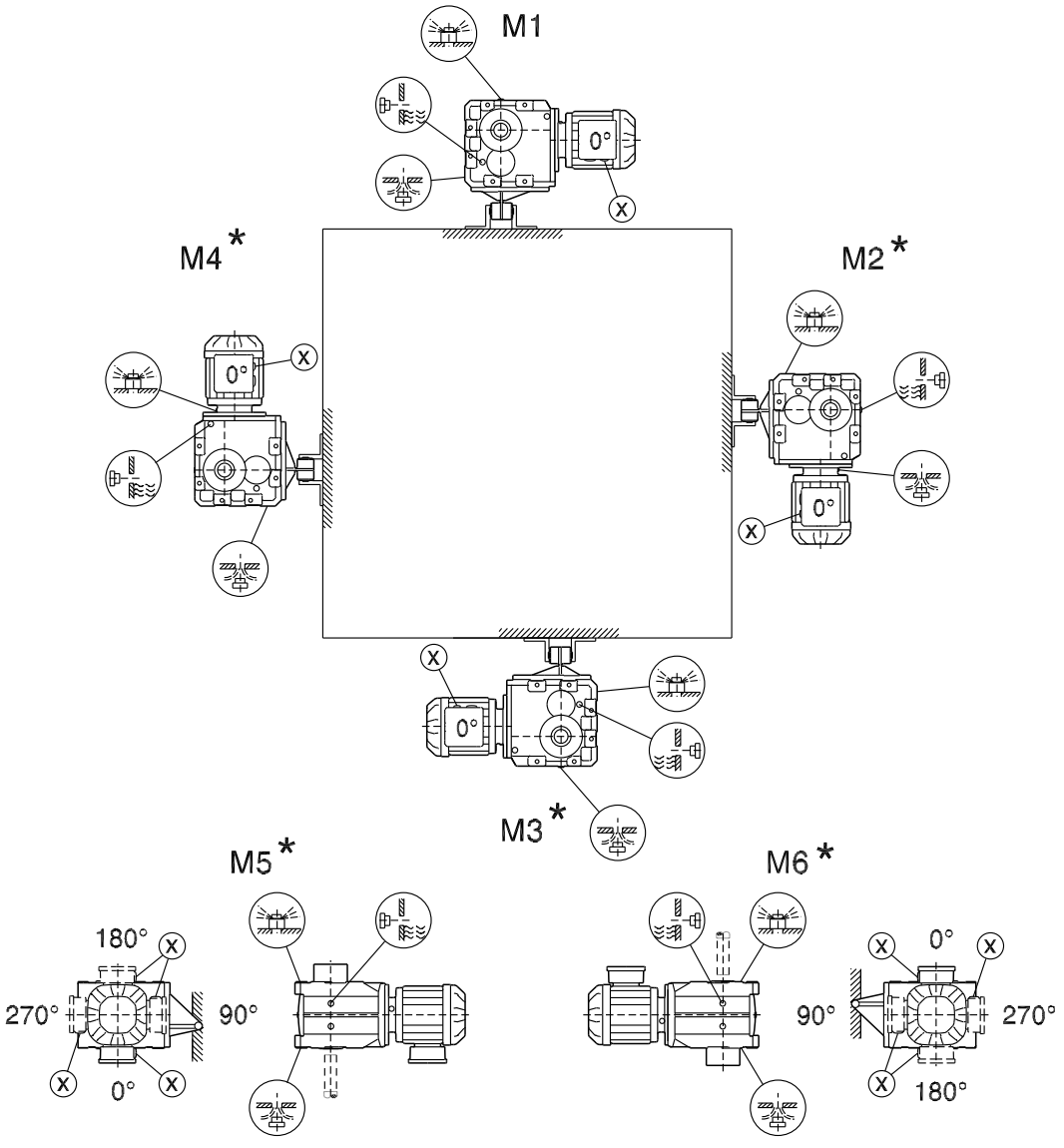
* (→ 67)

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KH167-187

39 026 05 00



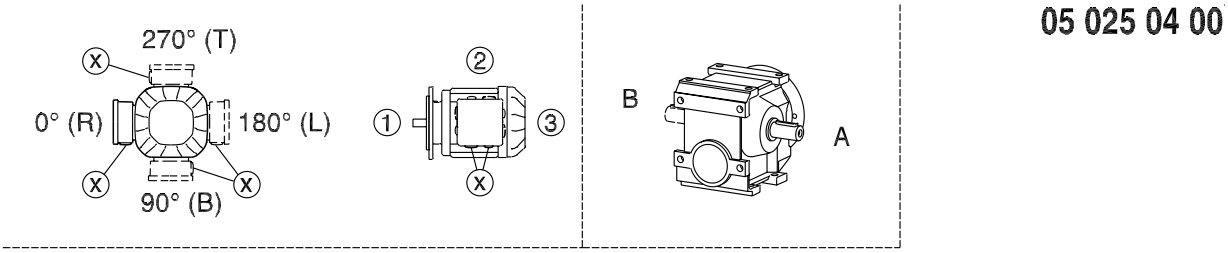


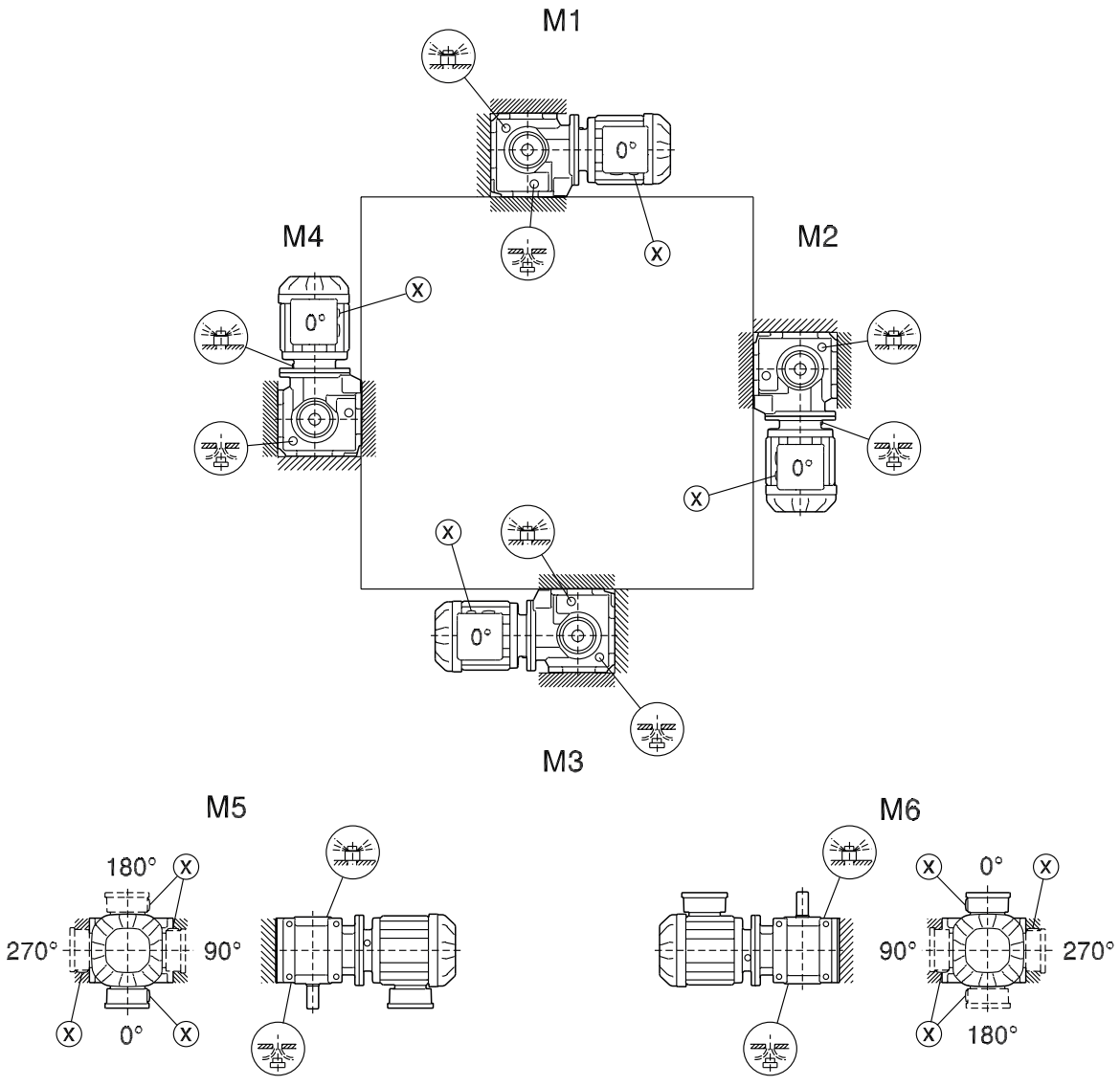
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5.4.4 Mounting positions of helical-worm gearmotors

S37

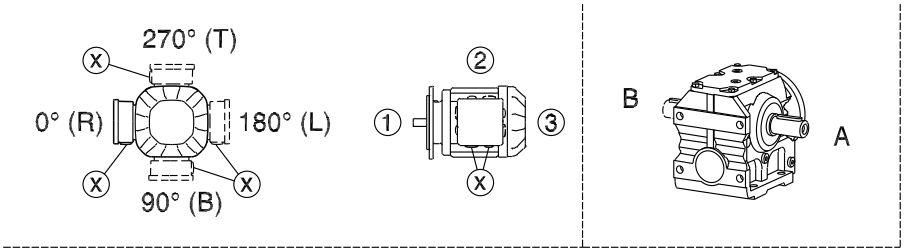




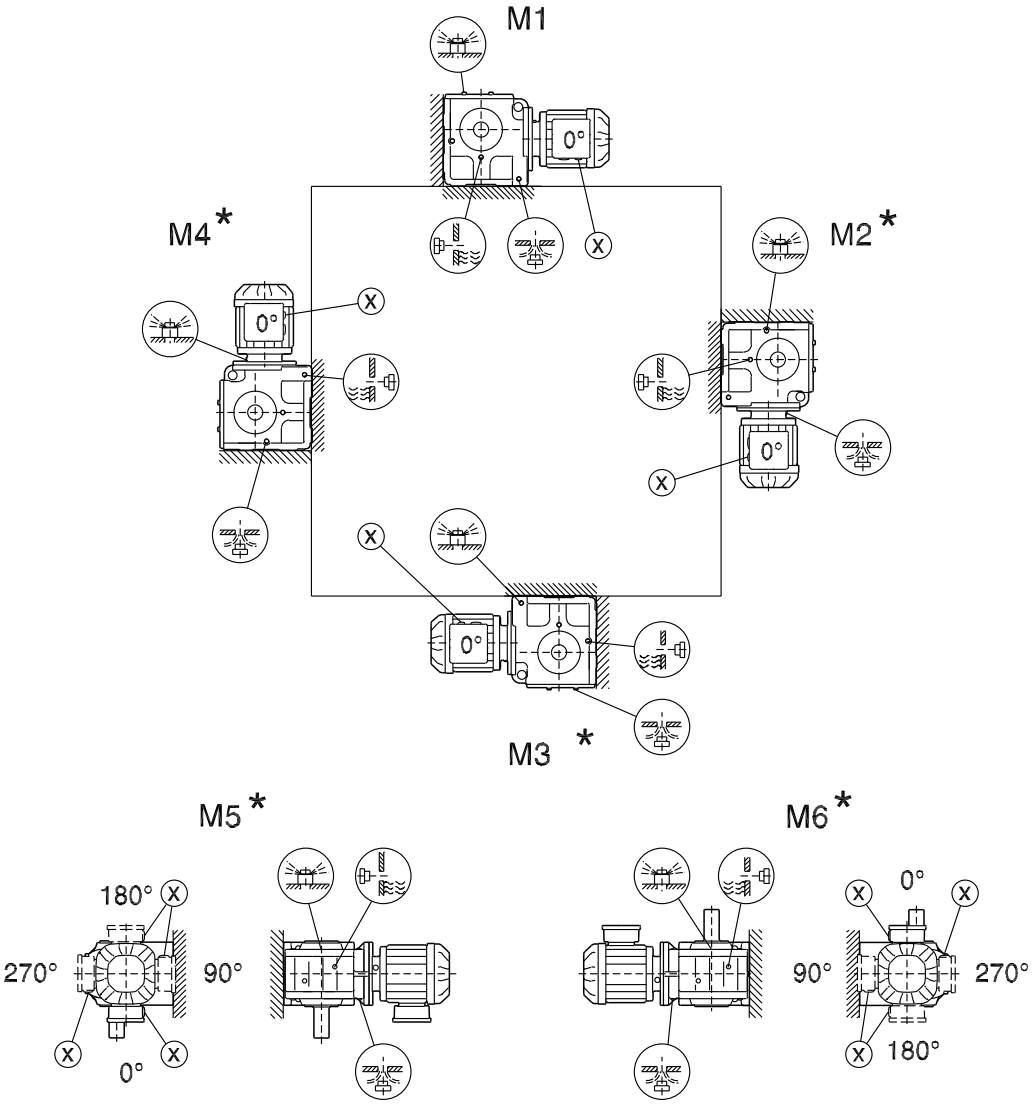
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21933189/EN – 11/2015

S47-S97



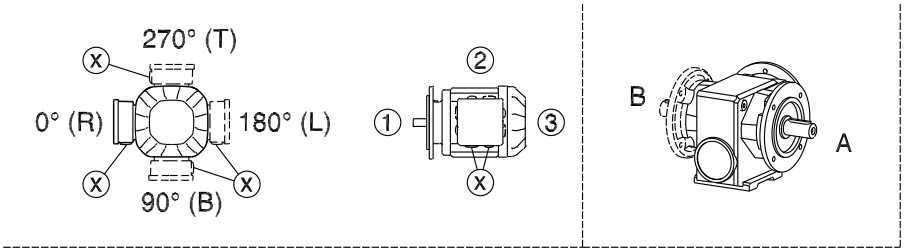
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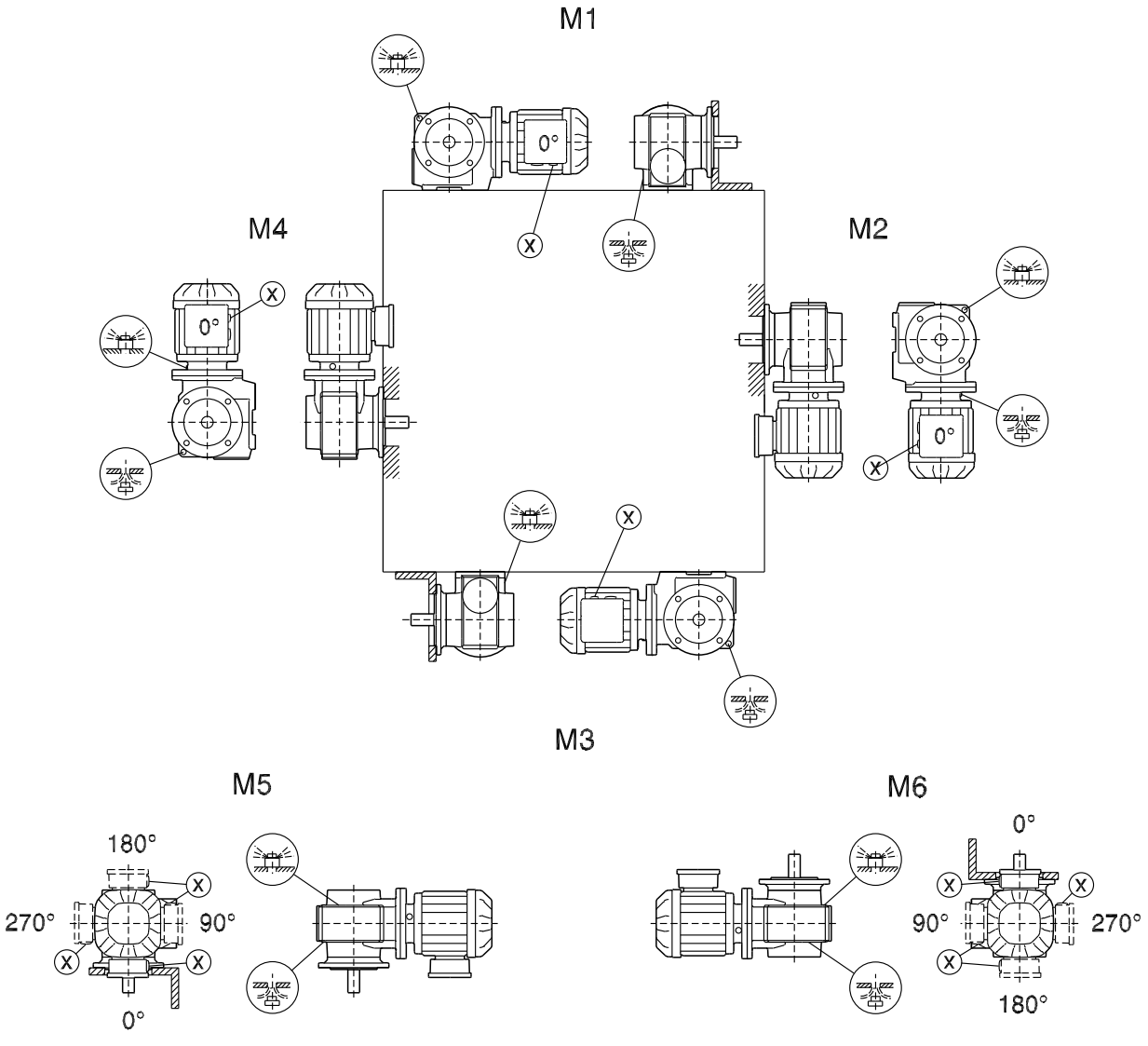


* (→ 🗎 67)

Also refer to the information in chapter "Overhung and axial loads" (→ 🗎 51).

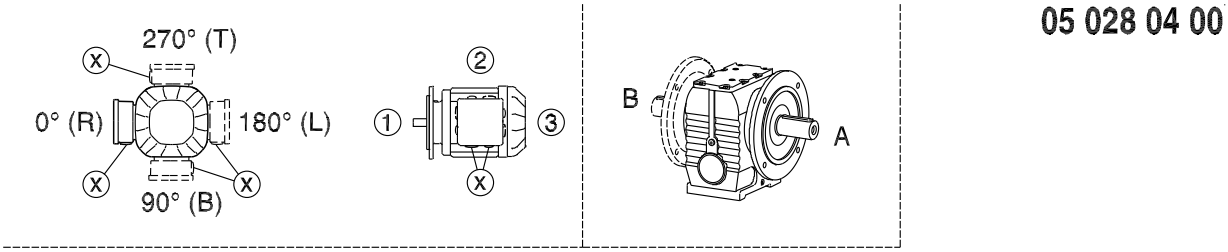
SF/SAF/SHF37



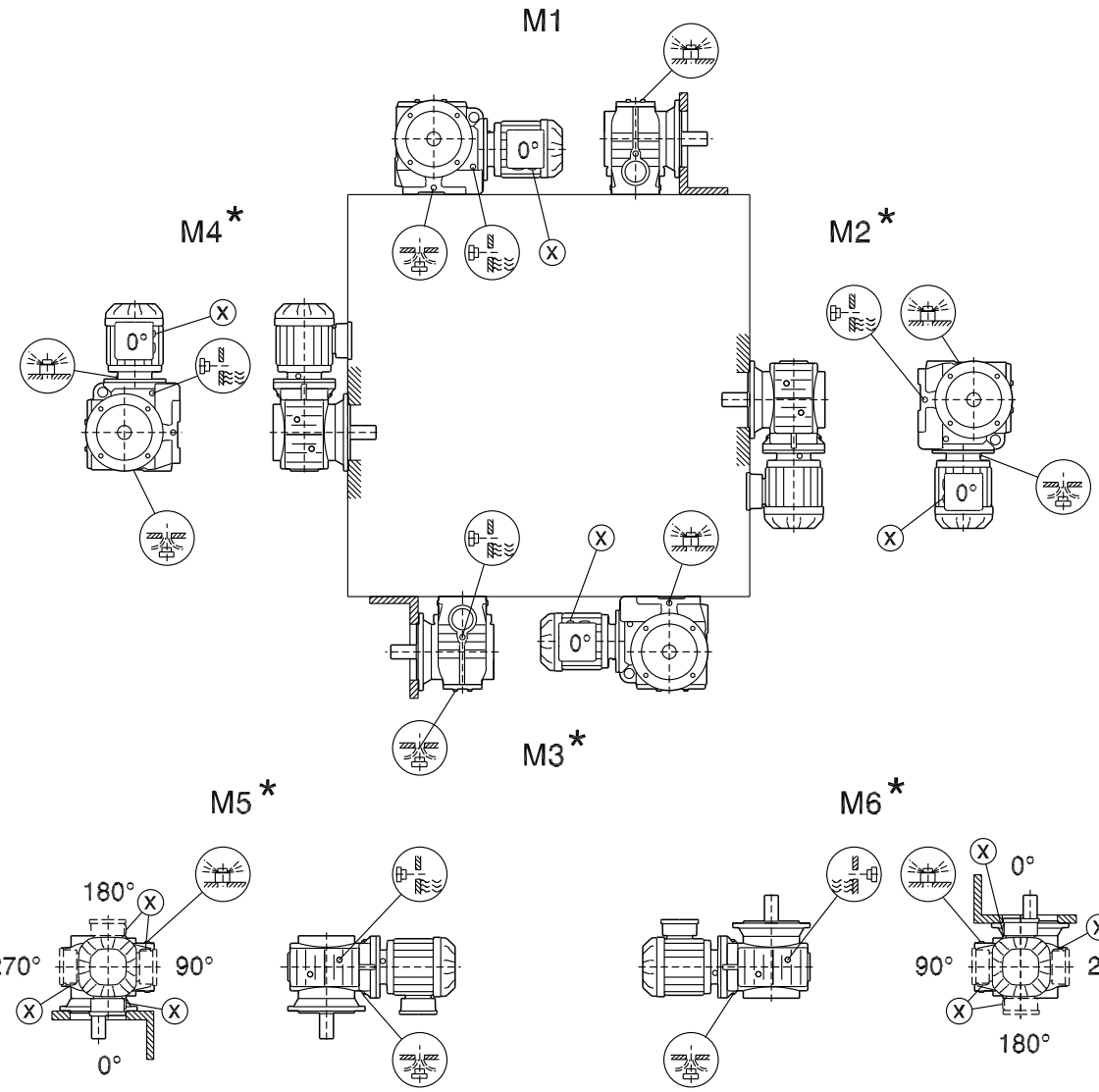


21933189/EN – 11/2015

SF/SAF/SHF/SAZ/SHZ47-97



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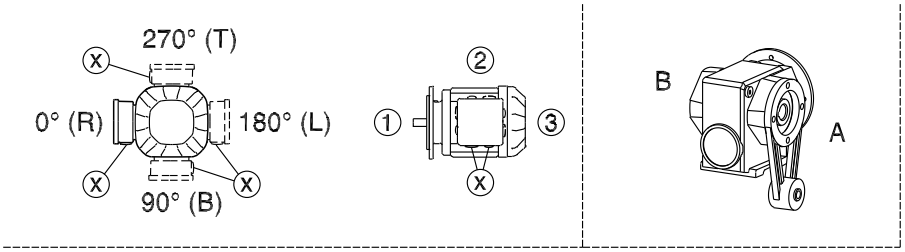


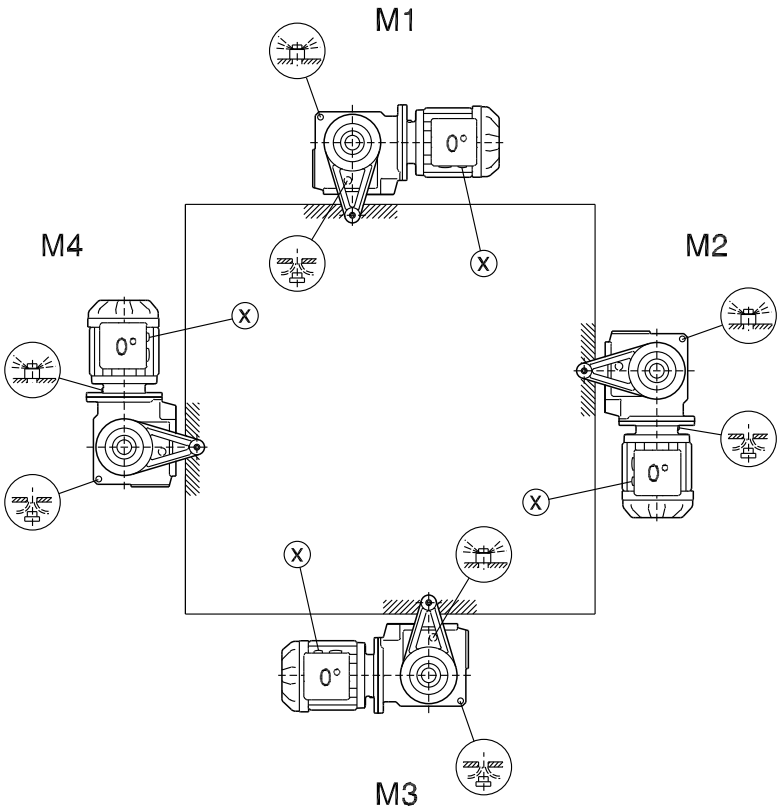
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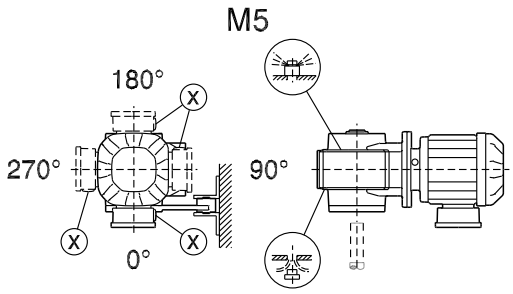
21933189/EN – 11/2015

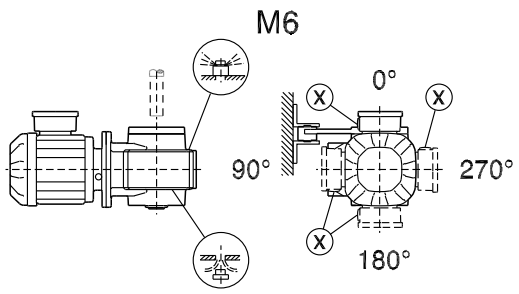
SA/SH/ST37

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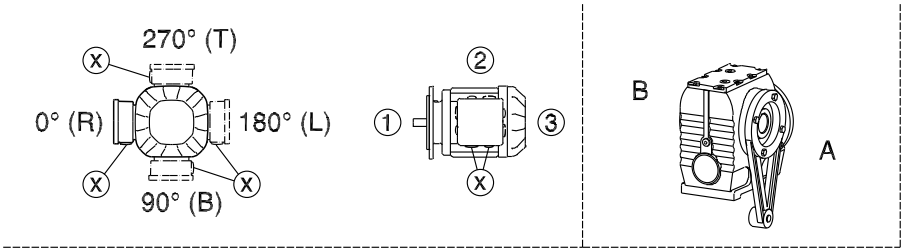


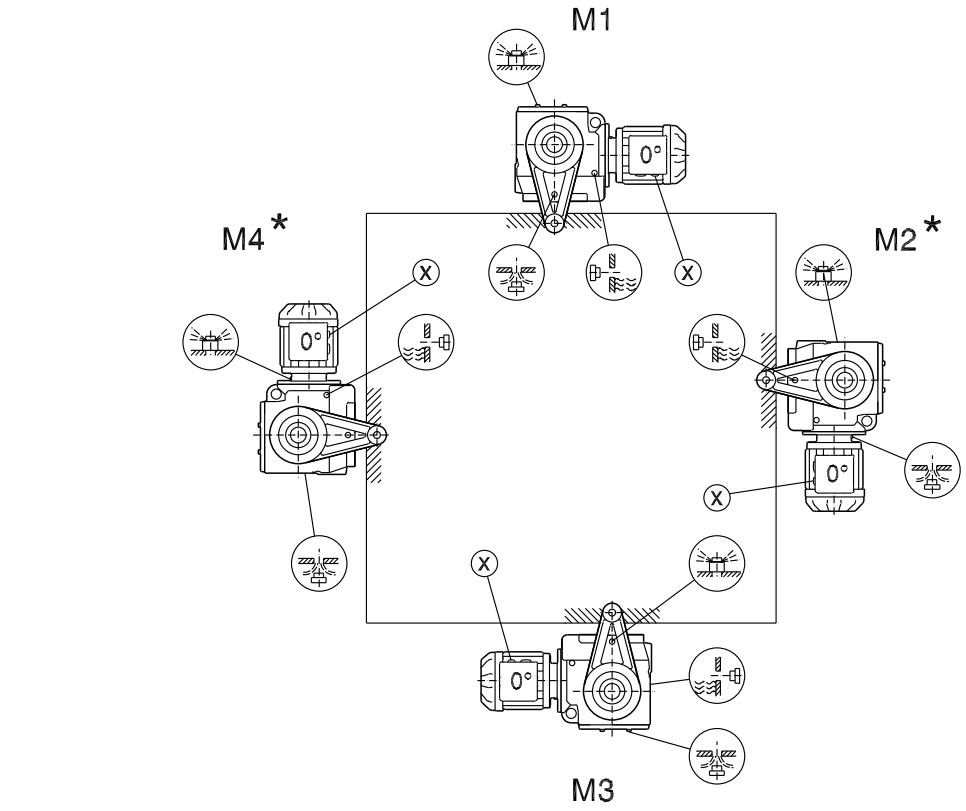


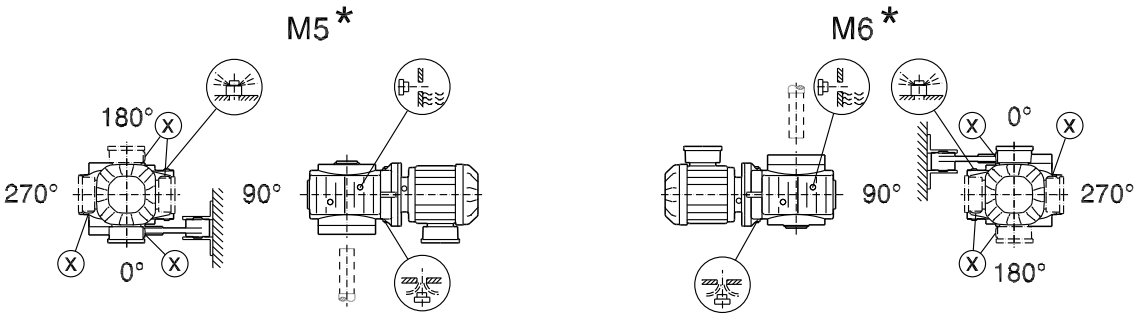
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SA/SH/ST47-97

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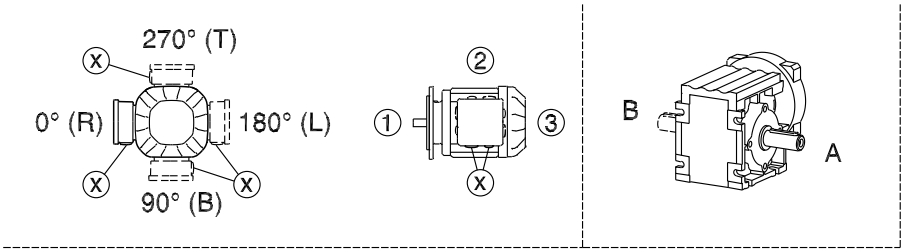


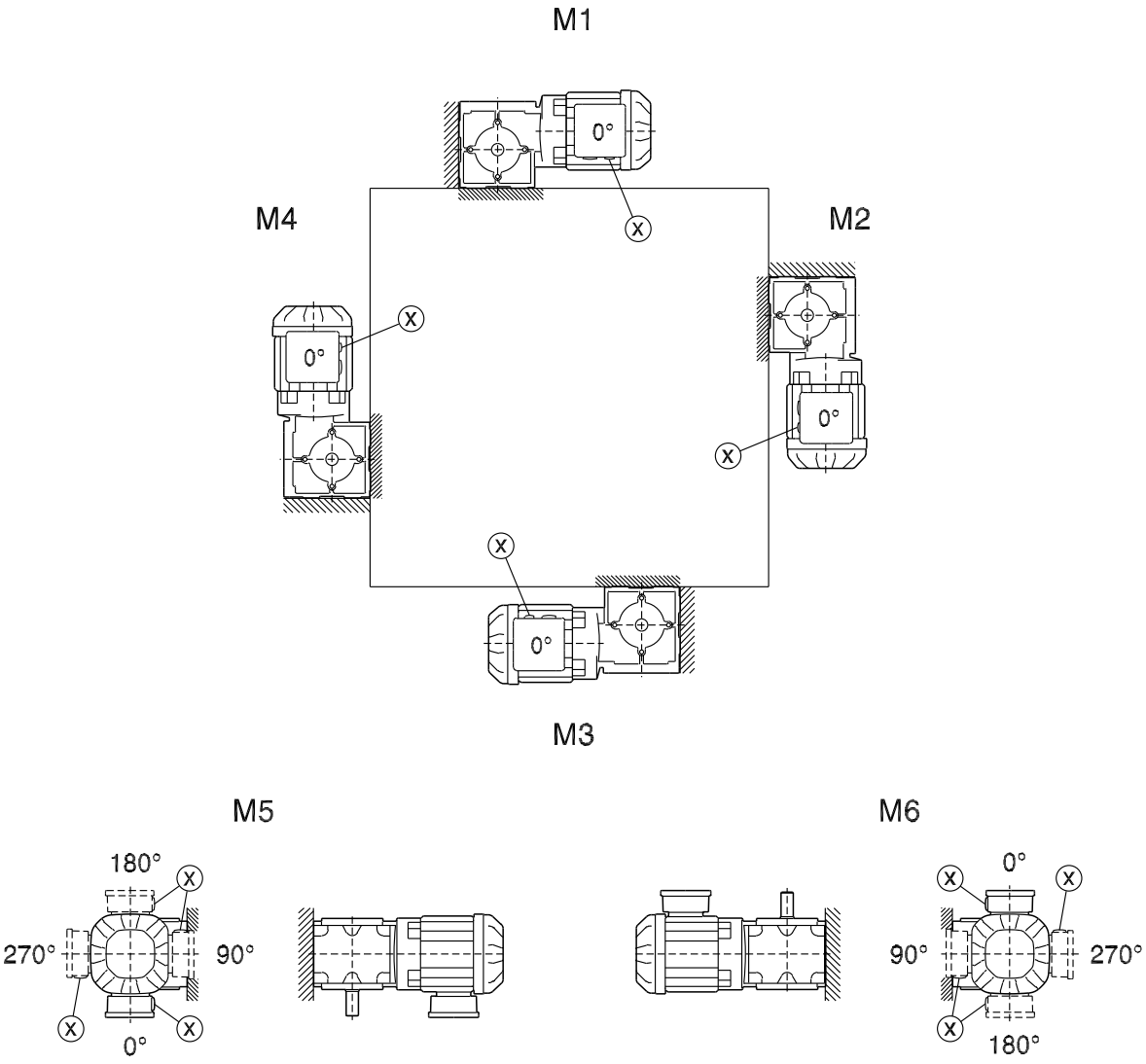


* (→ 67)

5.4.5 Mounting positions of SPIROPLAN® gearmotors

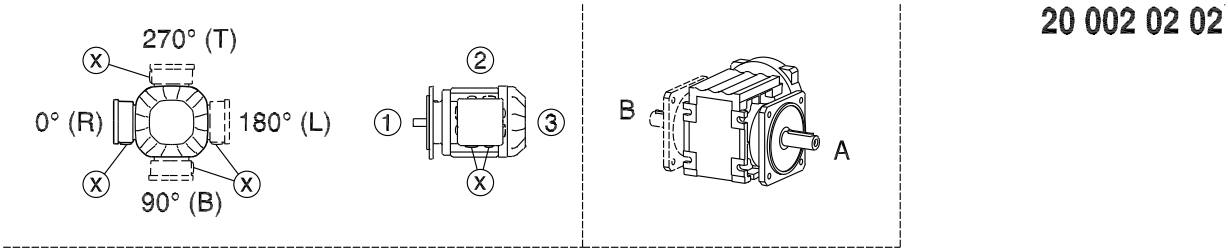
W10-30



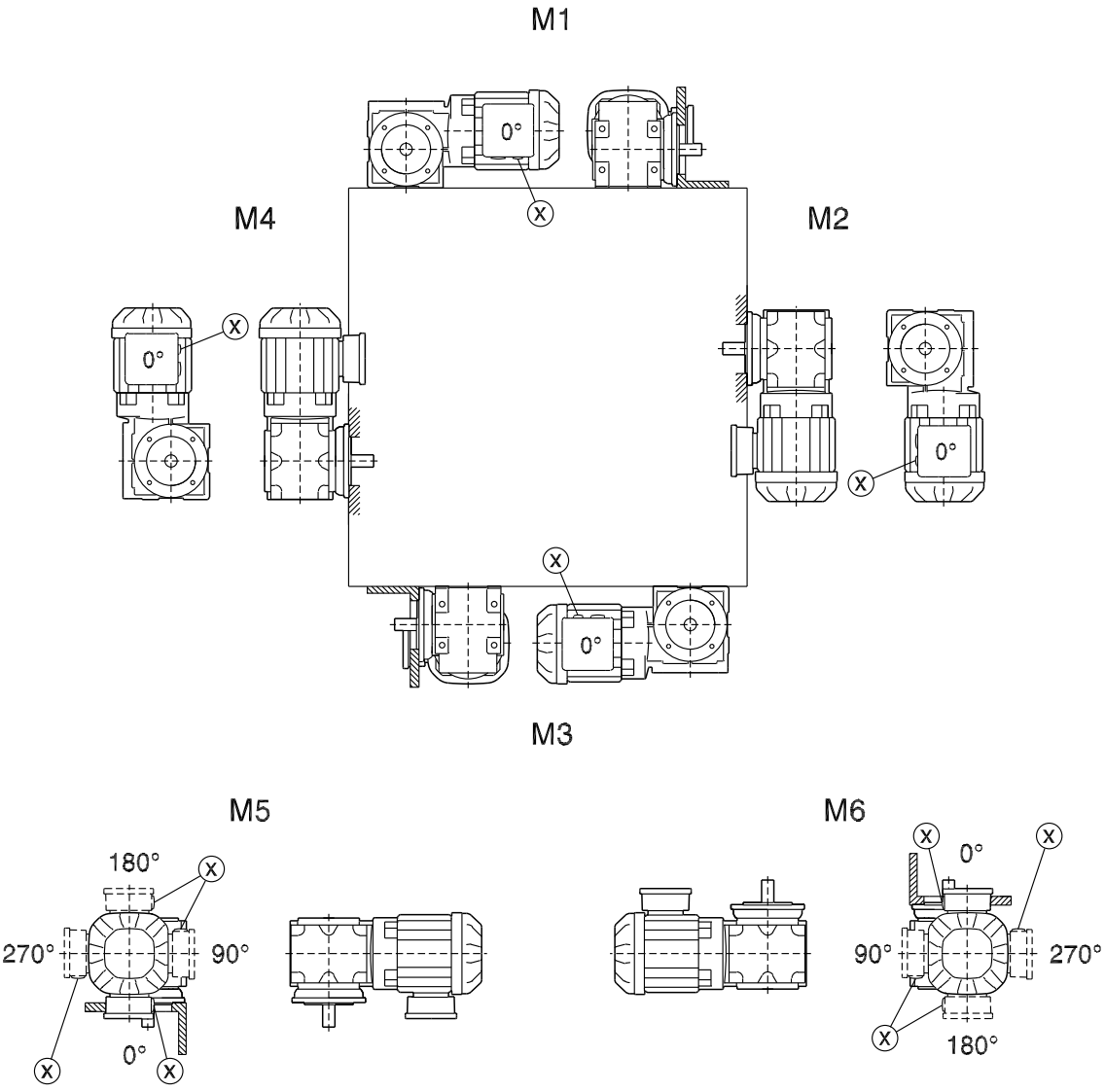


21933189/EN – 11/2015

WF10-30

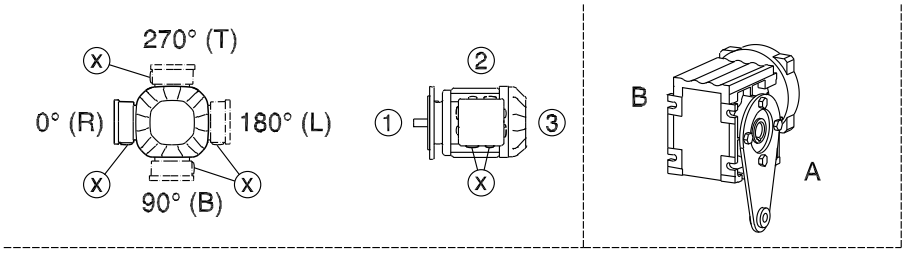


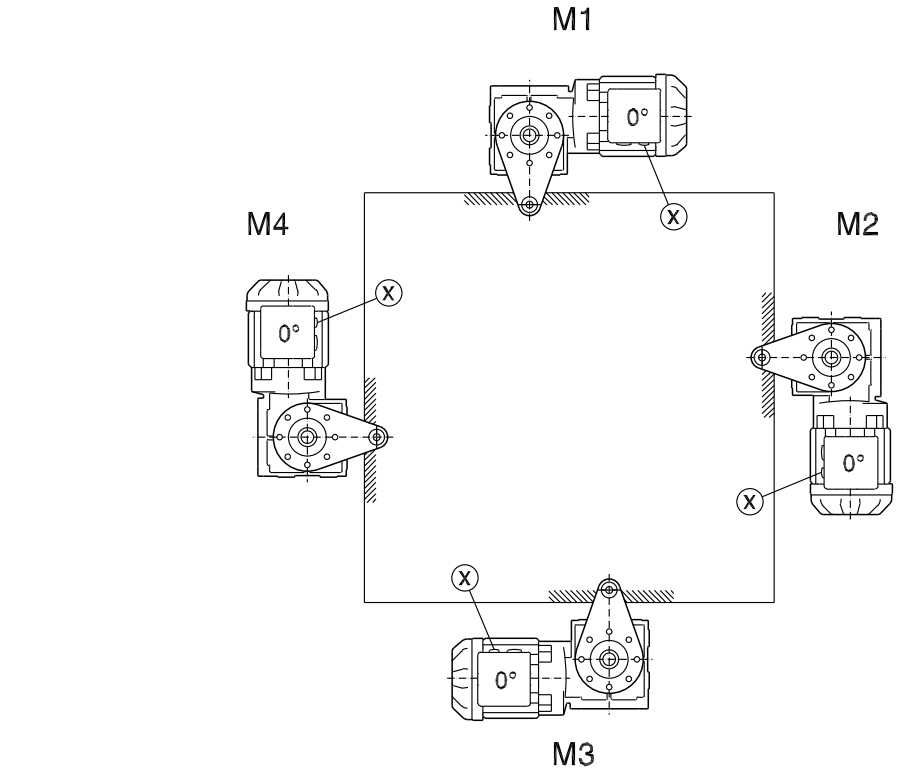
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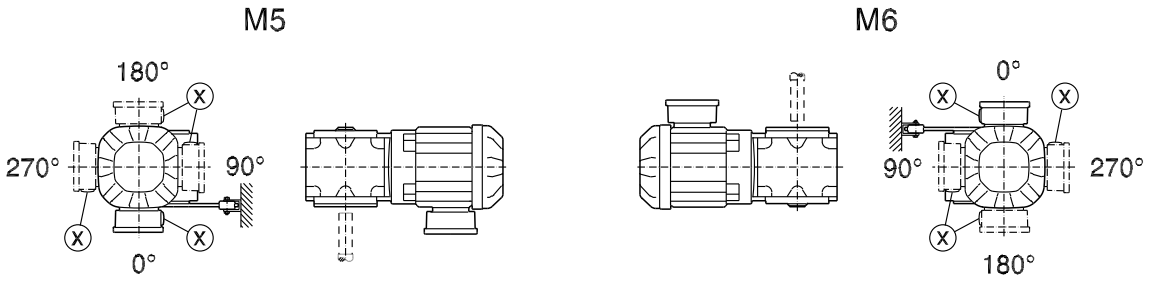


WA10-30

20 003 03 02



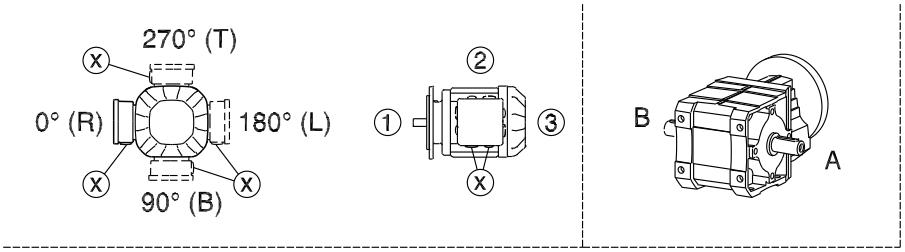




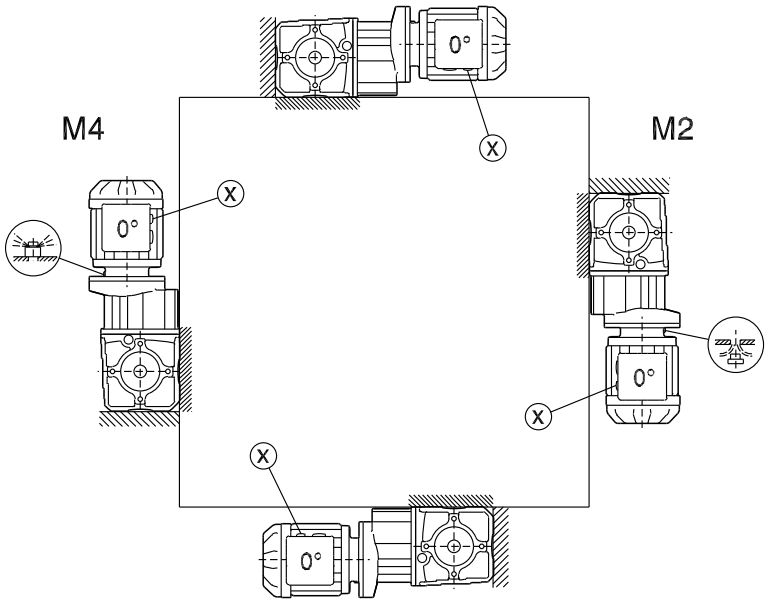
21933189/EN – 11/2015

W/WA..B/WH37B-47B

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M1

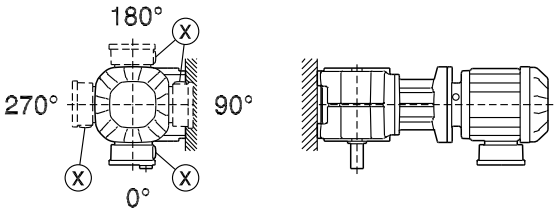


M4

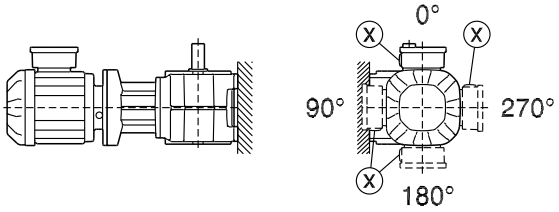
M2

M3

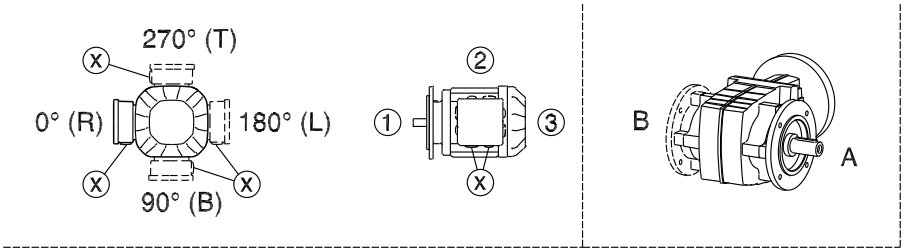
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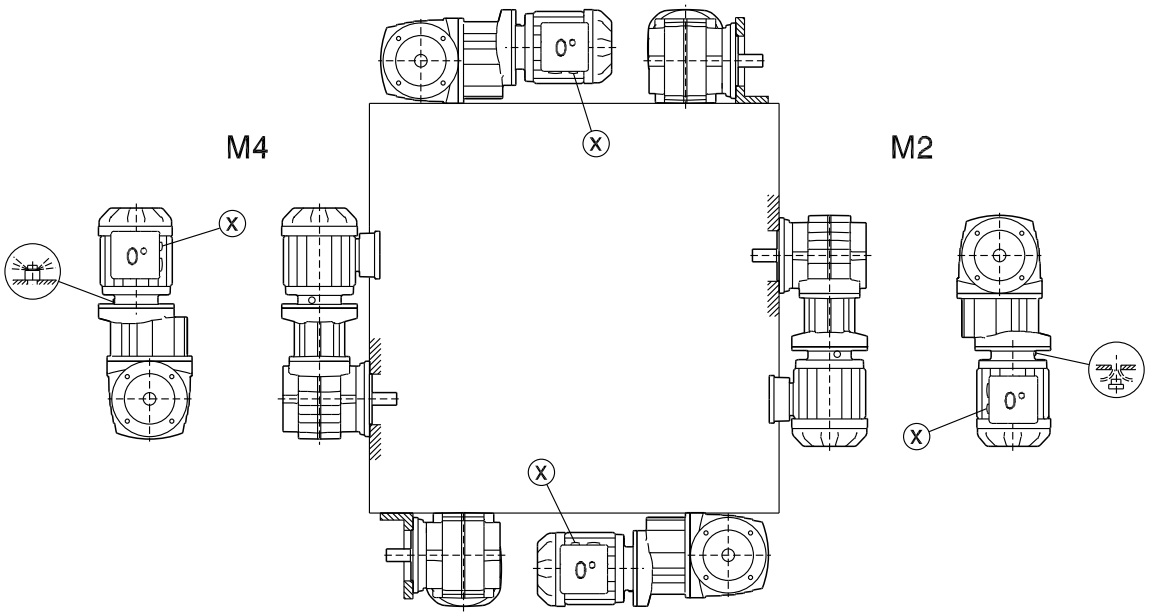
M6



WF/WAF/WHF37-47



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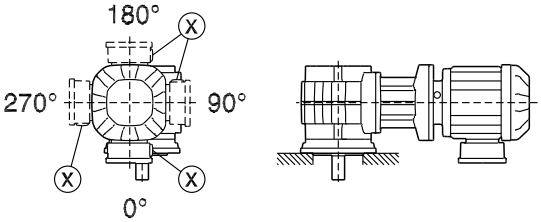


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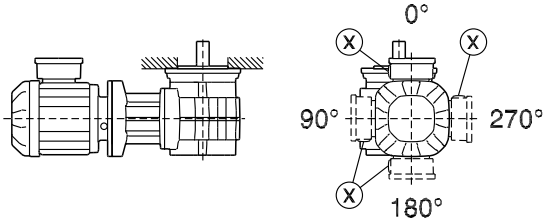
M2

M3

M5

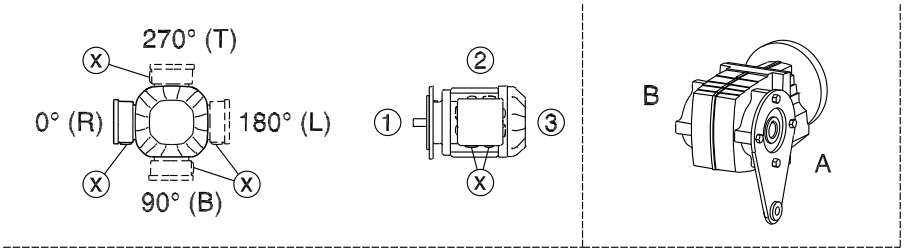


M6

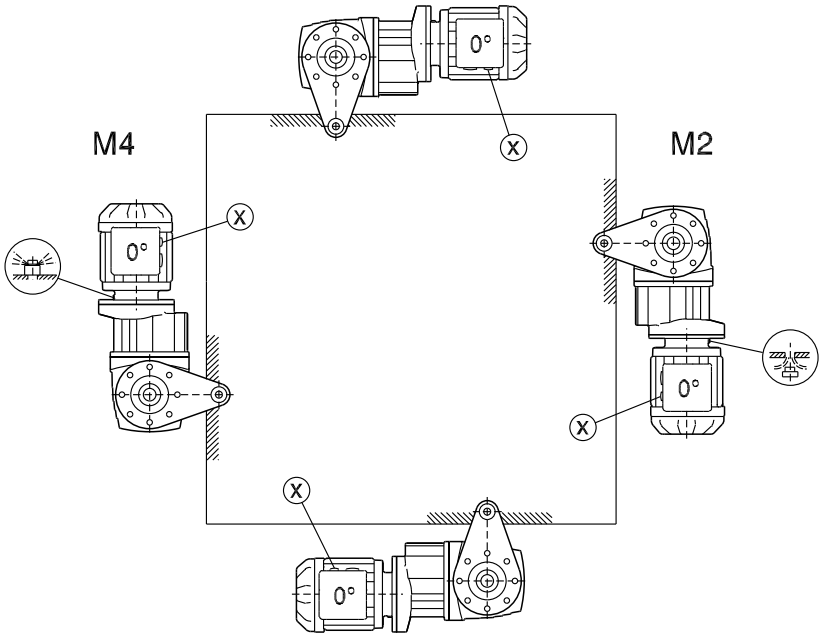


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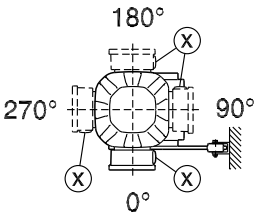
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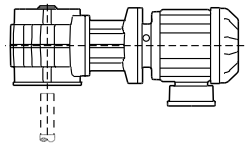


M1

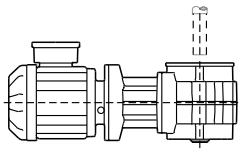


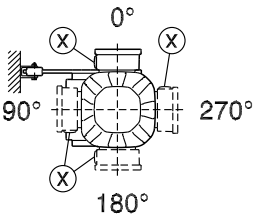
M5





M6

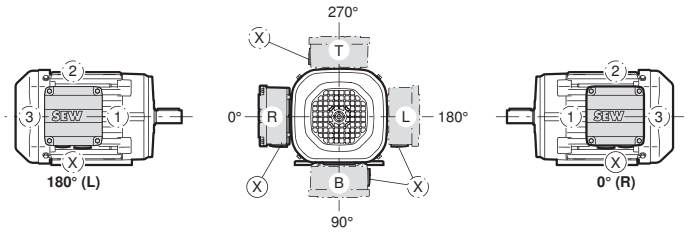




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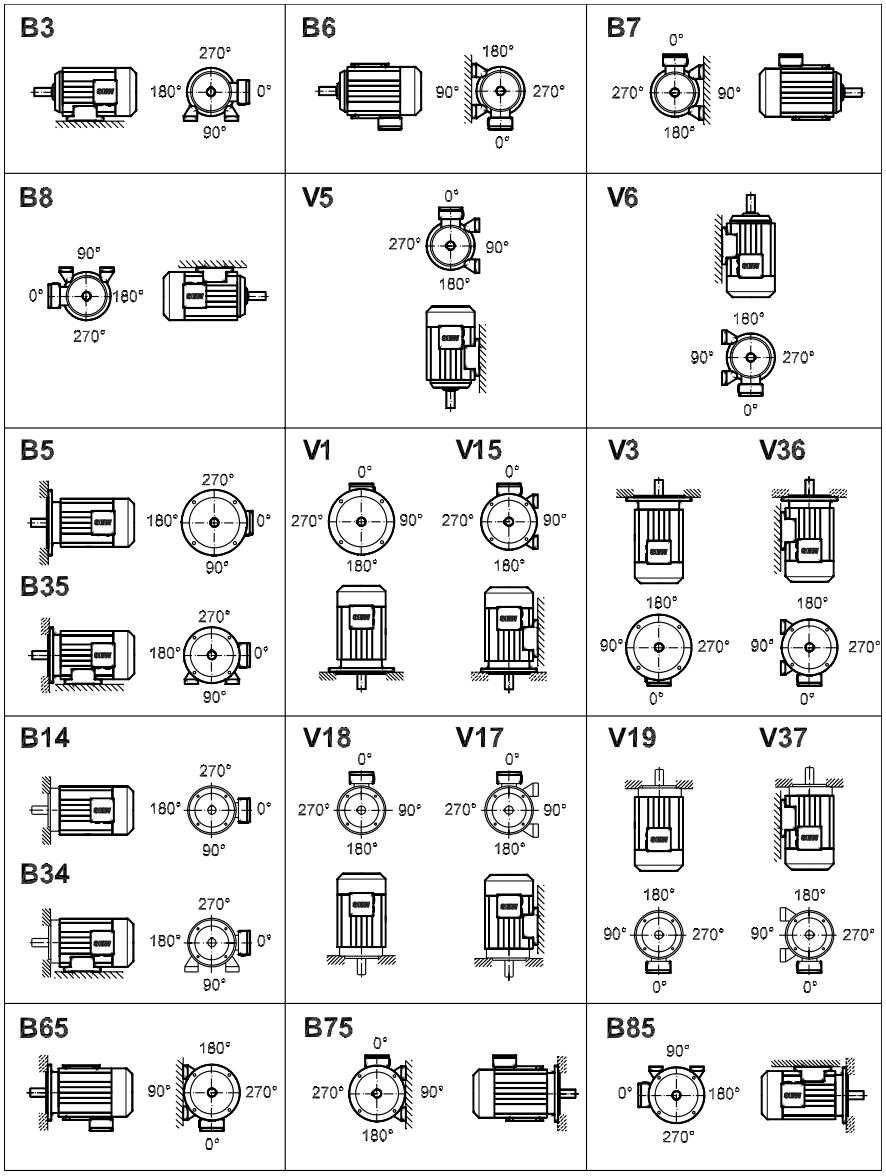
5.5 Mounting positions of AC motors

5.5.1 Motor terminal box position and cable entry



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5.5.2 Mounting positions



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6 Design and operating notes

6.1 Lubricants

6.1.1 General information

INFORMATION

Unless a special arrangement is made, SEW-EURODRIVE supplies the drives with a lubricant fill adapted for the specific gear unit and mounting position. The mounting position (see chapter "Gear unit mounting positions and order information" (→ 🗎 60)) must be specified with the order.

When the mounting position is changed, the lubricant fill quantity must be adapted accordingly (see chapter "Lubricant fill quantities" (→ 🗎 108)). Consequently, a **mounting position** may only be **changed** after consultation with SEW-EURODRIVE, otherwise your **rights to claim under warranty no longer apply**.

6.1.2 Bearing greases

The gear unit rolling bearings are given a factory-fill with the greases listed below. SEW-EURODRIVE recommends re-greasing the rolling bearings with a grease filling at the same time as changing the oil.

	Ambient temperature	Manufac-turer	Type
Gear unit rolling bearings	-40 °C to +80 °C	Fuchs	Renolit CX-TOM 15[1)]
	-40 °C to +80 °C	Klüber	Petamo GHY 133 N
	-40 °C to +40 °C	Bremer & Leguil	Cassida Grease GTS 2
	-20 °C to +40 °C	Fuchs	Plantogel 2S

1) Bearing grease based on semi-synthetic base oil

INFORMATION

The following grease quantities are required:

- **For fast-running bearings (gear unit input side):** Fill the cavities between the rolling elements one-third full with grease.
- **For slow-running bearings (gear unit output end):** Fill the cavities between the rolling elements two-thirds full with grease.

6.1.3 Lubricant table

The lubricant table on the following page shows the permitted lubricants for SEW-EURODRIVE gear units.

Key to lubricant table

CLP PG	= Polyglycol (W gear units, conforms to USDA-H1)
CLP HC	= Synthetic hydrocarbons
E	= Ester oil (water hazard class 1 (German regulation – "WKG")
HCE	= Synthetic hydrocarbons + ester oil (USDA - H1 certification)
HLP	= Hydraulic oil
	= Synthetic lubricant (= synthetic roller bearing grease)
1)	Helical-worm gear units with PG oil: please consult SEW-EURODRIVE
2)	Special lubricant for SPIROPLAN® gear units only
3)	Use SEW $f_B \geq 1.2$
4)	Pay attention to critical starting behavior at low temperatures.
5)	Low-viscosity grease
6	Ambient temperature
7)	Bold
	Lubricant for the food industry (food grade oil)
	Biodegradable oil (lubricant for agriculture, forestry, and fisheries)

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Lubricant table

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	6) °C -50 0 +50 +100	DIN (ISO)	ISO,NLGI	Mobil®	Shell	bp		TEXACO	Castrol Tribol Optimol	FUCHS	TOTAL
R..	Standard -15 +40	CLP (CC)	VG 220	Mobilgear 600 XP 220	Shell Omala S2 G 220	BP Energol GR-XP 220	Klüberoil GEM 1-220 N	Meropa 220	Tribol 1100/220	Renolin CLP 220	Carter EP 220
K37-187 (HK..)	-20 +80	CLP PG	VG 220	Mobil Glygoyle 220	Shell Omala S4 WE 220	BP Enersyn SG-XP 220	Klübersynth GH 6-220	Synlube CLP 220	Tribol 800/220	Optiflex A 220	Renolin PG 220	Carter SY 220
	-20 +60	CLP HC	VG 220	Mobil SHC 630	Shell Omala S4 GX 220		Klübersynth GEM 4-220 N	Pinnacle EP 220	Tribol 1510/220	Optigear Synthetic X 220	Renolin Unisyn CLP 220	Carter SH 220
F..	4) -40 +40	CLP HC	VG 150	Mobil SHC 629	Shell Omala S4 GX 150		Klübersynth GEM 4-150 N	Pinnacle EP 150		Optigear Synthetic X 150	Renolin Unisyn CLP 150	Carter SH 150
	-20 +25	CLP (CC)	VG 150	Mobilgear 600 XP 150	Shell Omala S2 G 150	BP Energol GR-XP 150	Klüberoil GEM 1-150 N	Meropa 150	Tribol 1100/150	Optigear BM 100	Renolin CLP 150	Carter EP 150
	-40 +20	CLP HC	VG 68	Mobil SHC 626	Shell Omala S4 GX 68						Renolin Unisyn CLP 68	
K..19 - K..49	-40 + 0	CLP HC	VG 32	Mobil SHC 624			Klüber-Summit HySyn FG-32	Cetus PAO 46		Optilieb HY 32	Renolin Unisyn OL 32	Dacnis SH 32
	4) -20 Standard +60	CLP PG	VG 460				Klübersynth GH 6-460					
	4) -20 +60	H1 PG	VG 460				Klübersynth UH1 6-460					
S..(HS..)	Standard 0 +40	CLP (CC)	VG 680	Mobilgear 600 XP 680	Shell Omala S2 G 680	BP Energol GR-XP 680	Klüberoil GEM 1-680 N	Meropa 680	Tribol 1100/680	Optigear BM 680	Renolin SEW 680	Carter EP 680
	1) -20 +80	CLP PG	VG 680	Mobil Glygoyle 680	Shell Omala S4 WE 680	BP Enersyn SG-XP 680	Klübersynth GH 6-680	Synlube CLP 680	Tribol 800/680	Optiflex A 680	Renolin PG 680	
	-20 +60	CLP HC	VG 460	Mobil SHC 634	Shell Omala S4 GX 460		Klübersynth GEM 4-460 N	Pinnacle EP 460		Optigear Synthetic X 460	Renolin Unisyn CLP 460	Carter SH 460
	4) -40 +30	CLP HC	VG 150	Mobil SHC 629	Shell Omala S4 GX 150		Klübersynth GEM 4-150 N	Pinnacle EP 150		Optigear Synthetic X 150	Renolin Unisyn CLP 150	Carter SH 150
	-20 +10	CLP (CC)	VG 150	Mobilgear 600 XP 150	Shell Omala S2 G 150	BP Energol GR-XP 150	Klüberoil GEM 1-150 N	Meropa 150	Tribol 1100/150	Optigear BM 150	Renolin CLP 150	Carter EP 150
	1) -20 +40	CLP PG	VG 220	Mobil Glygoyle 220	Shell Omala S4 WE 220	BP Enersyn SG-XP 220	Klübersynth GH 6-220	Synlube CLP 220	Tribol 800/220	Optiflex A 220	Renolin PG 220	Carter SY 220
	-40 +20	CLP HC	VG 68	Mobil SHC 626	Shell Omala S4 GX 68						Renolin Unisyn CLP 68	
	-40 0	CLP HC	VG 32	Mobil SHC 624			Klüber-Summit HySyn FG-32	Cetus PAO 46		Alphasyn T32	Renolin Unisyn OL 32	Dacnis SH 32
R.. K37-187 (HK..) F.. S..(HS..)	-10 +40	CLP HC NSF H1	VG 460				Klüberoil 4UH1-460 N			Optileb GT 460	Cassida Fluid GL 460	
	-20 +30		VG 220				Klüberoil 4UH1-220 N			Optileb GT 220	Cassida Fluid GL 220	
	-40 0		VG 68				Klüberoil 4UH1-68 N			Optileb HY 68	Cassida Fluid HF 68	
	-20 +40	E	VG 460				Klüberbio CA2-460				Plantogear 460 S	
W..(HW..)	2) Standard -20 +40	SEW PG	VG 460				Klüber SEW HT-460-5					
	4) -40 +10	API GL5	SAE 75W90 (–VG 100)	Mobil Synth Gear Oil 75 W90								
	3) -20 +60	H1 PG	VG 460				Klübersynth UH1 6-460					
PS.F..	Standard -20 +80	CLP PG	VG 220				Klübersynth GH 6-220					
	-20 +60	H1 PG	VG 460				Klübersynth UH1 6-460					
	-40 0	CLP HC	VG 32	Mobil SHC 624								
PS.C..	Standard -10 +40	CLP (CC)	VG 220	Mobilgear 600 XP 220								
	5) -20 +40	DIN 51 818	NLGI 00	Mobillux EP 004								
	-20 +40	DIN 51 818	NLGI 1				Klübersynth UH1 14-151					
	-40 0	CLP HC	VG 32	Mobil SHC 624								
BS.F..	Standard -20 +60	CLP PG	VG 220				Klübersynth GH 6-220					
	-20 +60	H1 PG	VG 460				Klübersynth UH1 6-460					

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INFORMATION

This lubricant recommendation in no way represents a guarantee as to the quality of the lubricant delivered by each respective supplier. Each lubricant manufacturer is responsible for the quality of their product. Thus the lubricant table is not binding. It may be necessary to contact SEW-EURODRIVE.

6.1.4 Lubricant fill quantities

INFORMATION

The specified fill quantities are only given as a **guideline**. The precise values vary depending on the number of stages and gear ratio. When filling, it is essential to check the **oil level plug since it indicates the precise oil volume**.

The following tables show guide values for lubricant fill quantities in relation to the mounting position M1 – M6.

Helical (R) gear units

R.., R..F

Gear unit	Fill quantity in liters					
	M1[1)]	M2	M3	M4	M5	M6
R07	0.12	0.20				
R17	0.25	0.55	0.35	0.55	0.35	0.40
R27	0.25/0.40	0.70	0.50	0.70	0.50	
R37	0.30/0.95	0.85	0.95	1.05	0.75	0.95
R47	0.70/1.50	1.60	1.50	1.65	1.50	
R57	0.80/1.70	1.90	1.70	2.10	1.70	
R67	1.10/2.30	2.40	2.80	2.90	1.80	2.00
R77	1.20/3.00	3.30	3.60	3.80	2.50	3.40
R87	2.30/6.0	6.4	7.2		6.3	6.5
R97	4.60/9.8	11.7		13.4	11.3	11.7
R107	6.0/13.7	16.3	16.9	19.2	13.2	15.9
R137	10.0/25.0	28.0	29.5	31.5	25.0	
R147	15.4/40.0	46.5	48.0	52.0	39.5	41.0
R167	27.0/70.0	82.0	78.0	88.0	66.0	69.0

1) The larger gear unit of multi-stage gear units must be filled with the larger oil quantity.

RF.., RZ..

Gear unit	Fill quantity in liters					
	M1[1)]	M2	M3	M4	M5	M6
RF07	0.12	0.20				
RF17	0.25	0.55	0.35	0.55	0.35	0.40
RF27	0.25/0.40	0.70	0.50	0.70	0.50	
RF37	0.35/0.95	0.90	0.95	1.05	0.75	0.95
RF47	0.65/1.50	1.60	1.50	1.65	1.50	
RF57	0.80/1.70	1.80	1.70	2.00	1.70	
RF67	1.20/2.50	2.50	2.70	2.80	1.90	2.10
RF77	1.20/2.60	3.10	3.30	3.60	2.40	3.00
RF87	2.40/6.0	6.4	7.1	7.2	6.3	6.4
RF97	5.1/10.2	11.9	11.2	14.0	11.2	11.8
RF107	6.3/14.9	15.9	17.0	19.2	13.1	15.9
RF137	9.5/25.0	27.0	29.0	32.5	25.0	
RF147	16.4/42.0	47.0	48.0	52.0	42.0	42.0
RF167	26.0/70.0	82.0	78.0	88.0	65.0	71.0

1) The larger gear unit of multi-stage gear units must be filled with the larger oil quantity.

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RX..

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
RX57	0.60	0.80	1.30		0.90	
RX67	0.80		1.70	1.90	1.10	
RX77	1.10	1.50	2.60	2.70	1.60	
RX87	1.70	2.50	4.80		2.90	
RX97	2.10	3.40	7.4	7.0	4.80	
RX107	3.90	5.6	11.6	11.9	7.7	

RXF..

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
RXF57	0.50	0.80	1.10		0.70	
RXF67	0.70	0.80	1.50	1.40	1.00	
RXF77	0.90	1.30	2.40	2.00	1.60	
RXF87	1.60	1.95	4.90	3.95	2.90	
RXF97	2.10	3.70	7.1	6.3	4.80	
RXF107	3.10	5.7	11.2	9.3	7.2	

Parallel shaft helical (F) gear units

F.., FA..B, FH..B, FV..B

Gear units	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
F..27	0.60	0.80	0.65	0.70	0.60	
F..37	0.95	1.25	0.70	1.25	1.00	1.10
F..47	1.50	1.80	1.10	1.90	1.50	1.70
F..57	2.60	3.50	2.10	3.50	2.80	2.90
F..67	2.70	3.80	1.90	3.80	2.90	3.20
F..77	5.9	7.3	4.30	8.0	6.0	6.3
F..87	10.8	13.0	7.7	13.8	10.8	11.0
F..97	18.5	22.5	12.6	25.2	18.5	20.0
F..107	24.5	32.0	19.5	37.5	27.0	
F..127	40.5	54.5	34.0	61.0	46.3	47.0
F..157	69.0	104.0	63.0	105.0	86.0	78.0

FF..

Gear units	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
FF27	0.60	0.80	0.65	0.70	0.60	
FF37	1.00	1.25	0.70	1.30	1.00	
FF47	1.60	1.85	1.10	1.90	1.50	1.70
FF57	2.80	3.50	2.10	3.70	2.90	3.00
FF67	2.70	3.80	1.90	3.80	2.90	3.20
FF77	5.9	7.3	4.30	8.1	6.0	6.3
FF87	10.8	13.2	7.8	14.1	11.0	11.2
FF97	19.0	22.5	12.6	25.6	18.9	20.5
FF107	25.5	32.0	19.5	38.5	27.5	28.0
FF127	41.5	55.5	34.0	63.0	46.3	49.0
FF157	72.0	105.0	64.0	106.0	87.0	79.0

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FA.., FH.., FV.., FAF.., FAZ.., FHF.., FZ.., FHZ.., FVF.., FVZ.., FT..

Gear units	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
F..27	0.60	0.80	0.65	0.70	0.60	
F..37	0.95	1.25	0.70	1.25	1.00	1.10
F..47	1.50	1.80	1.10	1.90	1.50	1.70
F..57	2.70	3.50	2.10	3.40	2.90	3.00
F..67	2.70	3.80	1.90	3.80	2.90	3.20
F..77	5.9	7.3	4.30	8.0	6.0	6.3
F..87	10.8	13.0	7.7	13.8	10.8	11.0
F..97	18.5	22.5	12.6	25.2	18.5	20.0
F..107	24.5	32.0	19.5	37.5	27.0	
F..127	39.0	54.5	34.0	61.0	45.0	46.5
F..157	68.0	103.0	62.0	104.0	85.0	79.5

Helical-bevel (K) gear units

INFORMATION

All K..19 and K..29 gear units have a universal mounting position, which means that K..19 and K..29 gear units of the same design are filled with the same oil quantity independent of the mounting position. An exception to this is the M4 mounting position.

K.., KA..B, KH..B, KV..B

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
K..19	0.40			0.45	0.40	
K..29	0.70			0.85	0.70	
K..39	0.90	1.70	1.55	1.9	1.55	1.30
K..49	1.70	3.40	2.80	4.20	3.15	2.80
K..37	0.50	1.00		1.25	0.95	
K..47	0.80	1.30	1.50	2.00	1.60	
K..57	1.10	2.20		2.80	2.30	2.10
K..67	1.10	2.40	2.60	3.45	2.60	
K..77	2.20	4.10	4.40	5.80	4.20	4.40
K..87	3.70	8.0	8.70	10.90	8.0	
K..97	7.0	14.0	15.70	20.0	15.70	15.50
K..107	10.0	21.0	25.50	33.50	24.0	
K..127	21.0	41.50	44.0	54.0	40.0	41.0
K..157	31.0	65.0	68.0	90.0	62.0	63.0
K..167	33.0	97.0	109.0	127.0	89.0	86.0
K..187	53.0	156.0	174.0	207.0	150.0	147.0

KF..

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
KF19	0.40			0.45	0.40	
KF29	0.70			0.85	0.70	
KF39	0.90	1.70	1.55	1.9	1.55	1.30
KF49	1.70	3.40	2.80	4.20	3.15	2.80
KF37	0.50	1.10		1.50	1.00	
KF47	0.80	1.30	1.70	2.20	1.60	
KF57	1.20	2.20	2.40	3.15	2.50	2.30
KF67	1.10	2.40	2.80	3.70	2.70	
KF77	2.10	4.10	4.40	5.90	4.50	

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Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
KF87	3.70	8.20	9.0	11.90	8.40	
KF97	7.0	14.70	17.30	21.50	15.70	16.50
KF107	10.0	21.80	25.80	35.10	25.20	
KF127	21.0	41.50	46.0	55.0	41.0	
KF157	31.0	66.0	69.0	92.0	62.0	63.0

KA.., KH.., KV.., KAF.., KHF.., KVF.., KZ.., KAZ.., KHZ.., KVZ.., KT..

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
K..19	0.40			0.45	0.40	
K..29	0.70			0.85	0.70	
K..39	0.90	1.70	1.55	1.9	1.55	1.30
K..49	1.70	3.40	2.80	4.20	3.15	2.80
K..37	0.50	1.00		1.40	1.00	
K..47	0.80	1.30	1.60	2.15	1.60	
K..57	1.20	2.20	2.40	3.15	2.70	2.40
K..67	1.10	2.40	2.70	3.70	2.60	
K..77	2.10	4.10	4.60	5.90	4.40	
K..87	3.70	8.20	8.80	11.10	8.0	
K..97	7.0	14.70	15.70	20.0	15.70	
K..107	10.0	20.50	24.0	32.40	24.0	
K..127	21.0	41.50	43.0	52.0	40.0	
K..157	31.0	65.0	68.0	90.0	62.0	63.0
K..167	33.0	97.0	109.0	127.0	89.0	86.0
K..187	53.0	156.0	174.0	207.0	150.0	147.0

Helical-worm (S) gear units

S..

Gear unit	Fill quantity in liters					
	M1	M2	M3[1)]	M4	M5	M6
S37	0.25	0.40	0.50	0.55	0.40	
S47	0.35	0.80	0.70/0.90	1.00	0.80	
S57	0.50	1.20	1.00/1.20	1.45	1.30	
S67	1.00	2.00	2.20/3.10	3.10	2.60	2.60
S77	1.90	4.20	3.70/5.4	5.9	4.40	
S87	3.30	8.1	6.9/10.4	11.3	8.4	
S97	6.8	15.0	13.4/18.0	21.8	17.0	

1) The larger gear unit of multi-stage gear units must be filled with the larger oil quantity.

SF..

Gear unit	Fill quantity in liters					
	M1	M2	M3[1)]	M4	M5	M6
SF37	0.25	0.40	0.50	0.55	0.40	
SF47	0.40	0.90	0.90/1.05	1.05	1.00	
SF57	0.50	1.20	1.00/1.50	1.55	1.40	
SF67	1.00	2.20	2.30/3.00	3.20	2.70	
SF77	1.90	4.10	3.90/5.8	6.5	4.90	
SF87	3.80	8.0	7.1/10.1	12.0	9.1	
SF97	7.4	15.0	13.8/18.8	22.6	18.0	

1) The larger gear unit of multi-stage gear units must be filled with the larger oil quantity.

SA.., SH.., SAF.., SHZ.., SAZ.., SHF.., ST..

Gear unit	Fill quantity in liters					
	M1	M2	M3[1)]	M4	M5	M6
S..37	0.25	0.40	0.50		0.40	
S..47	0.40	0.80	0.70/0.90	1.00	0.80	
S..57	0.50	1.10	1.00/1.50	1.50	1.20	
S..67	1.00	2.00	1.80/2.60	2.90	2.50	
S..77	1.80	3.90	3.60/5.0	5.8	4.50	
S..87	3.80	7.4	6.0/8.7	10.8	8.0	
S..97	7.0	14.0	11.4/16.0	20.5	15.7	

1) The larger gear unit of multi-stage gear units must be filled with the larger oil quantity.

SPIROPLAN® (W) gear units

INFORMATION

SPIROPLAN® gear units W..10 to W..30 have a universal mounting position, which means that gear units of the same design are filled with the same oil quantity independent of the mounting position.

The oil fill quantity of SPIROPLAN® gear units W..37 and W..47 in mounting position M4 is different from that of the other mounting positions.

W.., WA..B, WH..B

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
W..10	0.16					
W..20	0.24					
W..30	0.40					
W..37	0.50			0.70	0.50	
W..47	0.90			1.40	0.90	

WF..

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
WF10	0.16					
WF20	0.24					
WF30	0.40					
WF37	0.50			0.70	0.50	
WF47	0.90			1.55	0.90	

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WA.., WAF..,WH.., WT.., WHF..

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
W..10	0.16					
W..20	0.24					
W..30	0.40					
W..37	0.50			0.70	0.50	
W..47	0.80			1.40	0.80	

6.2 Gear unit venting

INFORMATION

The function of breather valves can be impaired by dirt and dust in the environment.

If necessary, contact SEW-EURODRIVE to discuss alternative venting systems.

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6.3 Reduced backlash gear unit design /R

Helical, parallel-shaft helical and helical-bevel gear units with reduced backlash are available as of gear unit size 37. The rotational clearance of these gear units is considerably less than that of the standard designs so that positioning tasks can be solved with great precision. The rotational clearance is specified in angular minutes in the chapter "Geometrically possible combinations". The rotational clearance for the output shaft is specified without load (max. 1 % of the rated output torque); the gear unit input end is blocked. For information on the combination tables, refer to chapter "Structure of the combination tables" (→ 🗎 152).

The reduced backlash design is available for the following gear units:

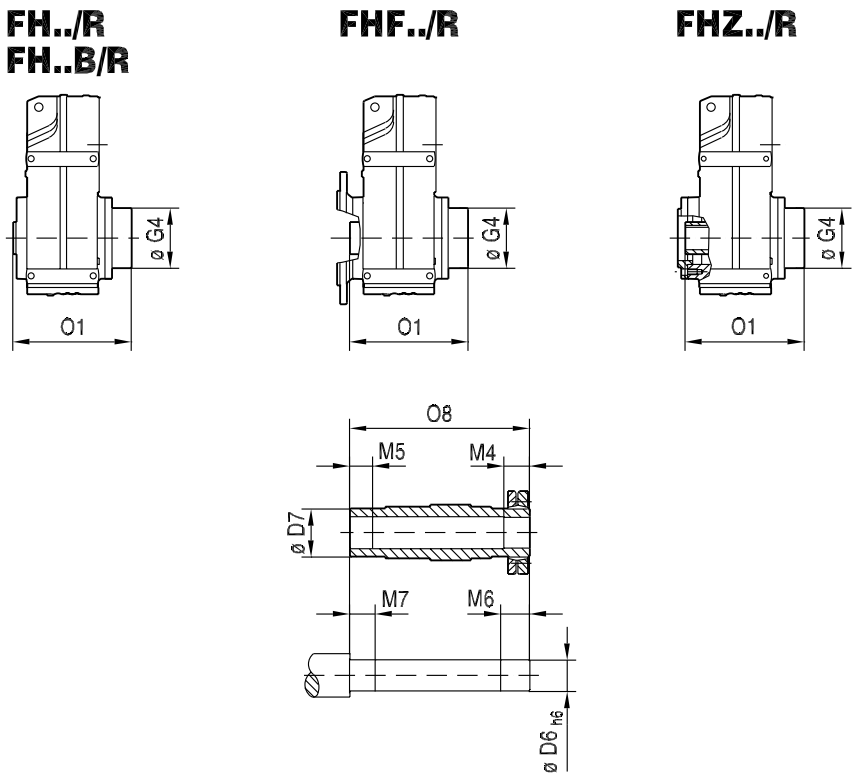
- Helical gear units (R), sizes 37 to 167
- Parallel-shaft helical gear units (F), sizes 37 to 157
- Helical-bevel gear units (K), sizes 37 to 187

Multi-stage gear units are not available with reduced backlash.

The dimensions of the reduced backlash designs correspond to the dimensions of the standard designs, except for parallel-shaft helical gear units FH.87 and FH.97 with reduced backlash.

The following figure shows the dimensions of FH.87 and FH.97 gear units with reduced backlash:

42 020 00 09



6644506891

Type	Dimensions in mm								
	D6	D7	G4	M4	M5	M6	M7	O1	O8
FH.87/R	Ø 65 $_{h6}$	Ø 85	Ø 163	41	40	46	45	312.5	299.5
FH.97/R	Ø 75 $_{h6}$	Ø 95	Ø 184	55	50	60	55	382.5	367

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6.4 Installation/removal of gear units with hollow shaft and key

INFORMATION

Use the supplied NOCO® fluid for assembly. The fluid facilitates removal as it prevents contact corrosion.

The key dimension X is specified by the customers, but X > DK must apply (DK = Diameter of customer shaft).

See figure "Customer shaft with and without contact shoulder".

6.4.1 Installation

SEW-EURODRIVE recommends 2 variants for installing gear units with hollow shaft and key onto the input shaft of the driven machine (= customer shaft):

1. Use the fastening parts supplied for installation.
2. Use the optional installation/removal kit for installation.

Supplied fastening parts

The following fastening parts are provided as standard:

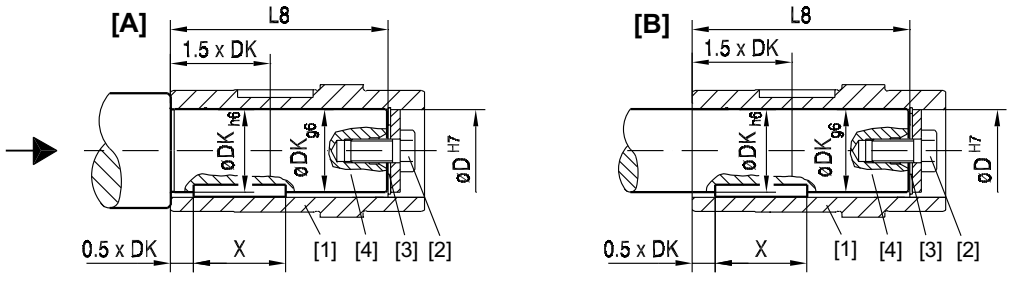
- Retaining screw with washer [2]
- Retaining ring [3]

Note the following information concerning the customer shaft:

- The installation length of the customer shaft with contact shoulder [A] must be L8 - 1 mm.
- The installation length of the customer shaft without contact shoulder [B] must equal L8.

The following figure shows the customer shaft with contact shoulder [A] and without contact shoulder [B].

00 001 00 02



18014402818447115

DK	Diameter of customer shaft	[2]	Retaining screw with washer
X	Key dimension	[3]	Retaining ring
[1]	Hollow shaft	[4]	Customer shaft

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Dimensions and tightening torque:

Tightening torques MS for the retaining screw [2]:

Gear unit type	D^{H7} mm	DK mm	L8 mm	MS Nm
WA..10	16		69	8
WA..20	18		84	
WA..20	20			
KA..19			92	
FA..27	25		89	20
KA..29			107	
KA..29	30		107	20
WA..30, WA..37	20		105	8
SA..37			104	
FA..37, KA..37, SA..47	30		105	20
KA..39			137	
KA..39	35			
KA..49			160	
KA..49	40		154	
SA..47, WA..37	25		105	
FA..47, KA..47, SA..57	35		132	
WA..47	30		122	
SA..57			132	
FA..57, KA..57	40		142	40
FA..67, KA..67			156	
SA..67			144	
SA..67	45			
FA..77, KA..77, SA..77	50		183	
SA..77	60		180	80
FA..87, KA..87			210	
SA..87			220	
SA..87	70			
FA..97, KA..97	70		270	
SA..97			260	
FA..107, KA..107	80		313	
SA..97	90		255	200
FA..107, KA..107			313	
FA..127, KA..127	100		373	
FA..157, KA..157	120		460	

Installation/removal kit

You can use the optional installation/removal kit for installation. This can be ordered for the specific gear unit types by quoting the part numbers in the following table. The delivery includes:

- Spacer tube for installation without contact shoulder [5]
- Retaining screw for installation [2]
- Forcing washer for removal [7]
- Locked nut for removal [8]

The short retaining screw delivered as standard is not required.

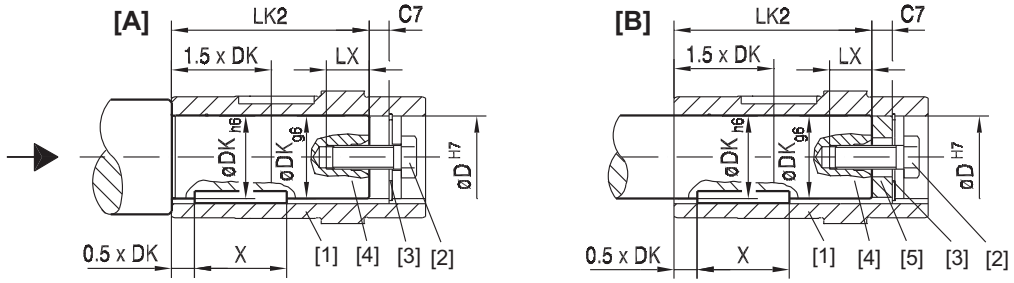
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Note the following information concerning the customer shaft:

- The installation length of the customer shaft must be LK2. **Do not use the spacer tube** if the customer shaft **has a contact shoulder [A]**.
- The installation length of the customer shaft must be LK2. Use the spacer tube if the customer shaft **has no contact shoulder [B]**.

The following figure shows the customer shaft with contact shoulder [A] and without contact shoulder [B].

00 002 00 02



18014402818449035

DK	Diameter of customer shaft	[3]	Retaining ring
X	Key dimension	[4]	Customer shaft
[1]	Hollow shaft	[5]	Spacer tube
[2]	Retaining screw with washer		

Dimensions, tightening torques and part numbers:

Tightening torques MS for the retaining screw [2]:

Type	D^{H7} mm	DK mm	LK2 mm	LX^{+2} mm	C7 mm	MS Nm	Part number of the installation/ removal kit
WA..10	16		58	12.5	11	8	6437125
WA..20	18		72	16	12		643682X
WA..20	20		72				6436838
WA..30, WA..37			93				
SA..37			92				
KA..19			80				
KA..29	25		91	22	16	20	6436846
FA..27			73				
SA..47, WA..37			89				
WA..47	30		106				6436854
FA..37, KA..37			89				
SA..47			89				
SA..57			116				
KA..29			91				
KA..39			121	22	16		
KA..39	35		119	28	18		6436862
FA..47, KA..47, SA..57			114				
KA..49			142				
KA..49	40		136	36		40	6436870
FA..57, KA..57			124				
FA..67			138				
KA..67							
SA..67			126				
SA..67	45						6436889
FA..77, KA..77, SA..77	50		165				6436897

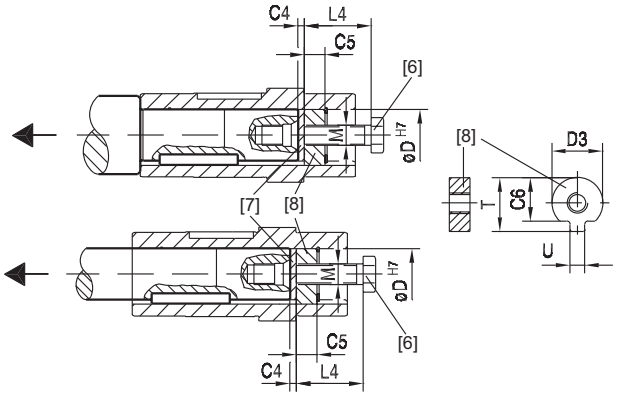
Type	D^{H7} mm	DK mm	LK2 mm	LX^{+2} mm	C7 mm	MS Nm	Part number of the installation/ removal kit
FA..87, KA..87	60		188	42	22	80	6436900
SA..77			158				
SA..87			198				
FA..97, KA..97	70		248				6436919
SA..87			198				
SA..97			238				
FA..107, KA..107	80		287	42	26	80	10682112
FA..107, KA..107	90		287	50	26	200	6436927
SA..97			229				
FA..127, KA..127	100		347				6436935
FA..157, KA..157	120		434				6436943

6.4.2 Removal

Applies only if the installation/removal kit was previously used for installation.

1. Loosen the retaining screw [6].
2. Remove the retaining ring [3] and, if used, the spacer tube [5].
3. Insert the forcing washer [7] and the fixed nut [8] between the customer shaft [4] and retaining ring [3] as shown in the following figure.
4. Re-insert the retaining ring [3].
5. Re-install the retaining screw [6]. Now you can force the gear unit off the shaft.

The following figure shows the removal of a gear unit with hollow shaft and key.



9007208437413131

[6] Retaining screw
[7] Forcing washer
[8] Locked nut for removal

Dimensions and part numbers:

Type	D^{H7} mm	M	C4 mm	C5 mm	C6 mm	$U^{-0.5}$ mm	$T^{-0.5}$ mm	$D3^{-0.5}$ mm	L4 mm	Part number of the installation/re- moval kit
WA..10	16	M5	5	5	12	4.5	18	15.7	50	6437125
WA..20	18	M6	5	6	13.5	5.5	20.5	17.7	25	643682X
WA..20, WA..30, SA..37, WA..37, KA..19	20		5		15.5		22.5	19.7		6436838
FA..27, SA..47, WA..47, KA..29	25	M10	5	10	20	7.5	28	24.7	35	6436846
FA..37, KA..29, KA..37, KA..39, SA..47, SA..57, WA..47,	30		5		25		33	29.7		6436854

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Type	D^{H7} mm	M	C4 mm	C5 mm	C6 mm	$U^{-0.5}$ mm	$T^{-0.5}$ mm	$D3^{-0.5}$ mm	L4 mm	Part number of the installation/removal kit
FA..47, KA..39, KA..47, KA..49, SA..57	35	M12	5	12	29	9.5	38	34.7	45	6436862
FA..57, KA..57, FA..67, KA..49, KA..67, SA..67	40	M16	5		34	11.5	41.9	39.7	50	6436870
SA..67	45		5		38.5	13.5	48.5	44.7		6436889
FA..77, KA..77, SA..77	50		5		43.5		53.5	49.7		6436897
FA..87, KA..87, SA..77, SA..87	60	M20	5	16	56	17.5	64	59.7	60	6436900
FA..97, KA..97, SA..87, SA..97	70		5		65.5	19.5	74.5	69.7		6436919
FA..107, KA..107	80		5	20	75.5	21.5	85	79.7	70	10682112
FA..107, KA..107, SA..97	90	M24	5		80	24.5	95	89.7		6436927
FA..127, KA..127	100		5		89	27.5	106	99.7		6436935
FA..157, KA..157	120		5		107	31	127	119.7		6436943

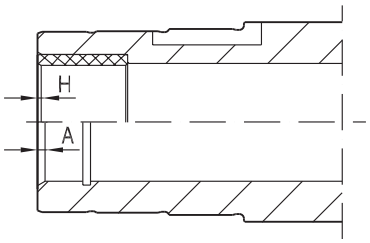
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6.5 Gear units with hollow shaft

6.5.1 Chamfers on hollow shafts

The following illustration shows the chamfers on parallel-shaft helical, helical-bevel, helical-worm and SPIROPLAN® gear units with hollow shaft:

00 004 002



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Gear unit	Design	
	with hollow shaft (A)	with hollow shaft and shrink disk (H)
W..10	1.5 × 30°	-
W..20	2 × 30°	-
W..30		-
F..27		0.5 × 45°
K..19		
K..29		
F../K../S../W..37		
K..39		-
F../K../S../ W..47		0.5 × 45°
K..49		-
S..57		0.5 × 45°
F../K..57		
F../K../S..67		
F../K../S..77		
F../K../S..87	3 × 30°	
F../K../S..97		
F../K..107		
F../K..127	5 × 30°	
F../K..157		
KH167	-	
KH187	-	

6.5.2 Special motor/gear unit combinations

Please note for parallel-shaft helical gearmotors with hollow shaft (FA..B, FV..B, FH..B, FAF, FVF, FHF, FA, FV, FH, FT, FAZ, FVZ, FHZ):

- If you are using a customer shaft pushed through on the motor end, there may be a collision when a "small gear unit" is used in combination with a "large motor."
- Check the motor dimension AC to decide whether there will be a collision with a pushed-through customer shaft.

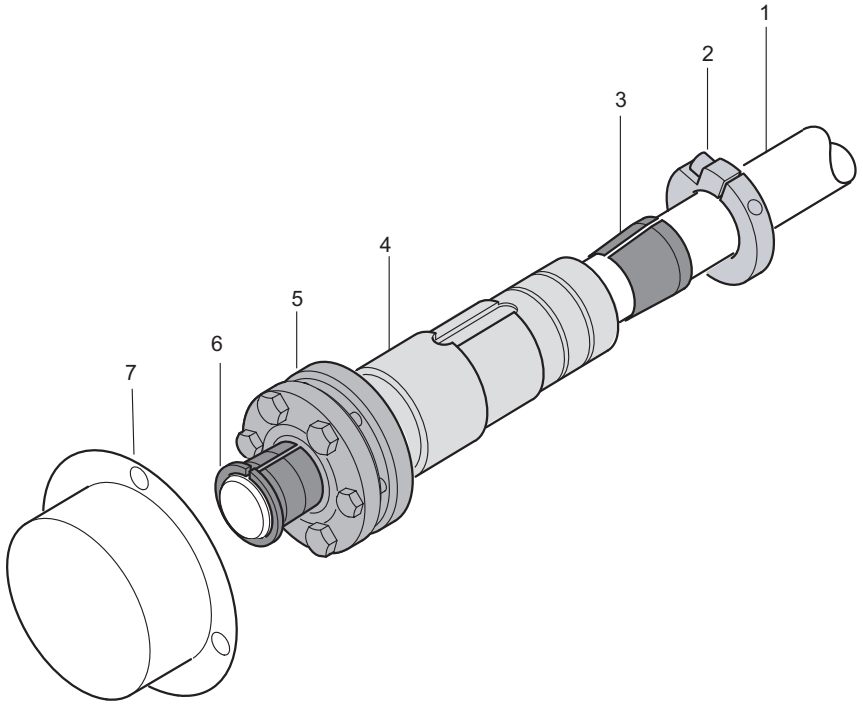
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6.6 TorqLOC® mounting system for gear units with hollow shaft

6.6.1 Description of TorqLOC®

The TorqLOC® hollow shaft mounting system is used for achieving a non-positive connection between the customer's shaft and the hollow shaft in the gear unit. The TorqLOC® hollow shaft mounting system is an alternative to the hollow shaft with shrink disk, the hollow shaft with key and the splined hollow shaft that have been used so far.

The TorqLOC® hollow shaft mounting system consists of the following components:



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[1]	Customer shaft	[5]	Shrink disk
2]	Clamping ring	[6]	Conical steel bushing
[3]	Conical bronze bushing	[7]	Fixed hood cover
[4]	Hollow shaft in gear unit		

6.6.2 Benefits of TorqLOC®

The TorqLOC® hollow shaft mounting system provides the following advantages:

- Cost saving because the customer shaft can be made from drawn material up to quality h11.
- Cost saving because different customer shaft diameters can be covered by one hollow shaft diameter and different bushings.
- Simple installation since there is no need to accommodate any shaft connections.
- Simple removal even after many hours of operation because the formation of contact corrosion has been reduced and the conical connections can easily be released.

6.6.3 Technical data of TorqLOC®

The TorqLOC® hollow shaft mounting system is approved for input torques of 92 Nm to 18 000 Nm.

The following gear units are available with TorqLOC® hollow shaft mounting system:

- Parallel-shaft helical gear units in gear unit sizes 37 to 157 (FT37 – FT157)
- Helical-bevel gear units in gear unit sizes 37 to 157 (KT37 – KT157), 39 and 49 (KT39, KT49)
- Helical-worm gear units in gear unit sizes 37 to 97 (ST37 – ST97)
- SPIROPLAN® gear unit sizes 37 and 47 (WT.7)

Available options

The following options are available for gear units with a TorqLOC® hollow shaft mounting system:

- For helical-bevel, helical-worm and SPIROPLAN® gear units (KT.., ST.., WT.7..): "torque arm" option (../T)
- For parallel-shaft helical gear units (FT..): "rubber buffer" option (../G)

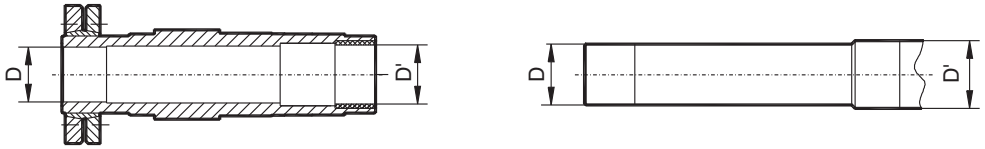
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6.7 Shouldered hollow shaft option with shrink disk

The following gear units with a hollow shaft and shrink disk are also available with an optional larger bore diameter D':

- Parallel-shaft helical gear units FH/FHF/FHZ37 – 157
- Helical-bevel gear units KH/KHF/KHZ37 – 157
- Helical-worm gear units SH/SHF47 – 97

D' = D as standard.



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Gear units	Bore diameter D / optionally D' mm
FH/FHF/FHZ37, KH/KHF/KHZ37, SH/SHF/SHZ47	30 / 32
FH/FHF/FHZ47, KH/KHF/KHZ47, SH/SHF/SHZ57	35 / 36
FH/FHF/FHZ57, KH/KHF/KHZ57	40 / 42
FH/FHF/FHZ67, KH/KHF/KHZ67, SH/SHF/SHZ67	40 / 42
FH/FHF/FHZ77, KH/KHF/KHZ77, SH/SHF/SHZ77	50 / 52
FH/FHF/FHZ87, KH/KHF/KHZ87, SH/SHF/SHZ87	65 / 66
FH/FHF/FHZ97, KH/KHF/KHZ97, SH/SHF/SHZ97	75 / 76
FH/FHF/FHZ107, KH/KHF/KHZ107	95 / 96
FH/FHF/FHZ127, KH/KHF/KHZ127	105 / 106
FH/FHF/FHZ157, KH/KHF/KHZ157	125 / 126

Diameter D / D' must be specified when ordering gear units with a shouldered hollow shaft (optional bore diameter D').

6.7.1 Sample order

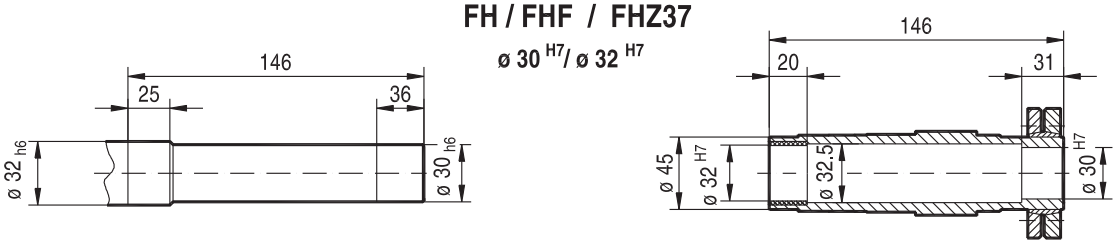
FH37 DRN80M4 with hollow shaft 30/32 mm

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6.7.2 Parallel-shaft helical gear units with shouldered hollow shaft (dimensions in mm):

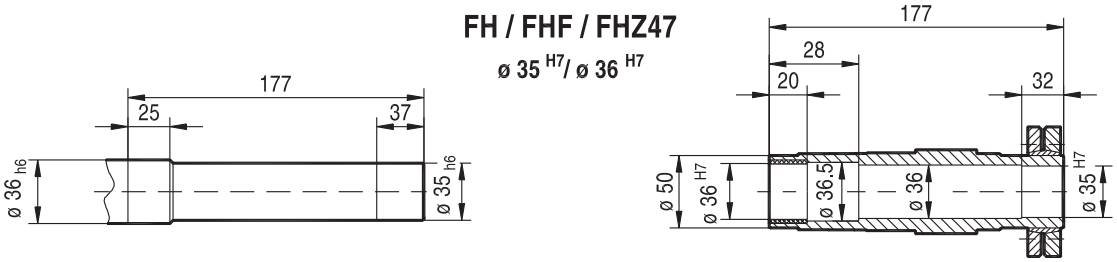
FH / FHF / FHZ37

ø 30 H7/ ø 32 H7



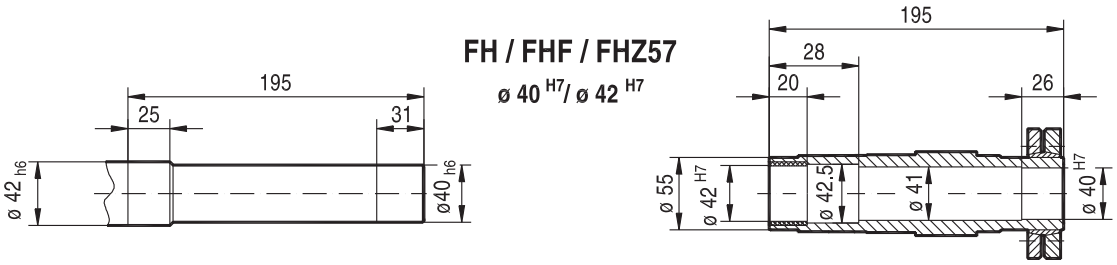
FH / FHF / FHZ47

ø 35 H7/ ø 36 H7



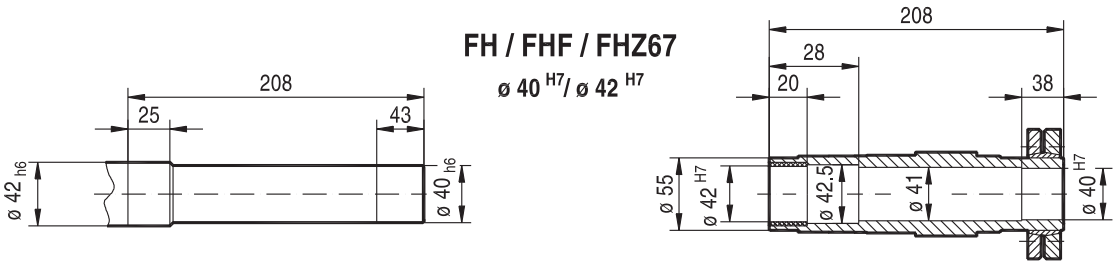
FH / FHF / FHZ57

ø 40 H7/ ø 42 H7



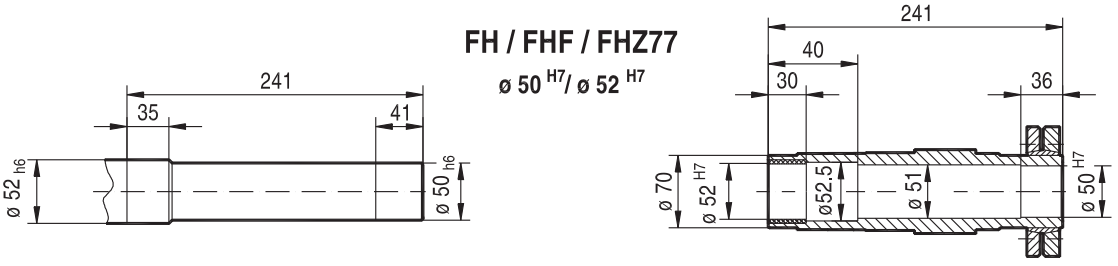
FH / FHF / FHZ67

ø 40 H7/ ø 42 H7



FH / FHF / FHZ77

ø 50 H7/ ø 52 H7

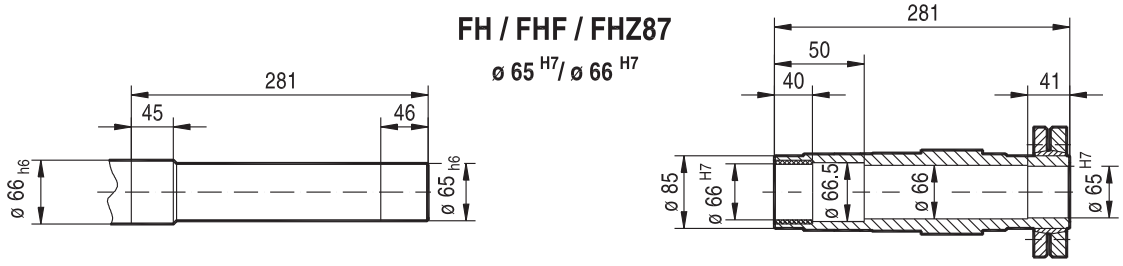


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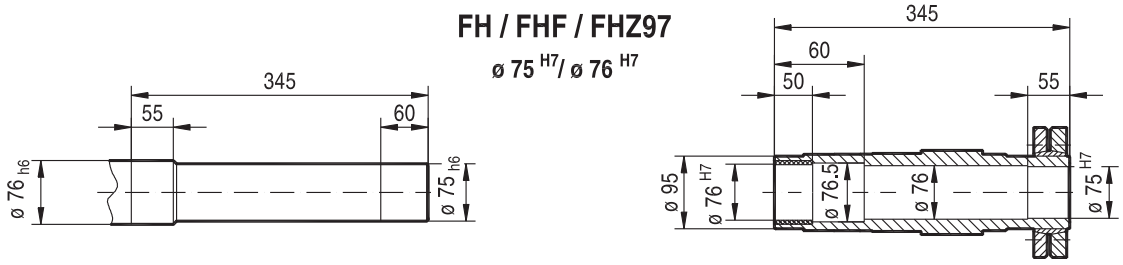
FH / FHF / FHZ87

ø 65 H7/ ø 66 H7



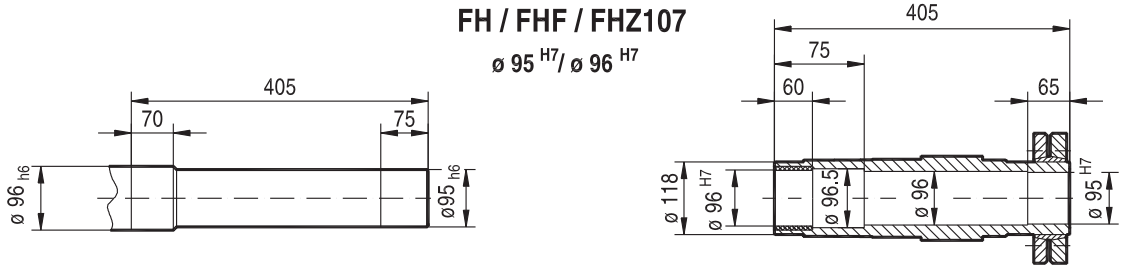
FH / FHF / FHZ97

ø 75 H7/ ø 76 H7



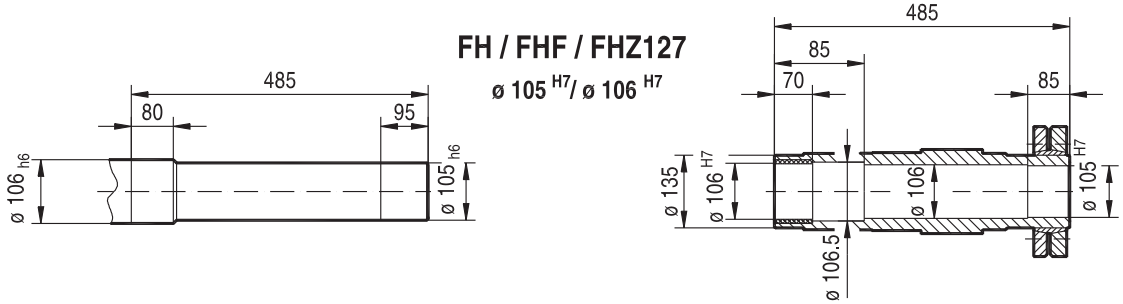
FH / FHF / FHZ107

ø 95 H7/ ø 96 H7



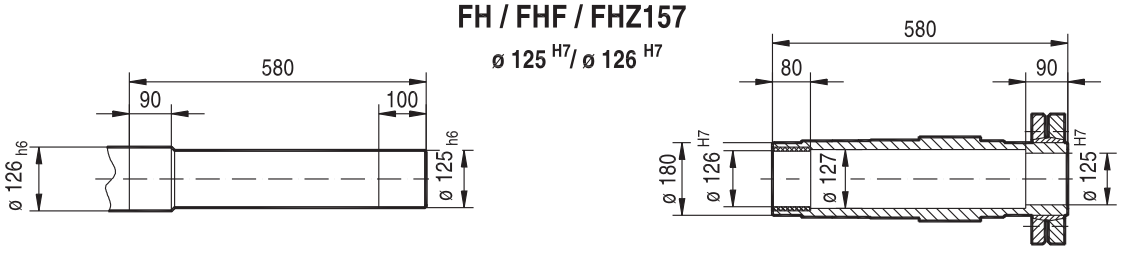
FH / FHF / FHZ127

ø 105 H7/ ø 106 H7



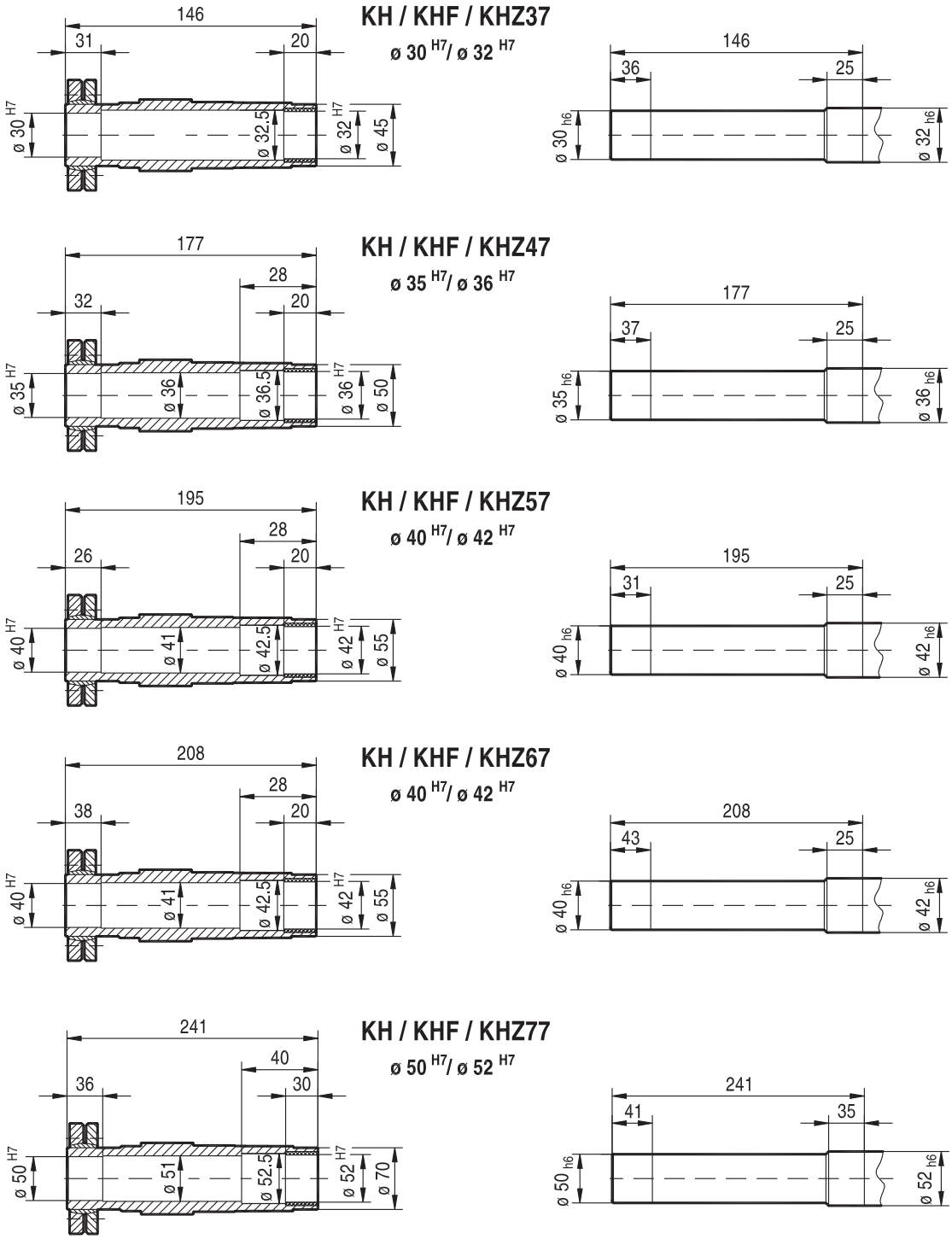
FH / FHF / FHZ157

ø 125 H7/ ø 126 H7



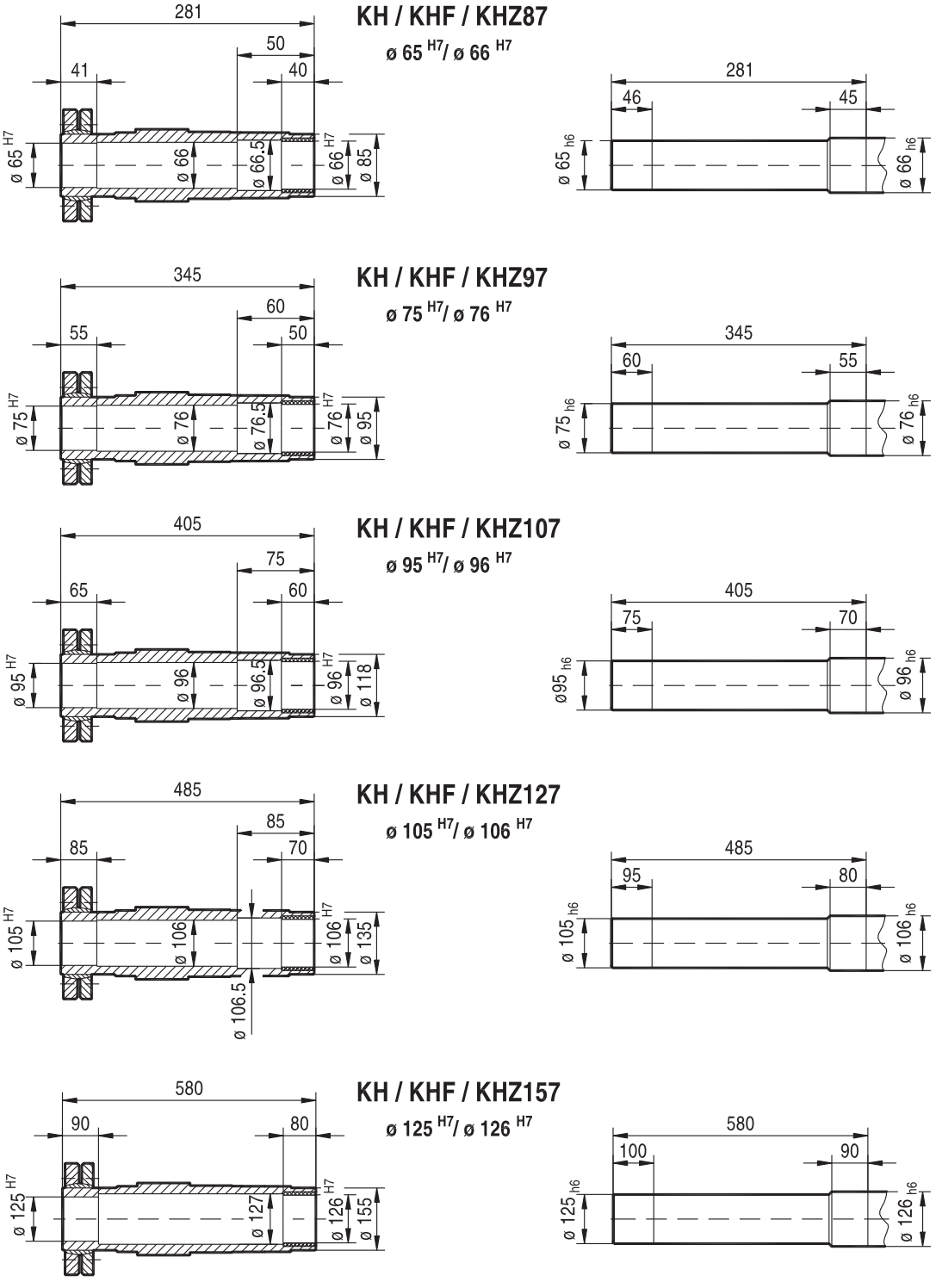
4987060747

6.7.3 Helical-bevel gear units with shouldered hollow shaft (dimensions in mm):



4987063435

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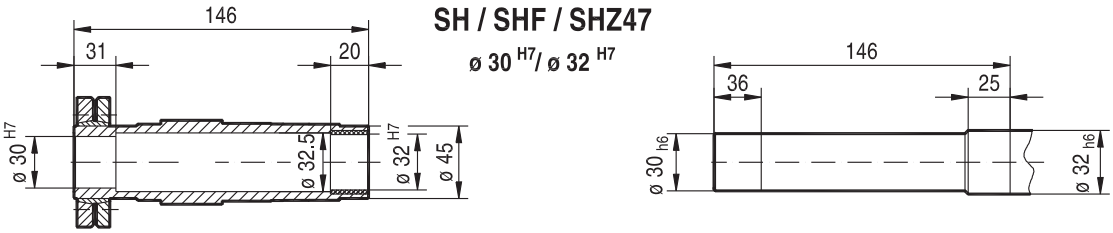
4987065099

21933189/EN – 11/2015

6.7.4 Helical-worm gear units with shouldered hollow shaft (dimensions in mm):

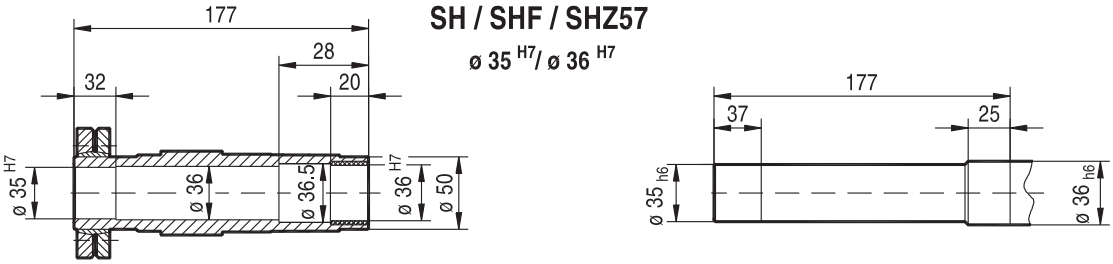
SH / SHF / SHZ47

ø 30 H7/ ø 32 H7



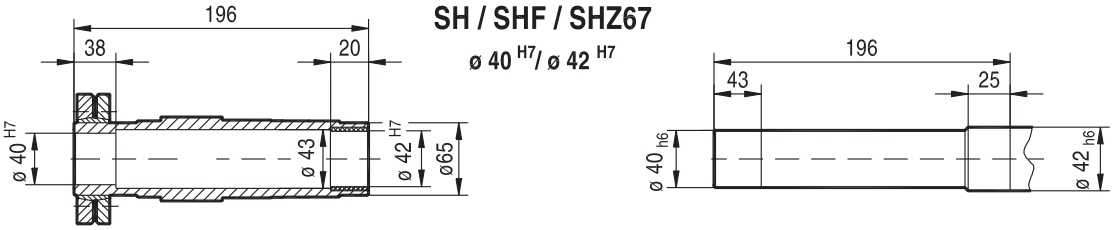
SH / SHF / SHZ57

ø 35 H7/ ø 36 H7



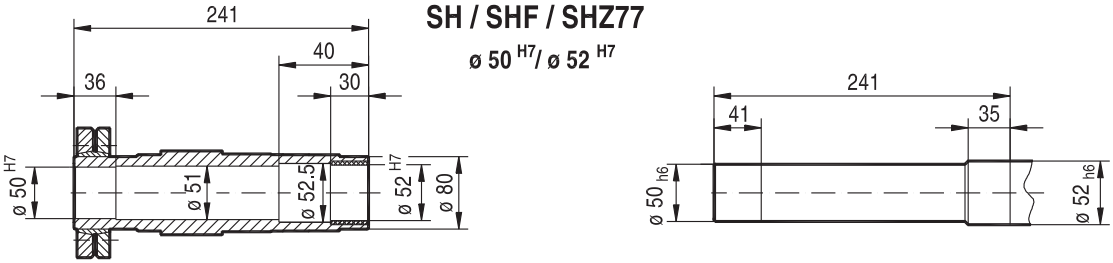
SH / SHF / SHZ67

ø 40 H7/ ø 42 H7



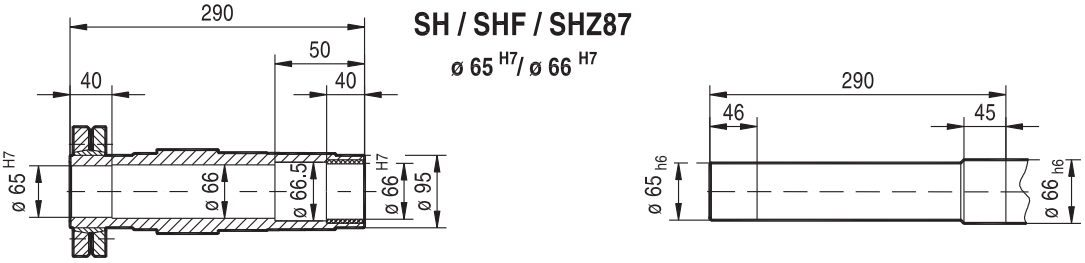
SH / SHF / SHZ77

ø 50 H7/ ø 52 H7



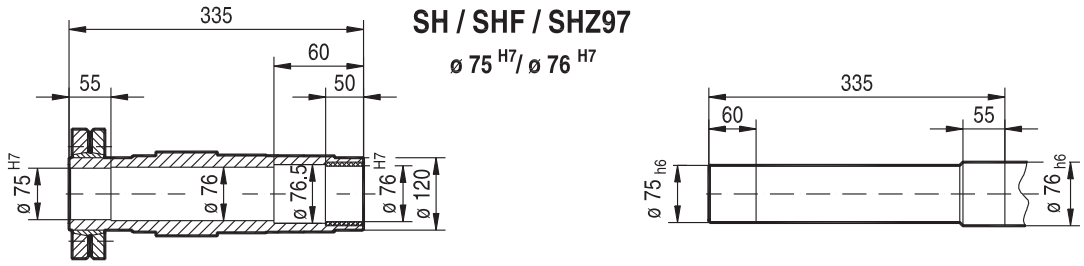
4987067787

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SH / SHF / SHZ87

ø 65 H7/ ø 66 H7



SH / SHF / SHZ97

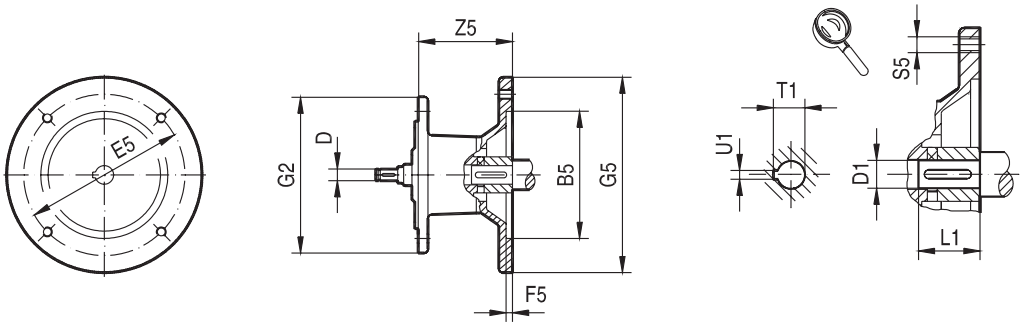
ø 75 H7/ ø 76 H7

4987069451

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6.8 Adapters for mounting IEC motors

23 002 100



9007204242190859

Gear unit type	Adapter type	Dimensions in mm											
		B5	D	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1
R..27, R..37 F..27, F..37, F..47 K..19, K..29, K..37 S..37, S..47, S..57 W..37	AM63	95	10	115	3.5	120	140	M8	72	11	23	12.8	4
	AM71[1]	110		130	4		160			14	30	16.3	5
	AM80[1]	130	12	165	4.5		200	M10	106	19	40	21.8	6
	AM90[1]		14							24	50	27.3	8
R..47[2], R..57, R..67 F..57, F..67 K..39, K..47[2], K..57, K..67 S..67 W..47[3]	AM63	95	10	115	3.5	160	140	M8	66	11	23	12.8	4
	AM71	110		130	4		160			14	30	16.3	5
	AM80	130	12	165	4.5		200	M10	99	19	40	21.8	6
	AM90		14							24	50	27.3	8
	AM100[1]	180	16	215	5		250	M12	134	28	60	31.3	8
	AM112[1]		18										
	AM132S/M[1]	230	22	265			300		191	38	80	41.3	10
R..77 F..77 K..49, K..77 S..77	AM63	95	10	115	3.5	200	140	M8	60	11	23	12.8	4
	AM71	110		130	4		160			14	30	16.3	5
	AM80	130	12	165	4.5		200	M10	92	19	40	21.8	6
	AM90		14							24	50	27.3	8
	AM100[1]	180	16	215	5		250	M12	126	28	60	31.3	8
	AM112[1]		18										
	AM132S/M[1]	230	22	265			300		179	38	80	41.3	10
	AM132ML[1]		28										
R..87 F..87 K..87 S..87[4]	AM80	130	12	165	4.5	250	200	M10	87	19	40	21.8	6
	AM90		14							24	50	27.3	8
	AM100	180	16	215	5		250	M12	121	28	60	31.3	8
	AM112		18										
	AM132S/M	230	22	265			300		174	38	80	41.3	10
	AM132ML		28										
	AM160[1]	250	28	300	6		350	M16	232	42	110	45.3	12
	AM180[1]		32							48		51.8	14

1) Check dimension 1/2 G5 because component may protrude past foot-mounting surface if installed on R, K, S or W foot-mounted gear unit.
2) Maximum AM100
3) Maximum AM90
4) Not with AM180

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23 003 100

Fig.1

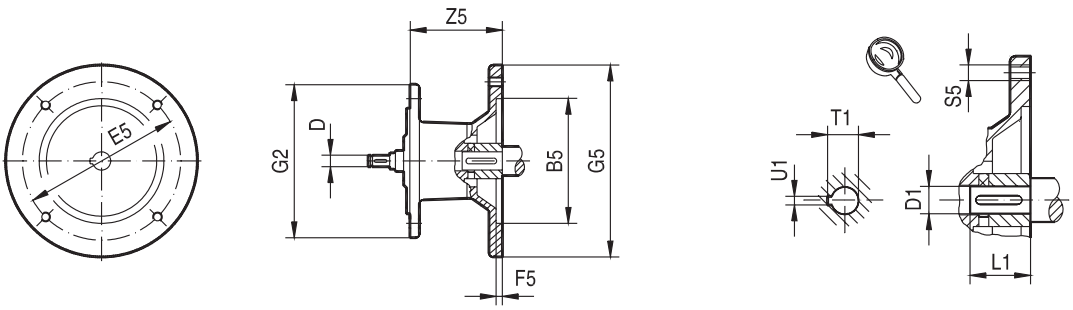
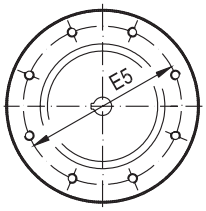


Fig.2



9007204242194571

Gear unit type	Adapter type	Fig.	Dimensions in mm											
			B5	D	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1
R..97 F..97 K..97 S..97[1]	AM100	1	180	16	215	5	300	250	M12	116	28	60	31.3	8
	AM112			18										
	AM132S/M		230	22	265			300		169	38	80	41.3	10
	AM132ML			28										
	AM160		250		300	6		350	M16	227	42	110	45.3	12
	AM180			32							48		51.8	14
	AM200		300	38	350	7		400		268	55		59.3	16
R..107 F..107 K..107	AM100		180	16	215	5	350	250	M12	110	28	60	31.3	8
	AM112			18										
	AM132S/M		230	22	265			300		163	38	80	41.3	10
	AM132ML			28										
	AM160		250		300	6		350	M16	221	42	110	45.3	12
	AM180			32							48		51.8	14
	AM200		300	38	350	7		400		262	55		59.3	16
	AM225	2	350		400			450		277	60	140	64.4	18
R..137	AM132S/M	1	230	22	265	5	400	300	M12	156	38	80	41.3	10
	AM132ML			28										
	AM160		250		300	6		350	M16	214	42	110	45.3	12
	AM180			32							48		51.8	14
	AM200		300	38	350	7		400		255	55		59.3	16
	AM225	2	350		400			450		270	60	140	64.4	18

1) Not with AM200

23 004 100

Fig.1

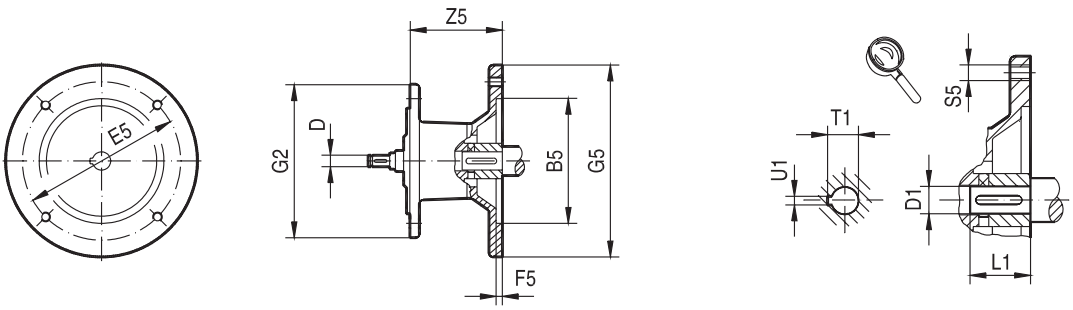
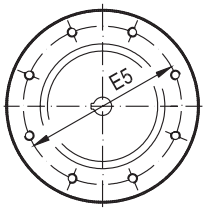


Fig.2

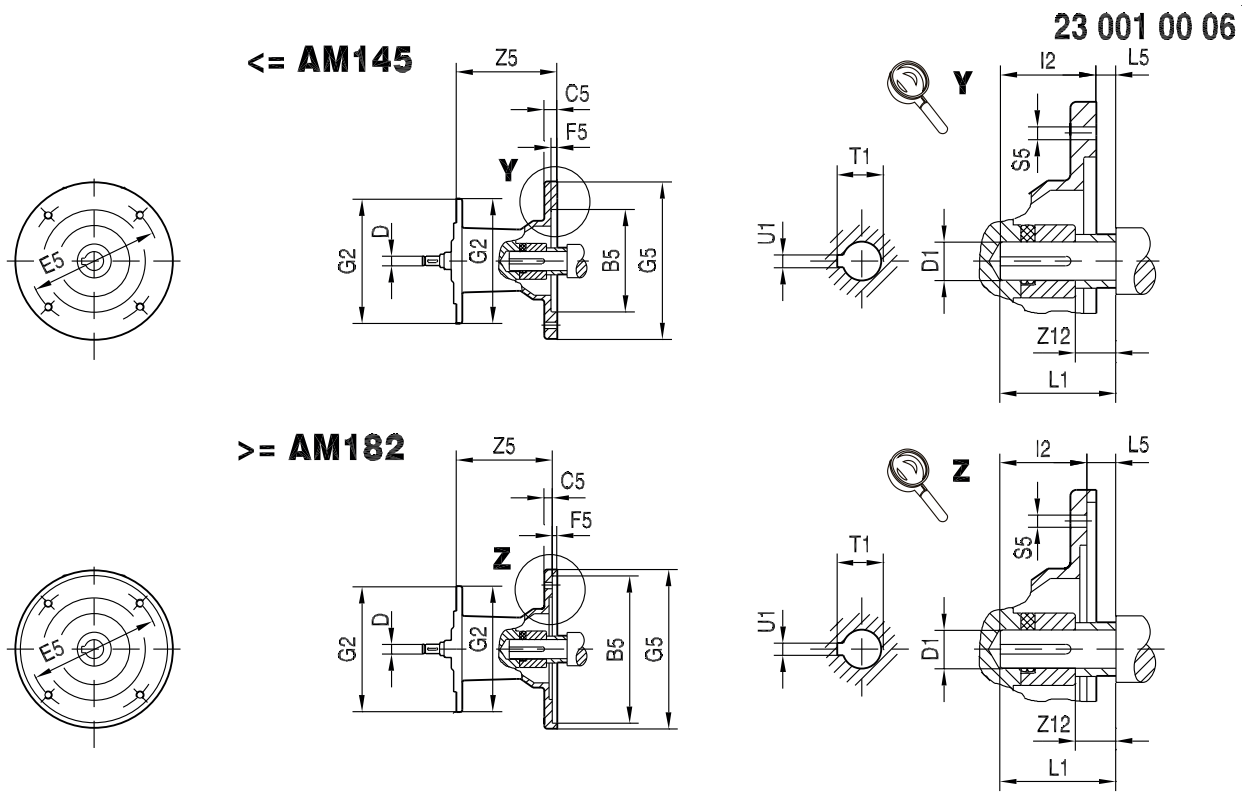


4987456011

Gear unit type	Adapter type	Fig.	Dimensions in mm											
			B5	D	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1
R..147 F..127 K..127	AM132S/M	1	230	22	265	5	450	300	M12	148	38	80	41.3	10
	AM132ML			28										
	AM160		250	28	300	6		350	M16	206	42	110	45.3	12
	AM180			32							48		51.8	14
	AM200		300	38	350	7		400		247	55		59.3	16
	AM225	2	350		400			450		262	60	140	64.4	18
	AM250		450	48	500			550		336	65		69.4	
	AM280										75		79.9	20
R..167 F..157 K..157 K..167 K..187	AM160	1	250	28	300	6	550	350		198	42	110	45.3	12
	AM180			32							48		51.8	14
	AM200		300	38	350	7		400		239	55		59.3	16
	AM225	2	350		400			450		254	60	140	64.4	18
	AM250		450	48	500			550		328	65		69.4	
	AM280										75		79.9	20

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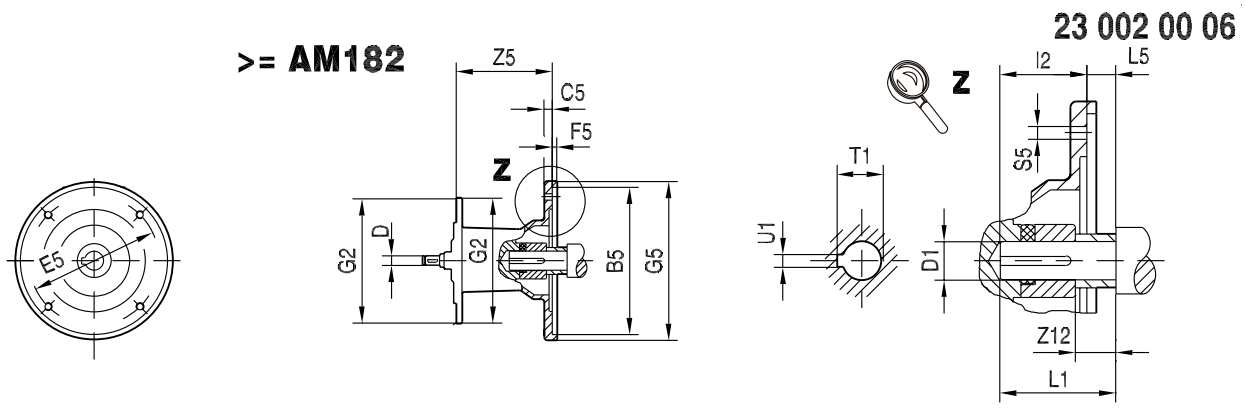
6.9 Adapters for mounting NEMA motors



9007204242131979

Gear unit type	Adapter type	Dimensions in mm															
		B5	C5	D	E5	F5	G2	G5	I2	L5	S5	Z5	Z12	D1	L1	T1	U1
R..27, R..37 F..27, F..37, F..47 K..19, K..29, K..37 S..37, S..47, S..57 W..37	AM56	114.3	11	10	149.2	4.5	120	170	52.55	-4.8	10.5	93.5	16.5	15,875	47	18.1	4.76
	AM143		12	12					54.1	3		117	14.5	22,225	57	24.7	
	AM145			14													
R..47, R..57, R..67 F..57, F..67 K..39, K..47, K..57, K..67 S..67 W..47[1]	AM56		11	10			160		52.55	-4.8		87	16.5	15,875	47	18.1	
	AM143		12	12					54.1	3		110.5	14.5	22,225	57	24.7	
	AM145			14													
	AM182	215.9	10	16	184	5		228	66.85	3	15	147.5	16.5	28,575	69	31.7	6.35
	AM184			18													
	AM213/215		11	22					79.55	6.3		200.5	15.8	34,925	85	38.7	7.94
R..77 F..77 K..49, K..77 S..77	AM56	114.3	11	10	149.2	4.5	200	170	52.55	-4.8	10.5	81	16.5	15,875	47	18.1	4.76
	AM143		12	12					54.1	3		103.5	14.5	22,225	57	24.7	
	AM145			14													
	AM182	215.9	10	16	184	5		228	66.85	3	15	139.5	16.5	28,575	69	31.7	6.35
	AM184			18													
	AM213/215		11	22					79.55	6.3		188.5	15.8	34,925	85	38.7	7.94
R..87 F..87 K..87 S..87	AM143	114.3	12	12	149.2	4.5	250	170	54.1	3	10.5	98.5	14.5	22,225	57	24.7	4.76
	AM145			14													
	AM182	215.9	10	16	184	5		228	66.85	3	15	134.5	16.5	28,575	69	31.7	6.35
	AM184			18													
	AM213/215		11	22					79.55	6.3		183.5	15.8	34,925	85	38.7	7.94
	AM254/256		12	28					95.3	6.3		234	8.8	41,275	101	45.8	9.53
	AM284/286	266.7	15	32	228.6			286	111.05	6.3	15	241	15.8	47,625	117	53.4	12.7

1) Maximum AM143/AM145

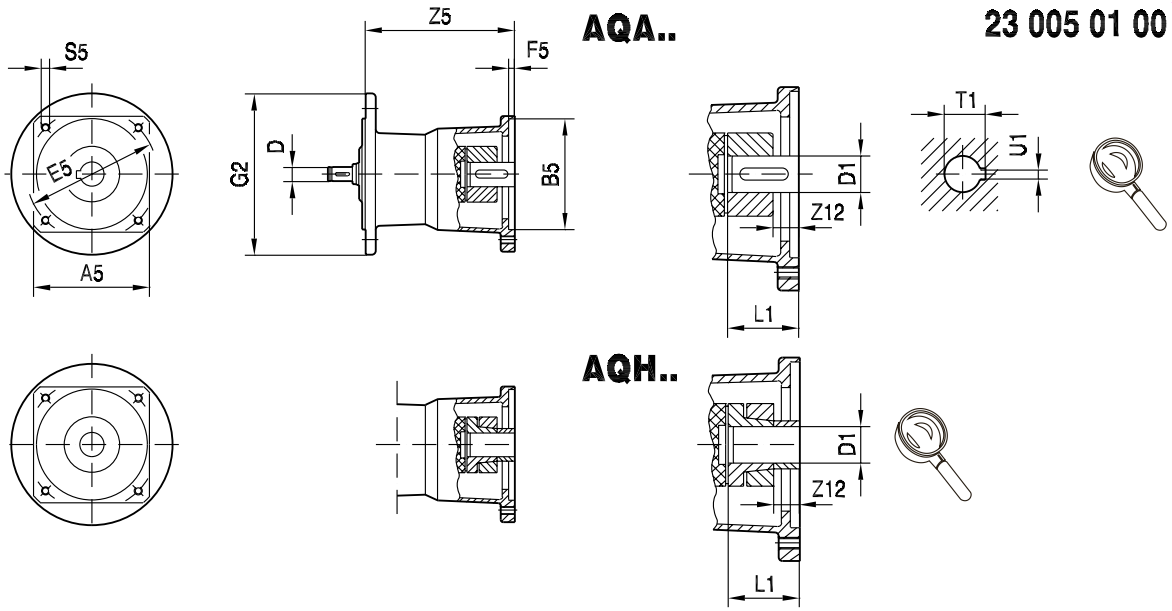


9007204242133899

Gear unit type	Adapter type	Dimensions in mm															
		B5	C5	D	E5	F5	G2	G5	I2	L5	S5	Z5	Z12	D1	L1	T1	U1
R..97 F..97 K..97 S..97	AM182	215.9	10	16	184	5	300	228	66.85	3	15	129.5	16.5	28,575	69	31.7	6.35
	AM184			18													
	AM213/215		11	22					79.55	6.3		178.5	15.8	34,925	85	38.7	7.94
	AM254/256		12	28					95.3			229	8.8	41,275	101	45.8	9.53
	AM284/286	266.7	20	32	228.6			286	111.05			236	15.8	47,625	117	53.4	12.7
	AM324/326	317.5	17	38	279.4			356	127.05		17.5	296	34.8	53,975	133	60	12.7
	AM364/365								143.05					60,325	149	67.6	15,875
R..107 F..107 K..107	AM182	215.9	10	16	184		350	228	66.85	3	15	123.5	16.5	28,575	69.85	31.7	6.35
	AM184			18						6.3							
	AM213/215		11	22					79.55			172.5	15.8	34,925	85.85	38.7	7.94
	AM254/256		12	28					95.3			223	8.8	41,275	101.6	45.8	9.53
	AM284/286	266.7	15	32	228.6			286	111.05			230	15.8	47,625	117.35	53.4	12.7
	AM324/326	317.5	17	38	279.4			356	127.05		17.5	290	34.8	53,975	133.35	60	12.7
	AM364/365								143.05					60,325	149.35	67.6	15,875
R..137	AM213/215	215.9	11	22	184		400	228	79.55		15	165.5	15.8	34,925	85.85	38.7	7.94
	AM254/256		12	28					95.3			216	8.8	41,275	101.6	45.8	9.53
	AM284/286	266.7	15	32	228.6			286	111.05			223	15.8	47,625	117.35	53.4	12.7
	AM324/326	317.5	17	38	279.4			356	127.05		17.5	283	34.8	53,975	133.35	60	12.7
	AM364/365								143.05					60,325	149.35	67.6	15,875
R..147 F..127 K..127	AM213/215	215.9	11	22	184		450	228	79.55		15	157.5	15.8	34,925	85.85	38.7	7.94
	AM254/256		12	28					95.3			208	8.8	41,275	101.6	45.8	9.53
	AM284/286	266.7	15	32	228.6			286	111.05			215	15.8	47,625	117.35	53.4	12.7
	AM324/326	317.5	17	38	279.4			356	127.05		17.5	275	34.8	53,975	133.35	60	12.7
	AM364/365								143.05					60,325	149.35	67.6	15,875
R..167 F..157 K..157 K..167 K..187	AM254/256	215.9	12	28	184		550	228	95.3		15	200	8.8	41,275	101.6	45.8	9.53
	AM284/286	266.7	15	32	228.6			286	111.05			207	15.8	47,625	117.35	53.4	12.7
	AM324/326	317.5	17	38	279.4			356	127.05		17.5	267	34.8	53,975	133.35	60	12.7
	AM364/365								143.05					60,325	149.35	67.6	15,875

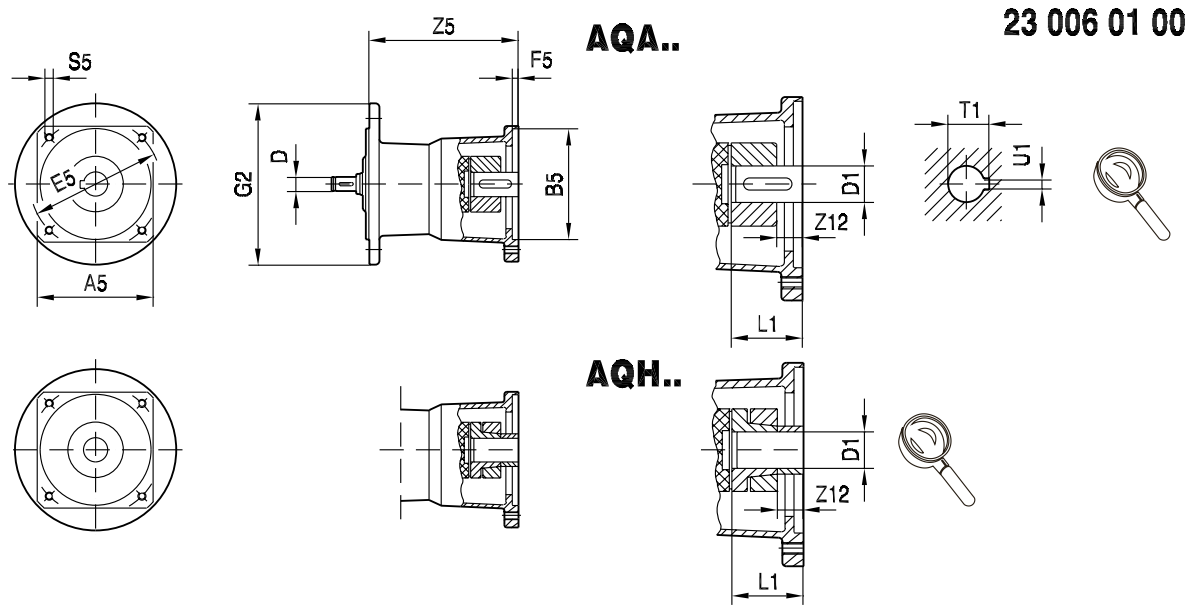
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6.10 Adapters for mounting servomotors



Gear unit type	Adapter type	Dimensions in mm													
		A5	B5	D	E5	F5	G2	S5	Z5	Z12[1]	Z12[2]	D1	L1	T1[1]	U1[1]
R..27, R..37 F..27, F..37, F..47 K..19, K..29, K..37 S..37, S..47, S..57 W..37	AQ..80/1	82	60	10 12	75	3	120	M5	104.5	5.5	5.5	11	23	12.8	4
	AQ..80/2											14	30	16.3	5
	AQ..80/3		50		95			M6							
	AQ..100/1	100	80	10 12 14 16	100	4			129.5	-	-				5
	AQ..100/2		95		115			M8							
	AQ..100/3		80		100			M6	143.5	2	14	19	40	21.8	6
	AQ..100/4		95		115			M8							
	AQ..115/1	115			130				152.5	11	23				
	AQ..115/2		110												
	AQ..115/3									16	16	24	50	27.3	8
R..47, R..57, R..67 F..57, F..67 K..39, K..47[3], K..57, K..67 S..67 W..47	AQ..80/1	82	60	10 12	75	3	160	M5	98	5.5	5.5	11	23	12.8	4
	AQ..80/2											14	30	16.3	5
	AQ..80/3		50		95			M6							
	AQ..100/1	100	80	10 12 14 16	100	4			122.5	-	-				
	AQ..100/2		95		115			M8							
	AQ..100/3		80		100			M6	136.5	2	14	19	40	21.8	6
	AQ..100/4		95		115			M8							
	AQ..115/1	115			130				145.5	11	23				
	AQ..115/2		110												
	AQ..115/3									16	16	24	50	27.3	8
	AQ..140/1	140	130	16 18 22	165	5		M10	175						
	AQ..140/2														
	AQ..140/3								188	22	22	32	60	35.5	10
	AQ..140/4											28		31.3	8
	AQ..160/1	162	155		190							32		35.3	10
	AQ..190/1	190	130	22 28	215			M12	237.5	24	24				
	AQ..190/2		180												
	AQ..190/3								261.5	34	34	38	80	41.3	

1) For designs with keyway (AQA..)
2) For designs with clamping ring hub (AQH..)
3) Not with AQ190



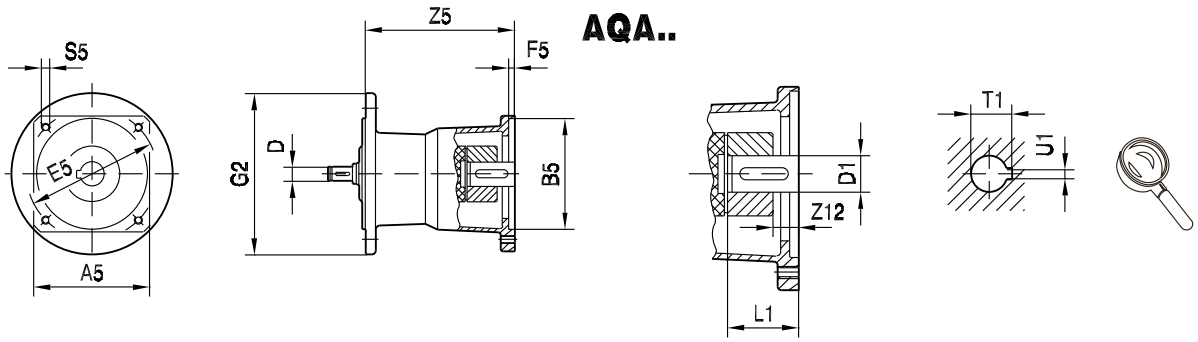
Gear unit type	Adapter type	Dimensions in mm													
		A5	B5	D	E5	F5	G2	S5	Z5	Z12[1]	Z12[2]	D1	L1	T1[1]	U1[1]
R..77 F..77 K..49, K..77 S..77	AQ..80/1	82	60	10 12	75	3	200	M5	92	5.5	5.5	11	23	12.8	4
	AQ..80/2											14	30	16.3	5
	AQ..80/3		50		95			M6							
	AQ..100/1	100	80	10 12 14 16	100	4			115.5	-	-				
	AQ..100/2		95		115			M8							
	AQ..100/3		80		100			M6	129.5	2	14	19	40	21.8	6
	AQ..100/4		95		115			M8							
	AQ..115/1	115			130				138.5	11	23				
	AQ..115/2		110							16	16	24	50	27.3	8
	AQ..115/3														
	AQ..140/1	140	130	16 18 22	165	5		M10	167						
	AQ..140/2											32	60	35.3	10
	AQ..140/3								180	22	22	28		31.3	8
	AQ..140/4											32		35.3	10
	AQ..160/1	162	155		190										
	AQ..190/1	190	130	22 28	215			M12	225.5	24	24			35.3	
	AQ..190/2		180												
	AQ..190/3								249.5	34	34	38	80	41.3	
R..87 F..87 K..87 S..87	AQ..100/1	100	80	12 14 16	100	4	250	M6	110.5	-	-	14	30	16.3	5
	AQ..100/2		95		115			M8							
	AQ..100/3		80		100			M6	124.5	2	14	19	40	21.8	6
	AQ..100/4		95		115			M8							
	AQ..115/1	115			130				133.5	11	23				
	AQ..115/2		110							16	16	24	50	27.3	8
	AQ..115/3														
	AQ..140/1	140	130	16 18 22	165	5		M10	162						
	AQ..140/2											32	60	35.3	10
	AQ..140/3								175	22	22	28		31.3	8
	AQ..140/4											32		35.3	10
	AQ..160/1	162	155		190										
	AQ..190/1	190	130	22 28	215			M12	220.5	24	24				
	AQ..190/2		180												
	AQ..190/3								244.5	34	34	38	80	41.3	

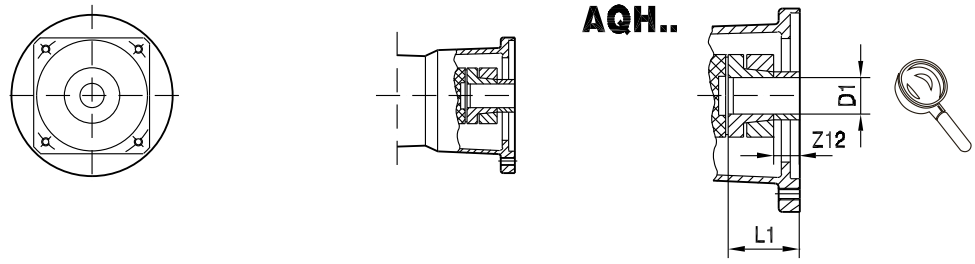
1) For designs with keyway (AQA..)

2) For designs with clamping ring hub (AQH..)

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Gear unit type	Adapter type	Dimensions in mm													
		A5	B5	D	E5	F5	G2	S5	Z5	Z12[1)]	Z12[2)]	D1	L1	T1[1)]	U1[1)]
R..97 F..97 K..97 S..97	AQ..140/1	140	110	16 18 22	165	5	300	M10	157	16	16	24	50	27.3	8
	AQ..140/2		130						170	22	22	32	60	35.3	10
	AQ..140/3											28		31.3	8
	AQ..140/4											32		35.3	10
	AQ..160/1	162	155		190										
	AQ..190/1	190	130	22 28	215			M12	215.5	24	24				
	AQ..190/2		180						239.5	34	34	38	80	41.3	
	AQ..190/3														
R..107 F..107 K..107	AQ..140/1	140	110	16 18 22	165		350	M10	151	16	16	24	50	27.3	8
	AQ..140/2		130						164	22	22	32	60	35.3	10
	AQ..140/3											28		31.3	8
	AQ..140/4											32		35.3	10
	AQ..160/1	162	155		190										
	AQ..190/1	190	130	22 28	215			M12	209.5	24	24				
	AQ..190/2		180						233.5	34	34	38	80	41.3	
	AQ..190/3														
R..137	AQ..190/1		130				400		202.5	24	24	32	60	35.3	
	AQ..190/2		180						226.5	34	34	38	80	41.3	
	AQ..190/3														
R..147 F..127 K..127	AQ..190/1		130				450		194.5	24	24	32	60	35.3	
	AQ..190/2		180						218.5	34	34	38	80	41.3	
	AQ..190/3														

1) For designs with keyway (AQA..)
2) For designs with clamping ring hub (AQH..)

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6.11 Gear unit mounting

Strength class of the screws

Always mount gearmotors using screws of strength class 8.8.

The gearmotors in flange-mounted design and in foot-/flange-mounted design listed in the following table are an exception. Always use screws of strength class 10.9 for these gearmotors. Use suitable washers.

Gear unit	Flange Ø in mm	Strength class of the screws
RF37/R37F	120	10.9
RF47/R47F	140	
RF57/R57F	160	
FF/FAF77/KF/KAF77	250	
RF147	450	
RF167	550	
RZ37 – RZ87	60ZR – 130ZR	

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6.12 Torque arms

6.12.1 Available torque arms



NOTICE

Danger due to static overdetermination if gear units with foot (e.g. KA19/29B, KA127/157B or FA127/157B) are mounted both via the torque arm and via the foot plate.

Risk of injuries and damage to property.

- Especially with the KA.9B/T design, it is not permitted to use the foot plates and the torque arm at the same time.
- Attach the KA.9B/T design only via the torque arm.
- Attach the K.9 or KA.9B design only via the foot plate.
- If you want to use foot plates and torque arms for mounting, contact SEW-EURODRIVE.

The following table lists the part numbers of available torque arms.

Gear unit	Size			
	19	29	39	49
KA, KH, KT	10684115	10684107	10682163	06442439

Gear unit	Size					
	27	37	47	57	67	77
KA, KH, KV, KT	-	6434258	6434282	6434312	6434312	6434347
SA, SH, ST	-	1269941	6442374	6442404	6442439	6442463
FA, FH, FV, FT Rubber buffer (2 pieces)	0133485	0133485	0133485	0133485	0133485	0133493

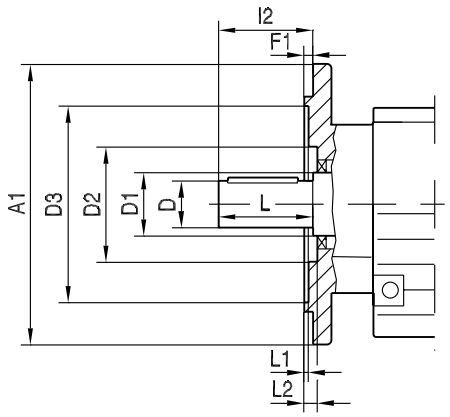
Gear unit	Size				
	87	97	107	127	157
KA, KH, KV, KT	6434371	6434401	6434436	6432948	-
SA, SH, ST	6442498	6442528	-	-	-
FA, FH, FV, FT Rubber buffer (2 pieces)	0133493	0133507	0133507	0133515	0133477

Gear unit	Size				
	10	20	30	37	47
WA, WH, WT	10610219	1680730	1680110	10611290	10611851

6.12.2 Torque arms for KH167.., KH187..

As standard, torque arms are not available for gear unit sizes KH167.. and KH187... Consult SEW-EURODRIVE if you need torque arms for these gear units.

6.13 Flange contours of RF.. and R..F gear units



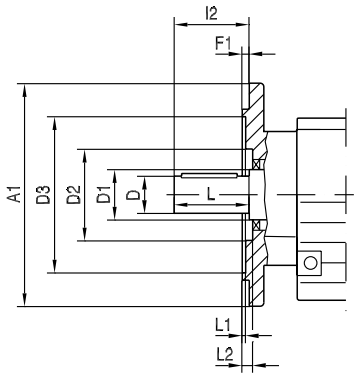
Check dimensions L1 and L2 for selection and installation of output elements.

Type	Dimensions in mm										
	A1	D	D1	D2		D3	F1	I2	L	L1		L2
				RF	R..F					RF	R..F	
RF07, R07F	120	20	22	38	38	72	3	40	40	2	2	6
	140[1)]				-	85					-	
	160[1)]					100	3.5			2.5	-	6.5
RF17, R17F	120		25	46	46	65	3			1	1	5
	140				-	78					-	
	160[1)]					95	3.5					6
RF27, R27F	120	25	30	54	54	66	3	50	50	1	1	6
	140				-	79				3	-	7
	160					92	3.5					
RF37, R37F	120		35	60	63	70	3			5	4	
	160				-	96	3.5			1	-	7.5
	200[1)]					119						
RF47, R47F	140	30		72	64	82	3	60	60	4	1	6
	160				-	96	3.5			0.5	-	6.5
	200					116						
RF57, R57F	160	35	40	76	75	96		70	70	4	2.5	5
	200				-	116				0	-	
	250[1)]					160	4			0.5		5.5
RF67, R67F	200		50	90	90	118	3.5			2	4	7
	250				-	160	4			1	-	7.5
RF77, R77F	250	40	52	112	100	160		80	80	0.5	2.5	7
	300[1)]				-	210					-	
RF87, R87F	300	50	62	123	122	210		100	100	0	1.5	8
	350				-	226	5			1	-	9
RF97		60	72	136		236		120	120	0		9
	450					320						
RF107	350	70	82	157		232		140	140			11
	450			186		316						
RF137		90	108	180		316		170	170			10
	550					416						
RF147	450	110	125	210		316		210	210			
RF167	550	120	145	290		416				1		
	660					517	6			2		11

1) The flange contour protrudes from under the base surface.

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6.14 Flange contours of FF.., KF.., SF.. and WF.. gear units



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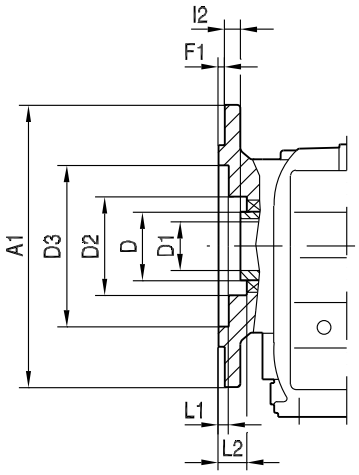
Check dimensions L1 and L2 for selection and installation of output elements.

Type	Dimensions in mm									
	A1	D	D1	D2	D3	F1	l2	L	L1	L2
FF27	160	25	40	66	96	3.5	50	50	3	18.5
FF37			30	70	94				2	6
FF47	200	30	40	72	115		60	60	3.5	7.5
FF57	250	35		84	155	4	70	70	4	9
FF67	250	40	50				80	80		
FF77	300	50	55	82	205		100	100	5	
FF87	350	60	65	115	220	5	120	120		
FF97	450	70	75	112	320		140	140	8	10
FF107		90	100	159	318		170	170	16	9
FF127	550	110	118	-	420		210	210	10	-
FF157	660	120	135	190	520	6			8	14
KF19	120	20	25	-	70	2.5	40	40	-	11.5
	160				100					
KF29		25	30		109	3.5	50	50		6.5
	200				115					
KF37	160			70	94				2	6
KF39		30	39	68	96		60	60	13.5	23.5
KF47	200		40	72	115				3.5	7.5
KF49		35	49	76	115		70	70	24.5	28
KF57	250	35	40	84	155	4	70	70	4	9
KF67		40	50				80	80		
KF77	300	50	55	82	205		100	100	5	
KF87	350	60	65	115	220	5	120	120		
KF97	450	70	75	112	320		140	140	8	10
KF107		90	100	159	318		170	170	16	9
KF127	550	110	118	-	420		210	210	10	-
KF157	660	120	135	190	520	6			8	14
SF37	120	20	25	-	68	3	40	40	6	-
	160	20		-	96	3.5			5.5	
SF47		25	30	70	94		50	50	2	6
SF57	200	30	40	72	115		60	60	3.5	7.5
SF67		35	45	-			70	70	8.5	-
SF77	250	45	55	108	160	4	90	90	8	9
SF87	350	60	65	130	220	5	120	120	6	10
SF97	450	70	75	150	320		140	140	8.5	
WF10	80	16	25	-	39	2.5	40	40	30	-
	120		25	39	74	3			5	30

Type	Dimensions in mm									
	A1	D	D1	D2	D3	F1	I2	L	L1	L2
WF20	110	20	30	44	53	-4	40	40	27	35
	120			-	45	2.5			37.5	-
WF30				48	63				18	27
	160								33	42
WF37	120			-	70				-	10.5
	160									25.5
WF47		30	35		92	3.5	10	60	6	-

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6.15 Flange contours of FAF.., KAF.., SAF.. and WAF.. gear units



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Check dimensions L1 and L2 for selection and installation of output elements.

Type	Dimensions in mm								
	A1	D	D1	D2	D3	F1	I2	L1	L2
FAF27	160	40	25	66	96	3.5	20	3	18.5
FAF37		45	30	62	94		24	2	30
FAF47	200	50	35	70	115		25	3.5	31.5
FAF57	250	55	40	76	155	4	23.5	4	31
FAF67							23		
FAF77	300	70	50	95	205		37	5	45
FAF87	350	85	60	120	220	5	30		39
FAF97	450	95	70	135	320		41.5	5.5	51
FAF107		118	90	224			41	16	52
FAF127	550	135	100	185	420		51	6	63
FAF157	660	155	120	200	520	6	60	10	74
KAF19	120	30	20	60	70	2.5	25	9	25.5
	160				100				
KAF29	160	40	25 / 30	-	105	3.5	33.5	-	6.5
	200			-	118				
KAF39	160	50	30 / 35	68	96		24.5	10	27
KAF37	160	45	30	62	94		24	2	30
KAF47	200	50	35	70	115		25	3.5	8.5
KAF49	200	55	35 / 40	76	115		32.5	16	34.5
KAF57	250	55	40	76	155	4	23.5	4	31
KAF67							23		
KAF77	300	70	50	95	205		37	5	45
KAF87	350	85	60	120	220	5	30		39
KAF97	450	95	70	135	320		41.5	5.5	51
KAF107		118	90	224			41	16	52
KAF127	550	135	100	185	420		51	6	63
KAF157	660	155	120	200	520	6	60	10	74
SAF37	120	35	20	-	68	3	15	6	-
	160				96	3.5		5.5	
SAF47		45	30 / 25	62	94		24	2	30
SAF57	200	50	35 / 30	70	115		25	3.5	31.5
SAF67		65	45 / 40	91			42.5	4	48.5
SAF77	250	80	60 / 50	112	164	4	45.5	5	53.5
SAF87	350	95	70 / 60	131	220	5	52.5	6	62.5

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Type	Dimensions in mm								
	A1	D	D1	D2	D3	F1	I2	L1	L2
SAF97	450	120	90 / 70	160	320	5	60	6.5	69
WAF10	80	25	16	-	39	2.5	23	30	-
	120			39	74	3		5	30
WAF20	110	30	18 / 20	44	53	-4	30	27	35
	120			-	45	2.5		37.5	-
WAF30			20	48	63		19.5	18	27
	160				63		34.5	33	42
WAF37	120	35	20 / 25	54	70		19.5	10.5	27
	160						34.5	25.5	42
WAF47		45	25 / 30	72	92	3.5	10	6	45

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6.16 Covers

6.16.1 Rotating cover

The following gear unit types with hollow shaft and shrink disk are equipped with a rotating cover as standard:

Gear unit type	Sizes
KH..	19 – 29 and 37 – 97
FH.., SH.., WH..	37 – 97

6.16.2 Fixed plastic cover

The following gear unit types with hollow shaft and shrink disk are equipped with a rotating plastic cover as standard:

Gear unit type	Sizes
FH..	27 and 107 – 157
KH..	107 – 157

Should you require a fixed plastic cover for other gear unit types or sizes, the part number required to order the cover can be found in the following chapter.

6.16.3 Fixed sheet metal cover

The following gear unit types with hollow shaft and shrink disk are equipped with a fixed sheet metal cover as standard:

Gear unit type	Sizes
KH..	167 and 187
FT.., KT.., ST.., WT.. (with TorqLOC® hollow shaft mounting system)	All available sizes
Explosion-proof gear units FH.., KH.., SH.., WH.. gear units	All available sizes

Should you require a fixed sheet metal cover for other gear unit types or sizes, the part number required to order the cover can be found in the following chapter.

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6.16.4 Maximum motor mounting sizes with fixed cover

In case of parallel-shaft helical gear units the size of the attached motor may be limited by the use of a fixed cover.

Fixed plastic cover

The following table shows the maximum possible motor mounting surface, depending in the gear unit size, for a fixed plastic cover:

Gear unit size	F..37	F..47	F..57	F..67	F..77	F..87	.F.97
Maximum possible motor mounting sizes	71M	80M	90L	112M	132L	160L	180L

Fixed sheet metal cover

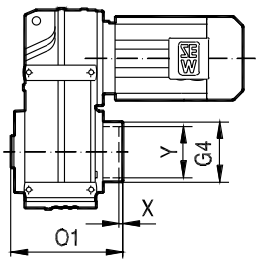
The following table shows the maximum possible motor mounting surface, depending in the gear unit size, for a fixed sheet metal cover:

Gear unit size	F..37	F..47	F..57	F..67	F..77	F..87	F..97
Maximum possible motor mounting sizes	71M	80M	80M	100L	132L	160L	180L

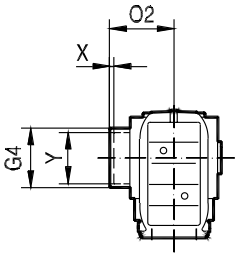
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6.16.5 Part numbers and dimensions for fixed plastic covers

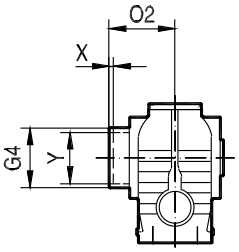
FH../FA..



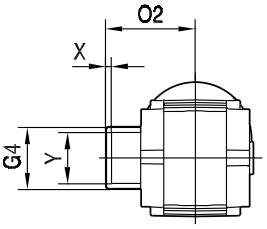
KH../KA..



SH../SA..



WH../WA..



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Parallel-shaft helical gearmotors	FH/FA ..37	FH/FA ..47	FH/FA ..57	FH/FA ..67	FH/FA ..77	FH/FA ..87	FH/FA ..97
Part number	6435130	6435149	6435157	6435157	6435165	6435173	6435181
G4 in mm	78	88	100	100	121	164	185
O1 in mm	157	188.5	207.5	221.5	255	295	363.5
X in mm	2	4.5	7.5	6	6	4	6.5
Y in mm	75	83	83	93	114	159	174

Helical-bevel gearmotors	KH/KA ..19	KH/KA ..29
Part number	1068415 8	1068416 6
G4 in mm	62	68
O2 in mm	83	90
X in mm	2	4
Y in mm	50	60

Helical-bevel gearmotors[1)]	KH/KA ..37	KH/KA ..47	KH/KA ..57	KH/KA ..67	KH/KA ..77	KH/KA ..87	KH/KA ..97
Part number	6435130	6435149	6435157	6435157	6435165	6435173	6435181
G4 in mm	78	88	100	100	121	164	185
O2 in mm	95	111.5	122.5	129	147	172	210.5
X in mm	0	1.5	5.5	3	1	2	4.5
Y in mm	75	83	83	93	114	159	174

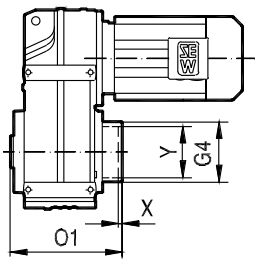
1) Not possible in foot-mounted helical-bevel gear units with hollow shafts (KH..B and KA..B).

Helical-worm gearmotors	SH/SA ..37	SH/SA ..47	SH/SA ..57	SH/SA ..67	SH/SA ..77	SH/SA .. 87	SH/SA ..97
Part number	6435122	6435130	6435149	6435157	6435165	6435173	6435181
G4 in mm	59	78	88	100	121	164	185
O2 in mm	88	95	111.5	123	147	176	204.5
X in mm	1	0	1.5	3	1	0	0.5
Y in mm	53	75	83	93	114	159	174

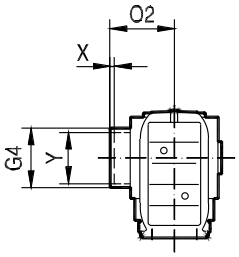
SPIROPLAN® gearmotors	WH/WA ..37	WH/WA ..47
Part number	1061136 3	10611940
G4 in mm	68	80.5
O2 in mm	95.5	109.5
X in mm	11	12.5
Y in mm	50	72

6.16.6 Part numbers and dimensions for fixed sheet metal covers

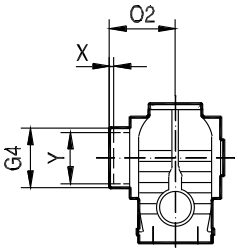
FT../FH../FA..



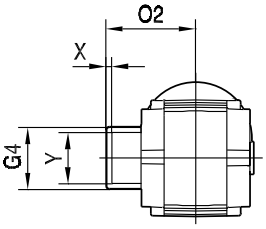
KT../KH../KA..



ST../SH../SA..



WT../WH../WA..



18014407696567179

Parallel-shaft helical gearmotors	FT/FH/FA ..37	FT/FH/FA ..47	FT/FH/FA ..57	FT/FH/FA ..67	FT/FH/FA ..77	FT/FH/FA ..87	FT/FH/FA ..97	FT/FH/FA ..107	FT/FH/FA ..127	FT/FH/FA 157
Part number	0643584X	06435858	06435866	06435866	06435874	06435882	06435890	06421814	06421822	06421830
G4 in mm	81	90	101	101	124	165	200	196	229	275
O1 in mm	166	199	222	236	285	322	382	421	502	605
X in mm	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Y in mm	78	87	98	98	121	162	197	193	226	272

Helical-bevel gear-motors	KH/KA ..19	KH/KA ..29	KT/KA ..39	KT/KA ..49
Part number	06442595	10631259	10682651	10682964
G4 in mm	62	68	86	97
O2 in mm	83	90	117.5	138
X in mm	1.5	1.5	1	1
Y in mm	80	87	84	95

Helical-bevel gear-motors[1)]	KT/KH/KA ..37	KT/KH/KA ..47	KT/KH/KA ..57	KT/KH/KA ..67	KT/KH/KA ..77	KT/KH/KA ..87	KT/KH/KA ..97	KT/KH/KA ..107	KT/KH/KA ..127	KT/KH/KA ..157
Part number	0643584X	06435858	06435866	06435866	06435874	06435882	06435890	06421814	06421822	06421879
G4 in mm	81	90	101	101	124	165	200	196	229	275
O2 in mm	104	122	137	143	177	229	382	246	297	375
X in mm	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Y in mm	78	87	98	98	121	162	197	193	226	272

1) Not possible in foot-mounted helical-bevel gear units with hollow shafts (KH..B and KA..B).

Helical-worm gear-motors	ST/SH/SA ..37	ST/SH/SA ..47	ST/SH/SA ..57	ST/SH/SA ..67	ST/SH/SA ..77	ST/SH/SA ..87	ST/SH/SA ..97
Part number	06444768	0643584X	06435858	06435866	06435874	06435882	06435882
G4 in mm	64	81	90	101	124	165	165
O2 in mm	98	104	122	137	177	203	223
X in mm	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Y in mm	61	78	87	98	121	162	162

SPIROPLAN® gear-motors	WT/WH/WA ..37	WT/WH/WA ..47
Part number	10611479	10611959
G4 in mm	67	78
O2 in mm	95.5	109
X in mm	1	1
Y in mm	64	76

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6.17 Condition monitoring: Oil aging sensor

6.17.1 Technical data of oil aging sensor

DUO10A diagnostic unit

DUO10A	Technical data		
Preset oil grades	OIL1	CLP mineral oil.	T_{max} = 100 °C
		Bio oil	T_{max} = 100 °C
	OIL2	CLP HC synthetic oil:	T_{max} = 130 °C
		CLP PAO oil	T_{max} = 130 °C
	OIL3	Polyglycol CLP PG	T_{max} = 130 °C
	OIL4	Food grade oil	T_{max} = 100 °C
Switch outputs	1: Early warning (time to next oil change can be set to between 2 and 100 days) 2: Main alarm (time to oil change 0 days) 3: Maximum temperature exceeded T_{max} 4: DUO10A is ready for operation		
Permitted oil temperature	-40 °C – +130 °C		
Permitted temperature sensor	PT1000		
EMC	IEC1000-4-2/3/4/6		
Ambient temperature	-25 °C – +70 °C		
Operating voltage	DC 18 – 28 V		
Current consumption for DC 24 V	< 90 mA		
Protection class	III		
Degree of protection	IP67 (optionally IP69K)		
Housing materials	Evaluation unit: V2A, EPDM/X, PBT, FPM Temperature sensor: V4A		
Electrical connection	Evaluation unit: M12 plug connector PT1000 temperature sensor: M12 plug connector		

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Designations and part numbers

Designation	Description	Part number
 DUO10A	Evaluation unit (basic unit)	13438751
DUO10A-PUR-M12-5m	5 m PUR cable with 1 connector	13438778
DUO10A-PVC-M12-5m	5 m PVC cable with 1 connector	13438786
DUO10A	Angle bracket	13438808
DUO10A D = 34	Mounting clamp	13438794
W4843 PT1000 	PT1000 temperature sensor	13438816
W4843_4x0,34-2m-PUR	2 m PUR cable for PT1000[1)]	13438824
W4843_4x0,34-2m-PVC	2 m PVC cable for PT1000[2)]	13438832
 DUO10A	Protection cap (for aseptic design, IP69K)	13439022

1) PUR cables are particularly suited for use in oil-contaminated environments.
2) PVC cables are particularly suited for use in moist environments.

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Mounting to standard gear units (R, F, K,S)

Adapter for mounting the PT1000 temperature sensor in screw plug holes:

Complete adapter for PT1000 sensor	Part number
M10 × 1	13439030
M12 × 1.5	13439049
M22 × 1.5	13439057
M33 × 2	13439065
M42 × 2	13439073

Mounting base for installing the diagnostic unit at the gear unit with an angle bracket:

Mounting base with sealing ring	Part number
M10 × 1	13434411
M12 × 1.5	13438271
M22 × 1.5	13438298
M33 × 2	13438301
M42 × 2	13438328

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7 Important information on selection tables and dimension drawings

7.1 Possible geometrical combinations

7.1.1 Structure of the combination tables

These tables show geometrically possible combinations of single-speed gear units and AC (brake) motors. Contact SEW-EURODRIVE for information on pole-changing AC (brake) motors.

For each combination, the input speed n_e = 1400 min^{-1} and the output speed n_a, the maximum output torque M_{amax}, the permitted overhung load F_{RA} at maximum output torque (valid for foot-mounted gear units with solid shaft), the torsion angle φ (/R) and the gear unit ratio are specified.

If no value is specified for the torsion angle $\varphi_{(/R)}$, the gear unit with this gear unit ratio is not available with "reduced backlash (/R)" option. If a numerical value is given, this gear unit is also available with "reduced backlash (/R)" option. The numerical value specifies the rotational clearance of the reduced backlash version in angular minutes '.

R77, n_e=1400 1/min												820Nm
n_a 1/min	M_{amax} Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ ´	i	DR63S DR63M ...	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M ...	
				3								
7.2	820	9920	6.4	195.24*								
8.4	820	9920	6.5	166.59								

Gear unit ratio; a value marked with * represents a finite gear unit ratio.

Not specified (-): For this i, the option reduced backlash (/R) is not possible.
Numerical value given: The option reduced backlash is possible. The numerical value defines the rotational clearance of the version with reduced backlash in angular minutes.

Permitted overhung load at maximum output torque M_{amax}

Maximum output torque of the gear unit

Output speed

[1] The value is based on foot-mounted gear units with solid shaft.

Combination with the motor listed in the header **is possible**.

Combination with the motor listed in the header **is not possible**.

9007212631946763

2 Number of stages of the gear ratios (1, 2 or 3 stages). Helical gear units (R) – with the exception of the single-stage RX gear units – and parallel-shaft helical gear units (F) have 2 or 3 stages, depending on the gear unit ratio.

RX helical, helical-bevel, helical-worm and SPIROPLAN® gear units (RX, K, S, and W) have a defined number of stages:

- RX helical gear units: RX.. always single-stage
- Helical-bevel gear unit: K..7 always 3-stage, K..9 always 2-stage

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- Helical-worm gear units: always 2-stage
- SPIROPLAN® gear units: W..10 to W..30 always single-stage, W..37 and W..47 always 2-stage



Stages of the compound gear unit ratios (2-2, 3-3, 2-3 or 3-2 stages). The number of stages of the primary gear unit (= small gear unit) is given on the right; the number of stages of the output gear unit (= large gear unit) is given on the left. The primary gear unit of the compound gear unit is always a helical gear unit.

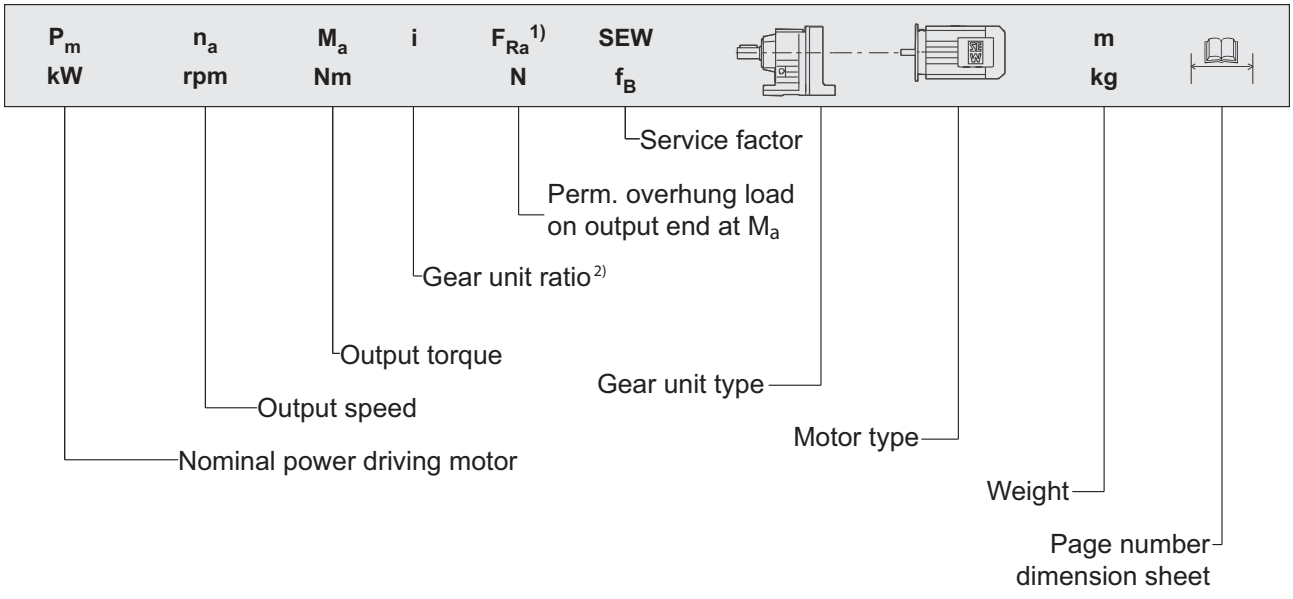
7.2 Selection tables for gearmotors

7.2.1 Structure of the selection tables

The two figures below illustrate the structure of the selection tables for gearmotors. There are two types of selection tables:

1. For standard output speeds, sorted by the rated power P_m of the driving motor in kW.
2. For extremely low output speeds, always compound gearmotors sorted by the maximum permitted output torque M_{amax} in Nm.

Table for standard output speeds:



18014410461306123

[1] Overhung load for foot-mounted gear units with solid shaft; overhung loads for other design types upon request.

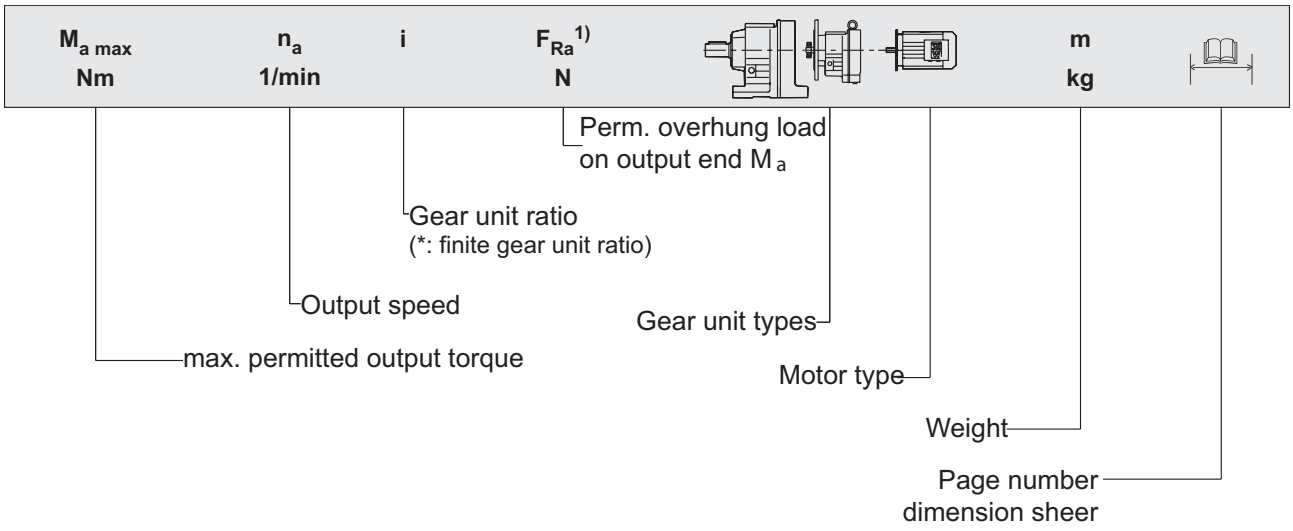
INFORMATION

Only applies to SPIROPLAN® (W) gearmotors:

If a lubricant is used for the food industry (food grade), a service factor SEW $f_B \geq 1.2$ required.

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Table for extremely low output speeds (multi-stage gearmotors):



9007211206567307

1) Overhung load for foot-mounted gear units with solid shaft; overhung loads for other design types upon request.

INFORMATION

In drives for particularly low output speeds (multi-stage gearmotors), the motor power must be limited to the maximum permitted output torque of the gear unit.

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7.3 Dimension sheet information

7.3.1 Symbols for scope of delivery



Standard parts supplied by SEW-EURODRIVE.



Standard parts not supplied by SEW-EURODRIVE.

7.3.2 Tolerances

Shaft heights

The following tolerances apply to the indicated dimensions:

h	≤ 250 mm	→ -0.5 mm
h	> 250 mm	→ -1 mm

Foot-mounted gear units: Check the mounted motor because it may project below the mounting surface.

Shaft ends

Diameter tolerance:

Ø	≤ 50 mm	→ ISO k6
Ø	> 50 mm	→ ISO m6

Centering bores according to DIN 332, shape DR:

Ø	= 7 – 10 mm	→ M3	Ø	> 30 – 38 mm	→ M12
Ø	> 10 – 13 mm	→ M4	Ø	> 38 – 50 mm	→ M16
Ø	> 13 – 16 mm	→ M5	Ø	> 50 – 85 mm	→ M20
Ø	> 16 – 21 mm	→ M6	Ø	> 85 – 130 mm	→ M24
Ø	> 21 – 24 mm	→ M8	Ø	> 130 mm	→ M30
Ø	> 24 – 30 mm	→ M10			

Keys: according to DIN 6885 (domed type)

Keyway width to ISO N9

Hollow shafts

Diameter tolerance:

Ø → ISO H7 measured with plug gauge

Keys: according to DIN 6885 (domed type)

Exception: Key for WA.37 with shaft Ø 25 mm and for KA.29 with shaft Ø 30 mm according to DIN 6885-3 (low form)

Keyway width to ISO JS9

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Multiple-spline shafts

D_m Measuring roller diameter

M_e Check size

Flanges

Centering shoulder tolerance:

Ø ≤ 230 mm (flange sizes A120 – A300) → ISO j6

Ø > 230 mm (flange sizes A350 – A660) → ISO h6

Up to 3 different flange dimensions are available for each size of helical gear unit, SPIROPLAN® gear unit, AC (brake) motor and explosion-proof AC (brake) motor. The mountable flange for each size can be found in the respective dimension sheets.

7.3.3 Eyebolts, lifting eyes

R07 – R27 helical gear units, motors up to DR..100 and SPIROPLAN® gearmotors W..10 – W..30 are delivered without special transportation fixtures. All other gear units and motors are equipped with cast-on lifting eyes, screw-on lifting eyes or screw-on lifting eyebolts.

Gear unit/motor type	Screw-on		Cast-on
	Eyebolts	Lifting eyes	Lifting eyes
R..37 – R..57	—	X	—
R..67 – R..167	X	—	—
RX57 – RX67	—	X	—
RX77 – RX107	X	—	—
F..27 – F..157	—	—	X
K..19 – K..49	—	X	—
K..37 – K..157	—	—	X
K..167 – K..187	X	—	—
S..37 – S..47	—	X	—
S..57 – S..97	—	—	X
W..37 – W..47	—	X	—
≥ DR..112	X	—	—

Key: —not available, X available

7.3.4 Breather valves

The gear unit dimension drawings always show the screw plugs. The corresponding screw plug is replaced by an activated breather valve at the factory depending on the ordered mounting position M1 to M6. The result may be slightly altered contour dimensions.

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7.3.5 Shrink disk connection

In order to non-positively transfer the torques stated in the catalog in case of gear units with hollow shaft and shrink disk connection, observe the following peripheral conditions in addition to the information on the respective dimension sheet when dimensioning the customer shaft:

- Surface roughness Rz ≤ 16 µm
- Elastic limit of the customer shaft material R_e and/or $Rp_{0.2}$ ≥ 305 N/mm²
- Design of the customer shaft as solid shaft

For customer shaft designs as hollow shaft, contact SEW-EURODRIVE.

7.3.6 Splined hollow shaft

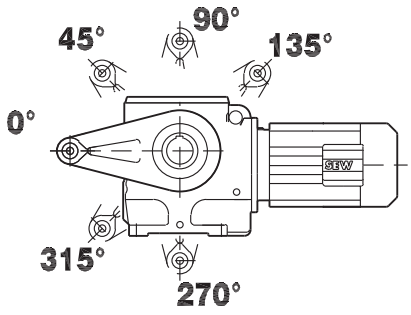
FV.. hollow shaft gear unit sizes 27 to 107, and KV.. sizes 37 to 107 are supplied with splining according to standard 5480.

7.3.7 Rubber buffer for FA/FH/FV/FT

The depictions on the dimension sheets show the rubber buffers for FA/FH/FV/FT gear units in loose state. Preload rubber buffer by the indicated value ΔL. The characteristic curve of spring for the rubber buffer is available upon request from SEW-EURODRIVE.

7.3.8 Position of the torque arm

The following illustration shows the possible torque arm positions for helical-worm gear units, the 2-stage K..9 helical-bevel gear units, and SPIROPLAN® gear units (135° position not possible with SPIROPLAN® gear units) as well as the respective angles:



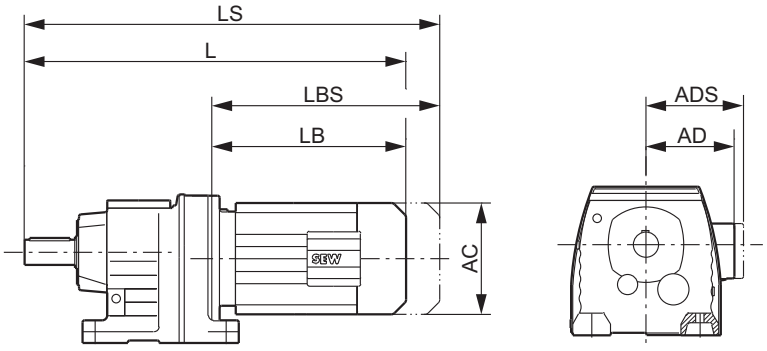
4982718475

For more information about torque arms, refer to the respective dimension sheets of the gearmotors:

Gearmotor	Dimension sheets on page
Helical-bevel gearmotors	(→ 🗎 546)
Helical-worm gearmotors	(→ 🗎 675)
SPIROPLAN® gearmotors	(→ 🗎 757)

7.3.9 Gearmotor dimension drawings

The dimension drawings of the gearmotors are described below:



8671113739

L	Total length of gearmotor
LS	Total length of gearmotor including brake
LB	Length of motor
LBS	Length of brakemotor
AC	Diameter of motor
AD	Center of motor shaft to top part of terminal box
ADS	Center of brakemotor shaft to top part of terminal box

7.3.10 Motor options

The motor dimensions may change when installing motor options. Refer to the dimension drawings of the motor options in the "AC Motors" catalog.

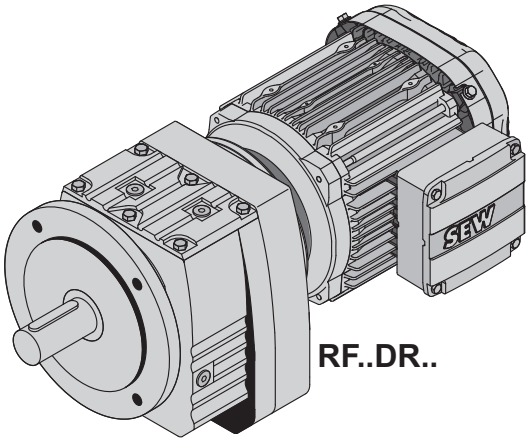
7.3.11 Special designs

The terminal box dimensions in special designs might vary from the standard.

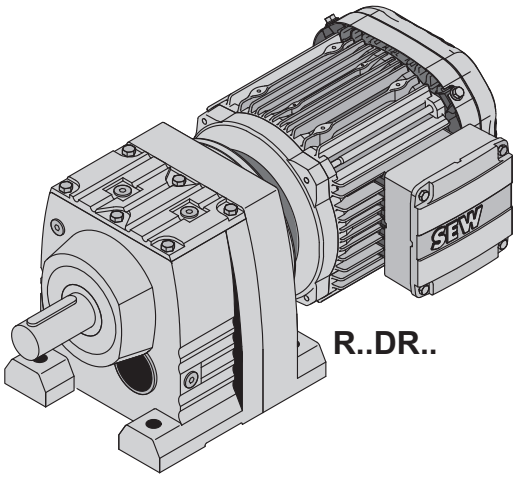
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8 Helical gearmotors

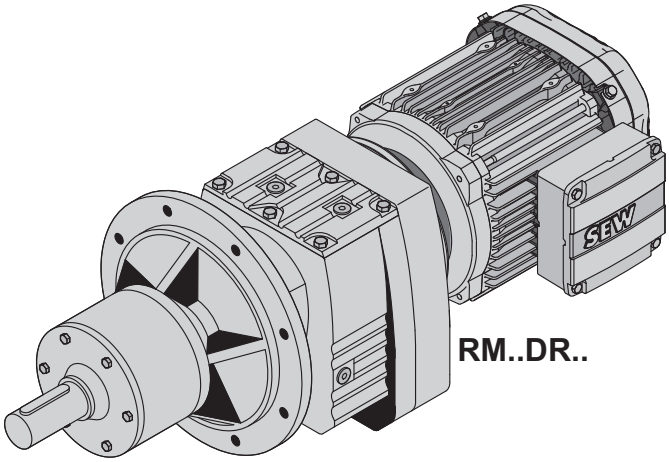
8.1 R..DRN.. designs



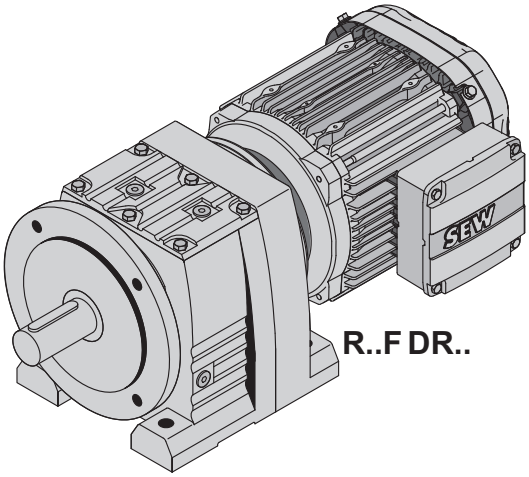
RF..DR..



R..DR..



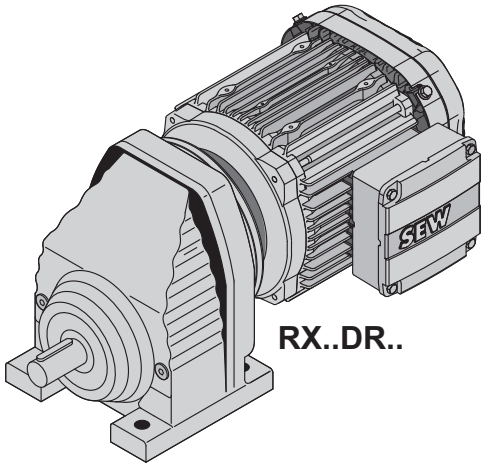
RM..DR..



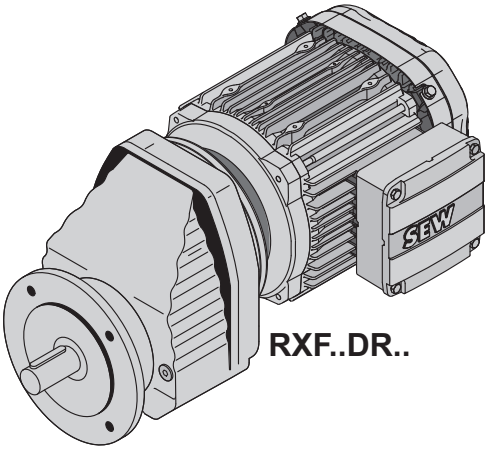
R..F DR..

8654457099

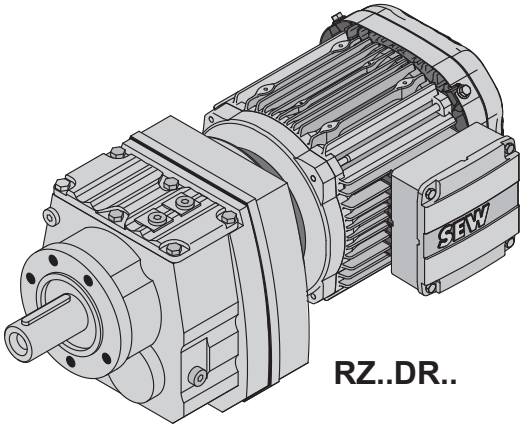
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RX..DR..



RXF..DR..



RZ..DR..

8962221323

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8.2 Possible geometrical combinations of R..DRN..

RX57, n_e=1400 1/min — 69 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
						1				
255	39	3100	-	5.50*						
276	36	3030	-	5.07						
322	68	2640	-	4.35						
369	69	2480	-	3.79						
394	69	2420	-	3.55*						
446	65	2320	-	3.14						
481	67	2170	-	2.91						
530	69	1810	-	2.64*						
591	69	1500	-	2.37						
686	69	1070	-	2.04						
729	69	880	-	1.92*						
848	69	430	-	1.65						
946	68	112	-	1.48						
1075	63	132	-	1.30						

RX67, n_e=1400 1/min — 134 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
						1				
231	43	4000	-	6.07						
270	75	3580	-	5.18						
309	82	3350	-	4.53						
326	80	3300	-	4.30*						
371	87	3090	-	3.77						
438	100	2800	-	3.20*						
484	106	2640	-	2.89						
551	118	2000	-	2.54						
583	123	1530	-	2.40*						
686	134	230	-	2.04						
753	126	225	-	1.86						
870	114	245	-	1.61						
1000	104	205	-	1.40*						

RX77, n_e=1400 1/min — 215 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
						1					
175	57	6330	-	8.00*							
187	53	6200	-	7.47							
218	103	5600	-	6.41							
249	110	5300	-	5.63							

RX77, n_e=1400 1/min — 215 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
262	103	5240	-	5.35*							
296	123	4890	-	4.73							
347	143	4490	-	4.04*							
378	153	4280	-	3.70							
431	182	3140	-	3.25*							
455	193	2490	-	3.08*							
519	215	1030	-	2.70							
576	215	425	-	2.43							
657	200	360	-	2.13							
745	187	255	-	1.88*							
838	173	240	-	1.67							
986	155	240	-	1.42							

RX87, n_e=1400 1/min — 405 Nm

n_a 1/ min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L
							1						
162	139	7890	-	8.65									
183	149	7500	-	7.63									
194	140	7380	-	7.20*									
217	192	6860	-	6.45									
252	225	6330	-	5.56*									
276	250	5990	-	5.07									
311	290	5520	-	4.50*									
370	305	5050	-	3.78									
402	405	2810	-	3.48									
453	405	2030	-	3.09									
507	405	1200	-	2.76*									
565	405	470	-	2.48									
651	385	42	-	2.15									
725	355	185	-	1.93									
875	315	74	-	1.60*									
1005	290	74	-	1.39									

RX97, n_e=1400 1/min — 595 Nm

n_a 1/ min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S
							1						
170	225	9570	-	8.23									
196	260	8960	-	7.16*									
213	300	8510	-	6.56									
242	420	7650	-	5.79									
285	395	7240	-	4.91									
310	595	6210	-	4.52									
347	595	5450	-	4.04									
385	595	4610	-	3.64*									
424	595	3820	-	3.30									

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RX97, n_e=1400 1/min — 595 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S
479	595	2890	-	2.92									
530	595	2020	-	2.64									
625	595	545	-	2.24*									
714	570	19	-	1.96									
854	505	51	-	1.64									
986	455	132	-	1.42									

RX107, n_e=1400 1/min — 830 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M
				 1						
211	460	9660	-	6.63*						
250	455	9040	-	5.61						
270	695	7780	-	5.19						
301	695	7380	-	4.65						
333	830	6140	-	4.20*						
367	830	5260	-	3.81						
414	830	4190	-	3.38						
456	830	3300	-	3.07						
530	830	1850	-	2.64*						
609	830	760	-	2.30						
718	765	420	-	1.95						
819	705	345	-	1.71						
972	645	315	-	1.44						

R07, n_e=1400 1/min — 50 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DT56M DT56L DR63S DR63M DR63L DRS71S DRS71M
				 3	
18	50	1510	-	78.24	
20	50	1510	-	71.47	
23	50	1510	-	60.32	
27	50	1510	-	51.52	
29	50	1470	-	47.78	
32	50	1420	-	44.16	
34	50	1380	-	41.31	
35	50	1370	-	40.34	
36	50	1340	-	38.51	
41	50	1270	-	34.05	
48	50	1190	-	29.08	
52	50	1150	-	26.97	
60	50	1080	-	23.32	
64	50	1040	-	21.73	
				 2	
76	50	960	-	18.31	

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R07, n_e=1400 1/min					50 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DT56M DT56L DR63S DR63M DR63L DRS71S DRS71M
84	50	920	-	16.73	
99	50	850	-	14.12	
116	50	790	-	12.06	
125	50	760	-	11.18	
145	50	710	-	9.67	
155	50	685	-	9.01	
178	49	645	-	7.85	
187	43	595	-	7.48	
205	43	535	-	6.83	
243	40	530	-	5.76	
285	37	530	-	4.92	
306	36	520	-	4.57	
354	34	505	-	3.95	
380	33	500	-	3.68	
436	31	495	-	3.21	

R17, n_e=1400 1/min						85 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
				 3		
17	85	1770	-	81.64		
20	85	1770	-	70.39		
21	85	1770	-	65.61		
24	85	1770	-	57.35		
26	85	1770	-	53.76		
30	85	1770	-	47.44		
32	85	1770	-	44.18		
36	85	1770	-	38.61		
39	85	1770	-	36.20		
44	85	1770	-	31.94		
49	85	1770	-	28.32		
58	85	1650	-	24.07		
				 2		
55	85	1680	-	25.23		
60	85	1620	-	23.15		
71	85	1500	-	19.71		
82	85	1400	-	16.99		
88	85	1350	-	15.84		
101	85	1270	-	13.84		
108	85	1230	-	12.98		
122	81	1180	-	11.45		
138	77	1140	-	10.15		
162	72	1090	-	8.63		
185	56	1040	-	7.55		
199	55	1010	-	7.04		

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R17, n_e=1400 1/min						85 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
228	54	950	-	6.15		
243	53	930	-	5.76		
275	51	890	-	5.09		
310	48	870	-	4.51		
366	45	820	-	3.83		

R27, n_e=1400 1/min								130 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
					3			
10	130	4230	-	135.09				
11	130	4230	-	123.91				
13	130	4230	-	105.49				
15	130	4230	-	90.96				
17	130	4230	-	84.78				
19	130	4230	-	74.11				
20	130	4180	-	69.47				
23	130	3980	-	61.30				
25	130	3840	-	55.87				
29	130	3630	-	48.17				
31	130	3530	-	44.90				
36	130	3350	-	39.25				
38	130	3260	-	36.79				
43	130	3100	-	32.47				
49	130	2950	-	28.78				
57	130	2760	-	24.47				
					2			
49	130	2940	-	28.37				
54	130	2840	-	26.09				
63	130	2660	-	22.32				
72	130	2510	-	19.35				
77	130	2440	-	18.08				
90	130	2290	-	15.63				
105	130	2140	-	13.28*				
118	129	1980	-	11.86				
138	122	1890	-	10.13				
149	122	900	-	9.41				
172	116	870	-	8.16				
183	112	900	-	7.63*				
212	106	880	-	6.59				
250	99	880	-	5.60*				
280	95	860	-	5.00*				
328	87	920	-	4.27				
350	85	900	-	4.00*				
415	79	900	-	3.37				

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R27R17, n_e=1400 1/min						130 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
					3 3	
0.16	130	4230	-	8612		
0.19	130	3320	-	7425		
0.20	130	4230	-	6921		
0.23	130	4230	-	6050		
0.27	130	3320	-	5217		
0.30	130	4230	-	4661		
0.34	130	3320	-	4073		
0.40	130	4230	-	3516		
0.44	130	4230	-	3160		
0.51	130	4230	-	2763		
0.58	130	4230	-	2414		
0.66	130	4230	-	2110		
0.75	130	4230	-	1862		
0.86	130	3320	-	1625		
0.98	130	4230	-	1434		
1.1	130	4230	-	1254		
					2 3	
0.77	130	4230	-	1822		
0.89	130	4230	-	1580		
0.96	130	4230	-	1464		
1.1	130	4230	-	1270		
1.3	130	4230	-	1100		
1.4	130	4230	-	972		
1.7	130	4230	-	840		
1.9	130	4230	-	741		
2.1	130	4230	-	654		
2.5	130	4230	-	566		
2.8	130	4230	-	499		
					3 2	
1.3	130	4230	-	1101		
1.5	130	4230	-	962		
1.7	130	3320	-	848		
1.9	130	3320	-	743		
2.2	130	4230	-	649		
2.5	130	4230	-	567		
2.8	130	4230	-	509		
3.2	130	4230	-	432		
3.6	130	4230	-	387		
4.1	130	3320	-	339		
4.7	130	3320	-	296		
5.4	130	4230	-	259		
6.1	130	4230	-	229		
7.0	130	4230	-	200		
7.9	130	3320	-	177		
8.4	130	4230	-	166		
9.3	130	4230	-	150		
9.9	130	4230	-	141		
11	130	3320	-	124		

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R27R17, n_e=1400 1/min						130 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
13	130	4230	-	110		
15	130	4230	-	94		
					2 2	
3.2	130	4230	-	440		
3.7	130	4230	-	381		
4.3	130	4230	-	329		
4.8	130	4230	-	290		
5.5	130	4230	-	256		
6.2	130	4230	-	227		
6.9	130	4230	-	203		
7.8	130	4230	-	179		
9.0	130	4230	-	156		
10	130	4230	-	135		
12	130	4230	-	118		
13	130	4230	-	104		
16	130	4230	-	90		

R37, n_e=1400 1/min								200 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
						3		
10	200	4940	7.9	134.82				
11	200	4940	8	123.66				
13	200	4940	8	105.28				
15	200	4940	8	90.77				
17	200	4940	8	84.61				
19	200	4940	8	73.96				
20	200	4940	8	69.33				
23	200	4940	8.1	61.18				
25	200	4940	8.7	55.76				
29	200	4940	8.7	48.08				
31	200	4940	8.8	44.81				
36	200	4760	8.8	39.17				
38	200	4540	8.9	36.72				
43	200	4120	8.9	32.40				
49	200	3740	9	28.73				
57	200	3240	9	24.42				
						2		
49	200	3690	7.3	28.32				
54	185	3860	7.4	26.03				
63	200	2970	7.4	22.27				
73	200	2570	7.5	19.31				
78	200	2390	7.5	18.05				
90	200	2010	7.7	15.60				
106	190	1880	7.9	13.25				
118	183	1810	8	11.83				

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R37, n_e=1400 1/min								200 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
138	170	1820	8.1	10.11				
148	167	1760	8.2	9.47				
176	156	1720	8.4	7.97				
210	144	1000	12.1	6.67				
247	142	760	12.4	5.67				
277	135	790	12.7	5.06				
324	126	820	13	4.32				
346	122	840	13.2	4.05				
411	112	900	13.7	3.41				

R37R17, n_e=1400 1/min						200 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
					3 3	
0.16	200	4940	-	8595		
0.19	200	4940	-	7411		
0.20	200	4940	-	6907		
0.23	200	4940	-	6038		
0.27	200	4940	-	5206		
0.30	200	4940	-	4651		
0.34	200	4940	-	4065		
0.38	200	4940	-	3658		
0.44	200	4940	-	3154		
0.51	200	4940	-	2757		
0.58	200	4940	-	2409		
0.66	200	4940	-	2106		
0.75	200	4940	-	1856		
0.86	200	4940	-	1622		
0.98	200	4940	-	1431		
1.1	200	4940	-	1251		
					2 3	
0.77	200	4940	-	1818		
0.89	200	4940	-	1576		
1.0	200	4940	-	1359		
1.1	200	4940	-	1267		
1.3	200	4940	-	1098		
1.4	200	4940	-	970		
1.7	200	4940	-	839		
1.9	200	4940	-	740		
2.1	200	4940	-	653		
2.4	200	4940	-	577		
2.8	200	4940	-	498		
					3 2	
1.3	200	4940	-	1099		
1.5	200	4940	-	960		
1.7	200	4940	-	847		

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R37R17, n_e=1400 1/min						200 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
1.9	200	4940	-	741		
2.2	200	4940	-	647		
2.5	200	4940	-	566		
2.8	200	4940	-	508		
3.2	200	4940	-	431		
3.6	200	4940	-	387		
4.1	200	4940	-	338		
4.7	200	4940	-	296		
5.4	200	4940	-	259		
6.1	200	4940	-	228		
7.0	200	4940	-	199		
8.1	200	4940	-	172		
9.3	200	4940	-	150		
11	200	4940	-	130		
11	200	4940	-	124		
13	200	4940	-	110		
15	200	4940	-	94		
					2 2	
3.2	200	4940	-	439		
3.7	200	4940	-	378		
4.3	200	4940	-	328		
4.8	200	4940	-	289		
5.3	200	4940	-	265		
6.2	200	4940	-	226		
6.9	200	4940	-	202		
7.8	200	4940	-	179		
9.0	200	4940	-	156		
10	200	4940	-	135		
11	200	4940	-	127		
13	200	4940	-	104		
16	200	4940	-	90		

R47, n_e=1400 1/min										300 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S
						3				
7.9	300	5420	6.9	176.88						
8.6	300	5420	6.9	162.94						
10	300	5420	6.9	139.99						
11	300	5420	6.9	121.87						
12	300	5420	6.9	114.17						
14	300	5420	7	100.86						
15	300	5420	7	93.68						
16	300	5420	7	84.90						
18	300	5420	7	76.23						
20	300	5420	7.6	68.54						
22	300	5420	7.6	64.21						

R47, n_e=1400 1/min										300 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S
25	300	5420	7.6	56.73						
27	300	5350	7.6	52.69						
29	300	5140	7.7	47.75						
33	300	4930	7.7	42.87						
38	300	4630	7.7	36.93						
40	300	4520	7.7	34.73						
47	300	4240	7.8	29.88						
52	300	4050	7.9	26.70						
59	300	3840	8	23.59						
 2										
41	240	4680	6.5	33.79						
45	220	4610	6.5	31.12						
52	300	4050	6.6	26.74						
60	300	3820	6.6	23.28						
64	300	3710	6.7	21.81						
73	295	3530	6.8	19.27						
78	290	3390	6.8	17.89						
86	275	3350	6.9	16.22						
96	265	3230	7	14.56						
112	250	3080	7.1	12.54						
119	245	3020	7.1	11.79						
138	230	2880	7.3	10.15						
154	220	2780	7.7	9.07						
175	205	2690	7.8	8.01						
180	163	2720	9.5	7.76*						
201	159	2620	9.7	6.96						
233	156	2470	9.9	6.00						
248	155	2410	10	5.64*						
289	150	2280	10.3	4.85						
323	146	2190	11.1	4.34						
366	144	2080	11.4	3.83						

R47R37, n_e=1400 1/min								300 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
 3  3								
0.10	300	5420	-	13598				
0.11	300	5420	-	12472				
0.13	300	5420	-	10619				
0.15	300	5420	-	9155				
0.16	300	5420	-	8534				
0.19	300	5420	-	7460				
0.20	300	5420	-	6993				
0.23	300	5420	-	6171				
0.25	300	5420	-	5624				
0.29	300	5420	-	4849				
0.31	300	5420	-	4520				

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R47R37, n_e=1400 1/min								300 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
0.35	300	5420	-	3951				
0.38	300	5420	-	3704				
0.43	300	5420	-	3268				
0.48	300	5420	-	2898				
0.57	300	5420	-	2463				
								
0.54	300	5420	-	2598				
0.59	300	5420	-	2383				
0.69	300	5420	-	2029				
0.80	300	5420	-	1749				
0.86	300	5420	-	1630				
0.98	300	5420	-	1425				
1.0	300	5420	-	1336*				
1.2	300	5420	-	1179				
1.3	300	5420	-	1074				
1.5	300	5420	-	927				
1.6	300	5420	-	863				
1.9	300	5420	-	755				
2.0	300	5420	-	708				
2.2	300	5420	-	624				
2.5	300	5420	-	554				
3.0	300	5420	-	471				
								
0.49	300	5420	-	2856				
0.53	300	5420	-	2625				
0.62	300	5420	-	2246				
0.72	300	5420	-	1948				
0.77	300	5420	-	1821				
0.89	300	5420	-	1573				
1.2	300	5420	-	1193				
1.4	300	5420	-	1020				
1.5	300	5420	-	955				
1.7	300	5420	-	804				
2.1	300	5420	-	673				
2.4	300	5420	-	572				
2.7	300	5420	-	510				
3.2	300	5420	-	436				
3.4	300	5420	-	408				
4.1	300	5420	-	344				
								
2.6	300	5420	-	546				
2.8	300	5420	-	502				
3.3	300	5420	-	429				
3.8	300	5420	-	372				
4.0	300	5420	-	348				
4.7	300	5420	-	301				
5.5	300	5420	-	255				
6.1	300	5420	-	228				
7.2	300	5420	-	195				

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R47R37, n_e=1400 1/min								300 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
7.7	300	5420	-	182				
9.1	300	5420	-	154				
11	300	5420	-	129				
13	300	5420	-	109				
14	300	5420	-	98				

R57, n_e=1400 1/min										450 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
 3										
7.5	450	7100	6.9	186.89						
8.1	450	7100	6.9	172.17						
9.5	450	7100	6.9	147.92						
11	450	7100	6.9	128.77						
12	450	7100	6.9	120.63						
13	450	7100	7	106.58						
14	450	7100	7	98.99						
16	450	7100	7	89.71						
17	450	7100	7	80.55						
20	450	7100	7.5	69.23						
22	450	6980	7.5	64.85						
24	450	6630	7.6	57.29						
26	450	6430	7.6	53.22						
29	450	6170	7.6	48.23						
32	450	5900	7.6	43.30						
38	450	5530	7.6	37.30*						
40	450	5390	7.7	35.07						
46	450	5040	7.7	30.18						
52	450	4800	7.8	26.97						
 2										
53	450	4750	6.4	26.31						
56	450	4640	6.5	24.99*						
64	450	4370	6.6	21.93						
75	450	4050	6.7	18.60*						
83	450	3860	6.7	16.79						
95	435	3690	6.8	14.77*						
100	430	3610	6.8	13.95*						
118	405	3430	6.9	11.88						
130	390	3330	7.2	10.79						
150	370	3180	7.4	9.35						
155	375	2010	8.7	9.06						
176	355	2020	8.8	7.97						
186	350	1950	8.8	7.53						
218	335	1770	9	6.41						
241	320	1820	9.6	5.82						
277	305	1730	9.9	5.05						
319	280	1900	10.1	4.39						

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R57R37, n_e=1400 1/min								450 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
					3 3			
0.10	450	7100	-	14369				
0.12	450	7100	-	12095				
0.13	450	7100	-	10860				
0.15	450	7100	-	9445				
0.17	450	7100	-	8480				
0.19	450	7100	-	7312				
0.21	450	7100	-	6521				
0.25	450	7100	-	5585				
0.28	450	7100	-	4928				
0.32	450	7100	-	4378				
0.36	450	7100	-	3873				
0.42	450	7100	-	3344				
0.48	450	7100	-	2907				
0.55	450	7100	-	2567				
0.62	450	7100	-	2244				
0.71	450	7100	-	1967				
					2 3			
0.47	450	7100	-	2957				
0.56	450	7100	-	2508				
0.61	450	7100	-	2309				
0.70	450	7100	-	1991				
0.79	450	7100	-	1768				
0.92	450	7100	-	1520				
1.0	450	7100	-	1342*				
1.2	450	7100	-	1164				
1.4	450	7100	-	1027				
1.6	450	7100	-	894				
1.7	450	7100	-	805				
2.0	450	7100	-	683				
2.3	450	7100	-	603				
2.6	450	7100	-	534				
3.1	450	7100	-	454				
3.4	450	7100	-	410				
					3 2			
0.81	450	7100	-	1732				
0.90	450	7100	-	1555				
1.0	450	7100	-	1399				
1.2	450	7100	-	1189				
1.4	450	7100	-	1034				
1.8	450	7100	-	782				
2.1	450	7100	-	678				
2.3	450	7100	-	604				
2.6	450	7100	-	537				
3.0	450	7100	-	471				
3.9	450	7100	-	357				
4.4	450	7100	-	319				
5.1	450	7100	-	273				
5.8	450	7100	-	241				

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R57R37, n_e=1400 1/min								450 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
6.5	450	7100	-	215				
7.5	450	7100	-	187				
8.5	450	7100	-	164				
9.9	450	7100	-	142				
					2	2		
3.9	450	7100	-	359				
4.3	450	7100	-	324				
4.8	450	7100	-	290				
5.3	450	7100	-	262				
5.7	450	7100	-	246*				
6.4	450	7100	-	220*				
7.4	450	7100	-	188				
8.8	450	7100	-	159				
9.6	450	7100	-	146				
10	450	7100	-	134				

R67, n_e=1400 1/min										600 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
						3				
7.0	600	7560	6.4	199.81						
7.6	600	7560	6.4	184.07						
8.9	600	7560	6.4	158.14						
10	600	7560	6.4	137.67						
11	600	7560	6.4	128.97						
12	600	7560	6.5	113.94						
13	600	7560	6.5	105.83						
15	600	7560	6.5	95.91						
16	600	7560	6.5	86.11						
19	600	7560	6.5	74.17						
20	600	7560	6.5	69.75						
23	600	7560	7	61.26						
25	600	7560	7	56.89						
27	600	7560	7.1	51.56						
30	600	7560	7.1	46.29						
35	580	7790	7.1	39.88*						
37	570	7900	7.1	37.50						
43	540	8210	7.2	32.27						
49	520	8400	7.3	28.83						
						2				
50	540	8210	6	28.13						
52	540	8210	6	26.72						
60	560	8010	6.1	23.44						
70	600	7560	6.2	19.89						
78	590	7330	6.2	17.95						
89	560	7130	6.3	15.79						

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R67, n_e=1400 1/min										600 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
94	550	6980	6.3	14.91						
110	520	6640	6.4	12.70						
121	500	6500	6.7	11.54						
140	470	6220	6.8	10.00						
161	440	5960	7	8.70*						
180	380	5830	8.3	7.79						
190	370	5790	8.3	7.36*						
223	330	5590	8.5	6.27						
246	310	5450	9.1	5.70						
284	290	5210	9.4	4.93						
326	270	5000	9.7	4.29						

R67R37, n_e=1400 1/min								600 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
					3 3			
0.09	600	7560	-	15361				
0.11	600	7560	-	12931				
0.12	600	7560	-	11996				
0.14	600	7560	-	10097				
0.15	600	7560	-	9066				
0.18	600	7560	-	7816				
0.21	600	7560	-	6732				
0.23	600	7560	-	5970				
0.27	600	7560	-	5268				
0.30	600	7560	-	4680				
0.34	600	7560	-	4136				
0.39	600	7560	-	3566				
0.45	600	7560	-	3125				
0.51	600	7560	-	2745				
0.58	600	7560	-	2403				
					2 3			
0.52	600	7560	-	2682				
0.57	600	7560	-	2460				
0.67	600	7560	-	2094				
0.78	600	7560	-	1805				
0.86	600	7560	-	1629				
0.95	600	7560	-	1471				
1.0	600	7560	-	1379				
1.3	600	7560	-	1109				
1.5	600	7560	-	956				
1.6	600	7560	-	891				
1.9	600	7560	-	730				
2.2	600	7560	-	644				
2.5	600	7560	-	571				
2.9	600	7560	-	486				

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R67R37, n_e=1400 1/min								600 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
					3 2			
0.66	600	7560	-	2136				
0.76	600	7560	-	1852				
0.85	600	7560	-	1652				
0.98	600	7560	-	1432				
1.1	600	7560	-	1259				
1.3	600	7560	-	1106				
1.7	600	7560	-	836				
1.9	600	7560	-	750				
2.2	600	7560	-	646				
2.4	600	7560	-	574				
2.8	600	7560	-	495				
3.2	600	7560	-	438				
3.6	600	7560	-	388				
4.1	600	7560	-	344				
4.8	600	7560	-	294				
5.4	600	7560	-	261				
6.0	600	7560	-	234				
7.0	600	7560	-	200				
8.0	600	7560	-	176				
8.9	600	7560	-	158				
					2 2			
3.2	600	7560	-	443				
3.6	600	7560	-	384				
3.9	600	7560	-	359				
4.5	600	7560	-	310				
5.3	600	7560	-	264*				
6.0	600	7560	-	235				
7.0	600	7560	-	201				
7.7	600	7560	-	181				
8.8	600	7560	-	159				

R77, n_e=1400 1/min											820 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
					3						
7.2	820	9920	6.4	195.24*							
8.4	820	9920	6.5	166.59							
9.6	820	9920	6.4	145.67							
10	820	9920	6.4	138.39							
12	820	9920	6.5	121.42							
14	820	9920	6.5	102.99							
15	820	9920	6.5	92.97							
17	820	9920	6.5	81.80							
18	820	9920	6.5	77.24							
21	820	9920	6.5	65.77							

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R77, n_e=1400 1/min											820 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
24	820	9920	7.1	57.68							
27	820	9920	7.1	52.07							
31	820	9920	7.1	45.81							
32	820	9920	7.1	43.26							
38	820	9920	7.1	36.83							
42	820	9920	7.2	33.47							
48	820	9920	7.3	29.00							
55	780	10100	7.3	25.23							
2											
60	820	8870	6.1	23.37							
65	820	8250	6.1	21.43							
74	780	7980	6.1	18.80							
79	780	7620	6.2	17.82*							
90	740	7390	6.2	15.60							
100	720	7050	6.5	14.05							
114	690	6740	6.4	12.33							
129	660	6490	6.5	10.88							
145	630	6300	6.7	9.64							
163	630	4110	7.5	8.59							
181	610	3940	7.9	7.74							
206	580	3850	7.8	6.79							
234	540	3990	8	5.99*							
264	510	3990	8.4	5.31*							

R77R37, n_e=1400 1/min								820 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
3 3								
0.09	820	9920	-	16370				
0.09	820	9920	-	15015				
0.10	820	9920	-	13885				
0.11	820	9920	-	12783				
0.13	820	9920	-	11021				
0.14	820	9920	-	9788				
0.16	820	9920	-	8714				
0.18	820	9920	-	7617				
0.21	820	9920	-	6770				
0.24	820	9920	-	5838				
0.27	820	9920	-	5184				
0.31	820	9920	-	4470				
0.35	820	9920	-	3999				
0.40	820	9920	-	3488				
0.46	820	9920	-	3053				
0.52	820	9920	-	2671				
2 3								
0.44	820	9920	-	3151				

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R77R37, n_e=1400 1/min								820 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
0.48	820	9920	-	2890				
0.57	820	9920	-	2460				
0.66	820	9920	-	2121				
0.71	820	9920	-	1977				
0.81	820	9920	-	1728				
0.86	820	9920	-	1620				
0.98	820	9920	-	1430				
1.1	820	9920	-	1303				
1.2	820	9920	-	1124				
1.3	820	9920	-	1047				
1.5	820	9920	-	915				
1.6	820	9920	-	858				
1.8	820	9920	-	757				
2.1	820	9920	-	671				
2.5	820	9920	-	571				
3 2								
0.60	820	9920	-	2345				
0.68	820	9920	-	2070				
0.77	820	9920	-	1822				
0.89	820	9920	-	1580				
1.0	820	9920	-	1394				
1.1	820	9920	-	1218				
1.3	820	9920	-	1084*				
1.5	820	9920	-	940				
1.7	820	9920	-	821				
1.9	820	9920	-	731				
2.2	820	9920	-	646				
2.5	820	9920	-	560				
2.9	820	9920	-	488				
3.2	820	9920	-	436				
3.8	820	9920	-	373				
4.3	820	9920	-	327				
4.8	820	9920	-	289				
5.4	820	9920	-	260				
6.2	820	9920	-	224				
7.1	820	9920	-	197				
8.3	820	9920	-	169				
9.4	820	9920	-	149				
2 2								
2.7	820	9920	-	520				
3.1	820	9920	-	451				
3.3	820	9920	-	422				
3.8	820	9920	-	365				
4.5	820	9920	-	310*				
5.1	820	9920	-	276				
5.9	820	9920	-	236				
6.3	820	9920	-	221				
7.5	820	9920	-	186				

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R87, n_e=1400 1/min													1550 Nm
n_a 1/ min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L
							 3						
5.7	1550	16900	6	246.54									
6.5	1550	16900	6	216.54									
6.8	1550	16900	6	205.71									
7.7	1550	16900	6	181.77									
9.0	1550	16900	6	155.34									
9.8	1550	16900	6	142.41									
11	1550	16900	6	124.97									
12	1550	16900	6	118.43*									
14	1550	16900	6	103.65									
15	1550	16900	6	93.38									
17	1550	16900	6	81.92									
19	1550	16900	6.4	72.57									
22	1550	15800	6.4	63.68*									
23	1550	15200	6.4	60.35*									
27	1550	13500	6.5	52.82									
29	1550	12300	6.5	47.58									
34	1550	10800	6.5	41.74									
38	1550	9470	6.5	36.84*									
43	1550	8220	6.6	32.66*									
50	1500	7370	6.6	27.88									
							 2						
41	1500	9480	5.5	34.40*									
45	1550	7820	5.5	31.40									
50	1550	6640	5.5	27.84*									
60	1550	5000	5.5	23.40									
65	1500	4970	5.7	21.51									
73	1440	4800	5.7	19.10									
82	1390	4580	5.8	17.08*									
91	1340	4450	5.9	15.35									
105	1280	4220	6	13.33									
117	1230	4120	6	11.93									
141	1180	3520	6.1	9.90*									
153	1210	99	6.3	9.14*									
170	1160	225	6.6	8.22									
196	1070	820	6.7	7.13									
219	1020	970	6.8	6.39									
264	910	1710	7	5.30*									

R87R57, n_e=1400 1/min										1550 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
						 3  3				
0.08	1550	16900	-	17452						
0.09	1550	16900	-	15310						
0.10	1550	16900	-	13813						
0.12	1550	16900	-	12025						

R87R57, n_e=1400 1/min										1550 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
0.13	1550	16900	-	10549						
0.15	1550	16900	-	9244						
0.17	1550	16900	-	8109						
0.20	1550	16900	-	7038						
0.23	1550	16900	-	6174						
0.26	1550	16900	-	5449						
0.29	1550	16900	-	4831						
0.33	1550	16900	-	4206						
0.37	1550	16900	-	3744						
0.43	1550	16900	-	3233						
0.49	1550	16900	-	2873						
0.56	1550	16900	-	2518						
0.63	1550	16900	-	2209						
0.71	1550	16900	-	1961						
1.4	1550	16900	-	994						
1.6	1550	16900	-	881						
										
0.35	1550	16900	-	4020						
0.38	1550	16900	-	3703						
0.44	1550	16900	-	3182						
0.51	1550	16900	-	2770						
0.54	1550	16900	-	2595						
0.66	1550	16900	-	2129						
0.73	1550	16900	-	1930						
0.81	1550	16900	-	1733						
0.94	1550	16900	-	1489						
1.0	1550	16900	-	1395						
1.1	1550	16900	-	1232						
1.2	1550	16900	-	1145						
1.4	1550	16900	-	1037						
1.5	1550	16900	-	931						
1.7	1550	16900	-	802*						
1.9	1550	16900	-	754						
2.2	1550	16900	-	649						
2.4	1550	16900	-	580						
										
0.81	1550	16900	-	1737						
0.92	1550	16900	-	1524						
1.1	1550	16900	-	1303						
1.2	1550	16900	-	1143						
1.4	1550	16900	-	1008						
1.6	1550	16900	-	885						
1.8	1550	16900	-	776						
2.0	1550	16900	-	685*						
2.3	1550	16900	-	599						
2.7	1550	16900	-	525						
3.1	1550	16900	-	456*						
3.5	1550	16900	-	398						
4.0	1550	16900	-	352						

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R87R57, n_e=1400 1/min										1550 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
4.6	1550	16900	-	305						
5.2	1550	16900	-	268						
5.9	1550	16900	-	236*						
6.7	1550	16900	-	209*						
						2	2			
2.6	1550	16900	-	538						
3.0	1550	16900	-	472						
3.5	1550	16900	-	400						
3.9	1550	16900	-	361						
4.7	1550	16900	-	300						
5.5	1550	16900	-	256						
6.0	1550	16900	-	232						
7.2	1550	16900	-	195						

R97, n_e=1400 1/min													3000 Nm
n_a 1/ min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S
							3						
4.8	3000	19800	5.7	289.74									
5.5	3000	19800	5.7	255.71									
5.8	3000	19800	5.7	241.25									
6.5	3000	19800	5.7	216.28									
7.5	3000	19800	5.7	186.30									
8.2	3000	19800	5.7	170.02									
9.3	3000	19800	5.7	150.78									
11	3000	19800	5.7	126.75									
12	3000	19800	5.7	116.48									
14	3000	19800	5.7	103.44									
15	3000	19800	5.7	92.48									
17	3000	19800	5.8	83.15									
19	3000	18000	5.8	72.17									
21	3000	16300	6.1	65.21									
23	3000	14800	6.2	59.92									
26	3000	12900	6.2	53.21									
29	3000	11100	6.2	47.58									
33	3000	9480	6.2	42.78									
38	3000	7410	6.3	37.13									
42	2890	7160	6.3	33.25									
51	2670	7260	6.3	27.58									
							2						
44	2560	10600	5.3	32.05									
51	2560	8380	5.3	27.19									
56	2830	4140	5.4	25.03									
63	2720	4060	5.5	22.37									
70	2610	4110	5.5	20.14									
77	2500	4270	5.6	18.24									
87	2400	4130	5.6	16.17									

R97, n_e=1400 1/min													3000 Nm
n_a 1/ min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S
96	2300	4240	5.6	14.62									
113	2190	3850	5.7	12.39									
129	2090	3720	5.8	10.83									
151	2030	-	5.6	9.29									
167	2030	-	5.7	8.39									
197	2000	-	5.8	7.12									
225	1890	-	5.9	6.21									
269	1780	-	6.1	5.20									
311	1630	-	6.2	4.50*									

R97R57, n_e=1400 1/min										3000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
						3 3				
0.06	3000	19800	-	21769						
0.07	3000	19800	-	19332						
0.08	3000	19800	-	17230						
0.09	3000	19800	-	14999						
0.11	3000	19800	-	13320						
0.13	3000	19800	-	11156						
0.14	3000	19800	-	10030						
0.16	3000	19800	-	8706						
0.18	3000	19800	-	7692						
0.21	3000	19800	-	6708						
0.24	3000	19800	-	5931						
0.27	3000	19800	-	5161						
0.31	3000	19800	-	4559						
0.35	3000	19800	-	4004						
0.40	3000	19800	-	3481						
						2 3				
0.30	3000	19800	-	4678						
0.32	3000	19800	-	4309						
0.38	3000	19800	-	3702						
0.46	3000	19800	-	3019						
0.52	3000	19800	-	2668						
0.62	3000	19800	-	2245						
0.69	3000	19800	-	2016						
0.81	3000	19800	-	1733						
0.86	3000	19800	-	1623						
0.98	3000	19800	-	1434						
1.2	3000	19800	-	1207						
1.3	3000	19800	-	1084						
1.5	3000	19800	-	934						
1.6	3000	19800	-	878						
1.9	3000	19800	-	755						
						3 2				
0.46	3000	19800	-	3065						

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R97R57, n_e=1400 1/min										3000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
0.51	3000	19800	-	2722						
0.61	3000	19800	-	2311						
0.67	3000	19800	-	2078						
0.77	3000	19800	-	1823						
0.88	3000	19800	-	1583						
1.0	3000	19800	-	1396						
1.1	3000	19800	-	1228						
1.3	3000	19800	-	1069						
1.5	3000	19800	-	938						
1.7	3000	19800	-	824						
1.9	3000	19800	-	737						
2.2	3000	19800	-	632						
2.5	3000	19800	-	560						
2.9	3000	19800	-	484						
3.2	3000	19800	-	431						
3.7	3000	19800	-	379						
4.2	3000	19800	-	336						
4.7	3000	19800	-	296						
5.6	3000	19800	-	249						
6.0	3000	19800	-	234						
6.7	3000	19800	-	209						
						2	2			
2.2	3000	19800	-	625						
2.6	3000	19800	-	549						
3.0	3000	19800	-	466						
3.3	3000	19800	-	420						
3.8	3000	19800	-	370						
4.0	3000	19800	-	349						
4.7	3000	19800	-	297						
5.2	3000	19800	-	270						
6.2	3000	19800	-	227						

R107, n_e=1400 1/min										4300 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M
						3				
5.6	4300	29500	7	251.15						
6.1	4300	29500	7	229.95						
6.9	4300	29500	7	203.16						
8.1	4300	29500	7	172.34						
8.8	4300	29500	7	158.68						
9.9	4300	29500	7	141.83						
11	4300	29500	7	127.68						
12	4300	29500	7	115.63						
14	4300	29500	7	102.53						
15	4300	29500	7	92.70						
18	4300	29500	7.1	78.57						
19	4300	29500	7.3	72.88						

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R107, n_e=1400 1/min										4300 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M
21	4300	29200	7.3	65.60*						
24	4300	28000	7.4	59.41						
27	4300	26600	7.4	52.68						
29	4300	25500	7.4	47.63						
35	4300	23800	7.4	40.37*						
40	4300	22400	7.4	35.26						
47	4300	20700	7.5	29.49						
2										
45	4300	21100	6.7	30.77						
51	4300	20100	6.8	27.58						
56	4300	19200	6.8	24.90*						
62	4300	18300	6.9	22.62						
70	4300	17300	6.9	20.07						
77	4300	16600	6.8	18.21						
89	4300	15400	6.9	15.65						
102	4300	14400	6.9	13.66						
121	4300	13300	7	11.59						
138	4300	12400	7.1	10.13						
164	4300	11300	7.2	8.56						
178	2970	13800	8.8	7.86						
210	2970	12800	8.9	6.66						
241	2970	12100	9	5.82						
285	2900	11300	9.3	4.92						

R107R77, n_e=1400 1/min												4300 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
3 3												
0.07	4300	29500	-	20018								
0.08	4300	29500	-	17080								
0.09	4300	29500	-	14936								
0.11	4300	29500	-	12829								
0.12	4300	29500	-	11256								
0.15	4300	29500	-	9547								
0.16	4300	29500	-	8618								
0.18	4300	29500	-	7583								
0.21	4300	29500	-	6743								
0.24	4300	29500	-	5914								
0.27	4300	29500	-	5168								
0.32	4300	29500	-	4435								
0.36	4300	29500	-	3896								
0.41	4300	29500	-	3432								
0.46	4300	29500	-	3039								
0.52	4300	29500	-	2688								
0.60	4300	29500	-	2339								
2 3												
0.36	4300	29500	-	3918								
0.42	4300	29500	-	3343								

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R107R77, n_e=1400 1/min											4300 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
0.46	4300	29500	-	3034							
0.53	4300	29500	-	2653							
0.61	4300	29500	-	2280							
0.68	4300	29500	-	2067							
0.83	4300	29500	-	1693							
0.90	4300	29500	-	1550							
1.00	4300	29500	-	1407							
1.2	4300	29500	-	1209							
1.3	4300	29500	-	1055							
1.5	4300	29500	-	919							
1.7	4300	29500	-	815							
2.0	4300	29500	-	717							
2.2	4300	29500	-	626							
2.7	4300	29500	-	528							
						3	2				
0.70	4300	29500	-	1987							
0.77	4300	29500	-	1827							
0.88	4300	29500	-	1599							
1.0	4300	29500	-	1400*							
1.1	4300	29500	-	1226							
1.3	4300	29500	-	1104							
1.5	4300	29500	-	939							
1.7	4300	29500	-	822							
2.3	4300	29500	-	614							
2.6	4300	29500	-	544							
2.8	4300	29500	-	492							
3.4	4300	29500	-	417							
3.8	4300	29500	-	369							
4.3	4300	29500	-	323							
4.9	4300	29500	-	285							
5.5	4300	29500	-	253							
6.5	4300	29500	-	214*							
7.5	4300	29500	-	187							
						2	2				
3.0	4300	29500	-	469							
3.3	4300	29500	-	426							
3.7	4300	29500	-	377							
4.3	4300	29500	-	325							
4.9	4300	29500	-	284							
5.5	4300	29500	-	256							
6.4	4300	29500	-	220							
7.3	4300	29500	-	193							
8.1	4300	29500	-	172							

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R137, n_e=1400 1/min									8000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M	DRN250M DRN280S DRN280M
						 3			
6.3	8000	53400	6	222.60*					
7.4	8000	53400	6	188.45					
8.0	8000	53400	6.1	174.40*					
9.0	8000	53400	6.1	156.31					
9.9	8000	53400	6.1	141.12*					
11	8000	53400	6.1	128.18					
12	8000	53400	6.1	113.72					
14	8000	53400	6.1	103.20*					
16	8000	53400	6.1	88.70*					
17	8000	53400	6.4	80.91*					
19	8000	53400	6.4	73.49					
21	8000	53400	6.4	65.20					
24	8000	53400	6.4	59.17*					
28	8000	53400	6.4	50.86*					
32	8000	53400	6.4	44.39					
37	8000	53400	6.4	37.65					
43	8000	53400	6.5	32.91					
50	7680	54100	6.5	27.83					
						 2			
47	7780	53900	5.7	29.57*					
58	8000	49400	5.8	24.12					
64	8000	47100	5.8	22.00*					
74	8000	43500	5.9	19.04*					
83	8000	40600	5.9	16.80*					
96	8000	37300	5.9	14.51					
109	8000	34700	6	12.83					
130	8000	31100	6.1	10.79					
161	7840	27600	6.1	8.71					
184	5110	39000	8	7.59					
219	5110	35900	8.2	6.38					
272	4600	34500	8.2	5.15					

R137R77, n_e=1400 1/min											8000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
						 3  3					
0.06	8000	53400	-	22203*							
0.07	8000	53400	-	18945							
0.08	8000	53400	-	16566							
0.09	8000	53400	-	14777							
0.11	8000	53400	-	12921							
0.12	8000	53400	-	11712							
0.13	8000	53400	-	10573*							
0.16	8000	53400	-	8784							
0.19	8000	53400	-	7479							

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R137R77, n_e=1400 1/min											8000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
0.21	8000	53400	-	6559							
0.24	8000	53400	-	5834							
0.27	8000	53400	-	5116							
0.31	8000	53400	-	4464							
0.36	8000	53400	-	3928*							
0.41	8000	53400	-	3454							
0.47	8000	53400	-	2993							
						2	3				
0.30	8000	53400	-	4709*							
0.35	8000	53400	-	4018							
0.40	8000	53400	-	3514							
0.42	8000	53400	-	3338							
0.48	8000	53400	-	2929							
0.56	8000	53400	-	2484							
0.62	8000	53400	-	2242*							
0.75	8000	53400	-	1863							
0.88	8000	53400	-	1586							
1.0	8000	53400	-	1391							
1.1	8000	53400	-	1256							
1.3	8000	53400	-	1105							
1.3	8000	53400	-	1043							
1.6	8000	53400	-	888							
2.0	8000	53400	-	699							
2.3	8000	53400	-	609							
						3	2				
0.53	8000	53400	-	2658							
0.58	8000	53400	-	2412							
0.68	8000	53400	-	2073*							
0.76	8000	53400	-	1839*							
0.88	8000	53400	-	1598							
1.0	8000	53400	-	1397							
1.1	8000	53400	-	1226*							
1.3	8000	53400	-	1090*							
1.5	8000	53400	-	951							
1.7	8000	53400	-	831							
1.9	8000	53400	-	730							
2.2	8000	53400	-	629							
2.5	8000	53400	-	560							
2.9	8000	53400	-	490*							
3.3	8000	53400	-	428							
3.7	8000	53400	-	381							
4.3	8000	53400	-	323							
4.8	8000	53400	-	291							
5.5	8000	53400	-	255*							
6.3	8000	53400	-	223							
7.1	8000	53400	-	197*							
8.0	8000	53400	-	175							
						2	2				
2.5	8000	53400	-	564							

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R137R77, n_e=1400 1/min											8000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
2.7	8000	53400	-	517							
3.1	8000	53400	-	453*							
3.7	8000	53400	-	376							
4.1	8000	53400	-	339							
4.7	8000	53400	-	297							

R147, n_e=1400 1/min								13000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M	DRN250M DRN280S DRN280M
						3		
8.6	13000	62700	5.5	163.31				
9.5	13000	62700	5.5	146.91				
12	13000	62700	5.5	119.86				
13	13000	62700	5.5	109.31				
15	13000	62700	5.5	94.60*				
17	13000	62700	5.5	83.47				
19	13000	62700	5.5	72.09				
21	13000	62700	5.8	66.99				
23	13000	62700	5.8	61.09				
26	13000	62700	5.8	52.87				
30	13000	62700	5.8	46.65				
35	13000	62700	5.8	40.29				
39	13000	62700	5.9	35.64				
47	13000	62700	5.9	29.95				
58	11900	64700	5.9	24.19				
						2		
68	12000	64600	5.2	20.44				
78	10500	67000	5.3	18.04				
90	13000	62700	5.3	15.64				
101	12600	63400	5.3	13.91				
117	13000	60400	5.4	11.99				
144	13000	54400	5.5	9.74				
169	13000	49900	5.6	8.26				
193	8670	58400	7.5	7.25				
238	8670	53200	7.6	5.89				
280	8670	49300	7.8	5.00				

R147R77, n_e=1400 1/min											13000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
						3	3				
0.06	13000	62700	-	23401							
0.07	13000	62700	-	21342							
0.08	13000	62700	-	18210							

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R147R77, n_e=1400 1/min											13000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
0.09	13000	62700	-	15923							
0.10	13000	62700	-	14075							
0.11	13000	62700	-	12344							
0.13	13000	62700	-	11143							
0.14	13000	62700	-	9743							
0.17	13000	62700	-	8443							
0.19	13000	62700	-	7307							
0.22	13000	62700	-	6447							
0.25	13000	62700	-	5568							
0.28	13000	62700	-	4926							
0.32	13000	62700	-	4325							
0.37	13000	62700	-	3754							
0.42	13000	62700	-	3302							
0.48	13000	62700	-	2898							
											
0.55	13000	62700	-	2555							
0.63	13000	62700	-	2211							
0.72	13000	62700	-	1951							
0.82	13000	62700	-	1705							
0.91	13000	62700	-	1536							
1.1	13000	62700	-	1329							
1.2	13000	62700	-	1166							
1.4	13000	62700	-	1029							
1.6	13000	62700	-	889							
1.8	13000	62700	-	784							
2.0	13000	62700	-	695							
2.3	13000	62700	-	619							
2.5	13000	62700	-	558							
2.9	13000	62700	-	489							
3.4	13000	62700	-	415							

R147R87, n_e=1400 1/min											13000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L
												
2.6	13000	62700	-	533								
3.0	13000	62700	-	462								
3.3	13000	62700	-	426								
3.8	13000	62700	-	368								
4.3	13000	62700	-	326								
5.0	13000	62700	-	280								
5.7	13000	62700	-	247								
6.5	13000	62700	-	214								
7.4	13000	62700	-	189								
8.8	13000	62700	-	159								

R167, n_e=1400 1/min											18000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M	DRN250M DRN280S DRN280M	DRN315S DRN315M	DRN315L DRN315H
						 3				
6.1	18000	120000	5.2	229.71						
7.5	18000	120000	5.2	186.93*						
9.1	18000	120000	5.2	153.07						
10	18000	120000	5.2	139.98						
11	18000	120000	5.2	121.81*						
13	18000	120000	5.2	107.49						
15	18000	120000	5.2	93.19						
17	18000	120000	5.2	82.91*						
19	18000	120000	5.6	73.70*						
21	18000	120000	5.6	67.40						
24	18000	120000	5.6	58.65						
27	18000	120000	5.6	51.76						
31	18000	120000	5.6	44.87						
35	18000	120000	5.6	39.92						
41	18000	120000	5.6	34.41						
50	18000	120000	5.7	27.96						
59	18000	116500	5.7	23.71						
						 2				
30	7000	120000	5	46.00						
37	9000	120000	5	37.74						
46	10000	120000	5	30.71						
57	14000	120000	5.1	24.57						
64	13000	120000	5.1	21.85						
74	16000	111400	5.1	19.03						
82	15000	108900	5.1	16.98						
97	18000	93800	5.2	14.48						
117	17000	88700	5.3	11.99						
137	17000	82500	5.3	10.24						

R167R97, n_e=1400 1/min													18000 Nm
n_a 1/ min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S
							 3	 3					
0.05	18000	120000	-	27001									
0.06	18000	120000	-	22482									
0.07	18000	120000	-	20002*									
0.08	18000	120000	-	17361									
0.09	18000	120000	-	15446									
0.10	18000	120000	-	14051									
0.12	18000	120000	-	11812									
0.13	18000	120000	-	10509									
0.15	18000	120000	-	9631									
0.18	18000	120000	-	7749									
0.20	18000	120000	-	6894									
0.23	18000	120000	-	6077									
0.26	18000	120000	-	5407									
0.30	18000	120000	-	4650									
0.34	18000	120000	-	4129									

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R167R97, n_e=1400 1/min — 18000 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S
0.38	18000	120000	-	3692									
0.45	18000	120000	-	3099									
							3	2					
0.53	18000	120000	-	2657*									
0.60	18000	120000	-	2333									
0.67	18000	120000	-	2085									
0.75	18000	120000	-	1877									
0.84	18000	120000	-	1670*									
0.97	18000	120000	-	1438									
1.1	18000	120000	-	1279									
1.2	18000	120000	-	1123									
1.4	18000	120000	-	999									
1.6	18000	120000	-	861									
1.8	18000	120000	-	760									
2.1	18000	120000	-	656									
2.4	18000	120000	-	579									
2.8	18000	120000	-	503									
3.2	18000	120000	-	432									
3.7	18000	120000	-	376									
4.2	18000	120000	-	335									
4.6	18000	120000	-	303									
5.0	18000	120000	-	279									

R167R107, n_e=1400 1/min — 18000 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M
						2	3			
0.38	18000	120000	-	3637						
0.42	18000	120000	-	3330						
0.51	18000	120000	-	2757						
0.57	18000	120000	-	2436						
0.61	18000	120000	-	2298						
0.68	18000	120000	-	2066						
0.76	18000	120000	-	1849						
0.84	18000	120000	-	1674						
0.94	18000	120000	-	1485						
1.0	18000	120000	-	1342						
1.1	18000	120000	-	1229						
1.3	18000	120000	-	1111						
1.5	18000	120000	-	950						
1.6	18000	120000	-	860						
1.8	18000	120000	-	763						
2.0	18000	120000	-	690						
2.4	18000	120000	-	585						
2.7	18000	120000	-	511						
						3	2			
4.0	18000	120000	-	349						
4.7	18000	120000	-	295						
5.2	18000	120000	-	270						

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R167R107, n_e=1400 1/min										18000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M
6.1	18000	120000	-	229						
7.0	18000	120000	-	200						
8.3	18000	120000	-	169						
										
3.1	18000	120000	-	446						
3.5	18000	120000	-	399						
3.9	18000	120000	-	361						
4.3	18000	120000	-	328						
4.8	18000	120000	-	291						
5.3	18000	120000	-	264						
6.2	18000	120000	-	227						
7.1	18000	120000	-	198						
8.3	18000	120000	-	168						

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8.3 R..DRN.. selection tables in kW

P_m = 0.09 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
17	52	78.24	1490	0.95						
18	47	71.47	1520	1.05						
22	40	60.32	1560	1.25						
25	34	51.52	1590	1.45						
27	32	47.78	1600	1.60						
29	29	44.16	1610	1.70						
31	27	41.31	1600	1.85	**R**	**07**	**DT**	**56M4**	5.8	277
32	27	40.34	1590	1.85	**RF**	**07**	**DT**	**56M4**	5.8	278
34	26	38.51	1570	1.95						
38	22	34.05	1520	2.2						
45	19	29.08	1460	2.6						
48	18	26.97	1430	2.8						
56	15	23.32	1370	3.2						
60	14	21.73	1350	3.5						
71	12	18.31	1280	4.1						
78	11	16.73	1250	4.5						
92	9.3	14.12	1190	5.4						
108	8.0	12.06	1140	6.2						
116	7.4	11.18	1110	6.8						
134	6.4	9.67	1060	7.8						
144	6.0	9.01	1040	8.3						
166	5.2	7.85	1000	9.4	**R**	**07**	**DT**	**56M4**	5.7	277
174	4.9	7.48	980	8.8	**RF**	**07**	**DT**	**56M4**	5.7	278
190	4.5	6.83	960	9.6						
226	3.8	5.76	910	11						
264	3.3	4.92	860	11						
285	3.0	4.57	840	12						
329	2.6	3.95	800	13						
353	2.4	3.68	790	14						
405	2.1	3.21	755	15						

P_m = 0.12 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.06	13300	21342	62000	1.00						
0.08	11300	18210	65700	1.15	**R**	**147R77**	**DR**	**63S4**	420	314
0.09	9920	15923	67900	1.30	**RF**	**147R77**	**DR**	**63S4**	430	314
0.10	8770	14075	69400	1.50	**RM**	**147R77**	**DR**	**63S4**	600	314
0.11	7640	12344	70700	1.70						
0.12	6730	11143	71600	1.95						
0.14	6030	9743	72200	2.2	**R**	**147R77**	**DR**	**63S4**	420	314
0.16	4830	8443	73100	2.7	**RF**	**147R77**	**DR**	**63S4**	430	314
0.19	4180	7307	73400	3.1	**RM**	**147R77**	**DR**	**63S4**	600	314
0.21	3690	6447	73700	3.5						
0.25	3180	5568	73900	4.1						
0.11	8050	12921	53300	1.00						
0.12	7250	11712	54900	1.10						
0.13	6390	10573	56400	1.25						
0.16	5020	8784	58400	1.60	**R**	**137R77**	**DR**	**63S4**	290	314
0.18	4090	7479	59400	1.95	**RF**	**137R77**	**DR**	**63S4**	310	314
0.21	4060	6559	59400	1.95	**RM**	**137R77**	**DR**	**63S4**	425	314
0.24	3190	5834	60200	2.5						
0.27	3160	5116	60200	2.5						
0.18	4410	7583	28800	0.95						
0.20	3690	6743	32400	1.15						
0.23	3660	5914	32500	1.15	**R**	**107R77**	**DR**	**63S4**	200	314
0.27	2820	5168	35500	1.50	**RF**	**107R77**	**DR**	**63S4**	210	314
0.31	2530	4435	36100	1.70	**RM**	**107R77**	**DR**	**63S4**	295	314
0.35	2260	3896	36500	1.90						
0.45	1880	3039	36900	2.3						

P_m = 0.12 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.35	2470	3918	36200	1.75						
0.41	2100	3343	36700	2.0						
0.45	1910	3034	36900	2.2	**R**	**107R77**	**DR**	**63S4**	195	314
0.52	1670	2653	37100	2.6	**RF**	**107R77**	**DR**	**63S4**	200	314
0.61	1430	2280	37300	3.0	**RM**	**107R77**	**DR**	**63S4**	290	314
0.67	1290	2067	37400	3.3						
0.30	3050	4559	17700	1.00	**R**	**97R57**	**DR**	**63S4**	130	314
0.34	2560	4004	23700	1.15	**RF**	**97R57**	**DR**	**63S4**	145	314
0.40	2270	3481	25200	1.30	**RM**	**97R57**	**DR**	**63S4**	195	314
0.29	3230	4678	4840	0.95						
0.32	2980	4309	20400	1.00						
0.37	2560	3702	23700	1.15						
0.46	2080	3019	26100	1.45	**R**	**97R57**	**DR**	**63S4**	125	314
0.52	1800	2668	27100	1.65	**RF**	**97R57**	**DR**	**63S4**	140	314
0.61	1480	2245	27700	2.0	**RM**	**97R57**	**DR**	**63S4**	195	314
0.68	1300	2016	27900	2.3						
0.80	1190	1733	28000	2.5						
0.45	2120	3065	25900	1.40						
0.51	1880	2722	26800	1.60						
0.60	1590	2311	27500	1.90						
0.66	1430	2078	27700	2.1	**R**	**97R57**	**DR**	**63S4**	130	314
0.76	1230	1823	28000	2.4	**RF**	**97R57**	**DR**	**63S4**	145	314
0.87	1070	1583	28200	2.8	**RM**	**97R57**	**DR**	**63S4**	195	314
0.99	900	1396	28300	3.3						
1.1	770	1228	28400	3.9						
0.48	1760	2873	15200	0.90	**R**	**87R57**	**DR**	**63S4**	86	314
0.70	1300	1961	18500	1.20	**RF**	**87R57**	**DR**	**63S4**	93	314
					RM	**87R57**	**DR**	**63S4**	125	314
0.53	1780	2595	15000	0.85						
0.65	1430	2129	17700	1.10	**R**	**87R57**	**DR**	**63S4**	85	314
0.72	1270	1930	18600	1.20	**RF**	**87R57**	**DR**	**63S4**	92	314
0.80	1120	1733	19300	1.40	**RM**	**87R57**	**DR**	**63S4**	120	314
0.79	1140	1737	19200	1.35						
0.91	1000	1524	19800	1.55						
1.1	810	1303	20000	1.90						
1.2	710	1143	20000	2.2	**R**	**87R57**	**DR**	**63S4**	85	314
1.6	580	885	20000	2.6	**RF**	**87R57**	**DR**	**63S4**	92	314
1.8	510	776	20000	3.0	**RM**	**87R57**	**DR**	**63S4**	120	314
2.0	450	685	20000	3.4						
2.3	360	599	20000	4.3						
1.1	930	1303	8660	0.85						
1.2	795	1124	10100	1.05	**R**	**77R37**	**DR**	**63S4**	45	314
1.3	740	1047	10600	1.10	**RF**	**77R37**	**DR**	**63S4**	51	314
1.5	635	915	11300	1.30	**RM**	**77R37**	**DR**	**63S4**	76	314
1.1	820	1218	9910	1.00						
1.3	740	1084	10600	1.10						
1.5	660	940	11200	1.25	**R**	**77R37**	**DR**	**63S4**	46	314
1.7	520	821	12000	1.55	**RF**	**77R37**	**DR**	**63S4**	52	314
1.9	475	731	12200	1.70	**RM**	**77R37**	**DR**	**63S4**	77	314
2.1	455	646	12300	1.80						
2.6	375	520	12600	2.2						
3.1	320	451	12700	2.5	**R**	**77R37**	**DR**	**63S4**	45	314
3.3	300	422	12800	2.7	**RF**	**77R37**	**DR**	**63S4**	51	314
3.8	255	365	12900	3.2	**RM**	**77R37**	**DR**	**63S4**	76	314
1.6	625	891	7190	0.95						
1.9	505	730	8530	1.20	**R**	**67R37**	**DR**	**63S4**	40	314
2.1	440	644	9060	1.35	**RF**	**67R37**	**DR**	**63S4**	43	314
2.4	385	571	9430	1.55	**RM**	**67R37**	**DR**	**63S4**	59	314
2.8	320	486	9790	1.85						
1.6	590	836	7670	1.00						
1.8	490	750	8630	1.20						
2.1	440	646	9050	1.35	**R**	**67R37**	**DR**	**63S4**	41	314
2.4	400	574	9330	1.50	**RF**	**67R37**	**DR**	**63S4**	44	314
2.8	345	495	9660	1.75	**RM**	**67R37**	**DR**	**63S4**	60	314
3.2	285	438	9940	2.1						

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P_m = 0.12 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.8	550	782	4650	0.80						
2.0	455	678	7070	1.00						
2.3	410	604	7260	1.10	**R**	**57R37**	**DR**	**63S4**	34	314
2.6	370	537	7400	1.20	**RF**	**57R37**	**DR**	**63S4**	38	314
2.9	325	471	7550	1.35	**RM**	**57R37**	**DR**	**63S4**	50	314
3.9	240	357	7760	1.85						
4.3	215	319	7820	2.1						
3.8	255	359	7730	1.75						
4.3	230	324	7790	1.95						
4.8	200	290	7840	2.2	**R**	**57R37**	**DR**	**63S4**	33	314
5.3	185	262	7880	2.4	**RF**	**57R37**	**DR**	**63S4**	37	314
5.6	170	246	7900	2.6	**RM**	**57R37**	**DR**	**63S4**	49	314
6.3	150	220	7930	3.0						
2.7	340	510	4360	0.85						
3.2	285	436	5480	1.05	**R**	**47R37**	**DR**	**63S4**	28	314
3.4	265	408	5590	1.10	**RF**	**47R37**	**DR**	**63S4**	28	314
4.0	215	344	5780	1.35						
2.8	365	502	3020	0.80						
3.2	310	429	5350	0.95						
3.7	265	372	5580	1.10						
4.0	245	348	5670	1.20	**R**	**47R37**	**DR**	**63S4**	28	314
4.6	210	301	5810	1.40	**RF**	**47R37**	**DR**	**63S4**	28	314
5.4	177	255	5920	1.70						
6.0	156	228	5980	1.95						
7.1	130	195	6040	2.3						
4.1	225	338	4570	0.90						
4.7	210	296	4780	0.95						
5.3	184	259	5130	1.10	**R**	**37R17**	**DR**	**63S4**	17	314
6.0	163	228	5360	1.25	**RF**	**37R17**	**DR**	**63S4**	19	314
6.9	140	199	5550	1.40						
8.0	122	172	5680	1.65						
4.2	235	328	3730	0.85						
4.8	205	289	4880	1.00						
5.2	192	265	5040	1.05	**R**	**37R17**	**DR**	**63S4**	17	314
6.1	156	226	5410	1.30	**RF**	**37R17**	**DR**	**63S4**	18	314
6.8	144	202	5520	1.40						
7.7	125	179	5660	1.60						
6.0	158	229	4090	0.80						
6.9	138	200	4200	0.95	**R**	**27R17**	**DR**	**63S4**	11	314
7.8	121	177	4270	1.05	**RF**	**27R17**	**DR**	**63S4**	11	314
8.3	116	166	4290	1.10						
6.1	157	227	4100	0.85						
6.8	144	203	4170	0.90	**R**	**27R17**	**DR**	**63S4**	11	314
7.7	125	179	4260	1.05	**RF**	**27R17**	**DR**	**63S4**	11	314
8.8	106	156	4330	1.25						
4.6	245	195.24*	12900	3.3	**R**	**77**	**DR**	**63M6**	37	298
5.4	210	166.59	13000	3.9	**RF**	**77**	**DR**	**63M6**	43	299
6.2	186	145.67	13000	4.4	**RM**	**77**	**DR**	**63M6**	68	299
4.5	250	199.81	10100	2.4						
4.9	230	184.07	10100	2.6						
5.7	200	158.14	10300	3.0	**R**	**67**	**DR**	**63M6**	30	295
6.5	175	137.67	10300	3.4	**RF**	**67**	**DR**	**63M6**	33	296
7.0	164	128.97	10400	3.6	**RM**	**67**	**DR**	**63M6**	49	296
7.9	145	113.94	10400	4.1						
6.9	166	199.81	10300	3.6	**R**	**67**	**DR**	**63S4**	30	295
7.5	153	184.07	10400	3.9	**RF**	**67**	**DR**	**63S4**	33	296
					RM	**67**	**DR**	**63S4**	49	296
4.8	235	186.89	7780	1.90						
5.2	215	172.17	7820	2.0						
6.1	188	147.92	7870	2.4	**R**	**57**	**DR**	**63M6**	23	292
7.0	164	128.77	7910	2.7	**RF**	**57**	**DR**	**63M6**	27	293
7.5	154	120.63	7920	2.9	**RM**	**57**	**DR**	**63M6**	39	293
8.4	136	106.58	7950	3.3						
9.1	126	98.99	7960	3.6						

P_m = 0.12 kW											
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
7.4	155	186.89	7920	2.9							
8.0	143	172.17	7940	3.2	**R**	**57**	**DR**	**63S4**		23	292
9.3	123	147.92	7960	3.7	**RF**	**57**	**DR**	**63S4**		27	293
11	107	128.77	7980	4.2	**RM**	**57**	**DR**	**63S4**		39	293
5.1	225	176.88	5760	1.35							
5.5	205	162.94	5830	1.45	**R**	**47**	**DR**	**63M6**		18	289
6.4	178	139.99	5920	1.70	**RF**	**47**	**DR**	**63M6**		18	290
7.4	155	121.87	5980	1.95							
7.8	147	176.88	6000	2.0							
8.5	135	162.94	6030	2.2							
9.9	116	139.99	6070	2.6							
11	101	121.87	6100	3.0	**R**	**47**	**DR**	**63S4**		18	289
12	95	114.17	6100	3.2	**RF**	**47**	**DR**	**63S4**		18	290
14	84	100.86	6120	3.6							
15	78	93.68	6130	3.9							
6.7	172	134.82	5270	1.15							
7.3	157	123.66	5400	1.25							
8.6	134	105.28	5600	1.50	**R**	**37**	**DR**	**63M6**		14	286
9.9	116	90.77	5730	1.75	**RF**	**37**	**DR**	**63M6**		16	287
11	108	84.61	5770	1.85							
12	94	73.96	5850	2.1							
10	112	134.82	5750	1.80							
11	103	123.66	5800	1.95							
13	87	105.28	5880	2.3	**R**	**37**	**DR**	**63S4**		14	286
15	75	90.77	5930	2.6	**RF**	**37**	**DR**	**63S4**		16	287
16	70	84.61	5950	2.8							
19	61	73.96	5980	3.3							
7.3	158	123.91	4090	0.80							
8.5	134	105.49	4210	0.95							
9.9	116	90.96	4300	1.10	**R**	**27**	**DR**	**63M6**		8.3	283
11	108	84.78	4320	1.20	**RF**	**27**	**DR**	**63M6**		8.2	284
12	94	74.11	4370	1.40							
10	112	135.09	4310	1.15							
11	103	123.91	4340	1.25							
13	88	105.49	4390	1.50							
15	76	90.96	4420	1.70							
16	70	84.78	4440	1.85							
19	62	74.11	4460	2.1	**R**	**27**	**DR**	**63S4**		8.3	283
20	58	69.47	4460	2.2	**RF**	**27**	**DR**	**63S4**		8.2	284
23	51	61.30	4400	2.6							
25	46	55.87	4280	2.8							
29	40	48.17	4090	3.2							
31	37	44.90	4000	3.5							
11	104	81.64	300	0.80							
13	90	70.39	1470	0.95							
14	84	65.61	1860	1.00	**R**	**17**	**DR**	**63M6**		7.6	280
16	73	57.35	2440	1.15	**RF**	**17**	**DR**	**63M6**		7.5	281
17	68	53.76	2500	1.25							
19	60	47.44	2500	1.40							
17	68	81.64	2500	1.25							
20	58	70.39	2500	1.45							
21	54	65.61	2500	1.55							
24	48	57.35	2500	1.80							
26	45	53.76	2500	1.90							
29	39	47.44	2500	2.2	**R**	**17**	**DR**	**63S4**		7.6	280
31	37	44.18	2500	2.3	**RF**	**17**	**DR**	**63S4**		7.5	281
36	32	38.61	2430	2.6							
38	30	36.20	2390	2.8							
43	26	31.94	2310	3.2							
49	24	28.32	2230	3.6							
57	20	24.07	2130	4.2							

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P_m = 0.12 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
23	50	60.32	1500	1.00						
27	43	51.52	1550	1.15						
29	40	47.78	1560	1.25						
31	37	44.16	1530	1.35						
33	34	41.31	1510	1.45						
34	34	40.34	1500	1.50	**R**	**07**	**DR**	**63S4**	6.4	277
36	32	38.51	1490	1.55	**RF**	**07**	**DR**	**63S4**	6.4	278
41	28	34.05	1440	1.75						
47	24	29.08	1390	2.1						
51	22	26.97	1360	2.2						
59	19	23.32	1320	2.6						
63	18	21.73	1290	2.8						
22	53	60.32	1480	0.95						
25	45	51.52	1540	1.10						
27	42	47.78	1550	1.20						
29	39	44.16	1550	1.30						
31	36	41.31	1530	1.35						
32	36	40.34	1520	1.40	**R**	**07**	**DT**	**56L4**	5.8	277
34	34	38.51	1510	1.45	**RF**	**07**	**DT**	**56L4**	5.8	278
38	30	34.05	1460	1.65						
45	26	29.08	1410	1.95						
48	24	26.97	1380	2.1						
56	21	23.32	1340	2.4						
60	19	21.73	1310	2.6						
75	15	18.31	1230	3.3						
82	14	16.73	1200	3.6						
98	12	14.12	1150	4.3						
114	10	12.06	1100	5.0						
123	9.3	11.18	1070	5.4						
143	8.0	9.67	1030	6.2						
153	7.5	9.01	1010	6.7						
176	6.5	7.85	970	7.5	**R**	**07**	**DR**	**63S4**	6.3	277
185	6.2	7.48	950	6.9	**RF**	**07**	**DR**	**63S4**	6.3	278
202	5.7	6.83	930	7.5						
239	4.8	5.76	880	8.3						
280	4.1	4.92	840	9.0						
302	3.8	4.57	820	9.5						
350	3.3	3.95	785	10						
375	3.1	3.68	765	11						
430	2.7	3.21	735	11						
71	16	18.31	1250	3.1						
78	15	16.73	1220	3.4						
92	12	14.12	1170	4.0						
108	11	12.06	1120	4.7						
116	9.9	11.18	1090	5.0						
134	8.5	9.67	1050	5.9						
144	7.9	9.01	1030	6.3						
166	6.9	7.85	980	7.1	**R**	**07**	**DT**	**56L4**	5.7	277
174	6.6	7.48	970	6.5	**RF**	**07**	**DT**	**56L4**	5.7	278
190	6.0	6.83	950	7.2						
226	5.1	5.76	900	7.8						
264	4.3	4.92	860	8.6						
285	4.0	4.57	840	9.0						
329	3.5	3.95	800	9.7						
353	3.2	3.68	780	10						
405	2.8	3.21	750	11						
227	5.0	6.07	4260	8.6						
267	4.3	5.18	4050	17	**RX**	**67**	**DR**	**63S4**	16	267
305	3.8	4.53	3870	22	**RXF**	**67**	**DR**	**63S4**	20	268
321	3.6	4.30*	3810	22						

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P_m = 0.12 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
251	4.6	5.50*	3360	8.5						
272	4.2	5.07	3270	8.6						
317	3.6	4.35	3120	19						
364	3.1	3.79	2980	22						
389	2.9	3.55*	2910	24						
440	2.6	3.14	2800	25	**RX**	**57**	**DR**	**63S4**	14	265
474	2.4	2.91	2730	28	**RXF**	**57**	**DR**	**63S4**	16	266
523	2.2	2.64*	2640	31						
582	2.0	2.37	2550	34						
676	1.7	2.04	2430	41						
719	1.6	1.92*	2380	43						
835	1.4	1.65	2260	49						

P_m = 0.18 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.09	14900	14075	50900	0.85						
0.11	13000	12344	62500	1.00	**R**	**147R77**	**DR**	**63M4**	420	314
0.12	11600	11143	65200	1.10	**RF**	**147R77**	**DR**	**63M4**	430	314
0.14	10300	9743	67300	1.25	**RM**	**147R77**	**DR**	**63M4**	600	314
0.16	8550	8443	69700	1.50						
0.18	7400	7307	70900	1.75						
0.20	6530	6447	71800	2.00						
0.24	5640	5568	72500	2.3	**R**	**147R77**	**DR**	**63M4**	420	314
0.27	5140	4926	72800	2.5	**RF**	**147R77**	**DR**	**63M4**	430	314
0.31	4420	4325	73300	2.9	**RM**	**147R77**	**DR**	**63M4**	600	314
0.35	3920	3754	73600	3.3						
0.40	3370	3302	73800	3.8						
0.15	8900	8784	50100	0.90						
0.18	7390	7479	54600	1.10						
0.20	6950	6559	55500	1.15	**R**	**137R77**	**DR**	**63M4**	290	314
0.23	5760	5834	57400	1.40	**RF**	**137R77**	**DR**	**63M4**	310	314
0.26	5420	5116	57900	1.50	**RM**	**137R77**	**DR**	**63M4**	425	314
0.30	4520	4464	59000	1.75						
0.34	3980	3928	59500	2.0						
0.28	5060	4709	58300	1.60						
0.33	4320	4018	59200	1.85	**R**	**137R77**	**DR**	**63M4**	280	314
0.38	3770	3514	59700	2.1	**RF**	**137R77**	**DR**	**63M4**	300	314
0.40	3580	3338	59900	2.2	**RM**	**137R77**	**DR**	**63M4**	415	314
0.45	3140	2929	60200	2.5						
0.30	4490	4435	28400	0.95	**R**	**107R77**	**DR**	**63M4**	200	314
0.34	3980	3896	31100	1.10	**RF**	**107R77**	**DR**	**63M4**	210	314
0.43	3220	3039	34200	1.35	**RM**	**107R77**	**DR**	**63M4**	295	314
0.34	4210	3918	29900	1.00						
0.39	3590	3343	32800	1.20						
0.44	3260	3034	34100	1.30	**R**	**107R77**	**DR**	**63M4**	195	314
0.50	2850	2653	35400	1.50	**RF**	**107R77**	**DR**	**63M4**	200	314
0.58	2450	2280	36200	1.75	**RM**	**107R77**	**DR**	**63M4**	290	314
0.64	2210	2067	36500	1.95						
0.66	2100	1987	36700	2.0						
0.72	1870	1827	36900	2.3	**R**	**107R77**	**DR**	**63M4**	200	314
0.83	1590	1599	37200	2.7	**RF**	**107R77**	**DR**	**63M4**	205	314
0.94	1430	1400	37300	3.0	**RM**	**107R77**	**DR**	**63M4**	295	314
1.1	1220	1226	37400	3.5						

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P_m = 0.18 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.49	2990	2668	20000	1.00						
0.59	2480	2245	24200	1.20						
0.65	2200	2016	25500	1.35						
0.76	1960	1733	26500	1.50						
0.81	1840	1623	27000	1.65	**R**	**97R57**	**DR**	**63M4**	125	314
0.92	1610	1434	27500	1.85	**RF**	**97R57**	**DR**	**63M4**	140	314
1.1	1330	1207	27900	2.2	**RM**	**97R57**	**DR**	**63M4**	195	314
1.2	1180	1084	28000	2.5						
1.4	1000	934	28200	3.0						
1.5	930	878	28300	3.2						
1.8	790	755	28400	3.8						
0.49	3090	2722	15900	0.95	**R**	**97R57**	**DR**	**63M4**	130	314
0.57	2620	2311	23400	1.15	**RF**	**97R57**	**DR**	**63M4**	145	314
0.64	2350	2078	24800	1.25	**RM**	**97R57**	**DR**	**63M4**	195	314
0.89	1690	1489	15900	0.90						
0.95	1580	1395	16700	1.00						
1.1	1380	1232	18000	1.10	**R**	**87R57**	**DR**	**63M4**	85	314
1.2	1270	1145	18600	1.20	**RF**	**87R57**	**DR**	**63M4**	92	314
1.3	1140	1037	19200	1.35	**RM**	**87R57**	**DR**	**63M4**	120	314
1.4	1010	931	19800	1.50						
1.6	860	802	20000	1.80						
0.87	1680	1524	15900	0.90						
1.0	1390	1303	17900	1.10	**R**	**87R57**	**DR**	**63M4**	85	314
1.2	1220	1143	18900	1.25	**RF**	**87R57**	**DR**	**63M4**	92	314
1.5	970	885	19900	1.60	**RM**	**87R57**	**DR**	**63M4**	120	314
1.7	850	776	20000	1.80						
1.5	970	858	5830	0.85	**R**	**77R37**	**DR**	**63M4**	45	314
1.7	850	757	9590	0.95	**RF**	**77R37**	**DR**	**63M4**	51	314
2.0	750	671	10500	1.10	**RM**	**77R37**	**DR**	**63M4**	76	314
2.3	630	571	11400	1.30						
1.6	880	821	9230	0.90						
1.8	800	731	10100	1.00						
2.0	745	646	10500	1.10						
2.4	645	560	11300	1.25	**R**	**77R37**	**DR**	**63M4**	46	314
2.7	550	488	11800	1.50	**RF**	**77R37**	**DR**	**63M4**	52	314
3.0	485	436	12100	1.70	**RM**	**77R37**	**DR**	**63M4**	77	314
3.5	420	373	12400	1.95						
4.0	365	327	12600	2.2						
4.6	325	289	12700	2.5						
2.3	635	571	7060	0.95	**R**	**67R37**	**DR**	**63M4**	40	314
2.7	535	486	8250	1.10	**RF**	**67R37**	**DR**	**63M4**	43	314
					RM	**67R37**	**DR**	**63M4**	59	314
2.3	655	574	5820	0.90						
2.7	565	495	7950	1.05						
3.0	480	438	8740	1.25	**R**	**67R37**	**DR**	**63M4**	41	314
3.4	425	388	9160	1.40	**RF**	**67R37**	**DR**	**63M4**	44	314
3.8	390	344	9380	1.55	**RM**	**67R37**	**DR**	**63M4**	60	314
4.5	315	294	9800	1.90						
5.1	290	261	9920	2.1						
2.9	500	454	6650	0.90	**R**	**57R37**	**DR**	**63M4**	33	314
3.2	450	410	7090	1.00	**RF**	**57R37**	**DR**	**63M4**	37	314
					RM	**57R37**	**DR**	**63M4**	49	314
2.8	535	471	5250	0.85						
3.7	400	357	7300	1.10						
4.1	355	319	7460	1.25	**R**	**57R37**	**DR**	**63M4**	34	314
4.8	300	273	7630	1.50	**RF**	**57R37**	**DR**	**63M4**	38	314
5.5	260	241	7730	1.75	**RM**	**57R37**	**DR**	**63M4**	50	314
6.1	230	215	7790	1.95						

P_m = 0.18 kW											
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
3.7	420	359	7230	1.05							
4.1	375	324	7380	1.20							
4.6	335	290	7530	1.35							
5.0	300	262	7620	1.50	**R**	**57R37**	**DR**	**63M4**		33	314
5.4	280	246	7680	1.60	**RF**	**57R37**	**DR**	**63M4**		37	314
6.0	245	220	7750	1.80	**RM**	**57R37**	**DR**	**63M4**		49	314
7.0	210	188	7830	2.1							
8.3	177	159	7890	2.6							
4.4	345	301	4150	0.85							
5.2	290	255	5460	1.05	**R**	**47R37**	**DR**	**63M4**		28	314
5.8	255	228	5620	1.15	**RF**	**47R37**	**DR**	**63M4**		28	314
6.8	215	195	5790	1.40							
6.6	225	199	4510	0.85							
7.7	199	172	4960	1.00	**R**	**37R17**	**DR**	**63M4**		17	314
8.8	173	150	5260	1.15	**RF**	**37R17**	**DR**	**63M4**		19	314
6.5	230	202	4050	0.85							
7.4	205	179	4870	0.95	**R**	**37R17**	**DR**	**63M4**		17	314
8.5	176	156	5220	1.15	**RF**	**37R17**	**DR**	**63M4**		18	314
9.4	157	141	4100	0.85							
11	139	124	4190	0.95	**R**	**27R17**	**DR**	**63M4**		11	314
12	124	110	4260	1.05	**RF**	**27R17**	**DR**	**63M4**		11	314
14	105	94	4340	1.25							
9.8	152	135	4120	0.85							
11	139	118	4190	0.95	**R**	**27R17**	**DR**	**63M4**		11	314
13	121	104	4270	1.10	**RF**	**27R17**	**DR**	**63M4**		11	314
15	104	90	4340	1.25							
					R	**77**	**DR**	**63L6**		38	298
4.5	385	195.24*	12500	2.1	**RF**	**77**	**DR**	**63L6**		43	299
5.2	325	166.59	12700	2.5	**RM**	**77**	**DR**	**63L6**		68	299
6.0	285	145.67	12800	2.8	**R**	**77**	**DR**	**63L6**		38	298
6.3	270	138.39	12900	3.0	**RF**	**77**	**DR**	**63L6**		43	299
7.2	235	121.42	12900	3.4	**RM**	**77**	**DR**	**63L6**		68	299
6.8	250	195.24*	12900	3.2							
7.9	215	166.59	13000	3.8	**R**	**77**	**DR**	**63M4**		37	298
9.1	190	145.67	13000	4.3	**RF**	**77**	**DR**	**63M4**		43	299
9.5	180	138.39	13000	4.6	**RM**	**77**	**DR**	**63M4**		68	299
4.4	390	199.81	9370	1.50							
4.7	360	184.07	9560	1.65							
5.5	310	158.14	9830	1.90							
6.3	270	137.67	10000	2.2							
6.8	250	128.97	10100	2.4	**R**	**67**	**DR**	**63L6**		30	295
7.6	225	113.94	10200	2.7	**RF**	**67**	**DR**	**63L6**		34	296
8.2	205	105.83	10200	2.9	**RM**	**67**	**DR**	**63L6**		49	296
9.1	190	95.91	10300	3.2							
10	170	86.11	10300	3.5							
12	146	74.17	10400	4.1							
12	138	69.75	10400	4.4							
6.6	260	199.81	10100	2.3							
7.2	235	184.07	10100	2.5							
8.4	205	158.14	10200	2.9	**R**	**67**	**DR**	**63M4**		30	295
9.6	179	137.67	10300	3.4	**RF**	**67**	**DR**	**63M4**		33	296
10	168	128.97	10300	3.6	**RM**	**67**	**DR**	**63M4**		49	296
12	148	113.94	10400	4.0							
12	138	105.83	10400	4.4							
4.7	365	186.89	7420	1.20							
5.0	340	172.17	7510	1.30	**R**	**57**	**DR**	**63L6**		24	292
5.9	290	147.92	7650	1.55	**RF**	**57**	**DR**	**63L6**		27	293
6.8	250	128.77	7740	1.75	**RM**	**57**	**DR**	**63L6**		39	293
7.2	235	120.63	7780	1.90							

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P_m = 0.18 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.1	240	186.89	7770	1.85						
7.7	220	172.17	7810	2.0						
8.9	193	147.92	7860	2.3						
10	168	128.77	7900	2.7	**R**	**57**	**DR**	**63M4**	23	292
11	157	120.63	7920	2.9	**RF**	**57**	**DR**	**63M4**	27	293
12	139	106.58	7940	3.2	**RM**	**57**	**DR**	**63M4**	39	293
13	129	98.99	7950	3.5						
15	117	89.71	7970	3.8						
7.5	230	176.88	5740	1.30						
8.1	210	162.94	5810	1.40						
9.4	182	139.99	5910	1.65						
11	159	121.87	5980	1.90						
12	149	114.17	6000	2.0	**R**	**47**	**DR**	**63M4**	18	289
13	131	100.86	6040	2.3	**RF**	**47**	**DR**	**63M4**	18	290
14	122	93.68	6060	2.5						
16	111	84.90	6080	2.7						
17	99	76.23	6100	3.0						
7.0	240	123.66	3060	0.80						
8.3	205	105.28	4840	0.95	**R**	**37**	**DR**	**63L6**	15	286
9.6	179	90.77	5190	1.10	**RF**	**37**	**DR**	**63L6**	16	287
10	167	84.61	5310	1.20						
9.8	176	134.82	5230	1.15						
11	161	123.66	5370	1.25						
13	137	105.28	5580	1.45						
15	118	90.77	5710	1.70						
16	110	84.61	5760	1.80	**R**	**37**	**DR**	**63M4**	14	286
18	96	73.96	5840	2.1	**RF**	**37**	**DR**	**63M4**	16	287
19	90	69.33	5870	2.2						
22	80	61.18	5920	2.5						
24	73	55.76	5940	2.8						
27	63	48.08	5960	3.2						
11	161	123.91	4070	0.80						
13	137	105.49	4200	0.95						
15	118	90.96	4280	1.10						
16	110	84.78	4320	1.20						
18	96	74.11	4360	1.35						
19	90	69.47	4380	1.45						
22	80	61.30	4320	1.65						
24	73	55.87	4210	1.80	**R**	**27**	**DR**	**63M4**	8.3	283
27	63	48.17	4040	2.1	**RF**	**27**	**DR**	**63M4**	8.2	284
29	58	44.90	3960	2.2						
34	51	39.25	3810	2.5						
36	48	36.79	3740	2.7						
41	42	32.47	3610	3.1						
46	38	28.78	3480	3.5						
54	32	24.47	3310	4.1						
47	37	28.37	3460	3.5						
51	34	26.09	3380	3.8						
59	29	22.32	3220	4.5						
68	25	19.35	3090	5.2	**R**	**27**	**DR**	**63M4**	8.0	283
73	24	18.08	3020	5.5	**RF**	**27**	**DR**	**63M4**	8.0	284
84	20	15.63	2890	6.4						
99	17	13.28*	2750	7.5						
16	106	81.64	47	0.80						
19	92	70.39	1330	0.95						
20	85	65.61	1740	1.00						
23	75	57.35	2350	1.15						
25	70	53.76	2500	1.20						
28	62	47.44	2450	1.40	**R**	**17**	**DR**	**63M4**	7.6	280
30	58	44.18	2410	1.50	**RF**	**17**	**DR**	**63M4**	7.5	281
34	50	38.61	2340	1.70						
36	47	36.20	2300	1.80						
41	42	31.94	2240	2.0						
47	37	28.32	2170	2.3						
55	31	24.07	2080	2.7						

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P_m = 0.18 kW											
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
52	33	25.23	2110	2.6							
57	30	23.15	2060	2.8	**R**	**17**	**DR**	**63M4**		7.3	280
67	26	19.71	1970	3.3	**RF**	**17**	**DR**	**63M4**		7.2	281
78	22	16.99	1890	3.8							
28	62	47.78	1100	0.80							
30	58	44.16	1340	0.85							
32	54	41.31	1390	0.95							
33	52	40.34	1380	0.95							
34	50	38.51	1380	1.00	**R**	**07**	**DR**	**63M4**		6.4	277
39	44	34.05	1350	1.15	**RF**	**07**	**DR**	**63M4**		6.4	278
45	38	29.08	1310	1.30							
49	35	26.97	1290	1.40							
57	30	23.32	1250	1.65							
61	28	21.73	1240	1.75							
72	24	18.31	1190	2.1							
79	22	16.73	1160	2.3							
94	18	14.12	1120	2.7							
109	16	12.06	1070	3.2							
118	15	11.18	1050	3.4							
137	13	9.67	1010	4.0							
146	12	9.01	990	4.3							
168	10	7.85	960	4.8	**R**	**07**	**DR**	**63M4**		6.3	277
177	9.7	7.48	940	4.4	**RF**	**07**	**DR**	**63M4**		6.3	278
193	8.9	6.83	920	4.8							
229	7.5	5.76	880	5.3							
268	6.4	4.92	840	5.8							
289	5.9	4.57	820	6.1							
334	5.1	3.95	785	6.7							
359	4.8	3.68	765	6.9							
412	4.2	3.21	735	7.4							
243	7.1	11.18	860	7.0							
281	6.1	9.67	820	8.2							
302	5.7	9.01	810	8.8							
346	5.0	7.85	775	9.8							
364	4.7	7.48	765	9.2							
398	4.3	6.83	740	10	**R**	**07**	**DR**	**63S2**		6.3	277
472	3.6	5.76	705	11	**RF**	**07**	**DR**	**63S2**		6.3	278
552	3.1	4.92	670	12							
596	2.9	4.57	655	12							
689	2.5	3.95	625	14							
739	2.3	3.68	615	14							
848	2.0	3.21	585	16							
143	12	6.07	4940	3.6							
168	10	5.18	4690	7.4	**RX**	**67**	**DR**	**63L6**		17	267
192	8.9	4.53	4490	9.2	**RXF**	**67**	**DR**	**63L6**		21	268
202	8.5	4.30*	4410	9.4							
218	7.9	6.07	4310	5.4							
255	6.7	5.18	4090	11							
292	5.9	4.53	3920	14							
307	5.6	4.30*	3850	14							
350	4.9	3.77	3690	18	**RX**	**67**	**DR**	**63M4**		16	267
412	4.2	3.20*	3500	24	**RXF**	**67**	**DR**	**63M4**		20	268
457	3.8	2.89	3380	28							
519	3.3	2.54	3240	36							
550	3.1	2.40*	3180	40							
646	2.7	2.04	3020	50							
158	11	5.50*	3880	3.6							
172	10	5.07	3780	3.6	**RX**	**57**	**DR**	**63L6**		14	265
200	8.6	4.35	3600	7.9	**RXF**	**57**	**DR**	**63L6**		16	266
230	7.5	3.79	3440	9.2							

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P_m = 0.18 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
240	7.2	5.50*	3400	5.4						
261	6.6	5.07	3310	5.4						
303	5.7	4.35	3150	12						
348	4.9	3.79	3010	14						
372	4.6	3.55*	2940	15						
421	4.1	3.14	2830	16	**RX**	**57**	**DR**	**63M4**	14	265
453	3.8	2.91	2760	18	**RXF**	**57**	**DR**	**63M4**	16	266
500	3.4	2.64*	2670	20						
557	3.1	2.37	2580	22						
647	2.7	2.04	2460	26						
688	2.5	1.92*	2410	28						
799	2.2	1.65	2290	31						

P_m = 0.25 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.13	15100	9743	48200	0.85						
0.15	12700	8443	63100	1.00						
0.18	11000	7307	66200	1.20						
0.20	9740	6447	68100	1.35						
0.23	8410	5568	69800	1.55	**R**	**147R77**	**DR**	**63L4**	420	314
0.26	7590	4926	70700	1.70	**RF**	**147R77**	**DR**	**63L4**	430	314
0.30	6570	4325	71700	2.00	**RM**	**147R77**	**DR**	**63L4**	600	314
0.35	5790	3754	72400	2.2						
0.39	5020	3302	72900	2.6						
0.45	4370	2898	73300	3.0						
0.22	8660	5834	51100	0.90						
0.25	7960	5116	53500	1.00	**R**	**137R77**	**DR**	**63L4**	290	314
0.29	6740	4464	55800	1.20	**RF**	**137R77**	**DR**	**63L4**	310	314
0.33	5930	3928	57100	1.35	**RM**	**137R77**	**DR**	**63L4**	425	314
0.28	7430	4709	54600	1.10						
0.32	6340	4018	56500	1.25	**R**	**137R77**	**DR**	**63L4**	280	314
0.37	5540	3514	57700	1.45	**RF**	**137R77**	**DR**	**63L4**	300	314
0.39	5260	3338	58100	1.50	**RM**	**137R77**	**DR**	**63L4**	415	314
0.44	4620	2929	58900	1.75						
0.49	4180	2658	59300	1.90						
0.54	3800	2412	59700	2.1						
0.63	3260	2073	60100	2.4	**R**	**137R77**	**DR**	**63L4**	290	314
0.71	2810	1839	60500	2.8	**RF**	**137R77**	**DR**	**63L4**	310	314
0.93	2180	1397	60800	3.7	**RM**	**137R77**	**DR**	**63L4**	420	314
1.1	1880	1226	61000	4.2						
					R	**107R77**	**DR**	**63L4**	205	314
0.43	4730	3039	25600	0.90	**RF**	**107R77**	**DR**	**63L4**	210	314
					RM	**107R77**	**DR**	**63L4**	295	314
					R	**107R77**	**DR**	**63L4**	195	314
0.43	4780	3034	23600	0.90	**RF**	**107R77**	**DR**	**63L4**	200	314
					RM	**107R77**	**DR**	**63L4**	290	314
0.65	3100	1987	34600	1.40						
0.71	2790	1827	35600	1.55						
0.81	2400	1599	36300	1.80	**R**	**107R77**	**DR**	**63L4**	200	314
0.93	2140	1400	36600	2.0	**RF**	**107R77**	**DR**	**63L4**	205	314
1.1	1840	1226	36900	2.3	**RM**	**107R77**	**DR**	**63L4**	295	314
1.4	1430	939	37300	3.0						
1.6	1230	822	37400	3.5						
0.75	2840	1733	22000	1.05	**R**	**97R57**	**DR**	**63L4**	125	314
0.80	2650	1623	23200	1.15	**RF**	**97R57**	**DR**	**63L4**	145	314
					RM	**97R57**	**DR**	**63L4**	195	314

P_m = 0.25 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.71	2960	1823	21100	1.00						
0.82	2570	1583	23700	1.15						
0.93	2230	1396	25400	1.35						
1.1	1940	1228	26600	1.55	**R**	**97R57**	**DR**	**63L4**	130	314
1.2	1750	1069	27300	1.70	**RF**	**97R57**	**DR**	**63L4**	145	314
1.4	1520	938	27600	1.95	**RM**	**97R57**	**DR**	**63L4**	195	314
1.6	1300	824	27900	2.3						
1.8	1160	737	28100	2.6						
2.1	990	632	28200	3.0						
1.1	1850	1145	10700	0.85						
1.2	1660	1037	16000	0.95	**R**	**87R57**	**DR**	**63L4**	85	314
1.4	1480	931	17400	1.05	**RF**	**87R57**	**DR**	**63L4**	93	314
1.6	1260	802	18600	1.20	**RM**	**87R57**	**DR**	**63L4**	120	314
1.1	1790	1143	14700	0.85						
1.5	1420	885	17800	1.10						
1.7	1240	776	18700	1.25						
1.9	1100	685	19400	1.40	**R**	**87R57**	**DR**	**63L4**	86	314
2.2	920	599	20000	1.65	**RF**	**87R57**	**DR**	**63L4**	93	314
2.5	810	525	20000	1.90	**RM**	**87R57**	**DR**	**63L4**	125	314
2.8	715	456	20000	2.2						
4.9	415	268	20000	3.7						
					R	**77R37**	**DR**	**63L4**	46	314
2.3	910	571	8910	0.90	**RF**	**77R37**	**DR**	**63L4**	52	314
					RM	**77R37**	**DR**	**63L4**	77	314
2.3	920	560	8780	0.90						
2.7	795	488	10100	1.05						
3.0	705	436	10900	1.15						
3.5	605	373	11500	1.35	**R**	**77R37**	**DR**	**63L4**	47	314
4.0	530	327	11900	1.55	**RF**	**77R37**	**DR**	**63L4**	53	314
4.5	470	289	12200	1.75	**RM**	**77R37**	**DR**	**63L4**	78	314
5.0	420	260	12400	1.95						
5.8	355	224	12600	2.3						
3.4	620	388	7290	0.95						
3.8	565	344	7950	1.05						
4.4	465	294	8870	1.30						
5.0	420	261	9180	1.40	**R**	**67R37**	**DR**	**63L4**	41	314
5.6	380	234	9460	1.60	**RF**	**67R37**	**DR**	**63L4**	45	314
6.5	320	200	9780	1.85	**RM**	**67R37**	**DR**	**63L4**	60	314
7.4	275	176	9980	2.2						
8.2	250	158	10100	2.4						
3.4	640	384	6960	0.95						
3.6	600	359	7550	1.00						
4.2	515	310	8430	1.15	**R**	**67R37**	**DR**	**63L4**	41	314
4.9	435	264	9100	1.40	**RF**	**67R37**	**DR**	**63L4**	44	314
5.5	385	235	9420	1.55	**RM**	**67R37**	**DR**	**63L4**	59	314
6.5	325	201	9750	1.85						
7.2	295	181	9900	2.0						
4.1	515	319	6050	0.85						
4.8	435	273	7160	1.05						
5.4	380	241	7380	1.20	**R**	**57R37**	**DR**	**63L4**	35	314
6.0	340	215	7510	1.30	**RF**	**57R37**	**DR**	**63L4**	38	314
7.0	300	187	7630	1.50	**RM**	**57R37**	**DR**	**63L4**	50	314
7.9	260	164	7730	1.75						
9.2	225	142	7800	2.00						
4.0	540	324	4980	0.85						
4.5	480	290	6950	0.95	**R**	**57R37**	**DR**	**63L4**	34	314
5.0	435	262	7160	1.05	**RF**	**57R37**	**DR**	**63L4**	37	314
5.3	405	246	7280	1.10	**RM**	**57R37**	**DR**	**63L4**	49	314
5.9	360	220	7440	1.25						
5.7	370	228	2440	0.80						
6.7	315	195	5320	0.95	**R**	**47R37**	**DR**	**63L4**	29	314
7.1	295	182	5440	1.00	**RF**	**47R37**	**DR**	**63L4**	29	314
8.5	245	154	5680	1.20						

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P_m = 0.25 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
8.7	245	150	2540	0.80						
10	210	130	4790	0.95						
10	200	124	4930	1.00	**R**	**37R17**	**DR**	**63L4**	18	314
12	178	110	5200	1.10	**RF**	**37R17**	**DR**	**63L4**	19	314
14	152	94	5460	1.30						
9.7	220	135	4660	0.90						
10	210	127	4770	0.95	**R**	**37R17**	**DR**	**63L4**	18	314
12	174	104	5250	1.15	**RF**	**37R17**	**DR**	**63L4**	19	314
14	150	90	5470	1.35						
4.6	520	195.24*	12000	1.55	**R**	**77**	**DRS**	**71S6**	39	298
5.4	440	166.59	12300	1.85	**RF**	**77**	**DRS**	**71S6**	45	299
6.1	385	145.67	12500	2.1	**RM**	**77**	**DRS**	**71S6**	70	299
6.7	355	195.24*	12600	2.3						
7.8	305	166.59	12800	2.7	**R**	**77**	**DR**	**63L4**	38	298
8.9	265	145.67	12900	3.1	**RF**	**77**	**DR**	**63L4**	43	299
9.4	250	138.39	12900	3.2	**RM**	**77**	**DR**	**63L4**	68	299
11	220	121.42	13000	3.7						
4.5	530	199.81	8280	1.15						
4.9	490	184.07	8660	1.20						
5.7	420	158.14	9190	1.40	**R**	**67**	**DRS**	**71S6**	32	295
6.5	365	137.67	9540	1.65	**RF**	**67**	**DRS**	**71S6**	35	296
6.9	340	128.97	9670	1.75	**RM**	**67**	**DRS**	**71S6**	51	296
7.8	300	113.94	9870	1.95						
8.5	280	105.83	9960	2.1						
6.5	365	199.81	9540	1.65						
7.1	335	184.07	9700	1.80						
8.2	290	158.14	9930	2.1						
9.4	250	137.67	10100	2.4	**R**	**67**	**DR**	**63L4**	30	295
10	235	128.97	10100	2.5	**RF**	**67**	**DR**	**63L4**	34	296
11	205	113.94	10200	2.9	**RM**	**67**	**DR**	**63L4**	49	296
12	194	105.83	10300	3.1						
14	176	95.91	10300	3.4						
15	158	86.11	10400	3.8						
4.8	495	186.89	6760	0.90						
5.2	455	172.17	7060	1.00						
6.0	390	147.92	7330	1.15	**R**	**57**	**DRS**	**71S6**	26	292
7.0	340	128.77	7500	1.30	**RF**	**57**	**DRS**	**71S6**	29	293
7.4	320	120.63	7570	1.40	**RM**	**57**	**DRS**	**71S6**	41	293
8.4	280	106.58	7670	1.60						
9.0	260	98.99	7720	1.70						
7.0	340	186.89	7500	1.30						
7.6	315	172.17	7580	1.40						
8.8	270	147.92	7700	1.65						
10	235	128.77	7780	1.90						
11	220	120.63	7810	2.0	**R**	**57**	**DR**	**63L4**	24	292
12	196	106.58	7860	2.3	**RF**	**57**	**DR**	**63L4**	27	293
13	182	98.99	7880	2.5	**RM**	**57**	**DR**	**63L4**	39	293
14	165	89.71	7910	2.7						
16	148	80.55	7930	3.0						
19	127	69.23	7960	3.5						
7.4	320	176.88	5280	0.90						
8.0	295	162.94	5420	1.00						
9.3	255	139.99	5630	1.15						
11	220	121.87	5770	1.35						
11	205	114.17	5820	1.45						
13	185	100.86	5900	1.60						
14	172	93.68	5940	1.75	**R**	**47**	**DR**	**63L4**	19	289
15	156	84.90	5980	1.90	**RF**	**47**	**DR**	**63L4**	19	290
17	140	76.23	6020	2.1						
19	126	68.54	6050	2.4						
20	118	64.21	6070	2.5						
23	104	56.73	6090	2.9						
25	97	52.69	6100	3.1						
27	88	47.75	6080	3.4						

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P_m = 0.25 kW

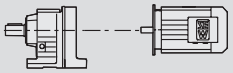
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
9.6	245	134.82	2630	0.80						
11	225	123.66	4560	0.90						
12	193	105.28	5030	1.05						
14	167	90.77	5320	1.20						
15	155	84.61	5420	1.30						
18	136	73.96	5580	1.45						
19	127	69.33	5650	1.55	**R**	**37**	**DR**	**63L4**	15	286
21	112	61.18	5750	1.80	**RF**	**37**	**DR**	**63L4**	16	287
23	102	55.76	5800	1.95						
27	88	48.08	5870	2.3						
29	82	44.81	5760	2.4						
33	72	39.17	5540	2.8						
35	67	36.72	5430	3.0						
40	60	32.40	5230	3.4						
15	156	84.78	4100	0.85						
18	136	74.11	4210	0.95						
19	128	69.47	4240	1.00						
21	113	61.30	4180	1.15						
23	103	55.87	4090	1.25						
27	88	48.17	3940	1.45	**R**	**27**	**DR**	**63L4**	9.0	283
29	82	44.90	3870	1.60	**RF**	**27**	**DR**	**63L4**	8.9	284
33	72	39.25	3730	1.80						
35	68	36.79	3660	1.90						
40	60	32.47	3540	2.2						
45	53	28.78	3420	2.5						
53	45	24.47	3270	2.9						
46	52	28.37	3410	2.5						
50	48	26.09	3330	2.7						
58	41	22.32	3180	3.2						
67	36	19.35	3050	3.7						
72	33	18.08	2990	3.9						
83	29	15.63	2860	4.5						
98	24	13.28*	2730	5.3						
110	22	11.86	2630	5.9						
128	19	10.13	2510	6.6	**R**	**27**	**DR**	**63L4**	8.7	283
138	17	9.41	2440	7.0	**RF**	**27**	**DR**	**63L4**	8.6	284
159	15	8.16	2330	7.7						
170	14	7.63*	2280	8.0						
197	12	6.59	2180	8.8						
232	10	5.60*	2080	9.6						
260	9.2	5.00*	2000	10						
304	7.8	4.27	1900	11						
325	7.3	4.00*	1870	12						
386	6.2	3.37	1770	13						
23	105	57.35	156	0.80						
24	99	53.76	785	0.85						
27	87	47.44	1630	1.00						
29	81	44.18	2000	1.05						
34	71	38.61	2200	1.20	**R**	**17**	**DR**	**63L4**	8.3	280
36	66	36.20	2180	1.30	**RF**	**17**	**DR**	**63L4**	8.2	281
41	59	31.94	2120	1.45						
46	52	28.32	2070	1.65						
54	44	24.07	2000	1.90						
52	46	25.23	2020	1.85						
56	42	23.15	1980	2.0						
66	36	19.71	1910	2.4						
77	31	16.99	1840	2.7	**R**	**17**	**DR**	**63L4**	8.0	280
82	29	15.84	1810	2.9	**RF**	**17**	**DR**	**63L4**	7.9	281
94	25	13.84	1740	3.4						
100	24	12.98	1720	3.6						
114	21	11.45	1660	3.9						
38	62	34.05	1090	0.80						
45	53	29.08	1200	0.95						
48	50	26.97	1190	1.00	**R**	**07**	**DR**	**63L4**	7.2	277
56	43	23.32	1170	1.15	**RF**	**07**	**DR**	**63L4**	7.2	278
60	40	21.73	1160	1.25						

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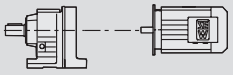
P_m = 0.25 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
71	34	18.31	1120	1.50						
78	31	16.73	1100	1.65						
92	26	14.12	1070	1.95						
108	22	12.06	1030	2.3						
116	20	11.18	1010	2.4						
134	18	9.67	980	2.8						
144	16	9.01	960	3.0						
166	14	7.85	930	3.4	**R**	**07**	**DR**	**63L4**	7.0	277
174	14	7.48	920	3.1	**RF**	**07**	**DR**	**63L4**	7.0	278
190	12	6.83	900	3.4						
226	11	5.76	860	3.8						
264	9.0	4.92	820	4.1						
285	8.4	4.57	800	4.3						
329	7.3	3.95	770	4.7						
353	6.8	3.68	755	4.8						
405	5.9	3.21	725	5.2						
238	10	11.18	840	5.0						
275	8.7	9.67	810	5.8						
295	8.1	9.01	795	6.2						
339	7.0	7.85	765	7.0						
356	6.7	7.48	755	6.4						
389	6.1	6.83	735	7.0	**R**	**07**	**DR**	**63M2**	6.3	277
461	5.2	5.76	700	7.7	**RF**	**07**	**DR**	**63M2**	6.3	278
540	4.4	4.92	665	8.4						
583	4.1	4.57	650	8.8						
674	3.5	3.95	625	9.7						
723	3.3	3.68	610	10						
829	2.9	3.21	585	11						
148	16	6.07	4860	2.6						
173	14	5.18	4620	5.4	**RX**	**67**	**DRS**	**71S6**	19	267
198	12	4.53	4420	6.8	**RXF**	**67**	**DRS**	**71S6**	23	268
208	12	4.30*	4350	7.0						
214	11	6.07	4310	3.9						
251	9.5	5.18	4100	7.9						
287	8.3	4.53	3920	9.9						
302	7.9	4.30*	3860	10						
345	6.9	3.77	3700	13	**RX**	**67**	**DR**	**63L4**	17	267
406	5.9	3.20*	3500	17	**RXF**	**67**	**DR**	**63L4**	21	268
450	5.3	2.89	3390	20						
511	4.7	2.54	3250	25						
542	4.4	2.40*	3190	28						
636	3.8	2.04	3020	35						
163	15	5.50*	3820	2.6						
177	14	5.07	3720	2.7	**RX**	**57**	**DRS**	**71S6**	16	265
206	12	4.35	3540	5.9	**RXF**	**57**	**DRS**	**71S6**	18	266
236	10	3.79	3390	6.8						
236	10	5.50*	3390	3.9						
257	9.3	5.07	3300	3.9						
299	8.0	4.35	3150	8.5						
343	7.0	3.79	3010	9.9						
366	6.5	3.55*	2950	11						
414	5.8	3.14	2830	11	**RX**	**57**	**DR**	**63L4**	14	265
446	5.3	2.91	2760	13	**RXF**	**57**	**DR**	**63L4**	16	266
492	4.8	2.64*	2680	14						
548	4.4	2.37	2580	16						
637	3.7	2.04	2460	19						
677	3.5	1.92*	2410	20						
787	3.0	1.65	2300	23						

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P_m = 0.37 kW											
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
0.19	15900	7307	37500	0.80							
0.21	14000	6447	60400	0.90							
0.25	12100	5568	64300	1.05							
0.28	10900	4926	66400	1.20	**R**	**147R77**	**DRS**	**71S4**		425	314
0.32	9470	4325	68500	1.35	**RF**	**147R77**	**DRS**	**71S4**		430	314
0.37	8310	3754	70000	1.55	**RM**	**147R77**	**DRS**	**71S4**		600	314
0.42	7230	3302	71100	1.80							
0.48	6320	2898	71900	2.1							
0.31	9730	4464	36000	0.80	**R**	**137R77**	**DRS**	**71S4**		290	314
0.35	8570	3928	51500	0.95	**RF**	**137R77**	**DRS**	**71S4**		315	314
					RM	**137R77**	**DRS**	**71S4**		425	314
0.34	9080	4018	48100	0.90							
0.39	7940	3514	53500	1.00							
0.41	7540	3338	54300	1.05	**R**	**137R77**	**DRS**	**71S4**		280	314
0.47	6610	2929	56000	1.20	**RF**	**137R77**	**DRS**	**71S4**		305	314
0.56	5600	2484	57600	1.45	**RM**	**137R77**	**DRS**	**71S4**		415	314
0.62	5020	2242	58400	1.60							
0.52	5990	2658	57000	1.35							
0.57	5440	2412	57800	1.45							
0.67	4670	2073	58800	1.70							
0.75	4060	1839	59400	1.95	**R**	**137R77**	**DRS**	**71S4**		290	314
0.99	3130	1397	60200	2.6	**RF**	**137R77**	**DRS**	**71S4**		315	314
1.1	2710	1226	60500	2.9	**RM**	**137R77**	**DRS**	**71S4**		425	314
1.3	2440	1090	60700	3.3							
1.4	2130	951	60900	3.8							
0.67	4660	2067	27300	0.90							
0.82	3790	1693	31900	1.15							
0.89	3420	1550	33500	1.25	**R**	**107R77**	**DRS**	**71S4**		200	314
0.98	3100	1407	34600	1.40	**RF**	**107R77**	**DRS**	**71S4**		205	314
1.1	2660	1209	35900	1.60	**RM**	**107R77**	**DRS**	**71S4**		290	314
1.3	2330	1055	36400	1.85							
0.69	4450	1987	28600	0.95							
0.76	4030	1827	30800	1.05							
0.86	3490	1599	33200	1.25	**R**	**107R77**	**DRS**	**71S4**		205	314
0.99	3090	1400	34600	1.40	**RF**	**107R77**	**DRS**	**71S4**		210	314
1.1	2670	1226	35900	1.60	**RM**	**107R77**	**DRS**	**71S4**		295	314
1.5	2070	939	36700	2.1							
1.7	1790	822	37000	2.4							
1.1	2760	1207	22500	1.10	**R**	**97R57**	**DRS**	**71S4**		130	314
1.3	2460	1084	24300	1.20	**RF**	**97R57**	**DRS**	**71S4**		145	314
					RM	**97R57**	**DRS**	**71S4**		195	314
0.99	3170	1396	10800	0.95							
1.1	2770	1228	22500	1.10							
1.3	2470	1069	24200	1.20							
1.5	2160	938	25700	1.40							
1.7	1860	824	26900	1.60	**R**	**97R57**	**DRS**	**71S4**		130	314
1.9	1660	737	27400	1.80	**RF**	**97R57**	**DRS**	**71S4**		145	314
2.2	1420	632	27700	2.1	**RM**	**97R57**	**DRS**	**71S4**		200	314
3.2	980	431	28200	3.1							
3.6	850	379	28300	3.5							
4.1	765	336	28400	3.9							
1.7	1810	802	13800	0.85	**R**	**87R57**	**DRS**	**71S4**		87	314
1.8	1690	754	15800	0.90	**RF**	**87R57**	**DRS**	**71S4**		94	314
2.1	1440	649	17600	1.05	**RM**	**87R57**	**DRS**	**71S4**		125	314
1.8	1770	776	15100	0.85							
2.0	1560	685	16800	1.00							
2.3	1330	599	18300	1.15	**R**	**87R57**	**DRS**	**71S4**		88	314
2.6	1170	525	19100	1.30	**RF**	**87R57**	**DRS**	**71S4**		95	314
3.0	1020	456	19700	1.50	**RM**	**87R57**	**DRS**	**71S4**		125	314
5.2	595	268	20000	2.6							
5.8	525	236	20000	2.9							
2.6	1260	538	18700	1.25	**R**	**87R57**	**DRS**	**71S4**		86	314
2.9	1100	472	19400	1.40	**RF**	**87R57**	**DRS**	**71S4**		93	314
3.4	920	400	20000	1.65	**RM**	**87R57**	**DRS**	**71S4**		125	314
3.8	830	361	20000	1.85							

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P_m = 0.37 kW											
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
3.7	860	373	9520	0.95							
4.2	755	327	10500	1.10							
4.8	670	289	11100	1.20							
5.3	600	260	11600	1.35	**R**	**77R37**	**DRS**	**71S4**		49	314
6.2	505	224	12000	1.60	**RF**	**77R37**	**DRS**	**71S4**		55	314
7.0	445	197	12300	1.85	**RM**	**77R37**	**DRS**	**71S4**		80	314
8.2	385	169	12500	2.1							
9.3	340	149	12700	2.4							
4.7	665	294	4670	0.90							
5.3	600	261	7550	1.00	**R**	**67R37**	**DRS**	**71S4**		43	314
5.9	535	234	8220	1.10	**RF**	**67R37**	**DRS**	**71S4**		47	314
6.9	455	200	8930	1.30	**RM**	**67R37**	**DRS**	**71S4**		62	314
3.1	1130	289.74	28100	2.6							
3.5	990	255.71	28200	3.0	**R**	**97**	**DRS**	**71M6**		110	304
3.8	940	241.25	28300	3.2	**RF**	**97**	**DRS**	**71M6**		125	305
4.2	840	216.28	28400	3.6	**RM**	**97**	**DRS**	**71M6**		175	305
3.7	960	246.54	20000	1.60							
4.2	840	216.54	20000	1.85							
4.4	800	205.71	20000	1.95	**R**	**87**	**DRS**	**71M6**		67	301
5.0	705	181.77	20000	2.2	**RF**	**87**	**DRS**	**71M6**		74	302
5.8	605	155.34	20000	2.6	**RM**	**87**	**DRS**	**71M6**		105	302
6.4	555	142.41	20000	2.8							
5.4	650	166.59	11200	1.25	**R**	**77**	**DRS**	**71M6**		41	298
6.2	565	145.67	11700	1.45	**RF**	**77**	**DRS**	**71M6**		46	299
6.5	540	138.39	11900	1.50	**RM**	**77**	**DRS**	**71M6**		71	299
7.1	495	195.24*	12100	1.65							
8.3	425	166.59	12400	1.90							
9.5	370	145.67	12600	2.2	**R**	**77**	**DRS**	**71S4**		39	298
10.0	350	138.39	12600	2.3	**RF**	**77**	**DRS**	**71S4**		45	299
11	310	121.42	12800	2.6	**RM**	**77**	**DRS**	**71S4**		70	299
13	260	102.99	12900	3.1							
15	235	92.97	12900	3.4							
5.7	615	158.14	7350	0.95							
6.6	535	137.67	8240	1.10	**R**	**67**	**DRS**	**71M6**		34	295
7.0	500	128.97	8550	1.20	**RF**	**67**	**DRS**	**71M6**		37	296
7.9	440	113.94	9030	1.35	**RM**	**67**	**DRS**	**71M6**		52	296
6.9	510	199.81	8480	1.15							
7.5	470	184.07	8820	1.25							
8.7	400	158.14	9300	1.50							
10	350	137.67	9620	1.70							
11	330	128.97	9740	1.80							
12	290	113.94	9920	2.1	**R**	**67**	**DRS**	**71S4**		32	295
13	270	105.83	10000	2.2	**RF**	**67**	**DRS**	**71S4**		35	296
14	245	95.91	10100	2.4	**RM**	**67**	**DRS**	**71S4**		51	296
16	220	86.11	10200	2.7							
19	190	74.17	10300	3.2							
20	179	69.75	10300	3.4							
23	157	61.26	10400	3.8							
24	146	56.89	10400	4.1							
7.0	500	128.77	6610	0.90							
7.5	470	120.63	7010	0.95	**R**	**57**	**DRS**	**71M6**		27	292
8.5	415	106.58	7250	1.10	**RF**	**57**	**DRS**	**71M6**		30	293
9.1	385	98.99	7360	1.15	**RM**	**57**	**DRS**	**71M6**		42	293

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P_m = 0.37 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.4	475	186.89	6980	0.95						
8.0	440	172.17	7140	1.00						
9.3	375	147.92	7380	1.20						
11	325	128.77	7540	1.35						
11	305	120.63	7610	1.45						
13	270	106.58	7700	1.65	**R**	**57**	**DRS**	**71S4**	26	292
14	250	98.99	7740	1.80	**RF**	**57**	**DRS**	**71S4**	29	293
15	225	89.71	7800	1.95	**RM**	**57**	**DRS**	**71S4**	41	293
17	205	80.55	7840	2.2						
20	177	69.23	7890	2.5						
21	166	64.85	7910	2.7						
24	147	57.29	7760	3.1						
26	136	53.22	7600	3.3						
29	124	48.23	7380	3.6						
9.9	355	139.99	3490	0.85						
11	310	121.87	5350	0.95						
12	290	114.17	5460	1.05						
14	255	100.86	5620	1.15						
15	235	93.68	5700	1.25						
16	215	84.90	5790	1.40						
18	195	76.23	5870	1.55						
20	176	68.54	5930	1.70	**R**	**47**	**DRS**	**71S4**	20	289
21	164	64.21	5960	1.80	**RF**	**47**	**DRS**	**71S4**	20	290
24	145	56.73	6010	2.1						
26	135	52.69	5990	2.2						
29	122	47.75	5820	2.4						
32	110	42.87	5650	2.7						
37	94	36.93	5410	3.2						
40	89	34.73	5310	3.4						
41	86	33.79	5270	2.8						
44	80	31.12	5140	2.8						
52	68	26.74	4920	4.4	**R**	**47**	**DRS**	**71S4**	20	289
59	60	23.28	4720	5.0	**RF**	**47**	**DRS**	**71S4**	20	290
63	56	21.81	4620	5.4						
15	230	90.77	4250	0.85	**R**	**37**	**DRS**	**71S4**	17	286
16	215	84.61	4720	0.90	**RF**	**37**	**DRS**	**71S4**	18	287
19	189	73.96	5070	1.05						
20	178	69.33	5210	1.15						
23	157	61.18	5410	1.30						
25	143	55.76	5530	1.40						
29	123	48.08	5580	1.60						
31	115	44.81	5480	1.75	**R**	**37**	**DRS**	**71S4**	17	286
35	100	39.17	5280	2.00	**RF**	**37**	**DRS**	**71S4**	18	287
38	94	36.72	5190	2.1						
43	83	32.40	5010	2.4						
48	74	28.73	4850	2.7						
57	62	24.42	4620	3.2						
49	72	28.32	4830	2.8						
53	67	26.03	4710	2.8						
62	57	22.27	4500	3.5	**R**	**37**	**DRS**	**71S4**	17	286
71	49	19.31	4320	4.0	**RF**	**37**	**DRS**	**71S4**	18	287
76	46	18.05	4230	4.3						
88	40	15.60	4050	5.0	**R**	**37**	**DRS**	**71S4**	17	286
104	34	13.25	3850	5.6	**RF**	**37**	**DRS**	**71S4**	18	287
117	30	11.83	3720	6.0						
23	157	61.30	3870	0.85						
25	143	55.87	3800	0.90						
29	123	48.17	3680	1.05						
31	115	44.90	3620	1.15						
35	100	39.25	3510	1.30	**R**	**27**	**DRS**	**71S4**	11	283
38	94	36.79	3460	1.40	**RF**	**27**	**DRS**	**71S4**	11	284
42	83	32.47	3350	1.55						
48	74	28.78	3250	1.75						
56	63	24.47	3110	2.1						

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P_m = 0.37 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
49	73	28.37	3240	1.80						
53	67	26.09	3170	1.95						
62	57	22.32	3040	2.3						
71	50	19.35	2920	2.6	**R**	**27**	**DRS**	**71S4**	11	283
76	46	18.08	2860	2.8	**RF**	**27**	**DRS**	**71S4**	11	284
88	40	15.63	2750	3.2						
104	34	13.28*	2620	3.8						
36	99	38.61	770	0.85						
38	93	36.20	1260	0.90						
43	82	31.94	1910	1.05	**R**	**17**	**DRS**	**71S4**	10	280
49	72	28.32	1880	1.15	**RF**	**17**	**DRS**	**71S4**	10.0	281
57	62	24.07	1830	1.40						
55	65	25.23	1840	1.30						
60	59	23.15	1820	1.45						
70	50	19.71	1760	1.70						
81	44	16.99	1710	1.95						
87	40	15.84	1680	2.1						
100	35	13.84	1630	2.4						
106	33	12.98	1610	2.6						
121	29	11.45	1560	2.8						
136	26	10.15	1520	3.0	**R**	**17**	**DRS**	**71S4**	9.8	280
160	22	8.63	1460	3.3	**RF**	**17**	**DRS**	**71S4**	9.7	281
183	19	7.55	1370	2.9						
196	18	7.04	1350	3.1						
224	16	6.15	1300	3.4						
239	15	5.76	1280	3.6						
271	13	5.09	1240	3.9						
306	12	4.51	1200	4.2						
360	9.8	3.83	1140	4.6						
75	47	18.31	1000	1.05						
82	43	16.73	980	1.15						
98	36	14.12	960	1.40						
114	31	12.06	940	1.60						
123	29	11.18	930	1.75						
143	25	9.67	900	2.0						
153	23	9.01	890	2.2						
176	20	7.85	860	2.4	**R**	**07**	**DRS**	**71S4**	8.8	277
185	19	7.48	860	2.2	**RF**	**07**	**DRS**	**71S4**	8.8	278
202	18	6.83	840	2.5						
239	15	5.76	810	2.7						
280	13	4.92	780	2.9						
302	12	4.57	765	3.1						
350	10	3.95	735	3.4						
375	9.4	3.68	720	3.5						
430	8.2	3.21	695	3.8						
274	13	9.67	780	3.9						
294	12	9.01	765	4.2						
337	10	7.85	740	4.7						
354	10	7.48	730	4.3						
388	9.1	6.83	715	4.7						
460	7.7	5.76	680	5.2	**R**	**07**	**DR**	**63L2**	7.0	277
538	6.6	4.92	650	5.6	**RF**	**07**	**DR**	**63L2**	7.0	278
580	6.1	4.57	640	5.9						
671	5.3	3.95	610	6.4						
720	4.9	3.68	600	6.7						
826	4.3	3.21	575	7.2						
175	20	5.18	4560	3.7						
200	18	4.53	4370	4.6	**RX**	**67**	**DRS**	**71M6**	20	267
210	17	4.30*	4300	4.8	**RXF**	**67**	**DRS**	**71M6**	24	268
240	15	3.77	4130	5.9						

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P_m = 0.37 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
227	16	6.07	4200	2.8						
267	13	5.18	3990	5.6						
305	12	4.53	3820	7.1						
321	11	4.30*	3760	7.3						
366	9.7	3.77	3600	9.0	**RX**	**67**	**DRS**	**71S4**	19	267
431	8.2	3.20*	3420	12	**RXF**	**67**	**DRS**	**71S4**	23	268
478	7.4	2.89	3310	14						
543	6.5	2.54	3170	18						
575	6.1	2.40*	3110	20						
675	5.2	2.04	2950	26						
208	17	4.35	3490	4.0						
239	15	3.79	3340	4.7	**RX**	**57**	**DRS**	**71M6**	17	265
255	14	3.55*	3280	5.0	**RXF**	**57**	**DRS**	**71M6**	19	266
251	14	5.50*	3300	2.8						
272	13	5.07	3210	2.8						
317	11	4.35	3060	6.1						
364	9.7	3.79	2930	7.1						
389	9.1	3.55*	2870	7.6						
440	8.0	3.14	2760	8.1	**RX**	**57**	**DRS**	**71S4**	16	265
474	7.5	2.91	2690	8.9	**RXF**	**57**	**DRS**	**71S4**	18	266
523	6.8	2.64*	2610	10						
582	6.1	2.37	2520	11						
676	5.2	2.04	2400	13						
719	4.9	1.92*	2350	14						
835	4.2	1.65	2240	16						

P_m = 0.55 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.22	19800	6077	120000	0.90						
0.25	17600	5407	120000	1.00	**R**	**167R97**	**DRS**	**71M4**	760	315
0.29	15000	4650	120000	1.20	**RF**	**167R97**	**DRS**	**71M4**	760	315
0.33	13100	4129	120000	1.35	**RM**	**167R97**	**DRS**	**71M4**	960	315
0.28	16800	4926	22000	0.75						
0.31	14700	4325	53800	0.90	**R**	**147R77**	**DRS**	**71M4**	425	314
0.36	12800	3754	62900	1.00	**RF**	**147R77**	**DRS**	**71M4**	430	314
0.41	11200	3302	65900	1.15	**RM**	**147R77**	**DRS**	**71M4**	600	314
0.47	9830	2898	68000	1.30						
0.53	8890	2555	69300	1.45						
0.62	7690	2211	70600	1.70						
0.70	6790	1951	71500	1.90	**R**	**147R77**	**DRS**	**71M4**	425	314
0.80	5810	1705	72400	2.2	**RF**	**147R77**	**DRS**	**71M4**	430	314
0.89	5200	1536	72800	2.5	**RM**	**147R77**	**DRS**	**71M4**	600	314
1.0	4500	1329	73300	2.9						
1.2	3920	1166	73600	3.3						
					R	**137R77**	**DRS**	**71M4**	280	314
0.55	8640	2484	51200	0.90	**RF**	**137R77**	**DRS**	**71M4**	305	314
					RM	**137R77**	**DRS**	**71M4**	415	314
0.51	9250	2658	45300	0.85						
0.56	8390	2412	52300	0.95						
0.66	7210	2073	55000	1.10						
0.74	6310	1839	56500	1.25						
0.85	5410	1598	57900	1.50	**R**	**137R77**	**DRS**	**71M4**	290	314
0.97	4840	1397	58600	1.65	**RF**	**137R77**	**DRS**	**71M4**	315	314
1.1	4220	1226	59300	1.90	**RM**	**137R77**	**DRS**	**71M4**	425	314
1.2	3770	1090	59700	2.1						
1.4	3290	951	60100	2.4						
1.6	2810	831	60500	2.8						

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P_m = 0.55 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.97	4820	1407	21900	0.90						
1.1	4150	1209	30200	1.05						
1.3	3620	1055	32700	1.20	**R**	**107R77**	**DRS**	**71M4**	200	314
1.5	3160	919	34400	1.35	**RF**	**107R77**	**DRS**	**71M4**	205	314
1.7	2820	815	35500	1.50	**RM**	**107R77**	**DRS**	**71M4**	295	314
1.9	2460	717	36200	1.75						
2.2	2150	626	36600	2.0						
0.97	4800	1400	22800	0.90						
1.1	4170	1226	30100	1.05	**R**	**107R77**	**DRS**	**71M4**	205	314
1.2	3740	1104	32200	1.15	**RF**	**107R77**	**DRS**	**71M4**	210	314
1.4	3220	939	34200	1.35	**RM**	**107R77**	**DRS**	**71M4**	300	314
1.7	2800	822	35600	1.55						
1.6	2870	824	21800	1.05						
1.8	2560	737	23700	1.15						
2.2	2200	632	25500	1.35						
2.4	1910	560	26700	1.55						
2.8	1660	484	27400	1.80	**R**	**97R57**	**DRS**	**71M4**	130	314
3.2	1510	431	27600	2.00	**RF**	**97R57**	**DRS**	**71M4**	150	314
3.6	1320	379	27900	2.3	**RM**	**97R57**	**DRS**	**71M4**	200	314
4.0	1170	336	28000	2.6						
4.6	1030	296	28200	2.9						
5.5	850	249	28300	3.5						
2.6	1810	525	13600	0.85						
3.0	1580	456	16700	1.00	**R**	**87R57**	**DRS**	**71M4**	89	314
3.4	1360	398	18100	1.15	**RF**	**87R57**	**DRS**	**71M4**	96	314
3.9	1210	352	18900	1.30	**RM**	**87R57**	**DRS**	**71M4**	125	314
4.4	1040	305	19700	1.50						
2.9	1680	472	15900	0.90	**R**	**87R57**	**DRS**	**71M4**	87	314
3.4	1420	400	17800	1.10	**RF**	**87R57**	**DRS**	**71M4**	95	314
3.8	1280	361	18600	1.20	**RM**	**87R57**	**DRS**	**71M4**	125	314
4.9	980	276	4510	0.85						
5.8	840	236	9730	1.00	**R**	**77R37**	**DRS**	**71M4**	49	314
6.2	785	221	10200	1.05	**RF**	**77R37**	**DRS**	**71M4**	55	314
7.3	655	186	11200	1.25	**RM**	**77R37**	**DRS**	**71M4**	80	314
3.2	1660	289.74	27400	1.80						
3.6	1460	255.71	27700	2.0	**R**	**97**	**DRS**	**80S6**	110	304
3.8	1380	241.25	27800	2.2	**RF**	**97**	**DRS**	**80S6**	130	305
4.2	1240	216.28	28000	2.4	**RM**	**97**	**DRS**	**80S6**	180	305
4.7	1110	289.74	28100	2.7						
5.3	980	255.71	28200	3.0	**R**	**97**	**DRS**	**71M4**	110	304
5.6	930	241.25	28300	3.2	**RF**	**97**	**DRS**	**71M4**	125	305
6.3	830	216.28	28400	3.6	**RM**	**97**	**DRS**	**71M4**	175	305
3.7	1410	246.54	17800	1.10						
4.2	1240	216.54	18800	1.25	**R**	**87**	**DRS**	**80S6**	69	301
4.4	1180	205.71	19100	1.30	**RF**	**87**	**DRS**	**80S6**	76	302
5.0	1040	181.77	19700	1.50	**RM**	**87**	**DRS**	**80S6**	105	302
5.9	890	155.34	20000	1.75						
5.5	950	246.54	20000	1.65						
6.3	830	216.54	20000	1.85						
6.6	790	205.71	20000	1.95						
7.5	700	181.77	20000	2.2	**R**	**87**	**DRS**	**71M4**	67	301
8.8	595	155.34	20000	2.6	**RF**	**87**	**DRS**	**71M4**	74	302
9.6	545	142.41	20000	2.8	**RM**	**87**	**DRS**	**71M4**	105	302
11	480	124.97	20000	3.2						
11	455	118.43*	20000	3.4						
13	400	103.65	20000	3.9						
8.2	640	166.59	11300	1.25						
9.3	560	145.67	11800	1.45						
9.8	530	138.39	11900	1.55						
11	465	121.42	12200	1.75	**R**	**77**	**DRS**	**71M4**	41	298
13	395	102.99	12500	2.1	**RF**	**77**	**DRS**	**71M4**	46	299
15	355	92.97	12600	2.3	**RM**	**77**	**DRS**	**71M4**	71	299
17	315	81.80	12800	2.6						
18	295	77.24	12800	2.8						
21	250	65.77	12900	3.2						

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P_m = 0.55 kW											
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
8.6	610	158.14	7430	1.00							
9.9	530	137.67	8290	1.15							
11	495	128.97	8600	1.20							
12	440	113.94	9060	1.35							
13	405	105.83	9280	1.45	**R**	**67**	**DRS**	**71M4**		34	295
14	370	95.91	9520	1.60	**RF**	**67**	**DRS**	**71M4**		37	296
16	330	86.11	9730	1.80	**RM**	**67**	**DRS**	**71M4**		52	296
18	285	74.17	9940	2.1							
20	265	69.75	10000	2.2							
22	235	61.26	10100	2.5							
24	215	56.89	10200	2.7							
11	465	120.63	7030	0.95							
13	410	106.58	7260	1.10							
14	380	98.99	7370	1.20							
15	345	89.71	7490	1.30							
17	310	80.55	7600	1.45							
20	265	69.23	7710	1.70	**R**	**57**	**DRS**	**71M4**		27	292
21	250	64.85	7750	1.80	**RF**	**57**	**DRS**	**71M4**		30	293
24	220	57.29	7530	2.0	**RM**	**57**	**DRS**	**71M4**		42	293
26	205	53.22	7380	2.2							
28	186	48.23	7190	2.4							
31	167	43.30	6980	2.7							
36	144	37.30*	6700	3.1							
39	135	35.07	6580	3.3							
52	102	26.31	6060	4.4							
54	97	24.99*	5970	4.7	**R**	**57**	**DRS**	**71M4**		26	292
62	85	21.93	5740	5.3	**RF**	**57**	**DRS**	**71M4**		29	293
73	72	18.60*	5460	6.3	**RM**	**57**	**DRS**	**71M4**		41	293
15	360	93.68	3280	0.85							
16	325	84.90	5230	0.90							
18	290	76.23	5450	1.00							
20	260	68.54	5600	1.15							
21	245	64.21	5670	1.20							
24	215	56.73	5780	1.35	**R**	**47**	**DRS**	**71M4**		22	289
26	200	52.69	5770	1.45	**RF**	**47**	**DRS**	**71M4**		22	290
28	184	47.75	5630	1.65							
32	166	42.87	5470	1.80							
37	143	36.93	5260	2.1							
39	134	34.73	5180	2.2							
46	115	29.88	4970	2.6							
51	103	26.74	4820	2.9							
58	90	23.28	4630	3.3	**R**	**47**	**DRS**	**71M4**		21	289
62	84	21.81	4540	3.6	**RF**	**47**	**DRS**	**71M4**		21	290
22	235	61.18	3910	0.85							
24	215	55.76	4740	0.95							
28	186	48.08	5120	1.10							
30	173	44.81	5230	1.15							
35	151	39.17	5070	1.30	**R**	**37**	**DRS**	**71M4**		18	286
37	142	36.72	4990	1.40	**RF**	**37**	**DRS**	**71M4**		19	287
42	125	32.40	4840	1.60							
47	111	28.73	4700	1.80							
56	94	24.42	4500	2.1							
61	86	22.27	4390	2.3							
70	75	19.31	4220	2.7							
75	70	18.05	4140	2.9	**R**	**37**	**DRS**	**71M4**		18	286
87	60	15.60	3970	3.3	**RF**	**37**	**DRS**	**71M4**		19	287
103	51	13.25	3790	3.7							
115	46	11.83	3670	4.0							
35	152	39.25	3280	0.85							
37	142	36.79	3240	0.90							
42	125	32.47	3160	1.05	**R**	**27**	**DRS**	**71M4**		12	283
47	111	28.78	3080	1.15	**RF**	**27**	**DRS**	**71M4**		12	284
56	94	24.47	2970	1.40							

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P_m = 0.55 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
61	86	22.32	2910	1.50						
70	75	19.35	2810	1.75						
75	70	18.08	2760	1.85						
87	60	15.63	2660	2.2						
102	51	13.28*	2550	2.5						
115	46	11.86	2470	2.8						
134	39	10.13	2370	3.1						
144	36	9.41	2290	3.4	**R**	**27**	**DRS**	**71M4**	12	283
167	32	8.16	2200	3.7	**RF**	**27**	**DRS**	**71M4**	12	284
178	29	7.63*	2160	3.8						
206	25	6.59	2070	4.2						
243	22	5.60*	1980	4.6						
272	19	5.00*	1910	4.9						
318	16	4.27	1830	5.3						
340	15	4.00*	1790	5.5						
404	13	3.37	1700	6.1						
52	100	53.76	630	0.85						
59	89	47.44	1530	0.95	**R**	**17**	**DRS**	**71M2**	11	280
64	83	44.18	1600	1.05	**RF**	**17**	**DRS**	**71M2**	11	281
73	72	38.61	1580	1.20						
69	76	19.71	1590	1.10						
80	66	16.99	1560	1.30						
86	61	15.84	1540	1.40						
98	53	13.84	1510	1.60						
105	50	12.98	1500	1.70						
119	44	11.45	1460	1.85						
134	39	10.15	1430	1.95						
158	33	8.63	1380	2.2	**R**	**17**	**DRS**	**71M4**	11	280
180	29	7.55	1290	1.90	**RF**	**17**	**DRS**	**71M4**	11	281
193	27	7.04	1270	2.0						
221	24	6.15	1240	2.3						
236	22	5.76	1220	2.4						
267	20	5.09	1180	2.6						
302	17	4.51	1150	2.8						
355	15	3.83	1110	3.0						
326	16	8.63	1160	4.5						
372	14	7.55	1090	4.0	**R**	**17**	**DRS**	**71M2**	11	280
399	13	7.04	1070	4.2	**RF**	**17**	**DRS**	**71M2**	11	281
457	12	6.15	1040	4.7						
153	34	18.31	810	1.45						
168	31	16.73	795	1.60						
199	26	14.12	775	1.90						
233	22	12.06	755	2.2						
251	21	11.18	745	2.4						
291	18	9.67	725	2.8						
312	17	9.01	715	3.0						
358	15	7.85	690	3.3	**R**	**07**	**DRS**	**71M2**	10	277
376	14	7.48	685	3.1	**RF**	**07**	**DRS**	**71M2**	10	278
411	13	6.83	670	3.4						
487	11	5.76	645	3.7						
571	9.2	4.92	620	4.0						
615	8.5	4.57	605	4.2						
712	7.4	3.95	585	4.6						
764	6.9	3.68	570	4.8						
876	6.0	3.21	550	5.2						
177	30	5.18	4480	2.5						
202	26	4.53	4300	3.2	**RX**	**67**	**DRS**	**80S6**	22	267
213	25	4.30*	4230	3.2	**RXF**	**67**	**DRS**	**80S6**	26	268
243	22	3.77	4060	4.0						

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P_m = 0.55 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
263	20	5.18	3970	3.8						
300	17	4.53	3800	4.7						
316	17	4.30*	3740	4.8						
360	15	3.77	3590	6.0						
425	12	3.20*	3410	8.1						
471	11	2.89	3300	9.5	**RX**	**67**	**DRS**	**71M4**	20	267
535	9.8	2.54	3160	12	**RXF**	**67**	**DRS**	**71M4**	24	268
567	9.3	2.40*	3110	13						
666	7.9	2.04	2950	17						
732	7.2	1.86	2860	18						
845	6.2	1.61	2730	18						
210	25	4.35	3420	2.7						
241	22	3.79	3280	3.2						
258	20	3.55*	3220	3.4	**RX**	**57**	**DRS**	**80S6**	20	265
292	18	3.14	3100	3.6	**RXF**	**57**	**DRS**	**80S6**	22	266
314	17	2.91	3030	4.0						
312	17	4.35	3040	4.0						
359	15	3.79	2910	4.7						
383	14	3.55*	2850	5.0						
434	12	3.14	2740	5.4						
467	11	2.91	2680	6.0						
515	10	2.64*	2600	6.8	**RX**	**57**	**DRS**	**71M4**	17	265
574	9.2	2.37	2510	7.5	**RXF**	**57**	**DRS**	**71M4**	19	266
666	7.9	2.04	2390	8.8						
708	7.4	1.92*	2340	9.3						
823	6.4	1.65	2230	11						
921	5.7	1.48	2150	12						
1045	5.0	1.30	2070	13						

P_m = 0.75 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.31	19700	4650	120000	0.90	**R**	**167R97**	**DRN**	**80M4**	760	315
0.35	17300	4129	120000	1.05	**RF**	**167R97**	**DRN**	**80M4**	770	315
					RM	**167R97**	**DRN**	**80M4**	960	315
0.54	11500	2657	120000	1.55						
0.62	10000	2333	120000	1.80	**R**	**167R97**	**DRN**	**80M4**	760	315
0.69	8850	2085	120000	2.0	**RF**	**167R97**	**DRN**	**80M4**	760	315
1.0	6250	1438	120000	2.9	**RM**	**167R97**	**DRN**	**80M4**	960	315
0.44	14600	3302	54700	0.90	**R**	**147R77**	**DRN**	**80M4**	430	314
0.50	12800	2898	63000	1.00	**RF**	**147R77**	**DRN**	**80M4**	435	314
					RM	**147R77**	**DRN**	**80M4**	600	314
0.56	11500	2555	65300	1.10						
0.65	10000	2211	67800	1.30						
0.74	8830	1951	69300	1.45	**R**	**147R77**	**DRN**	**80M4**	430	314
0.84	7590	1705	70700	1.70	**RF**	**147R77**	**DRN**	**80M4**	435	314
0.94	6810	1536	71500	1.90	**RM**	**147R77**	**DRN**	**80M4**	600	314
1.1	5890	1329	72300	2.2						
1.2	5130	1166	72900	2.5						
0.77	8340	1863	52500	0.95						
0.91	7060	1586	55300	1.15	**R**	**137R77**	**DRN**	**80M4**	285	314
1.0	6290	1391	56600	1.25	**RF**	**137R77**	**DRN**	**80M4**	310	314
1.2	5660	1256	57500	1.40	**RM**	**137R77**	**DRN**	**80M4**	420	314
0.69	9380	2073	43000	0.85						
0.78	8230	1839	52900	0.95						
0.90	7080	1598	55200	1.15						
1.0	6300	1397	56600	1.25	**R**	**137R77**	**DRN**	**80M4**	295	314
1.2	5500	1226	57800	1.45	**RF**	**137R77**	**DRN**	**80M4**	320	314
1.3	4910	1090	58500	1.65	**RM**	**137R77**	**DRN**	**80M4**	430	314
1.5	4290	951	59200	1.85						
1.7	3680	831	59800	2.2						
2.0	3210	730	60200	2.5						

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P_m = 0.75 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.4	4720	1055	25800	0.90	**R**	**107R77**	**DRN**	**80M4**	205	314
1.6	4120	919	30400	1.05	**RF**	**107R77**	**DRN**	**80M4**	210	314
1.8	3670	815	32500	1.15	**RM**	**107R77**	**DRN**	**80M4**	300	314
1.5	4200	939	30000	1.00						
1.8	3650	822	32500	1.20	**R**	**107R77**	**DRN**	**80M4**	210	314
3.9	1630	369	37100	2.6	**RF**	**107R77**	**DRN**	**80M4**	215	314
4.4	1420	323	37300	3.0	**RM**	**107R77**	**DRN**	**80M4**	305	314
2.3	2860	632	21900	1.05						
2.6	2500	560	24100	1.20						
3.0	2170	484	25700	1.40						
3.3	1960	431	26500	1.55	**R**	**97R57**	**DRN**	**80M4**	135	314
3.8	1710	379	27300	1.75	**RF**	**97R57**	**DRN**	**80M4**	155	314
4.3	1520	336	27600	1.95	**RM**	**97R57**	**DRN**	**80M4**	205	314
4.9	1340	296	27900	2.2						
5.8	1110	249	28100	2.7						
3.6	1780	398	15100	0.85						
4.1	1580	352	16700	1.00	**R**	**87R57**	**DRN**	**80M4**	94	314
4.7	1360	305	18100	1.15	**RF**	**87R57**	**DRN**	**80M4**	100	314
5.4	1200	268	18900	1.30	**RM**	**87R57**	**DRN**	**80M4**	130	314
6.1	1060	236	19600	1.45						
4.0	1660	361	16100	0.95	**R**	**87R57**	**DRN**	**80M4**	92	314
4.8	1370	300	18100	1.15	**RF**	**87R57**	**DRN**	**80M4**	100	314
5.6	1160	256	19100	1.35	**RM**	**87R57**	**DRN**	**80M4**	130	314
5.0	1440	289.74	27700	2.1						
5.6	1270	255.71	27900	2.4						
6.0	1190	241.25	28000	2.5	**R**	**97**	**DRN**	**80M4**	115	304
6.7	1070	216.28	28200	2.8	**RF**	**97**	**DRN**	**80M4**	130	305
7.7	920	186.30	28300	3.2	**RM**	**97**	**DRN**	**80M4**	180	305
8.5	840	170.02	28400	3.6						
5.8	1220	246.54	18800	1.25						
6.6	1070	216.54	19500	1.45						
7.0	1020	205.71	19700	1.50						
7.9	900	181.77	20000	1.70						
9.3	770	155.34	20000	2.0	**R**	**87**	**DRN**	**80M4**	72	301
10	705	142.41	20000	2.2	**RF**	**87**	**DRN**	**80M4**	79	302
12	620	124.97	20000	2.5	**RM**	**87**	**DRN**	**80M4**	110	302
12	585	118.43*	20000	2.6						
14	515	103.65	20000	3.0						
15	460	93.38	20000	3.3						
8.6	820	166.59	9840	1.00	**R**	**77**	**DRN**	**80M4**	46	298
9.9	720	145.67	10700	1.15	**RF**	**77**	**DRN**	**80M4**	51	299
10	685	138.39	11000	1.20	**RM**	**77**	**DRN**	**80M4**	76	299
12	600	121.42	11500	1.35						
14	510	102.99	12000	1.60						
15	460	92.97	12200	1.75						
18	405	81.80	12500	2.0						
19	380	77.24	12500	2.1	**R**	**77**	**DRN**	**80M4**	46	298
22	325	65.77	12700	2.5	**RF**	**77**	**DRN**	**80M4**	51	299
25	285	57.68	12800	2.9	**RM**	**77**	**DRN**	**80M4**	76	299
28	255	52.07	12900	3.2						
31	225	45.81	13000	3.6						
33	215	43.26	13000	3.8						
11	640	128.97	7030	0.95						
13	565	113.94	7940	1.05						
14	525	105.83	8340	1.15						
15	475	95.91	8780	1.25						
17	425	86.11	9150	1.40	**R**	**67**	**DRN**	**80M4**	38	295
19	365	74.17	9530	1.65	**RF**	**67**	**DRN**	**80M4**	41	296
21	345	69.75	9650	1.75	**RM**	**67**	**DRN**	**80M4**	57	296
24	300	61.26	9860	1.95						
25	280	56.89	9960	2.1						
28	255	51.56	10100	2.3						
31	230	46.29	10200	2.6						

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P_m = 0.75 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
14	530	106.58	5570	0.85						
15	490	98.99	6910	0.90						
16	445	89.71	7120	1.00	**R**	**57**	**DRN**	**80M4**	32	292
18	400	80.55	7300	1.10	**RF**	**57**	**DRN**	**80M4**	35	293
21	340	69.23	7460	1.30	**RM**	**57**	**DRN**	**80M4**	47	293
22	320	64.85	7360	1.40						
25	280	57.29	7150	1.60						
27	260	53.22	7020	1.70						
30	235	48.23	6850	1.90						
33	215	43.30	6670	2.1	**R**	**57**	**DRN**	**80M4**	32	292
39	186	37.30*	6410	2.4	**RF**	**57**	**DRN**	**80M4**	35	293
41	174	35.07	6310	2.6	**RM**	**57**	**DRN**	**80M4**	47	293
48	150	30.18	6060	3.0						
53	134	26.97	5870	3.4						
55	131	26.31	5830	3.4						
58	124	24.99*	5750	3.6	**R**	**57**	**DRN**	**80M4**	31	292
66	109	21.93	5540	4.1	**RF**	**57**	**DRN**	**80M4**	34	293
77	93	18.60*	5280	4.9	**RM**	**57**	**DRN**	**80M4**	46	293
21	340	68.54	4530	0.90						
22	315	64.21	5310	0.95	**R**	**47**	**DRN**	**80M4**	26	289
25	280	56.73	5510	1.05	**RF**	**47**	**DRN**	**80M4**	27	290
27	260	52.69	5430	1.15						
30	235	47.75	5320	1.25						
34	210	42.87	5180	1.40						
39	184	36.93	5000	1.65	**R**	**47**	**DRN**	**80M4**	26	289
41	173	34.73	4930	1.75	**RF**	**47**	**DRN**	**80M4**	27	290
48	149	29.88	4740	2.0						
54	133	26.70	4610	2.3						
61	117	23.59	4460	2.6						
54	133	26.74	4610	2.3						
62	116	23.28	4440	2.6						
66	108	21.81	4360	2.8	**R**	**47**	**DRN**	**80M4**	26	289
75	96	19.27	4220	3.1	**RF**	**47**	**DRN**	**80M4**	26	290
80	89	17.89	4130	3.3						
89	81	16.22	4020	3.4						
30	235	48.08	3630	0.85						
32	220	44.81	4490	0.90	**R**	**37**	**DRN**	**80M4**	23	286
37	195	39.17	4760	1.05	**RF**	**37**	**DRN**	**80M4**	24	287
39	183	36.72	4690	1.10						
44	161	32.40	4570	1.25	**R**	**37**	**DRN**	**80M4**	23	286
50	143	28.73	4440	1.40	**RF**	**37**	**DRN**	**80M4**	24	287
59	121	24.42	4280	1.65						
65	111	22.27	4180	1.80						
75	96	19.31	4030	2.1						
80	90	18.05	3960	2.2						
92	78	15.60	3810	2.6	**R**	**37**	**DRN**	**80M4**	22	286
109	66	13.25	3640	2.9	**RF**	**37**	**DRN**	**80M4**	24	287
122	59	11.83	3530	3.1						
142	50	10.11	3380	3.4						
152	47	9.47	3310	3.6						
50	143	28.78	2860	0.90	**R**	**27**	**DRN**	**80M4**	17	283
59	122	24.47	2770	1.05	**RF**	**27**	**DRN**	**80M4**	17	284
65	111	22.32	2720	1.15						
74	96	19.35	2640	1.35						
80	90	18.08	2610	1.45						
92	78	15.63	2520	1.65						
108	66	13.28*	2430	1.95						
121	59	11.86	2360	2.2						
142	50	10.13	2260	2.4	**R**	**27**	**DRN**	**80M4**	16	283
153	47	9.41	2180	2.6	**RF**	**27**	**DRN**	**80M4**	16	284
177	41	8.16	2110	2.9						
189	38	7.63*	2070	3.0						
218	33	6.59	1990	3.2						
257	28	5.60*	1900	3.6						
288	25	5.00*	1840	3.8						

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P_m = 0.75 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
73	98	19.71	840	0.85						
85	84	16.99	1380	1.00						
91	79	15.84	1380	1.10						
104	69	13.84	1370	1.25						
111	65	12.98	1360	1.30						
126	57	11.45	1340	1.40						
142	50	10.15	1320	1.55						
167	43	8.63	1280	1.70	**R**	**17**	**DRN**	**80M4**	16	280
191	38	7.55	1190	1.50	**RF**	**17**	**DRN**	**80M4**	15	281
205	35	7.04	1180	1.55						
234	31	6.15	1150	1.75						
250	29	5.76	1140	1.85						
283	25	5.09	1110	2.0						
319	22	4.51	1080	2.1						
376	19	3.83	1040	2.4						
278	26	5.18	3850	2.9						
318	23	4.53	3700	3.6						
335	21	4.30*	3640	3.7						
382	19	3.77	3490	4.6						
450	16	3.20*	3320	6.3						
498	14	2.89	3210	7.4	**RX**	**67**	**DRN**	**80M4**	25	267
567	13	2.54	3080	9.3	**RXF**	**67**	**DRN**	**80M4**	29	268
600	12	2.40*	3030	10						
705	10	2.04	2880	13						
775	9.2	1.86	2790	14						
895	8.0	1.61	2660	14						
331	22	4.35	2940	3.1						
380	19	3.79	2820	3.7						
406	18	3.55*	2760	3.9						
459	16	3.14	2660	4.2						
494	14	2.91	2600	4.6						
545	13	2.64*	2520	5.3	**RX**	**57**	**DRN**	**80M4**	22	265
608	12	2.37	2440	5.8	**RXF**	**57**	**DRN**	**80M4**	24	266
705	10	2.04	2330	6.8						
750	9.6	1.92*	2280	7.2						
872	8.2	1.65	2180	8.4						
975	7.3	1.48	2100	9.3						
1105	6.5	1.30	2020	9.7						

P_m = 1.1 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.55	17100	2657	120000	1.05						
0.62	14900	2333	120000	1.20						
0.70	13200	2085	120000	1.35						
0.78	11800	1877	120000	1.50	**R**	**167R97**	**DRN**	**90S4**	760	315
0.87	10500	1670	120000	1.70	**RF**	**167R97**	**DRN**	**90S4**	770	315
1.0	9290	1438	120000	1.95	**RM**	**167R97**	**DRN**	**90S4**	960	315
1.1	8270	1279	120000	2.2						
1.3	7200	1123	120000	2.5						
0.66	14600	2211	54200	0.90						
0.75	12900	1951	62700	1.00						
0.85	11100	1705	65900	1.15						
0.95	10000	1536	67700	1.30						
1.1	8700	1329	69500	1.50	**R**	**147R77**	**DRN**	**90S4**	435	314
1.2	7600	1166	70700	1.70	**RF**	**147R77**	**DRN**	**90S4**	440	314
1.4	6670	1029	71600	1.95	**RM**	**147R77**	**DRN**	**90S4**	610	314
1.6	5790	889	72400	2.2						
1.9	5080	784	72900	2.6						
2.1	4490	695	73300	2.9						
1.0	9230	1391	45500	0.85						
1.2	8320	1256	52600	0.95	**R**	**137R77**	**DRN**	**90S4**	290	314
1.3	7290	1105	54800	1.10	**RF**	**137R77**	**DRN**	**90S4**	315	314
1.4	6870	1043	55600	1.15	**RM**	**137R77**	**DRN**	**90S4**	425	314
1.6	5830	888	57300	1.35						

P_m = 1.1 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.0	9250	1397	45200	0.85						
1.2	8090	1226	53200	1.00						
1.3	7210	1090	55000	1.10						
1.5	6300	951	56600	1.25	**R**	**137R77**	**DRN**	**90S4**	300	314
1.8	5440	831	57800	1.45	**RF**	**137R77**	**DRN**	**90S4**	325	314
2.0	4750	730	58700	1.70	**RM**	**137R77**	**DRN**	**90S4**	435	314
2.3	4060	629	59400	1.95						
2.6	3670	560	59800	2.2						
3.0	3160	490	60200	2.5						
					R	**107R77**	**DRN**	**90S4**	210	314
2.0	4730	717	25600	0.90	**RF**	**107R77**	**DRN**	**90S4**	215	314
					RM	**107R77**	**DRN**	**90S4**	305	314
2.4	3980	614	31100	1.10						
2.7	3510	544	33100	1.20						
3.0	3180	492	34300	1.35						
3.5	2690	417	35900	1.60	**R**	**107R77**	**DRN**	**90S4**	215	314
4.0	2410	369	36300	1.80	**RF**	**107R77**	**DRN**	**90S4**	220	314
4.5	2100	323	36700	2.0	**RM**	**107R77**	**DRN**	**90S4**	310	314
5.1	1850	285	36900	2.3						
5.8	1630	253	37100	2.6						
3.4	2870	431	21800	1.05						
3.8	2510	379	24000	1.20						
4.3	2240	336	25400	1.35	**R**	**97R57**	**DRN**	**90S4**	140	314
4.9	1960	296	26500	1.55	**RF**	**97R57**	**DRN**	**90S4**	160	314
5.8	1640	249	27400	1.80	**RM**	**97R57**	**DRN**	**90S4**	210	314
6.2	1530	234	27600	1.95						
7.0	1360	209	27800	2.2						
5.4	1770	268	15200	0.90	**R**	**87R57**	**DRN**	**90S4**	100	314
6.2	1560	236	16800	1.00	**RF**	**87R57**	**DRN**	**90S4**	105	314
7.0	1360	209	18100	1.15	**RM**	**87R57**	**DRN**	**90S4**	135	314
5.7	1710	256	15700	0.90	**R**	**87R57**	**DRN**	**90S4**	99	314
6.3	1550	232	16900	1.00	**RF**	**87R57**	**DRN**	**90S4**	105	314
7.5	1310	195	18400	1.20	**RM**	**87R57**	**DRN**	**90S4**	135	314
5.7	1840	255.71	27000	1.65						
6.0	1740	241.25	27300	1.70						
6.7	1560	216.28	27600	1.90						
7.8	1340	186.30	27900	2.2	**R**	**97**	**DRN**	**90S4**	120	304
8.6	1220	170.02	28000	2.4	**RF**	**97**	**DRN**	**90S4**	135	305
9.6	1080	150.78	28100	2.8	**RM**	**97**	**DRN**	**90S4**	185	305
11	910	126.75	28300	3.3						
12	840	116.48	28400	3.6						
6.7	1560	216.54	16800	1.00	**R**	**87**	**DRN**	**90S4**	77	301
7.1	1480	205.71	17400	1.05	**RF**	**87**	**DRN**	**90S4**	84	302
8.0	1310	181.77	18400	1.20	**RM**	**87**	**DRN**	**90S4**	115	302
9.4	1120	155.34	19300	1.40						
10	1020	142.41	19700	1.50						
12	900	124.97	20000	1.70						
12	850	118.43*	20000	1.80						
14	745	103.65	20000	2.1	**R**	**87**	**DRN**	**90S4**	77	301
16	670	93.38	20000	2.3	**RF**	**87**	**DRN**	**90S4**	84	302
18	590	81.92	20000	2.6	**RM**	**87**	**DRN**	**90S4**	115	302
20	520	72.57	20000	3.0						
23	455	63.68*	20000	3.4						
24	435	60.35*	20000	3.6						
28	380	52.82	20000	4.1						
12	870	121.42	9360	0.95	**R**	**77**	**DRN**	**90S4**	50	298
14	740	102.99	10600	1.10	**RF**	**77**	**DRN**	**90S4**	56	299
16	670	92.97	11100	1.20	**RM**	**77**	**DRN**	**90S4**	81	299

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P_m = 1.1 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
18	590	81.80	11600	1.40						
19	555	77.24	11800	1.45						
22	470	65.77	12200	1.75						
25	415	57.68	12400	1.95	**R**	**77**	**DRN**	**90S4**	50	298
28	375	52.07	12600	2.2	**RF**	**77**	**DRN**	**90S4**	56	299
32	330	45.81	12700	2.5	**RM**	**77**	**DRN**	**90S4**	81	299
34	310	43.26	12800	2.6						
40	265	36.83	12900	3.1						
43	240	33.47	12900	3.4						
17	620	86.11	7290	0.95						
20	535	74.17	8260	1.10						
21	500	69.75	8550	1.20						
24	440	61.26	9050	1.35						
26	410	56.89	9270	1.45	**R**	**67**	**DRN**	**90S4**	45	295
28	370	51.56	9510	1.60	**RF**	**67**	**DRN**	**90S4**	48	296
31	330	46.29	9720	1.80	**RM**	**67**	**DRN**	**90S4**	64	296
36	285	39.88*	9940	2.0						
39	270	37.50	10000	2.1						
45	230	32.27	10200	2.3						
50	205	28.83	10200	2.5						
52	200	28.13	10100	2.7						
54	193	26.72	10000	2.8	**R**	**67**	**DRN**	**90S4**	44	295
62	169	23.44	9620	3.3	**RF**	**67**	**DRN**	**90S4**	47	296
73	144	19.89	9160	4.2	**RM**	**67**	**DRN**	**90S4**	63	296
21	495	69.23	6720	0.90	**R**	**57**	**DRN**	**90S4**	38	292
22	465	64.85	6800	0.95	**RF**	**57**	**DRN**	**90S4**	41	293
25	410	57.29	6660	1.10	**RM**	**57**	**DRN**	**90S4**	53	293
27	380	53.22	6560	1.15						
30	345	48.23	6440	1.30						
34	310	43.30	6290	1.45	**R**	**57**	**DRN**	**90S4**	38	292
39	265	37.30*	6090	1.65	**RF**	**57**	**DRN**	**90S4**	41	293
41	250	35.07	6000	1.80	**RM**	**57**	**DRN**	**90S4**	53	293
48	215	30.18	5790	2.1						
54	195	26.97	5630	2.3						
55	190	26.31	5600	2.4						
58	180	24.99*	5530	2.5	**R**	**57**	**DRN**	**90S4**	37	292
66	158	21.93	5340	2.8	**RF**	**57**	**DRN**	**90S4**	40	293
78	134	18.60*	5110	3.4	**RM**	**57**	**DRN**	**90S4**	52	293
87	121	16.79	4970	3.7						
30	340	47.75	4310	0.85						
34	305	42.87	4810	0.95						
39	265	36.93	4680	1.15						
42	250	34.73	4620	1.20	**R**	**47**	**DRN**	**90S4**	33	289
49	215	29.88	4480	1.40	**RF**	**47**	**DRN**	**90S4**	33	290
54	193	26.70	4370	1.55						
62	170	23.59	4250	1.75						
62	168	23.28	4240	1.80						
67	157	21.81	4170	1.90						
76	139	19.27	4040	2.1						
81	129	17.89	3970	2.2						
90	117	16.22	3870	2.4	**R**	**47**	**DRN**	**90S4**	32	289
100	105	14.56	3760	2.5	**RF**	**47**	**DRN**	**90S4**	32	290
116	91	12.54	3620	2.8						
123	85	11.79	3550	2.9						
143	73	10.15	3410	3.1						
160	65	9.07	3300	3.4						
45	230	32.40	3040	0.85						
51	205	28.73	3410	0.95	**R**	**37**	**DRN**	**90S4**	28	286
60	176	24.42	3800	1.15	**RF**	**37**	**DRN**	**90S4**	30	287
75	139	19.31	3810	1.45						
81	130	18.05	3750	1.55	**R**	**37**	**DRN**	**90S4**	28	286
93	113	15.60	3630	1.80	**RF**	**37**	**DRN**	**90S4**	30	287

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P_m = 1.1 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
110	96	13.25	3490	2.00						
123	85	11.83	3390	2.1						
144	73	10.11	3260	2.3						
154	68	9.47	3200	2.4	**R**	**37**	**DRN**	**90S4**	28	286
182	58	7.97	3060	2.7	**RF**	**37**	**DRN**	**90S4**	30	287
218	48	6.67	2890	3.0						
257	41	5.67	2760	3.5						
288	37	5.06	2670	3.7						
75	140	19.35	2420	0.95						
80	131	18.08	2400	1.00						
93	113	15.63	2340	1.15						
110	96	13.28*	2270	1.35						
123	86	11.86	2220	1.50						
144	73	10.13	2140	1.65						
155	68	9.41	2060	1.80						
178	59	8.16	1990	1.95	**R**	**27**	**DRN**	**90S4**	22	283
191	55	7.63*	1960	2.0	**RF**	**27**	**DRN**	**90S4**	22	284
221	48	6.59	1900	2.2						
260	40	5.60*	1820	2.4						
291	36	5.00*	1770	2.6						
341	31	4.27	1700	2.8						
364	29	4.00*	1670	2.9						
432	24	3.37	1600	3.2						
258	41	5.63	5610	2.7						
272	39	5.35*	5520	2.7	**RX**	**77**	**DRN**	**90S4**	41	269
308	34	4.73	5320	3.6	**RXF**	**77**	**DRN**	**90S4**	43	270
321	33	4.53	3620	2.5						
338	31	4.30*	3560	2.6						
386	27	3.77	3430	3.2						
455	23	3.20*	3260	4.3						
504	21	2.89	3160	5.1						
572	18	2.54	3040	6.4	**RX**	**67**	**DRN**	**90S4**	31	267
606	17	2.40*	2980	7.1	**RXF**	**67**	**DRN**	**90S4**	35	268
712	15	2.04	2840	9.1						
783	13	1.86	2750	9.4						
904	12	1.61	2630	9.8						
1040	10	1.40*	2510	10						
384	27	3.79	2750	2.5						
410	26	3.55*	2700	2.7						
464	23	3.14	2600	2.9						
499	21	2.91	2540	3.2						
551	19	2.64*	2470	3.6						
614	17	2.37	2390	4.0	**RX**	**57**	**DRN**	**90S4**	29	265
713	15	2.04	2280	4.7	**RXF**	**57**	**DRN**	**90S4**	30	266
758	14	1.92*	2240	5.0						
881	12	1.65	2140	5.8						
986	11	1.48	2060	6.4						
1115	9.4	1.30	1990	6.7						

P_m = 1.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.63	20600	2333	120000	0.85						
0.70	18300	2085	120000	1.00						
0.78	16300	1877	120000	1.10						
0.87	14500	1670	120000	1.25	**R**	**167R97**	**DRN**	**90L4**	760	315
1.0	12700	1438	120000	1.40	**RF**	**167R97**	**DRN**	**90L4**	770	315
1.1	11300	1279	120000	1.60	**RM**	**167R97**	**DRN**	**90L4**	970	315
1.3	9930	1123	120000	1.80						
1.5	8840	999	120000	2.0						
3.4	3770	426	73700	3.4	**R**	**147R87**	**DRN**	**90L4**	455	314
4.0	3250	368	73900	4.0	**RF**	**147R87**	**DRN**	**90L4**	465	314
					RM	**147R87**	**DRN**	**90L4**	630	314

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P_m = 1.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.86	15300	1705	45900	0.85						
0.95	13700	1536	61000	0.95						
1.1	11900	1329	64700	1.10						
1.2	10400	1166	67100	1.25						
1.4	9180	1029	68900	1.40	**R**	**147R77**	**DRN**	**90L4**	435	314
1.6	7950	889	70400	1.65	**RF**	**147R77**	**DRN**	**90L4**	445	314
1.9	6990	784	71300	1.85	**RM**	**147R77**	**DRN**	**90L4**	610	314
2.1	6180	695	72100	2.1						
2.4	5570	619	72500	2.3						
2.6	5010	558	72900	2.6						
1.4	9410	1043	42400	0.85						
1.6	7990	888	53400	1.00	**R**	**137R77**	**DRN**	**90L4**	295	314
2.1	6260	699	56600	1.30	**RF**	**137R77**	**DRN**	**90L4**	320	314
2.4	5430	609	57800	1.45	**RM**	**137R77**	**DRN**	**90L4**	430	314
1.3	9870	1090	32900	0.80						
1.5	8610	951	51300	0.95						
1.8	7460	831	54500	1.05						
2.0	6520	730	56200	1.25						
2.3	5590	629	57600	1.45	**R**	**137R77**	**DRN**	**90L4**	305	314
2.6	5040	560	58400	1.60	**RF**	**137R77**	**DRN**	**90L4**	325	314
3.0	4360	490	59100	1.85	**RM**	**137R77**	**DRN**	**90L4**	440	314
3.4	3800	428	59700	2.1						
3.8	3430	381	60000	2.3						
4.5	2910	323	60400	2.8						
					R	**107R77**	**DRN**	**90L4**	210	314
2.8	4720	528	25800	0.90	**RF**	**107R77**	**DRN**	**90L4**	220	314
					RM	**107R77**	**DRN**	**90L4**	305	314
2.7	4840	544	21300	0.90						
3.0	4380	492	29000	1.00	**R**	**107R77**	**DRN**	**90L4**	220	314
3.5	3710	417	32300	1.15	**RF**	**107R77**	**DRN**	**90L4**	225	314
4.0	3310	369	33900	1.30	**RM**	**107R77**	**DRN**	**90L4**	310	314
4.5	2890	323	35300	1.50						
					R	**107R77**	**DRN**	**90L4**	210	314
3.1	4300	469	29400	1.00	**RF**	**107R77**	**DRN**	**90L4**	215	314
					RM	**107R77**	**DRN**	**90L4**	305	314
4.3	3050	336	17400	1.00						
4.9	2680	296	23000	1.10	**R**	**97R57**	**DRN**	**90L4**	145	314
5.9	2250	249	25300	1.35	**RF**	**97R57**	**DRN**	**90L4**	165	314
6.2	2100	234	26000	1.45	**RM**	**97R57**	**DRN**	**90L4**	215	314
7.0	1870	209	26800	1.60						
5.7	2500	255.71	24000	1.20						
6.1	2360	241.25	24800	1.25						
6.8	2120	216.28	25900	1.40						
7.8	1820	186.30	27000	1.65						
8.6	1660	170.02	27400	1.80	**R**	**97**	**DRN**	**90L4**	120	304
9.7	1470	150.78	27700	2.0	**RF**	**97**	**DRN**	**90L4**	140	305
12	1240	126.75	28000	2.4	**RM**	**97**	**DRN**	**90L4**	190	305
13	1140	116.48	28100	2.6						
14	1010	103.44	28200	3.0						
16	900	92.48	28300	3.3						
8.0	1780	181.77	15100	0.85						
9.4	1520	155.34	17100	1.00						
10	1390	142.41	17900	1.10	**R**	**87**	**DRN**	**90L4**	80	301
12	1220	124.97	18800	1.25	**RF**	**87**	**DRN**	**90L4**	87	302
12	1160	118.43*	19200	1.35	**RM**	**87**	**DRN**	**90L4**	115	302
14	1010	103.65	19800	1.55						
16	910	93.38	20000	1.70						
18	800	81.92	20000	1.95						
20	710	72.57	20000	2.2						
23	620	63.68*	20000	2.5	**R**	**87**	**DRN**	**90L4**	80	301
24	590	60.35*	20000	2.6	**RF**	**87**	**DRN**	**90L4**	87	302
28	515	52.82	20000	3.0	**RM**	**87**	**DRN**	**90L4**	115	302
31	465	47.58	20000	3.3						
35	405	41.74	20000	3.8						
40	360	36.84*	19400	4.3						

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P_m = 1.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
16	910	92.97	8980	0.90						
18	800	81.80	10100	1.00	**R**	**77**	**DRN**	**90L4**	54	298
19	755	77.24	10500	1.10	**RF**	**77**	**DRN**	**90L4**	59	299
22	640	65.77	11300	1.25	**RM**	**77**	**DRN**	**90L4**	84	299
25	565	57.68	11700	1.45						
28	510	52.07	12000	1.60						
32	445	45.81	12300	1.85						
34	420	43.26	12400	1.95	**R**	**77**	**DRN**	**90L4**	54	298
40	360	36.83	12600	2.3	**RF**	**77**	**DRN**	**90L4**	59	299
44	325	33.47	12700	2.5	**RM**	**77**	**DRN**	**90L4**	84	299
50	280	29.00	12400	2.9						
58	245	25.23	11900	3.2						
62	225	23.37	11600	3.6	**R**	**77**	**DRN**	**90L4**	52	298
68	210	21.43	11400	3.9	**RF**	**77**	**DRN**	**90L4**	58	299
78	184	18.80	10900	4.2	**RM**	**77**	**DRN**	**90L4**	83	299
24	600	61.26	7550	1.00						
26	555	56.89	8030	1.10						
28	505	51.56	8530	1.20						
32	450	46.29	8960	1.30	**R**	**67**	**DRN**	**90L4**	48	295
37	390	39.88*	9390	1.50	**RF**	**67**	**DRN**	**90L4**	51	296
39	365	37.50	9530	1.55	**RM**	**67**	**DRN**	**90L4**	67	296
45	315	32.27	9810	1.70						
51	280	28.83	9960	1.85						
52	275	28.13	9890	1.95						
55	260	26.72	9760	2.1	**R**	**67**	**DRN**	**90L4**	47	295
62	225	23.44	9410	2.4	**RF**	**67**	**DRN**	**90L4**	50	296
73	195	19.89	8980	3.1	**RM**	**67**	**DRN**	**90L4**	66	296
81	176	17.95	8720	3.4						
27	520	53.22	5900	0.85	**R**	**57**	**DRN**	**90L4**	41	292
30	470	48.23	5980	0.95	**RF**	**57**	**DRN**	**90L4**	45	293
34	420	43.30	5880	1.05	**RM**	**57**	**DRN**	**90L4**	57	293
39	365	37.30*	5730	1.25						
42	340	35.07	5670	1.30	**R**	**57**	**DRN**	**90L4**	41	292
48	295	30.18	5500	1.50	**RF**	**57**	**DRN**	**90L4**	45	293
54	260	26.97	5380	1.70	**RM**	**57**	**DRN**	**90L4**	57	293
56	255	26.31	5350	1.75						
58	245	24.99*	5290	1.85						
67	215	21.93	5130	2.1						
79	182	18.60*	4930	2.5	**R**	**57**	**DRN**	**90L4**	40	292
87	165	16.79	4810	2.7	**RF**	**57**	**DRN**	**90L4**	44	293
99	145	14.77*	4650	3.0	**RM**	**57**	**DRN**	**90L4**	56	293
105	137	13.95*	4580	3.1						
123	116	11.88	4390	3.5						
40	360	36.93	3260	0.85						
42	340	34.73	4290	0.90						
49	290	29.88	4190	1.00	**R**	**47**	**DRN**	**90L4**	36	289
55	260	26.70	4110	1.15	**RF**	**47**	**DRN**	**90L4**	36	290
62	230	23.59	4020	1.30						
63	225	23.28	4010	1.30						
67	210	21.81	3960	1.40						
76	189	19.27	3860	1.55						
82	175	17.89	3800	1.65						
90	159	16.22	3710	1.75						
100	143	14.56	3620	1.85						
116	123	12.54	3490	2.0						
124	116	11.79	3440	2.1						
144	100	10.15	3310	2.3	**R**	**47**	**DRN**	**90L4**	35	289
161	89	9.07	3210	2.5	**RF**	**47**	**DRN**	**90L4**	35	290
182	79	8.01	3110	2.6						
188	76	7.76*	3040	2.1						
210	68	6.96	2950	2.3						
244	59	6.00	2830	2.6						
259	55	5.64*	2780	2.8						
301	48	4.85	2670	3.2						
337	43	4.34	2590	3.4						
381	38	3.83	2500	3.8						

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P_m = 1.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
76	189	19.31	2760	1.05						
81	177	18.05	2930	1.15	**R**	**37**	**DRN**	**90L4**	31	286
94	153	15.60	3230	1.30	**RF**	**37**	**DRN**	**90L4**	33	287
110	130	13.25	3320	1.45						
123	116	11.83	3240	1.60						
145	99	10.11	3130	1.70						
154	93	9.47	3080	1.80						
183	78	7.97	2950	2.0						
219	65	6.67	2800	2.2	**R**	**37**	**DRN**	**90L4**	31	286
258	56	5.67	2680	2.6	**RF**	**37**	**DRN**	**90L4**	33	287
289	50	5.06	2600	2.7						
338	42	4.32	2490	3.0						
361	40	4.05	2450	3.1						
429	33	3.41	2330	3.4						
93	153	15.63	1780	0.85						
110	130	13.28*	2080	1.00						
123	116	11.86	2060	1.10						
144	99	10.13	2010	1.25						
179	80	8.16	1870	1.45						
192	75	7.63*	1850	1.50	**R**	**27**	**DRN**	**90L4**	25	283
222	65	6.59	1800	1.65	**RF**	**27**	**DRN**	**90L4**	25	284
261	55	5.60*	1740	1.80						
292	49	5.00*	1700	1.95						
342	42	4.27	1640	2.1						
365	39	4.00*	1610	2.2						
434	33	3.37	1540	2.4						
259	55	5.63	5520	2.00						
273	52	5.35*	5440	1.95						
309	46	4.73	5240	2.6						
362	40	4.04*	4990	3.6						
394	36	3.70	4860	4.2	**RX**	**77**	**DRN**	**90L4**	44	269
450	32	3.25*	4670	5.7	**RXF**	**77**	**DRN**	**90L4**	46	270
474	30	3.08*	4590	6.4						
542	26	2.70	4400	8.1						
602	24	2.43	4260	9.0						
323	44	4.53	3540	1.85						
340	42	4.30*	3490	1.90						
387	37	3.77	3360	2.4						
457	31	3.20*	3200	3.2						
506	28	2.89	3100	3.7						
575	25	2.54	2990	4.7	**RX**	**67**	**DRN**	**90L4**	34	267
609	24	2.40*	2940	5.2	**RXF**	**67**	**DRN**	**90L4**	38	268
715	20	2.04	2790	6.7						
787	18	1.86	2710	6.9						
908	16	1.61	2590	7.2						
1045	14	1.40*	2480	7.6						
386	37	3.79	2670	1.85						
412	35	3.55*	2620	2.00						
466	31	3.14	2540	2.1						
502	29	2.91	2480	2.4						
553	26	2.64*	2410	2.7						
616	23	2.37	2340	3.0	**RX**	**57**	**DRN**	**90L4**	32	265
716	20	2.04	2240	3.4	**RXF**	**57**	**DRN**	**90L4**	34	266
761	19	1.92*	2200	3.7						
884	16	1.65	2100	4.3						
990	14	1.48	2030	4.7						
1120	13	1.30	1960	4.9						

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P_m = 2.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.87	21900	1670	120000	0.80						
1.0	19100	1438	120000	0.95						
1.1	17000	1279	120000	1.05						
1.3	14800	1123	120000	1.20	**R**	**167R97**	**DRN**	**100LS4**	770	315
1.4	13200	999	120000	1.35	**RF**	**167R97**	**DRN**	**100LS4**	780	315
1.7	11400	861	120000	1.60	**RM**	**167R97**	**DRN**	**100LS4**	970	315
1.9	10100	760	120000	1.80						
2.2	8460	656	120000	2.1						
2.7	6980	533	71300	1.85						
3.1	6010	462	72200	2.2	**R**	**147R87**	**DRN**	**100LS4**	460	314
3.4	5650	426	72500	2.3	**RF**	**147R87**	**DRN**	**100LS4**	470	314
3.9	4880	368	73000	2.7	**RM**	**147R87**	**DRN**	**100LS4**	640	314
4.4	4310	326	73400	3.0						
1.2	15500	1166	42600	0.85						
1.4	13700	1029	61200	0.95						
1.6	11800	889	64800	1.10						
1.8	10400	784	67100	1.25	**R**	**147R77**	**DRN**	**100LS4**	440	314
2.1	9240	695	68800	1.40	**RF**	**147R77**	**DRN**	**100LS4**	450	314
2.3	8300	619	70000	1.55	**RM**	**147R77**	**DRN**	**100LS4**	620	314
2.6	7470	558	70900	1.75						
3.0	6540	489	71800	2.00						
2.1	9340	699	43700	0.85	**R**	**137R77**	**DRN**	**100LS4**	300	314
2.4	8110	609	53100	1.00	**RF**	**137R77**	**DRN**	**100LS4**	325	314
					RM	**137R77**	**DRN**	**100LS4**	435	314
2.0	9740	730	35900	0.80						
2.3	8360	629	52400	0.95						
2.6	7510	560	54400	1.05						
3.0	6520	490	56200	1.25						
3.4	5690	428	57500	1.40	**R**	**137R77**	**DRN**	**100LS4**	310	314
3.8	5110	381	58300	1.55	**RF**	**137R77**	**DRN**	**100LS4**	330	314
4.5	4330	323	59200	1.85	**RM**	**137R77**	**DRN**	**100LS4**	445	314
5.0	3900	291	59600	2.0						
5.7	3410	255	60000	2.3						
6.5	2980	223	60400	2.7						
4.5	4320	323	29300	1.00						
5.1	3800	285	31900	1.15	**R**	**107R77**	**DRN**	**100LS4**	220	314
5.7	3360	253	33700	1.30	**RF**	**107R77**	**DRN**	**100LS4**	230	314
6.8	2850	214	35400	1.50	**RM**	**107R77**	**DRN**	**100LS4**	315	314
					R	**107R77**	**DRN**	**100LS4**	215	314
4.5	4410	325	28800	0.95	**RF**	**107R77**	**DRN**	**100LS4**	220	314
					RM	**107R77**	**DRN**	**100LS4**	310	314
					R	**97R57**	**DRN**	**100LS4**	150	314
6.9	2790	209	22300	1.05	**RF**	**97R57**	**DRN**	**100LS4**	165	314
					RM	**97R57**	**DRN**	**100LS4**	220	314
5.8	3630	251.15	32600	1.20	**R**	**107**	**DRN**	**100LS4**	185	306
6.3	3330	229.95	33800	1.30	**RF**	**107**	**DRN**	**100LS4**	190	307
7.1	2940	203.16	35100	1.45	**RM**	**107**	**DRN**	**100LS4**	275	307
8.4	2490	172.34	36200	1.70						
9.1	2290	158.68	36400	1.85						
10	2050	141.83	36700	2.1	**R**	**107**	**DRN**	**100LS4**	185	306
11	1840	127.68	36900	2.3	**RF**	**107**	**DRN**	**100LS4**	190	307
13	1670	115.63	37100	2.6	**RM**	**107**	**DRN**	**100LS4**	275	307
14	1480	102.53	37200	2.9						
16	1340	92.70	37400	3.2						
6.7	3130	216.28	13800	0.95	**R**	**97**	**DRN**	**100LS4**	125	304
7.8	2690	186.30	22900	1.10	**RF**	**97**	**DRN**	**100LS4**	145	305
8.5	2460	170.02	24300	1.20	**RM**	**97**	**DRN**	**100LS4**	195	305

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P_m = 2.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
9.6	2180	150.78	25600	1.35						
11	1830	126.75	27000	1.65						
12	1680	116.48	27400	1.80						
14	1490	103.44	27600	2.0						
16	1330	92.48	27900	2.2	**R**	**97**	**DRN**	**100LS4**	125	304
17	1200	83.15	28000	2.5	**RF**	**97**	**DRN**	**100LS4**	145	305
20	1040	72.17	28200	2.9	**RM**	**97**	**DRN**	**100LS4**	195	305
22	940	65.21	27500	3.2						
24	860	59.92	26800	3.5						
27	770	53.21	25900	3.9						
30	685	47.58	25000	4.4						
12	1810	124.97	13900	0.85						
12	1710	118.43*	15700	0.90	**R**	**87**	**DRN**	**100LS4**	85	301
14	1500	103.65	17300	1.05	**RF**	**87**	**DRN**	**100LS4**	92	302
16	1350	93.38	18200	1.15	**RM**	**87**	**DRN**	**100LS4**	120	302
18	1180	81.92	19000	1.30						
20	1050	72.57	19600	1.45						
23	920	63.68*	20000	1.70						
24	870	60.35*	20000	1.75						
27	765	52.82	20000	2.0	**R**	**87**	**DRN**	**100LS4**	85	301
30	685	47.58	20000	2.2	**RF**	**87**	**DRN**	**100LS4**	92	302
35	600	41.74	19700	2.6	**RM**	**87**	**DRN**	**100LS4**	120	302
39	530	36.84*	19000	2.9						
44	470	32.66*	18400	3.3						
42	495	34.40*	18700	3.0						
46	450	31.40	18200	3.4	**R**	**87**	**DRN**	**100LS4**	83	301
52	400	27.84*	17500	3.8	**RF**	**87**	**DRN**	**100LS4**	90	302
62	335	23.40	16700	4.6	**RM**	**87**	**DRN**	**100LS4**	120	302
67	310	21.51	16200	4.8						
22	950	65.77	7900	0.85						
25	830	57.68	9770	1.00	**R**	**77**	**DRN**	**100LS4**	58	298
28	750	52.07	10500	1.10	**RF**	**77**	**DRN**	**100LS4**	64	299
32	660	45.81	11200	1.25	**RM**	**77**	**DRN**	**100LS4**	88	299
34	625	43.26	11400	1.30						
39	530	36.83	11900	1.55	**R**	**77**	**DRN**	**100LS4**	58	298
43	485	33.47	12100	1.70	**RF**	**77**	**DRN**	**100LS4**	64	299
50	420	29.00	12000	1.95	**RM**	**77**	**DRN**	**100LS4**	88	299
57	365	25.23	11600	2.1						
62	335	23.37	11400	2.4						
68	310	21.43	11100	2.6						
77	270	18.80	10700	2.9	**R**	**77**	**DRN**	**100LS4**	57	298
81	255	17.82*	10500	3.0	**RF**	**77**	**DRN**	**100LS4**	62	299
93	225	15.60	10100	3.3	**RM**	**77**	**DRN**	**100LS4**	87	299
103	200	14.05	9830	3.5						
36	575	39.88*	7820	1.00						
39	540	37.50	8180	1.05	**R**	**67**	**DRN**	**100LS4**	52	295
45	465	32.27	8850	1.15	**RF**	**67**	**DRN**	**100LS4**	55	296
50	415	28.83	9220	1.25	**RM**	**67**	**DRN**	**100LS4**	71	296
62	335	23.44	9070	1.65						
73	285	19.89	8700	2.1						
81	260	17.95	8470	2.3						
92	225	15.79	8180	2.4						
97	215	14.91	8050	2.6	**R**	**67**	**DRN**	**100LS4**	51	295
114	184	12.70	7700	2.8	**RF**	**67**	**DRN**	**100LS4**	54	296
126	167	11.54	7500	3.0	**RM**	**67**	**DRN**	**100LS4**	70	296
145	145	10.00	7190	3.2						
167	126	8.70*	6910	3.5						
186	113	7.79	6700	3.4						
39	540	37.30*	5120	0.85	**R**	**57**	**DRN**	**100LS4**	45	292
41	505	35.07	5100	0.90	**RF**	**57**	**DRN**	**100LS4**	48	293
48	435	30.18	5010	1.05	**RM**	**57**	**DRN**	**100LS4**	60	293
54	390	26.97	4940	1.15						

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P_m = 2.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
66	315	21.93	4780	1.40						
78	265	18.60*	4630	1.65						
86	240	16.79	4540	1.85						
98	210	14.77*	4420	2.0						
104	200	13.95*	4360	2.1	**R**	**57**	**DRN**	**100LS4**	44	292
122	172	11.88	4210	2.4	**RF**	**57**	**DRN**	**100LS4**	48	293
134	156	10.79	4110	2.5	**RM**	**57**	**DRN**	**100LS4**	60	293
155	135	9.35	3970	2.7						
160	131	9.06	3950	2.9						
182	116	7.97	3820	3.1						
75	275	19.27	3540	1.05						
89	230	16.22	3450	1.15						
100	210	14.56	3380	1.25						
116	182	12.54	3290	1.40						
123	171	11.79	3250	1.45						
143	147	10.15	3140	1.55						
160	131	9.07	3070	1.65						
181	116	8.01	2980	1.75	**R**	**47**	**DRN**	**100LS4**	39	289
187	112	7.76*	2890	1.45	**RF**	**47**	**DRN**	**100LS4**	39	290
208	101	6.96	2820	1.60						
242	87	6.00	2720	1.80						
257	82	5.64*	2680	1.90						
299	70	4.85	2580	2.1						
334	63	4.34	2510	2.3						
378	56	3.83	2430	2.6						
93	225	15.60	1180	0.90						
109	192	13.25	1740	1.00	**R**	**37**	**DRN**	**100LS4**	35	286
123	171	11.83	2060	1.05	**RF**	**37**	**DRN**	**100LS4**	37	287
143	146	10.11	2410	1.15						
153	137	9.47	2530	1.20						
182	116	7.97	2790	1.35						
217	97	6.67	2500	1.50						
256	82	5.67	2550	1.75	**R**	**37**	**DRN**	**100LS4**	35	286
287	73	5.06	2490	1.85	**RF**	**37**	**DRN**	**100LS4**	37	287
336	63	4.32	2400	2.0						
358	59	4.05	2360	2.1						
425	49	3.41	2260	2.3						
143	147	10.13	1180	0.85						
220	95	6.59	1180	1.10						
259	81	5.60*	1430	1.20						
290	72	5.00*	1570	1.30	**R**	**27**	**DRN**	**100LS4**	29	283
340	62	4.27	1530	1.40	**RF**	**27**	**DRN**	**100LS4**	29	284
362	58	4.00*	1510	1.45						
430	49	3.37	1460	1.60						
307	68	4.73	5140	1.80						
359	59	4.04*	4910	2.4						
392	54	3.70	4780	2.8						
446	47	3.25*	4600	3.9						
471	45	3.08*	4530	4.3						
538	39	2.70	4350	5.5	**RX**	**77**	**DRN**	**100LS4**	48	269
597	35	2.43	4210	6.1	**RXF**	**77**	**DRN**	**100LS4**	50	270
681	31	2.13	4040	6.5						
771	27	1.88*	3890	6.9						
870	24	1.67	3740	7.2						
1020	21	1.42	3560	7.5						
384	55	3.77	3250	1.60						
453	46	3.20*	3110	2.2						
502	42	2.89	3020	2.5						
570	37	2.54	2920	3.2						
604	35	2.40*	2870	3.5	**RX**	**67**	**DRN**	**100LS4**	38	267
710	30	2.04	2740	4.5	**RXF**	**67**	**DRN**	**100LS4**	42	268
781	27	1.86	2660	4.7						
901	23	1.61	2550	4.9						
1035	20	1.40*	2440	5.1						

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P_m = 2.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
462	45	3.14	2430	1.45						
549	38	2.64*	2330	1.80						
612	34	2.37	2260	2.0						
710	30	2.04	2170	2.3	**RX**	**57**	**DRN**	**100LS4**	36	265
755	28	1.92*	2130	2.5	**RXF**	**57**	**DRN**	**100LS4**	37	266
878	24	1.65	2040	2.9						
982	21	1.48	1980	3.2						
1110	19	1.30	1910	3.3						

P_m = 3.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.3	20300	1123	120000	0.90						
1.5	18100	999	120000	1.00						
1.7	15600	861	120000	1.15	**R**	**167R97**	**DRN**	**100L4**	780	315
1.9	13800	760	120000	1.30	**RF**	**167R97**	**DRN**	**100L4**	780	315
2.2	11600	656	120000	1.55	**RM**	**167R97**	**DRN**	**100L4**	980	315
2.9	8940	503	120000	2.0						
2.7	9590	533	68400	1.35						
3.2	8260	462	70000	1.55						
3.4	7730	426	70600	1.70	**R**	**147R87**	**DRN**	**100L4**	470	314
4.0	6680	368	71600	1.95	**RF**	**147R87**	**DRN**	**100L4**	475	314
4.5	5910	326	72300	2.2	**RM**	**147R87**	**DRN**	**100L4**	640	314
5.2	5010	280	72900	2.6						
1.6	16200	889	33300	0.80						
1.9	14200	784	58900	0.90	**R**	**147R77**	**DRN**	**100L4**	445	314
2.1	12600	695	63400	1.05	**RF**	**147R77**	**DRN**	**100L4**	455	314
2.4	11300	619	65700	1.15	**RM**	**147R77**	**DRN**	**100L4**	620	314
2.6	10100	558	67500	1.25						
3.0	8910	490	50000	0.90						
3.4	7780	428	53800	1.05						
3.8	6970	381	55400	1.15	**R**	**137R77**	**DRN**	**100L4**	315	314
4.5	5910	323	57200	1.35	**RF**	**137R77**	**DRN**	**100L4**	340	314
5.0	5320	291	58000	1.50	**RM**	**137R77**	**DRN**	**100L4**	450	314
5.7	4650	255	58800	1.70						
6.5	4070	223	59400	1.95						
2.8	9600	517	38900	0.85	**R**	**137R77**	**DRN**	**100L4**	305	314
3.2	8410	453	52200	0.95	**RF**	**137R77**	**DRN**	**100L4**	330	314
					RM	**137R77**	**DRN**	**100L4**	440	314
5.8	4600	253	27700	0.95	**R**	**107R77**	**DRN**	**100L4**	230	314
6.8	3900	214	31500	1.10	**RF**	**107R77**	**DRN**	**100L4**	235	314
7.8	3400	187	33500	1.25	**RM**	**107R77**	**DRN**	**100L4**	325	314
					R	**107R77**	**DRN**	**100L4**	225	314
5.7	4730	256	25600	0.90	**RF**	**107R77**	**DRN**	**100L4**	230	314
					RM	**107R77**	**DRN**	**100L4**	315	314
6.3	4520	229.95	28200	0.95						
7.2	3990	203.16	31000	1.10						
8.4	3390	172.34	33600	1.25						
9.2	3120	158.68	34500	1.40						
10	2790	141.83	35600	1.55	**R**	**107**	**DRN**	**100L4**	190	306
11	2510	127.68	36200	1.70	**RF**	**107**	**DRN**	**100L4**	195	307
13	2270	115.63	36500	1.90	**RM**	**107**	**DRN**	**100L4**	285	307
14	2010	102.53	36800	2.1						
16	1820	92.70	37000	2.4						
19	1540	78.57	35500	2.8						
20	1430	72.88	34800	3.0						

P_m = 3.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
9.7	2960	150.78	21000	1.00						
11	2490	126.75	24100	1.20						
12	2290	116.48	25100	1.30						
14	2030	103.44	26200	1.45						
16	1810	92.48	27100	1.65						
18	1630	83.15	27400	1.85	**R**	**97**	**DRN**	**100L4**	135	304
20	1410	72.17	27500	2.1	**RF**	**97**	**DRN**	**100L4**	150	305
22	1280	65.21	26700	2.3	**RM**	**97**	**DRN**	**100L4**	200	305
24	1170	59.92	26100	2.5						
27	1040	53.21	25300	2.9						
31	930	47.58	24500	3.2						
34	840	42.78	23800	3.6						
39	730	37.13	22800	4.1						
44	650	33.25	22100	4.4						
16	1830	93.38	12100	0.85						
18	1610	81.92	16500	0.95	**R**	**87**	**DRN**	**100L4**	92	301
20	1420	72.57	17700	1.10	**RF**	**87**	**DRN**	**100L4**	99	302
23	1250	63.68*	18700	1.25	**RM**	**87**	**DRN**	**100L4**	130	302
24	1180	60.35*	19000	1.30						
28	1030	52.82	19700	1.50						
31	930	47.58	19800	1.65	**R**	**87**	**DRN**	**100L4**	92	301
35	820	41.74	19200	1.90	**RF**	**87**	**DRN**	**100L4**	99	302
40	720	36.84*	18500	2.1	**RM**	**87**	**DRN**	**100L4**	130	302
45	640	32.66*	17900	2.4						
52	545	27.88	17200	2.7						
42	675	34.40*	18200	2.2						
46	615	31.40	17700	2.5						
52	545	27.84*	17200	2.8						
62	460	23.40	16300	3.4	**R**	**87**	**DRN**	**100L4**	90	301
68	420	21.51	15900	3.5	**RF**	**87**	**DRN**	**100L4**	97	302
76	375	19.10	15400	3.8	**RM**	**87**	**DRN**	**100L4**	125	302
85	335	17.08*	14900	4.1						
95	300	15.35	14400	4.4						
32	900	45.81	9090	0.90						
34	850	43.26	9620	0.95	**R**	**77**	**DRN**	**100L4**	65	298
40	720	36.83	10700	1.15	**RF**	**77**	**DRN**	**100L4**	71	299
44	655	33.47	11200	1.25	**RM**	**77**	**DRN**	**100L4**	96	299
					R	**77**	**DRN**	**100L4**	65	298
50	570	29.00	11600	1.45	**RF**	**77**	**DRN**	**100L4**	71	299
58	495	25.23	11200	1.55	**RM**	**77**	**DRN**	**100L4**	96	299
62	455	23.37	11000	1.80						
68	420	21.43	10700	1.95						
77	365	18.80	10400	2.1						
82	350	17.82*	10200	2.2						
93	305	15.60	9870	2.4						
104	275	14.05	9600	2.6	**R**	**77**	**DRN**	**100L4**	64	298
118	240	12.33	9250	2.8	**RF**	**77**	**DRN**	**100L4**	70	299
134	210	10.88	8930	3.1	**RM**	**77**	**DRN**	**100L4**	94	299
151	190	9.64	8620	3.3						
169	169	8.59	8400	3.7						
188	152	7.74	8140	4.0						
214	134	6.79	7830	4.3						
62	460	23.44	8660	1.20						
73	390	19.89	8350	1.55						
81	350	17.95	8150	1.65						
92	310	15.79	7900	1.80	**R**	**67**	**DRN**	**100L4**	58	295
98	290	14.91	7790	1.85	**RF**	**67**	**DRN**	**100L4**	61	296
115	245	12.70	7470	2.1	**RM**	**67**	**DRN**	**100L4**	77	296
126	225	11.54	7290	2.2						
146	197	10.00	7010	2.4						
					R	**57**	**DRN**	**100L4**	52	292
54	530	26.97	4430	0.85	**RF**	**57**	**DRN**	**100L4**	56	293
					RM	**57**	**DRN**	**100L4**	68	293
66	430	21.93	4360	1.05	**R**	**57**	**DRN**	**100L4**	51	292
78	365	18.60*	4280	1.25	**RF**	**57**	**DRN**	**100L4**	55	293
87	330	16.79	4220	1.35	**RM**	**57**	**DRN**	**100L4**	67	293

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P_m = 3.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} 1) N	SEW f_B					m kg	
99	290	14.77*	4140	1.50						
104	270	13.95*	4100	1.55						
123	230	11.88	3980	1.75						
135	210	10.79	3900	1.85						
156	184	9.35	3790	2.0	**R**	**57**	**DRN**	**100L4**	51	292
161	178	9.06	3780	2.1	**RF**	**57**	**DRN**	**100L4**	55	293
183	157	7.97	3670	2.3	**RM**	**57**	**DRN**	**100L4**	67	293
193	148	7.53	3620	2.4						
227	126	6.41	3480	2.7						
250	115	5.82	3400	2.8						
289	99	5.05	3270	3.1						
332	86	4.39	3160	3.2						
90	315	16.22	2210	0.85						
100	285	14.56	2650	0.90	**R**	**47**	**DRN**	**100L4**	46	289
116	245	12.54	3040	1.00	**RF**	**47**	**DRN**	**100L4**	46	290
123	230	11.79	3020	1.05						
143	200	10.15	2950	1.15						
161	178	9.07	2890	1.25						
182	158	8.01	2820	1.30						
188	153	7.76*	2720	1.05						
209	137	6.96	2660	1.15	**R**	**47**	**DRN**	**100L4**	46	289
243	118	6.00	2590	1.30	**RF**	**47**	**DRN**	**100L4**	46	290
258	111	5.64*	2550	1.40						
300	95	4.85	2470	1.55						
336	85	4.34	2410	1.70						
380	75	3.83	2340	1.90						
144	199	10.11	920	0.85						
154	186	9.47	1140	0.90	**R**	**37**	**DRN**	**100L4**	42	286
183	157	7.97	1610	1.00	**RF**	**37**	**DRN**	**100L4**	44	287
218	131	6.67	1350	1.10						
257	111	5.67	1700	1.25						
288	100	5.06	1900	1.35	**R**	**37**	**DRN**	**100L4**	42	286
337	85	4.32	2110	1.50	**RF**	**37**	**DRN**	**100L4**	44	287
360	80	4.05	2180	1.55						
427	67	3.41	2160	1.65						
260	110	5.60*	455	0.90						
291	98	5.00*	695	0.95						
341	84	4.27	970	1.05	**R**	**27**	**DRN**	**100L4**	37	283
364	79	4.00*	1070	1.10	**RF**	**27**	**DRN**	**100L4**	37	284
432	66	3.37	1280	1.20						
226	127	6.45	7050	1.50						
262	109	5.56*	6760	2.1						
287	100	5.07	6580	2.5	**RX**	**87**	**DRN**	**100L4**	72	271
324	89	4.50*	6350	3.3	**RXF**	**87**	**DRN**	**100L4**	77	272
385	74	3.78	6030	4.1						
308	93	4.73	5000	1.30						
360	79	4.04*	4780	1.80						
393	73	3.70	4670	2.1	**RX**	**77**	**DRN**	**100L4**	55	269
448	64	3.25*	4500	2.8	**RXF**	**77**	**DRN**	**100L4**	57	270
473	61	3.08*	4430	3.2						
386	74	3.77	3120	1.15						
455	63	3.20*	3000	1.60						
504	57	2.89	2920	1.85						
573	50	2.54	2820	2.4						
607	47	2.40*	2780	2.6	**RX**	**67**	**DRN**	**100L4**	45	267
713	40	2.04	2660	3.3	**RXF**	**67**	**DRN**	**100L4**	49	268
784	37	1.86	2590	3.4						
905	32	1.61	2480	3.6						
1040	28	1.40*	2380	3.8						

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P_m = 3.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
464	62	3.14	2310	1.05						
552	52	2.64*	2220	1.35						
614	47	2.37	2160	1.50						
713	40	2.04	2080	1.70	**RX**	**57**	**DRN**	**100L4**	43	265
758	38	1.92*	2050	1.85	**RXF**	**57**	**DRN**	**100L4**	45	266
881	33	1.65	1970	2.1						
986	29	1.48	1910	2.3						
1115	26	1.30	1850	2.4						

P_m = 4.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.7	20800	861	120000	0.85						
1.9	18400	760	120000	1.00						
2.2	15600	656	120000	1.15	**R**	**167R97**	**DRN**	**112M4**	780	315
2.9	11900	503	120000	1.50	**RF**	**167R97**	**DRN**	**112M4**	790	315
3.9	8970	376	120000	2.0	**RM**	**167R97**	**DRN**	**112M4**	990	315
4.4	7980	335	120000	2.2						
2.8	12800	533	63000	1.00						
3.2	11000	462	66200	1.20						
3.4	10300	426	67300	1.25						
4.0	8900	368	69200	1.45	**R**	**147R87**	**DRN**	**112M4**	475	314
4.5	7870	326	70400	1.65	**RF**	**147R87**	**DRN**	**112M4**	485	314
5.2	6700	280	71600	1.95	**RM**	**147R87**	**DRN**	**112M4**	650	314
5.9	5910	247	72300	2.2						
6.9	5110	214	72900	2.5						
7.8	4520	189	73200	2.9						
9.2	3790	159	73600	3.4						
2.4	15000	619	49400	0.85	**R**	**147R77**	**DRN**	**112M4**	455	314
2.6	13500	558	61500	0.95	**RF**	**147R77**	**DRN**	**112M4**	465	314
3.0	11800	489	64800	1.10	**RM**	**147R77**	**DRN**	**112M4**	630	314
3.5	10000	415	67700	1.30						
3.8	9280	381	44800	0.85						
4.5	7870	323	53700	1.00	**R**	**137R77**	**DRN**	**112M4**	325	314
5.0	7080	291	55200	1.15	**RF**	**137R77**	**DRN**	**112M4**	350	314
5.8	6190	255	56700	1.30	**RM**	**137R77**	**DRN**	**112M4**	460	314
6.6	5420	223	57900	1.45						
3.9	9260	376	45100	0.85	**R**	**137R77**	**DRN**	**112M4**	315	314
4.3	8340	339	52500	0.95	**RF**	**137R77**	**DRN**	**112M4**	340	314
4.9	7300	297	54800	1.10	**RM**	**137R77**	**DRN**	**112M4**	450	314
					R	**107R77**	**DRN**	**112M4**	240	314
7.8	4530	187	28100	0.95	**RF**	**107R77**	**DRN**	**112M4**	245	314
					RM	**107R77**	**DRN**	**112M4**	330	314
					R	**107R77**	**DRN**	**112M4**	230	314
7.6	4740	193	25200	0.90	**RF**	**107R77**	**DRN**	**112M4**	240	314
8.5	4240	172	29800	1.00	**RM**	**107R77**	**DRN**	**112M4**	325	314
8.5	4490	172.34	28400	0.95						
9.2	4140	158.68	30300	1.05						
10	3700	141.83	32400	1.15						
11	3330	127.68	33800	1.30						
13	3010	115.63	34900	1.45						
14	2670	102.53	35900	1.60	**R**	**107**	**DRN**	**112M4**	200	306
16	2410	92.70	36200	1.80	**RF**	**107**	**DRN**	**112M4**	205	307
19	2050	78.57	34600	2.1	**RM**	**107**	**DRN**	**112M4**	295	307
20	1900	72.88	33900	2.3						
22	1710	65.60*	33000	2.5						
25	1550	59.41	32100	2.8						
28	1370	52.68	31000	3.1						

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P_m = 4.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
13	3030	116.48	18300	1.00						
14	2690	103.44	22900	1.10						
16	2410	92.48	24500	1.25						
18	2160	83.15	25700	1.40						
20	1880	72.17	26500	1.60						
22	1700	65.21	25800	1.75	**R**	**97**	**DRN**	**112M4**	140	304
24	1560	59.92	25300	1.90	**RF**	**97**	**DRN**	**112M4**	160	305
28	1380	53.21	24600	2.2	**RM**	**97**	**DRN**	**112M4**	210	305
31	1240	47.58	23800	2.4						
34	1110	42.78	23200	2.7						
39	960	37.13	22300	3.1						
44	860	33.25	21600	3.3						
46	830	32.05	21400	3.1						
54	705	27.19	20400	3.6	**R**	**97**	**DRN**	**112M4**	140	304
58	650	25.03	20000	4.3	**RF**	**97**	**DRN**	**112M4**	155	305
65	580	22.37	19300	4.7	**RM**	**97**	**DRN**	**112M4**	205	305
73	525	20.14	18700	5.0						
23	1660	63.68*	13700	0.95	**R**	**87**	**DRN**	**112M4**	100	301
24	1570	60.35*	14300	1.00	**RF**	**87**	**DRN**	**112M4**	110	302
28	1370	52.82	15500	1.10	**RM**	**87**	**DRN**	**112M4**	140	302
31	1240	47.58	16300	1.25						
35	1080	41.74	17000	1.40	**R**	**87**	**DRN**	**112M4**	100	301
40	960	36.84*	17500	1.60	**RF**	**87**	**DRN**	**112M4**	110	302
45	850	32.66*	17400	1.80	**RM**	**87**	**DRN**	**112M4**	140	302
52	725	27.88	16700	2.1						
43	890	34.40*	17600	1.65						
47	810	31.40	17200	1.90						
53	725	27.84*	16700	2.1						
63	610	23.40	15900	2.5						
68	560	21.51	15600	2.7	**R**	**87**	**DRN**	**112M4**	99	301
77	495	19.10	15100	2.9	**RF**	**87**	**DRN**	**112M4**	105	302
86	445	17.08*	14600	3.1	**RM**	**87**	**DRN**	**112M4**	135	302
95	400	15.35	14200	3.3						
110	345	13.33	13600	3.7						
123	310	11.93	13200	4.0						
40	960	36.83	7260	0.85						
44	870	33.47	9400	0.95	**R**	**77**	**DRN**	**112M4**	74	298
50	755	29.00	10500	1.10	**RF**	**77**	**DRN**	**112M4**	80	299
58	655	25.23	10700	1.20	**RM**	**77**	**DRN**	**112M4**	105	299
63	605	23.37	10500	1.35						
68	555	21.43	10300	1.45						
78	490	18.80	10000	1.60						
82	460	17.82*	9880	1.70						
94	405	15.60	9560	1.80						
104	365	14.05	9310	1.95						
119	320	12.33	9000	2.2	**R**	**77**	**DRN**	**112M4**	73	298
135	280	10.88	8700	2.3	**RF**	**77**	**DRN**	**112M4**	79	299
152	250	9.64	8420	2.5	**RM**	**77**	**DRN**	**112M4**	105	299
170	220	8.59	8240	2.8						
189	200	7.74	8000	3.0						
216	177	6.79	7700	3.3						
244	156	5.99*	7420	3.4						
276	139	5.31*	7160	3.7						

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P_m = 4.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
74	515	19.89	7910	1.15						
82	465	17.95	7750	1.25						
93	410	15.79	7550	1.35						
98	385	14.91	7460	1.40						
115	330	12.70	7190	1.55						
127	300	11.54	7030	1.65	**R**	**67**	**DRN**	**112M4**	67	295
146	260	10.00	6790	1.80	**RF**	**67**	**DRN**	**112M4**	70	296
168	225	8.70*	6550	1.95	**RM**	**67**	**DRN**	**112M4**	86	296
188	200	7.79	6390	1.85						
199	192	7.36*	6290	1.95						
234	164	6.27	6020	2.0						
257	149	5.70	5860	2.1						
297	129	4.93	5630	2.2						
341	112	4.29	5410	2.4						
79	485	18.60*	3680	0.95	**R**	**57**	**DRN**	**112M4**	61	292
87	435	16.79	3820	1.05	**RF**	**57**	**DRN**	**112M4**	64	293
99	385	14.77*	3790	1.15	**RM**	**57**	**DRN**	**112M4**	76	293
105	360	13.95*	3770	1.20						
123	305	11.88	3700	1.30						
136	280	10.79	3650	1.40						
157	240	9.35	3560	1.50						
162	235	9.06	3570	1.60	**R**	**57**	**DRN**	**112M4**	61	292
184	205	7.97	3480	1.70	**RF**	**57**	**DRN**	**112M4**	64	293
194	196	7.53	3440	1.80	**RM**	**57**	**DRN**	**112M4**	76	293
228	167	6.41	3330	2.0						
251	152	5.82	3260	2.1						
290	132	5.05	3160	2.3						
333	115	4.39	3050	2.4						
144	260	10.15	2070	0.85						
161	235	9.07	2450	0.95						
183	205	8.01	2630	1.00						
210	182	6.96	2470	0.90						
244	156	6.00	2420	1.00	**R**	**47**	**DRN**	**112M4**	56	289
260	147	5.64*	2400	1.05	**RF**	**47**	**DRN**	**112M4**	56	290
302	127	4.85	2340	1.20						
338	113	4.34	2290	1.30						
382	100	3.83	2230	1.45						
263	145	5.56*	6580	1.55						
289	132	5.07	6420	1.90	**RX**	**87**	**DRN**	**112M4**	81	271
325	117	4.50*	6210	2.5	**RXF**	**87**	**DRN**	**112M4**	86	272
387	99	3.78	5910	3.1						
362	105	4.04*	4630	1.35						
395	97	3.70	4530	1.60						
450	85	3.25*	4370	2.2						
475	80	3.08*	4310	2.4						
543	70	2.70	4150	3.1	**RX**	**77**	**DRN**	**112M4**	64	269
603	63	2.43	4030	3.4	**RXF**	**77**	**DRN**	**112M4**	67	270
687	56	2.13	3880	3.6						
779	49	1.88*	3740	3.8						
878	43	1.67	3620	4.0						
1030	37	1.42	3450	4.2						
458	83	3.20*	2860	1.20						
507	75	2.89	2790	1.40						
576	66	2.54	2710	1.80						
610	63	2.40*	2670	1.95	**RX**	**67**	**DRN**	**112M4**	55	267
716	53	2.04	2560	2.5	**RXF**	**67**	**DRN**	**112M4**	59	268
788	48	1.86	2500	2.6						
910	42	1.61	2400	2.7						
1045	37	1.40*	2310	2.8						
555	69	2.64*	1740	1.00						
618	62	2.37	1840	1.10						
717	53	2.04	1960	1.30						
762	50	1.92*	1950	1.40	**RX**	**57**	**DRN**	**112M4**	52	265
886	43	1.65	1880	1.60	**RXF**	**57**	**DRN**	**112M4**	54	266
992	39	1.48	1830	1.75						
1120	34	1.30	1780	1.85						

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P_m = 5.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.2	21700	656	120000	0.85						
2.5	19000	579	120000	0.95						
2.9	16600	503	120000	1.10						
3.4	14100	432	120000	1.25	**R**	**167R97**	**DRN**	**132S4**	800	315
3.9	12400	376	120000	1.45	**RF**	**167R97**	**DRN**	**132S4**	800	315
4.4	11000	335	120000	1.60	**RM**	**167R97**	**DRN**	**132S4**	1000	315
4.8	9930	303	120000	1.80						
5.2	9150	279	120000	1.95						
3.2	15300	462	45900	0.85						
3.4	14200	426	59000	0.90						
4.0	12300	368	64000	1.05						
4.5	10900	326	66400	1.20	**R**	**147R87**	**DRN**	**132S4**	490	314
5.2	9300	280	68700	1.40	**RF**	**147R87**	**DRN**	**132S4**	495	314
5.9	8210	247	70100	1.60	**RM**	**147R87**	**DRN**	**132S4**	660	314
6.8	7090	214	71200	1.85						
7.7	6270	189	72000	2.1						
6.6	8000	222.60*	53400	1.00						
7.8	6770	188.45	55800	1.20	**R**	**137**	**DRN**	**132S4**	295	308
8.4	6260	174.40*	56600	1.30	**RF**	**137**	**DRN**	**132S4**	320	309
9.4	5610	156.31	57600	1.40	**RM**	**137**	**DRN**	**132S4**	430	309
10	5070	141.12*	58300	1.60						
11	4600	128.18	58900	1.75						
13	4080	113.72	59400	1.95						
14	3700	103.20*	59800	2.2						
16	3180	88.70*	60200	2.5	**R**	**137**	**DRN**	**132S4**	295	308
18	2900	80.91*	60400	2.8	**RF**	**137**	**DRN**	**132S4**	320	309
20	2640	73.49	60600	3.0	**RM**	**137**	**DRN**	**132S4**	430	309
22	2340	65.20	60800	3.4						
25	2120	59.17*	60900	3.8						
29	1820	50.86*	61000	4.4						
11	4590	127.68	27800	0.95						
13	4150	115.63	30200	1.05						
14	3680	102.53	32400	1.15						
16	3330	92.70	33800	1.30						
19	2820	78.57	33400	1.50	**R**	**107**	**DRN**	**132S4**	210	306
20	2610	72.88	32800	1.65	**RF**	**107**	**DRN**	**132S4**	215	307
22	2350	65.60*	31900	1.80	**RM**	**107**	**DRN**	**132S4**	305	307
25	2130	59.41	31100	2.0						
28	1890	52.68	30200	2.3						
31	1710	47.63	29400	2.5						
36	1450	40.37*	28100	3.0						
18	2980	83.15	20000	1.00						
20	2590	72.17	22100	1.15						
22	2340	65.21	24600	1.30						
24	2150	59.92	24100	1.40						
27	1910	53.21	23500	1.55	**R**	**97**	**DRN**	**132S4**	155	304
31	1710	47.58	22900	1.75	**RF**	**97**	**DRN**	**132S4**	170	305
34	1530	42.78	22400	1.95	**RM**	**97**	**DRN**	**132S4**	220	305
39	1330	37.13	21600	2.2						
44	1190	33.25	21000	2.4						
53	990	27.58	20000	2.7						
46	1150	32.05	20800	2.2						
54	970	27.19	19900	2.6						
58	890	25.03	19500	3.1	**R**	**97**	**DRN**	**132S4**	150	304
65	800	22.37	18900	3.4	**RF**	**97**	**DRN**	**132S4**	165	305
73	720	20.14	18300	3.6	**RM**	**97**	**DRN**	**132S4**	220	305
80	655	18.24	17800	3.8						
90	580	16.17	17200	4.1						
31	1710	47.58	15700	0.90						
35	1500	41.74	17300	1.05	**R**	**87**	**DRN**	**132S4**	110	301
40	1320	36.84*	17100	1.15	**RF**	**87**	**DRN**	**132S4**	120	302
45	1170	32.66*	16600	1.30	**RM**	**87**	**DRN**	**132S4**	150	302
52	1000	27.88	16100	1.50						

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P_m = 5.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
52	1000	27.84*	16000	1.55						
62	840	23.40	15400	1.85						
68	770	21.51	15100	1.95						
76	685	19.10	14600	2.1						
86	610	17.08*	14200	2.3						
95	550	15.35	13800	2.4	**R**	**87**	**DRN**	**132S4**	110	301
110	475	13.33	13300	2.7	**RF**	**87**	**DRN**	**132S4**	120	302
122	425	11.93	12900	2.9	**RM**	**87**	**DRN**	**132S4**	150	302
148	355	9.90*	12200	3.3						
160	325	9.14*	12100	3.7						
178	295	8.22	11700	3.9						
205	255	7.13	11200	4.2						
78	675	18.80	9320	1.15	**R**	**77**	**DRN**	**132S4**	84	298
82	640	17.82*	9360	1.20	**RF**	**77**	**DRN**	**132S4**	90	299
94	560	15.60	9110	1.30	**RM**	**77**	**DRN**	**132S4**	115	299
104	505	14.05	8910	1.45						
119	440	12.33	8650	1.55						
134	390	10.88	8390	1.70						
152	345	9.64	8150	1.80	**R**	**77**	**DRN**	**132S4**	84	298
170	305	8.59	8030	2.0	**RF**	**77**	**DRN**	**132S4**	90	299
189	275	7.74	7810	2.2	**RM**	**77**	**DRN**	**132S4**	115	299
215	240	6.79	7530	2.4						
244	215	5.99*	7270	2.5						
275	191	5.31*	7030	2.7						
92	565	15.79	6720	1.00						
98	535	14.91	6980	1.05						
115	455	12.70	6790	1.15						
127	410	11.54	6660	1.20						
146	355	10.00	6470	1.30						
168	310	8.70*	6280	1.40	**R**	**67**	**DRN**	**132S4**	79	295
187	280	7.79	6150	1.35	**RF**	**67**	**DRN**	**132S4**	82	296
199	260	7.36*	6070	1.40	**RM**	**67**	**DRN**	**132S4**	98	296
233	225	6.27	5830	1.45						
257	200	5.70	5690	1.50						
296	177	4.93	5480	1.65						
340	154	4.29	5280	1.75						
99	530	14.77*	1860	0.80						
105	500	13.95*	2200	0.85	**R**	**57**	**DRN**	**132S4**	72	292
123	425	11.88	3000	0.95	**RF**	**57**	**DRN**	**132S4**	76	293
135	385	10.79	3270	1.00	**RM**	**57**	**DRN**	**132S4**	88	293
156	335	9.35	3240	1.10						
183	285	7.97	3210	1.25						
194	270	7.53	3190	1.30	**R**	**57**	**DRN**	**132S4**	72	292
228	230	6.41	3110	1.45	**RF**	**57**	**DRN**	**132S4**	76	293
251	205	5.82	3060	1.55	**RM**	**57**	**DRN**	**132S4**	88	293
290	181	5.05	2980	1.70						
333	158	4.39	2900	1.75						
301	174	4.85	1920	0.85						
337	156	4.34	2110	0.95	**R**	**47**	**DRN**	**132S4**	67	289
381	138	3.83	2070	1.05	**RF**	**47**	**DRN**	**132S4**	67	290
221	235	6.63*	10400	1.95						
260	200	5.61	9920	2.3	**RX**	**107**	**DRN**	**132S4**	150	275
281	187	5.19	9700	3.7	**RXF**	**107**	**DRN**	**132S4**	165	276
314	167	4.65	9400	4.2						
252	205	5.79	8330	2.0						
297	177	4.91	7960	2.2						
323	163	4.52	7780	3.7						
361	145	4.04	7530	4.1						
401	131	3.64*	7310	4.6						
443	118	3.30	7100	5.0	**RX**	**97**	**DRN**	**132S4**	115	273
500	105	2.92	6850	5.7	**RXF**	**97**	**DRN**	**132S4**	125	274
553	95	2.64	6650	6.3						
652	81	2.24*	6320	7.4						
747	70	1.96	6070	8.1						
893	59	1.64	5740	8.6						
1030	51	1.42	5490	8.9						

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P_m = 5.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
325	162	4.50*	6000	1.80						
386	136	3.78	5740	2.2						
420	125	3.48	5610	3.2						
473	111	3.09	5430	3.6	**RX**	**87**	**DRN**	**132S4**	92	271
529	99	2.76*	5260	4.1	**RXF**	**87**	**DRN**	**132S4**	97	272
589	89	2.48	5100	4.5						
678	77	2.15	4900	5.0						
450	117	3.25*	4200	1.55						
474	111	3.08*	4140	1.75						
542	97	2.70	4010	2.2						
602	87	2.43	3900	2.5	**RX**	**77**	**DRN**	**132S4**	76	269
686	77	2.13	3760	2.6	**RXF**	**77**	**DRN**	**132S4**	78	270
777	68	1.88*	3640	2.8						
877	60	1.67	3520	2.9						
1025	51	1.42	3360	3.0						
575	91	2.54	2540	1.30						
609	86	2.40*	2510	1.45						
715	73	2.04	2420	1.80	**RX**	**67**	**DRN**	**132S4**	66	267
787	67	1.86	2370	1.90	**RXF**	**67**	**DRN**	**132S4**	70	268
908	58	1.61	2290	1.95						
1045	50	1.40*	2210	2.1						
716	73	2.04	725	0.95						
761	69	1.92*	810	1.00						
884	59	1.65	990	1.15	**RX**	**57**	**DRN**	**132S4**	64	265
990	53	1.48	1060	1.30	**RXF**	**57**	**DRN**	**132S4**	65	266
1120	47	1.30	1200	1.35						

P_m = 7.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.9	22700	503	120000	0.80						
3.4	19400	432	120000	0.95						
3.9	17000	376	120000	1.05	**R**	**167R97**	**DRN**	**132M4**	810	315
4.4	15100	335	120000	1.20	**RF**	**167R97**	**DRN**	**132M4**	820	315
4.8	13500	303	120000	1.30	**RM**	**167R97**	**DRN**	**132M4**	1020	315
5.3	12500	279	120000	1.45						
4.5	14800	326	52300	0.90						
5.2	12600	280	63300	1.00						
5.9	11200	247	65900	1.15	**R**	**147R87**	**DRN**	**132M4**	510	314
6.9	9670	214	68200	1.35	**RF**	**147R87**	**DRN**	**132M4**	510	314
7.8	8550	189	69700	1.50	**RM**	**147R87**	**DRN**	**132M4**	680	314
9.2	7190	159	71200	1.80						
7.8	9190	188.45	46300	0.85	**R**	**137**	**DRN**	**132M4**	315	308
8.4	8500	174.40*	51800	0.95	**RF**	**137**	**DRN**	**132M4**	335	309
9.4	7620	156.31	54200	1.05	**RM**	**137**	**DRN**	**132M4**	445	309
10	6880	141.12*	55600	1.15						
11	6250	128.18	56600	1.30						
13	5540	113.72	57700	1.45						
14	5030	103.20*	58400	1.60						
17	4320	88.70*	59200	1.85	**R**	**137**	**DRN**	**132M4**	315	308
18	3940	80.91*	59600	2.0	**RF**	**137**	**DRN**	**132M4**	335	309
20	3580	73.49	59900	2.2	**RM**	**137**	**DRN**	**132M4**	445	309
23	3180	65.20	60200	2.5						
25	2880	59.17*	60400	2.8						
29	2480	50.86*	60700	3.2						

P_m = 7.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
16	4520	92.70	28200	0.95						
19	3830	78.57	31600	1.10						
20	3550	72.88	31100	1.20						
22	3200	65.60*	30500	1.35						
25	2890	59.41	29800	1.50	**R**	**107**	**DRN**	**132M4**	230	306
28	2570	52.68	29000	1.65	**RF**	**107**	**DRN**	**132M4**	235	307
31	2320	47.63	28300	1.85	**RM**	**107**	**DRN**	**132M4**	320	307
36	1960	40.37*	27200	2.2						
42	1720	35.26	26200	2.5						
50	1430	29.49	25000	3.0						
48	1500	30.77	25300	2.9						
53	1340	27.58	24600	3.2	**R**	**107**	**DRN**	**132M4**	220	306
59	1210	24.90*	23900	3.5	**RF**	**107**	**DRN**	**132M4**	230	307
65	1100	22.62	23300	3.9	**RM**	**107**	**DRN**	**132M4**	315	307
24	2920	59.92	21500	1.05						
28	2590	53.21	22100	1.15	**R**	**97**	**DRN**	**132M4**	170	304
31	2320	47.58	21600	1.30	**RF**	**97**	**DRN**	**132M4**	190	305
34	2080	42.78	21200	1.45	**RM**	**97**	**DRN**	**132M4**	240	305
40	1810	37.13	20600	1.65						
44	1620	33.25	20100	1.80	**R**	**97**	**DRN**	**132M4**	170	304
53	1340	27.58	19200	2.00	**RF**	**97**	**DRN**	**132M4**	190	305
					RM	**97**	**DRN**	**132M4**	240	305
46	1560	32.05	19900	1.65						
54	1320	27.19	19200	1.95						
59	1220	25.03	18800	2.3	**R**	**97**	**DRN**	**132M4**	170	304
66	1090	22.37	18300	2.5	**RF**	**97**	**DRN**	**132M4**	185	305
73	980	20.14	17800	2.7	**RM**	**97**	**DRN**	**132M4**	235	305
80	880	18.24	17300	2.8						
40	1790	36.84*	14700	0.85	**R**	**87**	**DRN**	**132M4**	130	301
45	1590	32.66*	15600	0.95	**RF**	**87**	**DRN**	**132M4**	135	302
53	1360	27.88	15200	1.10	**RM**	**87**	**DRN**	**132M4**	165	302
53	1350	27.84*	15200	1.15						
63	1140	23.40	14600	1.35						
68	1040	21.51	14400	1.45						
77	930	19.10	14000	1.55						
86	830	17.08*	13700	1.65						
96	745	15.35	12600	1.80						
110	650	13.33	12900	1.95	**R**	**87**	**DRN**	**132M4**	130	301
123	580	11.93	12500	2.1	**RF**	**87**	**DRN**	**132M4**	135	302
148	480	9.90*	11900	2.4	**RM**	**87**	**DRN**	**132M4**	165	302
161	445	9.14*	11800	2.7						
179	400	8.22	11500	2.9						
206	345	7.13	11000	3.1						
230	310	6.39	10700	3.3						
277	255	5.30*	10100	3.5						
78	910	18.80	5520	0.85						
82	860	17.82*	5910	0.90						
94	760	15.60	6760	0.95						
104	685	14.05	7300	1.05						
119	600	12.33	7850	1.15						
135	530	10.88	7960	1.25	**R**	**77**	**DRN**	**132M4**	100	298
152	470	9.64	7770	1.35	**RF**	**77**	**DRN**	**132M4**	110	299
171	415	8.59	7690	1.50	**RM**	**77**	**DRN**	**132M4**	135	299
190	375	7.74	7540	1.60						
216	330	6.79	7300	1.75						
245	290	5.99*	7060	1.85						
276	255	5.31*	6840	1.95						

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P_m = 7.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
116	615	12.70	4420	0.85						
127	560	11.54	5010	0.90						
147	485	10.00	5740	0.95						
169	420	8.70*	5900	1.05						
188	380	7.79	5600	1.00	**R**	**67**	**DRN**	**132M4**	97	295
199	355	7.36*	5760	1.05	**RF**	**67**	**DRN**	**132M4**	100	296
234	305	6.27	5570	1.10	**RM**	**67**	**DRN**	**132M4**	115	296
258	275	5.70	5450	1.10						
298	240	4.93	5270	1.20						
342	205	4.29	5100	1.30						
184	385	7.97	1120	0.90						
195	365	7.53	1410	0.95						
229	310	6.41	2120	1.05	**R**	**57**	**DRN**	**132M4**	91	292
252	280	5.82	2470	1.15	**RF**	**57**	**DRN**	**132M4**	94	293
291	245	5.05	2750	1.25	**RM**	**57**	**DRN**	**132M4**	105	293
334	210	4.39	2700	1.30						
222	320	6.63*	10000	1.40						
262	270	5.61	9620	1.65						
283	250	5.19	9420	2.7	**RX**	**107**	**DRN**	**132M4**	165	275
316	225	4.65	9140	3.1	**RXF**	**107**	**DRN**	**132M4**	185	276
350	200	4.20*	8890	4.0						
253	280	5.79	8030	1.50						
299	235	4.91	7700	1.65						
325	220	4.52	7530	2.7						
363	197	4.04	7310	3.0	**RX**	**97**	**DRN**	**132M4**	135	273
403	178	3.64*	7110	3.4	**RXF**	**97**	**DRN**	**132M4**	140	274
445	161	3.30	6910	3.7						
502	143	2.92	6680	4.2						
326	215	4.50*	5720	1.30						
388	185	3.78	5500	1.65						
422	170	3.48	5380	2.4						
476	151	3.09	5230	2.7						
532	135	2.76*	5080	3.0	**RX**	**87**	**DRN**	**132M4**	110	271
592	121	2.48	4940	3.4	**RXF**	**87**	**DRN**	**132M4**	115	272
682	105	2.15	4750	3.7						
761	94	1.93	4610	3.8						
918	78	1.60*	4370	4.0						
1055	68	1.39	4200	4.3						
452	159	3.25*	3890	1.15						
477	150	3.08*	3910	1.30						
545	132	2.70	3800	1.65						
604	118	2.43	3710	1.80	**RX**	**77**	**DRN**	**132M4**	94	269
689	104	2.13	3600	1.90	**RXF**	**77**	**DRN**	**132M4**	96	270
781	92	1.88*	3490	2.0						
881	81	1.67	3380	2.1						
1030	69	1.42	3240	2.2						
578	124	2.54	1590	0.95						
612	117	2.40*	1700	1.05						
718	100	2.04	1890	1.35	**RX**	**67**	**DRN**	**132M4**	85	267
790	91	1.86	2000	1.40	**RXF**	**67**	**DRN**	**132M4**	89	268
913	78	1.61	2120	1.45						
1050	68	1.40*	2070	1.50						

P_m = 9.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.9	20900	376	120000	0.85						
4.4	18600	335	120000	0.95	**R**	**167R97**	**DRN**	**132L4**	820	315
4.9	16700	303	120000	1.10	**RF**	**167R97**	**DRN**	**132L4**	830	315
5.3	15400	279	120000	1.15	**RM**	**167R97**	**DRN**	**132L4**	1020	315

P_m = 9.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.2	15500	280	42500	0.85						
6.0	13700	247	61100	0.95	**R**	**147R87**	**DRN**	**132L4**	510	314
6.9	11800	214	64800	1.10	**RF**	**147R87**	**DRN**	**132L4**	520	314
7.8	10500	189	67000	1.25	**RM**	**147R87**	**DRN**	**132L4**	690	314
9.3	8830	159	69300	1.45						
9.0	9760	163.31	68100	1.35	**R**	**147**	**DRN**	**132L4**	450	310
10	8770	146.91	69400	1.50	**RF**	**147**	**DRN**	**132L4**	455	311
12	7160	119.86	71200	1.80	**RM**	**147**	**DRN**	**132L4**	620	311
13	6530	109.31	71800	2.00						
16	5650	94.60*	72500	2.3	**R**	**147**	**DRN**	**132L4**	450	310
18	4980	83.47	73000	2.6	**RF**	**147**	**DRN**	**132L4**	455	311
20	4300	72.09	73400	3.0	**RM**	**147**	**DRN**	**132L4**	620	311
22	4000	66.99	73500	3.2						
9.4	9340	156.31	43800	0.85						
10	8430	141.12*	52100	0.95	**R**	**137**	**DRN**	**132L4**	320	308
11	7660	128.18	54100	1.05	**RF**	**137**	**DRN**	**132L4**	345	309
13	6790	113.72	55700	1.20	**RM**	**137**	**DRN**	**132L4**	455	309
14	6160	103.20*	56800	1.30						
17	5300	88.70*	58000	1.50						
18	4830	80.91*	58600	1.65						
20	4390	73.49	59100	1.80	**R**	**137**	**DRN**	**132L4**	320	308
23	3890	65.20	59600	2.0	**RF**	**137**	**DRN**	**132L4**	345	309
25	3530	59.17*	59900	2.3	**RM**	**137**	**DRN**	**132L4**	455	309
29	3030	50.86*	60300	2.6						
33	2650	44.39	60600	3.0						
19	4690	78.57	26900	0.90						
20	4350	72.88	29200	1.00						
22	3920	65.60*	29200	1.10						
25	3550	59.41	28700	1.20	**R**	**107**	**DRN**	**132L4**	235	306
28	3140	52.68	28000	1.35	**RF**	**107**	**DRN**	**132L4**	245	307
31	2840	47.63	27400	1.50	**RM**	**107**	**DRN**	**132L4**	330	307
36	2410	40.37*	26400	1.80						
42	2100	35.26	25600	2.0						
50	1760	29.49	24500	2.4						
48	1830	30.77	24700	2.3						
53	1640	27.58	24000	2.6	**R**	**107**	**DRN**	**132L4**	230	306
59	1480	24.90*	23400	2.9	**RF**	**107**	**DRN**	**132L4**	235	307
65	1350	22.62	22800	3.2	**RM**	**107**	**DRN**	**132L4**	325	307
73	1190	20.07	22100	3.6						
28	3180	53.21	10800	0.95	**R**	**97**	**DRN**	**132L4**	180	304
31	2840	47.58	20600	1.05	**RF**	**97**	**DRN**	**132L4**	195	305
34	2550	42.78	20200	1.15	**RM**	**97**	**DRN**	**132L4**	250	305
40	2210	37.13	19800	1.35	**R**	**97**	**DRN**	**132L4**	180	304
44	1980	33.25	19300	1.45	**RF**	**97**	**DRN**	**132L4**	195	305
53	1640	27.58	18600	1.60	**RM**	**97**	**DRN**	**132L4**	250	305
59	1490	25.03	18200	1.90						
66	1330	22.37	17800	2.0						
73	1200	20.14	17300	2.2	**R**	**97**	**DRN**	**132L4**	175	304
81	1090	18.24	16900	2.3	**RF**	**97**	**DRN**	**132L4**	195	305
91	960	16.17	16400	2.5	**RM**	**97**	**DRN**	**132L4**	245	305
101	870	14.62	16000	2.6						
119	740	12.39	15300	3.0						
68	1280	21.51	13800	1.15						
77	1140	19.10	13500	1.25						
86	1020	17.08*	13200	1.35						
96	910	15.35	12900	1.45						
110	795	13.33	12500	1.60	**R**	**87**	**DRN**	**132L4**	135	301
123	710	11.93	12200	1.70	**RF**	**87**	**DRN**	**132L4**	145	302
148	590	9.90*	11600	2.00	**RM**	**87**	**DRN**	**132L4**	175	302
161	545	9.14*	11600	2.2						
179	490	8.22	11300	2.4						
206	425	7.13	10900	2.5						
230	380	6.39	10500	2.7						

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P_m = 9.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
105	830	14.05	4880	0.85						
119	735	12.33	5730	0.95	**R**	**77**	**DRN**	**132L4**	110	298
135	650	10.88	6380	1.00	**RF**	**77**	**DRN**	**132L4**	115	299
152	575	9.64	6880	1.10	**RM**	**77**	**DRN**	**132L4**	140	299
190	460	7.74	6370	1.30						
216	405	6.79	6770	1.45	**R**	**77**	**DRN**	**132L4**	110	298
245	355	5.99*	6890	1.50	**RF**	**77**	**DRN**	**132L4**	115	299
277	315	5.31*	6690	1.60	**RM**	**77**	**DRN**	**132L4**	140	299
283	310	5.19	9200	2.2						
316	275	4.65	8940	2.5						
350	250	4.20*	8710	3.3	**RX**	**107**	**DRN**	**132L4**	175	275
385	225	3.81	8490	3.6	**RXF**	**107**	**DRN**	**132L4**	190	276
434	200	3.38	8220	4.1						
325	270	4.52	7330	2.2						
364	240	4.04	7130	2.5						
404	215	3.64*	6940	2.7						
446	197	3.30	6760	3.0						
503	175	2.92	6550	3.4	**RX**	**97**	**DRN**	**132L4**	140	273
556	158	2.64	6370	3.8	**RXF**	**97**	**DRN**	**132L4**	150	274
656	134	2.24*	6080	4.4						
751	117	1.96	5850	4.9						
898	98	1.64	5560	5.2						
1040	85	1.42	5320	5.4						
423	205	3.48	5200	1.95						
476	184	3.09	5060	2.2						
533	165	2.76*	4930	2.5						
592	148	2.48	4800	2.7	**RX**	**87**	**DRN**	**132L4**	120	271
682	129	2.15	4630	3.0	**RXF**	**87**	**DRN**	**132L4**	125	272
762	115	1.93	4500	3.1						
919	96	1.60*	4270	3.3						
1055	83	1.39	4110	3.5						
605	145	2.43	3070	1.50						
690	127	2.13	3210	1.55						
782	112	1.88*	3300	1.65	**RX**	**77**	**DRN**	**132L4**	100	269
882	100	1.67	3270	1.75	**RXF**	**77**	**DRN**	**132L4**	105	270
1035	85	1.42	3140	1.80						

P_m = 11.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.0	19100	295	120000	0.95						
5.4	17800	270	120000	1.00	**R**	**167R107**	**DRN**	**160M4**	900	315
6.4	15000	229	120000	1.20	**RF**	**167R107**	**DRN**	**160M4**	910	315
7.4	13000	200	120000	1.35	**RM**	**167R107**	**DRN**	**160M4**	1100	315
8.7	11000	169	120000	1.65						
					R	**167R107**	**DRN**	**160M4**	900	315
5.1	19500	291	120000	0.90	**RF**	**167R107**	**DRN**	**160M4**	900	315
					RM	**167R107**	**DRN**	**160M4**	1100	315
4.4	22200	335	120000	0.80	**R**	**167R97**	**DRN**	**160M4**	860	315
4.9	20000	303	120000	0.90	**RF**	**167R97**	**DRN**	**160M4**	860	315
5.3	18400	279	120000	1.00	**RM**	**167R97**	**DRN**	**160M4**	1060	315
6.0	16400	247	29500	0.80						
6.9	14200	214	59800	0.90	**R**	**147R87**	**DRN**	**160M4**	550	314
7.8	12500	189	63500	1.05	**RF**	**147R87**	**DRN**	**160M4**	560	314
9.3	10500	159	67000	1.25	**RM**	**147R87**	**DRN**	**160M4**	720	314
					R	**167**	**DRN**	**160M4**	730	312
6.4	16300	229.71	120000	1.10	**RF**	**167**	**DRN**	**160M4**	730	313
7.9	13300	186.93*	120000	1.35	**RM**	**167**	**DRN**	**160M4**	930	313

P_m = 11.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
9.6	10900	153.07	120000	1.65						
11	9980	139.98	120000	1.80						
12	8680	121.81*	120000	2.1	**R**	**167**	**DRN**	**160M4**	730	312
14	7660	107.49	120000	2.4	**RF**	**167**	**DRN**	**160M4**	730	313
16	6640	93.19	120000	2.7	**RM**	**167**	**DRN**	**160M4**	930	313
18	5910	82.91*	120000	3.0						
9.0	11600	163.31	65200	1.10	**R**	**147**	**DRN**	**160M4**	480	310
10	10400	146.91	67100	1.25	**RF**	**147**	**DRN**	**160M4**	490	311
12	8540	119.86	69700	1.50	**RM**	**147**	**DRN**	**160M4**	660	311
13	7790	109.31	70500	1.65						
16	6740	94.60*	71600	1.95						
18	5950	83.47	72200	2.2	**R**	**147**	**DRN**	**160M4**	480	310
20	5140	72.09	72900	2.5	**RF**	**147**	**DRN**	**160M4**	490	311
22	4770	66.99	73100	2.7	**RM**	**147**	**DRN**	**160M4**	660	311
24	4350	61.09	73300	3.0						
28	3770	52.87	73700	3.4						
10	10000	141.12*	27800	0.80						
11	9140	128.18	47100	0.90						
13	8100	113.72	53100	1.00						
14	7350	103.20*	54700	1.10						
17	6320	88.70*	56500	1.25						
18	5760	80.91*	57400	1.40	**R**	**137**	**DRN**	**160M4**	355	308
20	5240	73.49	58100	1.55	**RF**	**137**	**DRN**	**160M4**	375	309
23	4640	65.20	58800	1.70	**RM**	**137**	**DRN**	**160M4**	485	309
25	4210	59.17*	59300	1.90						
29	3620	50.86*	59800	2.2						
33	3160	44.39	60200	2.5						
39	2680	37.65	60600	3.0						
45	2340	32.91	60800	3.4						
22	4670	65.60*	27200	0.90						
25	4230	59.41	27500	1.00						
28	3750	52.68	27000	1.15	**R**	**107**	**DRN**	**160M4**	270	306
31	3390	47.63	26500	1.25	**RF**	**107**	**DRN**	**160M4**	275	307
36	2870	40.37*	25600	1.50	**RM**	**107**	**DRN**	**160M4**	365	307
42	2510	35.26	24900	1.70						
50	2100	29.49	23900	2.0						
48	2190	30.77	24100	1.95						
53	1960	27.58	23500	2.2						
59	1770	24.90*	22900	2.4	**R**	**107**	**DRN**	**160M4**	265	306
65	1610	22.62	22400	2.7	**RF**	**107**	**DRN**	**160M4**	270	307
73	1430	20.07	21700	3.0	**RM**	**107**	**DRN**	**160M4**	355	307
81	1290	18.21	21200	3.3						
34	3050	42.78	17800	1.00						
40	2640	37.13	18900	1.15	**R**	**97**	**DRN**	**160M4**	210	304
44	2370	33.25	18600	1.20	**RF**	**97**	**DRN**	**160M4**	230	305
53	1960	27.58	18000	1.35	**RM**	**97**	**DRN**	**160M4**	280	305
59	1780	25.03	17600	1.60	**R**	**97**	**DRN**	**160M4**	210	304
66	1590	22.37	17200	1.70	**RF**	**97**	**DRN**	**160M4**	225	305
73	1430	20.14	16900	1.80	**RM**	**97**	**DRN**	**160M4**	275	305
81	1300	18.24	16500	1.90						
91	1150	16.17	16000	2.1						
101	1040	14.62	15600	2.2						
119	880	12.39	15000	2.5	**R**	**97**	**DRN**	**160M4**	210	304
136	770	10.83	14500	2.7	**RF**	**97**	**DRN**	**160M4**	225	305
159	660	9.29	14200	3.1	**RM**	**97**	**DRN**	**160M4**	275	305
175	595	8.39	13800	3.4						
207	505	7.12	13100	3.9						
237	440	6.21	12600	4.3						
68	1530	21.51	13200	1.00	**R**	**87**	**DRN**	**160M4**	170	301
77	1360	19.10	13000	1.05	**RF**	**87**	**DRN**	**160M4**	175	302
86	1210	17.08*	12700	1.15	**RM**	**87**	**DRN**	**160M4**	205	302

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P_m = 11.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
96	1090	15.35	12500	1.20						
111	950	13.33	12100	1.35						
123	850	11.93	11800	1.45						
149	705	9.90*	11300	1.65	**R**	**87**	**DRN**	**160M4**	170	301
161	650	9.14*	11400	1.85	**RF**	**87**	**DRN**	**160M4**	175	302
179	585	8.22	11100	2.00	**RM**	**87**	**DRN**	**160M4**	205	302
206	505	7.13	10700	2.1						
231	455	6.39	10400	2.2						
278	375	5.30*	9850	2.4						
135	775	10.88	4400	0.85	**R**	**77**	**DRN**	**160M4**	140	298
153	685	9.64	5130	0.90	**RF**	**77**	**DRN**	**160M4**	150	299
					RM	**77**	**DRN**	**160M4**	175	299
190	550	7.74	4740	1.10	**R**	**77**	**DRN**	**160M4**	140	298
217	480	6.79	5340	1.20	**RF**	**77**	**DRN**	**160M4**	150	299
246	425	5.99*	5800	1.25	**RM**	**77**	**DRN**	**160M4**	175	299
277	375	5.31*	6140	1.35						
284	370	5.19	8950	1.90						
317	330	4.65	8720	2.1						
351	295	4.20*	8510	2.8						
386	270	3.81	8300	3.0	**RX**	**107**	**DRN**	**160M4**	210	275
435	240	3.38	8050	3.4	**RXF**	**107**	**DRN**	**160M4**	225	276
480	215	3.07	7840	3.8						
558	188	2.64*	7530	4.4						
326	320	4.52	7120	1.85						
364	285	4.04	6940	2.1						
405	255	3.64*	6770	2.3						
447	235	3.30	6600	2.5						
504	205	2.92	6410	2.8	**RX**	**97**	**DRN**	**160M4**	175	273
557	188	2.64	6240	3.2	**RXF**	**97**	**DRN**	**160M4**	185	274
658	160	2.24*	5970	3.7						
753	140	1.96	5750	4.1						
900	117	1.64	5470	4.3						
1040	101	1.42	5240	4.5						
424	245	3.48	5000	1.65						
477	220	3.09	4890	1.85						
534	197	2.76*	4770	2.1						
594	177	2.48	4660	2.3	**RX**	**87**	**DRN**	**160M4**	150	271
684	154	2.15	4500	2.5	**RXF**	**87**	**DRN**	**160M4**	155	272
764	138	1.93	4380	2.6						
921	114	1.60*	4170	2.8						
1060	99	1.39	4020	2.9						
607	173	2.43	1980	1.25						
691	152	2.13	2220	1.30	**RX**	**77**	**DRN**	**160M4**	135	269
784	134	1.88*	2400	1.40	**RXF**	**77**	**DRN**	**160M4**	135	270
884	119	1.67	2520	1.45						
1035	101	1.42	2630	1.55						

P_m = 15.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
6.4	20600	229	120000	0.85	**R**	**167R107**	**DRN**	**160L4**	920	315
7.4	17900	200	120000	1.00	**RF**	**167R107**	**DRN**	**160L4**	920	315
8.7	15100	169	120000	1.20	**RM**	**167R107**	**DRN**	**160L4**	1120	315
6.5	20700	227	120000	0.85	**R**	**167R107**	**DRN**	**160L4**	910	315
7.4	18000	198	120000	1.00	**RF**	**167R107**	**DRN**	**160L4**	920	315
					RM	**167R107**	**DRN**	**160L4**	1110	315
6.4	22300	229.71	120000	0.80	**R**	**167**	**DRN**	**160L4**	740	312
7.9	18100	186.93*	120000	1.00	**RF**	**167**	**DRN**	**160L4**	750	313
					RM	**167**	**DRN**	**160L4**	940	313

P_m = 15.0 kW											
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
9.6	14800	153.07	120000	1.20							
11	13600	139.98	120000	1.30							
12	11800	121.81*	120000	1.50							
14	10400	107.49	120000	1.70	**R**	**167**	**DRN**	**160L4**		740	312
16	9050	93.19	120000	2.00	**RF**	**167**	**DRN**	**160L4**		750	313
18	8050	82.91*	120000	2.2	**RM**	**167**	**DRN**	**160L4**		940	313
20	7160	73.70*	120000	2.5							
22	6540	67.40	120000	2.8							
9.0	15800	163.31	38500	0.80							
10	14200	146.91	59000	0.90	**R**	**147**	**DRN**	**160L4**		495	310
12	11600	119.86	65200	1.10	**RF**	**147**	**DRN**	**160L4**		500	311
13	10600	109.31	66900	1.20	**RM**	**147**	**DRN**	**160L4**		670	311
16	9190	94.60*	68900	1.40							
18	8110	83.47	70200	1.60							
20	7000	72.09	71300	1.85	**R**	**147**	**DRN**	**160L4**		495	310
22	6500	66.99	71800	2.0	**RF**	**147**	**DRN**	**160L4**		500	311
24	5930	61.09	72300	2.2	**RM**	**147**	**DRN**	**160L4**		670	311
28	5130	52.87	72900	2.5							
32	4530	46.65	73200	2.9							
14	10000	103.20*	28800	0.80							
17	8620	88.70*	51300	0.95	**R**	**137**	**DRN**	**160L4**		370	308
18	7860	80.91*	53700	1.00	**RF**	**137**	**DRN**	**160L4**		390	309
20	7140	73.49	55100	1.10	**RM**	**137**	**DRN**	**160L4**		500	309
23	6330	65.20	56500	1.25							
25	5740	59.17*	57400	1.40							
29	4940	50.86*	58500	1.60	**R**	**137**	**DRN**	**160L4**		370	308
33	4310	44.39	59200	1.85	**RF**	**137**	**DRN**	**160L4**		390	309
39	3650	37.65	59800	2.2	**RM**	**137**	**DRN**	**160L4**		500	309
45	3190	32.91	60200	2.5							
53	2700	27.83	60500	2.8							
31	4620	47.63	24400	0.95							
37	3920	40.37*	23900	1.10	**R**	**107**	**DRN**	**160L4**		285	306
42	3420	35.26	23400	1.25	**RF**	**107**	**DRN**	**160L4**		290	307
50	2860	29.49	22600	1.50	**RM**	**107**	**DRN**	**160L4**		380	307
48	2990	30.77	22800	1.45							
53	2680	27.58	22300	1.60							
59	2410	24.90*	21800	1.80							
65	2190	22.62	21400	1.95	**R**	**107**	**DRN**	**160L4**		280	306
73	1940	20.07	20800	2.2	**RF**	**107**	**DRN**	**160L4**		285	307
81	1760	18.21	20400	2.4	**RM**	**107**	**DRN**	**160L4**		375	307
94	1520	15.65	19600	2.8							
108	1320	13.66	19000	3.2							
					R	**97**	**DRN**	**160L4**		230	304
53	2680	27.58	16500	1.00	**RF**	**97**	**DRN**	**160L4**		245	305
					RM	**97**	**DRN**	**160L4**		295	305
59	2430	25.03	16300	1.15							
66	2170	22.37	16100	1.25							
73	1950	20.14	15800	1.35							
81	1770	18.24	15500	1.40							
91	1570	16.17	15200	1.55							
101	1420	14.62	14900	1.60	**R**	**97**	**DRN**	**160L4**		225	304
119	1200	12.39	14400	1.80	**RF**	**97**	**DRN**	**160L4**		240	305
136	1050	10.83	13900	2.00	**RM**	**97**	**DRN**	**160L4**		295	305
159	900	9.29	13800	2.2							
176	810	8.39	13400	2.5							
207	690	7.12	12800	2.9							
237	600	6.21	12300	3.1							
86	1650	17.08*	11600	0.85							
96	1490	15.35	11500	0.90	**R**	**87**	**DRN**	**160L4**		185	301
111	1290	13.33	11300	1.00	**RF**	**87**	**DRN**	**160L4**		190	302
124	1150	11.93	11100	1.05	**RM**	**87**	**DRN**	**160L4**		220	302

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P_m = 15.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
149	960	9.90*	10700	1.25						
161	880	9.14*	10900	1.35						
179	795	8.22	10700	1.45	**R**	**87**	**DRN**	**160L4**	185	301
207	690	7.13	10300	1.55	**RF**	**87**	**DRN**	**160L4**	190	302
231	620	6.39	10000	1.65	**RM**	**87**	**DRN**	**160L4**	220	302
278	515	5.30*	9570	1.75						
284	500	5.19	8420	1.40						
317	450	4.65	8240	1.55						
351	405	4.20*	8080	2.0						
386	370	3.81	7910	2.2						
436	325	3.38	7690	2.5						
480	295	3.07	7520	2.8	**RX**	**107**	**DRN**	**160L4**	225	275
558	255	2.64*	7240	3.2	**RXF**	**107**	**DRN**	**160L4**	240	276
640	220	2.30	6990	3.7						
754	190	1.95	6690	4.0						
863	166	1.71	6450	4.2						
1020	140	1.44	6150	4.6						
326	435	4.52	6650	1.35						
365	390	4.04	6520	1.50						
405	350	3.64*	6380	1.70						
447	320	3.30	6250	1.85						
504	280	2.92	6100	2.1	**RX**	**97**	**DRN**	**160L4**	190	273
558	255	2.64	5960	2.3	**RXF**	**97**	**DRN**	**160L4**	200	274
658	215	2.24*	5720	2.7						
753	190	1.96	5530	3.0						
901	159	1.64	5280	3.2						
1040	138	1.42	5080	3.3						
424	335	3.48	4310	1.20						
477	295	3.09	4500	1.35						
534	265	2.76*	4420	1.50						
594	240	2.48	4340	1.70	**RX**	**87**	**DRN**	**160L4**	165	271
684	205	2.15	4220	1.85	**RXF**	**87**	**DRN**	**160L4**	170	272
764	187	1.93	4130	1.90						
921	155	1.60*	3960	2.0						
1060	135	1.39	3830	2.1						

P_m = 18.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.9	22300	186.93*	120000	0.80						
9.7	18200	153.07	120000	1.00	**R**	**167**	**DRN**	**180M4**	770	312
11	16700	139.98	120000	1.10	**RF**	**167**	**DRN**	**180M4**	770	313
12	14500	121.81*	120000	1.25	**RM**	**167**	**DRN**	**180M4**	970	313
14	12800	107.49	120000	1.40						
16	11100	93.19	120000	1.60						
18	9910	82.91*	120000	1.80	**R**	**167**	**DRN**	**180M4**	770	312
20	8800	73.70*	120000	2.0	**RF**	**167**	**DRN**	**180M4**	770	313
22	8050	67.40	120000	2.2	**RM**	**167**	**DRN**	**180M4**	970	313
25	7000	58.65	120000	2.6						
12	14300	119.86	58400	0.90	**R**	**147**	**DRN**	**180M4**	520	310
14	13000	109.31	62500	1.00	**RF**	**147**	**DRN**	**180M4**	530	311
16	11300	94.60*	65800	1.15	**RM**	**147**	**DRN**	**180M4**	690	311
18	9970	83.47	67800	1.30						
20	8610	72.09	69600	1.50						
22	8000	66.99	70300	1.60	**R**	**147**	**DRN**	**180M4**	520	310
24	7300	61.09	71000	1.80	**RF**	**147**	**DRN**	**180M4**	530	311
28	6310	52.87	71900	2.1	**RM**	**147**	**DRN**	**180M4**	690	311
32	5570	46.65	72500	2.3						
37	4810	40.29	73100	2.7						
18	9670	80.91*	37500	0.85						
20	8780	73.49	50600	0.90	**R**	**137**	**DRN**	**180M4**	390	308
23	7790	65.20	53800	1.05	**RF**	**137**	**DRN**	**180M4**	415	309
25	7070	59.17*	55200	1.15	**RM**	**137**	**DRN**	**180M4**	530	309

P_m = 18.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
29	6070	50.86*	56900	1.30						
33	5300	44.39	58000	1.50	**R**	**137**	**DRN**	**180M4**	390	308
39	4500	37.65	59000	1.80	**RF**	**137**	**DRN**	**180M4**	415	309
45	3930	32.91	59600	2.0	**RM**	**137**	**DRN**	**180M4**	530	309
53	3320	27.83	60100	2.3						
50	3530	29.57*	59900	2.2						
61	2880	24.12	60400	2.8	**R**	**137**	**DRN**	**180M4**	380	308
67	2620	22.00*	60600	3.0	**RF**	**137**	**DRN**	**180M4**	405	309
78	2270	19.04*	60800	3.5	**RM**	**137**	**DRN**	**180M4**	520	309
88	2000	16.80*	60900	4.0						
37	4820	40.37*	22100	0.90	**R**	**107**	**DRN**	**180M4**	305	306
42	4210	35.26	22000	1.00	**RF**	**107**	**DRN**	**180M4**	310	307
50	3520	29.49	21500	1.20	**RM**	**107**	**DRN**	**180M4**	400	307
59	2970	24.90*	20900	1.45						
65	2700	22.62	20500	1.60						
74	2390	20.07	20100	1.80						
81	2170	18.21	19700	2.00						
94	1870	15.65	19000	2.3	**R**	**107**	**DRN**	**180M4**	300	306
108	1630	13.66	18400	2.6	**RF**	**107**	**DRN**	**180M4**	305	307
128	1380	11.59	17700	3.1	**RM**	**107**	**DRN**	**180M4**	395	307
146	1210	10.13	17100	3.6						
188	930	7.86	16300	3.2						
222	795	6.66	15500	3.7						
73	2400	20.14	14900	1.10						
81	2180	18.24	14700	1.15						
91	1930	16.17	14400	1.25						
101	1740	14.62	14200	1.30						
119	1480	12.39	13800	1.50						
137	1290	10.83	13400	1.60	**R**	**97**	**DRN**	**180M4**	245	304
159	1100	9.29	13400	1.85	**RF**	**97**	**DRN**	**180M4**	265	305
176	1000	8.39	13100	2.0	**RM**	**97**	**DRN**	**180M4**	315	305
208	850	7.12	12500	2.4						
238	740	6.21	12100	2.5						
284	620	5.20	11500	2.9						
328	535	4.50*	11100	3.0						
111	1590	13.33	10500	0.80						
124	1420	11.93	10400	0.85						
149	1180	9.90*	10200	1.00						
162	1090	9.14*	10500	1.10	**R**	**87**	**DRN**	**180M4**	205	301
180	980	8.22	10300	1.20	**RF**	**87**	**DRN**	**180M4**	215	302
207	850	7.13	10000	1.25	**RM**	**87**	**DRN**	**180M4**	245	302
231	760	6.39	9750	1.35						
279	630	5.30*	9330	1.45						
352	500	4.20*	7700	1.65						
387	455	3.81	7560	1.80						
437	400	3.38	7390	2.0						
481	365	3.07	7240	2.3						
560	315	2.64*	6990	2.6	**RX**	**107**	**DRN**	**180M4**	245	275
641	275	2.30	6770	3.0	**RXF**	**107**	**DRN**	**180M4**	260	276
756	230	1.95	6500	3.3						
865	200	1.71	6280	3.4						
1025	173	1.44	6000	3.7						
406	435	3.64*	6050	1.35						
448	390	3.30	5950	1.50						
506	345	2.92	5820	1.70						
559	315	2.64	5700	1.90	**RX**	**97**	**DRN**	**180M4**	215	273
660	265	2.24*	5500	2.2	**RXF**	**97**	**DRN**	**180M4**	220	274
755	230	1.96	5340	2.4						
903	196	1.64	5110	2.6						
1045	169	1.42	4930	2.7						
536	325	2.76*	3090	1.25						
596	295	2.48	3380	1.35						
686	255	2.15	3670	1.50	**RX**	**87**	**DRN**	**180M4**	190	271
766	230	1.93	3850	1.55	**RXF**	**87**	**DRN**	**180M4**	195	272
924	191	1.60*	3760	1.65						
1060	166	1.39	3660	1.75						

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P_m = 22 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
9.6	21700	153.07	120000	0.85	**R**	**167**	**DRN**	**180L4**	780	312
11	19900	139.98	120000	0.90	**RF**	**167**	**DRN**	**180L4**	790	313
12	17300	121.81*	120000	1.05	**RM**	**167**	**DRN**	**180L4**	980	313
14	15200	107.49	120000	1.20						
16	13200	93.19	120000	1.35						
18	11700	82.91*	120000	1.55						
20	10400	73.70*	120000	1.70	**R**	**167**	**DRN**	**180L4**	780	312
22	9580	67.40	120000	1.90	**RF**	**167**	**DRN**	**180L4**	790	313
25	8340	58.65	120000	2.2	**RM**	**167**	**DRN**	**180L4**	980	313
29	7360	51.76	120000	2.4						
33	6380	44.87	120000	2.8						
14	15500	109.31	43100	0.85						
16	13400	94.60*	61700	0.95	**R**	**147**	**DRN**	**180L4**	530	310
18	11800	83.47	64800	1.10	**RF**	**147**	**DRN**	**180L4**	540	311
20	10200	72.09	67400	1.25	**RM**	**147**	**DRN**	**180L4**	710	311
22	9520	66.99	68400	1.35						
24	8680	61.09	69500	1.50						
28	7520	52.87	70800	1.75	**R**	**147**	**DRN**	**180L4**	530	310
32	6630	46.65	71700	1.95	**RF**	**147**	**DRN**	**180L4**	540	311
37	5730	40.29	72400	2.3	**RM**	**147**	**DRN**	**180L4**	710	311
41	5060	35.64	72900	2.6						
49	4260	29.95	73400	3.0						
23	9270	65.20	44900	0.85						
25	8410	59.17*	52200	0.95	**R**	**137**	**DRN**	**180L4**	410	308
29	7230	50.86*	54900	1.10	**RF**	**137**	**DRN**	**180L4**	430	309
33	6310	44.39	56500	1.25	**RM**	**137**	**DRN**	**180L4**	540	309
39	5350	37.65	58000	1.50	**R**	**137**	**DRN**	**180L4**	410	308
45	4680	32.91	58800	1.70	**RF**	**137**	**DRN**	**180L4**	430	309
53	3950	27.83	59500	1.95	**RM**	**137**	**DRN**	**180L4**	540	309
50	4200	29.57*	59300	1.85						
61	3430	24.12	60000	2.3	**R**	**137**	**DRN**	**180L4**	400	308
67	3120	22.00*	60200	2.6	**RF**	**137**	**DRN**	**180L4**	420	309
78	2700	19.04*	60500	3.0	**RM**	**137**	**DRN**	**180L4**	530	309
88	2380	16.80*	60700	3.4	**R**	**137**	**DRN**	**180L4**	400	308
102	2060	14.51	60900	3.9	**RF**	**137**	**DRN**	**180L4**	420	309
115	1820	12.83	61000	4.4	**RM**	**137**	**DRN**	**180L4**	530	309
					R	**107**	**DRN**	**180L4**	320	306
42	5010	35.26	11500	0.85	**RF**	**107**	**DRN**	**180L4**	330	307
50	4190	29.49	20400	1.05	**RM**	**107**	**DRN**	**180L4**	415	307
59	3540	24.90*	20000	1.20	**R**	**107**	**DRN**	**180L4**	315	306
65	3210	22.62	19700	1.35	**RF**	**107**	**DRN**	**180L4**	320	307
74	2850	20.07	19300	1.50	**RM**	**107**	**DRN**	**180L4**	410	307
81	2590	18.21	19000	1.65						
94	2220	15.65	18400	1.95						
108	1940	13.66	17900	2.2						
127	1640	11.59	17300	2.6	**R**	**107**	**DRN**	**180L4**	315	306
146	1440	10.13	16800	3.0	**RF**	**107**	**DRN**	**180L4**	320	307
172	1210	8.56	16100	3.5	**RM**	**107**	**DRN**	**180L4**	410	307
188	1110	7.86	16000	2.7						
222	940	6.66	15300	3.1						
254	820	5.82	14800	3.6						
73	2860	20.14	14000	0.90						
81	2590	18.24	13900	0.95	**R**	**97**	**DRN**	**180L4**	260	304
91	2300	16.17	13700	1.05	**RF**	**97**	**DRN**	**180L4**	280	305
101	2080	14.62	13500	1.10	**RM**	**97**	**DRN**	**180L4**	330	305
119	1760	12.39	13200	1.25						
136	1530	10.83	12900	1.35						
159	1320	9.29	13100	1.55	**R**	**97**	**DRN**	**180L4**	260	304
176	1190	8.39	12800	1.70	**RF**	**97**	**DRN**	**180L4**	280	305
208	1010	7.12	12300	2.00	**RM**	**97**	**DRN**	**180L4**	330	305
238	880	6.21	11900	2.1						
284	735	5.20	11300	2.4						
328	640	4.50*	10900	2.6						

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P_m = 22 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
149	1400	9.90*	9630	0.85						
162	1300	9.14*	10100	0.95						
180	1160	8.22	9940	1.00	**R**	**87**	**DRN**	**180L4**	220	301
207	1010	7.13	9680	1.05	**RF**	**87**	**DRN**	**180L4**	230	302
231	900	6.39	9470	1.10	**RM**	**87**	**DRN**	**180L4**	260	302
279	750	5.30*	9100	1.20						
352	595	4.20*	7330	1.40						
387	540	3.81	7220	1.55						
436	480	3.38	7080	1.70						
481	435	3.07	6950	1.90						
559	375	2.64*	6740	2.2	**RX**	**107**	**DRN**	**180L4**	260	275
641	325	2.30	6550	2.5	**RXF**	**107**	**DRN**	**180L4**	280	276
756	275	1.95	6310	2.8						
865	240	1.71	6100	2.9						
1025	205	1.44	5860	3.1						
406	515	3.64*	5720	1.15						
448	465	3.30	5640	1.25						
505	415	2.92	5550	1.45						
559	375	2.64	5460	1.60	**RX**	**97**	**DRN**	**180L4**	230	273
659	315	2.24*	5290	1.85	**RXF**	**97**	**DRN**	**180L4**	235	274
755	275	1.96	5150	2.0						
903	230	1.64	4950	2.2						
1045	200	1.42	4780	2.3						
535	390	2.76*	1320	1.05						
595	350	2.48	1760	1.15						
686	305	2.15	2200	1.25	**RX**	**87**	**DRN**	**180L4**	205	271
766	270	1.93	2490	1.30	**RXF**	**87**	**DRN**	**180L4**	210	272
923	225	1.60*	2790	1.40						
1060	198	1.39	3060	1.45						

P_m = 30 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
14	20800	107.49	120000	0.85	**R**	**167**	**DRN**	**200L4**	890	312
16	18000	93.19	120000	1.00	**RF**	**167**	**DRN**	**200L4**	900	313
18	16000	82.91*	120000	1.10	**RM**	**167**	**DRN**	**200L4**	1090	313
20	14200	73.70*	120000	1.25						
22	13000	67.40	120000	1.40						
25	11300	58.65	120000	1.60						
29	10000	51.76	120000	1.80	**R**	**167**	**DRN**	**200L4**	890	312
33	8680	44.87	120000	2.1	**RF**	**167**	**DRN**	**200L4**	900	313
37	7720	39.92	120000	2.3	**RM**	**167**	**DRN**	**200L4**	1090	313
43	6660	34.41	120000	2.7						
53	5410	27.96	120000	3.3						
62	4580	23.71	120000	3.9						
18	16100	83.47	34200	0.80	**R**	**147**	**DRN**	**200L4**	640	310
21	13900	72.09	60600	0.95	**RF**	**147**	**DRN**	**200L4**	650	311
22	12900	66.99	62700	1.00	**RM**	**147**	**DRN**	**200L4**	820	311
24	11800	61.09	64900	1.10						
28	10200	52.87	67400	1.25						
32	9030	46.65	69100	1.45						
37	7790	40.29	70500	1.65	**R**	**147**	**DRN**	**200L4**	640	310
42	6890	35.64	71400	1.90	**RF**	**147**	**DRN**	**200L4**	650	311
49	5790	29.95	72400	2.2	**RM**	**147**	**DRN**	**200L4**	820	311
61	4680	24.19	73200	2.5						
72	3950	20.44	73600	3.0	**R**	**147**	**DRN**	**200L4**	630	310
82	3490	18.04	73800	3.0	**RF**	**147**	**DRN**	**200L4**	640	311
95	3020	15.64	74000	4.3	**RM**	**147**	**DRN**	**200L4**	810	311
29	9840	50.86*	33600	0.80						
33	8590	44.39	51400	0.95	**R**	**137**	**DRN**	**200L4**	510	308
39	7280	37.65	54800	1.10	**RF**	**137**	**DRN**	**200L4**	540	309
45	6370	32.91	56500	1.25	**RM**	**137**	**DRN**	**200L4**	650	309
53	5380	27.83	57900	1.45						

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P_m = 30 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
61	4660	24.12	58800	1.70						
67	4250	22.00*	59200	1.90	**R**	**137**	**DRN**	**200L4**	500	308
78	3680	19.04*	59800	2.2	**RF**	**137**	**DRN**	**200L4**	530	309
88	3250	16.80*	60200	2.5	**RM**	**137**	**DRN**	**200L4**	640	309
102	2800	14.51	59500	2.8						
115	2480	12.83	58300	3.2	**R**	**137**	**DRN**	**200L4**	500	308
137	2080	10.79	56600	3.8	**RF**	**137**	**DRN**	**200L4**	530	309
195	1460	7.59	53200	3.5	**RM**	**137**	**DRN**	**200L4**	640	309
232	1230	6.38	51200	4.1						
74	3880	20.07	17600	1.10						
81	3520	18.21	17400	1.20						
95	3020	15.65	17100	1.40						
108	2640	13.66	16800	1.65						
128	2240	11.59	16300	1.90	**R**	**107**	**DRN**	**200L4**	425	306
146	1960	10.13	15900	2.2	**RF**	**107**	**DRN**	**200L4**	430	307
173	1650	8.56	15300	2.6	**RM**	**107**	**DRN**	**200L4**	520	307
188	1520	7.86	15500	1.95						
222	1280	6.66	14800	2.3						
254	1120	5.82	14300	2.6						
301	950	4.92	13700	3.0						
101	2830	14.62	12000	0.80						
119	2390	12.39	11900	0.90	**R**	**97**	**DRN**	**200L4**	370	304
137	2090	10.83	11800	1.00	**RF**	**97**	**DRN**	**200L4**	390	305
159	1790	9.29	12300	1.15	**RM**	**97**	**DRN**	**200L4**	440	305
176	1620	8.39	12000	1.25						
208	1370	7.12	11700	1.45						
238	1200	6.21	11300	1.55	**R**	**97**	**DRN**	**200L4**	370	304
285	1000	5.20	10900	1.75	**RF**	**97**	**DRN**	**200L4**	390	305
329	870	4.50*	10500	1.85	**RM**	**97**	**DRN**	**200L4**	440	305
437	655	3.38	6370	1.25						
482	590	3.07	6300	1.40						
561	510	2.64*	6180	1.60						
642	445	2.30	6050	1.85	**RX**	**107**	**DRN**	**200L4**	370	275
757	375	1.95	5870	2.0	**RXF**	**107**	**DRN**	**200L4**	385	276
866	330	1.71	5710	2.1						
1025	275	1.44	5520	2.3						
506	565	2.92	3170	1.05						
560	510	2.64	3600	1.15						
661	430	2.24*	4090	1.35	**RX**	**97**	**DRN**	**200L4**	335	273
756	375	1.96	4480	1.50	**RXF**	**97**	**DRN**	**200L4**	345	274
904	315	1.64	4570	1.60						
1045	270	1.42	4450	1.65						

P_m = 37 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
16	22200	93.19	120000	0.80						
18	19700	82.91*	120000	0.90						
20	17500	73.70*	120000	1.00						
22	16000	67.40	120000	1.10						
25	13900	58.65	120000	1.30	**R**	**167**	**DRN**	**225S4**	920	312
29	12300	51.76	120000	1.45	**RF**	**167**	**DRN**	**225S4**	930	313
33	10600	44.87	120000	1.70	**RM**	**167**	**DRN**	**225S4**	1120	313
37	9510	39.92	120000	1.90						
43	8200	34.41	120000	2.2						
53	6660	27.96	120000	2.7						
48	7320	30.71	120000	1.35						
60	5850	24.57	120000	2.4	**R**	**167**	**DRN**	**225S4**	910	312
68	5200	21.85	120000	2.5	**RF**	**167**	**DRN**	**225S4**	920	313
78	4530	19.03	120000	3.5	**RM**	**167**	**DRN**	**225S4**	1120	313
87	4040	16.98	120000	3.7						

P_m = 37 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
22	15900	66.99	37000	0.80	**R**	**147**	**DRN**	**225S4**	670	310
24	14500	61.09	55600	0.90	**RF**	**147**	**DRN**	**225S4**	680	311
28	12600	52.87	63400	1.05	**RM**	**147**	**DRN**	**225S4**	850	311
32	11100	46.65	66100	1.15						
37	9600	40.29	68300	1.35	**R**	**147**	**DRN**	**225S4**	670	310
42	8490	35.64	69700	1.55	**RF**	**147**	**DRN**	**225S4**	680	311
49	7140	29.95	71200	1.80	**RM**	**147**	**DRN**	**225S4**	850	311
61	5760	24.19	72400	2.1						
73	4870	20.44	73000	2.5	**R**	**147**	**DRN**	**225S4**	660	310
82	4290	18.04	73400	2.4	**RF**	**147**	**DRN**	**225S4**	670	311
95	3720	15.64	73700	3.5	**RM**	**147**	**DRN**	**225S4**	840	311
					R	**147**	**DRN**	**225S4**	660	310
107	3310	13.91	73900	3.8	**RF**	**147**	**DRN**	**225S4**	670	311
					RM	**147**	**DRN**	**225S4**	840	311
39	8970	37.65	49600	0.90	**R**	**137**	**DRN**	**225S4**	550	308
45	7840	32.91	53700	1.00	**RF**	**137**	**DRN**	**225S4**	570	309
53	6630	27.83	56000	1.15	**RM**	**137**	**DRN**	**225S4**	680	309
61	5750	24.12	57400	1.40						
67	5240	22.00*	58100	1.55	**R**	**137**	**DRN**	**225S4**	540	308
78	4530	19.04*	57800	1.75	**RF**	**137**	**DRN**	**225S4**	560	309
88	4000	16.80*	57300	2.0	**RM**	**137**	**DRN**	**225S4**	670	309
102	3450	14.51	56500	2.3						
115	3050	12.83	55700	2.6						
137	2570	10.79	54400	3.1	**R**	**137**	**DRN**	**225S4**	540	308
170	2070	8.71	52500	3.8	**RF**	**137**	**DRN**	**225S4**	560	309
195	1800	7.59	51800	2.8	**RM**	**137**	**DRN**	**225S4**	670	309
232	1520	6.38	50000	3.4						
288	1220	5.15	47700	3.7						
74	4780	20.07	16100	0.90						
81	4340	18.21	16100	1.00						
95	3730	15.65	15900	1.15						
108	3250	13.66	15700	1.30						
128	2760	11.59	15400	1.55	**R**	**107**	**DRN**	**225S4**	455	306
146	2410	10.13	15100	1.80	**RF**	**107**	**DRN**	**225S4**	460	307
173	2040	8.56	14700	2.1	**RM**	**107**	**DRN**	**225S4**	550	307
189	1870	7.86	15000	1.60						
222	1580	6.66	14400	1.85						
254	1380	5.82	14000	2.1						
301	1170	4.92	13400	2.5						
438	800	3.38	4530	1.05						
483	730	3.07	5010	1.15						
561	625	2.64*	5580	1.30						
643	545	2.30	5610	1.50	**RX**	**107**	**DRN**	**225S4**	400	275
758	465	1.95	5480	1.65	**RXF**	**107**	**DRN**	**225S4**	420	276
868	405	1.71	5370	1.75						
1025	340	1.44	5220	1.85						

P_m = 45 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
20	21300	73.70*	120000	0.85	**R**	**167**	**DRN**	**225M4**	920	312
22	19500	67.40	120000	0.90	**RF**	**167**	**DRN**	**225M4**	930	313
25	17000	58.65	120000	1.05	**RM**	**167**	**DRN**	**225M4**	1120	313
29	15000	51.76	120000	1.20						
33	13000	44.87	120000	1.40						
37	11500	39.92	120000	1.55	**R**	**167**	**DRN**	**225M4**	920	312
43	9970	34.41	120000	1.80	**RF**	**167**	**DRN**	**225M4**	930	313
53	8100	27.96	120000	2.2	**RM**	**167**	**DRN**	**225M4**	1120	313
62	6870	23.71	120000	2.6						

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P_m = 45 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
48	8900	30.71	120000	1.10						
60	7120	24.57	120000	1.95	**R**	**167**	**DRN**	**225M4**	910	312
68	6330	21.85	120000	2.0	**RF**	**167**	**DRN**	**225M4**	920	313
78	5510	19.03	120000	2.9	**RM**	**167**	**DRN**	**225M4**	1120	313
87	4920	16.98	120000	3.0						
28	15300	52.87	46000	0.85						
32	13500	46.65	61600	0.95						
37	11600	40.29	65100	1.10	**R**	**147**	**DRN**	**225M4**	670	310
42	10300	35.64	67300	1.25	**RF**	**147**	**DRN**	**225M4**	680	311
49	8680	29.95	69500	1.50	**RM**	**147**	**DRN**	**225M4**	850	311
61	7010	24.19	71300	1.70						
73	5920	20.44	72300	2.0						
82	5220	18.04	72800	2.0						
95	4530	15.64	73200	2.9	**R**	**147**	**DRN**	**225M4**	660	310
107	4030	13.91	73500	3.1	**RF**	**147**	**DRN**	**225M4**	670	311
124	3470	11.99	73800	3.7	**RM**	**147**	**DRN**	**225M4**	840	311
204	2100	7.25	74300	4.1						
45	9540	32.91	40100	0.85	**R**	**137**	**DRN**	**225M4**	550	308
53	8060	27.83	51300	0.95	**RF**	**137**	**DRN**	**225M4**	570	309
					RM	**137**	**DRN**	**225M4**	680	309
61	6990	24.12	52500	1.15						
67	6370	22.00*	53000	1.25	**R**	**137**	**DRN**	**225M4**	540	308
78	5520	19.04*	53400	1.45	**RF**	**137**	**DRN**	**225M4**	560	309
88	4870	16.80*	53400	1.65	**RM**	**137**	**DRN**	**225M4**	670	309
102	4200	14.51	53100	1.90						
115	3720	12.83	52700	2.2						
137	3120	10.79	51900	2.6	**R**	**137**	**DRN**	**225M4**	540	308
170	2520	8.71	50500	3.1	**RF**	**137**	**DRN**	**225M4**	560	309
195	2200	7.59	50100	2.3	**RM**	**137**	**DRN**	**225M4**	670	309
232	1840	6.38	48600	2.8						
288	1490	5.15	46600	3.1						
95	4530	15.65	14600	0.95						
108	3960	13.66	14600	1.10						
128	3350	11.59	14400	1.30						
146	2930	10.13	14300	1.45	**R**	**107**	**DRN**	**225M4**	455	306
173	2480	8.56	14000	1.75	**RF**	**107**	**DRN**	**225M4**	460	307
189	2270	7.86	14400	1.30	**RM**	**107**	**DRN**	**225M4**	550	307
222	1930	6.66	13900	1.55						
254	1680	5.82	13500	1.75						
301	1420	4.92	13000	2.0						
438	980	3.38	1450	0.85						
483	890	3.07	2160	0.95						
561	765	2.64*	3040	1.10						
643	665	2.30	3700	1.25	**RX**	**107**	**DRN**	**225M4**	400	275
758	565	1.95	4250	1.35	**RXF**	**107**	**DRN**	**225M4**	420	276
868	495	1.71	4590	1.40						
1025	415	1.44	4880	1.55						

P_m = 55 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
25	20700	58.65	120000	0.85						
29	18300	51.76	120000	1.00						
33	15900	44.87	120000	1.15	**R**	**167**	**DRN**	**250M4**	1070	312
37	14100	39.92	120000	1.25	**RF**	**167**	**DRN**	**250M4**	1080	313
43	12100	34.41	120000	1.50	**RM**	**167**	**DRN**	**250M4**	1270	313
53	9900	27.96	120000	1.80						
62	8400	23.71	120000	2.1						
60	8700	24.57	120000	1.60	**R**	**167**	**DRN**	**250M4**	1070	312
68	7740	21.85	120000	1.70	**RF**	**167**	**DRN**	**250M4**	1070	313
78	6740	19.03	120000	2.4	**RM**	**167**	**DRN**	**250M4**	1270	313

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P_m = 55 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
87	6010	16.98	120000	2.5	**R**	**167**	**DRN**	**250M4**	1070	312
102	5120	14.48	120000	3.5	**RF**	**167**	**DRN**	**250M4**	1070	313
124	4250	11.99	120000	4.0	**RM**	**167**	**DRN**	**250M4**	1270	313
32	16500	46.65	28000	0.80						
37	14200	40.29	58900	0.90	**R**	**147**	**DRN**	**250M4**	820	310
42	12600	35.64	63400	1.05	**RF**	**147**	**DRN**	**250M4**	830	311
49	10600	29.95	66900	1.20	**RM**	**147**	**DRN**	**250M4**	1000	311
61	8570	24.19	69700	1.40						
73	7240	20.44	71100	1.65						
82	6390	18.04	71900	1.65	**R**	**147**	**DRN**	**250M4**	810	310
95	5540	15.64	72600	2.4	**RF**	**147**	**DRN**	**250M4**	820	311
107	4930	13.91	73000	2.6	**RM**	**147**	**DRN**	**250M4**	990	311
124	4240	11.99	73400	3.1						
152	3450	9.74	73800	3.8	**R**	**147**	**DRN**	**250M4**	810	310
204	2560	7.25	74200	3.4	**RF**	**147**	**DRN**	**250M4**	820	311
252	2080	5.89	72400	4.2	**RM**	**147**	**DRN**	**250M4**	990	311
78	6740	19.04*	47800	1.20	**R**	**137**	**DRN**	**250M4**	690	308
88	5950	16.80*	48500	1.35	**RF**	**137**	**DRN**	**250M4**	710	309
102	5140	14.51	48900	1.55	**RM**	**137**	**DRN**	**250M4**	820	309
115	4540	12.83	49000	1.75						
137	3820	10.79	48700	2.1						
170	3080	8.71	48000	2.5	**R**	**137**	**DRN**	**250M4**	690	308
195	2690	7.59	48100	1.90	**RF**	**137**	**DRN**	**250M4**	710	309
232	2260	6.38	46900	2.3	**RM**	**137**	**DRN**	**250M4**	820	309
288	1820	5.15	45200	2.5						

P_m = 75 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
33	21600	44.87	120000	0.85						
37	19200	39.92	120000	0.95	**R**	**167**	**DRN**	**280S4**	1120	312
43	16600	34.41	120000	1.10	**RF**	**167**	**DRN**	**280S4**	1130	313
53	13500	27.96	120000	1.35	**RM**	**167**	**DRN**	**280S4**	1320	313
62	11400	23.71	120000	1.55						
60	11800	24.57	120000	1.20	**R**	**167**	**DRN**	**280S4**	1110	312
68	10500	21.85	120000	1.25	**RF**	**167**	**DRN**	**280S4**	1120	313
78	9190	19.03	120000	1.75	**RM**	**167**	**DRN**	**280S4**	1320	313
87	8200	16.98	120000	1.85						
102	6990	14.48	120000	2.6	**R**	**167**	**DRN**	**280S4**	1110	312
124	5790	11.99	116600	2.9	**RF**	**167**	**DRN**	**280S4**	1120	313
145	4940	10.24	112700	3.4	**RM**	**167**	**DRN**	**280S4**	1320	313
49	14400	29.95	56700	0.90	**R**	**147**	**DRN**	**280S4**	870	310
61	11600	24.19	65100	1.00	**RF**	**147**	**DRN**	**280S4**	880	311
					RM	**147**	**DRN**	**280S4**	1050	311
73	9870	20.44	68000	1.20						
82	8710	18.04	69500	1.20	**R**	**147**	**DRN**	**280S4**	860	310
95	7550	15.64	70800	1.70	**RF**	**147**	**DRN**	**280S4**	870	311
107	6720	13.91	71600	1.85	**RM**	**147**	**DRN**	**280S4**	1040	311
124	5790	11.99	72400	2.2						
152	4700	9.74	73100	2.8						
179	3990	8.26	73500	3.3	**R**	**147**	**DRN**	**280S4**	860	310
204	3500	7.25	73100	2.5	**RF**	**147**	**DRN**	**280S4**	870	311
252	2840	5.89	70100	3.0	**RM**	**147**	**DRN**	**280S4**	1040	311
297	2410	5.00	67600	3.6						

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P_m = 90 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
37	23100	39.92	120000	0.80	**R**	**167**	**DRN**	**280M4**	1240	312
43	19900	34.41	120000	0.90	**RF**	**167**	**DRN**	**280M4**	1240	313
53	16200	27.96	120000	1.10	**RM**	**167**	**DRN**	**280M4**	1440	313
62	13700	23.71	120000	1.30						
78	11000	19.03	120000	1.45	**R**	**167**	**DRN**	**280M4**	1230	312
					RF	**167**	**DRN**	**280M4**	1240	313
					RM	**167**	**DRN**	**280M4**	1430	313
87	9850	16.98	120000	1.50	**R**	**167**	**DRN**	**280M4**	1230	312
102	8400	14.48	117300	2.1	**RF**	**167**	**DRN**	**280M4**	1240	313
123	6960	11.99	113500	2.4	**RM**	**167**	**DRN**	**280M4**	1430	313
145	5940	10.24	110100	2.9						
95	9070	15.64	69000	1.45	**R**	**147**	**DRN**	**280M4**	970	310
106	8070	13.91	70200	1.55	**RF**	**147**	**DRN**	**280M4**	980	311
					RM	**147**	**DRN**	**280M4**	1150	311
124	6950	11.99	71400	1.85						
152	5650	9.74	72500	2.3	**R**	**147**	**DRN**	**280M4**	970	310
179	4790	8.26	73000	2.7	**RF**	**147**	**DRN**	**280M4**	980	311
204	4200	7.25	70900	2.1	**RM**	**147**	**DRN**	**280M4**	1150	311
251	3410	5.89	68300	2.5						
296	2890	5.00	66100	3.0						

P_m = 110 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
53	19700	27.96	117100	0.90	**R**	**167**	**DRN**	**315S4**	1480	312
63	16700	23.71	116900	1.10	**RF**	**167**	**DRN**	**315S4**	1490	313
					RM	**167**	**DRN**	**315S4**	1680	313
78	13400	19.03	115500	1.20	**R**	**167**	**DRN**	**315S4/ERF/NS**	1470	312
					RF	**167**	**DRN**	**315S4/ERF/NS**	1480	313
					RM	**167**	**DRN**	**315S4/ERF/NS**	1680	313
88	11900	16.98	114300	1.25	**R**	**167**	**DRN**	**315S4**	1470	312
103	10200	14.48	112200	1.75	**RF**	**167**	**DRN**	**315S4**	1480	313
124	8460	11.99	109200	2.0	**RM**	**167**	**DRN**	**315S4**	1680	313
145	7220	10.24	106400	2.4						

P_m = 132 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
63	20000	23.71	107900	0.90	**R**	**167**	**DRN**	**315M4**	1500	312
					RF	**167**	**DRN**	**315M4**	1510	313
					RM	**167**	**DRN**	**315M4**	1700	313
78	16100	19.03	108300	1.00	**R**	**167**	**DRN**	**315M4/ERF/NS**	1490	312
88	14300	16.98	107800	1.05	**RF**	**167**	**DRN**	**315M4/ERF/NS**	1500	313
					RM	**167**	**DRN**	**315M4/ERF/NS**	1700	313
103	12200	14.48	106700	1.45	**R**	**167**	**DRN**	**315M4**	1490	312
124	10100	11.99	104700	1.65	**RF**	**167**	**DRN**	**315M4**	1500	313
145	8670	10.24	102600	1.95	**RM**	**167**	**DRN**	**315M4**	1700	313

P_m = 160 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
103	14800	14.48	99700	1.20	**R**	**167**	**DRN**	**315L4**	1630	312
124	12300	11.99	98900	1.40	**RF**	**167**	**DRN**	**315L4**	1630	313
145	10500	10.24	97600	1.60	**RM**	**167**	**DRN**	**315L4**	1830	313

8.4 R..R..DRN.. selection tables for low output speeds in Nm

$M_{a\ max}$ = 130 Nm

n_a 1/min	i	F_{Ra} [1] N						m kg	
0.16	8612	4230							
0.19	7425	4230							
0.20	6921	4230							
0.23	6050	4230							
0.26	5217	4230							
0.30	4661	4230	**R**	**27R17**	**DR**	**63S4**		12	314
0.34	4073	4230	**RF**	**27R17**	**DR**	**63S4**		11	314
0.39	3516	4230							
0.44	3160	4230							
0.50	2763	4230							
0.57	2414	4230							
0.65	2110	4230							
0.76	1822	4230							
0.87	1580	4230							
0.94	1464	4230							
1.1	1270	4230							
1.2	1100	4230							
1.4	972	4230	**R**	**27R17**	**DR**	**63S4**		11	314
1.6	840	4230	**RF**	**27R17**	**DR**	**63S4**		11	314
1.9	741	4230							
2.1	654	4230							
2.4	566	4230							
2.8	499	4230							
3.1	440	4230							
3.6	381	4230							
4.2	329	4230							
4.8	290	4230	**R**	**27R17**	**DR**	**63S4**		11	314
5.4	256	4230	**RF**	**27R17**	**DR**	**63S4**		11	314
6.1	227	4230							
6.8	203	4230							
7.4	179	4230							
8.5	156	4230	**R**	**27R17**	**DR**	**63M4**		11	314
9.8	135	4230	**RF**	**27R17**	**DR**	**63M4**		11	314
11	118	4230							
12	104	4230	**R**	**27R17**	**DR**	**63L4**		12	314
14	90	4230	**RF**	**27R17**	**DR**	**63L4**		12	314

$M_{a\ max}$ = 200 Nm

n_a 1/min	i	F_{Ra} [1] N						m kg	
0.16	8595	4940							
0.19	7411	4940							
0.20	6907	4940							
0.23	6038	4940							
0.27	5206	4940							
0.30	4651	4940	**R**	**37R17**	**DR**	**63S4**		17	314
0.34	4065	4940	**RF**	**37R17**	**DR**	**63S4**		19	314
0.38	3658	4940							
0.44	3154	4940							
0.50	2757	4940							
0.57	2409	4940							
0.66	2106	4940							

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$M_{a\ max}$ = 200 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.76	1818	4940						
0.88	1576	4940						
1.0	1359	4940						
1.1	1267	4940						
1.3	1098	4940						
1.4	970	4940	**R**	**37R17**	**DR**	**63S4**	17	314
1.6	839	4940	**RF**	**37R17**	**DR**	**63S4**	19	314
1.9	740	4940						
2.1	653	4940						
2.4	577	4940						
2.8	498	4940						
3.1	439	4940						
3.6	378	4940	**R**	**37R17**	**DR**	**63S4**	17	314
4.2	328	4940	**RF**	**37R17**	**DR**	**63S4**	18	314
4.8	289	4940						
5.0	265	4940						
5.8	226	4940	**R**	**37R17**	**DR**	**63M4**	17	314
6.5	202	4940	**RF**	**37R17**	**DR**	**63M4**	18	314
7.4	179	4940						
8.4	156	4940						
9.7	135	4940	**R**	**37R17**	**DR**	**63L4**	18	314
10	127	4940	**RF**	**37R17**	**DR**	**63L4**	19	314
13	104	4940	**R**	**37R17**	**DRS**	**71S4**	19	314
15	90	4940	**RF**	**37R17**	**DRS**	**71S4**	21	314

$M_{a\ max}$ = 300 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.10	13598	5420						
0.11	12472	5420						
0.13	10619	5420						
0.15	9155	5420						
0.16	8534	5420						
0.18	7460	5420						
0.20	6993	5420						
0.22	6171	5420	**R**	**47R37**	**DR**	**63S4**	29	314
0.25	5624	5420	**RF**	**47R37**	**DR**	**63S4**	29	314
0.28	4849	5420						
0.31	4520	5420						
0.35	3951	5420						
0.37	3704	5420						
0.42	3268	5420						
0.48	2898	5420						
0.56	2463	5420						
0.53	2598	5420						
0.58	2383	5420						
0.68	2029	5420						
0.79	1749	5420						
0.85	1630	5420						
0.97	1425	5420	**R**	**47R37**	**DR**	**63S4**	29	314
1.0	1336	5420	**RF**	**47R37**	**DR**	**63S4**	29	314
1.2	1179	5420						
1.3	1074	5420						
1.5	927	5420						
1.6	863	5420						
1.8	755	5420						
2.5	546	5420						
2.8	502	5420	**R**	**47R37**	**DR**	**63S4**	28	314
3.2	429	5420	**RF**	**47R37**	**DR**	**63S4**	28	314
3.6	372	5420						
3.8	348	5420	**R**	**47R37**	**DR**	**63M4**	28	314
4.4	301	5420	**RF**	**47R37**	**DR**	**63M4**	28	314
5.1	255	5420	**R**	**47R37**	**DR**	**63L4**	29	314
5.7	228	5420	**RF**	**47R37**	**DR**	**63L4**	29	314

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$M_{a\ max}$ = 450 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.10	14369	7100						
0.11	12095	7100						
0.13	10860	7100						
0.15	9445	7100						
0.16	8480	7100						
0.19	7312	7100						
0.21	6521	7100						
0.25	5585	7100	**R**	**57R37**	**DR**	**63S4**	34	314
0.28	4928	7100	**RF**	**57R37**	**DR**	**63S4**	38	314
0.32	4378	7100	**RM**	**57R37**	**DR**	**63S4**	50	314
0.36	3873	7100						
0.41	3344	7100						
0.47	2907	7100						
0.54	2567	7100						
0.61	2244	7100						
0.70	1967	7100						
0.80	1732	7100						
0.89	1555	7100						
0.99	1399	7100	**R**	**57R37**	**DR**	**63S4**	34	314
1.2	1189	7100	**RF**	**57R37**	**DR**	**63S4**	38	314
1.3	1034	7100	**RM**	**57R37**	**DR**	**63S4**	50	314
1.8	782	7100						
2.0	678	7100						
2.2	604	7100	**R**	**57R37**	**DR**	**63M4**	34	314
2.5	537	7100	**RF**	**57R37**	**DR**	**63M4**	38	314
2.8	471	7100	**RM**	**57R37**	**DR**	**63M4**	50	314
3.6	357	7100	**R**	**57R37**	**DR**	**63L4**	35	314
4.1	319	7100	**RF**	**57R37**	**DR**	**63L4**	38	314
			RM	**57R37**	**DR**	**63L4**	50	314
5.1	273	7100	**R**	**57R37**	**DRS**	**71S4**	37	314
5.7	241	7100	**RF**	**57R37**	**DRS**	**71S4**	40	314
			RM	**57R37**	**DRS**	**71S4**	52	314

$M_{a\ max}$ = 600 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.09	15361	7560						
0.11	12931	7560						
0.12	11996	7560						
0.14	10097	7560						
0.15	9066	7560						
0.18	7816	7560						
0.20	6732	7560	**R**	**67R37**	**DR**	**63S4**	41	314
0.23	5970	7560	**RF**	**67R37**	**DR**	**63S4**	44	314
0.26	5268	7560	**RM**	**67R37**	**DR**	**63S4**	60	314
0.29	4680	7560						
0.33	4136	7560						
0.39	3566	7560						
0.44	3125	7560						
0.50	2745	7560						
0.57	2403	7560						
0.51	2682	7560						
0.56	2460	7560						
0.66	2094	7560	**R**	**67R37**	**DR**	**63S4**	40	314
0.76	1805	7560	**RF**	**67R37**	**DR**	**63S4**	43	314
0.85	1629	7560	**RM**	**67R37**	**DR**	**63S4**	59	314
0.94	1471	7560						
1.0	1379	7560						
1.8	730	7560	**R**	**67R37**	**DR**	**63M4**	40	314
2.3	571	7560	**RF**	**67R37**	**DR**	**63M4**	43	314
			RM	**67R37**	**DR**	**63M4**	59	314
2.7	486	7560	**R**	**67R37**	**DR**	**63L4**	41	314
			RF	**67R37**	**DR**	**63L4**	44	314
			RM	**67R37**	**DR**	**63L4**	60	314

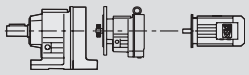
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$M_{a\ max}$ = 600 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.84	1652	7560	**R**	**67R37**	**DR**	**63S4**	41	314
0.96	1432	7560	**RF**	**67R37**	**DR**	**63S4**	44	314
1.1	1259	7560	**RM**	**67R37**	**DR**	**63S4**	60	314
1.2	1106	7560						
1.6	836	7560	**R**	**67R37**	**DR**	**63M4**	41	314
1.8	750	7560	**RF**	**67R37**	**DR**	**63M4**	44	314
2.0	646	7560	**RM**	**67R37**	**DR**	**63M4**	60	314
2.3	574	7560						
2.6	495	7560	**R**	**67R37**	**DR**	**63L4**	41	314
3.0	438	7560	**RF**	**67R37**	**DR**	**63L4**	45	314
3.4	388	7560	**RM**	**67R37**	**DR**	**63L4**	60	314
4.0	344	7560	**R**	**67R37**	**DRS**	**71S4**	43	314
4.7	294	7560	**RF**	**67R37**	**DRS**	**71S4**	47	314
			RM	**67R37**	**DRS**	**71S4**	62	314

$M_{a\ max}$ = 820 Nm

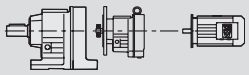
n_a 1/min	i	F_{Ra} [1] N					m kg	
0.08	16370	9920						
0.09	15015	9920						
0.10	13885	9920						
0.11	12783	9920						
0.13	11021	9920						
0.14	9788	9920						
0.16	8714	9920						
0.18	7617	9920	**R**	**77R37**	**DR**	**63S4**	46	314
0.20	6770	9920	**RF**	**77R37**	**DR**	**63S4**	52	314
0.24	5838	9920	**RM**	**77R37**	**DR**	**63S4**	77	314
0.27	5184	9920						
0.31	4470	9920						
0.35	3999	9920						
0.40	3488	9920						
0.45	3053	9920						
0.52	2671	9920						
0.44	3151	9920						
0.48	2890	9920						
0.56	2460	9920						
0.65	2121	9920	**R**	**77R37**	**DR**	**63S4**	45	314
0.70	1977	9920	**RF**	**77R37**	**DR**	**63S4**	51	314
0.80	1728	9920	**RM**	**77R37**	**DR**	**63S4**	76	314
0.85	1620	9920						
0.97	1430	9920						
1.1	1303	9920						
1.2	1124	9920						
1.3	1047	9920	**R**	**77R37**	**DR**	**63M4**	45	314
1.4	915	9920	**RF**	**77R37**	**DR**	**63M4**	51	314
1.5	858	9920	**RM**	**77R37**	**DR**	**63M4**	76	314
1.7	757	9920						
1.9	671	9920	**R**	**77R37**	**DR**	**63L4**	46	314
2.3	571	9920	**RF**	**77R37**	**DR**	**63L4**	52	314
			RM	**77R37**	**DR**	**63L4**	77	314
2.3	560	9920	**R**	**77R37**	**DR**	**63L4**	47	314
			RF	**77R37**	**DR**	**63L4**	53	314
			RM	**77R37**	**DR**	**63L4**	78	314
2.8	488	9920	**R**	**77R37**	**DRS**	**71S4**	49	314
3.2	436	9920	**RF**	**77R37**	**DRS**	**71S4**	55	314
3.7	373	9920	**RM**	**77R37**	**DRS**	**71S4**	80	314
4.2	327	9920	**R**	**77R37**	**DRS**	**71M4**	50	314
4.7	289	9920	**RF**	**77R37**	**DRS**	**71M4**	56	314
5.2	260	9920	**RM**	**77R37**	**DRS**	**71M4**	81	314

$M_{a\ max}$ = 1550 Nm								
n_a 1/min	i	F_{Ra} [1] N					m kg	
0.08	17452	16900						
0.09	15310	16900						
0.10	13813	16900						
0.11	12025	16900						
0.13	10549	16900						
0.15	9244	16900						
0.17	8109	16900	**R**	**87R57**	**DR**	**63S4**	86	314
0.20	7038	16900	**RF**	**87R57**	**DR**	**63S4**	93	314
0.22	6174	16900	**RM**	**87R57**	**DR**	**63S4**	125	314
0.25	5449	16900						
0.29	4831	16900						
0.33	4206	16900						
0.37	3744	16900						
0.43	3233	16900						
0.48	2873	16900						
			R	**87R57**	**DR**	**63M4**	86	314
0.67	1961	16900	**RF**	**87R57**	**DR**	**63M4**	93	314
			RM	**87R57**	**DR**	**63M4**	125	314
0.34	4020	16900						
0.43	3182	16900	**R**	**87R57**	**DR**	**63S4**	85	314
0.50	2770	16900	**RF**	**87R57**	**DR**	**63S4**	92	314
0.53	2595	16900	**RM**	**87R57**	**DR**	**63S4**	120	314
0.62	2129	16900						
0.68	1930	16900	**R**	**87R57**	**DR**	**63M4**	85	314
0.76	1733	16900	**RF**	**87R57**	**DR**	**63M4**	92	314
0.89	1489	16900	**RM**	**87R57**	**DR**	**63M4**	120	314
0.95	1395	16900						
1.0	1232	16900	**R**	**87R57**	**DR**	**63L4**	86	314
1.1	1145	16900	**RF**	**87R57**	**DR**	**63L4**	93	314
1.2	1037	16900	**RM**	**87R57**	**DR**	**63L4**	120	314
			R	**87R57**	**DRS**	**71S4**	87	314
1.7	802	16900	**RF**	**87R57**	**DRS**	**71S4**	94	314
1.8	754	16900	**RM**	**87R57**	**DRS**	**71S4**	125	314
			R	**87R57**	**DR**	**63M4**	85	314
0.76	1737	16900	**RF**	**87R57**	**DR**	**63M4**	93	314
0.87	1524	16900	**RM**	**87R57**	**DR**	**63M4**	120	314
			R	**87R57**	**DR**	**63L4**	86	314
1.0	1303	16900	**RF**	**87R57**	**DR**	**63L4**	93	314
1.3	1008	16900	**RM**	**87R57**	**DR**	**63L4**	125	314
			R	**87R57**	**DRS**	**71S4**	88	314
1.6	885	16900	**RF**	**87R57**	**DRS**	**71S4**	95	314
2.0	685	16900	**RM**	**87R57**	**DRS**	**71S4**	125	314
			R	**87R57**	**DRS**	**71M4**	89	314
2.3	599	16900	**RF**	**87R57**	**DRS**	**71M4**	96	314
			RM	**87R57**	**DRS**	**71M4**	125	314
			R	**87R57**	**DRN**	**80M4**	94	314
3.6	398	16900	**RF**	**87R57**	**DRN**	**80M4**	100	314
4.1	352	16900	**RM**	**87R57**	**DRN**	**80M4**	130	314
			R	**87R57**	**DRN**	**90S4**	100	314
4.8	305	16900	**RF**	**87R57**	**DRN**	**90S4**	105	314
5.4	268	16900	**RM**	**87R57**	**DRN**	**90S4**	135	314
			R	**87R57**	**DRS**	**71M4**	88	314
2.5	538	16900	**RF**	**87R57**	**DRS**	**71M4**	95	314
2.9	472	16900	**RM**	**87R57**	**DRS**	**71M4**	125	314
			R	**87R57**	**DRN**	**80M4**	92	314
3.6	400	16900	**RF**	**87R57**	**DRN**	**80M4**	100	314
4.0	361	16900	**RM**	**87R57**	**DRN**	**80M4**	130	314
			R	**87R57**	**DRN**	**90S4**	99	314
4.8	300	16900	**RF**	**87R57**	**DRN**	**90S4**	105	314
5.7	256	16900	**RM**	**87R57**	**DRN**	**90S4**	135	314

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$M_{a\ max}$ = 3000 Nm								
n_a 1/min	i	F_{Ra} [1] N					m kg	
0.06	21769	19800						
0.07	19332	19800						
0.08	17230	19800						
0.09	14999	19800						
0.10	13320	19800						
0.12	11156	19800	**R**	**97R57**	**DR**	**63S4**	130	314
0.14	10030	19800	**RF**	**97R57**	**DR**	**63S4**	145	314
0.16	8706	19800	**RM**	**97R57**	**DR**	**63S4**	195	314
0.18	7692	19800						
0.21	6708	19800						
0.23	5931	19800						
0.27	5161	19800						
0.33	4004	19800	**R**	**97R57**	**DR**	**63M4**	130	314
0.38	3481	19800	**RF**	**97R57**	**DR**	**63M4**	145	314
			RM	**97R57**	**DR**	**63M4**	195	314
0.29	4678	19800	**R**	**97R57**	**DR**	**63S4**	125	314
			RF	**97R57**	**DR**	**63S4**	145	314
			RM	**97R57**	**DR**	**63S4**	195	314
0.31	4309	19800	**R**	**97R57**	**DR**	**63M4**	125	314
0.36	3702	19800	**RF**	**97R57**	**DR**	**63M4**	145	314
0.44	3019	19800	**RM**	**97R57**	**DR**	**63M4**	195	314
0.49	2668	19800	**R**	**97R57**	**DR**	**63L4**	125	314
0.58	2245	19800	**RF**	**97R57**	**DR**	**63L4**	145	314
0.64	2016	19800	**RM**	**97R57**	**DR**	**63L4**	195	314
0.80	1733	19800	**R**	**97R57**	**DRS**	**71S4**	130	314
0.85	1623	19800	**RF**	**97R57**	**DRS**	**71S4**	145	314
0.96	1434	19800	**RM**	**97R57**	**DRS**	**71S4**	195	314
1.1	1207	19800						
1.2	1084	19800	**R**	**97R57**	**DRS**	**71M4**	130	314
1.5	934	19800	**RF**	**97R57**	**DRS**	**71M4**	145	314
1.6	878	19800	**RM**	**97R57**	**DRS**	**71M4**	200	314
1.9	755	19800	**R**	**97R57**	**DRN**	**80M4**	135	314
			RF	**97R57**	**DRN**	**80M4**	150	314
			RM	**97R57**	**DRN**	**80M4**	200	314
0.76	1823	19800	**R**	**97R57**	**DRS**	**71S4**	130	314
0.87	1583	19800	**RF**	**97R57**	**DRS**	**71S4**	145	314
0.99	1396	19800	**RM**	**97R57**	**DRS**	**71S4**	200	314
1.1	1228	19800	**R**	**97R57**	**DRS**	**71M4**	130	314
1.3	1069	19800	**RF**	**97R57**	**DRS**	**71M4**	150	314
1.4	938	19800	**RM**	**97R57**	**DRS**	**71M4**	200	314
1.8	824	19800	**R**	**97R57**	**DRN**	**80M4**	135	314
2.0	737	19800	**RF**	**97R57**	**DRN**	**80M4**	155	314
			RM	**97R57**	**DRN**	**80M4**	205	314
2.3	632	19800	**R**	**97R57**	**DRN**	**90S4**	140	314
2.6	560	19800	**RF**	**97R57**	**DRN**	**90S4**	160	314
3.0	484	19800	**RM**	**97R57**	**DRN**	**90S4**	210	314
3.4	431	19800	**R**	**97R57**	**DRN**	**90L4**	145	314
3.8	379	19800	**RF**	**97R57**	**DRN**	**90L4**	165	314
4.3	336	19800	**RM**	**97R57**	**DRN**	**90L4**	215	314
4.9	296	19800	**R**	**97R57**	**DRN**	**100LS4**	150	314
5.8	249	19800	**RF**	**97R57**	**DRN**	**100LS4**	165	314
6.2	234	19800	**RM**	**97R57**	**DRN**	**100LS4**	220	314
2.3	625	19800	**R**	**97R57**	**DRN**	**90S4**	140	314
2.6	549	19800	**RF**	**97R57**	**DRN**	**90S4**	155	314
			RM	**97R57**	**DRN**	**90S4**	210	314
5.4	270	19800	**R**	**97R57**	**DRN**	**100LS4**	145	314
6.4	227	19800	**RF**	**97R57**	**DRN**	**100LS4**	165	314
			RM	**97R57**	**DRN**	**100LS4**	215	314

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$M_{a\ max}$ = 4300 Nm									
n_a 1/min	i	F_{Ra} [1] N						m kg	
0.07	20018	29500							
0.08	17080	29500							
0.09	14936	29500							
0.11	12829	29500	**R**	**107R77**	**DR**	**63S4**		200	314
0.12	11256	29500	**RF**	**107R77**	**DR**	**63S4**		210	314
0.14	9547	29500	**RM**	**107R77**	**DR**	**63S4**		295	314
0.16	8618	29500							
0.18	7583	29500							
0.20	6743	29500							
0.22	5914	29500	**R**	**107R77**	**DR**	**63M4**		200	314
0.26	5168	29500	**RF**	**107R77**	**DR**	**63M4**		210	314
0.30	4435	29500	**RM**	**107R77**	**DR**	**63M4**		295	314
			R	**107R77**	**DR**	**63L4**		205	314
0.33	3896	29500	**RF**	**107R77**	**DR**	**63L4**		210	314
0.43	3039	29500	**RM**	**107R77**	**DR**	**63L4**		295	314
0.33	3918	29500	**R**	**107R77**	**DR**	**63L4**		195	314
0.39	3343	29500	**RF**	**107R77**	**DR**	**63L4**		200	314
0.43	3034	29500	**RM**	**107R77**	**DR**	**63L4**		290	314
0.52	2653	29500	**R**	**107R77**	**DRS**	**71S4**		200	314
0.61	2280	29500	**RF**	**107R77**	**DRS**	**71S4**		205	314
0.67	2067	29500	**RM**	**107R77**	**DRS**	**71S4**		290	314
0.80	1693	29500	**R**	**107R77**	**DRS**	**71M4**		200	314
0.88	1550	29500	**RF**	**107R77**	**DRS**	**71M4**		205	314
0.97	1407	29500	**RM**	**107R77**	**DRS**	**71M4**		295	314
			R	**107R77**	**DRN**	**80M4**		205	314
1.2	1209	29500	**RF**	**107R77**	**DRN**	**80M4**		210	314
1.4	1055	29500	**RM**	**107R77**	**DRN**	**80M4**		300	314
1.6	919	29500	**R**	**107R77**	**DRN**	**90S4**		210	314
1.8	815	29500	**RF**	**107R77**	**DRN**	**90S4**		215	314
2.0	717	29500	**RM**	**107R77**	**DRN**	**90S4**		305	314
			R	**107R77**	**DRN**	**90L4**		210	314
2.3	626	29500	**RF**	**107R77**	**DRN**	**90L4**		220	314
2.8	528	29500	**RM**	**107R77**	**DRN**	**90L4**		305	314
			R	**107R77**	**DRS**	**71S4**		205	314
0.69	1987	29500	**RF**	**107R77**	**DRS**	**71S4**		210	314
			RM	**107R77**	**DRS**	**71S4**		295	314
0.74	1827	29500	**R**	**107R77**	**DRS**	**71M4**		205	314
0.85	1599	29500	**RF**	**107R77**	**DRS**	**71M4**		210	314
0.97	1400	29500	**RM**	**107R77**	**DRS**	**71M4**		300	314
			R	**107R77**	**DRN**	**80M4**		210	314
1.2	1226	29500	**RF**	**107R77**	**DRN**	**80M4**		215	314
1.3	1104	29500	**RM**	**107R77**	**DRN**	**80M4**		305	314
			R	**107R77**	**DRN**	**90S4**		215	314
1.6	939	29500	**RF**	**107R77**	**DRN**	**90S4**		220	314
1.8	822	29500	**RM**	**107R77**	**DRN**	**90S4**		310	314
2.4	614	29500	**R**	**107R77**	**DRN**	**90L4**		220	314
2.7	544	29500	**RF**	**107R77**	**DRN**	**90L4**		225	314
3.0	492	29500	**RM**	**107R77**	**DRN**	**90L4**		310	314
3.5	417	29500	**R**	**107R77**	**DRN**	**100LS4**		220	314
3.9	369	29500	**RF**	**107R77**	**DRN**	**100LS4**		230	314
4.5	323	29500	**RM**	**107R77**	**DRN**	**100LS4**		315	314
			R	**107R77**	**DRN**	**100L4**		230	314
5.1	285	29500	**RF**	**107R77**	**DRN**	**100L4**		235	314
5.8	253	29500	**RM**	**107R77**	**DRN**	**100L4**		325	314
			R	**107R77**	**DRN**	**112M4**		240	314
6.8	214	29500	**RF**	**107R77**	**DRN**	**112M4**		245	314
7.8	187	29500	**RM**	**107R77**	**DRN**	**112M4**		330	314
			R	**107R77**	**DRN**	**90L4**		210	314
3.1	469	29500	**RF**	**107R77**	**DRN**	**90L4**		215	314
			RM	**107R77**	**DRN**	**90L4**		305	314
3.4	426	29500	**R**	**107R77**	**DRN**	**100LS4**		215	314
3.8	377	29500	**RF**	**107R77**	**DRN**	**100LS4**		220	314
4.5	325	29500	**RM**	**107R77**	**DRN**	**100LS4**		310	314

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$M_{a\ max}$ = 4300 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
5.1	284	29500	R	107R77	DRN	100L4	225	314
5.7	256	29500	RF	107R77	DRN	100L4	230	314
			RM	107R77	DRN	100L4	315	314
6.7	220	29500	R	107R77	DRN	112M4	230	314
7.6	193	29500	RF	107R77	DRN	112M4	240	314
			RM	107R77	DRN	112M4	325	314
8.5	172	29500	R	107R77	DRN	132S4	245	314
			RF	107R77	DRN	132S4	250	314
			RM	107R77	DRN	132S4	335	314

$M_{a\ max}$ = 8000 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.06	22203	53400						
0.07	18945	53400	R	137R77	DR	63S4	290	314
0.08	16566	53400	RF	137R77	DR	63S4	310	314
0.09	14777	53400	RM	137R77	DR	63S4	425	314
0.11	12921	53400						
0.11	11712	53400	R	137R77	DR	63M4	290	314
0.12	10573	53400	RF	137R77	DR	63M4	310	314
0.15	8784	53400	RM	137R77	DR	63M4	425	314
0.17	7479	53400	R	137R77	DR	63L4	290	314
0.20	6559	53400	RF	137R77	DR	63L4	310	314
0.22	5834	53400	RM	137R77	DR	63L4	425	314
0.27	5116	53400	R	137R77	DRS	71S4	290	314
0.31	4464	53400	RF	137R77	DRS	71S4	315	314
0.35	3928	53400	RM	137R77	DRS	71S4	425	314
0.39	3454	53400	R	137R77	DRS	71M4	290	314
0.45	2993	53400	RF	137R77	DRS	71M4	315	314
			RM	137R77	DRS	71M4	425	314
0.29	4709	53400	R	137R77	DRS	71S4	280	314
0.34	4018	53400	RF	137R77	DRS	71S4	305	314
			RM	137R77	DRS	71S4	415	314
0.39	3514	53400						
0.41	3338	53400	R	137R77	DRS	71M4	280	314
0.46	2929	53400	RF	137R77	DRS	71M4	305	314
0.55	2484	53400	RM	137R77	DRS	71M4	415	314
0.64	2242	53400	R	137R77	DRN	80M4	285	314
0.77	1863	53400	RF	137R77	DRN	80M4	310	314
			RM	137R77	DRN	80M4	420	314
0.92	1586	53400	R	137R77	DRN	90S4	290	314
1.0	1391	53400	RF	137R77	DRN	90S4	315	314
1.2	1256	53400	RM	137R77	DRN	90S4	425	314
1.3	1105	53400	R	137R77	DRN	90L4	295	314
1.4	1043	53400	RF	137R77	DRN	90L4	320	314
			RM	137R77	DRN	90L4	430	314
1.6	888	53400	R	137R77	DRN	100LS4	300	314
2.1	699	53400	RF	137R77	DRN	100LS4	325	314
2.4	609	53400	RM	137R77	DRN	100LS4	435	314
0.51	2658	53400	R	137R77	DRS	71M4	290	314
0.56	2412	53400	RF	137R77	DRS	71M4	315	314
			RM	137R77	DRS	71M4	425	314
0.69	2073	53400	R	137R77	DRN	80M4	295	314
0.78	1839	53400	RF	137R77	DRN	80M4	320	314
			RM	137R77	DRN	80M4	430	314
0.91	1598	53400	R	137R77	DRN	90S4	300	314
1.0	1397	53400	RF	137R77	DRN	90S4	325	314
1.2	1226	53400	RM	137R77	DRN	90S4	435	314
1.3	1090	53400	R	137R77	DRN	90L4	305	314
1.5	951	53400	RF	137R77	DRN	90L4	325	314
			RM	137R77	DRN	90L4	440	314

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$M_{a\ max}$ = 8000 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
1.7	831	53400	**R**	**137R77**	**DRN**	**100LS4**	310	314
2.0	730	53400	**RF**	**137R77**	**DRN**	**100LS4**	330	314
2.3	629	53400	**RM**	**137R77**	**DRN**	**100LS4**	445	314
2.6	560	53400	**R**	**137R77**	**DRN**	**100L4**	315	314
3.0	490	53400	**RF**	**137R77**	**DRN**	**100L4**	340	314
			RM	**137R77**	**DRN**	**100L4**	450	314
3.4	428	53400	**R**	**137R77**	**DRN**	**112M4**	325	314
3.8	381	53400	**RF**	**137R77**	**DRN**	**112M4**	350	314
			RM	**137R77**	**DRN**	**112M4**	460	314
4.5	323	53400	**R**	**137R77**	**DRN**	**132S4**	335	314
5.0	291	53400	**RF**	**137R77**	**DRN**	**132S4**	360	314
5.7	255	53400	**RM**	**137R77**	**DRN**	**132S4**	470	314
2.6	564	53400	**R**	**137R77**	**DRN**	**100L4**	305	314
2.8	517	53400	**RF**	**137R77**	**DRN**	**100L4**	330	314
3.2	453	53400	**RM**	**137R77**	**DRN**	**100L4**	440	314
3.9	376	53400	**R**	**137R77**	**DRN**	**112M4**	315	314
4.3	339	53400	**RF**	**137R77**	**DRN**	**112M4**	340	314
			RM	**137R77**	**DRN**	**112M4**	450	314
4.9	297	53400	**R**	**137R77**	**DRN**	**132S4**	325	314
			RF	**137R77**	**DRN**	**132S4**	350	314
			RM	**137R77**	**DRN**	**132S4**	460	314

$M_{a\ max}$ = 13000 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.06	23401	62700	**R**	**147R77**	**DR**	**63S4**	420	314
0.06	21342	62700	**RF**	**147R77**	**DR**	**63S4**	430	314
			RM	**147R77**	**DR**	**63S4**	600	314
0.07	18210	62700						
0.08	15923	62700	**R**	**147R77**	**DR**	**63M4**	420	314
0.09	14075	62700	**RF**	**147R77**	**DR**	**63M4**	430	314
0.11	12344	62700	**RM**	**147R77**	**DR**	**63M4**	600	314
0.12	11143	62700	**R**	**147R77**	**DR**	**63L4**	420	314
0.13	9743	62700	**RF**	**147R77**	**DR**	**63L4**	430	314
			RM	**147R77**	**DR**	**63L4**	600	314
0.16	8443	62700	**R**	**147R77**	**DRS**	**71S4**	425	314
0.19	7307	62700	**RF**	**147R77**	**DRS**	**71S4**	430	314
0.21	6447	62700	**RM**	**147R77**	**DRS**	**71S4**	600	314
0.24	5568	62700	**R**	**147R77**	**DRS**	**71M4**	425	314
0.28	4926	62700	**RF**	**147R77**	**DRS**	**71M4**	430	314
0.31	4325	62700	**RM**	**147R77**	**DRS**	**71M4**	600	314
0.38	3754	62700	**R**	**147R77**	**DRN**	**80M4**	430	314
0.44	3302	62700	**RF**	**147R77**	**DRN**	**80M4**	435	314
			RM	**147R77**	**DRN**	**80M4**	600	314
0.50	2898	62700	**R**	**147R77**	**DRN**	**90S4**	435	314
			RF	**147R77**	**DRN**	**90S4**	440	314
			RM	**147R77**	**DRN**	**90S4**	610	314
0.57	2555	62700	**R**	**147R77**	**DRN**	**90S4**	435	314
0.66	2211	62700	**RF**	**147R77**	**DRN**	**90S4**	440	314
			RM	**147R77**	**DRN**	**90S4**	610	314
0.75	1951	62700	**R**	**147R77**	**DRN**	**90L4**	435	314
0.86	1705	62700	**RF**	**147R77**	**DRN**	**90L4**	445	314
0.95	1536	62700	**RM**	**147R77**	**DRN**	**90L4**	610	314
1.1	1329	62700	**R**	**147R77**	**DRN**	**100LS4**	440	314
1.2	1166	62700	**RF**	**147R77**	**DRN**	**100LS4**	450	314
1.4	1029	62700	**RM**	**147R77**	**DRN**	**100LS4**	620	314
1.6	889	62700	**R**	**147R77**	**DRN**	**100L4**	445	314
1.9	784	62700	**RF**	**147R77**	**DRN**	**100L4**	455	314
			RM	**147R77**	**DRN**	**100L4**	620	314

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$M_{a\ max}$ = 13000 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
2.1	695	62700	**R**	**147R77**	**DRN**	**112M4**	455	314
2.4	619	62700	**RF**	**147R77**	**DRN**	**112M4**	465	314
2.6	558	62700	**RM**	**147R77**	**DRN**	**112M4**	630	314
			R	**147R77**	**DRN**	**132S4**	470	314
3.0	489	62700	**RF**	**147R77**	**DRN**	**132S4**	475	314
			RM	**147R77**	**DRN**	**132S4**	640	314
2.7	533	62700	**R**	**147R87**	**DRN**	**132S4**	490	314
3.2	462	62700	**RF**	**147R87**	**DRN**	**132S4**	495	314
3.4	426	62700	**RM**	**147R87**	**DRN**	**132S4**	660	314
			R	**147R87**	**DRN**	**132M4**	510	314
4.0	368	62700	**RF**	**147R87**	**DRN**	**132M4**	510	314
4.5	326	62700	**RM**	**147R87**	**DRN**	**132M4**	680	314
			R	**147R87**	**DRN**	**132L4**	510	314
5.2	280	62700	**RF**	**147R87**	**DRN**	**132L4**	520	314
6.0	247	62700	**RM**	**147R87**	**DRN**	**132L4**	690	314
			R	**147R87**	**DRN**	**160M4**	550	314
6.9	214	62700	**RF**	**147R87**	**DRN**	**160M4**	560	314
			RM	**147R87**	**DRN**	**160M4**	720	314

$M_{a\ max}$ = 18000 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.05	27001	120000						
0.06	22482	120000						
0.07	20002	120000						
0.08	17361	120000	**R**	**167R97**	**DRS**	**71M4**	760	315
0.09	15446	120000	**RF**	**167R97**	**DRS**	**71M4**	760	315
0.10	14051	120000	**RM**	**167R97**	**DRS**	**71M4**	960	315
0.12	11812	120000						
0.13	10509	120000						
0.14	9631	120000						
			R	**167R97**	**DRN**	**80M4**	760	315
0.19	7749	120000	**RF**	**167R97**	**DRN**	**80M4**	770	315
0.21	6894	120000	**RM**	**167R97**	**DRN**	**80M4**	960	315
			R	**167R97**	**DRS**	**71M4**	760	315
0.22	6077	120000	**RF**	**167R97**	**DRS**	**71M4**	760	315
			RM	**167R97**	**DRS**	**71M4**	960	315
			R	**167R97**	**DRN**	**80M4**	760	315
0.27	5407	120000	**RF**	**167R97**	**DRN**	**80M4**	770	315
0.31	4650	120000	**RM**	**167R97**	**DRN**	**80M4**	960	315
			R	**167R97**	**DRN**	**90S4**	760	315
0.35	4129	120000	**RF**	**167R97**	**DRN**	**90S4**	770	315
0.39	3692	120000	**RM**	**167R97**	**DRN**	**90S4**	970	315
0.55	2657	120000	**R**	**167R97**	**DRN**	**90L4**	760	315
0.63	2333	120000	**RF**	**167R97**	**DRN**	**90L4**	770	315
0.70	2085	120000	**RM**	**167R97**	**DRN**	**90L4**	970	315
0.77	1877	120000	**R**	**167R97**	**DRN**	**100LS4**	770	315
0.87	1670	120000	**RF**	**167R97**	**DRN**	**100LS4**	780	315
1.0	1438	120000	**RM**	**167R97**	**DRN**	**100LS4**	970	315
1.1	1279	120000	**R**	**167R97**	**DRN**	**100L4**	780	315
1.3	1123	120000	**RF**	**167R97**	**DRN**	**100L4**	780	315
1.5	999	120000	**RM**	**167R97**	**DRN**	**100L4**	980	315
			R	**167R97**	**DRN**	**112M4**	780	315
1.7	861	120000	**RF**	**167R97**	**DRN**	**112M4**	790	315
1.9	760	120000	**RM**	**167R97**	**DRN**	**112M4**	990	315
			R	**167R97**	**DRN**	**132S4**	800	315
2.2	656	120000	**RF**	**167R97**	**DRN**	**132S4**	800	315
2.5	579	120000	**RM**	**167R97**	**DRN**	**132S4**	1000	315
			R	**167R97**	**DRN**	**132M4**	810	315
2.9	503	120000	**RF**	**167R97**	**DRN**	**132M4**	820	315
3.4	432	120000	**RM**	**167R97**	**DRN**	**132M4**	1020	315

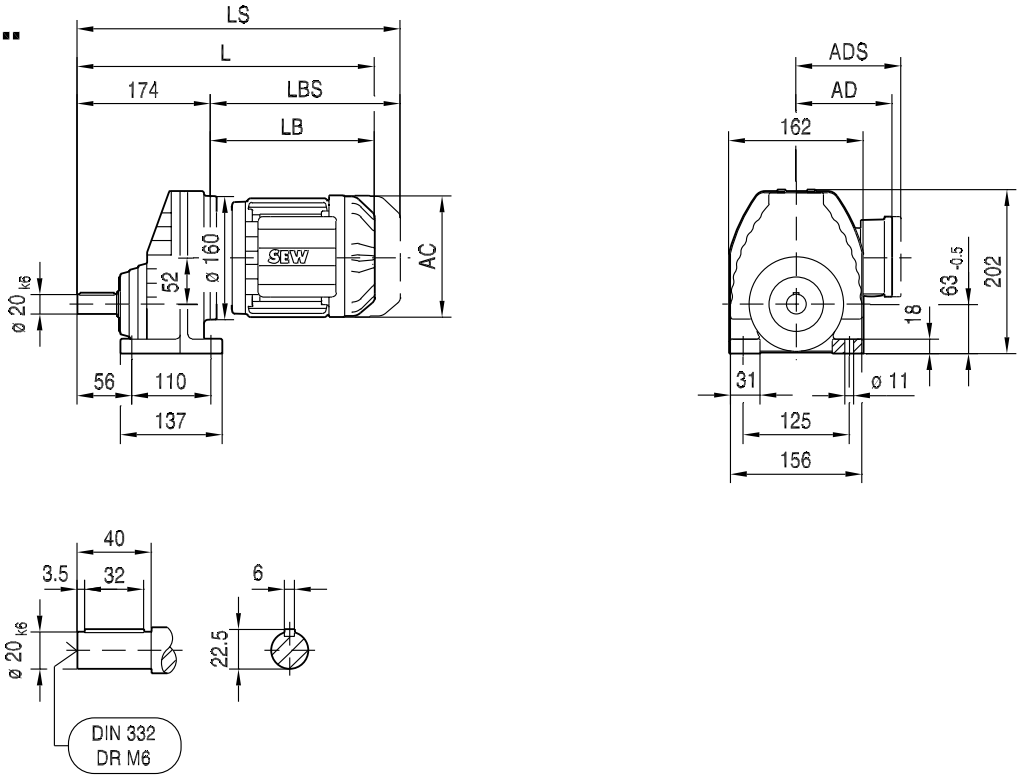
$M_{a\ max}$ = 18000 Nm								
n_a 1/min	i	F_{Ra} [1] N					m kg	
3.9	376	120000	**R**	**167R97**	**DRN**	**132L4**	820	315
4.4	335	120000	**RF**	**167R97**	**DRN**	**132L4**	830	315
			RM	**167R97**	**DRN**	**132L4**	1020	315
4.9	303	120000	**R**	**167R97**	**DRN**	**160M4**	860	315
5.3	279	120000	**RF**	**167R97**	**DRN**	**160M4**	860	315
			RM	**167R97**	**DRN**	**160M4**	1060	315
5.0	295	120000	**R**	**167R107**	**DRN**	**160M4**	900	315
			RF	**167R107**	**DRN**	**160M4**	910	315
			RM	**167R107**	**DRN**	**160M4**	1100	315
5.4	270	120000	**R**	**167R107**	**DRN**	**160L4**	920	315
6.4	229	120000	**RF**	**167R107**	**DRN**	**160L4**	920	315
			RM	**167R107**	**DRN**	**160L4**	1120	315
7.4	200	120000	**R**	**167R107**	**DRN**	**180M4**	940	315
			RF	**167R107**	**DRN**	**180M4**	950	315
			RM	**167R107**	**DRN**	**180M4**	1140	315
5.1	291	120000	**R**	**167R107**	**DRN**	**160M4**	900	315
			RF	**167R107**	**DRN**	**160M4**	900	315
			RM	**167R107**	**DRN**	**160M4**	1100	315
5.6	264	120000	**R**	**167R107**	**DRN**	**160L4**	910	315
6.5	227	120000	**RF**	**167R107**	**DRN**	**160L4**	920	315
7.4	198	120000	**RM**	**167R107**	**DRN**	**160L4**	1110	315

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8.5 R..DRN.. dimension sheets in mm

01 004 00 14

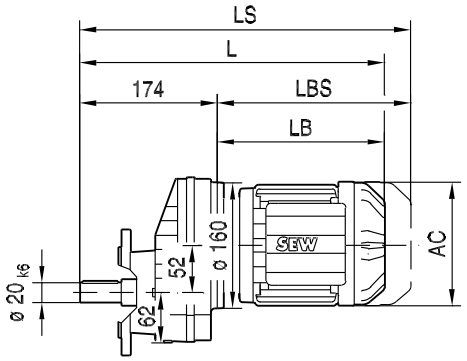
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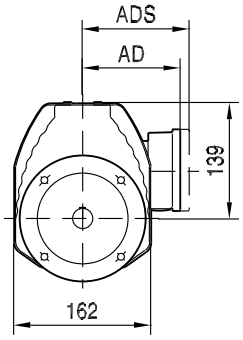


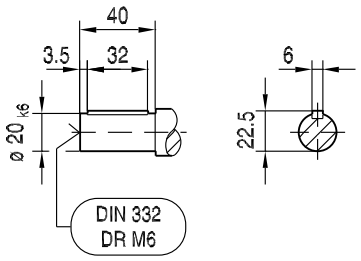
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AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	359	370	395	449	451	483	479	529	560	614
LS	414	438	463	530	544	576	573	623	672	726
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

01 005 00 14

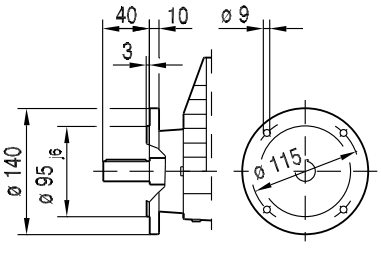
RXF57..



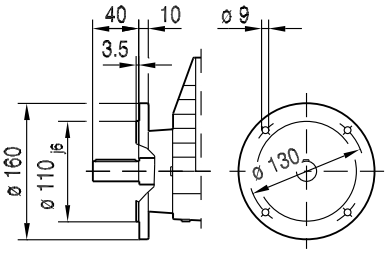




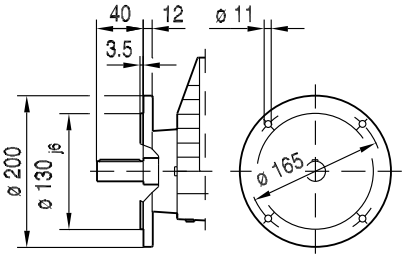
ø 140



ø 160



ø 200

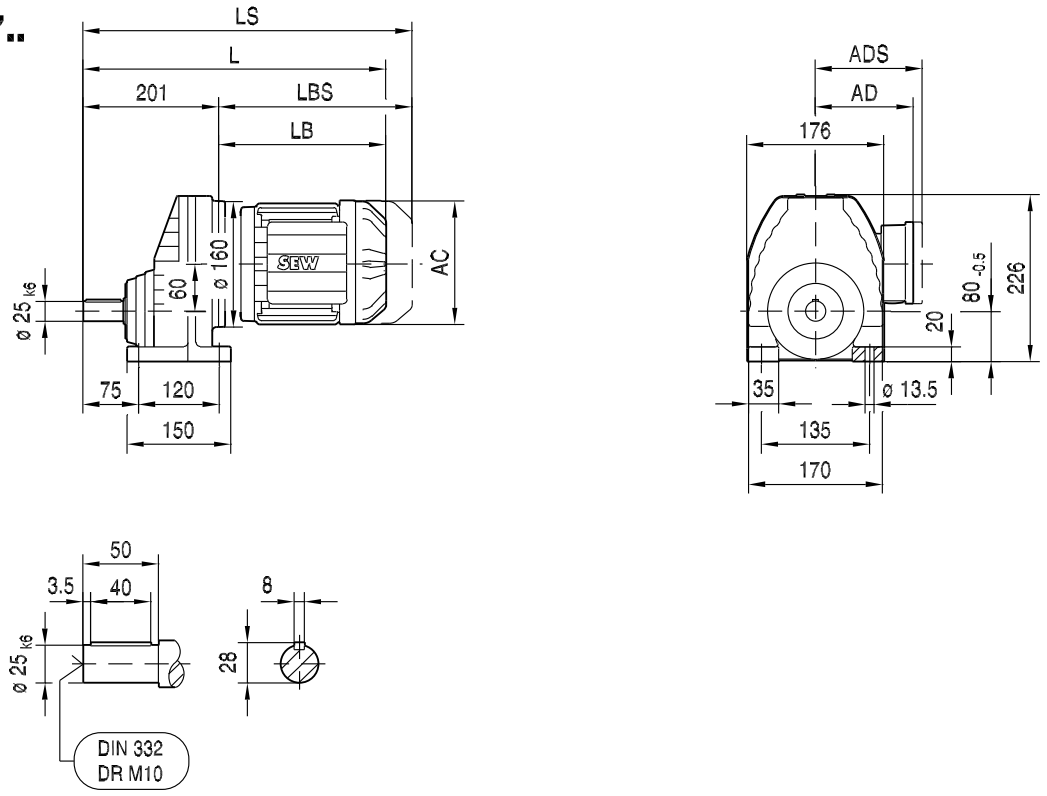


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	359	370	395	449	451	483	479	529	560	614
LS	414	438	463	530	544	576	573	623	672	726
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

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01 006 00 14

RX67..

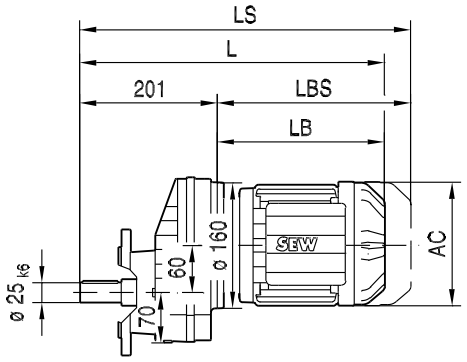


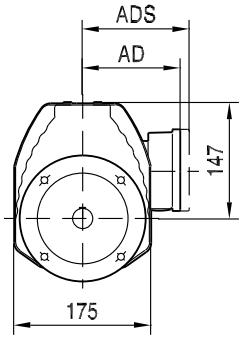
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M
AC	132	139	139	156	179	179	197	197	221	221	261
AD	105	119	119	128	140	140	157	157	170	170	228
ADS	105	129	129	139	150	150	158	158	172	172	228
L	386	397	422	476	478	510	506	556	587	641	659
LS	441	465	490	557	571	603	600	650	699	753	797
LB	185	196	221	275	277	309	305	355	386	440	458
LBS	240	264	289	356	370	402	399	449	498	552	596

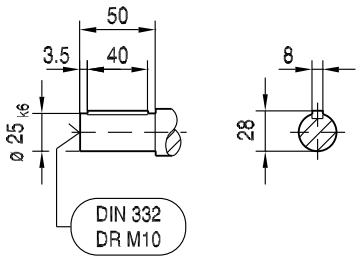
21933189/EN – 11/2015

01 007 00 14

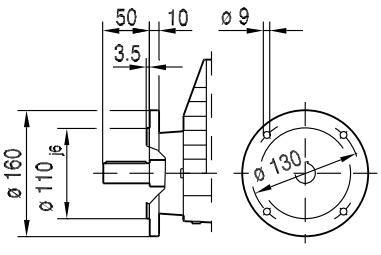
RXF67..



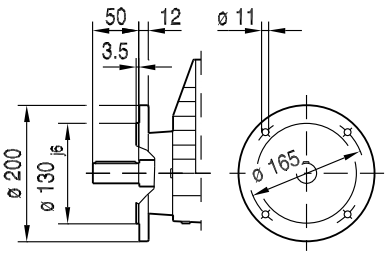




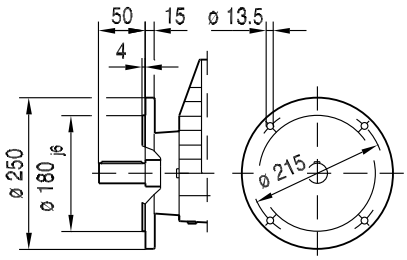
ø 160



ø 200



ø 250

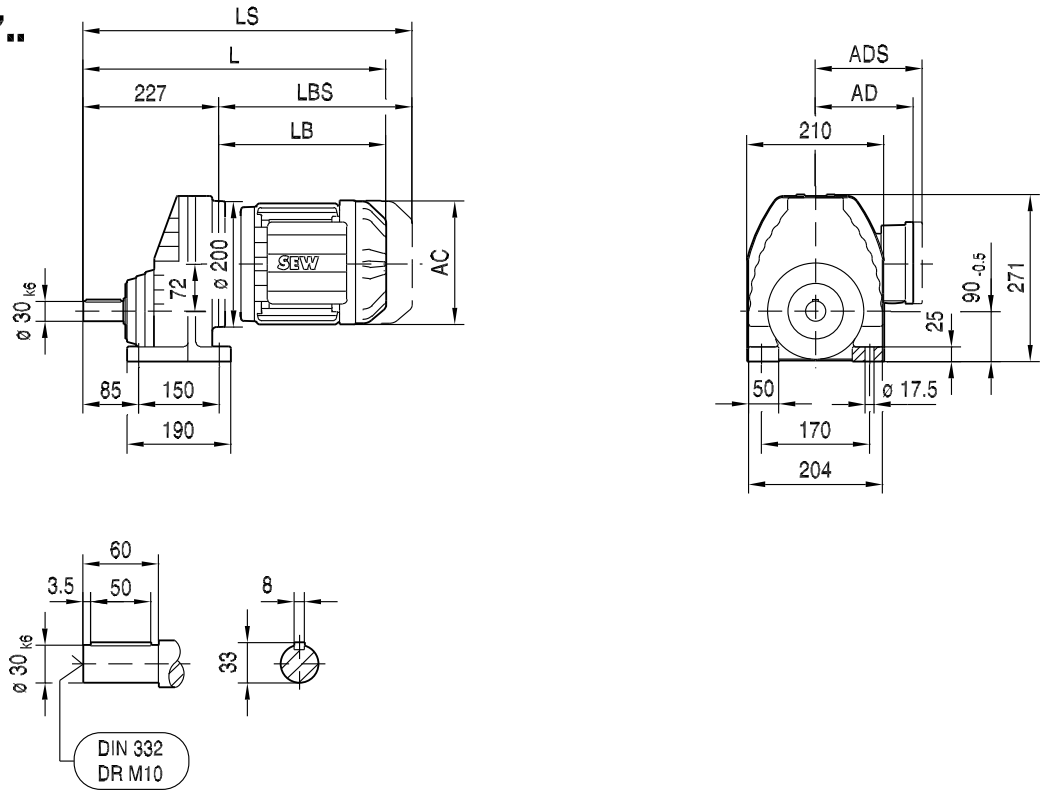


(→ 📄 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M
AC	132	139	139	156	179	179	197	197	221	221	261
AD	105	119	119	128	140	140	157	157	170	170	228
ADS	105	129	129	139	150	150	158	158	172	172	228
L	386	397	422	476	478	510	506	556	587	641	659
LS	441	465	490	557	571	603	600	650	699	753	797
LB	185	196	221	275	277	309	305	355	386	440	458
LBS	240	264	289	356	370	402	399	449	498	552	596

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01 008 00 14

RX77..

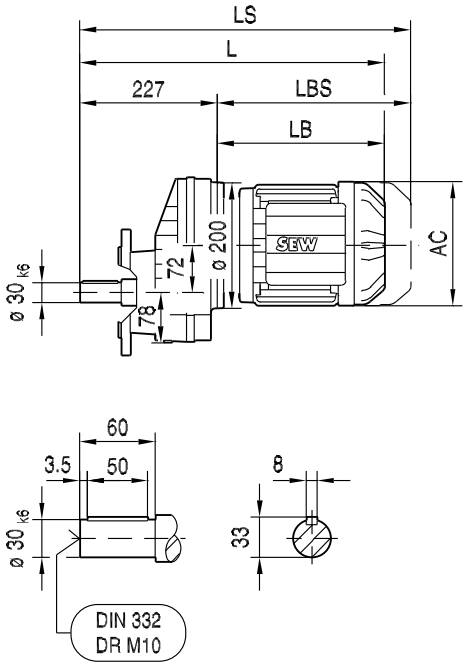


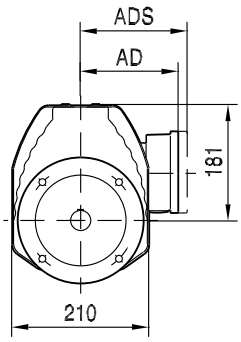
(→ 155)	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M
AC	179	179	197	197	221	221	261	261	314
AD	140	140	157	157	170	170	228	228	253
ADS	150	150	158	158	172	172	228	228	253
L	497	529	525	575	606	656	674	700	766
LS	590	622	619	669	718	768	812	837	955
LB	270	302	298	348	379	429	447	473	539
LBS	363	395	392	442	491	541	585	610	728

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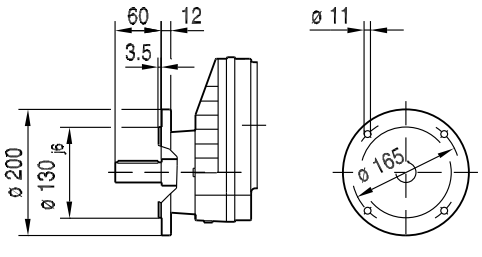
01 009 00 14

RXF77..

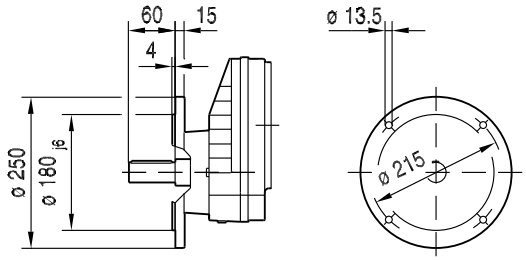




ø 200



ø 250

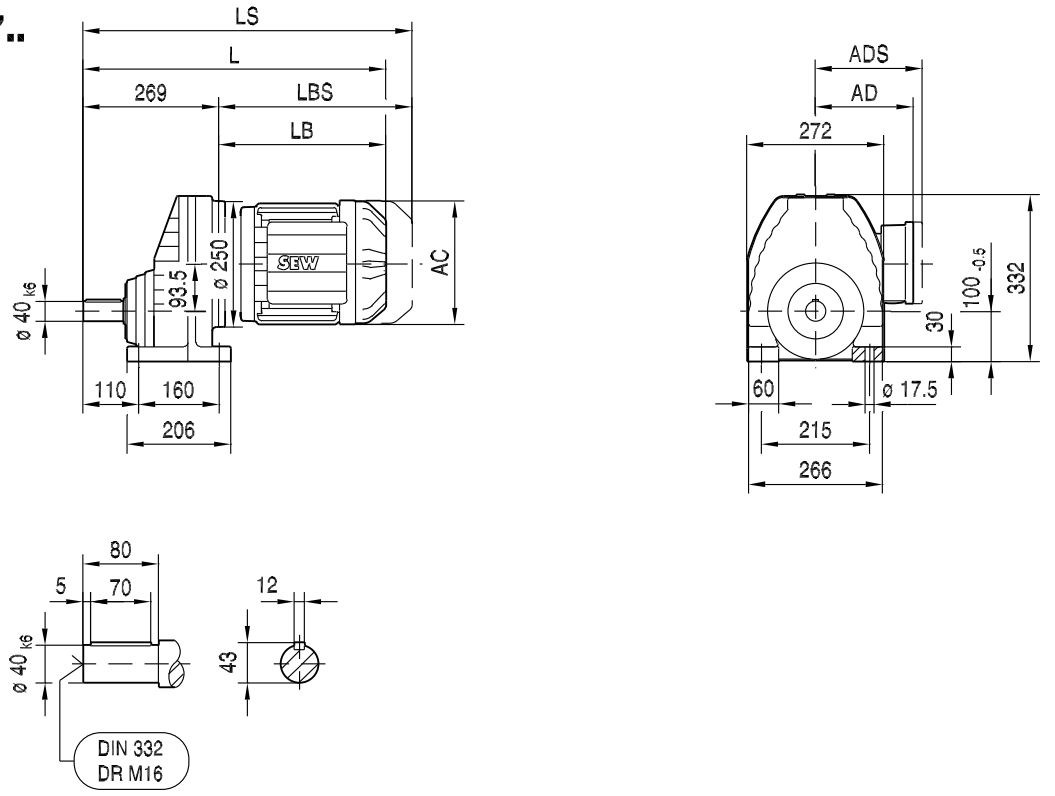


(→ 155)	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M
AC	179	179	197	197	221	221	261	261	314
AD	140	140	157	157	170	170	228	228	253
ADS	150	150	158	158	172	172	228	228	253
L	497	529	525	575	606	656	674	700	766
LS	590	622	619	669	718	768	812	837	955
LB	270	302	298	348	379	429	447	473	539
LBS	363	395	392	442	491	541	585	610	728

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01 010 00 14

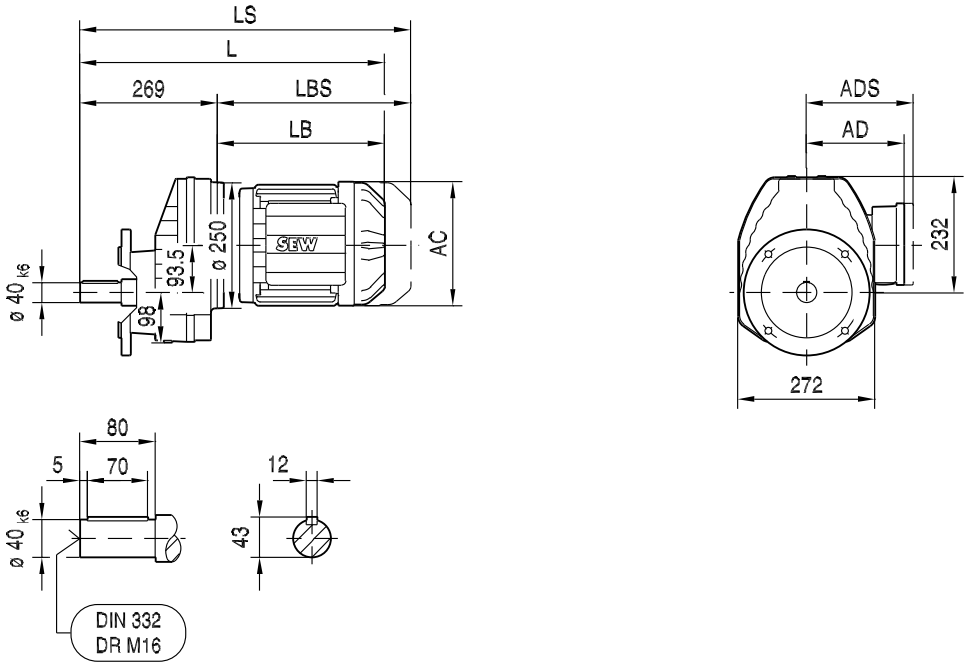
RX87..



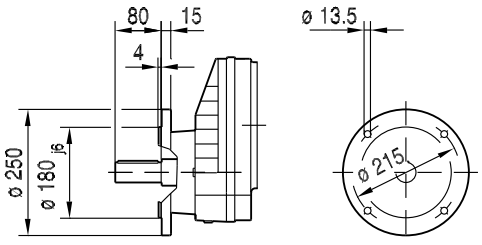
(→ 155)	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	197	221	221	261	261	314	314	357
AD	157	170	170	228	228	253	253	268
ADS	158	172	172	228	228	253	253	268
L	612	643	693	711	737	803	803	826
LS	706	755	805	849	874	992	992	1015
LB	343	374	424	442	468	534	534	557
LBS	437	486	536	580	605	723	723	746

01 011 00 14

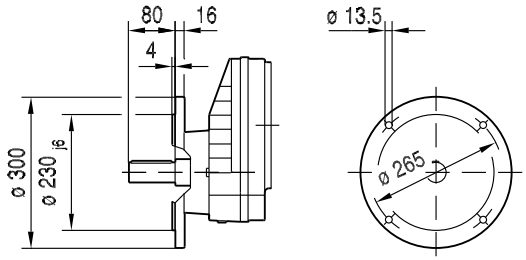
RXF87..



ø 250



ø 300

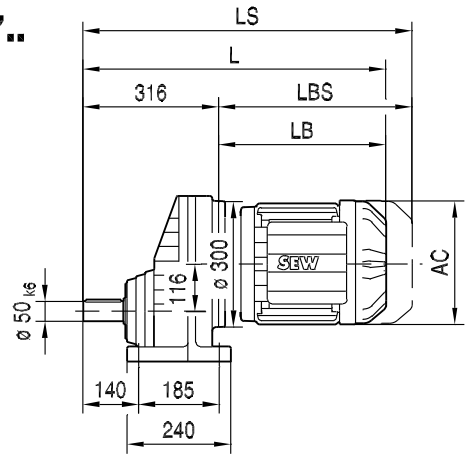


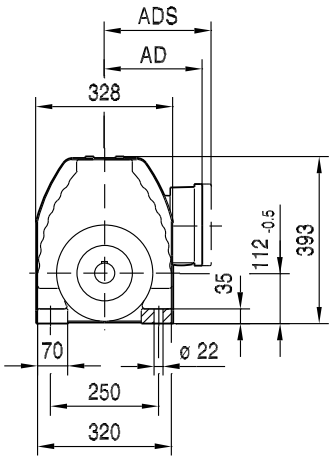
(→ 155)	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	197	221	221	261	261	314	314	357
AD	157	170	170	228	228	253	253	268
ADS	158	172	172	228	228	253	253	268
L	612	643	693	711	737	803	803	826
LS	706	755	805	849	874	992	992	1015
LB	343	374	424	442	468	534	534	557
LBS	437	486	536	580	605	723	723	746

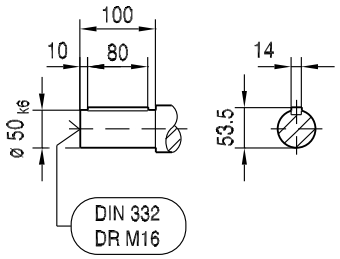
21933189/EN – 11/2015

01 012 00 14

RX97..



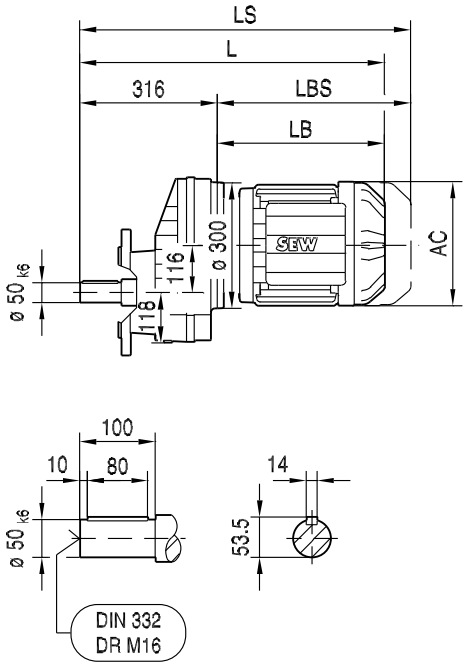


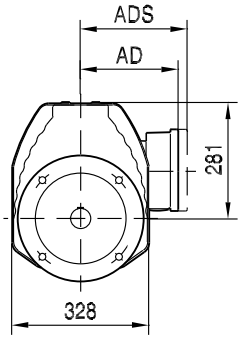


(→ 155)	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	
AC	221	261	261	314	314	357	394	
AD	170	228	228	253	253	268	283	
ADS	172	228	228	253	253	268	283	
L	735	753	779	845	845	868	978	
LS	847	891	916	1034	1034	1057	1183	
LB	419	437	463	529	529	552	662	
LBS	531	575	600	718	718	741	867	

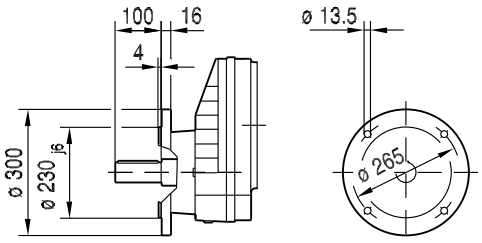
01 013 00 14

RXF97..

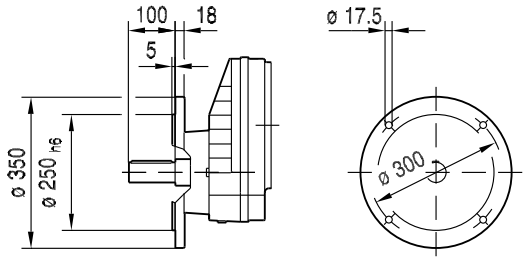




ø 300



ø 350

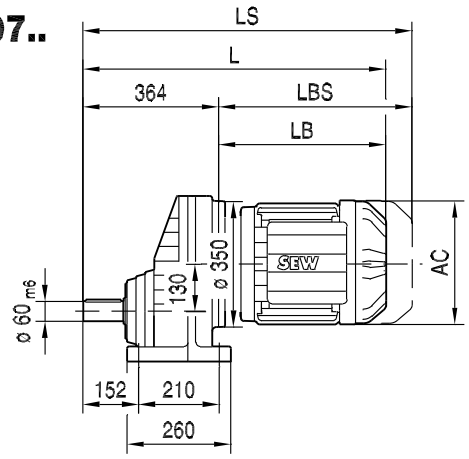


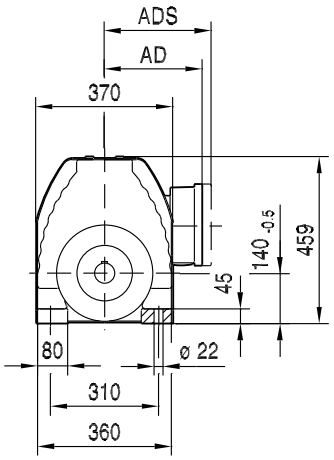
(→ 155)	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	
AC	221	261	261	314	314	357	394	
AD	170	228	228	253	253	268	283	
ADS	172	228	228	253	253	268	283	
L	735	753	779	845	845	868	978	
LS	847	891	916	1034	1034	1057	1183	
LB	419	437	463	529	529	552	662	
LBS	531	575	600	718	718	741	867	

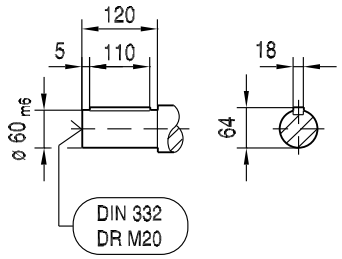
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01 014 00 14

RX107..





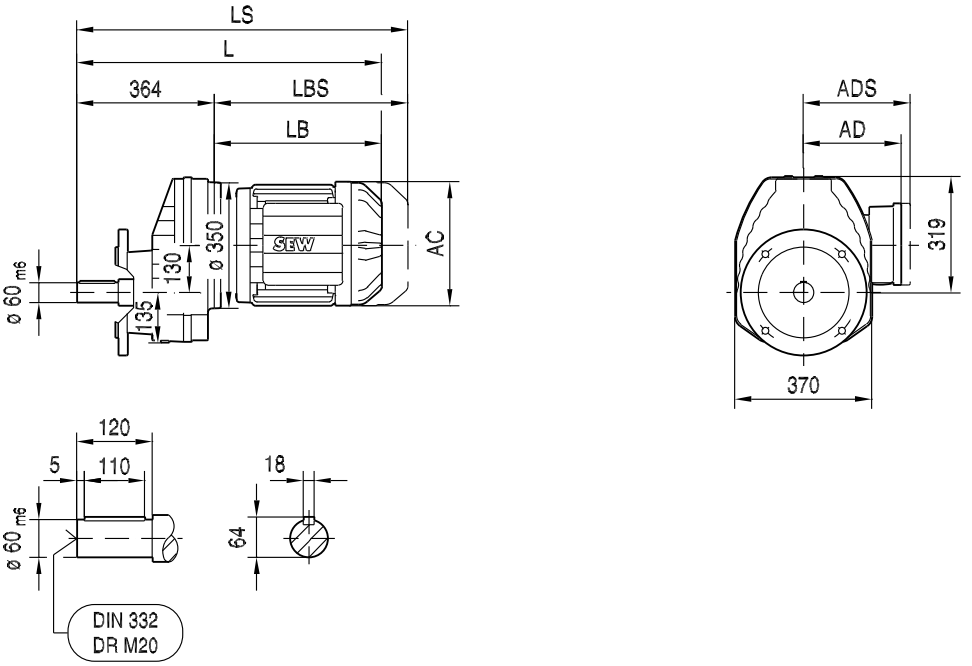


(→ 155)	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..
AC	221	261	261	314	314	357	394	434
AD	170	228	228	253	253	268	283	305
ADS	172	228	228	253	253	268	283	305
L	777	795	821	887	887	910	1020	994
LS	889	933	958	1076	1076	1099	1225	1199
LB	413	431	457	523	523	546	656	630
LBS	525	569	594	712	712	735	861	835

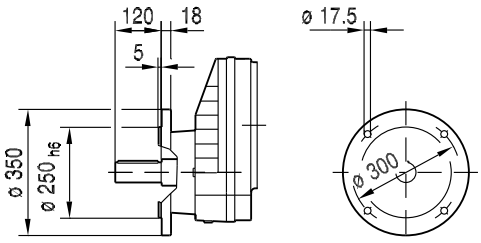
21933189/EN – 11/2015

01 015 00 14

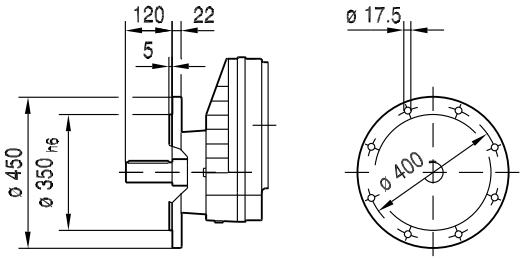
RXF107..



ø 350



ø 450



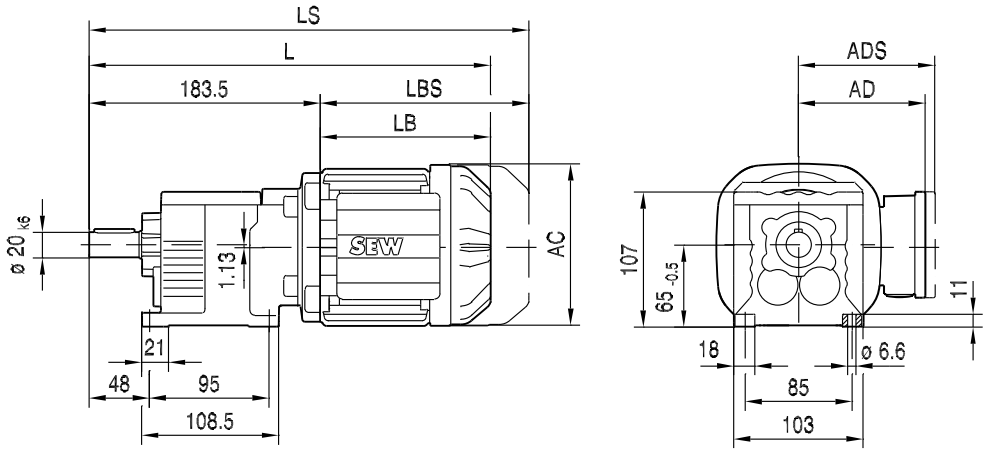
(→ 155)	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..
AC	221	261	261	314	314	357	394	434
AD	170	228	228	253	253	268	283	305
ADS	172	228	228	253	253	268	283	305
L	777	795	821	887	887	910	1020	994
LS	889	933	958	1076	1076	1099	1225	1199
LB	413	431	457	523	523	546	656	630
LBS	525	569	594	712	712	735	861	835

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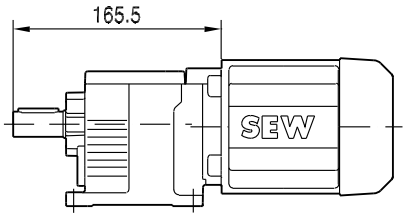
01 016 00 14

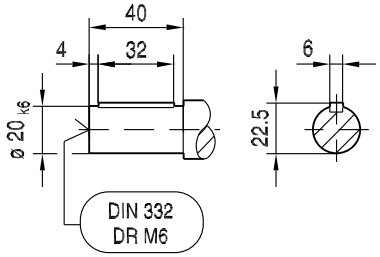
R07..

DR..

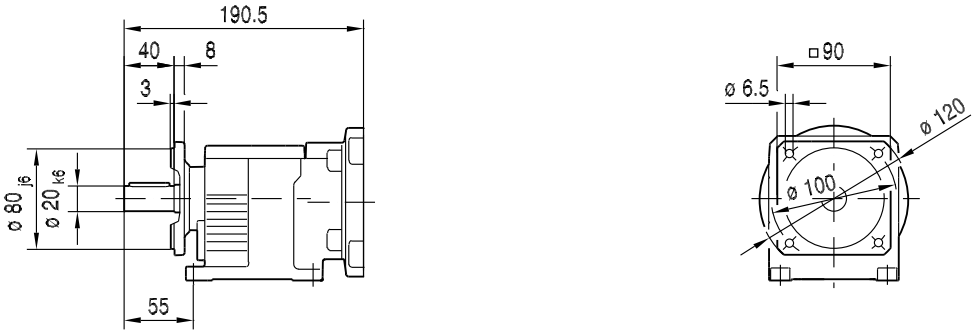


DT56..





R07F..

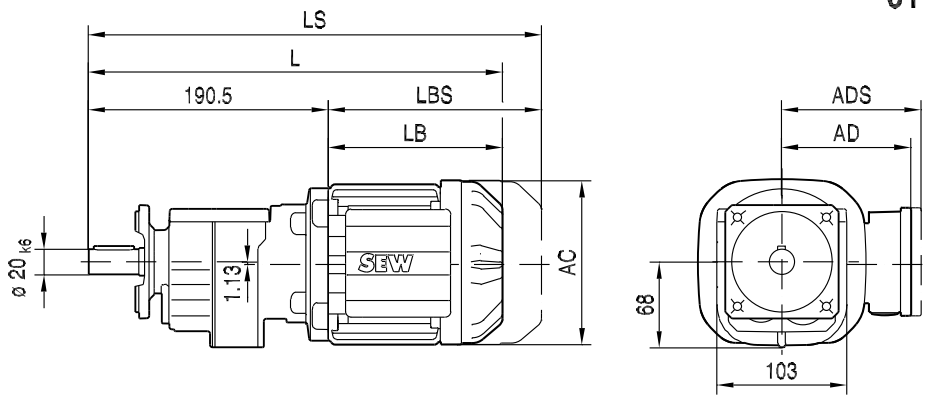


(→ 155)	DT56..	DR63..	DR71S	DR71M				
AC	109	132	139	139				
AD	87	105	119	119				
ADS	87	105	129	129				
L	302	333	344	369				
LS	338	388	412	437				
LB	136	149	160	185				
LBS	172	204	228	253				

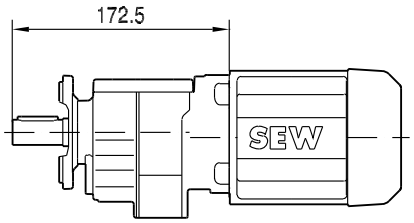
01 017 00 14

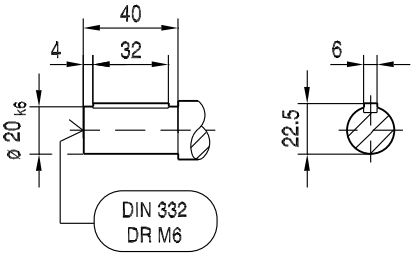
RF07..

DR..

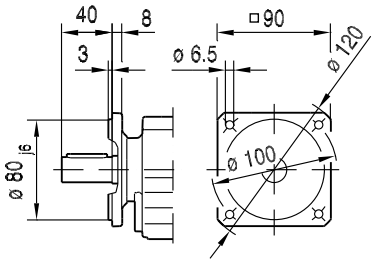


DT56..

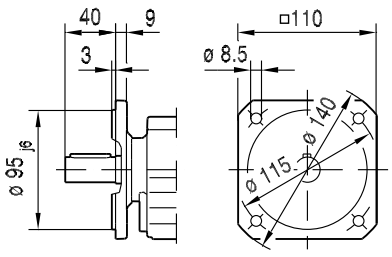




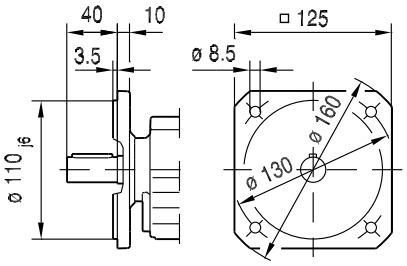
ø 120



ø 140



ø 160



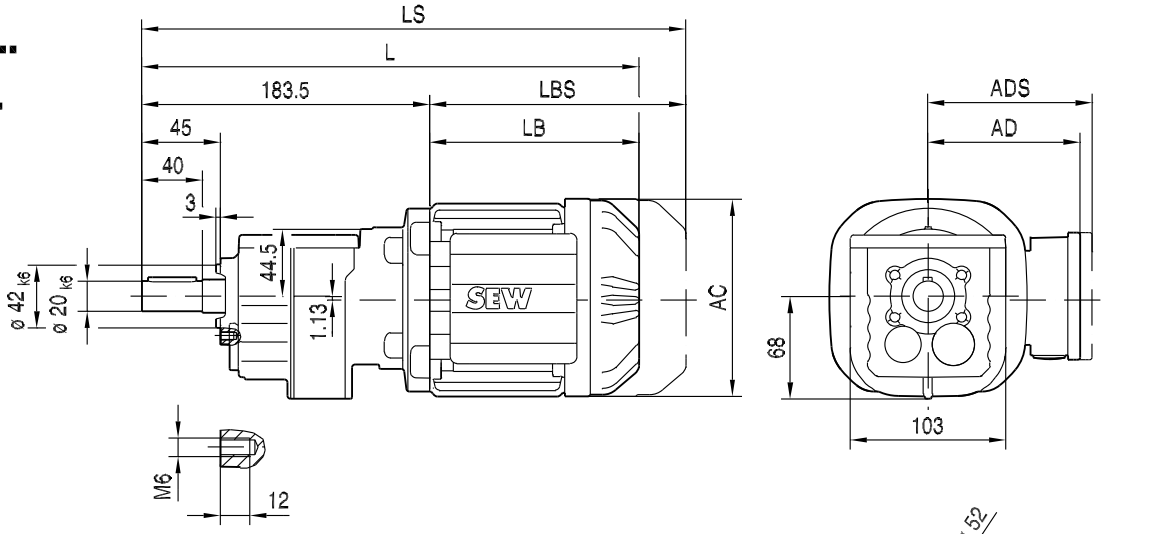
(→ 155)	DT56..	DR63..	DR71S	DR71M				
AC	109	132	139	139				
AD	87	105	119	119				
ADS	87	105	129	129				
L	309	340	351	376				
LS	345	395	419	444				
LB	136	149	160	185				
LBS	172	204	228	253				

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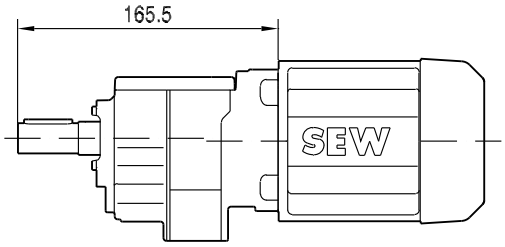
01 018 00 14

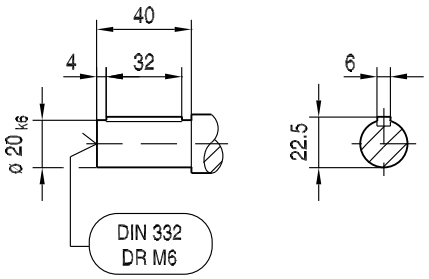
RZ07..

DR..



DT56..

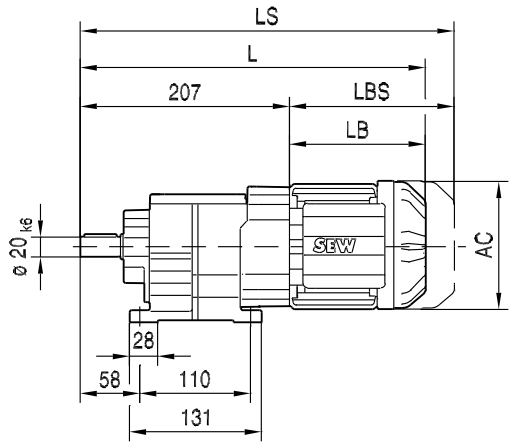


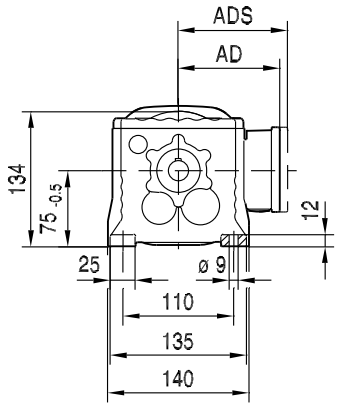


(→ 🗎 155)	DT56..	DR63..	DR71S	DR71M				
AC	109	132	139	139				
AD	87	105	119	119				
ADS	87	105	129	129				
L	302	333	344	369				
LS	338	388	412	437				
LB	136	149	160	185				
LBS	172	204	228	253				

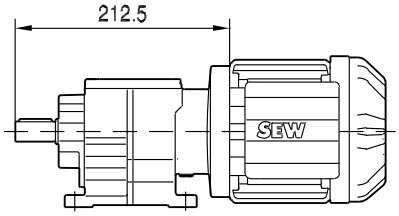
01 019 00 14

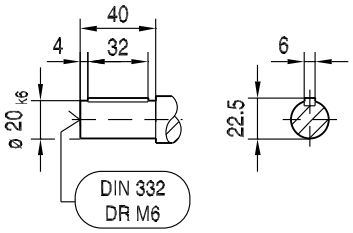
R17..



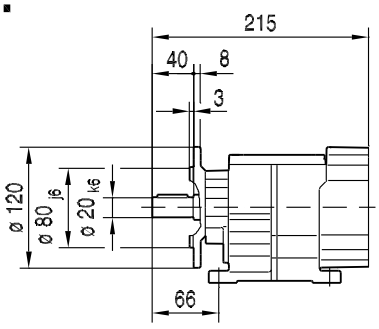


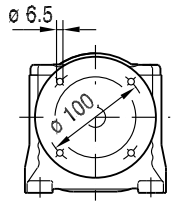
DR80..



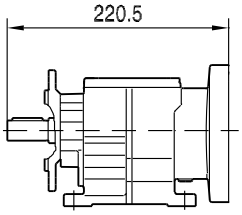


R17F..





DR80..

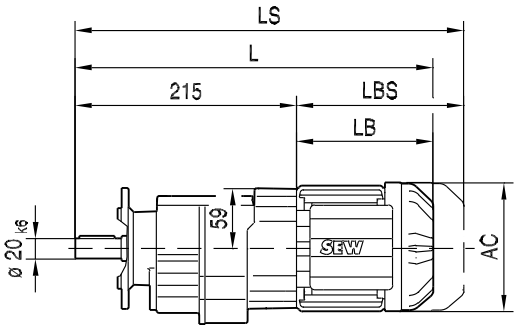


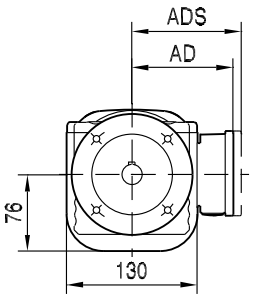
(→ 🗎 155)	DR63..	DR71S	DR71M	DRN80M				
AC	132	139	139	156				
AD	105	119	119	128				
ADS	105	129	129	139				
L	356	367	392	442				
LS	411	435	460	523				
LB	149	160	185	235				
LBS	204	228	253	316				

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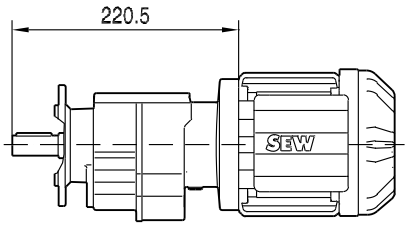
01 020 00 14

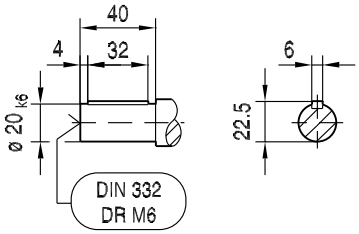
RF17..



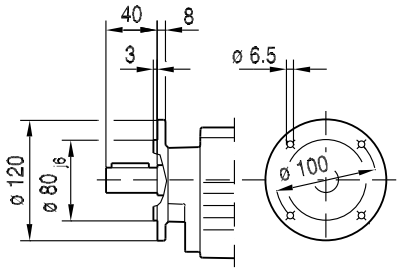


DR80..

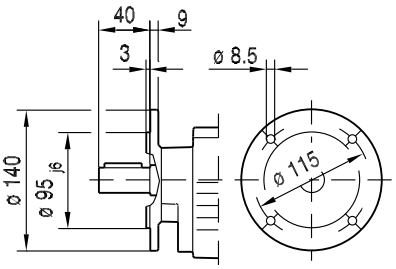




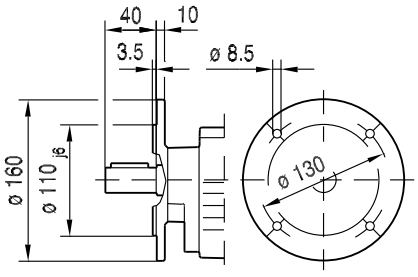
ø 120



ø 140



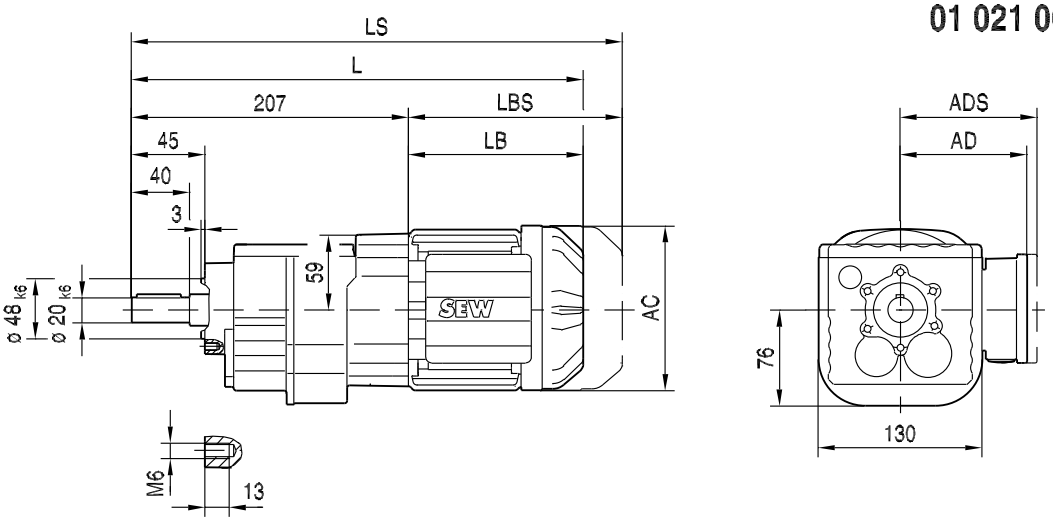
ø 160



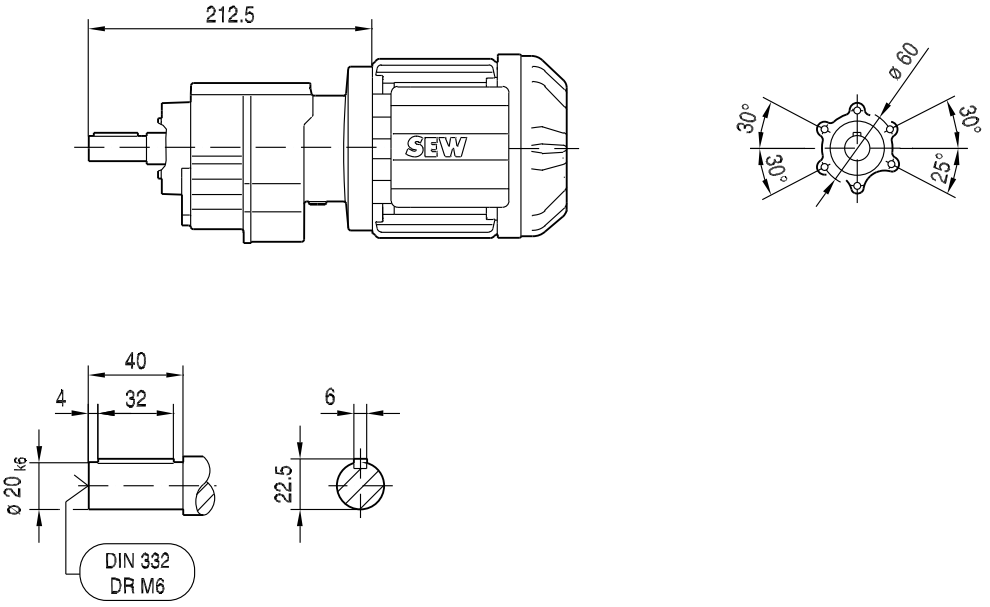
(→ 155)	DR63..	DR71S	DR71M	DRN80M				
AC	132	139	139	156				
AD	105	119	119	128				
ADS	105	129	129	139				
L	364	375	400	450				
LS	419	443	468	531				
LB	149	160	185	235				
LBS	204	228	253	316				

01 021 00 14

RZ17..



DR80..

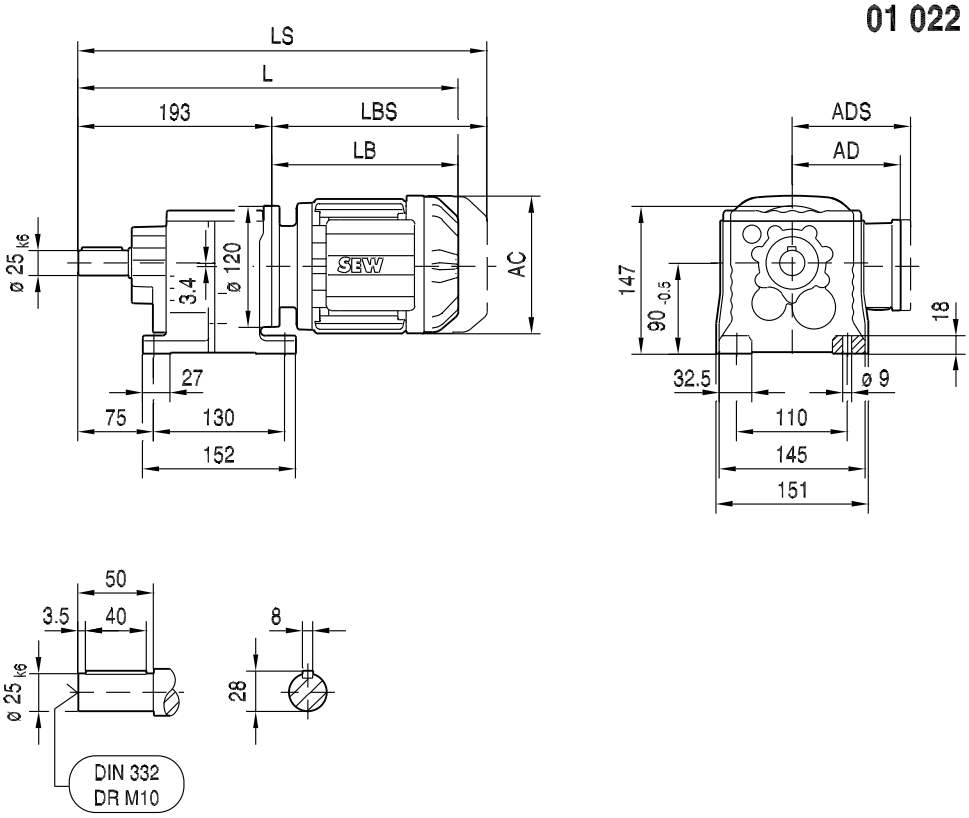


(→ 155)	DR63..	DR71S	DR71M	DRN80M				
AC	132	139	139	156				
AD	105	119	119	128				
ADS	105	129	129	139				
L	356	367	392	442				
LS	411	435	460	523				
LB	149	160	185	235				
LBS	204	228	253	316				

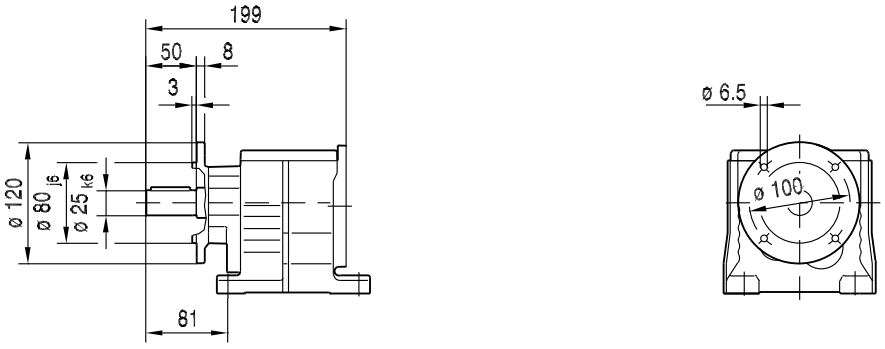
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01 022 00 14

R27..



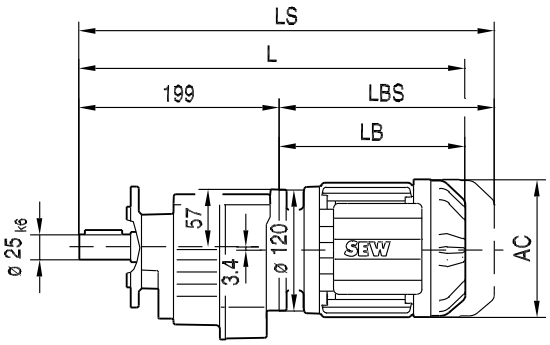
R27F..

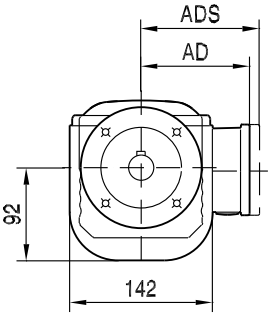


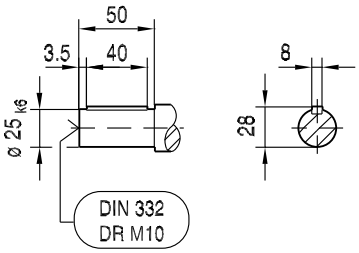
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	384	395	420	475	476	508	507	557
LS	439	463	488	556	570	602	601	651
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

01 023 00 14

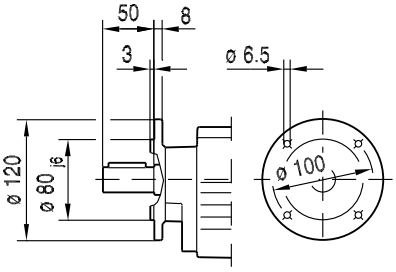
RF27..



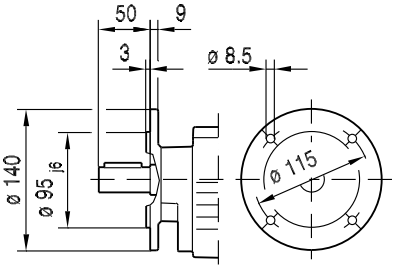




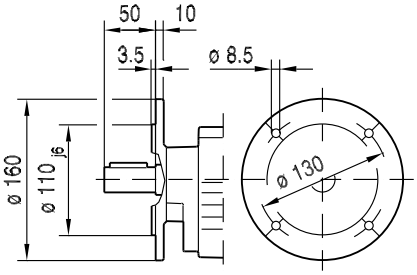
ø 120



ø 140

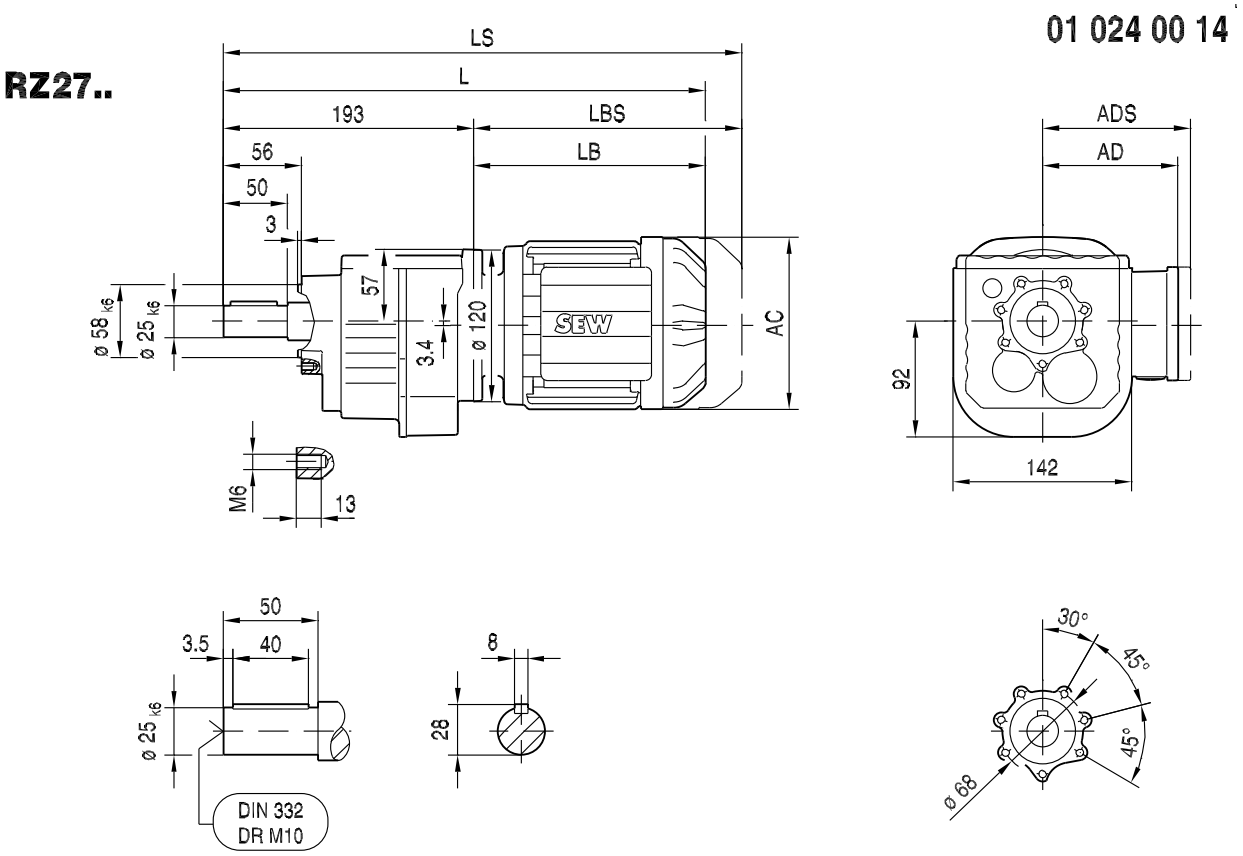


ø 160



(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	390	401	426	481	482	514	513	563
LS	445	469	494	562	576	608	607	657
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

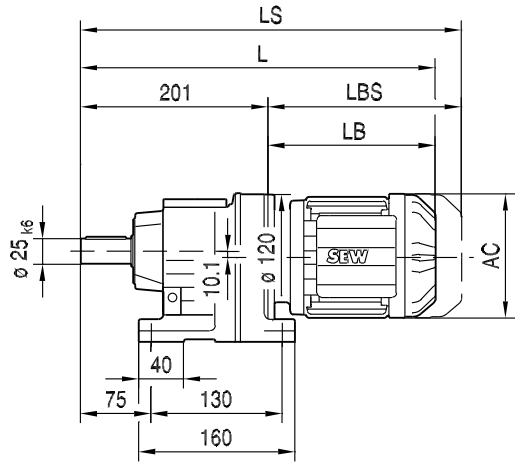
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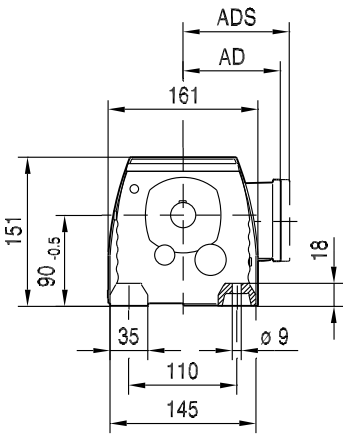


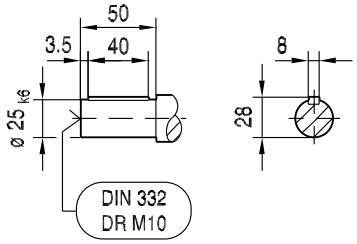
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	384	395	420	475	476	508	507	557
LS	439	463	488	556	570	602	601	651
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

01 025 00 14

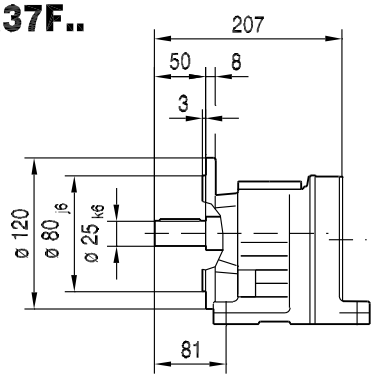
R37..

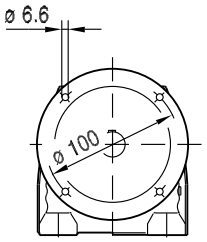






R37F..



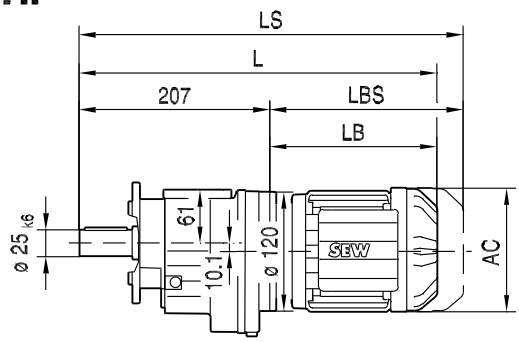


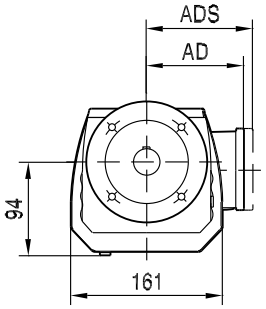
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	392	403	428	483	484	516	515	565
LS	447	471	496	564	578	610	609	659
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

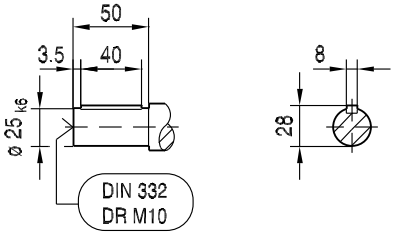
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01 026 00 14

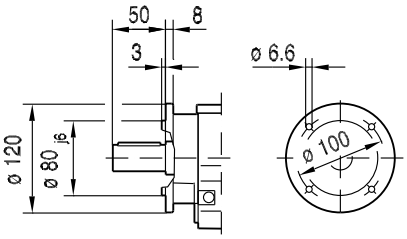
RF37..



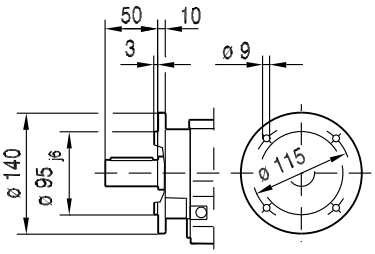




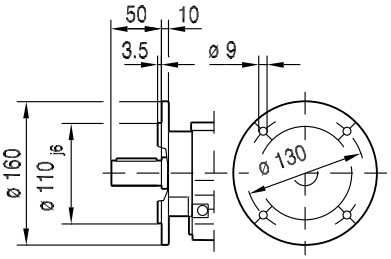
ø 120



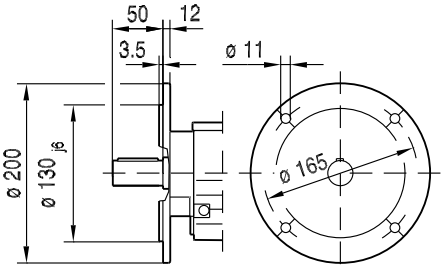
ø 140



ø 160



ø 200

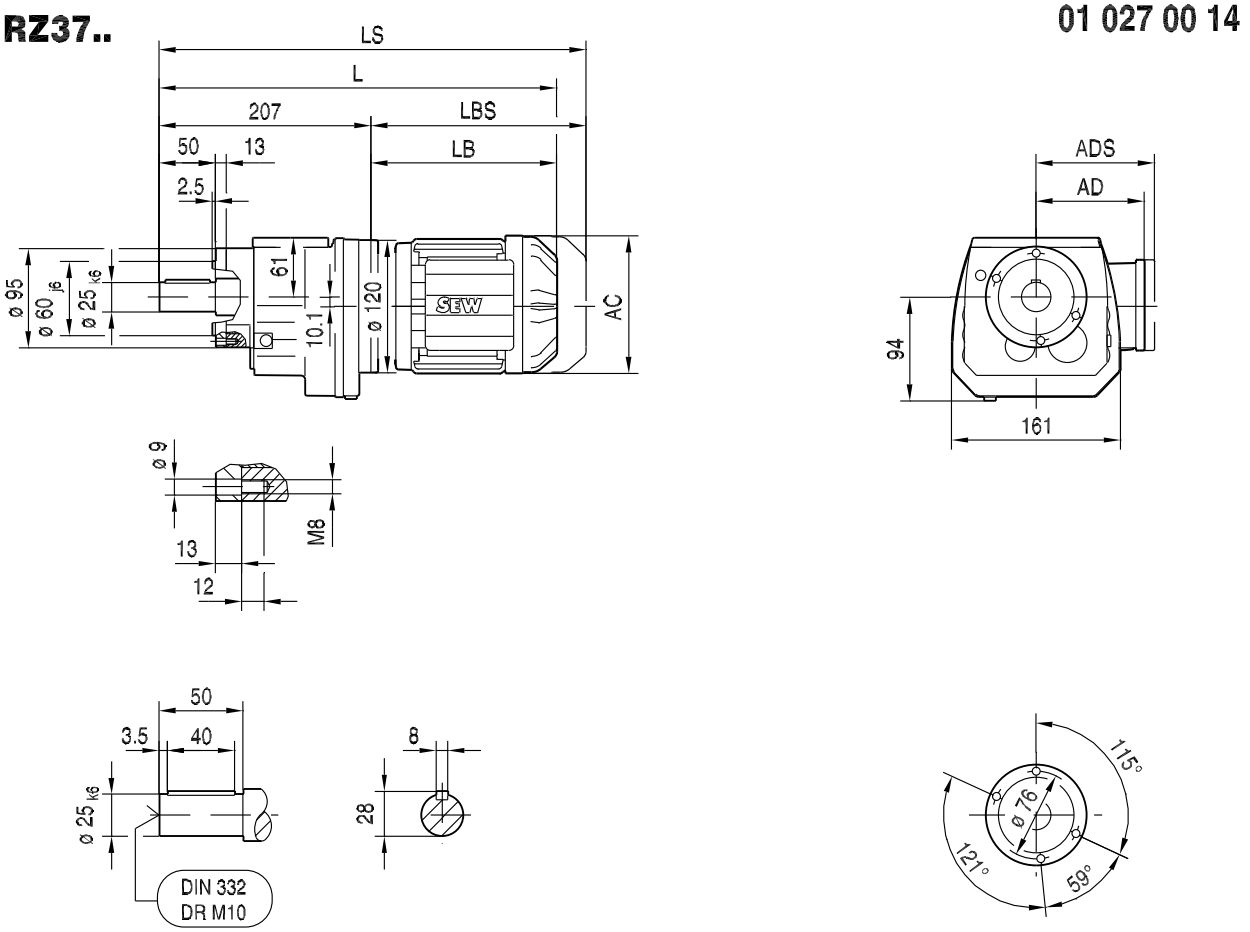


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	398	409	434	489	490	522	521	571
LS	453	477	502	570	584	616	615	665
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

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RZ37..

01 027 00 14

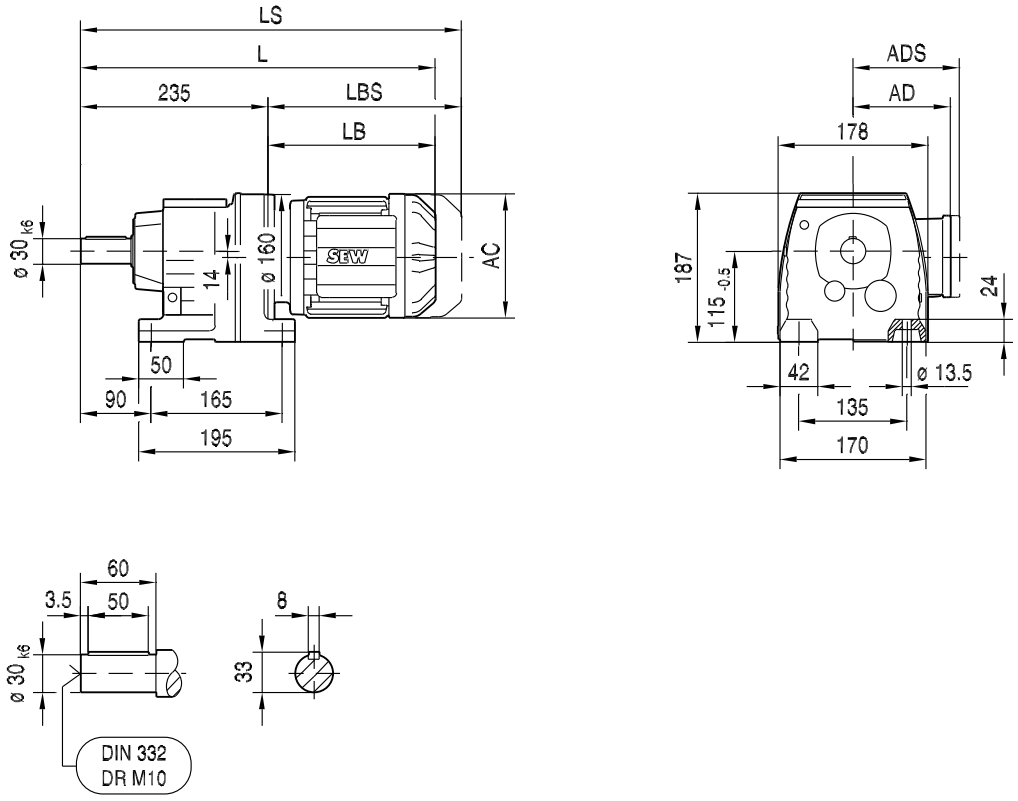


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	398	409	434	489	490	522	521	571
LS	453	477	502	570	584	616	615	665
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

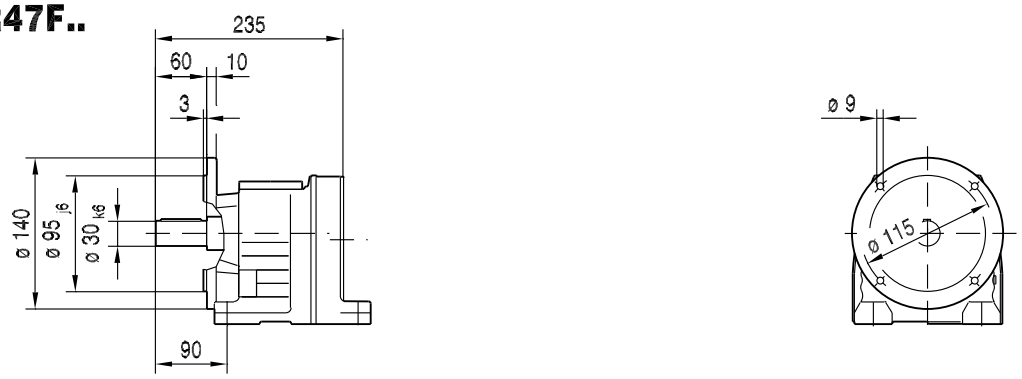
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01 028 00 14

R47..



R47F..

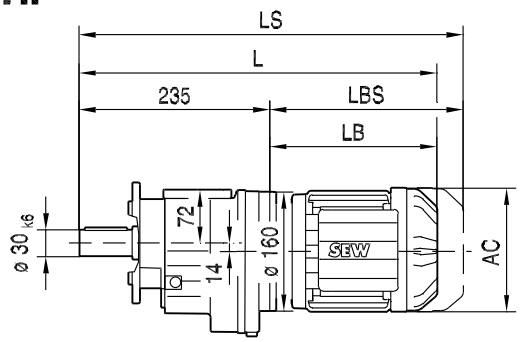


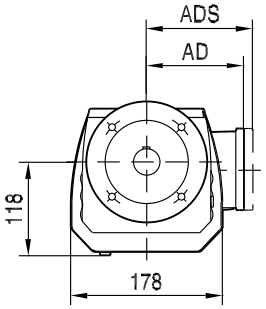
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	420	431	456	510	512	544	540	590	621	675
LS	475	499	524	591	605	637	634	684	733	787
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

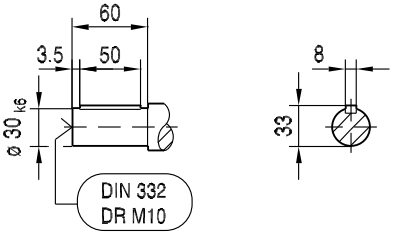
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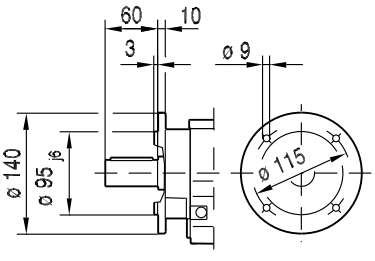
RF47..



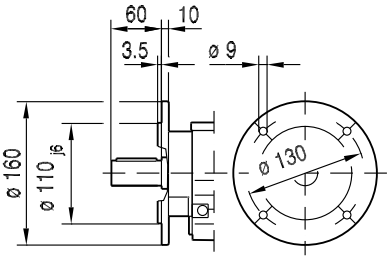




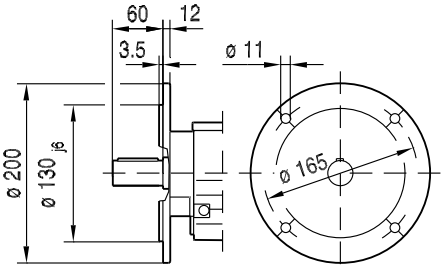
ø 140



ø 160



ø 200

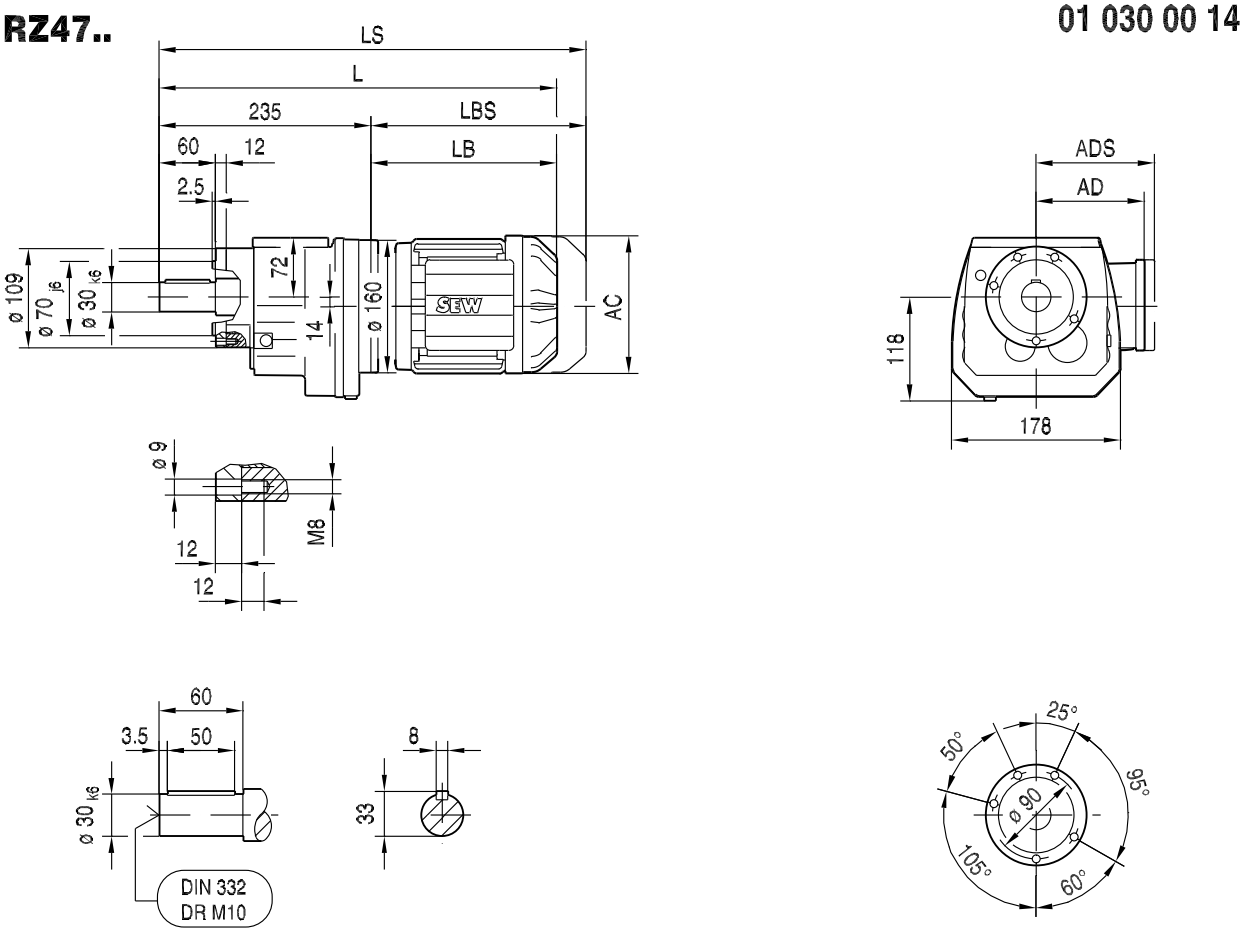


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	420	431	456	510	512	544	540	590	621	675
LS	475	499	524	591	605	637	634	684	733	787
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

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RZ47..

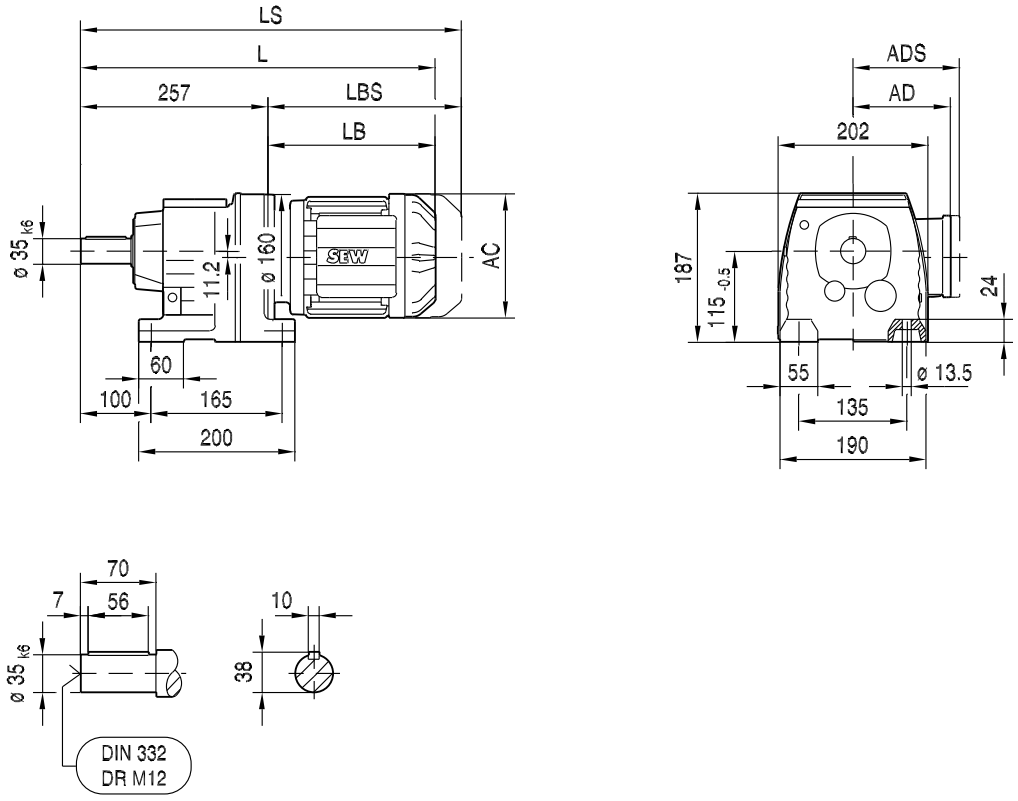
01 030 00 14



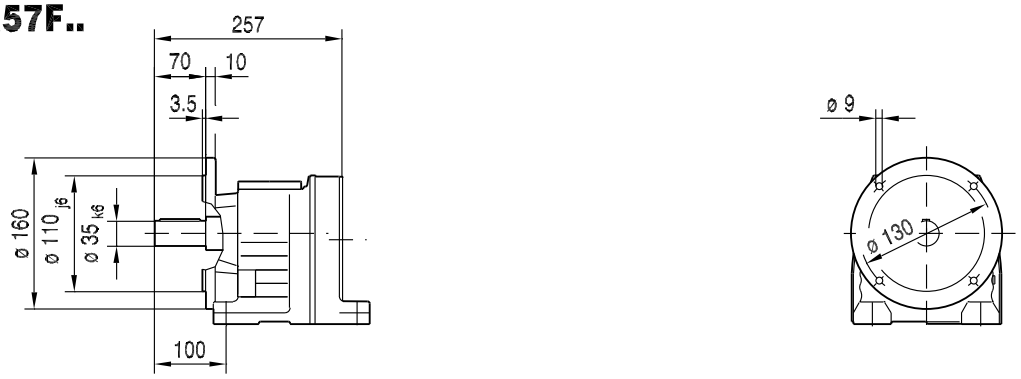
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	420	431	456	510	512	544	540	590	621	675
LS	475	499	524	591	605	637	634	684	733	787
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

01 031 00 14

R57..



R57F..

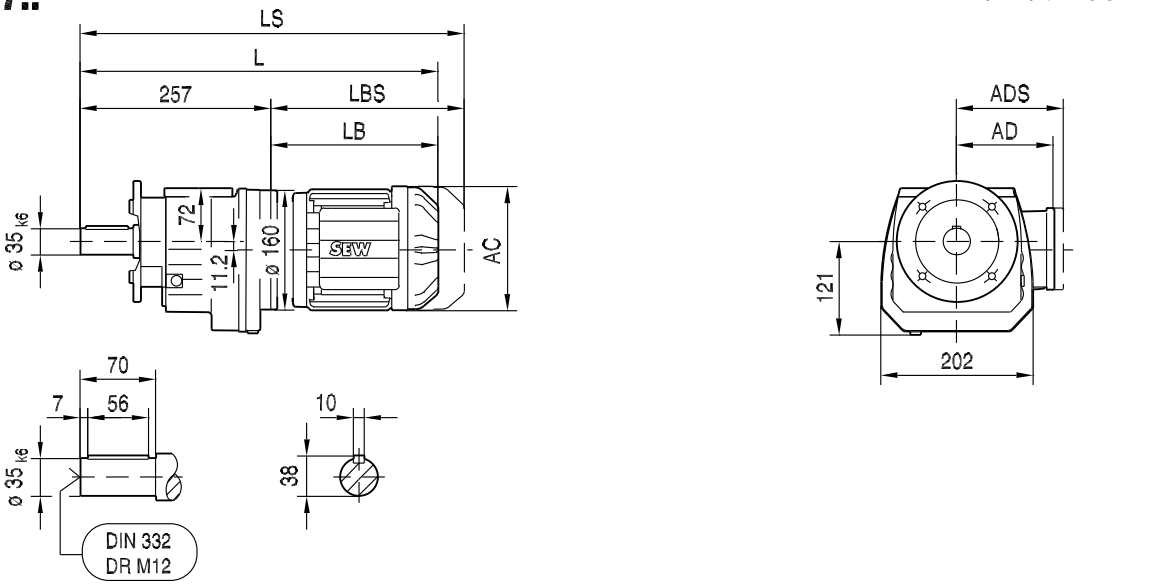


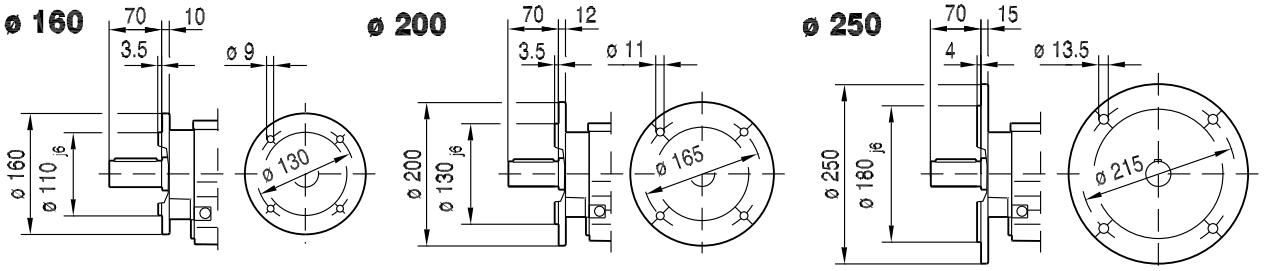
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M
AC	132	139	139	156	179	179	197	197	221	221	261
AD	105	119	119	128	140	140	157	157	170	170	228
ADS	105	129	129	139	150	150	158	158	172	172	228
L	442	453	478	532	534	566	562	612	643	697	715
LS	497	521	546	613	627	659	656	706	755	809	853
LB	185	196	221	275	277	309	305	355	386	440	458
LBS	240	264	289	356	370	402	399	449	498	552	596

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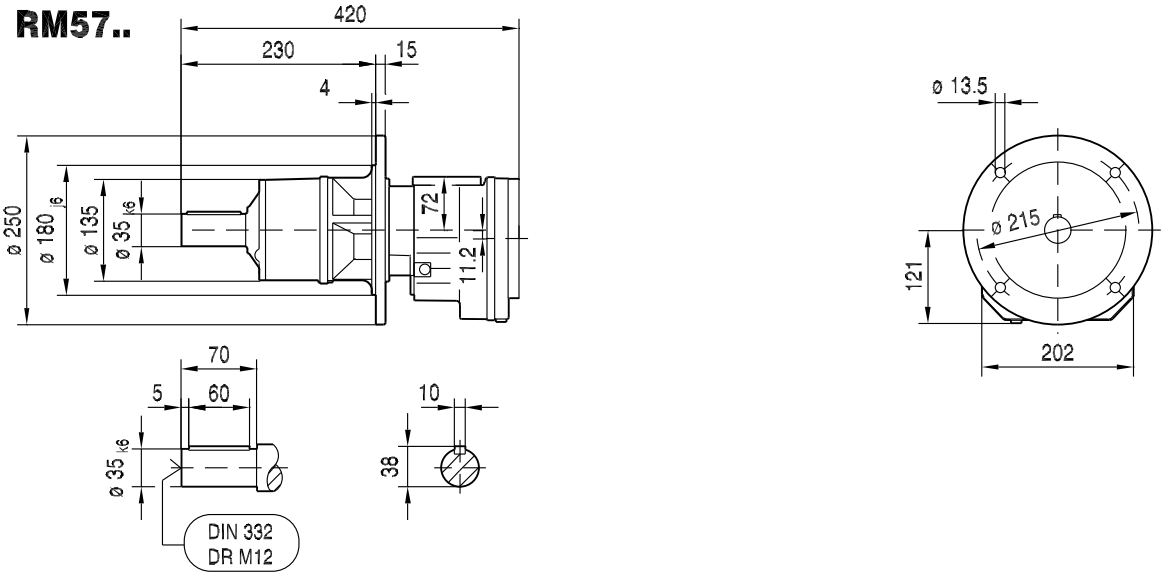
RF57..

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RM57..

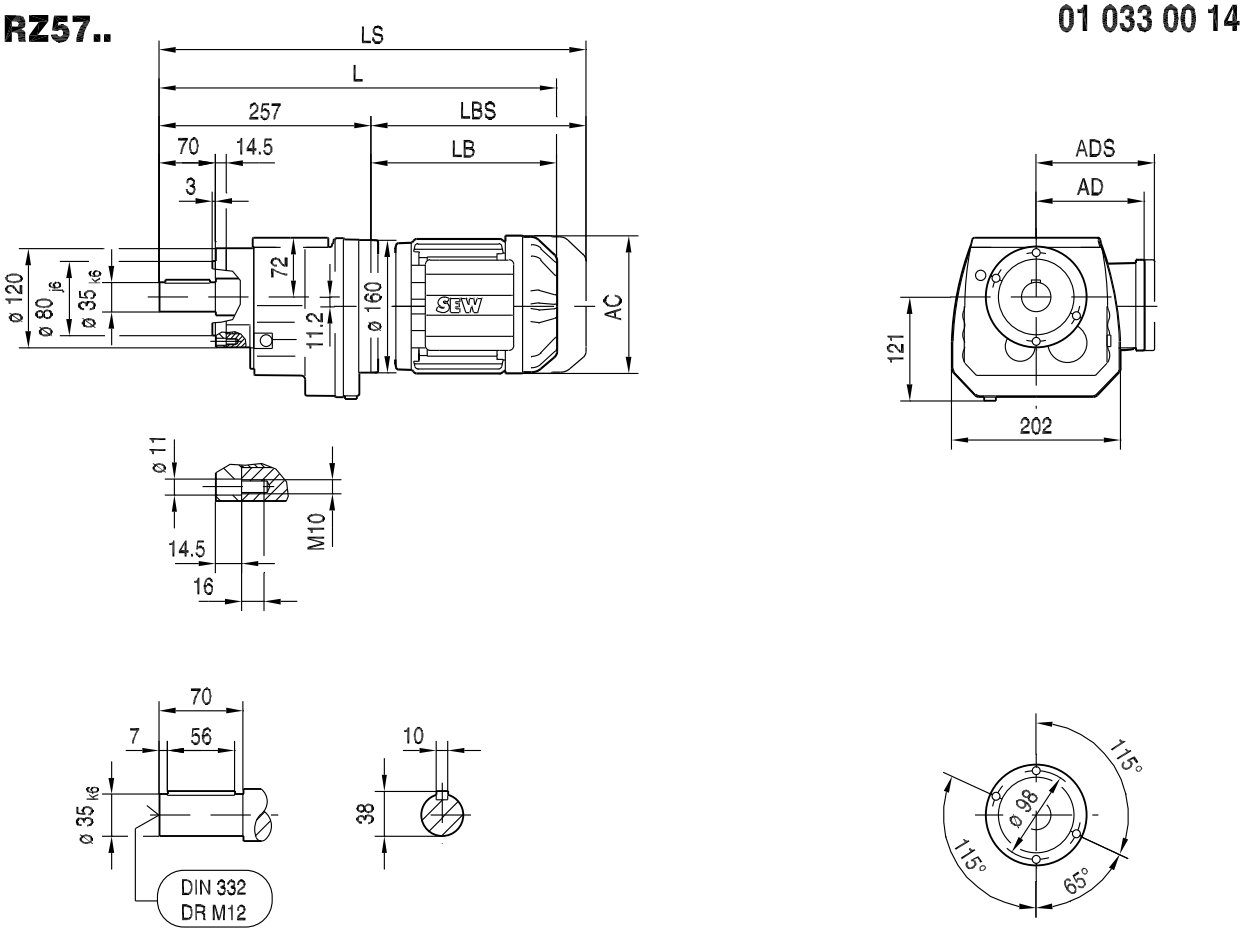


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M
AC	132	139	139	156	179	179	197	197	221	221	261
AD	105	119	119	128	140	140	157	157	170	170	228
ADS	105	129	129	139	150	150	158	158	172	172	228
L	442	453	478	532	534	566	562	612	643	697	715
LS	497	521	546	613	627	659	656	706	755	809	853
LB	185	196	221	275	277	309	305	355	386	440	458
LBS	240	264	289	356	370	402	399	449	498	552	596

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RZ57..

01 033 00 14

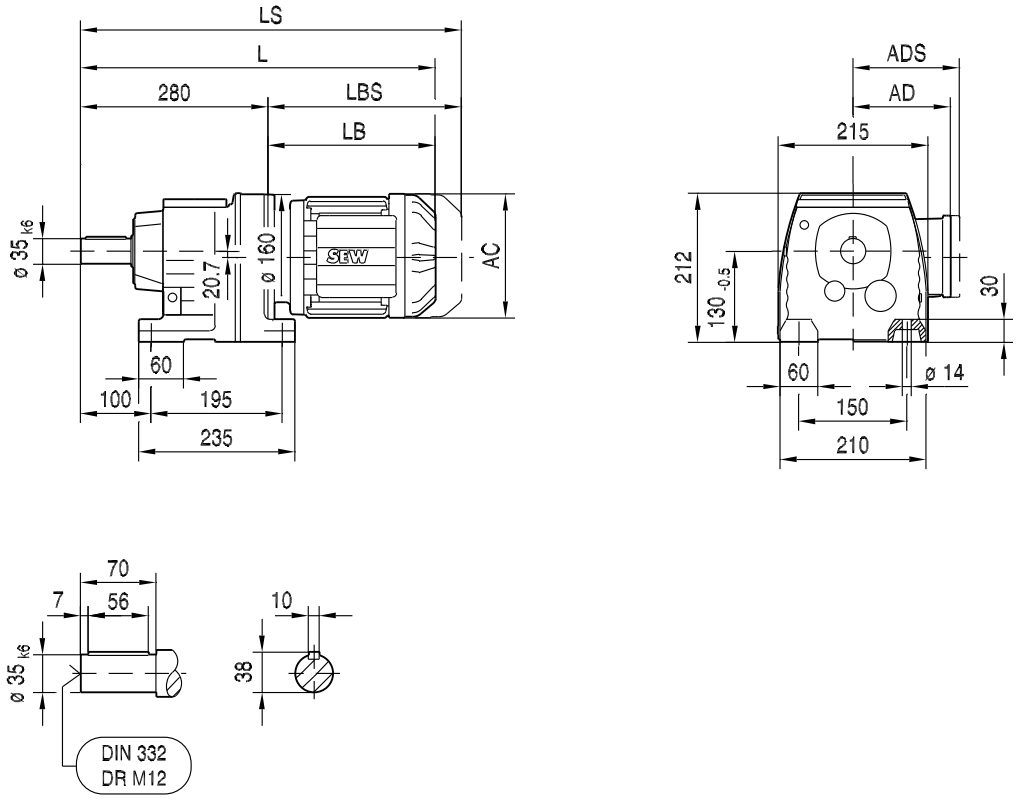


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M
AC	132	139	139	156	179	179	197	197	221	221	261
AD	105	119	119	128	140	140	157	157	170	170	228
ADS	105	129	129	139	150	150	158	158	172	172	228
L	442	453	478	532	534	566	562	612	643	697	715
LS	497	521	546	613	627	659	656	706	755	809	853
LB	185	196	221	275	277	309	305	355	386	440	458
LBS	240	264	289	356	370	402	399	449	498	552	596

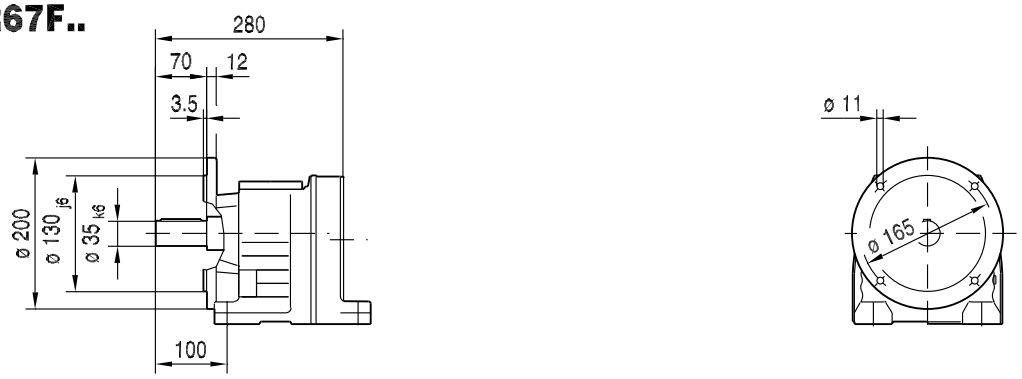
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R67..



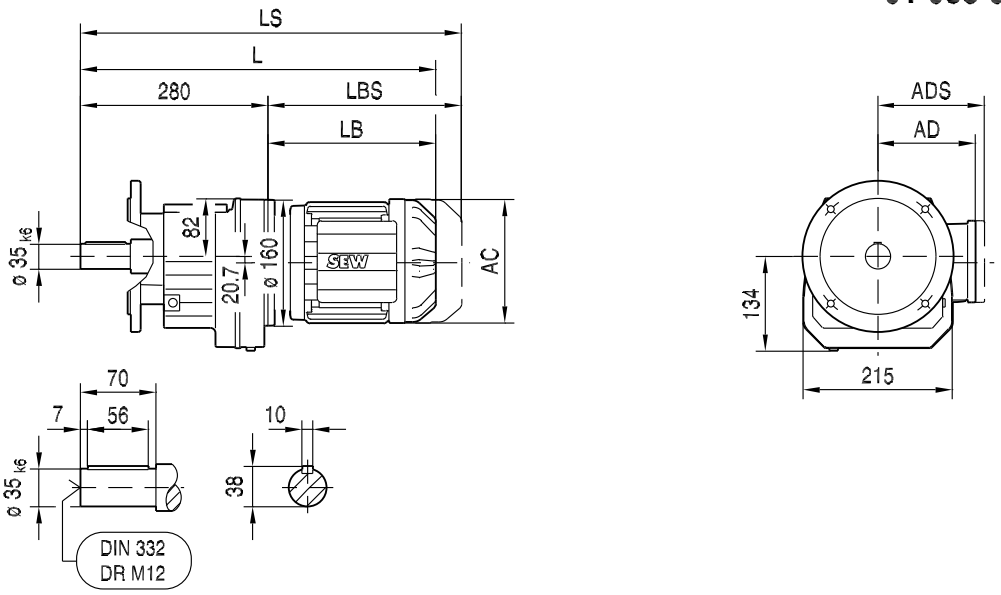
R67F..



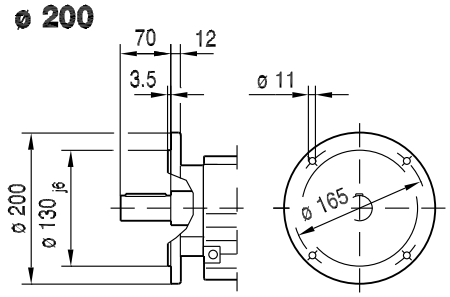
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M
AC	132	139	139	156	179	179	197	197	221	221	261
AD	105	119	119	128	140	140	157	157	170	170	228
ADS	105	129	129	139	150	150	158	158	172	172	228
L	465	476	501	555	557	589	585	635	666	720	738
LS	520	544	569	636	650	682	679	729	778	832	876
LB	185	196	221	275	277	309	305	355	386	440	458
LBS	240	264	289	356	370	402	399	449	498	552	596

01 035 00 14

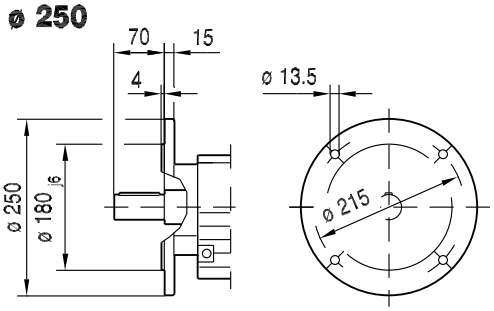
RF67..



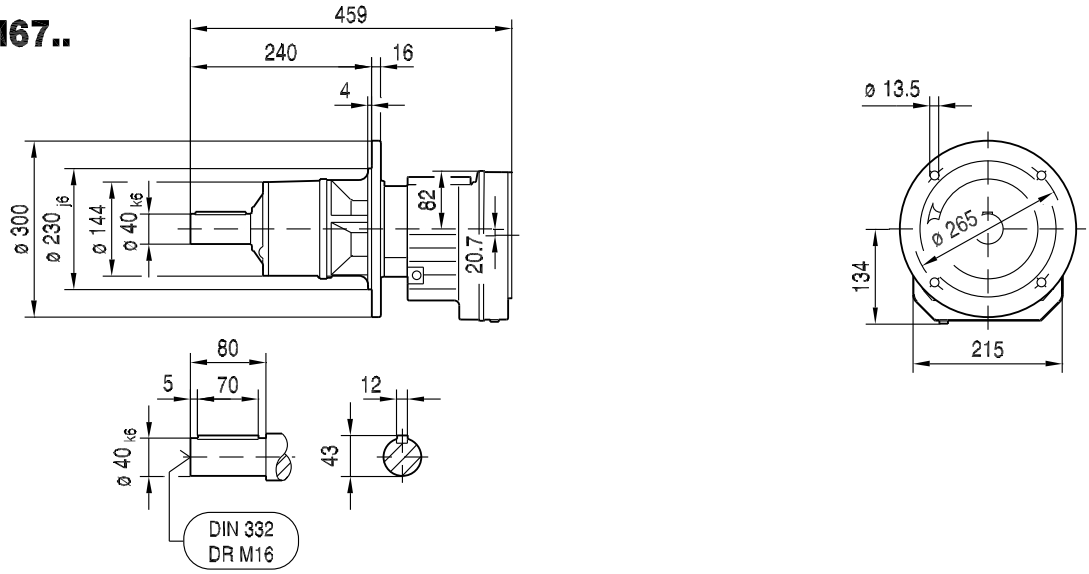
ø 200



ø 250



RM67..

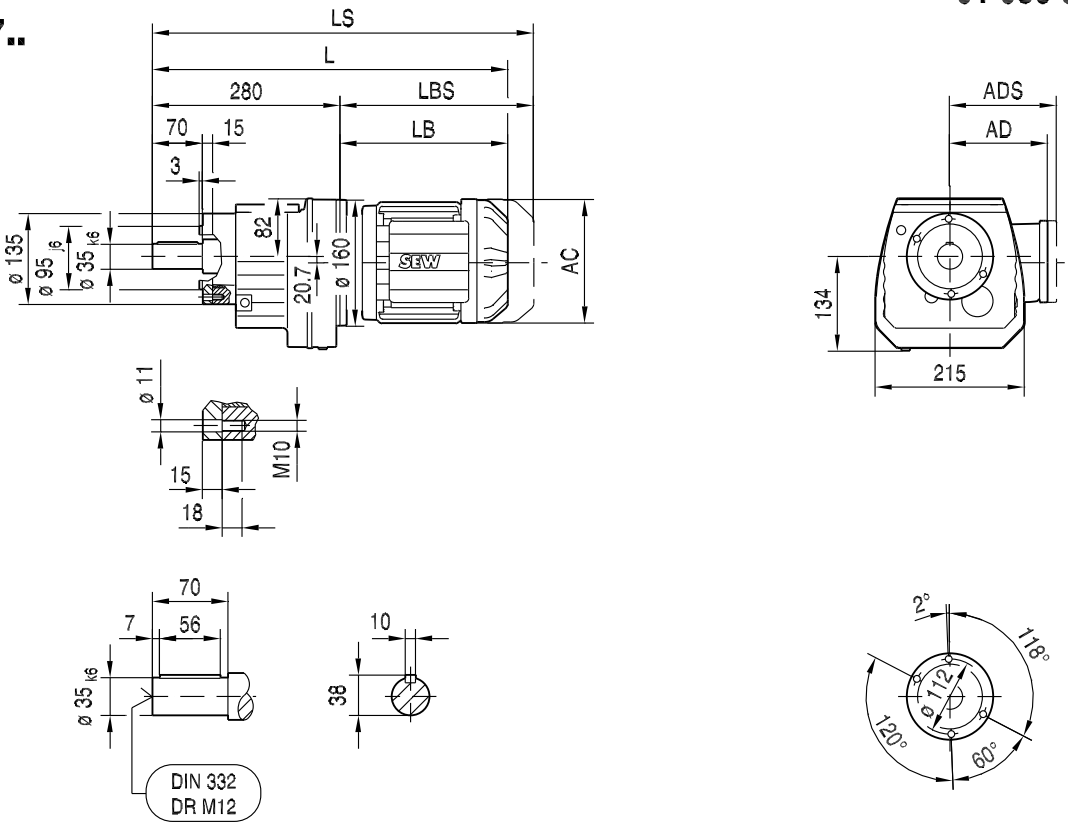


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M
AC	132	139	139	156	179	179	197	197	221	221	261
AD	105	119	119	128	140	140	157	157	170	170	228
ADS	105	129	129	139	150	150	158	158	172	172	228
L	465	476	501	555	557	589	585	635	666	720	738
LS	520	544	569	636	650	682	679	729	778	832	876
LB	185	196	221	275	277	309	305	355	386	440	458
LBS	240	264	289	356	370	402	399	449	498	552	596

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01 036 00 14

RZ67..

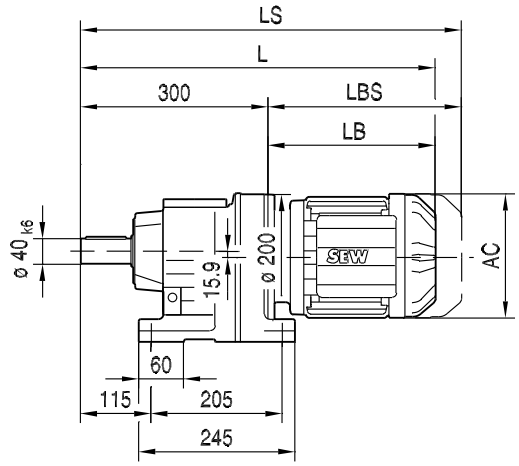


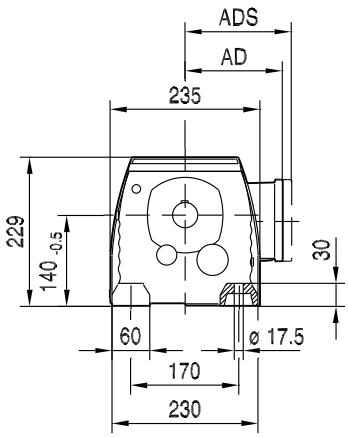
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M
AC	132	139	139	156	179	179	197	197	221	221	261
AD	105	119	119	128	140	140	157	157	170	170	228
ADS	105	129	129	139	150	150	158	158	172	172	228
L	465	476	501	555	557	589	585	635	666	720	738
LS	520	544	569	636	650	682	679	729	778	832	876
LB	185	196	221	275	277	309	305	355	386	440	458
LBS	240	264	289	356	370	402	399	449	498	552	596

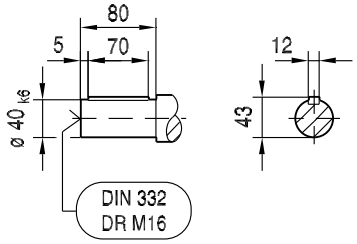
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01 037 00 14

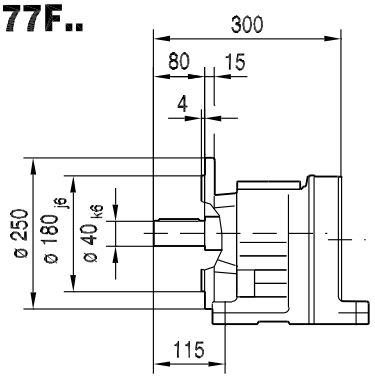
R77..

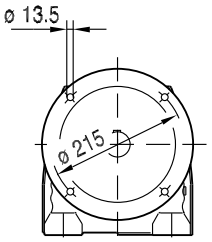






R77F..



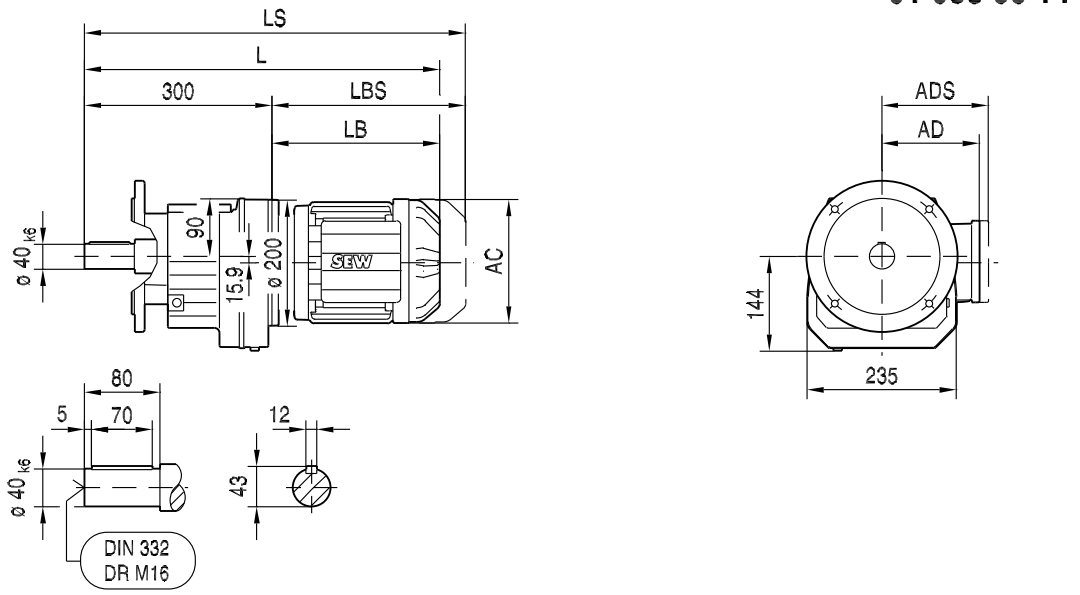


(→ 155)	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M
AC	156	179	179	197	197	221	221	261	261	314
AD	128	140	140	157	157	170	170	228	228	253
ADS	139	150	150	158	158	172	172	228	228	253
L	568	570	602	598	648	679	729	747	773	839
LS	649	663	695	692	742	791	841	885	910	1028
LB	268	270	302	298	348	379	429	447	473	539
LBS	349	363	395	392	442	491	541	585	610	728

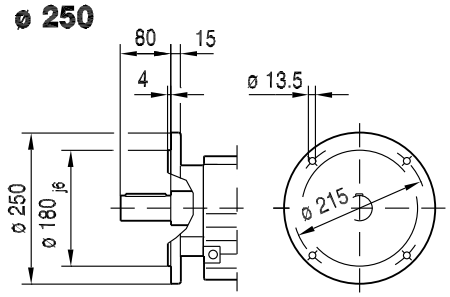
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01 038 00 14

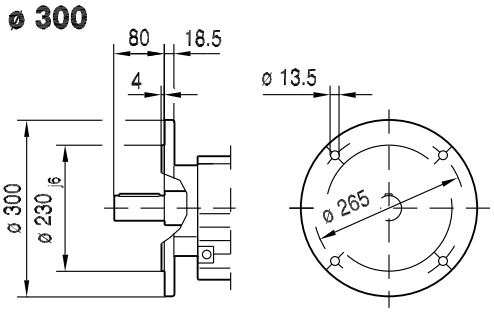
RF77..



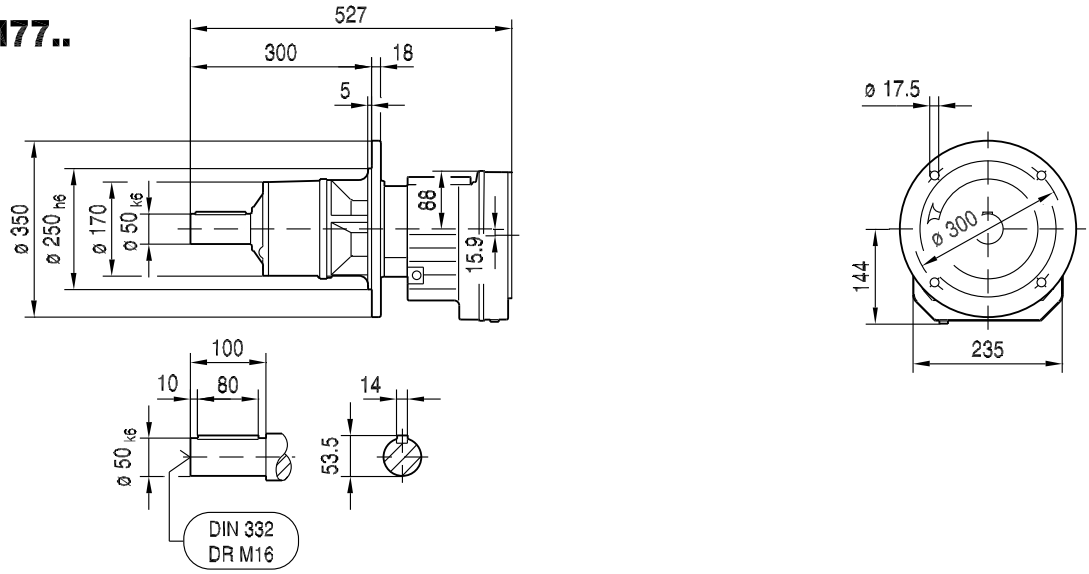
ø 250



ø 300



RM77..

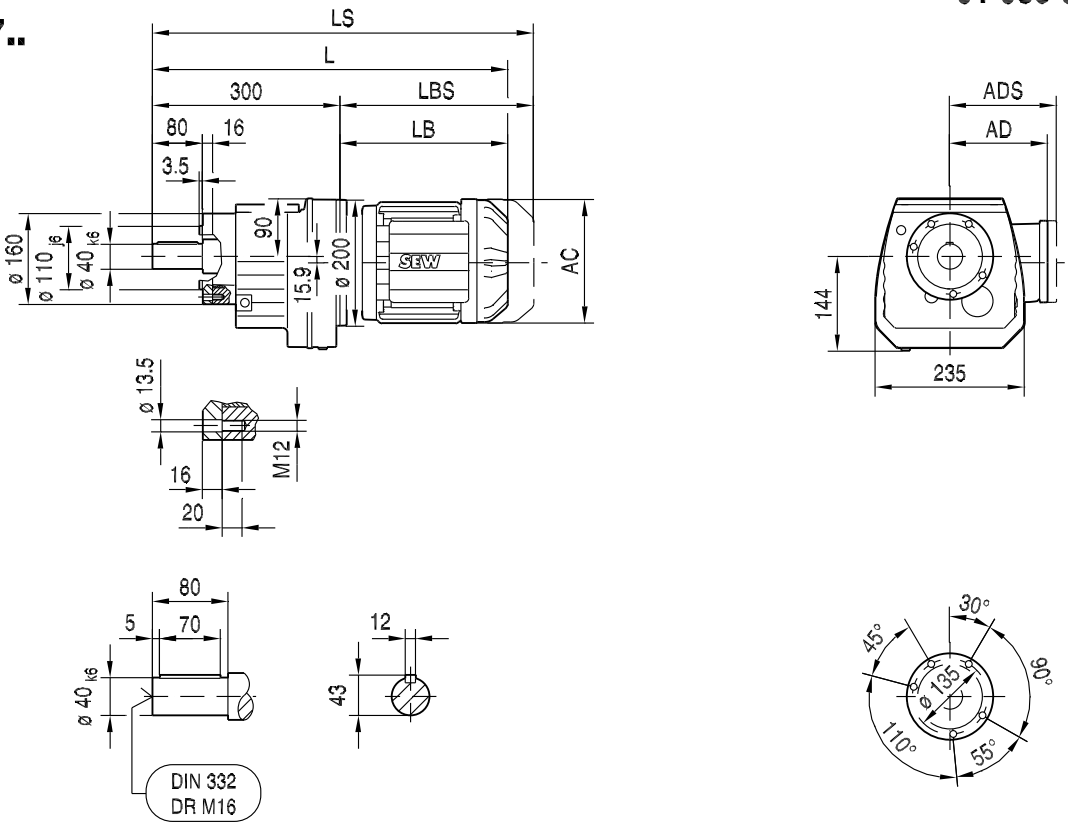


(→ 155)	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M
AC	156	179	179	197	197	221	221	261	261	314
AD	128	140	140	157	157	170	170	228	228	253
ADS	139	150	150	158	158	172	172	228	228	253
L	568	570	602	598	648	679	729	747	773	839
LS	649	663	695	692	742	791	841	885	910	1028
LB	268	270	302	298	348	379	429	447	473	539
LBS	349	363	395	392	442	491	541	585	610	728

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01 039 00 14

RZ77..

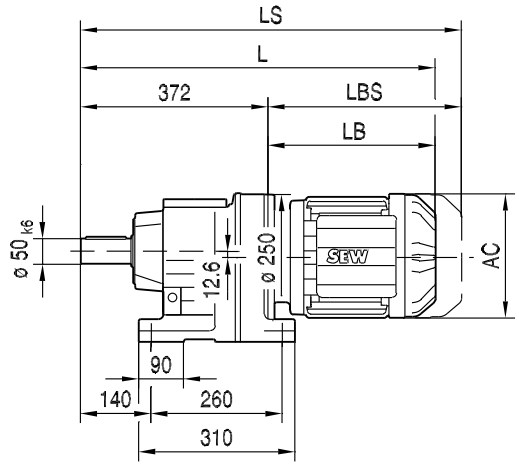


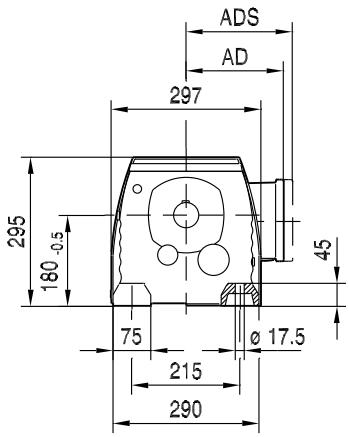
(→ 155)	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M
AC	156	179	179	197	197	221	221	261	261	314
AD	128	140	140	157	157	170	170	228	228	253
ADS	139	150	150	158	158	172	172	228	228	253
L	568	570	602	598	648	679	729	747	773	839
LS	649	663	695	692	742	791	841	885	910	1028
LB	268	270	302	298	348	379	429	447	473	539
LBS	349	363	395	392	442	491	541	585	610	728

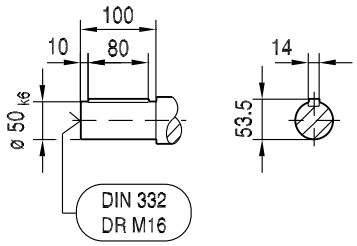
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01 040 00 14

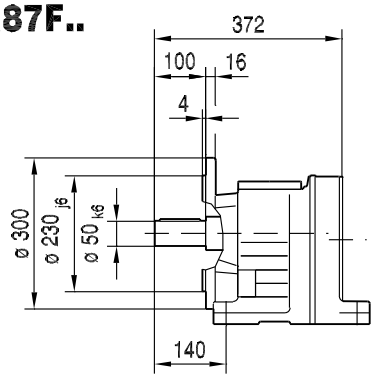
R87..

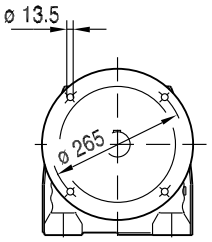






R87F..

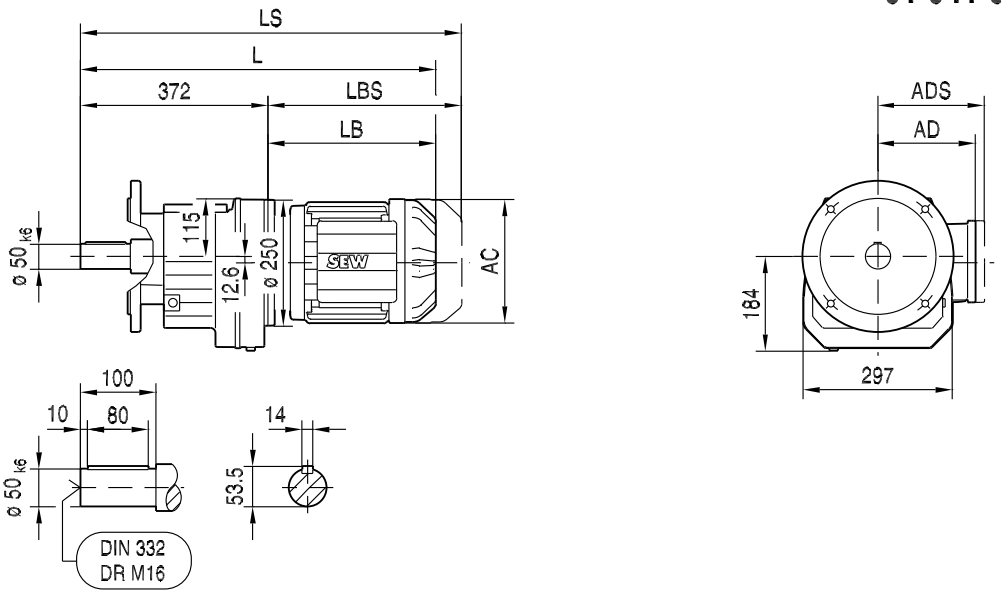




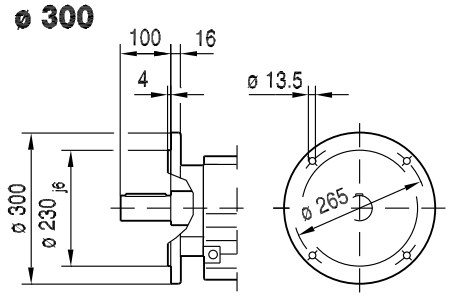
(→ 155)	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	179	197	197	221	221	261	261	314	314	357
AD	140	157	157	170	170	228	228	253	253	268
ADS	150	158	158	172	172	228	228	253	253	268
L	669	665	715	746	796	814	840	906	906	929
LS	762	759	809	858	908	952	977	1095	1095	1118
LB	297	293	343	374	424	442	468	534	534	557
LBS	390	387	437	486	536	580	605	723	723	746

01 041 00 14

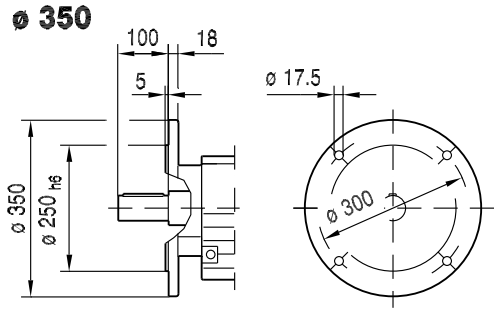
RF87..



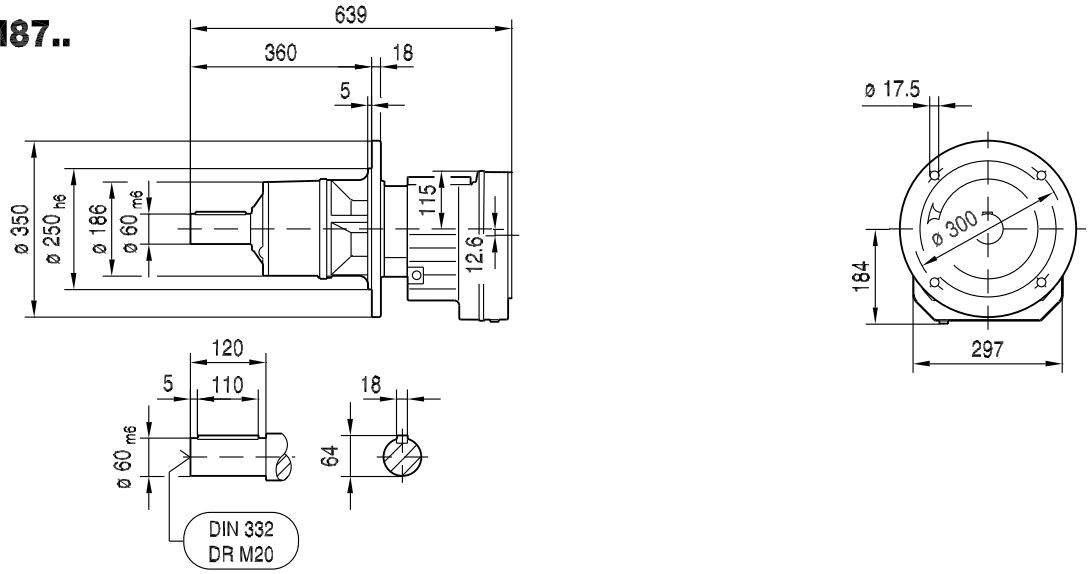
ø 300



ø 350



RM87..

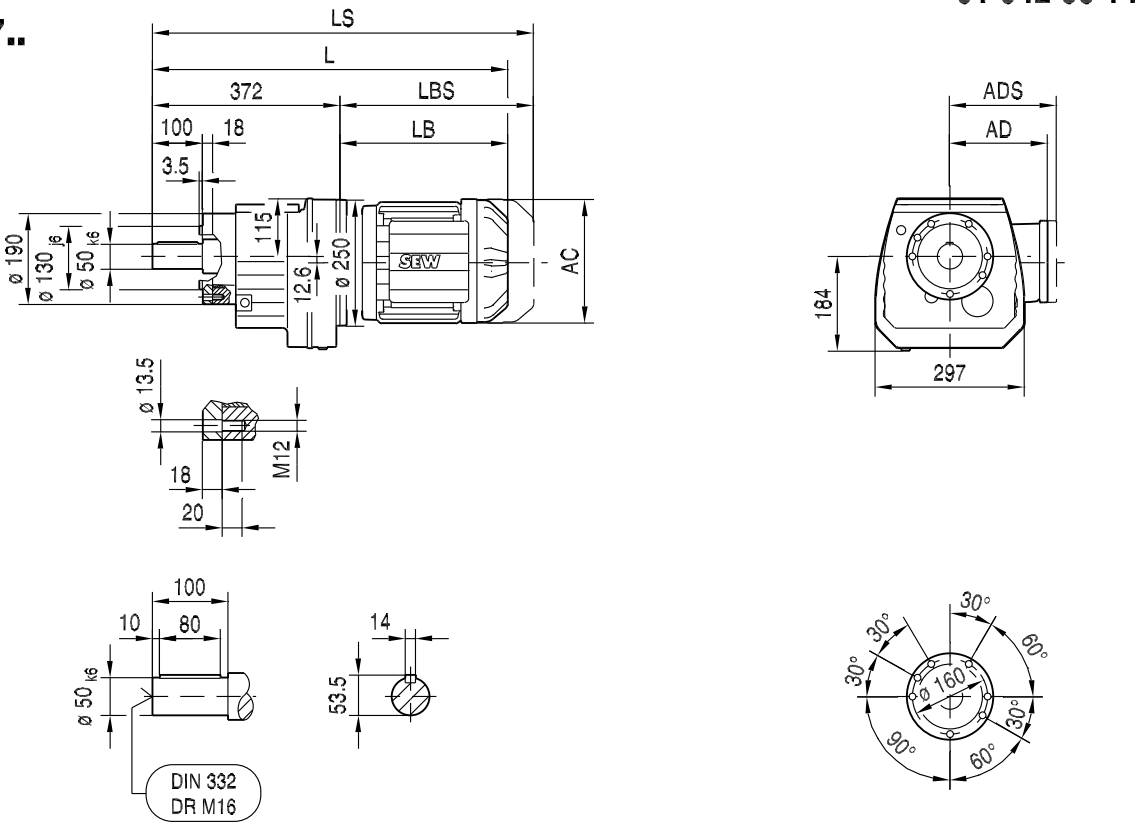


(→ 155)	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	179	197	197	221	221	261	261	314	314	357
AD	140	157	157	170	170	228	228	253	253	268
ADS	150	158	158	172	172	228	228	253	253	268
L	669	665	715	746	796	814	840	906	906	929
LS	762	759	809	858	908	952	977	1095	1095	1118
LB	297	293	343	374	424	442	468	534	534	557
LBS	390	387	437	486	536	580	605	723	723	746

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01 042 00 14

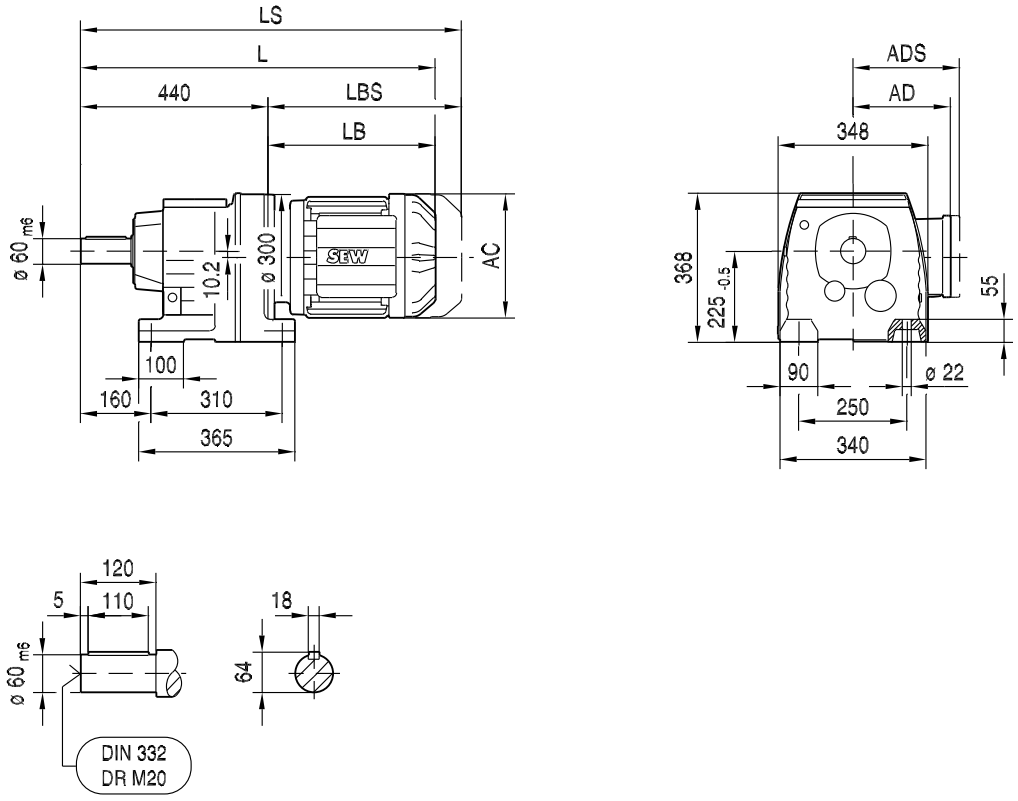
RZ87..



(→ 155)	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	179	197	197	221	221	261	261	314	314	357
AD	140	157	157	170	170	228	228	253	253	268
ADS	150	158	158	172	172	228	228	253	253	268
L	669	665	715	746	796	814	840	906	906	929
LS	762	759	809	858	908	952	977	1095	1095	1118
LB	297	293	343	374	424	442	468	534	534	557
LBS	390	387	437	486	536	580	605	723	723	746

01 043 00 14

R97..

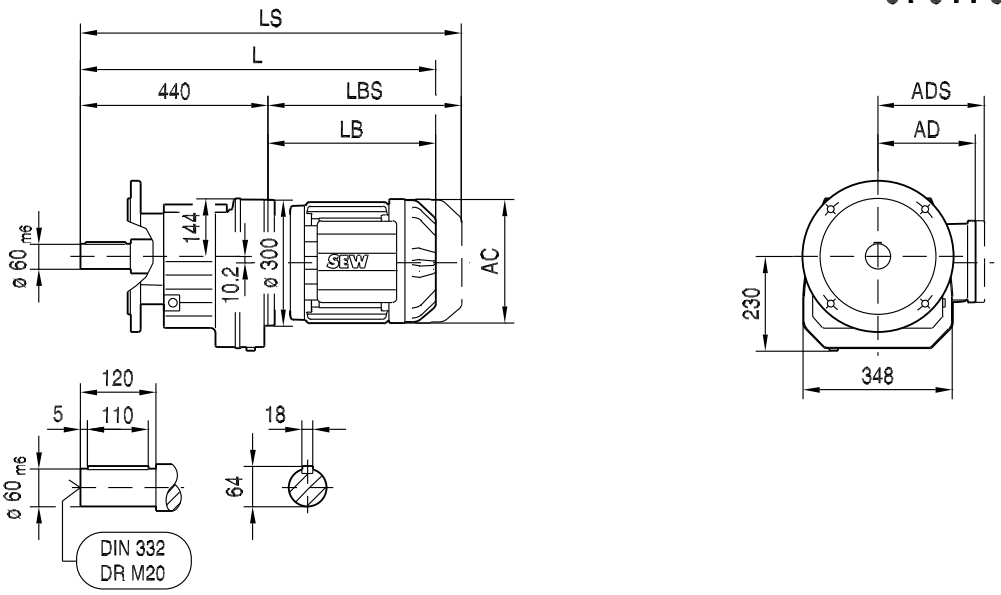


(→ 155)	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L
AC	197	197	221	221	261	261	314	314	357	394
AD	157	157	170	170	228	228	253	253	268	283
ADS	158	158	172	172	228	228	253	253	268	283
L	728	778	809	859	877	903	969	969	992	1102
LS	822	872	921	971	1015	1040	1158	1158	1181	1307
LB	288	338	369	419	437	463	529	529	552	662
LBS	382	432	481	531	575	600	718	718	741	867

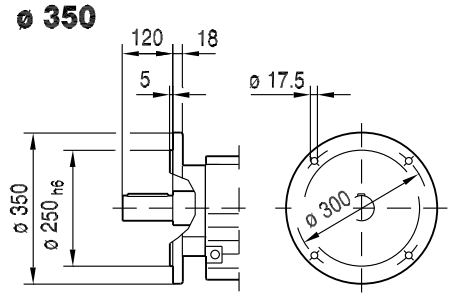
21933189/EN – 11/2015

01 044 00 14

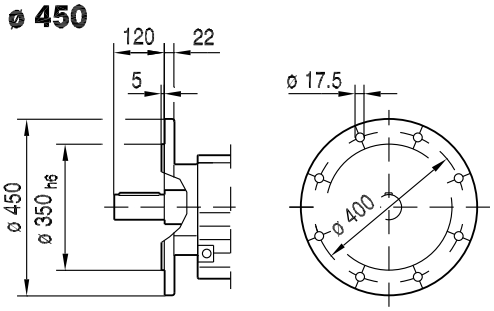
RF97..



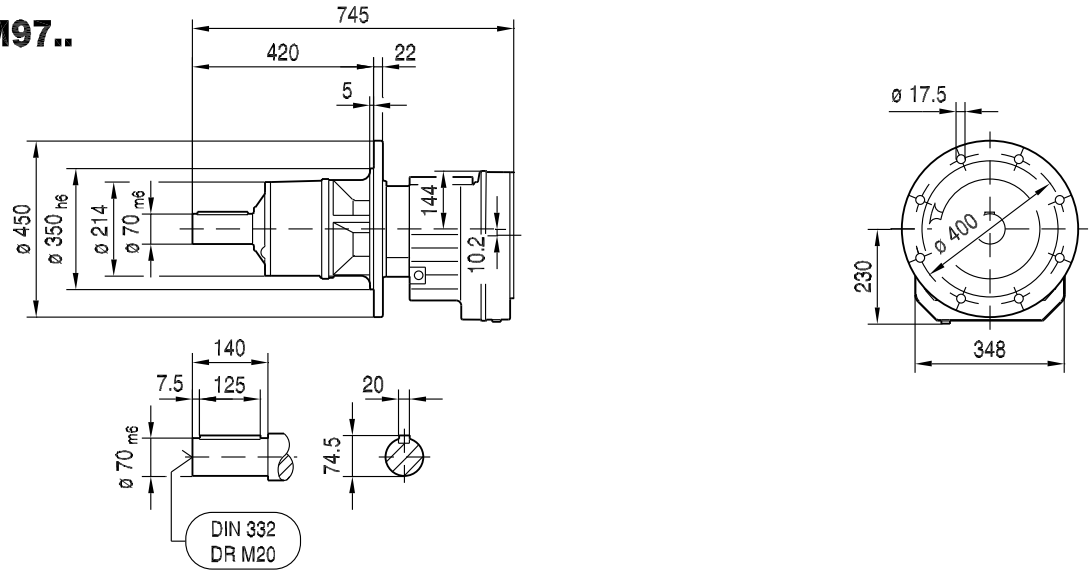
ø 350



ø 450



RM97..

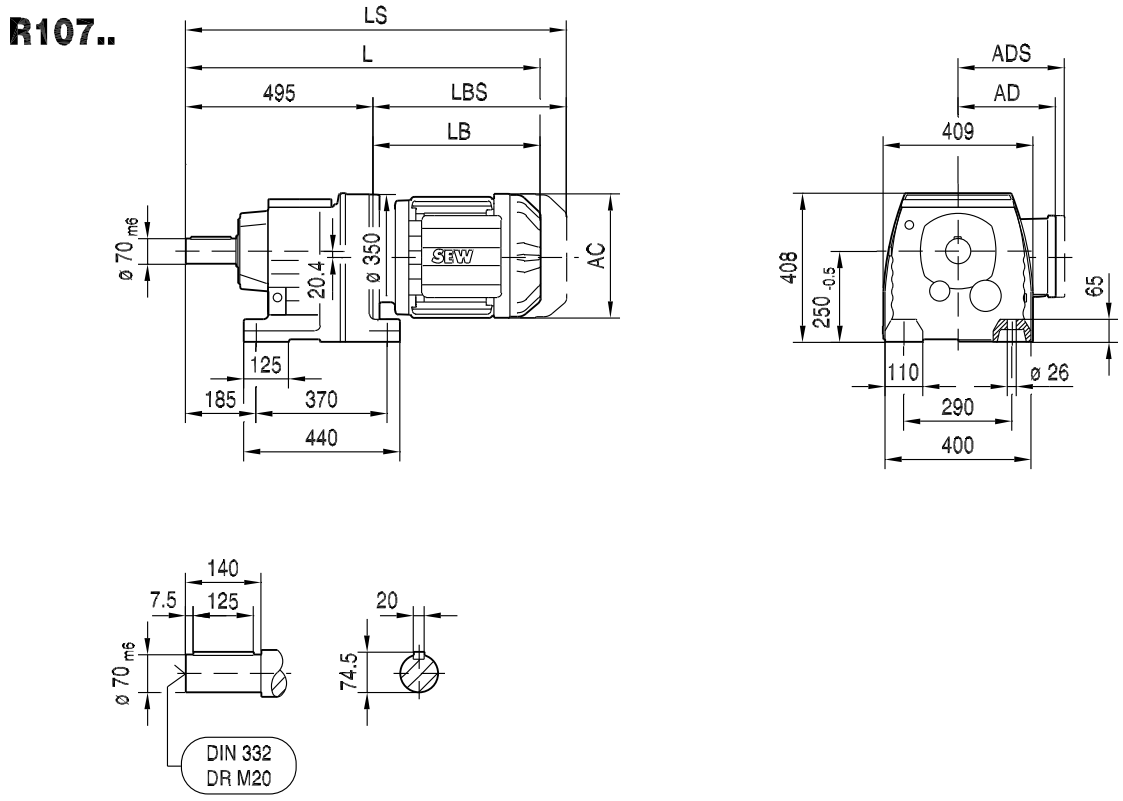


(→ 155)	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L
AC	197	197	221	221	261	261	314	314	357	394
AD	157	157	170	170	228	228	253	253	268	283
ADS	158	158	172	172	228	228	253	253	268	283
L	728	778	809	859	877	903	969	969	992	1102
LS	822	872	921	971	1015	1040	1158	1158	1181	1307
LB	288	338	369	419	437	463	529	529	552	662
LBS	382	432	481	531	575	600	718	718	741	867

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01 045 00 14

R107..

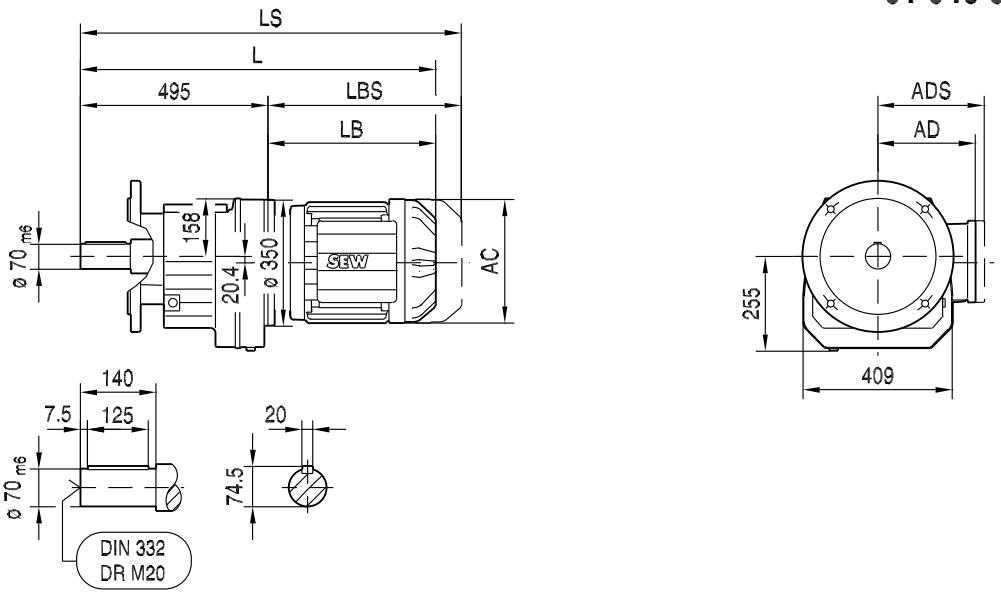


(→ 155)	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..
AC	197	221	221	261	261	314	314	357	394	434
AD	157	170	170	228	228	253	253	268	283	305
ADS	158	172	172	228	228	253	253	268	283	305
L	827	858	908	926	952	1018	1018	1041	1151	1125
LS	921	970	1020	1064	1089	1207	1207	1230	1356	1330
LB	332	363	413	431	457	523	523	546	656	630
LBS	426	475	525	569	594	712	712	735	861	835

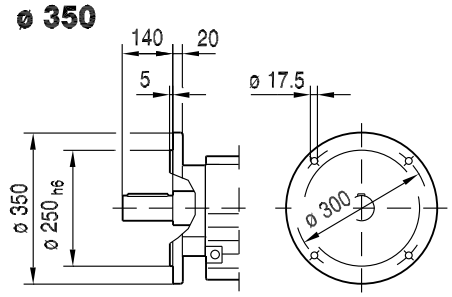
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01 046 00 14

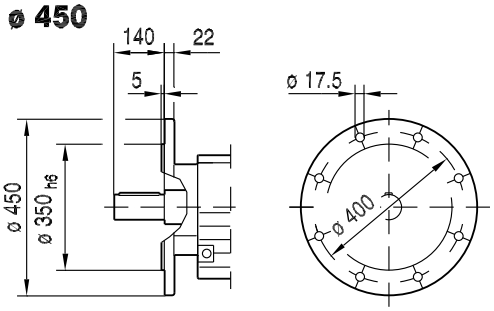
RF107..



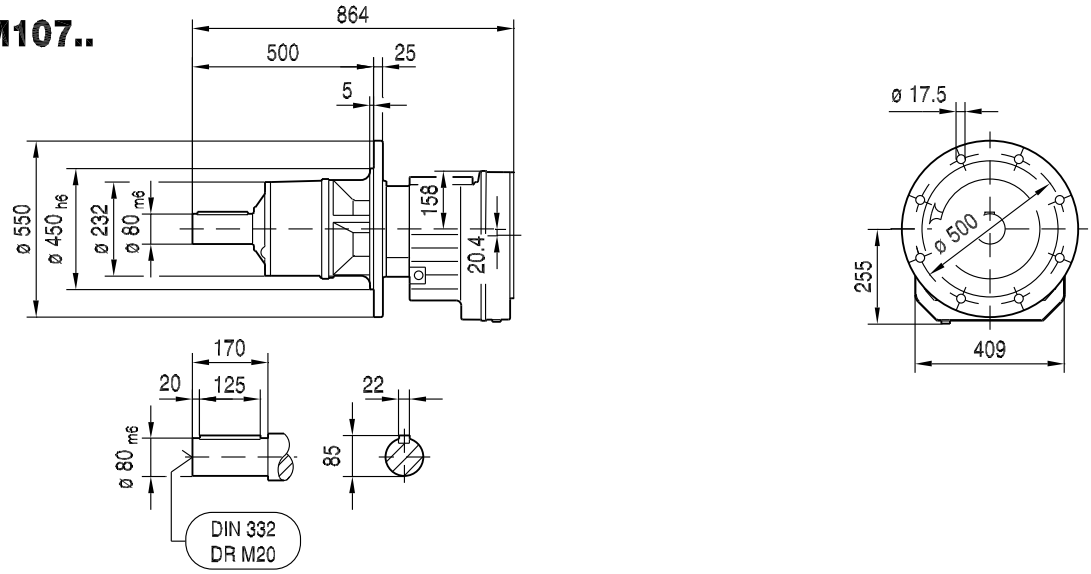
ø 350



ø 450



RM107..

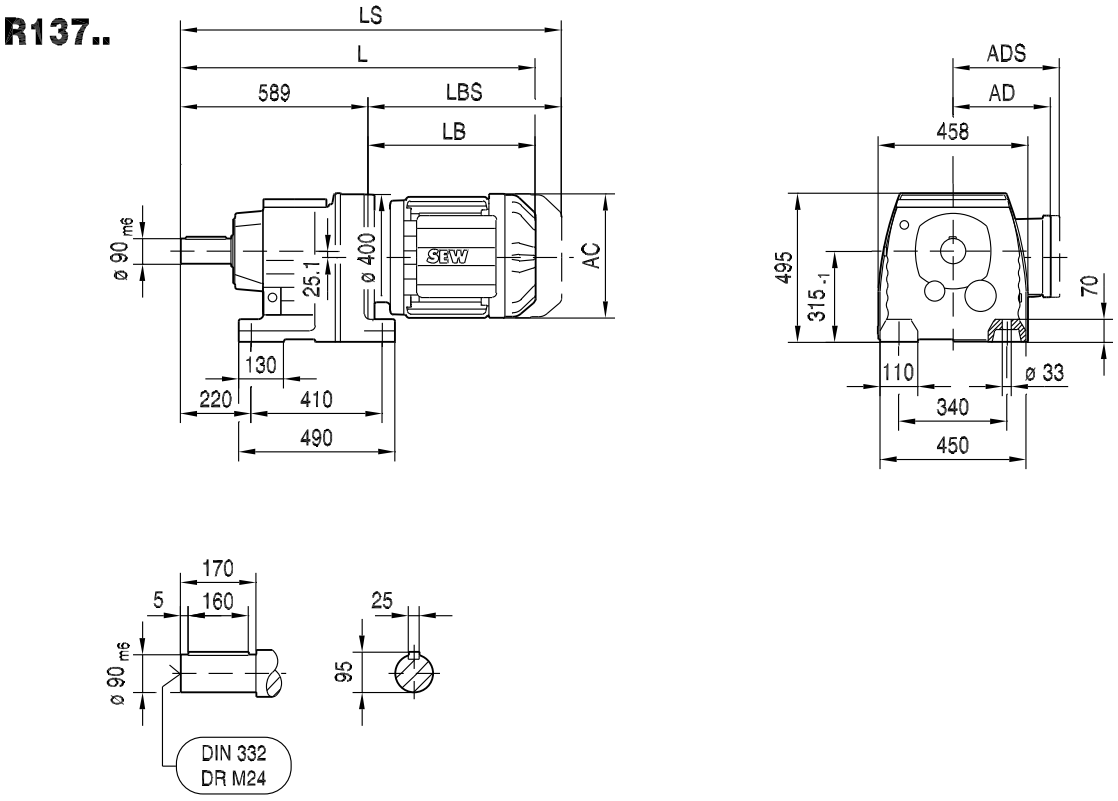


(→ 155)	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..
AC	197	221	221	261	261	314	314	357	394	434
AD	157	170	170	228	228	253	253	268	283	305
ADS	158	172	172	228	228	253	253	268	283	305
L	827	858	908	926	952	1018	1018	1041	1151	1125
LS	921	970	1020	1064	1089	1207	1207	1230	1356	1330
LB	332	363	413	431	457	523	523	546	656	630
LBS	426	475	525	569	594	712	712	735	861	835

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01 047 00 14

R137..

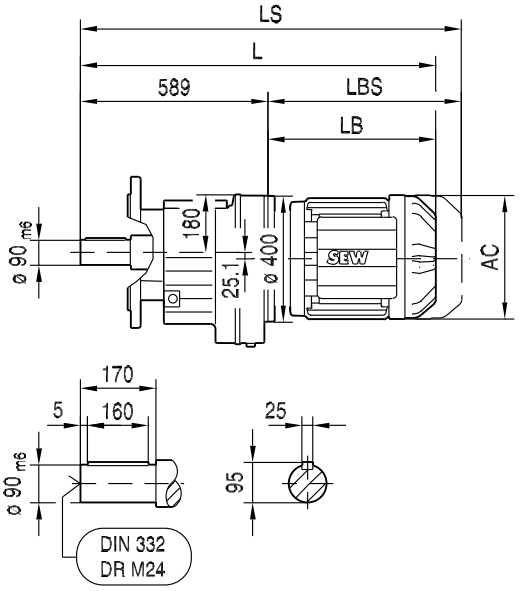


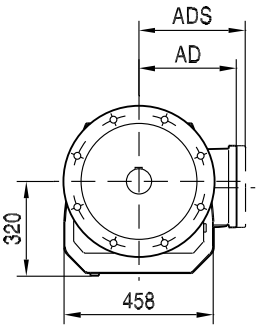
(→ 155)	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M
AC	221	261	261	314	314	357	394	434	495
AD	170	228	228	253	253	268	283	305	394
ADS	172	228	228	253	253	268	283	305	394
L	995	1013	1039	1105	1105	1128	1238	1212	1349
LS	1107	1151	1176	1294	1294	1317	1443	1417	1589
LB	406	424	450	516	516	539	649	623	760
LBS	518	562	587	705	705	728	854	828	1000

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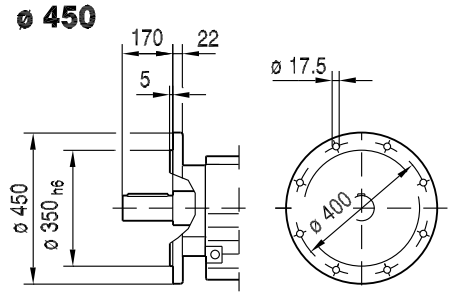
01 048 00 14

RF137..

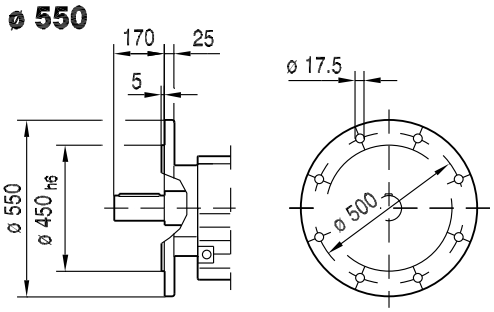




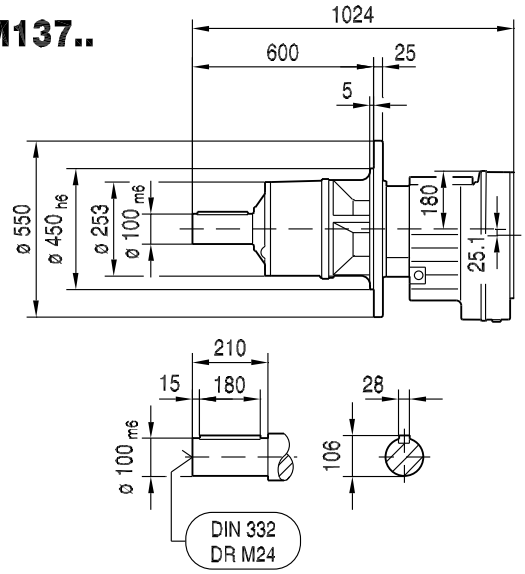
ø 450

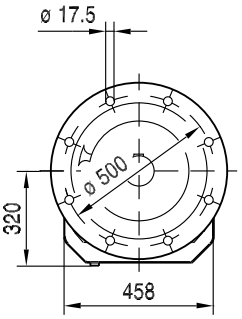


ø 550



RM137..



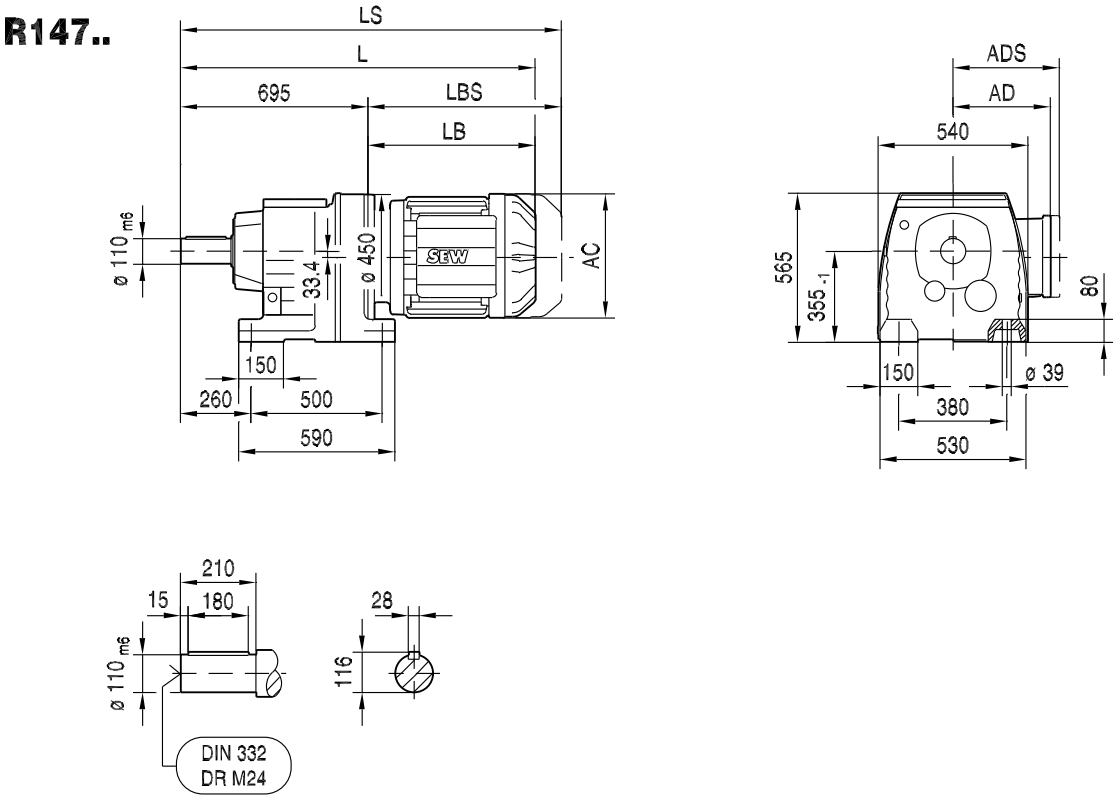


(→ 155)	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M
AC	221	261	261	314	314	357	394	434	495
AD	170	228	228	253	253	268	283	305	394
ADS	172	228	228	253	253	268	283	305	394
L	995	1013	1039	1105	1105	1128	1238	1212	1349
LS	1107	1151	1176	1294	1294	1317	1443	1417	1589
LB	406	424	450	516	516	539	649	623	760
LBS	518	562	587	705	705	728	854	828	1000

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01 049 00 14

R147..

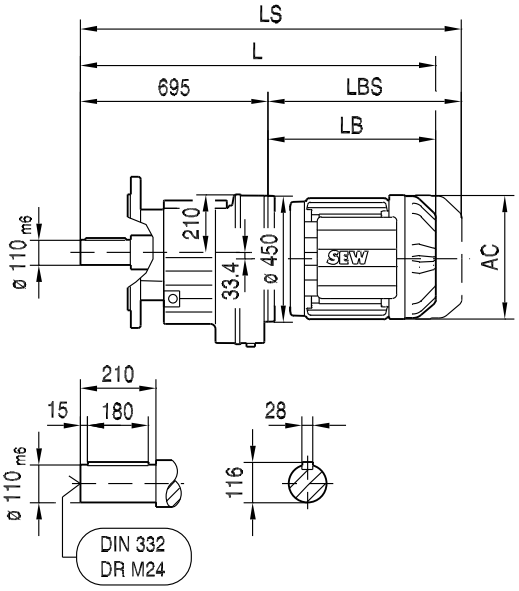


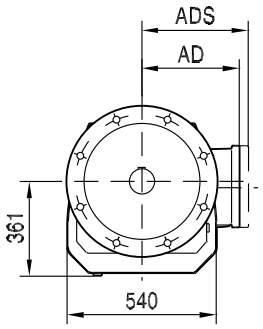
(→ 155)	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M
AC	261	314	314	357	394	434	495	495	495
AD	228	253	253	268	283	305	394	394	394
ADS	228	253	253	268	283	305	394	394	394
L	1137	1203	1203	1226	1336	1310	1447	1447	1542
LS	1274	1392	1392	1415	1541	1515	1687	1687	1782
LB	442	508	508	531	641	615	752	752	847
LBS	579	697	697	720	846	820	992	992	1087

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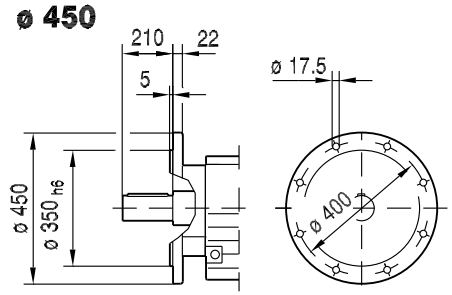
01 050 00 14

RF147..

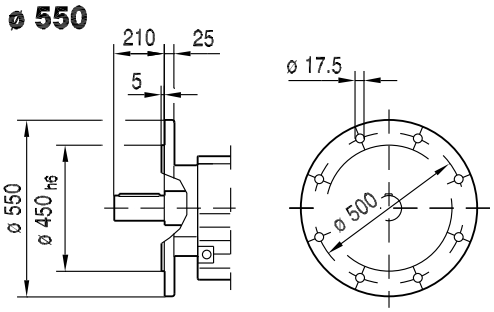




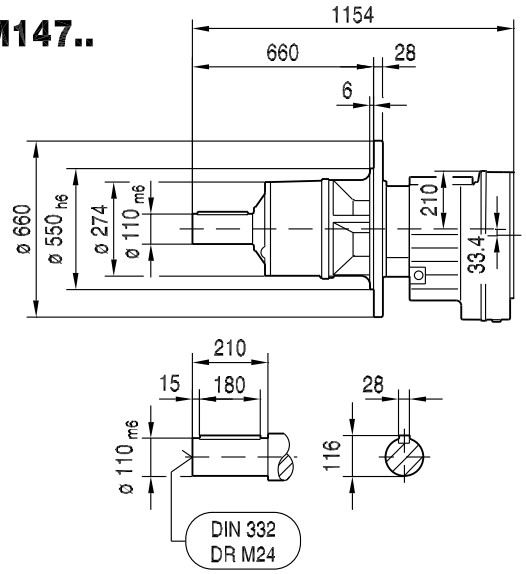
ø 450

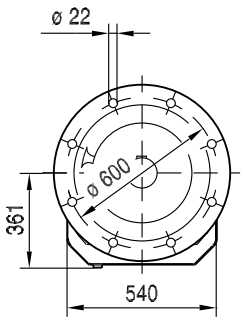


ø 550



RM147..



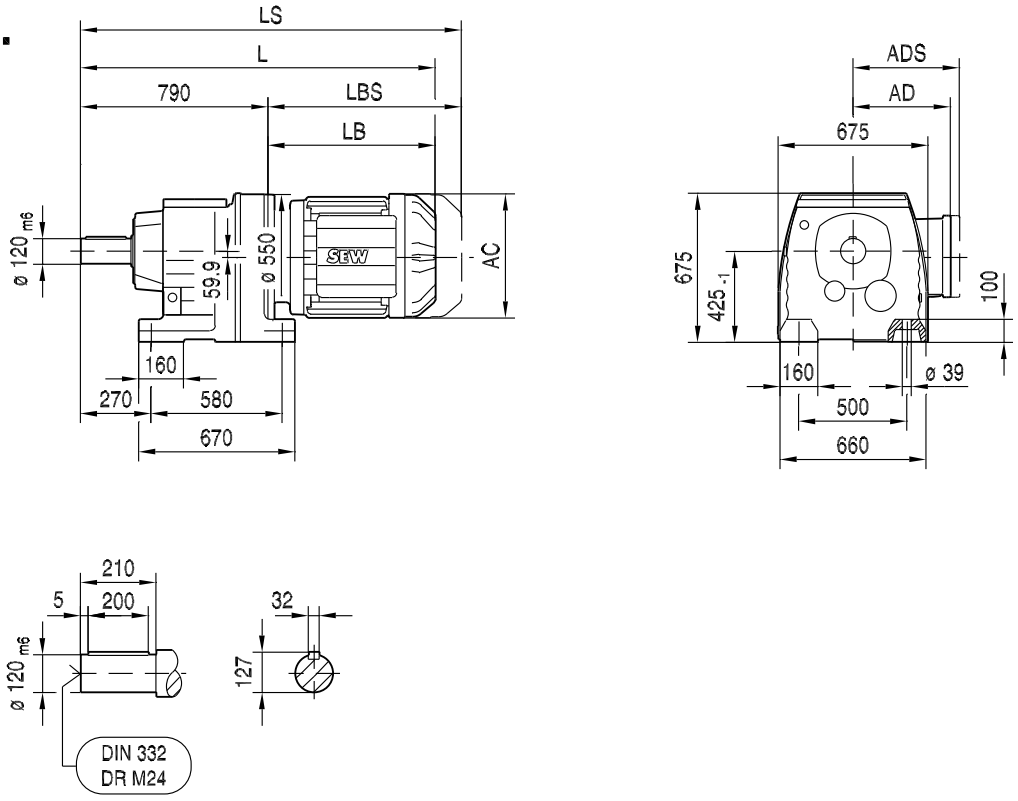


(→ 155)	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M
AC	261	314	314	357	394	434	495	495	495
AD	228	253	253	268	283	305	394	394	394
ADS	228	253	253	268	283	305	394	394	394
L	1137	1203	1203	1226	1336	1310	1447	1447	1542
LS	1274	1392	1392	1415	1541	1515	1687	1687	1782
LB	442	508	508	531	641	615	752	752	847
LBS	579	697	697	720	846	820	992	992	1087

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01 051 00 14

R167..

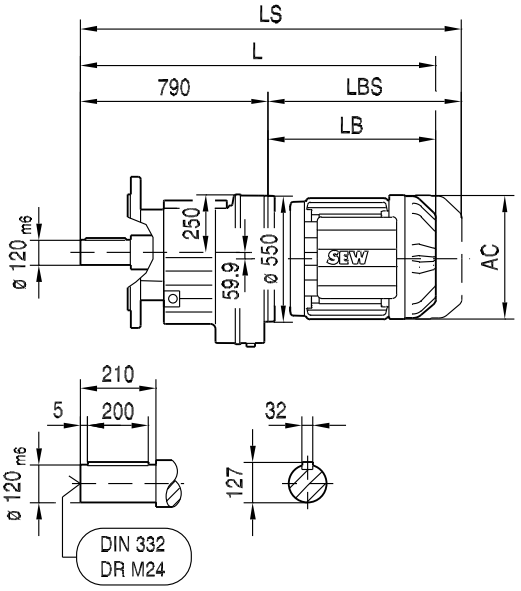


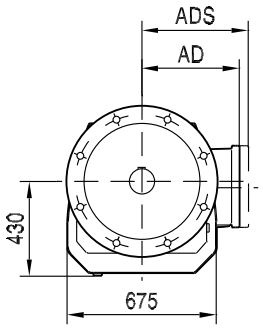
(→ 155)	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M	DRN315S-M	DRN315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1290	1313	1423	1397	1534	1534	1629	1731	1861
LS	1479	1502	1628	1602	1774	1774	1869	1982	2112
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

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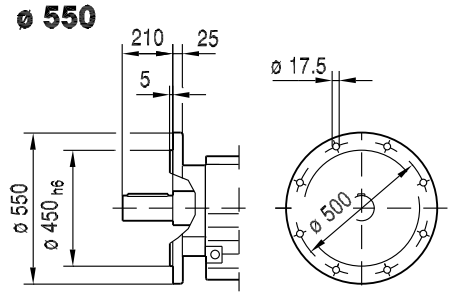
01 052 00 14

RF167..

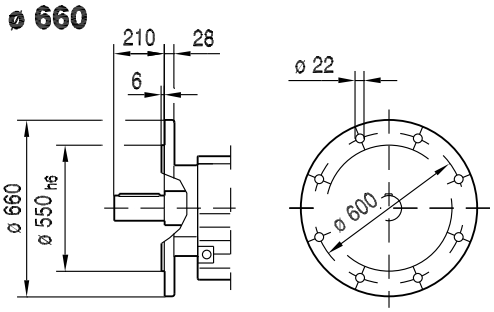




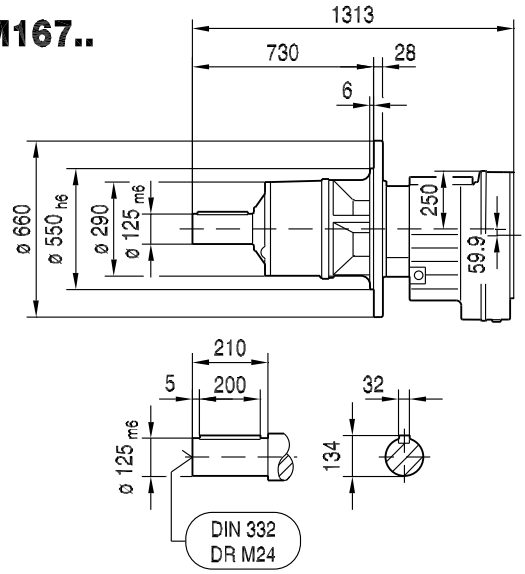
ø 550

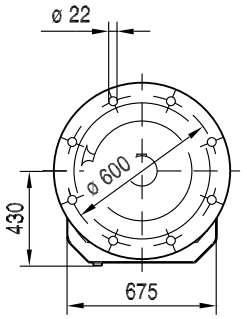


ø 660



RM167..

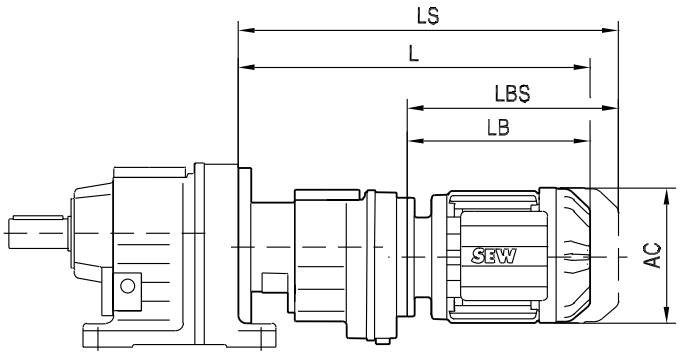




(→ 155)	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M	DRN315S-M	DRN315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1290	1313	1423	1397	1534	1534	1629	1731	1861
LS	1479	1502	1628	1602	1774	1774	1869	1982	2112
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

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01 131 00 06



(→ 155)		AC	L	LS	LB	LBS
R..27R17	**DR63..**	132	324	379	149	204
R..37R17	**DR63..**	132	324	379	149	204
	DR71S	139	335	403	160	228
R..47R37	**DR63..**	132	356	411	191	246
	DR71S	139	367	434	202	269
	DR71M	139	392	459	227	294
R..57R37	**DR63..**	132	356	411	191	246
	DR71S	139	367	434	202	269
	DR71M	139	392	459	227	294
R..67R37	**DR63..**	132	356	411	191	246
	DR71S	139	367	434	202	269
	DR71M	139	392	459	227	294
	DRN80M	156	446	527	281	362
R..77R37	**DR63..**	132	348	403	191	246
	DR71S	139	359	426	202	269
	DR71M	139	384	451	227	294
	DRN80M	156	438	519	281	362
	DRN90S	179	440	533	283	376
R..87R57	**DR63..**	132	412	467	185	240
	DR71S	139	423	491	196	264
	DR71M	139	448	516	221	289
	DRN80M	156	502	583	275	356
	DRN90S	179	504	597	277	370
	DRN90L	179	536	629	309	402
R..97R57	**DR63..**	132	407	462	185	240
	DR71S	139	418	486	196	264
	DR71M	139	443	511	221	289
	DRN80M	156	497	578	275	356
	DRN90S	179	499	592	277	370
	DRN90L	179	531	624	309	402
	DRN100LS	197	528	621	305	398
	DRN100L	197	578	671	355	448
R..107R77	**DR63..**	132	425	480	178	233
	DR71S	139	436	504	189	257
	DR71M	139	461	529	214	282
	DRN80M	156	515	596	268	349
	DRN90S	179	517	610	270	363
	DRN90L	179	549	642	302	395
	DRN100LS	197	545	638	298	391
	DRN100L	197	595	688	348	441
	DRN112M	221	626	738	379	491
	DRN132S	221	676	788	429	541

(→ 155)		AC	L	LS	LB	LBS
R..137R77	**DR63..**	132	418	473	178	233
	DR71S	139	429	497	189	257
	DR71M	139	454	522	214	282
	DRN80M	156	508	589	268	349
	DRN90S	179	510	603	270	363
	DRN90L	179	542	635	302	395
	DRN100LS	197	538	631	298	391
	DRN100L	197	588	681	348	441
	DRN112M	221	619	731	379	491
	DRN132S	221	669	781	429	541
	DRN132M	261	685	824	445	584
	DRN132L	261	710	849	470	609
R..147R77	**DR63..**	132	410	465	178	233
	DR71S	139	421	489	189	257
	DR71M	139	446	514	214	282
	DRN80M	156	500	581	268	349
	DRN90S	179	502	595	270	363
	DRN90L	179	534	627	302	395
	DRN100LS	197	530	623	298	391
	DRN100L	197	580	673	348	441
	DRN112M	221	611	723	379	491
	DRN132S	221	661	773	429	541
R..147R87	**DRN90L**	179	577	670	297	390
	DRN100LS	197	573	666	293	386
	DRN100L	197	623	716	343	436
	DRN112M	221	654	766	374	486
	DRN132S	221	704	816	424	536
	DRN132M	261	720	859	440	579
	DRN132L	261	745	884	465	604
	DRN160M	314	814	1003	534	723
	DRN160L	314	814	1003	534	723
R..167R97	**DR71M**	139	529	597	204	272
	DRN80M	156	583	664	258	339
	DRN90S	179	585	678	260	353
	DRN90L	179	617	710	292	385
	DRN100LS	197	613	706	288	381
	DRN100L	197	663	756	338	431
	DRN112M	221	694	806	369	481
	DRN132S	221	744	856	419	531
	DRN132M	261	760	899	435	574
	DRN132L	261	785	924	460	599
	DRN160M	314	854	1043	529	718

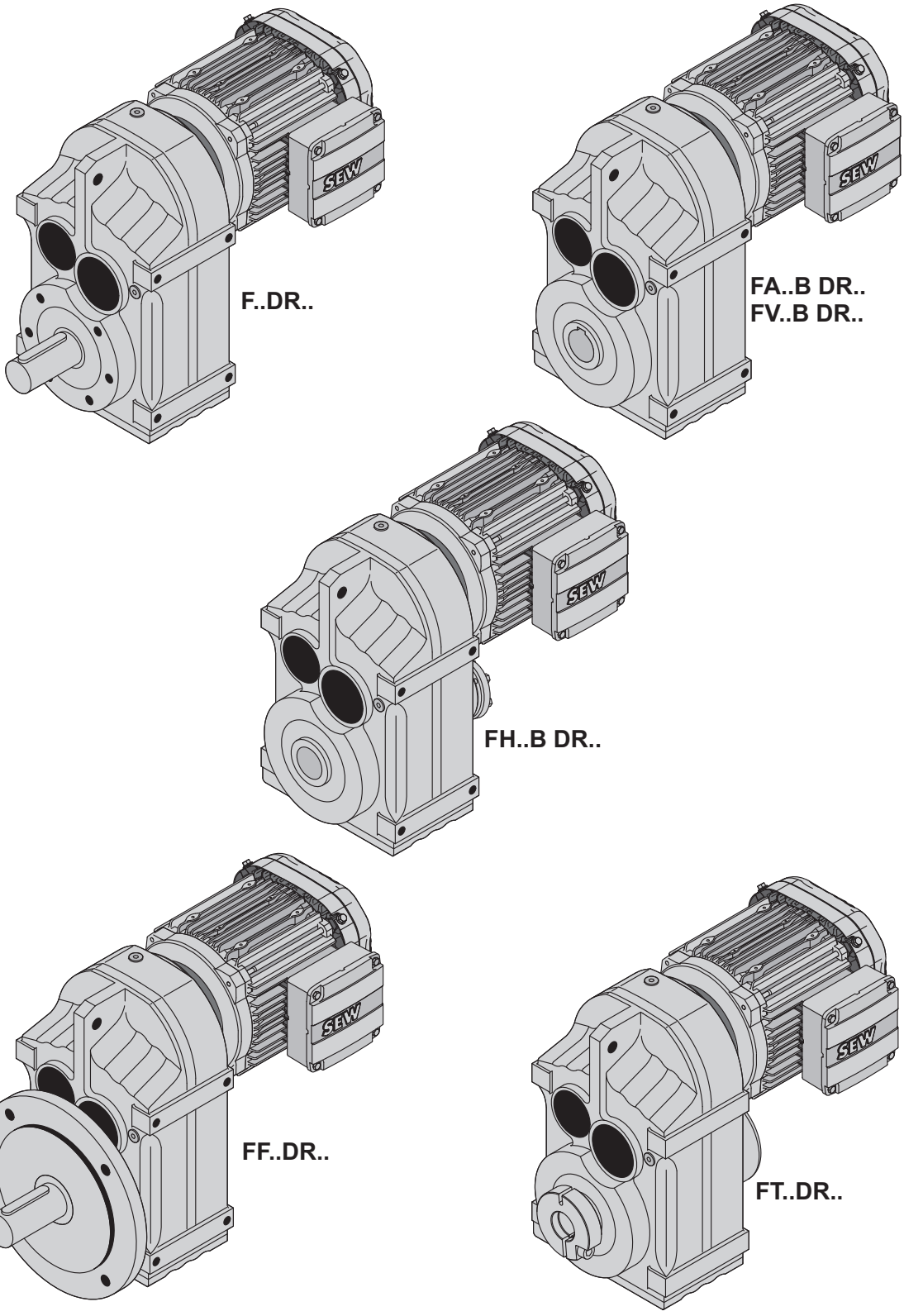
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(→ 155)		AC	L	LS	LB	LBS
R..167R107	**DRN100LS**	197	664	757	282	375
	DRN100L	197	714	807	332	425
	DRN112M	221	745	857	363	475
	DRN132S	221	795	907	413	525
	DRN132M	261	811	950	429	568
	DRN132L	261	836	975	454	593
	DRN160M	314	905	1094	523	712
	DRN160L	314	905	1094	523	712
	DRN180M	357	930	1119	548	737

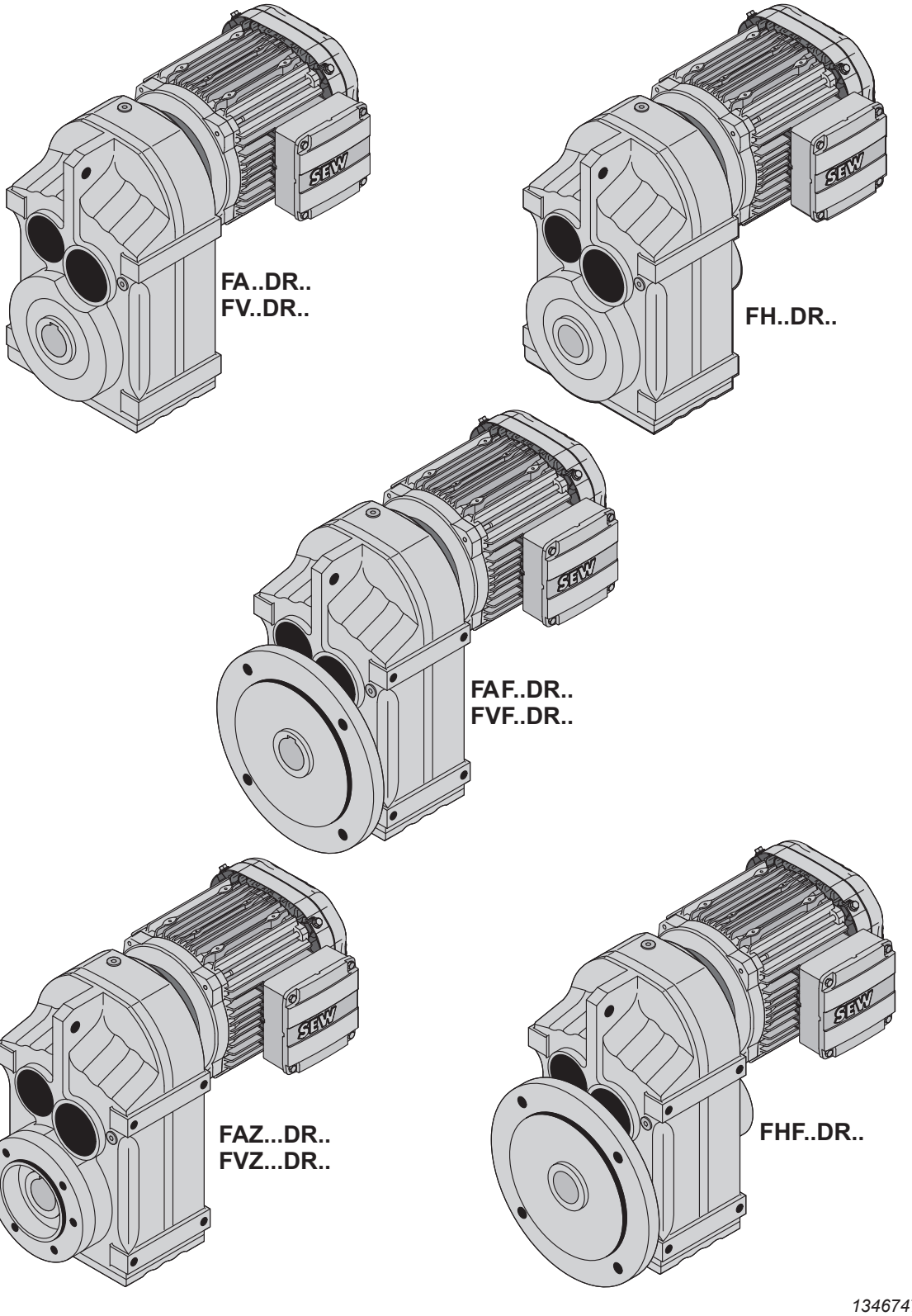
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9 Parallel-shaft helical gearmotors

9.1 F..DRN.. designs

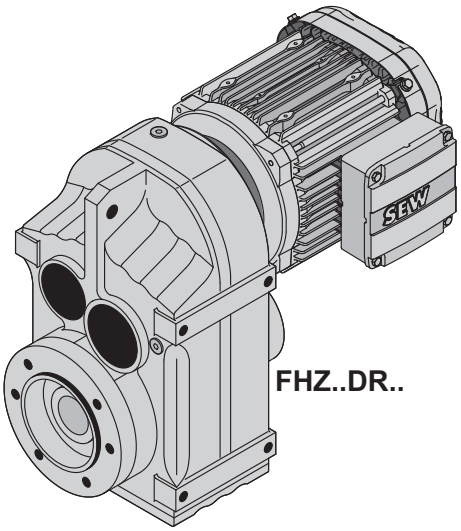


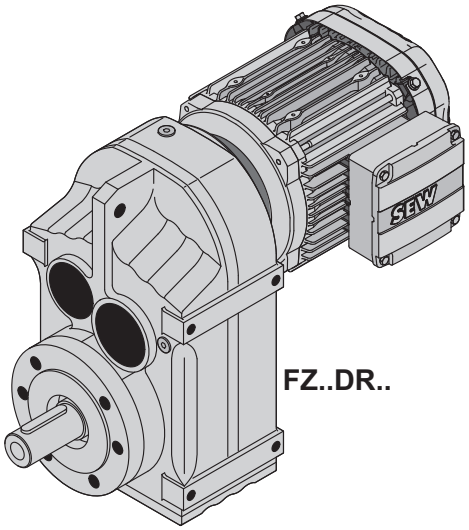
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9.2 Possible geometrical combinations of F..DRN..

F27, n_e=1400 1/min								130 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
					 3			
9.9	130	4500	-	140.74				
11	130	4500	-	129.09				
13	130	4500	-	109.90				
15	130	4500	-	94.76				
16	130	4500	-	88.32				
18	130	4500	-	77.21				
19	130	4500	-	72.37				
22	130	4400	-	63.86				
25	130	4180	-	56.62				
28	130	3980	-	50.19				
30	130	3860	-	46.78				
34	130	3640	-	40.89				
37	130	3530	-	38.33				
41	130	3340	-	33.83				
					 2			
47	130	3140	-	29.56				
52	130	3030	-	27.18				
60	130	2820	-	23.25				
69	130	2630	-	20.15				
74	130	2550	-	18.84				
86	130	2370	-	16.28				
101	130	2180	-	13.84				
113	130	2060	-	12.35				
133	130	1900	-	10.55				
142	130	1830	-	9.88				
149	130	1660	-	9.40				
172	123	1580	-	8.13				
203	114	1530	-	6.91				
227	109	1480	-	6.17				
266	100	1440	-	5.27				
284	96	1420	-	4.93				
337	87	1380	-	4.16				

F27R17, n_e=1400 1/min						130 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
					 3  3	
0.16	130	4500	-	8972		
0.18	130	4500	-	7736		
0.19	130	4500	-	7211		
0.22	130	4500	-	6303		
0.26	130	4500	-	5435		
0.29	130	4500	-	4855		

F27R17, n_e=1400 1/min						130 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
0.33	130	4500	-	4243		
0.38	130	4500	-	3715		
0.43	130	4500	-	3247		
0.49	130	4500	-	2878		
0.56	130	4500	-	2515		
0.63	130	4500	-	2217		
						
0.74	130	4500	-	1898		
0.85	130	4500	-	1645		
0.92	130	4500	-	1525		
1.1	130	4500	-	1322		
1.2	130	4500	-	1146		
1.4	130	4500	-	1013		
1.6	130	4500	-	890		
1.8	130	4500	-	778		
2.1	130	4500	-	682		
2.3	130	4500	-	602		
2.7	130	4500	-	520		
						
0.72	130	4500	-	1948		
0.77	130	4500	-	1826		
0.87	130	4500	-	1610		
1.0	130	4500	-	1399		
1.1	130	4500	-	1230		
1.5	130	4500	-	948		
1.7	130	4500	-	829		
1.9	130	4500	-	731		
2.2	130	4500	-	633		
2.5	130	4500	-	551*		
2.9	130	4500	-	489		
3.3	130	4500	-	427		
3.7	130	4500	-	379		
4.3	130	4500	-	326		
4.9	130	4500	-	288		
5.6	130	4500	-	251		
6.3	130	4500	-	221		
8.1	130	4500	-	172		
9.2	130	4500	-	153		
11	130	4500	-	130		
						
3.1	130	4500	-	458		
3.5	130	4500	-	397		
4.1	130	4500	-	342		
4.6	130	4500	-	302		
5.3	130	4500	-	266		
5.9	130	4500	-	236		
6.6	130	4500	-	211		
7.5	130	4500	-	186		
9.9	130	4500	-	142		

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F27R17, n_e=1400 1/min						130 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
11	130	4500	-	124		
13	130	4500	-	109		
15	130	4500	-	96		

F37, n_e=1400 1/min								200 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
					3			
11	200	4290	6.8	128.51				
12	200	4290	6.8	117.88				
14	200	4290	6.8	100.36				
16	200	4290	6.8	86.53				
17	200	4290	6.8	80.65				
20	200	4290	6.9	70.50				
21	200	4290	6.9	66.09				
24	200	4290	6.9	58.32				
26	200	4290	7.5	54.54				
27	200	4290	6.9	51.70				
30	200	4290	7.6	47.02				
32	200	4290	7.6	43.83				
37	200	4290	7.7	38.31				
39	200	4290	7.7	35.91				
44	200	4290	7.7	31.69				
50	200	4060	7.8	28.09				
59	200	3760	7.8	23.88				
					2			
59	200	3740	6.1	23.63				
68	200	3500	6.2	20.57				
73	200	3390	6.2	19.27				
82	200	3180	6.4	17.03				
89	200	3070	6.4	15.81				
98	200	2910	6.5	14.33				
109	200	2750	6.6	12.87				
126	190	2620	6.7	11.08				
134	185	2580	6.8	10.42				
156	175	2460	6.9	8.97				
175	170	2360	7.4	8.01				
188	145	2350	9.9	7.44				
208	140	2270	10	6.74				
231	135	2190	10.2	6.05				
269	125	2120	10.5	5.21				
286	120	2100	10.6	4.90				
332	110	2030	10.9	4.22				
371	105	1970	11.9	3.77				

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F37R17, n_e=1400 1/min						200 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
					3 3	
0.17	200	4290	-	8193		
0.20	200	4290	-	7064		
0.21	200	4290	-	6585		
0.24	200	4290	-	5756		
0.28	200	4290	-	4963		
0.32	200	4290	-	4434		
0.36	200	4290	-	3875		
0.41	200	4290	-	3392		
0.47	200	4290	-	2965		
0.54	200	4290	-	2587		
0.61	200	4290	-	2284		
0.70	200	4290	-	1997		
0.80	200	4290	-	1742		
0.91	200	4290	-	1545		
					2 3	
0.73	200	4290	-	1929		
0.83	200	4290	-	1679		
0.90	200	4290	-	1550		
1.0	200	4290	-	1356		
1.2	200	4290	-	1180		
1.3	200	4290	-	1044		
1.5	200	4290	-	914		
1.7	200	4290	-	808		
2.0	200	4290	-	698		
2.3	200	4290	-	616		
2.6	200	4290	-	544		
3.0	200	4290	-	466		
3.4	200	4290	-	411		
3.8	200	4290	-	364		
					3 2	
1.0	200	4290	-	1370		
1.2	200	4290	-	1198		
1.3	200	4290	-	1047		
1.5	200	4290	-	915		
1.7	200	4290	-	807		
2.0	200	4290	-	707		
2.3	200	4290	-	617		
2.6	200	4290	-	538		
2.9	200	4290	-	477		
3.4	200	4290	-	412		
3.8	200	4290	-	365		
4.3	200	4290	-	322		
5.0	200	4290	-	278		
5.8	200	4290	-	242		
6.3	200	4290	-	221		
7.2	200	4290	-	195		
8.3	200	4290	-	168		
9.5	200	4290	-	147		

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F37R17, n_e=1400 1/min						200 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
11	200	4290	-	127		
12	200	4290	-	121		
13	200	4290	-	108		
15	200	4290	-	91		
					2 2	
4.3	200	4290	-	326		
4.9	200	4290	-	285		
5.6	200	4290	-	250		
6.4	200	4290	-	219		
7.5	200	4290	-	186		
8.4	200	4290	-	167		
9.7	200	4290	-	145		
11	200	4290	-	129		
12	200	4290	-	118		
14	200	4290	-	98		
16	200	4290	-	87		

F47, n_e=1400 1/min								400 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
						3		
7.3	400	5920	6.1	190.76				
8.0	400	5920	6.2	175.38				
9.3	400	5920	6.2	150.06				
11	400	5920	6.2	130.07				
12	400	5920	6.2	121.57				
13	400	5920	6.2	105.09				
16	400	5920	6.2	89.29				
18	400	5920	6.2	79.72				
21	400	5920	6.3	68.09				
21	400	5920	6.7	65.36				
25	400	5920	6.8	56.49				
29	400	5920	6.8	48.00*				
33	400	5920	6.8	42.86				
38	400	5920	6.9	36.61				
41	400	5920	6.9	34.29				
48	400	5790	7	28.88				
						2		
45	400	5920	5.7	30.86				
48	400	5830	5.7	29.32				
54	400	5460	5.8	25.72				
64	400	5030	5.9	21.82				
71	400	4770	5.9	19.70				
81	400	4450	6	17.33				
86	400	4320	6	16.36				
101	400	3950	6.1	13.93				

F47, n_e=1400 1/min								400 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
111	400	3740	6.4	12.66				
128	400	3440	6.5	10.97				
156	330	3250	8	8.96				
178	380	2630	8.1	7.88				
188	380	2530	8.2	7.44*				
221	350	2470	8.4	6.34				
243	340	2390	9	5.76				
281	320	2310	9.2	4.99				

F47R17, n_e=1400 1/min						400 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
					3 3	
0.11	400	5920	-	12251		
0.13	400	5920	-	10619		
0.14	400	5920	-	9846		
0.16	400	5920	-	8534		
0.19	400	5920	-	7460		
0.21	400	5920	-	6536		
0.24	400	5920	-	5746		
0.28	400	5920	-	5022		
0.32	400	5920	-	4401		
0.36	400	5920	-	3883		
0.41	400	5920	-	3443		
0.47	400	5920	-	2976		
0.53	400	5920	-	2629		
0.61	400	5920	-	2304		
0.69	400	5920	-	2033		
					2 3	
0.56	400	5920	-	2519		
0.58	400	5920	-	2394		
0.64	400	5920	-	2172		
0.69	400	5920	-	2025		
0.79	400	5920	-	1770		
0.89	400	5920	-	1576		
1.0	400	5920	-	1363		
1.2	400	5920	-	1192		
1.3	400	5920	-	1061		
1.5	400	5920	-	931		
1.7	400	5920	-	822		
2.0	400	5920	-	706		
2.3	400	5920	-	619		
					3 2	
0.78	400	5920	-	1785		
0.89	400	5920	-	1578		
1.0	400	5920	-	1364		

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F47R17, n_e=1400 1/min						400 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
1.2	400	5920	-	1203		
1.3	400	5920	-	1049		
1.5	400	5920	-	918		
1.7	400	5920	-	809		
2.0	400	5920	-	700		
2.3	400	5920	-	622		
2.6	400	5920	-	543		
2.9	400	5920	-	475		
3.3	400	5920	-	419		
3.8	400	5920	-	370		
4.3	400	5920	-	324		
4.9	400	5920	-	288		
5.6	400	5920	-	249		
6.4	400	5920	-	218		
7.3	400	5920	-	193		
8.0	400	5920	-	175		
9.5	400	5920	-	147		
11	400	5920	-	130		
					2 2	
2.7	400	5920	-	524		
2.9	400	5920	-	489		
3.3	400	5920	-	427		
3.7	400	5920	-	381		
4.2	400	5920	-	334		
4.7	400	5920	-	295		
5.5	400	5920	-	253		
6.5	400	5920	-	217		
7.4	400	5920	-	190		
7.9	400	5920	-	178		
9.4	400	5920	-	149		
11	400	5920	-	131		

F57, n_e=1400 1/min										600 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
						3				
7.0	600	9200	6	199.70						
7.6	600	9200	6.1	183.60						
8.9	600	9200	6.1	157.09						
10	600	9200	6.1	136.16						
11	600	9200	6.1	127.27						
13	600	9200	6.1	110.01						
15	600	9200	6.1	93.47						
17	600	9200	6.1	83.46						
19	600	9200	6.5	72.98						
21	600	9200	6.5	68.22						
24	600	9200	6.5	58.97						

F57, n_e=1400 1/min										600 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
28	600	9200	6.6	50.10						
31	600	9160	6.6	44.73						
37	600	8510	6.6	38.21						
39	600	8250	6.6	35.79						
46	590	7650	6.7	30.15						
						2				
35	290	10500	5.7	40.13						
41	500	8670	5.7	34.24						
47	545	7890	5.6	29.94						
49	535	7760	5.7	28.45						
56	575	7060	5.8	24.96						
66	600	6350	5.8	21.17						
73	600	6020	5.9	19.11						
83	600	5620	5.9	16.81						
88	600	5450	6	15.88						
104	600	4980	6.1	13.52						
114	600	4710	6.3	12.29						
132	600	4320	6.4	10.64						
150	420	4760	7.6	9.31						
171	420	4450	7.8	8.19						
181	420	4310	7.8	7.73						
213	420	3940	8	6.58						
234	420	3730	8.6	5.98						
270	415	3460	8.8	5.18						

F57R37, n_e=1400 1/min								600 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
					3	3		
0.09	600	9200	-	14832				
0.10	600	9200	-	13604				
0.11	600	9200	-	12602				
0.12	600	9200	-	11252				
0.14	600	9200	-	9986				
0.16	600	9200	-	8787				
0.18	600	9200	-	7908				
0.20	600	9200	-	6913				
0.23	600	9200	-	6030				
0.26	600	9200	-	5289				
0.30	600	9200	-	4654				
0.34	600	9200	-	4060				
0.39	600	9200	-	3564				
0.44	600	9200	-	3161				
0.51	600	9200	-	2737				
0.58	600	9200	-	2409				
0.66	600	9200	-	2131				
0.76	600	9200	-	1840				

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F57R37, n_e=1400 1/min								600 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
0.86	600	9200	-	1623				
0.97	600	9200	-	1439				
1.1	600	9200	-	1238				
					2 3			
0.49	600	9200	-	2854				
0.54	600	9200	-	2576				
0.62	600	9200	-	2266				
0.70	600	9200	-	2012				
0.78	600	9200	-	1791				
0.87	600	9200	-	1617				
0.98	600	9200	-	1422				
1.1	600	9200	-	1243				
1.3	600	9200	-	1066				
1.5	600	9200	-	949				
1.6	600	9200	-	856				
1.9	600	9200	-	749				
2.1	600	9200	-	658				
2.6	600	9200	-	549				
2.9	600	9200	-	483				
					3 2			
1.3	600	9200	-	1106				
1.4	600	9200	-	967				
1.6	600	9200	-	851				
1.9	600	9200	-	738				
2.2	600	9200	-	646				
2.5	600	9200	-	558				
2.8	600	9200	-	506				
3.1	600	9200	-	452				
3.6	600	9200	-	386				
4.1	600	9200	-	338				
5.5	600	9200	-	255				
7.0	600	9200	-	201				
7.7	600	9200	-	181				
9.0	600	9200	-	155				
					2 2			
3.3	600	9200	-	426				
3.7	600	9200	-	382				
4.2	600	9200	-	330				
4.7	600	9200	-	298				
5.3	600	9200	-	262				
6.2	600	9200	-	226				
7.0	600	9200	-	200				
8.2	600	9200	-	170				
9.2	600	9200	-	152				
10	600	9200	-	134				

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F67, n_e=1400 1/min										820 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
						3				
6.1	820	10300	5.7	228.99						
7.2	820	10300	5.8	195.39						
8.2	820	10300	5.7	170.85						
8.6	820	10300	5.7	162.31						
9.8	820	10300	5.8	142.40						
12	820	10300	5.8	120.79						
13	820	10300	5.8	109.04						
15	820	10300	5.8	95.94						
15	820	10300	5.8	90.59						
18	820	10300	6.3	79.76						
21	820	10300	6.3	67.65						
23	820	10300	6.3	61.07						
26	820	10300	6.3	53.73						
28	820	10300	6.3	50.74						
32	820	10300	6.3	43.20						
36	780	10700	6.4	39.26						
41	740	11000	6.5	34.01						
						2				
39	820	10300	5.3	36.30						
44	820	10300	5.4	32.08						
51	820	10300	5.4	27.41						
56	820	10300	5.4	25.13						
63	820	10300	5.5	22.05						
67	820	10300	5.5	20.90*						
77	820	10300	5.6	18.29						
85	820	10300	5.8	16.48						
97	820	10300	5.7	14.46						
110	820	10300	5.8	12.76						
124	820	10300	6	11.31						
145	820	10300	6.1	9.66						
154	530	11400	8	9.08						
163	570	10900	8.1	8.60						
186	610	10100	8.2	7.53						
206	620	9660	8.7	6.78						
235	610	9200	8.6	5.95						
267	590	8850	8.8	5.25						
300	560	8590	9.3	4.66						
353	500	8390	9.6	3.97						

F67R37, n_e=1400 1/min								820 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
					3	3		
0.07	820	10300	-	19199				
0.08	820	10300	-	17610				

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F67R37, n_e=1400 1/min								820 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
0.09	820	10300	-	14992				
0.11	820	10300	-	12926				
0.12	820	10300	-	11480				
0.14	820	10300	-	10220				
0.16	820	10300	-	8933				
0.18	820	10300	-	7940				
0.20	820	10300	-	7096				
0.23	820	10300	-	6080				
0.26	820	10300	-	5341				
0.30	820	10300	-	4690				
0.34	820	10300	-	4091				
0.39	820	10300	-	3574				
0.45	820	10300	-	3133				
0.51	820	10300	-	2756				
0.57	820	10300	-	2439				
								
0.41	820	10300	-	3377				
0.48	820	10300	-	2912				
0.52	820	10300	-	2714				
0.59	820	10300	-	2372				
0.66	820	10300	-	2126				
0.75	820	10300	-	1859				
0.86	820	10300	-	1631				
0.97	820	10300	-	1437				
1.1	820	10300	-	1256				
1.2	820	10300	-	1126				
1.4	820	10300	-	984				
1.6	820	10300	-	864				
1.9	820	10300	-	722				
2.2	820	10300	-	634				
2.6	820	10300	-	539				
								
0.66	820	10300	-	2106				
0.74	820	10300	-	1884				
0.86	820	10300	-	1635				
0.98	820	10300	-	1429				
1.1	820	10300	-	1271				
1.3	820	10300	-	1102				
1.4	820	10300	-	970				
1.6	820	10300	-	858				
1.9	820	10300	-	755				
2.2	820	10300	-	641				
2.4	820	10300	-	572				
2.8	820	10300	-	509				
3.2	820	10300	-	437				
3.6	820	10300	-	384				
4.1	820	10300	-	338				
4.6	820	10300	-	305				
5.4	820	10300	-	257				

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F67R37, n_e=1400 1/min								820 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
6.1	820	10300	-	231				
6.8	820	10300	-	205				
8.0	820	10300	-	175				
					2	2		
2.8	820	10300	-	500				
3.1	820	10300	-	454				
3.6	820	10300	-	392				
4.2	820	10300	-	333				
4.7	820	10300	-	297				
5.4	820	10300	-	261				
5.9	820	10300	-	238				
7.0	820	10300	-	200				
8.0	820	10300	-	176				

F77, n_e=1400 1/min											1500 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
						3					
5.0	1500	15700	5.4	281.71							
5.3	1500	15700	5.4	262.93							
6.2	1500	15700	5.4	225.79							
7.1	1500	15700	5.4	198.31							
7.4	1500	15700	5.4	188.40							
8.4	1500	15700	5.5	166.47							
9.8	1500	15700	5.5	142.27							
11	1500	15700	5.5	130.42							
12	1500	15700	5.5	114.45							
13	1500	15700	5.5	108.46*							
15	1500	15700	5.5	94.93							
16	1500	15700	5.5	85.52							
19	1500	15700	5.5	75.02							
19	1500	15700	5.9	72.50							
21	1500	15700	5.9	66.46							
24	1500	15700	6	58.32							
25	1500	15700	6	55.27							
29	1500	15700	6	48.37							
32	1500	15700	6.1	43.58							
37	1500	15700	6	38.23							
41	1500	15700	6.1	33.74							
47	1500	15700	6.1	29.91							
55	1450	16100	6.2	25.54							
						2					
38	1110	17900	4.9	36.58							
44	1380	16500	4.9	31.51							
49	1430	16200	4.9	28.75							
55	1500	15700	4.9	25.50*							

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F77, n_e=1400 1/min											1500 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
65	1500	15700	5	21.43							
71	1500	15700	5.1	19.70							
80	1500	15700	5.2	17.49							
90	1500	15700	5.2	15.64*							
100	1500	15700	5.4	14.06							
115	1500	14900	5.4	12.20							
128	1500	14200	5.5	10.93							
151	1080	13800	7.1	9.30							
169	1080	13100	7.1	8.26							
189	1080	12500	7.2	7.39							
211	1080	12000	7.5	6.64							
243	1080	11300	7.7	5.76							
271	1080	10700	7.8	5.16							
327	1010	10200	8.1	4.28							

F77R37, n_e=1400 1/min								1500 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
					3 3			
0.07	1500	15700	-	19180				
0.08	1500	15700	-	17593				
0.09	1500	15700	-	16128				
0.09	1500	15700	-	14978				
0.10	1500	15700	-	13731				
0.12	1500	15700	-	12049				
0.13	1500	15700	-	11035				
0.14	1500	15700	-	9683				
0.17	1500	15700	-	8464				
0.19	1500	15700	-	7520				
0.21	1500	15700	-	6580				
0.24	1500	15700	-	5808				
0.28	1500	15700	-	5026				
0.32	1500	15700	-	4435				
0.37	1500	15700	-	3832				
0.41	1500	15700	-	3381				
0.47	1500	15700	-	2978				
0.54	1500	15700	-	2613				
0.61	1500	15700	-	2284				
0.69	1500	15700	-	2029				
					2 3			
0.28	1110	17900	-	4931				
0.31	1110	17900	-	4523				
0.36	1110	17900	-	3851				
0.42	1110	17900	-	3320				
0.45	1110	17900	-	3095				
0.52	1110	17900	-	2705				
0.55	1110	17900	-	2536				

F77R37, n_e=1400 1/min								1500 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
0.63	1110	17900	-	2238				
0.69	1110	17900	-	2039				
0.80	1110	17900	-	1759				
0.85	1110	17900	-	1639				
0.98	1110	17900	-	1433				
1.0	1110	17900	-	1343				
1.2	1110	17900	-	1185				
1.3	1110	17900	-	1051				
1.6	1110	17900	-	893				
3 2								
0.81	1500	15700	-	1728				
0.91	1500	15700	-	1544				
1.0	1500	15700	-	1354				
1.2	1500	15700	-	1200				
1.3	1500	15700	-	1053				
1.5	1500	15700	-	910				
1.7	1500	15700	-	810				
2.0	1500	15700	-	710				
2.3	1500	15700	-	615*				
2.6	1500	15700	-	538				
2.9	1500	15700	-	480				
3.4	1500	15700	-	413				
3.8	1500	15700	-	367				
4.3	1500	15700	-	323				
5.0	1500	15700	-	280				
5.7	1500	15700	-	247				
6.3	1500	15700	-	221				
7.0	1500	15700	-	199				
2 2								
1.7	1110	17900	-	815				
2.0	1110	17900	-	706				
2.1	1110	17900	-	660				
2.5	1110	17900	-	571				
2.9	1110	17900	-	485				
3.2	1110	17900	-	433				
3.8	1110	17900	-	370				
4.0	1110	17900	-	346				
4.8	1110	17900	-	292				

F87, n_e=1400 1/min													3000 Nm
n_a 1/ min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L
3													
5.2	3000	19800	7	270.68									
5.5	3000	19800	7	255.37									
6.1	3000	19800	7	228.93									
7.1	3000	19800	7	197.20									

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F87, n_e=1400 1/min													3000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L
7.8	3000	19800	7	179.97									
8.8	3000	19800	7	159.61									
10	3000	19800	7	134.16									
11	3000	19800	7	123.29									
13	3000	19800	7.1	109.49									
14	3000	19800	7.1	97.89									
16	3000	19800	7.1	88.01									
18	3000	19800	7.1	76.39									
20	3000	19600	7.1	68.40									
25	3000	17700	7.1	56.75									
28	2940	16800	7.5	50.36									
31	2820	16200	7.5	45.28									
36	2720	15400	7.5	39.30									
40	2610	14900	7.6	35.19									
48	2510	13800	7.6	29.20									
2													
41	2610	14600	6.6	33.92									
49	2450	13900	6.6	28.78									
53	3000	11100	6.8	26.50									
59	3000	10300	6.8	23.68									
66	3000	9520	6.8	21.32*									
73	3000	8840	6.9	19.31									
82	3000	8040	6.9	17.12									
90	3000	7390	7	15.48									
107	3000	6370	7	13.12*									
122	3000	5580	7.1	11.46									
146	2880	5050	7.2	9.58									
169	1530	8890	6.7	8.29									
190	1530	8280	6.8	7.35									
211	1530	7790	6.8	6.65									
249	1530	7020	7	5.63									
285	1530	6430	7.1	4.92									
340	1460	5980	7.4	4.12									

F87R57, n_e=1400 1/min										3000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
3 3										
0.06	3000	19800	-	23042						
0.07	3000	19800	-	20462						
0.08	3000	19800	-	18238						
0.09	3000	19800	-	15877						
0.10	3000	19800	-	14099						
0.11	3000	19800	-	12205						
0.13	3000	19800	-	10433						
0.15	3000	19800	-	9381						
0.17	3000	19800	-	8142						
0.20	3000	19800	-	7100						

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F87R57, n_e=1400 1/min										3000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
0.22	3000	19800	-	6273						
0.25	3000	19800	-	5510						
0.28	3000	19800	-	4954						
0.33	3000	19800	-	4245						
0.38	3000	19800	-	3721						
						2 3				
0.28	3000	19800	-	4952						
0.31	3000	19800	-	4562						
0.36	3000	19800	-	3919						
0.40	3000	19800	-	3503						
0.44	3000	19800	-	3196						
0.49	3000	19800	-	2857						
0.55	3000	19800	-	2524						
0.66	3000	19800	-	2134						
0.73	3000	19800	-	1913*						
0.82	3000	19800	-	1717						
0.95	3000	19800	-	1476						
1.1	3000	19800	-	1278						
1.2	3000	19800	-	1142						
1.4	3000	19800	-	988						
1.6	3000	19800	-	883						
1.9	3000	19800	-	748						
						3 2				
0.43	3000	19800	-	3244						
0.49	3000	19800	-	2881						
0.54	3000	19800	-	2576						
0.64	3000	19800	-	2199						
0.73	3000	19800	-	1930						
0.82	3000	19800	-	1709						
0.94	3000	19800	-	1493						
1.1	3000	19800	-	1300						
1.2	3000	19800	-	1148						
1.4	3000	19800	-	1010						
1.6	3000	19800	-	887						
1.8	3000	19800	-	780						
2.1	3000	19800	-	674						
2.3	3000	19800	-	609						
2.7	3000	19800	-	515						
3.1	3000	19800	-	452						
4.1	3000	19800	-	345						
4.7	3000	19800	-	300						
5.6	3000	19800	-	249						
						2 2				
2.1	3000	19800	-	662						
2.4	3000	19800	-	592						
2.7	3000	19800	-	519						
3.0	3000	19800	-	468						
3.5	3000	19800	-	398						
4.0	3000	19800	-	350						

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F87R57, n_e=1400 1/min										3000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
4.4	3000	19800	-	315*						
5.0	3000	19800	-	281						
5.8	3000	19800	-	240						
6.6	3000	19800	-	211						
7.3	3000	19800	-	193						

F97, n_e=1400 1/min												4300 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S
							3					
5.1	4300	29900	6	276.77								
5.5	4300	29900	6	253.41								
6.3	4300	29900	6	223.88								
7.4	4300	29900	6	189.92								
8.0	4300	29900	6	174.87								
9.0	4300	29900	6	156.30								
9.9	4300	29900	6	140.71								
11	4300	29900	6	127.42								
12	4300	29900	6	112.99								
14	4300	29900	6	102.16								
14	4300	29900	6.2	97.58								
16	4300	29900	6.3	89.85								
16	4300	29900	6	86.59								
17	4300	29900	6.3	80.31								
19	4300	29900	6	75.63								
19	4300	29900	6.3	72.29								
21	4300	29000	6.3	65.47								
24	4300	27200	6.3	58.06								
27	4300	25800	6.3	52.49								
31	4300	23600	6.4	44.49								
36	4300	21900	6.4	38.86								
43	4300	19800	6.4	32.50								
							2					
32	3070	27600	5.6	43.28								
38	3070	25500	5.6	36.64								
41	4300	20300	5.7	33.91								
46	4300	19000	5.8	30.39								
51	4300	17900	5.8	27.44*								
56	4300	16800	5.8	24.92								
63	4300	15600	5.9	22.11								
70	4300	14600	5.8	20.07								
81	4300	13200	5.9	17.25*								
93	4300	11900	5.9	15.06								
110	4300	10500	6	12.77								
125	4100	10000	6	11.16								
155	2360	13400	8.6	9.06								
170	2360	12600	8.5	8.22								
198	2360	11500	8.6	7.07								

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F97, n_e=1400 1/min												4300 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S
227	2250	11100	8.7	6.17								
268	2150	10400	8.8	5.23								
306	2050	9950	9	4.57								
362	1800	9960	9	3.87								

F97R57, n_e=1400 1/min										4300 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
						3 3				
0.05	4300	29900	-	29211						
0.05	4300	29900	-	26911						
0.06	4300	29900	-	23814						
0.07	4300	29900	-	20813						
0.08	4300	29900	-	18119*						
0.09	4300	29900	-	15472						
0.10	4300	29900	-	14022						
0.11	4300	29900	-	12324						
0.13	4300	29900	-	10838						
0.15	4300	29900	-	9576						
0.17	4300	29900	-	8318						
0.19	4300	29900	-	7328						
0.22	4300	29900	-	6469						
0.25	4300	29900	-	5615						
0.28	4300	29900	-	4961*						
0.32	4300	29900	-	4333*						
						2 3				
0.22	4300	29900	-	6338						
0.25	4300	29900	-	5680						
0.28	4300	29900	-	5016						
0.32	4300	29900	-	4367						
0.36	4300	29900	-	3914						
0.42	4300	29900	-	3357						
0.47	4300	29900	-	3009						
0.57	4300	29900	-	2448						
0.64	4300	29900	-	2199						
0.71	4300	29900	-	1971						
0.80	4300	29900	-	1741*						
0.95	4300	29900	-	1468						
1.1	4300	29900	-	1316						
1.2	4300	29900	-	1189*						
1.4	4300	29900	-	1023						
						3 2				
0.36	4300	29900	-	3906						
0.42	4300	29900	-	3352						
0.48	4300	29900	-	2907						
0.55	4300	29900	-	2553						
0.62	4300	29900	-	2245						
0.71	4300	29900	-	1970						

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F97R57, n_e=1400 1/min										4300 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
0.81	4300	29900	-	1722						
0.92	4300	29900	-	1527						
1.1	4300	29900	-	1327						
1.2	4300	29900	-	1171*						
1.4	4300	29900	-	1022						
1.6	4300	29900	-	898						
1.8	4300	29900	-	784						
2.0	4300	29900	-	690						
2.3	4300	29900	-	605						
2.6	4300	29900	-	529						
3.0	4300	29900	-	467						
3.4	4300	29900	-	406						
3.9	4300	29900	-	363						
4.9	4300	29900	-	285						
5.7	4300	29900	-	245						
6.7	4300	29900	-	208						
7.2	4300	29900	-	195						
						2	2			
1.6	4300	29900	-	892						
1.8	4300	29900	-	760						
2.1	4300	29900	-	667						
2.5	4300	29900	-	569						
2.7	4300	29900	-	510						
3.0	4300	29900	-	473*						
3.5	4300	29900	-	403						
3.9	4300	29900	-	361						
4.4	4300	29900	-	317						
5.1	4300	29900	-	275						
5.8	4300	29900	-	242						

F107, n_e=1400 1/min											7840 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M	DRN250M
							3				
5.5	7680	49800	5.4	254.40*							
6.5	7680	49800	5.4	215.37							
7.0	7680	49800	5.4	199.31							
7.8	7680	49800	5.4	178.64							
8.7	7680	49800	5.4	161.28*							
9.6	7680	49800	5.4	146.49							
11	7680	49800	5.4	129.97							
12	7680	49800	5.4	117.94							
14	7680	49800	5.4	101.38*							
15	7680	49800	5.6	92.47*							
16	7680	49800	5.4	88.49							
17	7680	49800	5.7	83.99							
19	7680	49800	5.7	74.52							
21	7680	49800	5.7	67.62							

F107, n_e=1400 1/min											7840 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M	DRN250M
24	7680	47800	5.7	58.12*							
28	7680	45100	5.7	50.73							
33	7680	42000	5.7	43.03							
37	7680	39500	5.7	37.61							
44	7680	36500	5.8	31.80							
							2				
41	7400	38300	5.1	33.79*							
51	7840	33300	5.2	27.57							
56	7840	31500	5.2	25.14							
64	7840	28800	5.2	21.76*							
73	7840	26500	5.2	19.20*							
84	7840	23900	5.3	16.58							
95	7680	22400	5.3	14.67							
114	7000	22600	5.4	12.33							
141	6500	21500	5.4	9.96							
144	4910	23500	6.7	9.69							
167	4800	22000	6.7	8.37							
189	4600	21300	6.8	7.40							
225	4600	19000	7	6.22							
278	4600	16400	7	5.03							

F107R77, n_e=1400 1/min											7840 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
						3	3				
0.06	7680	49800	-	25375*							
0.06	7680	49800	-	21652							
0.07	7680	49800	-	18933							
0.08	7680	49800	-	16888							
0.09	7680	49800	-	14767							
0.12	7680	49800	-	11348*							
0.14	7680	49800	-	10039							
0.16	7680	49800	-	8548							
0.18	7680	49800	-	7674							
0.21	7680	49800	-	6767							
0.24	7680	49800	-	5954							
0.27	7680	49800	-	5223							
0.31	7680	49800	-	4567							
0.35	7680	49800	-	3948							
0.40	7680	49800	-	3521							
						2	3				
0.26	7840	49400	-	5383*							
0.30	7840	49400	-	4593							
0.35	7840	49400	-	4016							
0.37	7840	49400	-	3815							
0.42	7840	49400	-	3347							
0.49	7840	49400	-	2839							
0.55	7840	49400	-	2563*							

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F107R77, n_e=1400 1/min											7840 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
0.62	7840	49400	-	2255							
0.66	7840	49400	-	2129							
0.77	7840	49400	-	1813							
0.88	7840	49400	-	1590							
0.97	7840	49400	-	1436							
1.1	7840	49400	-	1263							
1.2	7840	49400	-	1193							
1.4	7840	49400	-	1015							
1.5	7840	49400	-	923							
1.8	7840	49400	-	800							
2.0	7840	49400	-	696							
3 2											
0.46	7680	49800	-	3037							
0.51	7680	49800	-	2756							
0.59	7680	49800	-	2369							
0.68	7680	49800	-	2068							
0.77	7680	49800	-	1826							
0.88	7680	49800	-	1597							
1.00	7680	49800	-	1401							
1.1	7680	49800	-	1243							
1.3	7680	49800	-	1087							
1.5	7680	49800	-	950							
1.7	7680	49800	-	834							
1.9	7680	49800	-	736							
2.2	7680	49800	-	640							
2.5	7680	49800	-	560							
2.9	7680	49800	-	489							
3.2	7680	49800	-	436							
3.8	7680	49800	-	370							
4.2	7680	49800	-	333							
4.8	7680	49800	-	291							
5.5	7680	49800	-	255							
6.2	7680	49800	-	225*							
7.4	7680	49800	-	190							
2 2											
2.2	7840	49400	-	644							
2.4	7840	49400	-	591							
2.7	7840	49400	-	518*							
2.9	7840	49400	-	491							
3.3	7840	49400	-	430							
3.6	7840	49400	-	387							
4.1	7840	49400	-	340							
4.7	7840	49400	-	300							
5.3	7840	49400	-	266							

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F127, n_e=1400 1/min									12000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M	DRN250M DRN280S DRN280M
						3			
8.2	12000	90000	4.9	170.83					
9.1	12000	90000	4.9	153.67*					
11	12000	90000	4.9	125.37					
12	12000	88000	4.9	114.34					
14	12000	83000	4.9	98.95					
16	12000	79000	4.9	87.31*					
19	12000	74300	4.9	75.41*					
20	12000	72100	5.2	70.07					
22	12000	69400	5.2	63.91					
25	12000	65200	5.2	55.31					
29	12000	61300	5.2	48.80					
33	12000	56800	5.2	42.15					
38	12000	53200	5.2	37.28					
45	12000	48300	5.3	31.33					
55	12000	42400	5.3	25.30					
						2			
52	8500	55300	4.6	26.86					
57	8500	53300	4.6	24.57					
65	12000	38000	4.7	21.38					
74	11000	38800	4.7	18.87					
86	11000	35400	4.7	16.36					
96	11000	32600	4.7	14.55					
112	10000	33300	4.8	12.54					
137	9500	30900	4.9	10.19					
158	7000	36400	6.3	8.86					
178	6000	37000	6.4	7.88					
206	7000	32200	6.5	6.80					
254	6000	31700	6.7	5.52					
299	6000	29500	6.8	4.68					

F127R77, n_e=1400 1/min											12000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
						3	3				
0.06	12000	90000	-	24478*							
0.06	12000	90000	-	22323							
0.07	12000	90000	-	19048							
0.08	12000	90000	-	16656							
0.10	12000	90000	-	14722*							
0.11	12000	90000	-	12912							
0.12	12000	90000	-	11656*							
0.14	12000	90000	-	10191							
0.16	12000	90000	-	8831							
0.18	12000	90000	-	7643							
0.21	12000	90000	-	6715							
0.24	12000	90000	-	5925							
0.27	12000	90000	-	5153							

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F127R77, n_e=1400 1/min — 12000 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
0.31	12000	90000	-	4533							
0.36	12000	90000	-	3926							
0.41	12000	90000	-	3454							
0.46	12000	90000	-	3031							
						3 2					
0.52	12000	90000	-	2672							
0.59	12000	90000	-	2357*							
0.69	12000	90000	-	2038							
0.78	12000	90000	-	1784							
0.87	12000	90000	-	1606							
1.0	12000	90000	-	1390							
1.1	12000	90000	-	1220							
1.3	12000	90000	-	1077							
1.5	12000	90000	-	930							
1.7	12000	90000	-	820							
1.9	12000	90000	-	727							
2.2	12000	90000	-	648							
2.6	12000	90000	-	549							
2.8	12000	90000	-	495							
3.3	12000	90000	-	428							
3.7	12000	90000	-	376							

F127R87, n_e=1400 1/min — 12000 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L
							3 2					
2.9	12000	90000	-	483								
3.3	12000	90000	-	418								
3.7	12000	90000	-	374								
4.5	12000	90000	-	312								
4.8	12000	90000	-	293								
5.4	12000	90000	-	259								
6.3	12000	90000	-	223								
7.1	12000	90000	-	198								
8.4	12000	90000	-	166								

F157, n_e=1400 1/min — 18000 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M	DRN250M DRN280S DRN280M	DRN315S DRN315M	DRN315L DRN315H
						3				
5.2	18000	100300	4.5	267.43						
6.4	18000	100300	4.5	217.62*						
7.9	18000	100300	4.5	178.20*						
8.6	18000	100300	4.5	162.96						
9.9	18000	100300	4.5	141.80*						
11	18000	100300	4.5	125.14						
13	18000	100300	4.5	108.49						

F157, n_e=1400 1/min											18000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M	DRN250M DRN280S DRN280M	DRN315S DRN315M	DRN315L DRN315H
15	18000	100300	4.5	96.53*						
16	18000	95800	4.8	85.80*						
18	18000	92300	4.8	78.46						
21	18000	87000	4.8	68.28*						
23	18000	82500	4.8	60.25						
27	18000	77500	4.8	52.24						
30	18000	73600	4.8	46.48*						
35	18000	68900	4.9	40.06						
43	18000	62500	4.9	32.55						
51	18000	57800	4.9	27.60						
						2				
26	8000	98300	4.3	53.55						
32	10000	87800	4.3	43.94*						
39	11000	79300	4.4	35.75*						
49	17000	60800	4.4	28.60*						
55	15000	61500	4.4	25.43						
63	18000	51800	4.4	22.16						
71	17000	50900	4.4	19.77						
83	18000	44900	4.5	16.85						
100	17000	42500	4.6	13.96						
117	16000	40900	4.6	11.92						

F157R97, n_e=1400 1/min													18000 Nm
n_a 1/ min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S
							3	3					
0.04	18000	100300	-	31434									
0.05	18000	100300	-	26173									
0.06	18000	100300	-	23464									
0.07	18000	100300	-	20212									
0.08	18000	100300	-	17984*									
0.09	18000	100300	-	16358									
0.10	18000	100300	-	13751									
0.11	18000	100300	-	12235									
0.14	18000	100300	-	10033									
0.16	18000	100300	-	9021									
0.17	18000	100300	-	8026									
0.20	18000	100300	-	7075									
0.22	18000	100300	-	6295									
0.26	18000	100300	-	5404									
0.29	18000	100300	-	4831									
0.34	18000	100300	-	4130*									
0.39	18000	100300	-	3607									
0.44	18000	100300	-	3210									
0.50	18000	100300	-	2780									
0.97	18000	100300	-	1441									
							3	2					
0.58	18000	100300	-	2427									
0.64	18000	100300	-	2185									

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F157R97, n_e=1400 1/min													18000 Nm
n_a 1/ min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S
0.72	18000	100300	-	1944*									
0.84	18000	100300	-	1674									
1.1	18000	100300	-	1308									
1.2	18000	100300	-	1169									
1.5	18000	100300	-	953									
1.7	18000	100300	-	845									
1.8	18000	100300	-	764									
2.1	18000	100300	-	680									
2.4	18000	100300	-	576									
2.8	18000	100300	-	503									
3.1	18000	100300	-	446									
4.0	18000	100300	-	353									
4.6	18000	100300	-	302									
5.1	18000	100300	-	273									
6.0	18000	100300	-	232									
6.9	18000	100300	-	202									
7.1	18000	100300	-	197									

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9.3 F..DRN.. selection tables in kW

P_m = 0.12 kW											
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
0.06	13900	22323	86700	0.85							
0.07	11800	19048	90000	1.00							
0.08	10300	16656	90000	1.15	**FA**	**127R77**	**DR**	**63S4**		425	456
0.09	9180	14722	90000	1.30	**FAF**	**127R77**	**DR**	**63S4**		465	456
0.11	7990	12912	90000	1.50	**F**	**127R77**	**DR**	**63S4**		460	456
0.12	7040	11656	90000	1.70	**FF**	**127R77**	**DR**	**63S4**		510	456
0.14	6310	10191	90000	1.90							
0.09	9200	14767	45500	0.85							
0.12	7070	11348	51400	1.10							
0.14	5740	10039	54600	1.35							
0.16	4670	8548	57000	1.65	**FA**	**107R77**	**DR**	**63S4**		275	456
0.18	4750	7674	56800	1.60	**FAF**	**107R77**	**DR**	**63S4**		295	456
0.20	4090	6767	58200	1.90	**F**	**107R77**	**DR**	**63S4**		290	456
0.23	3460	5954	59500	2.2	**FF**	**107R77**	**DR**	**63S4**		320	456
0.26	2990	5223	60400	2.6							
0.30	2840	4567	60700	2.7							
0.39	2120	3521	62000	3.6							
0.21	4140	6469	30400	1.05	**FA**	**97R57**	**DR**	**63S4**		185	456
0.25	3820	5615	31300	1.15	**FAF**	**97R57**	**DR**	**63S4**		205	456
0.28	3320	4961	32500	1.30	**F**	**97R57**	**DR**	**63S4**		190	456
0.32	2900	4333	33500	1.50	**FF**	**97R57**	**DR**	**63S4**		225	456
0.35	2690	3906	34000	1.60	**FA**	**97R57**	**DR**	**63S4**		180	456
0.41	2320	3352	34800	1.85	**FAF**	**97R57**	**DR**	**63S4**		205	456
0.47	1910	2907	35500	2.2	**F**	**97R57**	**DR**	**63S4**		190	456
0.54	1750	2553	35800	2.4	**FF**	**97R57**	**DR**	**63S4**		225	456
					FA	**87R57**	**DR**	**63S4**		120	456
0.33	2760	4245	23800	1.10	**FAF**	**87R57**	**DR**	**63S4**		130	456
0.37	2210	3721	25800	1.35	**F**	**87R57**	**DR**	**63S4**		125	456
					FF	**87R57**	**DR**	**63S4**		140	456
0.43	2240	3244	25700	1.35							
0.48	1990	2881	26500	1.50							
0.54	1780	2576	27100	1.70							
0.63	1510	2199	27800	2.00	**FA**	**87R57**	**DR**	**63S4**		115	456
0.72	1300	1930	28300	2.3	**FAF**	**87R57**	**DR**	**63S4**		130	456
0.81	1170	1709	28600	2.6	**F**	**87R57**	**DR**	**63S4**		125	456
0.92	1030	1493	28900	2.9	**FF**	**87R57**	**DR**	**63S4**		140	456
1.1	820	1300	29300	3.7							
1.2	745	1148	29500	4.0							
					FA	**77R37**	**DR**	**63S4**		65	456
0.53	1820	2613	13000	0.80	**FAF**	**77R37**	**DR**	**63S4**		72	456
0.60	1570	2284	15200	0.95	**F**	**77R37**	**DR**	**63S4**		69	456
0.68	1380	2029	16400	1.10	**FF**	**77R37**	**DR**	**63S4**		80	456
0.80	1180	1728	17500	1.25							
0.89	1090	1544	17900	1.40							
1.0	950	1354	18500	1.55	**FA**	**77R37**	**DR**	**63S4**		65	456
1.2	840	1200	18800	1.75	**FAF**	**77R37**	**DR**	**63S4**		72	456
1.3	740	1053	19100	2.0	**F**	**77R37**	**DR**	**63S4**		69	456
1.5	630	910	19400	2.4	**FF**	**77R37**	**DR**	**63S4**		80	456
1.7	525	810	19600	2.8							
1.9	460	710	19800	3.2							
0.97	960	1429	7070	0.85							
1.1	860	1271	9840	0.95							
1.2	725	1102	11100	1.15							
1.4	635	970	11700	1.30	**FA**	**67R37**	**DR**	**63S4**		43	456
1.6	560	858	12100	1.45	**FAF**	**67R37**	**DR**	**63S4**		49	456
1.8	490	755	12400	1.65	**F**	**67R37**	**DR**	**63S4**		46	456
2.2	415	641	12700	1.95	**FF**	**67R37**	**DR**	**63S4**		52	456
2.4	390	572	12800	2.1							
2.7	330	509	13000	2.5							
3.2	285	437	13000	2.8							

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P_m = 0.12 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.6	610	851	9100	1.00						
1.9	520	738	9750	1.15	**FA**	**57R37**	**DR**	**63S4**	39	456
2.1	455	646	10200	1.30	**FAF**	**57R37**	**DR**	**63S4**	45	456
2.5	385	558	10600	1.55	**F**	**57R37**	**DR**	**63S4**	39	456
2.7	345	506	10900	1.75	**FF**	**57R37**	**DR**	**63S4**	46	456
3.0	295	452	11100	2.0						
3.2	310	426	11100	1.95						
3.6	270	382	11300	2.2	**FA**	**57R37**	**DR**	**63S4**	38	456
4.2	230	330	11500	2.6	**FAF**	**57R37**	**DR**	**63S4**	44	456
4.6	210	298	11500	2.8	**F**	**57R37**	**DR**	**63S4**	39	456
5.3	185	262	11500	3.2	**FF**	**57R37**	**DR**	**63S4**	45	456
					FA	**47R17**	**DR**	**63S4**	24	456
2.5	385	543	6100	1.05	**FAF**	**47R17**	**DR**	**63S4**	26	456
2.9	330	475	6740	1.20	**F**	**47R17**	**DR**	**63S4**	25	456
3.3	290	419	7150	1.40	**FF**	**47R17**	**DR**	**63S4**	28	456
2.6	380	524	6190	1.05						
2.8	350	489	6530	1.15						
3.2	300	427	7020	1.30	**FA**	**47R17**	**DR**	**63S4**	23	456
3.6	265	381	7310	1.50	**FAF**	**47R17**	**DR**	**63S4**	26	456
4.1	235	334	7550	1.70	**F**	**47R17**	**DR**	**63S4**	24	456
4.7	205	295	7740	1.95	**FF**	**47R17**	**DR**	**63S4**	27	456
5.4	172	253	7910	2.3						
4.3	215	322	3990	0.90	**FA**	**37R17**	**DR**	**63S4**	19	456
5.0	192	278	4400	1.05	**FAF**	**37R17**	**DR**	**63S4**	20	456
5.7	162	242	4750	1.25	**F**	**37R17**	**DR**	**63S4**	19	456
6.2	156	221	4820	1.30	**FF**	**37R17**	**DR**	**63S4**	21	456
4.2	235	326	3710	0.85						
4.8	200	285	4250	1.00	**FA**	**37R17**	**DR**	**63S4**	19	456
5.5	177	250	4590	1.15	**FAF**	**37R17**	**DR**	**63S4**	20	456
6.3	156	219	4820	1.30	**F**	**37R17**	**DR**	**63S4**	19	456
7.4	132	186	5040	1.50	**FF**	**37R17**	**DR**	**63S4**	21	456
8.3	118	167	5140	1.70						
6.2	155	221	4500	0.85	**FA**	**27R17**	**DR**	**63S4**	13	456
8.0	119	172	4500	1.10	**FAF**	**27R17**	**DR**	**63S4**	14	456
9.0	104	153	4500	1.25	**F**	**27R17**	**DR**	**63S4**	13	456
11	87	130	4500	1.50	**FF**	**27R17**	**DR**	**63S4**	14	456
6.5	150	211	4500	0.85						
7.4	131	186	4500	1.00	**FA**	**27R17**	**DR**	**63S4**	13	456
9.7	102	142	4500	1.25	**FAF**	**27R17**	**DR**	**63S4**	13	456
11	88	124	4500	1.45	**F**	**27R17**	**DR**	**63S4**	13	456
13	77	109	4500	1.70	**FF**	**27R17**	**DR**	**63S4**	14	456
14	67	96	4500	1.95						
3.9	290	228.99	13000	2.8						
4.6	245	195.39	13000	3.3	**FA**	**67**	**DR**	**63M6**	32	416
5.3	215	170.85	13000	3.8	**FAF**	**67**	**DR**	**63M6**	38	415
5.6	205	162.31	13000	4.0	**F**	**67**	**DR**	**63M6**	35	414
6.3	181	142.40	13000	4.5	**FF**	**67**	**DR**	**63M6**	41	415
4.5	250	199.70	11400	2.4						
4.9	230	183.60	11500	2.6	**FA**	**57**	**DR**	**63M6**	28	410
5.7	200	157.09	11500	3.0	**FAF**	**57**	**DR**	**63M6**	34	409
6.6	173	136.16	11500	3.5	**F**	**57**	**DR**	**63M6**	28	408
7.1	162	127.27	11500	3.7	**FF**	**57**	**DR**	**63M6**	35	409
6.9	166	199.70	11500	3.6	**FA**	**57**	**DR**	**63S4**	28	410
7.5	152	183.60	11500	3.9	**FAF**	**57**	**DR**	**63S4**	34	409
8.8	130	157.09	11500	4.6	**F**	**57**	**DR**	**63S4**	28	408
10	113	136.16	11500	5.3	**FF**	**57**	**DR**	**63S4**	35	409
4.7	240	190.76	7510	1.65						
5.1	220	175.38	7640	1.80						
6.0	191	150.06	7820	2.1	**FA**	**47**	**DR**	**63M6**	21	404
6.9	166	130.07	7940	2.4	**FAF**	**47**	**DR**	**63M6**	24	403
7.4	155	121.57	7990	2.6	**F**	**47**	**DR**	**63M6**	22	402
8.6	134	105.09	8060	3.0	**FF**	**47**	**DR**	**63M6**	25	403
10	114	89.29	8130	3.5						
11	102	79.72	8160	3.9						

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P_m = 0.12 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.2	158	190.76	7970	2.5	**FA**	**47**	**DR**	**63S4**	21	404
7.9	146	175.38	8020	2.8	**FAF**	**47**	**DR**	**63S4**	24	403
9.2	125	150.06	8100	3.2	**F**	**47**	**DR**	**63S4**	22	402
11	108	130.07	8150	3.7	**FF**	**47**	**DR**	**63S4**	25	403
7.0	164	128.51	4740	1.20						
7.6	150	117.88	4880	1.35	**FA**	**37**	**DR**	**63M6**	16	398
9.0	128	100.36	5070	1.55	**FAF**	**37**	**DR**	**63M6**	18	397
10	110	86.53	5190	1.80	**F**	**37**	**DR**	**63M6**	16	396
11	103	80.65	5240	1.95	**FF**	**37**	**DR**	**63M6**	18	397
11	107	128.51	5220	1.85						
12	98	117.88	5270	2.0	**FA**	**37**	**DR**	**63S4**	16	398
14	83	100.36	5340	2.4	**FAF**	**37**	**DR**	**63S4**	18	397
16	72	86.53	5400	2.8	**F**	**37**	**DR**	**63S4**	16	396
17	67	80.65	5410	3.0	**FF**	**37**	**DR**	**63S4**	18	397
8.2	140	109.90	4500	0.95	**FA**	**27**	**DR**	**63M6**	9.9	393
9.5	121	94.76	4500	1.10	**FAF**	**27**	**DR**	**63M6**	11	392
10	112	88.32	4500	1.15	**F**	**27**	**DR**	**63M6**	10	391
12	98	77.21	4500	1.30	**FF**	**27**	**DR**	**63M6**	11	392
9.8	117	140.74	4500	1.10						
11	107	129.09	4500	1.20						
13	91	109.90	4500	1.40						
15	79	94.76	4500	1.65						
16	73	88.32	4500	1.75						
18	64	77.21	4500	2.0	**FA**	**27**	**DR**	**63S4**	9.9	393
19	60	72.37	4500	2.2	**FAF**	**27**	**DR**	**63S4**	11	392
22	53	63.86	4500	2.4	**F**	**27**	**DR**	**63S4**	10	391
24	47	56.62	4500	2.8	**FF**	**27**	**DR**	**63S4**	11	392
28	42	50.19	4500	3.1						
30	39	46.78	4500	3.4						
34	34	40.89	4500	3.8						
36	32	38.33	4430	4.1						
41	28	33.83	4270	4.6						
47	24	29.56	4100	5.3						
51	23	27.18	4000	5.8						
59	19	23.25	3820	6.7						
68	17	20.15	3650	7.8						
73	16	18.84	3580	8.3						
85	14	16.28	3420	9.6						
100	12	13.84	3250	11						
112	10	12.35	3140	13	**FA**	**27**	**DR**	**63S4**	9.6	393
131	8.8	10.55	2990	15	**FAF**	**27**	**DR**	**63S4**	10	392
140	8.2	9.88	2920	16	**F**	**27**	**DR**	**63S4**	10	391
147	7.8	9.40	2870	17	**FF**	**27**	**DR**	**63S4**	11	392
170	6.7	8.13	2740	18						
200	5.7	6.91	2600	20						
224	5.1	6.17	2510	21						
262	4.4	5.27	2390	23						
280	4.1	4.93	2340	23						
332	3.5	4.16	2210	25						

P_m = 0.18 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.10	13600	12912	87200	0.90						
0.11	12100	11656	90000	1.00	**FA**	**127R77**	**DR**	**63M4**	425	456
0.13	10700	10191	90000	1.10	**FAF**	**127R77**	**DR**	**63M4**	465	456
0.15	8940	8831	90000	1.35	**F**	**127R77**	**DR**	**63M4**	460	456
0.17	7740	7643	90000	1.55	**FF**	**127R77**	**DR**	**63M4**	510	456
0.20	7130	6715	90000	1.70						

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P_m = 0.18 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.15	8440	8548	47700	0.90						
0.17	8130	7674	48600	0.95						
0.20	7070	6767	51400	1.10	**FA**	**107R77**	**DR**	**63M4**	275	456
0.22	6080	5954	53800	1.25	**FAF**	**107R77**	**DR**	**63M4**	295	456
0.25	5290	5223	55700	1.45	**F**	**107R77**	**DR**	**63M4**	290	456
0.29	4850	4567	56600	1.60	**FF**	**107R77**	**DR**	**63M4**	320	456
0.37	3670	3521	59100	2.1						
0.43	3250	3037	59900	2.4	**FA**	**107R77**	**DR**	**63M4**	275	456
0.48	2950	2756	60500	2.6	**FAF**	**107R77**	**DR**	**63M4**	295	456
0.56	2540	2369	61200	3.0	**F**	**107R77**	**DR**	**63M4**	290	456
0.64	2210	2068	61800	3.5	**FF**	**107R77**	**DR**	**63M4**	315	456
					FA	**97R57**	**DR**	**63M4**	185	456
0.30	4800	4333	22800	0.90	**FAF**	**97R57**	**DR**	**63M4**	205	456
					F	**97R57**	**DR**	**63M4**	190	456
					FF	**97R57**	**DR**	**63M4**	225	456
0.34	4420	3906	29500	0.95						
0.39	3800	3352	31300	1.15						
0.45	3210	2907	32800	1.35						
0.52	2890	2553	33600	1.50	**FA**	**97R57**	**DR**	**63M4**	180	456
0.59	2540	2245	34300	1.70	**FAF**	**97R57**	**DR**	**63M4**	205	456
0.67	2210	1970	35000	1.95	**F**	**97R57**	**DR**	**63M4**	190	456
0.77	1950	1722	35500	2.2	**FF**	**97R57**	**DR**	**63M4**	225	456
0.86	1730	1527	35900	2.5						
0.99	1420	1327	36400	3.0						
1.1	1330	1171	36500	3.2						
0.51	2920	2576	22300	1.00						
0.60	2490	2199	24800	1.20						
0.68	2160	1930	25900	1.40						
0.77	1930	1709	26600	1.55	**FA**	**87R57**	**DR**	**63M4**	115	456
0.88	1690	1493	27300	1.75	**FAF**	**87R57**	**DR**	**63M4**	130	456
1.0	1390	1300	28100	2.1	**F**	**87R57**	**DR**	**63M4**	125	456
1.2	1250	1148	28400	2.4	**FF**	**87R57**	**DR**	**63M4**	140	456
1.3	1080	1010	28800	2.8						
1.5	970	887	29000	3.1						
1.7	830	780	29300	3.6						
0.86	1770	1544	13500	0.85						
0.98	1550	1354	15300	0.95						
1.1	1380	1200	16500	1.10	**FA**	**77R37**	**DR**	**63M4**	65	456
1.2	1210	1053	17400	1.25	**FAF**	**77R37**	**DR**	**63M4**	72	456
1.4	1030	910	18200	1.45	**F**	**77R37**	**DR**	**63M4**	69	456
1.6	880	810	18700	1.70	**FF**	**77R37**	**DR**	**63M4**	80	456
1.9	780	710	19000	1.90						
2.2	690	615	19300	2.2						
1.5	940	858	8660	0.85						
1.8	820	755	10200	1.00						
2.1	700	641	11200	1.15	**FA**	**67R37**	**DR**	**63M4**	43	456
2.3	645	572	11600	1.25	**FAF**	**67R37**	**DR**	**63M4**	49	456
2.6	555	509	12100	1.45	**F**	**67R37**	**DR**	**63M4**	46	456
3.0	480	437	12500	1.70	**FF**	**67R37**	**DR**	**63M4**	52	456
3.4	430	384	12700	1.90						
2.6	575	500	12000	1.40						
2.9	525	454	12300	1.55						
3.4	450	392	12600	1.80	**FA**	**67R37**	**DR**	**63M4**	42	456
4.0	380	333	12900	2.2	**FAF**	**67R37**	**DR**	**63M4**	48	456
4.4	335	297	13000	2.4	**F**	**67R37**	**DR**	**63M4**	45	456
5.1	295	261	13000	2.8	**FF**	**67R37**	**DR**	**63M4**	51	456
5.6	260	238	13000	3.1						
6.6	215	200	13000	3.7						
2.4	635	558	7570	0.95						
2.6	570	506	9420	1.05	**FA**	**57R37**	**DR**	**63M4**	39	456
2.9	495	452	9930	1.20	**FAF**	**57R37**	**DR**	**63M4**	45	456
3.4	425	386	10400	1.40	**F**	**57R37**	**DR**	**63M4**	39	456
3.9	370	338	10700	1.60	**FF**	**57R37**	**DR**	**63M4**	46	456

P_m = 0.18 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.1	500	426	9910	1.20						
3.5	445	382	10300	1.35						
4.0	380	330	10700	1.55	**FA**	**57R37**	**DR**	**63M4**	38	456
4.4	340	298	10900	1.75	**FAF**	**57R37**	**DR**	**63M4**	44	456
5.0	300	262	11100	2.00	**F**	**57R37**	**DR**	**63M4**	39	456
5.8	255	226	11400	2.3	**FF**	**57R37**	**DR**	**63M4**	45	456
6.6	220	200	11500	2.7						
3.6	410	370	5210	0.95	**FA**	**47R17**	**DR**	**63M4**	24	456
4.1	375	324	6250	1.05	**FAF**	**47R17**	**DR**	**63M4**	26	456
4.6	325	288	6810	1.20	**F**	**47R17**	**DR**	**63M4**	25	456
5.3	275	249	7250	1.45	**FF**	**47R17**	**DR**	**63M4**	28	456
4.0	385	334	6100	1.05						
4.5	335	295	6680	1.20	**FA**	**47R17**	**DR**	**63M4**	23	456
5.2	285	253	7190	1.40	**FAF**	**47R17**	**DR**	**63M4**	26	456
6.1	250	217	7430	1.55	**F**	**47R17**	**DR**	**63M4**	24	456
7.0	220	190	7650	1.80	**FF**	**47R17**	**DR**	**63M4**	27	456
7.4	205	178	7740	1.95						
7.1	215	186	4060	0.95	**FA**	**37R17**	**DR**	**63M4**	19	456
7.9	194	167	4380	1.05	**FAF**	**37R17**	**DR**	**63M4**	20	456
9.1	171	145	4660	1.15	**F**	**37R17**	**DR**	**63M4**	19	456
10	151	129	4870	1.30	**FF**	**37R17**	**DR**	**63M4**	21	456
9.3	166	142	4500	0.80	**FA**	**27R17**	**DR**	**63M4**	13	456
11	144	124	4500	0.90	**FAF**	**27R17**	**DR**	**63M4**	13	456
12	126	109	4500	1.05	**F**	**27R17**	**DR**	**63M4**	13	456
14	110	96	4500	1.20	**FF**	**27R17**	**DR**	**63M4**	14	456
3.1	555	281.71	19600	2.7	**FA**	**77**	**DR**	**63L6**	57	422
3.3	515	262.93	19700	2.9	**FAF**	**77**	**DR**	**63L6**	63	421
3.8	445	225.79	19800	3.4	**F**	**77**	**DR**	**63L6**	60	420
					FF	**77**	**DR**	**63L6**	71	421
3.8	450	228.99	12600	1.80	**FA**	**67**	**DR**	**63L6**	33	416
4.4	385	195.39	12900	2.1	**FAF**	**67**	**DR**	**63L6**	39	415
5.1	335	170.85	13000	2.4	**F**	**67**	**DR**	**63L6**	36	414
					FF	**67**	**DR**	**63L6**	42	415
5.8	295	228.99	13000	2.8	**FA**	**67**	**DR**	**63M4**	32	416
6.8	250	195.39	13000	3.2	**FAF**	**67**	**DR**	**63M4**	38	415
7.7	220	170.85	13000	3.7	**F**	**67**	**DR**	**63M4**	35	414
					FF	**67**	**DR**	**63M4**	41	415
4.4	390	199.70	10600	1.50						
4.7	360	183.60	10800	1.65	**FA**	**57**	**DR**	**63L6**	29	410
5.5	310	157.09	11100	1.95	**FAF**	**57**	**DR**	**63L6**	34	409
6.4	265	136.16	11300	2.2	**F**	**57**	**DR**	**63L6**	29	408
6.8	250	127.27	11400	2.4	**FF**	**57**	**DR**	**63L6**	35	409
7.9	215	110.01	11500	2.8						
6.6	260	199.70	11300	2.3						
7.2	235	183.60	11500	2.5	**FA**	**57**	**DR**	**63M4**	28	410
8.4	200	157.09	11500	2.9	**FAF**	**57**	**DR**	**63M4**	34	409
9.7	177	136.16	11500	3.4	**F**	**57**	**DR**	**63M4**	28	408
10	166	127.27	11500	3.6	**FF**	**57**	**DR**	**63M4**	35	409
4.6	375	190.76	6240	1.05						
5.0	345	175.38	6600	1.15	**FA**	**47**	**DR**	**63L6**	22	404
5.8	295	150.06	7090	1.35	**FAF**	**47**	**DR**	**63L6**	24	403
6.7	255	130.07	7410	1.55	**F**	**47**	**DR**	**63L6**	22	402
7.2	240	121.57	7530	1.65	**FF**	**47**	**DR**	**63L6**	25	403
6.9	245	190.76	7470	1.60						
7.5	225	175.38	7600	1.75	**FA**	**47**	**DR**	**63M4**	21	404
8.8	195	150.06	7800	2.0	**FAF**	**47**	**DR**	**63M4**	24	403
10	169	130.07	7920	2.4	**F**	**47**	**DR**	**63M4**	22	402
11	158	121.57	7970	2.5	**FF**	**47**	**DR**	**63M4**	25	403
7.4	230	117.88	3750	0.85						
8.7	198	100.36	4320	1.00	**FA**	**37**	**DR**	**63L6**	17	398
10	171	86.53	4660	1.15	**FAF**	**37**	**DR**	**63L6**	18	397
11	159	80.65	4790	1.25	**F**	**37**	**DR**	**63L6**	17	396
12	139	70.50	4970	1.45	**FF**	**37**	**DR**	**63L6**	19	397

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P_m = 0.18 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
10	167	128.51	4700	1.20						
11	154	117.88	4840	1.30						
13	131	100.36	5040	1.55	**FA**	**37**	**DR**	**63M4**	16	398
15	113	86.53	5180	1.75	**FAF**	**37**	**DR**	**63M4**	18	397
16	105	80.65	5230	1.90	**F**	**37**	**DR**	**63M4**	16	396
19	92	70.50	5300	2.2	**FF**	**37**	**DR**	**63M4**	18	397
20	86	66.09	5330	2.3						
23	76	58.32	5380	2.6						
12	143	109.90	4500	0.90						
14	123	94.76	4500	1.05						
15	115	88.32	4500	1.15						
17	100	77.21	4500	1.30						
18	94	72.37	4500	1.40	**FA**	**27**	**DR**	**63M4**	9.9	393
21	83	63.86	4500	1.55	**FAF**	**27**	**DR**	**63M4**	11	392
23	74	56.62	4500	1.75	**F**	**27**	**DR**	**63M4**	10	391
26	65	50.19	4500	2.00	**FF**	**27**	**DR**	**63M4**	11	392
28	61	46.78	4500	2.1						
32	53	40.89	4410	2.4						
34	50	38.33	4340	2.6						
39	44	33.83	4200	3.0						
45	38	29.56	4040	3.4						
49	35	27.18	3950	3.7						
57	30	23.25	3780	4.3						
65	26	20.15	3630	5.0						
70	24	18.84	3560	5.3						
81	21	16.28	3410	6.1						
95	18	13.84	3240	7.2						
107	16	12.35	3140	8.1	**FA**	**27**	**DR**	**63M4**	9.6	393
125	14	10.55	2990	9.5	**FAF**	**27**	**DR**	**63M4**	10	392
134	13	9.88	2930	10	**F**	**27**	**DR**	**63M4**	10	391
140	12	9.40	2870	11	**FF**	**27**	**DR**	**63M4**	11	392
162	11	8.13	2750	12						
191	9.0	6.91	2610	13						
214	8.0	6.17	2520	14						
251	6.9	5.27	2400	14						
268	6.4	4.93	2350	15						
318	5.4	4.16	2230	16						
335	5.1	8.13	2190	24						
394	4.4	6.91	2080	26	**FA**	**27**	**DR**	**63S2**	9.6	393
441	3.9	6.17	2000	28	**FAF**	**27**	**DR**	**63S2**	10	392
516	3.3	5.27	1910	30	**F**	**27**	**DR**	**63S2**	10	391
551	3.1	4.93	1870	31	**FF**	**27**	**DR**	**63S2**	11	392
655	2.6	4.16	1770	33						

P_m = 0.25 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.15	13300	8831	87900	0.90						
0.17	11500	7643	90000	1.05	**FA**	**127R77**	**DR**	**63L4**	425	456
0.19	10400	6715	90000	1.15	**FAF**	**127R77**	**DR**	**63L4**	465	456
0.22	9230	5925	90000	1.30	**F**	**127R77**	**DR**	**63L4**	465	456
0.25	7940	5153	90000	1.50	**FF**	**127R77**	**DR**	**63L4**	510	456
0.29	6890	4533	90000	1.75						
0.22	9050	5954	46000	0.85	**FA**	**107R77**	**DR**	**63L4**	275	456
0.25	7890	5223	49300	0.95	**FAF**	**107R77**	**DR**	**63L4**	295	456
0.28	7120	4567	51300	1.10	**F**	**107R77**	**DR**	**63L4**	290	456
0.37	5430	3521	55300	1.40	**FF**	**107R77**	**DR**	**63L4**	320	456
0.43	4780	3037	56800	1.60						
0.47	4340	2756	57700	1.75	**FA**	**107R77**	**DR**	**63L4**	275	456
0.55	3730	2369	59000	2.1	**FAF**	**107R77**	**DR**	**63L4**	295	456
0.63	3250	2068	59900	2.4	**F**	**107R77**	**DR**	**63L4**	290	456
0.81	2490	1597	61300	3.1	**FF**	**107R77**	**DR**	**63L4**	320	456
0.93	2150	1401	61900	3.6						

P_m = 0.25 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.45	4670	2907	27500	0.90						
0.51	4180	2553	30300	1.05						
0.58	3670	2245	31600	1.15						
0.66	3200	1970	32800	1.35	**FA**	**97R57**	**DR**	**63L4**	185	456
0.75	2820	1722	33700	1.50	**FAF**	**97R57**	**DR**	**63L4**	205	456
0.85	2500	1527	34400	1.70	**F**	**97R57**	**DR**	**63L4**	190	456
0.98	2090	1327	35200	2.0	**FF**	**97R57**	**DR**	**63L4**	225	456
1.1	1910	1171	35500	2.2						
1.3	1670	1022	36000	2.6						
0.67	3130	1930	13500	0.95						
0.76	2790	1709	23700	1.05						
0.87	2440	1493	25000	1.25						
1.0	2050	1300	26300	1.45	**FA**	**87R57**	**DR**	**63L4**	120	456
1.1	1830	1148	26900	1.65	**FAF**	**87R57**	**DR**	**63L4**	130	456
1.3	1590	1010	27600	1.90	**F**	**87R57**	**DR**	**63L4**	125	456
1.5	1410	887	28000	2.1	**FF**	**87R57**	**DR**	**63L4**	140	456
1.7	1230	780	28500	2.4						
1.9	1040	674	28900	2.9						
1.2	1740	1053	13900	0.85						
1.4	1490	910	15700	1.00						
1.6	1290	810	16900	1.15	**FA**	**77R37**	**DR**	**63L4**	66	456
1.8	1130	710	17700	1.30	**FAF**	**77R37**	**DR**	**63L4**	72	456
2.1	1000	615	18300	1.50	**F**	**77R37**	**DR**	**63L4**	70	456
2.4	870	538	18700	1.70	**FF**	**77R37**	**DR**	**63L4**	80	456
2.7	775	480	19000	1.95						
3.2	660	413	19400	2.3						
2.3	930	572	9150	0.90	**FA**	**67R37**	**DR**	**63L4**	44	456
2.6	810	509	10400	1.00	**FAF**	**67R37**	**DR**	**63L4**	50	456
3.0	700	437	11200	1.15	**F**	**67R37**	**DR**	**63L4**	46	456
					FF	**67R37**	**DR**	**63L4**	53	456
2.6	830	500	10200	1.00						
2.9	755	454	10800	1.10						
3.3	650	392	11600	1.25	**FA**	**67R37**	**DR**	**63L4**	42	456
3.9	550	333	12200	1.50	**FAF**	**67R37**	**DR**	**63L4**	49	456
4.4	485	297	12500	1.70	**F**	**67R37**	**DR**	**63L4**	45	456
5.0	425	261	12700	1.90	**FF**	**67R37**	**DR**	**63L4**	51	456
5.5	385	238	12900	2.1						
3.4	620	386	8830	0.95	**FA**	**57R37**	**DR**	**63L4**	40	456
3.8	540	338	9640	1.10	**FAF**	**57R37**	**DR**	**63L4**	45	456
5.1	405	255	10500	1.45	**F**	**57R37**	**DR**	**63L4**	40	456
					FF	**57R37**	**DR**	**63L4**	46	456
3.4	635	382	7390	0.95						
3.9	550	330	9570	1.10						
4.4	495	298	9950	1.20	**FA**	**57R37**	**DR**	**63L4**	39	456
5.0	435	262	10300	1.35	**FAF**	**57R37**	**DR**	**63L4**	45	456
5.8	370	226	10700	1.60	**F**	**57R37**	**DR**	**63L4**	39	456
6.5	320	200	11000	1.85	**FF**	**57R37**	**DR**	**63L4**	46	456
7.6	275	170	11300	2.2						
5.2	400	249	5880	1.00	**FA**	**47R17**	**DR**	**63L4**	24	456
6.0	355	218	6470	1.10	**FAF**	**47R17**	**DR**	**63L4**	27	456
6.7	315	193	6920	1.25	**F**	**47R17**	**DR**	**63L4**	25	456
7.4	285	175	7180	1.40	**FF**	**47R17**	**DR**	**63L4**	28	456
5.1	410	253	4980	0.95						
6.0	365	217	6380	1.10	**FA**	**47R17**	**DR**	**63L4**	24	456
6.8	315	190	6900	1.25	**FAF**	**47R17**	**DR**	**63L4**	26	456
7.3	295	178	7090	1.35	**F**	**47R17**	**DR**	**63L4**	25	456
8.7	245	149	7480	1.60	**FF**	**47R17**	**DR**	**63L4**	28	456
9.9	215	131	7670	1.85						
8.9	245	145	3420	0.80						
10	215	129	4040	0.90	**FA**	**37R17**	**DR**	**63L4**	20	456
11	198	118	4320	1.00	**FAF**	**37R17**	**DR**	**63L4**	21	456
13	164	98	4740	1.20	**F**	**37R17**	**DR**	**63L4**	20	456
15	144	87	4940	1.40	**FF**	**37R17**	**DR**	**63L4**	22	456

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P_m = 0.25 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.2	750	281.71	19100	2.0	**FA**	**77**	**DRS**	**71S6**	58	422
3.4	700	262.93	19300	2.1	**FAF**	**77**	**DRS**	**71S6**	65	421
4.0	600	225.79	19500	2.5	**F**	**77**	**DRS**	**71S6**	62	420
4.5	525	198.31	19600	2.8	**FF**	**77**	**DRS**	**71S6**	73	421
4.8	500	188.40	19700	3.0						
3.9	610	228.99	11800	1.35						
4.6	520	195.39	12300	1.55	**FA**	**67**	**DRS**	**71S6**	34	416
5.2	455	170.85	12600	1.80	**FAF**	**67**	**DRS**	**71S6**	41	415
5.5	430	162.31	12700	1.90	**F**	**67**	**DRS**	**71S6**	37	414
6.3	375	142.40	12900	2.2	**FF**	**67**	**DRS**	**71S6**	43	415
5.7	420	228.99	12700	1.95						
6.6	355	195.39	13000	2.3	**FA**	**67**	**DR**	**63L4**	33	416
7.6	310	170.85	13000	2.6	**FAF**	**67**	**DR**	**63L4**	39	415
8.0	295	162.31	13000	2.8	**F**	**67**	**DR**	**63L4**	36	414
9.1	260	142.40	13000	3.1	**FF**	**67**	**DR**	**63L4**	42	415
4.5	530	199.70	9700	1.15						
4.9	485	183.60	9990	1.25	**FA**	**57**	**DRS**	**71S6**	31	410
5.7	415	157.09	10500	1.45	**FAF**	**57**	**DRS**	**71S6**	36	409
6.6	360	136.16	10800	1.65	**F**	**57**	**DRS**	**71S6**	31	408
7.0	335	127.27	10900	1.75	**FF**	**57**	**DRS**	**71S6**	37	409
8.1	290	110.01	11200	2.0						
6.5	365	199.70	10800	1.65						
7.1	335	183.60	10900	1.80	**FA**	**57**	**DR**	**63L4**	29	410
8.3	285	157.09	11200	2.1	**FAF**	**57**	**DR**	**63L4**	34	409
9.6	250	136.16	11400	2.4	**F**	**57**	**DR**	**63L4**	29	408
10	230	127.27	11500	2.6	**FF**	**57**	**DR**	**63L4**	35	409
12	200	110.01	11500	3.0						
6.0	400	150.06	5920	1.00	**FA**	**47**	**DRS**	**71S6**	24	404
6.9	345	130.07	6590	1.15	**FAF**	**47**	**DRS**	**71S6**	26	403
7.4	320	121.57	6830	1.25	**F**	**47**	**DRS**	**71S6**	24	402
8.5	280	105.09	7230	1.45	**FF**	**47**	**DRS**	**71S6**	27	403
6.8	350	190.76	6550	1.15						
7.4	320	175.38	6850	1.25						
8.7	275	150.06	7270	1.45	**FA**	**47**	**DR**	**63L4**	22	404
10.0	235	130.07	7540	1.65	**FAF**	**47**	**DR**	**63L4**	24	403
11	220	121.57	7640	1.80	**F**	**47**	**DR**	**63L4**	22	402
12	193	105.09	7810	2.1	**FF**	**47**	**DR**	**63L4**	25	403
15	164	89.29	7950	2.4						
10	235	128.51	3690	0.85						
11	215	117.88	4040	0.90						
13	184	100.36	4500	1.10						
15	159	86.53	4790	1.25						
16	148	80.65	4900	1.35						
18	130	70.50	5060	1.55						
20	121	66.09	5120	1.65	**FA**	**37**	**DR**	**63L4**	17	398
22	107	58.32	5210	1.85	**FAF**	**37**	**DR**	**63L4**	18	397
24	100	54.54	5260	2.0	**F**	**37**	**DR**	**63L4**	17	396
25	95	51.70	5280	2.1	**FF**	**37**	**DR**	**63L4**	19	397
28	86	47.02	5330	2.3						
30	80	43.83	5360	2.5						
34	70	38.31	5400	2.8						
36	66	35.91	5420	3.0						
41	58	31.69	5440	3.4						
17	142	77.21	4500	0.90						
18	133	72.37	4500	1.00						
20	117	63.86	4500	1.10						
23	104	56.62	4500	1.25	**FA**	**27**	**DR**	**63L4**	11	393
26	92	50.19	4440	1.40	**FAF**	**27**	**DR**	**63L4**	11	392
28	86	46.78	4370	1.50	**F**	**27**	**DR**	**63L4**	11	391
32	75	40.89	4240	1.75	**FF**	**27**	**DR**	**63L4**	12	392
34	70	38.33	4180	1.85						
38	62	33.83	4060	2.1						

P_m = 0.25 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
44	54	29.56	3920	2.4						
48	50	27.18	3840	2.6						
56	43	23.25	3690	3.0						
64	37	20.15	3550	3.5						
69	35	18.84	3480	3.8						
80	30	16.28	3350	4.4						
94	25	13.84	3200	5.1						
105	23	12.35	3090	5.7	**FA**	**27**	**DR**	**63L4**	10	393
123	19	10.55	2950	6.7	**FAF**	**27**	**DR**	**63L4**	11	392
132	18	9.88	2900	7.2	**F**	**27**	**DR**	**63L4**	11	391
138	17	9.40	2840	7.5	**FF**	**27**	**DR**	**63L4**	12	392
160	15	8.13	2720	8.3						
188	13	6.91	2590	9.0						
211	11	6.17	2500	9.6						
247	9.7	5.27	2380	10						
264	9.1	4.93	2340	11						
313	7.6	4.16	2220	11						
327	7.3	8.13	2180	17						
385	6.2	6.91	2080	18	**FA**	**27**	**DR**	**63M2**	9.6	393
431	5.5	6.17	2000	20	**FAF**	**27**	**DR**	**63M2**	10	392
505	4.7	5.27	1910	21	**F**	**27**	**DR**	**63M2**	10	391
539	4.4	4.93	1870	22	**FF**	**27**	**DR**	**63M2**	11	392
640	3.7	4.16	1770	24						

P_m = 0.37 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.21	14900	6715	84600	0.80						
0.23	13200	5925	88100	0.90						
0.27	11400	5153	90000	1.05	**FA**	**127R77**	**DRS**	**71S4**	430	456
0.30	9930	4533	90000	1.20	**FAF**	**127R77**	**DRS**	**71S4**	465	456
0.35	8690	3926	90000	1.40	**F**	**127R77**	**DRS**	**71S4**	465	456
0.40	7560	3454	90000	1.60	**FF**	**127R77**	**DRS**	**71S4**	510	456
0.46	6610	3031	90000	1.80						
0.45	6850	3037	52000	1.10						
0.50	6210	2756	53500	1.25	**FA**	**107R77**	**DRS**	**71S4**	275	456
0.58	5340	2369	55500	1.45	**FAF**	**107R77**	**DRS**	**71S4**	295	456
0.67	4660	2068	57000	1.65	**F**	**107R77**	**DRS**	**71S4**	290	456
0.86	3570	1597	59300	2.2	**FF**	**107R77**	**DRS**	**71S4**	320	456
0.70	4540	1970	29200	0.95						
0.80	3990	1722	30800	1.10						
0.90	3540	1527	32000	1.20	**FA**	**97R57**	**DRS**	**71S4**	185	456
1.0	2990	1327	33300	1.45	**FAF**	**97R57**	**DRS**	**71S4**	205	456
1.2	2710	1171	33900	1.60	**F**	**97R57**	**DRS**	**71S4**	190	456
1.4	2370	1022	34700	1.80	**FF**	**97R57**	**DRS**	**71S4**	225	456
1.5	2000	898	35400	2.1						
1.1	2930	1300	22000	1.00						
1.2	2610	1148	24400	1.15						
1.4	2280	1010	25600	1.30						
1.6	2010	887	26400	1.50	**FA**	**87R57**	**DRS**	**71S4**	120	456
1.8	1760	780	27100	1.70	**FAF**	**87R57**	**DRS**	**71S4**	130	456
2.0	1500	674	27800	2.00	**F**	**87R57**	**DRS**	**71S4**	125	456
2.3	1370	609	28100	2.2	**FF**	**87R57**	**DRS**	**71S4**	140	456
2.7	1150	515	28600	2.6						
3.0	1020	452	28900	2.9						
1.7	1840	810	11300	0.80						
1.9	1620	710	14900	0.95						
2.2	1420	615	16200	1.05	**FA**	**77R37**	**DRS**	**71S4**	68	456
2.6	1240	538	17200	1.20	**FAF**	**77R37**	**DRS**	**71S4**	74	456
2.9	1100	480	17900	1.35	**F**	**77R37**	**DRS**	**71S4**	72	456
3.4	940	413	18500	1.60	**FF**	**77R37**	**DRS**	**71S4**	82	456
3.8	840	367	18900	1.80						
4.3	750	323	19100	2.0						

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P_m = 0.37 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.6	880	384	9670	0.95	**FA**	**67R37**	**DRS**	**71S4**	46	456
4.1	785	338	10600	1.05	**FAF**	**67R37**	**DRS**	**71S4**	52	456
4.5	700	305	11200	1.15	**F**	**67R37**	**DRS**	**71S4**	48	456
5.4	590	257	11900	1.40	**FF**	**67R37**	**DRS**	**71S4**	55	456
6.0	520	231	12300	1.55						
5.4	580	255	9330	1.05	**FA**	**57R37**	**DRS**	**71S4**	42	456
6.9	455	201	10200	1.30	**FAF**	**57R37**	**DRS**	**71S4**	47	456
7.6	410	181	10500	1.45	**F**	**57R37**	**DRS**	**71S4**	42	456
					FF	**57R37**	**DRS**	**71S4**	48	456
5.3	615	262	9070	0.95						
6.1	525	226	9740	1.15	**FA**	**57R37**	**DRS**	**71S4**	41	456
6.9	460	200	10200	1.30	**FAF**	**57R37**	**DRS**	**71S4**	47	456
8.1	390	170	10600	1.50	**F**	**57R37**	**DRS**	**71S4**	41	456
9.0	345	152	10900	1.70	**FF**	**57R37**	**DRS**	**71S4**	48	456
10	305	134	11100	1.95						
7.9	400	175	5860	1.00	**FA**	**47R17**	**DRS**	**71S4**	26	456
9.4	340	147	6660	1.15	**FAF**	**47R17**	**DRS**	**71S4**	29	456
11	300	130	7050	1.35	**F**	**47R17**	**DRS**	**71S4**	27	456
					FF	**47R17**	**DRS**	**71S4**	30	456
3.3	1050	270.68	28900	2.8	**FA**	**87**	**DRS**	**71M6**	99	428
3.5	990	255.37	29000	3.0	**FAF**	**87**	**DRS**	**71M6**	110	427
4.0	890	228.93	29200	3.4	**F**	**87**	**DRS**	**71M6**	105	426
					FF	**87**	**DRS**	**71M6**	120	427
4.0	880	225.79	18700	1.70	**FA**	**77**	**DRS**	**71M6**	60	422
4.6	770	198.31	19100	1.95	**FAF**	**77**	**DRS**	**71M6**	66	421
4.8	735	188.40	19200	2.0	**F**	**77**	**DRS**	**71M6**	64	420
5.4	645	166.47	19400	2.3	**FF**	**77**	**DRS**	**71M6**	74	421
6.4	555	142.27	19600	2.7						
4.9	720	281.71	19200	2.1	**FA**	**77**	**DRS**	**71S4**	58	422
5.2	670	262.93	19300	2.2	**FAF**	**77**	**DRS**	**71S4**	65	421
6.1	575	225.79	19500	2.6	**F**	**77**	**DRS**	**71S4**	62	420
7.0	505	198.31	19700	3.0	**FF**	**77**	**DRS**	**71S4**	73	421
4.6	760	195.39	10800	1.05	**FA**	**67**	**DRS**	**71M6**	36	416
5.3	665	170.85	11500	1.25	**FAF**	**67**	**DRS**	**71M6**	42	415
5.6	630	162.31	11700	1.30	**F**	**67**	**DRS**	**71M6**	39	414
6.4	555	142.40	12100	1.45	**FF**	**67**	**DRS**	**71M6**	45	415
7.5	470	120.79	12500	1.75						
6.0	585	228.99	12000	1.40						
7.1	500	195.39	12400	1.65	**FA**	**67**	**DRS**	**71S4**	34	416
8.1	435	170.85	12700	1.85	**FAF**	**67**	**DRS**	**71S4**	41	415
8.5	415	162.31	12800	1.95	**F**	**67**	**DRS**	**71S4**	37	414
9.7	360	142.40	12900	2.2	**FF**	**67**	**DRS**	**71S4**	43	415
11	305	120.79	13000	2.6						
5.8	610	157.09	9100	1.00	**FA**	**57**	**DRS**	**71M6**	32	410
6.6	530	136.16	9700	1.15	**FAF**	**57**	**DRS**	**71M6**	37	409
7.1	495	127.27	9940	1.20	**F**	**57**	**DRS**	**71M6**	32	408
8.2	425	110.01	10400	1.40	**FF**	**57**	**DRS**	**71M6**	38	409
6.9	510	199.70	9850	1.15						
7.5	470	183.60	10100	1.30						
8.8	400	157.09	10600	1.50	**FA**	**57**	**DRS**	**71S4**	31	410
10	345	136.16	10900	1.70	**FAF**	**57**	**DRS**	**71S4**	36	409
11	325	127.27	11000	1.85	**F**	**57**	**DRS**	**71S4**	31	408
13	280	110.01	11200	2.1	**FF**	**57**	**DRS**	**71S4**	37	409
15	235	93.47	11500	2.5						
17	210	83.46	11500	2.8						
9.2	380	150.06	6140	1.05						
11	330	130.07	6740	1.20	**FA**	**47**	**DRS**	**71S4**	24	404
13	265	105.09	7320	1.50	**FAF**	**47**	**DRS**	**71S4**	26	403
15	225	89.29	7600	1.75	**F**	**47**	**DRS**	**71S4**	24	402
17	200	79.72	7750	1.95	**FF**	**47**	**DRS**	**71S4**	27	403
20	174	68.09	7900	2.3						
21	167	65.36	7930	2.4						

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P_m = 0.37 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
16	220	86.53	3960	0.90						
17	205	80.65	4200	0.95						
20	180	70.50	4550	1.10						
21	169	66.09	4680	1.20						
24	149	58.32	4880	1.35						
25	140	54.54	4970	1.45	**FA**	**37**	**DRS**	**71S4**	19	398
27	132	51.70	5030	1.50	**FAF**	**37**	**DRS**	**71S4**	20	397
29	120	47.02	5120	1.65	**F**	**37**	**DRS**	**71S4**	19	396
31	112	43.83	5180	1.80	**FF**	**37**	**DRS**	**71S4**	21	397
36	98	38.31	5270	2.0						
38	92	35.91	5300	2.2						
44	81	31.69	5300	2.5						
49	72	28.09	5140	2.8						
58	61	23.88	4930	3.3						
24	145	56.62	4080	0.90						
28	128	50.19	4010	1.00	**FA**	**27**	**DRS**	**71S4**	13	393
30	120	46.78	3970	1.10	**FAF**	**27**	**DRS**	**71S4**	13	392
34	105	40.89	3880	1.25	**F**	**27**	**DRS**	**71S4**	13	391
36	98	38.33	3840	1.35	**FF**	**27**	**DRS**	**71S4**	14	392
41	87	33.83	3750	1.50						
47	76	29.56	3650	1.70						
51	70	27.18	3580	1.85						
59	60	23.25	3460	2.2						
68	52	20.15	3340	2.5						
73	48	18.84	3290	2.7						
85	42	16.28	3170	3.1						
100	35	13.84	3040	3.7						
112	32	12.35	2950	4.1	**FA**	**27**	**DRS**	**71S4**	12	393
131	27	10.55	2820	4.8	**FAF**	**27**	**DRS**	**71S4**	13	392
140	25	9.88	2770	5.1	**F**	**27**	**DRS**	**71S4**	13	391
147	24	9.40	2710	5.4	**FF**	**27**	**DRS**	**71S4**	14	392
170	21	8.13	2600	5.9						
200	18	6.91	2490	6.4						
224	16	6.17	2410	6.9						
262	14	5.27	2300	7.4						
280	13	4.93	2250	7.6						
332	11	4.16	2140	8.2						
326	11	8.13	2150	11						
384	9.2	6.91	2050	12	**FA**	**27**	**DR**	**63L2**	10	393
430	8.2	6.17	1980	13	**FAF**	**27**	**DR**	**63L2**	11	392
503	7.0	5.27	1890	14	**F**	**27**	**DR**	**63L2**	11	391
537	6.6	4.93	1850	15	**FF**	**27**	**DR**	**63L2**	12	392
638	5.5	4.16	1750	16						

P_m = 0.55 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.22	20500	6295	91800	0.90	**FA**	**157R97**	**DRS**	**71M4**	770	456
0.25	17100	5404	102700	1.05	**FAF**	**157R97**	**DRS**	**71M4**	830	456
0.49	8820	2780	118800	2.0	**F**	**157R97**	**DRS**	**71M4**	790	456
					FF	**157R97**	**DRS**	**71M4**	900	456
0.56	7790	2427	120000	2.3	**FA**	**157R97**	**DRS**	**71M4**	760	456
0.81	5530	1674	120000	3.2	**FAF**	**157R97**	**DRS**	**71M4**	820	456
1.0	4270	1308	120000	4.2	**F**	**157R97**	**DRS**	**71M4**	790	456
1.2	3750	1169	120000	4.8	**FF**	**157R97**	**DRS**	**71M4**	890	456
0.35	13400	3926	87700	0.90	**FA**	**127R77**	**DRS**	**71M4**	430	456
0.39	11700	3454	90000	1.00	**FAF**	**127R77**	**DRS**	**71M4**	465	456
0.45	10200	3031	90000	1.15	**F**	**127R77**	**DRS**	**71M4**	465	456
					FF	**127R77**	**DRS**	**71M4**	510	456

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P_m = 0.55 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.57	8240	2369	48300	0.95						
0.66	7200	2068	51100	1.05						
0.74	6190	1826	53600	1.25						
0.85	5530	1597	55100	1.40	**FA**	**107R77**	**DRS**	**71M4**	275	456
0.97	4820	1401	56700	1.60	**FAF**	**107R77**	**DRS**	**71M4**	300	456
1.1	4210	1243	58000	1.80	**F**	**107R77**	**DRS**	**71M4**	295	456
1.2	3760	1087	58900	2.0	**FF**	**107R77**	**DRS**	**71M4**	320	456
1.4	3220	950	60000	2.4						
1.6	2800	834	60800	2.7						
2.1	2180	640	61900	3.5						
1.0	4620	1327	28900	0.95						
1.2	4150	1171	30300	1.05						
1.3	3620	1022	31800	1.20						
1.5	3100	898	33100	1.40						
1.7	2740	784	33900	1.55	**FA**	**97R57**	**DRS**	**71M4**	185	456
2.0	2380	690	34600	1.80	**FAF**	**97R57**	**DRS**	**71M4**	210	456
2.2	2100	605	35200	2.0	**F**	**97R57**	**DRS**	**71M4**	195	456
2.6	1820	529	35700	2.4	**FF**	**97R57**	**DRS**	**71M4**	225	456
2.9	1610	467	36100	2.7						
3.4	1380	406	36500	3.1						
3.7	1240	363	36700	3.5						
1.5	3100	887	15200	0.95						
1.7	2710	780	24000	1.10						
2.0	2330	674	25400	1.30	**FA**	**87R57**	**DRS**	**71M4**	120	456
2.2	2120	609	26100	1.40	**FAF**	**87R57**	**DRS**	**71M4**	135	456
2.6	1790	515	27000	1.70	**F**	**87R57**	**DRS**	**71M4**	125	456
3.0	1570	452	27600	1.90	**FF**	**87R57**	**DRS**	**71M4**	140	456
3.9	1180	345	28600	2.5						
2.8	1690	480	14300	0.90	**FA**	**77R37**	**DRS**	**71M4**	69	456
3.3	1440	413	16100	1.05	**FAF**	**77R37**	**DRS**	**71M4**	76	456
3.7	1290	367	17000	1.15	**F**	**77R37**	**DRS**	**71M4**	73	456
4.2	1140	323	17700	1.30	**FF**	**77R37**	**DRS**	**71M4**	83	456
5.3	900	257	9470	0.90	**FA**	**67R37**	**DRS**	**71M4**	47	456
5.9	800	231	10400	1.00	**FAF**	**67R37**	**DRS**	**71M4**	53	456
6.6	720	205	11100	1.15	**F**	**67R37**	**DRS**	**71M4**	50	456
7.8	610	175	11800	1.35	**FF**	**67R37**	**DRS**	**71M4**	56	456
3.4	1550	270.68	27700	1.95						
3.6	1460	255.37	27900	2.0	**FA**	**87**	**DRS**	**80S6**	100	428
4.0	1310	228.93	28300	2.3	**FAF**	**87**	**DRS**	**80S6**	115	427
4.6	1130	197.20	28700	2.6	**F**	**87**	**DRS**	**80S6**	105	426
5.1	1030	179.97	28900	2.9	**FF**	**87**	**DRS**	**80S6**	120	427
4.0	1290	225.79	17000	1.15	**FA**	**77**	**DRS**	**80S6**	62	422
4.6	1130	198.31	17700	1.30	**FAF**	**77**	**DRS**	**80S6**	69	421
4.9	1080	188.40	18000	1.40	**F**	**77**	**DRS**	**80S6**	66	420
					FF	**77**	**DRS**	**80S6**	77	421
5.5	950	166.47	18500	1.55	**FA**	**77**	**DRS**	**80S6**	62	422
6.4	810	142.27	18900	1.85	**FAF**	**77**	**DRS**	**80S6**	69	421
7.0	745	130.42	19100	2.0	**F**	**77**	**DRS**	**80S6**	66	420
					FF	**77**	**DRS**	**80S6**	77	421
6.0	870	225.79	18800	1.70						
6.9	765	198.31	19100	1.95						
7.2	725	188.40	19200	2.1						
8.2	640	166.47	19400	2.3	**FA**	**77**	**DRS**	**71M4**	60	422
9.6	545	142.27	19600	2.7	**FAF**	**77**	**DRS**	**71M4**	66	421
10	500	130.42	19700	3.0	**F**	**77**	**DRS**	**71M4**	64	420
12	440	114.45	19800	3.4	**FF**	**77**	**DRS**	**71M4**	74	421
13	415	108.46*	19800	3.6						
14	365	94.93	19900	4.1						

P_m = 0.55 kW											
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
7.0	750	195.39	10900	1.10							
8.0	655	170.85	11500	1.25							
8.4	625	162.31	11700	1.30							
9.6	545	142.40	12200	1.50	**FA**	**67**	**DRS**	**71M4**		36	416
11	465	120.79	12600	1.75	**FAF**	**67**	**DRS**	**71M4**		42	415
12	420	109.04	12700	1.95	**F**	**67**	**DRS**	**71M4**		39	414
14	370	95.94	12900	2.2	**FF**	**67**	**DRS**	**71M4**		45	415
15	345	90.59	13000	2.3							
17	305	79.76	13000	2.7							
8.7	605	157.09	9150	1.00							
10.0	525	136.16	9740	1.15							
11	490	127.27	9980	1.20							
12	420	110.01	10400	1.40	**FA**	**57**	**DRS**	**71M4**		32	410
15	360	93.47	10800	1.65	**FAF**	**57**	**DRS**	**71M4**		37	409
16	320	83.46	11000	1.85	**F**	**57**	**DRS**	**71M4**		32	408
19	280	72.98	11200	2.1	**FF**	**57**	**DRS**	**71M4**		38	409
20	260	68.22	11300	2.3							
23	225	58.97	11500	2.6							
13	405	105.09	5840	1.00							
15	340	89.29	6620	1.15							
17	305	79.72	6990	1.30	**FA**	**47**	**DRS**	**71M4**		25	404
20	260	68.09	7360	1.50	**FAF**	**47**	**DRS**	**71M4**		27	403
21	250	65.36	7440	1.60	**F**	**47**	**DRS**	**71M4**		25	402
24	215	56.49	7670	1.85	**FF**	**47**	**DRS**	**71M4**		29	403
28	185	48.00*	7850	2.2							
32	166	42.86	7940	2.4							
23	225	58.32	3890	0.90							
25	210	54.54	4140	0.95							
26	200	51.70	4300	1.00							
29	182	47.02	4540	1.10	**FA**	**37**	**DRS**	**71M4**		20	398
31	169	43.83	4680	1.20	**FAF**	**37**	**DRS**	**71M4**		21	397
36	148	38.31	4900	1.35	**F**	**37**	**DRS**	**71M4**		20	396
38	139	35.91	4980	1.45	**FF**	**37**	**DRS**	**71M4**		22	397
43	122	31.69	4990	1.65							
48	108	28.09	4870	1.85							
57	92	23.88	4700	2.2							
58	91	23.63	4690	2.2							
66	79	20.57	4540	2.5	**FA**	**37**	**DRS**	**71M4**		20	398
71	74	19.27	4470	2.7	**FAF**	**37**	**DRS**	**71M4**		21	397
80	66	17.03	4340	3.0	**F**	**37**	**DRS**	**71M4**		20	396
95	55	14.33	4150	3.6	**FF**	**37**	**DRS**	**71M4**		22	397
36	144	77.21	3410	0.90							
39	135	72.37	3390	0.95	**FA**	**27**	**DRS**	**71M2**		14	393
44	119	63.86	3350	1.10	**FAF**	**27**	**DRS**	**71M2**		14	392
50	106	56.62	3290	1.25	**F**	**27**	**DRS**	**71M2**		14	391
56	94	50.19	3230	1.40	**FF**	**27**	**DRS**	**71M2**		15	392
58	90	23.25	3210	1.45							
67	78	20.15	3130	1.65							
72	73	18.84	3090	1.80							
84	63	16.28	3000	2.1							
98	53	13.84	2900	2.4							
110	48	12.35	2820	2.7							
129	41	10.55	2720	3.2	**FA**	**27**	**DRS**	**71M4**		13	393
138	38	9.88	2670	3.4	**FAF**	**27**	**DRS**	**71M4**		14	392
145	36	9.40	2610	3.6	**F**	**27**	**DRS**	**71M4**		14	391
167	31	8.13	2510	3.9	**FF**	**27**	**DRS**	**71M4**		15	392
197	27	6.91	2410	4.3							
221	24	6.17	2340	4.6							
258	20	5.27	2240	4.9							
276	19	4.93	2200	5.0							
327	16	4.16	2100	5.4							

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P_m = 0.55 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
346	15	8.13	2070	8.1						
407	13	6.91	1970	8.8	**FA**	**27**	**DRS**	**71M2**	13	393
456	12	6.17	1910	9.5	**FAF**	**27**	**DRS**	**71M2**	14	392
533	9.8	5.27	1820	10	**F**	**27**	**DRS**	**71M2**	14	391
570	9.2	4.93	1790	10	**FF**	**27**	**DRS**	**71M2**	15	392
676	7.8	4.16	1700	11						

P_m = 0.75 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					FA	**157R97**	**DRN**	**80M4**	770	456
					FAF	**157R97**	**DRN**	**80M4**	830	456
0.52	11600	2780	114700	1.55	**F**	**157R97**	**DRN**	**80M4**	790	456
					FF	**157R97**	**DRN**	**80M4**	900	456
0.59	10300	2427	116800	1.75	**FA**	**157R97**	**DRN**	**80M4**	770	456
0.86	7280	1674	120000	2.5	**FAF**	**157R97**	**DRN**	**80M4**	830	456
1.1	5620	1308	120000	3.2	**F**	**157R97**	**DRN**	**80M4**	790	456
1.2	4960	1169	120000	3.6	**FF**	**157R97**	**DRN**	**80M4**	900	456
					FA	**127R77**	**DRN**	**80M4**	435	456
					FAF	**127R77**	**DRN**	**80M4**	470	456
0.48	13400	3031	87700	0.90	**F**	**127R77**	**DRN**	**80M4**	470	456
					FF	**127R77**	**DRN**	**80M4**	520	456
0.54	12000	2672	90000	1.00						
0.61	10500	2357	90000	1.15	**FA**	**127R77**	**DRN**	**80M4**	435	456
0.71	9120	2038	90000	1.30	**FAF**	**127R77**	**DRN**	**80M4**	470	456
0.81	7940	1784	90000	1.50	**F**	**127R77**	**DRN**	**80M4**	470	456
0.90	7120	1606	90000	1.70	**FF**	**127R77**	**DRN**	**80M4**	510	456
0.79	8090	1826	48700	0.95						
0.90	7200	1597	51100	1.05						
1.0	6280	1401	53300	1.20						
1.2	5510	1243	55200	1.40	**FA**	**107R77**	**DRN**	**80M4**	280	456
1.3	4900	1087	56500	1.55	**FAF**	**107R77**	**DRN**	**80M4**	305	456
1.5	4210	950	58000	1.80	**F**	**107R77**	**DRN**	**80M4**	300	456
1.7	3670	834	59100	2.1	**FF**	**107R77**	**DRN**	**80M4**	325	456
2.2	2850	640	60700	2.7						
3.3	1940	436	62300	4.0						
1.4	4690	1022	26900	0.90						
1.6	4040	898	30600	1.05						
1.8	3560	784	31900	1.20						
2.1	3100	690	33100	1.40	**FA**	**97R57**	**DRN**	**80M4**	190	456
2.4	2730	605	33900	1.55	**FAF**	**97R57**	**DRN**	**80M4**	215	456
2.7	2370	529	34700	1.80	**F**	**97R57**	**DRN**	**80M4**	200	456
3.1	2090	467	35200	2.0	**FF**	**97R57**	**DRN**	**80M4**	230	456
3.6	1800	406	35700	2.4						
4.0	1620	363	36100	2.6						
2.1	3030	674	18400	1.00						
2.4	2750	609	23900	1.10	**FA**	**87R57**	**DRN**	**80M4**	125	456
2.8	2320	515	25400	1.30	**FAF**	**87R57**	**DRN**	**80M4**	140	456
3.2	2040	452	26300	1.45	**F**	**87R57**	**DRN**	**80M4**	130	456
4.2	1540	345	27700	1.95	**FF**	**87R57**	**DRN**	**80M4**	145	456
					FA	**77R37**	**DRN**	**80M4**	74	456
3.9	1670	367	14400	0.90	**FAF**	**77R37**	**DRN**	**80M4**	80	456
4.5	1480	323	15800	1.00	**F**	**77R37**	**DRN**	**80M4**	77	456
5.2	1270	280	17000	1.15	**FF**	**77R37**	**DRN**	**80M4**	88	456
					FA	**87**	**DRN**	**80M4**	105	428
5.3	1340	270.68	28200	2.2	**FAF**	**87**	**DRN**	**80M4**	115	427
5.6	1270	255.37	28400	2.4	**F**	**87**	**DRN**	**80M4**	110	426
6.3	1130	228.93	28700	2.6	**FF**	**87**	**DRN**	**80M4**	125	427
					FA	**77**	**DRN**	**80M4**	65	422
6.4	1120	225.79	17800	1.35	**FAF**	**77**	**DRN**	**80M4**	71	421
7.3	980	198.31	18400	1.50	**F**	**77**	**DRN**	**80M4**	68	420
7.6	930	188.40	18500	1.60	**FF**	**77**	**DRN**	**80M4**	79	421

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P_m = 0.75 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
8.6	820	166.47	18900	1.80						
10	705	142.27	19200	2.1	**FA**	**77**	**DRN**	**80M4**	65	422
11	645	130.42	19400	2.3	**FAF**	**77**	**DRN**	**80M4**	71	421
13	565	114.45	19600	2.6	**F**	**77**	**DRN**	**80M4**	68	420
13	535	108.46*	19600	2.8	**FF**	**77**	**DRN**	**80M4**	79	421
8.4	840	170.85	10000	0.95	**FA**	**67**	**DRN**	**80M4**	41	416
8.9	800	162.31	10400	1.00	**FAF**	**67**	**DRN**	**80M4**	47	415
10	705	142.40	11200	1.15	**F**	**67**	**DRN**	**80M4**	43	414
12	600	120.79	11900	1.35	**FF**	**67**	**DRN**	**80M4**	49	415
13	540	109.04	12200	1.50						
15	475	95.94	12500	1.70	**FA**	**67**	**DRN**	**80M4**	41	416
16	450	90.59	12600	1.80	**FAF**	**67**	**DRN**	**80M4**	47	415
18	395	79.76	12800	2.1	**F**	**67**	**DRN**	**80M4**	43	414
21	335	67.65	13000	2.4	**FF**	**67**	**DRN**	**80M4**	49	415
24	300	61.07	13000	2.7						
11	630	127.27	7950	0.95						
13	545	110.01	9590	1.10						
15	460	93.47	10200	1.30						
17	415	83.46	10500	1.45	**FA**	**57**	**DRN**	**80M4**	37	410
20	360	72.98	10800	1.65	**FAF**	**57**	**DRN**	**80M4**	42	409
21	335	68.22	10900	1.75	**F**	**57**	**DRN**	**80M4**	37	408
24	290	58.97	11200	2.0	**FF**	**57**	**DRN**	**80M4**	43	409
29	245	50.10	11400	2.4						
32	220	44.73	11300	2.7						
18	395	79.72	5970	1.00	**FA**	**47**	**DRN**	**80M4**	29	404
21	335	68.09	6680	1.20	**FAF**	**47**	**DRN**	**80M4**	32	403
22	325	65.36	6820	1.25	**F**	**47**	**DRN**	**80M4**	30	402
					FF	**47**	**DRN**	**80M4**	33	403
25	280	56.49	7220	1.40						
30	235	48.00*	7540	1.70	**FA**	**47**	**DRN**	**80M4**	29	404
34	210	42.86	7700	1.90	**FAF**	**47**	**DRN**	**80M4**	32	403
39	182	36.61	7860	2.2	**F**	**47**	**DRN**	**80M4**	30	402
42	171	34.29	7770	2.4	**FF**	**47**	**DRN**	**80M4**	33	403
50	144	28.88	7460	2.8						
31	230	47.02	3730	0.85						
33	215	43.83	4020	0.90	**FA**	**37**	**DRN**	**80M4**	24	398
38	191	38.31	4420	1.05	**FAF**	**37**	**DRN**	**80M4**	26	397
40	179	35.91	4570	1.10	**F**	**37**	**DRN**	**80M4**	25	396
45	158	31.69	4590	1.25	**FF**	**37**	**DRN**	**80M4**	27	397
51	140	28.09	4500	1.45						
61	118	23.63	4370	1.70						
70	102	20.57	4250	1.95	**FA**	**37**	**DRN**	**80M4**	24	398
75	96	19.27	4200	2.1	**FAF**	**37**	**DRN**	**80M4**	26	397
85	85	17.03	4090	2.4	**F**	**37**	**DRN**	**80M4**	25	396
100	71	14.33	3930	2.8	**FF**	**37**	**DRN**	**80M4**	27	397
112	64	12.87	3830	3.1						
62	116	23.25	2900	1.10						
71	100	20.15	2860	1.30						
76	94	18.84	2830	1.40						
88	81	16.28	2770	1.60						
104	69	13.84	2700	1.90						
117	61	12.35	2640	2.1						
136	52	10.55	2560	2.5	**FA**	**27**	**DRN**	**80M4**	18	393
146	49	9.88	2520	2.6	**FAF**	**27**	**DRN**	**80M4**	19	392
153	47	9.40	2450	2.8	**F**	**27**	**DRN**	**80M4**	19	391
177	40	8.13	2370	3.0	**FF**	**27**	**DRN**	**80M4**	19	392
208	34	6.91	2280	3.3						
234	31	6.17	2220	3.6						
273	26	5.27	2140	3.8						
292	25	4.93	2100	3.9						
346	21	4.16	2010	4.2						

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P_m = 1.1 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.52	17400	2780	101800	1.05	**FA** **FAF** **F** **FF**	**157R97** **157R97** **157R97** **157R97**	**DRN** **DRN** **DRN** **DRN**	**90S4** **90S4** **90S4** **90S4**	780 840 800 900	456 456 456 456
0.60	15400	2427	107100	1.15						
0.67	13700	2185	110800	1.30						
0.75	12200	1944	113700	1.45						
0.87	10800	1674	116000	1.65	**FA**	**157R97**	**DRN**	**90S4**	770	456
1.1	8380	1308	119300	2.2	**FAF**	**157R97**	**DRN**	**90S4**	830	456
1.2	7420	1169	120000	2.4	**F**	**157R97**	**DRN**	**90S4**	790	456
1.5	5930	953	120000	3.0	**FF**	**157R97**	**DRN**	**90S4**	900	456
1.7	5180	845	120000	3.5						
3.3	2740	446	120000	6.6						
4.8	1850	302	120000	9.7						
0.71	13400	2038	87700	0.90						
0.82	11700	1784	90000	1.00	**FA**	**127R77**	**DRN**	**90S4**	440	456
0.91	10500	1606	90000	1.15	**FAF**	**127R77**	**DRN**	**90S4**	475	456
1.0	9100	1390	90000	1.30	**F**	**127R77**	**DRN**	**90S4**	475	456
1.2	7950	1220	90000	1.50	**FF**	**127R77**	**DRN**	**90S4**	520	456
1.4	7070	1077	90000	1.70						
1.2	8140	1243	48600	0.95						
1.3	7200	1087	51100	1.05	**FA**	**107R77**	**DRN**	**90S4**	285	456
1.5	6220	950	53500	1.25	**FAF**	**107R77**	**DRN**	**90S4**	310	456
1.8	5430	834	55300	1.40	**F**	**107R77**	**DRN**	**90S4**	305	456
2.0	4770	736	56800	1.60	**FF**	**107R77**	**DRN**	**90S4**	330	456
2.3	4200	640	58000	1.85						
2.1	4560	690	29100	0.95						
2.4	4010	605	30700	1.05	**FA**	**97R57**	**DRN**	**90S4**	195	456
2.8	3490	529	32100	1.25	**FAF**	**97R57**	**DRN**	**90S4**	220	456
3.1	3080	467	33100	1.40	**F**	**97R57**	**DRN**	**90S4**	205	456
3.6	2660	406	34100	1.60	**FF**	**97R57**	**DRN**	**90S4**	240	456
4.0	2390	363	34600	1.80						
3.2	3000	452	19600	1.00	**FA**	**87R57**	**DRN**	**90S4**	130	456
4.2	2270	345	25600	1.30	**FAF**	**87R57**	**DRN**	**90S4**	145	456
4.8	1960	300	26500	1.50	**F**	**87R57**	**DRN**	**90S4**	140	456
5.8	1630	249	27500	1.85	**FF**	**87R57**	**DRN**	**90S4**	155	456
5.3	1990	276.77	35400	2.2	**FA**	**97**	**DRN**	**90S4**	175	434
5.7	1820	253.41	35700	2.4	**FAF**	**97**	**DRN**	**90S4**	195	433
6.5	1610	223.88	36100	2.7	**F**	**97**	**DRN**	**90S4**	180	432
					FF	**97**	**DRN**	**90S4**	215	433
5.4	1950	270.68	26600	1.55	**FA**	**87**	**DRN**	**90S4**	110	428
5.7	1840	255.37	26900	1.65	**FAF**	**87**	**DRN**	**90S4**	120	427
6.4	1650	228.93	27400	1.80	**F**	**87**	**DRN**	**90S4**	115	426
7.4	1420	197.20	28000	2.1	**FF**	**87**	**DRN**	**90S4**	130	427
8.1	1290	179.97	28300	2.3	**FA**	**87**	**DRN**	**90S4**	110	428
9.1	1150	159.61	28600	2.6	**FAF**	**87**	**DRN**	**90S4**	120	427
11	960	134.16	29000	3.1	**F**	**87**	**DRN**	**90S4**	115	426
12	890	123.29	29200	3.4	**FF**	**87**	**DRN**	**90S4**	130	427
7.3	1430	198.31	16200	1.05	**FA**	**77**	**DRN**	**90S4**	69	422
7.7	1360	188.40	16600	1.10	**FAF**	**77**	**DRN**	**90S4**	76	421
8.7	1200	166.47	17400	1.25	**F**	**77**	**DRN**	**90S4**	73	420
10	1020	142.27	18200	1.45	**FF**	**77**	**DRN**	**90S4**	84	421
11	940	130.42	18500	1.60						
13	820	114.45	18900	1.80	**FA**	**77**	**DRN**	**90S4**	69	422
13	780	108.46*	19000	1.90	**FAF**	**77**	**DRN**	**90S4**	76	421
15	685	94.93	19300	2.2	**F**	**77**	**DRN**	**90S4**	73	420
17	615	85.52	19500	2.4	**FF**	**77**	**DRN**	**90S4**	84	421
19	540	75.02	19600	2.8						
12	870	120.79	9820	0.95	**FA**	**67**	**DRN**	**90S4**	47	416
					FAF	**67**	**DRN**	**90S4**	53	415
					F	**67**	**DRN**	**90S4**	50	414
					FF	**67**	**DRN**	**90S4**	56	415

P_m = 1.1 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
13	785	109.04	10600	1.05						
15	690	95.94	11300	1.20						
16	650	90.59	11600	1.25						
18	575	79.76	12000	1.40						
22	485	67.65	12500	1.70	**FA**	**67**	**DRN**	**90S4**	47	416
24	440	61.07	12700	1.85	**FAF**	**67**	**DRN**	**90S4**	53	415
27	385	53.73	12900	2.1	**F**	**67**	**DRN**	**90S4**	50	414
29	365	50.74	12900	2.2	**FF**	**67**	**DRN**	**90S4**	56	415
34	310	43.20	13000	2.6						
37	280	39.26	13000	2.8						
43	245	34.01	13000	3.0						
17	600	83.46	9180	1.00						
20	525	72.98	9740	1.15						
21	490	68.22	9980	1.20						
25	425	58.97	10400	1.40	**FA**	**57**	**DRN**	**90S4**	43	410
29	360	50.10	10800	1.65	**FAF**	**57**	**DRN**	**90S4**	48	409
33	320	44.73	10600	1.85	**F**	**57**	**DRN**	**90S4**	43	408
38	275	38.21	10300	2.2	**FF**	**57**	**DRN**	**90S4**	50	409
41	255	35.79	10100	2.3						
48	215	30.15	9720	2.7						
					FA	**47**	**DRN**	**90S4**	35	404
26	405	56.49	5680	1.00	**FAF**	**47**	**DRN**	**90S4**	38	403
30	345	48.00*	6600	1.15	**F**	**47**	**DRN**	**90S4**	36	402
					FF	**47**	**DRN**	**90S4**	39	403
34	305	42.86	6970	1.30	**FA**	**47**	**DRN**	**90S4**	35	404
40	260	36.61	7300	1.50	**FAF**	**47**	**DRN**	**90S4**	38	403
42	245	34.29	7210	1.60	**F**	**47**	**DRN**	**90S4**	36	402
50	205	28.88	6990	1.90	**FF**	**47**	**DRN**	**90S4**	39	403
47	220	30.86	7080	1.80						
50	210	29.32	7010	1.90	**FA**	**47**	**DRN**	**90S4**	34	404
57	186	25.72	6820	2.2	**FAF**	**47**	**DRN**	**90S4**	37	403
67	158	21.82	6580	2.5	**F**	**47**	**DRN**	**90S4**	35	402
74	142	19.70	6430	2.8	**FF**	**47**	**DRN**	**90S4**	38	403
					FA	**37**	**DRN**	**90S4**	30	398
46	225	31.69	3830	0.85	**FAF**	**37**	**DRN**	**90S4**	32	397
52	200	28.09	3960	1.00	**F**	**37**	**DRN**	**90S4**	31	396
61	172	23.88	3920	1.15	**FF**	**37**	**DRN**	**90S4**	33	397
71	149	20.57	3860	1.35						
76	139	19.27	3820	1.45						
85	123	17.03	3760	1.65	**FA**	**37**	**DRN**	**90S4**	30	398
102	103	14.33	3650	1.95	**FAF**	**37**	**DRN**	**90S4**	32	397
113	93	12.87	3580	2.2	**F**	**37**	**DRN**	**90S4**	31	396
131	80	11.08	3470	2.4	**FF**	**37**	**DRN**	**90S4**	32	397
140	75	10.42	3430	2.5						
162	65	8.97	3320	2.7						
72	146	20.15	2440	0.90						
77	136	18.84	2440	0.95						
89	118	16.28	2440	1.10						
105	100	13.84	2410	1.30						
118	89	12.35	2380	1.45						
138	76	10.55	2330	1.70	**FA**	**27**	**DRN**	**90S4**	24	393
147	71	9.88	2310	1.80	**FAF**	**27**	**DRN**	**90S4**	25	392
155	68	9.40	2230	1.90	**F**	**27**	**DRN**	**90S4**	24	391
179	59	8.13	2180	2.1	**FF**	**27**	**DRN**	**90S4**	25	392
211	50	6.91	2120	2.3						
236	45	6.17	2080	2.4						
276	38	5.27	2010	2.6						
295	36	4.93	1990	2.7						
350	30	4.16	1910	2.9						

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P_m = 1.5 kW											
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
0.60	21300	2427	88800	0.85							
0.67	19000	2185	96900	0.95							
0.75	16900	1944	103200	1.05							
0.87	14800	1674	108300	1.20	**FA**	**157R97**	**DRN**	**90L4**		780	456
1.1	11500	1308	114900	1.55	**FAF**	**157R97**	**DRN**	**90L4**		840	456
1.2	10200	1169	116900	1.75	**F**	**157R97**	**DRN**	**90L4**		800	456
1.5	8250	953	119500	2.2	**FF**	**157R97**	**DRN**	**90L4**		900	456
1.7	7240	845	120000	2.5							
3.3	3820	446	120000	4.7							
4.8	2590	302	120000	7.0							
0.91	14400	1606	85700	0.85							
1.0	12400	1390	89500	0.95							
1.2	10900	1220	90000	1.10	**FA**	**127R77**	**DRN**	**90L4**		440	456
1.4	9690	1077	90000	1.25	**FAF**	**127R77**	**DRN**	**90L4**		480	456
1.6	8320	930	90000	1.45	**F**	**127R77**	**DRN**	**90L4**		480	456
1.8	7310	820	90000	1.65	**FF**	**127R77**	**DRN**	**90L4**		520	456
2.0	6460	727	90000	1.85							
2.2	5830	648	90000	2.1							
1.5	8530	950	47500	0.90							
1.8	7460	834	50400	1.05							
2.0	6560	736	52700	1.15	**FA**	**107R77**	**DRN**	**90L4**		290	456
2.3	5760	640	54600	1.35	**FAF**	**107R77**	**DRN**	**90L4**		310	456
2.6	4980	560	56300	1.55	**F**	**107R77**	**DRN**	**90L4**		305	456
3.0	4350	489	57700	1.75	**FF**	**107R77**	**DRN**	**90L4**		335	456
3.4	3920	436	58600	1.95							
4.0	3320	370	59800	2.3							
2.8	4780	529	23800	0.90	**FA**	**97R57**	**DRN**	**90L4**		200	456
3.1	4220	467	30100	1.00	**FAF**	**97R57**	**DRN**	**90L4**		220	456
3.6	3650	406	31700	1.20	**F**	**97R57**	**DRN**	**90L4**		210	456
4.0	3270	363	32700	1.30	**FF**	**97R57**	**DRN**	**90L4**		240	456
					FA	**87R57**	**DRN**	**90L4**		135	456
4.9	2700	300	24100	1.10	**FAF**	**87R57**	**DRN**	**90L4**		150	456
5.9	2240	249	25700	1.35	**F**	**87R57**	**DRN**	**90L4**		140	456
					FF	**87R57**	**DRN**	**90L4**		155	456
5.3	2710	276.77	34000	1.60							
5.8	2480	253.41	34400	1.75	**FA**	**97**	**DRN**	**90L4**		175	434
6.5	2190	223.88	35000	1.95	**FAF**	**97**	**DRN**	**90L4**		200	433
7.7	1860	189.92	35600	2.3	**F**	**97**	**DRN**	**90L4**		185	432
8.4	1710	174.87	35900	2.5	**FF**	**97**	**DRN**	**90L4**		215	433
5.4	2650	270.68	24300	1.15	**FA**	**87**	**DRN**	**90L4**		110	428
5.7	2500	255.37	24800	1.20	**FAF**	**87**	**DRN**	**90L4**		125	427
6.4	2240	228.93	25700	1.35	**F**	**87**	**DRN**	**90L4**		120	426
7.4	1930	197.20	26600	1.55	**FF**	**87**	**DRN**	**90L4**		135	427
8.1	1760	179.97	27100	1.70							
9.2	1560	159.61	27700	1.90	**FA**	**87**	**DRN**	**90L4**		110	428
11	1310	134.16	28300	2.3	**FAF**	**87**	**DRN**	**90L4**		125	427
13	1070	109.49	28800	2.8	**F**	**87**	**DRN**	**90L4**		120	426
15	950	97.89	29100	3.1	**FF**	**87**	**DRN**	**90L4**		135	427
8.8	1630	166.47	14800	0.90	**FA**	**77**	**DRN**	**90L4**		73	422
10	1390	142.27	16400	1.10	**FAF**	**77**	**DRN**	**90L4**		79	421
11	1270	130.42	17000	1.15	**F**	**77**	**DRN**	**90L4**		76	420
13	1120	114.45	17800	1.35	**FF**	**77**	**DRN**	**90L4**		87	421
13	1060	108.46*	18100	1.40							
15	930	94.93	18600	1.60							
17	830	85.52	18900	1.80							
19	735	75.02	19200	2.0							
20	710	72.50	19200	2.1	**FA**	**77**	**DRN**	**90L4**		73	422
22	650	66.46	19400	2.3	**FAF**	**77**	**DRN**	**90L4**		79	421
25	570	58.32	19600	2.6	**F**	**77**	**DRN**	**90L4**		76	420
26	540	55.27	19600	2.8	**FF**	**77**	**DRN**	**90L4**		87	421
30	470	48.37	19700	3.2							
34	425	43.58	19800	3.5							
38	370	38.23	19900	4.0							

P_m = 1.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					FA	77	DRN	90L4	71	422
40	355	36.58	19900	3.1	FAF	77	DRN	90L4	78	421
46	305	31.51	20000	4.5	F	77	DRN	90L4	75	420
					FF	77	DRN	90L4	86	421
16	880	90.59	9650	0.90						
18	780	79.76	10600	1.05						
22	660	67.65	11500	1.25	FA	67	DRN	90L4	50	416
24	595	61.07	11900	1.35	FAF	67	DRN	90L4	56	415
27	525	53.73	12300	1.55	F	67	DRN	90L4	53	414
29	495	50.74	12400	1.65	FF	67	DRN	90L4	59	415
34	420	43.20	12700	1.95						
37	380	39.26	12900	2.0						
40	355	36.30	13000	2.3	FA	67	DRN	90L4	49	416
46	310	32.08	13000	2.6	FAF	67	DRN	90L4	55	415
53	265	27.41	13000	3.0	F	67	DRN	90L4	52	414
58	245	25.13	13000	3.3	FF	67	DRN	90L4	58	415
25	575	58.97	9370	1.05						
29	490	50.10	9980	1.20	FA	57	DRN	90L4	46	410
33	435	44.73	9940	1.35	FAF	57	DRN	90L4	52	409
38	370	38.21	9680	1.60	F	57	DRN	90L4	46	408
41	350	35.79	9560	1.70	FF	57	DRN	90L4	53	409
48	295	30.15	9240	2.0						
					FA	47	DRN	90L4	38	404
40	355	36.61	6460	1.10	FAF	47	DRN	90L4	41	403
43	335	34.29	6600	1.20	F	47	DRN	90L4	39	402
51	280	28.88	6460	1.40	FF	47	DRN	90L4	42	403
47	300	30.86	6520	1.30						
50	285	29.32	6480	1.40						
57	250	25.72	6360	1.60	FA	47	DRN	90L4	38	404
67	210	21.82	6190	1.85	FAF	47	DRN	90L4	40	403
74	193	19.70	6070	2.1	F	47	DRN	90L4	38	402
84	170	17.33	5920	2.4	FF	47	DRN	90L4	42	403
89	160	16.36	5850	2.5						
105	137	13.93	5650	2.9						
71	200	20.57	3410	1.00						
76	189	19.27	3410	1.05						
86	167	17.03	3390	1.20						
102	141	14.33	3340	1.40	FA	37	DRN	90L4	33	398
114	126	12.87	3300	1.60	FAF	37	DRN	90L4	35	397
132	109	11.08	3230	1.75	F	37	DRN	90L4	34	396
140	102	10.42	3200	1.80	FF	37	DRN	90L4	36	397
163	88	8.97	3120	2.00						
182	79	8.01	3060	2.2						
106	136	13.84	2090	0.95						
118	121	12.35	2090	1.05						
138	103	10.55	2090	1.25						
148	97	9.88	2080	1.35						
155	92	9.40	1990	1.40	FA	27	DRN	90L4	27	393
180	80	8.13	1970	1.55	FAF	27	DRN	90L4	28	392
212	68	6.91	1940	1.70	F	27	DRN	90L4	28	391
237	60	6.17	1920	1.80	FF	27	DRN	90L4	28	392
277	52	5.27	1880	1.95						
296	48	4.93	1860	2.00						
352	41	4.16	1800	2.1						

P_m = 2.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					FA	157R97	DRN	100LS4	780	456
					FAF	157R97	DRN	100LS4	840	456
1.0	18100	1441	99800	1.00	F	157R97	DRN	100LS4	810	456
					FF	157R97	DRN	100LS4	910	456

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P_m = 2.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.1	17300	1308	102200	1.05						
1.2	15400	1169	107100	1.15						
1.5	12400	953	113300	1.45						
1.7	10900	845	115800	1.65						
1.9	9850	764	117500	1.85	**FA**	**157R97**	**DRN**	**100LS4**	780	456
2.1	8760	680	118900	2.0	**FAF**	**157R97**	**DRN**	**100LS4**	840	456
2.5	7350	576	120000	2.4	**F**	**157R97**	**DRN**	**100LS4**	800	456
3.2	5790	446	120000	3.1	**FF**	**157R97**	**DRN**	**100LS4**	910	456
4.8	3920	302	120000	4.6						
5.3	3520	273	120000	5.1						
6.3	2950	232	120000	6.1						
7.4	2500	197	120000	7.2						
1.4	14400	1077	85700	0.85						
1.6	12400	930	89600	0.95						
1.8	10900	820	90000	1.10	**FA**	**127R77**	**DRN**	**100LS4**	445	456
2.0	9670	727	90000	1.25	**FAF**	**127R77**	**DRN**	**100LS4**	485	456
2.2	8680	648	90000	1.40	**F**	**127R77**	**DRN**	**100LS4**	480	456
2.6	7360	549	90000	1.65	**FF**	**127R77**	**DRN**	**100LS4**	530	456
2.9	6620	495	90000	1.80						
3.4	5730	428	90000	2.1						
2.3	8580	640	47300	0.90						
2.6	7450	560	50400	1.05	**FA**	**107R77**	**DRN**	**100LS4**	295	456
3.0	6500	489	52800	1.20	**FAF**	**107R77**	**DRN**	**100LS4**	315	456
3.3	5840	436	54400	1.30	**F**	**107R77**	**DRN**	**100LS4**	310	456
3.9	4950	370	56400	1.55	**FF**	**107R77**	**DRN**	**100LS4**	340	456
4.4	4460	333	57500	1.70						
					FA	**97R57**	**DRN**	**100LS4**	205	456
5.1	3830	285	31200	1.10	**FAF**	**97R57**	**DRN**	**100LS4**	225	456
5.9	3290	245	32600	1.30	**F**	**97R57**	**DRN**	**100LS4**	210	456
					FF	**97R57**	**DRN**	**100LS4**	245	456
5.7	3680	254.40*	59100	2.1	**FA**	**107**	**DRN**	**100LS4**	255	440
6.7	3120	215.37	60200	2.5	**FAF**	**107**	**DRN**	**100LS4**	275	439
7.3	2880	199.31	60600	2.7	**F**	**107**	**DRN**	**100LS4**	275	438
8.1	2580	178.64	61100	3.0	**FF**	**107**	**DRN**	**100LS4**	300	439
5.2	4010	276.77	30700	1.05						
5.7	3670	253.41	31700	1.15						
6.5	3240	223.88	32700	1.35	**FA**	**97**	**DRN**	**100LS4**	180	434
7.6	2750	189.92	33900	1.55	**FAF**	**97**	**DRN**	**100LS4**	200	433
8.3	2530	174.87	34300	1.70	**F**	**97**	**DRN**	**100LS4**	190	432
9.3	2260	156.30	34900	1.90	**FF**	**97**	**DRN**	**100LS4**	220	433
10	2030	140.71	35300	2.1						
11	1840	127.42	35700	2.3						
7.4	2850	197.20	23500	1.05	**FA**	**87**	**DRN**	**100LS4**	115	428
8.1	2600	179.97	24400	1.15	**FAF**	**87**	**DRN**	**100LS4**	130	427
9.1	2310	159.61	25500	1.30	**F**	**87**	**DRN**	**100LS4**	120	426
11	1940	134.16	26600	1.55	**FF**	**87**	**DRN**	**100LS4**	140	427
12	1780	123.29	27100	1.70						
13	1580	109.49	27600	1.90						
15	1410	97.89	28000	2.1						
16	1270	88.01	28400	2.4	**FA**	**87**	**DRN**	**100LS4**	115	428
19	1100	76.39	27700	2.7	**FAF**	**87**	**DRN**	**100LS4**	130	427
21	990	68.40	27000	3.0	**F**	**87**	**DRN**	**100LS4**	120	426
26	820	56.75	25700	3.6	**FF**	**87**	**DRN**	**100LS4**	140	427
29	725	50.36	25000	4.0						
32	655	45.28	24300	4.3						
13	1650	114.45	14600	0.90	**FA**	**77**	**DRN**	**100LS4**	77	422
13	1570	108.46*	15200	0.95	**FAF**	**77**	**DRN**	**100LS4**	83	421
15	1370	94.93	16500	1.10	**F**	**77**	**DRN**	**100LS4**	81	420
17	1230	85.52	17200	1.20	**FF**	**77**	**DRN**	**100LS4**	91	421
19	1080	75.02	18000	1.40						
22	960	66.46	18400	1.55	**FA**	**77**	**DRN**	**100LS4**	77	422
25	840	58.32	18800	1.80	**FAF**	**77**	**DRN**	**100LS4**	83	421
26	800	55.27	19000	1.85	**F**	**77**	**DRN**	**100LS4**	81	420
30	700	48.37	19300	2.1	**FF**	**77**	**DRN**	**100LS4**	91	421
33	630	43.58	19400	2.4						

P_m = 2.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
40	525	36.58	19600	2.1	**FA**	**77**	**DRN**	**100LS4**	75	422
46	455	31.51	19800	3.0	**FAF**	**77**	**DRN**	**100LS4**	82	421
50	415	28.75	19800	3.4	**F**	**77**	**DRN**	**100LS4**	79	420
57	365	25.50*	19900	4.1	**FF**	**77**	**DRN**	**100LS4**	90	421
24	880	61.07	9680	0.95						
27	775	53.73	10700	1.05	**FA**	**67**	**DRN**	**100LS4**	54	416
29	735	50.74	11000	1.10	**FAF**	**67**	**DRN**	**100LS4**	60	415
34	625	43.20	11700	1.30	**F**	**67**	**DRN**	**100LS4**	57	414
37	565	39.26	12100	1.35	**FF**	**67**	**DRN**	**100LS4**	63	415
43	490	34.01	12400	1.50						
45	460	32.08	12600	1.75						
53	395	27.41	12800	2.1	**FA**	**67**	**DRN**	**100LS4**	53	416
58	360	25.13	12900	2.2	**FAF**	**67**	**DRN**	**100LS4**	59	415
66	315	22.05	13000	2.6	**F**	**67**	**DRN**	**100LS4**	55	414
69	300	20.90*	13000	2.7	**FF**	**67**	**DRN**	**100LS4**	62	415
79	265	18.29	13000	3.1						
32	645	44.73	6640	0.95	**FA**	**57**	**DRN**	**100LS4**	50	410
38	550	38.21	8640	1.10	**FAF**	**57**	**DRN**	**100LS4**	55	409
41	515	35.79	8590	1.15	**F**	**57**	**DRN**	**100LS4**	50	408
48	435	30.15	8430	1.35	**FF**	**57**	**DRN**	**100LS4**	57	409
58	360	24.96	8200	1.60						
68	305	21.17	7980	1.95	**FA**	**57**	**DRN**	**100LS4**	49	410
76	275	19.11	7820	2.2	**FAF**	**57**	**DRN**	**100LS4**	55	409
86	240	16.81	7630	2.5	**F**	**57**	**DRN**	**100LS4**	50	408
91	230	15.88	7540	2.6	**FF**	**57**	**DRN**	**100LS4**	56	409
56	370	25.72	5560	1.05						
66	315	21.82	5510	1.25						
74	285	19.70	5460	1.40						
84	250	17.33	5390	1.60	**FA**	**47**	**DRN**	**100LS4**	42	404
89	235	16.36	5350	1.70	**FAF**	**47**	**DRN**	**100LS4**	44	403
104	200	13.93	5220	2.00	**F**	**47**	**DRN**	**100LS4**	42	402
115	183	12.66	5140	2.2	**FF**	**47**	**DRN**	**100LS4**	46	403
132	159	10.97	5010	2.5						
162	130	8.96	4710	2.5						
101	205	14.33	2800	0.95						
113	186	12.87	2810	1.05						
131	161	11.08	2820	1.20						
139	151	10.42	2810	1.25						
162	130	8.97	2790	1.35	**FA**	**37**	**DRN**	**100LS4**	37	398
181	116	8.01	2760	1.45	**FAF**	**37**	**DRN**	**100LS4**	39	397
215	98	6.74	2620	1.45	**F**	**37**	**DRN**	**100LS4**	38	396
240	88	6.05	2580	1.55	**FF**	**37**	**DRN**	**100LS4**	40	397
278	76	5.21	2530	1.65						
296	71	4.90	2510	1.70						
344	61	4.22	2440	1.80						
385	55	3.77	2390	1.90						

P_m = 3.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.2	21100	1169	89600	0.85						
1.5	17100	953	102800	1.05						
1.7	15000	845	107900	1.20						
1.9	13500	764	111100	1.30						
2.1	12000	680	114000	1.50	**FA**	**157R97**	**DRN**	**100L4**	790	456
2.5	10100	576	117000	1.75	**FAF**	**157R97**	**DRN**	**100L4**	850	456
3.3	7970	446	119800	2.3	**F**	**157R97**	**DRN**	**100L4**	810	456
4.8	5390	302	120000	3.3	**FF**	**157R97**	**DRN**	**100L4**	920	456
5.3	4850	273	120000	3.7						
6.3	4080	232	120000	4.4						
7.4	3460	197	120000	5.2						

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P_m = 3.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.0	13200	727	88100	0.90	**FA**	**127R77**	**DRN**	**100L4**	455	456
2.2	11800	648	90000	1.00	**FAF**	**127R77**	**DRN**	**100L4**	490	456
2.6	10000	549	90000	1.20	**F**	**127R77**	**DRN**	**100L4**	490	456
2.9	9040	495	90000	1.35	**FF**	**127R77**	**DRN**	**100L4**	530	456
3.3	7970	436	49000	0.95	**FA**	**107R77**	**DRN**	**100L4**	300	456
3.9	6760	370	52200	1.15	**FAF**	**107R77**	**DRN**	**100L4**	325	456
4.4	6080	333	53800	1.25	**F**	**107R77**	**DRN**	**100L4**	320	456
5.0	5320	291	55600	1.45	**FF**	**107R77**	**DRN**	**100L4**	345	456
5.7	5000	254.40*	56300	1.55						
6.8	4230	215.37	57900	1.80	**FA**	**107**	**DRN**	**100L4**	265	440
7.3	3920	199.31	58600	1.95	**FAF**	**107**	**DRN**	**100L4**	285	439
8.2	3510	178.64	59400	2.2	**F**	**107**	**DRN**	**100L4**	280	438
9.0	3170	161.28*	60100	2.4	**FF**	**107**	**DRN**	**100L4**	305	439
					FA	**97**	**DRN**	**100L4**	190	434
6.5	4400	223.88	29600	1.00	**FAF**	**97**	**DRN**	**100L4**	210	433
7.7	3730	189.92	31500	1.15	**F**	**97**	**DRN**	**100L4**	195	432
8.3	3440	174.87	32300	1.25	**FF**	**97**	**DRN**	**100L4**	230	433
9.3	3070	156.30	33100	1.40						
10	2760	140.71	33800	1.55	**FA**	**97**	**DRN**	**100L4**	190	434
11	2500	127.42	34400	1.70	**FAF**	**97**	**DRN**	**100L4**	210	433
13	2220	112.99	35000	1.95	**F**	**97**	**DRN**	**100L4**	195	432
14	2010	102.16	35400	2.1	**FF**	**97**	**DRN**	**100L4**	230	433
16	1760	89.85	35800	2.4						
					FA	**87**	**DRN**	**100L4**	125	428
11	2630	134.16	24300	1.15	**FAF**	**87**	**DRN**	**100L4**	135	427
12	2420	123.29	25100	1.25	**F**	**87**	**DRN**	**100L4**	130	426
13	2150	109.49	26000	1.40	**FF**	**87**	**DRN**	**100L4**	145	427
15	1920	97.89	26700	1.55						
17	1730	88.01	26700	1.75	**FA**	**87**	**DRN**	**100L4**	125	428
19	1500	76.39	26100	2.0	**FAF**	**87**	**DRN**	**100L4**	135	427
21	1340	68.40	25500	2.2	**F**	**87**	**DRN**	**100L4**	130	426
26	1110	56.75	24600	2.7	**FF**	**87**	**DRN**	**100L4**	145	427
29	990	50.36	23900	3.0						
					FA	**77**	**DRN**	**100L4**	84	422
17	1680	85.52	14400	0.90	**FAF**	**77**	**DRN**	**100L4**	91	421
19	1470	75.02	15900	1.00	**F**	**77**	**DRN**	**100L4**	88	420
22	1300	66.46	16900	1.15	**FF**	**77**	**DRN**	**100L4**	98	421
25	1140	58.32	17700	1.30						
26	1080	55.27	18000	1.40	**FA**	**77**	**DRN**	**100L4**	84	422
30	950	48.37	18500	1.60	**FAF**	**77**	**DRN**	**100L4**	91	421
33	850	43.58	18800	1.75	**F**	**77**	**DRN**	**100L4**	88	420
38	750	38.23	19100	2.00	**FF**	**77**	**DRN**	**100L4**	98	421
40	715	36.58	19200	1.55						
46	615	31.51	19500	2.2	**FA**	**77**	**DRN**	**100L4**	83	422
51	565	28.75	19600	2.5	**FAF**	**77**	**DRN**	**100L4**	89	421
57	500	25.50*	19700	3.0	**F**	**77**	**DRN**	**100L4**	86	420
68	420	21.43	19800	3.6	**FF**	**77**	**DRN**	**100L4**	97	421
					FA	**67**	**DRN**	**100L4**	61	416
34	840	43.20	10000	0.95	**FAF**	**67**	**DRN**	**100L4**	67	415
37	770	39.26	10700	1.00	**F**	**67**	**DRN**	**100L4**	64	414
43	665	34.01	11500	1.10	**FF**	**67**	**DRN**	**100L4**	70	415
45	630	32.08	11700	1.30						
53	535	27.41	12200	1.50						
58	490	25.13	12400	1.65	**FA**	**67**	**DRN**	**100L4**	60	416
66	430	22.05	12700	1.90	**FAF**	**67**	**DRN**	**100L4**	66	415
70	410	20.90*	12800	2.00	**F**	**67**	**DRN**	**100L4**	63	414
80	355	18.29	12900	2.3	**FF**	**67**	**DRN**	**100L4**	69	415
88	320	16.48	13000	2.5						
101	280	14.46	13000	2.9						

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P_m = 3.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
58	490	24.96	7420	1.15						
69	415	21.17	7310	1.45						
76	375	19.11	7220	1.60	**FA**	**57**	**DRN**	**100L4**	56	410
87	330	16.81	7100	1.80	**FAF**	**57**	**DRN**	**100L4**	62	409
92	310	15.88	7040	1.90	**F**	**57**	**DRN**	**100L4**	57	408
108	265	13.52	6850	2.3	**FF**	**57**	**DRN**	**100L4**	63	409
119	240	12.29	6730	2.5						
137	205	10.64	6540	2.9						
74	385	19.70	4760	1.05						
84	340	17.33	4760	1.15						
89	320	16.36	4760	1.25	**FA**	**47**	**DRN**	**100L4**	49	404
104	270	13.93	4720	1.45	**FAF**	**47**	**DRN**	**100L4**	51	403
115	245	12.66	4690	1.60	**F**	**47**	**DRN**	**100L4**	50	402
133	215	10.97	4620	1.85	**FF**	**47**	**DRN**	**100L4**	53	403
163	176	8.96	4350	1.85						
131	215	11.08	2340	0.85						
140	205	10.42	2360	0.90						
162	176	8.97	2400	1.00						
182	158	8.01	2410	1.10	**FA**	**37**	**DRN**	**100L4**	44	398
216	133	6.74	2290	1.05	**FAF**	**37**	**DRN**	**100L4**	46	397
241	119	6.05	2290	1.15	**F**	**37**	**DRN**	**100L4**	45	396
279	103	5.21	2280	1.20	**FF**	**37**	**DRN**	**100L4**	47	397
297	96	4.90	2270	1.25						
345	83	4.22	2240	1.35						
386	74	3.77	2210	1.40						

P_m = 4.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.7	20100	845	93100	0.90						
1.9	18100	764	99700	1.00						
2.2	16100	680	105200	1.10						
2.5	13600	576	111000	1.30	**FA**	**157R97**	**DRN**	**112M4**	800	456
3.3	10600	446	116300	1.70	**FAF**	**157R97**	**DRN**	**112M4**	860	456
4.8	7220	302	120000	2.5	**F**	**157R97**	**DRN**	**112M4**	820	456
5.4	6500	273	120000	2.8	**FF**	**157R97**	**DRN**	**112M4**	920	456
6.3	5480	232	120000	3.3						
7.4	4650	197	120000	3.9						
2.7	13300	549	87800	0.90	**FA**	**127R77**	**DRN**	**112M4**	460	456
3.0	12000	495	90000	1.00	**FAF**	**127R77**	**DRN**	**112M4**	500	456
3.4	10400	428	90000	1.15	**F**	**127R77**	**DRN**	**112M4**	500	456
3.9	9120	376	90000	1.30	**FF**	**127R77**	**DRN**	**112M4**	540	456
					FA	**107R77**	**DRN**	**112M4**	310	456
4.4	8090	333	48700	0.95	**FAF**	**107R77**	**DRN**	**112M4**	330	456
5.0	7070	291	51400	1.10	**F**	**107R77**	**DRN**	**112M4**	325	456
5.7	6200	255	53500	1.25	**FF**	**107R77**	**DRN**	**112M4**	355	456
5.8	6630	254.40*	52500	1.15						
6.8	5610	215.37	54900	1.35						
7.4	5200	199.31	55900	1.50						
8.2	4660	178.64	57000	1.65	**FA**	**107**	**DRN**	**112M4**	270	440
9.1	4200	161.28*	58000	1.85	**FAF**	**107**	**DRN**	**112M4**	290	439
10.0	3820	146.49	58800	2.0	**F**	**107**	**DRN**	**112M4**	290	438
11	3390	129.97	59600	2.3	**FF**	**107**	**DRN**	**112M4**	315	439
12	3070	117.94	60200	2.5						
14	2640	101.38*	61000	2.9						
8.4	4560	174.87	29100	0.95	**FA**	**97**	**DRN**	**112M4**	195	434
9.4	4070	156.30	30500	1.05	**FAF**	**97**	**DRN**	**112M4**	220	433
10	3670	140.71	31700	1.15	**F**	**97**	**DRN**	**112M4**	205	432
11	3320	127.42	32500	1.30	**FF**	**97**	**DRN**	**112M4**	235	433

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P_m = 4.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
13	2940	112.99	33400	1.45						
14	2660	102.16	34100	1.60						
15	2540	97.58	34300	1.70	**FA**	**97**	**DRN**	**112M4**	195	434
16	2340	89.85	34700	1.85	**FAF**	**97**	**DRN**	**112M4**	220	433
18	2090	80.31	35200	2.0	**F**	**97**	**DRN**	**112M4**	205	432
20	1880	72.29	35600	2.3	**FF**	**97**	**DRN**	**112M4**	235	433
22	1700	65.47	35900	2.5						
13	2850	109.49	23500	1.05	**FA**	**87**	**DRN**	**112M4**	135	428
15	2550	97.89	24600	1.15	**FAF**	**87**	**DRN**	**112M4**	145	427
17	2290	88.01	24500	1.30	**F**	**87**	**DRN**	**112M4**	140	426
					FF	**87**	**DRN**	**112M4**	155	427
19	1990	76.39	24100	1.50						
21	1780	68.40	23800	1.70	**FA**	**87**	**DRN**	**112M4**	135	428
26	1480	56.75	23100	2.0	**FAF**	**87**	**DRN**	**112M4**	145	427
29	1310	50.36	22600	2.2	**F**	**87**	**DRN**	**112M4**	140	426
32	1180	45.28	22200	2.4	**FF**	**87**	**DRN**	**112M4**	155	427
22	1730	66.46	13900	0.85	**FA**	**77**	**DRN**	**112M4**	93	422
25	1520	58.32	15600	1.00	**FAF**	**77**	**DRN**	**112M4**	100	421
26	1440	55.27	16100	1.05	**F**	**77**	**DRN**	**112M4**	97	420
30	1260	48.37	17100	1.20	**FF**	**77**	**DRN**	**112M4**	110	421
34	1130	43.58	17700	1.30						
38	990	38.23	18300	1.50	**FA**	**77**	**DRN**	**112M4**	93	422
43	880	33.74	18700	1.70	**FAF**	**77**	**DRN**	**112M4**	100	421
49	780	29.91	19000	1.90	**F**	**77**	**DRN**	**112M4**	97	420
57	665	25.54	19300	2.2	**FF**	**77**	**DRN**	**112M4**	110	421
46	820	31.51	18900	1.70						
51	750	28.75	19100	1.90	**FA**	**77**	**DRN**	**112M4**	92	422
57	665	25.50*	19300	2.2	**FAF**	**77**	**DRN**	**112M4**	98	421
68	555	21.43	19600	2.7	**F**	**77**	**DRN**	**112M4**	96	420
74	510	19.70	19700	2.9	**FF**	**77**	**DRN**	**112M4**	105	421
53	715	27.41	11200	1.15						
58	655	25.13	11600	1.25						
66	575	22.05	12000	1.45						
70	545	20.90*	12200	1.50						
80	475	18.29	12500	1.70						
89	425	16.48	12700	1.90						
101	375	14.46	12900	2.2						
115	330	12.76	13000	2.5	**FA**	**67**	**DRN**	**112M4**	69	416
129	295	11.31	13000	2.8	**FAF**	**67**	**DRN**	**112M4**	76	415
152	250	9.66	13000	3.2	**F**	**67**	**DRN**	**112M4**	72	414
161	235	9.08	12900	2.2	**FF**	**67**	**DRN**	**112M4**	78	415
170	220	8.60	12700	2.5						
194	196	7.53	12300	3.1						
216	177	6.78	12000	3.5						
246	155	5.95	11600	3.9						
279	137	5.25	11300	4.3						
314	121	4.66	10900	4.6						
368	104	3.97	10500	4.8						
69	550	21.17	6490	1.10						
77	495	19.11	6480	1.20						
87	435	16.81	6440	1.35						
92	410	15.88	6420	1.45						
108	350	13.52	6320	1.70	**FA**	**57**	**DRN**	**112M4**	66	410
119	320	12.29	6240	1.85	**FAF**	**57**	**DRN**	**112M4**	71	409
138	275	10.64	6120	2.2	**F**	**57**	**DRN**	**112M4**	66	408
157	240	9.31	5820	1.75	**FF**	**57**	**DRN**	**112M4**	73	409
179	210	8.19	5700	1.95						
189	200	7.73	5650	2.1						
222	172	6.58	5480	2.4						
245	156	5.98	5380	2.7						
282	135	5.18	5220	3.1						

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P_m = 5.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.5	18900	576	97200	0.95						
2.9	16500	503	104400	1.10						
3.3	14800	446	108500	1.20						
4.2	11500	353	114900	1.55	**FA**	**157R97**	**DRN**	**132S4**	810	456
4.8	10000	302	117200	1.80	**FAF**	**157R97**	**DRN**	**132S4**	870	456
5.4	9040	273	118500	2.00	**F**	**157R97**	**DRN**	**132S4**	830	456
6.3	7630	232	120000	2.4	**FF**	**157R97**	**DRN**	**132S4**	940	456
7.2	6630	202	120000	2.7						
7.4	6470	197	120000	2.8						
3.5	13900	418	86700	0.85						
3.9	12400	374	89600	0.95	**FA**	**127R87**	**DRN**	**132S4**	495	456
4.7	10300	312	90000	1.15	**FAF**	**127R87**	**DRN**	**132S4**	530	456
5.0	9730	293	90000	1.25	**F**	**127R87**	**DRN**	**132S4**	530	456
5.6	8590	259	90000	1.40	**FF**	**127R87**	**DRN**	**132S4**	570	456
6.5	7410	223	90000	1.60						
					FA	**127R77**	**DRN**	**132S4**	475	456
3.4	14300	428	85800	0.85	**FAF**	**127R77**	**DRN**	**132S4**	510	456
3.9	12600	376	89300	0.95	**F**	**127R77**	**DRN**	**132S4**	510	456
					FF	**127R77**	**DRN**	**132S4**	550	456
6.8	7740	215.37	49600	1.00	**FA**	**107**	**DRN**	**132S4**	285	440
7.3	7160	199.31	51200	1.05	**FAF**	**107**	**DRN**	**132S4**	305	439
8.2	6420	178.64	53000	1.20	**F**	**107**	**DRN**	**132S4**	300	438
9.1	5790	161.28*	54500	1.30	**FF**	**107**	**DRN**	**132S4**	325	439
10.0	5260	146.49	55700	1.45						
11	4670	129.97	57000	1.65						
12	4230	117.94	57900	1.80	**FA**	**107**	**DRN**	**132S4**	285	440
14	3640	101.38*	59100	2.1	**FAF**	**107**	**DRN**	**132S4**	305	439
16	3320	92.47*	59800	2.3	**F**	**107**	**DRN**	**132S4**	300	438
17	3180	88.49	60000	2.4	**FF**	**107**	**DRN**	**132S4**	325	439
17	3010	83.99	60400	2.5						
					FA	**97**	**DRN**	**132S4**	210	434
11	4580	127.42	29000	0.95	**FAF**	**97**	**DRN**	**132S4**	230	433
13	4060	112.99	30600	1.05	**F**	**97**	**DRN**	**132S4**	215	432
14	3670	102.16	31700	1.15	**FF**	**97**	**DRN**	**132S4**	250	433
15	3500	97.58	32100	1.25						
16	3220	89.85	32800	1.35						
17	3110	86.59	33100	1.40						
18	2880	80.31	33600	1.50	**FA**	**97**	**DRN**	**132S4**	210	434
19	2710	75.63	33900	1.60	**FAF**	**97**	**DRN**	**132S4**	230	433
20	2590	72.29	34200	1.65	**F**	**97**	**DRN**	**132S4**	215	432
22	2350	65.47	34700	1.85	**FF**	**97**	**DRN**	**132S4**	250	433
25	2080	58.06	34400	2.1						
28	1880	52.49	33700	2.3						
17	3160	88.01	11900	0.95	**FA**	**87**	**DRN**	**132S4**	145	428
19	2740	76.39	21200	1.10	**FAF**	**87**	**DRN**	**132S4**	155	427
21	2450	68.40	21200	1.20	**F**	**87**	**DRN**	**132S4**	150	426
26	2040	56.75	21000	1.45	**FF**	**87**	**DRN**	**132S4**	165	427
29	1810	50.36	20700	1.60						
32	1620	45.28	20500	1.75	**FA**	**87**	**DRN**	**132S4**	145	428
37	1410	39.30	20100	1.95	**FAF**	**87**	**DRN**	**132S4**	155	427
42	1260	35.19	19700	2.1	**F**	**87**	**DRN**	**132S4**	150	426
50	1040	29.20	19100	2.4	**FF**	**87**	**DRN**	**132S4**	165	427
43	1210	33.92	19600	2.1	**FA**	**87**	**DRN**	**132S4**	140	428
51	1030	28.78	19000	2.4	**FAF**	**87**	**DRN**	**132S4**	155	427
55	950	26.50	18700	3.2	**F**	**87**	**DRN**	**132S4**	145	426
62	850	23.68	18300	3.5	**FF**	**87**	**DRN**	**132S4**	160	427
30	1730	48.37	13900	0.85						
34	1560	43.58	15300	0.95	**FA**	**77**	**DRN**	**132S4**	105	422
38	1370	38.23	16500	1.10	**FAF**	**77**	**DRN**	**132S4**	110	421
43	1210	33.74	17400	1.25	**F**	**77**	**DRN**	**132S4**	110	420
49	1070	29.91	18000	1.40	**FF**	**77**	**DRN**	**132S4**	120	421
57	910	25.54	18600	1.60						

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P_m = 5.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
57	910	25.50*	18600	1.65						
68	770	21.43	19100	1.95						
74	705	19.70	19200	2.1	**FA**	**77**	**DRN**	**132S4**	105	422
84	625	17.49	19400	2.4	**FAF**	**77**	**DRN**	**132S4**	110	421
93	560	15.64*	19600	2.7	**F**	**77**	**DRN**	**132S4**	105	420
104	505	14.06	19200	3.0	**FF**	**77**	**DRN**	**132S4**	120	421
120	435	12.20	18500	3.4						
66	790	22.05	10500	1.05						
70	750	20.90*	10900	1.10						
80	655	18.29	11600	1.25						
89	590	16.48	11900	1.40						
101	515	14.46	12300	1.60						
115	455	12.76	12600	1.80						
129	405	11.31	12800	2.0	**FA**	**67**	**DRN**	**132S4**	81	416
151	345	9.66	12900	2.4	**FAF**	**67**	**DRN**	**132S4**	87	415
161	325	9.08	12400	1.60	**F**	**67**	**DRN**	**132S4**	84	414
170	305	8.60	12200	1.85	**FF**	**67**	**DRN**	**132S4**	90	415
194	270	7.53	11900	2.2						
215	240	6.78	11600	2.5						
246	210	5.95	11300	2.8						
278	189	5.25	11000	3.1						
314	167	4.66	10700	3.4						
368	143	3.97	10300	3.5						
87	600	16.81	5460	1.00						
92	570	15.88	5490	1.05						
108	485	13.52	5530	1.25						
119	440	12.29	5530	1.35	**FA**	**57**	**DRN**	**132S4**	77	410
137	380	10.64	5500	1.55	**FAF**	**57**	**DRN**	**132S4**	83	409
178	290	8.19	5180	1.45	**F**	**57**	**DRN**	**132S4**	78	408
189	275	7.73	5150	1.50	**FF**	**57**	**DRN**	**132S4**	84	409
222	235	6.58	5060	1.75						
244	215	5.98	4990	1.95						
282	186	5.18	4880	2.2						

P_m = 7.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.3	20200	446	93100	0.90						
4.2	15800	353	106200	1.15						
4.9	13600	302	111000	1.30	**FA**	**157R97**	**DRN**	**132M4**	830	456
5.4	12300	273	113500	1.45	**FAF**	**157R97**	**DRN**	**132M4**	890	456
6.3	10400	232	116600	1.75	**F**	**157R97**	**DRN**	**132M4**	850	456
7.3	9080	202	118500	2.00	**FF**	**157R97**	**DRN**	**132M4**	950	456
7.5	8840	197	118800	2.0						
4.7	14100	312	86300	0.85						
5.0	13200	293	88000	0.90	**FA**	**127R87**	**DRN**	**132M4**	510	456
5.7	11700	259	90000	1.00	**FAF**	**127R87**	**DRN**	**132M4**	550	456
6.6	10100	223	90000	1.20	**F**	**127R87**	**DRN**	**132M4**	550	456
7.4	8950	198	90000	1.35	**FF**	**127R87**	**DRN**	**132M4**	590	456
8.6	8330	170.83	90000	1.45	**FA**	**127**	**DRN**	**132M4**	445	446
9.6	7490	153.67*	90000	1.60	**FAF**	**127**	**DRN**	**132M4**	485	445
12	6110	125.37	90000	1.95	**F**	**127**	**DRN**	**132M4**	480	444
					FF	**127**	**DRN**	**132M4**	530	445
8.2	8710	178.64	47000	0.90	**FA**	**107**	**DRN**	**132M4**	300	440
9.1	7860	161.28*	49300	1.00	**FAF**	**107**	**DRN**	**132M4**	320	439
10	7140	146.49	51200	1.05	**F**	**107**	**DRN**	**132M4**	320	438
11	6340	129.97	53200	1.20	**FF**	**107**	**DRN**	**132M4**	345	439
12	5750	117.94	54600	1.35						
14	4940	101.38*	56400	1.55						
16	4510	92.47*	57400	1.70	**FA**	**107**	**DRN**	**132M4**	300	440
17	4310	88.49	57800	1.80	**FAF**	**107**	**DRN**	**132M4**	320	439
17	4090	83.99	58200	1.85	**F**	**107**	**DRN**	**132M4**	320	438
20	3630	74.52	59200	2.1	**FF**	**107**	**DRN**	**132M4**	345	439
22	3290	67.62	59800	2.3						

P_m = 7.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
15	4760	97.58	24600	0.90						
16	4380	89.85	29600	1.00	**FA**	**97**	**DRN**	**132M4**	225	434
17	4220	86.59	30100	1.00	**FAF**	**97**	**DRN**	**132M4**	245	433
18	3910	80.31	31000	1.10	**F**	**97**	**DRN**	**132M4**	235	432
19	3680	75.63	31600	1.15	**FF**	**97**	**DRN**	**132M4**	265	433
20	3520	72.29	32000	1.20						
22	3190	65.47	32200	1.35						
25	2830	58.06	31700	1.50	**FA**	**97**	**DRN**	**132M4**	225	434
28	2560	52.49	31300	1.70	**FAF**	**97**	**DRN**	**132M4**	245	433
33	2170	44.49	30500	2.00	**F**	**97**	**DRN**	**132M4**	235	432
38	1890	38.86	29800	2.3	**FF**	**97**	**DRN**	**132M4**	265	433
45	1580	32.50	28800	2.7						
34	2110	43.28	30400	1.45	**FA**	**97**	**DRN**	**132M4**	220	434
40	1780	36.64	29500	1.70	**FAF**	**97**	**DRN**	**132M4**	240	433
43	1650	33.91	29000	2.6	**F**	**97**	**DRN**	**132M4**	225	432
48	1480	30.39	28400	2.9	**FF**	**97**	**DRN**	**132M4**	260	433
26	2760	56.75	18100	1.10						
29	2450	50.36	18200	1.20	**FA**	**87**	**DRN**	**132M4**	160	428
32	2200	45.28	18200	1.30	**FAF**	**87**	**DRN**	**132M4**	175	427
37	1910	39.30	18100	1.40	**F**	**87**	**DRN**	**132M4**	165	426
42	1710	35.19	17900	1.50	**FF**	**87**	**DRN**	**132M4**	185	427
50	1420	29.20	17600	1.75						
51	1400	28.78	17500	1.75						
55	1290	26.50	17400	2.3						
62	1150	23.68	17100	2.6	**FA**	**87**	**DRN**	**132M4**	160	428
69	1040	21.32*	16800	2.9	**FAF**	**87**	**DRN**	**132M4**	170	427
76	940	19.31	16500	3.2	**F**	**87**	**DRN**	**132M4**	165	426
86	830	17.12	16100	3.6	**FF**	**87**	**DRN**	**132M4**	180	427
95	755	15.48	15800	4.0						
44	1640	33.74	14700	0.90	**FA**	**77**	**DRN**	**132M4**	125	422
49	1450	29.91	16000	1.05	**FAF**	**77**	**DRN**	**132M4**	130	421
57	1240	25.54	17200	1.15	**F**	**77**	**DRN**	**132M4**	125	420
					FF	**77**	**DRN**	**132M4**	135	421
58	1240	25.50*	17200	1.20						
68	1040	21.43	18100	1.45						
75	960	19.70	18500	1.55						
84	850	17.49	18800	1.75						
94	760	15.64*	18900	1.95						
104	685	14.06	18500	2.2						
120	595	12.20	17900	2.5	**FA**	**77**	**DRN**	**132M4**	120	422
134	530	10.93	17500	2.8	**FAF**	**77**	**DRN**	**132M4**	130	421
158	450	9.30	16400	2.4	**F**	**77**	**DRN**	**132M4**	125	420
178	400	8.26	16000	2.7	**FF**	**77**	**DRN**	**132M4**	135	421
199	360	7.39	15600	3.0						
221	320	6.64	15300	3.3						
255	280	5.76	14800	3.8						
284	250	5.16	14400	4.3						
343	205	4.28	13700	4.8						

P_m = 9.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
4.2	19400	353	95600	0.90						
4.9	16800	302	103600	1.05	**FA**	**157R97**	**DRN**	**132L4**	840	456
5.4	15100	273	107700	1.20	**FAF**	**157R97**	**DRN**	**132L4**	890	456
6.4	12800	232	112600	1.40	**F**	**157R97**	**DRN**	**132L4**	860	456
7.3	11100	202	115500	1.60	**FF**	**157R97**	**DRN**	**132L4**	960	456
7.5	10800	197	116000	1.65						
5.7	14300	259	85800	0.85	**FA**	**127R87**	**DRN**	**132L4**	520	456
6.6	12400	223	89600	0.95	**FAF**	**127R87**	**DRN**	**132L4**	560	456
7.4	10900	198	90000	1.10	**F**	**127R87**	**DRN**	**132L4**	560	456
					FF	**127R87**	**DRN**	**132L4**	600	456

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P_m = 9.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
8.6	10200	170.83	90000	1.20	**FA**	**127**	**DRN**	**132L4**	455	446
9.6	9180	153.67*	90000	1.30	**FAF**	**127**	**DRN**	**132L4**	490	445
12	7490	125.37	90000	1.60	**F**	**127**	**DRN**	**132L4**	490	444
13	6830	114.34	90000	1.75	**FF**	**127**	**DRN**	**132L4**	540	445
15	5910	98.95	90000	2.0						
10	8750	146.49	46800	0.90	**FA**	**107**	**DRN**	**132L4**	310	440
11	7760	129.97	49600	1.00	**FAF**	**107**	**DRN**	**132L4**	330	439
12	7040	117.94	51500	1.10	**F**	**107**	**DRN**	**132L4**	325	438
14	6050	101.38*	53900	1.25	**FF**	**107**	**DRN**	**132L4**	355	439
16	5520	92.47*	55100	1.40						
18	5010	83.99	56300	1.55	**FA**	**107**	**DRN**	**132L4**	310	440
20	4450	74.52	57500	1.70	**FAF**	**107**	**DRN**	**132L4**	330	439
22	4040	67.62	58300	1.90	**F**	**107**	**DRN**	**132L4**	325	438
25	3470	58.12*	58000	2.2	**FF**	**107**	**DRN**	**132L4**	355	439
29	3030	50.73	56500	2.5						
18	4790	80.31	23100	0.90						
19	4520	75.63	29200	0.95	**FA**	**97**	**DRN**	**132L4**	235	434
20	4320	72.29	29600	1.00	**FAF**	**97**	**DRN**	**132L4**	255	433
22	3910	65.47	29600	1.10	**F**	**97**	**DRN**	**132L4**	240	432
25	3460	58.06	29500	1.25	**FF**	**97**	**DRN**	**132L4**	275	433
28	3130	52.49	29300	1.35	**FA**	**97**	**DRN**	**132L4**	235	434
33	2650	44.49	28800	1.60	**FAF**	**97**	**DRN**	**132L4**	255	433
38	2320	38.86	28300	1.85	**F**	**97**	**DRN**	**132L4**	240	432
45	1940	32.50	27500	2.2	**FF**	**97**	**DRN**	**132L4**	275	433
43	2020	33.91	27700	2.1	**FA**	**97**	**DRN**	**132L4**	230	434
48	1810	30.39	27200	2.4	**FAF**	**97**	**DRN**	**132L4**	250	433
54	1630	27.44*	26700	2.6	**F**	**97**	**DRN**	**132L4**	235	432
59	1480	24.92	26200	2.9	**FF**	**97**	**DRN**	**132L4**	270	433
29	3000	50.36	16000	1.00						
32	2700	45.28	16300	1.05	**FA**	**87**	**DRN**	**132L4**	170	428
37	2340	39.30	16400	1.15	**FAF**	**87**	**DRN**	**132L4**	185	427
42	2100	35.19	16400	1.25	**F**	**87**	**DRN**	**132L4**	175	426
50	1740	29.20	16300	1.45	**FF**	**87**	**DRN**	**132L4**	190	427
55	1580	26.50	16200	1.90						
62	1410	23.68	16000	2.1						
69	1270	21.32*	15900	2.4	**FA**	**87**	**DRN**	**132L4**	165	428
76	1150	19.31	15600	2.6	**FAF**	**87**	**DRN**	**132L4**	180	427
86	1020	17.12	15400	2.9	**F**	**87**	**DRN**	**132L4**	175	426
95	920	15.48	15100	3.2	**FF**	**87**	**DRN**	**132L4**	190	427
112	780	13.12*	14600	3.8						
75	1170	19.70	17600	1.25						
84	1040	17.49	18100	1.45						
94	930	15.64*	18200	1.60						
105	840	14.06	17900	1.80						
120	725	12.20	17400	2.1						
135	650	10.93	17100	2.3	**FA**	**77**	**DRN**	**132L4**	130	422
158	555	9.30	15900	1.95	**FAF**	**77**	**DRN**	**132L4**	135	421
178	490	8.26	15600	2.2	**F**	**77**	**DRN**	**132L4**	135	420
199	440	7.39	15200	2.4	**FF**	**77**	**DRN**	**132L4**	145	421
221	395	6.64	14900	2.7						
255	340	5.76	14500	3.1						
285	305	5.16	14100	3.5						
343	255	4.28	13500	4.0						

P_m = 11.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
4.9	20000	302	93500	0.90	**FA**	**157R97**	**DRN**	**160M4**	870	456
5.4	18100	273	99800	1.00	**FAF**	**157R97**	**DRN**	**160M4**	930	456
6.4	15300	232	107300	1.15	**F**	**157R97**	**DRN**	**160M4**	890	456
7.3	13300	202	111600	1.35	**FF**	**157R97**	**DRN**	**160M4**	1000	456
7.5	13000	197	112300	1.40						

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P_m = 11.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
6.6	14800	223	84800	0.80	**FA**	**127R87**	**DRN**	**160M4**	550	456
7.5	13100	198	88300	0.90	**FAF**	**127R87**	**DRN**	**160M4**	590	456
8.9	11000	166	90000	1.10	**F**	**127R87**	**DRN**	**160M4**	590	456
					FF	**127R87**	**DRN**	**160M4**	630	456
5.5	19000	267.43	96900	0.95						
6.8	15500	217.62*	106900	1.15						
8.3	12700	178.20*	112800	1.40						
9.0	11600	162.96	114800	1.55						
10	10100	141.80*	117100	1.80	**FA**	**157**	**DRN**	**160M4**	740	452
12	8920	125.14	118700	2.0	**FAF**	**157**	**DRN**	**160M4**	800	451
14	7730	108.49	120000	2.3	**F**	**157**	**DRN**	**160M4**	760	450
15	6880	96.53*	120000	2.6	**FF**	**157**	**DRN**	**160M4**	870	451
17	6110	85.80*	117500	2.9						
19	5590	78.46	115100	3.2						
22	4860	68.28*	111400	3.7						
8.6	12100	170.83	90000	1.00						
9.6	10900	153.67*	90000	1.10						
12	8940	125.37	90000	1.35	**FA**	**127**	**DRN**	**160M4**	485	446
13	8150	114.34	90000	1.45	**FAF**	**127**	**DRN**	**160M4**	520	445
15	7050	98.95	90000	1.70	**F**	**127**	**DRN**	**160M4**	520	444
17	6220	87.31*	90000	1.95	**FF**	**127**	**DRN**	**160M4**	570	445
20	5370	75.41*	88300	2.2						
12	8410	117.94	47800	0.90	**FA**	**107**	**DRN**	**160M4**	340	440
15	7220	101.38*	51000	1.05	**FAF**	**107**	**DRN**	**160M4**	365	439
16	6590	92.47*	52600	1.15	**F**	**107**	**DRN**	**160M4**	360	438
					FF	**107**	**DRN**	**160M4**	385	439
18	5980	83.99	54100	1.30						
20	5310	74.52	55600	1.45	**FA**	**107**	**DRN**	**160M4**	340	440
22	4820	67.62	56700	1.60	**FAF**	**107**	**DRN**	**160M4**	365	439
25	4140	58.12*	56200	1.85	**F**	**107**	**DRN**	**160M4**	360	438
29	3610	50.73	54900	2.1	**FF**	**107**	**DRN**	**160M4**	385	439
34	3060	43.03	53300	2.5						
44	2400	33.79*	50700	3.1	**FA**	**107**	**DRN**	**160M4**	330	440
53	1960	27.57	48500	4.0	**FAF**	**107**	**DRN**	**160M4**	355	439
59	1790	25.14	47500	4.4	**F**	**107**	**DRN**	**160M4**	350	438
					FF	**107**	**DRN**	**160M4**	375	439
22	4660	65.47	26900	0.90	**FA**	**97**	**DRN**	**160M4**	265	434
25	4140	58.06	27100	1.05	**FAF**	**97**	**DRN**	**160M4**	290	433
28	3740	52.49	27100	1.15	**F**	**97**	**DRN**	**160M4**	275	432
					FF	**97**	**DRN**	**160M4**	305	433
33	3170	44.49	26900	1.35	**FA**	**97**	**DRN**	**160M4**	265	434
38	2770	38.86	26700	1.55	**FAF**	**97**	**DRN**	**160M4**	290	433
45	2310	32.50	26200	1.85	**F**	**97**	**DRN**	**160M4**	275	432
					FF	**97**	**DRN**	**160M4**	305	433
43	2410	33.91	26300	1.80						
48	2160	30.39	25900	2.00	**FA**	**97**	**DRN**	**160M4**	260	434
54	1950	27.44*	25500	2.2	**FAF**	**97**	**DRN**	**160M4**	285	433
59	1770	24.92	25200	2.4	**F**	**97**	**DRN**	**160M4**	270	432
67	1570	22.11	24600	2.7	**FF**	**97**	**DRN**	**160M4**	300	433
37	2800	39.30	14600	0.95	**FA**	**87**	**DRN**	**160M4**	200	428
42	2500	35.19	14800	1.05	**FAF**	**87**	**DRN**	**160M4**	215	427
50	2080	29.20	15000	1.20	**F**	**87**	**DRN**	**160M4**	210	426
					FF	**87**	**DRN**	**160M4**	225	427
56	1880	26.50	15000	1.60						
62	1680	23.68	15000	1.80						
69	1520	21.32*	14900	1.95	**FA**	**87**	**DRN**	**160M4**	200	428
76	1370	19.31	14800	2.2	**FAF**	**87**	**DRN**	**160M4**	210	427
86	1220	17.12	14600	2.5	**F**	**87**	**DRN**	**160M4**	205	426
95	1100	15.48	14400	2.7	**FF**	**87**	**DRN**	**160M4**	220	427
112	930	13.12*	14000	3.2						

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P_m = 11.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
75	1400	19.70	16300	1.05						
84	1240	17.49	17200	1.20						
94	1110	15.64*	17600	1.35						
105	1000	14.06	17300	1.50						
121	870	12.20	16900	1.70	**FA**	**77**	**DRN**	**160M4**	160	422
135	775	10.93	16600	1.90	**FAF**	**77**	**DRN**	**160M4**	170	421
158	660	9.30	15400	1.65	**F**	**77**	**DRN**	**160M4**	165	420
178	585	8.26	15100	1.85	**FF**	**77**	**DRN**	**160M4**	175	421
199	525	7.39	14800	2.0						
222	470	6.64	14500	2.3						
256	410	5.76	14100	2.6						
285	365	5.16	13800	2.9						
344	305	4.28	13300	3.3						

P_m = 15.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
6.4	20900	232	90200	0.85	**FA**	**157R97**	**DRN**	**160L4**	880	456
7.3	18200	202	99400	1.00	**FAF**	**157R97**	**DRN**	**160L4**	940	456
7.5	17700	197	100900	1.00	**F**	**157R97**	**DRN**	**160L4**	900	456
					FF	**157R97**	**DRN**	**160L4**	1010	456
6.8	21100	217.62*	89600	0.85						
8.3	17300	178.20*	102200	1.05						
9.0	15800	162.96	106100	1.15						
10	13700	141.80*	110800	1.30						
12	12100	125.14	113800	1.50	**FA**	**157**	**DRN**	**160L4**	760	452
14	10500	108.49	116500	1.70	**FAF**	**157**	**DRN**	**160L4**	810	451
15	9380	96.53*	115600	1.90	**F**	**157**	**DRN**	**160L4**	780	450
17	8330	85.80*	113000	2.2	**FF**	**157**	**DRN**	**160L4**	880	451
19	7620	78.46	111000	2.4						
22	6630	68.28*	107800	2.7						
24	5850	60.25	104900	3.1						
12	12100	125.37	88900	1.00						
13	11100	114.34	88300	1.10	**FA**	**127**	**DRN**	**160L4**	500	446
15	9610	98.95	86900	1.25	**FAF**	**127**	**DRN**	**160L4**	540	445
17	8480	87.31*	85500	1.40	**F**	**127**	**DRN**	**160L4**	540	444
20	7320	75.41*	83700	1.65	**FF**	**127**	**DRN**	**160L4**	580	445
21	6800	70.07	82700	1.75						
16	8980	92.47*	46200	0.85						
17	8590	88.49	47300	0.90	**FA**	**107**	**DRN**	**160L4**	360	440
18	8160	83.99	48500	0.95	**FAF**	**107**	**DRN**	**160L4**	380	439
20	7240	74.52	51000	1.05	**F**	**107**	**DRN**	**160L4**	375	438
22	6570	67.62	52700	1.15	**FF**	**107**	**DRN**	**160L4**	400	439
25	5640	58.12*	52200	1.35						
29	4930	50.73	51400	1.55	**FA**	**107**	**DRN**	**160L4**	360	440
34	4180	43.03	50300	1.85	**FAF**	**107**	**DRN**	**160L4**	380	439
39	3650	37.61	49300	2.1	**F**	**107**	**DRN**	**160L4**	375	438
46	3090	31.80	47900	2.5	**FF**	**107**	**DRN**	**160L4**	400	439
44	3280	33.79*	48400	2.2	**FA**	**107**	**DRN**	**160L4**	350	440
53	2670	27.57	46600	2.9	**FAF**	**107**	**DRN**	**160L4**	370	439
59	2440	25.14	45800	3.2	**F**	**107**	**DRN**	**160L4**	365	438
68	2110	21.76*	44400	3.7	**FF**	**107**	**DRN**	**160L4**	390	439
33	4320	44.49	22900	1.00	**FA**	**97**	**DRN**	**160L4**	285	434
38	3770	38.86	23100	1.15	**FAF**	**97**	**DRN**	**160L4**	305	433
45	3150	32.50	23200	1.35	**F**	**97**	**DRN**	**160L4**	290	432
					FF	**97**	**DRN**	**160L4**	325	433

P_m = 15.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
43	3290	33.91	23200	1.30						
48	2950	30.39	23200	1.45						
54	2660	27.44*	23000	1.60						
59	2420	24.92	22900	1.80	**FA**	**97**	**DRN**	**160L4**	275	434
67	2140	22.11	22600	2.0	**FAF**	**97**	**DRN**	**160L4**	300	433
73	1950	20.07	22400	2.2	**F**	**97**	**DRN**	**160L4**	285	432
85	1670	17.25*	21900	2.6	**FF**	**97**	**DRN**	**160L4**	315	433
98	1460	15.06	21400	2.9						
115	1240	12.77	20800	3.5						
132	1080	11.16	20200	3.8						
56	2570	26.50	12400	1.15						
62	2300	23.68	12600	1.30						
69	2070	21.32*	12800	1.45						
76	1870	19.31	12800	1.60						
86	1660	17.12	12900	1.80						
95	1500	15.48	12800	2.00						
112	1270	13.12*	12700	2.4	**FA**	**87**	**DRN**	**160L4**	215	428
129	1110	11.46	12600	2.7	**FAF**	**87**	**DRN**	**160L4**	230	427
154	930	9.58	12300	3.1	**F**	**87**	**DRN**	**160L4**	220	426
178	800	8.29	11700	1.90	**FF**	**87**	**DRN**	**160L4**	235	427
200	710	7.35	11500	2.1						
222	645	6.65	11300	2.4						
262	545	5.63	11000	2.8						
300	475	4.92	10700	3.2						
358	395	4.12	10300	3.6						

P_m = 18.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					FA	**157R97**	**DRN**	**180M4**	910	456
7.3	22500	202	74900	0.80	**FAF**	**157R97**	**DRN**	**180M4**	960	456
7.5	21900	197	86400	0.80	**F**	**157R97**	**DRN**	**180M4**	930	456
					FF	**157R97**	**DRN**	**180M4**	1030	456
8.3	21200	178.20*	89000	0.85						
9.1	19400	162.96	95600	0.90						
10	16900	141.80*	103200	1.05						
12	14900	125.14	108200	1.20						
14	12900	108.49	112400	1.40	**FA**	**157**	**DRN**	**180M4**	780	452
15	11500	96.53*	111200	1.55	**FAF**	**157**	**DRN**	**180M4**	840	451
17	10200	85.80*	109100	1.75	**F**	**157**	**DRN**	**180M4**	800	450
19	9370	78.46	107400	1.90	**FF**	**157**	**DRN**	**180M4**	910	451
22	8160	68.28*	104700	2.2						
25	7200	60.25	102100	2.5						
28	6240	52.24	99200	2.9						
13	13600	114.34	82200	0.90						
15	11800	98.95	81600	1.00						
17	10400	87.31*	80900	1.15	**FA**	**127**	**DRN**	**180M4**	520	446
20	9010	75.41*	79700	1.35	**FAF**	**127**	**DRN**	**180M4**	560	445
21	8370	70.07	79000	1.45	**F**	**127**	**DRN**	**180M4**	560	444
23	7630	63.91	78000	1.55	**FF**	**127**	**DRN**	**180M4**	600	445
27	6610	55.31	76300	1.80						
30	5830	48.80	74800	2.1						
20	8900	74.52	46400	0.85	**FA**	**107**	**DRN**	**180M4**	380	440
22	8080	67.62	48700	0.95	**FAF**	**107**	**DRN**	**180M4**	400	439
25	6940	58.12*	48700	1.10	**F**	**107**	**DRN**	**180M4**	395	438
29	6060	50.73	48400	1.25	**FF**	**107**	**DRN**	**180M4**	425	439
					FA	**107**	**DRN**	**180M4**	380	440
34	5140	43.03	47700	1.50	**FAF**	**107**	**DRN**	**180M4**	400	439
39	4490	37.61	47000	1.70	**F**	**107**	**DRN**	**180M4**	395	438
46	3800	31.80	45900	2.0	**FF**	**107**	**DRN**	**180M4**	425	439
44	4030	33.79*	46300	1.85	**FA**	**107**	**DRN**	**180M4**	370	440
54	3290	27.57	44900	2.4	**FAF**	**107**	**DRN**	**180M4**	390	439
59	3000	25.14	44200	2.6	**F**	**107**	**DRN**	**180M4**	385	438
68	2600	21.76*	43100	3.0	**FF**	**107**	**DRN**	**180M4**	415	439

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P_m = 18.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					FA	97	DRN	180M4	305	434
38	4640	38.86	20100	0.95	FAF	97	DRN	180M4	325	433
45	3880	32.50	20600	1.10	F	97	DRN	180M4	310	432
					FF	97	DRN	180M4	345	433
54	3270	27.44*	20900	1.30						
59	2970	24.92	20900	1.45						
67	2640	22.11	20900	1.65	FA	97	DRN	180M4	300	434
74	2390	20.07	20800	1.80	FAF	97	DRN	180M4	320	433
86	2060	17.25*	20500	2.1	F	97	DRN	180M4	305	432
98	1790	15.06	20200	2.4	FF	97	DRN	180M4	340	433
116	1520	12.77	19700	2.8						
132	1330	11.16	19300	3.1						
69	2540	21.32*	10900	1.20						
77	2300	19.31	11100	1.30						
86	2040	17.12	11400	1.45						
95	1850	15.48	11500	1.60						
113	1560	13.12*	11600	1.90						
129	1360	11.46	11600	2.2	FA	87	DRN	180M4	235	428
154	1140	9.58	11500	2.5	FAF	87	DRN	180M4	250	427
178	990	8.29	10900	1.55	F	87	DRN	180M4	245	426
201	870	7.35	10800	1.75	FF	87	DRN	180M4	260	427
222	790	6.65	10700	1.95						
262	670	5.63	10400	2.3						
300	585	4.92	10200	2.6						
359	490	4.12	9890	3.0						

P_m = 22 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
10	20100	141.80*	93200	0.90						
12	17700	125.14	100900	1.00						
14	15400	108.49	107100	1.15						
15	13700	96.53*	106800	1.30						
17	12200	85.80*	105200	1.45	FA	157	DRN	180L4	790	452
19	11100	78.46	103900	1.60	FAF	157	DRN	180L4	850	451
22	9710	68.28*	101600	1.85	F	157	DRN	180L4	820	450
25	8570	60.25	99400	2.1	FF	157	DRN	180L4	920	451
28	7420	52.24	96800	2.4						
32	6610	46.48*	94600	2.7						
37	5690	40.06	91700	3.2						
45	4620	32.55	87600	3.9						
15	14000	98.95	76400	0.85						
17	12400	87.31*	76300	0.95						
20	10700	75.41*	75700	1.10	FA	127	DRN	180L4	540	446
21	9960	70.07	75300	1.20	FAF	127	DRN	180L4	580	445
23	9080	63.91	74600	1.30	F	127	DRN	180L4	580	444
27	7860	55.31	73400	1.55	FF	127	DRN	180L4	620	445
30	6940	48.80	72200	1.75						
35	5990	42.15	70600	2.0						
25	8260	58.12*	45200	0.95	FA	107	DRN	180L4	395	440
29	7210	50.73	45300	1.05	FAF	107	DRN	180L4	415	439
34	6120	43.03	45100	1.25	F	107	DRN	180L4	410	438
					FF	107	DRN	180L4	440	439
					FA	107	DRN	180L4	395	440
39	5340	37.61	44700	1.45	FAF	107	DRN	180L4	415	439
46	4520	31.80	44000	1.70	F	107	DRN	180L4	410	438
					FF	107	DRN	180L4	440	439
44	4800	33.79*	44300	1.55						
54	3920	27.57	43300	2.0	FA	107	DRN	180L4	385	440
59	3570	25.14	42700	2.2	FAF	107	DRN	180L4	405	439
68	3090	21.76*	41800	2.5	F	107	DRN	180L4	400	438
77	2730	19.20*	40900	2.9	FF	107	DRN	180L4	430	439

P_m = 22 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
54	3900	27.44*	18700	1.10						
59	3540	24.92	18900	1.20						
67	3140	22.11	19100	1.35	**FA**	**97**	**DRN**	**180L4**	315	434
74	2850	20.07	19200	1.50	**FAF**	**97**	**DRN**	**180L4**	335	433
86	2450	17.25*	19100	1.75	**F**	**97**	**DRN**	**180L4**	320	432
98	2140	15.06	19000	2.0	**FF**	**97**	**DRN**	**180L4**	355	433
116	1810	12.77	18700	2.4						
132	1580	11.16	18400	2.6						
69	3030	21.32*	9030	1.00						
76	2740	19.31	9460	1.10						
86	2430	17.12	9870	1.25						
95	2200	15.48	10100	1.35						
113	1860	13.12*	10400	1.60						
129	1620	11.46	10600	1.85	**FA**	**87**	**DRN**	**180L4**	255	428
154	1360	9.58	10600	2.1	**FAF**	**87**	**DRN**	**180L4**	265	427
178	1170	8.29	10100	1.30	**F**	**87**	**DRN**	**180L4**	260	426
201	1040	7.35	10100	1.45	**FF**	**87**	**DRN**	**180L4**	275	427
222	940	6.65	10000	1.60						
262	800	5.63	9890	1.90						
300	695	4.92	9740	2.2						
359	585	4.12	9490	2.5						

P_m = 30 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
14	21000	108.49	90100	0.85						
15	18600	96.53*	96900	0.95						
17	16600	85.80*	96400	1.10						
19	15100	78.46	95800	1.20	**FA**	**157**	**DRN**	**200L4**	900	452
22	13200	68.28*	94500	1.35	**FAF**	**157**	**DRN**	**200L4**	960	451
25	11600	60.25	93200	1.55	**F**	**157**	**DRN**	**200L4**	920	450
28	10100	52.24	91400	1.80	**FF**	**157**	**DRN**	**200L4**	1030	451
32	8990	46.48*	89800	2.0						
37	7750	40.06	87600	2.3						
20	14500	75.41*	64600	0.80						
21	13500	70.07	65700	0.90						
23	12300	63.91	66800	0.95						
27	10700	55.31	66700	1.10	**FA**	**127**	**DRN**	**200L4**	650	446
30	9440	48.80	66300	1.25	**FAF**	**127**	**DRN**	**200L4**	690	445
35	8150	42.15	65500	1.45	**F**	**127**	**DRN**	**200L4**	680	444
40	7210	37.28	64600	1.65	**FF**	**127**	**DRN**	**200L4**	730	445
47	6060	31.33	63200	2.00						
58	4890	25.30	61100	2.4						
55	5200	26.86	61700	1.65	**FA**	**127**	**DRN**	**200L4**	640	446
60	4750	24.57	60800	1.80	**FAF**	**127**	**DRN**	**200L4**	670	445
69	4130	21.38	59300	2.9	**F**	**127**	**DRN**	**200L4**	670	444
78	3650	18.87	57900	3.0	**FF**	**127**	**DRN**	**200L4**	720	445
					FA	**107**	**DRN**	**200L4**	500	440
34	8320	43.03	39200	0.90	**FAF**	**107**	**DRN**	**200L4**	530	439
39	7280	37.61	39600	1.05	**F**	**107**	**DRN**	**200L4**	520	438
47	6150	31.80	39700	1.25	**FF**	**107**	**DRN**	**200L4**	550	439
54	5330	27.57	39500	1.45						
59	4860	25.14	39300	1.60						
68	4210	21.76*	38800	1.85	**FA**	**107**	**DRN**	**200L4**	495	440
77	3710	19.20*	38300	2.1	**FAF**	**107**	**DRN**	**200L4**	520	439
89	3200	16.58	37500	2.4	**F**	**107**	**DRN**	**200L4**	510	438
101	2830	14.67	36900	2.7	**FF**	**107**	**DRN**	**200L4**	540	439
120	2380	12.33	35800	2.9						
149	1920	9.96	34400	3.4						

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P_m = 30 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
67	4280	22.11	15100	1.00						
74	3880	20.07	15500	1.10						
86	3330	17.25*	16000	1.30						
98	2910	15.06	16300	1.50						
116	2470	12.77	16400	1.75	**FA**	**97**	**DRN**	**200L4**	425	434
133	2160	11.16	16400	1.90	**FAF**	**97**	**DRN**	**200L4**	445	433
163	1750	9.06	15400	1.35	**F**	**97**	**DRN**	**200L4**	430	432
180	1590	8.22	15300	1.50	**FF**	**97**	**DRN**	**200L4**	465	433
209	1360	7.07	15100	1.70						
240	1190	6.17	14900	1.90						
283	1010	5.23	14600	2.1						
324	880	4.57	14300	2.3						

P_m = 37 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
17	20400	85.80*	88600	0.90						
19	18700	78.46	88700	0.95						
22	16200	68.28*	88400	1.10						
25	14300	60.25	87800	1.25	**FA**	**157**	**DRN**	**225S4**	930	452
28	12400	52.24	86700	1.45	**FAF**	**157**	**DRN**	**225S4**	990	451
32	11000	46.48*	85600	1.60	**F**	**157**	**DRN**	**225S4**	950	450
37	9550	40.06	83900	1.90	**FF**	**157**	**DRN**	**225S4**	1060	451
46	7750	32.55	81300	2.3						
54	6580	27.60	79000	2.7						
27	13100	55.31	59200	0.90						
30	11600	48.80	60800	1.05	**FA**	**127**	**DRN**	**225S4**	680	446
35	10000	42.15	61100	1.20	**FAF**	**127**	**DRN**	**225S4**	720	445
40	8880	37.28	60700	1.35	**F**	**127**	**DRN**	**225S4**	720	444
47	7460	31.33	59900	1.60	**FF**	**127**	**DRN**	**225S4**	760	445
59	6030	25.30	58400	2.00						
55	6400	26.86	58900	1.35						
60	5850	24.57	58200	1.45						
69	5090	21.38	57000	2.4						
79	4490	18.87	55900	2.4	**FA**	**127**	**DRN**	**225S4**	670	446
91	3890	16.36	54500	2.8	**FAF**	**127**	**DRN**	**225S4**	710	445
102	3460	14.55	53300	3.2	**F**	**127**	**DRN**	**225S4**	700	444
118	2990	12.54	51800	3.3	**FF**	**127**	**DRN**	**225S4**	750	445
145	2420	10.19	49500	3.9						
167	2110	8.86	47700	3.3						
188	1870	7.88	46400	3.2						
54	6570	27.57	36200	1.20						
59	5990	25.14	36300	1.30						
68	5180	21.76*	36200	1.50						
77	4570	19.20*	36000	1.70						
89	3950	16.58	35600	2.00	**FA**	**107**	**DRN**	**225S4**	530	440
101	3490	14.67	35100	2.2	**FAF**	**107**	**DRN**	**225S4**	550	439
120	2930	12.33	34300	2.4	**F**	**107**	**DRN**	**225S4**	540	438
149	2370	9.96	33200	2.7	**FF**	**107**	**DRN**	**225S4**	570	439
153	2310	9.69	32400	2.1						
177	1990	8.37	31600	2.4						
200	1760	7.40	31000	2.6						
238	1480	6.22	30000	3.1						

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P_m = 45 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
22	19700	68.28*	81400	0.90						
25	17400	60.25	81600	1.05						
28	15100	52.24	81300	1.20	**FA**	**157**	**DRN**	**225M4**	930	452
32	13400	46.48*	80800	1.35	**FAF**	**157**	**DRN**	**225M4**	990	451
37	11600	40.06	79800	1.55	**F**	**157**	**DRN**	**225M4**	950	450
46	9430	32.55	78000	1.90	**FF**	**157**	**DRN**	**225M4**	1060	451
54	8000	27.60	76100	2.2						
30	14100	48.80	51600	0.85						
35	12200	42.15	54300	1.00	**FA**	**127**	**DRN**	**225M4**	680	446
40	10800	37.28	55800	1.10	**FAF**	**127**	**DRN**	**225M4**	720	445
47	9080	31.33	56100	1.30	**F**	**127**	**DRN**	**225M4**	720	444
59	7330	25.30	55400	1.65	**FF**	**127**	**DRN**	**225M4**	760	445
55	7780	26.86	55600	1.10						
60	7120	24.57	55200	1.20						
69	6190	21.38	54500	1.95						
79	5470	18.87	53600	2.0						
91	4740	16.36	52500	2.3	**FA**	**127**	**DRN**	**225M4**	670	446
102	4210	14.55	51600	2.6	**FAF**	**127**	**DRN**	**225M4**	710	445
118	3630	12.54	50300	2.8	**F**	**127**	**DRN**	**225M4**	700	444
145	2950	10.19	48300	3.2	**FF**	**127**	**DRN**	**225M4**	750	445
167	2560	8.86	46500	2.7						
188	2280	7.88	45400	2.6						
218	1970	6.80	44000	3.6						
268	1600	5.52	41900	3.8						
54	7990	27.57	31500	1.00						
59	7290	25.14	32600	1.10						
68	6300	21.76*	33200	1.25						
77	5560	19.20*	33300	1.40						
89	4800	16.58	33300	1.65	**FA**	**107**	**DRN**	**225M4**	530	440
101	4250	14.67	33100	1.80	**FAF**	**107**	**DRN**	**225M4**	550	439
120	3570	12.33	32600	1.95	**F**	**107**	**DRN**	**225M4**	540	438
149	2880	9.96	31900	2.2	**FF**	**107**	**DRN**	**225M4**	570	439
153	2810	9.69	30900	1.75						
177	2420	8.37	30400	2.00						
200	2140	7.40	29800	2.1						
238	1800	6.22	29000	2.6						

P_m = 55 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
25	21300	60.25	73800	0.85						
28	18500	52.24	74600	0.95	**FA**	**157**	**DRN**	**250M4**	1080	452
32	16400	46.48*	74800	1.10	**FAF**	**157**	**DRN**	**250M4**	1140	451
37	14100	40.06	74700	1.25	**F**	**157**	**DRN**	**250M4**	1110	450
46	11500	32.55	73800	1.55	**FF**	**157**	**DRN**	**250M4**	1210	451
54	9780	27.60	72600	1.85						
52	10100	28.60*	72900	1.70						
58	9010	25.43	71900	1.65	**FA**	**157**	**DRN**	**250M4**	1080	452
67	7850	22.16	70600	2.3	**FAF**	**157**	**DRN**	**250M4**	1140	451
75	7000	19.77	69400	2.4	**F**	**157**	**DRN**	**250M4**	1100	450
88	5970	16.85	67500	3.0	**FF**	**157**	**DRN**	**250M4**	1210	451
40	13200	37.28	47000	0.90	**FA**	**127**	**DRN**	**250M4**	830	446
47	11100	31.33	50000	1.10	**FAF**	**127**	**DRN**	**250M4**	870	445
59	8960	25.30	51600	1.35	**F**	**127**	**DRN**	**250M4**	870	444
					FF	**127**	**DRN**	**250M4**	910	445

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P_m = 55 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
69	7570	21.38	51300	1.60						
79	6680	18.87	50800	1.65						
91	5790	16.36	50100	1.90						
102	5150	14.55	49400	2.1						
118	4440	12.54	48400	2.2	**FA**	**127**	**DRN**	**250M4**	820	446
145	3610	10.19	46800	2.6	**FAF**	**127**	**DRN**	**250M4**	850	445
167	3140	8.86	45100	2.2	**F**	**127**	**DRN**	**250M4**	850	444
188	2790	7.88	44100	2.2	**FF**	**127**	**DRN**	**250M4**	900	445
218	2400	6.80	42900	2.9						
268	1950	5.52	41000	3.1						
317	1650	4.68	39600	3.6						

P_m = 75 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
32	22400	46.48*	62900	0.80	**FA**	**157**	**DRN**	**280S4**	1130	452
37	19300	40.06	64400	0.95	**FAF**	**157**	**DRN**	**280S4**	1190	451
46	15700	32.55	65400	1.15	**F**	**157**	**DRN**	**280S4**	1150	450
54	13300	27.60	65500	1.35	**FF**	**157**	**DRN**	**280S4**	1260	451
52	13800	28.60*	65500	1.25						
58	12200	25.43	65400	1.20						
67	10700	22.16	64900	1.70	**FA**	**157**	**DRN**	**280S4**	1130	452
75	9550	19.77	64300	1.80	**FAF**	**157**	**DRN**	**280S4**	1190	451
88	8140	16.85	63200	2.2	**F**	**157**	**DRN**	**280S4**	1150	450
106	6740	13.96	61600	2.5	**FF**	**157**	**DRN**	**280S4**	1260	451
124	5750	11.92	60100	2.8						
59	12200	25.30	40000	1.00	**FA**	**127**	**DRN**	**280S4**	880	446
					FAF	**127**	**DRN**	**280S4**	920	445
					F	**127**	**DRN**	**280S4**	910	444
					FF	**127**	**DRN**	**280S4**	960	445
69	10300	21.38	43000	1.15						
79	9110	18.87	44400	1.20						
91	7900	16.36	45200	1.40						
102	7030	14.55	45000	1.55						
118	6060	12.54	44600	1.65	**FA**	**127**	**DRN**	**280S4**	870	446
145	4920	10.19	43700	1.95	**FAF**	**127**	**DRN**	**280S4**	900	445
167	4280	8.86	42200	1.65	**F**	**127**	**DRN**	**280S4**	900	444
188	3800	7.88	41600	1.55	**FF**	**127**	**DRN**	**280S4**	950	445
218	3280	6.80	40700	2.1						
268	2660	5.52	39300	2.2						
317	2260	4.68	38100	2.6						

P_m = 90 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					FA	**157**	**DRN**	**280M4**	1250	452
46	18800	32.55	59100	0.95	**FAF**	**157**	**DRN**	**280M4**	1310	451
54	16000	27.60	60200	1.10	**F**	**157**	**DRN**	**280M4**	1270	450
					FF	**157**	**DRN**	**280M4**	1380	451
67	12800	22.16	60600	1.40						
75	11400	19.77	60500	1.50	**FA**	**157**	**DRN**	**280M4**	1240	452
88	9770	16.85	59900	1.85	**FAF**	**157**	**DRN**	**280M4**	1300	451
106	8100	13.96	58900	2.1	**F**	**157**	**DRN**	**280M4**	1260	450
124	6910	11.92	57800	2.3	**FF**	**157**	**DRN**	**280M4**	1370	451
59	14600	25.30	29600	0.80	**FA**	**127**	**DRN**	**280M4**	990	446
					FAF	**127**	**DRN**	**280M4**	1030	445
					F	**127**	**DRN**	**280M4**	1030	444
					FF	**127**	**DRN**	**280M4**	1070	445

P_m = 90 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
91	9490	16.36	39900	1.15						
102	8440	14.55	41100	1.30						
118	7270	12.54	41800	1.35						
145	5910	10.19	41400	1.60	**FA**	**127**	**DRN**	**280M4**	980	446
167	5140	8.86	40100	1.35	**FAF**	**127**	**DRN**	**280M4**	1020	445
188	4570	7.88	39700	1.30	**F**	**127**	**DRN**	**280M4**	1020	444
218	3940	6.80	39000	1.80	**FF**	**127**	**DRN**	**280M4**	1060	445
268	3200	5.52	37900	1.85						
316	2710	4.68	36900	2.2						

P_m = 110 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
54	19400	27.60	53100	0.90	**FA**	**157**	**DRN**	**315S4**	1490	452
					FAF	**157**	**DRN**	**315S4**	1550	451
					F	**157**	**DRN**	**315S4**	1510	450
					FF	**157**	**DRN**	**315S4**	1620	451
67	15600	22.16	54900	1.15	**FA**	**157**	**DRN**	**315S4/ERF/NS**	1490	452
					FAF	**157**	**DRN**	**315S4/ERF/NS**	1550	451
					F	**157**	**DRN**	**315S4/ERF/NS**	1510	450
					FF	**157**	**DRN**	**315S4/ERF/NS**	1610	451
75	13900	19.77	55400	1.20	**FA**	**157**	**DRN**	**315S4**	1490	452
88	11800	16.85	55600	1.50	**FAF**	**157**	**DRN**	**315S4**	1550	451
107	9850	13.96	55300	1.70	**F**	**157**	**DRN**	**315S4**	1510	450
125	8410	11.92	54700	1.90	**FF**	**157**	**DRN**	**315S4**	1610	451

P_m = 132 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					FA	**157**	**DRN**	**315M4/ERF/NS**	1510	452
67	18700	22.16	48700	0.95	**FAF**	**157**	**DRN**	**315M4/ERF/NS**	1570	451
75	16700	19.77	49800	1.00	**F**	**157**	**DRN**	**315M4/ERF/NS**	1530	450
					FF	**157**	**DRN**	**315M4/ERF/NS**	1630	451
88	14200	16.85	50900	1.25	**FA**	**157**	**DRN**	**315M4**	1510	452
107	11800	13.96	51400	1.45	**FAF**	**157**	**DRN**	**315M4**	1570	451
125	10000	11.92	51400	1.60	**F**	**157**	**DRN**	**315M4**	1530	450
					FF	**157**	**DRN**	**315M4**	1630	451

P_m = 160 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
88	17300	16.85	44800	1.05	**FA**	**157**	**DRN**	**315L4**	1640	452
106	14300	13.96	46400	1.20	**FAF**	**157**	**DRN**	**315L4**	1700	451
125	12200	11.92	47100	1.30	**F**	**157**	**DRN**	**315L4**	1660	450
					FF	**157**	**DRN**	**315L4**	1770	451

P_m = 200 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					FA	**157**	**DRN**	**315H4/ERF/NS**	1760	452
88	21600	16.85	36200	0.85	**FAF**	**157**	**DRN**	**315H4/ERF/NS**	1820	451
					F	**157**	**DRN**	**315H4/ERF/NS**	1780	450
					FF	**157**	**DRN**	**315H4/ERF/NS**	1880	451
					FA	**157**	**DRN**	**315H4**	1760	452
107	17900	13.96	39200	0.95	**FAF**	**157**	**DRN**	**315H4**	1820	451
125	15200	11.92	41000	1.05	**F**	**157**	**DRN**	**315H4**	1780	450
					FF	**157**	**DRN**	**315H4**	1880	451

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9.4 F..R..DRN.. selection tables for low output speeds in Nm

$M_{a\,max}$ = 130 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.15	8972	4500						
0.18	7736	4500						
0.19	7211	4500						
0.22	6303	4500						
0.25	5435	4500	**FA**	**27R17**	**DR**	**63S4**	13	456
0.28	4855	4500	**FAF**	**27R17**	**DR**	**63S4**	14	456
0.33	4243	4500	**F**	**27R17**	**DR**	**63S4**	14	456
0.37	3715	4500	**FF**	**27R17**	**DR**	**63S4**	14	456
0.43	3247	4500						
0.48	2878	4500						
0.55	2515	4500						
0.62	2217	4500						
0.73	1898	4500						
0.84	1645	4500						
0.90	1525	4500						
1.0	1322	4500						
1.2	1146	4500	**FA**	**27R17**	**DR**	**63S4**	13	456
1.4	1013	4500	**FAF**	**27R17**	**DR**	**63S4**	14	456
1.6	890	4500	**F**	**27R17**	**DR**	**63S4**	13	456
1.8	778	4500	**FF**	**27R17**	**DR**	**63S4**	14	456
2.0	682	4500						
2.3	602	4500						
2.6	520	4500						
3.0	458	4500						
3.5	397	4500						
4.0	342	4500	**FA**	**27R17**	**DR**	**63S4**	13	456
4.6	302	4500	**FAF**	**27R17**	**DR**	**63S4**	13	456
5.2	266	4500	**F**	**27R17**	**DR**	**63S4**	13	456
5.8	236	4500	**FF**	**27R17**	**DR**	**63S4**	14	456
6.5	211	4500						
7.4	186	4500						
			FA	**27R17**	**DR**	**63M4**	13	456
9.3	142	4500	**FAF**	**27R17**	**DR**	**63M4**	13	456
11	124	4500	**F**	**27R17**	**DR**	**63M4**	13	456
			FF	**27R17**	**DR**	**63M4**	14	456
			FA	**27R17**	**DR**	**63L4**	13	456
12	109	4500	**FAF**	**27R17**	**DR**	**63L4**	14	456
14	96	4500	**F**	**27R17**	**DR**	**63L4**	14	456
			FF	**27R17**	**DR**	**63L4**	15	456

$M_{a\,max}$ = 200 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.17	8193	4290						
0.20	7064	4290						
0.21	6585	4290						
0.24	5756	4290						
0.28	4963	4290	**FA**	**37R17**	**DR**	**63S4**	19	456
0.31	4434	4290	**FAF**	**37R17**	**DR**	**63S4**	21	456
0.36	3875	4290	**F**	**37R17**	**DR**	**63S4**	20	456
0.41	3392	4290	**FF**	**37R17**	**DR**	**63S4**	22	456
0.47	2965	4290						
0.53	2587	4290						
0.60	2284	4290						
0.69	1997	4290						

$M_{a\ max}$ = 200 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.72	1929	4290						
0.82	1679	4290						
0.89	1550	4290						
1.0	1356	4290						
1.2	1180	4290						
1.3	1044	4290	**FA**	**37R17**	**DR**	**63S4**	19	456
1.5	914	4290	**FAF**	**37R17**	**DR**	**63S4**	21	456
1.7	808	4290	**F**	**37R17**	**DR**	**63S4**	20	456
2.0	698	4290	**FF**	**37R17**	**DR**	**63S4**	21	456
2.2	616	4290						
2.5	544	4290						
3.0	466	4290						
3.4	411	4290						
3.8	364	4290						
			FA	**37R17**	**DR**	**63S4**	19	456
4.2	326	4290	**FAF**	**37R17**	**DR**	**63S4**	20	456
4.8	285	4290	**F**	**37R17**	**DR**	**63S4**	19	456
			FF	**37R17**	**DR**	**63S4**	21	456
			FA	**37R17**	**DR**	**63M4**	19	456
5.3	250	4290	**FAF**	**37R17**	**DR**	**63M4**	20	456
6.0	219	4290	**F**	**37R17**	**DR**	**63M4**	19	456
7.1	186	4290	**FF**	**37R17**	**DR**	**63M4**	21	456
			FA	**37R17**	**DR**	**63L4**	20	456
7.8	167	4290	**FAF**	**37R17**	**DR**	**63L4**	21	456
8.9	145	4290	**F**	**37R17**	**DR**	**63L4**	20	456
10	129	4290	**FF**	**37R17**	**DR**	**63L4**	22	456

$M_{a\ max}$ = 400 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.11	12251	5920						
0.13	10619	5920						
0.14	9846	5920						
0.16	8534	5920						
0.19	7460	5920						
0.21	6536	5920	**FA**	**47R17**	**DR**	**63S4**	24	456
0.24	5746	5920	**FAF**	**47R17**	**DR**	**63S4**	27	456
0.27	5022	5920	**F**	**47R17**	**DR**	**63S4**	25	456
0.31	4401	5920	**FF**	**47R17**	**DR**	**63S4**	28	456
0.36	3883	5920						
0.40	3443	5920						
0.46	2976	5920						
0.52	2629	5920						
0.55	2519	5920						
0.58	2394	5920						
0.64	2172	5920						
0.68	2025	5920						
0.78	1770	5920						
0.88	1576	5920	**FA**	**47R17**	**DR**	**63S4**	23	456
1.0	1363	5920	**FAF**	**47R17**	**DR**	**63S4**	26	456
1.2	1192	5920	**F**	**47R17**	**DR**	**63S4**	24	456
1.3	1061	5920	**FF**	**47R17**	**DR**	**63S4**	27	456
1.5	931	5920						
1.7	822	5920						
2.0	706	5920						
2.2	619	5920						
2.5	524	5920	**FA**	**47R17**	**DR**	**63M4**	23	456
2.7	489	5920	**FAF**	**47R17**	**DR**	**63M4**	26	456
3.1	427	5920	**F**	**47R17**	**DR**	**63M4**	24	456
3.5	381	5920	**FF**	**47R17**	**DR**	**63M4**	27	456
			FA	**47R17**	**DR**	**63L4**	24	456
3.9	334	5920	**FAF**	**47R17**	**DR**	**63L4**	26	456
4.4	295	5920	**F**	**47R17**	**DR**	**63L4**	25	456
5.1	253	5920	**FF**	**47R17**	**DR**	**63L4**	28	456

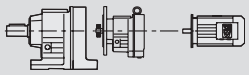
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$M_{a\ max}$ = 400 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
6.4	217	5920	**FA**	**47R17**	**DRS**	**71S4**	26	456
			FAF	**47R17**	**DRS**	**71S4**	28	456
7.3	190	5920	**F**	**47R17**	**DRS**	**71S4**	26	456
7.8	178	5920	**FF**	**47R17**	**DRS**	**71S4**	30	456
			FA	**47R17**	**DRS**	**71M4**	27	456
9.1	149	5920	**FAF**	**47R17**	**DRS**	**71M4**	30	456
10	131	5920	**F**	**47R17**	**DRS**	**71M4**	28	456
			FF	**47R17**	**DRS**	**71M4**	31	456

$M_{a\ max}$ = 600 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.09	14832	9200						
0.10	13604	9200						
0.11	12602	9200						
0.12	11252	9200						
0.14	9986	9200						
0.16	8787	9200	**FA**	**57R37**	**DR**	**63S4**	39	456
0.17	7908	9200	**FAF**	**57R37**	**DR**	**63S4**	45	456
0.20	6913	9200	**F**	**57R37**	**DR**	**63S4**	39	456
0.23	6030	9200	**FF**	**57R37**	**DR**	**63S4**	46	456
0.26	5289	9200						
0.30	4654	9200						
0.34	4060	9200						
0.39	3564	9200						
0.44	3161	9200						
0.48	2854	9200						
0.54	2576	9200						
0.61	2266	9200						
0.69	2012	9200						
0.77	1791	9200	**FA**	**57R37**	**DR**	**63S4**	39	456
0.85	1617	9200	**FAF**	**57R37**	**DR**	**63S4**	44	456
0.97	1422	9200	**F**	**57R37**	**DR**	**63S4**	39	456
1.1	1243	9200	**FF**	**57R37**	**DR**	**63S4**	45	456
1.3	1066	9200						
1.4	949	9200						
1.6	856	9200						
1.8	749	9200	**FA**	**57R37**	**DR**	**63M4**	39	456
2.0	658	9200	**FAF**	**57R37**	**DR**	**63M4**	44	456
2.4	549	9200	**F**	**57R37**	**DR**	**63M4**	39	456
			FF	**57R37**	**DR**	**63M4**	45	456
			FA	**57R37**	**DR**	**63L4**	39	456
2.7	483	9200	**FAF**	**57R37**	**DR**	**63L4**	45	456
			F	**57R37**	**DR**	**63L4**	40	456
			FF	**57R37**	**DR**	**63L4**	46	456
			FA	**57R37**	**DR**	**63L4**	39	456
3.0	426	9200	**FAF**	**57R37**	**DR**	**63L4**	45	456
3.4	382	9200	**F**	**57R37**	**DR**	**63L4**	39	456
			FF	**57R37**	**DR**	**63L4**	46	456
4.2	330	9200	**FA**	**57R37**	**DRS**	**71S4**	41	456
4.6	298	9200	**FAF**	**57R37**	**DRS**	**71S4**	47	456
5.3	262	9200	**F**	**57R37**	**DRS**	**71S4**	41	456
			FF	**57R37**	**DRS**	**71S4**	48	456
6.0	226	9200	**FA**	**57R37**	**DRS**	**71M4**	42	456
6.8	200	9200	**FAF**	**57R37**	**DRS**	**71M4**	48	456
8.0	170	9200	**F**	**57R37**	**DRS**	**71M4**	42	456
			FF	**57R37**	**DRS**	**71M4**	49	456
9.4	152	9200	**FA**	**57R37**	**DRN**	**80M4**	47	456
11	134	9200	**FAF**	**57R37**	**DRN**	**80M4**	52	456
			F	**57R37**	**DRN**	**80M4**	47	456
			FF	**57R37**	**DRN**	**80M4**	54	456

$M_{a\ max}$ = 820 Nm								
n_a 1/min	i	F_{Ra} [1] N					m kg	
0.07	19199	10300						
0.08	17610	10300						
0.09	14992	10300						
0.11	12926	10300						
0.12	11480	10300						
0.14	10220	10300						
0.15	8933	10300	**FA**	**67R37**	**DR**	**63S4**	43	456
0.17	7940	10300	**FAF**	**67R37**	**DR**	**63S4**	49	456
0.19	7096	10300	**F**	**67R37**	**DR**	**63S4**	46	456
0.23	6080	10300	**FF**	**67R37**	**DR**	**63S4**	52	456
0.26	5341	10300						
0.29	4690	10300						
0.34	4091	10300						
0.39	3574	10300						
0.44	3133	10300						
0.50	2756	10300						
0.57	2439	10300						
0.41	3377	10300						
0.47	2912	10300						
0.51	2714	10300	**FA**	**67R37**	**DR**	**63S4**	42	456
0.58	2372	10300	**FAF**	**67R37**	**DR**	**63S4**	48	456
0.65	2126	10300	**F**	**67R37**	**DR**	**63S4**	45	456
0.85	1631	10300	**FF**	**67R37**	**DR**	**63S4**	51	456
0.96	1437	10300						
1.1	1256	10300						
1.2	1126	10300	**FA**	**67R37**	**DR**	**63M4**	42	456
1.3	984	10300	**FAF**	**67R37**	**DR**	**63M4**	48	456
1.5	864	10300	**F**	**67R37**	**DR**	**63M4**	45	456
			FF	**67R37**	**DR**	**63M4**	51	456
1.8	722	10300	**FA**	**67R37**	**DR**	**63L4**	43	456
2.0	634	10300	**FAF**	**67R37**	**DR**	**63L4**	49	456
2.4	539	10300	**F**	**67R37**	**DR**	**63L4**	46	456
			FF	**67R37**	**DR**	**63L4**	52	456
0.73	1884	10300	**FA**	**67R37**	**DR**	**63S4**	43	456
			FAF	**67R37**	**DR**	**63S4**	49	456
			F	**67R37**	**DR**	**63S4**	46	456
			FF	**67R37**	**DR**	**63S4**	52	456
2.6	500	10300	**FA**	**67R37**	**DR**	**63L4**	42	456
			FAF	**67R37**	**DR**	**63L4**	49	456
			F	**67R37**	**DR**	**63L4**	45	456
			FF	**67R37**	**DR**	**63L4**	51	456
3.0	454	10300	**FA**	**67R37**	**DRS**	**71S4**	44	456
3.5	392	10300	**FAF**	**67R37**	**DRS**	**71S4**	51	456
			F	**67R37**	**DRS**	**71S4**	47	456
			FF	**67R37**	**DRS**	**71S4**	53	456
4.1	333	10300	**FA**	**67R37**	**DRS**	**71M4**	46	456
4.6	297	10300	**FAF**	**67R37**	**DRS**	**71M4**	52	456
5.2	261	10300	**F**	**67R37**	**DRS**	**71M4**	48	456
5.7	238	10300	**FF**	**67R37**	**DRS**	**71M4**	54	456
7.2	200	10300	**FA**	**67R37**	**DRN**	**80M4**	50	456
			FAF	**67R37**	**DRN**	**80M4**	57	456
			F	**67R37**	**DRN**	**80M4**	53	456
			FF	**67R37**	**DRN**	**80M4**	59	456

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$M_{a\ max}$ = 1500 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.07	19180	15700						
0.08	17593	15700						
0.09	16128	15700						
0.09	14978	15700						
0.10	13731	15700						
0.11	12049	15700						
0.13	11035	15700						
0.14	9683	15700	**FA**	**77R37**	**DR**	**63S4**	65	456
0.16	8464	15700	**FAF**	**77R37**	**DR**	**63S4**	72	456
0.18	7520	15700	**F**	**77R37**	**DR**	**63S4**	69	456
0.21	6580	15700	**FF**	**77R37**	**DR**	**63S4**	80	456
0.24	5808	15700						
0.27	5026	15700						
0.31	4435	15700						
0.36	3832	15700						
0.46	2978	15700						
0.53	2613	15700						
0.60	2284	15700						
0.65	2029	15700	**FA**	**77R37**	**DR**	**63M4**	65	456
			FAF	**77R37**	**DR**	**63M4**	72	456
			F	**77R37**	**DR**	**63M4**	69	456
			FF	**77R37**	**DR**	**63M4**	80	456
0.76	1728	15700	**FA**	**77R37**	**DR**	**63M4**	65	456
0.86	1544	15700	**FAF**	**77R37**	**DR**	**63M4**	72	456
0.98	1354	15700	**F**	**77R37**	**DR**	**63M4**	69	456
			FF	**77R37**	**DR**	**63M4**	80	456
1.1	1200	15700	**FA**	**77R37**	**DR**	**63L4**	66	456
1.2	1053	15700	**FAF**	**77R37**	**DR**	**63L4**	72	456
			F	**77R37**	**DR**	**63L4**	70	456
			FF	**77R37**	**DR**	**63L4**	80	456
1.5	910	15700	**FA**	**77R37**	**DRS**	**71S4**	68	456
1.7	810	15700	**FAF**	**77R37**	**DRS**	**71S4**	74	456
1.9	710	15700	**F**	**77R37**	**DRS**	**71S4**	72	456
			FF	**77R37**	**DRS**	**71S4**	82	456
2.2	615	15700	**FA**	**77R37**	**DRS**	**71M4**	69	456
2.5	538	15700	**FAF**	**77R37**	**DRS**	**71M4**	76	456
2.8	480	15700	**F**	**77R37**	**DRS**	**71M4**	73	456
			FF	**77R37**	**DRS**	**71M4**	83	456
3.5	413	15700	**FA**	**77R37**	**DRN**	**80M4**	74	456
3.9	367	15700	**FAF**	**77R37**	**DRN**	**80M4**	80	456
			F	**77R37**	**DRN**	**80M4**	77	456
			FF	**77R37**	**DRN**	**80M4**	88	456
4.5	323	15700	**FA**	**77R37**	**DRN**	**90S4**	80	456
			FAF	**77R37**	**DRN**	**90S4**	86	456
			F	**77R37**	**DRN**	**90S4**	83	456
			FF	**77R37**	**DRN**	**90S4**	94	456

$M_{a\ max}$ = 3000 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.06	23042	19800						
0.07	20462	19800						
0.08	18238	19800						
0.09	15877	19800						
0.10	14099	19800						
0.11	12205	19800	**FA**	**87R57**	**DR**	**63S4**	120	456
0.13	10433	19800	**FAF**	**87R57**	**DR**	**63S4**	130	456
0.15	9381	19800	**F**	**87R57**	**DR**	**63S4**	125	456
0.17	8142	19800	**FF**	**87R57**	**DR**	**63S4**	140	456
0.19	7100	19800						
0.22	6273	19800						
0.25	5510	19800						
0.28	4954	19800						

$M_{a\ max}$ = 3000 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
			FA	87R57	DR	63M4	120	456
0.31	4245	19800	FAF	87R57	DR	63M4	130	456
0.35	3721	19800	F	87R57	DR	63M4	125	456
			FF	87R57	DR	63M4	140	456
			FA	87R57	DR	63M4	115	456
0.41	3244	19800	FAF	87R57	DR	63M4	130	456
0.46	2881	19800	F	87R57	DR	63M4	125	456
			FF	87R57	DR	63M4	140	456
			FA	87R57	DR	63L4	120	456
0.50	2576	19800	FAF	87R57	DR	63L4	130	456
0.59	2199	19800	F	87R57	DR	63L4	125	456
0.67	1930	19800	FF	87R57	DR	63L4	140	456
			FA	87R57	DRS	71S4	120	456
0.81	1709	19800	FAF	87R57	DRS	71S4	130	456
0.92	1493	19800	F	87R57	DRS	71S4	125	456
			FF	87R57	DRS	71S4	140	456
			FA	87R57	DRS	71M4	120	456
1.0	1300	19800	FAF	87R57	DRS	71M4	135	456
1.2	1148	19800	F	87R57	DRS	71M4	125	456
1.4	1010	19800	FF	87R57	DRS	71M4	140	456
1.5	887	19800						
			FA	87R57	DRN	80M4	125	456
1.8	780	19800	FAF	87R57	DRN	80M4	140	456
2.1	674	19800	F	87R57	DRN	80M4	130	456
			FF	87R57	DRN	80M4	145	456
			FA	87R57	DRN	90S4	130	456
2.4	609	19800	FAF	87R57	DRN	90S4	145	456
2.8	515	19800	F	87R57	DRN	90S4	140	456
3.2	452	19800	FF	87R57	DRN	90S4	155	456
			FA	87R57	DRN	90L4	135	456
4.2	345	19800	FAF	87R57	DRN	90L4	150	456
			F	87R57	DRN	90L4	140	456
			FF	87R57	DRN	90L4	155	456

$M_{a\ max}$ = 4300 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.07	20813	29900						
0.08	18119	29900						
0.09	15472	29900						
0.10	14022	29900	FA	97R57	DR	63S4	185	456
0.11	12324	29900	FAF	97R57	DR	63S4	205	456
0.13	10838	29900	F	97R57	DR	63S4	190	456
0.14	9576	29900	FF	97R57	DR	63S4	225	456
0.17	8318	29900						
0.19	7328	29900						
			FA	97R57	DR	63M4	185	456
0.20	6469	29900	FAF	97R57	DR	63M4	205	456
0.24	5615	29900	F	97R57	DR	63M4	190	456
0.27	4961	29900	FF	97R57	DR	63M4	225	456
0.30	4333	29900						
			FA	97R57	DR	63M4	185	456
0.34	3906	29900	FAF	97R57	DR	63M4	205	456
			F	97R57	DR	63M4	190	456
			FF	97R57	DR	63M4	225	456
			FA	97R57	DR	63L4	185	456
0.39	3352	29900	FAF	97R57	DR	63L4	205	456
0.45	2907	29900	F	97R57	DR	63L4	190	456
			FF	97R57	DR	63L4	225	456
			FA	97R57	DRS	71S4	185	456
0.54	2553	29900	FAF	97R57	DRS	71S4	205	456
0.61	2245	29900	F	97R57	DRS	71S4	190	456
0.70	1970	29900	FF	97R57	DRS	71S4	225	456

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$M_{a\ max}$ = 4300 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.79	1722	29900	**FA**	**97R57**	**DRS**	**71M4**	185	456
0.89	1527	29900	**FAF**	**97R57**	**DRS**	**71M4**	210	456
1.0	1327	29900	**F**	**97R57**	**DRS**	**71M4**	195	456
			FF	**97R57**	**DRS**	**71M4**	225	456
			FA	**97R57**	**DRN**	**80M4**	190	456
1.2	1171	29900	**FAF**	**97R57**	**DRN**	**80M4**	215	456
1.4	1022	29900	**F**	**97R57**	**DRN**	**80M4**	200	456
			FF	**97R57**	**DRN**	**80M4**	230	456
			FA	**97R57**	**DRN**	**90S4**	195	456
1.6	898	29900	**FAF**	**97R57**	**DRN**	**90S4**	220	456
1.8	784	29900	**F**	**97R57**	**DRN**	**90S4**	205	456
2.1	690	29900	**FF**	**97R57**	**DRN**	**90S4**	240	456
			FA	**97R57**	**DRN**	**90L4**	200	456
2.4	605	29900	**FAF**	**97R57**	**DRN**	**90L4**	220	456
2.8	529	29900	**F**	**97R57**	**DRN**	**90L4**	210	456
			FF	**97R57**	**DRN**	**90L4**	240	456
			FA	**97R57**	**DRN**	**100LS4**	205	456
3.1	467	29900	**FAF**	**97R57**	**DRN**	**100LS4**	225	456
3.6	406	29900	**F**	**97R57**	**DRN**	**100LS4**	210	456
4.0	363	29900	**FF**	**97R57**	**DRN**	**100LS4**	245	456
			FA	**97R57**	**DRN**	**100L4**	210	456
5.1	285	29900	**FAF**	**97R57**	**DRN**	**100L4**	235	456
6.0	245	29900	**F**	**97R57**	**DRN**	**100L4**	220	456
			FF	**97R57**	**DRN**	**100L4**	250	456

$M_{a\ max}$ = 7680 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.05	25375	49800	**FA**	**107R77**	**DR**	**63S4**	275	456
0.06	21652	49800	**FAF**	**107R77**	**DR**	**63S4**	295	456
0.07	18933	49800	**F**	**107R77**	**DR**	**63S4**	290	456
0.08	16888	49800	**FF**	**107R77**	**DR**	**63S4**	320	456
0.09	14767	49800						
0.12	11348	49800	**FA**	**107R77**	**DR**	**63M4**	275	456
0.13	10039	49800	**FAF**	**107R77**	**DR**	**63M4**	295	456
0.15	8548	49800	**F**	**107R77**	**DR**	**63M4**	290	456
0.17	7674	49800	**FF**	**107R77**	**DR**	**63M4**	320	456
			FA	**107R77**	**DR**	**63L4**	275	456
0.19	6767	49800	**FAF**	**107R77**	**DR**	**63L4**	295	456
0.22	5954	49800	**F**	**107R77**	**DR**	**63L4**	290	456
0.25	5223	49800	**FF**	**107R77**	**DR**	**63L4**	320	456
			FA	**107R77**	**DRS**	**71S4**	275	456
0.30	4567	49800	**FAF**	**107R77**	**DRS**	**71S4**	300	456
0.39	3521	49800	**F**	**107R77**	**DRS**	**71S4**	295	456
			FF	**107R77**	**DRS**	**71S4**	320	456
			FA	**107R77**	**DRS**	**71M4**	275	456
0.45	3037	49800	**FAF**	**107R77**	**DRS**	**71M4**	300	456
0.49	2756	49800	**F**	**107R77**	**DRS**	**71M4**	295	456
0.57	2369	49800	**FF**	**107R77**	**DRS**	**71M4**	320	456
			FA	**107R77**	**DRN**	**80M4**	280	456
0.70	2068	49800	**FAF**	**107R77**	**DRN**	**80M4**	305	456
0.79	1826	49800	**F**	**107R77**	**DRN**	**80M4**	300	456
			FF	**107R77**	**DRN**	**80M4**	325	456
			FA	**107R77**	**DRN**	**90S4**	285	456
0.91	1597	49800	**FAF**	**107R77**	**DRN**	**90S4**	310	456
1.0	1401	49800	**F**	**107R77**	**DRN**	**90S4**	305	456
1.2	1243	49800	**FF**	**107R77**	**DRN**	**90S4**	330	456
			FA	**107R77**	**DRN**	**90L4**	290	456
1.3	1087	49800	**FAF**	**107R77**	**DRN**	**90L4**	310	456
1.5	950	49800	**F**	**107R77**	**DRN**	**90L4**	305	456
			FF	**107R77**	**DRN**	**90L4**	335	456

$M_{a\ max}$ = 7680 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
1.7	834	49800	FA	107R77	DRN	100LS4	295	456
2.0	736	49800	FAF	107R77	DRN	100LS4	315	456
2.3	640	49800	F	107R77	DRN	100LS4	310	456
			FF	107R77	DRN	100LS4	340	456
2.6	560	49800	FA	107R77	DRN	100L4	300	456
3.0	489	49800	FAF	107R77	DRN	100L4	325	456
3.3	436	49800	F	107R77	DRN	100L4	320	456
			FF	107R77	DRN	100L4	345	456
			FA	107R77	DRN	112M4	310	456
4.0	370	49800	FAF	107R77	DRN	112M4	330	456
4.4	333	49800	F	107R77	DRN	112M4	325	456
			FF	107R77	DRN	112M4	355	456

$M_{a\ max}$ = 12000 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
			FA	127R77	DR	63S4	425	456
0.06	24478	90000	FAF	127R77	DR	63S4	465	456
0.06	22323	90000	F	127R77	DR	63S4	460	456
			FF	127R77	DR	63S4	510	456
0.07	19048	90000						
0.08	16656	90000	FA	127R77	DR	63M4	425	456
0.09	14722	90000	FAF	127R77	DR	63M4	465	456
0.10	12912	90000	F	127R77	DR	63M4	460	456
0.11	11656	90000	FF	127R77	DR	63M4	510	456
			FA	127R77	DR	63L4	425	456
0.13	10191	90000	FAF	127R77	DR	63L4	465	456
0.15	8831	90000	F	127R77	DR	63L4	465	456
			FF	127R77	DR	63L4	510	456
			FA	127R77	DRS	71S4	430	456
0.18	7643	90000	FAF	127R77	DRS	71S4	465	456
0.21	6715	90000	F	127R77	DRS	71S4	465	456
0.23	5925	90000	FF	127R77	DRS	71S4	510	456
			FA	127R77	DRS	71M4	430	456
0.26	5153	90000	FAF	127R77	DRS	71M4	465	456
0.30	4533	90000	F	127R77	DRS	71M4	465	456
0.35	3926	90000	FF	127R77	DRS	71M4	510	456
			FA	127R77	DRN	80M4	435	456
0.42	3454	90000	FAF	127R77	DRN	80M4	470	456
0.48	3031	90000	F	127R77	DRN	80M4	470	456
			FF	127R77	DRN	80M4	520	456
			FA	127R77	DRN	80M4	435	456
0.54	2672	90000	FAF	127R77	DRN	80M4	470	456
			F	127R77	DRN	80M4	470	456
			FF	127R77	DRN	80M4	510	456
			FA	127R77	DRN	90S4	440	456
0.62	2357	90000	FAF	127R77	DRN	90S4	475	456
0.71	2038	90000	F	127R77	DRN	90S4	475	456
			FF	127R77	DRN	90S4	520	456
			FA	127R77	DRN	90L4	440	456
0.82	1784	90000	FAF	127R77	DRN	90L4	480	456
0.91	1606	90000	F	127R77	DRN	90L4	480	456
1.0	1390	90000	FF	127R77	DRN	90L4	520	456
			FA	127R77	DRN	100LS4	445	456
1.2	1220	90000	FAF	127R77	DRN	100LS4	485	456
1.4	1077	90000	F	127R77	DRN	100LS4	480	456
1.6	930	90000	FF	127R77	DRN	100LS4	530	456
			FA	127R77	DRN	100L4	455	456
1.8	820	90000	FAF	127R77	DRN	100L4	490	456
2.0	727	90000	F	127R77	DRN	100L4	490	456
			FF	127R77	DRN	100L4	530	456

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$M_{a\ max}$ = 12000 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
2.3	648	90000	**FA**	**127R77**	**DRN**	**112M4**	460	456
			FAF	**127R77**	**DRN**	**112M4**	500	456
2.7	549	90000	**F**	**127R77**	**DRN**	**112M4**	500	456
3.0	495	90000	**FF**	**127R77**	**DRN**	**112M4**	540	456
			FA	**127R77**	**DRN**	**132S4**	475	456
3.4	428	90000	**FAF**	**127R77**	**DRN**	**132S4**	510	456
3.9	376	90000	**F**	**127R77**	**DRN**	**132S4**	510	456
			FF	**127R77**	**DRN**	**132S4**	550	456
3.0	483	90000	**FA**	**127R87**	**DRN**	**132S4**	495	456
			FAF	**127R87**	**DRN**	**132S4**	530	456
3.5	418	90000	**F**	**127R87**	**DRN**	**132S4**	530	456
3.9	374	90000	**FF**	**127R87**	**DRN**	**132S4**	570	456
			FA	**127R87**	**DRN**	**132M4**	510	456
4.7	312	90000	**FAF**	**127R87**	**DRN**	**132M4**	550	456
5.0	293	90000	**F**	**127R87**	**DRN**	**132M4**	550	456
			FF	**127R87**	**DRN**	**132M4**	590	456
			FA	**127R87**	**DRN**	**132L4**	520	456
5.7	259	90000	**FAF**	**127R87**	**DRN**	**132L4**	560	456
6.6	223	90000	**F**	**127R87**	**DRN**	**132L4**	560	456
			FF	**127R87**	**DRN**	**132L4**	600	456
			FA	**127R87**	**DRN**	**160M4**	550	456
7.5	198	90000	**FAF**	**127R87**	**DRN**	**160M4**	590	456
			F	**127R87**	**DRN**	**160M4**	590	456
			FF	**127R87**	**DRN**	**160M4**	630	456

$M_{a\ max}$ = 18000 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.04	31434	100300						
0.05	26173	100300						
0.06	23464	100300	**FA**	**157R97**	**DRS**	**71M4**	770	456
0.07	20212	100300	**FAF**	**157R97**	**DRS**	**71M4**	830	456
0.08	17984	100300	**F**	**157R97**	**DRS**	**71M4**	790	456
0.08	16358	100300	**FF**	**157R97**	**DRS**	**71M4**	900	456
0.10	13751	100300						
0.11	12235	100300						
			FA	**157R97**	**DRN**	**80M4**	770	456
0.14	10033	100300	**FAF**	**157R97**	**DRN**	**80M4**	830	456
0.16	9021	100300	**F**	**157R97**	**DRN**	**80M4**	790	456
0.18	8026	100300	**FF**	**157R97**	**DRN**	**80M4**	900	456
			FA	**157R97**	**DRS**	**71M4**	770	456
0.19	7075	100300	**FAF**	**157R97**	**DRS**	**71M4**	830	456
0.22	6295	100300	**F**	**157R97**	**DRS**	**71M4**	790	456
			FF	**157R97**	**DRS**	**71M4**	900	456
			FA	**157R97**	**DRN**	**80M4**	770	456
0.27	5404	100300	**FAF**	**157R97**	**DRN**	**80M4**	830	456
0.30	4831	100300	**F**	**157R97**	**DRN**	**80M4**	790	456
			FF	**157R97**	**DRN**	**80M4**	900	456
			FA	**157R97**	**DRN**	**90S4**	780	456
0.35	4130	100300	**FAF**	**157R97**	**DRN**	**90S4**	840	456
			F	**157R97**	**DRN**	**90S4**	800	456
			FF	**157R97**	**DRN**	**90S4**	900	456
			FA	**157R97**	**DRN**	**100LS4**	780	456
0.40	3607	100300	**FAF**	**157R97**	**DRN**	**100LS4**	840	456
0.45	3210	100300	**F**	**157R97**	**DRN**	**100LS4**	810	456
			FF	**157R97**	**DRN**	**100LS4**	910	456
			FA	**157R97**	**DRN**	**90L4**	780	456
0.53	2780	100300	**FAF**	**157R97**	**DRN**	**90L4**	840	456
			F	**157R97**	**DRN**	**90L4**	800	456
			FF	**157R97**	**DRN**	**90L4**	910	456

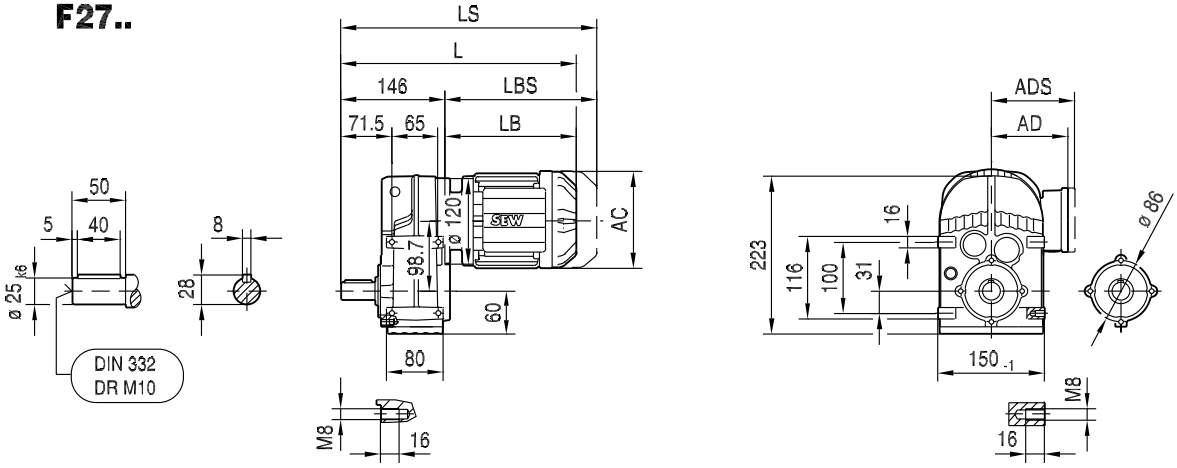
$M_{a\ max}$ = 18000 Nm								
n_a 1/min	i	F_{Ra} [1] N					m kg	
1.0	1441	100300	**FA**	**157R97**	**DRN**	**100LS4**	780	456
			FAF	**157R97**	**DRN**	**100LS4**	840	456
			F	**157R97**	**DRN**	**100LS4**	810	456
			FF	**157R97**	**DRN**	**100LS4**	910	456
0.60	2427	100300	**FA**	**157R97**	**DRN**	**90L4**	780	456
0.67	2185	100300	**FAF**	**157R97**	**DRN**	**90L4**	840	456
			F	**157R97**	**DRN**	**90L4**	800	456
			FF	**157R97**	**DRN**	**90L4**	900	456
0.75	1944	100300	**FA**	**157R97**	**DRN**	**100LS4**	780	456
0.87	1674	100300	**FAF**	**157R97**	**DRN**	**100LS4**	840	456
			F	**157R97**	**DRN**	**100LS4**	800	456
			FF	**157R97**	**DRN**	**100LS4**	910	456
1.1	1308	100300	**FA**	**157R97**	**DRN**	**100L4**	790	456
1.2	1169	100300	**FAF**	**157R97**	**DRN**	**100L4**	850	456
			F	**157R97**	**DRN**	**100L4**	810	456
			FF	**157R97**	**DRN**	**100L4**	920	456
1.5	953	100300	**FA**	**157R97**	**DRN**	**112M4**	800	456
1.7	845	100300	**FAF**	**157R97**	**DRN**	**112M4**	860	456
1.9	764	100300	**F**	**157R97**	**DRN**	**112M4**	820	456
			FF	**157R97**	**DRN**	**112M4**	920	456
2.2	680	100300	**FA**	**157R97**	**DRN**	**132S4**	810	456
2.5	576	100300	**FAF**	**157R97**	**DRN**	**132S4**	870	456
			F	**157R97**	**DRN**	**132S4**	830	456
			FF	**157R97**	**DRN**	**132S4**	940	456
2.9	503	100300	**FA**	**157R97**	**DRN**	**132M4**	830	456
3.3	446	100300	**FAF**	**157R97**	**DRN**	**132M4**	890	456
			F	**157R97**	**DRN**	**132M4**	850	456
			FF	**157R97**	**DRN**	**132M4**	950	456
4.2	353	100300	**FA**	**157R97**	**DRN**	**132L4**	840	456
			FAF	**157R97**	**DRN**	**132L4**	890	456
			F	**157R97**	**DRN**	**132L4**	860	456
			FF	**157R97**	**DRN**	**132L4**	960	456
4.9	302	100300	**FA**	**157R97**	**DRN**	**160M4**	870	456
5.4	273	100300	**FAF**	**157R97**	**DRN**	**160M4**	930	456
			F	**157R97**	**DRN**	**160M4**	890	456
			FF	**157R97**	**DRN**	**160M4**	1000	456
6.4	232	100300	**FA**	**157R97**	**DRN**	**160L4**	880	456
7.3	202	100300	**FAF**	**157R97**	**DRN**	**160L4**	940	456
			F	**157R97**	**DRN**	**160L4**	900	456
			FF	**157R97**	**DRN**	**160L4**	1010	456
7.5	197	100300	**FA**	**157R97**	**DRN**	**180M4**	910	456
			FAF	**157R97**	**DRN**	**180M4**	960	456
			F	**157R97**	**DRN**	**180M4**	930	456
			FF	**157R97**	**DRN**	**180M4**	1030	456

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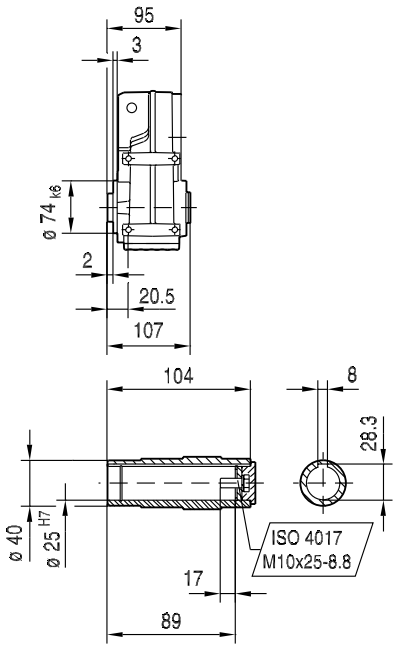
9.5 F..DRN.. dimension sheets in mm

42 020 00 14

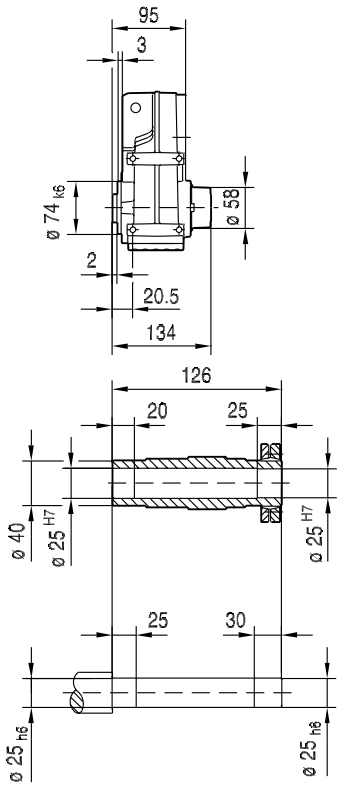
F27..



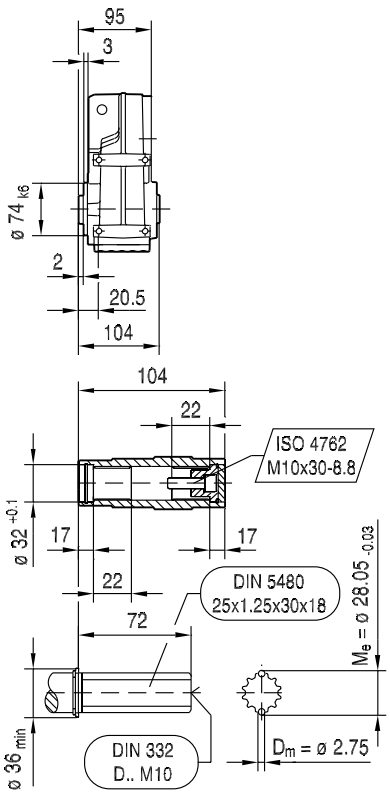
FA27B..



FH27B..
max. DR71..



FV27B..

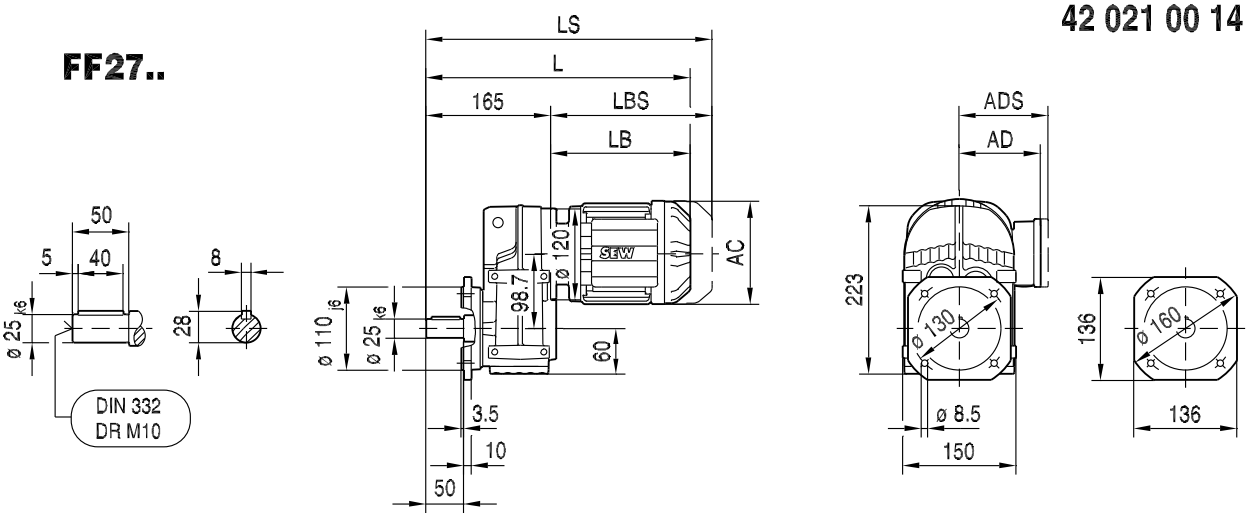


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	337	348	373	428	429	461		
LS	392	416	441	509	523	555		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

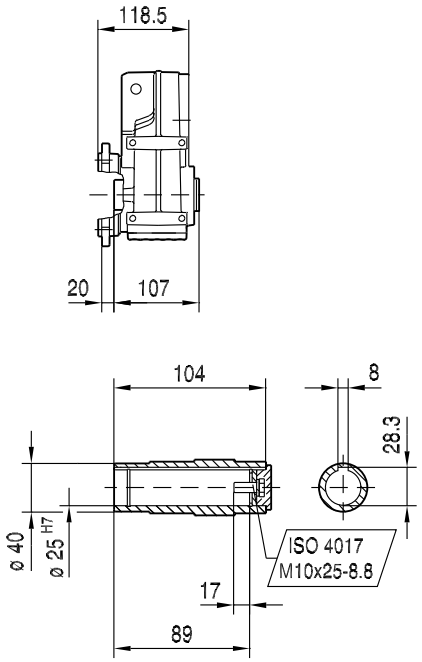
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42 021 00 14

FF27..

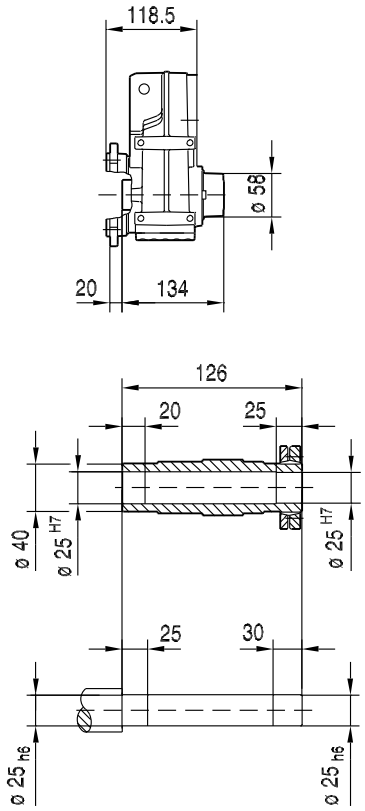


FAF27..

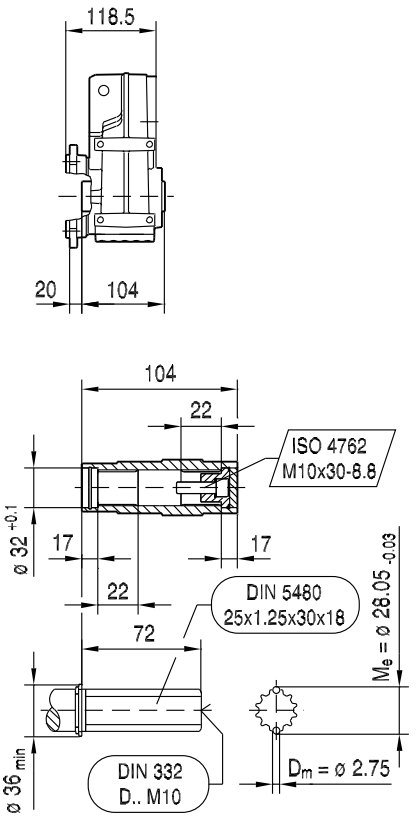


FHF27..

max. DR71..



FVF27..

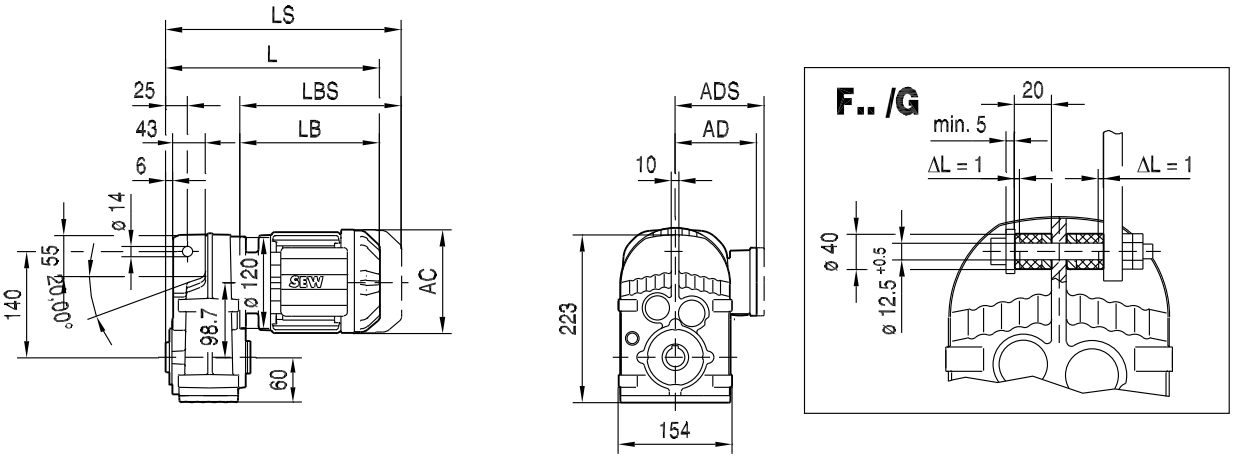


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	356	367	392	447	448	480		
LS	411	435	460	528	542	574		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

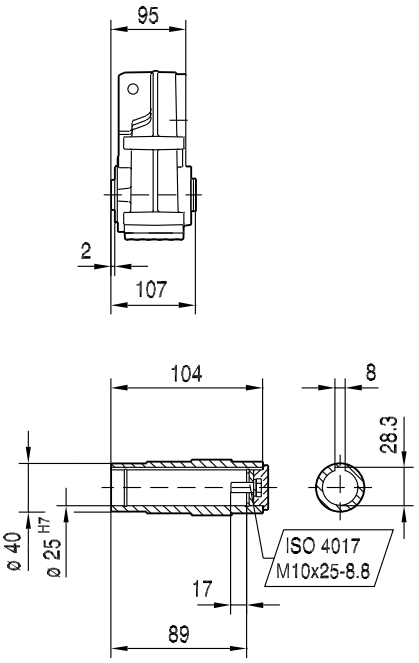
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FA27..

42 022 00 14

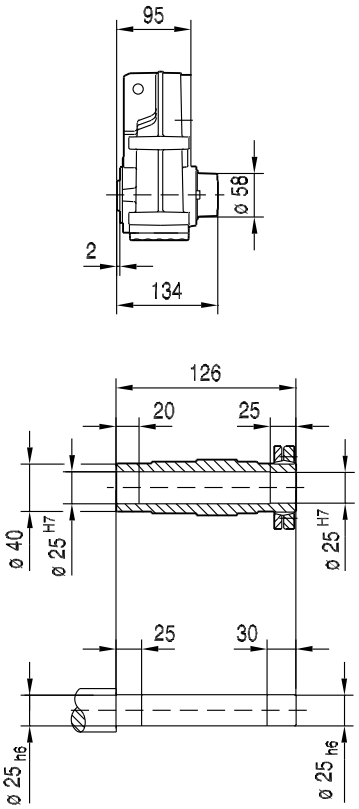


FA27..

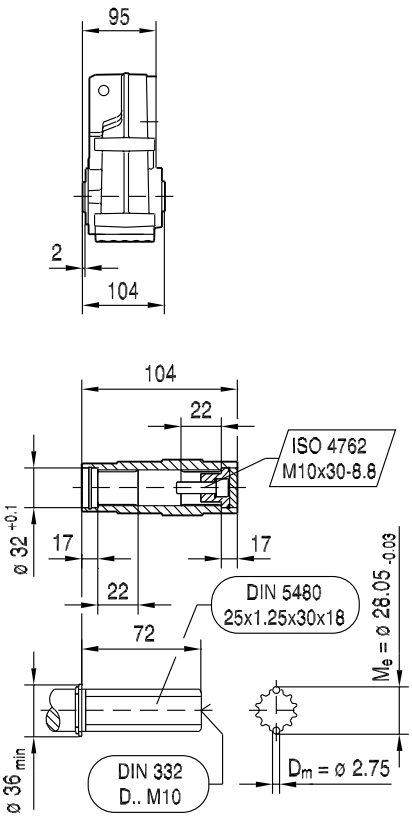


FH27..

max. DR71..



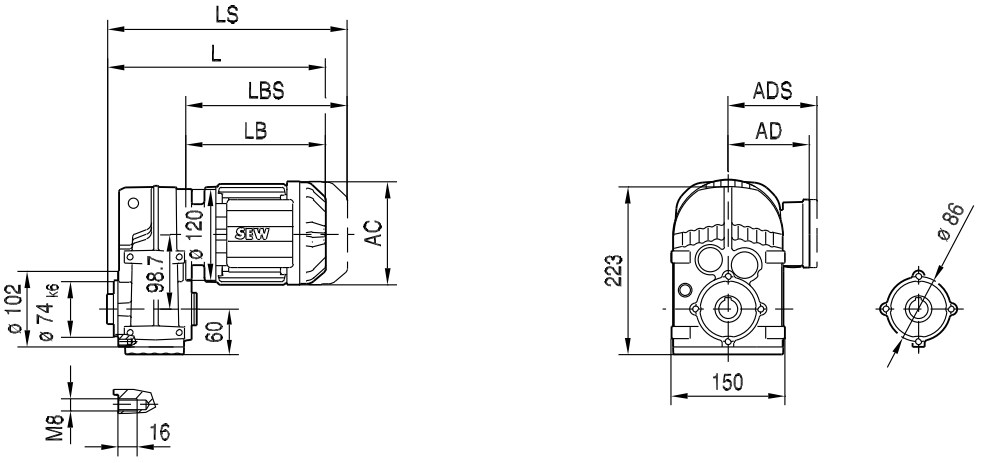
FV27..



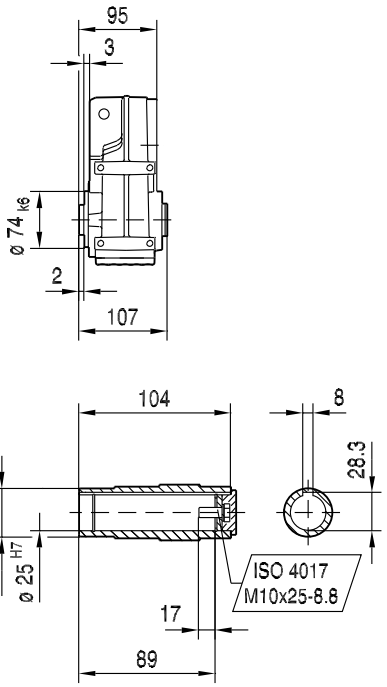
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	286	297	322	377	378	410		
LS	341	365	390	458	472	504		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

FAZ27..

42 023 00 14

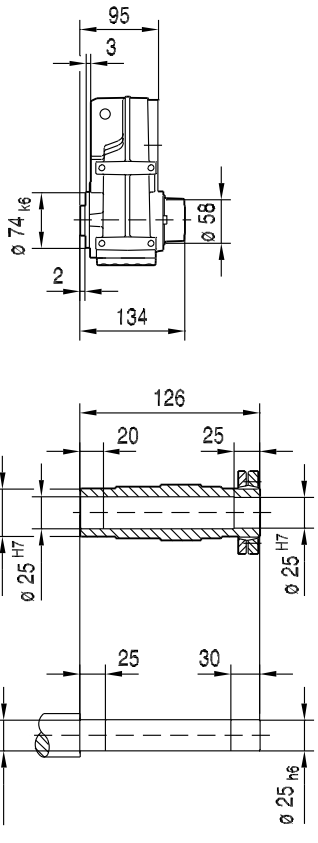


FAZ27..

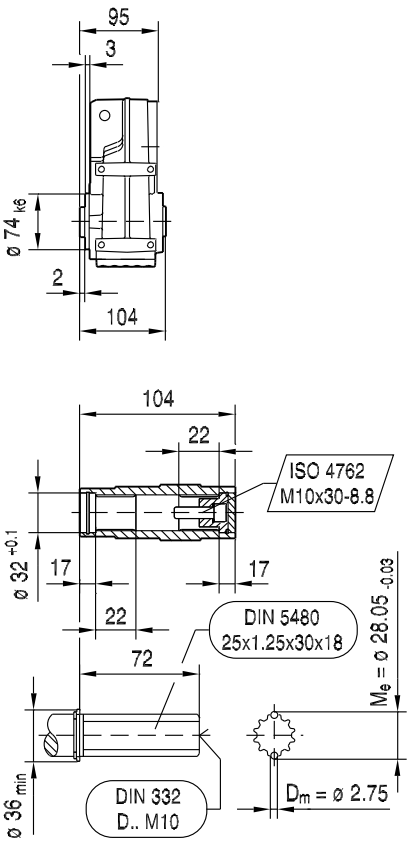


FHZ27..

max. DR71..



FVZ27..

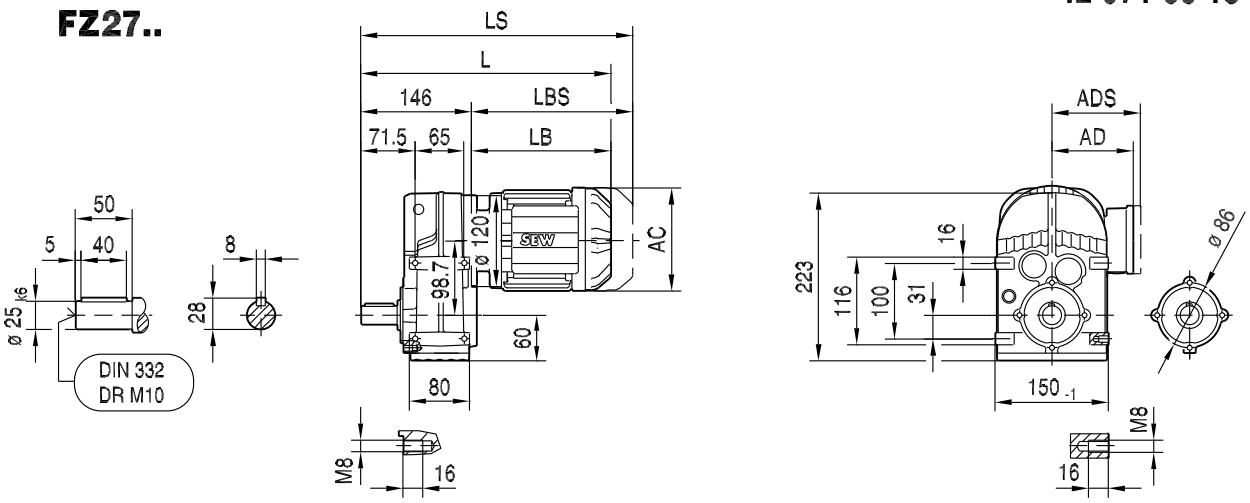


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	286	297	322	377	378	410		
LS	341	365	390	458	472	504		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

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42 071 00 15

FZ27..

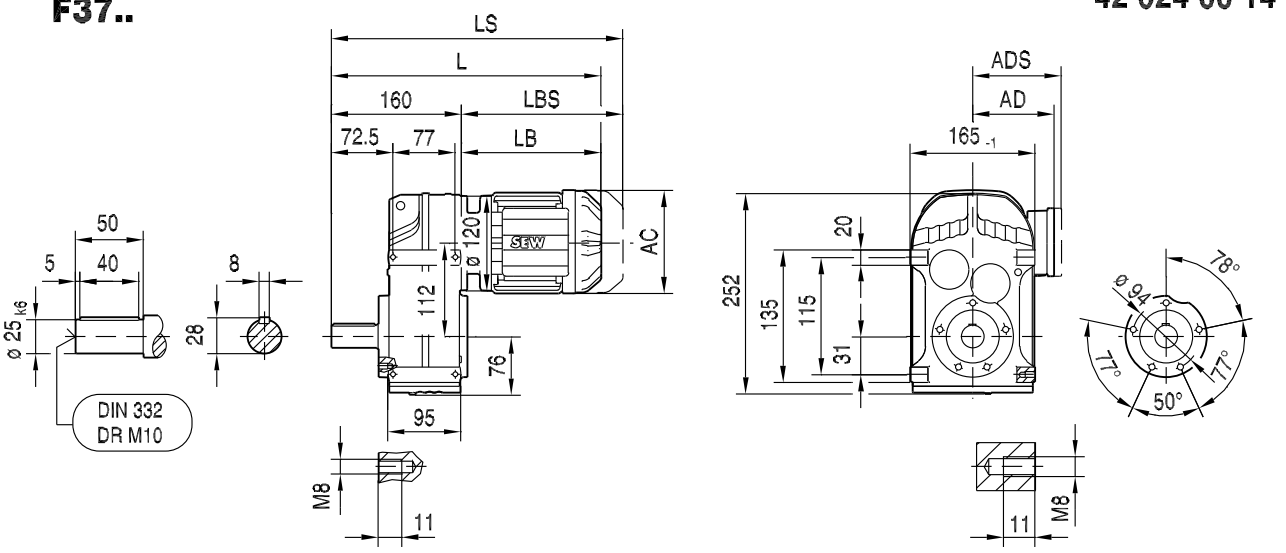


(→ 🗎 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	207	218	243	298	299	331		
LS	262	286	311	379	393	425		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

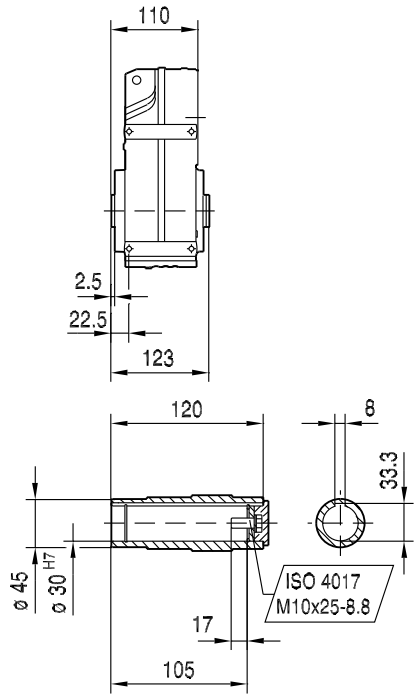
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F37..

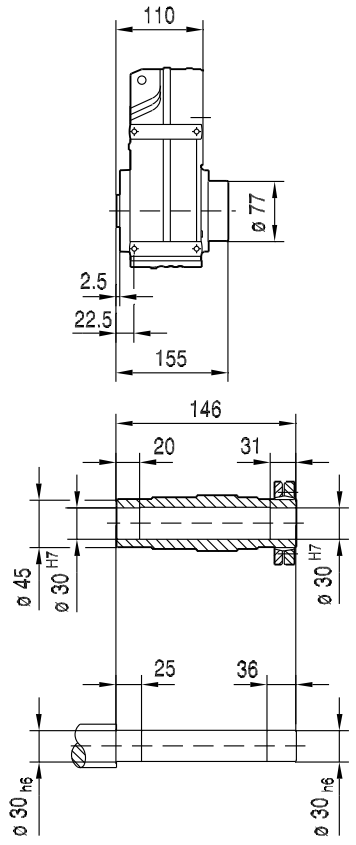
42 024 00 14



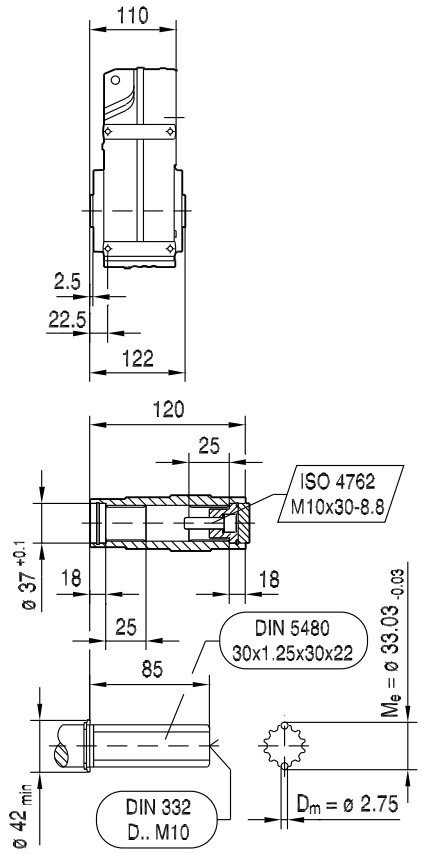
FA37B..



FH37B..



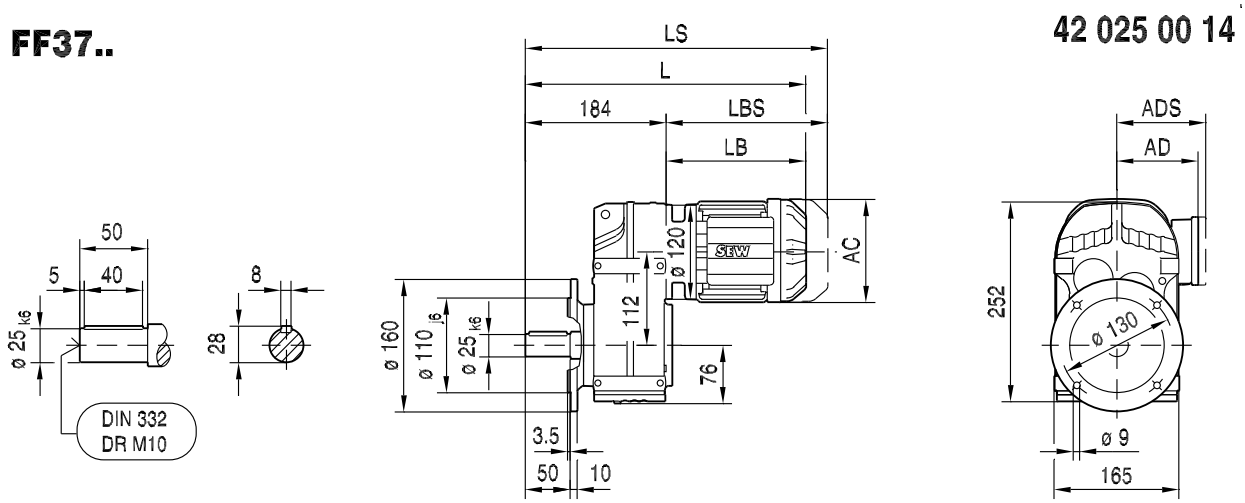
FV37B..



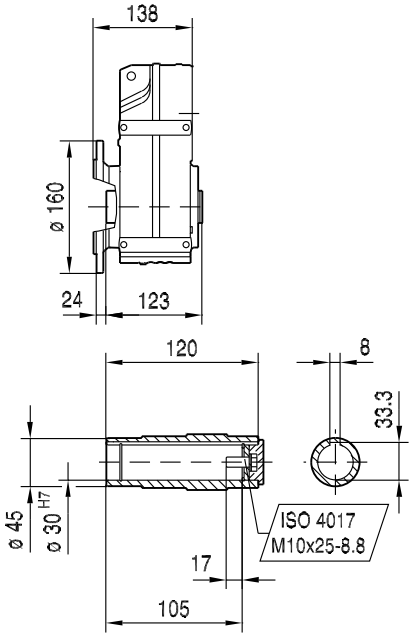
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	351	362	387	442	443	475	474	524
LS	406	430	455	523	537	569	568	618
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

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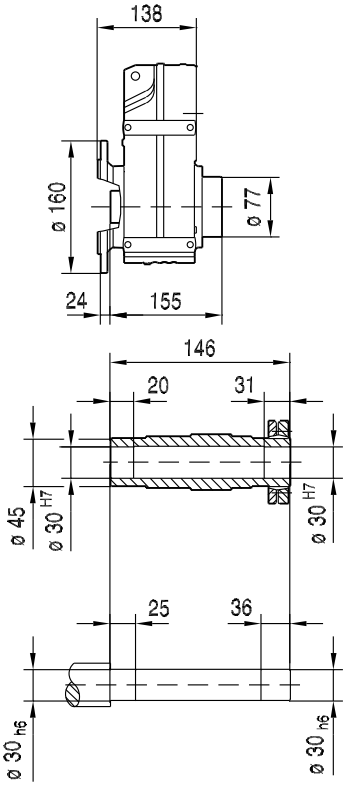
FF37..



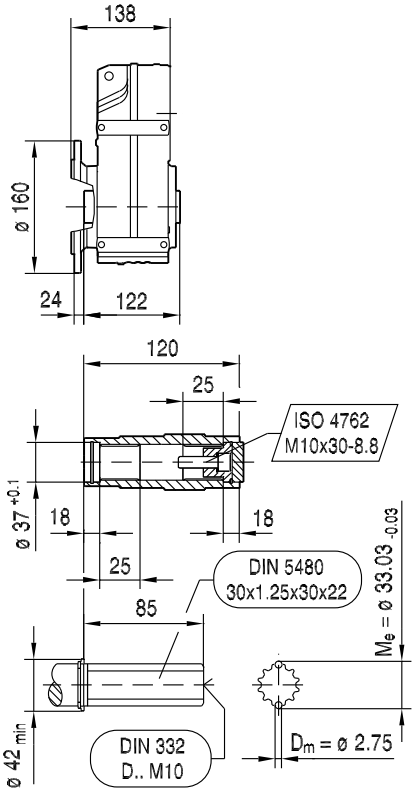
FAF37..



FHF37..



FVF37..

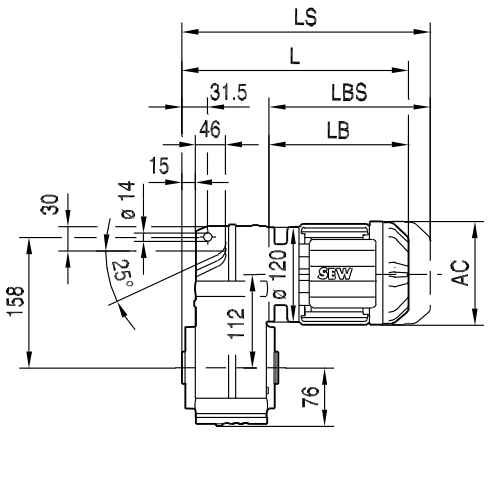


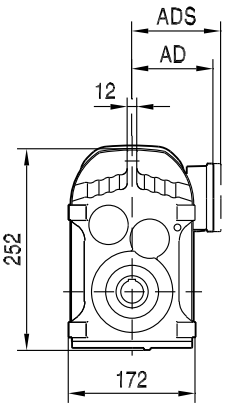
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	375	386	411	466	467	499	498	548
LS	430	454	479	547	561	593	592	642
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

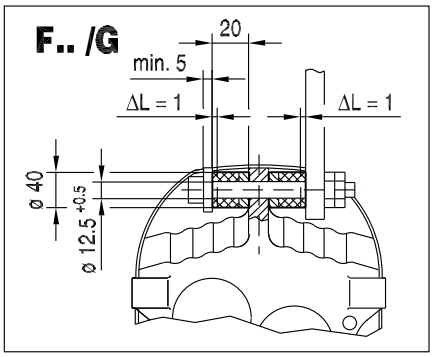
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FA37..

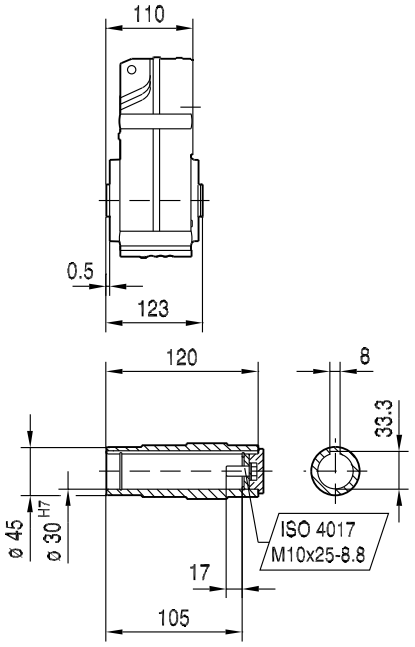
42 026 00 14



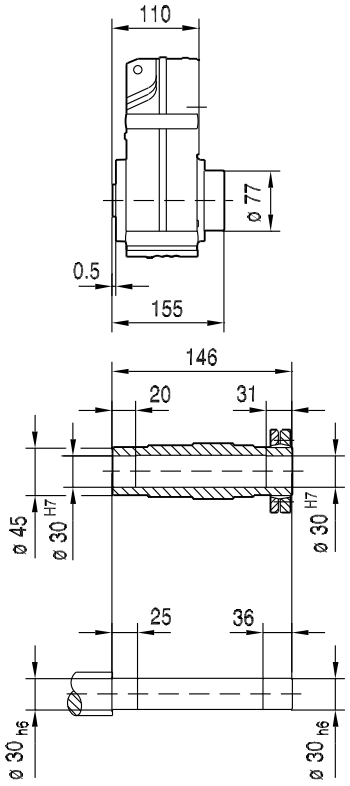




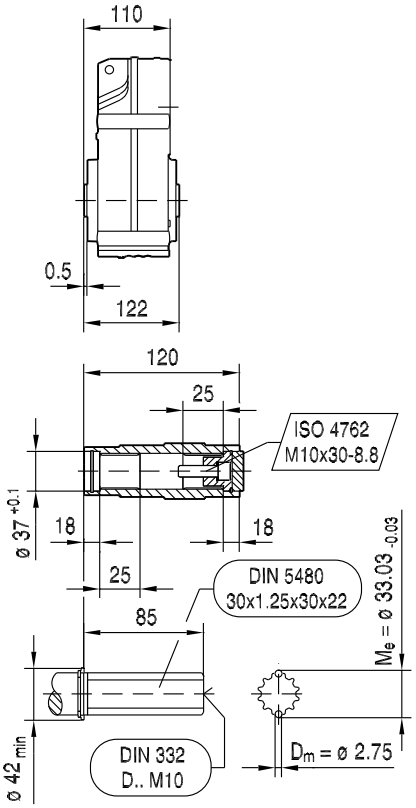
FA37..



FH37..



FV37..

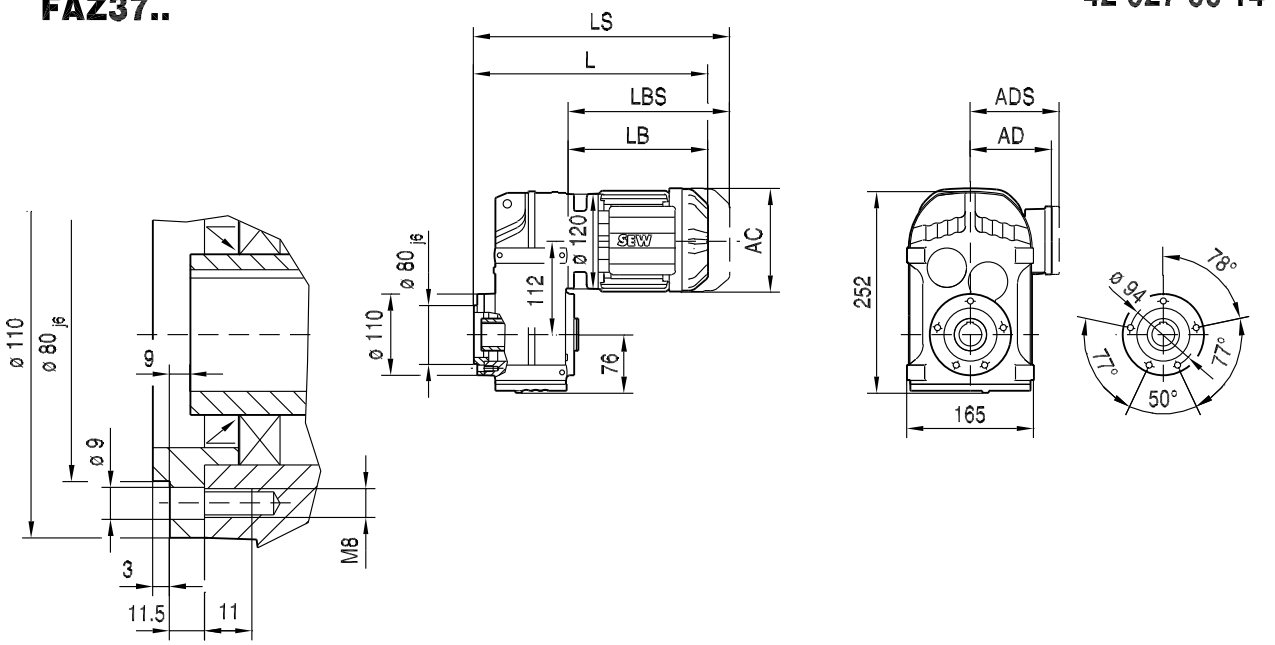


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	301	312	337	392	393	425	424	474
LS	356	380	405	473	487	519	518	568
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

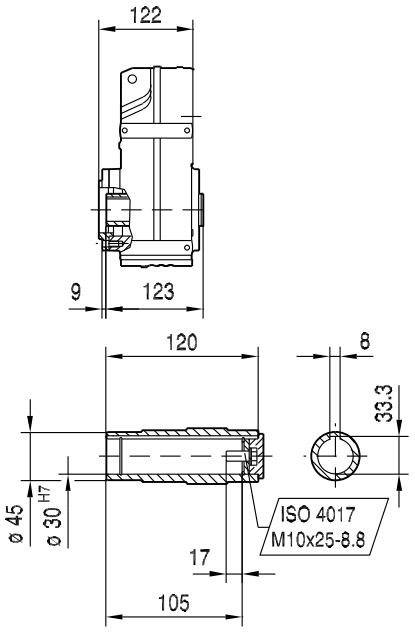
21933189/EN – 11/2015

FAZ37..

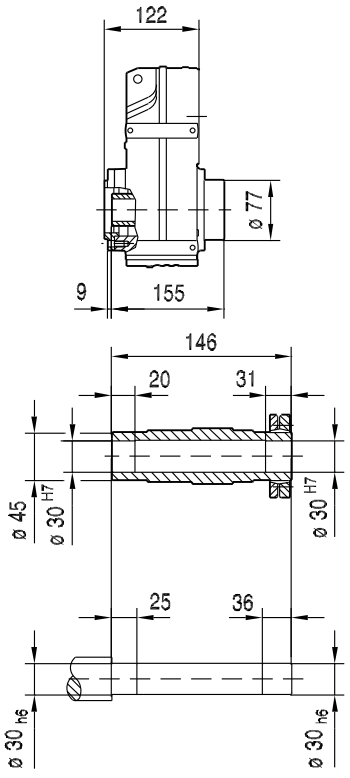
42 027 00 14



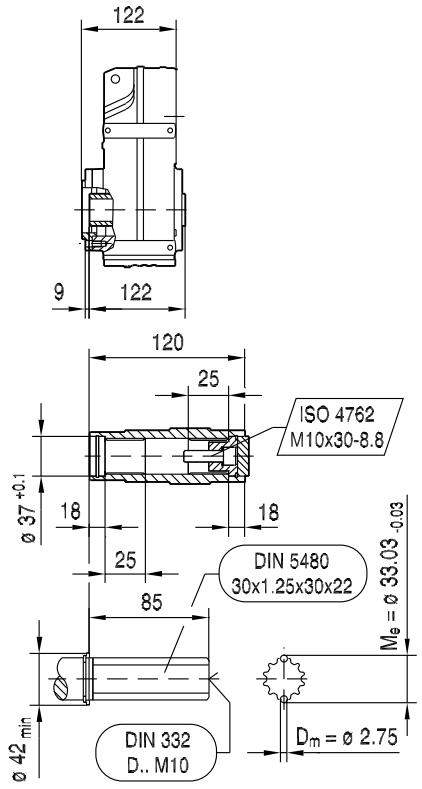
FAZ37..



FHZ37..



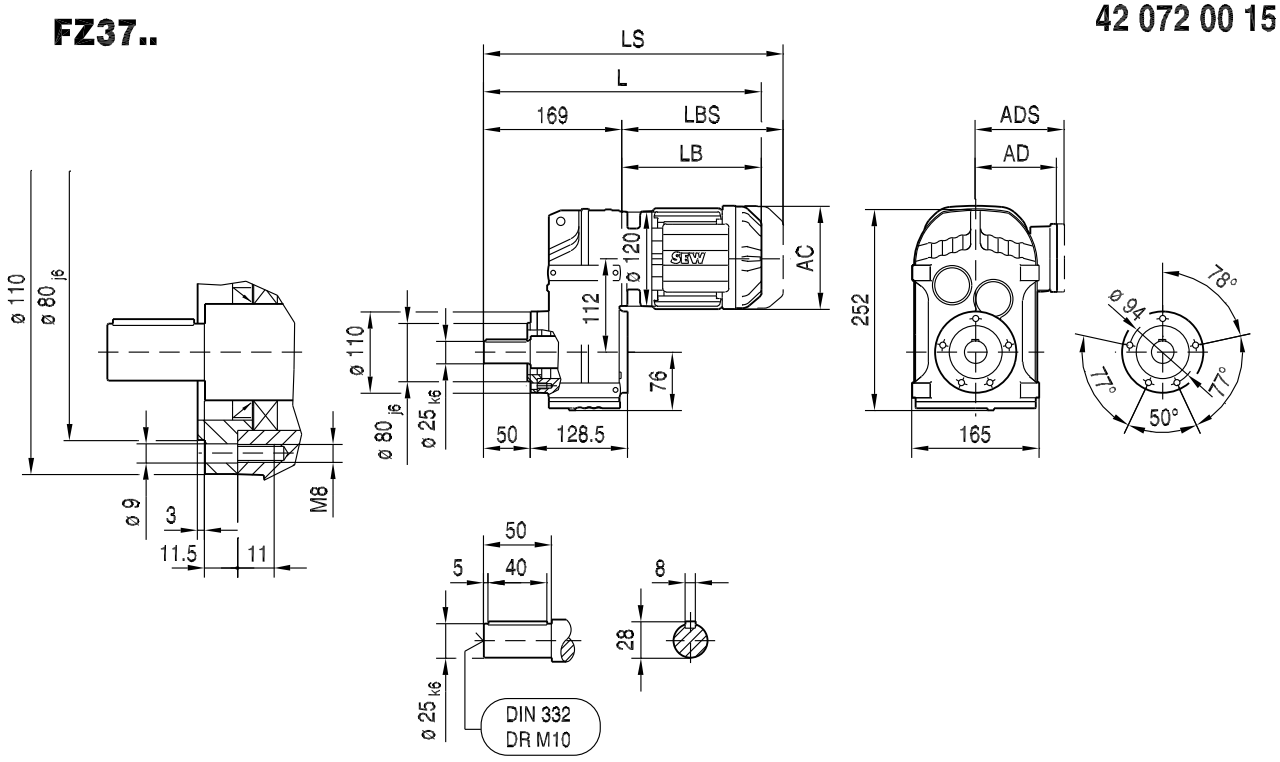
FVZ37..



(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	313	324	349	404	405	437	436	486
LS	368	392	417	485	499	531	530	580
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

FZ37..

42 072 00 15

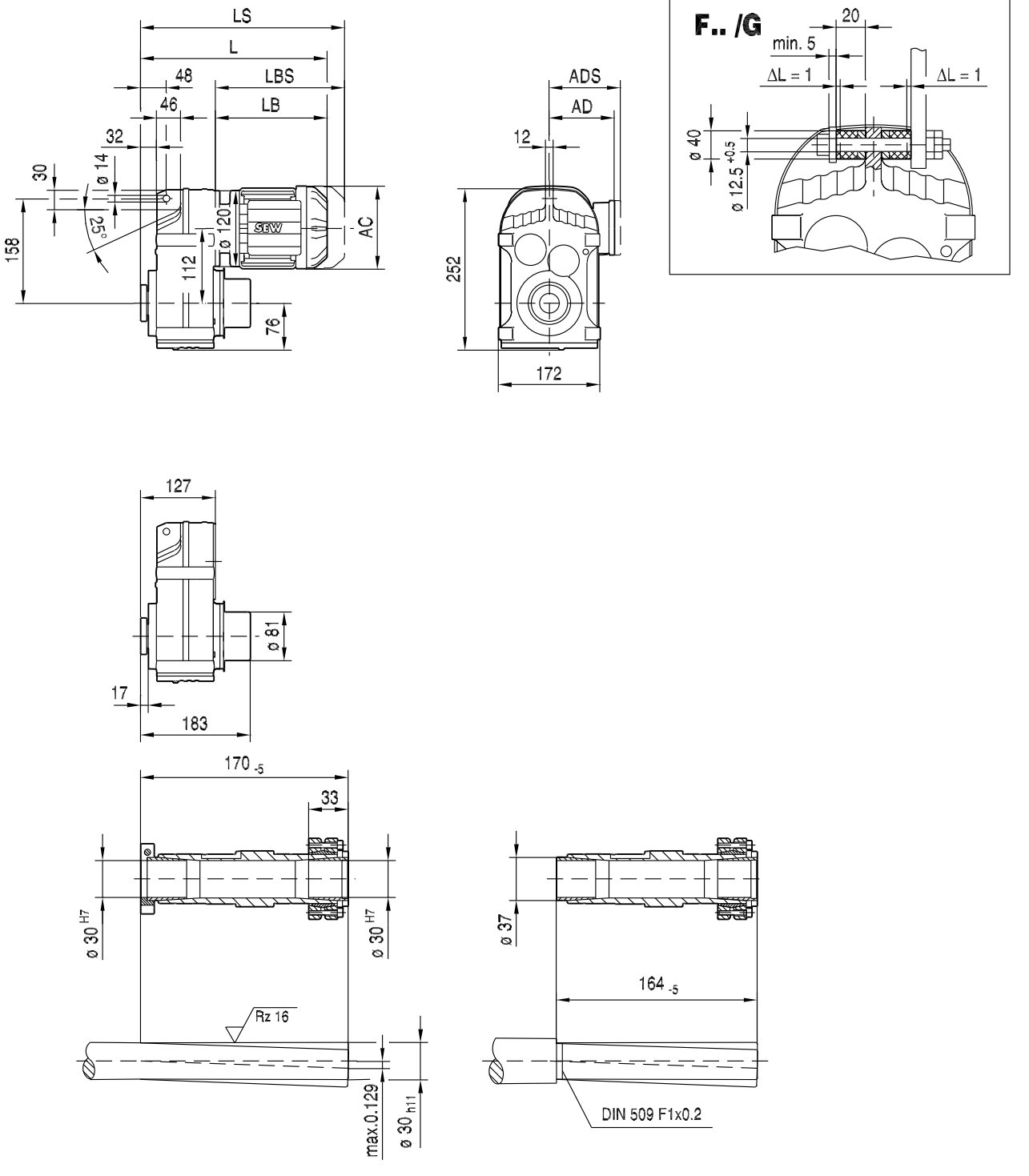


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	360	371	396	451	452	484	483	533
LS	415	439	464	532	546	578	577	627
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

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FT37..

42 028 00 14

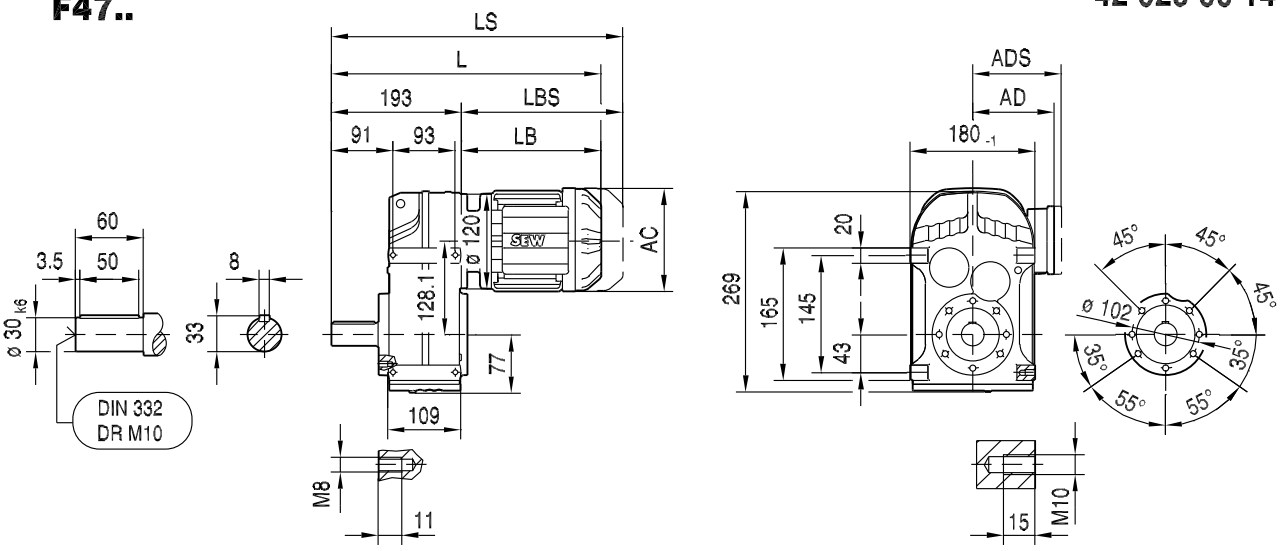


(→ 155)	DR63..	DR71S	DR71M					
AC	132	139	139					
AD	105	119	119					
ADS	105	129	129					
L	318	329	354					
LS	373	397	422					
LB	191	202	227					
LBS	246	270	295					

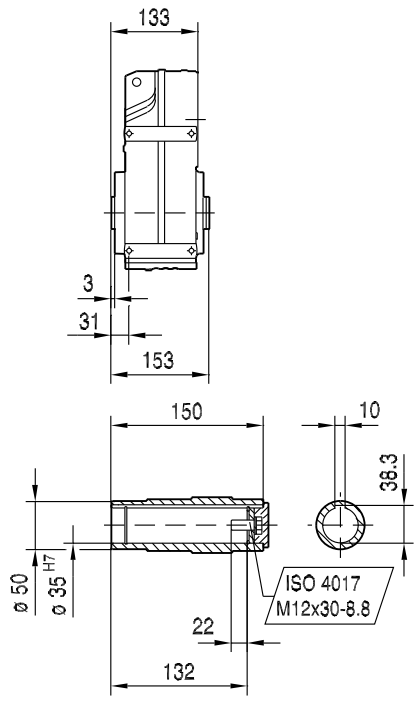
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F47..

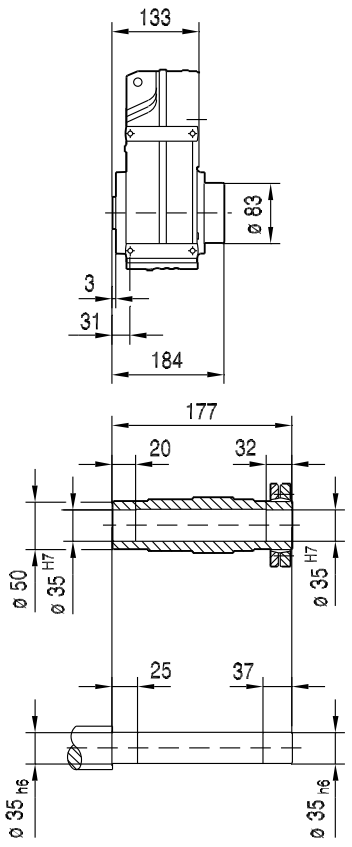
42 029 00 14



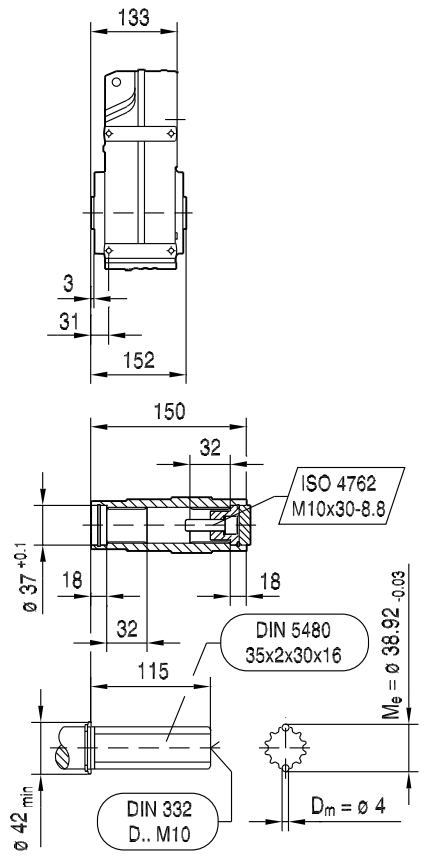
FA47B..



FH47B..



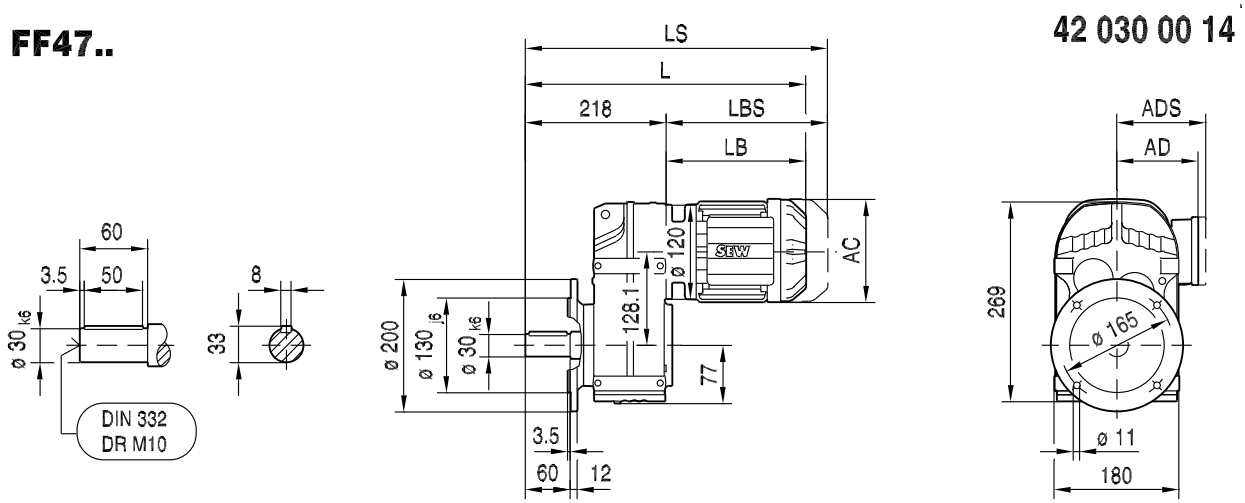
FV47B..



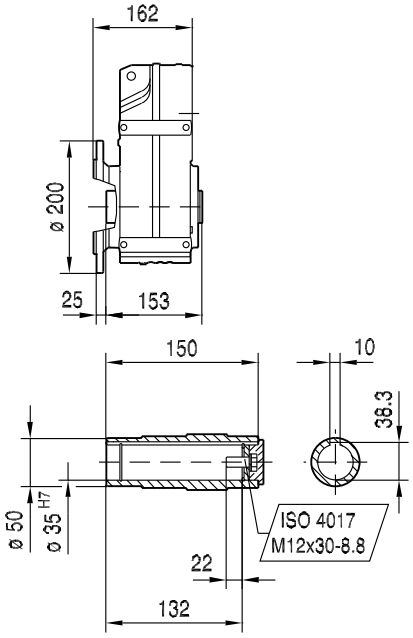
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	384	395	420	475	476	508	507	557
LS	439	463	488	556	570	602	601	651
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

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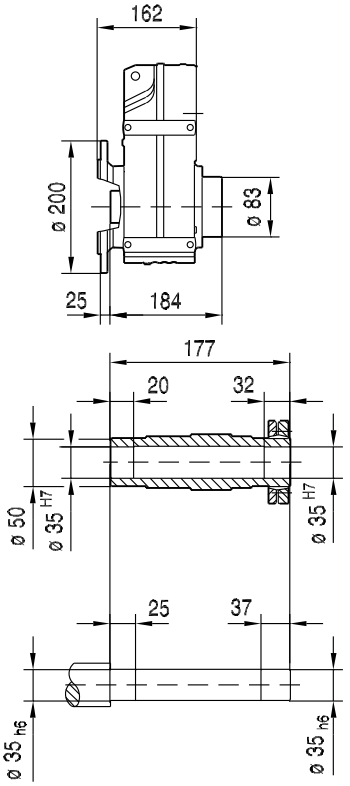
FF47..



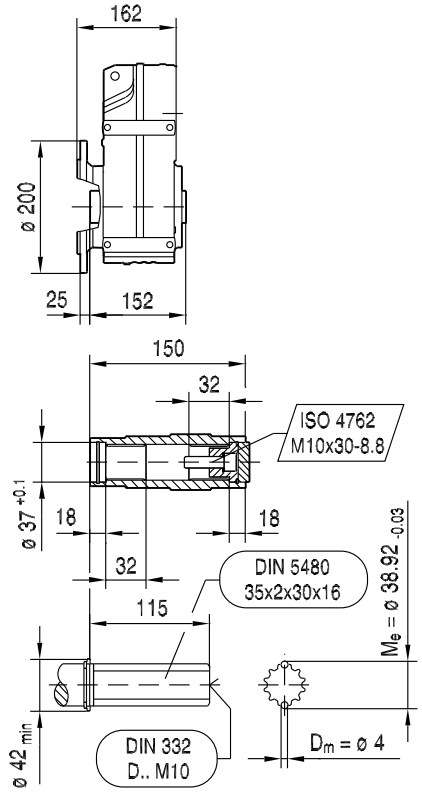
FAF47..



FHF47..



FVF47..

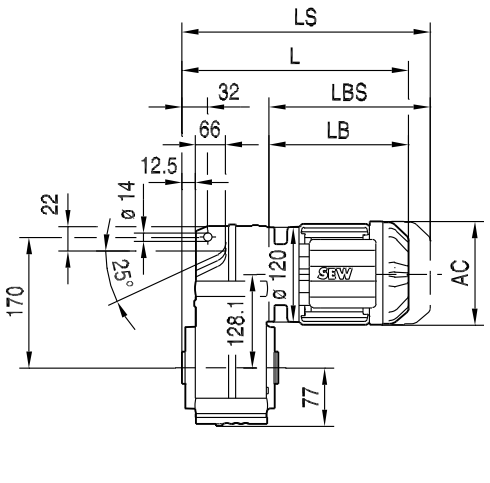


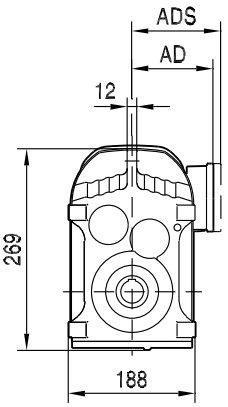
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	409	420	445	500	501	533	532	582
LS	464	488	513	581	595	627	626	676
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

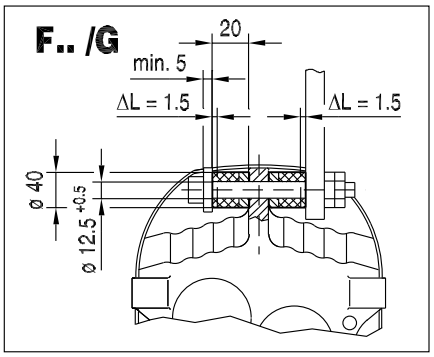
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FA47..

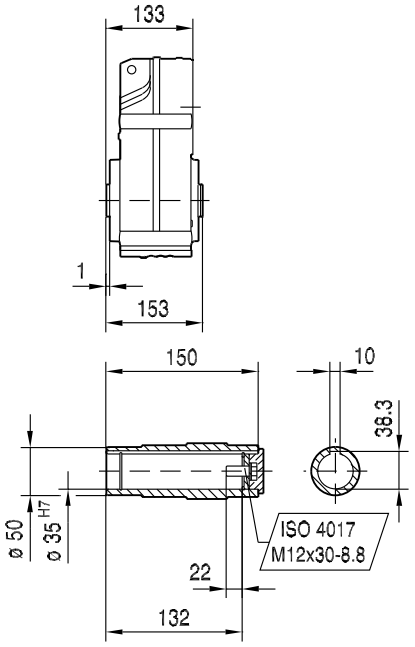
42 031 00 14



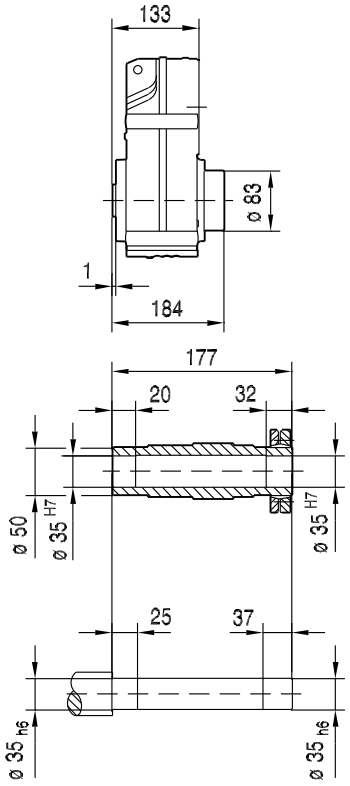




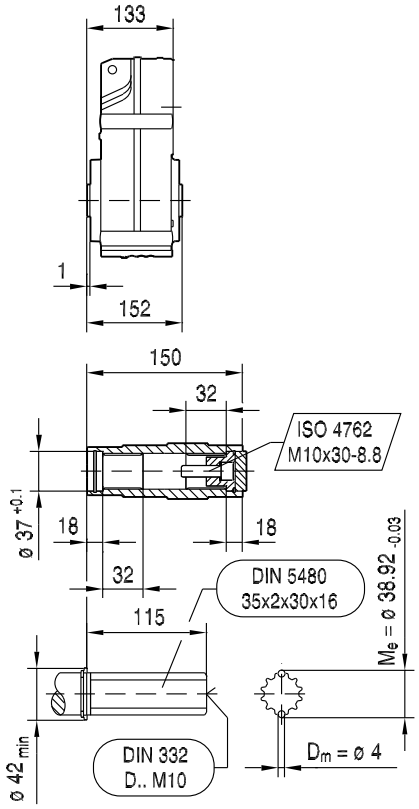
FA47..



FH47..



FV47..

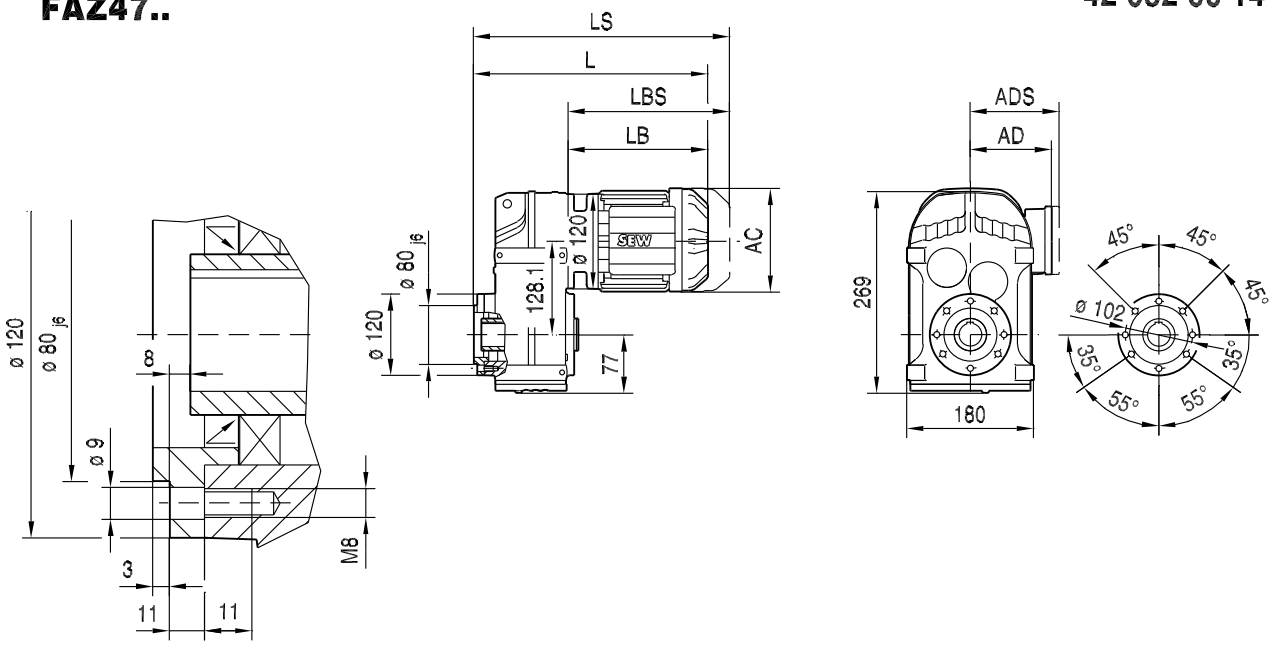


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	324	335	360	415	416	448	447	497
LS	379	403	428	496	510	542	541	591
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

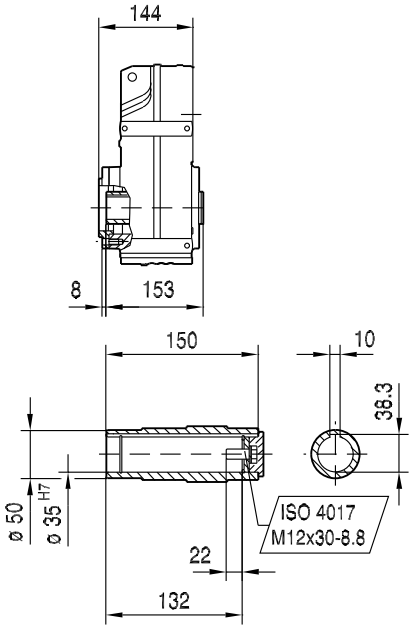
21933189/EN – 11/2015

FAZ47..

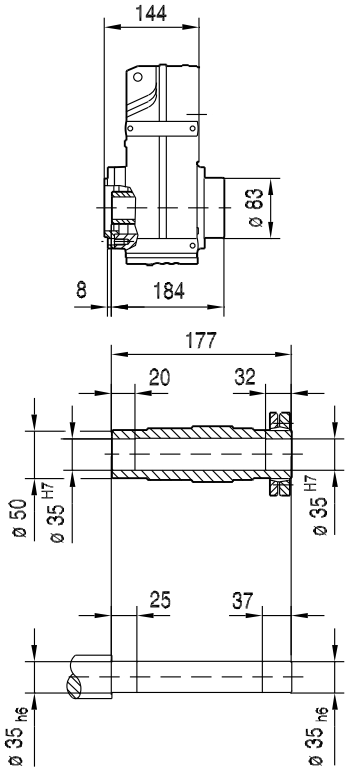
42 032 00 14



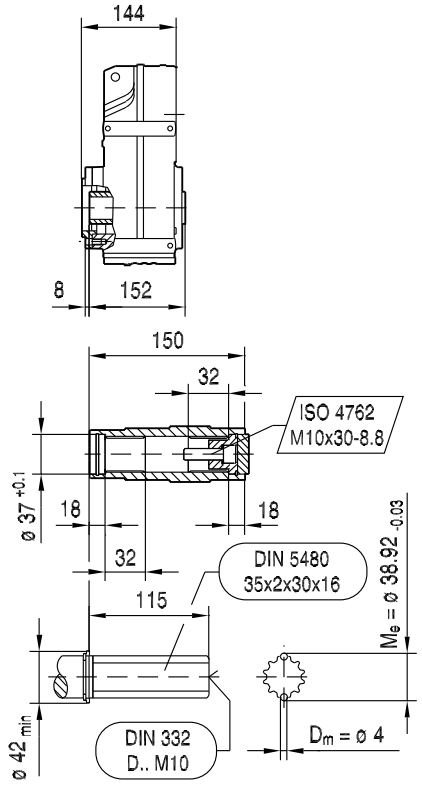
FAZ47..



FHZ47..



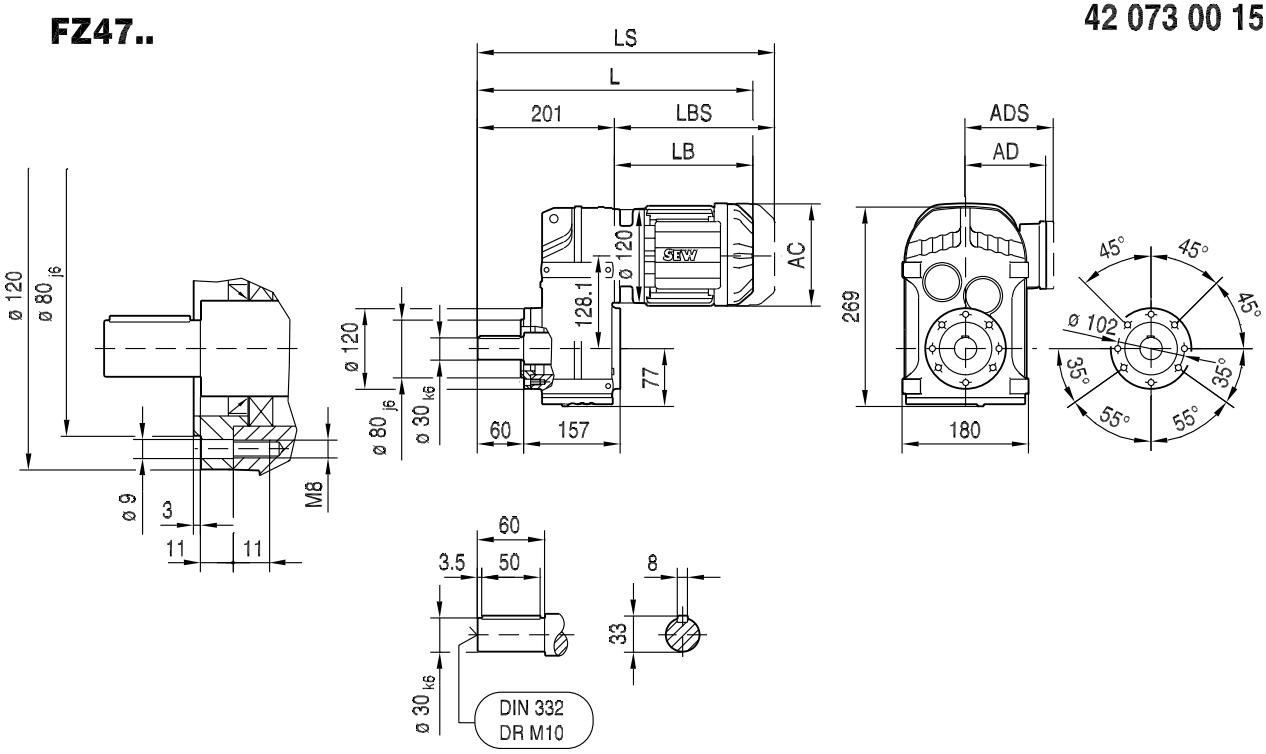
FVZ47..



(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	335	346	371	426	427	459	458	508
LS	390	414	439	507	521	553	552	602
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

FZ47..

42 073 00 15

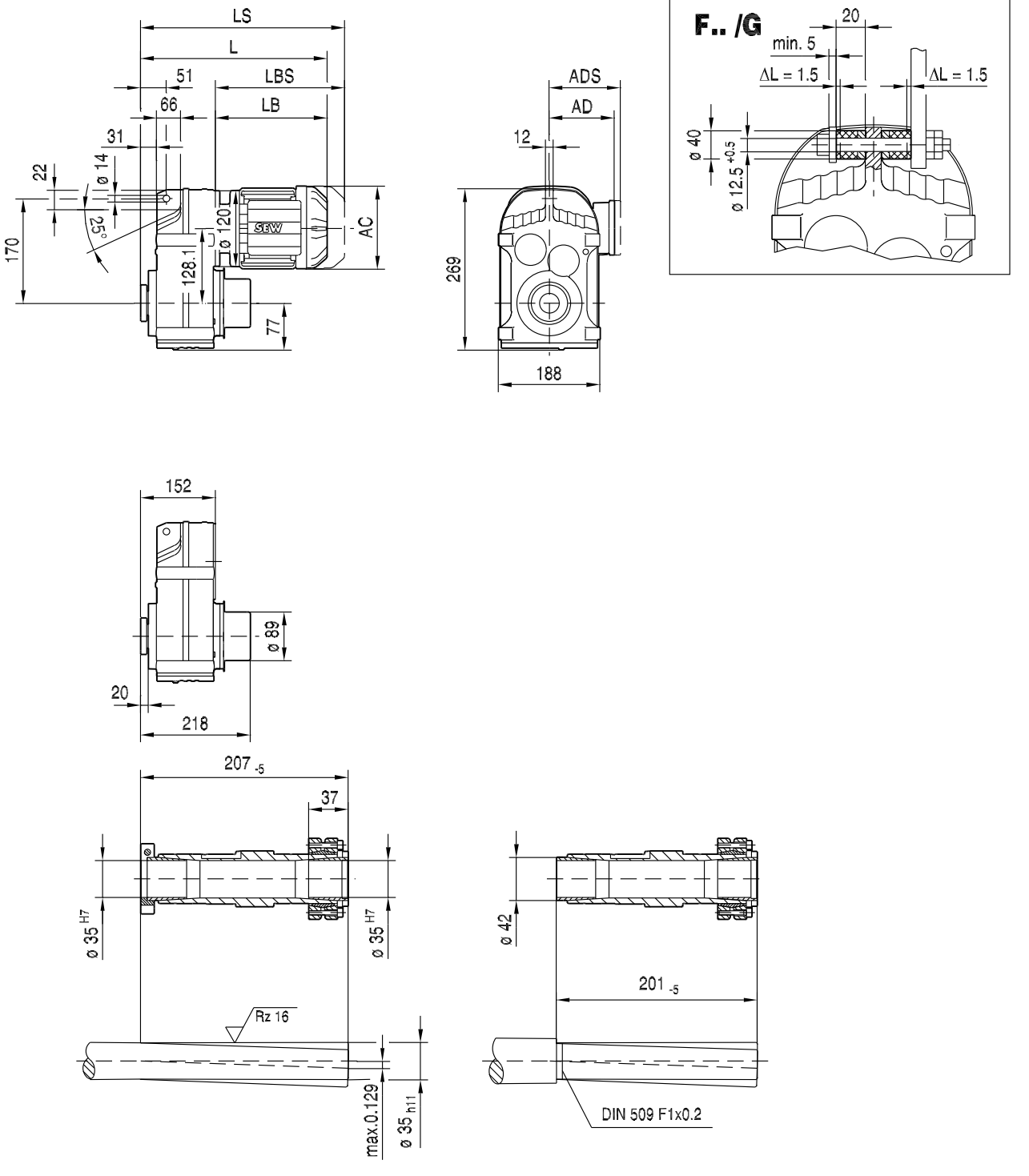


(→ 🗎 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	392	403	428	483	484	516	515	565
LS	447	471	496	564	578	610	609	659
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

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FT47..

42 033 00 14

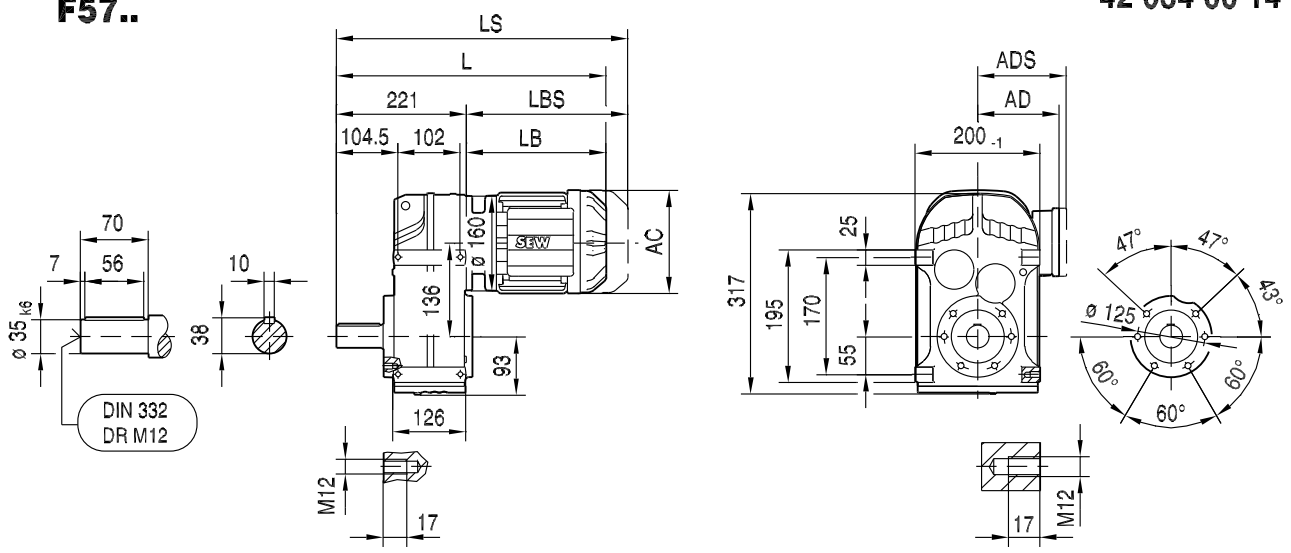


(→ 155)	DR63..	DR71S	DR71M					
AC	132	139	139					
AD	105	119	119					
ADS	105	129	129					
L	343	354	379					
LS	398	422	447					
LB	191	202	227					
LBS	246	270	295					

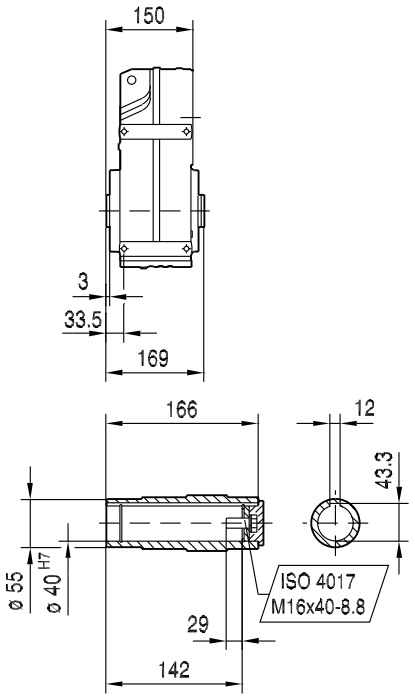
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F57..

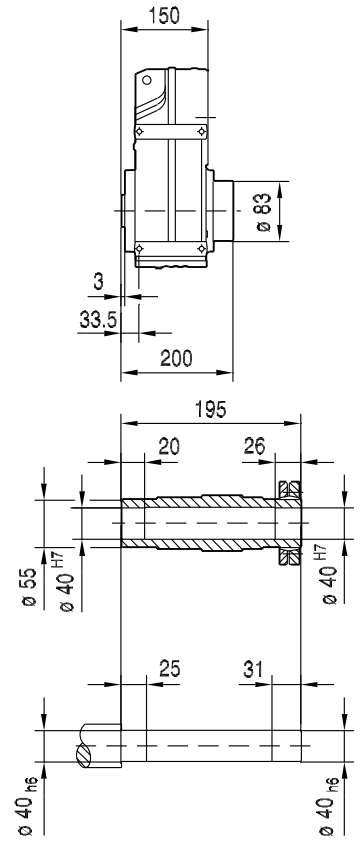
42 034 00 14



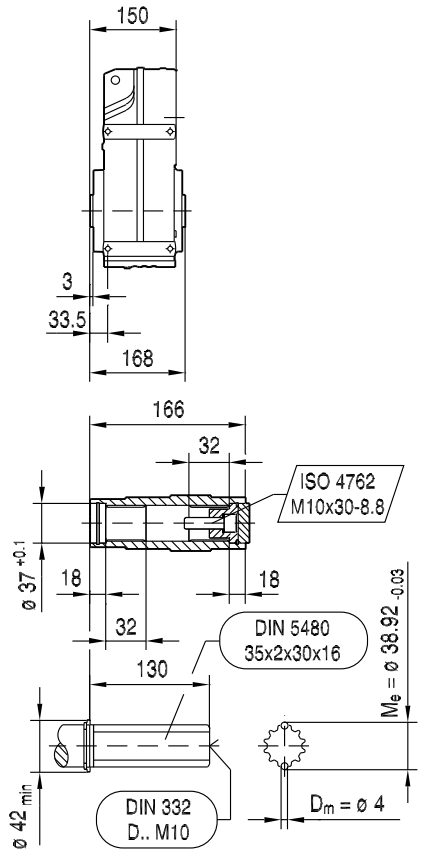
FA57B..



FH57B..
max. DRN100L



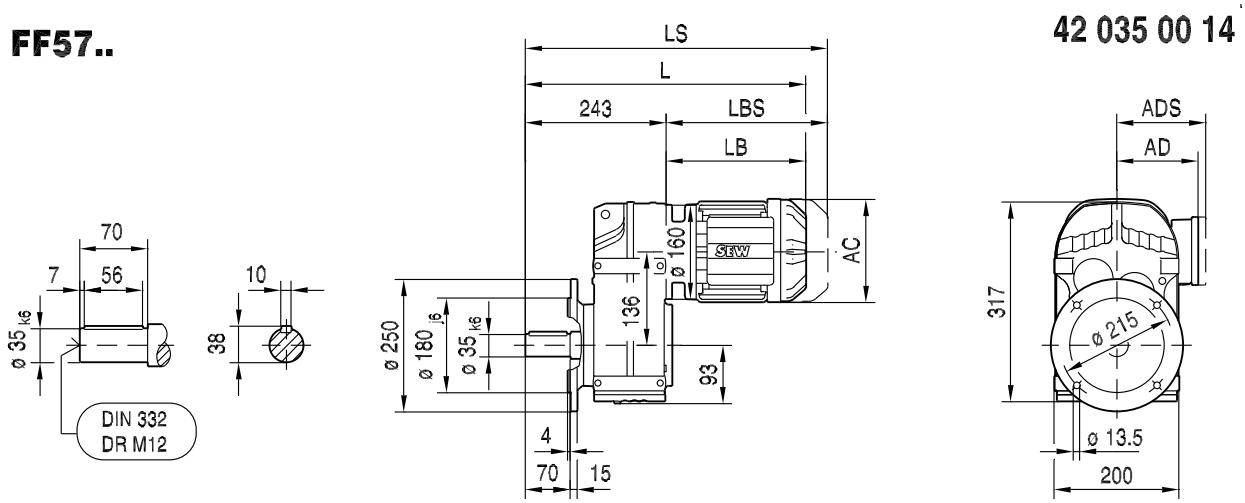
FV57B..



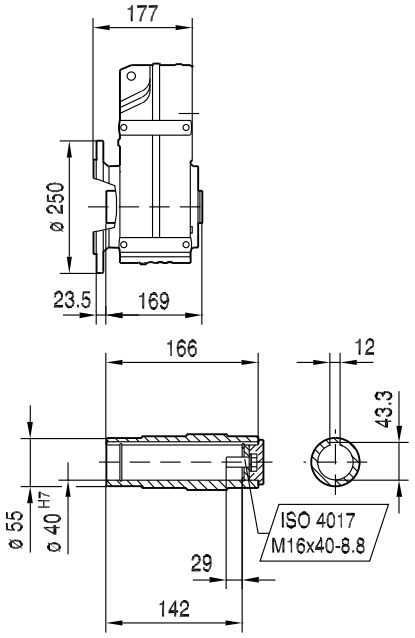
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	406	417	442	496	498	530	526	576	607	661
LS	461	485	510	577	591	623	620	670	719	773
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

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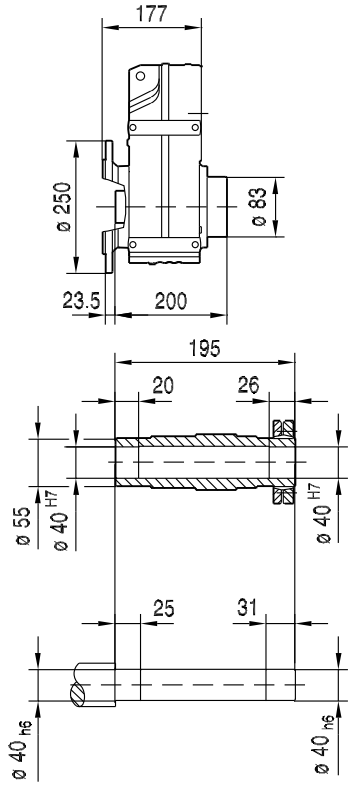
FF57..



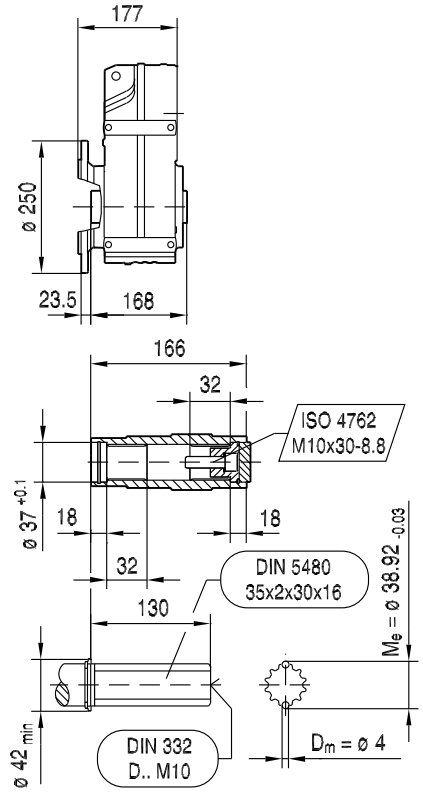
FAF57..



FHF57..
max. DRN100L



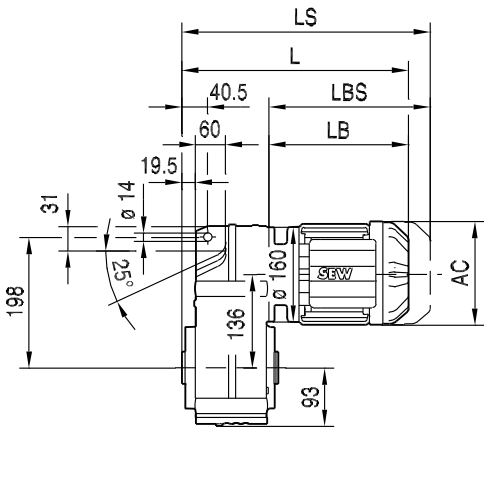
FVF57..

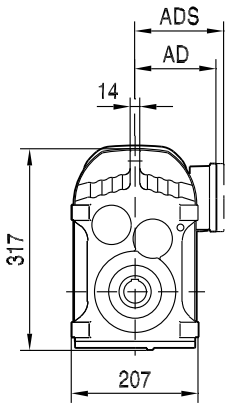


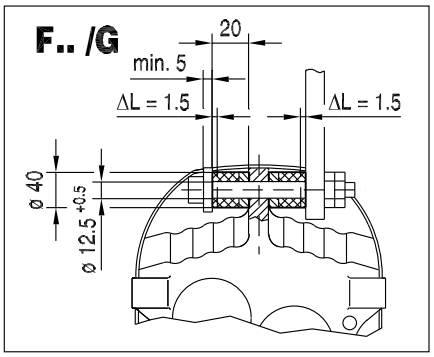
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	428	439	464	518	520	552	548	598	629	683
LS	483	507	532	599	613	645	642	692	741	795
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

42 036 00 14

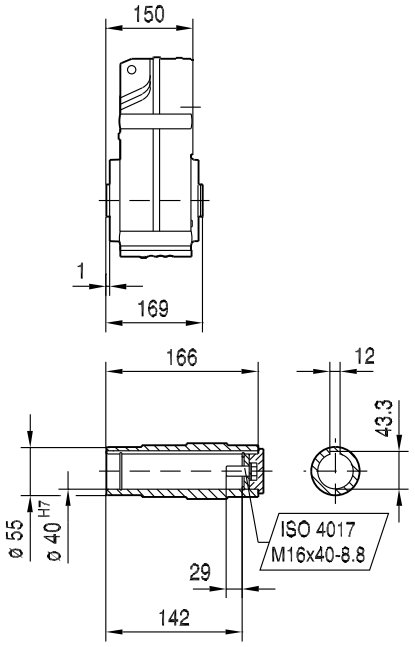
FA57..



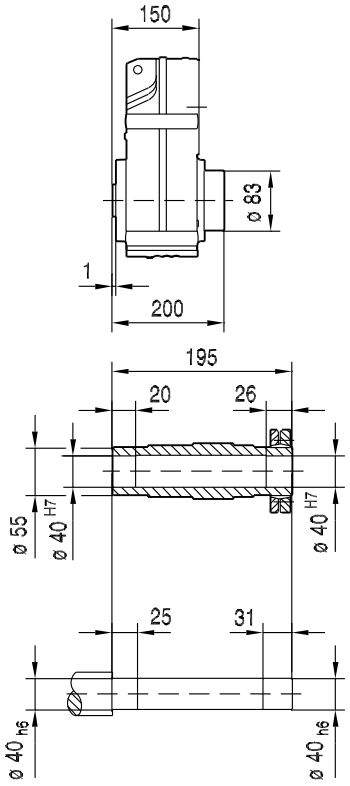




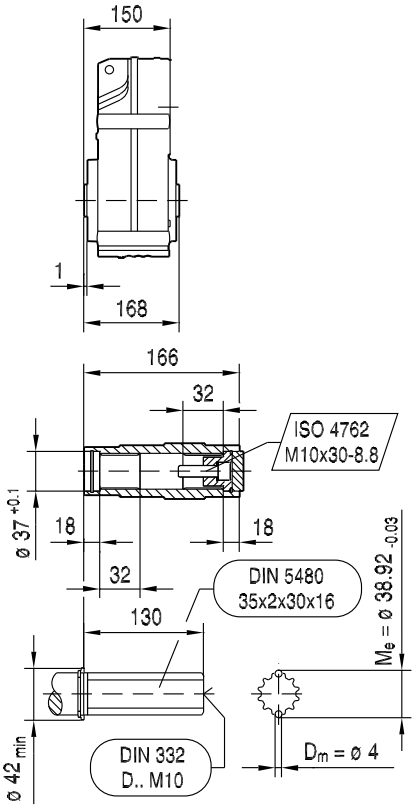
FA57..



FH57..
max. DRN100L



FV57..

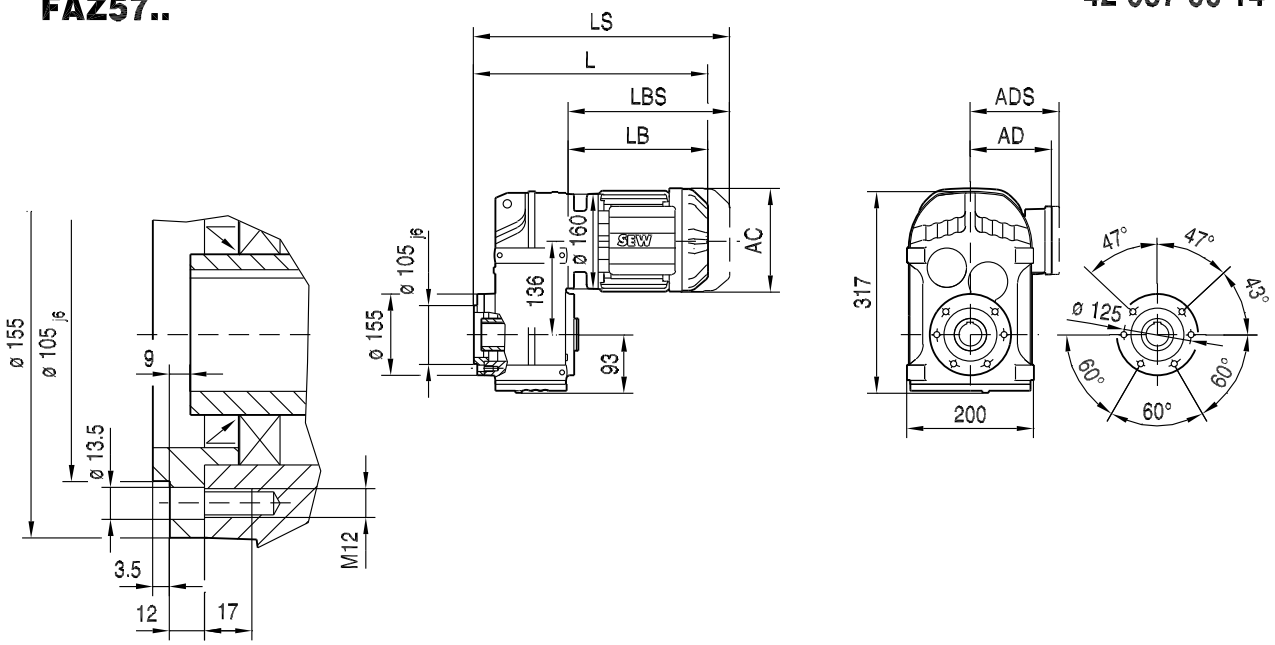


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	335	346	371	425	427	459	455	505	536	590
LS	390	414	439	506	520	552	549	599	648	702
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

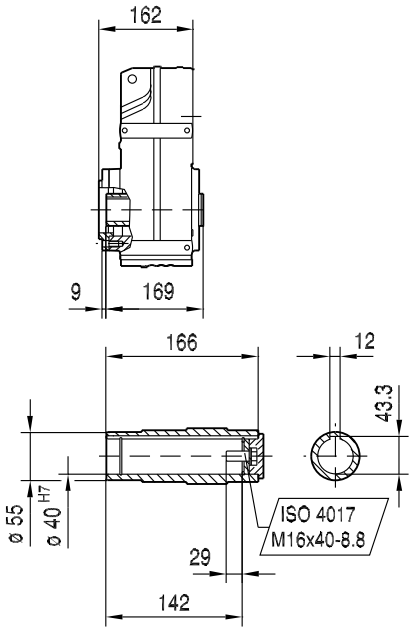
21933189/EN – 11/2015

42 037 00 14

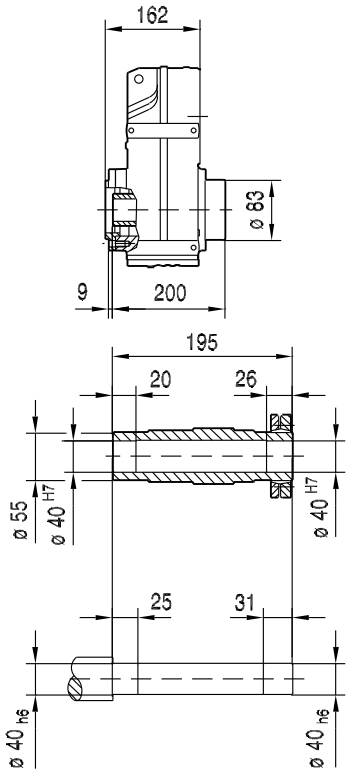
FAZ57..



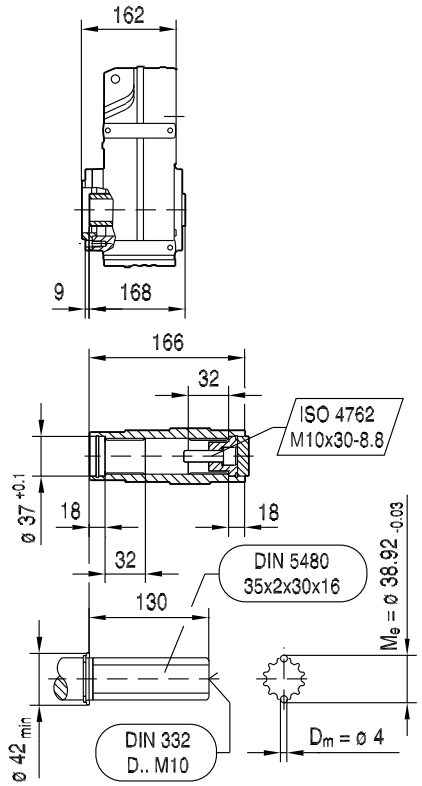
FAZ57..



FHZ57..
max. DRN100L



FVZ57..

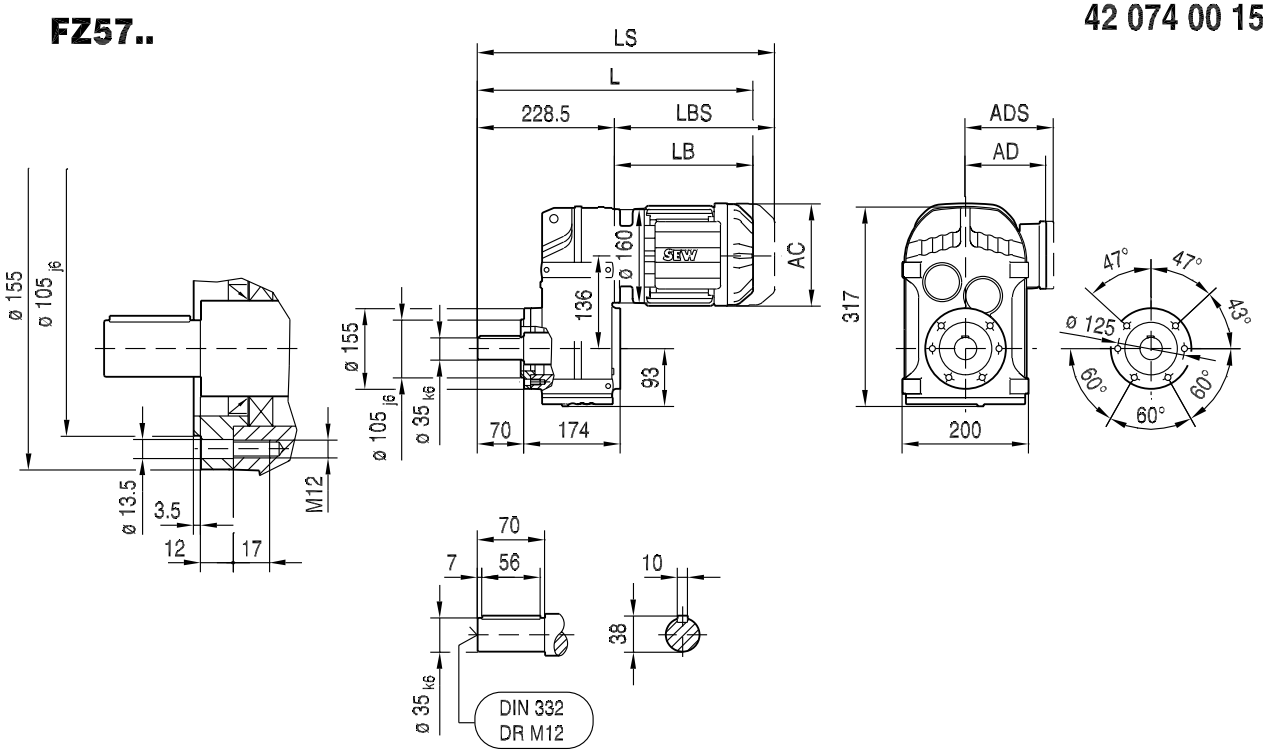


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	347	358	383	437	439	471	467	517	548	602
LS	402	426	451	518	532	564	561	611	660	714
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

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FZ57..

42 074 00 15

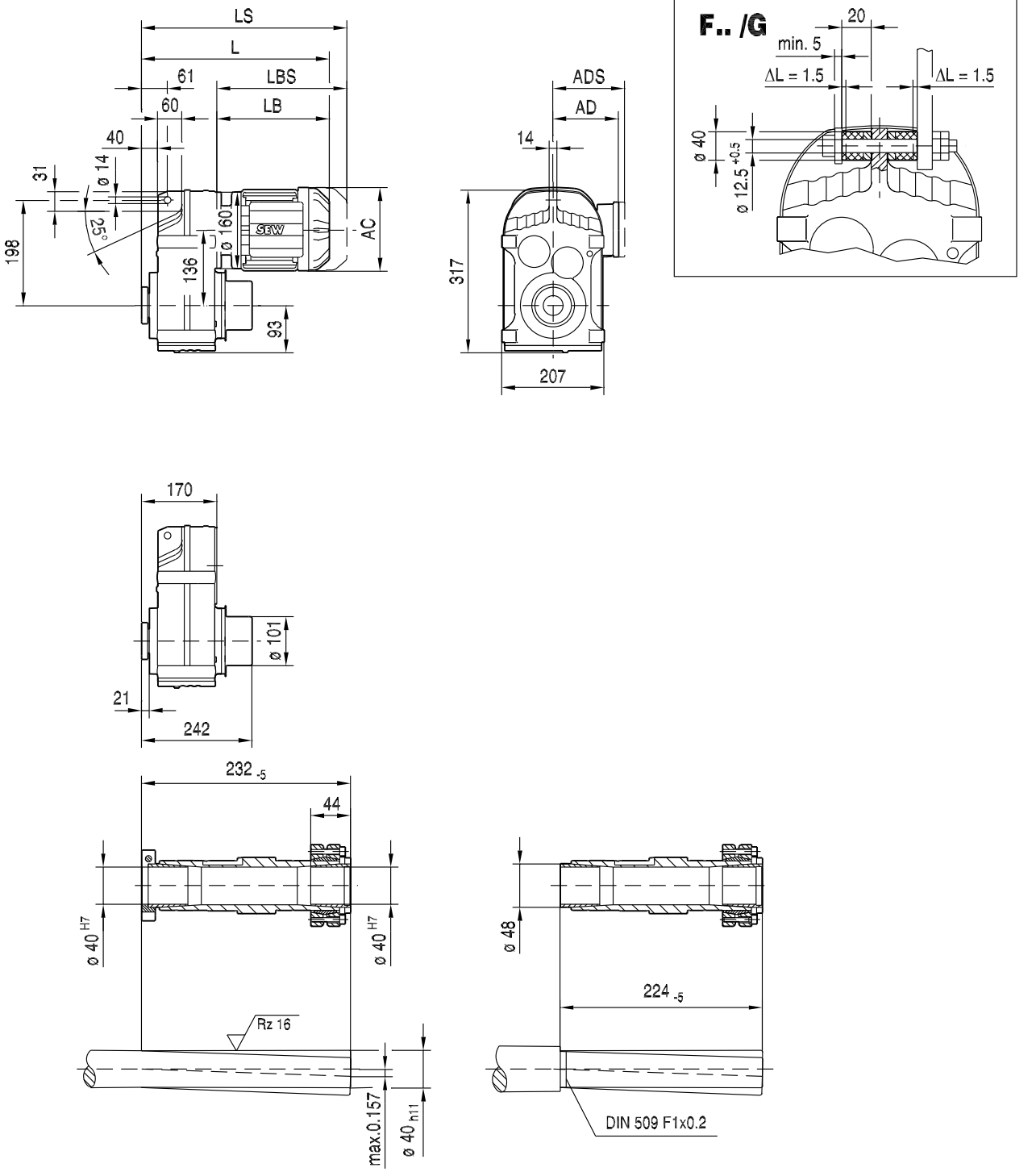


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	413	424	449	504	505	537	534	584	615	669
LS	468	492	517	585	599	631	627	677	727	781
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

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FT57..

42 038 00 14

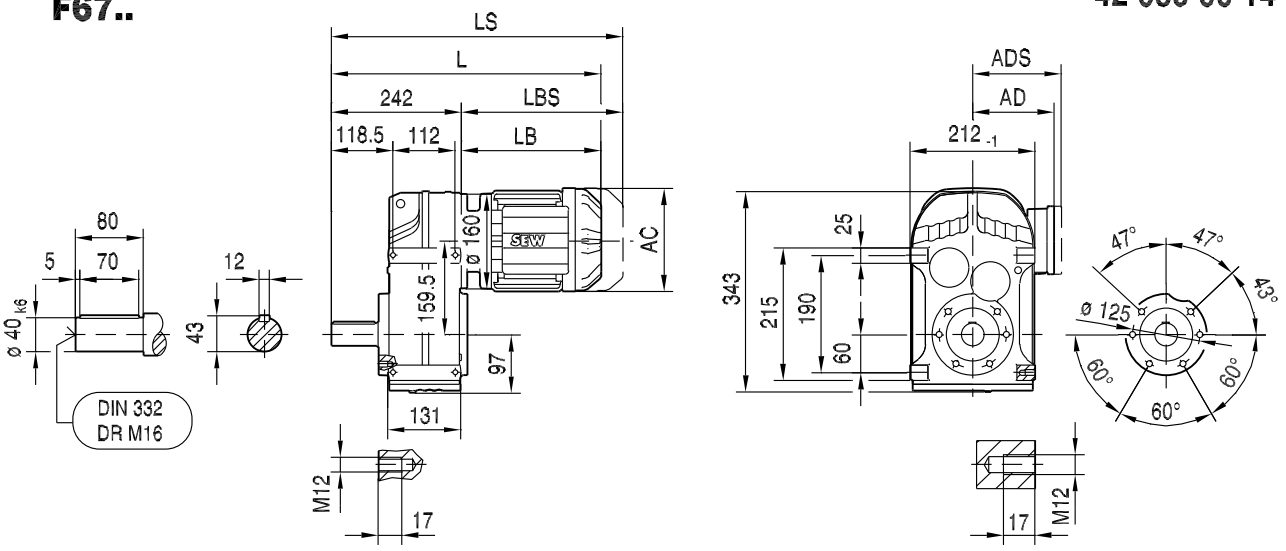


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S			
AC	132	139	139	156	179			
AD	105	119	119	128	140			
ADS	105	129	129	139	150			
L	355	366	391	445	447			
LS	410	434	459	526	540			
LB	185	196	221	275	277			
LBS	240	264	289	356	370			

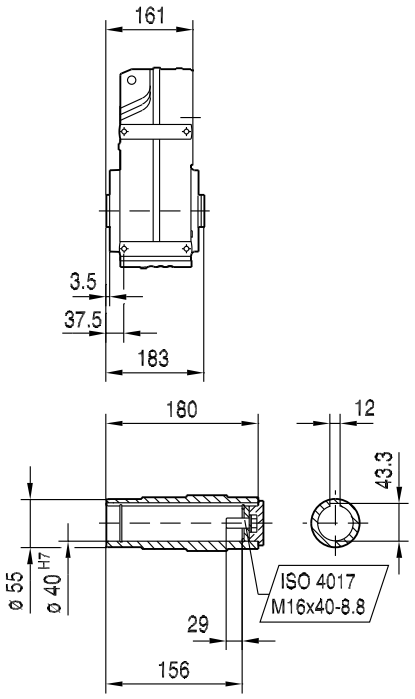
21933189/EN – 11/2015

F67..

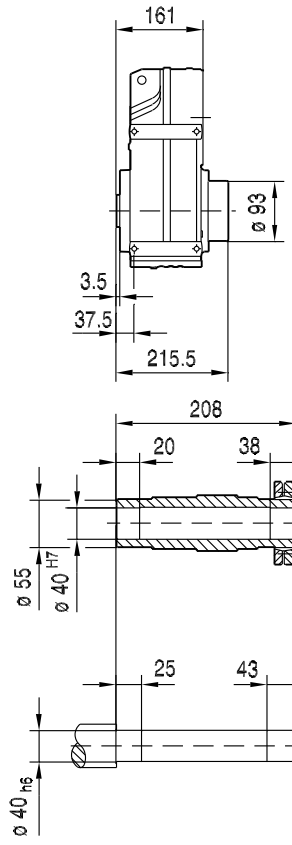
42 039 00 14



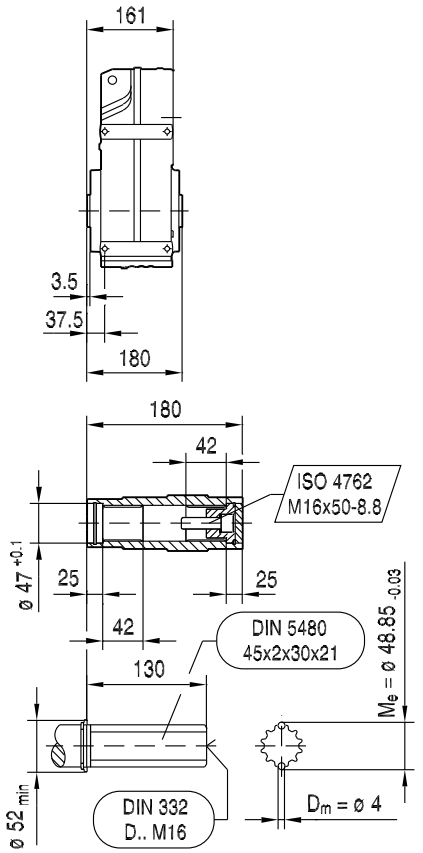
FA67B..



FH67B..
max. DR132S



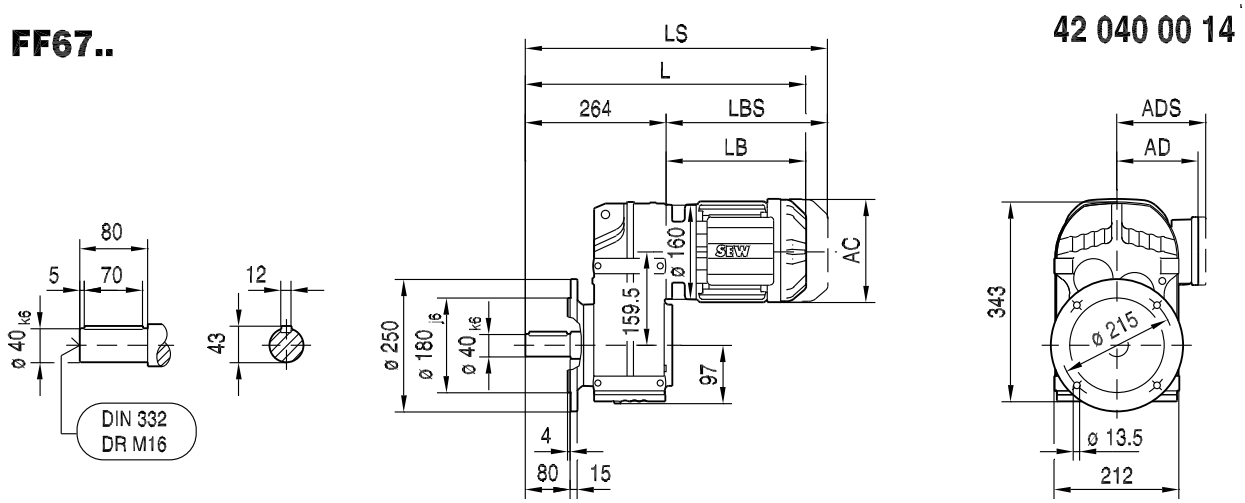
FV67B..



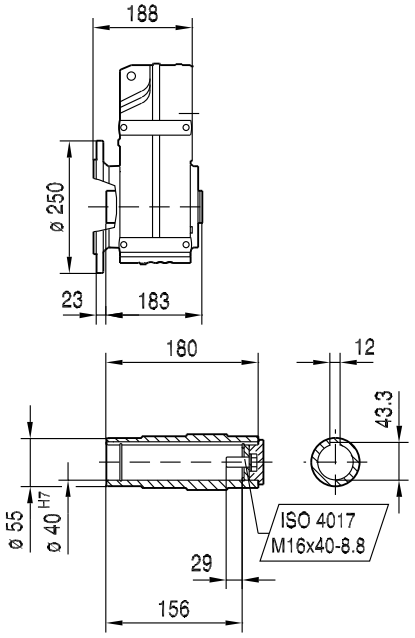
(→ 🗎 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	427	438	463	517	519	551	547	597	628	682
LS	482	506	531	598	612	644	641	691	740	794
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

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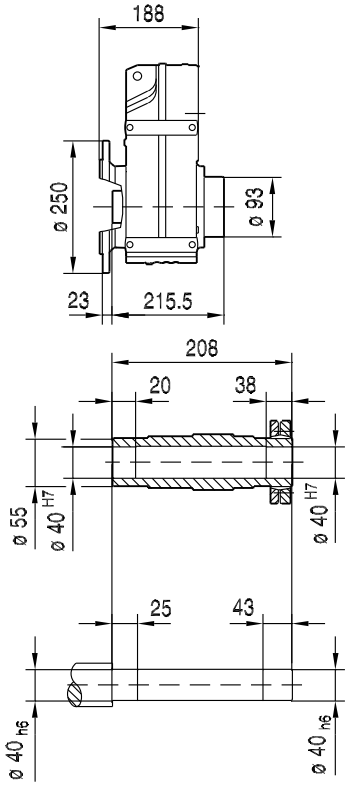
FF67..



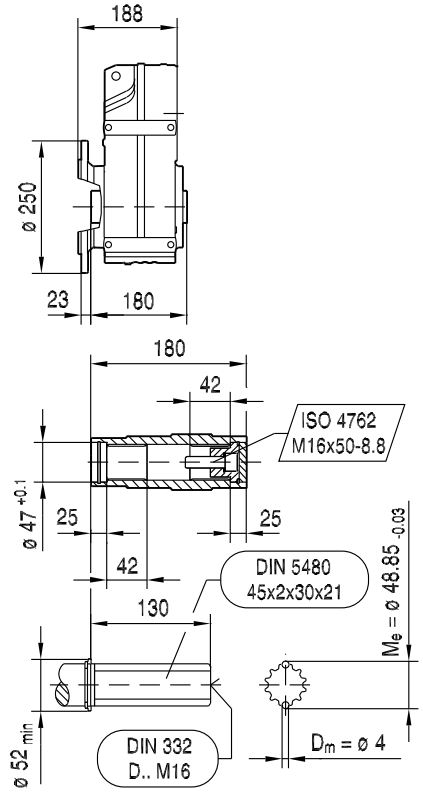
FAF67..



FHF67..
max. DR132S



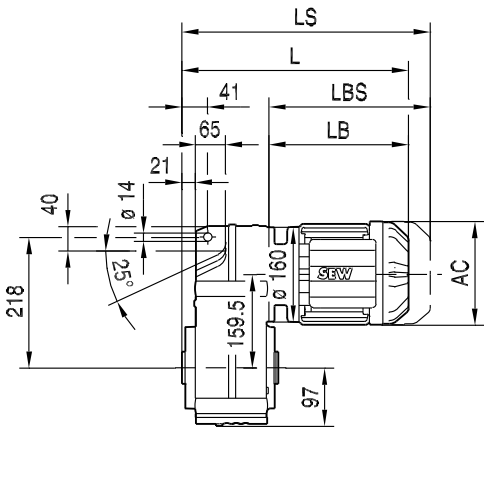
FVF67..

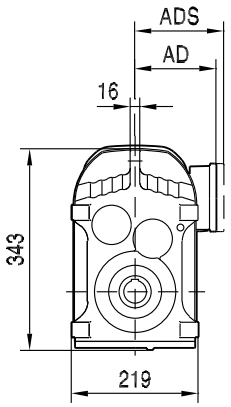


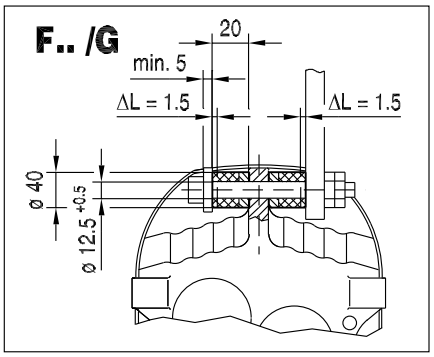
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	449	460	485	539	541	573	569	619	650	704
LS	504	528	553	620	634	666	663	713	762	816
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

FA67..

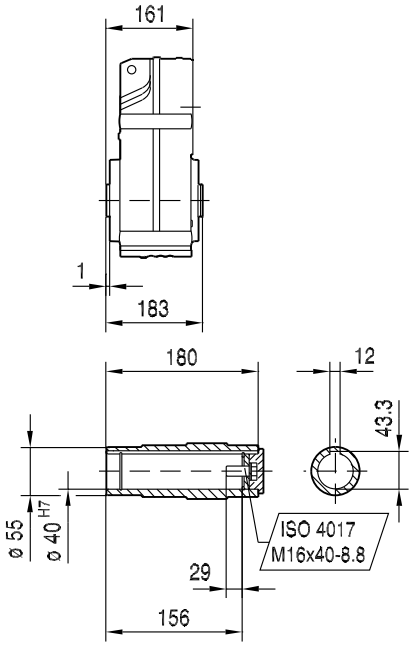
42 041 00 14



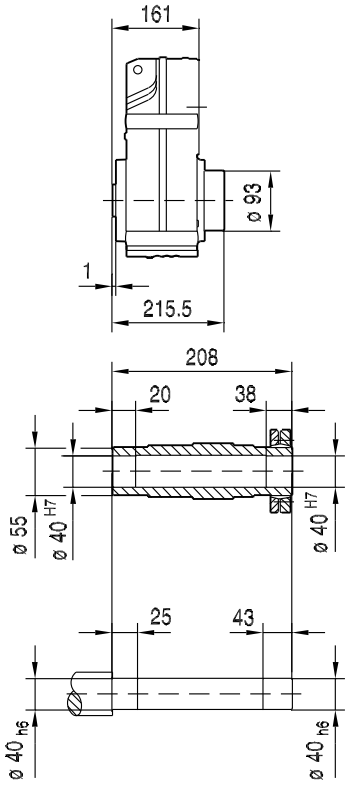




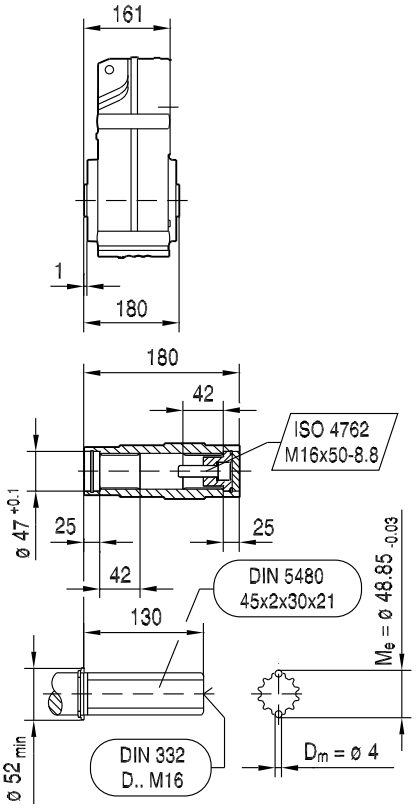
FA67..



FH67..
max. DR132S



FV67..

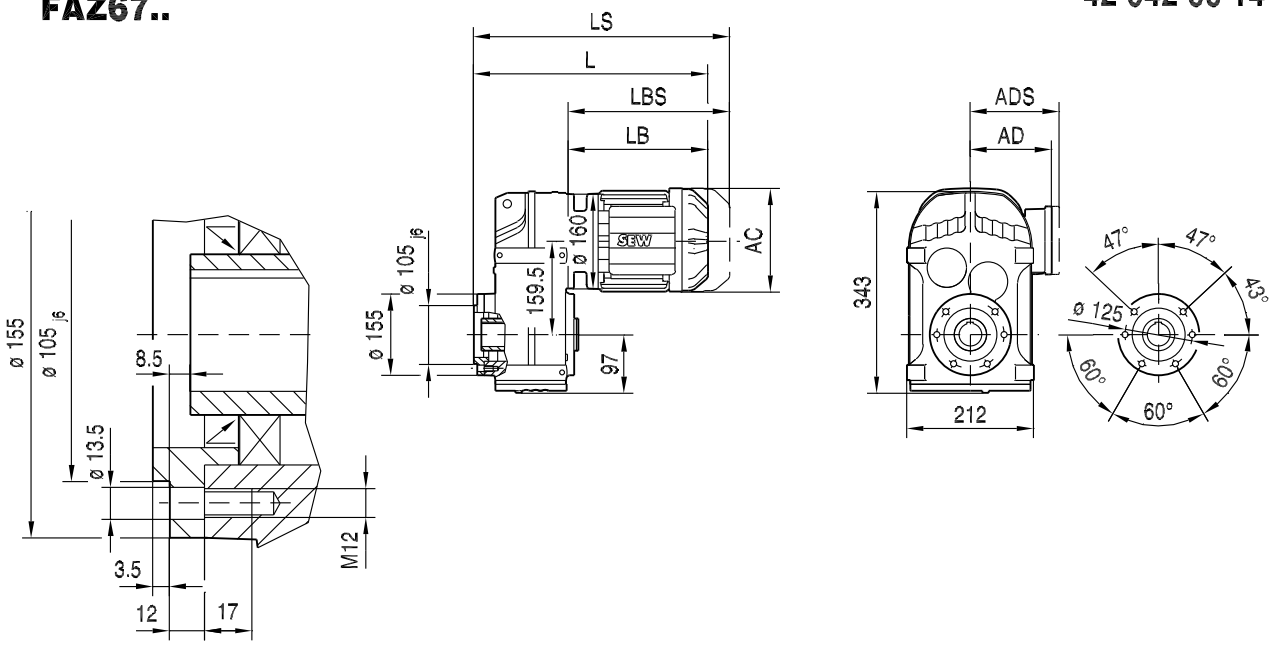


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	346	357	382	436	438	470	466	516	547	601
LS	401	425	450	517	531	563	560	610	659	713
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

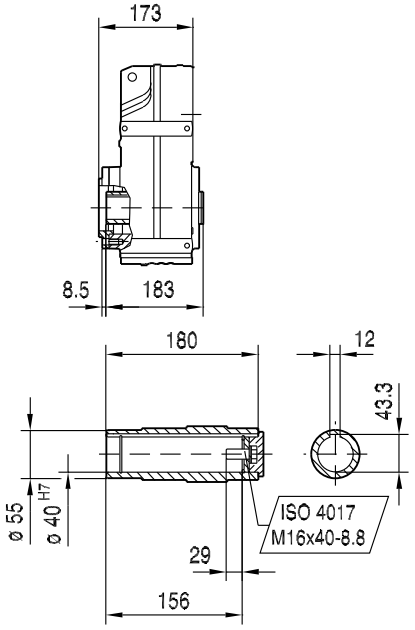
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FAZ67..

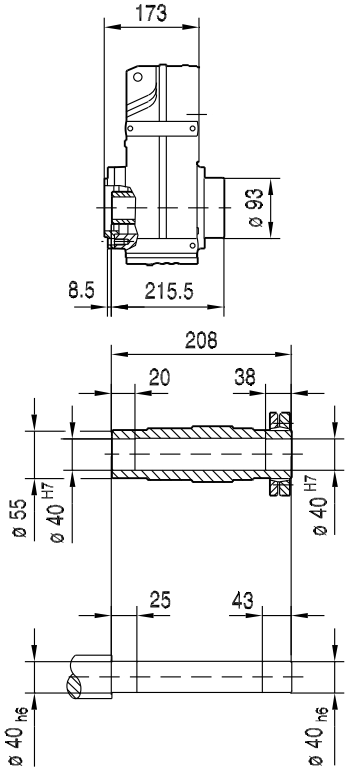
42 042 00 14



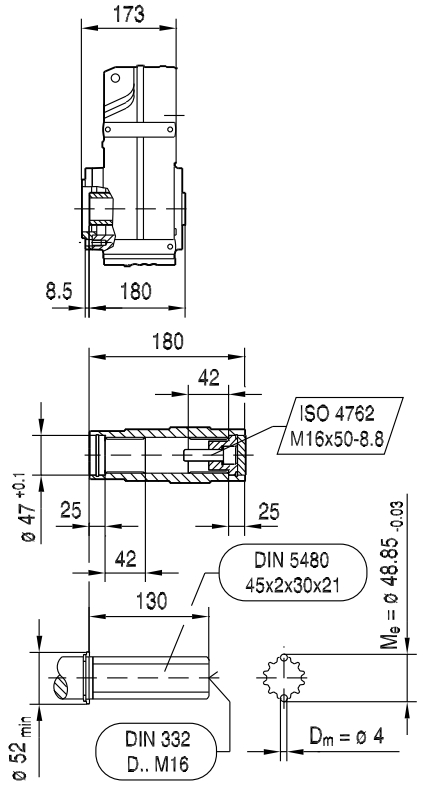
FAZ67..



FHZ67..
max. DR132S

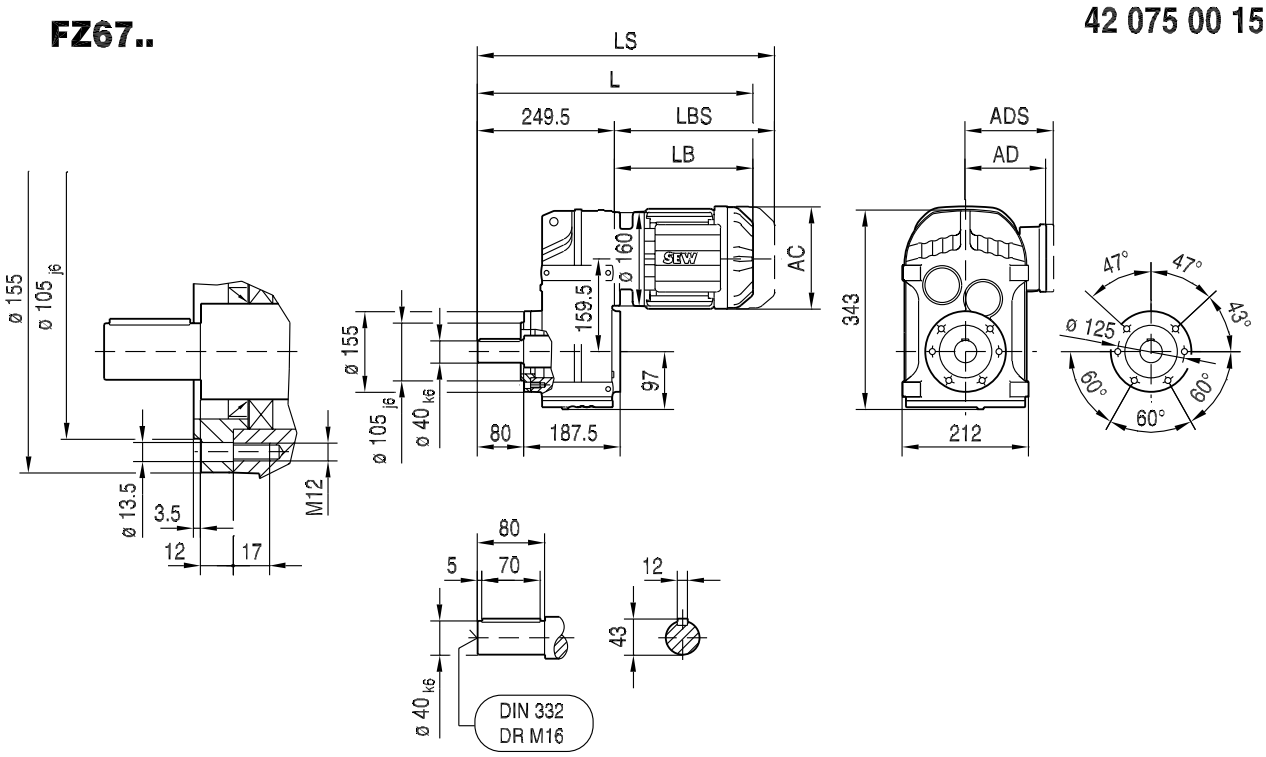


FVZ67..



(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	358	369	394	448	450	482	478	528	559	613
LS	413	437	462	529	543	575	572	622	671	725
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

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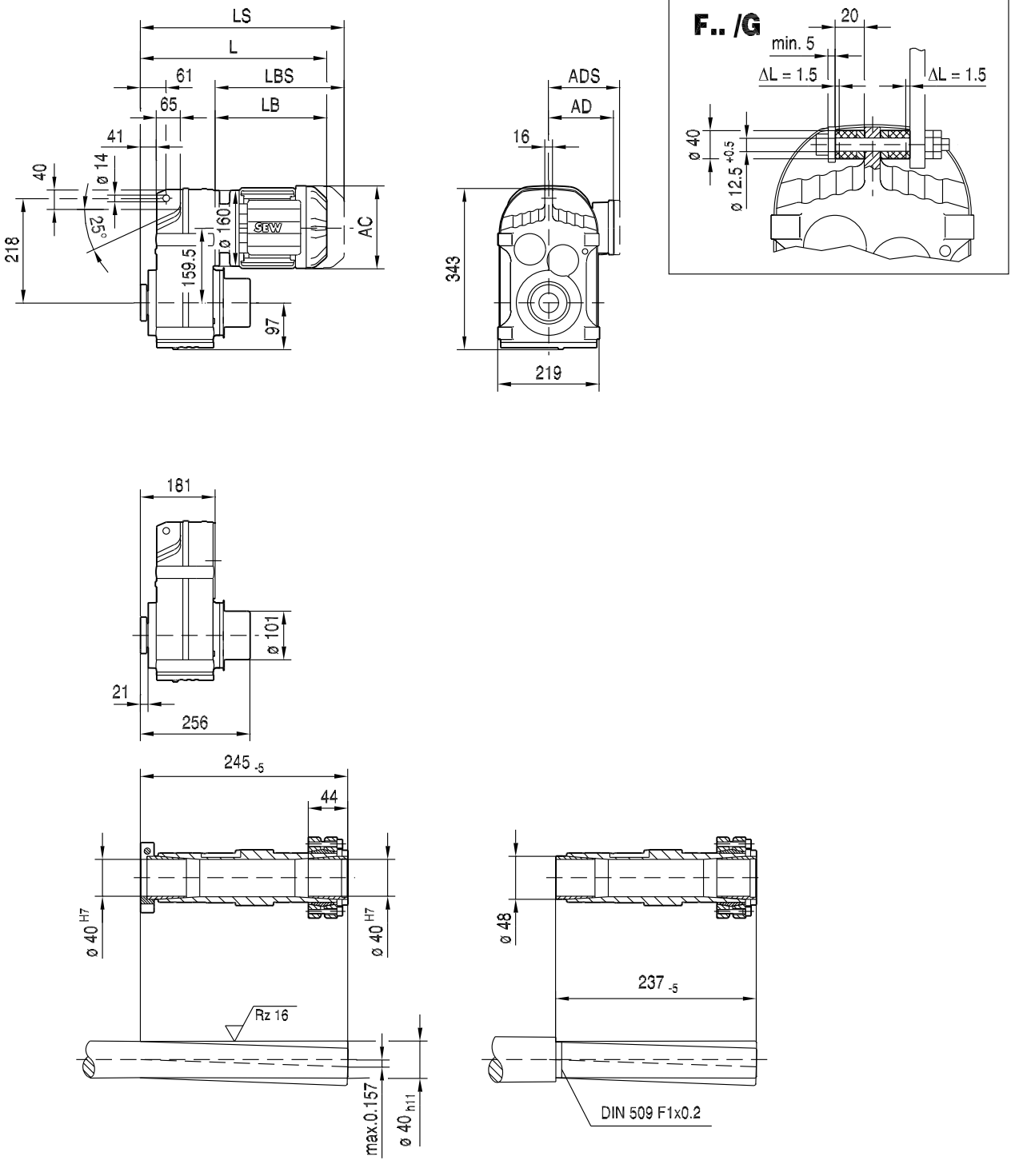


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	434	445	470	525	526	558	555	605	636	690
LS	489	513	538	606	620	652	648	698	748	802
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

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FT67..

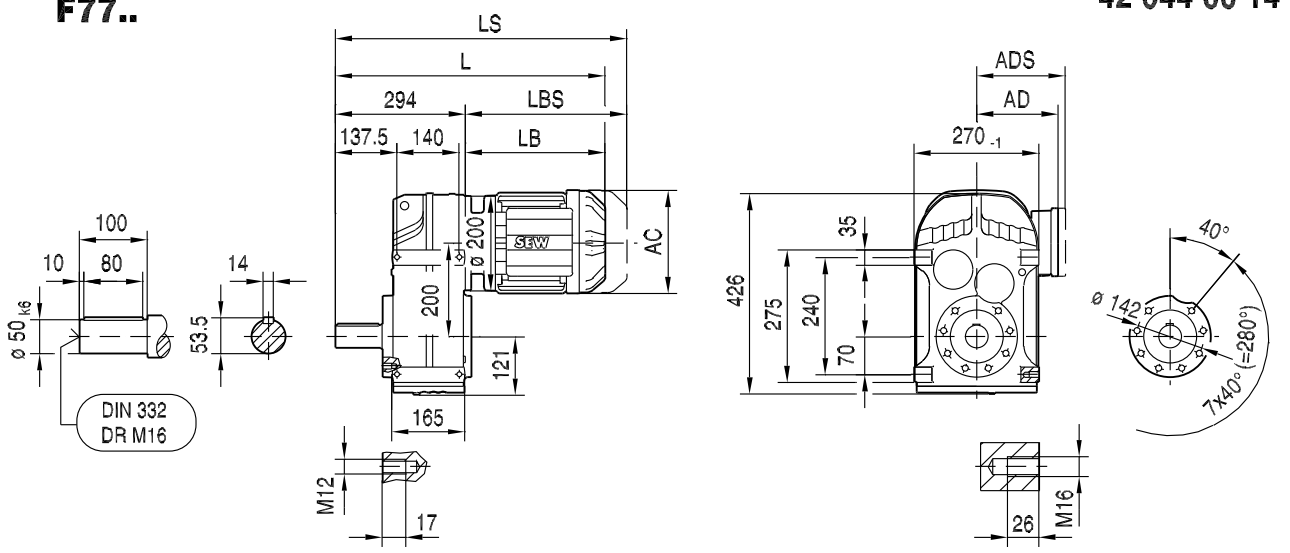
42 043 00 14



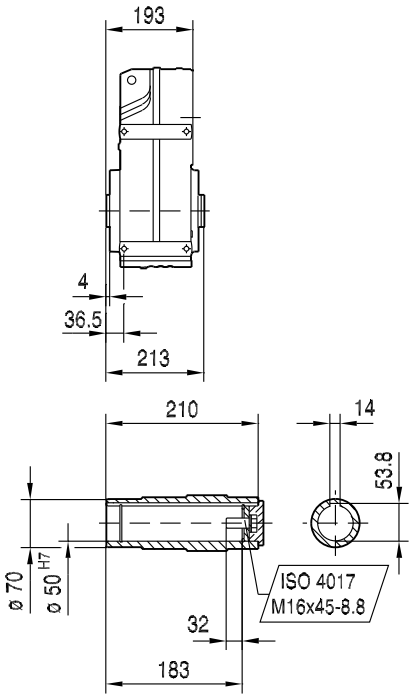
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	366	377	402	456	458	490	486	536
LS	421	445	470	537	551	583	580	630
LB	185	196	221	275	277	309	305	355
LBS	240	264	289	356	370	402	399	449

F77..

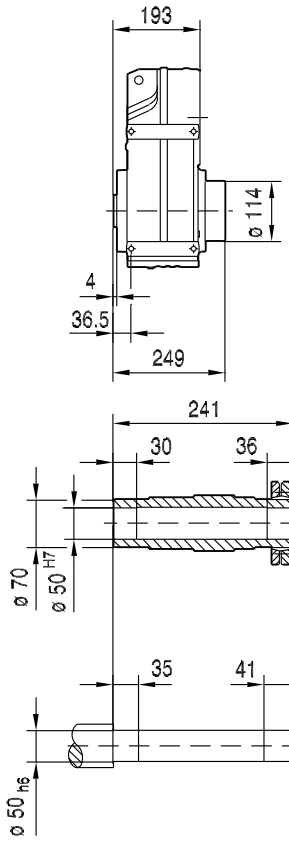
42 044 00 14



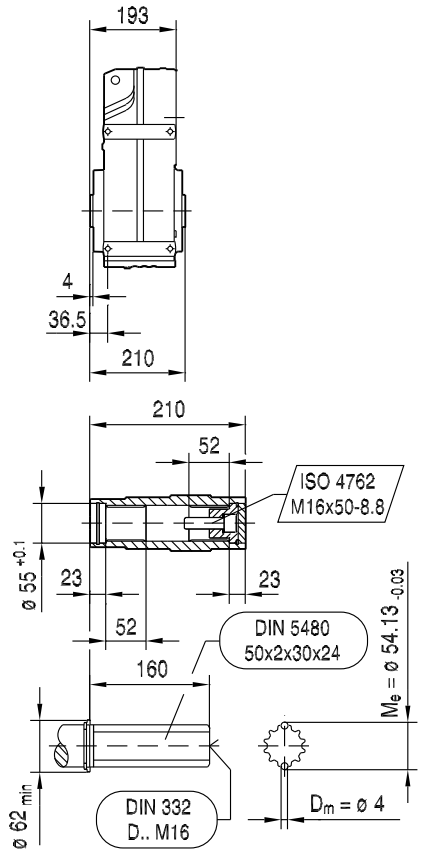
FA77B..



FH77B..
max. DRN132L



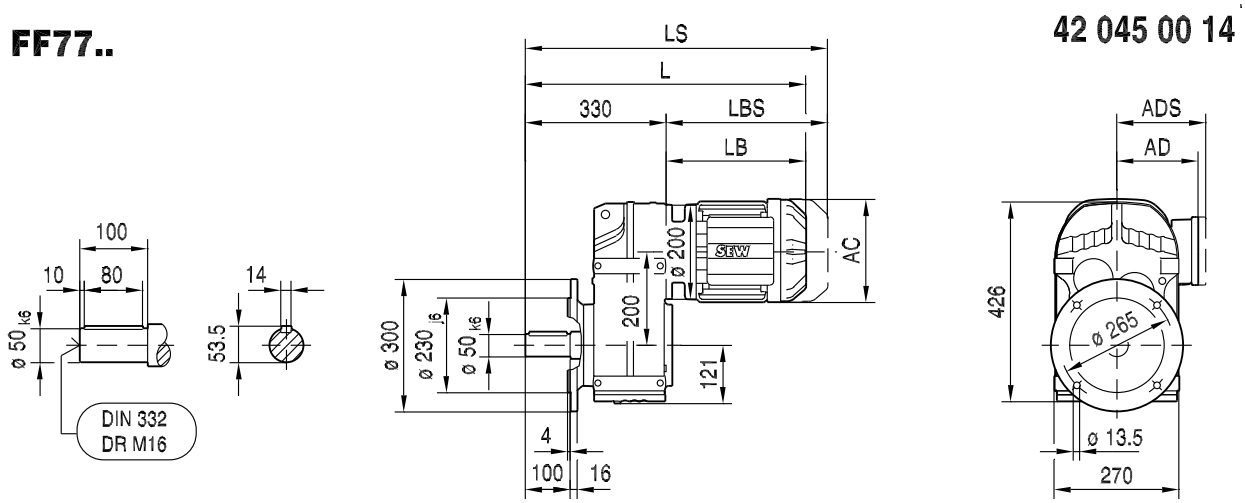
FV77B..



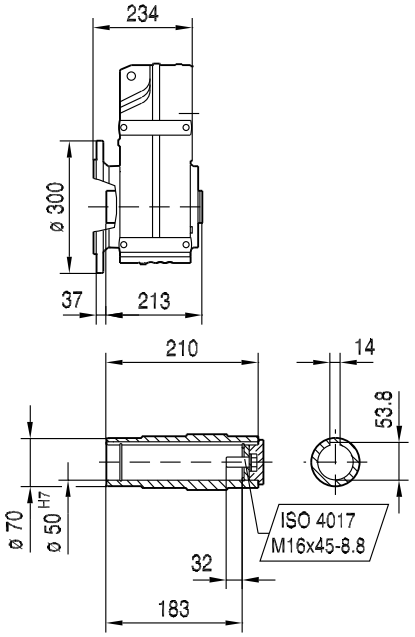
(→ 155)	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M
AC	156	179	179	197	197	221	221	261	261	314
AD	128	140	140	157	157	170	170	228	228	253
ADS	139	150	150	158	158	172	172	228	228	253
L	562	564	596	592	642	673	723	741	767	833
LS	643	657	689	686	736	785	835	879	904	1022
LB	268	270	302	298	348	379	429	447	473	539
LBS	349	363	395	392	442	491	541	585	610	728

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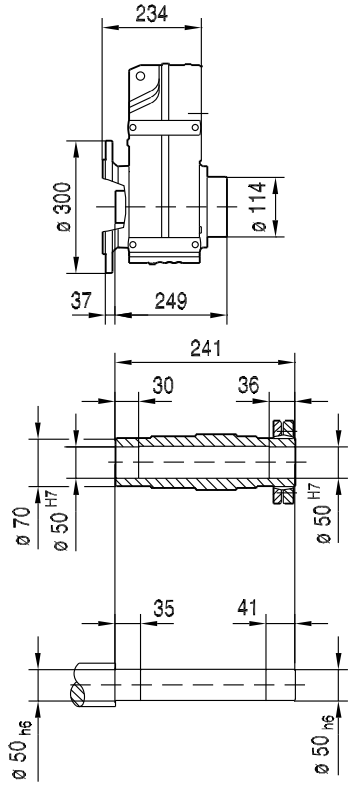
FF77..



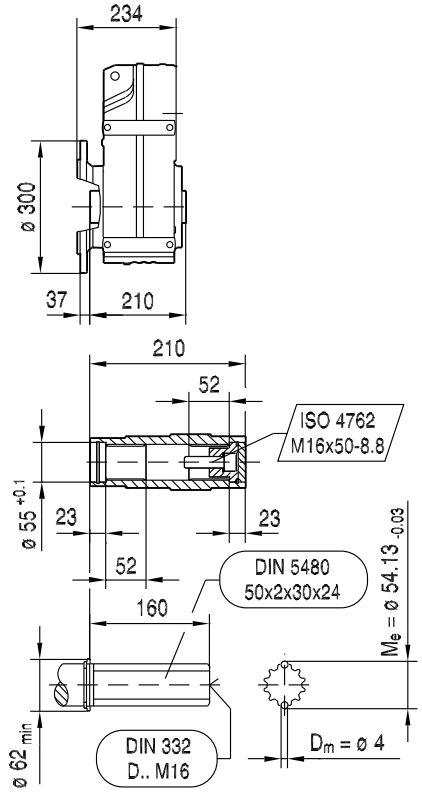
FAF77..



FHF77..
max. DRN132L



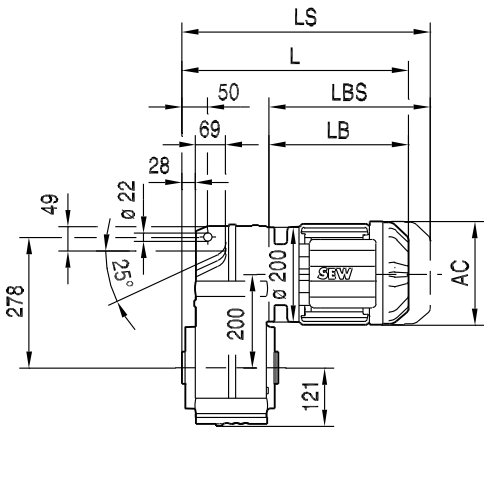
FVF77..

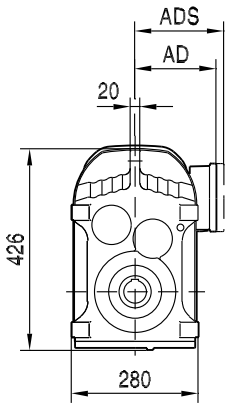


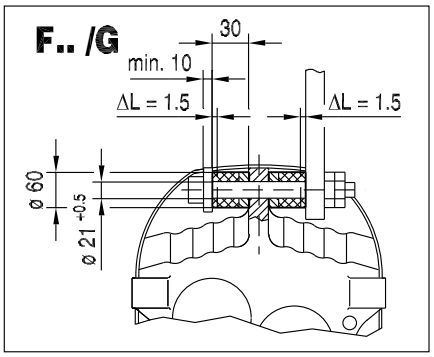
(→ 155)	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M
AC	156	179	179	197	197	221	221	261	261	314
AD	128	140	140	157	157	170	170	228	228	253
ADS	139	150	150	158	158	172	172	228	228	253
L	598	600	632	628	678	709	759	777	803	869
LS	679	693	725	722	772	821	871	915	940	1058
LB	268	270	302	298	348	379	429	447	473	539
LBS	349	363	395	392	442	491	541	585	610	728

42 046 00 14

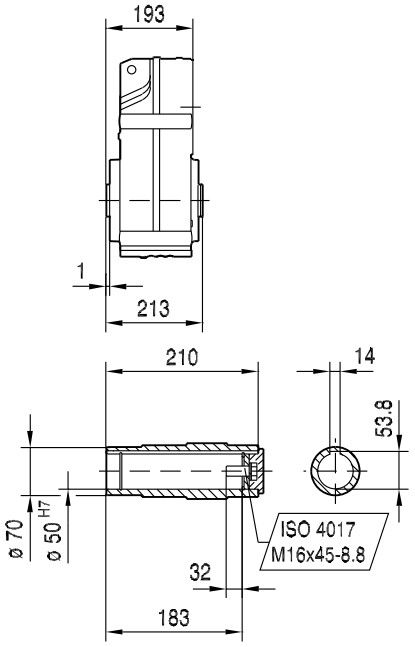
FA77..



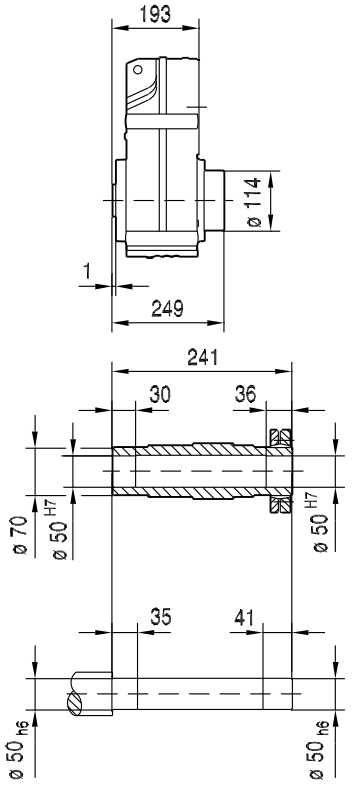




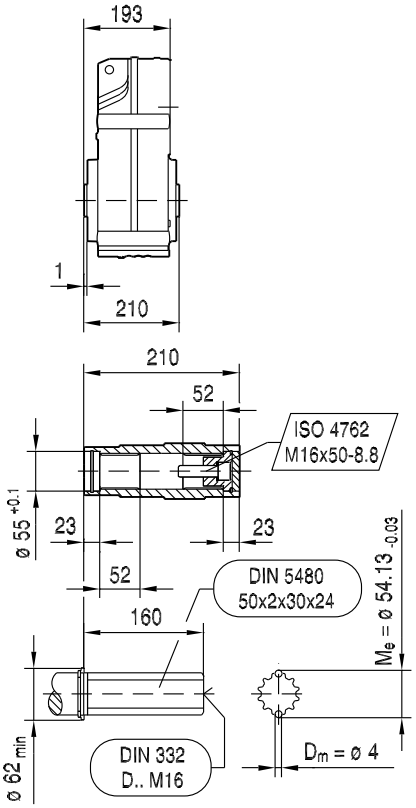
FA77..



FH77..
max. DRN132L



FV77..

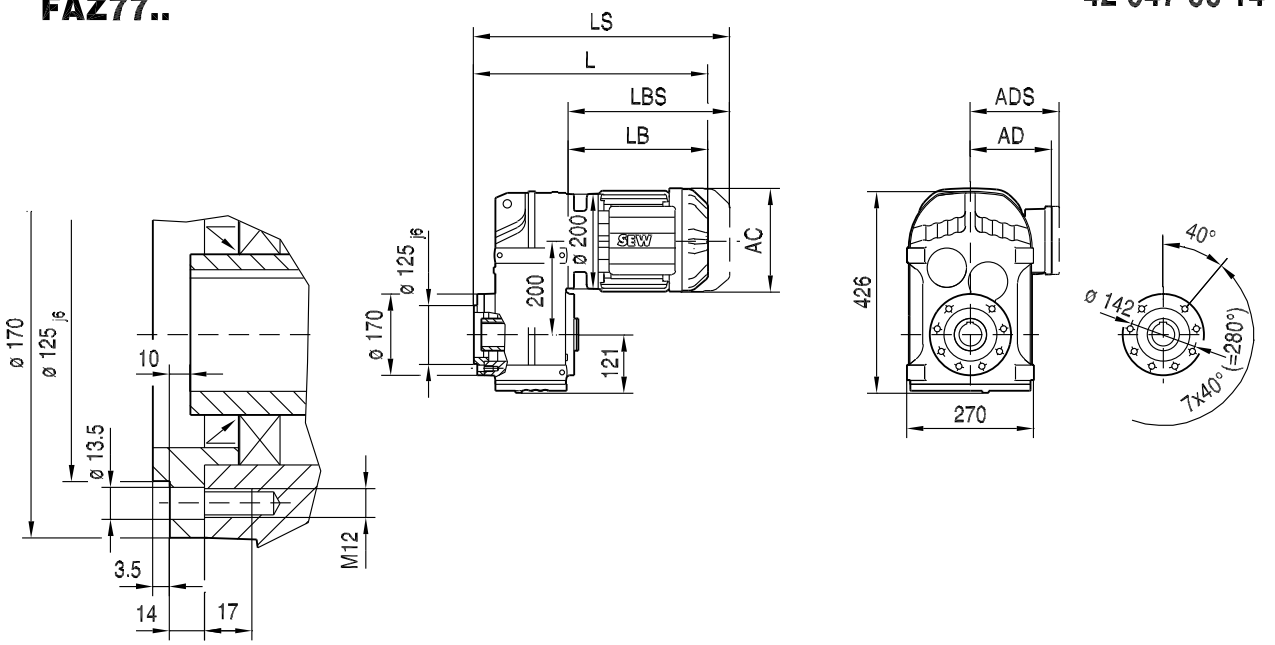


(→ 155)	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M
AC	156	179	179	197	197	221	221	261	261	314
AD	128	140	140	157	157	170	170	228	228	253
ADS	139	150	150	158	158	172	172	228	228	253
L	461	463	495	491	541	572	622	640	666	732
LS	542	556	588	585	635	684	734	778	803	921
LB	268	270	302	298	348	379	429	447	473	539
LBS	349	363	395	392	442	491	541	585	610	728

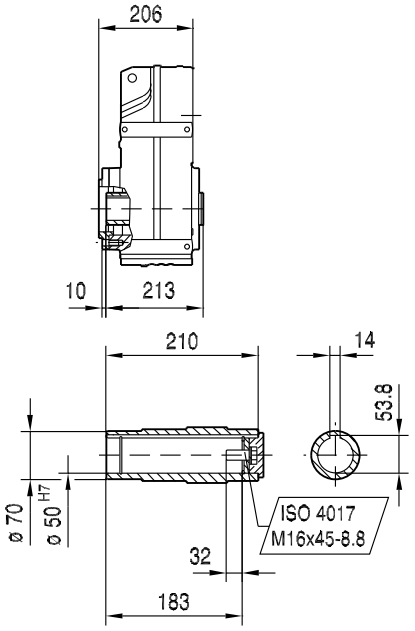
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FAZ77..

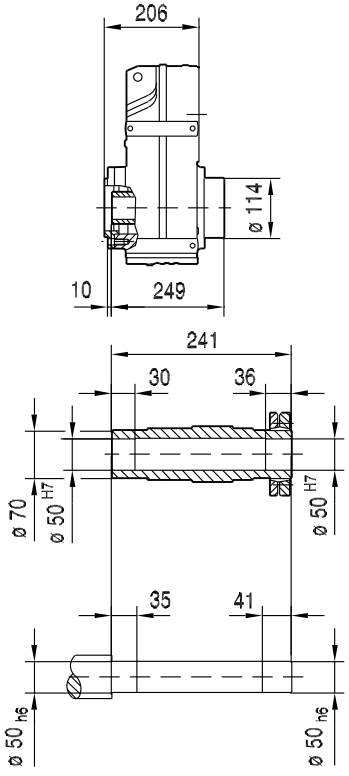
42 047 00 14



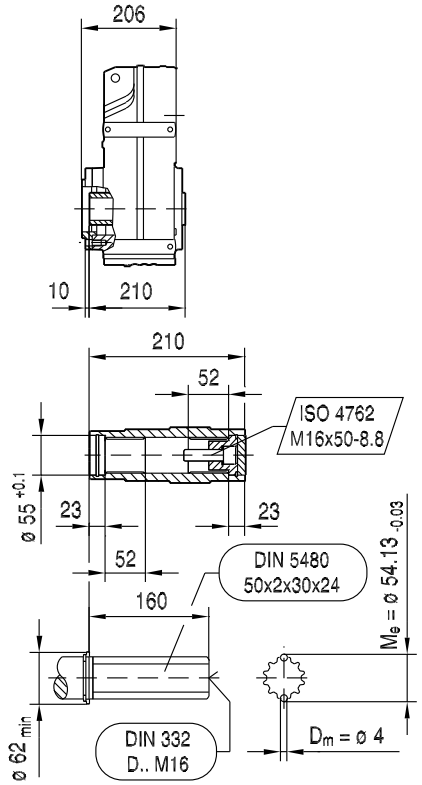
FAZ77..



FHZ77..
max. DRN132L



FVZ77..

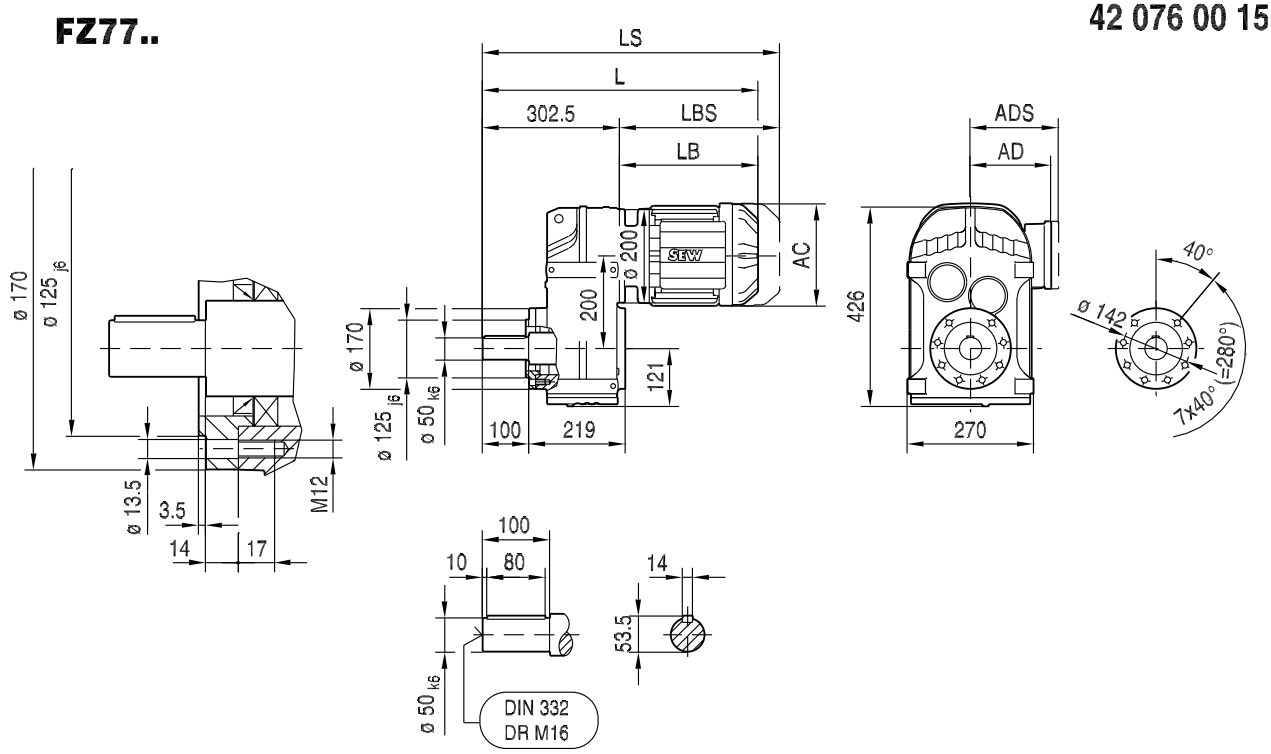


(→ 155)	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M
AC	156	179	179	197	197	221	221	261	261	314
AD	128	140	140	157	157	170	170	228	228	253
ADS	139	150	150	158	158	172	172	228	228	253
L	474	476	508	504	554	585	635	653	679	745
LS	555	569	601	598	648	697	747	791	816	934
LB	268	270	302	298	348	379	429	447	473	539
LBS	349	363	395	392	442	491	541	585	610	728

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FZ77..

42 076 00 15

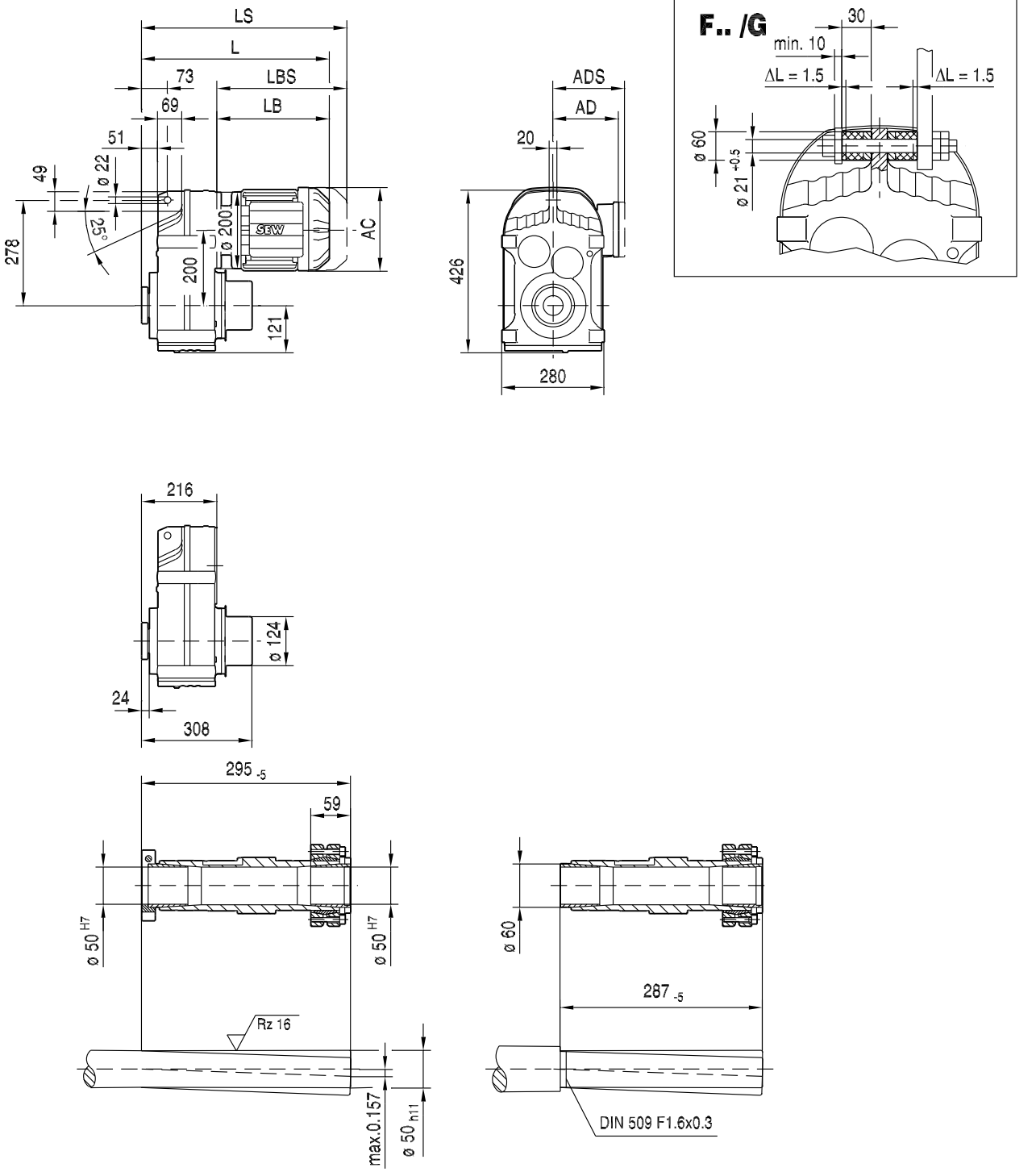


(→ 🗎 155)	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M
AC	156	179	179	197	197	221	221	261	261	314
AD	128	140	140	157	157	170	170	228	228	253
ADS	139	150	150	158	158	172	172	228	228	253
L	571	572	604	601	651	682	732	750	775	842
LS	652	666	698	694	744	794	844	887	912	1031
LB	268	270	302	298	348	379	429	447	473	539
LBS	349	363	395	392	442	491	541	585	610	728

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FT77..

42 048 00 14

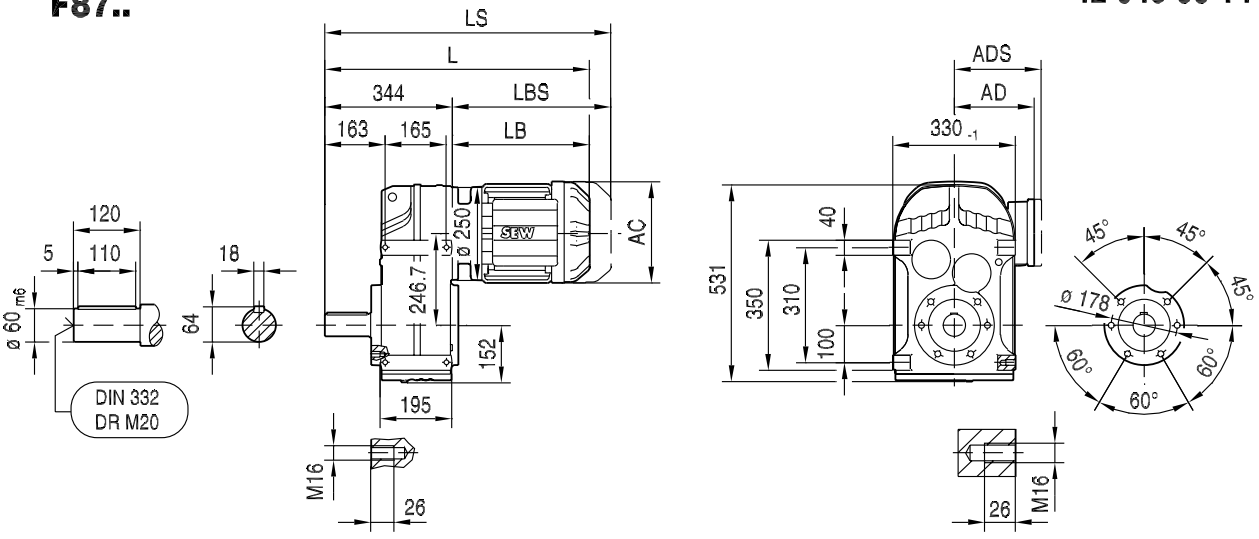


(→ 155)	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L
AC	139	139	156	179	179	197	197	221	221	261	261
AD	119	119	128	140	140	157	157	170	170	228	228
ADS	129	129	139	150	150	158	158	172	172	228	228
L	405	430	484	486	518	514	564	595	645	663	689
LS	473	498	565	579	611	608	658	707	757	801	826
LB	189	214	268	270	302	298	348	379	429	447	473
LBS	257	282	349	363	395	392	442	491	541	585	610

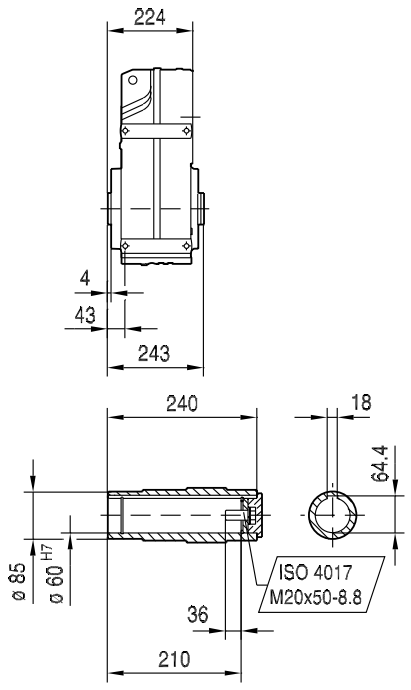
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F87..

42 049 00 14

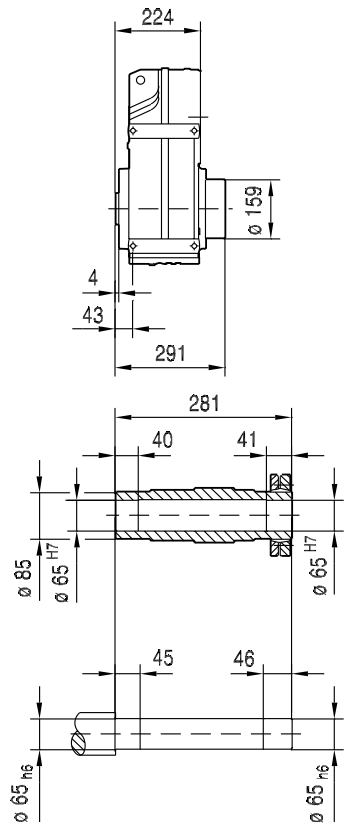


FA87B..

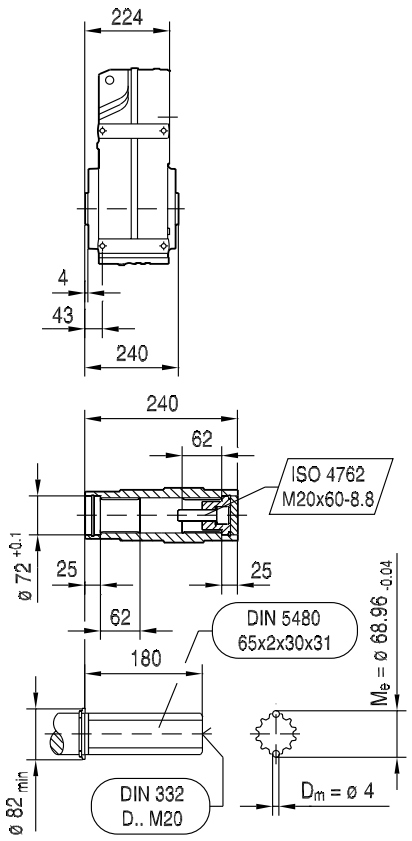


FH87B..

FH87B/R.. → 6.3



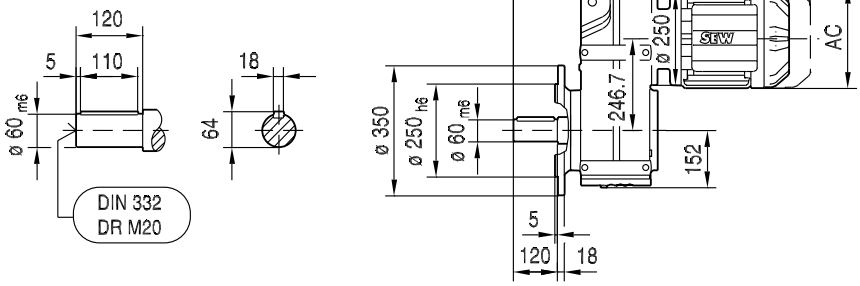
FV87B..



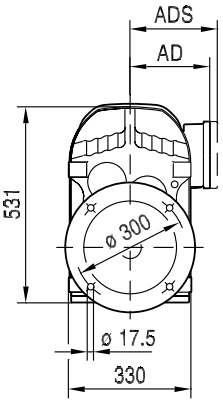
(→ 155)	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	179	197	197	221	221	261	261	314	314	357
AD	140	157	157	170	170	228	228	253	253	268
ADS	150	158	158	172	172	228	228	253	253	268
L	641	637	687	718	768	786	812	878	878	901
LS	734	731	781	830	880	924	949	1067	1067	1090
LB	297	293	343	374	424	442	468	534	534	557
LBS	390	387	437	486	536	580	605	723	723	746

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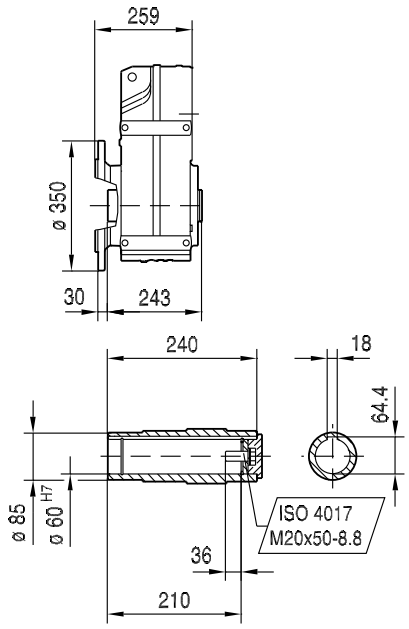
FF87..



42 050 00 14

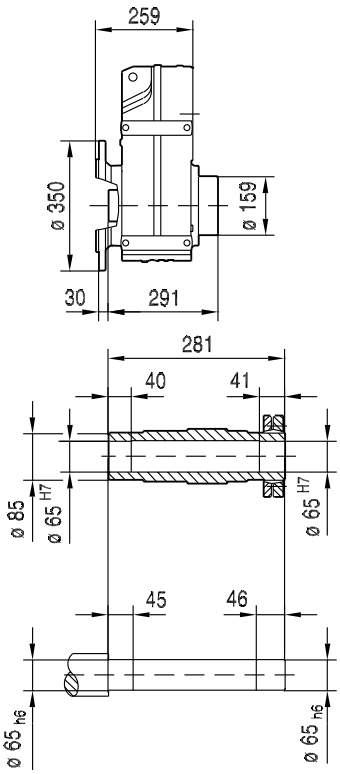


FAF87..

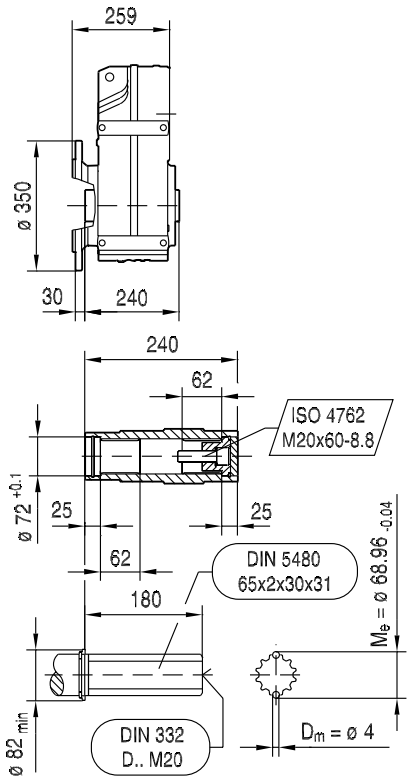


FHF87..

FHF87/R.. → 6.3



FVF87..

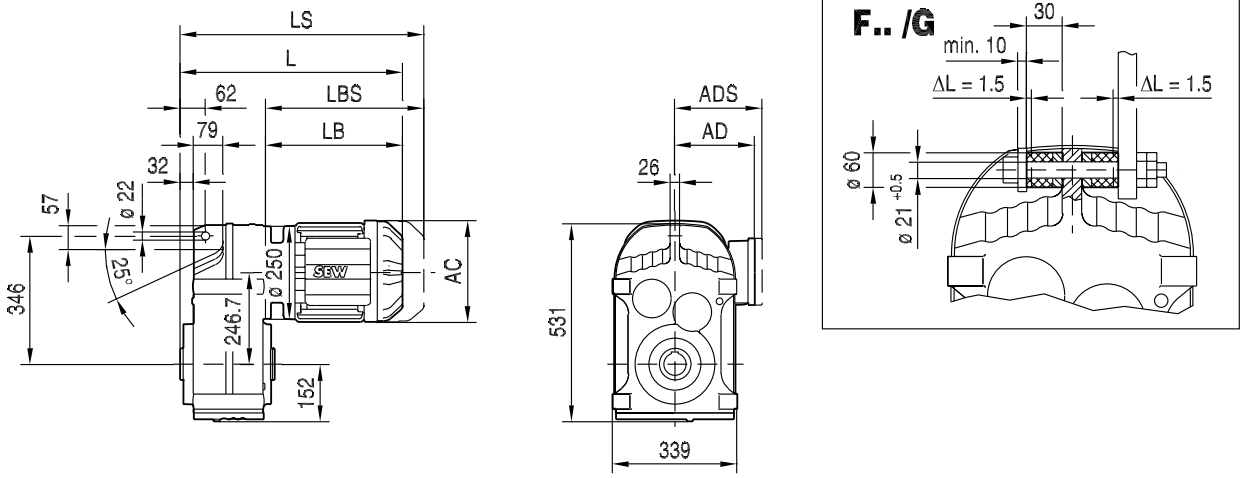


(→ 155)	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	179	197	197	221	221	261	261	314	314	357
AD	140	157	157	170	170	228	228	253	253	268
ADS	150	158	158	172	172	228	228	253	253	268
L	671	667	717	748	798	816	842	908	908	931
LS	764	761	811	860	910	954	979	1097	1097	1120
LB	297	293	343	374	424	442	468	534	534	557
LBS	390	387	437	486	536	580	605	723	723	746

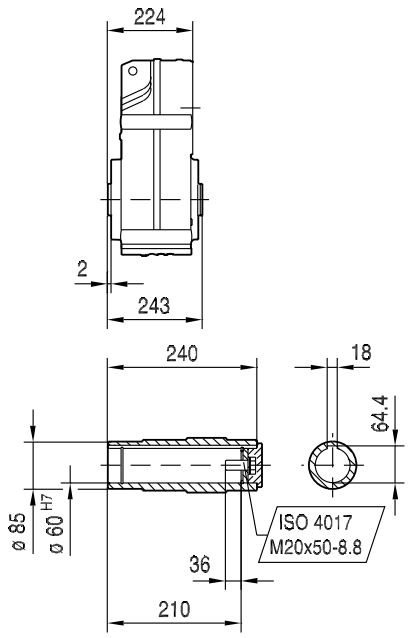
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FA87..

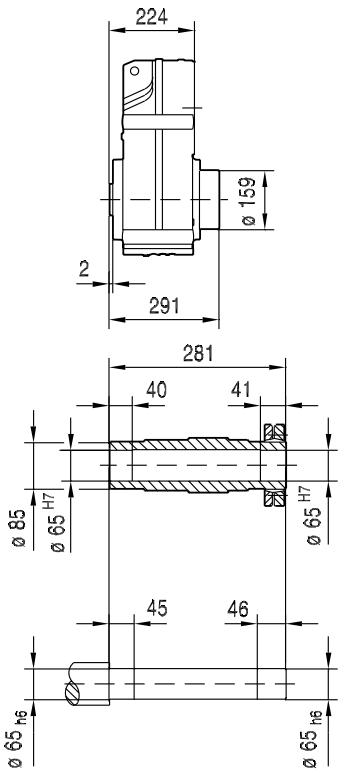
42 051 00 14



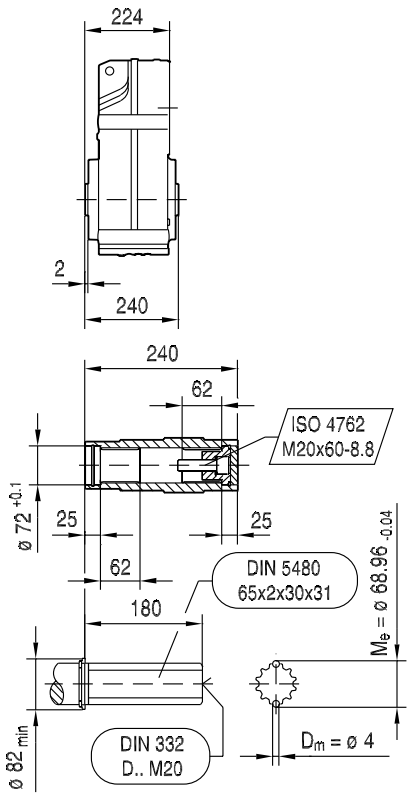
FA87..



FH87..
FH87/R.. → 📖 6.3



FV87..

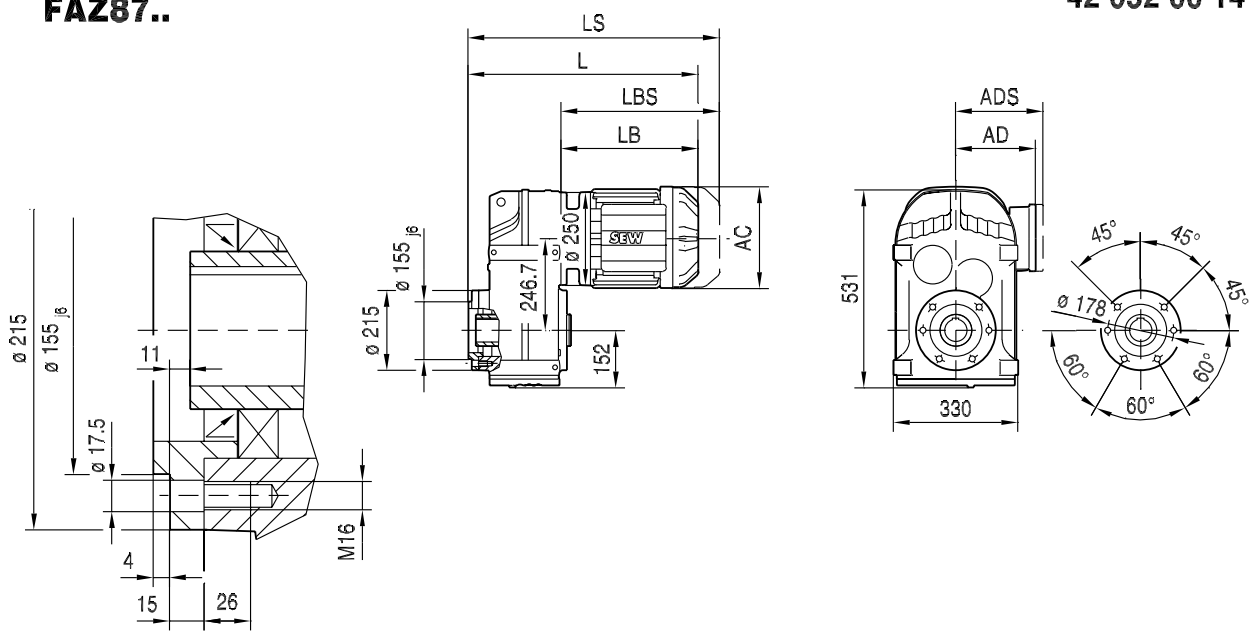


(→ 📄 155)	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	179	197	197	221	221	261	261	314	314	357
AD	140	157	157	170	170	228	228	253	253	268
ADS	150	158	158	172	172	228	228	253	253	268
L	521	517	567	598	648	666	692	758	758	781
LS	614	611	661	710	760	804	829	947	947	970
LB	297	293	343	374	424	442	468	534	534	557
LBS	390	387	437	486	536	580	605	723	723	746

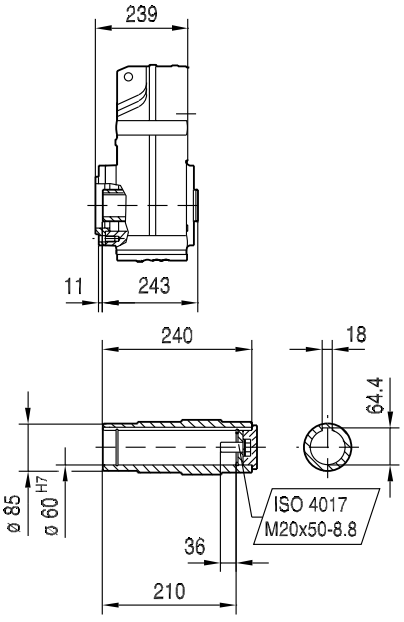
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FAZ87..

42 052 00 14

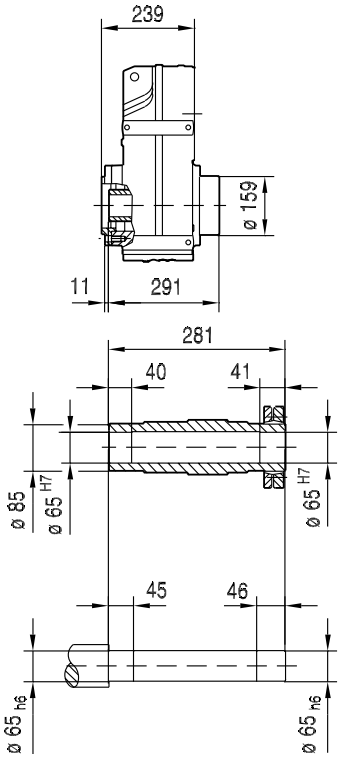


FAZ87..

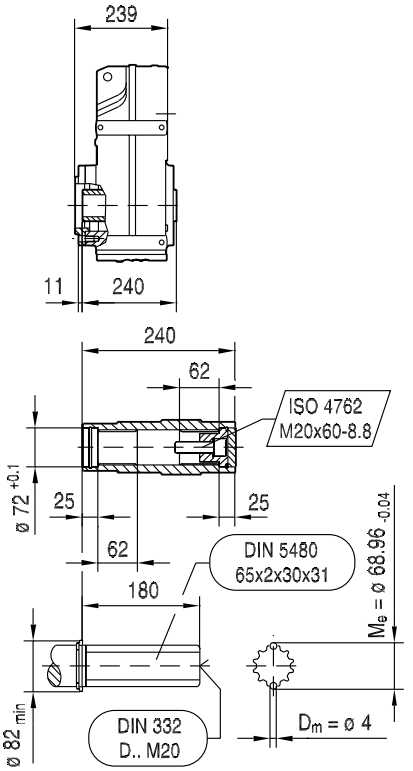


FHZ87..

FHZ87/R.. → 6.3



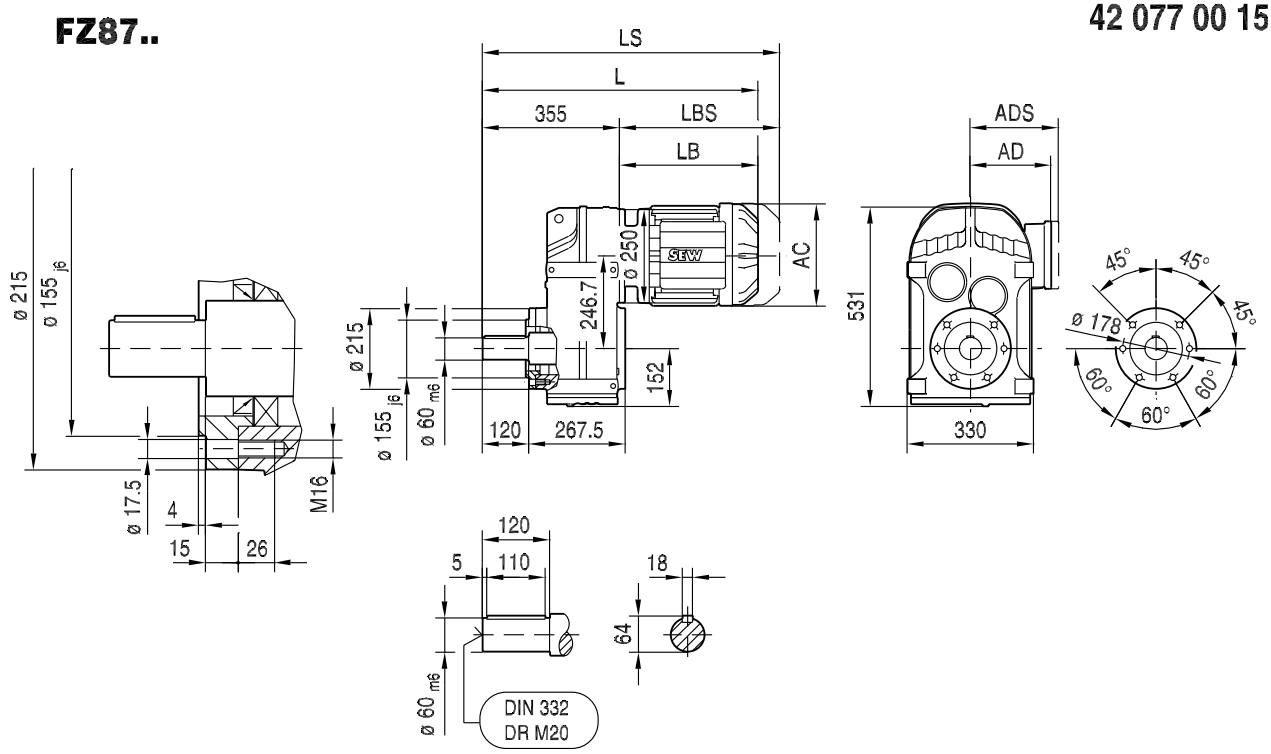
FVZ87..



(→ 155)	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	179	197	197	221	221	261	261	314	314	357
AD	140	157	157	170	170	228	228	253	253	268
ADS	150	158	158	172	172	228	228	253	253	268
L	536	532	582	613	663	681	707	773	773	796
LS	629	626	676	725	775	819	844	962	962	985
LB	297	293	343	374	424	442	468	534	534	557
LBS	390	387	437	486	536	580	605	723	723	746

FZ87..

42 077 00 15

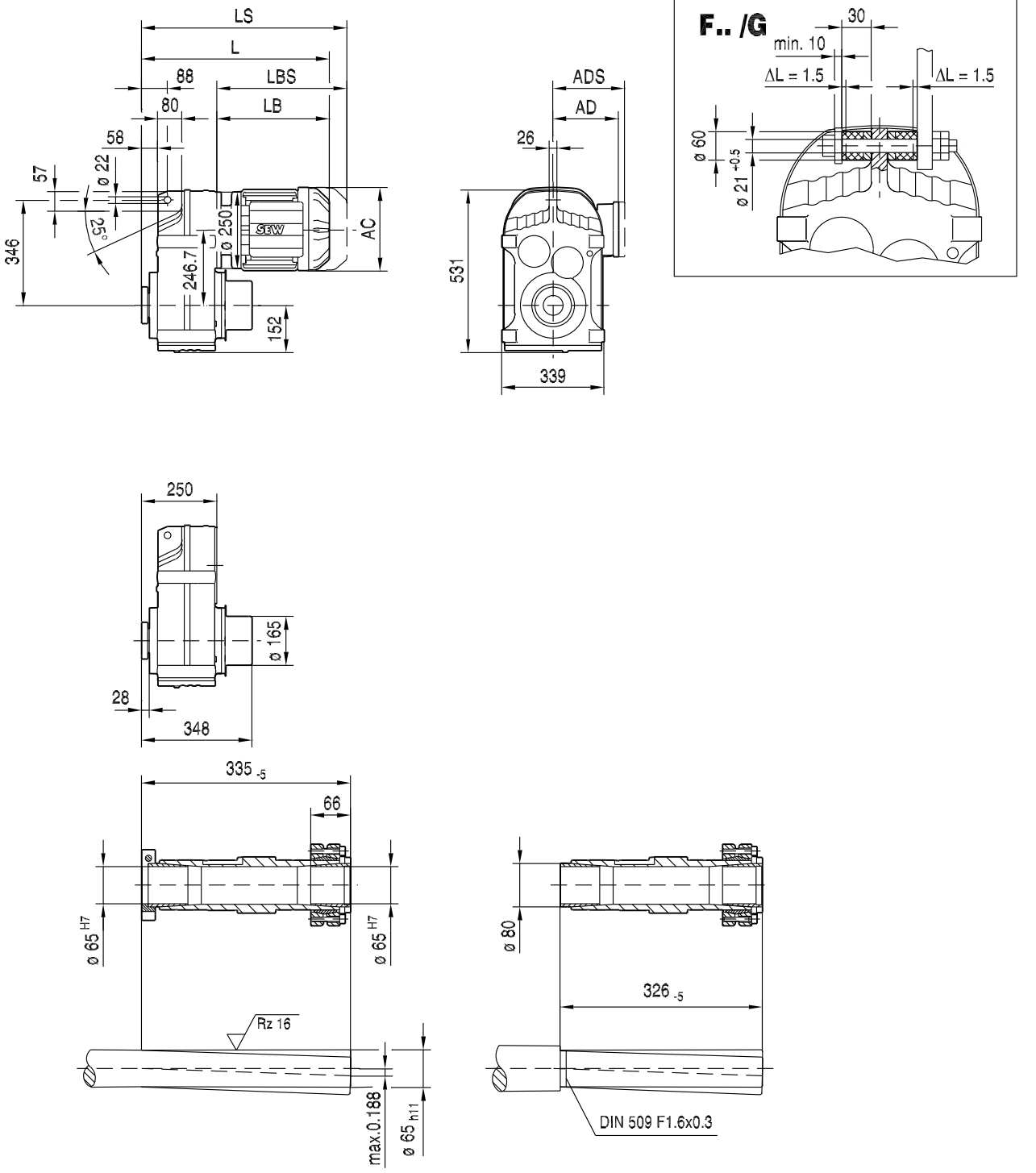


(→ 🗎 155)	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	179	197	197	221	221	261	261	314	314	357
AD	140	157	157	170	170	228	228	253	253	268
ADS	150	158	158	172	172	228	228	253	253	268
L	652	648	698	729	779	797	823	889	889	912
LS	745	742	792	841	891	935	960	1078	1078	1101
LB	297	293	343	374	424	442	468	534	534	557
LBS	390	387	437	486	536	580	605	723	723	746

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FT87..

42 053 00 14

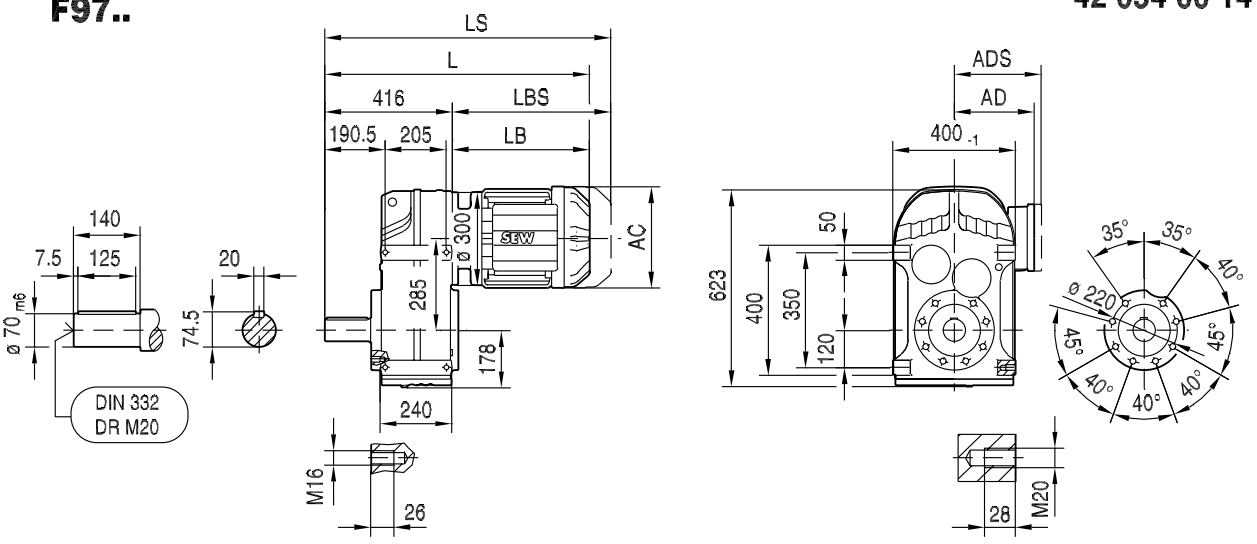


(→ 155)	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	179	197	197	221	221	261	261	314	314	357
AD	140	157	157	170	170	228	228	253	253	268
ADS	150	158	158	172	172	228	228	253	253	268
L	547	543	593	624	674	692	718	784	784	807
LS	640	637	687	736	786	830	855	973	973	996
LB	297	293	343	374	424	442	468	534	534	557
LBS	390	387	437	486	536	580	605	723	723	746

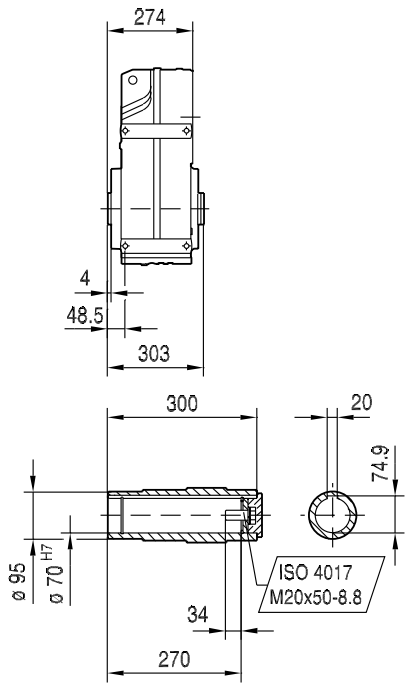
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F97..

42 054 00 14

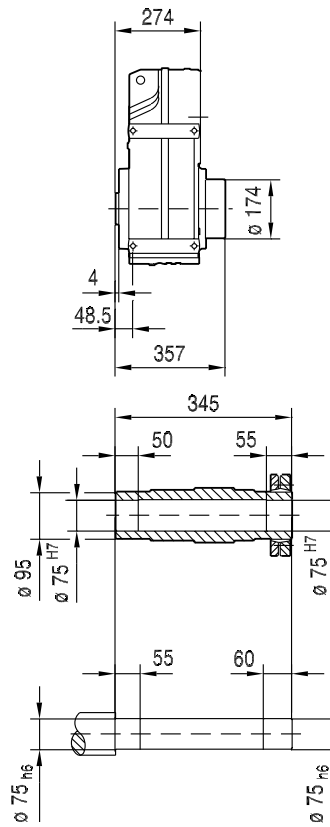


FA97B..

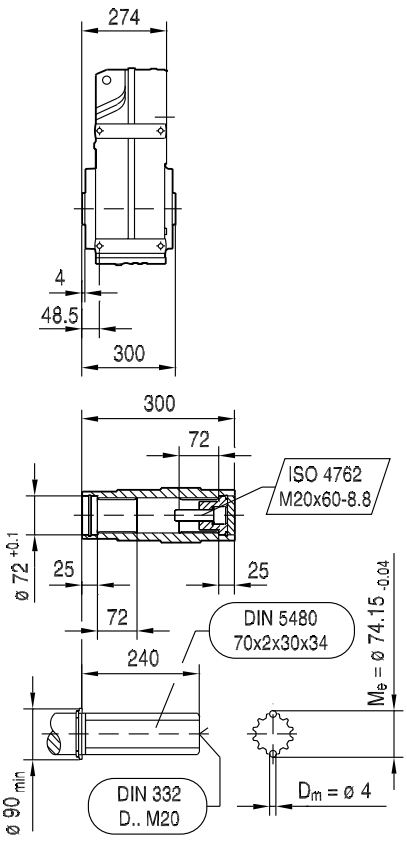


FH97B..

FH97B/R.. → 6.3



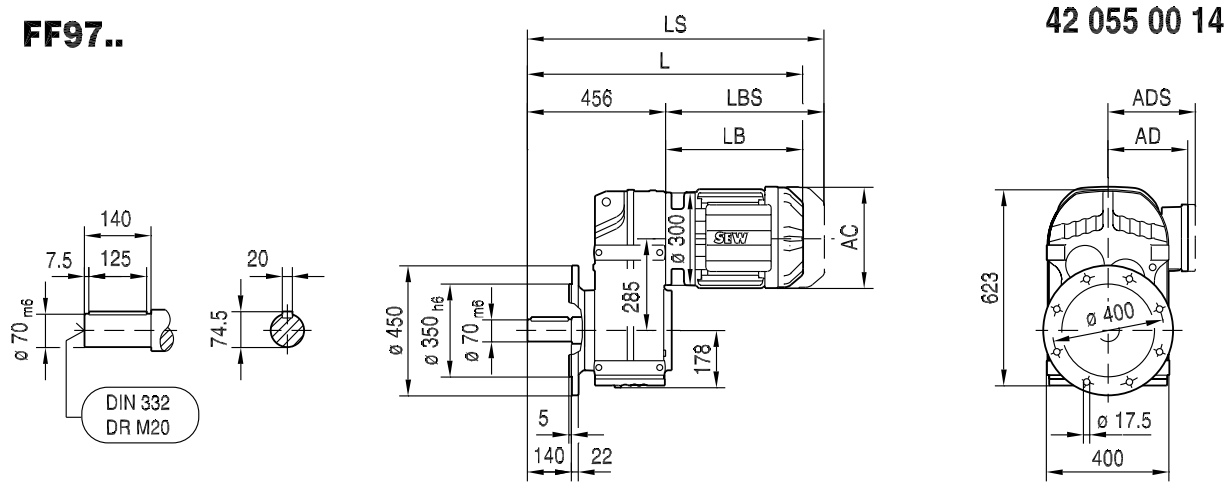
FV97B..



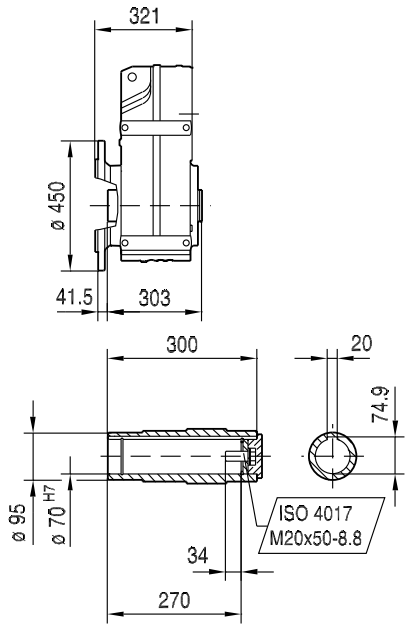
(→ 155)	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L
AC	197	197	221	221	261	261	314	314	357	394
AD	157	157	170	170	228	228	253	253	268	283
ADS	158	158	172	172	228	228	253	253	268	283
L	704	754	785	835	853	879	945	945	968	1078
LS	798	848	897	947	991	1016	1134	1134	1157	1283
LB	288	338	369	419	437	463	529	529	552	662
LBS	382	432	481	531	575	600	718	718	741	867

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FF97..

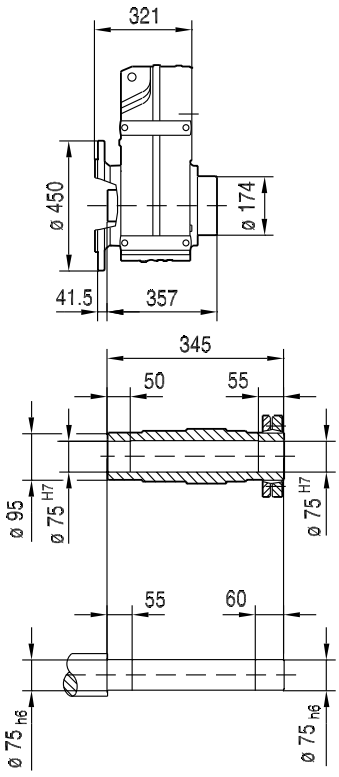


FAF97..

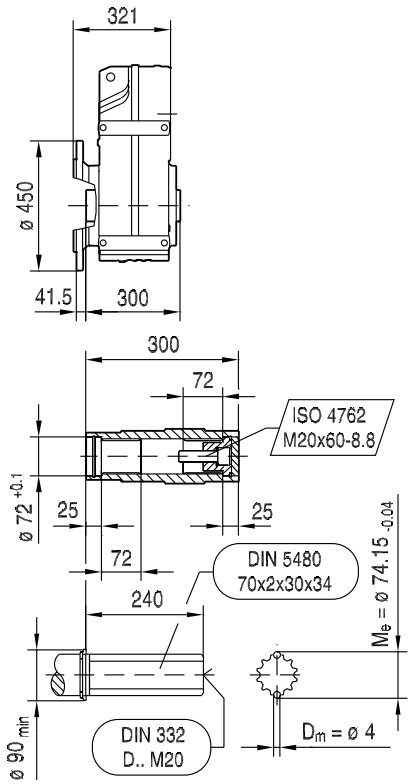


FHF97..

FHF97/R.. → 6.3



FVF97..

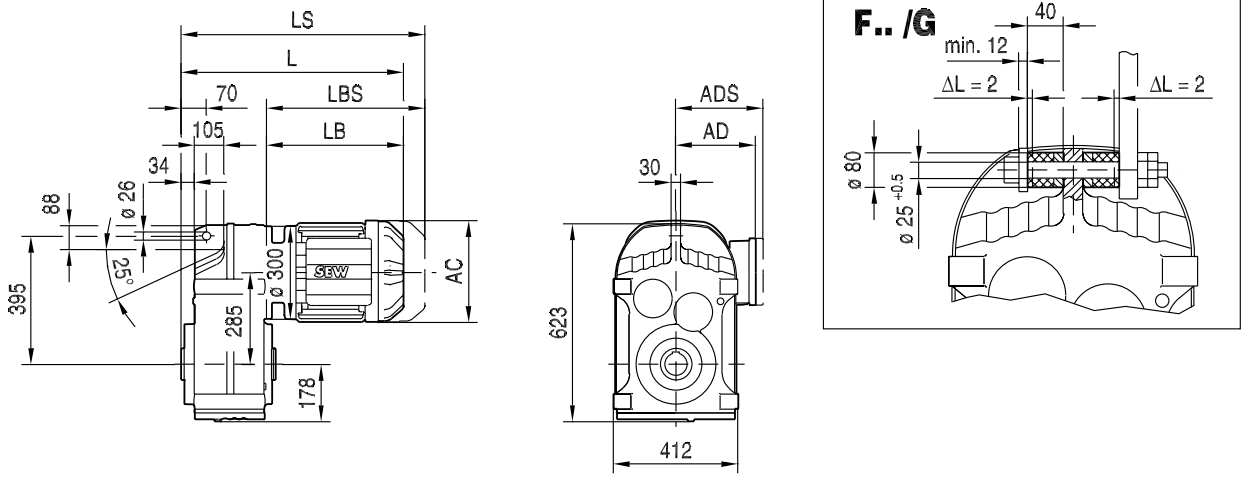


(→ 155)	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L
AC	197	197	221	221	261	261	314	314	357	394
AD	157	157	170	170	228	228	253	253	268	283
ADS	158	158	172	172	228	228	253	253	268	283
L	744	794	825	875	893	919	985	985	1008	1118
LS	838	888	937	987	1031	1056	1174	1174	1197	1323
LB	288	338	369	419	437	463	529	529	552	662
LBS	382	432	481	531	575	600	718	718	741	867

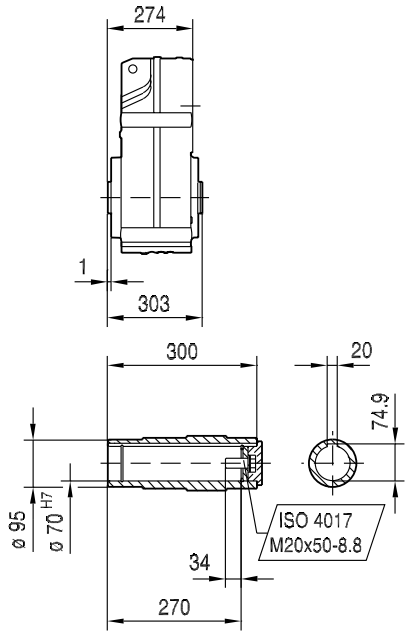
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FA97..

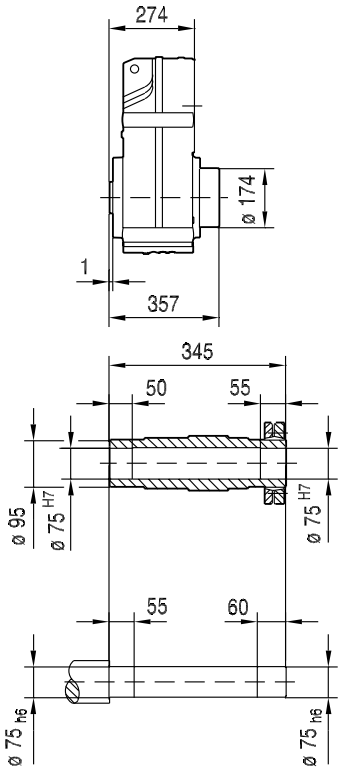
42 056 00 14



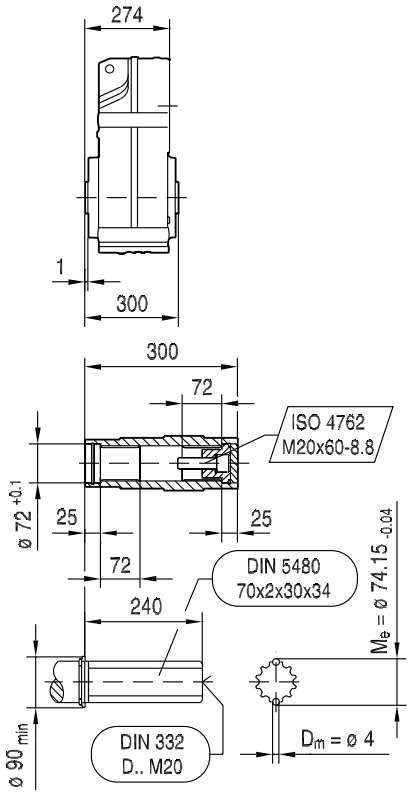
FA97..



FH97..
FH97/R.. → 6.3



FV97..

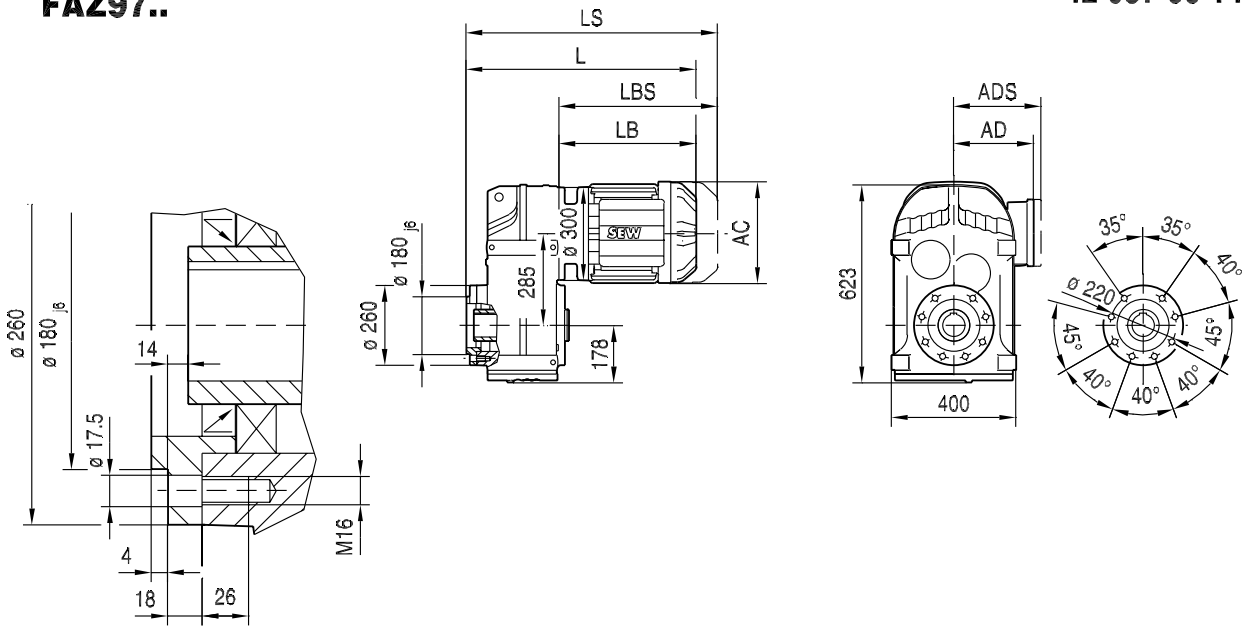


(→ 155)	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L
AC	197	197	221	221	261	261	314	314	357	394
AD	157	157	170	170	228	228	253	253	268	283
ADS	158	158	172	172	228	228	253	253	268	283
L	562	612	643	693	711	737	803	803	826	936
LS	656	706	755	805	849	874	992	992	1015	1141
LB	288	338	369	419	437	463	529	529	552	662
LBS	382	432	481	531	575	600	718	718	741	867

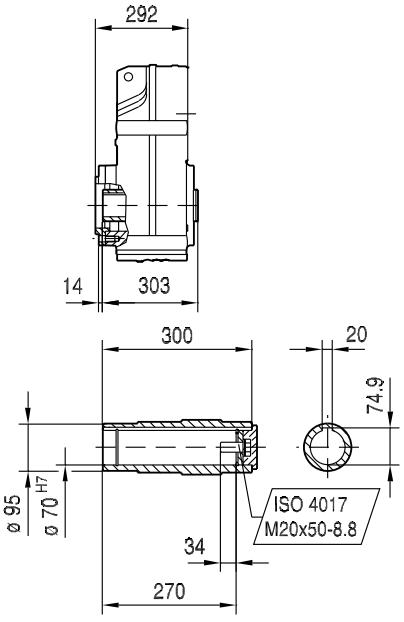
21933189/EN – 11/2015

FAZ97..

42 057 00 14

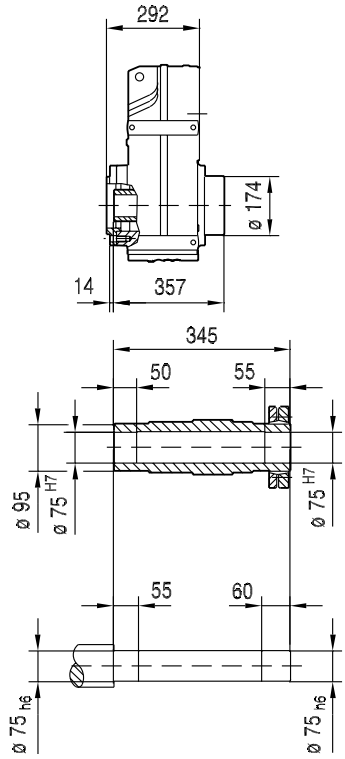


FAZ97..

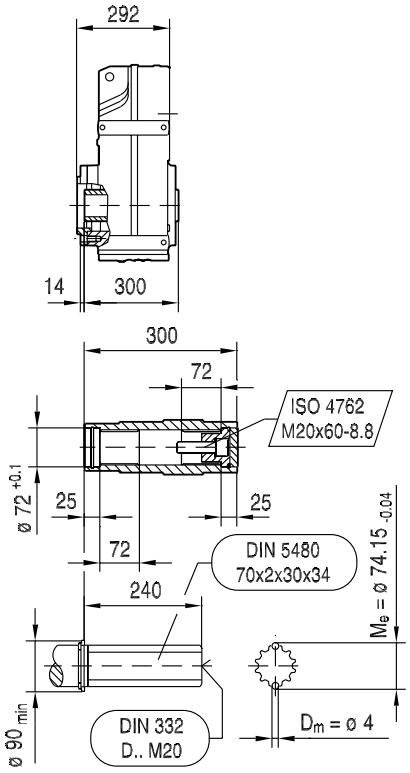


FHZ97..

FHZ97/R.. → 6.3



FVZ97..

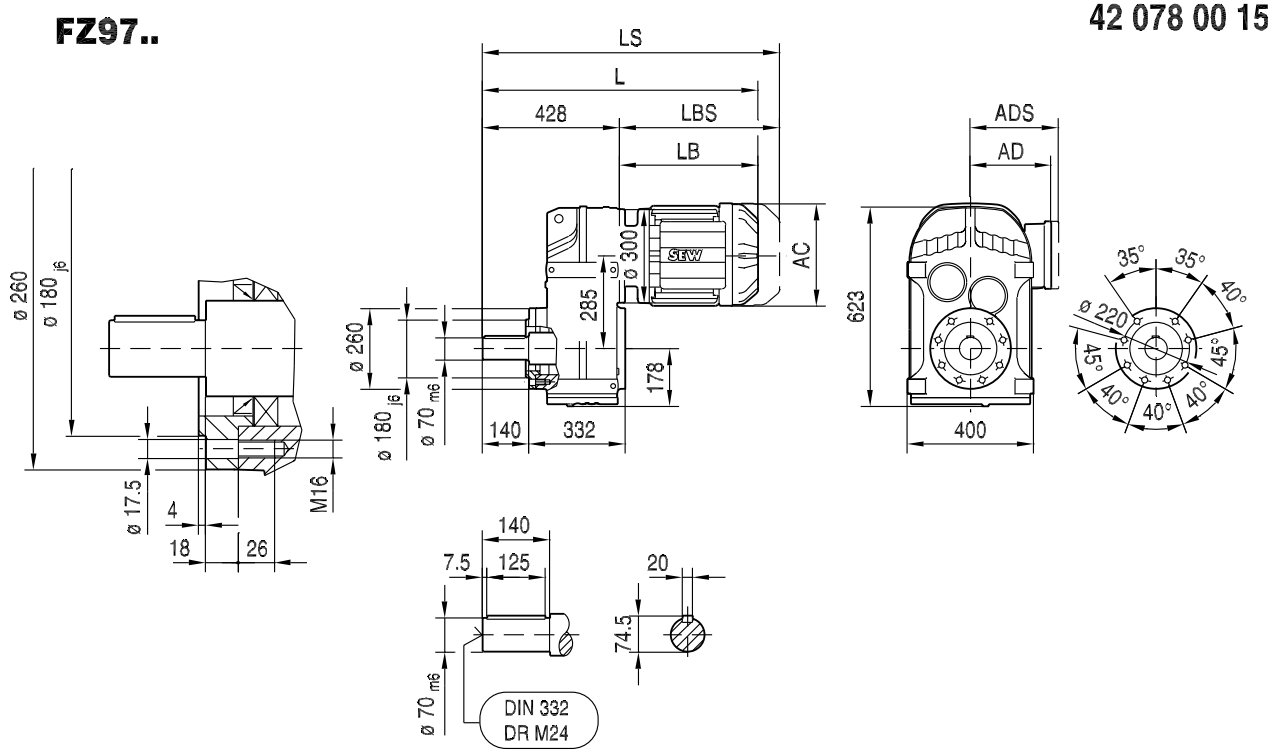


(→ 155)	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L
AC	197	197	221	221	261	261	314	314	357	394
AD	157	157	170	170	228	228	253	253	268	283
ADS	158	158	172	172	228	228	253	253	268	283
L	580	630	661	711	729	755	821	821	844	954
LS	674	724	773	823	867	892	1010	1010	1033	1159
LB	288	338	369	419	437	463	529	529	552	662
LBS	382	432	481	531	575	600	718	718	741	867

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FZ97..

42 078 00 15

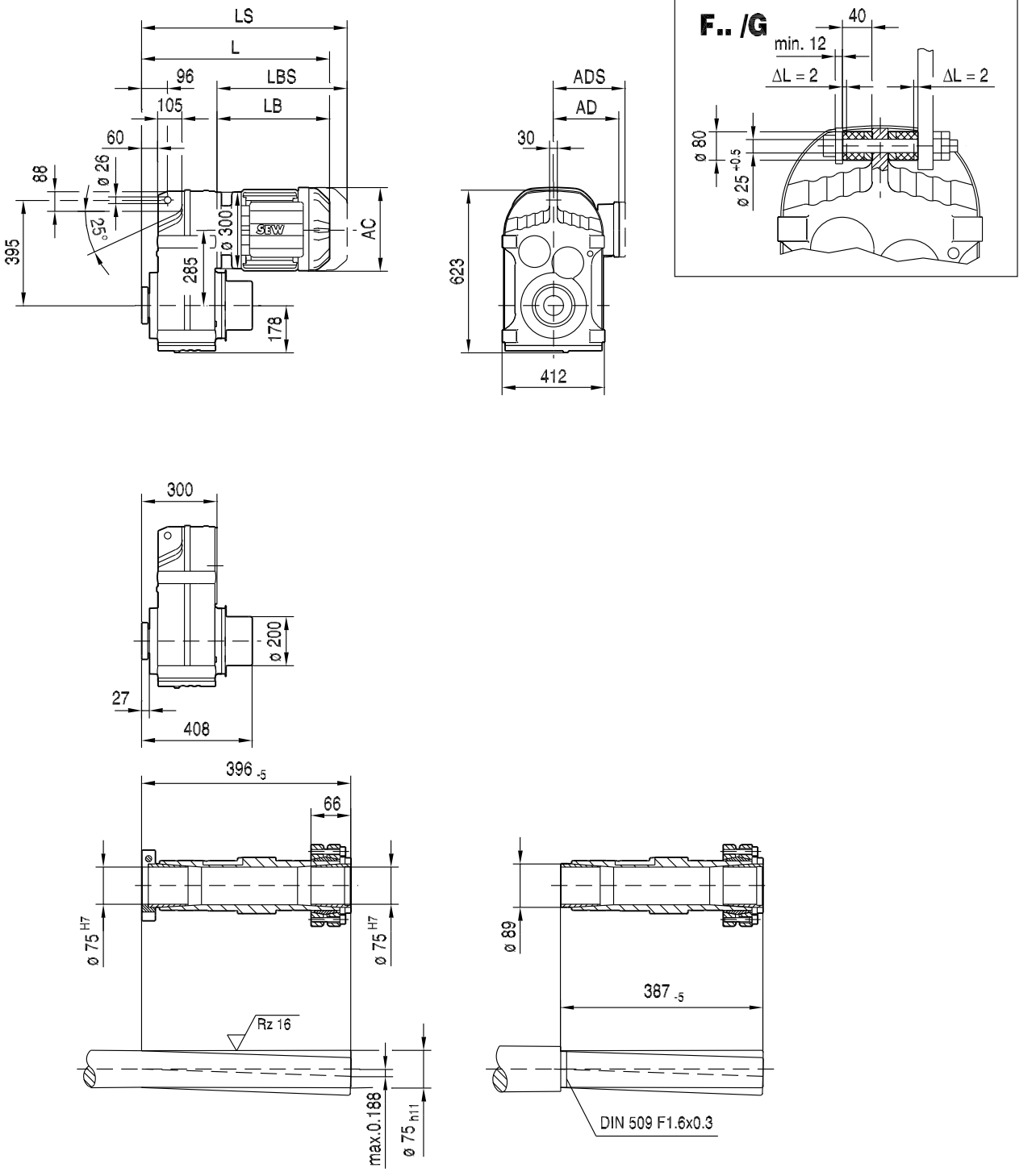


(→ 🗎 155)	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L
AC	197	197	221	221	261	261	314	314	357	394
AD	157	157	170	170	228	228	253	253	268	283
ADS	158	158	172	172	228	228	253	253	268	283
L	716	766	797	847	865	891	957	957	980	1090
LS	810	860	909	959	1003	1028	1146	1146	1169	1295
LB	288	338	369	419	437	463	529	529	552	662
LBS	382	432	481	531	575	600	718	718	741	867

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FT97..

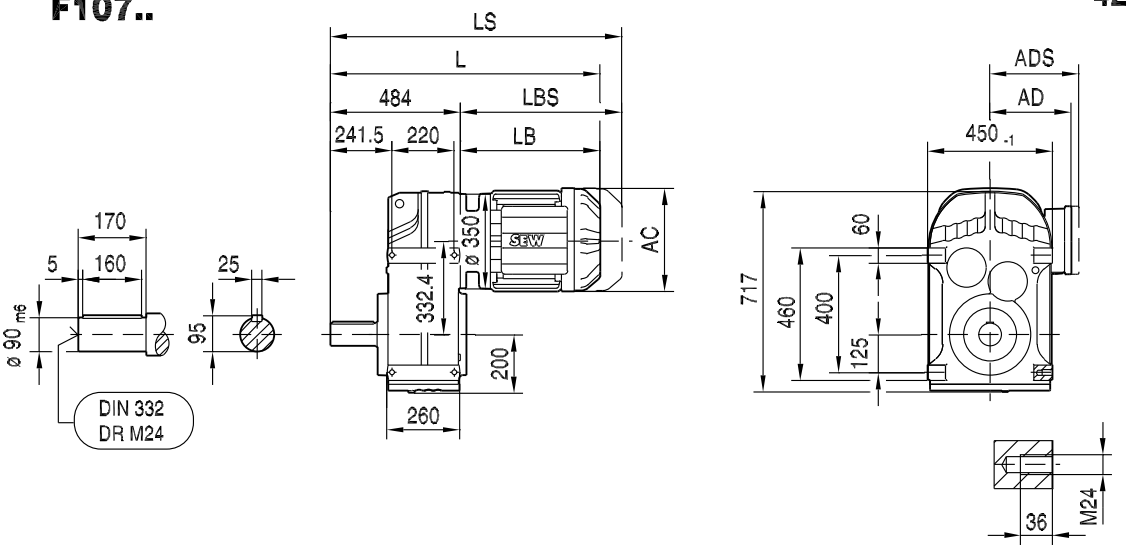
42 058 00 14



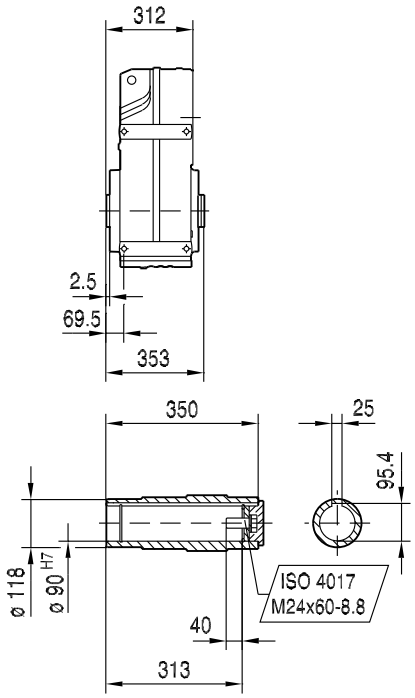
(→ 155)	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	179	197	197	221	221	261	261	314	314	357
AD	140	157	157	170	170	228	228	253	253	268
ADS	150	158	158	172	172	228	228	253	253	268
L	592	588	638	669	719	737	763	829	829	852
LS	685	682	732	781	831	875	900	1018	1018	1041
LB	292	288	338	369	419	437	463	529	529	552
LBS	385	382	432	481	531	575	600	718	718	741

F107..

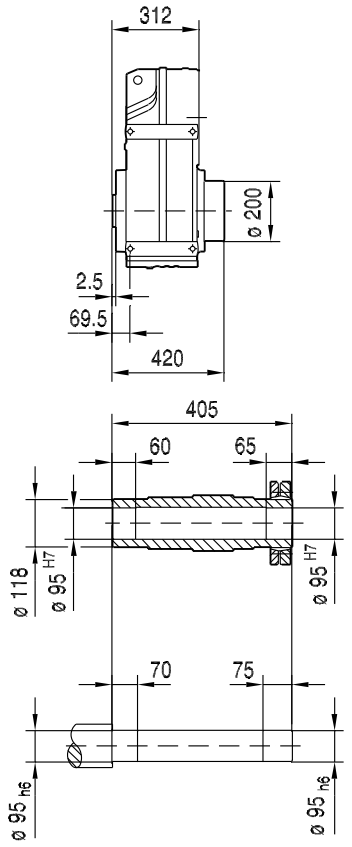
42 059 00 14



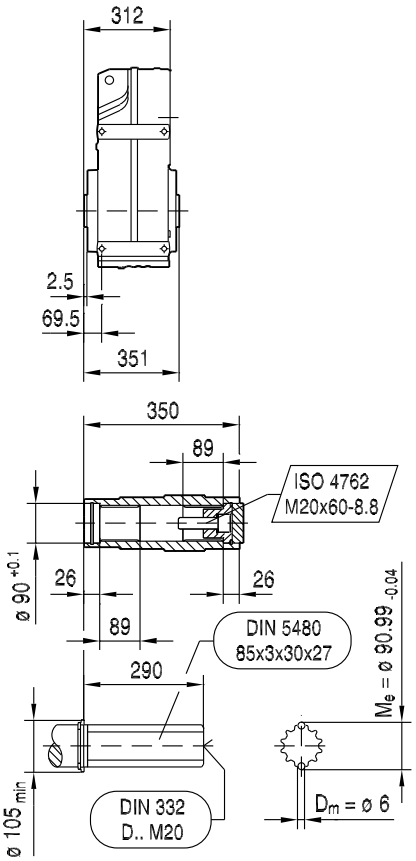
FA107B..



FH107B..



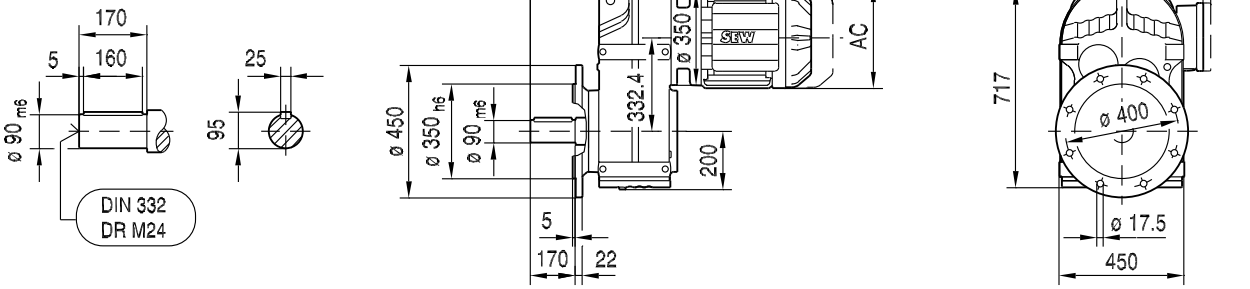
FV107B..



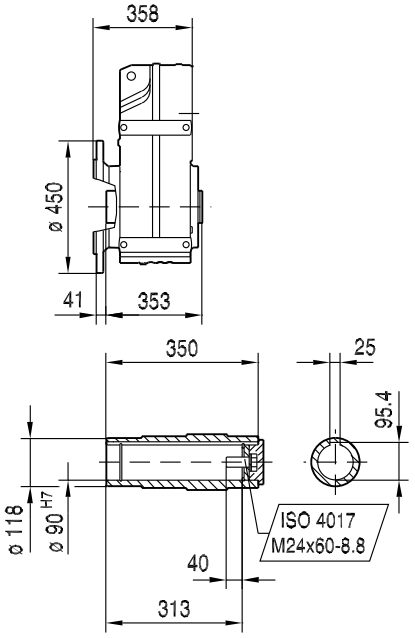
(→ 155)	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..
AC	197	221	221	261	261	314	314	357	394	434
AD	157	170	170	228	228	253	253	268	283	305
ADS	158	172	172	228	228	253	253	268	283	305
L	816	847	897	915	941	1007	1007	1030	1140	1114
LS	910	959	1009	1053	1078	1196	1196	1219	1345	1319
LB	332	363	413	431	457	523	523	546	656	630
LBS	426	475	525	569	594	712	712	735	861	835

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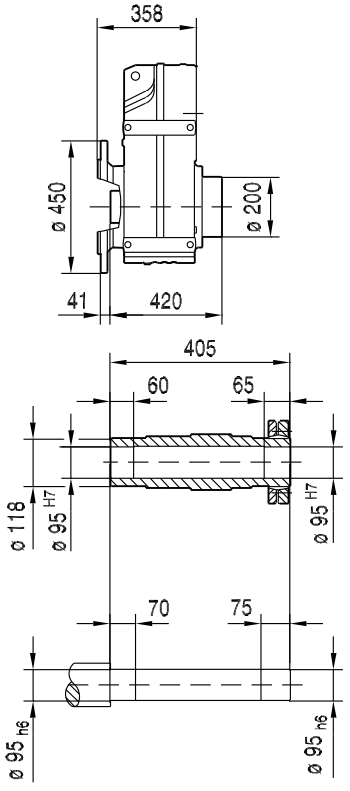
FF107..



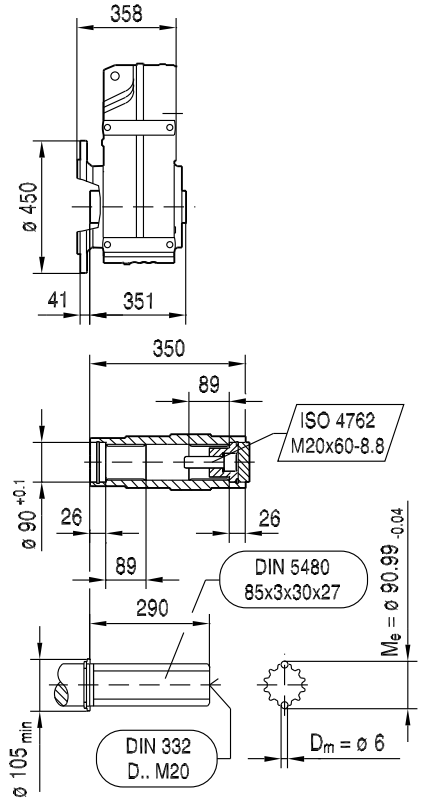
FAF107..



FHF107..



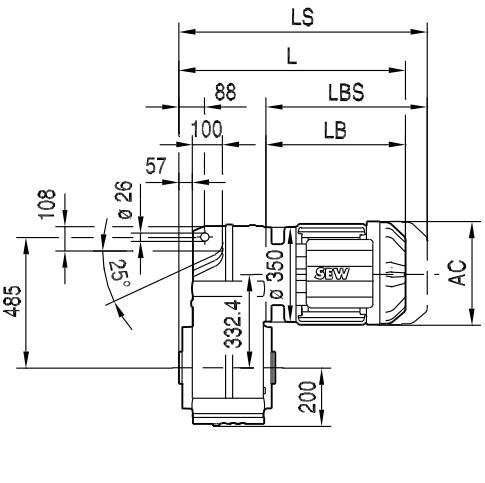
FVF107..

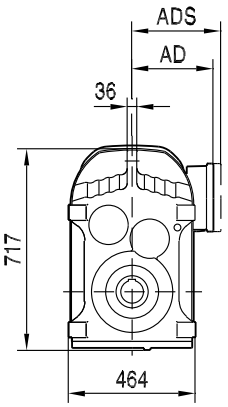


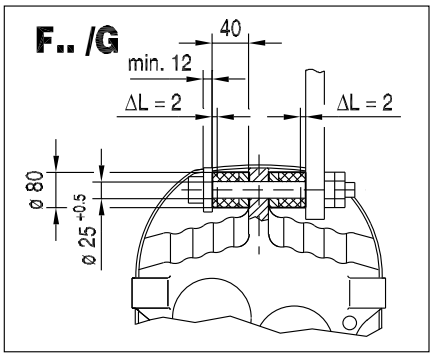
(→ 155)	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..
AC	197	221	221	261	261	314	314	357	394	434
AD	157	170	170	228	228	253	253	268	283	305
ADS	158	172	172	228	228	253	253	268	283	305
L	855	886	936	954	980	1046	1046	1069	1179	1153
LS	949	998	1048	1092	1117	1235	1235	1258	1384	1358
LB	332	363	413	431	457	523	523	546	656	630
LBS	426	475	525	569	594	712	712	735	861	835

FA107..

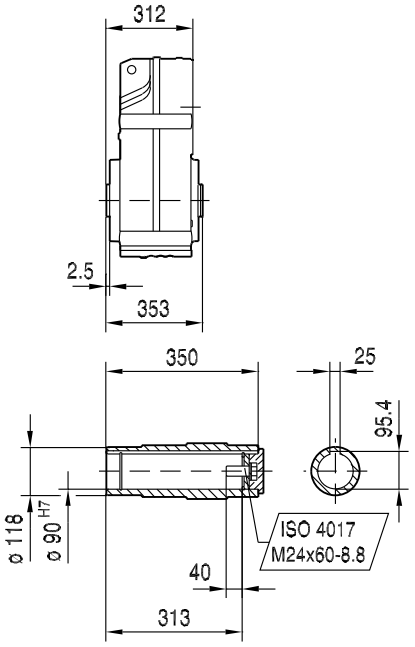
42 061 00 14



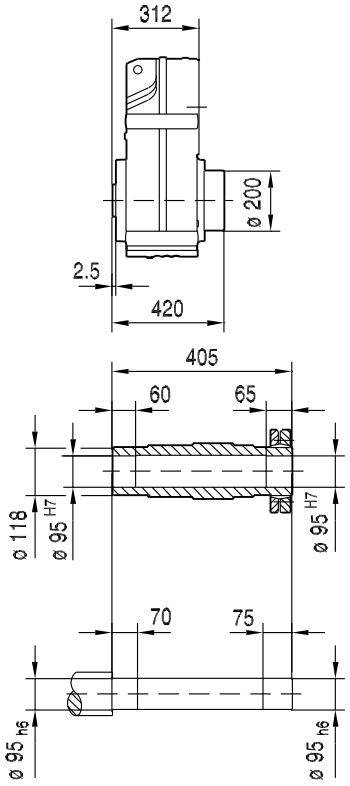




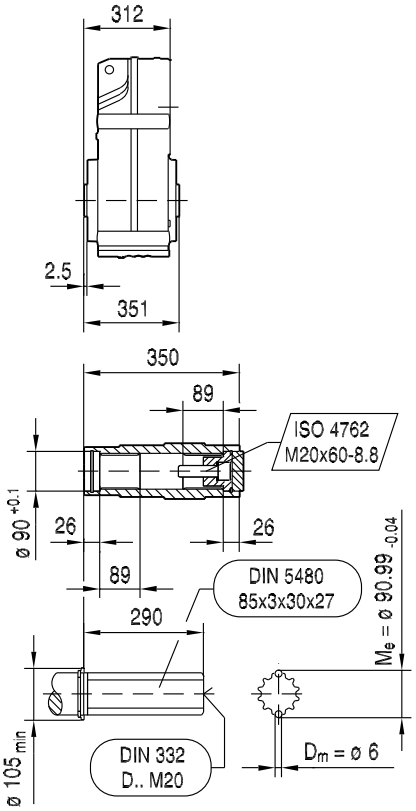
FA107..



FH107..



FV107..

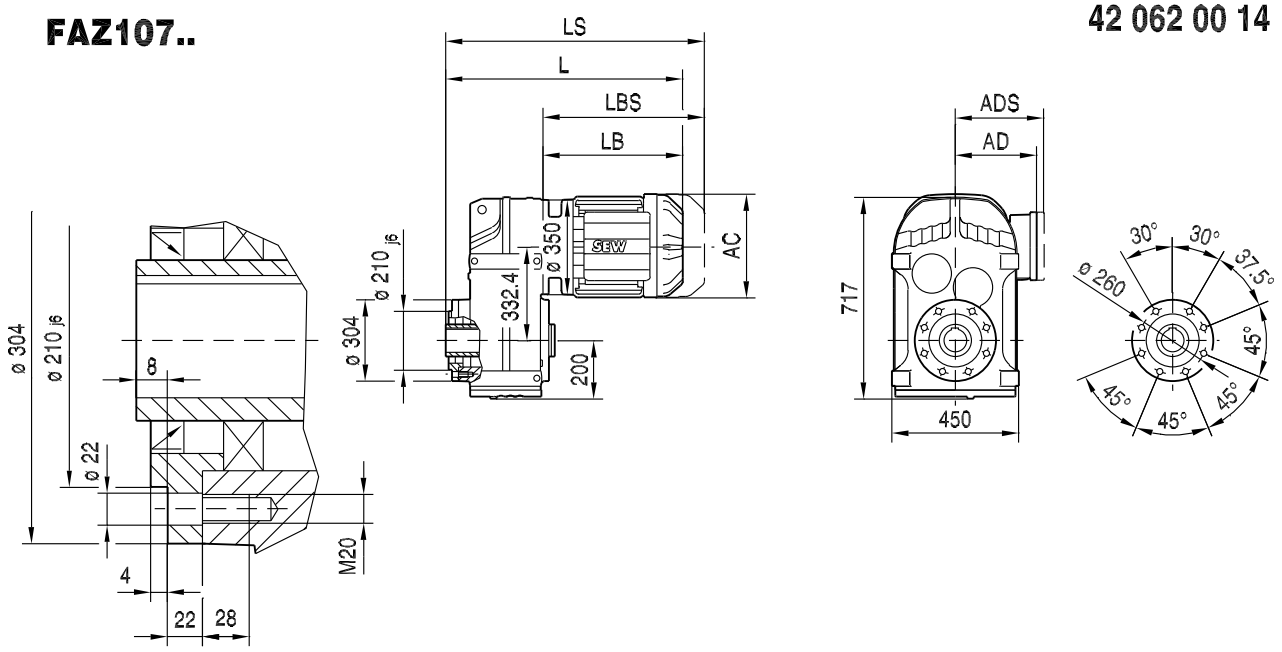


(→ 155)	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..
AC	197	221	221	261	261	314	314	357	394	434
AD	157	170	170	228	228	253	253	268	283	305
ADS	158	172	172	228	228	253	253	268	283	305
L	644	675	725	743	769	835	835	858	968	942
LS	738	787	837	881	906	1024	1024	1047	1173	1147
LB	332	363	413	431	457	523	523	546	656	630
LBS	426	475	525	569	594	712	712	735	861	835

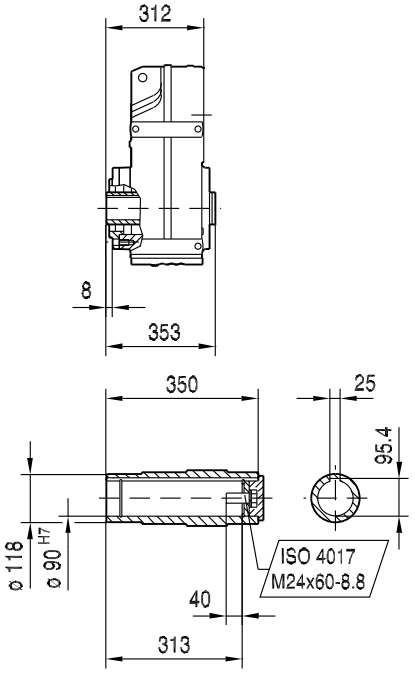
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FAZ107..

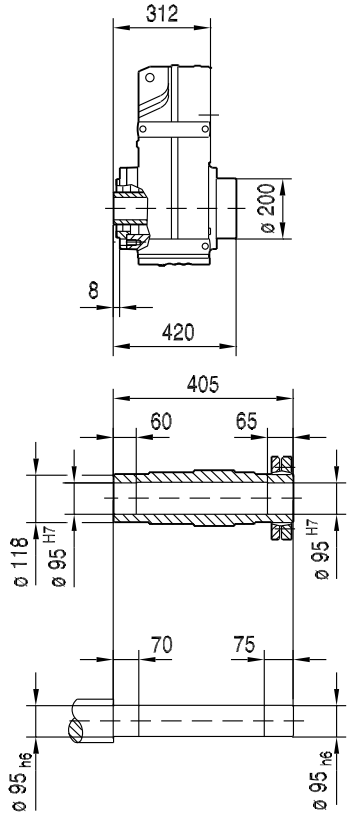
42 062 00 14



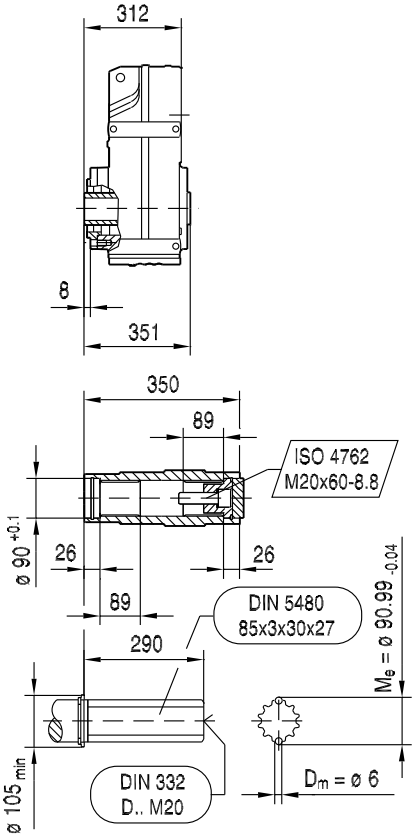
FAZ107..



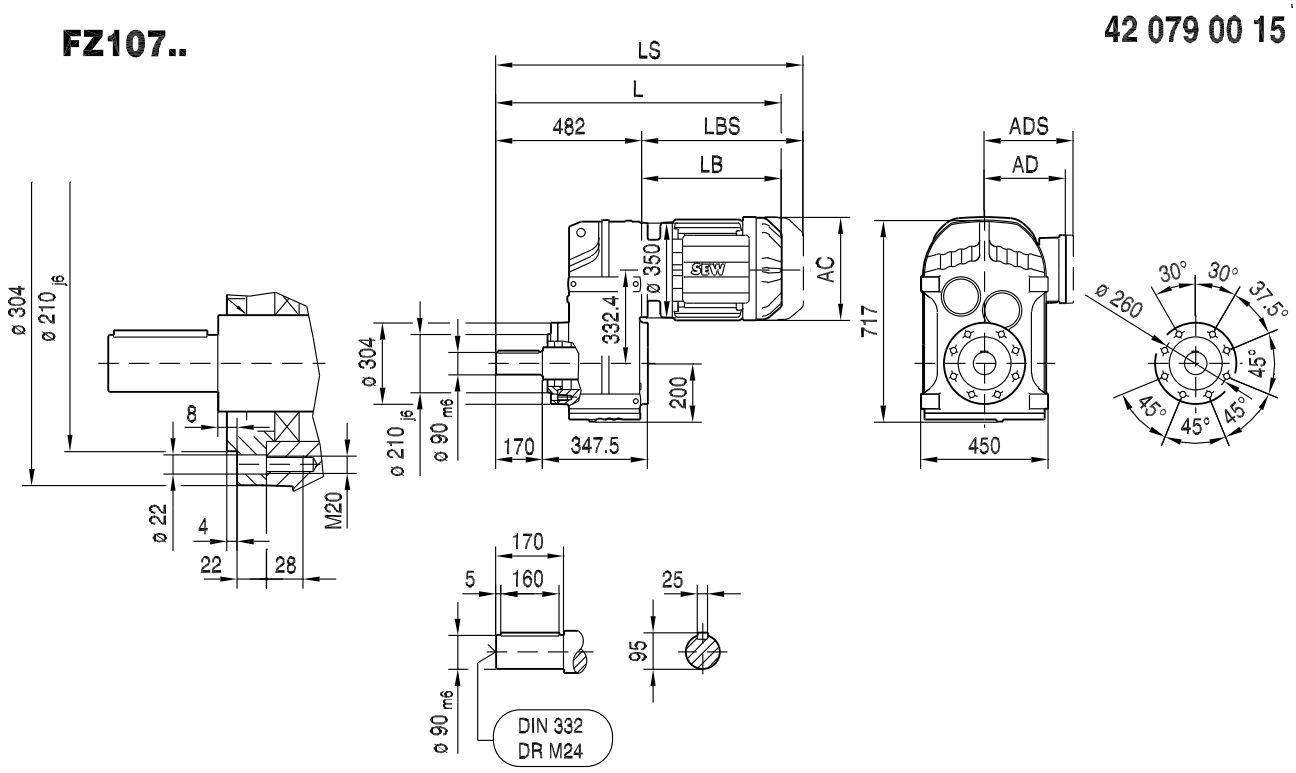
FHZ107..



FVZ107..



(→ 155)	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..
AC	197	221	221	261	261	314	314	357	394	434
AD	157	170	170	228	228	253	253	268	283	305
ADS	158	172	172	228	228	253	253	268	283	305
L	644	675	725	743	769	835	835	858	968	942
LS	738	787	837	881	906	1024	1024	1047	1173	1147
LB	332	363	413	431	457	523	523	546	656	630
LBS	426	475	525	569	594	712	712	735	861	835

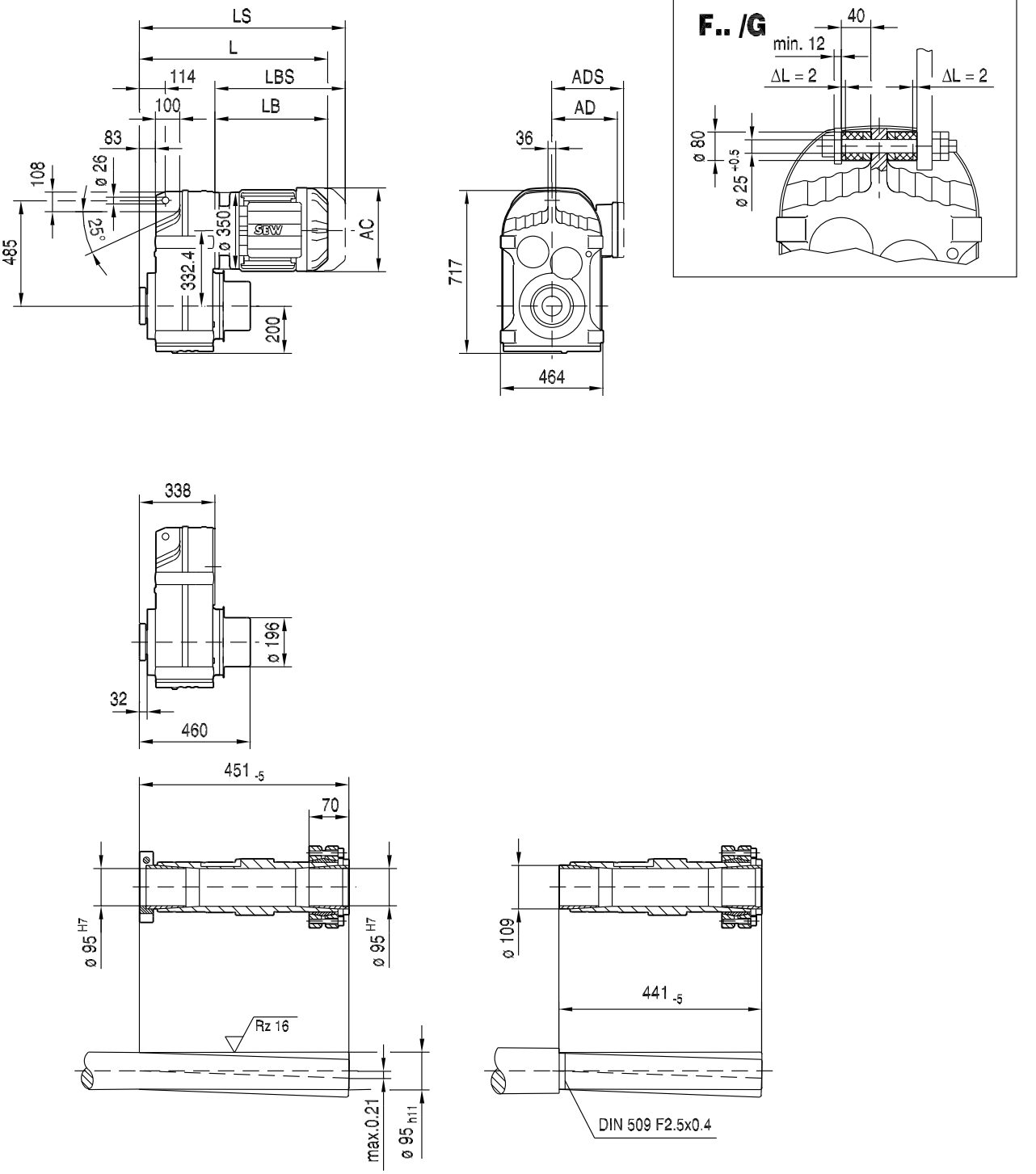


(→ 155)	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..
AC	197	221	221	261	261	314	314	357	394	434
AD	157	170	170	228	228	253	253	268	283	305
ADS	158	172	172	228	228	253	253	268	283	305
L	814	845	895	913	939	1005	1005	1028	1138	1112
LS	908	957	1007	1051	1076	1194	1194	1217	1343	1317
LB	332	363	413	431	457	523	523	546	656	630
LBS	426	475	525	569	594	712	712	735	861	835

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FT107..

42 063 00 14

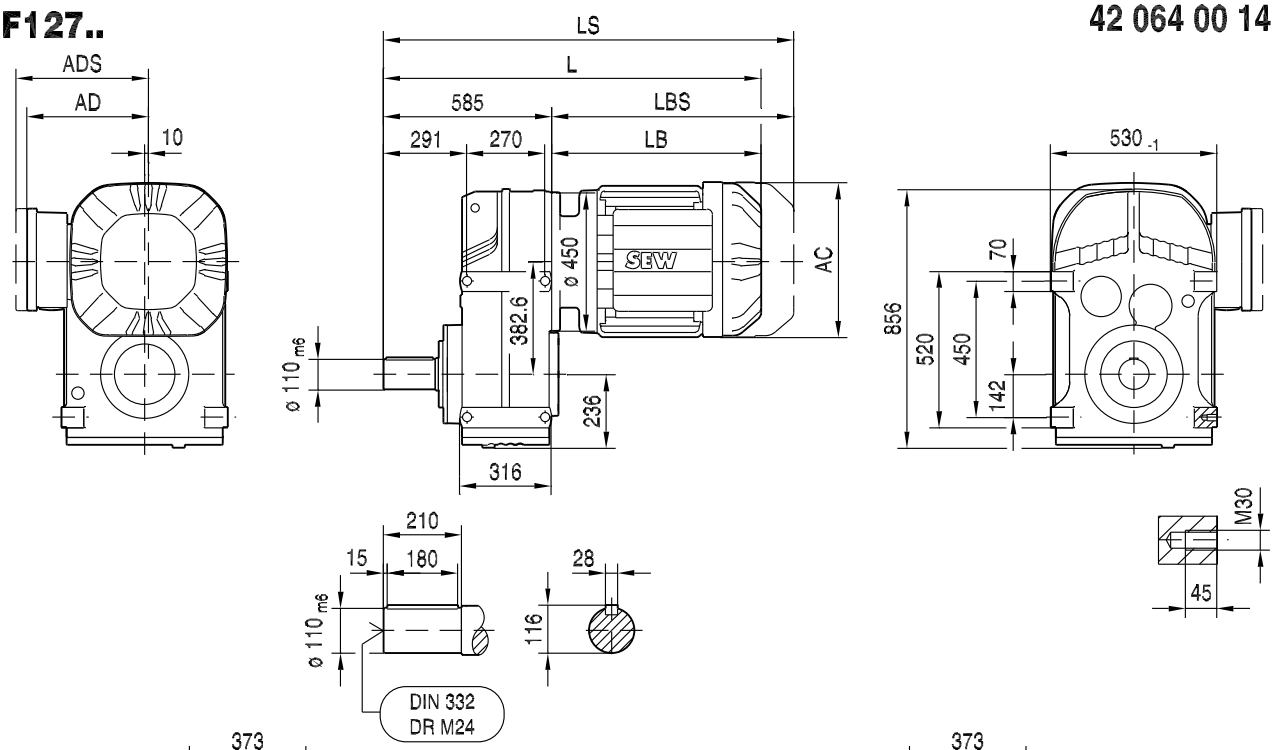


(→ 155)	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..
AC	197	221	221	261	261	314	314	357	394	434
AD	157	170	170	228	228	253	253	268	283	305
ADS	158	172	172	228	228	253	253	268	283	305
L	670	701	751	769	795	861	861	884	994	968
LS	764	813	863	907	932	1050	1050	1073	1199	1173
LB	332	363	413	431	457	523	523	546	656	630
LBS	426	475	525	569	594	712	712	735	861	835

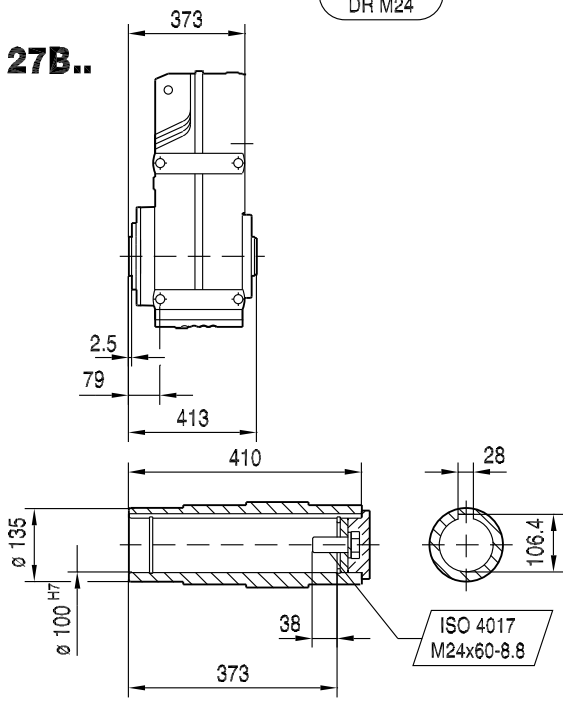
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F127..

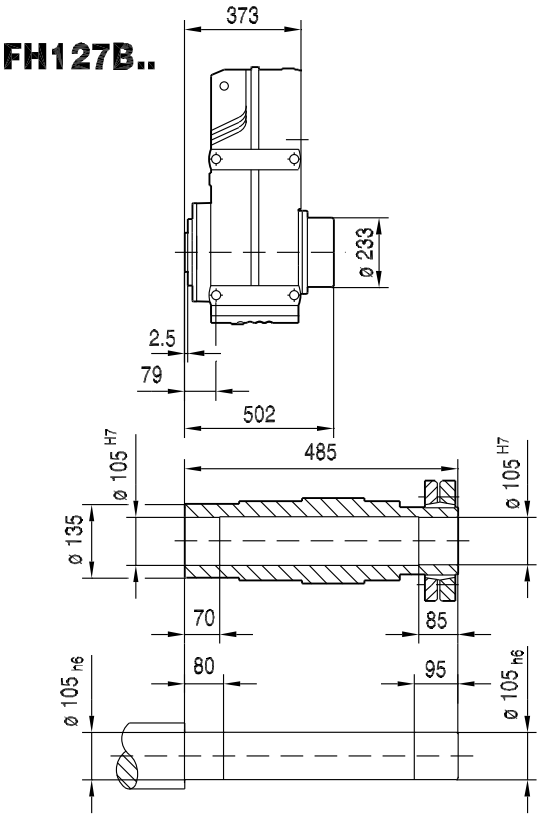
42 064 00 14



FA127B..

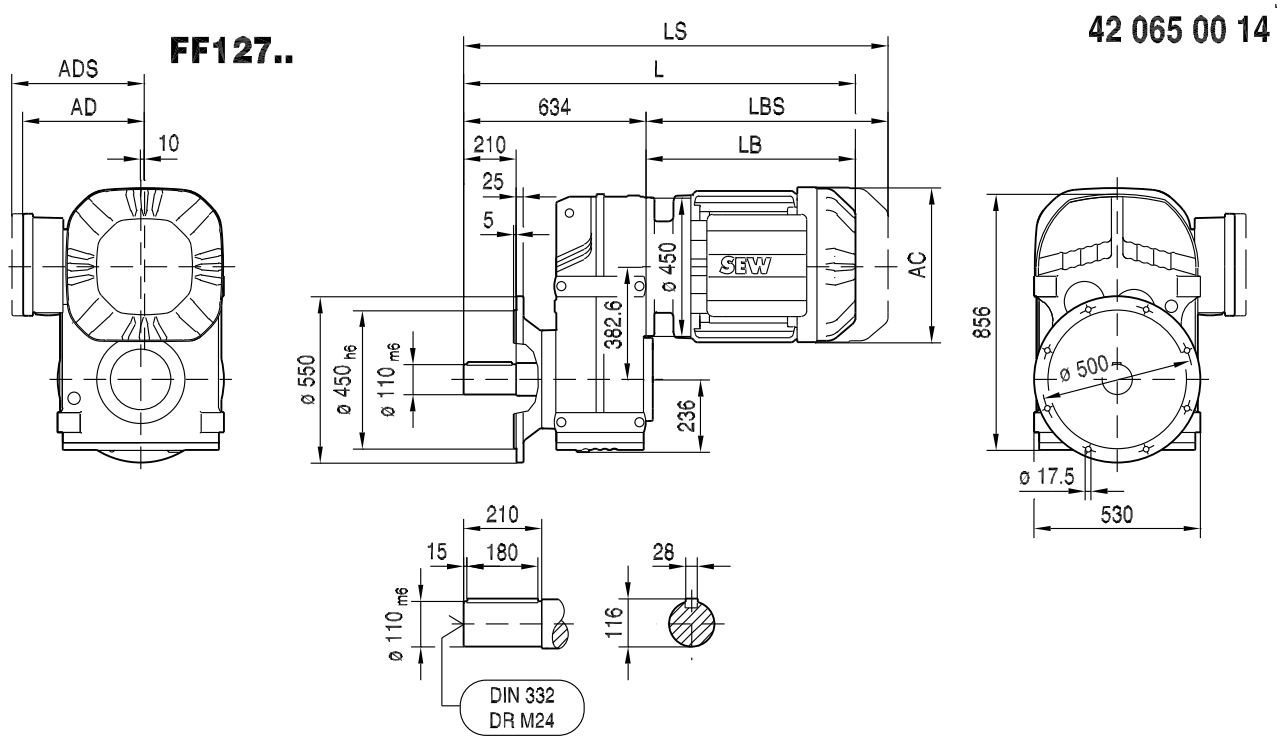


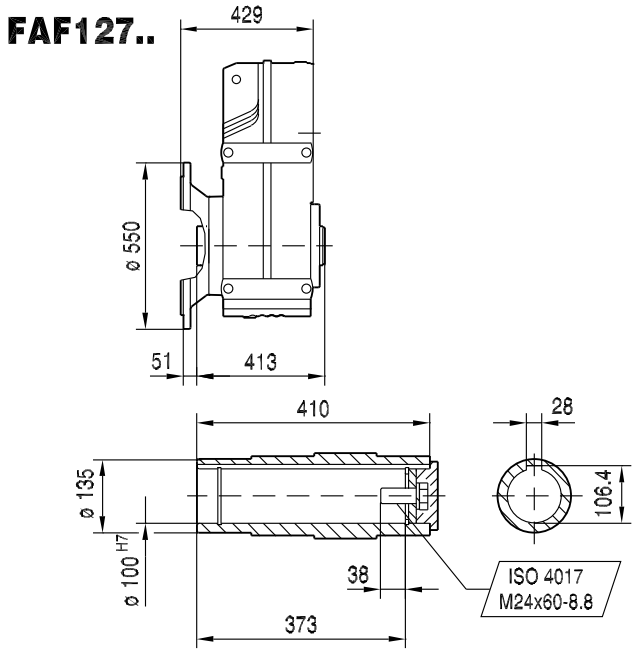
FH127B..

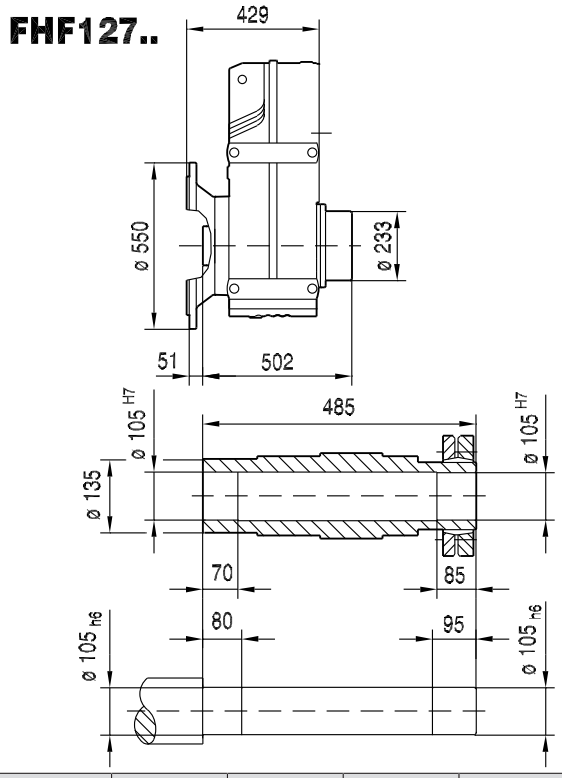


(→ 155)	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M
AC	261	261	314	314	357	394	434	495	495	495
AD	228	228	253	253	268	283	305	394	394	394
ADS	228	228	253	253	268	283	305	394	394	394
L	1001	1027	1093	1093	1116	1226	1200	1337	1337	1432
LS	1139	1164	1282	1282	1305	1431	1405	1577	1577	1672
LB	416	442	508	508	531	641	615	752	752	847
LBS	554	579	697	697	720	846	820	992	992	1087

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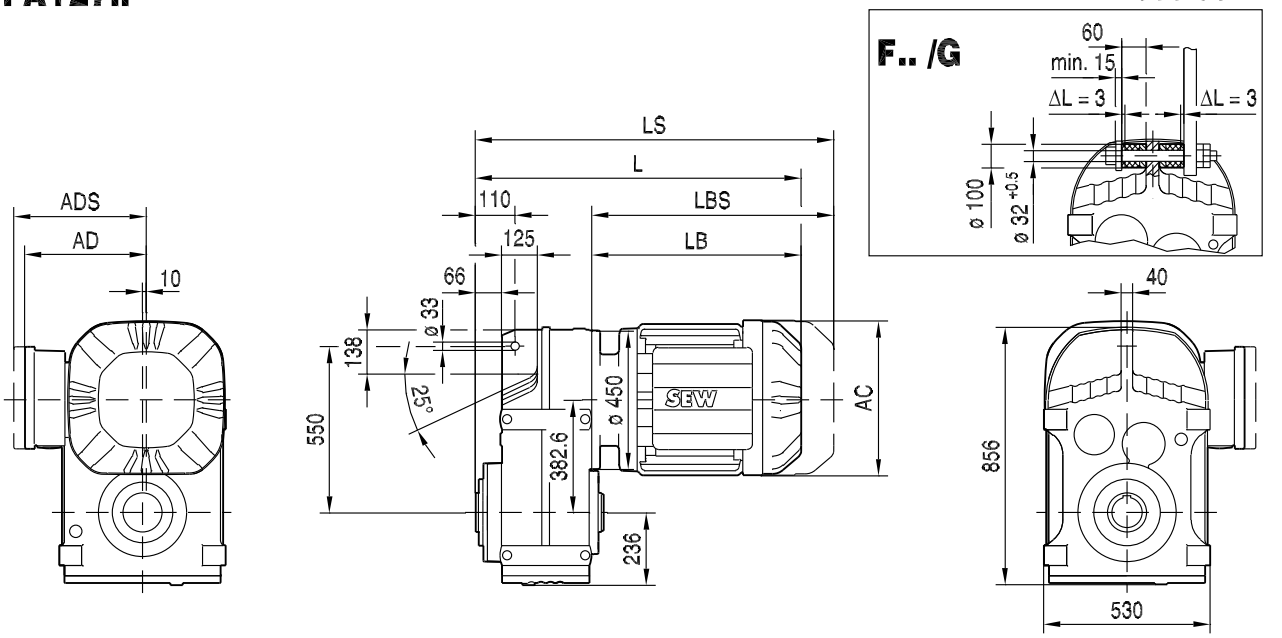


(→ 155)	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M
AC	261	261	314	314	357	394	434	495	495	495
AD	228	228	253	253	268	283	305	394	394	394
ADS	228	228	253	253	268	283	305	394	394	394
L	1050	1076	1142	1142	1165	1275	1249	1386	1386	1481
LS	1188	1213	1331	1331	1354	1480	1454	1626	1626	1721
LB	416	442	508	508	531	641	615	752	752	847
LBS	554	579	697	697	720	846	820	992	992	1087

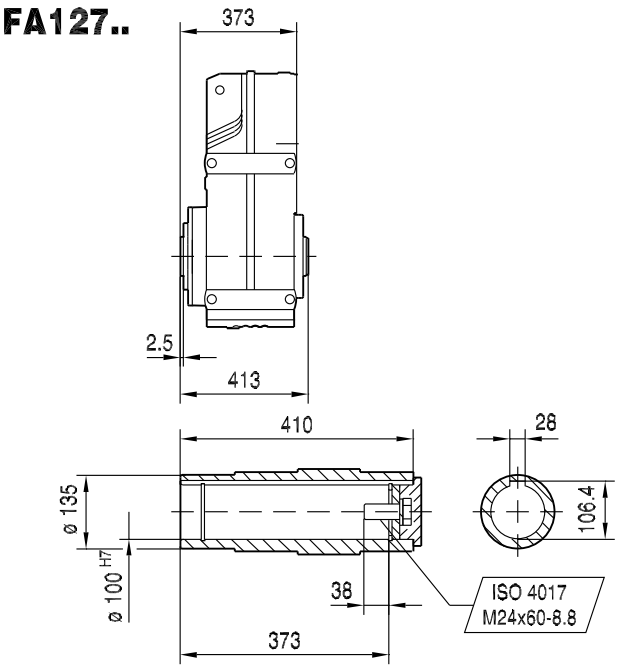
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FA127..

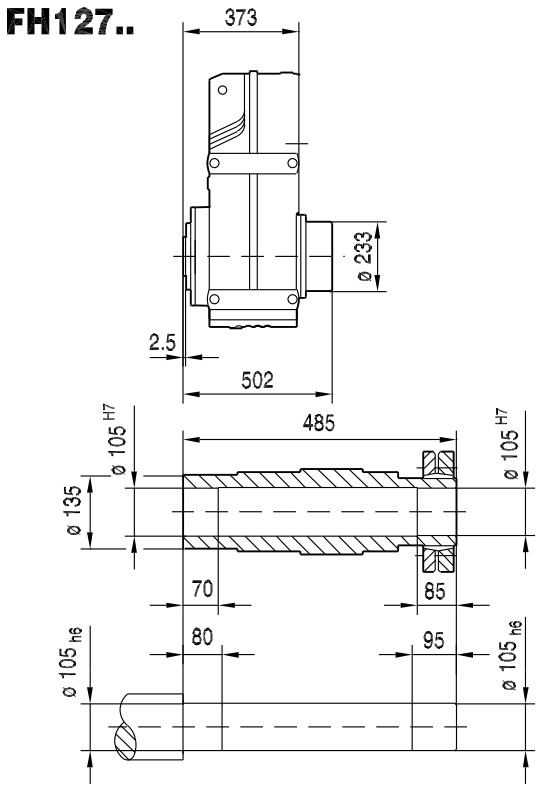
42 066 00 14



FA127..



FH127..

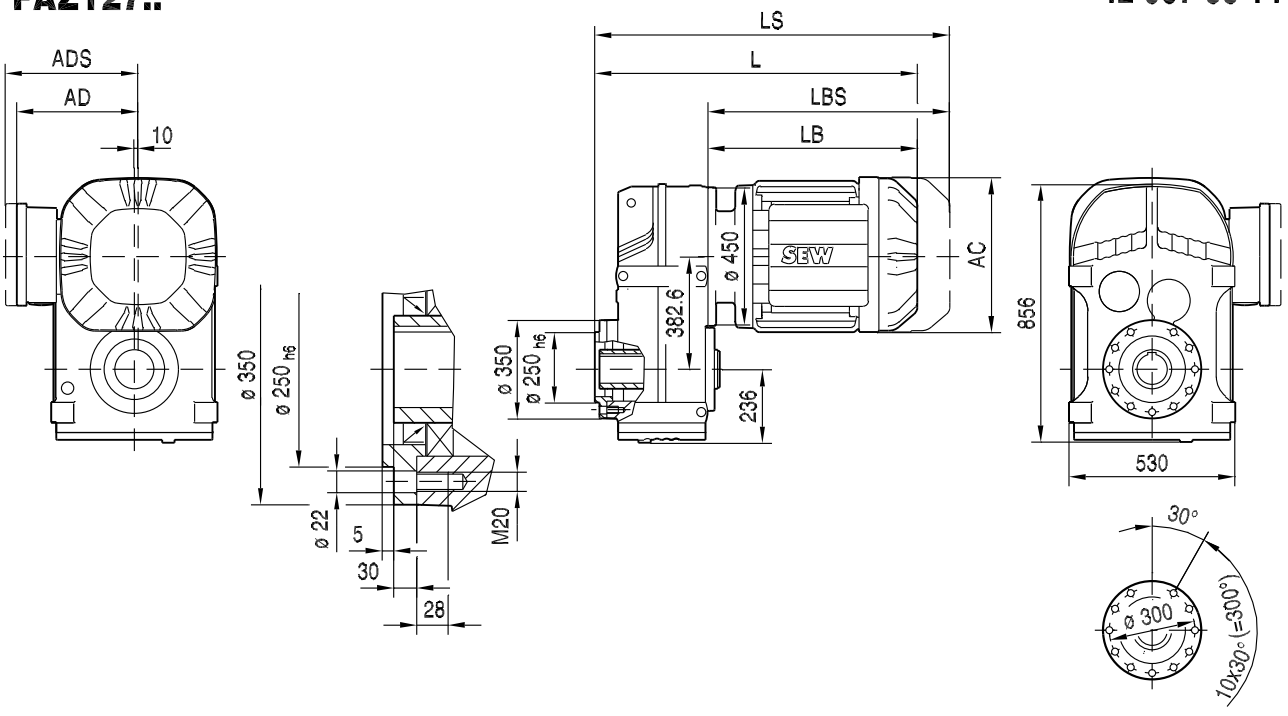


(→ 155)	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M
AC	261	261	314	314	357	394	434	495	495	495
AD	228	228	253	253	268	283	305	394	394	394
ADS	228	228	253	253	268	283	305	394	394	394
L	789	815	881	881	904	1014	988	1125	1125	1220
LS	927	952	1070	1070	1093	1219	1193	1365	1365	1460
LB	416	442	508	508	531	641	615	752	752	847
LBS	554	579	697	697	720	846	820	992	992	1087

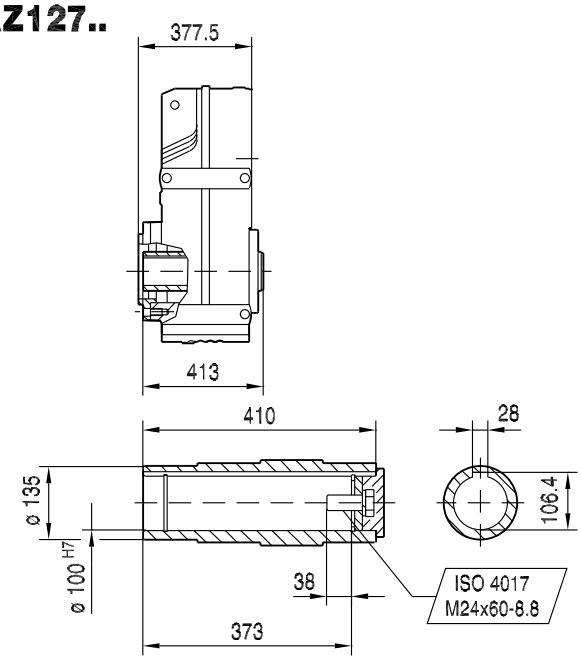
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FAZ127..

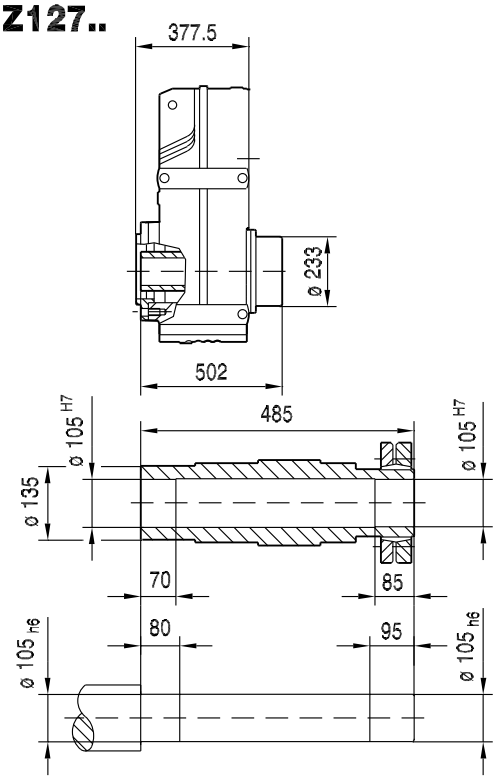
42 067 00 14



FAZ127..



FHZ127..

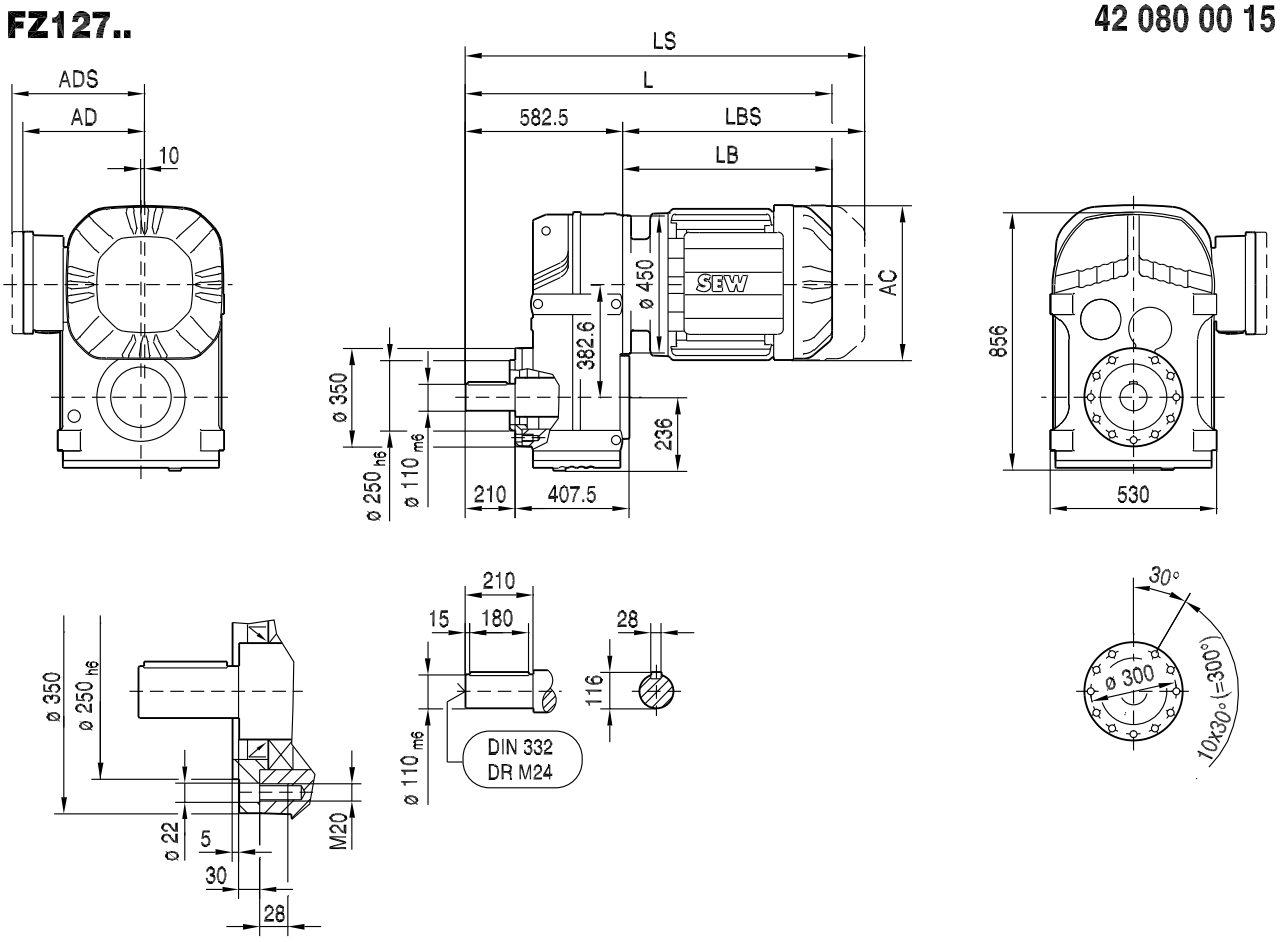


(→ 155)	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M
AC	261	261	314	314	357	394	434	495	495	495
AD	228	228	253	253	268	283	305	394	394	394
ADS	228	228	253	253	268	283	305	394	394	394
L	794	819	886	886	909	1018	993	1130	1130	1225
LS	931	956	1075	1075	1098	1223	1198	1370	1370	1465
LB	416	442	508	508	531	641	615	752	752	847
LBS	554	579	697	697	720	846	820	992	992	1087

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FZ127..

42 080 00 15

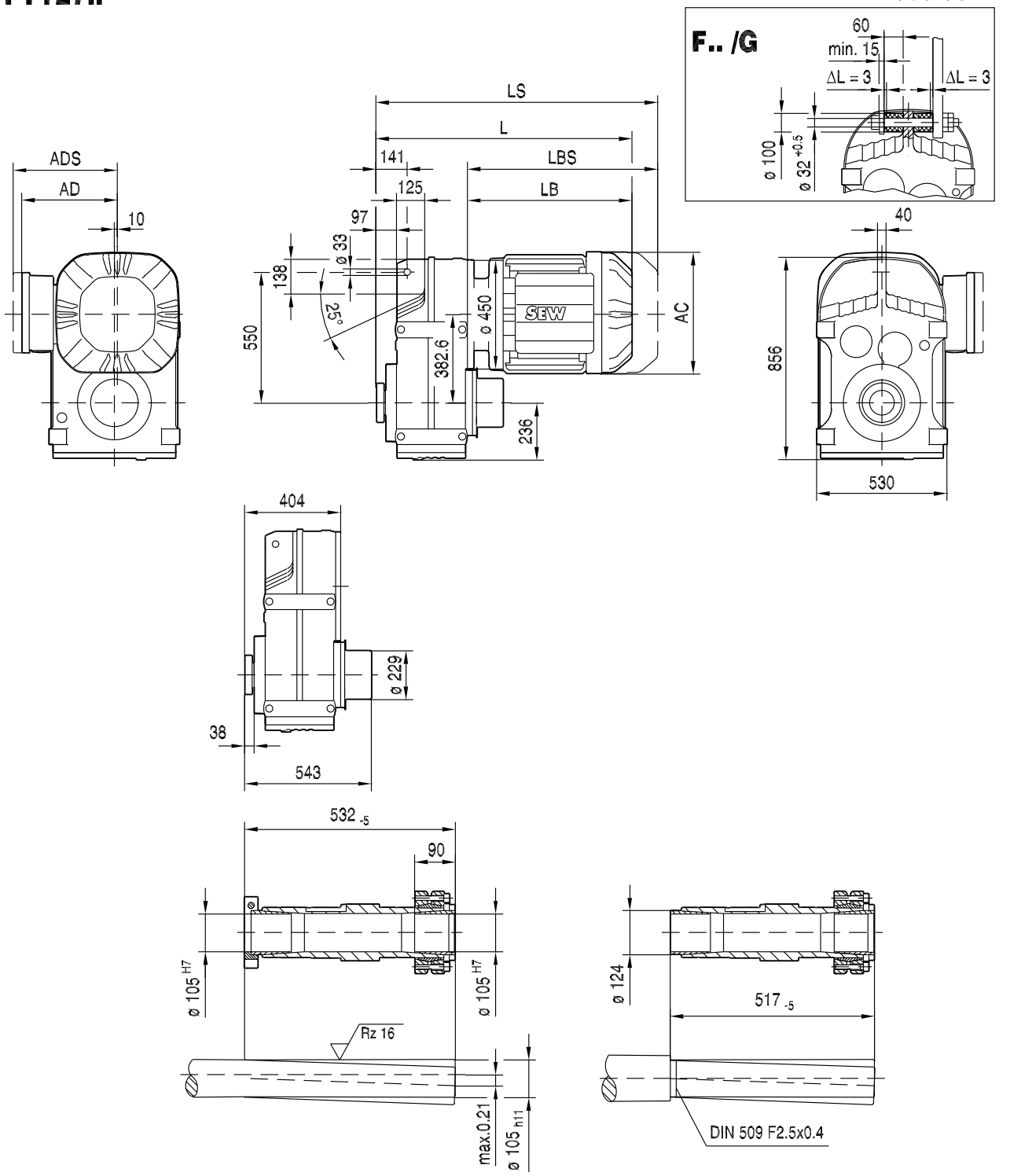


(→ 155)	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M
AC	261	261	314	314	357	394	434	495	495	495
AD	228	228	253	253	268	283	305	394	394	394
ADS	228	228	253	253	268	283	305	394	394	394
L	999	1024	1091	1091	1114	1223	1198	1335	1335	1430
LS	1136	1161	1280	1280	1303	1428	1403	1575	1575	1670
LB	416	442	508	508	531	641	615	752	752	847
LBS	554	579	697	697	720	846	820	992	992	1087

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FT127..

42 068 00 14

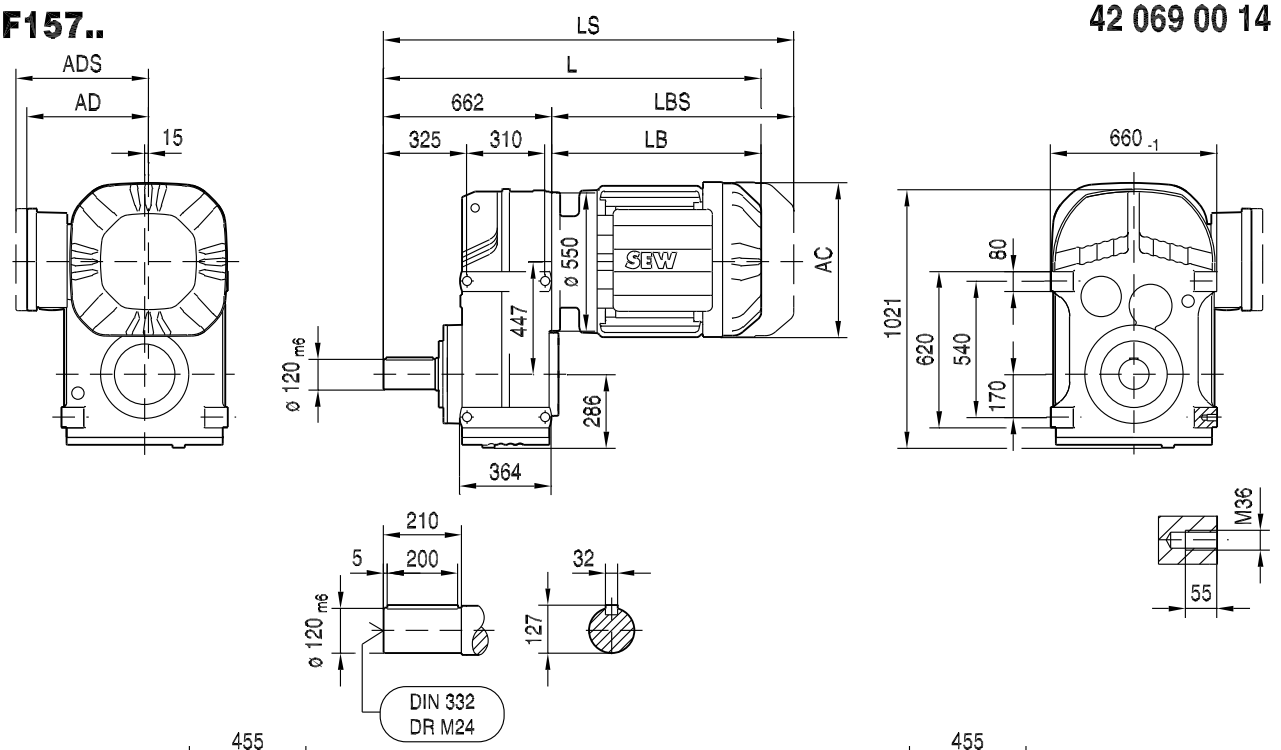


(→ 155)	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M
AC	261	261	314	314	357	394	434	495	495	495
AD	228	228	253	253	268	283	305	394	394	394
ADS	228	228	253	253	268	283	305	394	394	394
L	820	846	912	912	935	1045	1019	1156	1156	1251
LS	958	983	1101	1101	1124	1250	1224	1396	1396	1491
LB	416	442	508	508	531	641	615	752	752	847
LBS	554	579	697	697	720	846	820	992	992	1087

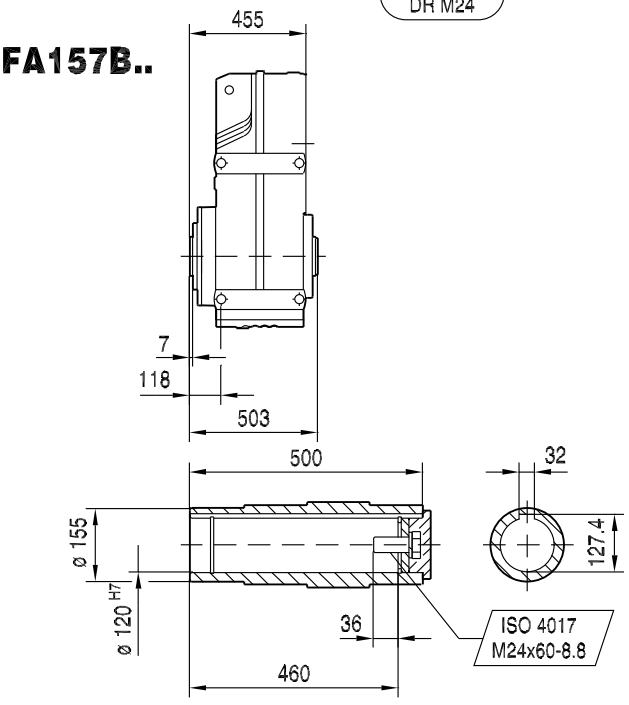
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F157..

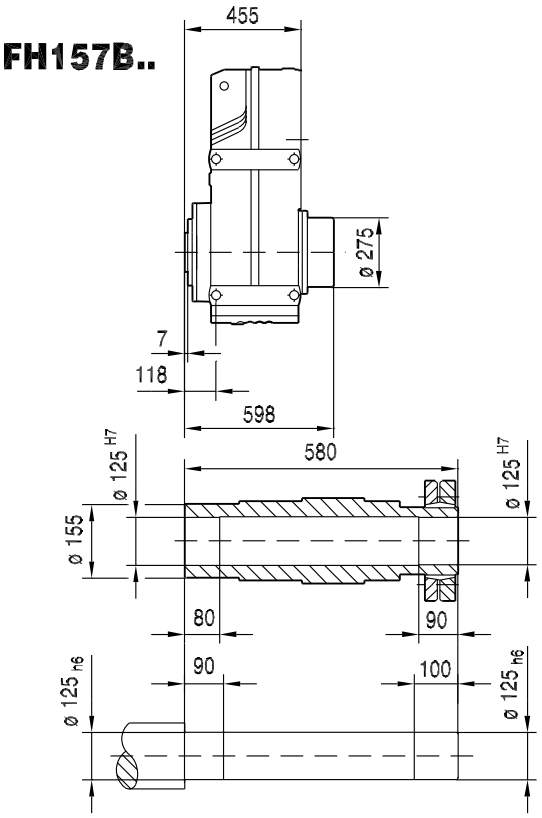
42 069 00 14



FA157B..

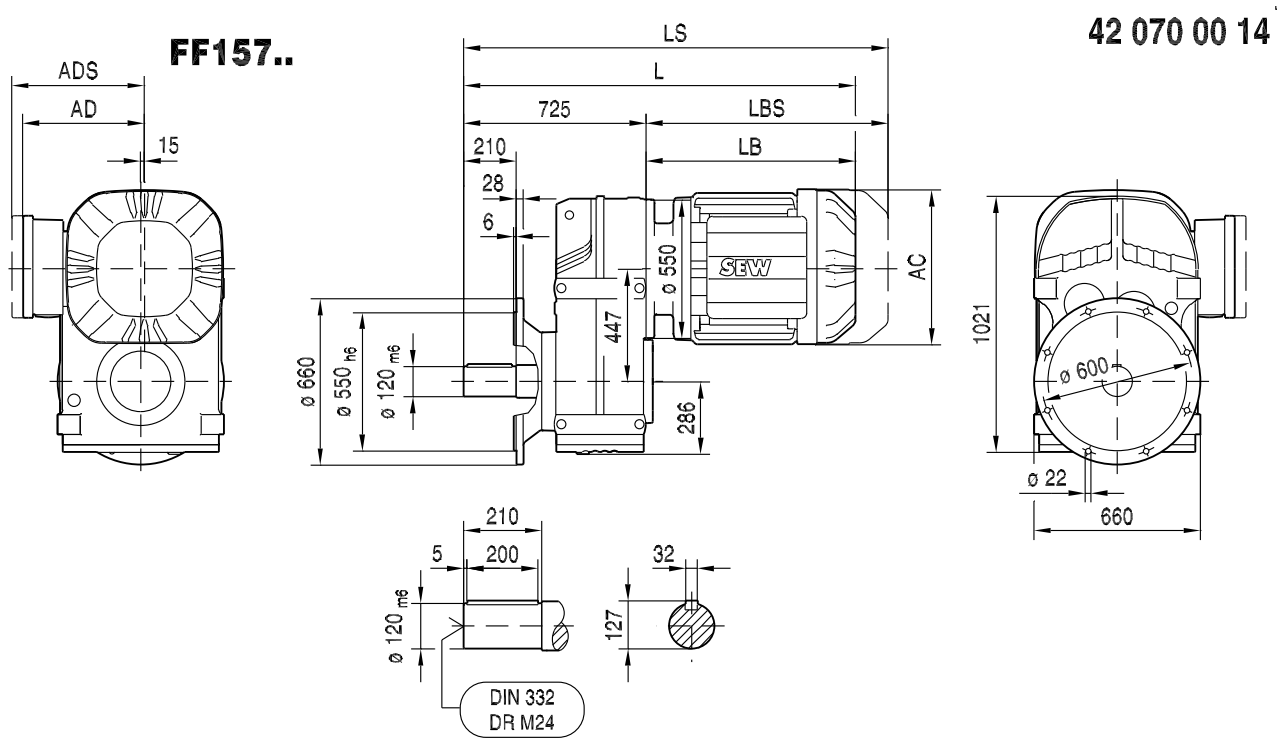


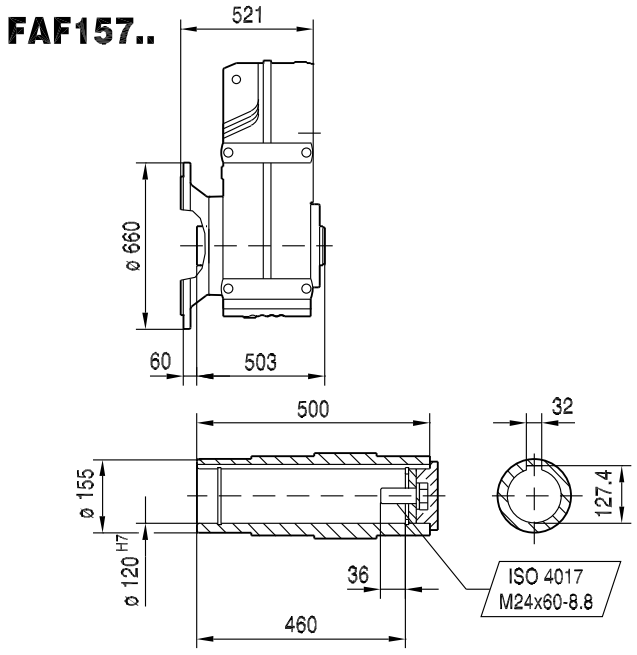
FH157B..

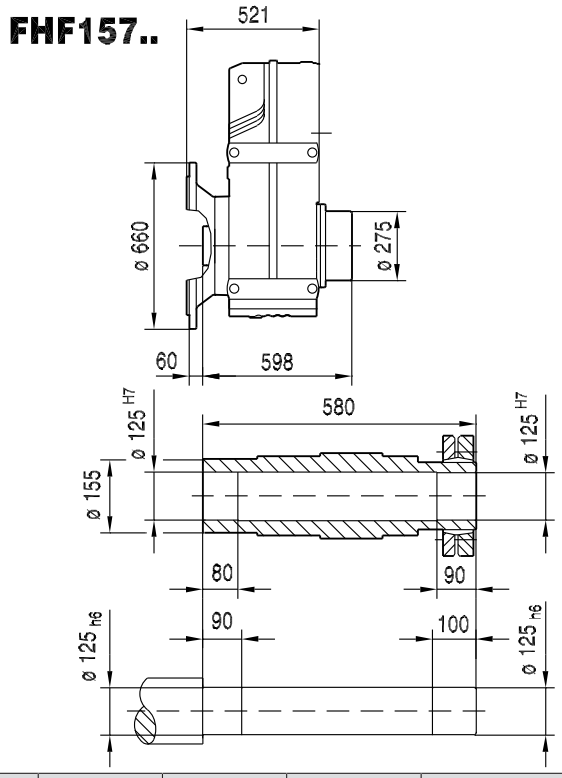


(→ 155)	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M	DRN315S-M	DRN315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1162	1185	1295	1269	1406	1406	1501	1603	1733
LS	1351	1374	1500	1474	1646	1646	1741	1854	1984
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

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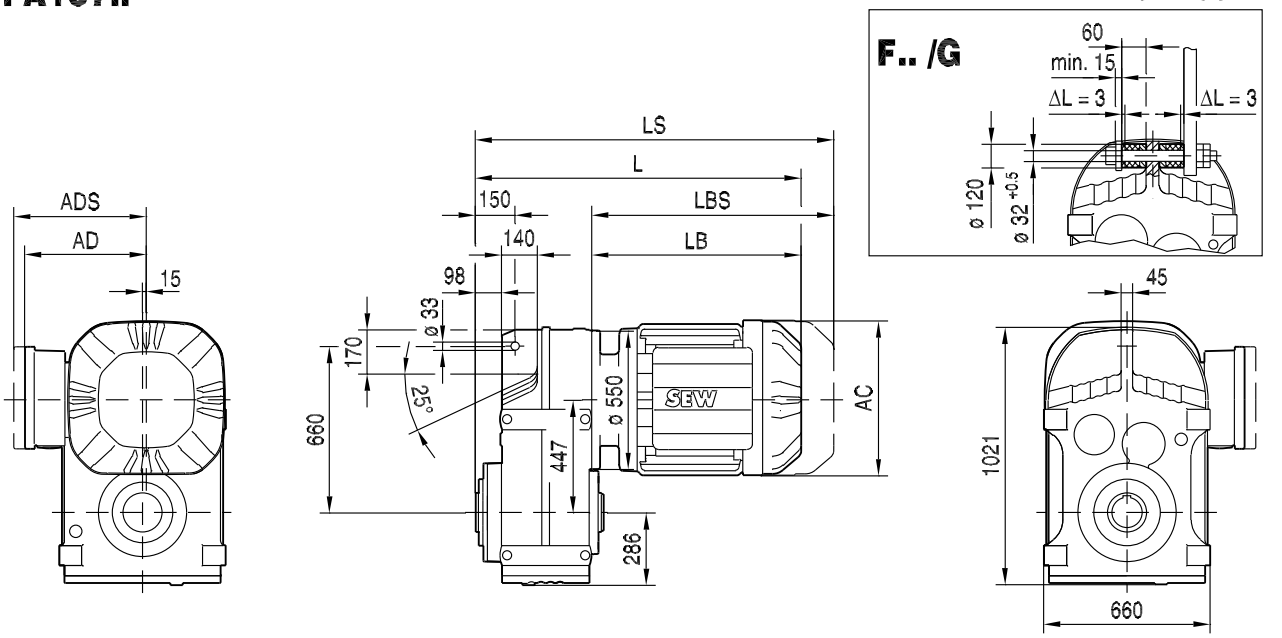


(→ 155)	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M	DRN315S-M	DRN315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1225	1248	1358	1332	1469	1469	1564	1666	1796
LS	1414	1437	1563	1537	1709	1709	1804	1917	2047
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

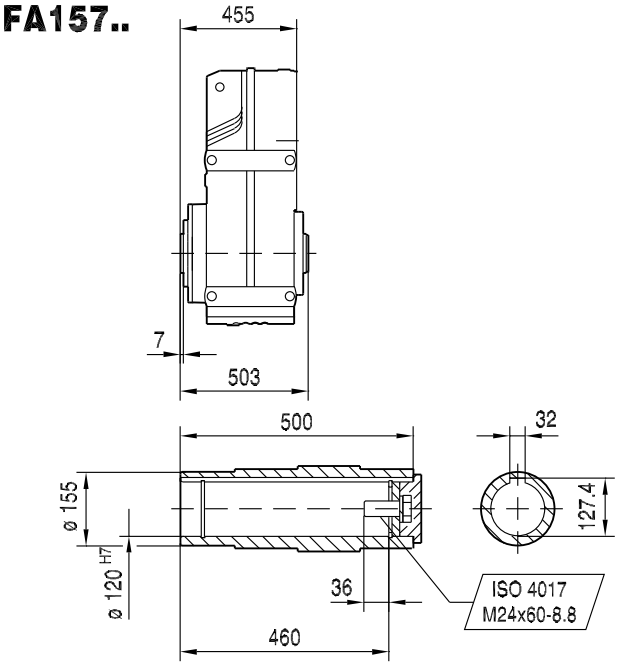
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FA157..

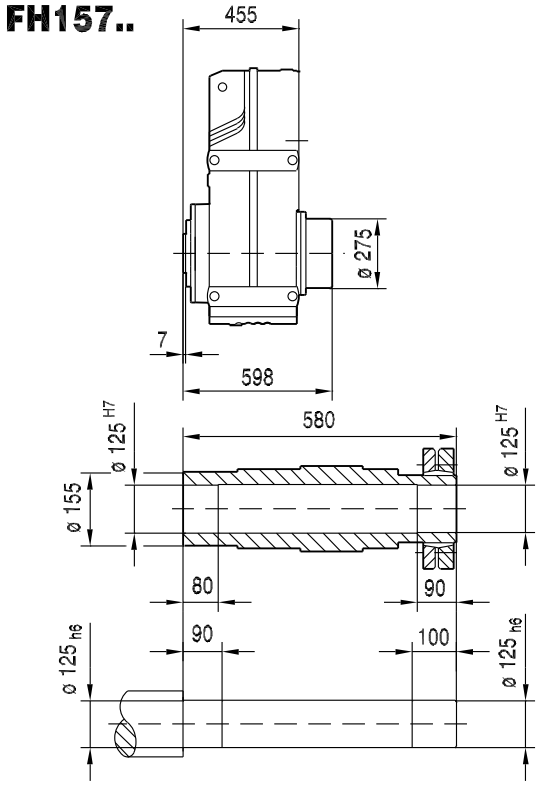
42 071 00 14



FA157..



FH157..

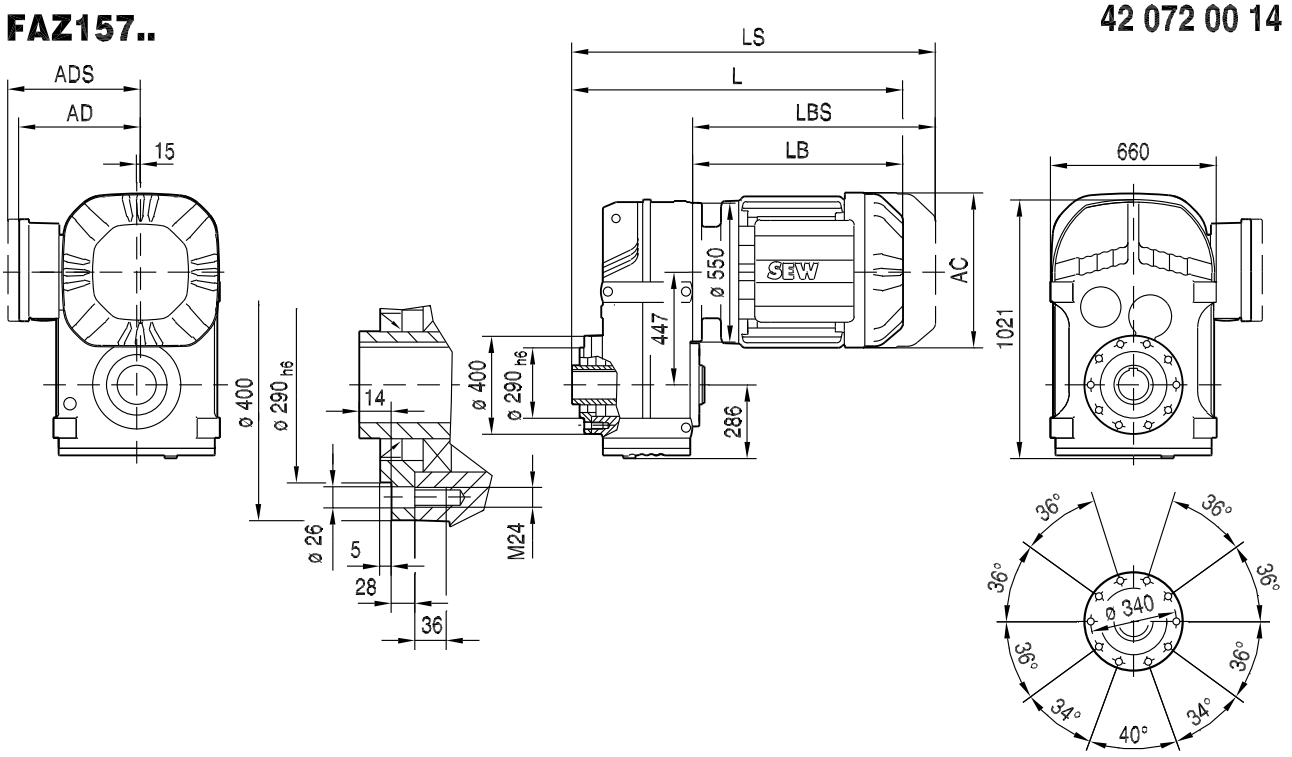


(→ 155)	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M	DRN315S-M	DRN315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	955	978	1088	1062	1199	1199	1294	1396	1526
LS	1144	1167	1293	1267	1439	1439	1534	1647	1777
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

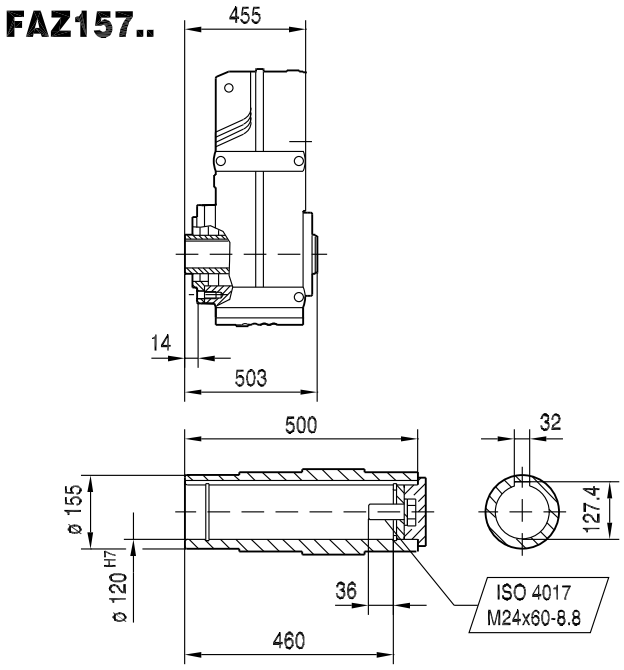
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FAZ157..

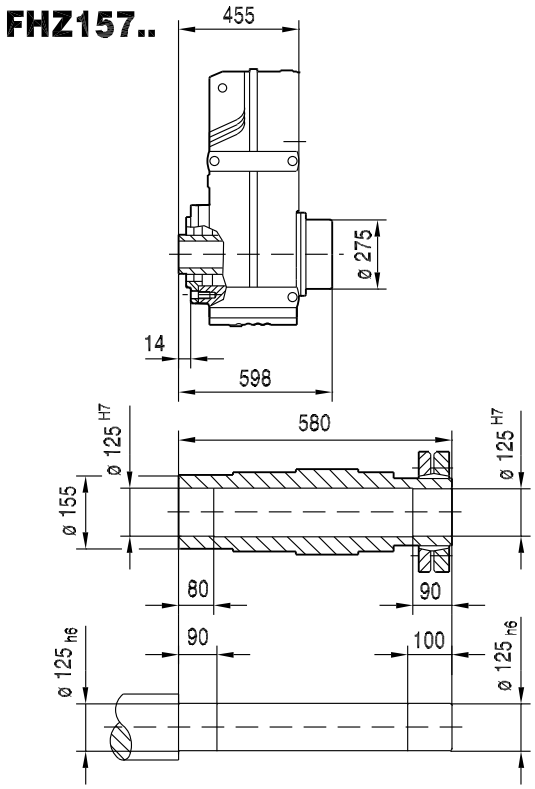
42 072 00 14



FAZ157..



FHZ157..

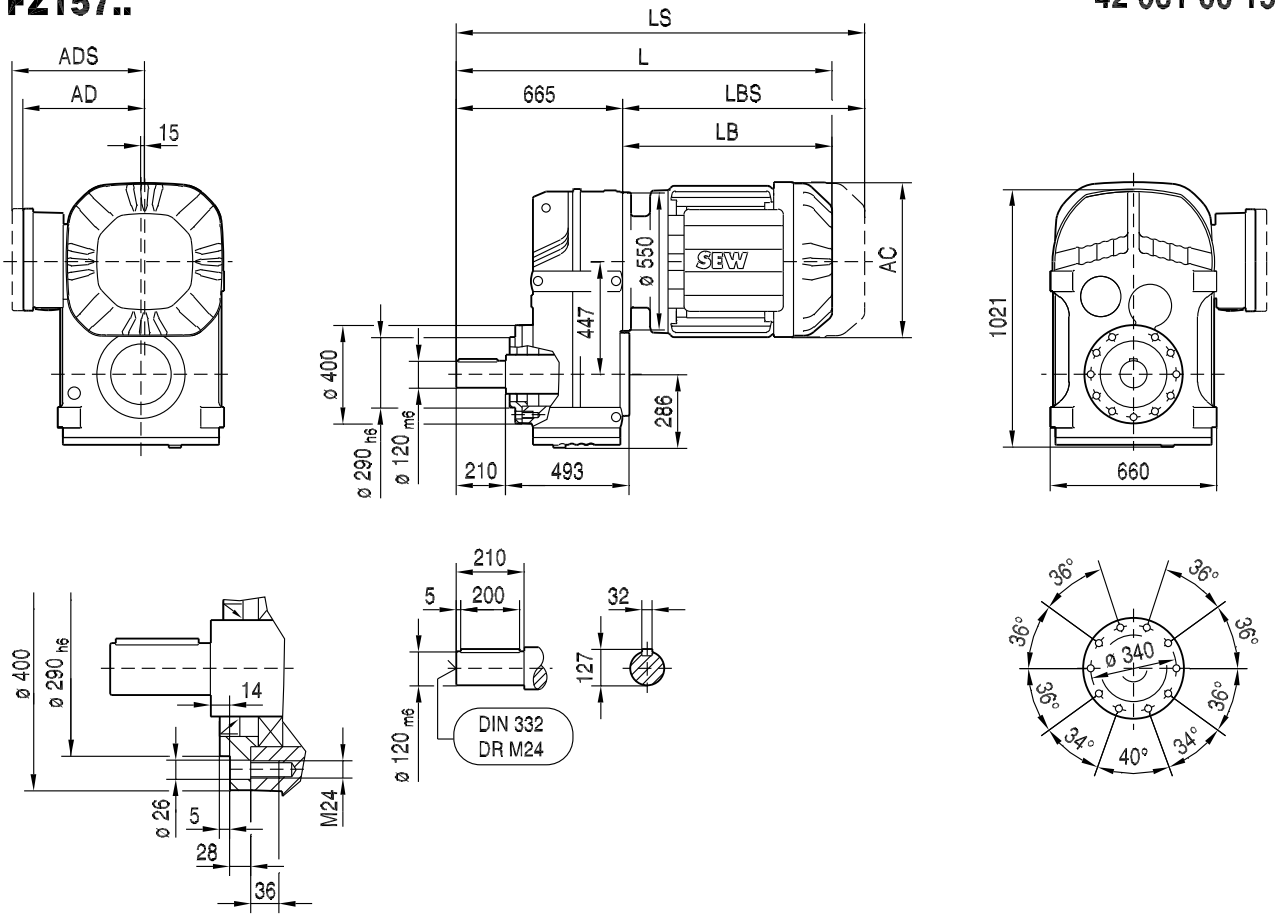


(→ 155)	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M	DRN315S-M	DRN315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	955	978	1088	1062	1199	1199	1294	1396	1526
LS	1144	1167	1293	1267	1439	1439	1534	1647	1777
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

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FZ157..

42 081 00 15

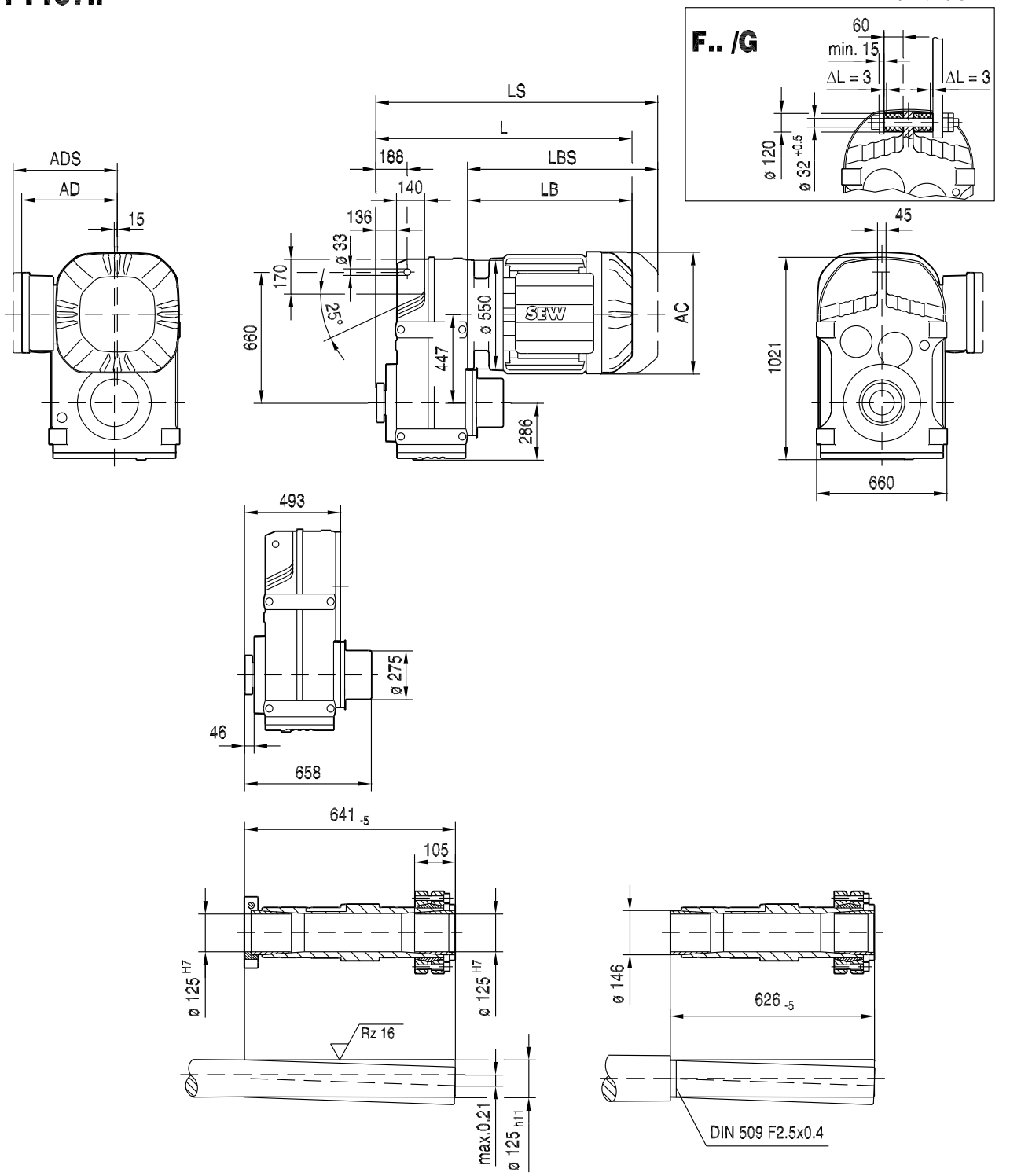


(→ 155)	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M	DRN315S-M	DRN315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1165	1188	1298	1272	1409	1409	1504	1606	1736
LS	1354	1377	1503	1477	1649	1649	1744	1857	1987
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

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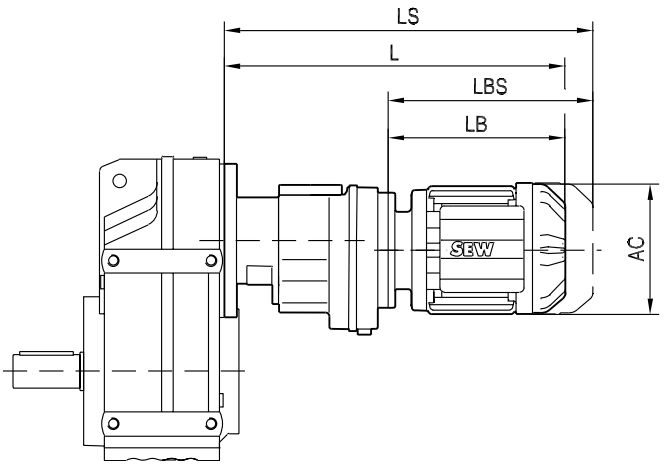
FT157..

42 073 00 14



(→ 155)	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M	DRN315S-M	DRN315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	993	1016	1126	1100	1237	1237	1332	1434	1564
LS	1182	1205	1331	1305	1477	1477	1572	1685	1815
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

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42 121 00 06

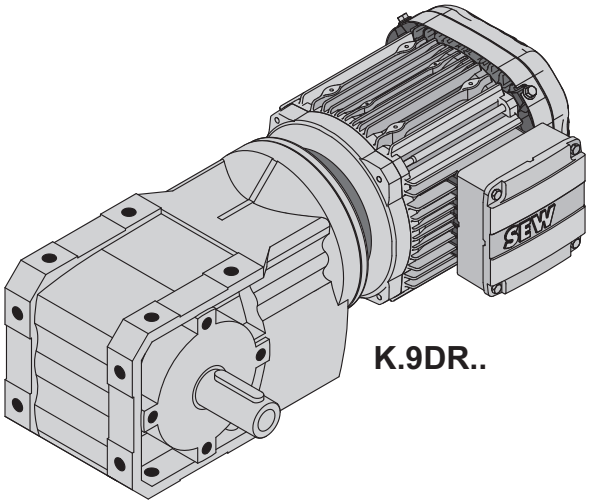
(→ 155)		AC	L	LS	LB	LBS
F..27R17	**DR63..**	132	324	379	149	204
F..37R17	**DR63..**	132	324	379	149	204
	DR71S	139	335	403	160	228
F..47R17	**DR63..**	132	324	379	149	204
	DR71S	139	335	403	160	228
	DR71M	139	360	428	185	253
F..57R37	**DR63..**	132	356	411	191	246
	DR71S	139	367	434	202	269
	DR71M	139	392	459	227	294
	DRN80M	156	446	527	281	362
F..67R37	**DR63..**	132	356	411	191	246
	DR71S	139	367	434	202	269
	DR71M	139	392	459	227	294
	DRN80M	156	446	527	281	362
	DRN90S	179	448	541	283	376
F..77R37	**DR63..**	132	348	403	191	246
	DR71S	139	359	426	202	269
	DR71M	139	384	451	227	294
	DRN80M	156	438	519	281	362
	DRN90S	179	440	533	283	376
	DRN90L	179	472	565	315	408
F..87R57	**DR63..**	132	412	467	185	240
	DR71S	139	423	491	196	264
	DR71M	139	448	516	221	289
	DRN80M	156	502	583	275	356
	DRN90S	179	504	597	277	370
	DRN90L	179	536	629	309	402
	DRN100LS	197	533	626	305	398
	DRN100L	197	583	676	355	448
F..97R57	**DR63..**	132	407	462	185	240
	DR71S	139	418	486	196	264
	DR71M	139	443	511	221	289
	DRN80M	156	497	578	275	356
	DRN90S	179	499	592	277	370
	DRN90L	179	531	624	309	402
	DRN100LS	197	528	621	305	398
	DRN100L	197	578	671	355	448
	DRN112M	221	608	720	386	498

(→ 155)		AC	L	LS	LB	LBS
F..107R77	**DR63..**	132	425	480	178	233
	DR71S	139	436	504	189	257
	DR71M	139	461	529	214	282
	DRN80M	156	515	596	268	349
	DRN90S	179	517	610	270	363
	DRN90L	179	549	642	302	395
	DRN100LS	197	545	638	298	391
	DRN100L	197	595	688	348	441
	DRN112M	221	626	738	379	491
	DRN132S	221	676	788	429	541
	DRN132M	261	692	831	445	584
F..127R77	**DR63..**	132	410	465	178	233
	DR71S	139	421	489	189	257
	DR71M	139	446	514	214	282
	DRN80M	156	500	581	268	349
	DRN90S	179	502	595	270	363
	DRN90L	179	534	627	302	395
	DRN100LS	197	530	623	298	391
	DRN100L	197	580	673	348	441
	DRN112M	221	611	723	379	491
	DRN132S	221	661	773	429	541
F..127R87	**DRN132S**	221	704	816	424	536
	DRN132M	261	720	859	440	579
	DRN132L	261	745	884	465	604
	DRN160M	314	814	1003	534	723
	DRN160L	314	814	1003	534	723
F..157R97	**DR71M**	139	529	597	204	272
	DRN80M	156	583	664	258	339
	DRN90S	179	585	678	260	353
	DRN90L	179	617	710	292	385
	DRN100LS	197	613	706	288	381
	DRN100L	197	663	756	338	431
	DRN112M	221	694	806	369	481
	DRN132S	221	744	856	419	531
	DRN132M	261	760	899	435	574
	DRN132L	261	785	924	460	599
	DRN160M	314	854	1043	529	718
	DRN160L	314	854	1043	529	718
	DRN180M	357	879	1068	554	743

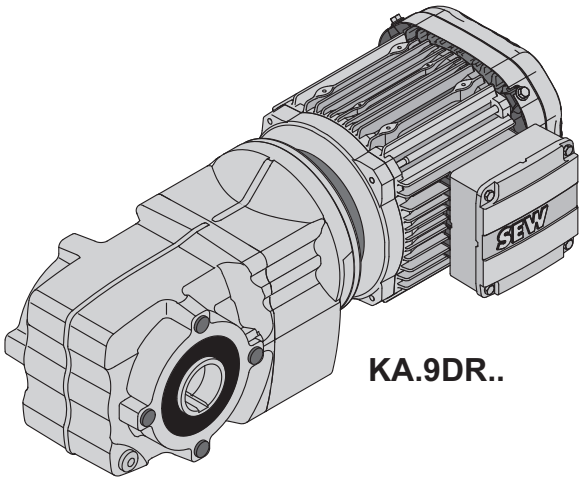
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10 Helical-bevel gearmotors

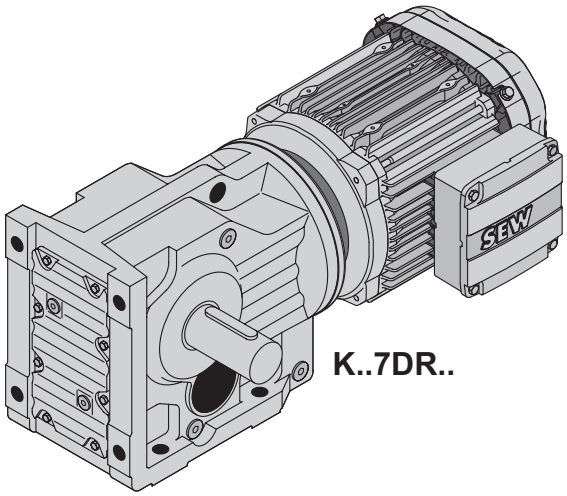
10.1 K..DRN.. variant



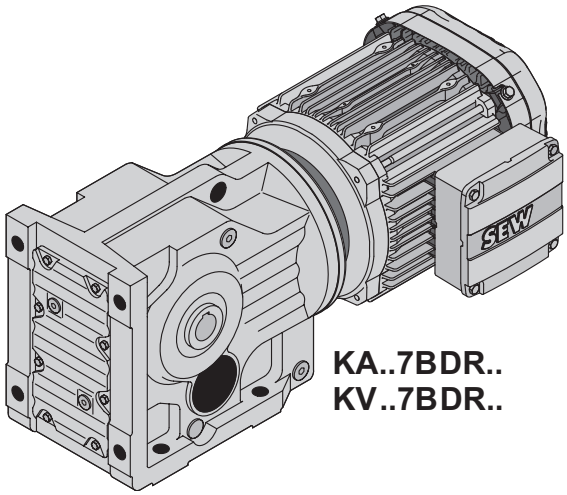
K.9DR..



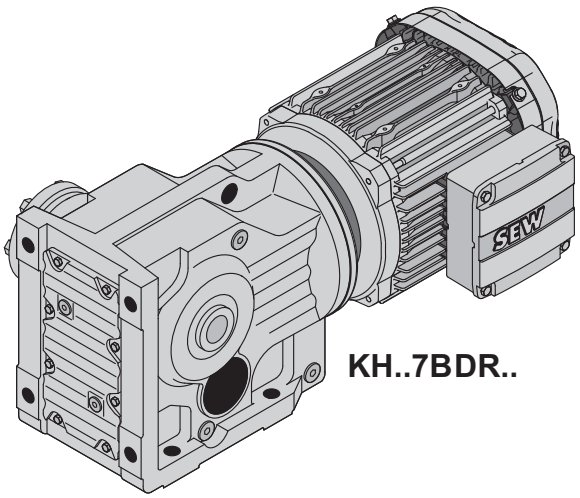
KA.9DR..



K..7DR..



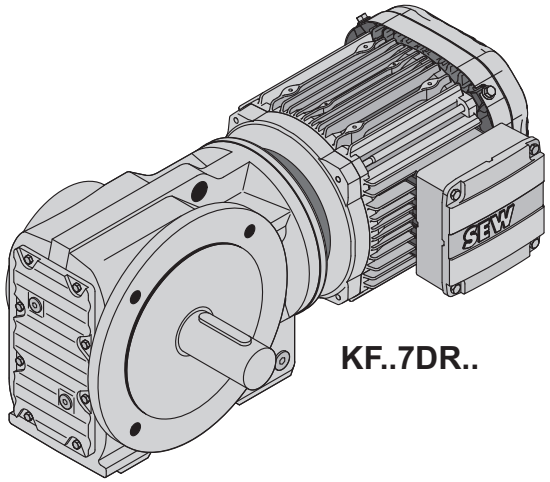
KA..7BDR..
KV..7BDR..



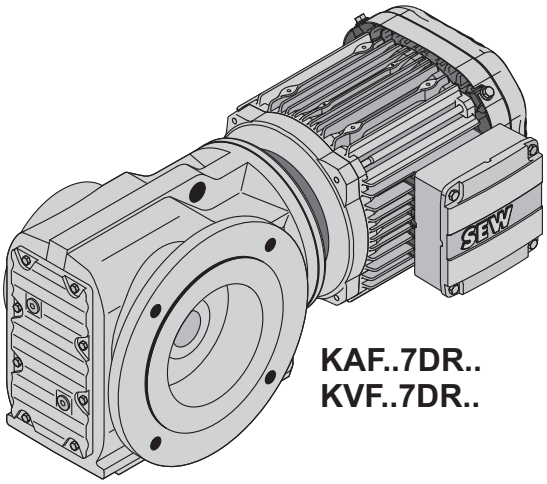
KH..7BDR..

18014407174236299

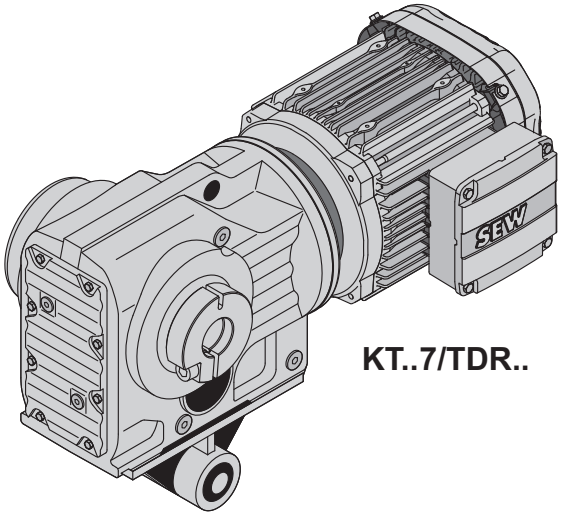
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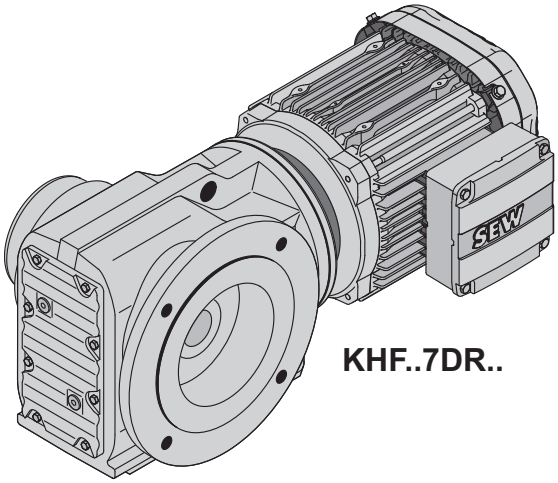
KF..7DR..



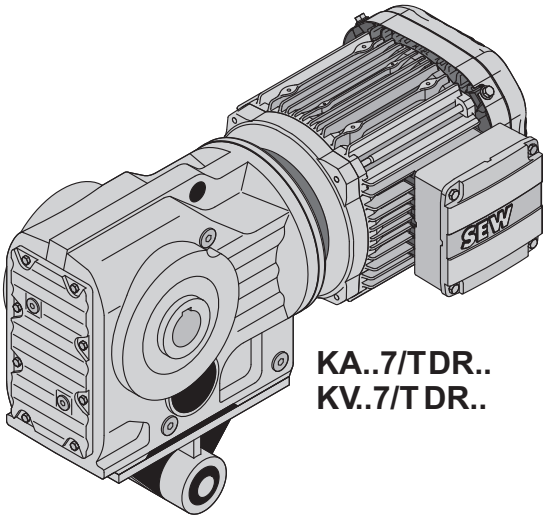
KAF..7DR..
KVF..7DR..



KT..7/TDR..



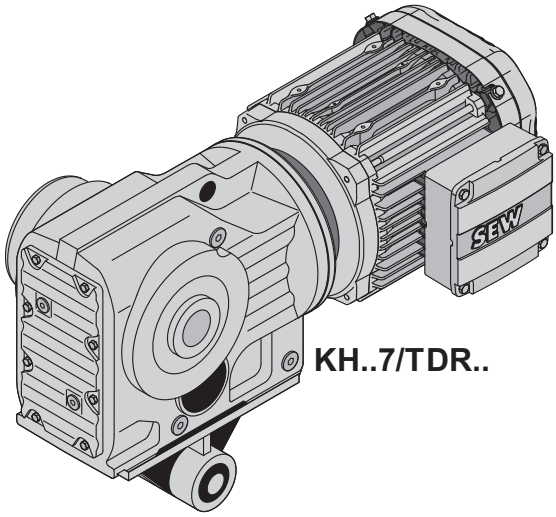
KHF..7DR..



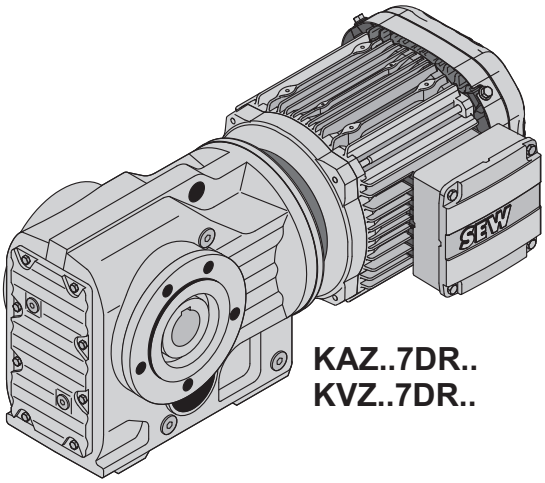
KA..7/TDR..
KV..7/TDR..

9007207919497227

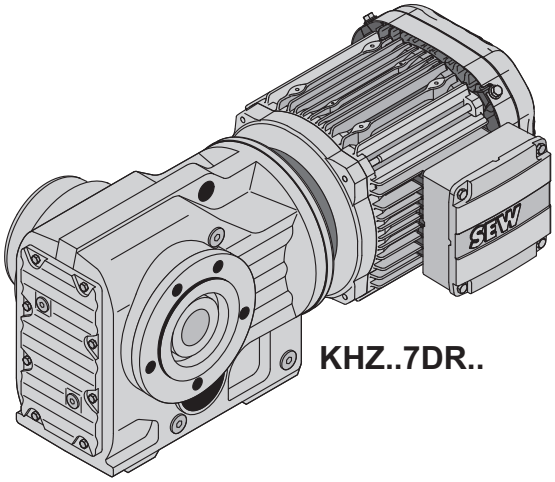
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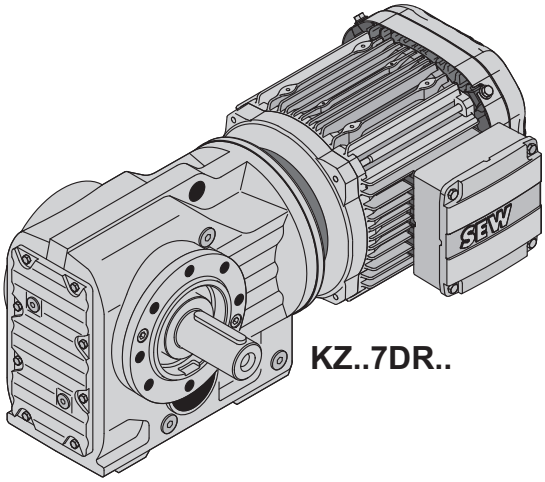
KH..7/TDR..



KAZ..7DR..
KVZ..7DR..



KHZ..7DR..



KZ..7DR..

27021606882178955

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10.2 K..DRN.. possible geometrical combinations

K19, n_e=1400 1/min							80 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L	DRS71S DRS71M	DRN80M DRN90S
					 2		
24	70	4330	-	58.68			
26	70	4330	-	53.88			
28	70	4330	-	49.69			
31	69	4340	-	44.48			
34	67	4350	-	40.63			
41	64	4370	-	34.29			
44	80	4260	-	31.74			
48	61	4200	-	29.29			
48	80	4120	-	29.14			
52	60	4090	-	27.16			
52	80	3990	-	26.88			
58	80	3820	-	24.06			
64	80	3680	-	21.98			
75	80	3430	-	18.55			
88	80	3210	-	15.84			
95	80	3110	-	14.69			
110	80	2930	-	12.70			
118	79	2850	-	11.84			
136	76	2720	-	10.32			
146	63	2910	-	9.58			
173	80	2590	-	8.09			
203	80	2420	-	6.91			
218	80	2340	-	6.41			
253	80	2200	-	5.54			
271	80	2140	-	5.16			
311	80	2010	-	4.50			

K29, n_e=1400 1/min									130 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L	DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS
					 2				
19	130	4980	-	71.93					
21	130	4980	-	66.25					
23	130	4980	-	61.28					
26	130	4980	-	54.89					
28	130	4980	-	50.35					
33	128	4790	-	42.87					
36	130	4720	-	38.90					
38	122	4560	-	36.96					
39	130	4560	-	35.83					
42	130	4410	-	33.15					
46	115	4250	-	30.11					
47	130	4210	-	29.69					
51	130	4060	-	27.23					
56	109	3980	-	24.91					
60	130	3790	-	23.19					

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K29, n_e=1400 1/min									130 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L	DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS
63	105	3820	-	22.08					
70	130	3550	-	19.99					
86	130	3240	-	16.29					
104	130	2970	-	13.47					
117	130	2810	-	11.94					
141	110	3000	-	9.90					
153	130	2470	-	9.17					
164	122	2740	-	8.53					
187	123	2300	-	7.48					
201	112	2580	-	6.95					
243	112	2370	-	5.75					
275	110	2260	-	5.10					
357	126	1910	-	3.92					
439	110	1830	-	3.19					

K37, n_e=1400 1/min								200 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
					 3			
13	200	5640	6.8	106.38				
14	200	5640	6.8	97.81				
17	200	5640	6.9	83.69				
19	200	5520	6.9	72.54				
21	200	5360	6.9	67.80				
24	200	5020	6.9	58.60				
28	200	4660	7	49.79				
31	200	4420	7	44.46				
37	200	4100	7	37.97				
39	200	3970	7.1	35.57				
47	200	3650	7.1	29.96				
49	200	3580	8.1	28.83				
56	200	3330	8.1	24.99				
60	195	3260	8.2	23.36				
69	185	3110	8.3	20.19				
82	180	2900	8.4	17.15				
91	175	2780	8.5	15.31				
107	165	2650	8.6	13.08				
115	160	2600	11.9	12.14				
133	160	2410	12.2	10.49				
157	160	2200	12.4	8.91				
176	155	2110	12.5	7.96				
206	150	1980	12.8	6.80				
220	145	1950	12.9	6.37				
261	140	1810	13.2	5.36				
352	125	1660	13	3.98				

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K37R17, n_e=1400 1/min						200 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
					3 3	
0.20	200	5640	-	6832		
0.24	200	5640	-	5922		
0.25	200	5640	-	5491		
0.29	200	5640	-	4759		
0.34	200	5640	-	4160		
0.38	200	5640	-	3645		
0.44	200	5640	-	3205		
0.50	200	5640	-	2801		
0.57	200	5640	-	2454		
0.65	200	5640	-	2166		
0.74	200	5640	-	1891		
0.84	200	5640	-	1660		
0.95	200	5640	-	1466		
1.1	200	5640	-	1288		
1.2	200	5640	-	1136		
					3 2	
1.4	200	5640	-	996		
1.6	200	5640	-	876		
1.8	200	5640	-	761		
2.1	200	5640	-	671		
2.4	200	5640	-	585		
2.7	200	5640	-	512		
3.1	200	5640	-	451		
3.5	200	5640	-	396		
4.0	200	5640	-	346		
4.6	200	5640	-	304		
5.2	200	5640	-	267		
6.0	200	5640	-	234		
6.8	200	5640	-	205		
7.7	200	5640	-	181		
8.8	200	5640	-	160		
10	200	5640	-	136		
11	200	5640	-	127		
13	200	5640	-	110		
15	200	5640	-	96		

K39, n_e=1400 1/min									300 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M
						2			
24	300	7500	-	58.24					
28	300	7440	-	49.69					
32	300	7000	-	43.45					
34	300	6840	-	41.28					
39	300	6440	-	36.22					

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K39, n_e=1400 1/min									300 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M
46	300	5960	-	30.72					
50	300	5670	-	27.73					
57	300	5330	-	24.40					
61	300	5180	-	23.04					
71	295	4820	-	19.62					
79	290	4630	-	17.83					
82	115	6360	-	17.06					
91	280	4380	-	15.44					
96	190	5570	-	14.56					
104	270	4160	-	13.44					
110	250	4930	-	12.73					
116	255	4790	-	12.09					
132	285	4360	-	10.61					
146	250	3640	-	9.60					
156	300	3950	-	9.00					
172	300	3760	-	8.12					
196	300	3530	-	7.15					
207	300	3430	-	6.75					
243	275	3300	-	5.75					
268	260	3240	-	5.22					
310	240	3130	-	4.52					
355	215	3070	-	3.94					
498	170	2870	-	2.81					

K39R17, n_e=1400 1/min						300 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
					2 3	
0.35	300	7500	-	4057		
0.42	300	7500	-	3370		
0.48	300	7500	-	2906		
0.56	300	7500	-	2508		
0.59	300	7500	-	2367		
0.65	300	7500	-	2162		
0.74	300	7500	-	1881		
0.79	300	7500	-	1762		
0.86	300	7500	-	1622		
0.94	300	7500	-	1494		
1.1	300	7500	-	1321		
1.2	300	7500	-	1169		
1.3	300	7500	-	1093		
					2 2	
1.5	300	7500	-	956		
1.7	300	7500	-	814		
2.0	300	7500	-	711		
2.3	300	7500	-	605		
2.8	300	7500	-	504		

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K39R17, n_e=1400 1/min						300 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
3.1	300	7500	-	454		
3.5	300	7500	-	399		
3.8	300	7500	-	365		
4.5	300	7500	-	312		
4.7	300	7500	-	299		
5.5	300	7500	-	254		
6.0	300	7500	-	234		
6.7	300	7500	-	210		
7.4	300	7500	-	189		
8.0	300	7500	-	174		
9.0	300	7500	-	156		
9.9	300	7500	-	142		
12	300	7500	-	117		
19	295	7500	-	75		

K47, n_e=1400 1/min								400 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
						3		
11	400	5920	6.4	131.87*				
12	400	5920	6.4	121.48*				
13	400	5920	6.4	104.37				
15	400	5920	6.4	90.86				
16	400	5920	6.4	85.12*				
19	400	5920	6.5	75.20*				
20	400	5920	6.5	69.84				
22	400	5920	6.5	63.30*				
25	400	5920	6.5	56.83				
29	400	5920	6.6	48.95*				
30	400	5920	6.6	46.03*				
35	400	5920	6.6	39.61				
40	400	5920	6.7	35.39				
45	400	5700	7.5	31.30				
48	400	5520	7.5	29.32				
54	400	5170	7.6	25.91				
58	400	4970	7.7	24.06				
64	400	4710	7.7	21.81				
72	400	4440	7.7	19.58				
83	380	4220	7.8	16.86				
88	380	4080	7.9	15.86				
103	360	3890	8	13.65				
115	350	3720	8.3	12.19				
119	280	4060	10.5	11.77				
133	280	3830	10.6	10.56				
154	280	3540	10.7	9.10				
164	270	3500	10.8	8.56				
190	250	3380	11	7.36				

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K47, n_e=1400 1/min								400 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
213	240	3270	11.5	6.58				
241	230	3140	11.8	5.81				
302	205	2980	12	4.64				

K47R37, n_e=1400 1/min								400 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
					3 3			
0.14	400	5920	-	10138				
0.16	400	5920	-	8534				
0.18	400	5920	-	7662				
0.21	400	5920	-	6826				
0.23	400	5920	-	5983				
0.27	400	5920	-	5159				
0.30	400	5920	-	4601*				
0.36	400	5920	-	3940				
0.40	400	5920	-	3477				
0.46	400	5920	-	3043				
0.51	400	5920	-	2733				
0.59	400	5920	-	2354				
0.68	400	5920	-	2063				
0.77	400	5920	-	1819				
0.88	400	5920	-	1586				
1.0	400	5920	-	1388				
					3 2			
1.1	400	5920	-	1222				
1.3	400	5920	-	1097				
1.5	400	5920	-	945				
1.7	400	5920	-	831*				
1.9	400	5920	-	718*				
2.2	400	5920	-	639				
2.5	400	5920	-	552				
2.8	400	5920	-	495				
3.3	400	5920	-	426				
3.7	400	5920	-	375				
4.3	400	5920	-	327				
4.8	400	5920	-	289				
5.5	400	5920	-	256				
6.2	400	5920	-	225				
7.1	400	5920	-	198				
8.2	400	5920	-	171				
9.2	400	5920	-	153				
11	400	5920	-	131				
12	400	5920	-	112				
14	400	5920	-	99				
15	400	5920	-	94				

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K49, n_e=1400 1/min										500 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
						2				
19	475	9000	-	75.20						
20	445	9000	-	70.19						
23	500	9000	-	60.27						
26	500	8590	-	52.94						
28	500	8380	-	50.29						
32	500	7900	-	44.44						
37	500	7310	-	37.98						
40	500	7000	-	34.81						
46	500	6550	-	30.55						
48	500	6370	-	28.95						
55	500	5940	-	25.34						
61	500	5610	-	22.83						
62	150	8470	-	22.50						
67	140	8310	-	21.00						
70	500	5220	-	20.03						
78	260	7300	-	18.04						
79	500	4860	-	17.67						
88	340	6570	-	15.84						
89	490	4590	-	15.67						
93	325	6500	-	15.05						
105	470	4320	-	13.38						
105	420	5740	-	13.30						
123	495	5000	-	11.37						
134	480	4860	-	10.42						
153	500	4460	-	9.14						
162	500	4340	-	8.66						
185	500	4050	-	7.58						
205	500	3840	-	6.83						
234	500	3570	-	5.99						
265	485	3400	-	5.29						
299	465	3270	-	4.69						
350	440	3110	-	4.00						

K49R37, n_e=1400 1/min								500 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
					2 3			
0.20	500	9000	-	7137				
0.23	500	9000	-	5991				
0.27	500	9000	-	5120				
0.35	500	9000	-	4034				
0.39	500	9000	-	3580				
0.45	500	9000	-	3081				
0.50	500	9000	-	2773				
0.55	500	9000	-	2545				
0.59	500	9000	-	2372				

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K49R37, n_e=1400 1/min								500 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
0.66	500	9000	-	2118				
0.72	500	9000	-	1941				
0.80	500	9000	-	1741				
0.86	500	9000	-	1632				
0.92	500	9000	-	1521				
1.1	500	9000	-	1228				
1.4	500	9000	-	1000				
					 2  2			
0.98	500	9000	-	1424				
1.1	500	9000	-	1309				
1.2	500	9000	-	1120				
1.5	500	9000	-	908				
1.7	500	9000	-	802				
2.0	500	9000	-	701				
2.2	500	9000	-	645				
2.4	500	9000	-	595				
2.6	500	9000	-	543				
2.8	500	9000	-	501				
3.1	500	9000	-	449				
3.5	500	9000	-	401				
3.9	500	9000	-	360				
4.2	500	9000	-	330				
4.7	500	9000	-	300				
5.1	500	9000	-	274				
5.8	500	9000	-	243				
6.5	500	9000	-	217				
7.3	500	9000	-	193				
8.0	500	9000	-	176				
9.2	500	9000	-	152				
11	500	9000	-	125				
14	500	9000	-	99				

K57, n_e=1400 1/min									600 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M
						 3			
9.6	600	7630	5.9	145.14*					
11	600	7630	5.9	123.85					
13	600	7630	5.9	108.29					
14	600	7630	5.9	102.88*					
16	600	7630	5.9	90.26*					
18	600	7630	5.9	76.56*					
20	600	7630	6	69.12					
23	600	7630	6	60.81*					
24	600	7630	6	57.42*					
29	600	7630	6	48.89					
32	600	7630	6.1	44.43					

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K57, n_e=1400 1/min									600 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M
36	600	7630	6.1	38.49					
39	600	7630	6.8	35.70					
46	600	7300	6.9	30.28					
51	600	6930	6.9	27.34					
58	600	6480	6.9	24.05					
62	600	6280	6.9	22.71					
72	575	5910	7	19.34					
80	555	5740	7.2	17.57					
92	535	5430	7.3	15.22					
106	510	5190	7.4	13.25					
117	415	5150	9.4	11.92					
124	415	4990	9.5	11.26					
146	405	4650	9.6	9.59					
161	390	4520	10	8.71					
185	365	4360	10.2	7.55					
213	345	4180	10.4	6.57					
299	300	3800	11	4.69					

K57R37, n_e=1400 1/min								600 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
					3 3			
0.12	600	7630	-	12169				
0.13	600	7630	-	11162*				
0.15	600	7630	-	9503				
0.16	600	7630	-	8547				
0.19	600	7630	-	7277				
0.22	600	7630	-	6478*				
0.25	600	7630	-	5662*				
0.28	600	7630	-	5033				
0.32	600	7630	-	4340				
0.36	600	7630	-	3854				
0.41	600	7630	-	3390				
0.48	600	7630	-	2924				
0.54	600	7630	-	2593				
0.62	600	7630	-	2249				
0.70	600	7630	-	1986				
					3 2			
0.80	600	7630	-	1743				
0.91	600	7630	-	1539				
1.0	600	7630	-	1354				
1.2	600	7630	-	1174				
1.4	600	7630	-	1036*				
1.5	600	7630	-	906*				
1.7	600	7630	-	806				
2.0	600	7630	-	699				
2.3	600	7630	-	615				

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K57R37, n_e=1400 1/min — 600 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
2.6	600	7630	-	544*				
3.0	600	7630	-	473				
3.3	600	7630	-	421				
3.9	600	7630	-	362				
4.4	600	7630	-	319				
5.0	600	7630	-	280				
5.7	600	7630	-	246				
6.5	600	7630	-	215				
7.3	600	7630	-	192				
8.4	600	7630	-	166				
9.7	600	7630	-	145				
11	600	7630	-	129				
13	600	7630	-	111				
14	600	7630	-	97				

K67, n_e=1400 1/min — 820 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
						3				
9.7	820	10300	6.2	144.79*						
11	820	10300	6.2	123.54						
13	820	10300	6.1	108.03						
14	820	10300	6.1	102.62						
16	820	10300	6.2	90.04						
18	820	10300	6.2	76.37						
20	820	10300	6.2	68.95						
23	820	10300	6.2	60.66						
24	820	10300	6.2	57.28						
29	820	10300	6.3	48.77						
32	820	10300	6.3	44.32						
36	800	10500	6.4	38.39						
39	820	10300	7.1	35.62						
46	820	10300	7.1	30.22						
51	820	10300	7.1	27.28						
58	800	10500	7.2	24.00						
62	780	10700	7.2	22.66						
73	760	10800	7.3	19.30						
80	740	11000	7.5	17.54						
92	700	11300	7.5	15.19						
106	670	11500	7.6	13.22						
112	530	12300	8.6	12.48						
132	500	11800	8.8	10.63						
145	480	11500	9.1	9.66						
167	440	11100	9.3	8.37						
192	420	10700	9.4	7.28						
269	350	9860	10	5.20						

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K67R37, n_e=1400 1/min								820 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
					3	3		
0.12	820	10300	-	12139				
0.13	820	10300	-	11134				
0.15	820	10300	-	9479				
0.17	820	10300	-	8173				
0.19	820	10300	-	7259				
0.22	820	10300	-	6462				
0.25	820	10300	-	5648				
0.29	820	10300	-	4846				
0.32	820	10300	-	4329				
0.37	820	10300	-	3750				
0.42	820	10300	-	3315				
0.48	820	10300	-	2917				
0.55	820	10300	-	2532				
0.62	820	10300	-	2244				
0.71	820	10300	-	1981				
					3	2		
0.81	820	10300	-	1739				
0.91	820	10300	-	1535				
1.0	820	10300	-	1351				
1.2	820	10300	-	1171				
1.4	820	10300	-	1034				
1.6	820	10300	-	903				
1.8	820	10300	-	793				
2.0	820	10300	-	697				
2.3	820	10300	-	613				
2.6	820	10300	-	542				
3.0	820	10300	-	471				
3.3	820	10300	-	420				
3.9	820	10300	-	361				
4.3	820	10300	-	323				
5.0	820	10300	-	279				
5.7	820	10300	-	246				
6.5	820	10300	-	217				
7.3	820	10300	-	191				
8.4	820	10300	-	166				
9.7	820	10300	-	144				
11	820	10300	-	122				

K77, n_e=1400 1/min											1550 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
					3						
7.3	1450	16100	5.4	192.18							
7.8	1450	16100	5.4	179.37							
9.1	1550	15400	5.4	154.02							

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K77, n_e=1400 1/min											1550 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
10	1550	15400	5.4	135.28							
11	1550	15400	5.4	128.52							
12	1550	15400	5.4	113.56							
14	1550	15400	5.4	97.05							
16	1550	15400	5.4	88.97							
18	1550	15400	5.4	78.07							
19	1550	15400	5.4	73.99							
22	1550	15400	5.5	64.75							
24	1550	15400	5.5	58.34							
27	1550	15400	5.5	51.18							
31	1550	15400	5.5	45.16							
35	1550	15400	5.6	40.04							
36	1500	15700	6	38.39							
40	1550	15400	6	35.20							
45	1550	15400	6.1	30.89							
48	1550	15400	6.1	29.27							
55	1550	15400	6.1	25.62							
61	1550	15400	6.3	23.08							
69	1500	15700	6.3	20.25							
78	1450	16100	6.3	17.87							
88	1400	15500	6.4	15.84							
104	1340	14800	6.5	13.52							
113	1000	15100	7.9	12.36							
129	990	14400	7.8	10.84							
146	940	13900	7.9	9.56							
165	890	13500	8.2	8.48							
193	820	13100	8.3	7.24							

K77R37, n_e=1400 1/min								1550 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
					3	3		
0.09	1550	15400	-	15310				
0.10	1550	15400	-	14043				
0.12	1550	15400	-	11955				
0.14	1550	15400	-	10217				
0.16	1550	15400	-	8809				
0.19	1550	15400	-	7528				
0.21	1550	15400	-	6606				
0.24	1550	15400	-	5774				
0.28	1550	15400	-	5089				
0.31	1550	15400	-	4489				
0.35	1550	15400	-	3961				
0.40	1550	15400	-	3485				
0.48	1550	15400	-	2901				
0.52	1550	15400	-	2717				
0.59	1550	15400	-	2370				

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K77R37, n_e=1400 1/min								1550 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
						3 2		
0.68	1550	15400	-	2050				
0.79	1550	15400	-	1772				
0.92	1550	15400	-	1514				
1.0	1550	15400	-	1388				
1.1	1550	15400	-	1218				
1.3	1550	15400	-	1053				
1.5	1550	15400	-	924				
1.7	1550	15400	-	815				
2.0	1550	15400	-	709				
2.3	1550	15400	-	622				
2.5	1550	15400	-	552				
2.9	1550	15400	-	485				
3.3	1550	15400	-	428				
3.8	1550	15400	-	367				
4.3	1550	15400	-	328				
4.8	1550	15400	-	290				
5.6	1550	15400	-	252				
6.3	1550	15400	-	221				
7.2	1550	15400	-	195				
8.0	1550	15400	-	175				
9.1	1550	15400	-	154				

K87, n_e=1400 1/min												2700 Nm
n_a 1/ min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L
							3						
7.1	2700	27300	5.3	197.37									
8.0	2700	27300	5.3	174.19									
8.5	2700	27300	5.3	164.34*									
9.5	2700	27300	5.4	147.32*									
11	2700	27300	5.4	126.91*									
12	2700	27300	5.4	115.82									
14	2700	27300	5.4	102.71*									
16	2700	27300	5.4	86.34									
18	2700	27300	5.4	79.34									
20	2700	27300	5.4	70.46									
22	2700	26200	5.4	63.00*									
25	2700	25000	5.5	56.64									
28	2700	23500	5.5	49.16									
32	2600	22800	5.5	44.02									
38	2500	21400	5.5	36.52*									
45	2700	19200	6.1	31.39									
50	2600	18500	6.1	27.88									
56	2500	18000	6.1	24.92									
62	2300	17900	6.2	22.41									
72	2300	16800	6.3	19.45									
80	2200	16300	6.3	17.42									

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K87, n_e=1400 1/min													2700 Nm
n_a 1/ min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L
88	1800	16000	6.5	16.00									
97	2100	15300	6.4	14.45									
111	2000	14800	6.5	12.56									
125	1500	14900	6.7	11.17									
140	1500	14200	6.8	10.00									
169	1400	13500	7	8.29									
194	1300	13200	7.1	7.21									

K87R57, n_e=1400 1/min										2700 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
						3	3			
0.09	2700	27300	-	14829						
0.11	2700	27300	-	13168						
0.12	2700	27300	-	11737						
0.14	2700	27300	-	10217						
0.15	2700	27300	-	9073						
0.18	2700	27300	-	7854						
0.20	2700	27300	-	6832						
0.24	2700	27300	-	5930						
0.27	2700	27300	-	5240						
0.31	2700	27300	-	4562						
0.35	2700	27300	-	4037						
0.39	2700	27300	-	3609						
0.45	2700	27300	-	3107						
0.51	2700	27300	-	2728						
0.59	2700	27300	-	2371						
						3	2			
0.67	2700	27300	-	2088						
0.76	2700	27300	-	1854						
0.84	2700	27300	-	1657						
0.99	2700	27300	-	1415						
1.1	2700	27300	-	1229						
1.3	2700	27300	-	1078						
1.5	2700	27300	-	951						
1.7	2700	27300	-	837						
1.9	2700	27300	-	726						
2.2	2700	27300	-	638						
2.5	2700	27300	-	562*						
3.0	2700	27300	-	474*						
3.3	2700	27300	-	426						
3.8	2700	27300	-	373						
4.2	2700	27300	-	330						
4.8	2700	27300	-	294						
5.6	2700	27300	-	250						
5.9	2700	27300	-	236						
7.0	2700	27300	-	201						
7.7	2700	27300	-	183						

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K87R57, n_e=1400 1/min — 2700 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
8.8	2700	27300	-	159						
9.9	2600	27400	-	141						

K97, n_e=1400 1/min — 4300 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S
							3					
8.0	4300	40000	6.8	176.05*								
9.1	4300	40000	6.8	153.21*								
10.0	4300	40000	6.8	140.28								
11	4300	40000	6.8	123.93*								
13	4300	40000	6.8	105.13								
14	4300	40000	6.8	96.80								
16	4300	38800	6.8	86.52								
18	4300	37100	6.8	77.89*								
20	4300	35600	6.9	70.54								
22	4300	33800	6.9	62.55								
25	4300	32300	6.9	56.55								
29	4300	30000	6.9	47.93*								
33	4300	28300	6.9	41.87								
37	4300	27100	7.4	38.30								
41	4300	25700	7.5	34.23								
45	4300	24500	7.5	30.82								
50	4300	23300	7.5	27.91								
57	4300	22000	7.6	24.75								
63	4300	20900	7.6	22.37								
74	4300	19100	7.6	18.96								
85	4300	17800	7.7	16.56								
101	4300	16100	7.7	13.85								
117	3890	16200	7.8	11.99								
134	2870	16400	9.7	10.41								
161	2660	15800	9.8	8.71								
186	2400	15700	10	7.54								

K97R57, n_e=1400 1/min — 4300 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
						3	3			
0.08	4300	40000	-	18091						
0.08	4300	40000	-	16666						
0.09	4300	40000	-	14897						
0.11	4300	40000	-	13182						
0.12	4300	40000	-	11677						
0.14	4300	40000	-	10317						
0.15	4300	40000	-	9083						
0.17	4300	40000	-	8054						

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K97R57, n_e=1400 1/min										4300 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
0.20	4300	40000	-	6970						
0.23	4300	40000	-	6027						
0.26	4300	40000	-	5391						
0.30	4300	40000	-	4669						
0.34	4300	40000	-	4082						
0.39	4300	40000	-	3583						
0.45	4300	40000	-	3108*						
0.51	4300	40000	-	2757						
										
0.58	4300	40000	-	2419						
0.66	4300	40000	-	2123						
0.75	4300	40000	-	1856						
0.86	4300	40000	-	1625						
0.98	4300	40000	-	1430						
1.1	4300	40000	-	1261						
1.3	4300	40000	-	1102						
1.5	4300	40000	-	957						
1.6	4300	40000	-	855						
1.9	4300	40000	-	743						
2.1	4300	40000	-	652*						
2.4	4300	40000	-	573						
2.8	4300	40000	-	504						
3.2	4300	40000	-	437						
3.7	4300	40000	-	382*						
4.1	4300	40000	-	342*						
4.6	4300	40000	-	305						
5.4	4300	40000	-	258						
6.0	4300	40000	-	232						
7.0	4300	40000	-	199						

K107, n_e=1400 1/min											8000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M	DRN250M
											
9.8	8000	65000	5.7	143.47*							
12	8000	61500	5.7	121.46							
12	8000	59300	5.8	112.41*							
14	8000	56200	5.8	100.75							
15	8000	53500	5.8	90.96*							
17	8000	50900	5.8	82.61							
19	8000	47900	5.8	73.30							
21	8000	45400	5.8	66.52*							
24	8000	41700	5.8	57.17*							
28	7840	39300	5.8	49.90							
33	7360	37900	5.8	42.33*							
38	7200	35800	5.8	37.00*							
43	7200	33200	6.4	32.69							
45	6800	34200	5.9	31.28*							

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K107, n_e=1400 1/min											8000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M	DRN250M
48	7200	30700	6.5	29.00							
53	7200	28800	6.4	26.32							
62	7200	25800	6.5	22.62							
71	7200	23200	6.5	19.74							
84	7050	21000	6.5	16.75							
96	6890	19500	6.6	14.64							
104	4300	29200	8.8	13.43							
119	4300	27500	8.8	11.73							
141	4190	25800	8.9	9.94							
161	4070	24600	9	8.69							
190	3600	24400	9	7.35							

K107R77, n_e=1400 1/min											8000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
						 3  3					
0.10	8000	65000	-	14311*							
0.11	8000	65000	-	12211							
0.13	8000	65000	-	10677							
0.15	8000	65000	-	9524							
0.17	8000	65000	-	8328							
0.19	8000	65000	-	7270							
0.23	8000	65000	-	6184							
0.25	8000	65000	-	5662							
0.27	8000	65000	-	5138							
0.32	8000	65000	-	4359*							
0.37	8000	65000	-	3810*							
0.42	8000	65000	-	3358							
0.47	8000	65000	-	2977*							
0.54	8000	65000	-	2599							
0.61	8000	65000	-	2286							
0.72	8000	65000	-	1939							
						 3  2					
0.82	8000	65000	-	1713							
0.90	8000	65000	-	1554							
1.0	8000	65000	-	1336*							
1.2	8000	65000	-	1166							
1.4	8000	65000	-	1030							
1.5	8000	65000	-	904							
1.8	8000	65000	-	793*							
2.0	8000	65000	-	696*							
2.3	8000	65000	-	615							
2.7	8000	65000	-	522							
3.0	8000	65000	-	461*							
3.4	8000	65000	-	408*							
3.8	8000	65000	-	364							
4.4	8000	65000	-	318							
4.9	8000	65000	-	286*							

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K107R77, n_e=1400 1/min											8000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
5.6	8000	65000	-	251							
6.3	8000	65000	-	222*							
7.1	8000	65000	-	196*							
8.0	7200	65000	-	174							
9.1	7200	65000	-	154							
10	7200	65000	-	140							

K127, n_e=1400 1/min									13000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M	DRN250M DRN280S DRN280M
						3			
9.6	13000	79200	5.2	146.07					
10	13000	79200	5.2	136.14					
11	13000	79200	5.2	122.48					
13	13000	79200	5.2	110.18					
16	13000	75100	5.2	89.89					
17	13000	72100	5.3	81.98					
20	13000	67700	5.3	70.95*					
22	13000	64000	5.3	62.60					
26	13000	59800	5.3	54.07					
29	13000	56500	5.3	47.82					
35	13000	52000	5.3	40.19					
39	13000	49400	5.6	36.25					
45	13000	45900	5.6	31.37					
51	13000	43000	5.7	27.68					
59	13000	39800	5.7	23.91					
66	13000	37200	5.7	21.15					
79	13000	32600	5.8	17.77					
98	12100	31000	5.8	14.35					
109	8530	35400	8	12.79					
130	8000	33900	8.1	10.74					
161	7230	32500	8.1	8.68					

K127R77, n_e=1400 1/min											13000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
						3	3				
0.08	13000	79200	-	17550							
0.09	13000	79200	-	16006							
0.09	13000	79200	-	14975							
0.11	13000	79200	-	12440							
0.13	13000	79200	-	10915							
0.14	13000	79200	-	9819							
0.17	13000	79200	-	8443							
0.19	13000	79200	-	7482							
0.21	13000	79200	-	6565							

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K127R77, n_e=1400 1/min											13000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
0.24	13000	79200	-	5804							
0.28	13000	79200	-	5027							
0.32	13000	79200	-	4423							
0.36	13000	79200	-	3889							
0.42	13000	79200	-	3311							
0.47	13000	79200	-	3009							
0.54	13000	79200	-	2607							
0.62	13000	79200	-	2268							
						3	2				
0.73	13000	79200	-	1926							
0.80	13000	79200	-	1757							
0.91	13000	79200	-	1541							
1.0	13000	79200	-	1342							
1.2	13000	79200	-	1177							
1.4	13000	79200	-	1025							
1.6	13000	79200	-	899							
1.8	13000	79200	-	790							
2.0	13000	79200	-	704							
2.3	13000	79200	-	610							
2.6	13000	79200	-	549							
2.9	13000	79200	-	477							
3.3	13000	79200	-	418							

K127R87, n_e=1400 1/min												13000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L
							3	2				
2.6	13000	79200	-	536								
3.0	13000	79200	-	473								
3.3	13000	79200	-	418								
3.8	13000	79200	-	367								
4.2	13000	79200	-	330								
4.9	13000	79200	-	287								
5.5	13000	79200	-	253								
6.6	13000	79200	-	213								
7.0	12000	79700	-	200								
8.4	12000	79700	-	166								
9.5	12000	79700	-	147								

K157, n_e=1400 1/min										18000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M	DRN250M DRN280S DRN280M	DRN315S DRN315M	DRN315L DRN315H
						3				
9.3	18000	112200	5.2	150.41						
11	18000	106500	5.2	122.39						
14	18000	98000	5.2	100.22						
15	18000	94400	5.2	91.65						

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K157, n_e=1400 1/min											18000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M	DRN250M DRN280S DRN280M	DRN315S DRN315M	DRN315L DRN315H
18	18000	88900	5.2	79.75						
20	18000	84200	5.2	70.38						
23	18000	79000	5.2	61.02						
26	18000	74900	5.2	54.29						
30	18000	70000	5.2	46.79						
37	18000	63400	5.3	38.02						
45	18000	57500	5.6	31.30						
51	18000	54000	5.6	27.62						
58	18000	50000	5.6	23.95						
66	18000	47000	5.6	21.31						
76	18000	43200	5.7	18.37						
94	18000	38200	5.8	14.92						
111	17000	36600	5.8	12.65						

K157R97, n_e=1400 1/min													18000 Nm
n_a 1/ min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S
							3	3					
0.08	18000	112200	-	17679									
0.09	18000	112200	-	15729									
0.10	18000	112200	-	14721									
0.11	18000	112200	-	13097									
0.12	18000	112200	-	11368									
0.14	18000	112200	-	10114									
0.16	18000	112200	-	8718									
0.18	18000	112200	-	7734									
0.20	18000	112200	-	6881									
0.24	18000	112200	-	5931									
0.28	18000	112200	-	5074									
0.31	18000	112200	-	4514									
0.35	18000	112200	-	3979									
0.40	18000	112200	-	3516									
0.46	18000	112200	-	3051									
0.54	18000	112200	-	2610									
0.60	18000	112200	-	2322									
0.69	18000	112200	-	2029									
0.78	18000	112200	-	1805									
							3	2					
0.84	18000	112200	-	1659									
1.0	18000	112200	-	1365									
1.1	18000	112200	-	1229*									
1.3	18000	112200	-	1093*									
1.5	18000	112200	-	942									
1.6	18000	112200	-	854									
1.9	18000	112200	-	756*									
2.1	18000	112200	-	661									
2.5	18000	112200	-	567									
2.8	18000	112200	-	504									
3.2	18000	112200	-	434*									

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K157R97, n_e=1400 1/min													18000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S
3.7	18000	112200	-	379									
4.2	18000	112200	-	333									
4.8	18000	112200	-	291									

K157R107, n_e=1400 1/min										18000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M
						3 2				
3.6	18000	112200	-	385						
4.3	18000	112200	-	325						
4.7	18000	112200	-	299						
5.5	18000	112200	-	253						
6.1	18000	112200	-	230						
6.6	18000	112200	-	213						
7.5	18000	112200	-	187						
8.9	18000	112200	-	157						
11	18000	106500	-	122						
13	18000	100700	-	107						

K167, n_e=1400 1/min										32000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M	DRN250M DRN280S DRN280M	DRN315S DRN315M	DRN315L DRN315H
						3				
8.5	32000	150000	4.5	164.50						
10	32000	150000	4.5	134.99						
13	32000	150000	4.5	109.83						
16	32000	147200	4.5	87.86						
18	32000	140100	4.5	78.14						
21	32000	132000	4.5	68.07						
23	32000	125600	4.5	60.74						
27	32000	117000	4.6	51.77						
33	32000	107400	4.6	42.89						
38	32000	99700	4.6	36.61						
43	32000	93700	4.8	32.25						
49	32000	88600	4.8	28.77						
57	32000	81700	4.9	24.52						
69	32000	74000	4.9	20.32						
81	32000	67900	5	17.34						

K167R97, n_e=1400 1/min													32000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S
							3 3						
0.07	32000	150000	-	19723									
0.08	32000	150000	-	17406									
0.09	32000	150000	-	15000									
0.11	32000	150000	-	13238									

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K167R97, n_e=1400 1/min — 32000 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S
0.12	32000	150000	-	11573									
0.14	32000	150000	-	10264									
0.16	32000	150000	-	8628									
0.21	32000	150000	-	6562									
0.26	32000	150000	-	5355									
0.29	32000	150000	-	4788									
0.34	32000	150000	-	4079									
0.41	32000	150000	-	3376									
0.51	32000	150000	-	2755									
0.62	32000	150000	-	2263									
							3 2						
0.64	32000	150000	-	2182									
0.82	32000	150000	-	1704									
0.99	32000	150000	-	1408									
1.1	32000	150000	-	1296									
1.3	32000	150000	-	1101									
1.5	32000	150000	-	944									
1.7	32000	150000	-	843									
1.8	32000	150000	-	757									
2.2	32000	150000	-	632									
2.5	32000	150000	-	561									
2.9	32000	150000	-	481									
3.3	32000	150000	-	423									
3.8	32000	150000	-	369									

K167R107, n_e=1400 1/min — 32000 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M
						3 2				
4.4	32000	150000	-	318						
5.0	32000	150000	-	278						
5.7	32000	150000	-	244						
6.6	32000	150000	-	213						
6.8	32000	150000	-	206						
7.8	32000	150000	-	180						
8.8	32000	150000	-	160						
10	32000	150000	-	135						
12	32000	150000	-	118						

K187, n_e=1400 1/min — 50000 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M	DRN250M DRN280S DRN280M	DRN315S DRN315M	DRN315L DRN315H
						3				
7.8	50000	190000	3.8	179.86						
8.5	50000	190000	3.8	165.21						
9.7	50000	186200	3.8	144.59						
11	50000	177700	3.8	129.69						
12	50000	167100	3.8	112.60						

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K187, n_e=1400 1/min											50000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M	DRN250M DRN280S DRN280M	DRN315S DRN315M	DRN315L DRN315H
14	50000	160100	3.8	102.16						
16	50000	149700	3.8	88.00						
19	50000	138100	3.8	73.96						
22	50000	129000	3.8	64.04						
26	50000	118100	3.9	53.36						
31	50000	108900	3.9	45.50*						
33	50000	105200	4.1	42.51						
36	50000	99900	4.1	38.57						
42	50000	92200	4.2	33.23						
50	50000	83500	4.2	27.92						
58	47600	80500	4.2	24.18						
69	43900	78000	4.3	20.15						
81	41400	75000	4.3	17.18						

K187R97, n_e=1400 1/min													50000 Nm
n_a 1/ min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S
							3	3					
0.04	50000	190000	-	32625									
0.05	50000	190000	-	27165									
0.06	50000	190000	-	24353									
0.07	50000	190000	-	19144									
0.08	50000	190000	-	16978									
0.10	50000	190000	-	14272									
0.11	50000	190000	-	13116									
0.12	50000	190000	-	11647									
0.13	50000	190000	-	10413									
0.15	50000	190000	-	9363									
0.17	50000	190000	-	8126									
0.19	50000	190000	-	7343									
0.21	50000	190000	-	6747									
0.23	50000	190000	-	5991									
0.26	50000	190000	-	5358									
0.29	50000	190000	-	4817									
0.32	50000	190000	-	4370									
0.50	50000	190000	-	2818*									
							3	2					
0.39	50000	190000	-	3609									
0.46	50000	190000	-	3062									
0.56	50000	190000	-	2519									
0.62	50000	190000	-	2268									
0.68	50000	190000	-	2054									
0.77	50000	190000	-	1821									
0.87	50000	190000	-	1605									
1.0	50000	190000	-	1395									
1.2	50000	190000	-	1196									
1.3	50000	190000	-	1046									
1.5	50000	190000	-	945									
1.9	50000	190000	-	738									

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K187R97, n_e=1400 1/min													50000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S
2.3	50000	190000	-	621									
2.7	50000	190000	-	527									

K187R107, n_e=1400 1/min										50000 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S DRN225M
					3	2				
1.7	50000	190000	-	835						
1.9	50000	190000	-	729						
2.3	50000	190000	-	622						
2.7	50000	190000	-	520						
3.1	50000	190000	-	454						
3.9	50000	190000	-	355						
5.4	50000	190000	-	261						
6.3	50000	190000	-	221						
7.3	50000	190000	-	193						
8.6	50000	190000	-	163						

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10.3 K..DRN.. selection tables in kW

P_m = 0.12 kW											
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.08	10800	17550	80300	1.20						
0.09	9890	16006	80700	1.30						
0.09	9260	14975	81000	1.40	**K**	**127R77**	**DR**	**63S4**	470	631
0.11	7690	12440	81600	1.70	**KF**	**127R77**	**DR**	**63S4**	510	631
0.13	6750	10915	81900	1.95	**KA**	**127R77**	**DR**	**63S4**	440	631
0.14	6070	9819	82000	2.1	**KAF**	**127R77**	**DR**	**63S4**	480	631
0.16	5180	8443	82300	2.5						
0.18	4620	7482	82400	2.8						
0.10	8850	14311	65000	0.90						
0.11	7550	12211	65000	1.05						
0.13	6600	10677	65000	1.20						
0.14	5890	9524	65000	1.35	**K**	**107R77**	**DR**	**63S4**	310	631
0.17	5150	8328	65000	1.55	**KF**	**107R77**	**DR**	**63S4**	320	631
0.19	4490	7270	65000	1.80	**KA**	**107R77**	**DR**	**63S4**	280	631
0.22	3700	6184	65000	2.2	**KAF**	**107R77**	**DR**	**63S4**	305	631
0.24	3210	5662	65000	2.5						
0.27	2910	5138	65000	2.7						
0.32	2670	4359	65000	3.0						
0.17	5460	8054	39400	0.80						
0.20	4420	6970	40000	0.95						
0.23	4000	6027	40000	1.05						
0.26	3650	5391	40000	1.20	**K**	**97R57**	**DR**	**63S4**	180	631
0.30	3020	4669	40000	1.40	**KF**	**97R57**	**DR**	**63S4**	200	631
0.34	2730	4082	40000	1.55	**KA**	**97R57**	**DR**	**63S4**	160	631
0.39	2370	3583	40000	1.80	**KAF**	**97R57**	**DR**	**63S4**	185	631
0.44	2090	3108	40000	2.0						
0.50	1770	2757	40000	2.4						
0.57	1650	2419	40000	2.6						
0.65	1420	2123	40000	3.0						
0.74	1270	1856	40000	3.4	**K**	**97R57**	**DR**	**63S4**	180	631
0.85	1040	1625	40000	4.1	**KF**	**97R57**	**DR**	**63S4**	200	631
0.96	890	1430	40000	4.8	**KA**	**97R57**	**DR**	**63S4**	160	631
1.1	860	1261	40000	5.0	**KAF**	**97R57**	**DR**	**63S4**	185	631
1.2	755	1102	40000	5.7						
0.26	3470	5240	26200	0.80						
0.30	2890	4562	27000	0.95						
0.34	2680	4037	27300	1.00	**K**	**87R57**	**DR**	**63S4**	120	631
0.38	2390	3609	27600	1.15	**KF**	**87R57**	**DR**	**63S4**	130	631
0.44	2060	3107	28000	1.30	**KA**	**87R57**	**DR**	**63S4**	105	631
0.51	1730	2728	28300	1.55	**KAF**	**87R57**	**DR**	**63S4**	120	631
0.58	1530	2371	28400	1.75						
0.66	1430	2088	28500	1.90						
0.74	1270	1854	28600	2.1						
0.83	1130	1657	28700	2.4						
0.97	960	1415	28800	2.8	**K**	**87R57**	**DR**	**63S4**	120	631
1.1	830	1229	28900	3.2	**KF**	**87R57**	**DR**	**63S4**	125	631
1.3	720	1078	28900	3.7	**KA**	**87R57**	**DR**	**63S4**	105	631
1.4	610	951	29000	4.4	**KAF**	**87R57**	**DR**	**63S4**	120	631
1.6	520	837	29000	5.2						
1.9	450	726	29000	5.9						
					K	**77R37**	**DR**	**63S4**	69	631
0.51	1840	2717	11500	0.85	**KF**	**77R37**	**DR**	**63S4**	78	631
0.58	1530	2370	15500	1.00	**KA**	**77R37**	**DR**	**63S4**	62	631
					KAF	**77R37**	**DR**	**63S4**	70	631

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P_m = 0.12 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.67	1430	2050	16100	1.10						
0.78	1220	1772	17300	1.25						
0.91	1040	1514	18100	1.50						
0.99	960	1388	18500	1.60	**K**	**77R37**	**DR**	**63S4**	69	631
1.1	840	1218	18900	1.85	**KF**	**77R37**	**DR**	**63S4**	77	631
1.3	735	1053	19200	2.1	**KA**	**77R37**	**DR**	**63S4**	62	631
1.5	645	924	19400	2.4	**KAF**	**77R37**	**DR**	**63S4**	70	631
1.7	570	815	19600	2.7						
2.0	445	709	19800	3.5						
2.2	390	622	19900	3.9						
1.0	960	1351	6940	0.85						
1.2	820	1171	10300	1.00						
1.3	720	1034	11100	1.15						
1.5	600	903	11900	1.35						
1.7	570	793	12100	1.45						
2.0	455	697	12600	1.80						
2.2	400	613	12800	2.0	**K**	**67R37**	**DR**	**63S4**	45	631
2.6	350	542	13000	2.3	**KF**	**67R37**	**DR**	**63S4**	51	631
2.9	325	471	13000	2.5	**KA**	**67R37**	**DR**	**63S4**	42	631
3.3	270	420	13000	3.0	**KAF**	**67R37**	**DR**	**63S4**	48	631
3.8	245	361	13000	3.3						
4.3	215	323	13000	3.8						
5.0	181	279	13000	4.5						
5.6	159	246	13000	5.2						
6.4	139	217	13000	5.9						
1.5	605	906	7580	1.00						
1.7	545	806	8060	1.10						
2.0	455	699	8620	1.30						
2.2	400	615	8870	1.50						
2.5	350	544	9080	1.70						
2.9	320	473	9190	1.85	**K**	**57R37**	**DR**	**63S4**	39	631
3.3	270	421	9390	2.2	**KF**	**57R37**	**DR**	**63S4**	44	631
3.8	245	362	9470	2.4	**KA**	**57R37**	**DR**	**63S4**	37	631
4.3	215	319	9570	2.8	**KAF**	**57R37**	**DR**	**63S4**	43	631
4.9	181	280	9690	3.3						
5.6	160	246	9760	3.8						
6.4	141	215	9810	4.3						
7.2	126	192	9850	4.8						
1.5	615	908	9000	0.80						
1.7	545	802	9000	0.90						
2.0	460	701	9000	1.10						
2.1	445	645	9000	1.10						
2.3	385	595	9000	1.30						
2.5	360	543	9000	1.35						
2.8	315	501	9000	1.60	**K**	**49R37**	**DR**	**63S4**	43	631
3.1	285	449	9000	1.75	**KF**	**49R37**	**DR**	**63S4**	45	631
3.4	245	401	9000	2.0	**KA**	**49R37**	**DR**	**63S4**	40	631
3.8	225	360	9000	2.2	**KAF**	**49R37**	**DR**	**63S4**	45	631
4.2	205	330	9000	2.4						
4.6	197	300	9000	2.5						
5.0	172	274	9000	2.9						
5.7	149	243	9000	3.3						
6.4	138	217	9000	3.6						
7.2	130	193	9000	3.9						
2.5	380	552	6170	1.05						
2.8	320	495	6840	1.25	**K**	**47R37**	**DR**	**63S4**	33	631
3.2	285	426	7160	1.40	**KF**	**47R37**	**DR**	**63S4**	36	631
3.7	240	375	7510	1.65	**KA**	**47R37**	**DR**	**63S4**	32	631
4.2	225	327	7620	1.75	**KAF**	**47R37**	**DR**	**63S4**	35	631
4.8	198	289	7780	2.0						

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P_m = 0.12 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.7	330	504	7500	0.90						
3.0	315	454	7500	0.95						
3.5	265	399	7500	1.10						
3.8	250	365	7500	1.20						
4.4	205	312	7500	1.45						
4.6	200	299	7500	1.50	**K**	**39R17**	**DR**	**63S4**	24	631
5.4	172	254	7500	1.75	**KF**	**39R17**	**DR**	**63S4**	26	631
5.9	154	234	7500	1.95	**KA**	**39R17**	**DR**	**63S4**	23	631
6.6	140	210	7500	2.1	**KAF**	**39R17**	**DR**	**63S4**	24	631
7.3	128	189	7500	2.3						
7.9	120	174	7500	2.5						
8.8	104	156	7500	2.9						
9.7	96	142	7500	3.1						
12	78	117	7500	3.8						
4.0	240	346	3540	0.80						
4.5	205	304	5570	0.95						
5.2	189	267	5760	1.05	**K**	**37R17**	**DR**	**63S4**	19	631
5.9	163	234	6010	1.20	**KF**	**37R17**	**DR**	**63S4**	21	631
6.7	142	205	6180	1.40	**KA**	**37R17**	**DR**	**63S4**	19	631
7.6	124	181	6300	1.60	**KAF**	**37R17**	**DR**	**63S4**	20	631
8.6	109	160	6400	1.85						
10	91	136	6490	2.2						
					K	**67**	**DR**	**63M6**	34	585
6.2	184	144.79*	13000	4.4	**KF**	**67**	**DR**	**63M6**	40	586
					KA	**67**	**DR**	**63M6**	31	587
					KAF	**67**	**DR**	**63M6**	37	586
6.2	185	145.14*	9680	3.2						
7.3	158	123.85	9760	3.8	**K**	**57**	**DR**	**63M6**	28	579
8.3	138	108.29	9820	4.4	**KF**	**57**	**DR**	**63M6**	33	580
8.8	131	102.88*	9840	4.6	**KA**	**57**	**DR**	**63M6**	26	581
10.0	115	90.26*	9880	5.2	**KAF**	**57**	**DR**	**63M6**	32	580
12	98	76.56*	9930	6.2						
9.5	120	145.14*	9870	5.0	**K**	**57**	**DR**	**63S4**	28	579
11	103	123.85	9920	5.8	**KF**	**57**	**DR**	**63S4**	33	580
13	90	108.29	9950	6.7	**KA**	**57**	**DR**	**63S4**	26	581
13	85	102.88*	9960	7.0	**KAF**	**57**	**DR**	**63S4**	32	580
15	75	90.26*	9990	8.0						
					K	**47**	**DR**	**63M6**	22	569
6.8	168	131.87*	7930	2.4	**KF**	**47**	**DR**	**63M6**	26	570
7.4	155	121.48*	7990	2.6	**KA**	**47**	**DR**	**63M6**	22	571
8.6	133	104.37	8070	3.0	**KAF**	**47**	**DR**	**63M6**	24	570
					K	**47**	**DR**	**63S4**	22	569
10	110	131.87*	8140	3.6	**KF**	**47**	**DR**	**63S4**	26	570
11	101	121.48*	8170	4.0	**KA**	**47**	**DR**	**63S4**	22	571
					KAF	**47**	**DR**	**63S4**	24	570
8.5	136	106.38	6230	1.50	**K**	**37**	**DR**	**63M6**	16	559
9.2	124	97.81	6300	1.60	**KF**	**37**	**DR**	**63M6**	18	560
11	107	83.69	6410	1.90	**KA**	**37**	**DR**	**63M6**	16	561
12	92	72.54	6480	2.2	**KAF**	**37**	**DR**	**63M6**	17	560
13	88	106.38	6500	2.3						
14	81	97.81	6530	2.5	**K**	**37**	**DR**	**63S4**	16	559
16	70	83.69	6570	2.9	**KF**	**37**	**DR**	**63S4**	18	560
19	60	72.54	6600	3.3	**KA**	**37**	**DR**	**63S4**	16	561
20	56	67.80	6610	3.6	**KAF**	**37**	**DR**	**63S4**	17	560
19	60	71.93	5190	2.2						
21	55	66.25	5200	2.4	**K**	**29**	**DR**	**63S4**	10	552
23	51	61.28	5210	2.6	**KF**	**29**	**DR**	**63S4**	11	556
25	46	54.89	5230	2.8	**KA**	**29**	**DR**	**63S4**	9.8	558
27	42	50.35	5240	3.1	**KAF**	**29**	**DR**	**63S4**	11	556
32	36	42.87	5260	3.6						

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P_m = 0.12 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
24	49	58.68	4460	1.45						
26	45	53.88	4480	1.55						
28	41	49.69	4500	1.70						
31	37	44.48	4500	1.85						
34	34	40.63	4500	2.00						
40	28	34.29	4500	2.2						
43	26	31.74	4500	3.0						
47	24	29.29	4500	2.5						
47	24	29.14	4500	3.3	**K**	**19**	**DR**	**63S4**	8.5	546
51	23	27.16	4500	2.7	**KF**	**19**	**DR**	**63S4**	8.8	549
51	22	26.88	4500	3.6	**KA**	**19**	**DR**	**63S4**	8.0	551
57	20	24.06	4460	4.0	**KAF**	**19**	**DR**	**63S4**	8.4	549
63	18	21.98	4340	4.4						
74	15	18.55	4120	5.2						
87	13	15.84	3920	6.1						
94	12	14.69	3830	6.6						
109	11	12.70	3660	7.6						
117	9.8	11.84	3580	8.0						
134	8.6	10.32	3430	8.9						
144	8.0	9.58	3370	7.9						

P_m = 0.18 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.09	15700	14975	74400	0.80						
0.11	13100	12440	79100	1.00						
0.12	11500	10915	80000	1.15						
0.13	10300	9819	80500	1.25						
0.16	8870	8443	81100	1.45	**K**	**127R77**	**DR**	**63M4**	470	631
0.18	7880	7482	81500	1.65	**KF**	**127R77**	**DR**	**63M4**	510	631
0.20	6910	6565	81800	1.90	**KA**	**127R77**	**DR**	**63M4**	440	631
0.23	5880	5804	82100	2.2	**KAF**	**127R77**	**DR**	**63M4**	480	631
0.26	5210	5027	82300	2.5						
0.30	4480	4423	82400	2.9						
0.34	3900	3889	82500	3.3						
0.40	3240	3311	82600	4.0						
0.16	8770	8328	65000	0.90						
0.18	7660	7270	65000	1.05						
0.21	6410	6184	65000	1.25						
0.23	5690	5662	65000	1.40						
0.26	5160	5138	65000	1.55	**K**	**107R77**	**DR**	**63M4**	310	631
0.30	4580	4359	65000	1.75	**KF**	**107R77**	**DR**	**63M4**	320	631
0.35	4000	3810	65000	2.0	**KA**	**107R77**	**DR**	**63M4**	280	631
0.39	3400	3358	65000	2.4	**KAF**	**107R77**	**DR**	**63M4**	305	631
0.44	3080	2977	65000	2.6						
0.51	2690	2599	65000	3.0						
0.58	2310	2286	65000	3.4						
0.28	5050	4669	39800	0.85						
0.32	4530	4082	40000	0.95	**K**	**97R57**	**DR**	**63M4**	180	631
0.37	3940	3583	40000	1.10	**KF**	**97R57**	**DR**	**63M4**	200	631
0.42	3450	3108	40000	1.25	**KA**	**97R57**	**DR**	**63M4**	160	631
0.48	2980	2757	40000	1.45	**KAF**	**97R57**	**DR**	**63M4**	185	631
0.55	2720	2419	40000	1.60						
0.62	2360	2123	40000	1.80						
0.71	2090	1856	40000	2.1						
0.81	1760	1625	40000	2.4						
0.92	1520	1430	40000	2.8	**K**	**97R57**	**DR**	**63M4**	180	631
1.0	1420	1261	40000	3.0	**KF**	**97R57**	**DR**	**63M4**	200	631
1.2	1240	1102	40000	3.5	**KA**	**97R57**	**DR**	**63M4**	160	631
1.4	1080	957	40000	4.0	**KAF**	**97R57**	**DR**	**63M4**	185	631
1.5	970	855	40000	4.4						
1.8	770	743	40000	5.6						
2.0	690	652	40000	6.2						

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P_m = 0.18 kW											
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
0.42	3430	3107	26200	0.80	**K**	**87R57**	**DR**	**63M4**		120	631
0.48	2920	2728	27000	0.90	**KF**	**87R57**	**DR**	**63M4**		130	631
0.56	2560	2371	27400	1.05	**KA**	**87R57**	**DR**	**63M4**		105	631
					KAF	**87R57**	**DR**	**63M4**		120	631
0.63	2350	2088	27700	1.15							
0.71	2080	1854	28000	1.30							
0.80	1860	1657	28200	1.45							
0.93	1590	1415	28400	1.70	**K**	**87R57**	**DR**	**63M4**		120	631
1.1	1380	1229	28600	1.95	**KF**	**87R57**	**DR**	**63M4**		125	631
1.2	1200	1078	28700	2.2	**KA**	**87R57**	**DR**	**63M4**		105	631
1.4	1030	951	28800	2.6	**KAF**	**87R57**	**DR**	**63M4**		120	631
1.6	890	837	28800	3.0							
1.8	775	726	28900	3.5							
0.87	1710	1514	14100	0.90							
0.95	1570	1388	15200	1.00							
1.1	1380	1218	16500	1.10							
1.2	1200	1053	17400	1.30							
1.4	1050	924	18100	1.45	**K**	**77R37**	**DR**	**63M4**		69	631
1.6	930	815	18600	1.65	**KF**	**77R37**	**DR**	**63M4**		77	631
1.9	760	709	19100	2.0	**KA**	**77R37**	**DR**	**63M4**		62	631
2.1	665	622	19300	2.3	**KAF**	**77R37**	**DR**	**63M4**		70	631
2.4	600	552	19500	2.6							
2.7	525	485	19600	2.9							
3.1	465	428	19800	3.3							
3.6	410	367	19800	3.8							
1.7	920	793	9240	0.90							
1.9	760	697	10800	1.05							
2.2	670	613	11500	1.20							
2.4	590	542	12000	1.40	**K**	**67R37**	**DR**	**63M4**		45	631
2.8	535	471	12200	1.50	**KF**	**67R37**	**DR**	**63M4**		51	631
3.2	455	420	12600	1.80	**KA**	**67R37**	**DR**	**63M4**		42	631
3.6	405	361	12800	2.0	**KAF**	**67R37**	**DR**	**63M4**		48	631
4.1	360	323	12900	2.3							
4.7	300	279	13000	2.7							
2.4	590	544	7690	1.00							
2.8	535	473	8150	1.10							
3.1	455	421	8620	1.30							
3.6	405	362	8840	1.45	**K**	**57R37**	**DR**	**63M4**		39	631
4.1	360	319	9050	1.65	**KF**	**57R37**	**DR**	**63M4**		44	631
4.7	300	280	9270	1.95	**KA**	**57R37**	**DR**	**63M4**		37	631
5.4	265	246	9400	2.2	**KAF**	**57R37**	**DR**	**63M4**		43	631
6.1	235	215	9510	2.5							
6.9	210	192	9600	2.8							
7.9	182	166	9690	3.3							
2.4	595	543	9000	0.85							
2.6	530	501	9000	0.95							
2.9	475	449	9000	1.05							
3.3	415	401	9000	1.20							
3.7	380	360	9000	1.30							
4.0	345	330	9000	1.45	**K**	**49R37**	**DR**	**63M4**		43	631
4.4	325	300	9000	1.55	**KF**	**49R37**	**DR**	**63M4**		45	631
4.8	285	274	9000	1.70	**KA**	**49R37**	**DR**	**63M4**		40	631
5.4	250	243	9000	1.95	**KAF**	**49R37**	**DR**	**63M4**		45	631
6.1	230	217	9000	2.2							
6.8	210	193	9000	2.4							
7.5	190	176	9000	2.6							
8.7	158	152	9000	3.2							
11	133	125	9000	3.8							
3.5	405	375	5600	1.00							
4.0	365	327	6320	1.10							
4.6	325	289	6800	1.20							
5.2	275	256	7240	1.45	**K**	**47R37**	**DR**	**63M4**		33	631
5.9	250	225	7450	1.60	**KF**	**47R37**	**DR**	**63M4**		36	631
6.7	215	198	7680	1.85	**KA**	**47R37**	**DR**	**63M4**		32	631
7.7	188	171	7840	2.1	**KAF**	**47R37**	**DR**	**63M4**		35	631
8.6	168	153	7930	2.4							
10	147	131	8020	2.7							

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P_m = 0.18 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
4.2	335	312	7500	0.90						
4.4	325	299	7500	0.90						
5.2	280	254	7500	1.05						
5.6	250	234	7500	1.20						
6.3	225	210	7500	1.30	**K**	**39R17**	**DR**	**63M4**	24	631
7.0	205	189	7500	1.45	**KF**	**39R17**	**DR**	**63M4**	26	631
7.6	195	174	7500	1.55	**KA**	**39R17**	**DR**	**63M4**	23	631
8.4	171	156	7500	1.75	**KAF**	**39R17**	**DR**	**63M4**	24	631
9.3	157	142	7500	1.90						
11	128	117	7500	2.3						
18	81	75	7500	3.6						
6.4	230	205	4860	0.85						
7.3	200	181	5590	1.00	**K**	**37R17**	**DR**	**63M4**	19	631
8.2	180	160	5860	1.10	**KF**	**37R17**	**DR**	**63M4**	21	631
9.7	151	136	6110	1.35	**KA**	**37R17**	**DR**	**63M4**	19	631
10	145	127	6160	1.40	**KAF**	**37R17**	**DR**	**63M4**	20	631
6.0	285	144.79*	13000	2.9	**K**	**67**	**DR**	**63L6**	35	585
7.0	240	123.54	13000	3.4	**KF**	**67**	**DR**	**63L6**	40	586
8.0	210	108.03	13000	3.8	**KA**	**67**	**DR**	**63L6**	32	587
8.5	200	102.62	13000	4.0	**KAF**	**67**	**DR**	**63L6**	38	586
9.1	188	144.79*	13000	4.4	**K**	**67**	**DR**	**63M4**	34	585
11	161	123.54	13000	5.1	**KF**	**67**	**DR**	**63M4**	40	586
12	141	108.03	13000	5.8	**KA**	**67**	**DR**	**63M4**	31	587
					KAF	**67**	**DR**	**63M4**	37	586
6.0	285	145.14*	9340	2.1						
7.0	240	123.85	9480	2.4	**K**	**57**	**DR**	**63L6**	29	579
8.0	210	108.29	9590	2.8	**KF**	**57**	**DR**	**63L6**	34	580
8.5	200	102.88*	9620	3.0	**KA**	**57**	**DR**	**63L6**	27	581
9.6	178	90.26*	9700	3.4	**KAF**	**57**	**DR**	**63L6**	32	580
9.1	189	145.14*	9670	3.2						
11	161	123.85	9750	3.7	**K**	**57**	**DR**	**63M4**	28	579
12	141	108.29	9810	4.3	**KF**	**57**	**DR**	**63M4**	33	580
13	134	102.88*	9830	4.5	**KA**	**57**	**DR**	**63M4**	26	581
15	118	90.26*	9880	5.1	**KAF**	**57**	**DR**	**63M4**	32	580
17	100	76.56*	9920	6.0						
6.6	260	131.87*	7380	1.55						
7.2	240	121.48*	7530	1.65	**K**	**47**	**DR**	**63L6**	23	569
8.3	205	104.37	7740	1.95	**KF**	**47**	**DR**	**63L6**	26	570
9.6	180	90.86	7880	2.2	**KA**	**47**	**DR**	**63L6**	22	571
10	168	85.12*	7930	2.4	**KAF**	**47**	**DR**	**63L6**	25	570
10	172	131.87*	7910	2.3						
11	158	121.48*	7970	2.5	**K**	**47**	**DR**	**63M4**	22	569
13	136	104.37	8060	2.9	**KF**	**47**	**DR**	**63M4**	26	570
15	118	90.86	8120	3.4	**KA**	**47**	**DR**	**63M4**	22	571
16	111	85.12*	8140	3.6	**KAF**	**47**	**DR**	**63M4**	24	570
8.2	210	106.38	5520	0.95	**K**	**37**	**DR**	**63L6**	17	559
8.9	193	97.81	5710	1.05	**KF**	**37**	**DR**	**63L6**	19	560
10	165	83.69	5990	1.20	**KA**	**37**	**DR**	**63L6**	16	561
12	143	72.54	6170	1.40	**KAF**	**37**	**DR**	**63L6**	18	560
12	138	106.38	6210	1.45						
14	127	97.81	6280	1.55						
16	109	83.69	6400	1.85						
18	94	72.54	6470	2.1	**K**	**37**	**DR**	**63M4**	16	559
19	88	67.80	6500	2.3	**KF**	**37**	**DR**	**63M4**	18	560
23	76	58.60	6280	2.6	**KA**	**37**	**DR**	**63M4**	16	561
27	65	49.79	6010	3.1	**KAF**	**37**	**DR**	**63M4**	17	560
30	58	44.46	5830	3.4						
35	49	37.97	5580	4.0						

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P_m = 0.18 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
18	94	71.93	5090	1.40						
20	86	66.25	5110	1.50						
22	80	61.28	5130	1.65						
24	71	54.89	5160	1.80						
26	66	50.35	5170	2.00						
31	56	42.87	5200	2.3	**K**	**29**	**DR**	**63M4**	10	552
34	51	38.90	5220	2.6	**KF**	**29**	**DR**	**63M4**	11	556
36	48	36.96	5220	2.5	**KA**	**29**	**DR**	**63M4**	9.8	558
37	47	35.83	5230	2.8	**KAF**	**29**	**DR**	**63M4**	11	556
40	43	33.15	5240	3.0						
44	39	30.11	5110	2.9						
44	39	29.69	5130	3.4						
48	35	27.23	5010	3.7						
53	32	24.91	4840	3.4						
22	76	58.68	4280	0.90						
24	70	53.88	4330	1.00						
27	65	49.69	4360	1.10						
30	58	44.48	4410	1.20						
32	53	40.63	4440	1.25						
38	45	34.29	4480	1.45						
42	41	31.74	4500	1.95						
45	38	29.29	4500	1.60						
45	38	29.14	4500	2.1						
49	35	27.16	4490	1.70	**K**	**19**	**DR**	**63M4**	8.5	546
49	35	26.88	4500	2.3	**KF**	**19**	**DR**	**63M4**	8.8	549
55	31	24.06	4410	2.6	**KA**	**19**	**DR**	**63M4**	8.0	551
60	29	21.98	4300	2.8	**KAF**	**19**	**DR**	**63M4**	8.4	549
71	24	18.55	4090	3.3						
83	21	15.84	3900	3.9						
90	19	14.69	3820	4.2						
104	17	12.70	3650	4.8						
111	15	11.84	3580	5.1						
128	13	10.32	3430	5.7						
138	12	9.58	3380	5.0						
163	11	8.09	3200	7.6						
191	9.0	6.91	3050	8.9						

P_m = 0.25 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.13	15100	9819	75600	0.85						
0.15	13000	8443	79200	1.00						
0.17	11500	7482	79900	1.10						
0.20	10100	6565	80600	1.30	**K**	**127R77**	**DR**	**63L4**	470	631
0.22	8750	5804	81200	1.50	**KF**	**127R77**	**DR**	**63L4**	510	631
0.26	7690	5027	81600	1.70	**KA**	**127R77**	**DR**	**63L4**	440	631
0.29	6660	4423	81900	1.95	**KAF**	**127R77**	**DR**	**63L4**	480	631
0.33	5820	3889	82100	2.2						
0.39	4870	3311	82300	2.7						
0.21	9460	6184	65000	0.85						
0.23	8480	5662	65000	0.95						
0.25	7690	5138	65000	1.05						
0.30	6730	4359	65000	1.20	**K**	**107R77**	**DR**	**63L4**	310	631
0.34	5880	3810	65000	1.35	**KF**	**107R77**	**DR**	**63L4**	320	631
0.39	5060	3358	65000	1.60	**KA**	**107R77**	**DR**	**63L4**	285	631
0.44	4550	2977	65000	1.75	**KAF**	**107R77**	**DR**	**63L4**	305	631
0.50	3970	2599	65000	2.0						
0.57	3440	2286	65000	2.3						
0.67	2920	1939	65000	2.7						
0.76	2670	1713	65000	3.0	**K**	**107R77**	**DR**	**63L4**	310	631
0.84	2430	1554	65000	3.3	**KF**	**107R77**	**DR**	**63L4**	320	631
0.97	2080	1336	65000	3.8	**KA**	**107R77**	**DR**	**63L4**	280	631
					KAF	**107R77**	**DR**	**63L4**	305	631

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P_m = 0.25 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					K	**97R57**	**DR**	**63L4**	180	631
0.42	4980	3108	39900	0.85	**KF**	**97R57**	**DR**	**63L4**	200	631
0.47	4350	2757	40000	1.00	**KA**	**97R57**	**DR**	**63L4**	160	631
					KAF	**97R57**	**DR**	**63L4**	185	631
0.54	3920	2419	40000	1.10						
0.61	3420	2123	40000	1.25						
0.70	3010	1856	40000	1.40						
0.80	2570	1625	40000	1.65	**K**	**97R57**	**DR**	**63L4**	180	631
0.91	2240	1430	40000	1.90	**KF**	**97R57**	**DR**	**63L4**	200	631
1.0	2050	1261	40000	2.1	**KA**	**97R57**	**DR**	**63L4**	160	631
1.2	1790	1102	40000	2.4	**KAF**	**97R57**	**DR**	**63L4**	185	631
1.4	1560	957	40000	2.7						
1.5	1400	855	40000	3.1						
0.62	3390	2088	26300	0.80						
0.70	3010	1854	26900	0.90						
0.78	2690	1657	27300	1.00						
0.92	2290	1415	27800	1.15	**K**	**87R57**	**DR**	**63L4**	120	631
1.1	1990	1229	28100	1.35	**KF**	**87R57**	**DR**	**63L4**	125	631
1.2	1730	1078	28300	1.55	**KA**	**87R57**	**DR**	**63L4**	105	631
1.4	1500	951	28500	1.80	**KAF**	**87R57**	**DR**	**63L4**	120	631
1.6	1310	837	28600	2.1						
1.8	1130	726	28700	2.4						
2.0	1010	638	28800	2.7						
1.2	1720	1053	14000	0.90						
1.4	1510	924	15600	1.00						
1.6	1330	815	16700	1.15						
1.8	1110	709	17800	1.40						
2.1	970	622	18400	1.60						
2.4	870	552	18700	1.75						
2.7	765	485	19100	2.0	**K**	**77R37**	**DR**	**63L4**	70	631
3.0	675	428	19300	2.3	**KF**	**77R37**	**DR**	**63L4**	78	631
3.5	590	367	19500	2.6	**KA**	**77R37**	**DR**	**63L4**	62	631
4.0	525	328	19600	2.9	**KAF**	**77R37**	**DR**	**63L4**	70	631
4.5	465	290	19700	3.3						
5.2	400	252	19900	3.8						
5.9	350	221	19900	4.4						
6.7	310	195	20000	5.0						
7.4	270	175	20000	5.6						
2.1	970	613	5680	0.85						
2.4	860	542	9920	0.95						
2.8	775	471	10700	1.05						
3.1	665	420	11500	1.25	**K**	**67R37**	**DR**	**63L4**	46	631
3.6	590	361	11900	1.40	**KF**	**67R37**	**DR**	**63L4**	51	631
4.0	520	323	12300	1.55	**KA**	**67R37**	**DR**	**63L4**	43	631
4.7	440	279	12600	1.85	**KAF**	**67R37**	**DR**	**63L4**	49	631
5.3	390	246	12800	2.1						
6.0	345	217	13000	2.4						
3.1	665	421	4200	0.90						
3.6	590	362	7690	1.00						
4.1	520	319	8260	1.15						
4.6	440	280	8680	1.35						
5.3	390	246	8920	1.55	**K**	**57R37**	**DR**	**63L4**	40	631
6.0	345	215	9110	1.75	**KF**	**57R37**	**DR**	**63L4**	45	631
6.8	305	192	9260	1.95	**KA**	**57R37**	**DR**	**63L4**	38	631
7.8	265	166	9410	2.3	**KAF**	**57R37**	**DR**	**63L4**	43	631
9.0	230	145	9530	2.6						
10	210	129	9600	2.8						
12	178	111	9700	3.4						
13	156	97	9770	3.8						

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P_m = 0.25 kW										
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.2	610	401	9000	0.80						
3.6	550	360	9000	0.90						
3.9	505	330	9000	1.00						
4.3	470	300	9000	1.05						
4.7	420	274	9000	1.20	**K**	**49R37**	**DR**	**63L4**	44	631
5.3	370	243	9000	1.35	**KF**	**49R37**	**DR**	**63L4**	45	631
6.0	335	217	9000	1.50	**KA**	**49R37**	**DR**	**63L4**	41	631
6.7	305	193	9000	1.65	**KAF**	**49R37**	**DR**	**63L4**	46	631
7.4	275	176	9000	1.80						
8.6	230	152	9000	2.2						
10	194	125	9000	2.6						
13	151	99	9000	3.3						
5.6	365	234	7500	0.80						
6.2	330	210	7500	0.90						
6.9	300	189	7500	1.00	**K**	**39R17**	**DR**	**63L4**	25	631
7.5	275	174	7500	1.10	**KF**	**39R17**	**DR**	**63L4**	26	631
8.3	245	156	7500	1.20	**KA**	**39R17**	**DR**	**63L4**	24	631
9.2	225	142	7500	1.35	**KAF**	**39R17**	**DR**	**63L4**	25	631
11	185	117	7500	1.60						
17	117	75	7500	2.5						
4.7	510	192.18	19700	2.8	**K**	**77**	**DRS**	**71S6**	62	591
5.0	475	179.37	19700	3.0	**KF**	**77**	**DRS**	**71S6**	71	592
5.8	410	154.02	19800	3.8	**KA**	**77**	**DRS**	**71S6**	55	593
6.6	360	135.28	19900	4.3	**KAF**	**77**	**DRS**	**71S6**	63	592
6.2	385	144.79*	12900	2.1	**K**	**67**	**DRS**	**71S6**	36	585
7.2	325	123.54	13000	2.5	**KF**	**67**	**DRS**	**71S6**	42	586
8.3	285	108.03	13000	2.8	**KA**	**67**	**DRS**	**71S6**	34	587
8.7	270	102.62	13000	3.0	**KAF**	**67**	**DRS**	**71S6**	39	586
9.0	265	144.79*	13000	3.1	**K**	**67**	**DR**	**63L4**	35	585
11	225	123.54	13000	3.6	**KF**	**67**	**DR**	**63L4**	40	586
12	198	108.03	13000	4.1	**KA**	**67**	**DR**	**63L4**	32	587
13	188	102.62	13000	4.4	**KAF**	**67**	**DR**	**63L4**	38	586
6.2	385	145.14*	8940	1.55						
7.2	330	123.85	9170	1.80	**K**	**57**	**DRS**	**71S6**	31	579
8.3	285	108.29	9330	2.1	**KF**	**57**	**DRS**	**71S6**	35	580
8.7	270	102.88*	9380	2.2	**KA**	**57**	**DRS**	**71S6**	28	581
9.9	240	90.26*	9500	2.5	**KAF**	**57**	**DRS**	**71S6**	34	580
12	200	76.56*	9620	2.9						
9.0	265	145.14*	9410	2.2						
10	225	123.85	9540	2.6	**K**	**57**	**DR**	**63L4**	29	579
12	199	108.29	9640	3.0	**KF**	**57**	**DR**	**63L4**	34	580
13	189	102.88*	9670	3.2	**KA**	**57**	**DR**	**63L4**	27	581
14	166	90.26*	9740	3.6	**KAF**	**57**	**DR**	**63L4**	32	580
17	141	76.56*	9810	4.3						
					K	**49**	**DR**	**63L4**	35	575
17	138	75.20	9000	3.4	**KF**	**49**	**DR**	**63L4**	37	576
19	129	70.19	9000	3.4	**KA**	**49**	**DR**	**63L4**	32	577
					KAF	**49**	**DR**	**63L4**	37	576
6.8	350	131.87*	6540	1.15	**K**	**47**	**DRS**	**71S6**	25	569
7.4	320	121.48*	6830	1.25	**KF**	**47**	**DRS**	**71S6**	28	570
8.6	275	104.37	7240	1.45	**KA**	**47**	**DRS**	**71S6**	24	571
					KAF	**47**	**DRS**	**71S6**	27	570
					K	**47**	**DRS**	**71S6**	25	569
9.8	240	90.86	7510	1.65	**KF**	**47**	**DRS**	**71S6**	28	570
11	225	85.12*	7610	1.75	**KA**	**47**	**DRS**	**71S6**	24	571
					KAF	**47**	**DRS**	**71S6**	27	570
9.9	240	131.87*	7510	1.65						
11	220	121.48*	7640	1.80	**K**	**47**	**DR**	**63L4**	23	569
12	192	104.37	7820	2.1	**KF**	**47**	**DR**	**63L4**	26	570
14	167	90.86	7930	2.4	**KA**	**47**	**DR**	**63L4**	22	571
15	156	85.12*	7980	2.6	**KAF**	**47**	**DR**	**63L4**	25	570
					K	**39**	**DR**	**63L4**	22	565
22	107	58.24	7500	2.8	**KF**	**39**	**DR**	**63L4**	23	566
26	91	49.69	7500	3.3	**KA**	**39**	**DR**	**63L4**	21	567
					KAF	**39**	**DR**	**63L4**	22	566

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P_m = 0.25 kW											
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
11	220	83.69	5350	0.90							
12	194	72.54	5710	1.05	**K**	**37**	**DRS**	**71S6**		19	559
13	181	67.80	5840	1.10	**KF**	**37**	**DRS**	**71S6**		21	560
15	156	58.60	6070	1.30	**KA**	**37**	**DRS**	**71S6**		18	561
18	133	49.79	6250	1.50	**KAF**	**37**	**DRS**	**71S6**		20	560
12	195	106.38	5690	1.00							
13	180	97.81	5860	1.10							
16	154	83.69	6090	1.30							
18	133	72.54	6240	1.50							
19	124	67.80	6220	1.60	**K**	**37**	**DR**	**63L4**		17	559
22	108	58.60	6030	1.85	**KF**	**37**	**DR**	**63L4**		19	560
26	91	49.79	5810	2.2	**KA**	**37**	**DR**	**63L4**		16	561
29	82	44.46	5650	2.4	**KAF**	**37**	**DR**	**63L4**		18	560
34	70	37.97	5430	2.9							
37	65	35.57	5340	3.1							
43	55	29.96	5100	3.6							
45	53	28.83	5050	3.8							
18	132	71.93	4970	1.00							
20	122	66.25	5000	1.05							
21	113	61.28	5030	1.15							
24	101	54.89	5070	1.30							
26	92	50.35	5090	1.40							
30	79	42.87	5130	1.65							
33	71	38.90	5170	1.80							
35	68	36.96	5170	1.80	**K**	**29**	**DR**	**63L4**		11	552
36	66	35.83	5180	2.00	**KF**	**29**	**DR**	**63L4**		12	556
39	61	33.15	5170	2.1	**KA**	**29**	**DR**	**63L4**		10	558
43	55	30.11	4980	2.1	**KAF**	**29**	**DR**	**63L4**		11	556
44	55	29.69	5020	2.4							
48	50	27.23	4900	2.6							
52	46	24.91	4740	2.4							
56	43	23.19	4690	3.0							
59	41	22.08	4580	2.6							
65	37	19.99	4500	3.5							
29	82	44.48	4240	0.85							
32	75	40.63	4300	0.90							
38	63	34.29	4380	1.00							
41	58	31.74	4400	1.35							
44	54	29.29	4410	1.15							
45	54	29.14	4430	1.50							
48	50	27.16	4330	1.20							
48	49	26.88	4430	1.60							
54	44	24.06	4300	1.80							
59	40	21.98	4200	2.00	**K**	**19**	**DR**	**63L4**		9.2	546
70	34	18.55	4010	2.4	**KF**	**19**	**DR**	**63L4**		9.5	549
82	29	15.84	3840	2.8	**KA**	**19**	**DR**	**63L4**		8.7	551
88	27	14.69	3760	3.0	**KAF**	**19**	**DR**	**63L4**		9.1	549
102	23	12.70	3600	3.4							
110	22	11.84	3530	3.6							
126	19	10.32	3390	4.0							
136	18	9.58	3360	3.6							
161	15	8.09	3190	5.4							
188	13	6.91	3040	6.3							
203	12	6.41	2960	6.8							
235	10	5.54	2830	7.9							
252	9.5	5.16	2770	8.4							

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P_m = 0.37 kW											
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
0.18	16500	7482	72700	0.80							
0.21	14500	6565	76900	0.90							
0.24	12600	5804	79400	1.05	**K**	**127R77**	**DRS**	**71S4**		470	631
0.27	11000	5027	80200	1.20	**KF**	**127R77**	**DRS**	**71S4**		510	631
0.31	9610	4423	80800	1.35	**KA**	**127R77**	**DRS**	**71S4**		445	631
0.35	8410	3889	81300	1.55	**KAF**	**127R77**	**DRS**	**71S4**		480	631
0.42	7080	3311	81800	1.85							
0.72	4280	1926	82400	3.0	**K**	**127R77**	**DRS**	**71S4**		470	631
0.79	3900	1757	82500	3.3	**KF**	**127R77**	**DRS**	**71S4**		510	631
0.90	3390	1541	82600	3.8	**KA**	**127R77**	**DRS**	**71S4**		445	631
					KAF	**127R77**	**DRS**	**71S4**		480	631
0.36	8420	3810	65000	0.95							
0.41	7290	3358	65000	1.10	**K**	**107R77**	**DRS**	**71S4**		310	631
0.46	6530	2977	65000	1.20	**KF**	**107R77**	**DRS**	**71S4**		325	631
0.53	5700	2599	65000	1.40	**KA**	**107R77**	**DRS**	**71S4**		285	631
0.60	4960	2286	65000	1.60	**KAF**	**107R77**	**DRS**	**71S4**		310	631
0.71	4210	1939	65000	1.90							
0.81	3830	1713	65000	2.1	**K**	**107R77**	**DRS**	**71S4**		310	631
0.89	3470	1554	65000	2.3	**KF**	**107R77**	**DRS**	**71S4**		325	631
1.0	2990	1336	65000	2.7	**KA**	**107R77**	**DRS**	**71S4**		285	631
1.2	2600	1166	65000	3.1	**KAF**	**107R77**	**DRS**	**71S4**		305	631
0.65	4850	2123	40000	0.90							
0.74	4270	1856	40000	1.00							
0.85	3670	1625	40000	1.15							
0.96	3200	1430	40000	1.35							
1.1	2900	1261	40000	1.50	**K**	**97R57**	**DRS**	**71S4**		180	631
1.2	2530	1102	40000	1.70	**KF**	**97R57**	**DRS**	**71S4**		200	631
1.4	2220	957	40000	1.95	**KA**	**97R57**	**DRS**	**71S4**		160	631
1.6	1980	855	40000	2.2	**KAF**	**97R57**	**DRS**	**71S4**		185	631
1.9	1640	743	40000	2.6							
2.1	1450	652	40000	3.0							
2.4	1310	573	40000	3.3							
0.97	3250	1415	26500	0.85							
1.1	2820	1229	27100	0.95							
1.3	2460	1078	27600	1.10							
1.4	2140	951	27900	1.25							
1.6	1870	837	28200	1.45	**K**	**87R57**	**DRS**	**71S4**		120	631
1.9	1620	726	28400	1.65	**KF**	**87R57**	**DRS**	**71S4**		130	631
2.2	1440	638	28500	1.85	**KA**	**87R57**	**DRS**	**71S4**		110	631
2.5	1250	562	28600	2.2	**KAF**	**87R57**	**DRS**	**71S4**		120	631
2.9	1050	474	28800	2.6							
3.2	950	426	28800	2.8							
3.7	830	373	28900	3.2							
1.7	1880	815	7450	0.80							
2.0	1590	709	15100	0.95							
2.2	1390	622	16400	1.10							
2.5	1250	552	17200	1.25							
2.8	1090	485	17900	1.40							
3.2	960	428	18400	1.60	**K**	**77R37**	**DRS**	**71S4**		72	631
3.8	840	367	18900	1.85	**KF**	**77R37**	**DRS**	**71S4**		80	631
4.2	745	328	19100	2.1	**KA**	**77R37**	**DRS**	**71S4**		64	631
4.8	665	290	19400	2.3	**KAF**	**77R37**	**DRS**	**71S4**		72	631
5.5	570	252	19600	2.7							
6.2	500	221	19700	3.1							
7.1	440	195	19800	3.5							
7.9	390	175	19900	4.0							
9.0	345	154	19900	4.5							

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P_m = 0.37 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.3	940	420	8130	0.85						
3.8	830	361	10200	1.00						
4.3	740	323	10900	1.10						
5.0	630	279	11700	1.30	**K**	**67R37**	**DRS**	**71S4**	48	631
5.6	555	246	12100	1.50	**KF**	**67R37**	**DRS**	**71S4**	53	631
6.4	490	217	12400	1.65	**KA**	**67R37**	**DRS**	**71S4**	45	631
7.2	430	191	12700	1.90	**KAF**	**67R37**	**DRS**	**71S4**	51	631
8.3	370	166	12900	2.2						
9.6	325	144	13000	2.5						
11	275	122	13000	2.9						
4.9	630	280	7350	0.95						
5.6	555	246	7980	1.10						
6.4	490	215	8460	1.20						
7.2	435	192	8720	1.40	**K**	**57R37**	**DRS**	**71S4**	42	631
8.3	375	166	8980	1.60	**KF**	**57R37**	**DRS**	**71S4**	47	631
9.6	330	145	9170	1.80	**KA**	**57R37**	**DRS**	**71S4**	40	631
11	295	129	9290	2.0	**KAF**	**57R37**	**DRS**	**71S4**	45	631
12	250	111	9460	2.4						
14	220	97	9560	2.7						
5.0	600	274	9000	0.85						
5.7	530	243	9000	0.95						
6.4	475	217	9000	1.05	**K**	**49R37**	**DRS**	**71S4**	46	631
7.2	430	193	9000	1.15	**KF**	**49R37**	**DRS**	**71S4**	47	631
7.8	390	176	9000	1.30	**KA**	**49R37**	**DRS**	**71S4**	43	631
9.1	330	152	9000	1.50	**KAF**	**49R37**	**DRS**	**71S4**	48	631
11	275	125	9000	1.80						
14	215	99	9000	2.3						
8.8	345	156	7500	0.85	**K**	**39R17**	**DRS**	**71S4**	26	631
9.7	315	142	7500	0.95	**KF**	**39R17**	**DRS**	**71S4**	28	631
12	260	117	7500	1.15	**KA**	**39R17**	**DRS**	**71S4**	25	631
18	166	75	7500	1.75	**KAF**	**39R17**	**DRS**	**71S4**	27	631
					K	**87**	**DRS**	**71M6**	99	597
4.6	770	197.37	28900	3.5	**KF**	**87**	**DRS**	**71M6**	110	598
5.2	680	174.19	28900	4.0	**KA**	**87**	**DRS**	**71M6**	87	599
					KAF	**87**	**DRS**	**71M6**	100	598
5.9	600	154.02	19500	2.6	**K**	**77**	**DRS**	**71M6**	64	591
6.7	525	135.28	19600	2.9	**KF**	**77**	**DRS**	**71M6**	72	592
7.0	500	128.52	19700	3.1	**KA**	**77**	**DRS**	**71M6**	56	593
8.0	440	113.56	19800	3.5	**KAF**	**77**	**DRS**	**71M6**	64	592
					K	**77**	**DRS**	**71S4**	62	591
7.2	490	192.18	19700	3.0	**KF**	**77**	**DRS**	**71S4**	71	592
7.7	455	179.37	19800	3.2	**KA**	**77**	**DRS**	**71S4**	55	593
9.0	390	154.02	19900	3.9	**KAF**	**77**	**DRS**	**71S4**	63	592
7.3	480	123.54	12500	1.70	**K**	**67**	**DRS**	**71M6**	38	585
8.4	420	108.03	12700	1.95	**KF**	**67**	**DRS**	**71M6**	43	586
8.8	400	102.62	12800	2.0	**KA**	**67**	**DRS**	**71M6**	35	587
10	350	90.04	13000	2.3	**KAF**	**67**	**DRS**	**71M6**	41	586
9.5	370	144.79*	12900	2.2						
11	315	123.54	13000	2.6	**K**	**67**	**DRS**	**71S4**	36	585
13	275	108.03	13000	3.0	**KF**	**67**	**DRS**	**71S4**	42	586
15	230	90.04	13000	3.6	**KA**	**67**	**DRS**	**71S4**	34	587
18	196	76.37	13000	4.2	**KAF**	**67**	**DRS**	**71S4**	39	586
7.3	480	123.85	8500	1.25						
8.4	420	108.29	8780	1.40	**K**	**57**	**DRS**	**71M6**	32	579
8.8	400	102.88*	8880	1.50	**KF**	**57**	**DRS**	**71M6**	37	580
10	350	90.26*	9080	1.70	**KA**	**57**	**DRS**	**71M6**	30	581
12	295	76.56*	9290	2.0	**KAF**	**57**	**DRS**	**71M6**	35	580
13	265	69.12	9400	2.2						
9.5	370	145.14*	9000	1.60						
11	315	123.85	9220	1.90						
13	275	108.29	9370	2.2	**K**	**57**	**DRS**	**71S4**	31	579
13	260	102.88*	9420	2.3	**KF**	**57**	**DRS**	**71S4**	35	580
15	230	90.26*	9530	2.6	**KA**	**57**	**DRS**	**71S4**	28	581
18	196	76.56*	9640	3.1	**KAF**	**57**	**DRS**	**71S4**	34	580
20	177	69.12	9700	3.4						

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P_m = 0.37 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
18	193	75.20	9000	2.5	**K**	**49**	**DRS**	**71S4**	37	575
20	180	70.19	9000	2.5	**KF**	**49**	**DRS**	**71S4**	39	576
23	154	60.27	9000	3.2	**KA**	**49**	**DRS**	**71S4**	34	577
					KAF	**49**	**DRS**	**71S4**	39	576
8.7	405	104.37	5720	1.00	**K**	**47**	**DRS**	**71M6**	26	569
10.0	350	90.86	6500	1.15	**KF**	**47**	**DRS**	**71M6**	29	570
11	330	85.12*	6750	1.20	**KA**	**47**	**DRS**	**71M6**	25	571
12	290	75.20*	7120	1.35	**KAF**	**47**	**DRS**	**71M6**	28	570
10	335	131.87*	6690	1.20	**K**	**47**	**DRS**	**71S4**	25	569
11	310	121.48*	6960	1.30	**KF**	**47**	**DRS**	**71S4**	28	570
13	265	104.37	7330	1.50	**KA**	**47**	**DRS**	**71S4**	24	571
					KAF	**47**	**DRS**	**71S4**	27	570
15	230	90.86	7580	1.70						
16	215	85.12*	7670	1.85	**K**	**47**	**DRS**	**71S4**	25	569
18	192	75.20*	7810	2.1	**KF**	**47**	**DRS**	**71S4**	28	570
20	179	69.84	7880	2.2	**KA**	**47**	**DRS**	**71S4**	24	571
22	162	63.30*	7960	2.5	**KAF**	**47**	**DRS**	**71S4**	27	570
24	149	58.24	7500	2.0						
28	127	49.69	7500	2.4	**K**	**39**	**DRS**	**71S4**	24	565
32	111	43.45	7500	2.7	**KF**	**39**	**DRS**	**71S4**	25	566
33	106	41.28	7500	2.8	**KA**	**39**	**DRS**	**71S4**	23	567
38	93	36.22	7500	3.2	**KAF**	**39**	**DRS**	**71S4**	24	566
14	250	97.81	2520	0.80						
16	210	83.69	5470	0.95						
19	186	72.54	5690	1.10						
20	174	67.80	5630	1.15						
24	150	58.60	5500	1.35						
28	128	49.79	5350	1.55						
31	114	44.46	5230	1.75	**K**	**37**	**DRS**	**71S4**	19	559
36	97	37.97	5060	2.1	**KF**	**37**	**DRS**	**71S4**	21	560
39	91	35.57	4990	2.2	**KA**	**37**	**DRS**	**71S4**	18	561
46	77	29.96	4800	2.6	**KAF**	**37**	**DRS**	**71S4**	20	560
48	74	28.83	4750	2.7						
55	64	24.99	4590	3.1						
59	60	23.36	4510	3.3						
68	52	20.19	4350	3.6						
80	44	17.15	4160	4.1						
25	141	54.89	4940	0.90						
27	129	50.35	4980	1.00						
32	110	42.87	5000	1.15						
37	95	36.96	4860	1.30						
46	77	30.11	4650	1.50	**K**	**29**	**DRS**	**71S4**	13	552
46	76	29.69	4720	1.70	**KF**	**29**	**DRS**	**71S4**	14	556
51	70	27.23	4620	1.85	**KA**	**29**	**DRS**	**71S4**	12	558
55	64	24.91	4450	1.70	**KAF**	**29**	**DRS**	**71S4**	13	556
60	59	23.19	4440	2.2						
62	57	22.08	4330	1.85						
69	51	19.99	4270	2.5						
85	42	16.29	4050	3.1						
47	75	29.29	4050	0.80						
51	70	27.16	3990	0.85						
57	62	24.06	4030	1.30						
63	56	21.98	3940	1.40						
74	47	18.55	3780	1.70						
87	41	15.84	3640	1.95						
94	38	14.69	3570	2.1						
109	33	12.70	3430	2.5	**K**	**19**	**DRS**	**71S4**	11	546
117	30	11.84	3370	2.6	**KF**	**19**	**DRS**	**71S4**	11	549
134	26	10.32	3240	2.9	**KA**	**19**	**DRS**	**71S4**	11	551
144	25	9.58	3230	2.6	**KAF**	**19**	**DRS**	**71S4**	11	549
171	21	8.09	3080	3.9						
200	18	6.91	2930	4.5						
215	16	6.41	2870	4.9						
249	14	5.54	2740	5.6						
267	13	5.16	2680	6.0						
307	12	4.50	2570	6.9						

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P_m = 0.55 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.08	55000	16978	190000	0.90						
0.10	46200	14272	190000	1.10						
0.10	42000	13116	190000	1.20	**K**	**187R97**	**DRS**	**71M4**	1770	632
0.12	36600	11647	190000	1.35	**KH**	**187R97**	**DRS**	**71M4**	1700	632
0.19	23700	7343	190000	2.1						
0.12	37400	11573	150000	0.85						
0.13	33200	10264	150000	0.95						
0.16	27900	8628	150000	1.15	**K**	**167R97**	**DRS**	**71M4**	1190	632
0.21	21200	6562	150000	1.50	**KH**	**167R97**	**DRS**	**71M4**	1150	632
0.25	16800	5355	150000	1.90						
0.33	13000	4079	150000	2.4						
0.20	22200	6881	109700	0.80	**K**	**157R97**	**DRS**	**71M4**	790	632
0.23	19200	5931	111600	0.95	**KF**	**157R97**	**DRS**	**71M4**	870	632
0.34	12800	3979	114400	1.40	**KA**	**157R97**	**DRS**	**71M4**	750	632
0.45	9870	3051	115300	1.80	**KAF**	**157R97**	**DRS**	**71M4**	810	632
0.31	14900	4423	76100	0.85						
0.35	13000	3889	79100	1.00	**K**	**127R77**	**DRS**	**71M4**	475	631
0.41	11000	3311	80200	1.20	**KF**	**127R77**	**DRS**	**71M4**	520	631
0.45	9990	3009	80700	1.30	**KA**	**127R77**	**DRS**	**71M4**	445	631
0.52	8580	2607	81200	1.50	**KAF**	**127R77**	**DRS**	**71M4**	485	631
0.71	6620	1926	81900	1.95						
0.77	6040	1757	82000	2.2	**K**	**127R77**	**DRS**	**71M4**	475	631
0.88	5260	1541	82200	2.5	**KF**	**127R77**	**DRS**	**71M4**	510	631
1.0	4610	1342	82400	2.8	**KA**	**127R77**	**DRS**	**71M4**	445	631
1.2	4020	1177	82500	3.2	**KAF**	**127R77**	**DRS**	**71M4**	480	631
1.3	3520	1025	82600	3.7						
0.46	10100	2977	65000	0.80	**K**	**107R77**	**DRS**	**71M4**	315	631
0.52	8820	2599	65000	0.90	**KF**	**107R77**	**DRS**	**71M4**	325	631
0.59	7710	2286	65000	1.05	**KA**	**107R77**	**DRS**	**71M4**	285	631
0.70	6540	1939	65000	1.20	**KAF**	**107R77**	**DRS**	**71M4**	310	631
0.79	5910	1713	65000	1.35						
0.87	5360	1554	65000	1.50						
1.0	4610	1336	65000	1.75						
1.2	4020	1166	65000	2.00	**K**	**107R77**	**DRS**	**71M4**	310	631
1.3	3460	1030	65000	2.3	**KF**	**107R77**	**DRS**	**71M4**	325	631
1.5	3010	904	65000	2.6	**KA**	**107R77**	**DRS**	**71M4**	285	631
1.7	2720	793	65000	2.9	**KAF**	**107R77**	**DRS**	**71M4**	310	631
2.0	2370	696	65000	3.4						
2.2	2050	615	65000	3.9						
0.95	4940	1430	40000	0.85						
1.1	4430	1261	40000	0.95						
1.2	3870	1102	40000	1.10						
1.4	3390	957	40000	1.25						
1.6	3030	855	40000	1.40	**K**	**97R57**	**DRS**	**71M4**	180	631
1.8	2540	743	40000	1.70	**KF**	**97R57**	**DRS**	**71M4**	200	631
2.1	2240	652	40000	1.90	**KA**	**97R57**	**DRS**	**71M4**	165	631
2.4	2010	573	40000	2.1	**KAF**	**97R57**	**DRS**	**71M4**	190	631
2.7	1720	504	40000	2.5						
3.1	1480	437	40000	2.9						
3.6	1320	382	40000	3.3						
4.5	1060	305	40000	4.0						
1.4	3300	951	26400	0.80						
1.6	2890	837	27000	0.95						
1.9	2510	726	27500	1.10						
2.1	2210	638	27800	1.20						
2.4	1940	562	28100	1.40	**K**	**87R57**	**DRS**	**71M4**	120	631
2.9	1630	474	28400	1.65	**KF**	**87R57**	**DRS**	**71M4**	130	631
3.2	1470	426	28500	1.85	**KA**	**87R57**	**DRS**	**71M4**	110	631
3.6	1290	373	28600	2.1	**KAF**	**87R57**	**DRS**	**71M4**	120	631
4.1	1120	330	28700	2.4						
4.6	1000	294	28800	2.7						
5.4	870	250	28800	3.1						
5.8	820	236	28900	3.3						
6.8	695	201	28900	3.9						

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P_m = 0.55 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.8	1680	485	14300	0.90						
3.2	1480	428	15800	1.05						
3.7	1280	367	17000	1.20						
4.2	1140	328	17700	1.35	**K**	**77R37**	**DRS**	**71M4**	73	631
4.7	1010	290	18200	1.50	**KF**	**77R37**	**DRS**	**71M4**	81	631
5.4	870	252	18700	1.75	**KA**	**77R37**	**DRS**	**71M4**	65	631
6.2	770	221	19100	2.0	**KAF**	**77R37**	**DRS**	**71M4**	73	631
7.0	680	195	19300	2.3						
7.8	600	175	19500	2.6						
8.8	530	154	19600	2.9						
4.9	970	279	6400	0.85						
5.5	850	246	9990	0.95						
6.2	760	217	10800	1.10	**K**	**67R37**	**DRS**	**71M4**	49	631
7.1	665	191	11500	1.25	**KF**	**67R37**	**DRS**	**71M4**	54	631
8.2	575	166	12000	1.40	**KA**	**67R37**	**DRS**	**71M4**	46	631
9.4	505	144	12400	1.60	**KAF**	**67R37**	**DRS**	**71M4**	52	631
11	425	122	12700	1.90						
7.1	665	192	4080	0.90						
8.2	575	166	7800	1.05	**K**	**57R37**	**DRS**	**71M4**	43	631
9.4	505	145	8360	1.20	**KF**	**57R37**	**DRS**	**71M4**	48	631
11	455	129	8630	1.30	**KA**	**57R37**	**DRS**	**71M4**	41	631
12	385	111	8930	1.55	**KAF**	**57R37**	**DRS**	**71M4**	47	631
14	340	97	9120	1.75						
7.7	595	176	9000	0.85	**K**	**49R37**	**DRS**	**71M4**	47	631
9.0	505	152	9000	1.00	**KF**	**49R37**	**DRS**	**71M4**	48	631
11	420	125	9000	1.20	**KA**	**49R37**	**DRS**	**71M4**	44	631
14	330	99	9000	1.50	**KAF**	**49R37**	**DRS**	**71M4**	49	631
					K	**39R17**	**DRS**	**71M4**	28	631
					KF	**39R17**	**DRS**	**71M4**	29	631
18	255	75	7500	1.15	**KA**	**39R17**	**DRS**	**71M4**	27	631
					KAF	**39R17**	**DRS**	**71M4**	28	631
4.6	1130	197.37	28700	2.4	**K**	**87**	**DRS**	**80S6**	100	597
5.2	990	174.19	28800	2.7	**KF**	**87**	**DRS**	**80S6**	110	598
5.6	940	164.34*	28800	2.9	**KA**	**87**	**DRS**	**80S6**	90	599
6.2	840	147.32*	28900	3.2	**KAF**	**87**	**DRS**	**80S6**	105	598
5.9	880	154.02	18700	1.75	**K**	**77**	**DRS**	**80S6**	66	591
6.8	775	135.28	19100	2.0	**KF**	**77**	**DRS**	**80S6**	74	592
7.1	735	128.52	19200	2.1	**KA**	**77**	**DRS**	**80S6**	59	593
8.1	650	113.56	19400	2.4	**KAF**	**77**	**DRS**	**80S6**	66	592
8.8	590	154.02	19500	2.6						
10	520	135.28	19700	3.0	**K**	**77**	**DRS**	**71M4**	64	591
11	495	128.52	19700	3.1	**KF**	**77**	**DRS**	**71M4**	72	592
12	435	113.56	19800	3.5	**KA**	**77**	**DRS**	**71M4**	56	593
14	370	97.05	19900	4.1	**KAF**	**77**	**DRS**	**71M4**	64	592
7.4	705	123.54	11200	1.15	**K**	**67**	**DRS**	**80S6**	40	585
8.5	620	108.03	11800	1.30	**KF**	**67**	**DRS**	**80S6**	46	586
8.9	585	102.62	12000	1.40	**KA**	**67**	**DRS**	**80S6**	37	587
10	515	90.04	12300	1.60	**KAF**	**67**	**DRS**	**80S6**	43	586
					K	**67**	**DRS**	**80S6**	40	585
					KF	**67**	**DRS**	**80S6**	46	586
12	435	76.37	12700	1.85	**KA**	**67**	**DRS**	**80S6**	37	587
					KAF	**67**	**DRS**	**80S6**	43	586
11	475	123.54	12500	1.70	**K**	**67**	**DRS**	**71M4**	38	585
13	415	108.03	12800	1.95	**KF**	**67**	**DRS**	**71M4**	43	586
15	345	90.04	13000	2.4	**KA**	**67**	**DRS**	**71M4**	35	587
18	290	76.37	13000	2.8	**KAF**	**67**	**DRS**	**71M4**	41	586
8.4	620	108.29	7450	0.95						
8.9	590	102.88*	7710	1.00						
10	515	90.26*	8280	1.15	**K**	**57**	**DRS**	**80S6**	34	579
12	435	76.56*	8710	1.35	**KF**	**57**	**DRS**	**80S6**	39	580
13	395	69.12	8900	1.50	**KA**	**57**	**DRS**	**80S6**	32	581
15	345	60.81*	9100	1.70	**KAF**	**57**	**DRS**	**80S6**	38	580
16	325	57.42*	9170	1.80						

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P_m = 0.55 kW											
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
11	475	123.85	8520	1.25						
13	415	108.29	8800	1.45						
13	395	102.88*	8890	1.50	**K**	**57**	**DRS**	**71M4**	32	579
15	345	90.26*	9100	1.70	**KF**	**57**	**DRS**	**71M4**	37	580
18	295	76.56*	9300	2.0	**KA**	**57**	**DRS**	**71M4**	30	581
20	265	69.12	9410	2.2	**KAF**	**57**	**DRS**	**71M4**	35	580
22	230	60.81*	9520	2.6						
24	220	57.42*	9560	2.7						
18	290	75.20	9000	1.65						
19	270	70.19	9000	1.65						
23	230	60.27	9000	2.2	**K**	**49**	**DRS**	**71M4**	38	575
26	200	52.94	9000	2.4	**KF**	**49**	**DRS**	**71M4**	40	576
27	194	50.29	9000	2.6	**KA**	**49**	**DRS**	**71M4**	36	577
31	172	44.44	9000	2.9	**KAF**	**49**	**DRS**	**71M4**	40	576
36	147	37.98	9000	3.4						
13	400	104.37	5880	1.00						
15	350	90.86	6550	1.15	**K**	**47**	**DRS**	**71M4**	26	569
16	325	85.12*	6790	1.20	**KF**	**47**	**DRS**	**71M4**	29	570
18	290	75.20*	7140	1.40	**KA**	**47**	**DRS**	**71M4**	25	571
19	265	69.84	7310	1.50	**KAF**	**47**	**DRS**	**71M4**	28	570
21	240	63.30*	7500	1.65	**K**	**47**	**DRS**	**71M4**	26	569
24	215	56.83	7660	1.80	**KF**	**47**	**DRS**	**71M4**	29	570
28	189	48.95*	7830	2.1	**KA**	**47**	**DRS**	**71M4**	25	571
30	178	46.03*	7880	2.2	**KAF**	**47**	**DRS**	**71M4**	28	570
23	220	58.24	7500	1.35						
27	192	49.69	7500	1.55						
31	168	43.45	7500	1.80	**K**	**39**	**DRS**	**71M4**	25	565
33	159	41.28	7500	1.90	**KF**	**39**	**DRS**	**71M4**	26	566
38	140	36.22	7500	2.1	**KA**	**39**	**DRS**	**71M4**	24	567
44	119	30.72	7500	2.5	**KAF**	**39**	**DRS**	**71M4**	25	566
49	107	27.73	7410	2.8						
56	94	24.40	7170	3.2						
59	89	23.04	7070	3.4						
23	225	58.60	4840	0.90						
27	192	49.79	4790	1.05						
31	172	44.46	4740	1.15						
36	147	37.97	4640	1.35						
38	137	35.57	4600	1.45						
45	116	29.96	4470	1.75						
47	111	28.83	4440	1.80	**K**	**37**	**DRS**	**71M4**	20	559
54	96	24.99	4320	2.1	**KF**	**37**	**DRS**	**71M4**	22	560
58	90	23.36	4260	2.2	**KA**	**37**	**DRS**	**71M4**	20	561
67	78	20.19	4130	2.4	**KAF**	**37**	**DRS**	**71M4**	21	560
79	66	17.15	3980	2.7						
89	59	15.31	3880	3.0						
104	51	13.08	3730	3.3						
112	47	12.14	3660	3.4						
130	41	10.49	3520	4.0						
37	143	36.96	4410	0.85						
45	116	30.11	4290	1.00						
46	115	29.69	4400	1.15						
50	105	27.23	4330	1.25						
55	96	24.91	4160	1.15						
59	90	23.19	4200	1.45	**K**	**29**	**DRS**	**71M4**	14	552
62	85	22.08	4060	1.25	**KF**	**29**	**DRS**	**71M4**	15	556
68	77	19.99	4060	1.70	**KA**	**29**	**DRS**	**71M4**	14	558
84	63	16.29	3880	2.1	**KAF**	**29**	**DRS**	**71M4**	14	556
101	52	13.47	3700	2.5						
114	46	11.94	3590	2.8						
137	38	9.90	3510	2.9						
159	33	8.53	3360	3.7						

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P_m = 0.55 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
57	93	24.06	3730	0.85						
62	85	21.98	3670	0.95						
73	72	18.55	3560	1.10						
86	61	15.84	3450	1.30						
93	57	14.69	3390	1.40						
107	49	12.70	3280	1.65						
115	46	11.84	3230	1.75	**K**	**19**	**DRS**	**71M4**	12	546
132	40	10.32	3120	1.90	**KF**	**19**	**DRS**	**71M4**	13	549
142	37	9.58	3150	1.70	**KA**	**19**	**DRS**	**71M4**	12	551
168	31	8.09	3010	2.6	**KAF**	**19**	**DRS**	**71M4**	12	549
197	27	6.91	2880	3.0						
212	25	6.41	2820	3.2						
246	21	5.54	2700	3.7						
263	20	5.16	2640	4.0						
302	17	4.50	2540	4.6						

P_m = 0.75 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.11	55300	13116	190000	0.90						
0.12	48400	11647	190000	1.05						
0.20	31200	7343	190000	1.60	**K**	**187R97**	**DRN**	**80M4**	1770	632
0.21	28400	6747	190000	1.75	**KH**	**187R97**	**DRN**	**80M4**	1700	632
0.24	24900	5991	190000	2.0						
0.17	36600	8628	150000	0.85						
0.22	27900	6562	150000	1.15						
0.27	22200	5355	150000	1.45	**K**	**167R97**	**DRN**	**80M4**	1190	632
0.35	17200	4079	150000	1.85	**KH**	**167R97**	**DRN**	**80M4**	1150	632
0.43	14300	3376	150000	2.2						
					K	**157R97**	**DRN**	**80M4**	800	632
0.36	16900	3979	112700	1.05	**KF**	**157R97**	**DRN**	**80M4**	870	632
0.47	12900	3051	114400	1.40	**KA**	**157R97**	**DRN**	**80M4**	760	632
					KAF	**157R97**	**DRN**	**80M4**	820	632
					K	**157R97**	**DRN**	**80M4**	790	632
0.87	7130	1659	116000	2.5	**KF**	**157R97**	**DRN**	**80M4**	870	632
1.0	5740	1365	116200	3.1	**KA**	**157R97**	**DRN**	**80M4**	760	632
					KAF	**157R97**	**DRN**	**80M4**	810	632
					K	**127R77**	**DRN**	**80M4**	480	631
0.43	14400	3311	77100	0.90	**KF**	**127R77**	**DRN**	**80M4**	520	631
0.48	13000	3009	79100	1.00	**KA**	**127R77**	**DRN**	**80M4**	450	631
0.55	11200	2607	80100	1.15	**KAF**	**127R77**	**DRN**	**80M4**	490	631
0.75	8610	1926	81200	1.50						
0.82	7860	1757	81500	1.65						
0.93	6860	1541	81800	1.90	**K**	**127R77**	**DRN**	**80M4**	475	631
1.1	6000	1342	82100	2.2	**KF**	**127R77**	**DRN**	**80M4**	520	631
1.2	5240	1177	82200	2.5	**KA**	**127R77**	**DRN**	**80M4**	450	631
1.4	4580	1025	82400	2.8	**KAF**	**127R77**	**DRN**	**80M4**	485	631
1.6	4000	899	82500	3.2						
0.84	7690	1713	65000	1.05						
0.93	6980	1554	65000	1.15						
1.1	5990	1336	65000	1.35						
1.2	5230	1166	65000	1.55	**K**	**107R77**	**DRN**	**80M4**	315	631
1.4	4530	1030	65000	1.75	**KF**	**107R77**	**DRN**	**80M4**	330	631
1.6	3940	904	65000	2.0	**KA**	**107R77**	**DRN**	**80M4**	290	631
1.8	3540	793	65000	2.3	**KAF**	**107R77**	**DRN**	**80M4**	315	631
2.1	3090	696	65000	2.6						
2.3	2680	615	65000	3.0						

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P_m = 0.75 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.3	5010	1102	39900	0.85						
1.5	4400	957	40000	1.00						
1.7	3930	855	40000	1.10						
1.9	3310	743	40000	1.30						
2.2	2920	652	40000	1.45						
2.5	2610	573	40000	1.65	**K**	**97R57**	**DRN**	**80M4**	185	631
2.9	2240	504	40000	1.90	**KF**	**97R57**	**DRN**	**80M4**	205	631
3.3	1930	437	40000	2.2	**KA**	**97R57**	**DRN**	**80M4**	170	631
3.8	1710	382	40000	2.5	**KAF**	**97R57**	**DRN**	**80M4**	195	631
4.7	1380	305	40000	3.1						
5.6	1160	258	40000	3.7						
6.2	1050	232	40000	4.1						
7.2	890	199	40000	4.8						
2.0	3260	726	26500	0.85						
2.3	2870	638	27100	0.95						
2.6	2520	562	27500	1.05						
3.0	2120	474	27900	1.25						
3.4	1910	426	28100	1.40	**K**	**87R57**	**DRN**	**80M4**	125	631
3.9	1680	373	28300	1.60	**KF**	**87R57**	**DRN**	**80M4**	135	631
4.4	1460	330	28500	1.85	**KA**	**87R57**	**DRN**	**80M4**	115	631
4.9	1310	294	28600	2.1	**KAF**	**87R57**	**DRN**	**80M4**	125	631
5.8	1130	250	28700	2.4						
6.1	1070	236	28700	2.5						
7.2	900	201	28800	3.0						
3.9	1660	367	14500	0.95						
4.4	1480	328	15800	1.05	**K**	**77R37**	**DRN**	**80M4**	78	631
5.0	1310	290	16800	1.20	**KF**	**77R37**	**DRN**	**80M4**	86	631
5.7	1130	252	17700	1.35	**KA**	**77R37**	**DRN**	**80M4**	70	631
6.5	1000	221	18300	1.55	**KAF**	**77R37**	**DRN**	**80M4**	78	631
					K	**49R37**	**DRN**	**80M4**	51	631
12	545	125	9000	0.90	**KF**	**49R37**	**DRN**	**80M4**	53	631
15	430	99	9000	1.15	**KA**	**49R37**	**DRN**	**80M4**	48	631
					KAF	**49R37**	**DRN**	**80M4**	53	631
					K	**39R17**	**DRN**	**80M4**	32	631
19	330	75	7500	0.90	**KF**	**39R17**	**DRN**	**80M4**	34	631
					KA	**39R17**	**DRN**	**80M4**	31	631
					KAF	**39R17**	**DRN**	**80M4**	33	631
7.3	980	197.37	28800	2.8	**K**	**87**	**DRN**	**80M4**	105	597
8.3	860	174.19	28800	3.1	**KF**	**87**	**DRN**	**80M4**	115	598
8.8	810	164.34*	28900	3.3	**KA**	**87**	**DRN**	**80M4**	92	599
9.8	730	147.32*	28900	3.7	**KAF**	**87**	**DRN**	**80M4**	105	598
9.4	765	154.02	19100	2.0						
11	670	135.28	19300	2.3	**K**	**77**	**DRN**	**80M4**	68	591
11	635	128.52	19400	2.4	**KF**	**77**	**DRN**	**80M4**	77	592
13	560	113.56	19600	2.7	**KA**	**77**	**DRN**	**80M4**	61	593
15	480	97.05	19700	3.2	**KAF**	**77**	**DRN**	**80M4**	69	592
12	610	123.54	11800	1.35	**K**	**67**	**DRN**	**80M4**	43	585
13	535	108.03	12200	1.55	**KF**	**67**	**DRN**	**80M4**	48	586
16	445	90.04	12600	1.85	**KA**	**67**	**DRN**	**80M4**	40	587
					KAF	**67**	**DRN**	**80M4**	46	586
19	375	76.37	12900	2.2	**K**	**67**	**DRN**	**80M4**	43	585
21	340	68.95	13000	2.4	**KF**	**67**	**DRN**	**80M4**	48	586
24	300	60.66	13000	2.7	**KA**	**67**	**DRN**	**80M4**	40	587
25	280	57.28	13000	2.9	**KAF**	**67**	**DRN**	**80M4**	46	586
12	615	123.85	7500	0.95						
13	535	108.29	8120	1.10						
14	510	102.88*	8330	1.15						
16	445	90.26*	8660	1.35	**K**	**57**	**DRN**	**80M4**	37	579
19	380	76.56*	8960	1.60	**KF**	**57**	**DRN**	**80M4**	41	580
21	340	69.12	9120	1.75	**KA**	**57**	**DRN**	**80M4**	35	581
24	300	60.81*	9280	2.00	**KAF**	**57**	**DRN**	**80M4**	40	580
25	285	57.42*	9340	2.1						
29	240	48.89	9490	2.5						
32	220	44.43	9560	2.7						

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P_m = 0.75 kW											
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
24	295	60.27	9000	1.65							
27	260	52.94	9000	1.90							
29	250	50.29	9000	2.0	**K**	**49**	**DRN**	**80M4**		43	575
32	220	44.44	9000	2.3	**KF**	**49**	**DRN**	**80M4**		45	576
38	189	37.98	9000	2.6	**KA**	**49**	**DRN**	**80M4**		40	577
41	173	34.81	9000	2.9	**KAF**	**49**	**DRN**	**80M4**		45	576
47	152	30.55	8960	3.3							
50	144	28.95	8840	3.5							
19	370	75.20*	6270	1.05	**K**	**47**	**DRN**	**80M4**		31	569
21	345	69.84	6590	1.15	**KF**	**47**	**DRN**	**80M4**		34	570
23	310	63.30*	6920	1.25	**KA**	**47**	**DRN**	**80M4**		30	571
					KAF	**47**	**DRN**	**80M4**		33	570
25	280	56.83	7210	1.40							
29	240	48.95*	7500	1.65	**K**	**47**	**DRN**	**80M4**		31	569
31	225	46.03*	7600	1.75	**KF**	**47**	**DRN**	**80M4**		34	570
36	197	39.61	7790	2.0	**KA**	**47**	**DRN**	**80M4**		30	571
41	176	35.39	7690	2.3	**KAF**	**47**	**DRN**	**80M4**		33	570
46	156	31.30	7480	2.6							
29	245	49.69	7500	1.20							
33	215	43.45	7500	1.40							
35	205	41.28	7500	1.45							
40	180	36.22	7390	1.65	**K**	**39**	**DRN**	**80M4**		30	565
47	153	30.72	7140	1.95	**KF**	**39**	**DRN**	**80M4**		31	566
52	138	27.73	6990	2.2	**KA**	**39**	**DRN**	**80M4**		29	567
59	121	24.40	6790	2.5	**KAF**	**39**	**DRN**	**80M4**		30	566
62	115	23.04	6700	2.6							
73	98	19.62	6440	3.0							
81	89	17.83	6290	3.3							
93	77	15.44	6060	3.6							
32	220	44.46	4170	0.90							
38	189	37.97	4140	1.05							
40	177	35.57	4130	1.15							
48	149	29.96	4060	1.35							
50	143	28.83	4040	1.40							
58	124	24.99	3970	1.60							
62	116	23.36	3930	1.70	**K**	**37**	**DRN**	**80M4**		24	559
71	100	20.19	3840	1.85	**KF**	**37**	**DRN**	**80M4**		27	560
84	85	17.15	3720	2.1	**KA**	**37**	**DRN**	**80M4**		24	561
94	76	15.31	3640	2.3	**KAF**	**37**	**DRN**	**80M4**		26	560
110	65	13.08	3520	2.5							
119	60	12.14	3460	2.6							
137	52	10.49	3340	3.1							
162	44	8.91	3210	3.6							
181	40	7.96	3120	3.9							
58	124	24.91	3780	0.90							
62	115	23.19	3870	1.15							
65	110	22.08	3720	0.95							
72	99	19.99	3780	1.30							
88	81	16.29	3630	1.60	**K**	**29**	**DRN**	**80M4**		19	552
107	67	13.47	3490	1.95	**KF**	**29**	**DRN**	**80M4**		20	556
121	59	11.94	3400	2.2	**KA**	**29**	**DRN**	**80M4**		18	558
146	49	9.90	3370	2.2	**KAF**	**29**	**DRN**	**80M4**		19	556
157	46	9.17	3190	2.8							
169	42	8.53	3230	2.9							
193	37	7.48	3030	3.3							
207	35	6.95	3050	3.2							

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P_m = 0.75 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
78	92	18.55	3260	0.85						
91	79	15.84	3190	1.00						
98	73	14.69	3150	1.10						
113	63	12.70	3060	1.25						
122	59	11.84	3020	1.35	**K**	**19**	**DRN**	**80M4**	17	546
140	51	10.32	2940	1.50	**KF**	**19**	**DRN**	**80M4**	17	549
178	40	8.09	2870	2.00	**KA**	**19**	**DRN**	**80M4**	16	551
208	34	6.91	2760	2.3	**KAF**	**19**	**DRN**	**80M4**	17	549
225	32	6.41	2700	2.5						
260	28	5.54	2600	2.9						
279	26	5.16	2550	3.1						
320	22	4.50	2450	3.6						

P_m = 1.1 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.16	57100	9363	190000	0.85						
0.18	48800	8126	190000	1.00						
0.20	46400	7343	190000	1.10						
0.22	42400	6747	190000	1.20	**K**	**187R97**	**DRN**	**90S4**	1780	632
0.24	37300	5991	190000	1.35	**KH**	**187R97**	**DRN**	**90S4**	1710	632
0.27	33000	5358	190000	1.50						
0.30	29400	4817	190000	1.70						
0.33	26600	4370	190000	1.85						
0.27	33300	5355	150000	0.95						
0.30	29500	4788	150000	1.10						
0.36	25600	4079	150000	1.25	**K**	**167R97**	**DRN**	**90S4**	1190	632
0.43	21300	3376	150000	1.50	**KH**	**167R97**	**DRN**	**90S4**	1160	632
0.53	17100	2755	150000	1.85						
0.67	13900	2182	150000	2.3						
0.85	10800	1704	150000	3.0	**K**	**167R97**	**DRN**	**90S4**	1190	632
1.0	9000	1408	150000	3.6	**KH**	**167R97**	**DRN**	**90S4**	1150	632
1.1	8240	1296	150000	3.9						
0.41	21600	3516	110100	0.85	**K**	**157R97**	**DRN**	**90S4**	800	632
0.48	19200	3051	111500	0.95	**KF**	**157R97**	**DRN**	**90S4**	880	632
0.56	15900	2610	113200	1.15	**KA**	**157R97**	**DRN**	**90S4**	760	632
0.63	14100	2322	113900	1.25	**KAF**	**157R97**	**DRN**	**90S4**	820	632
0.88	10600	1659	115100	1.70						
1.1	8600	1365	115600	2.1	**K**	**157R97**	**DRN**	**90S4**	800	632
1.2	7670	1229	115900	2.4	**KF**	**157R97**	**DRN**	**90S4**	880	632
1.3	6820	1093	116000	2.6	**KA**	**157R97**	**DRN**	**90S4**	760	632
1.5	5880	942	116200	3.1	**KAF**	**157R97**	**DRN**	**90S4**	820	632
1.7	5270	854	116300	3.4						
0.76	12600	1926	79400	1.05						
0.83	11500	1757	80000	1.15						
0.94	10000	1541	80600	1.30						
1.1	8810	1342	81200	1.45						
1.2	7700	1177	81600	1.70	**K**	**127R77**	**DRN**	**90S4**	480	631
1.4	6730	1025	81900	1.95	**KF**	**127R77**	**DRN**	**90S4**	520	631
1.6	5880	899	82100	2.2	**KA**	**127R77**	**DRN**	**90S4**	455	631
1.8	5060	790	82300	2.6	**KAF**	**127R77**	**DRN**	**90S4**	490	631
2.1	4580	704	82400	2.8						
2.4	3940	610	82500	3.3						
2.6	3560	549	82600	3.6						
3.0	3060	477	82600	4.2						

P_m = 1.1 kW											
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.2	7680	1166	65000	1.05						
1.4	6680	1030	65000	1.20						
1.6	5840	904	65000	1.35						
1.8	5200	793	65000	1.55						
2.1	4550	696	65000	1.75	**K**	**107R77**	**DRN**	**90S4**	320	631
2.4	3970	615	65000	2.0	**KF**	**107R77**	**DRN**	**90S4**	335	631
2.8	3370	522	65000	2.4	**KA**	**107R77**	**DRN**	**90S4**	295	631
3.2	2960	461	65000	2.7	**KAF**	**107R77**	**DRN**	**90S4**	320	631
3.6	2610	408	65000	3.1						
4.0	2360	364	65000	3.4						
4.6	2070	318	65000	3.9						
2.0	4870	743	40000	0.90						
2.2	4280	652	40000	1.00						
2.5	3830	573	40000	1.10	**K**	**97R57**	**DRN**	**90S4**	195	631
2.9	3300	504	40000	1.30	**KF**	**97R57**	**DRN**	**90S4**	215	631
3.3	2840	437	40000	1.50	**KA**	**97R57**	**DRN**	**90S4**	175	631
3.8	2510	382	40000	1.70	**KAF**	**97R57**	**DRN**	**90S4**	200	631
4.2	2220	342	40000	1.95						
3.1	3120	474	26700	0.85						
3.4	2800	426	27200	0.95						
3.9	2470	373	27600	1.10	**K**	**87R57**	**DRN**	**90S4**	130	631
4.4	2160	330	27900	1.25	**KF**	**87R57**	**DRN**	**90S4**	140	631
5.0	1930	294	28100	1.40	**KA**	**87R57**	**DRN**	**90S4**	120	631
5.8	1660	250	28300	1.60	**KAF**	**87R57**	**DRN**	**90S4**	135	631
6.2	1570	236	28400	1.70						
7.2	1330	201	28600	2.0						
8.3	1270	176.05*	40000	3.4	**K**	**97**	**DRN**	**90S4**	170	603
9.5	1100	153.21*	40000	3.9	**KF**	**97**	**DRN**	**90S4**	190	604
10	1010	140.28	40000	4.2	**KA**	**97**	**DRN**	**90S4**	150	605
					KAF	**97**	**DRN**	**90S4**	175	604
8.4	1250	174.19	28600	2.2						
8.8	1180	164.34*	28700	2.3	**K**	**87**	**DRN**	**90S4**	110	597
9.9	1060	147.32*	28800	2.5	**KF**	**87**	**DRN**	**90S4**	120	598
11	910	126.91*	28800	3.0	**KA**	**87**	**DRN**	**90S4**	97	599
13	830	115.82	28900	3.2	**KAF**	**87**	**DRN**	**90S4**	110	598
11	970	135.28	18400	1.60	**K**	**77**	**DRN**	**90S4**	73	591
11	920	128.52	18600	1.65	**KF**	**77**	**DRN**	**90S4**	82	592
13	810	113.56	18900	1.90	**KA**	**77**	**DRN**	**90S4**	66	593
					KAF	**77**	**DRN**	**90S4**	74	592
15	700	97.05	19300	2.2	**K**	**77**	**DRN**	**90S4**	73	591
16	640	88.97	19400	2.4	**KF**	**77**	**DRN**	**90S4**	82	592
19	560	78.07	19600	2.8	**KA**	**77**	**DRN**	**90S4**	66	593
20	530	73.99	19600	2.9	**KAF**	**77**	**DRN**	**90S4**	74	592
13	775	108.03	10700	1.05	**K**	**67**	**DRN**	**90S4**	49	585
14	740	102.62	11000	1.10	**KF**	**67**	**DRN**	**90S4**	54	586
16	650	90.04	11600	1.25	**KA**	**67**	**DRN**	**90S4**	46	587
19	550	76.37	12200	1.50	**KAF**	**67**	**DRN**	**90S4**	52	586
21	495	68.95	12400	1.65						
24	435	60.66	12700	1.85	**K**	**67**	**DRN**	**90S4**	49	585
25	410	57.28	12800	2.00	**KF**	**67**	**DRN**	**90S4**	54	586
30	350	48.77	13000	2.3	**KA**	**67**	**DRN**	**90S4**	46	587
33	315	44.32	13000	2.6	**KAF**	**67**	**DRN**	**90S4**	52	586
38	275	38.39	13000	2.9						
16	650	90.26*	6280	0.90						
19	550	76.56*	8010	1.10						
21	495	69.12	8420	1.20	**K**	**57**	**DRN**	**90S4**	43	579
24	435	60.81*	8710	1.35	**KF**	**57**	**DRN**	**90S4**	48	580
25	410	57.42*	8820	1.45	**KA**	**57**	**DRN**	**90S4**	41	581
30	350	48.89	9080	1.70	**KAF**	**57**	**DRN**	**90S4**	47	580
33	320	44.43	9210	1.85						

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P_m = 1.1 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
38	275	38.49	9370	2.2						
41	255	35.70	9440	2.3						
48	215	30.28	9570	2.7						
53	197	27.34	9430	3.0						
60	174	24.05	9130	3.5						
64	164	22.71	9000	3.7						
75	140	19.34	8640	4.1						
83	127	17.57	8420	4.4	**K**	**57**	**DRN**	**90S4**	43	579
96	110	15.22	8100	4.9	**KF**	**57**	**DRN**	**90S4**	48	580
110	96	13.25	7790	5.3	**KA**	**57**	**DRN**	**90S4**	41	581
122	86	11.92	7490	4.8	**KAF**	**57**	**DRN**	**90S4**	47	580
129	81	11.26	7370	5.1						
152	69	9.59	7040	5.8						
167	63	8.71	6850	6.2						
193	54	7.55	6570	6.7						
222	47	6.57	6310	7.3						
310	34	4.69	5700	8.9						
24	435	60.27	9000	1.15						
27	380	52.94	9000	1.30						
29	360	50.29	9000	1.40						
33	320	44.44	9000	1.55						
38	270	37.98	8800	1.80	**K**	**49**	**DRN**	**90S4**	48	575
42	250	34.81	8660	2.00	**KF**	**49**	**DRN**	**90S4**	50	576
48	220	30.55	8430	2.3	**KA**	**49**	**DRN**	**90S4**	45	577
50	205	28.95	8340	2.4	**KAF**	**49**	**DRN**	**90S4**	50	576
57	183	25.34	8100	2.7						
64	165	22.83	7900	3.0						
73	145	20.03	7660	3.5						
26	410	56.83	5430	0.95	**K**	**47**	**DRN**	**90S4**	37	569
30	350	48.95*	6520	1.15	**KF**	**47**	**DRN**	**90S4**	40	570
32	330	46.03*	6750	1.20	**KA**	**47**	**DRN**	**90S4**	36	571
					KAF	**47**	**DRN**	**90S4**	39	570
37	285	39.61	7160	1.40						
41	255	35.39	7050	1.55						
46	225	31.30	6920	1.75	**K**	**47**	**DRN**	**90S4**	37	569
50	210	29.32	6840	1.90	**KF**	**47**	**DRN**	**90S4**	40	570
56	187	25.91	6690	2.1	**KA**	**47**	**DRN**	**90S4**	36	571
67	157	21.81	6460	2.5	**KAF**	**47**	**DRN**	**90S4**	39	570
74	141	19.58	6310	2.8						
29	355	49.69	6810	0.85						
33	310	43.45	6760	0.95						
35	295	41.28	6740	1.00						
40	260	36.22	6660	1.15						
47	220	30.72	6520	1.35						
52	200	27.73	6420	1.50						
60	176	24.40	6290	1.70	**K**	**39**	**DRN**	**90S4**	36	565
63	166	23.04	6230	1.80	**KF**	**39**	**DRN**	**90S4**	38	566
74	142	19.62	6040	2.1	**KA**	**39**	**DRN**	**90S4**	35	567
82	129	17.83	5920	2.2	**KAF**	**39**	**DRN**	**90S4**	37	566
94	111	15.44	5740	2.5						
108	97	13.44	5560	2.8						
114	92	12.73	5760	2.7						
120	87	12.09	5680	2.9						
137	77	10.61	5480	3.7						

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P_m = 1.1 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
49	215	29.96	3430	0.90						
58	180	24.99	3440	1.10						
62	169	23.36	3430	1.15						
72	146	20.19	3410	1.25						
85	124	17.15	3360	1.45						
95	111	15.31	3310	1.60	**K**	**37**	**DRN**	**90S4**	30	559
111	94	13.08	3240	1.75	**KF**	**37**	**DRN**	**90S4**	33	560
120	88	12.14	3200	1.85	**KA**	**37**	**DRN**	**90S4**	30	561
139	76	10.49	3120	2.1	**KAF**	**37**	**DRN**	**90S4**	32	560
163	64	8.91	3020	2.5						
183	57	7.96	2950	2.7						
214	49	6.80	2850	3.1						
229	46	6.37	2800	3.2						
271	39	5.36	2690	3.6						
366	29	3.98	2490	4.4						
73	144	19.99	3360	0.90						
89	118	16.29	3290	1.10						
108	97	13.47	3210	1.35						
122	86	11.94	3150	1.50						
147	71	9.90	3210	1.55	**K**	**29**	**DRN**	**90S4**	25	552
159	66	9.17	2990	1.95	**KF**	**29**	**DRN**	**90S4**	26	556
171	62	8.53	3100	2.00	**KA**	**29**	**DRN**	**90S4**	24	558
195	54	7.48	2870	2.3	**KAF**	**29**	**DRN**	**90S4**	25	556
209	50	6.95	2940	2.2						
253	42	5.75	2800	2.7						
285	37	5.10	2710	3.0						
115	92	12.70	2760	0.85						
123	85	11.84	2740	0.90						
141	74	10.32	2690	1.00						
180	58	8.09	2720	1.35	**K**	**19**	**DRN**	**90S4**	23	546
211	50	6.91	2620	1.60	**KF**	**19**	**DRN**	**90S4**	23	549
227	46	6.41	2580	1.75	**KA**	**19**	**DRN**	**90S4**	22	551
263	40	5.54	2490	2.0	**KAF**	**19**	**DRN**	**90S4**	23	549
282	37	5.16	2440	2.2						
323	32	4.50	2360	2.5						

P_m = 1.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.22	58500	6747	190000	0.85						
0.24	51600	5991	190000	0.95						
0.27	45800	5358	190000	1.10	**K**	**187R97**	**DRN**	**90L4**	1780	632
0.30	40800	4817	190000	1.20	**KH**	**187R97**	**DRN**	**90L4**	1710	632
0.33	37100	4370	190000	1.35						
0.40	31800	3609	190000	1.55						
0.48	26900	3062	190000	1.85	**K**	**187R97**	**DRN**	**90L4**	1780	632
0.58	21900	2519	190000	2.3	**KH**	**187R97**	**DRN**	**90L4**	1710	632
0.64	19600	2268	190000	2.6						
0.36	35300	4079	150000	0.90						
0.43	29300	3376	150000	1.10	**K**	**167R97**	**DRN**	**90L4**	1200	632
0.53	23700	2755	150000	1.35	**KH**	**167R97**	**DRN**	**90L4**	1160	632
0.67	19200	2182	150000	1.65						
0.86	14900	1704	150000	2.1	**K**	**167R97**	**DRN**	**90L4**	1190	632
1.0	12400	1408	150000	2.6	**KH**	**167R97**	**DRN**	**90L4**	1160	632
1.1	11300	1296	150000	2.8						
					K	**157R97**	**DRN**	**90L4**	800	632
0.63	19700	2322	111300	0.90	**KF**	**157R97**	**DRN**	**90L4**	880	632
					KA	**157R97**	**DRN**	**90L4**	770	632
					KAF	**157R97**	**DRN**	**90L4**	830	632

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P_m = 1.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.88	14600	1659	113700	1.25						
1.1	11900	1365	114700	1.50						
1.2	10600	1229	115100	1.70	**K**	**157R97**	**DRN**	**90L4**	800	632
1.3	9460	1093	115400	1.90	**KF**	**157R97**	**DRN**	**90L4**	880	632
1.6	8150	942	115700	2.2	**KA**	**157R97**	**DRN**	**90L4**	760	632
1.7	7330	854	115900	2.4	**KAF**	**157R97**	**DRN**	**90L4**	820	632
2.6	4810	567	116300	3.7						
2.9	4280	504	116400	4.2						
					K	**127R87**	**DRN**	**90L4**	510	631
2.7	4640	536	82400	2.8	**KF**	**127R87**	**DRN**	**90L4**	550	631
3.5	3660	418	82600	3.6	**KA**	**127R87**	**DRN**	**90L4**	480	631
4.0	3220	367	82600	4.0	**KAF**	**127R87**	**DRN**	**90L4**	520	631
0.83	15700	1757	74400	0.80						
0.95	13800	1541	78300	0.95						
1.1	12000	1342	79700	1.10						
1.2	10500	1177	80400	1.25						
1.4	9200	1025	81000	1.40	**K**	**127R77**	**DRN**	**90L4**	485	631
1.6	8050	899	81400	1.60	**KF**	**127R77**	**DRN**	**90L4**	530	631
1.8	6970	790	81800	1.85	**KA**	**127R77**	**DRN**	**90L4**	455	631
2.1	6280	704	82000	2.1	**KAF**	**127R77**	**DRN**	**90L4**	495	631
2.4	5420	610	82200	2.4						
2.7	4890	549	82300	2.7						
3.1	4210	477	82500	3.1						
3.5	3720	418	82500	3.5						
1.4	9170	1030	65000	0.85						
1.6	8020	904	65000	1.00						
1.8	7120	793	65000	1.10						
2.1	6230	696	65000	1.30	**K**	**107R77**	**DRN**	**90L4**	325	631
2.4	5460	615	65000	1.45	**KF**	**107R77**	**DRN**	**90L4**	335	631
2.8	4630	522	65000	1.75	**KA**	**107R77**	**DRN**	**90L4**	300	631
3.2	4070	461	65000	1.95	**KAF**	**107R77**	**DRN**	**90L4**	320	631
3.6	3600	408	65000	2.2						
4.0	3240	364	65000	2.5						
4.6	2830	318	65000	2.8						
2.6	5220	573	39600	0.80						
2.9	4510	504	40000	0.95						
3.4	3900	437	40000	1.10						
3.8	3440	382	40000	1.25	**K**	**97R57**	**DRN**	**90L4**	195	631
4.3	3040	342	40000	1.40	**KF**	**97R57**	**DRN**	**90L4**	215	631
4.8	2770	305	40000	1.55	**KA**	**97R57**	**DRN**	**90L4**	180	631
5.7	2340	258	40000	1.85	**KAF**	**97R57**	**DRN**	**90L4**	205	631
6.3	2100	232	40000	2.0						
7.3	1800	199	40000	2.4						
4.4	2950	330	27000	0.90						
5.0	2650	294	27400	1.00	**K**	**87R57**	**DRN**	**90L4**	135	631
5.8	2270	250	27800	1.20	**KF**	**87R57**	**DRN**	**90L4**	145	631
6.2	2140	236	27900	1.25	**KA**	**87R57**	**DRN**	**90L4**	125	631
7.3	1820	201	28200	1.50	**KAF**	**87R57**	**DRN**	**90L4**	135	631
8.0	1650	183	28400	1.65						
8.3	1720	176.05*	40000	2.5	**K**	**97**	**DRN**	**90L4**	170	603
9.5	1500	153.21*	40000	2.9	**KF**	**97**	**DRN**	**90L4**	190	604
10	1370	140.28	40000	3.1	**KA**	**97**	**DRN**	**90L4**	155	605
12	1210	123.93*	40000	3.5	**KAF**	**97**	**DRN**	**90L4**	180	604
8.4	1700	174.19	28300	1.60						
8.9	1610	164.34*	28400	1.70						
9.9	1440	147.32*	28500	1.85	**K**	**87**	**DRN**	**90L4**	110	597
12	1240	126.91*	28600	2.2	**KF**	**87**	**DRN**	**90L4**	120	598
13	1130	115.82	28700	2.4	**KA**	**87**	**DRN**	**90L4**	100	599
14	1000	102.71*	28800	2.7	**KAF**	**87**	**DRN**	**90L4**	115	598
17	840	86.34	28900	3.2						
11	1320	135.28	16800	1.15						
11	1260	128.52	17100	1.25	**K**	**77**	**DRN**	**90L4**	77	591
13	1110	113.56	17800	1.40	**KF**	**77**	**DRN**	**90L4**	85	592
15	950	97.05	18500	1.65	**KA**	**77**	**DRN**	**90L4**	69	593
16	870	88.97	18800	1.80	**KAF**	**77**	**DRN**	**90L4**	77	592

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P_m = 1.5 kW											
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
19	765	78.07	19100	2.0							
20	725	73.99	19200	2.1							
23	630	64.75	19400	2.4	**K**	**77**	**DRN**	**90L4**		77	591
25	570	58.34	19600	2.7	**KF**	**77**	**DRN**	**90L4**		85	592
29	500	51.18	19700	3.1	**KA**	**77**	**DRN**	**90L4**		69	593
32	440	45.16	19800	3.5	**KAF**	**77**	**DRN**	**90L4**		77	592
36	390	40.04	19900	4.0							
16	880	90.04	9710	0.95							
19	745	76.37	10900	1.10	**K**	**67**	**DRN**	**90L4**		52	585
21	675	68.95	11400	1.20	**KF**	**67**	**DRN**	**90L4**		58	586
24	590	60.66	11900	1.40	**KA**	**67**	**DRN**	**90L4**		49	587
26	560	57.28	12100	1.45	**KAF**	**67**	**DRN**	**90L4**		55	586
30	475	48.77	12500	1.70							
33	430	44.32	12700	1.90							
38	375	38.39	12900	2.1	**K**	**67**	**DRN**	**90L4**		52	585
41	345	35.62	13000	2.4	**KF**	**67**	**DRN**	**90L4**		58	586
48	295	30.22	13000	2.8	**KA**	**67**	**DRN**	**90L4**		49	587
54	265	27.28	13000	3.1	**KAF**	**67**	**DRN**	**90L4**		55	586
61	235	24.00	13000	3.4							
24	595	60.81*	7660	1.00	**K**	**57**	**DRN**	**90L4**		46	579
25	560	57.42*	7930	1.05	**KF**	**57**	**DRN**	**90L4**		51	580
30	475	48.89	8520	1.25	**KA**	**57**	**DRN**	**90L4**		44	581
33	435	44.43	8720	1.40	**KAF**	**57**	**DRN**	**90L4**		50	580
38	375	38.49	8980	1.60							
41	350	35.70	9090	1.70							
48	295	30.28	9130	2.0	**K**	**57**	**DRN**	**90L4**		46	579
53	265	27.34	8950	2.2	**KF**	**57**	**DRN**	**90L4**		51	580
61	235	24.05	8710	2.5	**KA**	**57**	**DRN**	**90L4**		44	581
64	220	22.71	8600	2.7	**KAF**	**57**	**DRN**	**90L4**		50	580
76	190	19.34	8300	3.0							
28	515	52.94	8280	0.95							
29	490	50.29	8260	1.00							
33	435	44.44	8200	1.15							
38	370	37.98	8080	1.35							
42	340	34.81	7990	1.45							
48	295	30.55	7850	1.65	**K**	**49**	**DRN**	**90L4**		51	575
50	280	28.95	7780	1.75	**KF**	**49**	**DRN**	**90L4**		53	576
58	245	25.34	7610	2.0	**KA**	**49**	**DRN**	**90L4**		48	577
64	220	22.83	7470	2.2	**KAF**	**49**	**DRN**	**90L4**		53	576
73	196	20.03	7280	2.6							
83	173	17.67	7090	2.9							
93	154	15.67	6900	3.2							
109	131	13.38	6650	3.6							
37	385	39.61	6080	1.05	**K**	**47**	**DRN**	**90L4**		40	569
41	345	35.39	6340	1.15	**KF**	**47**	**DRN**	**90L4**		44	570
47	305	31.30	6290	1.30	**KA**	**47**	**DRN**	**90L4**		39	571
					KAF	**47**	**DRN**	**90L4**		42	570
50	285	29.32	6250	1.40							
56	250	25.91	6160	1.55							
67	210	21.81	6020	1.85							
75	192	19.58	5920	2.1	**K**	**47**	**DRN**	**90L4**		40	569
87	165	16.86	5760	2.3	**KF**	**47**	**DRN**	**90L4**		44	570
92	155	15.86	5690	2.4	**KA**	**47**	**DRN**	**90L4**		39	571
107	134	13.65	5520	2.7	**KAF**	**47**	**DRN**	**90L4**		42	570
120	120	12.19	5390	2.9							
124	115	11.77	5300	2.4							

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P_m = 1.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
40	355	36.22	5840	0.85						
48	300	30.72	5830	1.00						
53	270	27.73	5800	1.10						
60	235	24.40	5740	1.25						
63	225	23.04	5700	1.35						
74	192	19.62	5600	1.55	**K**	**39**	**DRN**	**90L4**	39	565
82	175	17.83	5520	1.65	**KF**	**39**	**DRN**	**90L4**	41	566
95	151	15.44	5390	1.85	**KA**	**39**	**DRN**	**90L4**	38	567
109	132	13.44	5260	2.0	**KAF**	**39**	**DRN**	**90L4**	40	566
115	125	12.73	5560	2.0						
121	119	12.09	5490	2.2						
138	104	10.61	5310	2.7						
162	88	9.00	5080	3.4						
180	80	8.12	4950	3.8						
63	225	23.36	2880	0.85						
72	198	20.19	2920	0.95						
85	168	17.15	2950	1.05						
95	150	15.31	2940	1.15						
112	128	13.08	2920	1.30						
120	119	12.14	2910	1.35	**K**	**37**	**DRN**	**90L4**	33	559
139	103	10.49	2870	1.55	**KF**	**37**	**DRN**	**90L4**	36	560
164	87	8.91	2810	1.85	**KA**	**37**	**DRN**	**90L4**	33	561
184	78	7.96	2760	2.00	**KAF**	**37**	**DRN**	**90L4**	35	560
215	67	6.80	2680	2.2						
229	62	6.37	2650	2.3						
272	53	5.36	2560	2.7						
367	39	3.98	2400	3.2						
90	160	16.29	2910	0.80						
108	132	13.47	2890	1.00						
122	117	11.94	2860	1.10						
159	90	9.17	2780	1.45						
171	84	8.53	2940	1.45	**K**	**29**	**DRN**	**90L4**	28	552
195	73	7.48	2690	1.70	**KF**	**29**	**DRN**	**90L4**	29	556
210	68	6.95	2820	1.65	**KA**	**29**	**DRN**	**90L4**	27	558
254	56	5.75	2690	2.00	**KAF**	**29**	**DRN**	**90L4**	28	556
287	50	5.10	2620	2.2						
373	38	3.92	2440	3.3						
458	31	3.19	2310	3.5						

P_m = 2.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.33	56000	4370	190000	0.90	**K**	**187R97**	**DRN**	**100LS4**	1780	632
0.51	35200	2818	190000	1.40	**KH**	**187R97**	**DRN**	**100LS4**	1720	632
0.40	47600	3609	190000	1.05						
0.47	40300	3062	190000	1.25						
0.58	32900	2519	190000	1.50						
0.64	29500	2268	190000	1.70	**K**	**187R97**	**DRN**	**100LS4**	1780	632
0.71	26600	2054	190000	1.90	**KH**	**187R97**	**DRN**	**100LS4**	1710	632
0.80	23400	1821	190000	2.1						
0.90	20800	1605	190000	2.4						
0.53	35600	2755	150000	0.90	**K**	**167R97**	**DRN**	**100LS4**	1200	632
0.64	28600	2263	150000	1.10	**KH**	**167R97**	**DRN**	**100LS4**	1160	632
0.66	28800	2182	150000	1.10						
0.85	22400	1704	150000	1.45						
1.0	18500	1408	150000	1.70	**K**	**167R97**	**DRN**	**100LS4**	1200	632
1.1	17000	1296	150000	1.90	**KH**	**167R97**	**DRN**	**100LS4**	1160	632
1.3	14100	1101	150000	2.3						
1.5	12200	944	150000	2.6						

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P_m = 2.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.87	21800	1659	110000	0.80						
1.1	17800	1365	112300	1.00						
1.2	16000	1229	113100	1.10	**K**	**157R97**	**DRN**	**100LS4**	800	632
1.3	14200	1093	113900	1.25	**KF**	**157R97**	**DRN**	**100LS4**	880	632
1.5	12200	942	114600	1.45	**KA**	**157R97**	**DRN**	**100LS4**	770	632
1.7	11000	854	115000	1.65	**KAF**	**157R97**	**DRN**	**100LS4**	830	632
1.9	9570	756	115400	1.90						
2.7	6980	536	81800	1.85						
3.1	6110	473	82000	2.1	**K**	**127R87**	**DRN**	**100LS4**	510	631
3.5	5500	418	82200	2.4	**KF**	**127R87**	**DRN**	**100LS4**	550	631
4.0	4830	367	82300	2.7	**KA**	**127R87**	**DRN**	**100LS4**	480	631
4.4	4320	330	82400	3.0	**KAF**	**127R87**	**DRN**	**100LS4**	520	631
1.4	13600	1025	78600	0.95						
1.6	11900	899	79700	1.10						
1.8	10400	790	80500	1.25	**K**	**127R77**	**DRN**	**100LS4**	490	631
2.1	9360	704	80900	1.40	**KF**	**127R77**	**DRN**	**100LS4**	530	631
2.4	8090	610	81400	1.60	**KA**	**127R77**	**DRN**	**100LS4**	460	631
2.6	7290	549	81700	1.80	**KAF**	**127R77**	**DRN**	**100LS4**	500	631
3.0	6300	477	82000	2.1						
3.5	5550	418	82200	2.3						
2.4	8150	615	65000	1.00						
2.8	6910	522	65000	1.15						
3.2	6080	461	65000	1.30	**K**	**107R77**	**DRN**	**100LS4**	330	631
3.6	5380	408	65000	1.50	**KF**	**107R77**	**DRN**	**100LS4**	340	631
4.0	4830	364	65000	1.65	**KA**	**107R77**	**DRN**	**100LS4**	300	631
4.6	4220	318	65000	1.90	**KAF**	**107R77**	**DRN**	**100LS4**	325	631
5.1	3800	286	65000	2.1						
5.8	3330	251	65000	2.4						
3.8	5110	382	39800	0.85						
4.2	4540	342	40000	0.95	**K**	**97R57**	**DRN**	**100LS4**	200	631
4.8	4120	305	40000	1.05	**KF**	**97R57**	**DRN**	**100LS4**	220	631
5.6	3470	258	40000	1.25	**KA**	**97R57**	**DRN**	**100LS4**	180	631
6.2	3130	232	40000	1.35	**KAF**	**97R57**	**DRN**	**100LS4**	205	631
7.3	2680	199	40000	1.60						
8.2	2550	176.05*	40000	1.70	**K**	**97**	**DRN**	**100LS4**	175	603
9.5	2210	153.21*	40000	1.95	**KF**	**97**	**DRN**	**100LS4**	195	604
10	2030	140.28	40000	2.1	**KA**	**97**	**DRN**	**100LS4**	160	605
12	1790	123.93*	40000	2.4	**KAF**	**97**	**DRN**	**100LS4**	185	604
					K	**97**	**DRN**	**100LS4**	175	603
14	1520	105.13	40000	2.8	**KF**	**97**	**DRN**	**100LS4**	195	604
15	1400	96.80	40000	3.1	**KA**	**97**	**DRN**	**100LS4**	160	605
					KAF	**97**	**DRN**	**100LS4**	185	604
					K	**87**	**DRN**	**100LS4**	115	597
9.8	2130	147.32*	27900	1.25	**KF**	**87**	**DRN**	**100LS4**	125	598
11	1830	126.91*	28200	1.45	**KA**	**87**	**DRN**	**100LS4**	105	599
13	1670	115.82	28300	1.60	**KAF**	**87**	**DRN**	**100LS4**	120	598
14	1480	102.71*	28500	1.80						
17	1250	86.34	28600	2.2	**K**	**87**	**DRN**	**100LS4**	115	597
18	1140	79.34	28700	2.4	**KF**	**87**	**DRN**	**100LS4**	125	598
21	1020	70.46	28800	2.6	**KA**	**87**	**DRN**	**100LS4**	105	599
23	910	63.00*	28800	3.0	**KAF**	**87**	**DRN**	**100LS4**	120	598
13	1640	113.56	14700	0.95						
15	1400	97.05	16300	1.10	**K**	**77**	**DRN**	**100LS4**	81	591
16	1280	88.97	17000	1.20	**KF**	**77**	**DRN**	**100LS4**	89	592
19	1130	78.07	17800	1.35	**KA**	**77**	**DRN**	**100LS4**	73	593
20	1070	73.99	18000	1.45	**KAF**	**77**	**DRN**	**100LS4**	81	592
22	930	64.75	18500	1.65						
25	840	58.34	18800	1.85						
28	740	51.18	19200	2.1						
32	650	45.16	19400	2.4	**K**	**77**	**DRN**	**100LS4**	81	591
36	580	40.04	19500	2.7	**KF**	**77**	**DRN**	**100LS4**	89	592
41	505	35.20	19700	3.0	**KA**	**77**	**DRN**	**100LS4**	73	593
47	445	30.89	19800	3.5	**KAF**	**77**	**DRN**	**100LS4**	81	592
50	420	29.27	19800	3.7						
57	370	25.62	19900	4.2						

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P_m = 2.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
24	870	60.66	9750	0.95						
25	820	57.28	10200	1.00						
30	705	48.77	11200	1.15	**K**	**67**	**DRN**	**100LS4**	56	585
33	640	44.32	11600	1.30	**KF**	**67**	**DRN**	**100LS4**	61	586
38	555	38.39	12100	1.45	**KA**	**67**	**DRN**	**100LS4**	53	587
41	515	35.62	12300	1.60	**KAF**	**67**	**DRN**	**100LS4**	59	586
48	435	30.22	12700	1.85						
53	395	27.28	12800	2.1						
60	345	24.00	13000	2.3						
64	325	22.66	13000	2.4						
75	275	19.30	13000	2.7						
83	250	17.54	13000	2.9						
95	220	15.19	13000	3.2	**K**	**67**	**DRN**	**100LS4**	56	585
110	191	13.22	13000	3.5	**KF**	**67**	**DRN**	**100LS4**	61	586
116	181	12.48	13000	2.9	**KA**	**67**	**DRN**	**100LS4**	53	587
136	154	10.63	13000	3.2	**KAF**	**67**	**DRN**	**100LS4**	59	586
150	140	9.66	13000	3.4						
173	121	8.37	13000	3.6						
199	105	7.28	12700	4.0						
279	75	5.20	11600	4.6						
33	640	44.43	7040	0.95	**K**	**57**	**DRN**	**100LS4**	50	579
38	555	38.49	7970	1.10	**KF**	**57**	**DRN**	**100LS4**	55	580
41	515	35.70	8290	1.15	**KA**	**57**	**DRN**	**100LS4**	48	581
48	435	30.28	8230	1.35	**KAF**	**57**	**DRN**	**100LS4**	54	580
53	395	27.34	8140	1.50						
60	345	24.05	8000	1.70						
64	325	22.71	7930	1.80						
75	280	19.34	7730	2.0	**K**	**57**	**DRN**	**100LS4**	50	579
83	250	17.57	7590	2.2	**KF**	**57**	**DRN**	**100LS4**	55	580
95	220	15.22	7380	2.4	**KA**	**57**	**DRN**	**100LS4**	48	581
109	192	13.25	7170	2.7	**KAF**	**57**	**DRN**	**100LS4**	54	580
122	173	11.92	6850	2.4						
129	163	11.26	6770	2.5						
38	550	37.98	6820	0.90						
42	500	34.81	6840	1.00						
47	440	30.55	6840	1.15						
50	415	28.95	6830	1.20						
57	365	25.34	6780	1.35						
64	330	22.83	6720	1.50	**K**	**49**	**DRN**	**100LS4**	55	575
72	290	20.03	6620	1.70	**KF**	**49**	**DRN**	**100LS4**	57	576
82	255	17.67	6510	1.95	**KA**	**49**	**DRN**	**100LS4**	53	577
93	225	15.67	6400	2.2	**KAF**	**49**	**DRN**	**100LS4**	58	576
108	194	13.38	6220	2.4						
128	165	11.37	6450	3.0						
139	151	10.42	6310	3.2						
159	132	9.14	6090	3.8						
56	375	25.91	5260	1.05	**K**	**47**	**DRN**	**100LS4**	44	569
66	315	21.81	5260	1.25	**KF**	**47**	**DRN**	**100LS4**	47	570
74	280	19.58	5240	1.40	**KA**	**47**	**DRN**	**100LS4**	43	571
					KAF	**47**	**DRN**	**100LS4**	46	570
86	240	16.86	5180	1.55						
91	225	15.86	5140	1.65						
106	198	13.65	5050	1.80	**K**	**47**	**DRN**	**100LS4**	44	569
119	177	12.19	4970	2.00	**KF**	**47**	**DRN**	**100LS4**	47	570
123	170	11.77	4870	1.65	**KA**	**47**	**DRN**	**100LS4**	43	571
137	153	10.56	4790	1.85	**KAF**	**47**	**DRN**	**100LS4**	46	570
159	132	9.10	4660	2.1						

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P_m = 2.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
59	350	24.40	4770	0.85						
63	330	23.04	4800	0.90						
74	280	19.62	4820	1.05						
81	255	17.83	4820	1.10						
94	220	15.44	4790	1.25						
108	195	13.44	4730	1.40	**K**	**39**	**DRN**	**100LS4**	43	565
137	154	10.61	5040	1.85	**KF**	**39**	**DRN**	**100LS4**	45	566
161	130	9.00	4860	2.3	**KA**	**39**	**DRN**	**100LS4**	42	567
178	118	8.12	4740	2.6	**KAF**	**39**	**DRN**	**100LS4**	44	566
203	104	7.15	4600	2.9						
215	98	6.75	4530	3.1						
252	83	5.75	4350	3.3						
278	76	5.22	4240	3.4						
320	66	4.52	4080	3.7						
368	57	3.94	3930	3.8						
111	190	13.08	2380	0.85						
138	152	10.49	2430	1.05						
163	129	8.91	2440	1.25	**K**	**37**	**DRN**	**100LS4**	37	559
182	115	7.96	2430	1.35	**KF**	**37**	**DRN**	**100LS4**	40	560
213	98	6.80	2400	1.50	**KA**	**37**	**DRN**	**100LS4**	37	561
228	92	6.37	2390	1.55	**KAF**	**37**	**DRN**	**100LS4**	39	560
270	78	5.36	2340	1.80						
364	58	3.98	2240	2.2						

P_m = 3.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.52	48700	2818	190000	1.05	**K**	**187R97**	**DRN**	**100L4**	1790	632
					KH	**187R97**	**DRN**	**100L4**	1720	632
0.48	55100	3062	190000	0.90						
0.58	45100	2519	190000	1.10						
0.64	40500	2268	190000	1.25						
0.71	36500	2054	190000	1.35	**K**	**187R97**	**DRN**	**100L4**	1790	632
0.80	32200	1821	190000	1.55	**KH**	**187R97**	**DRN**	**100L4**	1720	632
0.91	28500	1605	190000	1.75						
1.0	24400	1395	190000	2.0						
1.2	21100	1196	190000	2.4						
0.85	30600	1704	150000	1.05						
1.0	25300	1408	150000	1.25						
1.1	23300	1296	150000	1.35	**K**	**167R97**	**DRN**	**100L4**	1210	632
1.3	19500	1101	150000	1.65	**KH**	**167R97**	**DRN**	**100L4**	1170	632
1.5	16800	944	150000	1.90						
1.7	14700	843	150000	2.2						
1.9	13300	757	150000	2.4						
1.2	21900	1229	109900	0.80						
1.3	19500	1093	111400	0.90						
1.5	16800	942	112800	1.05	**K**	**157R97**	**DRN**	**100L4**	810	632
1.7	15200	854	113500	1.20	**KF**	**157R97**	**DRN**	**100L4**	890	632
1.9	13200	756	114300	1.35	**KA**	**157R97**	**DRN**	**100L4**	780	632
2.6	10000	567	115300	1.80	**KAF**	**157R97**	**DRN**	**100L4**	830	632
2.9	8930	504	115600	2.0						
2.7	9580	536	80900	1.35						
3.1	8400	473	81300	1.55	**K**	**127R87**	**DRN**	**100L4**	520	631
3.5	7550	418	81600	1.70	**KF**	**127R87**	**DRN**	**100L4**	560	631
4.0	6610	367	81900	1.95	**KA**	**127R87**	**DRN**	**100L4**	490	631
4.4	5920	330	82100	2.2	**KAF**	**127R87**	**DRN**	**100L4**	530	631
5.1	5080	287	82300	2.6						
1.8	14200	790	77400	0.90						
2.1	12700	704	79300	1.00	**K**	**127R77**	**DRN**	**100L4**	495	631
2.4	11000	610	80200	1.20	**KF**	**127R77**	**DRN**	**100L4**	540	631
2.6	9950	549	80700	1.30	**KA**	**127R77**	**DRN**	**100L4**	470	631
3.0	8610	477	81200	1.50	**KAF**	**127R77**	**DRN**	**100L4**	510	631
3.5	7580	418	81600	1.70						

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P_m = 3.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.2	8310	461	65000	0.95						
3.6	7360	408	65000	1.10						
4.0	6590	364	65000	1.20						
4.6	5760	318	65000	1.40						
5.1	5190	286	65000	1.55	**K**	**107R77**	**DRN**	**100L4**	335	631
5.8	4540	251	65000	1.75	**KF**	**107R77**	**DRN**	**100L4**	350	631
6.6	4000	222	65000	2.0	**KA**	**107R77**	**DRN**	**100L4**	310	631
7.4	3540	196	65000	2.3	**KAF**	**107R77**	**DRN**	**100L4**	335	631
8.4	3170	174	65000	2.3						
9.4	2800	154	65000	2.6						
10	2540	140	65000	2.8						
5.6	4730	258	40000	0.90	**K**	**97R57**	**DRN**	**100L4**	205	631
6.3	4260	232	40000	1.00	**KF**	**97R57**	**DRN**	**100L4**	225	631
7.3	3660	199	40000	1.15	**KA**	**97R57**	**DRN**	**100L4**	190	631
					KAF	**97R57**	**DRN**	**100L4**	215	631
					K	**107**	**DRN**	**100L4**	300	609
10	2820	143.47*	65000	2.8	**KF**	**107**	**DRN**	**100L4**	310	610
12	2380	121.46	65000	3.4	**KA**	**107**	**DRN**	**100L4**	270	611
					KAF	**107**	**DRN**	**100L4**	295	610
8.3	3460	176.05*	40000	1.25	**K**	**97**	**DRN**	**100L4**	185	603
9.5	3010	153.21*	40000	1.45	**KF**	**97**	**DRN**	**100L4**	205	604
10	2760	140.28	40000	1.55	**KA**	**97**	**DRN**	**100L4**	165	605
12	2430	123.93*	40000	1.75	**KAF**	**97**	**DRN**	**100L4**	190	604
14	2060	105.13	40000	2.1						
15	1900	96.80	40000	2.3						
17	1700	86.52	40000	2.5	**K**	**97**	**DRN**	**100L4**	185	603
19	1530	77.89*	40000	2.8	**KF**	**97**	**DRN**	**100L4**	205	604
21	1380	70.54	40000	3.1	**KA**	**97**	**DRN**	**100L4**	165	605
23	1230	62.55	40000	3.5	**KAF**	**97**	**DRN**	**100L4**	190	604
26	1110	56.55	40000	3.9						
9.9	2890	147.32*	27000	0.95	**K**	**87**	**DRN**	**100L4**	125	597
11	2490	126.91*	27500	1.10	**KF**	**87**	**DRN**	**100L4**	135	598
13	2270	115.82	27800	1.20	**KA**	**87**	**DRN**	**100L4**	110	599
14	2020	102.71*	28000	1.35	**KAF**	**87**	**DRN**	**100L4**	125	598
17	1690	86.34	28300	1.60						
18	1560	79.34	28400	1.75						
21	1380	70.46	28600	1.95	**K**	**87**	**DRN**	**100L4**	125	597
23	1230	63.00*	28600	2.2	**KF**	**87**	**DRN**	**100L4**	135	598
26	1110	56.64	28700	2.4	**KA**	**87**	**DRN**	**100L4**	110	599
30	960	49.16	28800	2.8	**KAF**	**87**	**DRN**	**100L4**	125	598
33	860	44.02	28800	3.0						
40	715	36.52*	28200	3.5						
16	1750	88.97	13800	0.90						
19	1530	78.07	15500	1.00	**K**	**77**	**DRN**	**100L4**	88	591
20	1450	73.99	16000	1.05	**KF**	**77**	**DRN**	**100L4**	96	592
22	1270	64.75	17100	1.20	**KA**	**77**	**DRN**	**100L4**	80	593
25	1140	58.34	17700	1.35	**KAF**	**77**	**DRN**	**100L4**	88	592
28	1000	51.18	18300	1.55						
32	880	45.16	18700	1.75	**K**	**77**	**DRN**	**100L4**	88	591
36	785	40.04	19000	1.95	**KF**	**77**	**DRN**	**100L4**	96	592
41	690	35.20	19300	2.2	**KA**	**77**	**DRN**	**100L4**	80	593
47	605	30.89	19500	2.6	**KAF**	**77**	**DRN**	**100L4**	88	592
33	870	44.32	9820	0.95						
38	755	38.39	10900	1.05	**K**	**67**	**DRN**	**100L4**	63	585
41	700	35.62	11300	1.15	**KF**	**67**	**DRN**	**100L4**	69	586
48	590	30.22	11900	1.40	**KA**	**67**	**DRN**	**100L4**	60	587
53	535	27.28	12200	1.55	**KAF**	**67**	**DRN**	**100L4**	66	586
61	470	24.00	12500	1.70						

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P_m = 3.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
64	445	22.66	12600	1.75						
75	375	19.30	12900	2.0						
83	340	17.54	13000	2.2	**K**	**67**	**DRN**	**100L4**	63	585
96	295	15.19	13000	2.3	**KF**	**67**	**DRN**	**100L4**	69	586
110	260	13.22	13000	2.6	**KA**	**67**	**DRN**	**100L4**	60	587
117	245	12.48	13000	2.2	**KAF**	**67**	**DRN**	**100L4**	66	586
137	205	10.63	13000	2.4						
151	190	9.66	13000	2.5						
48	595	30.28	7190	1.00	**K**	**57**	**DRN**	**100L4**	57	579
53	535	27.34	7190	1.10	**KF**	**57**	**DRN**	**100L4**	62	580
61	470	24.05	7170	1.25	**KA**	**57**	**DRN**	**100L4**	55	581
					KAF	**57**	**DRN**	**100L4**	61	580
64	445	22.71	7150	1.35						
75	380	19.34	7060	1.50						
83	345	17.57	6980	1.60						
96	295	15.22	6860	1.80						
110	260	13.25	6710	1.95	**K**	**57**	**DRN**	**100L4**	57	579
122	230	11.92	6380	1.75	**KF**	**57**	**DRN**	**100L4**	62	580
129	220	11.26	6330	1.85	**KA**	**57**	**DRN**	**100L4**	55	581
152	189	9.59	6160	2.2	**KAF**	**57**	**DRN**	**100L4**	61	580
167	171	8.71	6040	2.3						
193	148	7.55	5870	2.5						
222	129	6.57	5700	2.7						
310	92	4.69	5270	3.2						
48	600	30.55	5690	0.85						
50	565	28.95	5740	0.90						
57	495	25.34	5820	1.00						
64	445	22.83	5860	1.10						
73	390	20.03	5860	1.25						
82	345	17.67	5840	1.45	**K**	**49**	**DRN**	**100L4**	63	575
93	305	15.67	5800	1.60	**KF**	**49**	**DRN**	**100L4**	64	576
109	260	13.38	5710	1.80	**KA**	**49**	**DRN**	**100L4**	60	577
128	220	11.37	6160	2.2	**KAF**	**49**	**DRN**	**100L4**	65	576
140	200	10.42	6050	2.3						
159	180	9.14	5860	2.8						
168	170	8.66	5790	2.9						
192	149	7.58	5600	3.4						
213	134	6.83	5460	3.7						
74	385	19.58	4450	1.05	**K**	**47**	**DRN**	**100L4**	51	569
86	330	16.86	4500	1.15	**KF**	**47**	**DRN**	**100L4**	55	570
92	310	15.86	4510	1.20	**KA**	**47**	**DRN**	**100L4**	50	571
					KAF	**47**	**DRN**	**100L4**	53	570
107	265	13.65	4500	1.35						
119	235	12.19	4480	1.45						
124	230	11.77	4360	1.20						
138	205	10.56	4340	1.35	**K**	**47**	**DRN**	**100L4**	51	569
160	179	9.10	4280	1.55	**KF**	**47**	**DRN**	**100L4**	55	570
170	168	8.56	4250	1.60	**KA**	**47**	**DRN**	**100L4**	50	571
198	145	7.36	4160	1.75	**KAF**	**47**	**DRN**	**100L4**	53	570
221	129	6.58	4090	1.85						
250	114	5.81	4000	2.0						
314	91	4.64	3830	2.2						
82	350	17.83	4010	0.85						
94	300	15.44	4090	0.90						
108	260	13.44	4120	1.00						
137	205	10.61	4720	1.35						
162	177	9.00	4580	1.70						
179	160	8.12	4490	1.90	**K**	**39**	**DRN**	**100L4**	50	565
204	141	7.15	4380	2.1	**KF**	**39**	**DRN**	**100L4**	52	566
216	133	6.75	4320	2.3	**KA**	**39**	**DRN**	**100L4**	49	567
253	113	5.75	4170	2.4	**KAF**	**39**	**DRN**	**100L4**	51	566
279	103	5.22	4080	2.5						
322	89	4.52	3940	2.7						
370	77	3.94	3800	2.8						
518	55	2.81	3480	3.1						

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P_m = 3.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
163	175	8.91	2020	0.90						
183	157	7.96	2050	1.00	**K**	**37**	**DRN**	**100L4**	45	559
214	134	6.80	2080	1.10	**KF**	**37**	**DRN**	**100L4**	47	560
229	125	6.37	2090	1.15	**KA**	**37**	**DRN**	**100L4**	44	561
271	106	5.36	2090	1.35	**KAF**	**37**	**DRN**	**100L4**	46	560
366	78	3.98	2040	1.60						

P_m = 4.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.8	19400	835	190000	2.6	**K**	**187R107**	**DRN**	**112M4**	1840	632
2.8	12200	520	190000	4.1	**KH**	**187R107**	**DRN**	**112M4**	1780	632
0.58	60200	2519	190000	0.85						
0.65	54100	2268	190000	0.90						
0.71	48800	2054	190000	1.00						
0.80	43100	1821	190000	1.15						
0.91	38200	1605	190000	1.30	**K**	**187R97**	**DRN**	**112M4**	1800	632
1.0	32700	1395	190000	1.55	**KH**	**187R97**	**DRN**	**112M4**	1730	632
1.2	28300	1196	190000	1.75						
1.4	24700	1046	190000	2.0						
1.6	22300	945	190000	2.2						
1.0	33800	1408	150000	0.95						
1.1	31000	1296	150000	1.05						
1.3	26100	1101	150000	1.25						
1.6	22400	944	150000	1.40	**K**	**167R97**	**DRN**	**112M4**	1210	632
1.7	19800	843	150000	1.60	**KH**	**167R97**	**DRN**	**112M4**	1180	632
1.9	17800	757	150000	1.80						
2.3	14900	632	150000	2.1						
1.7	20300	854	110900	0.90						
1.9	17700	756	112300	1.00	**K**	**157R97**	**DRN**	**112M4**	820	632
2.6	13400	567	114200	1.35	**KF**	**157R97**	**DRN**	**112M4**	900	632
2.9	11900	504	114700	1.50	**KA**	**157R97**	**DRN**	**112M4**	780	632
3.4	10100	434	115200	1.75	**KAF**	**157R97**	**DRN**	**112M4**	840	632
2.7	12700	536	79300	1.00						
3.1	11200	473	80100	1.15						
3.5	10000	418	80600	1.30	**K**	**127R87**	**DRN**	**112M4**	530	631
4.0	8810	367	81200	1.50	**KF**	**127R87**	**DRN**	**112M4**	570	631
4.4	7900	330	81500	1.65	**KA**	**127R87**	**DRN**	**112M4**	500	631
5.1	6800	287	81800	1.90	**KAF**	**127R87**	**DRN**	**112M4**	540	631
5.8	6010	253	82100	2.2						
2.4	14700	610	76600	0.90	**K**	**127R77**	**DRN**	**112M4**	510	631
2.7	13200	549	79000	1.00	**KF**	**127R77**	**DRN**	**112M4**	550	631
3.1	11400	477	80000	1.15	**KA**	**127R77**	**DRN**	**112M4**	480	631
3.5	10000	418	80600	1.30	**KAF**	**127R77**	**DRN**	**112M4**	520	631
4.0	8770	364	65000	0.90						
4.6	7670	318	65000	1.05						
5.1	6900	286	65000	1.15						
5.8	6050	251	65000	1.30	**K**	**107R77**	**DRN**	**112M4**	345	631
6.6	5330	222	65000	1.50	**KF**	**107R77**	**DRN**	**112M4**	360	631
7.4	4720	196	65000	1.70	**KA**	**107R77**	**DRN**	**112M4**	320	631
8.4	4220	174	65000	1.70	**KAF**	**107R77**	**DRN**	**112M4**	340	631
9.5	3730	154	65000	1.95						
10	3390	140	65000	2.1						
7.3	4860	199	40000	0.90	**K**	**97R57**	**DRN**	**112M4**	215	631
					KF	**97R57**	**DRN**	**112M4**	235	631
					KA	**97R57**	**DRN**	**112M4**	200	631
					KAF	**97R57**	**DRN**	**112M4**	225	631

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P_m = 4.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
10	3740	143.47*	65000	2.1						
12	3160	121.46	65000	2.5						
13	2930	112.41*	65000	2.7	**K**	**107**	**DRN**	**112M4**	305	609
15	2620	100.75	65000	3.0	**KF**	**107**	**DRN**	**112M4**	320	610
16	2370	90.96*	65000	3.4	**KA**	**107**	**DRN**	**112M4**	280	611
18	2150	82.61	65000	3.7	**KAF**	**107**	**DRN**	**112M4**	305	610
20	1910	73.30	65000	4.2						
9.6	3990	153.21*	40000	1.10	**K**	**97**	**DRN**	**112M4**	190	603
10	3660	140.28	40000	1.15	**KF**	**97**	**DRN**	**112M4**	210	604
12	3230	123.93*	40000	1.35	**KA**	**97**	**DRN**	**112M4**	175	605
					KAF	**97**	**DRN**	**112M4**	200	604
14	2740	105.13	40000	1.55						
15	2520	96.80	40000	1.70	**K**	**97**	**DRN**	**112M4**	190	603
17	2250	86.52	40000	1.90	**KF**	**97**	**DRN**	**112M4**	210	604
19	2030	77.89*	40000	2.1	**KA**	**97**	**DRN**	**112M4**	175	605
21	1840	70.54	40000	2.3	**KAF**	**97**	**DRN**	**112M4**	200	604
13	3020	115.82	26900	0.90	**K**	**87**	**DRN**	**112M4**	135	597
14	2670	102.71*	27300	1.00	**KF**	**87**	**DRN**	**112M4**	140	598
17	2250	86.34	27800	1.20	**KA**	**87**	**DRN**	**112M4**	120	599
18	2070	79.34	28000	1.30	**KAF**	**87**	**DRN**	**112M4**	135	598
21	1830	70.46	28200	1.45						
23	1640	63.00*	28400	1.65	**K**	**87**	**DRN**	**112M4**	135	597
26	1470	56.64	28500	1.85	**KF**	**87**	**DRN**	**112M4**	140	598
30	1280	49.16	28600	2.1	**KA**	**87**	**DRN**	**112M4**	120	599
33	1140	44.02	28200	2.3	**KAF**	**87**	**DRN**	**112M4**	135	598
40	950	36.52*	27200	2.6						
23	1680	64.75	14300	0.90						
25	1520	58.34	15600	1.00	**K**	**77**	**DRN**	**112M4**	97	591
29	1330	51.18	16700	1.15	**KF**	**77**	**DRN**	**112M4**	105	592
32	1170	45.16	17500	1.30	**KA**	**77**	**DRN**	**112M4**	90	593
37	1040	40.04	18100	1.50	**KAF**	**77**	**DRN**	**112M4**	98	592
38	1000	38.39	18300	1.50						
42	910	35.20	18600	1.70						
47	800	30.89	19000	1.90	**K**	**77**	**DRN**	**112M4**	97	591
50	760	29.27	19100	2.0	**KF**	**77**	**DRN**	**112M4**	105	592
57	665	25.62	19300	2.3	**KA**	**77**	**DRN**	**112M4**	90	593
63	600	23.08	19500	2.6	**KAF**	**77**	**DRN**	**112M4**	98	592
72	525	20.25	19600	2.8						
48	785	30.22	10600	1.05	**K**	**67**	**DRN**	**112M4**	72	585
54	710	27.28	11200	1.15	**KF**	**67**	**DRN**	**112M4**	78	586
61	625	24.00	11700	1.30	**KA**	**67**	**DRN**	**112M4**	70	587
65	590	22.66	11900	1.30	**KAF**	**67**	**DRN**	**112M4**	76	586
76	500	19.30	12400	1.50						
84	455	17.54	12600	1.60						
96	395	15.19	12800	1.75						
111	340	13.22	13000	1.95	**K**	**67**	**DRN**	**112M4**	72	585
117	325	12.48	13000	1.65	**KF**	**67**	**DRN**	**112M4**	78	586
138	275	10.63	13000	1.80	**KA**	**67**	**DRN**	**112M4**	70	587
152	250	9.66	12800	1.90	**KAF**	**67**	**DRN**	**112M4**	76	586
175	215	8.37	12400	2.0						
201	190	7.28	12000	2.2						
282	136	5.20	11100	2.6						
61	625	24.05	6140	0.95						
64	590	22.71	6180	1.00						
76	500	19.34	6230	1.15						
83	455	17.57	6230	1.20						
96	395	15.22	6200	1.35						
110	345	13.25	6140	1.50	**K**	**57**	**DRN**	**112M4**	67	579
123	310	11.92	5800	1.35	**KF**	**57**	**DRN**	**112M4**	71	580
130	290	11.26	5780	1.40	**KA**	**57**	**DRN**	**112M4**	65	581
153	250	9.59	5680	1.60	**KAF**	**57**	**DRN**	**112M4**	70	580
168	225	8.71	5620	1.70						
194	197	7.55	5500	1.85						
223	171	6.57	5380	2.0						
312	122	4.69	5030	2.4						

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P_m = 4.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
64	595	22.83	4780	0.85						
73	520	20.03	4920	0.95						
83	460	17.67	5010	1.10						
93	405	15.67	5060	1.20						
109	345	13.38	5080	1.35						
129	295	11.37	5810	1.65	**K**	**49**	**DRN**	**112M4**	72	575
141	270	10.42	5720	1.75	**KF**	**49**	**DRN**	**112M4**	73	576
160	235	9.14	5580	2.1	**KA**	**49**	**DRN**	**112M4**	69	577
169	225	8.66	5520	2.2	**KAF**	**49**	**DRN**	**112M4**	74	576
193	198	7.58	5360	2.5						
214	178	6.83	5240	2.8						
244	156	5.99	5080	3.2						
277	138	5.29	4930	3.5						
312	122	4.69	4780	3.8						
163	230	9.00	4240	1.30						
180	210	8.12	4180	1.40						
205	187	7.15	4100	1.60						
217	176	6.75	4060	1.70	**K**	**39**	**DRN**	**112M4**	60	565
255	150	5.75	3950	1.85	**KF**	**39**	**DRN**	**112M4**	61	566
280	136	5.22	3880	1.90	**KA**	**39**	**DRN**	**112M4**	59	567
324	118	4.52	3760	2.0	**KAF**	**39**	**DRN**	**112M4**	60	566
372	103	3.94	3650	2.1						
521	73	2.81	3370	2.3						

P_m = 5.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.80	59900	1821	190000	0.85						
0.91	52900	1605	190000	0.95						
1.0	45600	1395	190000	1.10						
1.2	39300	1196	190000	1.25	**K**	**187R97**	**DRN**	**132S4**	1810	632
1.4	34400	1046	190000	1.45	**KH**	**187R97**	**DRN**	**132S4**	1740	632
1.6	31000	945	190000	1.60						
2.0	24200	738	190000	2.1						
2.4	20300	621	190000	2.4						
1.3	36200	1101	150000	0.90						
1.6	31100	944	150000	1.05						
1.7	27500	843	150000	1.15						
1.9	24800	757	150000	1.30	**K**	**167R97**	**DRN**	**132S4**	1230	632
2.3	20800	632	150000	1.55	**KH**	**167R97**	**DRN**	**132S4**	1190	632
2.6	18200	561	150000	1.75						
3.0	15800	481	150000	2.0						
3.4	13700	423	150000	2.3						
2.2	21500	661	110200	0.85						
2.6	18600	567	111900	0.95	**K**	**157R97**	**DRN**	**132S4**	830	632
2.9	16500	504	112900	1.10	**KF**	**157R97**	**DRN**	**132S4**	910	632
3.4	14100	434	113900	1.25	**KA**	**157R97**	**DRN**	**132S4**	800	632
3.8	12300	379	114600	1.45	**KAF**	**157R97**	**DRN**	**132S4**	850	632
4.4	10800	333	115000	1.65						
3.5	13900	418	78000	0.95						
4.0	12100	367	79600	1.05						
4.4	10900	330	80200	1.20						
5.1	9440	287	80900	1.40	**K**	**127R87**	**DRN**	**132S4**	540	631
5.8	8350	253	81300	1.55	**KF**	**127R87**	**DRN**	**132S4**	580	631
6.9	7010	213	81800	1.85	**KA**	**127R87**	**DRN**	**132S4**	510	631
7.3	6680	200	81900	1.80	**KAF**	**127R87**	**DRN**	**132S4**	550	631
8.8	5530	166	82200	2.2						
10.0	4880	147	82300	2.5						
6.6	7370	222	65000	1.10						
7.4	6530	196	65000	1.20	**K**	**107R77**	**DRN**	**132S4**	355	631
8.4	5830	174	65000	1.25	**KF**	**107R77**	**DRN**	**132S4**	370	631
9.5	5170	154	65000	1.40	**KA**	**107R77**	**DRN**	**132S4**	330	631
10	4690	140	65000	1.55	**KAF**	**107R77**	**DRN**	**132S4**	355	631

P_m = 5.5 kW										
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
10	5150	143.47*	65000	1.55						
12	4360	121.46	65000	1.85	**K**	**107**	**DRN**	**132S4**	315	609
13	4040	112.41*	65000	2.00	**KF**	**107**	**DRN**	**132S4**	330	610
14	3620	100.75	65000	2.2	**KA**	**107**	**DRN**	**132S4**	290	611
16	3260	90.96*	65000	2.4	**KAF**	**107**	**DRN**	**132S4**	315	610
18	2960	82.61	65000	2.7						
12	4450	123.93*	40000	0.95	**K**	**97**	**DRN**	**132S4**	205	603
14	3770	105.13	40000	1.15	**KF**	**97**	**DRN**	**132S4**	225	604
15	3470	96.80	40000	1.25	**KA**	**97**	**DRN**	**132S4**	185	605
17	3110	86.52	40000	1.40	**KAF**	**97**	**DRN**	**132S4**	210	604
19	2800	77.89*	40000	1.55						
21	2530	70.54	40000	1.70	**K**	**97**	**DRN**	**132S4**	205	603
23	2240	62.55	40000	1.90	**KF**	**97**	**DRN**	**132S4**	225	604
26	2030	56.55	39600	2.1	**KA**	**97**	**DRN**	**132S4**	185	605
30	1720	47.93*	38400	2.5	**KAF**	**97**	**DRN**	**132S4**	210	604
17	3100	86.34	26700	0.85						
18	2850	79.34	27100	0.95	**K**	**87**	**DRN**	**132S4**	145	597
21	2530	70.46	27500	1.05	**KF**	**87**	**DRN**	**132S4**	155	598
23	2260	63.00*	27400	1.20	**KA**	**87**	**DRN**	**132S4**	130	599
26	2030	56.64	27200	1.35	**KAF**	**87**	**DRN**	**132S4**	145	598
30	1760	49.16	26800	1.55						
33	1580	44.02	26400	1.65	**K**	**87**	**DRN**	**132S4**	145	597
40	1310	36.52*	25700	1.90	**KF**	**87**	**DRN**	**132S4**	155	598
47	1120	31.39	25100	2.4	**KA**	**87**	**DRN**	**132S4**	130	599
52	1000	27.88	24600	2.6	**KAF**	**87**	**DRN**	**132S4**	145	598
32	1620	45.16	14800	0.95						
36	1430	40.04	16100	1.10	**K**	**77**	**DRN**	**132S4**	110	591
47	1110	30.89	17900	1.40	**KF**	**77**	**DRN**	**132S4**	115	592
50	1050	29.27	18100	1.45	**KA**	**77**	**DRN**	**132S4**	100	593
57	920	25.62	18600	1.70	**KAF**	**77**	**DRN**	**132S4**	110	592
63	820	23.08	18900	1.85						
72	725	20.25	19200	2.1						
82	640	17.87	19400	2.3	**K**	**77**	**DRN**	**132S4**	110	591
92	565	15.84	19100	2.5	**KF**	**77**	**DRN**	**132S4**	115	592
108	485	13.52	18500	2.8	**KA**	**77**	**DRN**	**132S4**	100	593
118	440	12.36	17800	2.2	**KAF**	**77**	**DRN**	**132S4**	110	592
135	385	10.84	17400	2.5						
61	860	24.00	9910	0.95						
64	810	22.66	10400	0.95	**K**	**67**	**DRN**	**132S4**	84	585
76	690	19.30	11300	1.10	**KF**	**67**	**DRN**	**132S4**	90	586
83	630	17.54	11700	1.15	**KA**	**67**	**DRN**	**132S4**	81	587
96	545	15.19	12200	1.30	**KAF**	**67**	**DRN**	**132S4**	87	586
111	475	13.22	12500	1.40						
117	445	12.48	12600	1.20						
137	380	10.63	12400	1.30	**K**	**67**	**DRN**	**132S4**	84	585
151	345	9.66	12200	1.40	**KF**	**67**	**DRN**	**132S4**	90	586
175	300	8.37	11900	1.45	**KA**	**67**	**DRN**	**132S4**	81	587
201	260	7.28	11600	1.60	**KAF**	**67**	**DRN**	**132S4**	87	586
281	187	5.20	10800	1.85						
93	560	15.67	3950	0.85						
109	480	13.38	4130	1.00						
160	325	9.14	5160	1.50						
169	310	8.66	5130	1.60	**K**	**49**	**DRN**	**132S4**	83	575
193	270	7.58	5020	1.85	**KF**	**49**	**DRN**	**132S4**	85	576
214	245	6.83	4930	2.0	**KA**	**49**	**DRN**	**132S4**	80	577
244	215	5.99	4810	2.3	**KAF**	**49**	**DRN**	**132S4**	85	576
276	190	5.29	4690	2.6						
312	169	4.69	4570	2.8						
365	144	4.00	4410	3.1						

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P_m = 7.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.8	37100	835	190000	1.35	**K**	**187R107**	**DRN**	**132M4**	1870	632
2.0	32200	729	190000	1.55	**KH**	**187R107**	**DRN**	**132M4**	1810	632
2.4	27500	622	190000	1.80						
1.2	53700	1196	190000	0.95						
1.4	46900	1046	190000	1.05						
1.6	42300	945	190000	1.20	**K**	**187R97**	**DRN**	**132M4**	1830	632
2.0	33100	738	190000	1.50	**KH**	**187R97**	**DRN**	**132M4**	1760	632
2.4	27800	621	190000	1.80						
2.8	23500	527	190000	2.1						
1.7	37700	843	150000	0.85						
1.9	33900	757	150000	0.95						
2.3	28300	632	150000	1.15						
2.6	24900	561	150000	1.30	**K**	**167R97**	**DRN**	**132M4**	1240	632
3.0	21500	481	150000	1.50	**KH**	**167R97**	**DRN**	**132M4**	1210	632
3.5	18800	423	150000	1.70						
4.0	16400	369	150000	1.95						
3.4	19300	434	111500	0.95	**K**	**157R97**	**DRN**	**132M4**	850	632
3.9	16800	379	112700	1.05	**KF**	**157R97**	**DRN**	**132M4**	930	632
4.4	14800	333	113600	1.20	**KA**	**157R97**	**DRN**	**132M4**	810	632
5.0	12900	291	114400	1.40	**KAF**	**157R97**	**DRN**	**132M4**	870	632
4.4	14900	330	76200	0.85						
5.1	12800	287	79300	1.00						
5.8	11300	253	80000	1.15	**K**	**127R87**	**DRN**	**132M4**	560	631
6.9	9570	213	80900	1.35	**KF**	**127R87**	**DRN**	**132M4**	600	631
7.3	9110	200	81000	1.30	**KA**	**127R87**	**DRN**	**132M4**	530	631
8.8	7540	166	81600	1.60	**KAF**	**127R87**	**DRN**	**132M4**	560	631
10	6650	147	81900	1.80						
10	7120	146.07	81700	1.80						
11	6640	136.14	81900	1.95						
12	5970	122.48	82100	2.2	**K**	**127**	**DRN**	**132M4**	490	615
13	5370	110.18	82200	2.4	**KF**	**127**	**DRN**	**132M4**	530	616
16	4380	89.89	82400	3.0	**KA**	**127**	**DRN**	**132M4**	460	617
18	3990	81.98	82500	3.2	**KAF**	**127**	**DRN**	**132M4**	500	616
21	3460	70.95*	82600	3.8						
10	6990	143.47*	65000	1.15	**K**	**107**	**DRN**	**132M4**	335	609
12	5920	121.46	65000	1.35	**KF**	**107**	**DRN**	**132M4**	350	610
13	5480	112.41*	65000	1.45	**KA**	**107**	**DRN**	**132M4**	310	611
					KAF	**107**	**DRN**	**132M4**	330	610
15	4910	100.75	65000	1.65						
16	4430	90.96*	64000	1.80						
18	4030	82.61	63000	2.00						
20	3570	73.30	61700	2.2	**K**	**107**	**DRN**	**132M4**	335	609
22	3240	66.52*	60600	2.5	**KF**	**107**	**DRN**	**132M4**	350	610
26	2780	57.17*	58800	2.9	**KA**	**107**	**DRN**	**132M4**	310	611
29	2430	49.90	57100	3.2	**KAF**	**107**	**DRN**	**132M4**	330	610
35	2060	42.33*	55100	3.6						
40	1800	37.00*	53500	4.0						
15	4720	96.80	38400	0.90						
17	4220	86.52	38300	1.00	**K**	**97**	**DRN**	**132M4**	220	603
19	3800	77.89*	38100	1.15	**KF**	**97**	**DRN**	**132M4**	240	604
21	3440	70.54	37800	1.25	**KA**	**97**	**DRN**	**132M4**	205	605
23	3050	62.55	37400	1.40	**KAF**	**97**	**DRN**	**132M4**	230	604
26	2750	56.55	37000	1.55						
31	2330	47.93*	36200	1.85	**K**	**97**	**DRN**	**132M4**	220	603
35	2040	41.87	35500	2.1	**KF**	**97**	**DRN**	**132M4**	240	604
38	1860	38.30	35000	2.3	**KA**	**97**	**DRN**	**132M4**	205	605
43	1660	34.23	34300	2.6	**KAF**	**97**	**DRN**	**132M4**	230	604
23	3070	63.00*	24100	0.90						
26	2760	56.64	24200	1.00	**K**	**87**	**DRN**	**132M4**	160	597
30	2390	49.16	24200	1.15	**KF**	**87**	**DRN**	**132M4**	170	598
33	2140	44.02	24100	1.20	**KA**	**87**	**DRN**	**132M4**	150	599
40	1780	36.52*	23800	1.40	**KAF**	**87**	**DRN**	**132M4**	165	598

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P_m = 7.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
47	1530	31.39	23400	1.75						
53	1350	27.88	23100	1.90						
59	1210	24.92	22700	2.1	**K**	**87**	**DRN**	**132M4**	160	597
66	1090	22.41	22400	2.1	**KF**	**87**	**DRN**	**132M4**	170	598
75	940	19.45	21800	2.4	**KA**	**87**	**DRN**	**132M4**	150	599
84	840	17.42	21400	2.6	**KAF**	**87**	**DRN**	**132M4**	165	598
92	780	16.00	20500	2.3						
102	700	14.45	20600	3.0						
48	1500	30.89	15700	1.05						
50	1420	29.27	16200	1.10	**K**	**77**	**DRN**	**132M4**	125	591
57	1240	25.62	17200	1.25	**KF**	**77**	**DRN**	**132M4**	135	592
64	1120	23.08	17800	1.40	**KA**	**77**	**DRN**	**132M4**	120	593
73	980	20.25	18400	1.50	**KAF**	**77**	**DRN**	**132M4**	125	592
82	870	17.87	18500	1.65						
93	770	15.84	18200	1.80						
109	655	13.52	17700	2.0	**K**	**77**	**DRN**	**132M4**	125	591
119	600	12.36	17000	1.65	**KF**	**77**	**DRN**	**132M4**	135	592
135	525	10.84	16600	1.85	**KA**	**77**	**DRN**	**132M4**	120	593
154	465	9.56	16200	2.0	**KAF**	**77**	**DRN**	**132M4**	125	592
173	410	8.48	15800	2.2						
203	350	7.24	15300	2.3						
161	445	9.14	4610	1.10						
169	420	8.66	4600	1.20						
194	365	7.58	4560	1.35	**K**	**49**	**DRN**	**132M4**	100	575
215	330	6.83	4510	1.50	**KF**	**49**	**DRN**	**132M4**	105	576
245	290	5.99	4440	1.70	**KA**	**49**	**DRN**	**132M4**	98	577
278	255	5.29	4370	1.90	**KAF**	**49**	**DRN**	**132M4**	105	576
313	225	4.69	4280	2.0						
367	195	4.00	4170	2.2						

P_m = 9.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.8	45700	835	190000	1.10						
2.0	39700	729	190000	1.25	**K**	**187R107**	**DRN**	**132L4**	1880	632
2.4	33900	622	190000	1.45	**KH**	**187R107**	**DRN**	**132L4**	1810	632
2.8	28700	520	190000	1.75						
3.2	25000	454	190000	2.0						
1.4	57600	1046	190000	0.85						
1.6	52000	945	190000	0.95						
2.0	40600	738	190000	1.25	**K**	**187R97**	**DRN**	**132L4**	1830	632
2.4	34100	621	190000	1.45	**KH**	**187R97**	**DRN**	**132L4**	1770	632
2.8	28900	527	190000	1.75						
4.6	17500	318	150000	1.80						
5.3	15200	278	150000	2.1						
6.0	13200	244	150000	2.4	**K**	**167R107**	**DRN**	**132L4**	1300	632
6.9	11500	213	150000	2.8	**KH**	**167R107**	**DRN**	**132L4**	1260	632
7.1	11200	206	150000	2.8						
2.3	34800	632	150000	0.90						
2.6	30700	561	150000	1.05						
3.1	26500	481	150000	1.20	**K**	**167R97**	**DRN**	**132L4**	1250	632
3.5	23100	423	150000	1.40	**KH**	**167R97**	**DRN**	**132L4**	1210	632
4.0	20200	369	150000	1.60						
3.8	20800	385	110600	0.85						
4.5	17400	325	112500	1.05	**K**	**157R107**	**DRN**	**132L4**	910	632
4.9	16200	299	113000	1.10	**KF**	**157R107**	**DRN**	**132L4**	980	632
5.8	13700	253	114100	1.30	**KA**	**157R107**	**DRN**	**132L4**	870	632
6.4	12300	230	114600	1.45	**KAF**	**157R107**	**DRN**	**132L4**	930	632
3.9	20700	379	110700	0.85	**K**	**157R97**	**DRN**	**132L4**	860	632
4.4	18200	333	112000	1.00	**KF**	**157R97**	**DRN**	**132L4**	940	632
5.0	15900	291	113200	1.15	**KA**	**157R97**	**DRN**	**132L4**	820	632
					KAF	**157R97**	**DRN**	**132L4**	880	632

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P_m = 9.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.8	13900	253	78000	0.95	**K**	**127R87**	**DRN**	**132L4**	560	631
6.9	11700	213	79900	1.10	**KF**	**127R87**	**DRN**	**132L4**	610	631
7.3	11100	200	80100	1.05	**KA**	**127R87**	**DRN**	**132L4**	540	631
8.8	9260	166	81000	1.30	**KAF**	**127R87**	**DRN**	**132L4**	570	631
10	8170	147	81400	1.45						
11	8130	136.14	81400	1.60						
12	7320	122.48	81700	1.80	**K**	**127**	**DRN**	**132L4**	500	615
13	6580	110.18	81900	1.95	**KF**	**127**	**DRN**	**132L4**	540	616
16	5370	89.89	82200	2.4	**KA**	**127**	**DRN**	**132L4**	470	617
18	4890	81.98	82300	2.6	**KAF**	**127**	**DRN**	**132L4**	510	616
13	6710	112.41*	62300	1.20	**K**	**107**	**DRN**	**132L4**	345	609
15	6020	100.75	61700	1.35	**KF**	**107**	**DRN**	**132L4**	355	610
16	5430	90.96*	61000	1.45	**KA**	**107**	**DRN**	**132L4**	315	611
					KAF	**107**	**DRN**	**132L4**	340	610
18	4930	82.61	60300	1.60						
20	4380	73.30	59300	1.85	**K**	**107**	**DRN**	**132L4**	345	609
22	3970	66.52*	58400	2.0	**KF**	**107**	**DRN**	**132L4**	355	610
26	3410	57.17*	56900	2.3	**KA**	**107**	**DRN**	**132L4**	315	611
29	2980	49.90	55500	2.6	**KAF**	**107**	**DRN**	**132L4**	340	610
35	2520	42.33*	53700	2.9						
19	4650	77.89*	35100	0.90	**K**	**97**	**DRN**	**132L4**	230	603
21	4210	70.54	35100	1.00	**KF**	**97**	**DRN**	**132L4**	250	604
24	3730	62.55	35000	1.15	**KA**	**97**	**DRN**	**132L4**	210	605
26	3370	56.55	34800	1.25	**KAF**	**97**	**DRN**	**132L4**	235	604
31	2860	47.93*	34400	1.50						
35	2500	41.87	33900	1.70						
38	2280	38.30	33500	1.90	**K**	**97**	**DRN**	**132L4**	230	603
43	2040	34.23	33000	2.1	**KF**	**97**	**DRN**	**132L4**	250	604
48	1840	30.82	32400	2.3	**KA**	**97**	**DRN**	**132L4**	210	605
53	1660	27.91	31900	2.6	**KAF**	**97**	**DRN**	**132L4**	235	604
59	1470	24.75	31200	2.9						
30	2930	49.16	22000	0.90	**K**	**87**	**DRN**	**132L4**	170	597
33	2630	44.02	22200	1.00	**KF**	**87**	**DRN**	**132L4**	180	598
40	2180	36.52*	22200	1.15	**KA**	**87**	**DRN**	**132L4**	160	599
47	1870	31.39	22000	1.45	**KAF**	**87**	**DRN**	**132L4**	170	598
53	1660	27.88	21900	1.55						
59	1480	24.92	21600	1.70						
66	1330	22.41	21400	1.70						
76	1160	19.45	21000	2.00	**K**	**87**	**DRN**	**132L4**	170	597
84	1040	17.42	20600	2.1	**KF**	**87**	**DRN**	**132L4**	180	598
92	950	16.00	19700	1.90	**KA**	**87**	**DRN**	**132L4**	160	599
102	860	14.45	20000	2.4	**KAF**	**87**	**DRN**	**132L4**	170	598
117	750	12.56	19500	2.7						
132	665	11.17	18500	2.2						
147	595	10.00	18200	2.5						
64	1370	23.08	16500	1.10	**K**	**77**	**DRN**	**132L4**	135	591
73	1200	20.25	17400	1.25	**KF**	**77**	**DRN**	**132L4**	145	592
82	1060	17.87	17600	1.35	**KA**	**77**	**DRN**	**132L4**	125	593
93	940	15.84	17300	1.50	**KAF**	**77**	**DRN**	**132L4**	135	592
109	800	13.52	17000	1.65						
119	735	12.36	16200	1.35	**K**	**77**	**DRN**	**132L4**	135	591
136	645	10.84	15900	1.55	**KF**	**77**	**DRN**	**132L4**	145	592
154	570	9.56	15600	1.65	**KA**	**77**	**DRN**	**132L4**	125	593
173	505	8.48	15300	1.75	**KAF**	**77**	**DRN**	**132L4**	135	592
203	430	7.24	14900	1.90						

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P_m = 11.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.8	54700	835	190000	0.90						
2.0	47600	729	190000	1.05						
2.4	40600	622	190000	1.25	**K**	**187R107**	**DRN**	**160M4**	1910	632
2.8	34400	520	190000	1.45	**KH**	**187R107**	**DRN**	**160M4**	1850	632
3.2	29900	454	190000	1.65						
4.1	23100	355	190000	2.2						
2.0	48600	738	190000	1.05						
2.4	40800	621	190000	1.20	**K**	**187R97**	**DRN**	**160M4**	1870	632
2.8	34500	527	190000	1.45	**KH**	**187R97**	**DRN**	**160M4**	1800	632
4.6	21000	318	150000	1.50						
5.3	18300	278	150000	1.75						
6.0	15800	244	150000	2.0	**K**	**167R107**	**DRN**	**160M4**	1330	632
6.9	13800	213	150000	2.3	**KH**	**167R107**	**DRN**	**160M4**	1290	632
7.2	13400	206	150000	2.4						
2.6	36700	561	150000	0.85						
3.1	31600	481	150000	1.00	**K**	**167R97**	**DRN**	**160M4**	1280	632
3.5	27700	423	150000	1.15	**KH**	**167R97**	**DRN**	**160M4**	1250	632
4.0	24200	369	150000	1.30						
					K	**157R97**	**DRN**	**160M4**	890	632
4.4	21800	333	110000	0.80	**KF**	**157R97**	**DRN**	**160M4**	970	632
5.1	19000	291	111600	0.95	**KA**	**157R97**	**DRN**	**160M4**	850	632
					KAF	**157R97**	**DRN**	**160M4**	910	632
6.9	14000	213	77900	0.95	**K**	**127R87**	**DRN**	**160M4**	600	631
7.4	13300	200	79000	0.90	**KF**	**127R87**	**DRN**	**160M4**	640	631
8.9	11000	166	80200	1.10	**KA**	**127R87**	**DRN**	**160M4**	570	631
10	9770	147	80800	1.25	**KAF**	**127R87**	**DRN**	**160M4**	610	631
9.0	11700	164.50	150000	2.7	**K**	**167**	**DRN**	**160M4**	1160	627
11	9620	134.99	150000	3.3	**KH**	**167**	**DRN**	**160M4**	1120	628
9.8	10700	150.41	115100	1.70	**K**	**157**	**DRN**	**160M4**	760	621
12	8720	122.39	115600	2.1	**KF**	**157**	**DRN**	**160M4**	840	622
15	7140	100.22	116000	2.5	**KA**	**157**	**DRN**	**160M4**	730	622
16	6530	91.65	116100	2.8	**KAF**	**157**	**DRN**	**160M4**	780	622
11	9700	136.14	80800	1.35						
12	8730	122.48	81200	1.50	**K**	**127**	**DRN**	**160M4**	530	615
13	7850	110.18	81500	1.65	**KF**	**127**	**DRN**	**160M4**	570	616
16	6410	89.89	82000	2.0	**KA**	**127**	**DRN**	**160M4**	500	617
18	5840	81.98	82100	2.2	**KAF**	**127**	**DRN**	**160M4**	540	616
21	5050	70.95*	82300	2.6						
13	8010	112.41*	57800	1.00	**K**	**107**	**DRN**	**160M4**	375	609
15	7180	100.75	58200	1.10	**KF**	**107**	**DRN**	**160M4**	390	610
16	6480	90.96*	57900	1.25	**KA**	**107**	**DRN**	**160M4**	350	611
18	5890	82.61	57400	1.35	**KAF**	**107**	**DRN**	**160M4**	375	610
20	5220	73.30	56700	1.55						
22	4740	66.52*	56100	1.70	**K**	**107**	**DRN**	**160M4**	375	609
26	4070	57.17*	54900	1.95	**KF**	**107**	**DRN**	**160M4**	390	610
30	3550	49.90	53800	2.2	**KA**	**107**	**DRN**	**160M4**	350	611
35	3010	42.33*	52300	2.4	**KAF**	**107**	**DRN**	**160M4**	375	610
40	2630	37.00*	51000	2.7						
21	5030	70.54	32300	0.85	**K**	**97**	**DRN**	**160M4**	265	603
24	4460	62.55	32500	0.95	**KF**	**97**	**DRN**	**160M4**	285	604
26	4030	56.55	32500	1.05	**KA**	**97**	**DRN**	**160M4**	245	605
31	3410	47.93*	32400	1.25	**KAF**	**97**	**DRN**	**160M4**	270	604
35	2980	41.87	32200	1.45						
38	2730	38.30	31900	1.55						
43	2440	34.23	31600	1.75	**K**	**97**	**DRN**	**160M4**	265	603
48	2190	30.82	31200	1.95	**KF**	**97**	**DRN**	**160M4**	285	604
53	1980	27.91	30700	2.2	**KA**	**97**	**DRN**	**160M4**	245	605
60	1760	24.75	30200	2.4	**KAF**	**97**	**DRN**	**160M4**	270	604
66	1590	22.37	29700	2.7						
33	3130	44.02	20100	0.85						
40	2600	36.52*	20500	0.95	**K**	**87**	**DRN**	**160M4**	205	597
47	2230	31.39	20600	1.20	**KF**	**87**	**DRN**	**160M4**	210	598
53	1980	27.88	20500	1.30	**KA**	**87**	**DRN**	**160M4**	190	599
59	1770	24.92	20400	1.40	**KAF**	**87**	**DRN**	**160M4**	205	598

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P_m = 11.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
66	1590	22.41	20300	1.45						
76	1380	19.45	20000	1.65						
85	1240	17.42	19800	1.75						
92	1140	16.00	18800	1.60	**K**	**87**	**DRN**	**160M4**	205	597
102	1030	14.45	19300	2.0	**KF**	**87**	**DRN**	**160M4**	210	598
117	890	12.56	18900	2.2	**KA**	**87**	**DRN**	**160M4**	190	599
132	795	11.17	17900	1.90	**KAF**	**87**	**DRN**	**160M4**	205	598
147	710	10.00	17600	2.1						
178	590	8.29	17000	2.4						
204	510	7.21	16600	2.5						
64	1640	23.08	14700	0.95						
73	1440	20.25	16100	1.05						
82	1270	17.87	16600	1.15						
93	1120	15.84	16500	1.25	**K**	**77**	**DRN**	**160M4**	165	591
109	960	13.52	16200	1.40	**KF**	**77**	**DRN**	**160M4**	175	592
119	880	12.36	15500	1.15	**KA**	**77**	**DRN**	**160M4**	160	593
136	770	10.84	15300	1.30	**KAF**	**77**	**DRN**	**160M4**	165	592
154	680	9.56	15000	1.40						
174	600	8.48	14800	1.45						
203	515	7.24	14400	1.60						

P_m = 15.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.4	55600	622	190000	0.90						
2.8	47100	520	190000	1.05	**K**	**187R107**	**DRN**	**160L4**	1930	632
3.2	41000	454	190000	1.20	**KH**	**187R107**	**DRN**	**160L4**	1860	632
4.2	31700	355	190000	1.60						
5.6	23500	261	190000	2.1						
4.6	28800	318	150000	1.10						
5.3	25000	278	150000	1.30						
6.0	21700	244	150000	1.45	**K**	**167R107**	**DRN**	**160L4**	1350	632
6.9	18900	213	150000	1.70	**KH**	**167R107**	**DRN**	**160L4**	1310	632
7.2	18400	206	150000	1.75						
8.2	15900	180	150000	2.0						
9.2	14400	160	150000	2.2						
6.4	20400	230	110900	0.90						
6.9	19100	213	111600	0.95	**K**	**157R107**	**DRN**	**160L4**	950	632
7.9	16500	187	112900	1.10	**KF**	**157R107**	**DRN**	**160L4**	1030	632
9.4	14000	157	113900	1.30	**KA**	**157R107**	**DRN**	**160L4**	920	632
12	11000	122	115000	1.65	**KAF**	**157R107**	**DRN**	**160L4**	980	632
14	9610	107	115400	1.85						
9.0	15900	164.50	150000	2.0	**K**	**167**	**DRN**	**160L4**	1170	627
11	13100	134.99	150000	2.4	**KH**	**167**	**DRN**	**160L4**	1130	628
9.8	14600	150.41	113700	1.25						
12	11800	122.39	114700	1.50	**K**	**157**	**DRN**	**160L4**	780	621
15	9730	100.22	114000	1.85	**KF**	**157**	**DRN**	**160L4**	860	622
16	8900	91.65	112300	2.0	**KA**	**157**	**DRN**	**160L4**	740	622
18	7750	79.75	109400	2.3	**KAF**	**157**	**DRN**	**160L4**	800	622
11	13200	136.14	79000	1.00	**K**	**127**	**DRN**	**160L4**	550	615
12	11900	122.48	79800	1.10	**KF**	**127**	**DRN**	**160L4**	590	616
13	10700	110.18	80400	1.20	**KA**	**127**	**DRN**	**160L4**	520	617
					KAF	**127**	**DRN**	**160L4**	560	616
16	8730	89.89	81200	1.50						
18	7960	81.98	81500	1.65	**K**	**127**	**DRN**	**160L4**	550	615
21	6890	70.95*	81400	1.90	**KF**	**127**	**DRN**	**160L4**	590	616
24	6080	62.60	79800	2.1	**KA**	**127**	**DRN**	**160L4**	520	617
27	5250	54.07	77800	2.5	**KAF**	**127**	**DRN**	**160L4**	560	616
31	4640	47.82	76100	2.8						
16	8830	90.96*	48300	0.90	**K**	**107**	**DRN**	**160L4**	395	609
18	8020	82.61	49500	1.00	**KF**	**107**	**DRN**	**160L4**	405	610
20	7120	73.30	50500	1.10	**KA**	**107**	**DRN**	**160L4**	365	611
22	6460	66.52*	51000	1.25	**KAF**	**107**	**DRN**	**160L4**	390	610

P_m = 15.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
26	5550	57.17*	50600	1.45						
30	4840	49.90	50000	1.60						
35	4110	42.33*	49000	1.80	**K**	**107**	**DRN**	**160L4**	395	609
40	3590	37.00*	48100	2.0	**KF**	**107**	**DRN**	**160L4**	405	610
45	3170	32.69	47200	2.3	**KA**	**107**	**DRN**	**160L4**	365	611
47	3030	31.28*	46900	2.2	**KAF**	**107**	**DRN**	**160L4**	390	610
51	2810	29.00	46300	2.6						
31	4650	47.93*	28100	0.90						
35	4060	41.87	28400	1.05	**K**	**97**	**DRN**	**160L4**	280	603
38	3720	38.30	28500	1.15	**KF**	**97**	**DRN**	**160L4**	300	604
43	3320	34.23	28500	1.30	**KA**	**97**	**DRN**	**160L4**	260	605
48	2990	30.82	28400	1.45	**KAF**	**97**	**DRN**	**160L4**	285	604
53	2710	27.91	28200	1.60						
60	2400	24.75	28000	1.80	**K**	**97**	**DRN**	**160L4**	280	603
66	2170	22.37	27700	2.00	**KF**	**97**	**DRN**	**160L4**	300	604
78	1840	18.96	27100	2.3	**KA**	**97**	**DRN**	**160L4**	260	605
89	1600	16.56	26600	2.7	**KAF**	**97**	**DRN**	**160L4**	285	604
47	3040	31.39	17300	0.90						
53	2700	27.88	17600	0.95	**K**	**87**	**DRN**	**160L4**	220	597
59	2420	24.92	17900	1.05	**KF**	**87**	**DRN**	**160L4**	230	598
66	2170	22.41	18000	1.05	**KA**	**87**	**DRN**	**160L4**	205	599
76	1880	19.45	18000	1.20	**KAF**	**87**	**DRN**	**160L4**	220	598
85	1690	17.42	18000	1.30						
92	1550	16.00	16800	1.15						
102	1400	14.45	17800	1.50	**K**	**87**	**DRN**	**160L4**	220	597
117	1220	12.56	17600	1.65	**KF**	**87**	**DRN**	**160L4**	230	598
132	1080	11.17	16600	1.40	**KA**	**87**	**DRN**	**160L4**	205	599
147	970	10.00	16400	1.55	**KAF**	**87**	**DRN**	**160L4**	220	598
178	800	8.29	16000	1.75						
204	700	7.21	15700	1.85						

P_m = 18.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.8	58000	520	190000	0.85						
3.3	50500	454	190000	1.00						
4.2	39100	355	190000	1.30	**K**	**187R107**	**DRN**	**180M4**	1950	632
5.7	29000	261	190000	1.70	**KH**	**187R107**	**DRN**	**180M4**	1880	632
6.7	24600	221	190000	2.0						
4.6	35500	318	150000	0.90						
5.3	30900	278	150000	1.05						
6.1	26800	244	150000	1.20						
6.9	23400	213	150000	1.35						
7.2	22800	206	150000	1.40	**K**	**167R107**	**DRN**	**180M4**	1370	632
8.2	19700	180	150000	1.60	**KH**	**167R107**	**DRN**	**180M4**	1330	632
9.3	17700	160	150000	1.80						
11	15000	135	150000	2.1						
12	13100	118	150000	2.4						
7.9	20400	187	110800	0.90	**K**	**157R107**	**DRN**	**180M4**	980	632
9.4	17300	157	112500	1.05	**KF**	**157R107**	**DRN**	**180M4**	1050	632
12	13600	122	113800	1.30	**KA**	**157R107**	**DRN**	**180M4**	940	632
14	11800	107	111900	1.50	**KAF**	**157R107**	**DRN**	**180M4**	1000	632
8.2	21400	179.86	190000	2.3						
9.0	19700	165.21	190000	2.5	**K**	**187**	**DRN**	**180M4**	1780	629
10	17200	144.59	190000	2.9	**KH**	**187**	**DRN**	**180M4**	1710	630
11	15500	129.69	190000	3.2						
11	16100	134.99	150000	2.00						
13	13100	109.83	150000	2.4	**K**	**167**	**DRN**	**180M4**	1200	627
17	10500	87.86	150000	3.0	**KH**	**167**	**DRN**	**180M4**	1160	628

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P_m = 18.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
12	14600	122.39	111500	1.25						
15	11900	100.22	109000	1.50						
16	10900	91.65	107700	1.65						
19	9530	79.75	105400	1.90	**K**	**157**	**DRN**	**180M4**	800	621
21	8410	70.38	103200	2.1	**KF**	**157**	**DRN**	**180M4**	880	622
24	7290	61.02	100600	2.5	**KA**	**157**	**DRN**	**180M4**	770	622
27	6480	54.29	98300	2.8	**KAF**	**157**	**DRN**	**180M4**	820	622
32	5590	46.79	95400	3.2						
39	4540	38.02	91200	4.0						
13	13100	110.18	79100	1.00	**K**	**127**	**DRN**	**180M4**	570	615
16	10700	89.89	79000	1.20	**KF**	**127**	**DRN**	**180M4**	610	616
18	9790	81.98	78500	1.35	**KA**	**127**	**DRN**	**180M4**	540	617
					KAF	**127**	**DRN**	**180M4**	580	616
21	8480	70.95*	77400	1.55						
24	7480	62.60	76300	1.75						
27	6460	54.07	74700	2.0	**K**	**127**	**DRN**	**180M4**	570	615
31	5710	47.82	73300	2.3	**KF**	**127**	**DRN**	**180M4**	610	616
37	4800	40.19	71100	2.7	**KA**	**127**	**DRN**	**180M4**	540	617
41	4330	36.25	69800	3.0	**KAF**	**127**	**DRN**	**180M4**	580	616
47	3740	31.37	67800	3.5						
53	3300	27.68	66100	3.9						
20	8760	73.30	42900	0.90	**K**	**107**	**DRN**	**180M4**	415	609
22	7950	66.52*	44300	1.00	**KF**	**107**	**DRN**	**180M4**	425	610
26	6830	57.17*	45800	1.15	**KA**	**107**	**DRN**	**180M4**	385	611
30	5960	49.90	46600	1.30	**KAF**	**107**	**DRN**	**180M4**	410	610
35	5050	42.33*	46200	1.45						
40	4420	37.00*	45700	1.65						
45	3900	32.69	45000	1.85						
47	3730	31.28*	44800	1.80	**K**	**107**	**DRN**	**180M4**	415	609
51	3460	29.00	44300	2.1	**KF**	**107**	**DRN**	**180M4**	425	610
56	3140	26.32	43700	2.3	**KA**	**107**	**DRN**	**180M4**	385	611
65	2700	22.62	42700	2.7	**KAF**	**107**	**DRN**	**180M4**	410	610
75	2350	19.74	41700	3.0						
88	2000	16.75	40400	3.5						
35	5000	41.87	25100	0.85	**K**	**97**	**DRN**	**180M4**	300	603
48	3680	30.82	26000	1.15	**KF**	**97**	**DRN**	**180M4**	320	604
53	3330	27.91	26000	1.30	**KA**	**97**	**DRN**	**180M4**	280	605
60	2950	24.75	26000	1.45	**KAF**	**97**	**DRN**	**180M4**	305	604
66	2670	22.37	25900	1.60						
78	2260	18.96	25600	1.90	**K**	**97**	**DRN**	**180M4**	300	603
89	1970	16.56	25300	2.2	**KF**	**97**	**DRN**	**180M4**	320	604
107	1650	13.85	24700	2.6	**KA**	**97**	**DRN**	**180M4**	280	605
123	1430	11.99	24200	2.7	**KAF**	**97**	**DRN**	**180M4**	305	604
59	2970	24.92	15600	0.85						
66	2670	22.41	15900	0.85						
76	2320	19.45	16200	1.00						
85	2080	17.42	16400	1.05	**K**	**87**	**DRN**	**180M4**	240	597
102	1720	14.45	16500	1.20	**KF**	**87**	**DRN**	**180M4**	250	598
118	1500	12.56	16400	1.35	**KA**	**87**	**DRN**	**180M4**	230	599
132	1330	11.17	15400	1.10	**KAF**	**87**	**DRN**	**180M4**	240	598
148	1190	10.00	15300	1.25						
178	990	8.29	15100	1.40						
205	860	7.21	14900	1.50						

P_m = 22 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.2	60300	454	190000	0.85						
4.2	46600	355	190000	1.05						
5.7	34600	261	190000	1.45	**K**	**187R107**	**DRN**	**180L4**	1970	632
6.7	29300	221	190000	1.70	**KH**	**187R107**	**DRN**	**180L4**	1900	632
7.6	25600	193	190000	1.95						
9.0	21500	163	190000	2.3						

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P_m = 22 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.3	36800	278	150000	0.85						
6.1	32000	244	150000	1.00						
6.9	27900	213	150000	1.15						
7.2	27200	206	150000	1.15	**K**	**167R107**	**DRN**	**180L4**	1380	632
8.2	23500	180	150000	1.35	**KH**	**167R107**	**DRN**	**180L4**	1350	632
9.2	21200	160	150000	1.50						
11	17900	135	150000	1.80						
12	15600	118	150000	2.0						
					K	**157R107**	**DRN**	**180L4**	990	632
9.4	20700	157	109400	0.85	**KF**	**157R107**	**DRN**	**180L4**	1070	632
12	16200	122	108100	1.10	**KA**	**157R107**	**DRN**	**180L4**	950	632
14	14100	107	106900	1.25	**KAF**	**157R107**	**DRN**	**180L4**	1010	632
8.2	25500	179.86	190000	1.95						
8.9	23400	165.21	190000	2.1	**K**	**187**	**DRN**	**180L4**	1790	629
10	20500	144.59	190000	2.4	**KH**	**187**	**DRN**	**180L4**	1730	630
11	18400	129.69	190000	2.7						
11	19100	134.99	150000	1.65						
13	15600	109.83	150000	2.0	**K**	**167**	**DRN**	**180L4**	1210	627
17	12400	87.86	150000	2.6	**KH**	**167**	**DRN**	**180L4**	1170	628
19	11100	78.14	150000	2.9						
12	17400	122.39	105500	1.05						
15	14200	100.22	104000	1.25						
16	13000	91.65	103100	1.40						
19	11300	79.75	101500	1.60	**K**	**157**	**DRN**	**180L4**	820	621
21	10000	70.38	99700	1.80	**KF**	**157**	**DRN**	**180L4**	900	622
24	8670	61.02	97500	2.1	**KA**	**157**	**DRN**	**180L4**	780	622
27	7720	54.29	95600	2.3	**KAF**	**157**	**DRN**	**180L4**	840	622
32	6650	46.79	93100	2.7						
39	5400	38.02	89300	3.3						
16	12700	89.89	73900	1.00	**K**	**127**	**DRN**	**180L4**	580	615
18	11600	81.98	73800	1.10	**KF**	**127**	**DRN**	**180L4**	630	616
21	10000	70.95*	73400	1.30	**KA**	**127**	**DRN**	**180L4**	560	617
24	8900	62.60	72700	1.45	**KAF**	**127**	**DRN**	**180L4**	590	616
27	7690	54.07	71700	1.70						
31	6800	47.82	70600	1.90						
37	5710	40.19	68900	2.3	**K**	**127**	**DRN**	**180L4**	580	615
41	5150	36.25	67700	2.5	**KF**	**127**	**DRN**	**180L4**	630	616
47	4460	31.37	66100	2.9	**KA**	**127**	**DRN**	**180L4**	560	617
53	3930	27.68	64500	3.3	**KAF**	**127**	**DRN**	**180L4**	590	616
62	3390	23.91	62700	3.8						
70	3000	21.15	61100	4.3						
					K	**107**	**DRN**	**180L4**	430	609
26	8130	57.17*	39800	1.00	**KF**	**107**	**DRN**	**180L4**	440	610
30	7090	49.90	41600	1.10	**KA**	**107**	**DRN**	**180L4**	400	611
35	6020	42.33*	42900	1.20	**KAF**	**107**	**DRN**	**180L4**	425	610
40	5260	37.00*	43200	1.35						
45	4640	32.69	42900	1.55						
47	4440	31.28*	42700	1.55						
51	4120	29.00	42400	1.75						
56	3740	26.32	42000	1.90	**K**	**107**	**DRN**	**180L4**	430	609
65	3210	22.62	41200	2.2	**KF**	**107**	**DRN**	**180L4**	440	610
75	2800	19.74	40300	2.6	**KA**	**107**	**DRN**	**180L4**	400	611
88	2380	16.75	39300	3.0	**KAF**	**107**	**DRN**	**180L4**	425	610
101	2080	14.64	38300	3.3						
110	1910	13.43	36700	2.2						
126	1660	11.73	35800	2.6						
149	1410	9.94	34700	3.0						
48	4380	30.82	23500	1.00	**K**	**97**	**DRN**	**180L4**	315	603
53	3960	27.91	23800	1.10	**KF**	**97**	**DRN**	**180L4**	335	604
60	3510	24.75	24100	1.20	**KA**	**97**	**DRN**	**180L4**	300	605
66	3180	22.37	24200	1.35	**KAF**	**97**	**DRN**	**180L4**	325	604

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P_m = 22 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
78	2690	18.96	24100	1.60						
89	2350	16.56	24000	1.85	**K**	**97**	**DRN**	**180L4**	315	603
107	1960	13.85	23700	2.2	**KF**	**97**	**DRN**	**180L4**	335	604
123	1700	11.99	23300	2.3	**KA**	**97**	**DRN**	**180L4**	300	605
142	1480	10.41	21800	1.95	**KAF**	**97**	**DRN**	**180L4**	325	604
170	1230	8.71	21300	2.2						
76	2760	19.45	14500	0.85						
85	2470	17.42	14800	0.90						
102	2050	14.45	15200	1.00	**K**	**87**	**DRN**	**180L4**	255	597
118	1780	12.56	15300	1.10	**KF**	**87**	**DRN**	**180L4**	265	598
132	1580	11.17	14200	0.95	**KA**	**87**	**DRN**	**180L4**	245	599
148	1420	10.00	14300	1.05	**KAF**	**87**	**DRN**	**180L4**	255	598
178	1170	8.29	14300	1.20						
205	1020	7.21	14200	1.25						

P_m = 30 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.7	47300	261	190000	1.05						
6.7	40000	221	190000	1.25	**K**	**187R107**	**DRN**	**200L4**	2080	632
7.6	34900	193	190000	1.45	**KH**	**187R107**	**DRN**	**200L4**	2010	632
9.0	29500	163	190000	1.70						
6.9	38100	213	150000	0.85						
7.2	37200	206	150000	0.85						
8.2	32100	180	150000	1.00	**K**	**167R107**	**DRN**	**200L4**	1490	632
9.3	28900	160	150000	1.10	**KH**	**167R107**	**DRN**	**200L4**	1460	632
11	24500	135	150000	1.30						
13	21300	118	150000	1.50						
8.2	34800	179.86	190000	1.45						
9.0	31900	165.21	190000	1.55						
10	27900	144.59	190000	1.80						
11	25100	129.69	190000	2.00	**K**	**187**	**DRN**	**200L4**	1900	629
13	21700	112.60	190000	2.3	**KH**	**187**	**DRN**	**200L4**	1830	630
14	19700	102.16	190000	2.5						
17	17000	88.00	190000	2.9						
13	21200	109.83	150000	1.50						
17	17000	87.86	150000	1.90						
19	15100	78.14	150000	2.1	**K**	**167**	**DRN**	**200L4**	1320	627
22	13100	68.07	150000	2.4	**KH**	**167**	**DRN**	**200L4**	1280	628
24	11700	60.74	150000	2.7						
15	19400	100.22	92700	0.95						
16	17700	91.65	92700	1.00						
19	15400	79.75	92400	1.15						
21	13600	70.38	91700	1.30	**K**	**157**	**DRN**	**200L4**	930	621
24	11800	61.02	90600	1.50	**KF**	**157**	**DRN**	**200L4**	1000	622
27	10500	54.29	89500	1.70	**KA**	**157**	**DRN**	**200L4**	890	622
32	9050	46.79	87700	2.00	**KAF**	**157**	**DRN**	**200L4**	950	622
39	7350	38.02	85000	2.4						
47	6050	31.30	82100	3.0						
21	13700	70.95*	64200	0.95						
24	12100	62.60	64600	1.05						
27	10400	54.07	64700	1.25						
31	9250	47.82	64400	1.40	**K**	**127**	**DRN**	**200L4**	690	615
37	7770	40.19	63700	1.65	**KF**	**127**	**DRN**	**200L4**	730	616
41	7010	36.25	63000	1.85	**KA**	**127**	**DRN**	**200L4**	660	617
47	6070	31.37	62000	2.1	**KAF**	**127**	**DRN**	**200L4**	700	616
53	5350	27.68	60900	2.4						
62	4620	23.91	59600	2.8						
35	8190	42.33*	32500	0.90	**K**	**107**	**DRN**	**200L4**	540	609
40	7160	37.00*	34800	1.00	**KF**	**107**	**DRN**	**200L4**	550	610
47	6050	31.28*	36600	1.10	**KA**	**107**	**DRN**	**200L4**	510	611
					KAF	**107**	**DRN**	**200L4**	540	610

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P_m = 30 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
51	5610	29.00	37200	1.30						
56	5090	26.32	37700	1.40						
65	4370	22.62	37700	1.65						
75	3820	19.74	37300	1.90	**K**	**107**	**DRN**	**200L4**	540	609
88	3240	16.75	36700	2.2	**KF**	**107**	**DRN**	**200L4**	550	610
101	2830	14.64	36100	2.4	**KA**	**107**	**DRN**	**200L4**	510	611
110	2590	13.43	34300	1.65	**KAF**	**107**	**DRN**	**200L4**	540	610
126	2260	11.73	33700	1.90						
149	1920	9.94	32900	2.2						
170	1680	8.69	32200	2.4						
60	4780	24.75	19600	0.90						
66	4320	22.37	20200	1.00						
78	3660	18.96	20700	1.15	**K**	**97**	**DRN**	**200L4**	425	603
89	3200	16.56	21000	1.35	**KF**	**97**	**DRN**	**200L4**	445	604
107	2680	13.85	21200	1.60	**KA**	**97**	**DRN**	**200L4**	405	605
123	2320	11.99	21100	1.70	**KAF**	**97**	**DRN**	**200L4**	430	604
142	2010	10.41	19500	1.40						
170	1680	8.71	19400	1.60						

P_m = 37 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.7	58300	261	190000	0.85						
6.7	49400	221	190000	1.00	**K**	**187R107**	**DRN**	**225S4**	2110	632
7.7	43100	193	190000	1.15	**KH**	**187R107**	**DRN**	**225S4**	2040	632
9.1	36400	163	190000	1.35						
8.2	39700	180	150000	0.80						
9.3	35600	160	150000	0.90	**K**	**167R107**	**DRN**	**225S4**	1530	632
11	30200	135	150000	1.05	**KH**	**167R107**	**DRN**	**225S4**	1490	632
13	26400	118	150000	1.20						
8.2	42800	179.86	190000	1.15						
9.0	39300	165.21	190000	1.25						
10	34400	144.59	190000	1.45						
11	30900	129.69	190000	1.60	**K**	**187**	**DRN**	**225S4**	1930	629
13	26800	112.60	190000	1.85	**KH**	**187**	**DRN**	**225S4**	1870	630
15	24300	102.16	190000	2.0						
17	20900	88.00	190000	2.4						
13	26100	109.83	150000	1.20						
17	20900	87.86	150000	1.55						
19	18600	78.14	150000	1.70	**K**	**167**	**DRN**	**225S4**	1350	627
22	16200	68.07	150000	1.95	**KH**	**167**	**DRN**	**225S4**	1310	628
24	14400	60.74	150000	2.2						
29	12300	51.77	150000	2.6						
					K	**157**	**DRN**	**225S4**	960	621
16	21800	91.65	83700	0.80	**KF**	**157**	**DRN**	**225S4**	1040	622
19	19000	79.75	84500	0.95	**KA**	**157**	**DRN**	**225S4**	920	622
					KAF	**157**	**DRN**	**225S4**	980	622
21	16700	70.38	84800	1.05						
24	14500	61.02	84600	1.25	**K**	**157**	**DRN**	**225S4**	960	621
27	12900	54.29	84100	1.40	**KF**	**157**	**DRN**	**225S4**	1040	622
32	11100	46.79	83100	1.60	**KA**	**157**	**DRN**	**225S4**	920	622
39	9060	38.02	81200	2.00	**KAF**	**157**	**DRN**	**225S4**	980	622
47	7460	31.30	79000	2.4						
24	14900	62.60	57500	0.85	**K**	**127**	**DRN**	**225S4**	720	615
27	12800	54.07	58600	1.00	**KF**	**127**	**DRN**	**225S4**	770	616
31	11400	47.82	59000	1.15	**KA**	**127**	**DRN**	**225S4**	700	617
37	9580	40.19	59100	1.35	**KAF**	**127**	**DRN**	**225S4**	730	616

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P_m = 37 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
41	8640	36.25	58900	1.50						
47	7470	31.37	58400	1.75						
54	6590	27.68	57800	1.95						
62	5690	23.91	56800	2.3	**K**	**127**	**DRN**	**225S4**	720	615
70	5040	21.15	55900	2.6	**KF**	**127**	**DRN**	**225S4**	770	616
83	4230	17.77	54500	3.1	**KA**	**127**	**DRN**	**225S4**	700	617
103	3420	14.35	52500	3.5	**KAF**	**127**	**DRN**	**225S4**	730	616
116	3040	12.79	50200	2.8						
138	2560	10.74	48600	3.1						
171	2060	8.68	46500	3.5						
40	8820	37.00*	26000	0.80						
47	7450	31.28*	29800	0.90						
51	6910	29.00	31100	1.05						
56	6270	26.32	32300	1.15						
66	5390	22.62	33700	1.35	**K**	**107**	**DRN**	**225S4**	570	609
75	4700	19.74	34400	1.55	**KF**	**107**	**DRN**	**225S4**	580	610
89	3990	16.75	34500	1.75	**KA**	**107**	**DRN**	**225S4**	540	611
101	3480	14.64	34100	1.95	**KAF**	**107**	**DRN**	**225S4**	570	610
110	3200	13.43	32300	1.35						
126	2790	11.73	31900	1.55						
149	2370	9.94	31400	1.75						
171	2070	8.69	30800	1.95						

P_m = 45 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
6.7	60200	221	190000	0.85	**K**	**187R107**	**DRN**	**225M4**	2110	632
7.7	52500	193	190000	0.95	**KH**	**187R107**	**DRN**	**225M4**	2040	632
9.1	44300	163	190000	1.15						
11	36800	135	150000	0.85	**K**	**167R107**	**DRN**	**225M4**	1530	632
13	32100	118	150000	1.00	**KH**	**167R107**	**DRN**	**225M4**	1490	632
8.2	52100	179.86	190000	0.95						
9.0	47900	165.21	190000	1.05						
10	41900	144.59	190000	1.20						
11	37600	129.69	190000	1.35	**K**	**187**	**DRN**	**225M4**	1930	629
13	32600	112.60	189800	1.55	**KH**	**187**	**DRN**	**225M4**	1870	630
15	29600	102.16	187600	1.70						
17	25500	88.00	183700	1.95						
20	21400	73.96	178700	2.3						
13	31800	109.83	150000	1.00						
17	25400	87.86	150000	1.25						
19	22600	78.14	150000	1.40	**K**	**167**	**DRN**	**225M4**	1350	627
22	19700	68.07	150000	1.60	**KH**	**167**	**DRN**	**225M4**	1310	628
24	17600	60.74	148900	1.80						
29	15000	51.77	145100	2.1						
35	12400	42.89	140400	2.6						
21	20400	70.38	76800	0.90						
24	17600	61.02	77700	1.00						
27	15700	54.29	77900	1.15						
32	13500	46.79	77800	1.35	**K**	**157**	**DRN**	**225M4**	960	621
39	11000	38.02	76900	1.65	**KF**	**157**	**DRN**	**225M4**	1040	622
47	9070	31.30	75400	2.00	**KA**	**157**	**DRN**	**225M4**	920	622
54	8000	27.62	74300	2.2	**KAF**	**157**	**DRN**	**225M4**	980	622
62	6940	23.95	72700	2.6						
70	6170	21.31	71400	2.9						
81	5320	18.37	69600	3.4						
31	13800	47.82	52800	0.95	**K**	**127**	**DRN**	**225M4**	720	615
37	11600	40.19	53900	1.10	**KF**	**127**	**DRN**	**225M4**	770	616
41	10500	36.25	54300	1.25	**KA**	**127**	**DRN**	**225M4**	700	617
					KAF	**127**	**DRN**	**225M4**	730	616

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P_m = 45 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
47	9090	31.37	54400	1.45						
54	8020	27.68	54200	1.60						
62	6930	23.91	53800	1.90						
70	6120	21.15	53200	2.1	**K**	**127**	**DRN**	**225M4**	720	615
83	5150	17.77	52200	2.5	**KF**	**127**	**DRN**	**225M4**	770	616
103	4160	14.35	50600	2.9	**KA**	**127**	**DRN**	**225M4**	700	617
116	3700	12.79	48300	2.3	**KAF**	**127**	**DRN**	**225M4**	730	616
138	3110	10.74	47000	2.6						
171	2510	8.68	45200	2.9						
51	8400	29.00	23000	0.85	**K**	**107**	**DRN**	**225M4**	570	609
56	7620	26.32	25400	0.95	**KF**	**107**	**DRN**	**225M4**	580	610
66	6550	22.62	28100	1.10	**KA**	**107**	**DRN**	**225M4**	540	611
75	5720	19.74	29800	1.25	**KAF**	**107**	**DRN**	**225M4**	570	610
89	4850	16.75	31100	1.45						
101	4240	14.64	31700	1.60	**K**	**107**	**DRN**	**225M4**	570	609
110	3890	13.43	29900	1.10	**KF**	**107**	**DRN**	**225M4**	580	610
126	3390	11.73	29900	1.25	**KA**	**107**	**DRN**	**225M4**	540	611
149	2880	9.94	29600	1.45	**KAF**	**107**	**DRN**	**225M4**	570	610
171	2510	8.69	29300	1.60						

P_m = 55 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
10	51200	144.59	179800	1.00						
11	45900	129.69	179600	1.10						
13	39900	112.60	178600	1.25						
15	36200	102.16	177400	1.40	**K**	**187**	**DRN**	**250M4**	2080	629
17	31100	88.00	174900	1.60	**KH**	**187**	**DRN**	**250M4**	2020	630
20	26200	73.96	171300	1.90						
23	22600	64.04	167800	2.2						
17	31100	87.86	145300	1.05						
19	27600	78.14	144600	1.15						
22	24100	68.07	143200	1.35						
24	21500	60.74	141700	1.50	**K**	**167**	**DRN**	**250M4**	1500	627
29	18300	51.77	139000	1.75	**KH**	**167**	**DRN**	**250M4**	1460	628
35	15200	42.89	135300	2.1						
40	12900	36.61	131800	2.5						
24	21600	61.02	69100	0.85						
27	19200	54.29	70300	0.95						
32	16500	46.79	71200	1.10						
39	13400	38.02	71500	1.35						
47	11000	31.30	71000	1.60	**K**	**157**	**DRN**	**250M4**	1110	621
54	9780	27.62	70400	1.85	**KF**	**157**	**DRN**	**250M4**	1190	622
62	8480	23.95	69400	2.1	**KA**	**157**	**DRN**	**250M4**	1070	622
70	7550	21.31	68400	2.4	**KAF**	**157**	**DRN**	**250M4**	1130	622
81	6500	18.37	67000	2.8						
99	5280	14.92	64700	3.4						
117	4480	12.65	62800	3.8						
37	14200	40.19	47400	0.90	**K**	**127**	**DRN**	**250M4**	870	615
47	11100	31.37	49300	1.15	**KF**	**127**	**DRN**	**250M4**	920	616
54	9800	27.68	49700	1.35	**KA**	**127**	**DRN**	**250M4**	850	617
					KAF	**127**	**DRN**	**250M4**	880	616
62	8470	23.91	49900	1.55						
70	7490	21.15	49800	1.75						
83	6290	17.77	49300	2.1	**K**	**127**	**DRN**	**250M4**	870	615
103	5080	14.35	48300	2.4	**KF**	**127**	**DRN**	**250M4**	920	616
116	4530	12.79	45900	1.90	**KA**	**127**	**DRN**	**250M4**	850	617
138	3800	10.74	45000	2.1	**KAF**	**127**	**DRN**	**250M4**	880	616
171	3070	8.68	43600	2.4						

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P_m = 75 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
11	62600	129.69	153800	0.80						
13	54400	112.60	156200	0.90						
15	49300	102.16	157000	1.00						
17	42500	88.00	157400	1.20	**K**	**187**	**DRN**	**280S4**	2130	629
20	35700	73.96	156500	1.40	**KH**	**187**	**DRN**	**280S4**	2070	630
23	30900	64.04	155000	1.60						
28	25700	53.36	152200	1.95						
33	21900	45.50*	149100	2.3						
19	37700	78.14	126200	0.85						
22	32800	68.07	127200	0.95						
24	29300	60.74	127300	1.10						
29	25000	51.77	126800	1.30						
35	20700	42.89	125200	1.55	**K**	**167**	**DRN**	**280S4**	1550	627
40	17600	36.61	123200	1.80	**KH**	**167**	**DRN**	**280S4**	1510	628
46	15500	32.25	121200	2.0						
52	13900	28.77	119300	2.3						
60	11800	24.52	116300	2.7						
39	18300	38.02	60800	1.00						
47	15100	31.30	62200	1.20						
54	13300	27.62	62600	1.35	**K**	**157**	**DRN**	**280S4**	1160	621
62	11500	23.95	62600	1.55	**KF**	**157**	**DRN**	**280S4**	1240	622
70	10200	21.31	62400	1.75	**KA**	**157**	**DRN**	**280S4**	1120	622
81	8870	18.37	61800	2.0	**KAF**	**157**	**DRN**	**280S4**	1180	622
99	7210	14.92	60500	2.5						
117	6110	12.65	59200	2.8						
47	15100	31.37	38000	0.85						
54	13300	27.68	40800	0.95						
62	11500	23.91	42200	1.15						
70	10200	21.15	43000	1.25	**K**	**127**	**DRN**	**280S4**	920	615
83	8580	17.77	43600	1.50	**KF**	**127**	**DRN**	**280S4**	960	616
103	6930	14.35	43700	1.75	**KA**	**127**	**DRN**	**280S4**	890	617
116	6170	12.79	41100	1.40	**KAF**	**127**	**DRN**	**280S4**	930	616
138	5190	10.74	41000	1.55						
171	4190	8.68	40400	1.70						

P_m = 90 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
14	59200	102.16	141700	0.85						
17	51000	88.00	144200	1.00						
20	42900	73.96	145500	1.15						
23	37100	64.04	145400	1.35	**K**	**187**	**DRN**	**280M4**	2250	629
28	30900	53.36	144200	1.60	**KH**	**187**	**DRN**	**280M4**	2180	630
33	26400	45.50*	142300	1.90						
35	24600	42.51	141300	2.0						
38	22300	38.57	139700	2.2						
22	39500	68.07	115100	0.80						
24	35200	60.74	116600	0.90						
29	30000	51.77	117600	1.05						
35	24800	42.89	117600	1.30						
40	21200	36.61	116700	1.50	**K**	**167**	**DRN**	**280M4**	1670	627
46	18700	32.25	115500	1.70	**KH**	**167**	**DRN**	**280M4**	1630	628
51	16600	28.77	114200	1.90						
60	14200	24.52	111900	2.2						
73	11700	20.32	108800	2.7						
85	10000	17.34	105900	3.2						
39	22000	38.02	52700	0.80						
62	13800	23.95	57500	1.30	**K**	**157**	**DRN**	**280M4**	1270	621
70	12300	21.31	57900	1.45	**KF**	**157**	**DRN**	**280M4**	1350	622
81	10600	18.37	57900	1.70	**KA**	**157**	**DRN**	**280M4**	1230	622
99	8650	14.92	57400	2.1	**KAF**	**157**	**DRN**	**280M4**	1290	622
117	7340	12.65	56600	2.3						

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P_m = 90 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
62	13800	23.91	35500	0.95						
70	12200	21.15	37800	1.05						
83	10300	17.77	39200	1.25	**K**	**127**	**DRN**	**280M4**	1040	615
103	8320	14.35	40200	1.45	**KF**	**127**	**DRN**	**280M4**	1080	616
116	7410	12.79	37600	1.15	**KA**	**127**	**DRN**	**280M4**	1010	617
138	6230	10.74	38000	1.30	**KAF**	**127**	**DRN**	**280M4**	1050	616
171	5030	8.68	38000	1.45						

P_m = 110 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
17	62100	88.00	126800	0.80						
20	52200	73.96	130800	0.95						
23	45200	64.04	132700	1.10	**K**	**187**	**DRN**	**315S4**	2490	629
28	37600	53.36	133600	1.35	**KH**	**187**	**DRN**	**315S4**	2420	630
33	32100	45.50*	133200	1.55						
35	30000	42.51	132800	1.65	**K**	**187**	**DRN**	**315S4/ERF/NS**	2490	629
					KH	**187**	**DRN**	**315S4/ERF/NS**	2420	630
39	27200	38.57	131900	1.85						
45	23400	33.23	130200	2.1	**K**	**187**	**DRN**	**315S4**	2490	629
53	19700	27.92	127500	2.5	**KH**	**187**	**DRN**	**315S4**	2420	630
29	36500	51.77	105500	0.90						
35	30200	42.89	107500	1.05	**K**	**167**	**DRN**	**315S4**	1910	627
41	25800	36.61	108100	1.25	**KH**	**167**	**DRN**	**315S4**	1870	628
46	22700	32.25	107900	1.40	**K**	**167**	**DRN**	**315S4/ERF/NS**	1910	627
					KH	**167**	**DRN**	**315S4/ERF/NS**	1870	628
52	20300	28.77	107400	1.60						
61	17300	24.52	106100	1.85	**K**	**167**	**DRN**	**315S4**	1910	627
73	14300	20.32	104000	2.2	**KH**	**167**	**DRN**	**315S4**	1870	628
86	12200	17.34	101800	2.6						
62	16900	23.95	50800	1.05	**K**	**157**	**DRN**	**315S4/ERF/NS**	1520	621
					KF	**157**	**DRN**	**315S4/ERF/NS**	1590	622
					KA	**157**	**DRN**	**315S4/ERF/NS**	1480	622
					KAF	**157**	**DRN**	**315S4/ERF/NS**	1540	622
70	15000	21.31	51900	1.20	**K**	**157**	**DRN**	**315S4**	1520	621
81	12900	18.37	52700	1.40	**KF**	**157**	**DRN**	**315S4**	1590	622
100	10500	14.92	53200	1.70	**KA**	**157**	**DRN**	**315S4**	1480	622
118	8930	12.65	53000	1.90	**KAF**	**157**	**DRN**	**315S4**	1540	622

P_m = 132 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
20	62600	73.96	114700	0.80						
23	54200	64.04	118700	0.90	**K**	**187**	**DRN**	**315M4**	2510	629
28	45200	53.36	121900	1.10	**KH**	**187**	**DRN**	**315M4**	2450	630
33	38500	45.50*	123300	1.30						
35	36000	42.51	123500	1.40	**K**	**187**	**DRN**	**315M4/ERF/NS**	2510	629
39	32600	38.57	123500	1.55	**KH**	**187**	**DRN**	**315M4/ERF/NS**	2450	630
45	28100	33.23	122900	1.80						
53	23600	27.92	121400	2.1						
62	20400	24.18	119600	2.3	**K**	**187**	**DRN**	**315M4**	2510	629
74	17000	20.15	116800	2.6	**KH**	**187**	**DRN**	**315M4**	2450	630
87	14500	17.18	114000	2.8						
35	36300	42.89	96400	0.90	**K**	**167**	**DRN**	**315M4**	1930	627
41	31000	36.61	98600	1.05	**KH**	**167**	**DRN**	**315M4**	1890	628
46	27300	32.25	99600	1.15	**K**	**167**	**DRN**	**315M4/ERF/NS**	1930	627
52	24300	28.77	99900	1.30	**KH**	**167**	**DRN**	**315M4/ERF/NS**	1890	628
61	20700	24.52	99800	1.55						
73	17200	20.32	98700	1.85	**K**	**167**	**DRN**	**315M4**	1930	627
86	14600	17.34	97300	2.2	**KH**	**167**	**DRN**	**315M4**	1890	628

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P_m = 132 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					K	157	DRN	315M4/ERF/NS	1540	621
62	20200	23.95	43400	0.90	KF	157	DRN	315M4/ERF/NS	1610	622
70	18000	21.31	45300	1.00	KA	157	DRN	315M4/ERF/NS	1500	622
					KAF	157	DRN	315M4/ERF/NS	1560	622
					K	157	DRN	315M4	1540	621
81	15500	18.37	47000	1.15	KF	157	DRN	315M4	1610	622
100	12600	14.92	48500	1.40	KA	157	DRN	315M4	1500	622
118	10700	12.65	49100	1.60	KAF	157	DRN	315M4	1560	622

P_m = 160 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
28	54800	53.36	107100	0.90						
33	46700	45.50*	110600	1.05						
45	34100	33.23	113700	1.45						
53	28700	27.92	113600	1.75	K	187	DRN	315L4	2640	629
61	24800	24.18	112900	1.90	KH	187	DRN	315L4	2580	630
74	20700	20.15	111200	2.1						
86	17600	17.18	109300	2.3						
41	37600	36.61	86500	0.85						
61	25200	24.52	91700	1.25	K	167	DRN	315L4	2060	627
73	20800	20.32	92000	1.55	KH	167	DRN	315L4	2020	628
86	17800	17.34	91600	1.80						
					K	157	DRN	315L4	1670	621
81	18800	18.37	39800	0.95	KF	157	DRN	315L4	1750	622
100	15300	14.92	42600	1.15	KA	157	DRN	315L4	1630	622
117	13000	12.65	44100	1.30	KAF	157	DRN	315L4	1690	622

P_m = 200 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
33	58300	45.50*	92600	0.85	K	187	DRN	315H4	2760	629
					KH	187	DRN	315H4	2700	630
45	42600	33.23	100500	1.15	K	187	DRN	315H4/ERF/NS	2760	629
					KH	187	DRN	315H4/ERF/NS	2700	630
53	35800	27.92	102500	1.40						
62	31000	24.18	103300	1.55	K	187	DRN	315H4	2760	629
74	25800	20.15	103200	1.70	KH	187	DRN	315H4	2700	630
87	22000	17.18	102400	1.90						
61	31400	24.52	80200	1.00	K	167	DRN	315H4/ERF/NS	2180	627
					KH	167	DRN	315H4/ERF/NS	2140	628
73	26000	20.32	82500	1.25	K	167	DRN	315H4	2180	627
86	22200	17.34	83400	1.45	KH	167	DRN	315H4	2140	628
					K	157	DRN	315H4	1790	621
100	19100	14.92	34300	0.95	KF	157	DRN	315H4	1860	622
118	16200	12.65	37000	1.05	KA	157	DRN	315H4	1750	622
					KAF	157	DRN	315H4	1810	622

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10.4 K..R..DRN.. selection tables for low output speeds in Nm

$M_{a\ max}$ = 200 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.20	6832	5640						
0.23	5922	5640						
0.25	5491	5640						
0.29	4759	5640						
0.33	4160	5640						
0.38	3645	5640						
0.43	3205	5640	**K**	**37R17**	**DR**	**63S4**	19	631
0.49	2801	5640	**KF**	**37R17**	**DR**	**63S4**	22	631
0.56	2454	5640	**KA**	**37R17**	**DR**	**63S4**	19	631
0.64	2166	5640	**KAF**	**37R17**	**DR**	**63S4**	21	631
0.73	1891	5640						
0.83	1660	5640						
0.94	1466	5640						
1.1	1288	5640						
1.2	1136	5640						
1.4	996	5640						
1.6	876	5640						
1.8	761	5640						
2.1	671	5640	**K**	**37R17**	**DR**	**63S4**	19	631
2.4	585	5640	**KF**	**37R17**	**DR**	**63S4**	21	631
2.7	512	5640	**KA**	**37R17**	**DR**	**63S4**	19	631
3.1	451	5640	**KAF**	**37R17**	**DR**	**63S4**	20	631
3.5	396	5640						
4.0	346	5640						
4.5	304	5640						
4.9	267	5640	**K**	**37R17**	**DR**	**63M4**	19	631
5.6	234	5640	**KF**	**37R17**	**DR**	**63M4**	21	631
6.4	205	5640	**KA**	**37R17**	**DR**	**63M4**	19	631
7.3	181	5640	**KAF**	**37R17**	**DR**	**63M4**	20	631
			K	**37R17**	**DR**	**63L4**	20	631
8.1	160	5640	**KF**	**37R17**	**DR**	**63L4**	22	631
9.5	136	5640	**KA**	**37R17**	**DR**	**63L4**	19	631
10	127	5640	**KAF**	**37R17**	**DR**	**63L4**	21	631
			K	**37R17**	**DRS**	**71S4**	21	631
12	110	5640	**KF**	**37R17**	**DRS**	**71S4**	24	631
14	96	5640	**KA**	**37R17**	**DRS**	**71S4**	21	631
			KAF	**37R17**	**DRS**	**71S4**	23	631

$M_{a\ max}$ = 295 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
			K	**39R17**	**DRN**	**80M4**	32	631
			KF	**39R17**	**DRN**	**80M4**	34	631
19	75	7500	**KA**	**39R17**	**DRN**	**80M4**	31	631
			KAF	**39R17**	**DRN**	**80M4**	33	631

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$M_{a\ max}$ = 300 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.34	4057	7500						
0.41	3370	7500						
0.47	2906	7500						
0.55	2508	7500						
0.58	2367	7500						
0.64	2162	7500	**K**	**39R17**	**DR**	**63S4**	24	631
0.73	1881	7500	**KF**	**39R17**	**DR**	**63S4**	26	631
0.78	1762	7500	**KA**	**39R17**	**DR**	**63S4**	23	631
0.85	1622	7500	**KAF**	**39R17**	**DR**	**63S4**	25	631
0.92	1494	7500						
1.0	1321	7500						
1.2	1169	7500						
1.3	1093	7500						
1.4	956	7500						
1.7	814	7500	**K**	**39R17**	**DR**	**63S4**	24	631
1.9	711	7500	**KF**	**39R17**	**DR**	**63S4**	26	631
2.3	605	7500	**KA**	**39R17**	**DR**	**63S4**	23	631
2.7	504	7500	**KAF**	**39R17**	**DR**	**63S4**	24	631
3.0	454	7500						
3.3	399	7500	**K**	**39R17**	**DR**	**63M4**	24	631
3.6	365	7500	**KF**	**39R17**	**DR**	**63M4**	26	631
4.2	312	7500	**KA**	**39R17**	**DR**	**63M4**	23	631
4.4	299	7500	**KAF**	**39R17**	**DR**	**63M4**	24	631
5.1	254	7500	**K**	**39R17**	**DR**	**63L4**	25	631
5.6	234	7500	**KF**	**39R17**	**DR**	**63L4**	26	631
6.2	210	7500	**KA**	**39R17**	**DR**	**63L4**	24	631
6.9	189	7500	**KAF**	**39R17**	**DR**	**63L4**	25	631
7.9	174	7500	**K**	**39R17**	**DRS**	**71S4**	26	631
8.8	156	7500	**KF**	**39R17**	**DRS**	**71S4**	28	631
9.7	142	7500	**KA**	**39R17**	**DRS**	**71S4**	25	631
			KAF	**39R17**	**DRS**	**71S4**	27	631
12	117	7500	**K**	**39R17**	**DRS**	**71M4**	28	631
			KF	**39R17**	**DRS**	**71M4**	29	631
			KA	**39R17**	**DRS**	**71M4**	27	631
			KAF	**39R17**	**DRS**	**71M4**	28	631

$M_{a\ max}$ = 400 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.14	10138	5920						
0.16	8534	5920						
0.18	7662	5920						
0.20	6826	5920						
0.23	5983	5920						
0.27	5159	5920						
0.30	4601	5920	**K**	**47R37**	**DR**	**63S4**	34	631
0.35	3940	5920	**KF**	**47R37**	**DR**	**63S4**	37	631
0.40	3477	5920	**KA**	**47R37**	**DR**	**63S4**	33	631
0.45	3043	5920	**KAF**	**47R37**	**DR**	**63S4**	36	631
0.51	2733	5920						
0.59	2354	5920						
0.67	2063	5920						
0.76	1819	5920						
0.87	1586	5920						
0.99	1388	5920						
1.1	1222	5920						
1.3	1097	5920	**K**	**47R37**	**DR**	**63S4**	33	631
1.5	945	5920	**KF**	**47R37**	**DR**	**63S4**	36	631
1.7	831	5920	**KA**	**47R37**	**DR**	**63S4**	32	631
1.9	718	5920	**KAF**	**47R37**	**DR**	**63S4**	35	631
2.2	639	5920						

$M_{a\ max}$ = 400 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
2.4	552	5920	**K**	**47R37**	**DR**	**63M4**	33	631
2.7	495	5920	**KF**	**47R37**	**DR**	**63M4**	36	631
3.1	426	5920	**KA**	**47R37**	**DR**	**63M4**	32	631
3.5	375	5920	**KAF**	**47R37**	**DR**	**63M4**	35	631
4.0	327	5920	**K**	**47R37**	**DR**	**63L4**	34	631
4.5	289	5920	**KF**	**47R37**	**DR**	**63L4**	37	631
5.1	256	5920	**KA**	**47R37**	**DR**	**63L4**	33	631
			KAF	**47R37**	**DR**	**63L4**	36	631
			K	**47R37**	**DRS**	**71S4**	36	631
6.2	225	5920	**KF**	**47R37**	**DRS**	**71S4**	39	631
7.0	198	5920	**KA**	**47R37**	**DRS**	**71S4**	35	631
			KAF	**47R37**	**DRS**	**71S4**	38	631
8.0	171	5920	**K**	**47R37**	**DRS**	**71M4**	37	631
8.9	153	5920	**KF**	**47R37**	**DRS**	**71M4**	40	631
10	131	5920	**KA**	**47R37**	**DRS**	**71M4**	36	631
			KAF	**47R37**	**DRS**	**71M4**	39	631

$M_{a\ max}$ = 500 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.19	7137	9000						
0.23	5991	9000						
0.27	5120	9000						
0.34	4034	9000						
0.39	3580	9000						
0.45	3081	9000						
0.50	2773	9000	**K**	**49R37**	**DR**	**63S4**	43	631
0.54	2545	9000	**KF**	**49R37**	**DR**	**63S4**	45	631
0.58	2372	9000	**KA**	**49R37**	**DR**	**63S4**	40	631
0.65	2118	9000	**KAF**	**49R37**	**DR**	**63S4**	45	631
0.71	1941	9000						
0.79	1741	9000						
0.85	1632	9000						
0.91	1521	9000						
1.1	1228	9000						
1.4	1000	9000						
0.97	1424	9000						
1.0	1309	9000	**K**	**49R37**	**DR**	**63S4**	43	631
1.2	1120	9000	**KF**	**49R37**	**DR**	**63S4**	45	631
1.5	908	9000	**KA**	**49R37**	**DR**	**63S4**	40	631
1.7	802	9000	**KAF**	**49R37**	**DR**	**63S4**	45	631
1.9	701	9000						
2.0	645	9000	**K**	**49R37**	**DR**	**63M4**	43	631
2.2	595	9000	**KF**	**49R37**	**DR**	**63M4**	45	631
2.4	543	9000	**KA**	**49R37**	**DR**	**63M4**	40	631
2.6	501	9000	**KAF**	**49R37**	**DR**	**63M4**	45	631
2.9	449	9000	**K**	**49R37**	**DR**	**63L4**	44	631
3.2	401	9000	**KF**	**49R37**	**DR**	**63L4**	45	631
3.6	360	9000	**KA**	**49R37**	**DR**	**63L4**	41	631
3.9	330	9000	**KAF**	**49R37**	**DR**	**63L4**	46	631
4.6	300	9000	**K**	**49R37**	**DRS**	**71S4**	46	631
5.0	274	9000	**KF**	**49R37**	**DRS**	**71S4**	47	631
5.7	243	9000	**KA**	**49R37**	**DRS**	**71S4**	43	631
			KAF	**49R37**	**DRS**	**71S4**	48	631
6.3	217	9000	**K**	**49R37**	**DRS**	**71M4**	47	631
7.0	193	9000	**KF**	**49R37**	**DRS**	**71M4**	48	631
7.7	176	9000	**KA**	**49R37**	**DRS**	**71M4**	44	631
9.0	152	9000	**KAF**	**49R37**	**DRS**	**71M4**	49	631
12	125	9000	**K**	**49R37**	**DRN**	**80M4**	51	631
			KF	**49R37**	**DRN**	**80M4**	53	631
			KA	**49R37**	**DRN**	**80M4**	48	631
			KAF	**49R37**	**DRN**	**80M4**	53	631

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$M_{a\ max}$ = 500 Nm

n_a 1/min	i	F_{Ra} 1) N						m kg	
15	99	9000	**K**	**49R37**	**DRN**	**90S4**		57	631
			KF	**49R37**	**DRN**	**90S4**		59	631
			KA	**49R37**	**DRN**	**90S4**		54	631
			KAF	**49R37**	**DRN**	**90S4**		59	631

$M_{a\ max}$ = 600 Nm

n_a 1/min	i	F_{Ra} 1) N						m kg	
0.11	12169	7630							
0.12	11162	7630							
0.15	9503	7630							
0.16	8547	7630							
0.19	7277	7630							
0.21	6478	7630							
0.24	5662	7630	**K**	**57R37**	**DR**	**63S4**		39	631
0.27	5033	7630	**KF**	**57R37**	**DR**	**63S4**		44	631
0.32	4340	7630	**KA**	**57R37**	**DR**	**63S4**		37	631
0.36	3854	7630	**KAF**	**57R37**	**DR**	**63S4**		43	631
0.41	3390	7630							
0.47	2924	7630							
0.53	2593	7630							
0.61	2249	7630							
0.70	1986	7630							
0.79	1743	7630							
0.90	1539	7630	**K**	**57R37**	**DR**	**63S4**		39	631
1.0	1354	7630	**KF**	**57R37**	**DR**	**63S4**		44	631
1.2	1174	7630	**KA**	**57R37**	**DR**	**63S4**		37	631
1.3	1036	7630	**KAF**	**57R37**	**DR**	**63S4**		43	631
1.5	906	7630							
1.6	806	7630	**K**	**57R37**	**DR**	**63M4**		39	631
1.9	699	7630	**KF**	**57R37**	**DR**	**63M4**		44	631
2.2	615	7630	**KA**	**57R37**	**DR**	**63M4**		37	631
			KAF	**57R37**	**DR**	**63M4**		43	631
2.4	544	7630	**K**	**57R37**	**DR**	**63L4**		40	631
2.8	473	7630	**KF**	**57R37**	**DR**	**63L4**		45	631
3.1	421	7630	**KA**	**57R37**	**DR**	**63L4**		38	631
			KAF	**57R37**	**DR**	**63L4**		43	631
3.8	362	7630	**K**	**57R37**	**DRS**	**71S4**		42	631
4.3	319	7630	**KF**	**57R37**	**DRS**	**71S4**		47	631
4.9	280	7630	**KA**	**57R37**	**DRS**	**71S4**		40	631
			KAF	**57R37**	**DRS**	**71S4**		45	631
5.5	246	7630	**K**	**57R37**	**DRS**	**71M4**		43	631
6.3	215	7630	**KF**	**57R37**	**DRS**	**71M4**		48	631
7.1	192	7630	**KA**	**57R37**	**DRS**	**71M4**		41	631
			KAF	**57R37**	**DRS**	**71M4**		47	631
			K	**57R37**	**DRN**	**80M4**		48	631
8.7	166	7630	**KF**	**57R37**	**DRN**	**80M4**		52	631
10.0	145	7630	**KA**	**57R37**	**DRN**	**80M4**		45	631
			KAF	**57R37**	**DRN**	**80M4**		51	631
11	129	7630	**K**	**57R37**	**DRN**	**90S4**		53	631
13	111	7630	**KF**	**57R37**	**DRN**	**90S4**		58	631
15	97	7630	**KA**	**57R37**	**DRN**	**90S4**		51	631
			KAF	**57R37**	**DRN**	**90S4**		57	631

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$M_{a\ max}$ = 820 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.11	12139	10300						
0.12	11134	10300						
0.15	9479	10300						
0.17	8173	10300						
0.19	7259	10300						
0.21	6462	10300	**K**	**67R37**	**DR**	**63S4**	45	631
0.24	5648	10300	**KF**	**67R37**	**DR**	**63S4**	51	631
0.28	4846	10300	**KA**	**67R37**	**DR**	**63S4**	43	631
0.32	4329	10300	**KAF**	**67R37**	**DR**	**63S4**	48	631
0.37	3750	10300						
0.42	3315	10300						
0.47	2917	10300						
0.55	2532	10300						
0.62	2244	10300						
0.70	1981	10300						
0.79	1739	10300	**K**	**67R37**	**DR**	**63S4**	45	631
0.90	1535	10300	**KF**	**67R37**	**DR**	**63S4**	51	631
1.0	1351	10300	**KA**	**67R37**	**DR**	**63S4**	42	631
1.2	1171	10300	**KAF**	**67R37**	**DR**	**63S4**	48	631
1.3	1034	10300	**K**	**67R37**	**DR**	**63M4**	45	631
1.5	903	10300	**KF**	**67R37**	**DR**	**63M4**	51	631
1.7	793	10300	**KA**	**67R37**	**DR**	**63M4**	42	631
			KAF	**67R37**	**DR**	**63M4**	48	631
1.9	697	10300	**K**	**67R37**	**DR**	**63L4**	46	631
2.1	613	10300	**KF**	**67R37**	**DR**	**63L4**	51	631
2.4	542	10300	**KA**	**67R37**	**DR**	**63L4**	43	631
			KAF	**67R37**	**DR**	**63L4**	49	631
2.9	471	10300	**K**	**67R37**	**DRS**	**71S4**	48	631
3.3	420	10300	**KF**	**67R37**	**DRS**	**71S4**	53	631
3.8	361	10300	**KA**	**67R37**	**DRS**	**71S4**	45	631
			KAF	**67R37**	**DRS**	**71S4**	51	631
4.2	323	10300	**K**	**67R37**	**DRS**	**71M4**	49	631
4.9	279	10300	**KF**	**67R37**	**DRS**	**71M4**	54	631
5.5	246	10300	**KA**	**67R37**	**DRS**	**71M4**	46	631
			KAF	**67R37**	**DRS**	**71M4**	52	631
			K	**67R37**	**DRN**	**80M4**	53	631
6.6	217	10300	**KF**	**67R37**	**DRN**	**80M4**	59	631
7.5	191	10300	**KA**	**67R37**	**DRN**	**80M4**	51	631
			KAF	**67R37**	**DRN**	**80M4**	56	631

$M_{a\ max}$ = 1550 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.09	15310	15400						
0.10	14043	15400						
0.12	11955	15400						
0.14	10217	15400						
0.16	8809	15400						
0.18	7528	15400	**K**	**77R37**	**DR**	**63S4**	69	631
0.21	6606	15400	**KF**	**77R37**	**DR**	**63S4**	78	631
0.24	5774	15400	**KA**	**77R37**	**DR**	**63S4**	62	631
0.27	5089	15400	**KAF**	**77R37**	**DR**	**63S4**	70	631
0.31	4489	15400						
0.35	3961	15400						
0.40	3485	15400						
0.48	2901	15400						
0.51	2717	15400						
0.56	2370	15400	**K**	**77R37**	**DR**	**63M4**	69	631
			KF	**77R37**	**DR**	**63M4**	78	631
			KA	**77R37**	**DR**	**63M4**	62	631
			KAF	**77R37**	**DR**	**63M4**	70	631

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$M_{a\ max}$ = 1550 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.64	2050	15400	**K**	**77R37**	**DR**	**63M4**	69	631
0.75	1772	15400	**KF**	**77R37**	**DR**	**63M4**	77	631
0.87	1514	15400	**KA**	**77R37**	**DR**	**63M4**	62	631
0.95	1388	15400	**KAF**	**77R37**	**DR**	**63M4**	70	631
			K	**77R37**	**DR**	**63L4**	70	631
1.1	1218	15400	**KF**	**77R37**	**DR**	**63L4**	78	631
1.2	1053	15400	**KA**	**77R37**	**DR**	**63L4**	62	631
			KAF	**77R37**	**DR**	**63L4**	70	631
			K	**77R37**	**DRS**	**71S4**	72	631
1.5	924	15400	**KF**	**77R37**	**DRS**	**71S4**	80	631
1.7	815	15400	**KA**	**77R37**	**DRS**	**71S4**	64	631
2.0	709	15400	**KAF**	**77R37**	**DRS**	**71S4**	72	631
			K	**77R37**	**DRS**	**71M4**	73	631
2.2	622	15400	**KF**	**77R37**	**DRS**	**71M4**	81	631
2.5	552	15400	**KA**	**77R37**	**DRS**	**71M4**	65	631
2.8	485	15400	**KAF**	**77R37**	**DRS**	**71M4**	73	631
			K	**77R37**	**DRN**	**80M4**	78	631
3.4	428	15400	**KF**	**77R37**	**DRN**	**80M4**	86	631
3.9	367	15400	**KA**	**77R37**	**DRN**	**80M4**	70	631
			KAF	**77R37**	**DRN**	**80M4**	78	631
			K	**77R37**	**DRN**	**90S4**	83	631
4.4	328	15400	**KF**	**77R37**	**DRN**	**90S4**	92	631
5.0	290	15400	**KA**	**77R37**	**DRN**	**90S4**	76	631
5.8	252	15400	**KAF**	**77R37**	**DRN**	**90S4**	84	631

$M_{a\ max}$ = 2700 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.09	14829	27300						
0.10	13168	27300						
0.12	11737	27300						
0.14	10217	27300	**K**	**87R57**	**DR**	**63S4**	120	631
0.15	9073	27300	**KF**	**87R57**	**DR**	**63S4**	130	631
0.18	7854	27300	**KA**	**87R57**	**DR**	**63S4**	105	631
0.20	6832	27300	**KAF**	**87R57**	**DR**	**63S4**	120	631
0.23	5930	27300						
0.26	5240	27300						
0.30	4562	27300						
0.33	4037	27300	**K**	**87R57**	**DR**	**63M4**	120	631
0.37	3609	27300	**KF**	**87R57**	**DR**	**63M4**	130	631
0.42	3107	27300	**KA**	**87R57**	**DR**	**63M4**	105	631
0.48	2728	27300	**KAF**	**87R57**	**DR**	**63M4**	120	631
			K	**87R57**	**DR**	**63L4**	120	631
0.55	2371	27300	**KF**	**87R57**	**DR**	**63L4**	130	631
			KA	**87R57**	**DR**	**63L4**	105	631
			KAF	**87R57**	**DR**	**63L4**	120	631
			K	**87R57**	**DR**	**63L4**	120	631
0.62	2088	27300	**KF**	**87R57**	**DR**	**63L4**	130	631
0.70	1854	27300	**KA**	**87R57**	**DR**	**63L4**	105	631
			KAF	**87R57**	**DR**	**63L4**	120	631
			K	**87R57**	**DRS**	**71S4**	120	631
0.83	1657	27300	**KF**	**87R57**	**DRS**	**71S4**	130	631
0.97	1415	27300	**KA**	**87R57**	**DRS**	**71S4**	110	631
1.1	1229	27300	**KAF**	**87R57**	**DRS**	**71S4**	120	631
			K	**87R57**	**DRS**	**71M4**	120	631
1.3	1078	27300	**KF**	**87R57**	**DRS**	**71M4**	130	631
1.4	951	27300	**KA**	**87R57**	**DRS**	**71M4**	110	631
1.6	837	27300	**KAF**	**87R57**	**DRS**	**71M4**	120	631
			K	**87R57**	**DRN**	**80M4**	125	631
2.0	726	27300	**KF**	**87R57**	**DRN**	**80M4**	135	631
2.3	638	27300	**KA**	**87R57**	**DRN**	**80M4**	115	631
			KAF	**87R57**	**DRN**	**80M4**	125	631

$M_{a\ max}$ = 2700 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
2.6	562	27300	**K**	**87R57**	**DRN**	**90S4**	130	631
			KF	**87R57**	**DRN**	**90S4**	140	631
3.1	474	27300	**KA**	**87R57**	**DRN**	**90S4**	120	631
3.4	426	27300	**KAF**	**87R57**	**DRN**	**90S4**	135	631
			K	**87R57**	**DRN**	**90L4**	135	631
3.9	373	27300	**KF**	**87R57**	**DRN**	**90L4**	145	631
4.4	330	27300	**KA**	**87R57**	**DRN**	**90L4**	125	631
			KAF	**87R57**	**DRN**	**90L4**	135	631
4.9	294	27300	**K**	**87R57**	**DRN**	**100LS4**	140	631
5.8	250	27300	**KF**	**87R57**	**DRN**	**100LS4**	150	631
6.1	236	27300	**KA**	**87R57**	**DRN**	**100LS4**	125	631
7.2	201	27300	**KAF**	**87R57**	**DRN**	**100LS4**	140	631

$M_{a\ max}$ = 4300 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.08	18091	40000						
0.08	16666	40000						
0.09	14897	40000						
0.10	13182	40000	**K**	**97R57**	**DR**	**63S4**	180	631
0.12	11677	40000	**KF**	**97R57**	**DR**	**63S4**	200	631
0.13	10317	40000	**KA**	**97R57**	**DR**	**63S4**	160	631
0.15	9083	40000	**KAF**	**97R57**	**DR**	**63S4**	185	631
0.17	8054	40000						
0.20	6970	40000						
0.22	6027	40000	**K**	**97R57**	**DR**	**63M4**	180	631
0.24	5391	40000	**KF**	**97R57**	**DR**	**63M4**	200	631
0.28	4669	40000	**KA**	**97R57**	**DR**	**63M4**	160	631
0.32	4082	40000	**KAF**	**97R57**	**DR**	**63M4**	185	631
0.36	3583	40000	**K**	**97R57**	**DR**	**63L4**	180	631
0.42	3108	40000	**KF**	**97R57**	**DR**	**63L4**	200	631
0.47	2757	40000	**KA**	**97R57**	**DR**	**63L4**	160	631
			KAF	**97R57**	**DR**	**63L4**	185	631
			K	**97R57**	**DRS**	**71S4**	180	631
0.57	2419	40000	**KF**	**97R57**	**DRS**	**71S4**	200	631
0.65	2123	40000	**KA**	**97R57**	**DRS**	**71S4**	165	631
			KAF	**97R57**	**DRS**	**71S4**	185	631
0.73	1856	40000	**K**	**97R57**	**DRS**	**71M4**	180	631
0.84	1625	40000	**KF**	**97R57**	**DRS**	**71M4**	200	631
0.95	1430	40000	**KA**	**97R57**	**DRS**	**71M4**	165	631
1.1	1261	40000	**KAF**	**97R57**	**DRS**	**71M4**	190	631
			K	**97R57**	**DRN**	**80M4**	185	631
1.3	1102	40000	**KF**	**97R57**	**DRN**	**80M4**	205	631
1.5	957	40000	**KA**	**97R57**	**DRN**	**80M4**	170	631
			KAF	**97R57**	**DRN**	**80M4**	195	631
			K	**97R57**	**DRN**	**90S4**	195	631
1.7	855	40000	**KF**	**97R57**	**DRN**	**90S4**	215	631
2.0	743	40000	**KA**	**97R57**	**DRN**	**90S4**	175	631
			KAF	**97R57**	**DRN**	**90S4**	200	631
2.2	652	40000	**K**	**97R57**	**DRN**	**90L4**	195	631
2.6	573	40000	**KF**	**97R57**	**DRN**	**90L4**	215	631
2.9	504	40000	**KA**	**97R57**	**DRN**	**90L4**	180	631
			KAF	**97R57**	**DRN**	**90L4**	205	631
3.3	437	40000	**K**	**97R57**	**DRN**	**100LS4**	200	631
3.8	382	40000	**KF**	**97R57**	**DRN**	**100LS4**	220	631
4.2	342	40000	**KA**	**97R57**	**DRN**	**100LS4**	180	631
			KAF	**97R57**	**DRN**	**100LS4**	205	631
4.8	305	40000	**K**	**97R57**	**DRN**	**100L4**	205	631
5.6	258	40000	**KF**	**97R57**	**DRN**	**100L4**	225	631
			KA	**97R57**	**DRN**	**100L4**	190	631
			KAF	**97R57**	**DRN**	**100L4**	215	631

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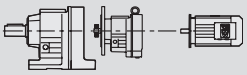
$M_{a\ max}$ = 4300 Nm

n_a 1/min	i	F_{Ra} 1) N						m kg	
			K	**97R57**	**DRN**	**112M4**	215	631
6.3	232	40000	**KF**	**97R57**	**DRN**	**112M4**	235	631
7.3	199	40000	**KA**	**97R57**	**DRN**	**112M4**	200	631
			KAF	**97R57**	**DRN**	**112M4**	225	631

$M_{a\ max}$ = 8000 Nm

n_a 1/min	i	F_{Ra} 1) N						m kg	
			K	**107R77**	**DR**	**63S4**	310	631
0.10	14311	65000	**KF**	**107R77**	**DR**	**63S4**	320	631
			KA	**107R77**	**DR**	**63S4**	280	631
			KAF	**107R77**	**DR**	**63S4**	305	631
			K	**107R77**	**DR**	**63M4**	310	631
0.11	12211	65000	**KF**	**107R77**	**DR**	**63M4**	320	631
0.12	10677	65000	**KA**	**107R77**	**DR**	**63M4**	280	631
0.14	9524	65000	**KAF**	**107R77**	**DR**	**63M4**	305	631
0.16	8328	65000						
			K	**107R77**	**DR**	**63L4**	310	631
0.18	7270	65000	**KF**	**107R77**	**DR**	**63L4**	320	631
0.21	6184	65000	**KA**	**107R77**	**DR**	**63L4**	285	631
0.23	5662	65000	**KAF**	**107R77**	**DR**	**63L4**	305	631
			K	**107R77**	**DRS**	**71S4**	310	631
0.27	5138	65000	**KF**	**107R77**	**DRS**	**71S4**	325	631
0.32	4359	65000	**KA**	**107R77**	**DRS**	**71S4**	285	631
0.36	3810	65000	**KAF**	**107R77**	**DRS**	**71S4**	310	631
			K	**107R77**	**DRS**	**71M4**	315	631
0.41	3358	65000	**KF**	**107R77**	**DRS**	**71M4**	325	631
0.46	2977	65000	**KA**	**107R77**	**DRS**	**71M4**	285	631
0.52	2599	65000	**KAF**	**107R77**	**DRS**	**71M4**	310	631
			K	**107R77**	**DRN**	**80M4**	320	631
0.63	2286	65000	**KF**	**107R77**	**DRN**	**80M4**	330	631
0.74	1939	65000	**KA**	**107R77**	**DRN**	**80M4**	290	631
			KAF	**107R77**	**DRN**	**80M4**	315	631
			K	**107R77**	**DRN**	**90S4**	320	631
0.85	1713	65000	**KF**	**107R77**	**DRN**	**90S4**	335	631
0.94	1554	65000	**KA**	**107R77**	**DRN**	**90S4**	295	631
1.1	1336	65000	**KAF**	**107R77**	**DRN**	**90S4**	320	631
			K	**107R77**	**DRN**	**90L4**	325	631
1.2	1166	65000	**KF**	**107R77**	**DRN**	**90L4**	335	631
1.4	1030	65000	**KA**	**107R77**	**DRN**	**90L4**	300	631
1.6	904	65000	**KAF**	**107R77**	**DRN**	**90L4**	320	631
			K	**107R77**	**DRN**	**100LS4**	330	631
1.8	793	65000	**KF**	**107R77**	**DRN**	**100LS4**	340	631
2.1	696	65000	**KA**	**107R77**	**DRN**	**100LS4**	300	631
2.4	615	65000	**KAF**	**107R77**	**DRN**	**100LS4**	325	631
			K	**107R77**	**DRN**	**100L4**	335	631
2.8	522	65000	**KF**	**107R77**	**DRN**	**100L4**	350	631
3.2	461	65000	**KA**	**107R77**	**DRN**	**100L4**	310	631
			KAF	**107R77**	**DRN**	**100L4**	335	631
			K	**107R77**	**DRN**	**112M4**	345	631
3.6	408	65000	**KF**	**107R77**	**DRN**	**112M4**	360	631
4.0	364	65000	**KA**	**107R77**	**DRN**	**112M4**	320	631
			KAF	**107R77**	**DRN**	**112M4**	340	631
			K	**107R77**	**DRN**	**132S4**	355	631
4.6	318	65000	**KF**	**107R77**	**DRN**	**132S4**	370	631
5.1	286	65000	**KA**	**107R77**	**DRN**	**132S4**	330	631
5.8	251	65000	**KAF**	**107R77**	**DRN**	**132S4**	355	631

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$M_{a\ max}$ = 13000 Nm								
n_a 1/min	i	F_{Ra} [1] N					m kg	
0.08	17550	79200	K	127R77	DR	63M4	470	631
0.08	16006	79200	KF	127R77	DR	63M4	510	631
0.09	14975	79200	KA	127R77	DR	63M4	440	631
0.11	12440	79200	KAF	127R77	DR	63M4	480	631
0.12	10915	79200	K	127R77	DR	63L4	470	631
0.13	9819	79200	KF	127R77	DR	63L4	510	631
0.15	8443	79200	KA	127R77	DR	63L4	440	631
			KAF	127R77	DR	63L4	480	631
			K	127R77	DRS	71S4	470	631
0.18	7482	79200	KF	127R77	DRS	71S4	510	631
0.21	6565	79200	KA	127R77	DRS	71S4	445	631
			KAF	127R77	DRS	71S4	480	631
0.23	5804	79200	K	127R77	DRS	71M4	475	631
0.27	5027	79200	KF	127R77	DRS	71M4	520	631
0.31	4423	79200	KA	127R77	DRS	71M4	445	631
0.35	3889	79200	KAF	127R77	DRS	71M4	485	631
			K	127R77	DRN	80M4	480	631
0.43	3311	79200	KF	127R77	DRN	80M4	520	631
0.48	3009	79200	KA	127R77	DRN	80M4	450	631
			KAF	127R77	DRN	80M4	490	631
			K	127R77	DRN	90S4	485	631
0.56	2607	79200	KF	127R77	DRN	90S4	530	631
0.64	2268	79200	KA	127R77	DRN	90S4	455	631
			KAF	127R77	DRN	90S4	495	631
0.76	1926	79200	K	127R77	DRN	90L4	485	631
0.83	1757	79200	KF	127R77	DRN	90L4	530	631
0.95	1541	79200	KA	127R77	DRN	90L4	455	631
			KAF	127R77	DRN	90L4	495	631
1.1	1342	79200	K	127R77	DRN	100LS4	490	631
1.2	1177	79200	KF	127R77	DRN	100LS4	530	631
1.4	1025	79200	KA	127R77	DRN	100LS4	460	631
			KAF	127R77	DRN	100LS4	500	631
			K	127R77	DRN	100L4	495	631
1.6	899	79200	KF	127R77	DRN	100L4	540	631
1.8	790	79200	KA	127R77	DRN	100L4	470	631
			KAF	127R77	DRN	100L4	510	631
2.1	704	79200	K	127R77	DRN	112M4	510	631
2.4	610	79200	KF	127R77	DRN	112M4	550	631
2.7	549	79200	KA	127R77	DRN	112M4	480	631
			KAF	127R77	DRN	112M4	520	631
			K	127R77	DRN	132S4	520	631
3.1	477	79200	KF	127R77	DRN	132S4	560	631
3.5	418	79200	KA	127R77	DRN	132S4	490	631
			KAF	127R77	DRN	132S4	530	631
2.7	536	79200	K	127R87	DRN	132S4	540	631
3.1	473	79200	KF	127R87	DRN	132S4	580	631
3.5	418	79200	KA	127R87	DRN	132S4	510	631
			KAF	127R87	DRN	132S4	550	631
			K	127R87	DRN	132M4	560	631
4.0	367	79200	KF	127R87	DRN	132M4	600	631
4.4	330	79200	KA	127R87	DRN	132M4	530	631
			KAF	127R87	DRN	132M4	560	631
			K	127R87	DRN	132L4	560	631
5.1	287	79200	KF	127R87	DRN	132L4	610	631
5.8	253	79200	KA	127R87	DRN	132L4	540	631
			KAF	127R87	DRN	132L4	570	631

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$M_{a\ max}$ = 18000 Nm								
n_a 1/min	i	F_{Ra} [1] N					m kg	
0.08	17679	112200						
0.09	15729	112200						
0.09	14721	112200	**K**	**157R97**	**DRS**	**71M4**	790	632
0.10	13097	112200	**KF**	**157R97**	**DRS**	**71M4**	870	632
0.12	11368	112200	**KA**	**157R97**	**DRS**	**71M4**	750	632
0.13	10114	112200	**KAF**	**157R97**	**DRS**	**71M4**	810	632
0.16	8718	112200						
0.18	7734	112200						
			K	**157R97**	**DRN**	**80M4**	800	632
0.28	5074	112200	**KF**	**157R97**	**DRN**	**80M4**	870	632
0.32	4514	112200	**KA**	**157R97**	**DRN**	**80M4**	760	632
			KAF	**157R97**	**DRN**	**80M4**	820	632
			K	**157R97**	**DRN**	**90S4**	800	632
0.37	3979	112200	**KF**	**157R97**	**DRN**	**90S4**	880	632
0.41	3516	112200	**KA**	**157R97**	**DRN**	**90S4**	760	632
0.48	3051	112200	**KAF**	**157R97**	**DRN**	**90S4**	820	632
			K	**157R97**	**DRN**	**90L4**	800	632
0.56	2610	112200	**KF**	**157R97**	**DRN**	**90L4**	880	632
0.63	2322	112200	**KA**	**157R97**	**DRN**	**90L4**	770	632
			KAF	**157R97**	**DRN**	**90L4**	830	632
			K	**157R97**	**DRN**	**100LS4**	810	632
0.71	2029	112200	**KF**	**157R97**	**DRN**	**100LS4**	890	632
0.80	1805	112200	**KA**	**157R97**	**DRN**	**100LS4**	770	632
			KAF	**157R97**	**DRN**	**100LS4**	830	632
			K	**157R97**	**DRN**	**100LS4**	800	632
0.87	1659	112200	**KF**	**157R97**	**DRN**	**100LS4**	880	632
			KA	**157R97**	**DRN**	**100LS4**	770	632
			KAF	**157R97**	**DRN**	**100LS4**	830	632
			K	**157R97**	**DRN**	**100L4**	810	632
1.1	1365	112200	**KF**	**157R97**	**DRN**	**100L4**	890	632
1.2	1229	112200	**KA**	**157R97**	**DRN**	**100L4**	780	632
1.3	1093	112200	**KAF**	**157R97**	**DRN**	**100L4**	830	632
			K	**157R97**	**DRN**	**112M4**	820	632
1.6	942	112200	**KF**	**157R97**	**DRN**	**112M4**	900	632
1.7	854	112200	**KA**	**157R97**	**DRN**	**112M4**	780	632
			KAF	**157R97**	**DRN**	**112M4**	840	632
			K	**157R97**	**DRN**	**132S4**	830	632
1.9	756	112200	**KF**	**157R97**	**DRN**	**132S4**	910	632
2.2	661	112200	**KA**	**157R97**	**DRN**	**132S4**	800	632
2.6	567	112200	**KAF**	**157R97**	**DRN**	**132S4**	850	632
			K	**157R97**	**DRN**	**132M4**	850	632
2.9	504	112200	**KF**	**157R97**	**DRN**	**132M4**	930	632
3.4	434	112200	**KA**	**157R97**	**DRN**	**132M4**	810	632
			KAF	**157R97**	**DRN**	**132M4**	870	632
			K	**157R97**	**DRN**	**132L4**	860	632
3.9	379	112200	**KF**	**157R97**	**DRN**	**132L4**	940	632
4.4	333	112200	**KA**	**157R97**	**DRN**	**132L4**	820	632
			KAF	**157R97**	**DRN**	**132L4**	880	632
			K	**157R97**	**DRN**	**160M4**	890	632
5.1	291	112200	**KF**	**157R97**	**DRN**	**160M4**	970	632
			KA	**157R97**	**DRN**	**160M4**	850	632
			KAF	**157R97**	**DRN**	**160M4**	910	632
			K	**157R107**	**DRN**	**132L4**	910	632
3.8	385	112200	**KF**	**157R107**	**DRN**	**132L4**	980	632
			KA	**157R107**	**DRN**	**132L4**	870	632
			KAF	**157R107**	**DRN**	**132L4**	930	632
			K	**157R107**	**DRN**	**160M4**	940	632
4.5	325	112200	**KF**	**157R107**	**DRN**	**160M4**	1020	632
4.9	299	112200	**KA**	**157R107**	**DRN**	**160M4**	900	632
			KAF	**157R107**	**DRN**	**160M4**	960	632
			K	**157R107**	**DRN**	**160L4**	950	632
5.8	253	112200	**KF**	**157R107**	**DRN**	**160L4**	1030	632
6.4	230	112200	**KA**	**157R107**	**DRN**	**160L4**	920	632
6.9	213	112200	**KAF**	**157R107**	**DRN**	**160L4**	980	632

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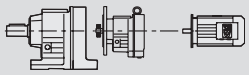
$M_{a\ max}$ = 32000 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.07	19723	150000						
0.08	17406	150000						
0.09	15000	150000	**K**	**167R97**	**DRS**	**71M4**	1190	632
0.10	13238	150000	**KH**	**167R97**	**DRS**	**71M4**	1150	632
0.12	11573	150000						
0.13	10264	150000						
0.17	8628	150000	**K**	**167R97**	**DRN**	**80M4**	1190	632
			KH	**167R97**	**DRN**	**80M4**	1150	632
0.22	6562	150000	**K**	**167R97**	**DRN**	**90S4**	1190	632
0.27	5355	150000	**KH**	**167R97**	**DRN**	**90S4**	1160	632
0.31	4788	150000	**K**	**167R97**	**DRN**	**90L4**	1200	632
0.36	4079	150000	**KH**	**167R97**	**DRN**	**90L4**	1160	632
0.43	3376	150000	**K**	**167R97**	**DRN**	**100LS4**	1200	632
0.53	2755	150000	**KH**	**167R97**	**DRN**	**100LS4**	1160	632
0.64	2263	150000	**K**	**167R97**	**DRN**	**100L4**	1210	632
			KH	**167R97**	**DRN**	**100L4**	1170	632
0.67	2182	150000	**K**	**167R97**	**DRN**	**100L4**	1210	632
			KH	**167R97**	**DRN**	**100L4**	1170	632
0.86	1704	150000	**K**	**167R97**	**DRN**	**112M4**	1210	632
1.0	1408	150000	**KH**	**167R97**	**DRN**	**112M4**	1180	632
1.1	1296	150000	**K**	**167R97**	**DRN**	**132S4**	1230	632
1.3	1101	150000	**KH**	**167R97**	**DRN**	**132S4**	1190	632
1.6	944	150000						
1.7	843	150000	**K**	**167R97**	**DRN**	**132M4**	1240	632
1.9	757	150000	**KH**	**167R97**	**DRN**	**132M4**	1210	632
2.3	632	150000	**K**	**167R97**	**DRN**	**132L4**	1250	632
			KH	**167R97**	**DRN**	**132L4**	1210	632
2.6	561	150000	**K**	**167R97**	**DRN**	**160M4**	1280	632
			KH	**167R97**	**DRN**	**160M4**	1250	632
3.1	481	150000						
3.5	423	150000	**K**	**167R97**	**DRN**	**160L4**	1300	632
4.0	369	150000	**KH**	**167R97**	**DRN**	**160L4**	1260	632
4.6	318	150000	**K**	**167R107**	**DRN**	**180M4**	1370	632
			KH	**167R107**	**DRN**	**180M4**	1330	632
5.3	278	150000	**K**	**167R107**	**DRN**	**180L4**	1380	632
6.1	244	150000	**KH**	**167R107**	**DRN**	**180L4**	1350	632
6.9	213	150000						
7.2	206	150000	**K**	**167R107**	**DRN**	**200L4**	1490	632
8.2	180	150000	**KH**	**167R107**	**DRN**	**200L4**	1460	632
9.3	160	150000	**K**	**167R107**	**DRN**	**225S4**	1530	632
			KH	**167R107**	**DRN**	**225S4**	1490	632
11	135	150000	**K**	**167R107**	**DRN**	**225M4**	1530	632
13	118	150000	**KH**	**167R107**	**DRN**	**225M4**	1490	632

$M_{a\ max}$ = 50000 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.04	32625	190000						
0.05	27165	190000						
0.06	24353	190000	**K**	**187R97**	**DRS**	**71M4**	1770	632
0.07	19144	190000	**KH**	**187R97**	**DRS**	**71M4**	1700	632
0.08	16978	190000						
0.10	14272	190000	**K**	**187R97**	**DRN**	**80M4**	1770	632
0.11	13116	190000	**KH**	**187R97**	**DRN**	**80M4**	1700	632
0.12	11647	190000						
0.14	10413	190000	**K**	**187R97**	**DRN**	**90S4**	1780	632
0.16	9363	190000	**KH**	**187R97**	**DRN**	**90S4**	1710	632

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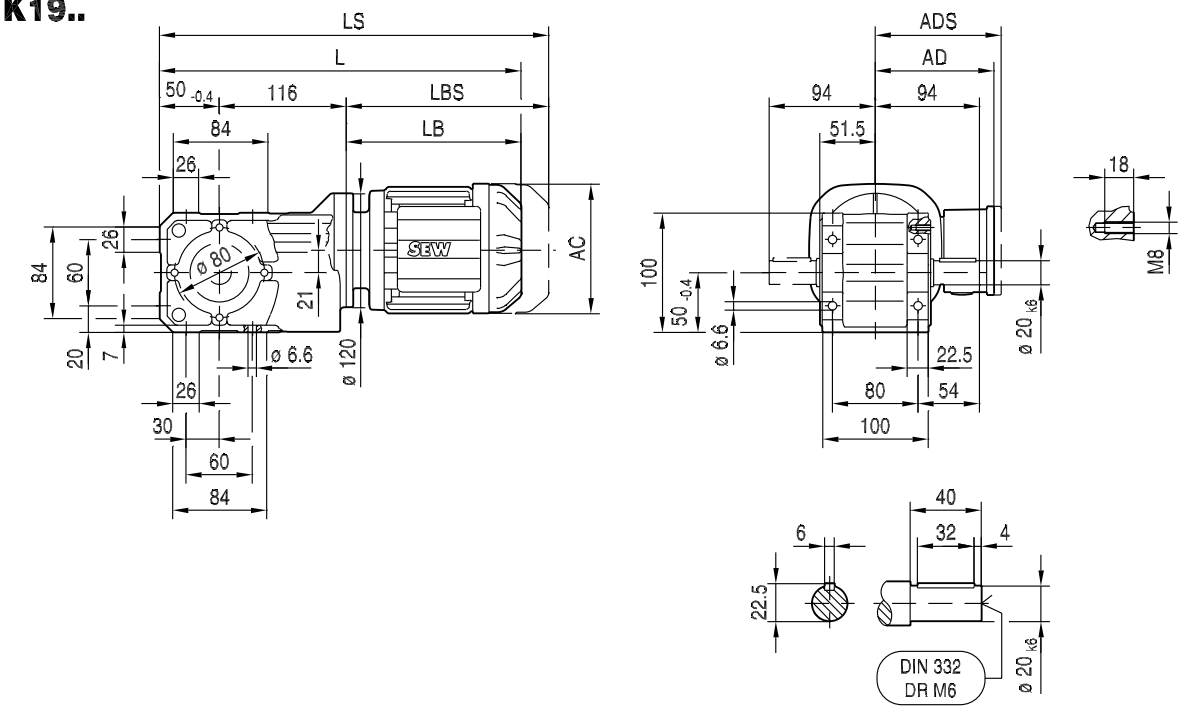
$M_{a\ max}$ = 50000 Nm									
n_a 1/min	i	F_{Ra} [1] N						m kg	
0.18	8126	190000							
0.20	7343	190000	**K**	**187R97**	**DRN**	**90L4**		1780	632
0.22	6747	190000	**KH**	**187R97**	**DRN**	**90L4**		1710	632
0.24	5991	190000							
0.27	5358	190000							
0.30	4817	190000	**K**	**187R97**	**DRN**	**100LS4**		1780	632
0.33	4370	190000	**KH**	**187R97**	**DRN**	**100LS4**		1720	632
0.40	3609	190000	**K**	**187R97**	**DRN**	**100L4**		1790	632
0.48	3062	190000	**KH**	**187R97**	**DRN**	**100L4**		1720	632
0.58	2519	190000	**K**	**187R97**	**DRN**	**112M4**		1800	632
0.65	2268	190000	**KH**	**187R97**	**DRN**	**112M4**		1730	632
0.71	2054	190000							
0.80	1821	190000	**K**	**187R97**	**DRN**	**132S4**		1810	632
0.91	1605	190000	**KH**	**187R97**	**DRN**	**132S4**		1740	632
1.0	1395	190000	**K**	**187R97**	**DRN**	**132M4**		1830	632
1.2	1196	190000	**KH**	**187R97**	**DRN**	**132M4**		1760	632
1.4	1046	190000	**K**	**187R97**	**DRN**	**132L4**		1830	632
1.6	945	190000	**KH**	**187R97**	**DRN**	**132L4**		1770	632
2.0	738	190000	**K**	**187R97**	**DRN**	**160L4**		1880	632
2.4	621	190000	**KH**	**187R97**	**DRN**	**160L4**		1820	632
2.8	527	190000	**K**	**187R97**	**DRN**	**180M4**		1900	632
			KH	**187R97**	**DRN**	**180M4**		1840	632
1.8	835	190000	**K**	**187R107**	**DRN**	**160M4**		1910	632
			KH	**187R107**	**DRN**	**160M4**		1850	632
2.0	729	190000	**K**	**187R107**	**DRN**	**160L4**		1930	632
2.4	622	190000	**KH**	**187R107**	**DRN**	**160L4**		1860	632
2.8	520	190000	**K**	**187R107**	**DRN**	**180M4**		1950	632
3.3	454	190000	**KH**	**187R107**	**DRN**	**180M4**		1880	632
4.2	355	190000	**K**	**187R107**	**DRN**	**200L4**		2080	632
			KH	**187R107**	**DRN**	**200L4**		2010	632
5.7	261	190000	**K**	**187R107**	**DRN**	**225S4**		2110	632
			KH	**187R107**	**DRN**	**225S4**		2040	632
6.7	221	190000	**K**	**187R107**	**DRN**	**225M4**		2110	632
7.7	193	190000	**KH**	**187R107**	**DRN**	**225M4**		2040	632

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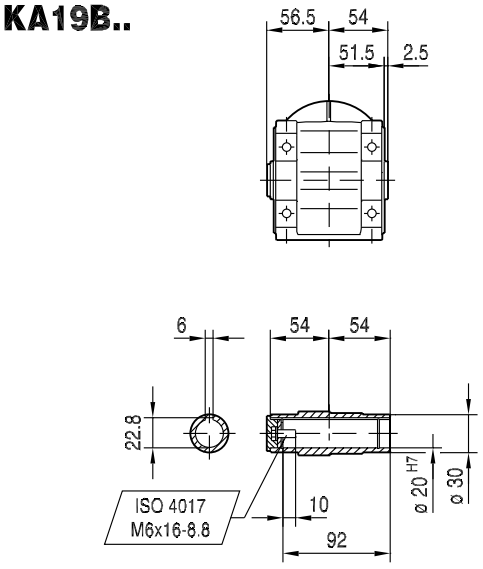
10.5 K..DRN.. dimension sheets in mm

K19..

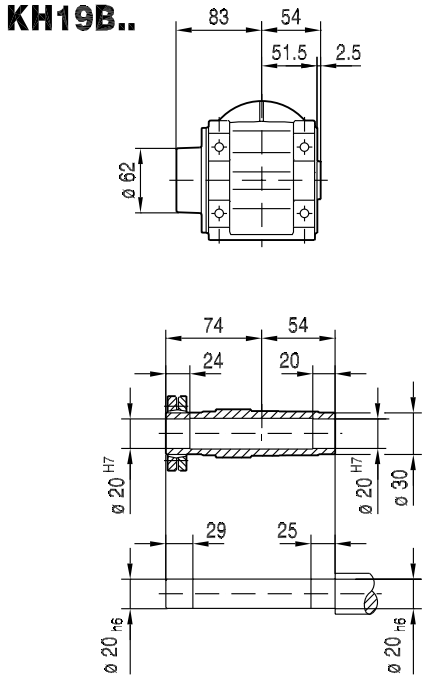
33 008 00 15



KA19B..



KH19B..

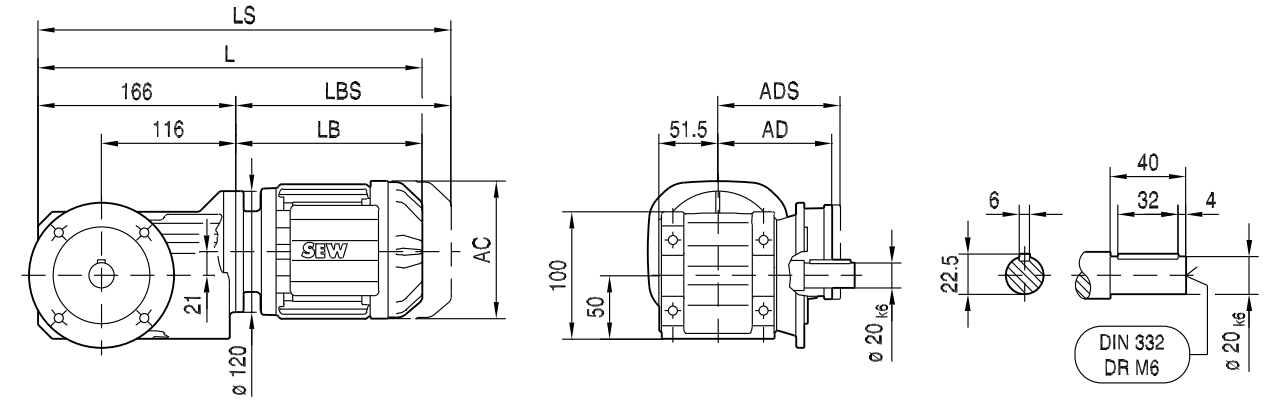


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S			
AC	132	139	139	156	179			
AD	105	119	119	128	140			
ADS	105	129	129	139	150			
L	357	368	393	448	449			
LS	412	436	461	529	543			
LB	191	202	227	282	283			
LBS	246	270	295	363	377			

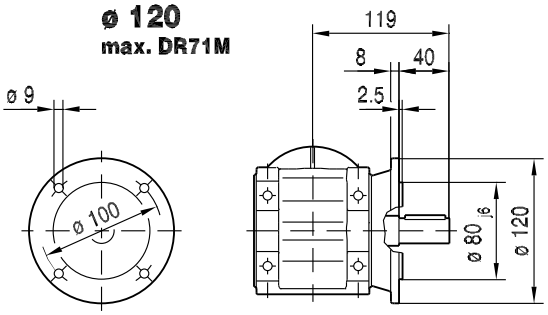
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33 009 00 15

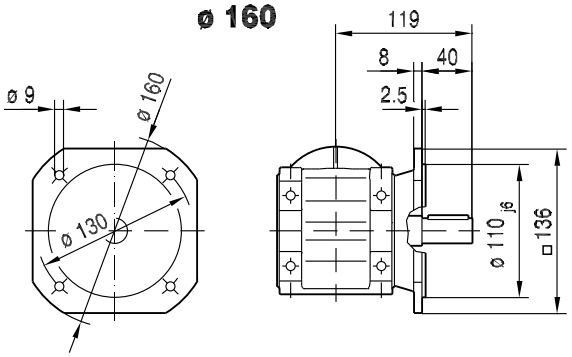
KF19B..



ø 120
max. DR71M

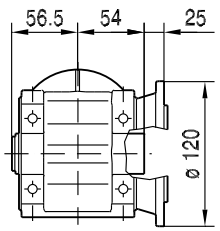


ø 160

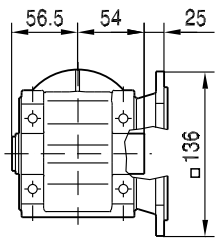


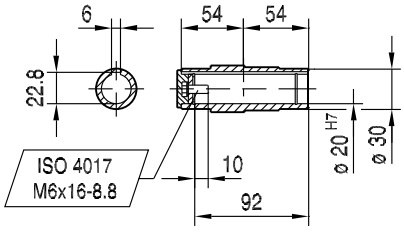
KAF19B..

ø 120
max. DR71M



ø 160



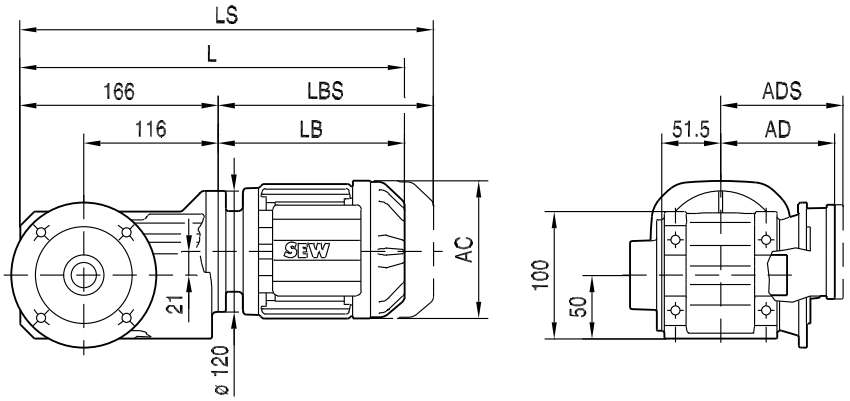


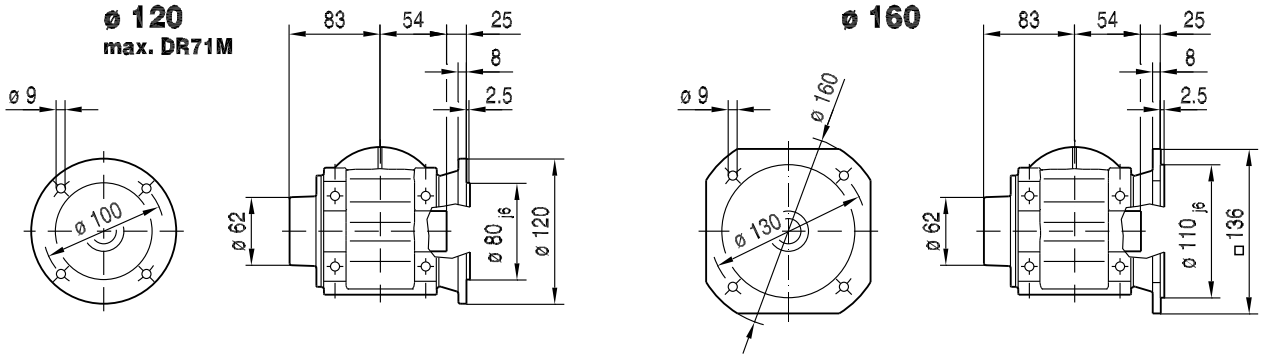
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S			
AC	132	139	139	156	179			
AD	105	119	119	128	140			
ADS	105	129	129	139	150			
L	357	368	393	448	449			
LS	412	436	461	529	543			
LB	191	202	227	282	283			
LBS	246	270	295	363	377			

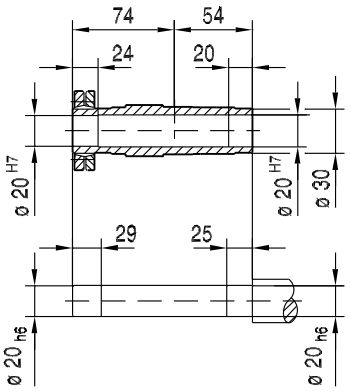
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33 010 00 15

KHF19B..





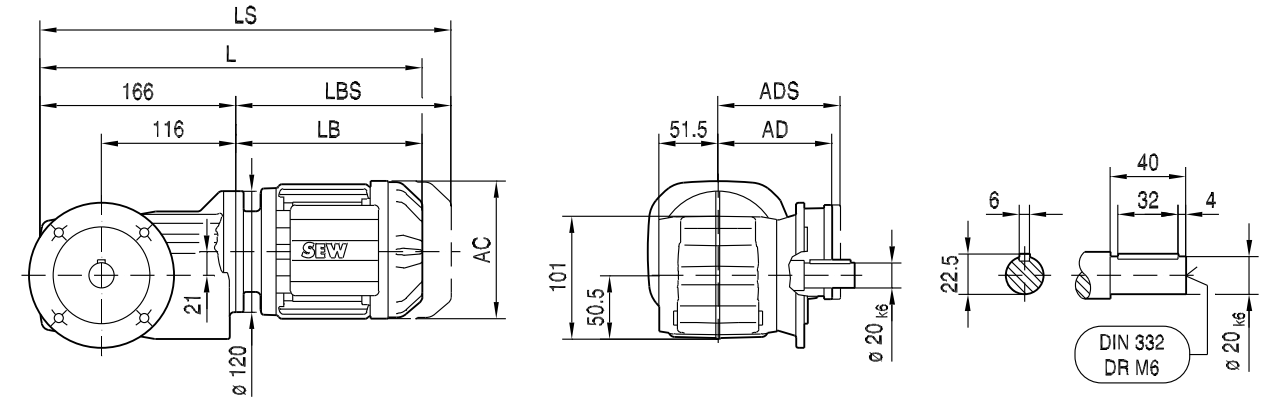


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S			
AC	132	139	139	156	179			
AD	105	119	119	128	140			
ADS	105	129	129	139	150			
L	357	368	393	448	449			
LS	412	436	461	529	543			
LB	191	202	227	282	283			
LBS	246	270	295	363	377			

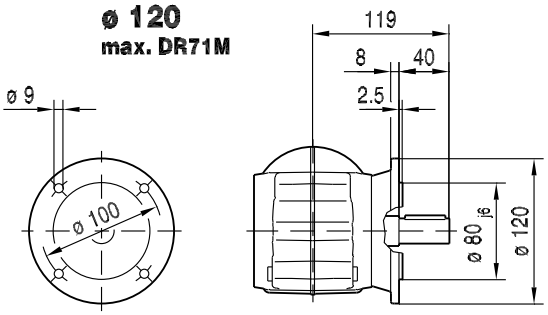
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33 011 00 15

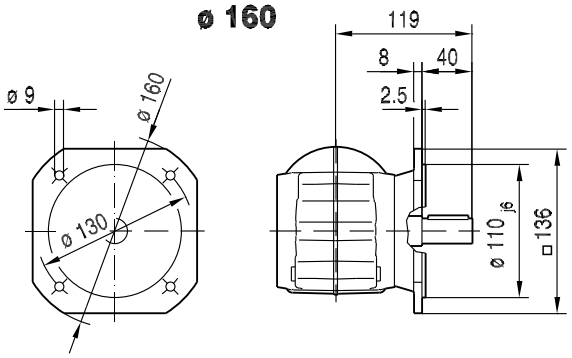
KF19..



ø 120
max. DR71M

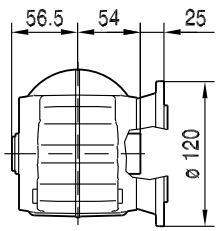


ø 160

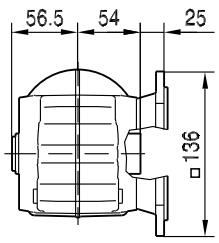


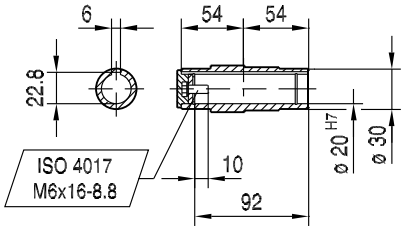
KAF19..

ø 120
max. DR71M



ø 160

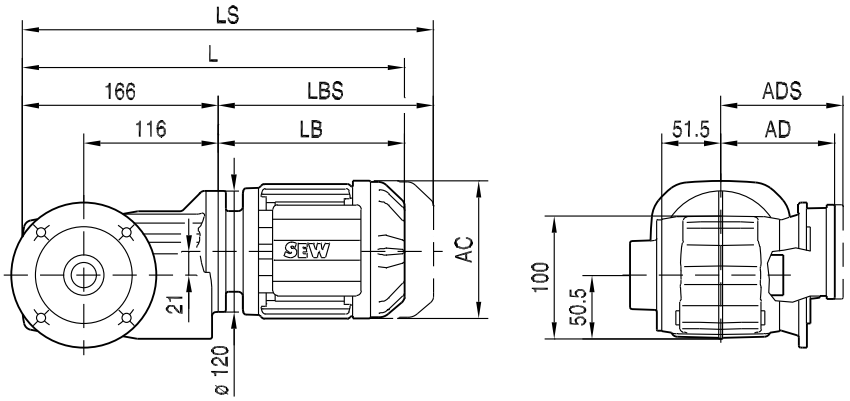


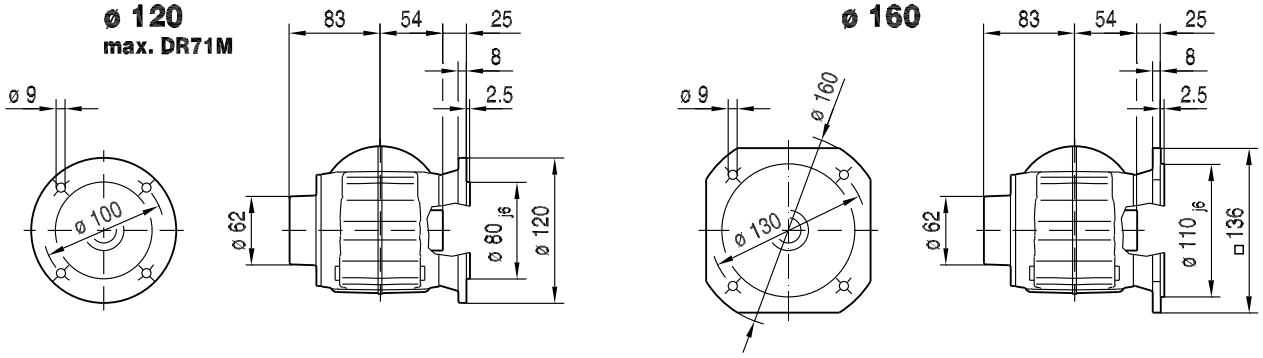


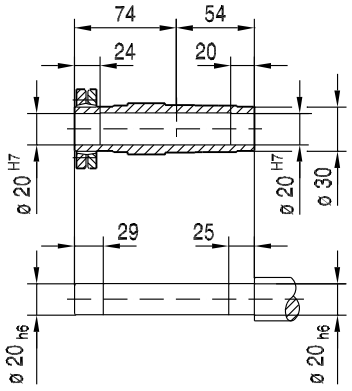
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S			
AC	132	139	139	156	179			
AD	105	119	119	128	140			
ADS	105	129	129	139	150			
L	357	368	393	448	449			
LS	412	436	461	529	543			
LB	191	202	227	282	283			
LBS	246	270	295	363	377			

33 013 00 15

KHF19..





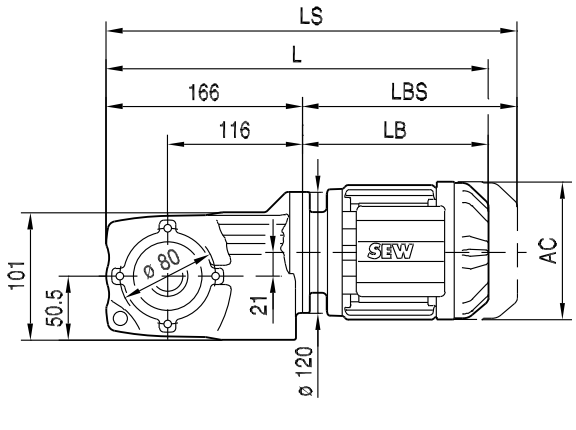


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S			
AC	132	139	139	156	179			
AD	105	119	119	128	140			
ADS	105	129	129	139	150			
L	357	368	393	448	449			
LS	412	436	461	529	543			
LB	191	202	227	282	283			
LBS	246	270	295	363	377			

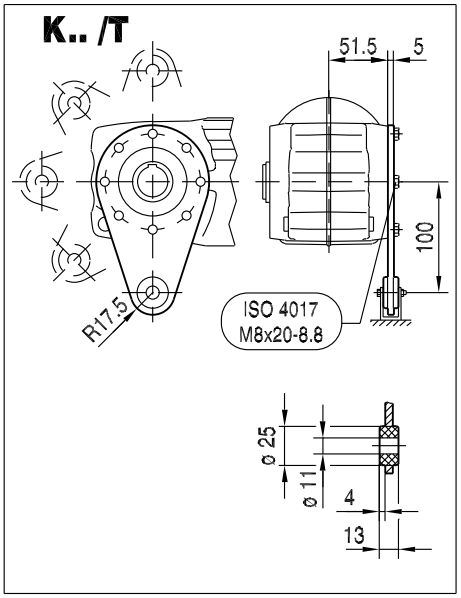
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33 014 00 15

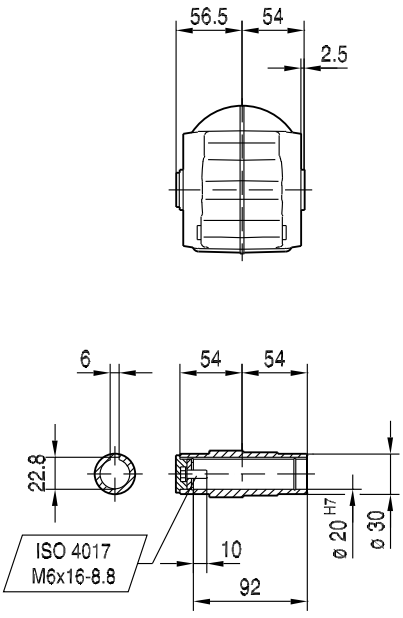
KA19..



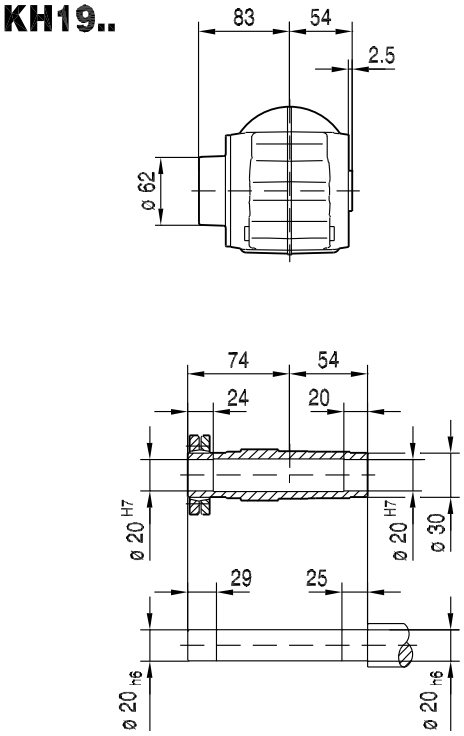
K.. /T



KA19..



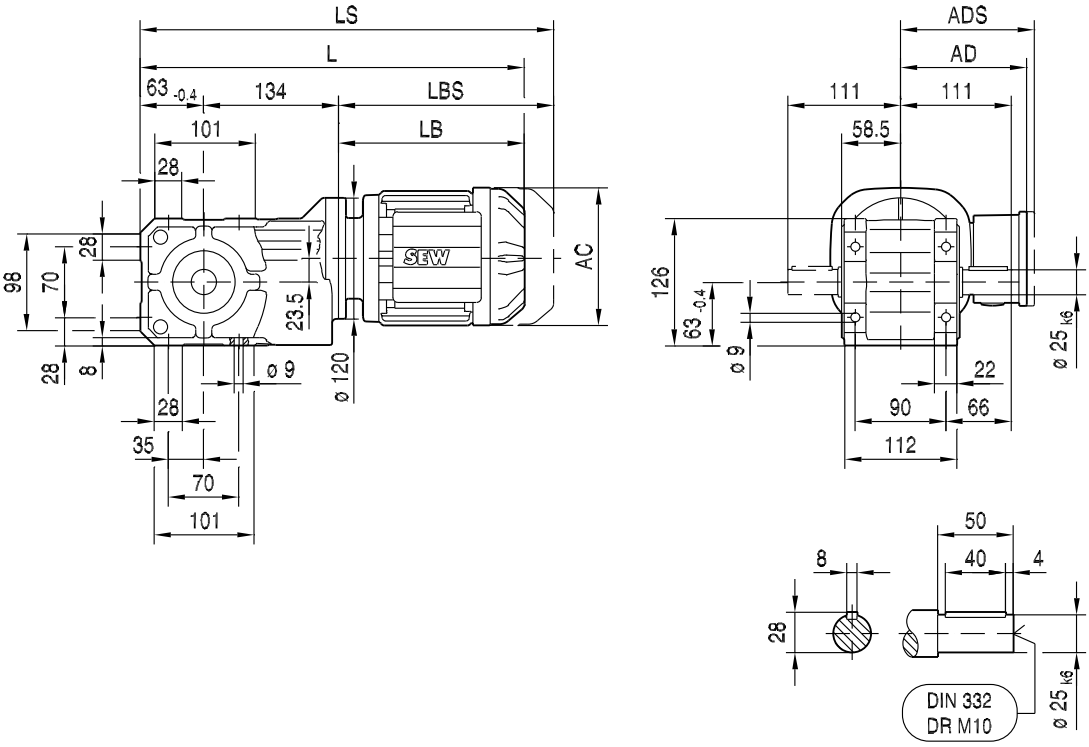
KH19..



(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S			
AC	132	139	139	156	179			
AD	105	119	119	128	140			
ADS	105	129	129	139	150			
L	357	368	393	448	449			
LS	412	436	461	529	543			
LB	191	202	227	282	283			
LBS	246	270	295	363	377			

33 015 01 15

K29..

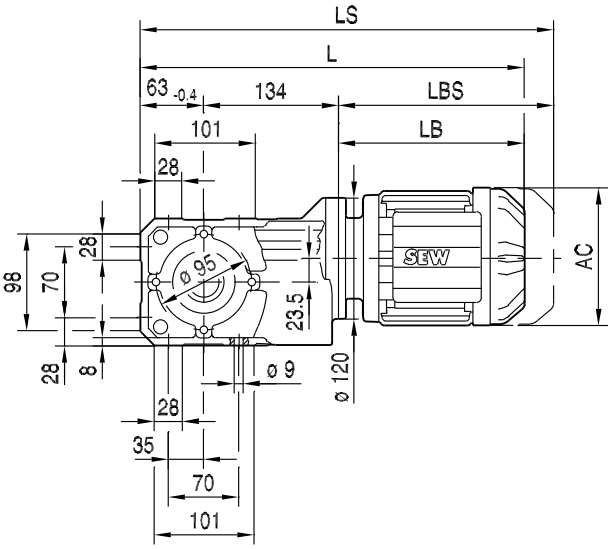


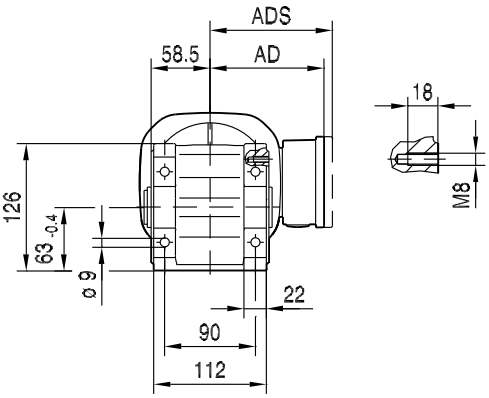
(→ 🗎 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	388	399	424	479	480	512		
LS	443	467	492	560	574	606		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

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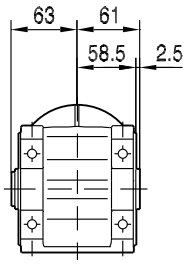
33 364 00 15

KA29B..

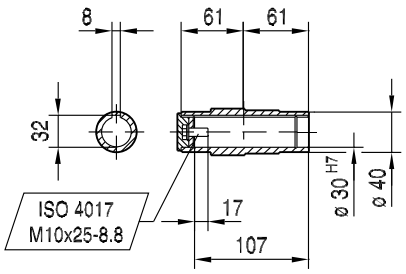




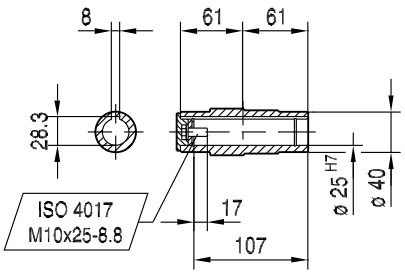
KA29B..



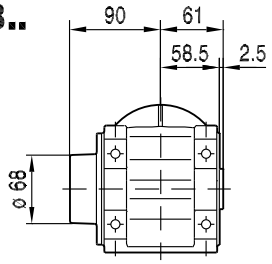
ø 30 H7
DIN 6885-3

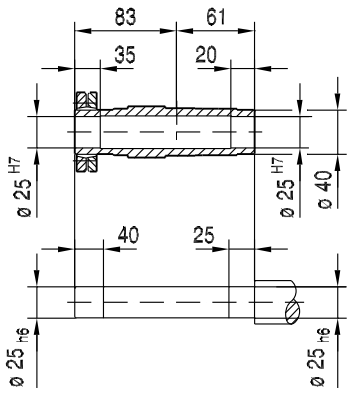


ø 25 H7



KH29B..

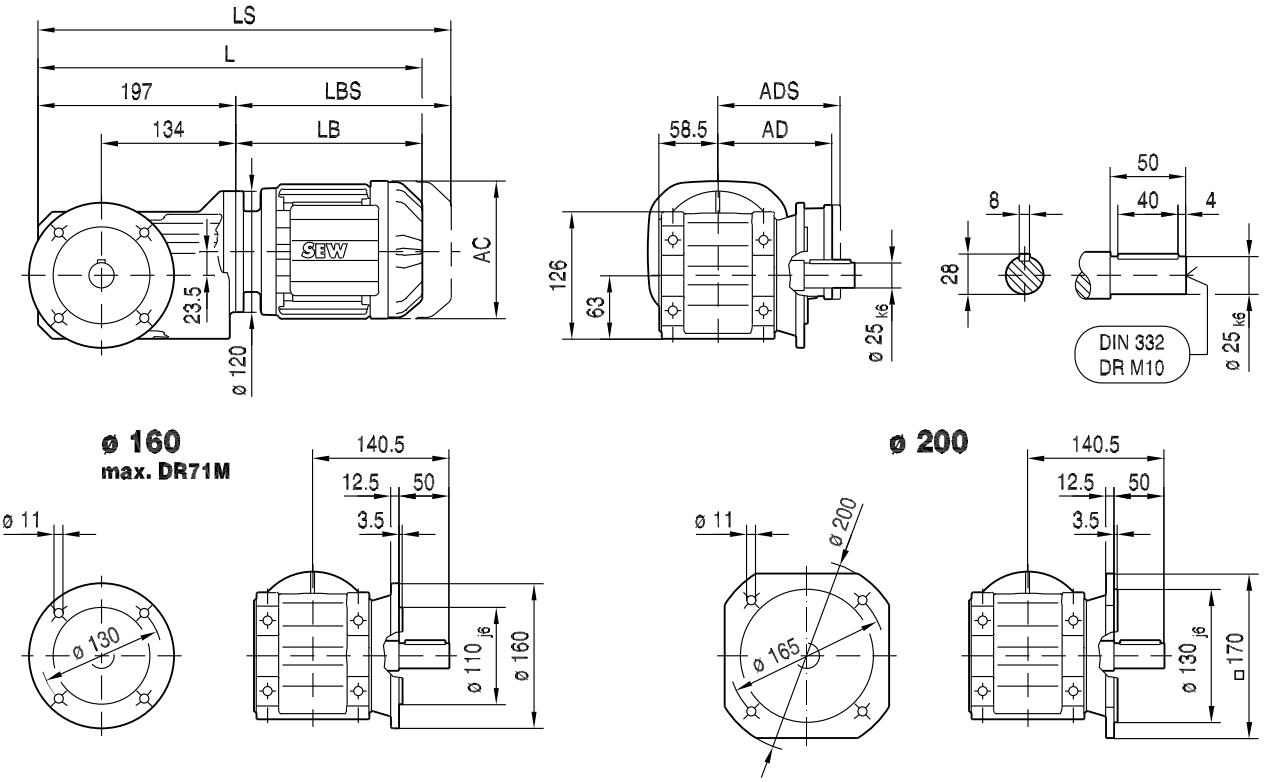




(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	388	399	424	479	480	512		
LS	443	467	492	560	574	606		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

33 016 00 15

KF29B..

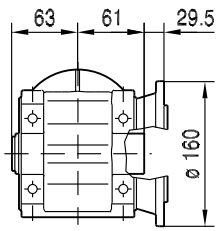


ø 160
max. DR71M

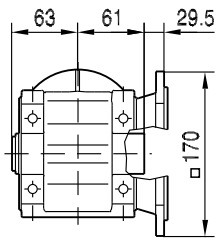
ø 200

KAF29B..

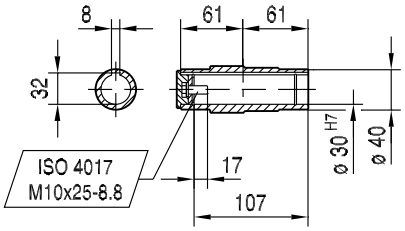
ø 160
max. DR71M



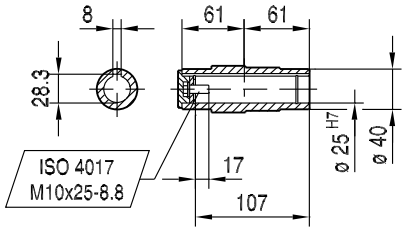
ø 200



ø 30 H7
DIN 6885-3



ø 25 H7

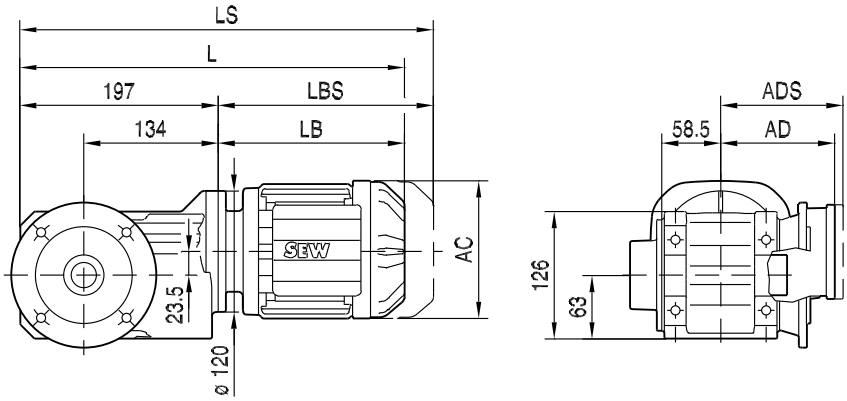


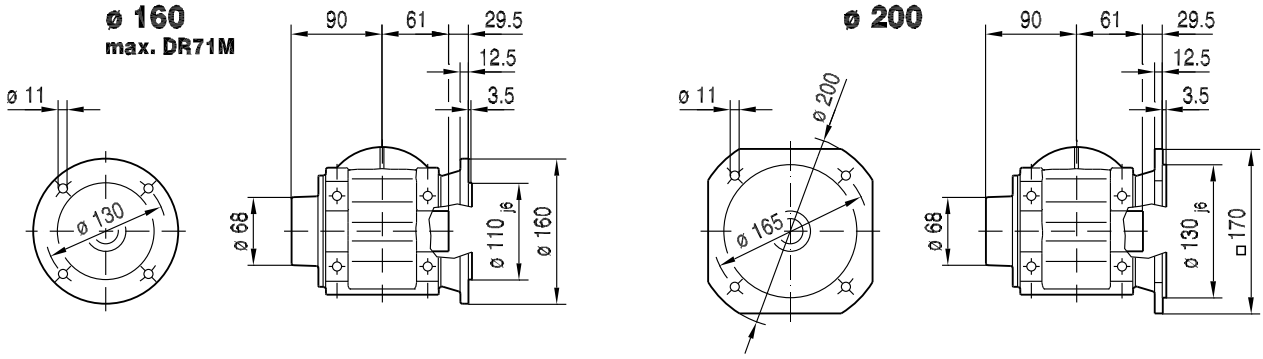
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	388	399	424	479	480	512		
LS	443	467	492	560	574	606		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

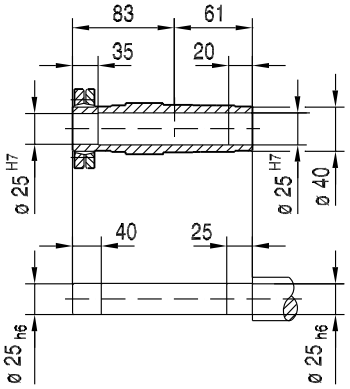
21933189/EN – 11/2015

33 017 00 15

KHF29B..





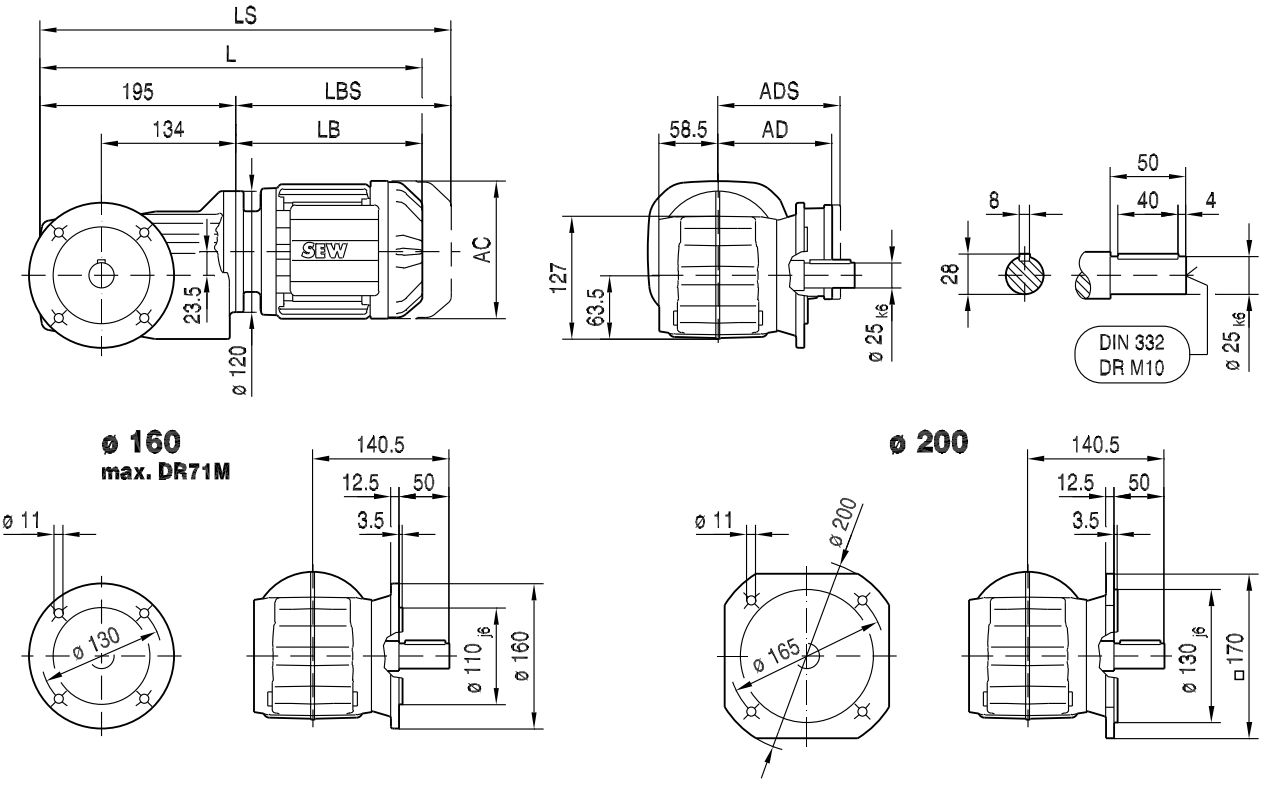


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	388	399	424	479	480	512		
LS	443	467	492	560	574	606		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

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33 018 00 15

KF29..

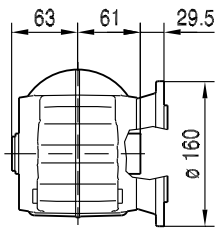


ø 160
max. DR71M

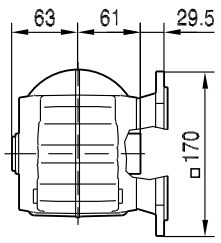
ø 200

KAF29..

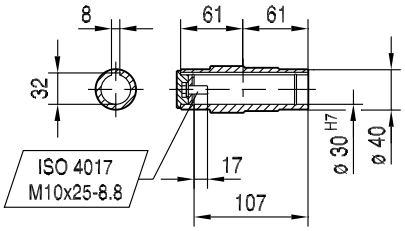
ø 160
max. DR71M



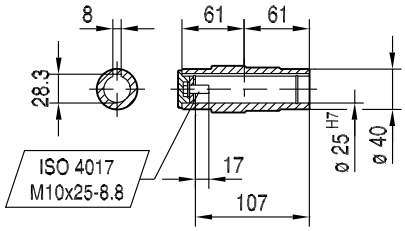
ø 200



ø 30 H7
DIN 6885-3



ø 25 H7

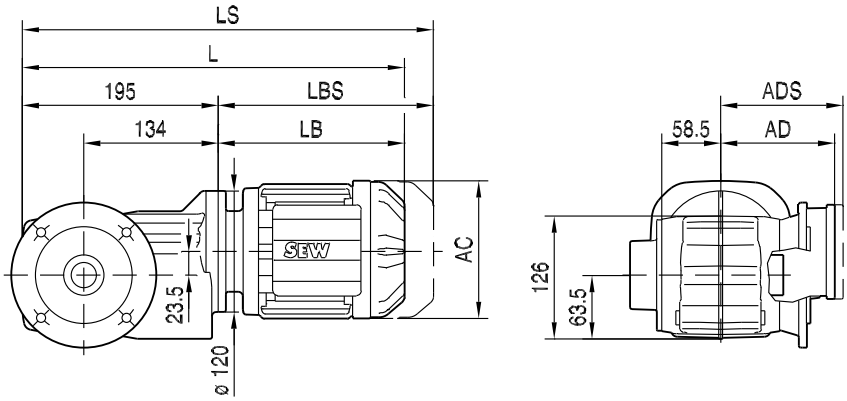


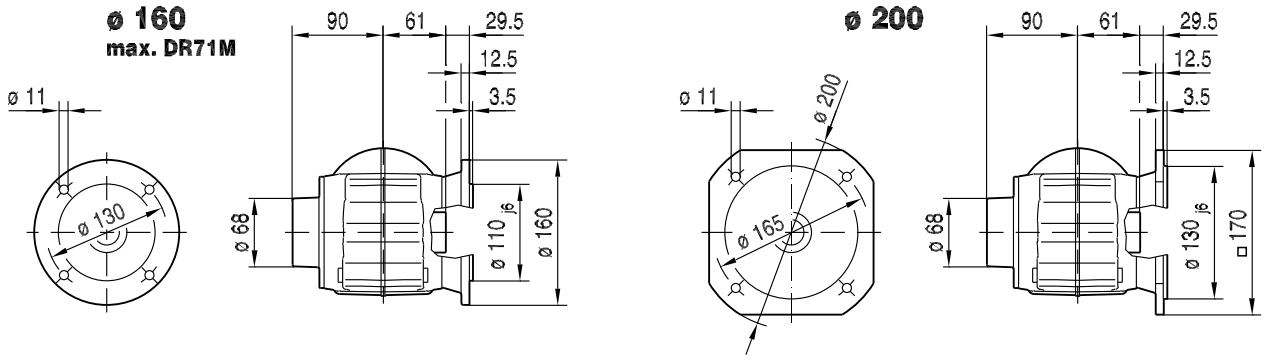
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	386	397	422	477	478	510		
LS	441	465	490	558	572	604		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

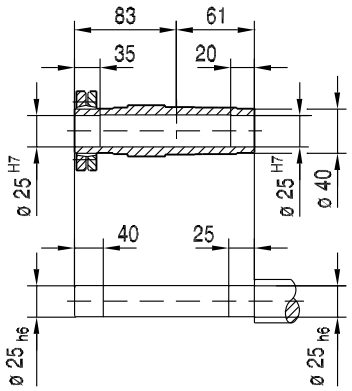
21933189/EN – 11/2015

33 019 00 15

KHF29..



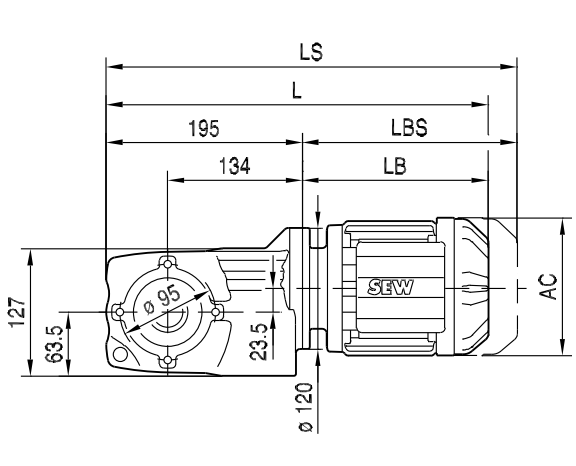




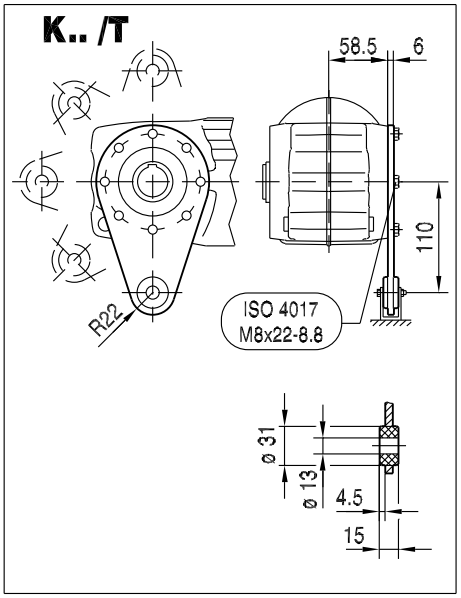
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	386	397	422	477	478	510		
LS	441	465	490	558	572	604		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

33 020 00 15

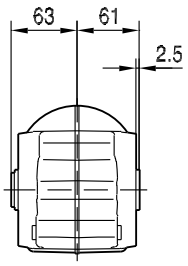
KA29..



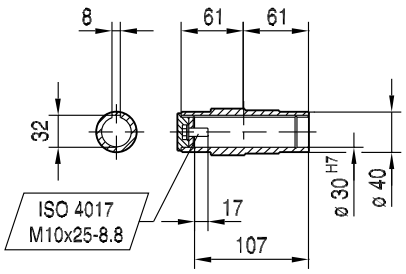
K.. /T



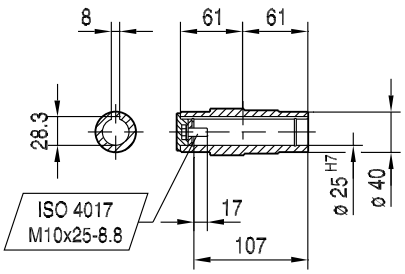
KA29..



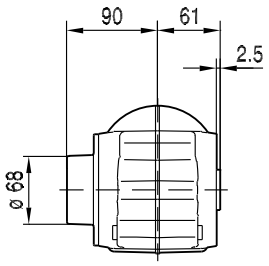
ø 30 H7
DIN 6885-3

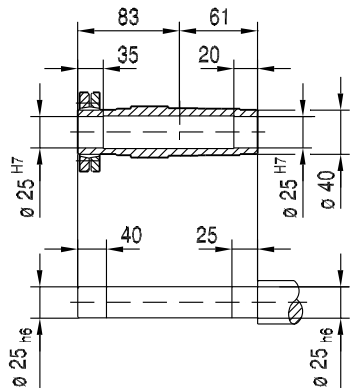


ø 25 H7



KH29..



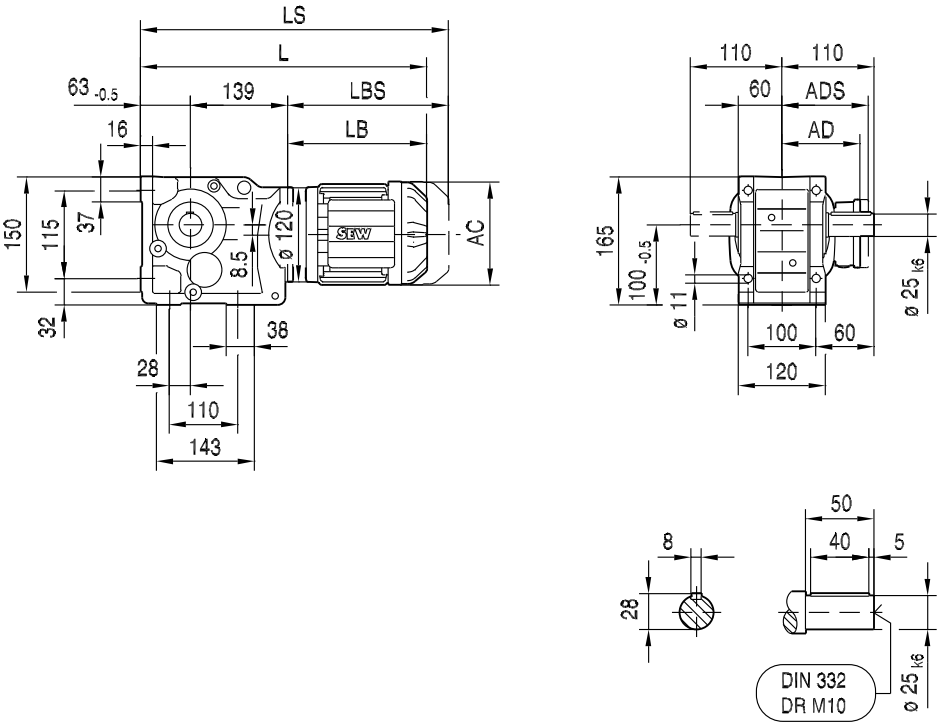


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	386	397	422	477	478	510		
LS	441	465	490	558	572	604		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

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33 037 00 14

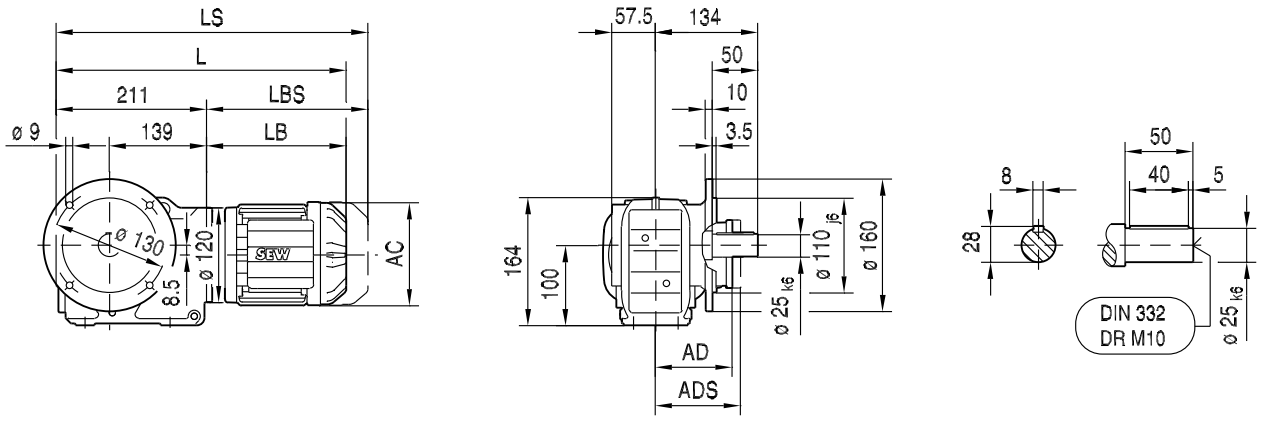
K37..



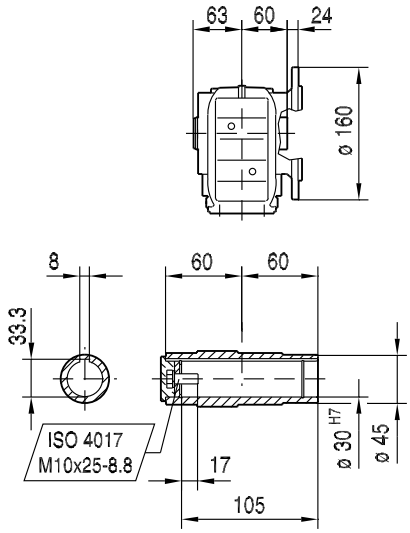
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	393	404	429	484	485	517	516	566
LS	448	472	497	565	579	611	610	660
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

33 038 00 14

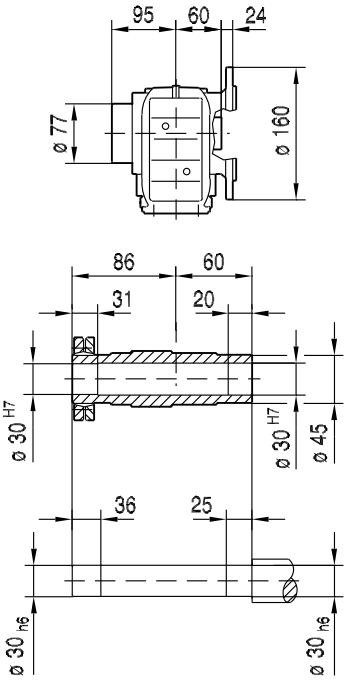
KF37..



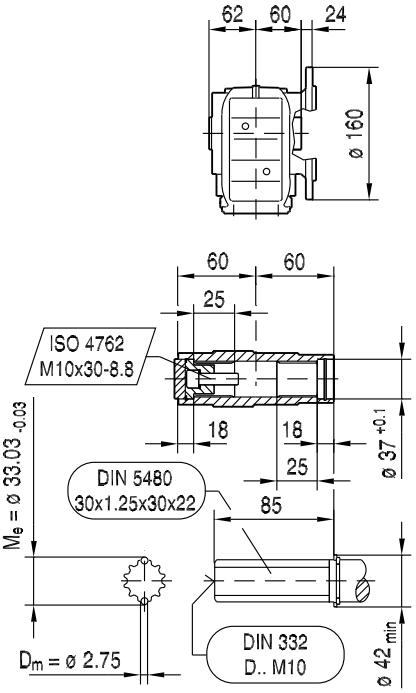
KAF37..



KHF37..



KVF37..

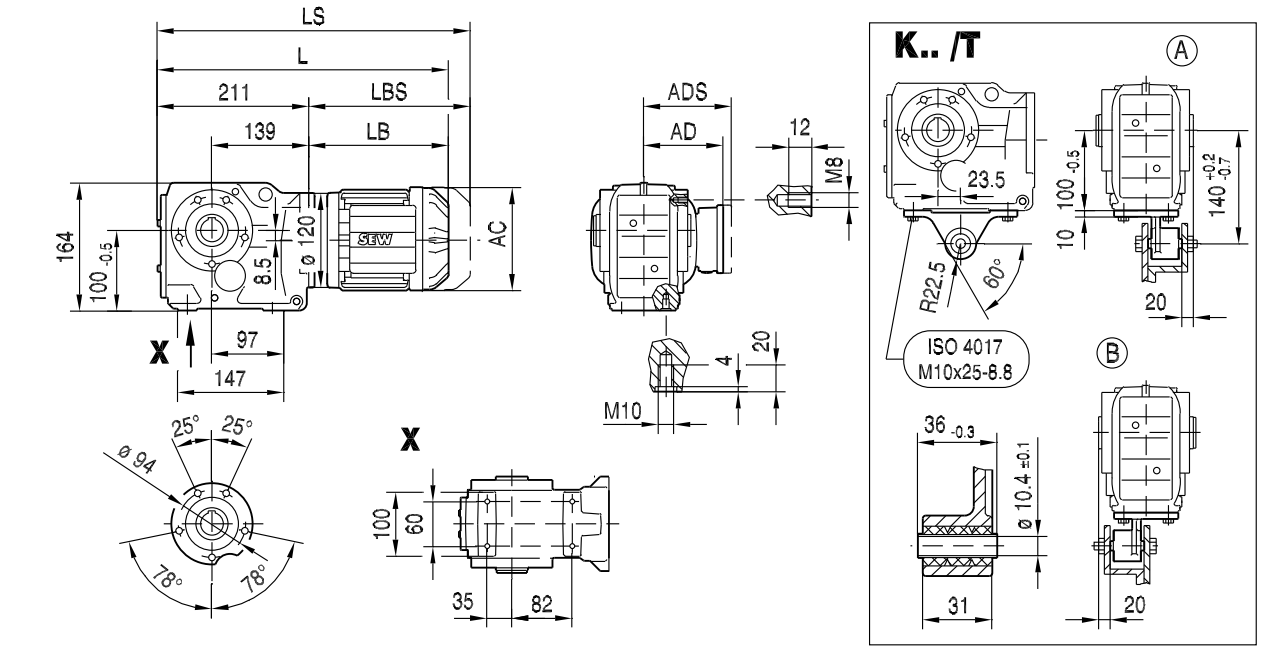


(→ 🗎 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	402	413	438	493	494	526	525	575
LS	457	481	506	574	588	620	619	669
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

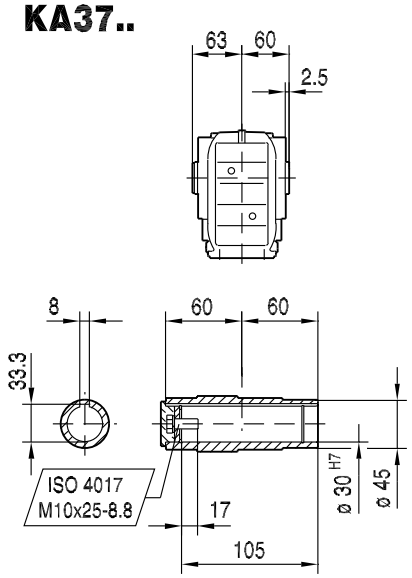
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33 039 00 14

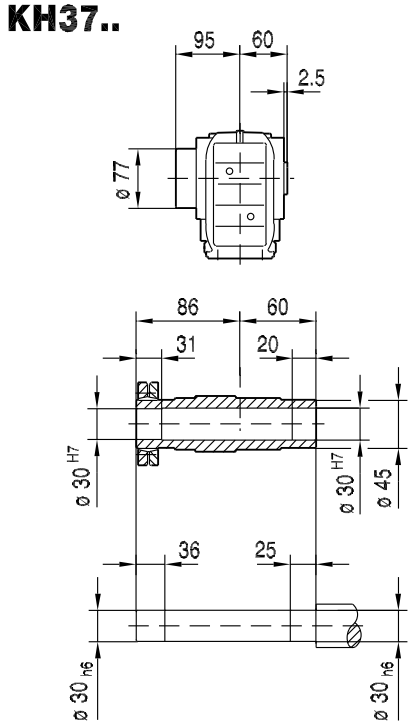
KA37..



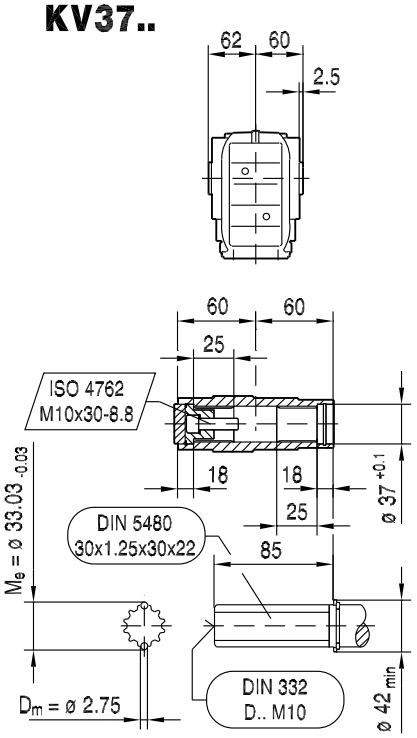
KA37..



KH37..



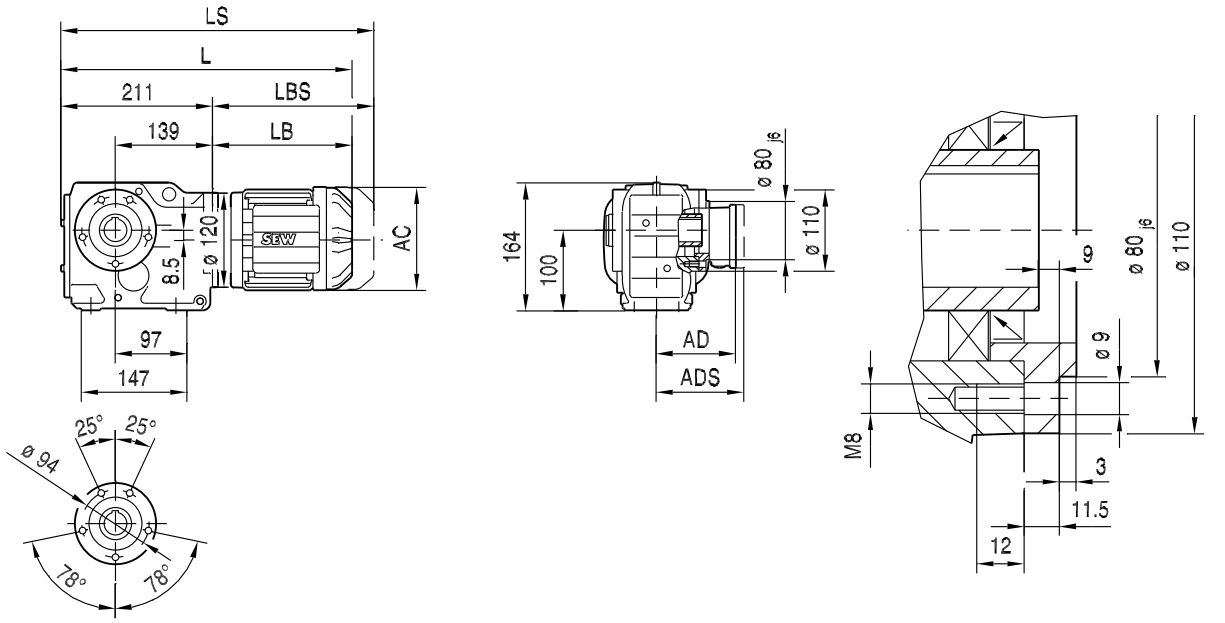
KV37..



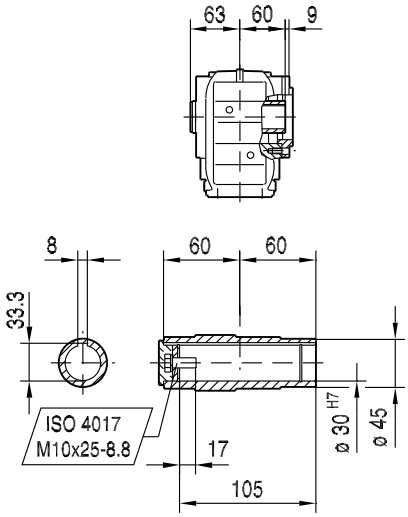
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	402	413	438	493	494	526	525	575
LS	457	481	506	574	588	620	619	669
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

KAZ37..

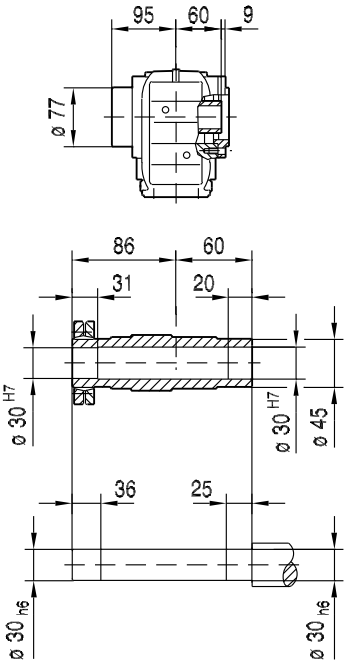
33 040 00 14



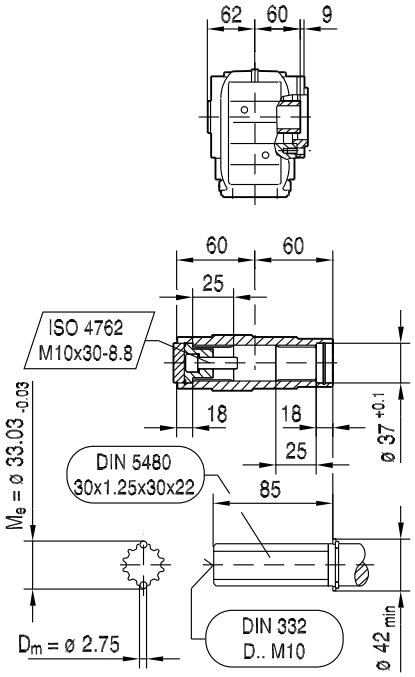
KAZ37..



KHZ37..



KVZ37..

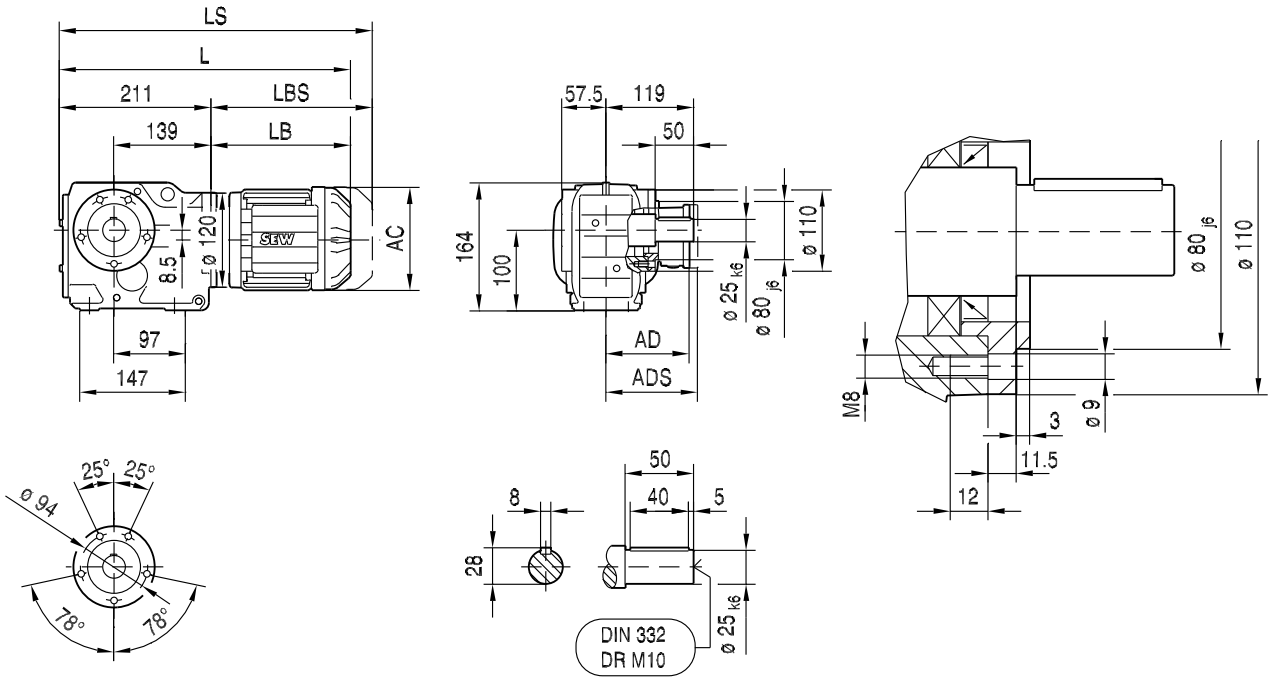


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	402	413	438	493	494	526	525	575
LS	457	481	506	574	588	620	619	669
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

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KZ37..

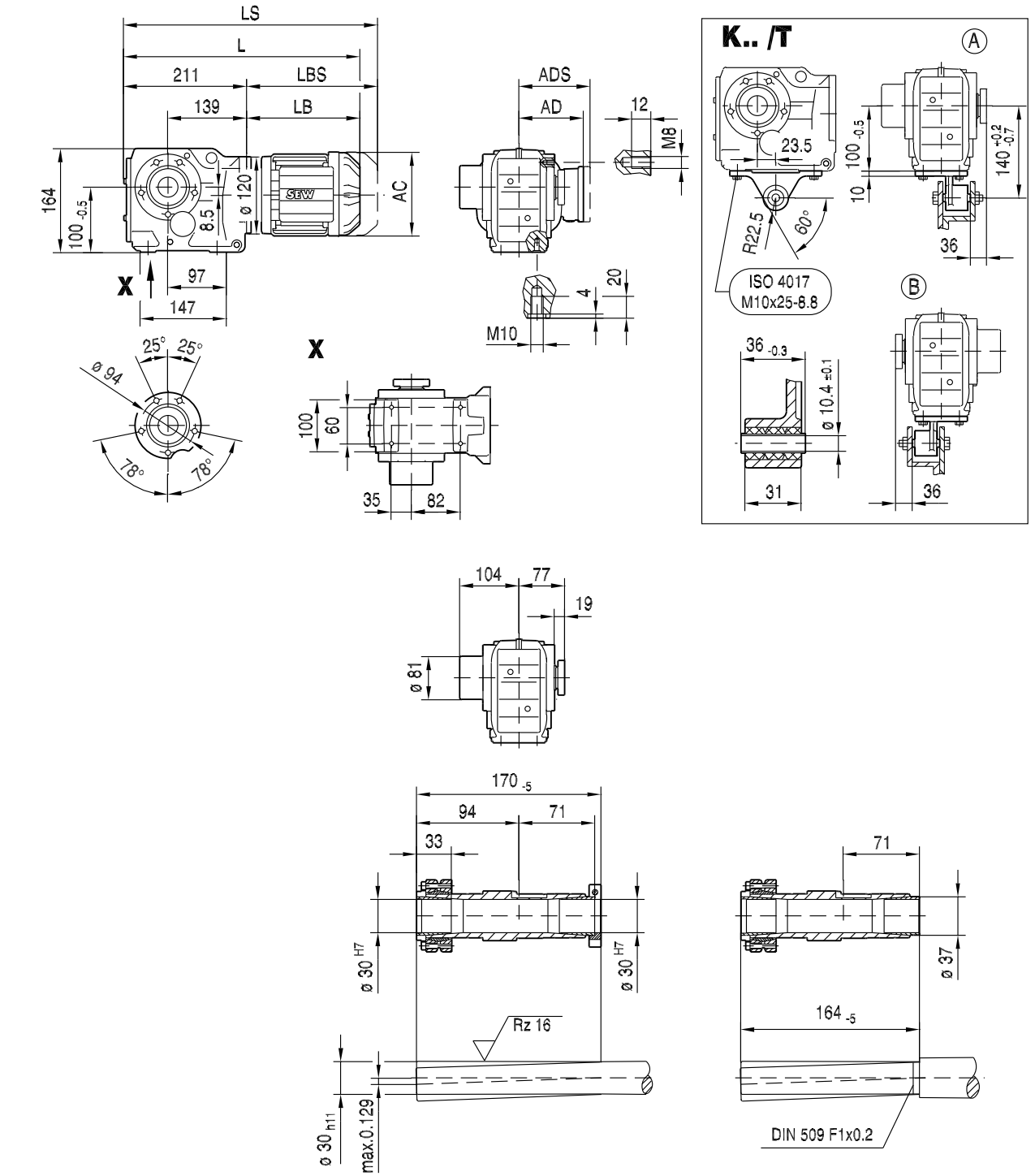
33 232 00 15



(→ 🗎 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	402	413	438	493	494	526	525	575
LS	457	481	506	574	588	620	619	669
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

KT37..

33 041 00 14

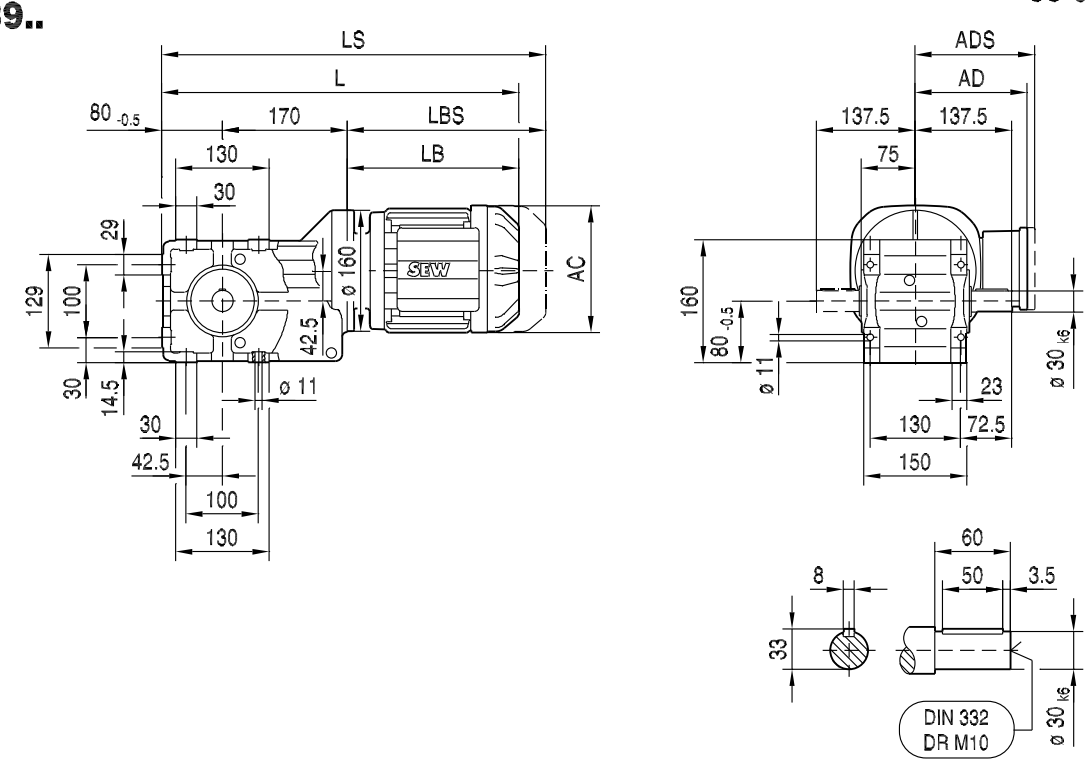


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	402	413	438	493	494	526	525	575
LS	457	481	506	574	588	620	619	669
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

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33 021 00 14

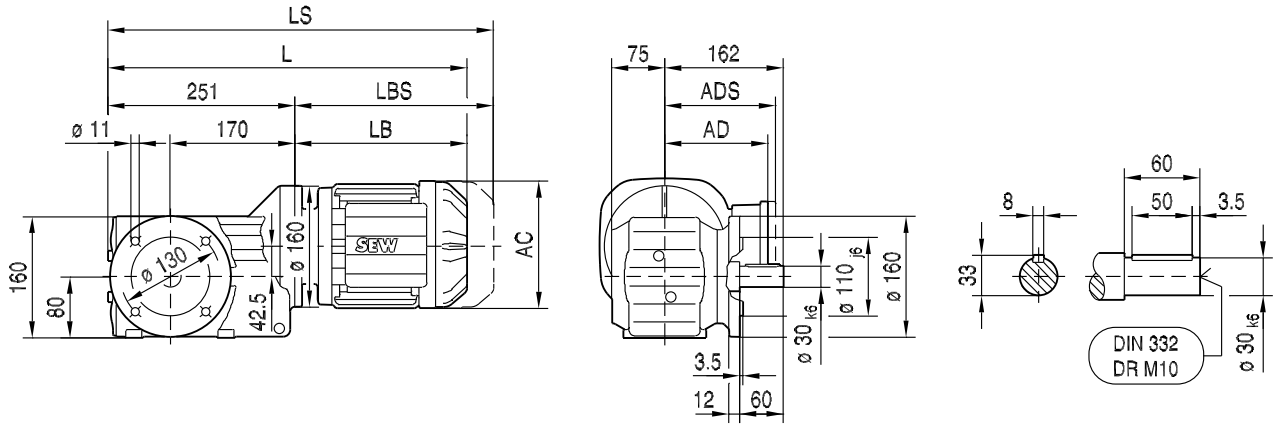
K39..



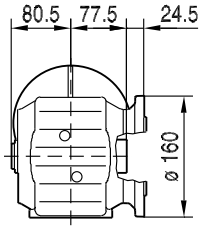
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M
AC	132	139	139	156	179	179	197	197	221
AD	105	119	119	128	140	140	157	157	170
ADS	105	129	129	139	150	150	158	158	172
L	435	446	471	525	527	559	555	605	636
LS	490	514	539	606	620	652	649	699	748
LB	185	196	221	275	277	309	305	355	386
LBS	240	264	289	356	370	402	399	449	498

33 022 00 14

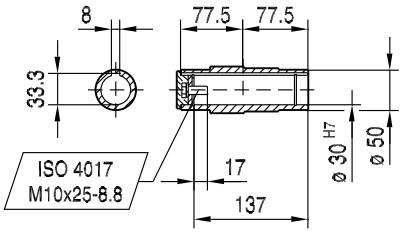
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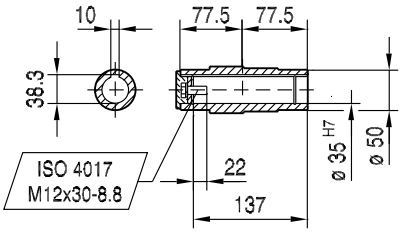
KAF39..



ø 30 H7



ø 35 H7

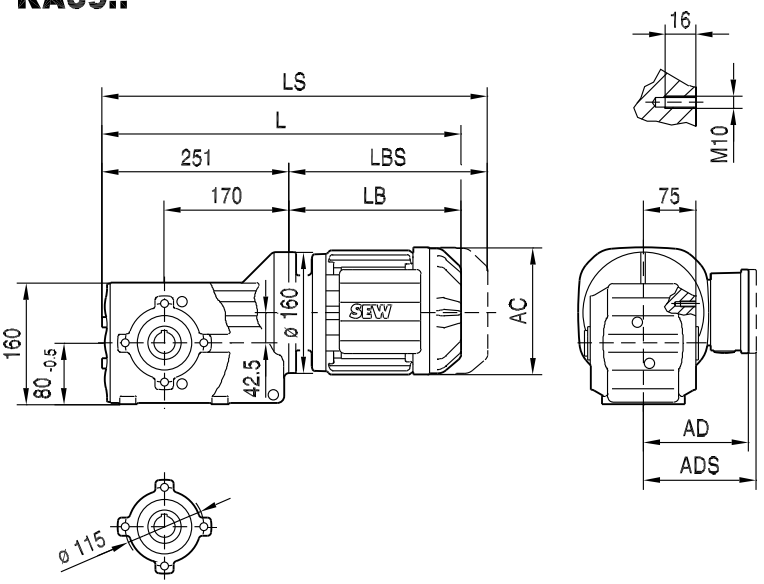


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M
AC	132	139	139	156	179	179	197	197	221
AD	105	119	119	128	140	140	157	157	170
ADS	105	129	129	139	150	150	158	158	172
L	436	447	472	526	528	560	556	606	637
LS	491	515	540	607	621	653	650	700	749
LB	185	196	221	275	277	309	305	355	386
LBS	240	264	289	356	370	402	399	449	498

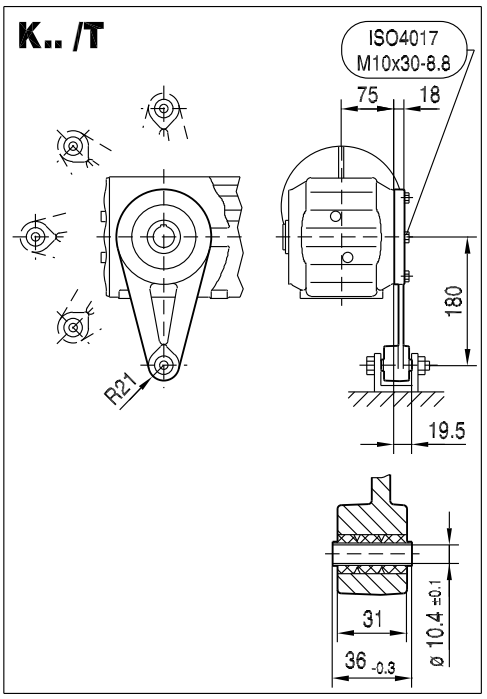
21933189/EN – 11/2015

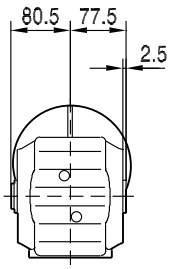
33 023 00 14

KA39..

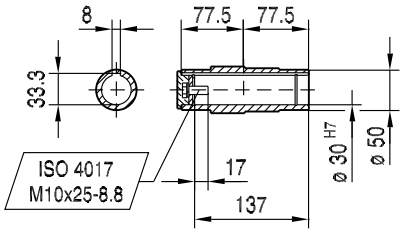


K.. /T

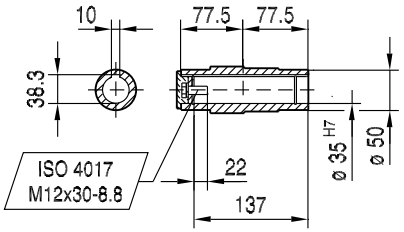




ø 30 H7



ø 35 H7

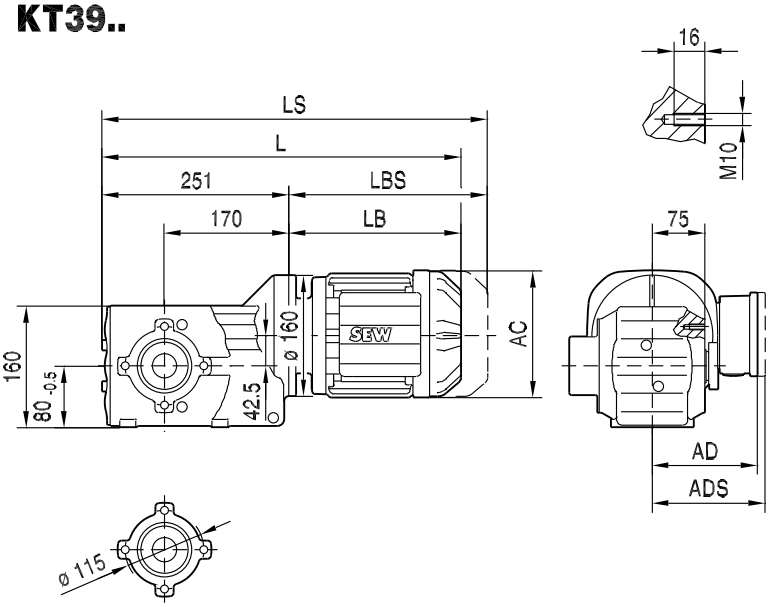


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M
AC	132	139	139	156	179	179	197	197	221
AD	105	119	119	128	140	140	157	157	170
ADS	105	129	129	139	150	150	158	158	172
L	436	447	472	526	528	560	556	606	637
LS	491	515	540	607	621	653	650	700	749
LB	185	196	221	275	277	309	305	355	386
LBS	240	264	289	356	370	402	399	449	498

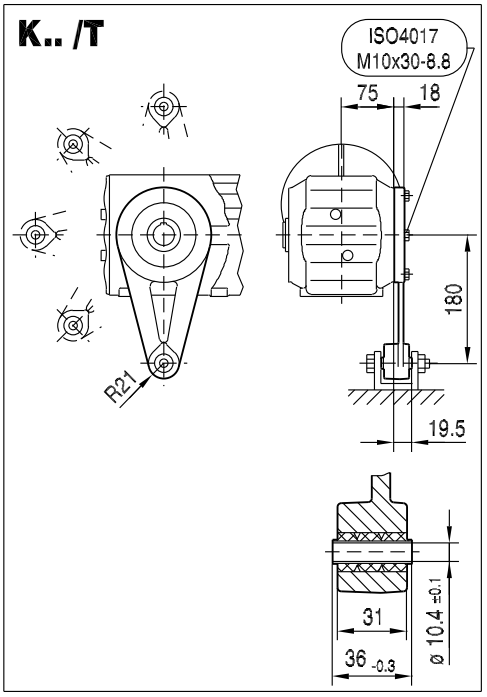
21933189/EN – 11/2015

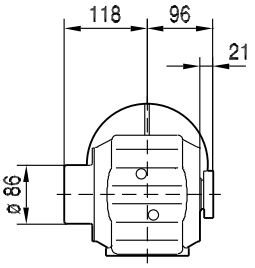
33 024 00 14

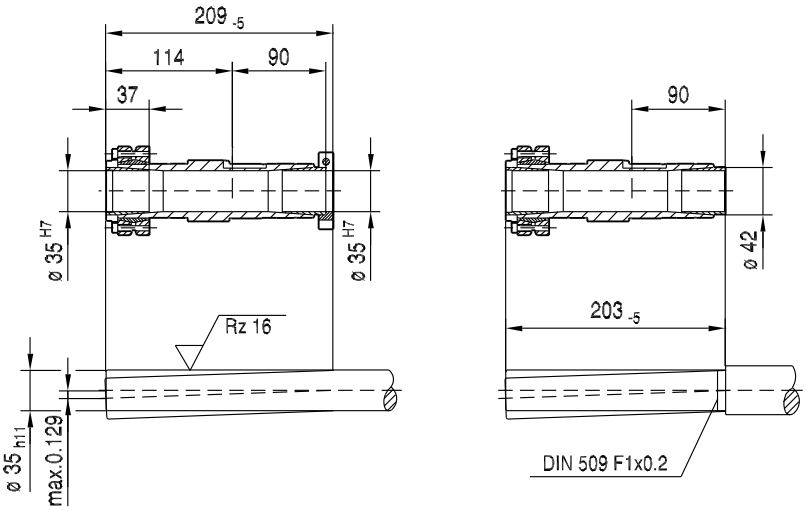
KT39..



K.. /T





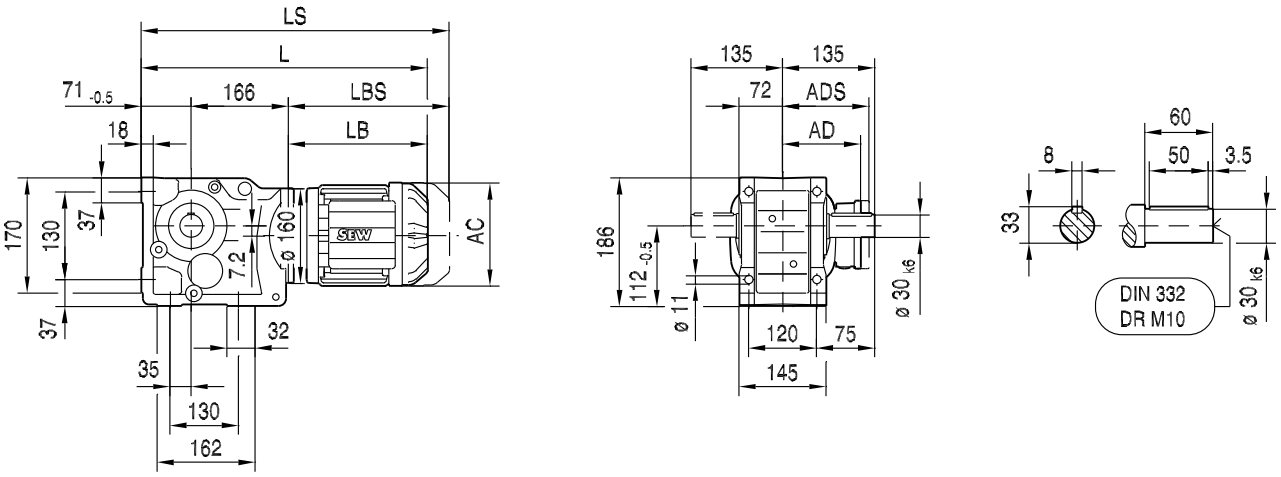


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M
AC	132	139	139	156	179	179	197	197	221
AD	105	119	119	128	140	140	157	157	170
ADS	105	129	129	139	150	150	158	158	172
L	436	447	472	526	528	560	556	606	637
LS	491	515	540	607	621	653	650	700	749
LB	185	196	221	275	277	309	305	355	386
LBS	240	264	289	356	370	402	399	449	498

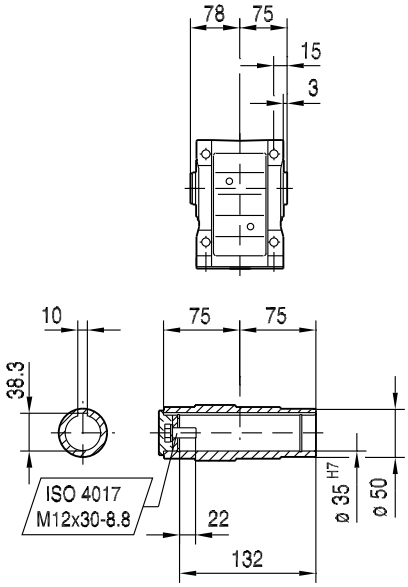
21933189/EN – 11/2015

K47..

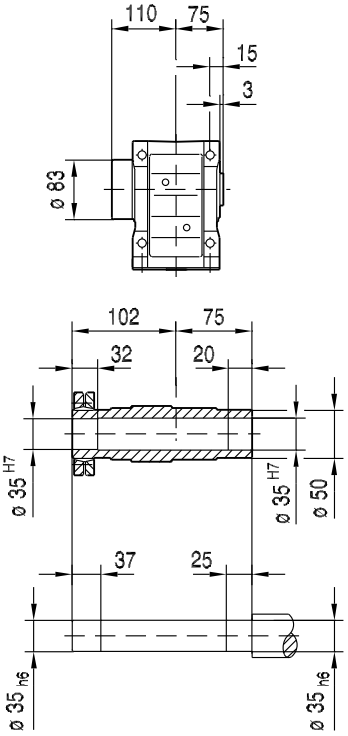
33 042 00 14



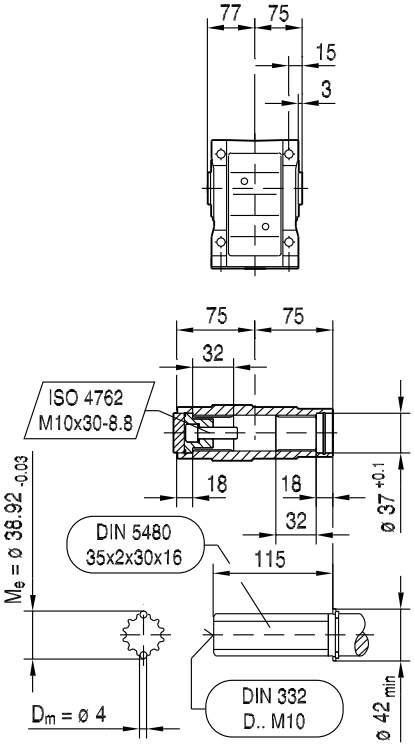
KA47B..



KH47B..



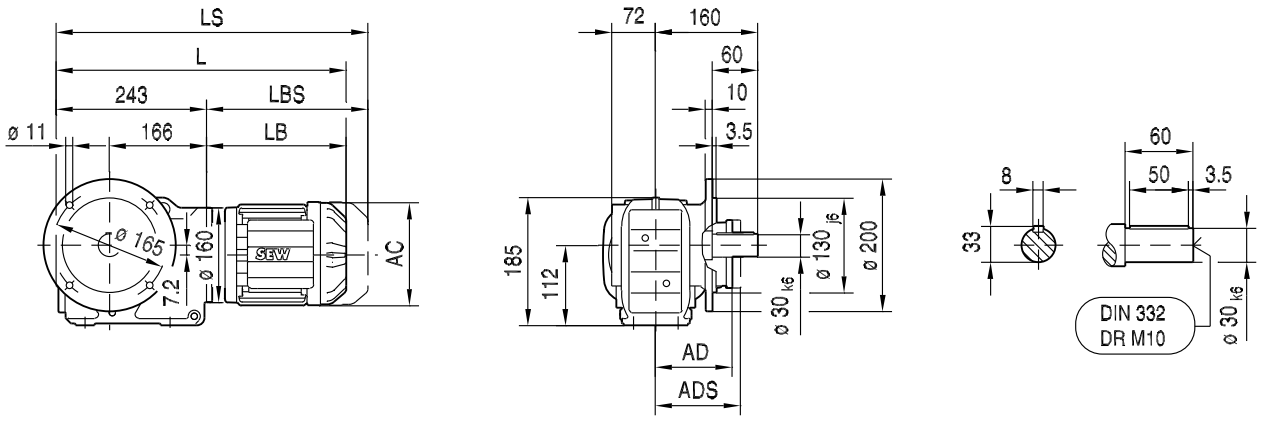
KV47B..



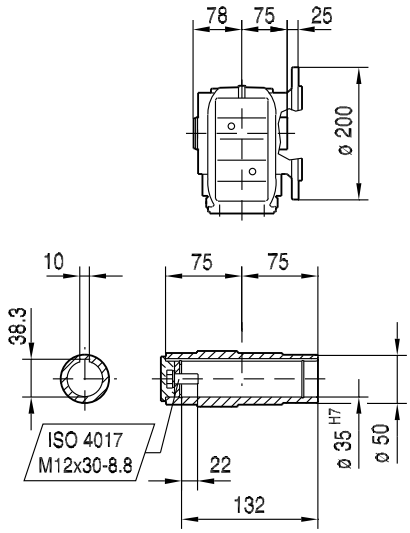
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	422	433	458	512	514	546	542	592
LS	477	501	526	593	607	639	636	686
LB	185	196	221	275	277	309	305	355
LBS	240	264	289	356	370	402	399	449

KF47..

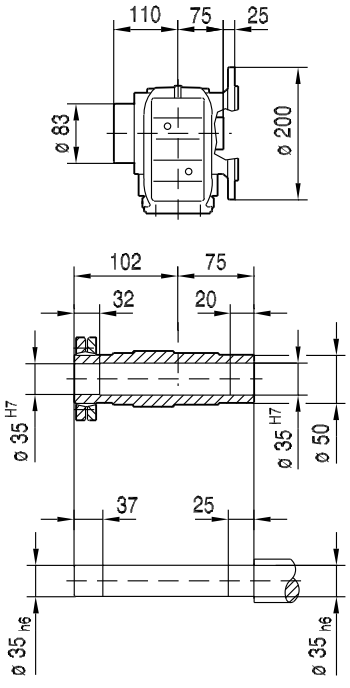
33 043 00 14



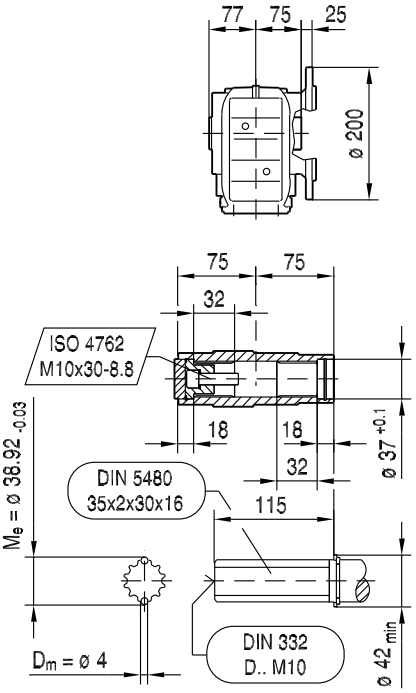
KAF47..



KHF47..



KVF47..

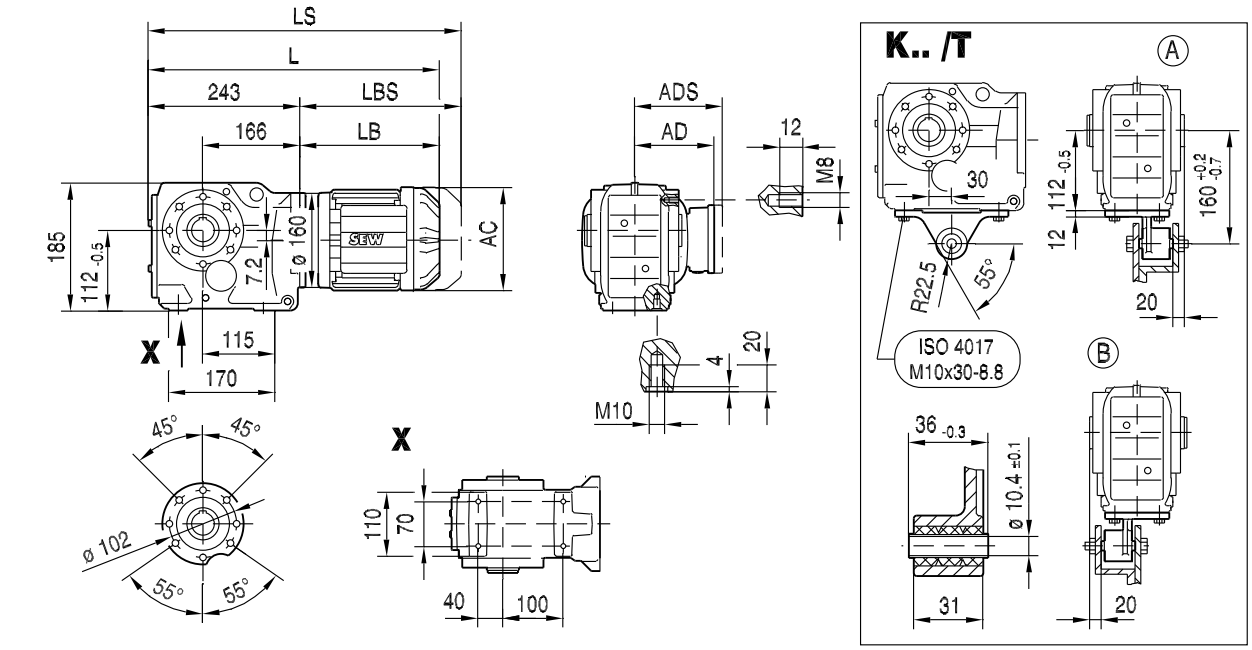


(→ 🗎 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	428	439	464	518	520	552	548	598
LS	483	507	532	599	613	645	642	692
LB	185	196	221	275	277	309	305	355
LBS	240	264	289	356	370	402	399	449

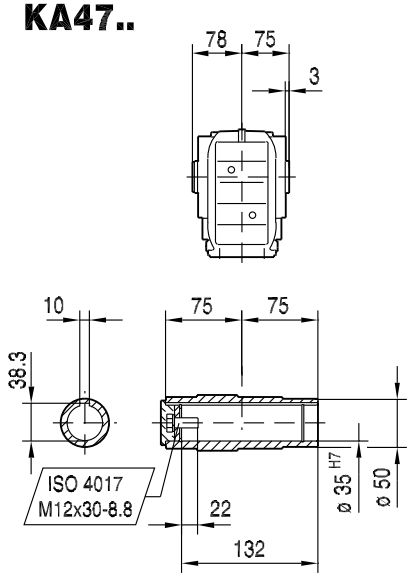
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33 044 00 14

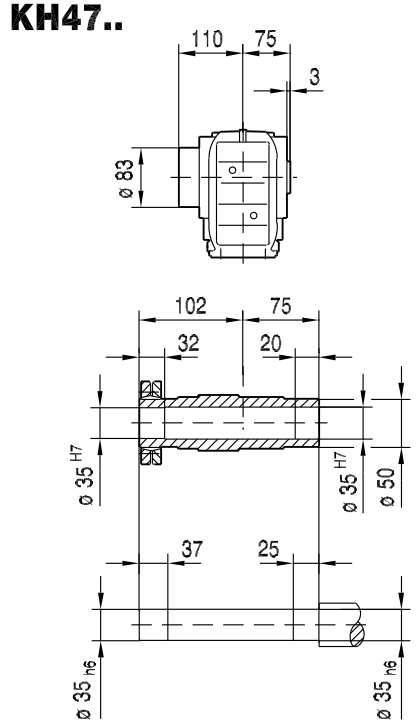
KA47..



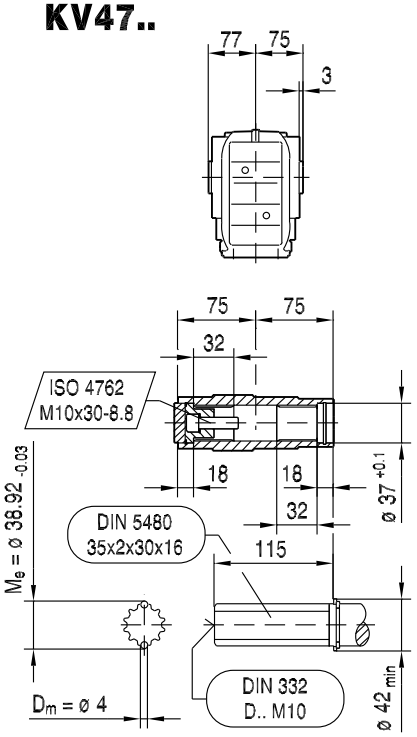
KA47..



KH47..



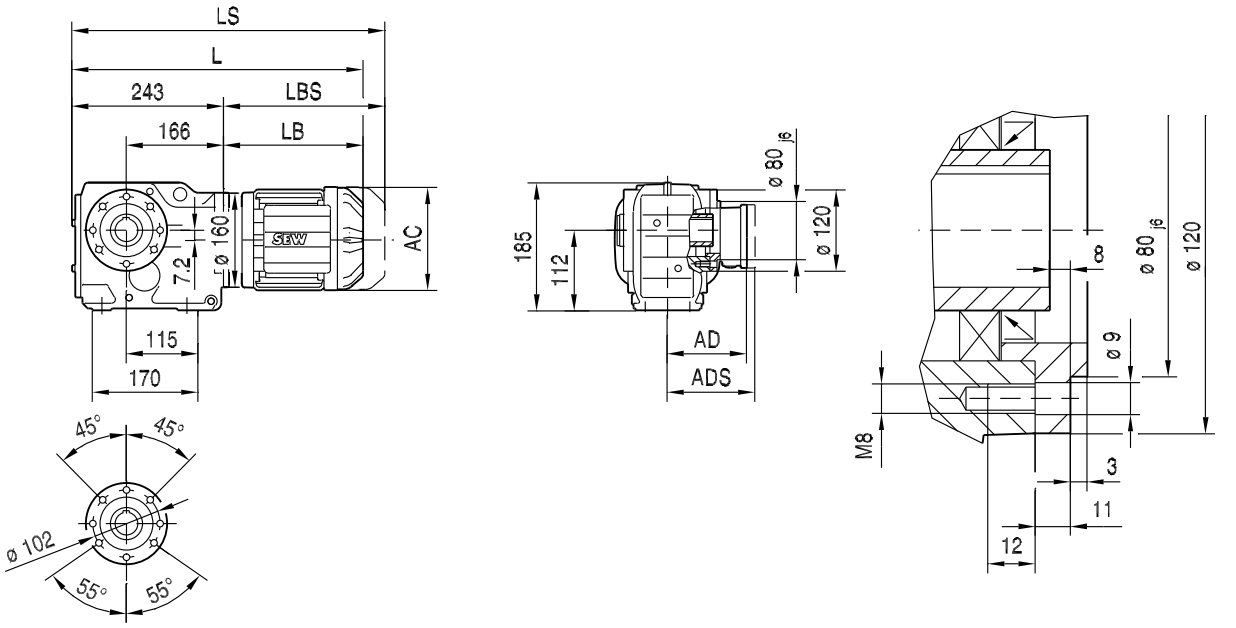
KV47..



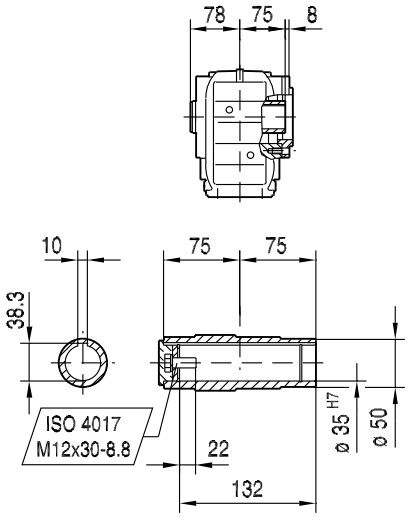
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	428	439	464	518	520	552	548	598
LS	483	507	532	599	613	645	642	692
LB	185	196	221	275	277	309	305	355
LBS	240	264	289	356	370	402	399	449

33 045 00 14

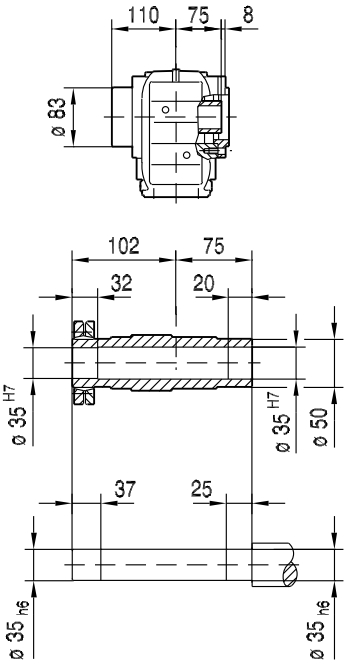
KAZ47..



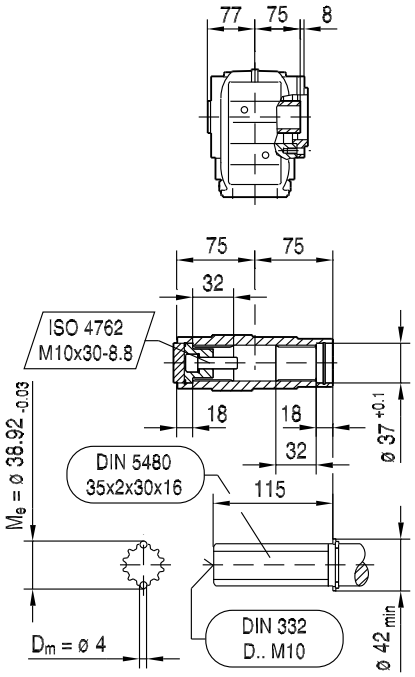
KAZ47..



KHZ47..



KVZ47..

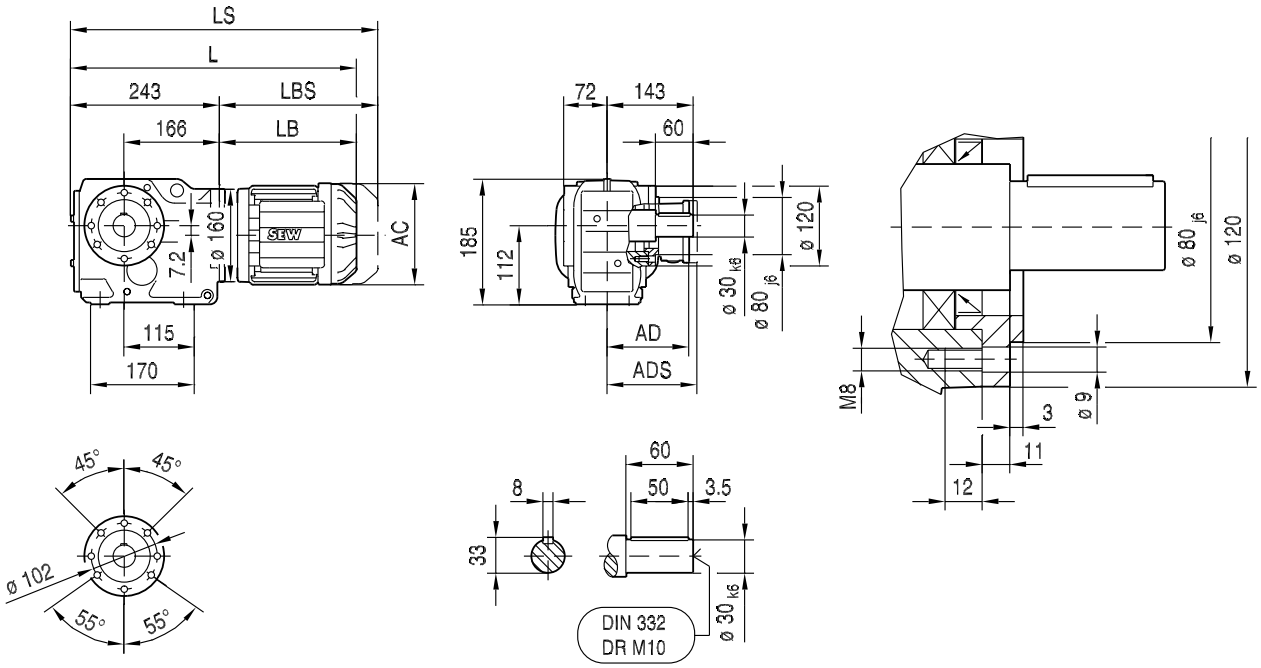


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	428	439	464	518	520	552	548	598
LS	483	507	532	599	613	645	642	692
LB	185	196	221	275	277	309	305	355
LBS	240	264	289	356	370	402	399	449

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33 233 00 15

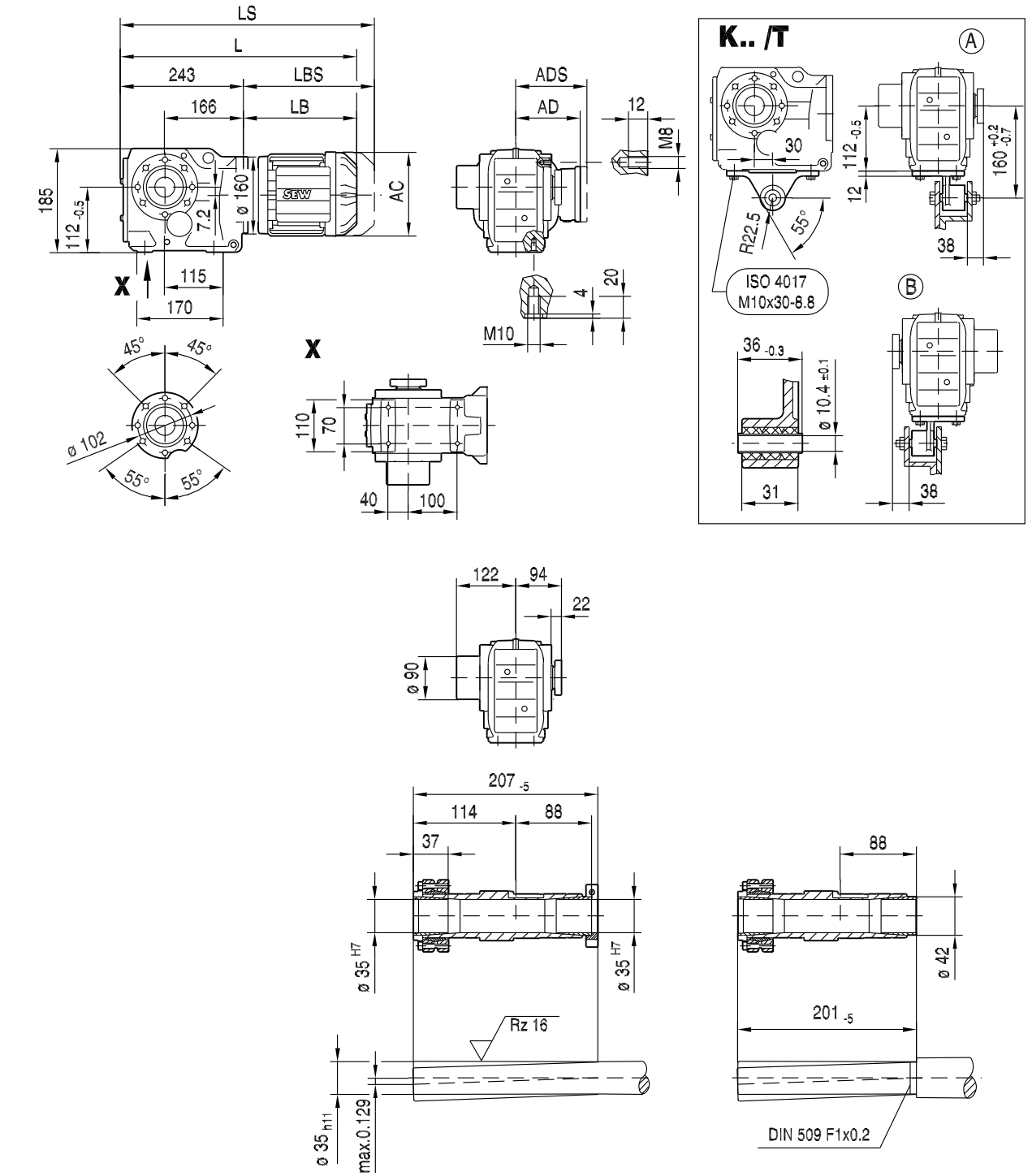
KZ47..



(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	428	439	464	518	520	552	548	598
LS	483	507	532	599	613	645	642	692
LB	185	196	221	275	277	309	305	355
LBS	240	264	289	356	370	402	399	449

KT47..

33 046 00 14

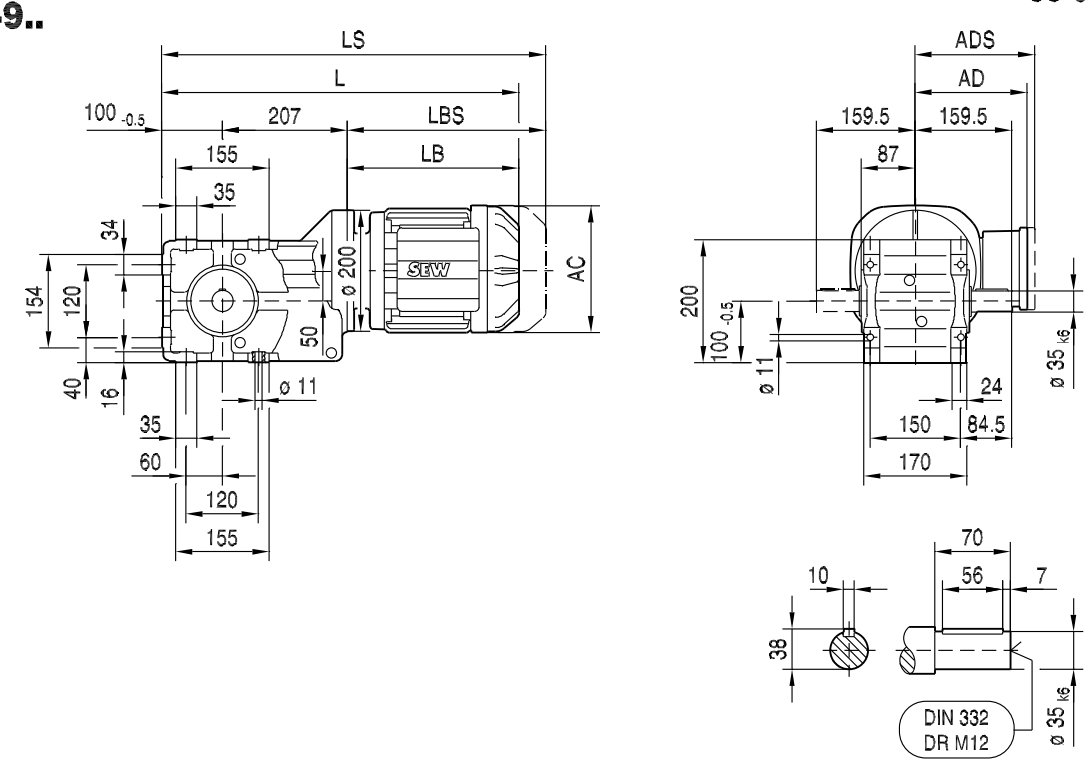


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	428	439	464	518	520	552	548	598
LS	483	507	532	599	613	645	642	692
LB	185	196	221	275	277	309	305	355
LBS	240	264	289	356	370	402	399	449

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33 025 00 14

K49..

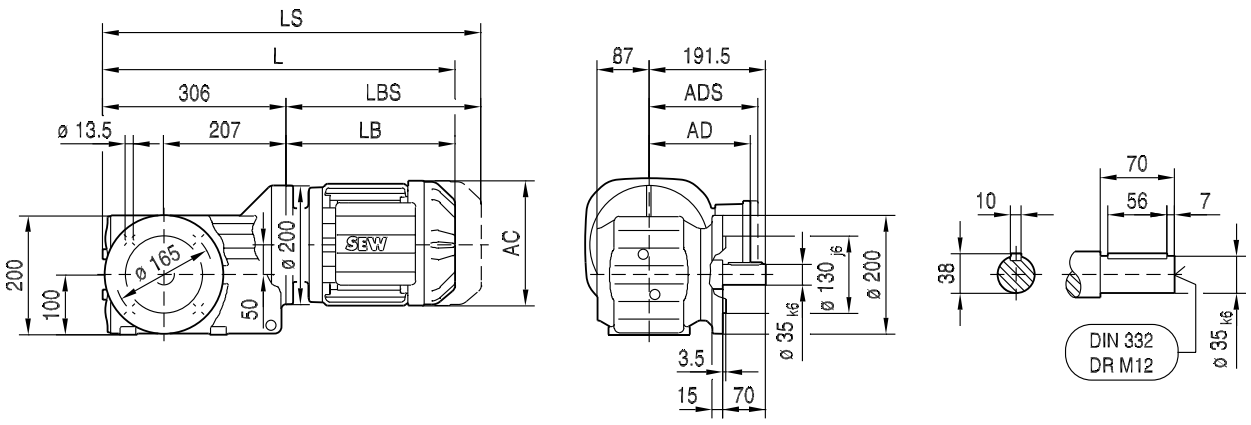


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M
AC	132	139	139	156	179	179	197	197	221	221	261
AD	105	119	119	128	140	140	157	157	170	170	228
ADS	105	129	129	139	150	150	158	158	172	172	228
L	485	496	521	575	577	609	605	655	686	736	754
LS	540	564	589	656	670	702	699	749	798	848	892
LB	178	189	214	268	270	302	298	348	379	429	447
LBS	233	257	282	349	363	395	392	442	491	541	585

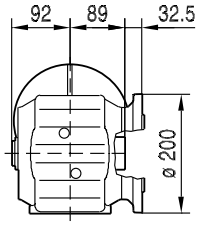
21933189/EN – 11/2015

33 026 01 14

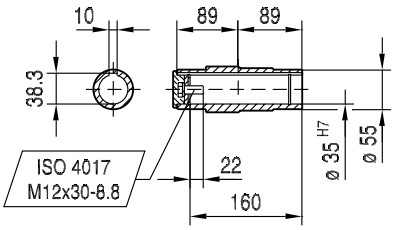
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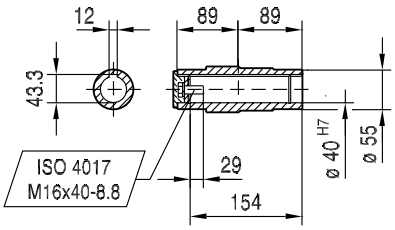
KAF49..



ø 35 H7



ø 40 H7

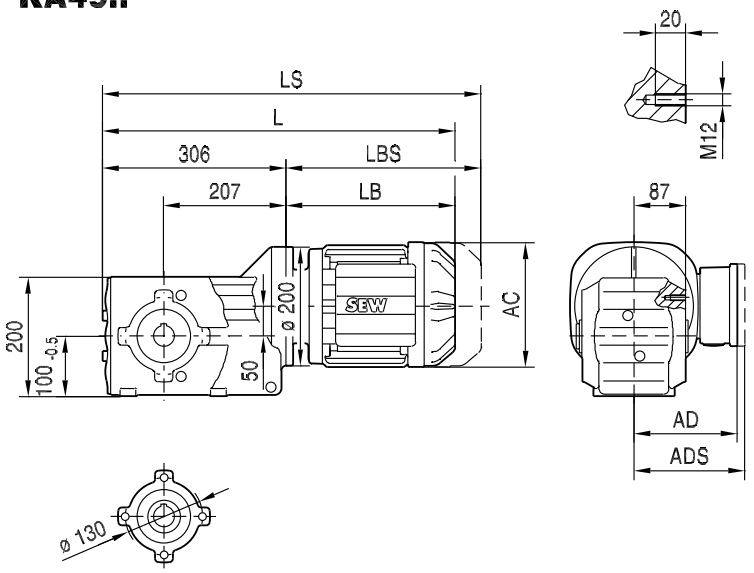


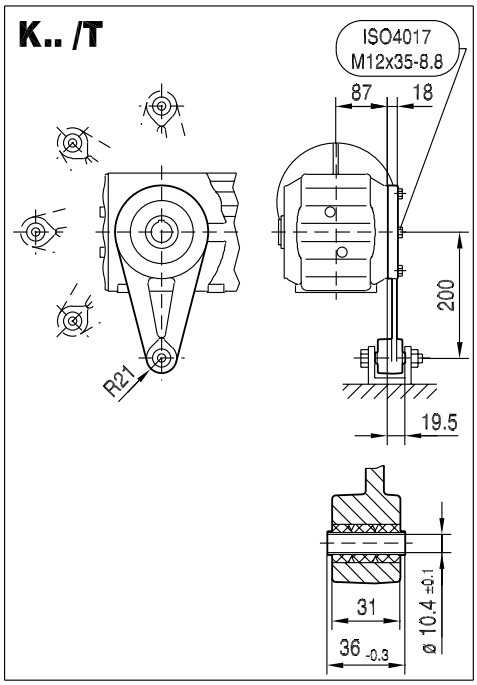
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M
AC	132	139	139	156	179	179	197	197	221	221	261
AD	105	119	119	128	140	140	157	157	170	170	228
ADS	105	129	129	139	150	150	158	158	172	172	228
L	484	495	520	574	576	608	604	654	685	735	753
LS	539	563	588	655	669	701	698	748	797	847	891
LB	178	189	214	268	270	302	298	348	379	429	447
LBS	233	257	282	349	363	395	392	442	491	541	585

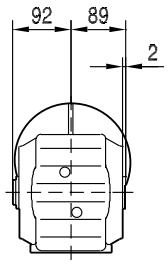
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33 027 01 14

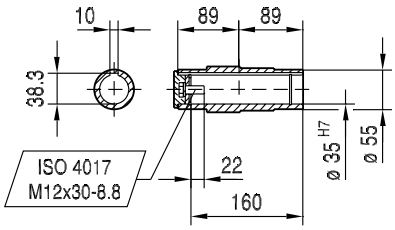
KA49..



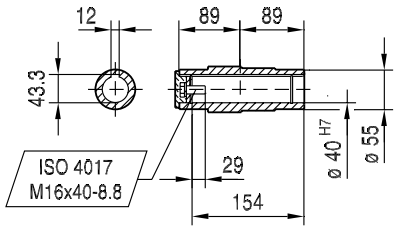




ø 35 H7



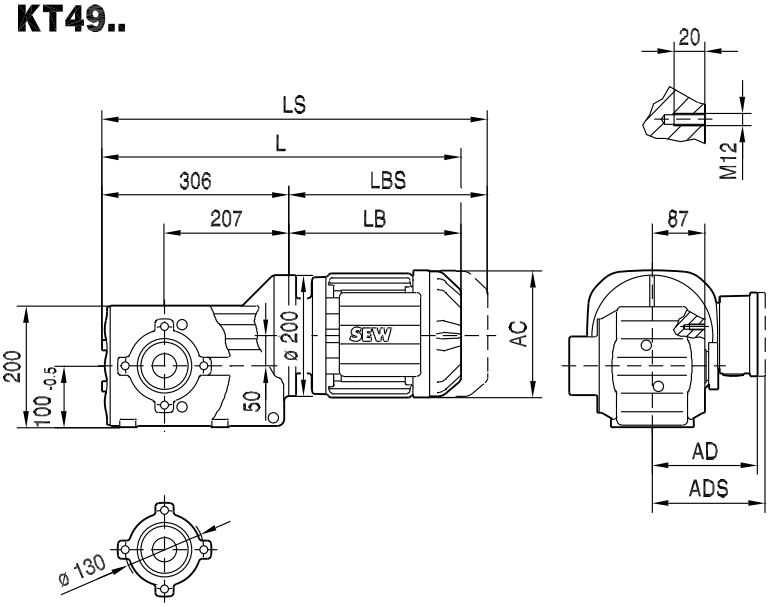
ø 40 H7



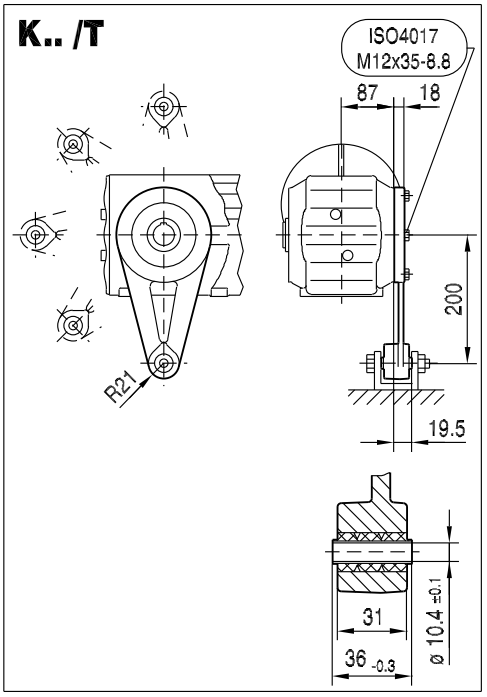
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M
AC	132	139	139	156	179	179	197	197	221	221	261
AD	105	119	119	128	140	140	157	157	170	170	228
ADS	105	129	129	139	150	150	158	158	172	172	228
L	484	495	520	574	576	608	604	654	685	735	753
LS	539	563	588	655	669	701	698	748	797	847	891
LB	178	189	214	268	270	302	298	348	379	429	447
LBS	233	257	282	349	363	395	392	442	491	541	585

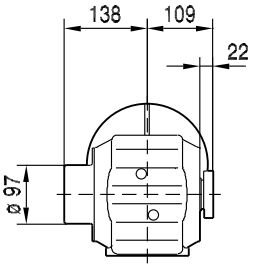
33 028 00 14

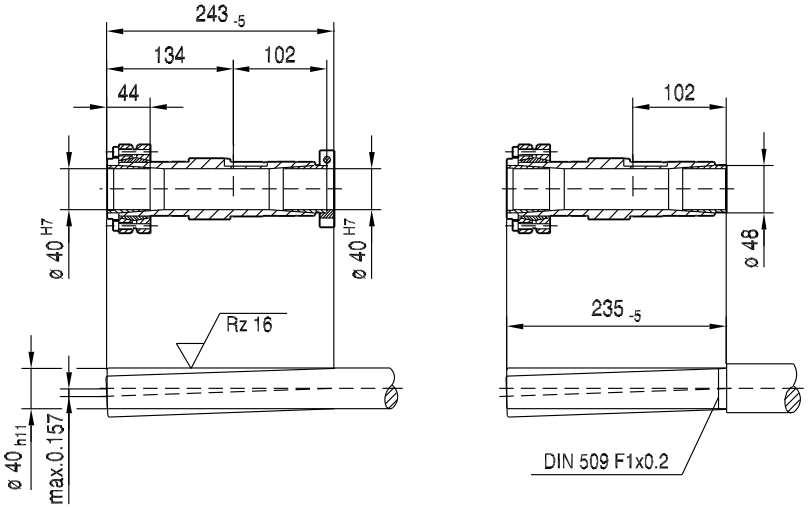
KT49..



K.. /T





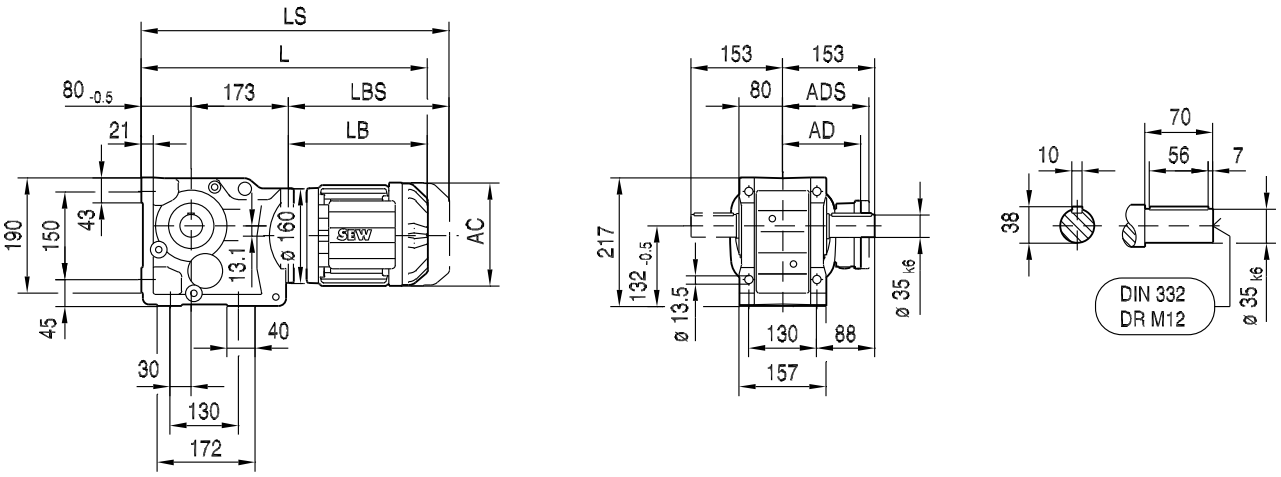


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M
AC	132	139	139	156	179	179	197	197	221	221	261
AD	105	119	119	128	140	140	157	157	170	170	228
ADS	105	129	129	139	150	150	158	158	172	172	228
L	484	495	520	574	576	608	604	654	685	735	753
LS	539	563	588	655	669	701	698	748	797	847	891
LB	178	189	214	268	270	302	298	348	379	429	447
LBS	233	257	282	349	363	395	392	442	491	541	585

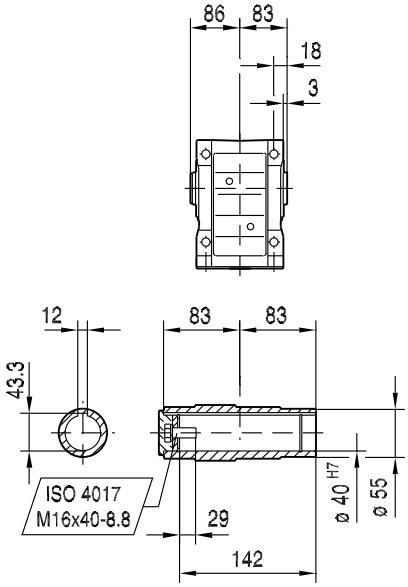
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33 047 00 14

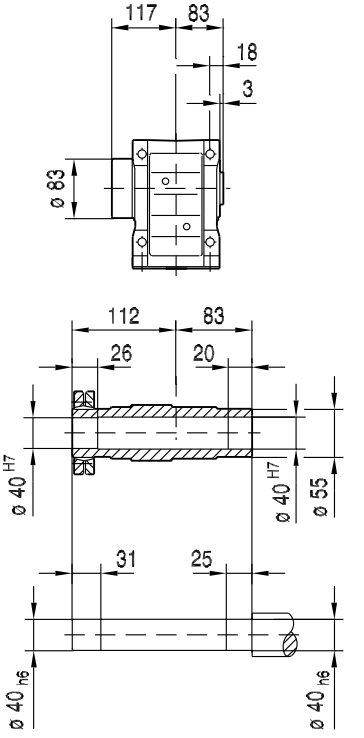
K57..



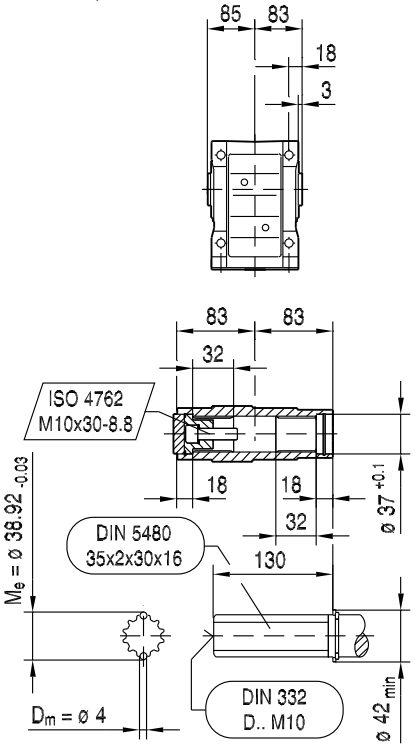
KA57B..



KH57B..



KV57B..

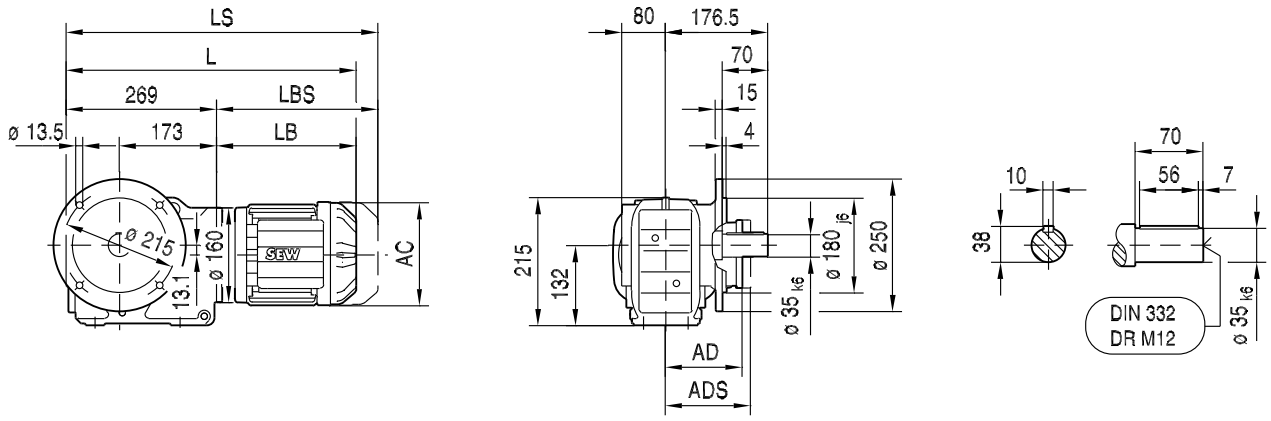


(→ 🗎 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M
AC	132	139	139	156	179	179	197	197	221
AD	105	119	119	128	140	140	157	157	170
ADS	105	129	129	139	150	150	158	158	172
L	438	449	474	528	530	562	558	608	639
LS	493	517	542	609	623	655	652	702	751
LB	185	196	221	275	277	309	305	355	386
LBS	240	264	289	356	370	402	399	449	498

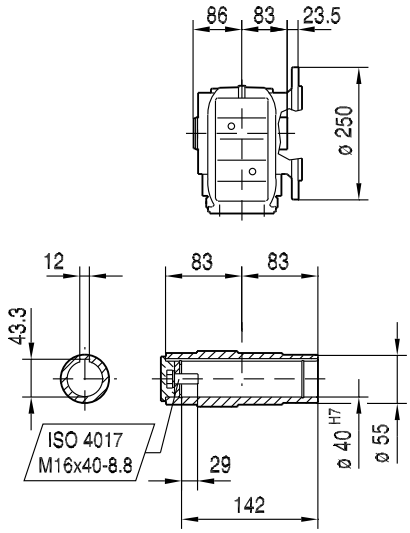
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33 048 00 14

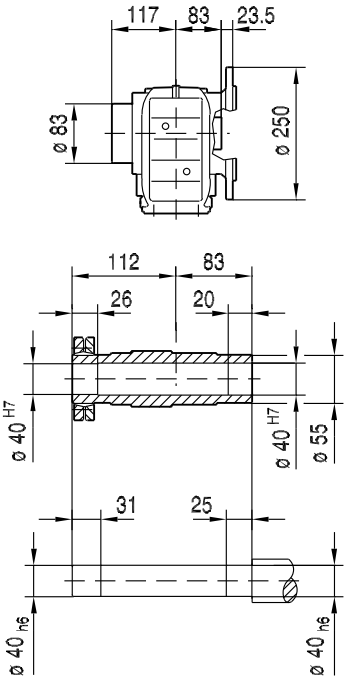
KF57..



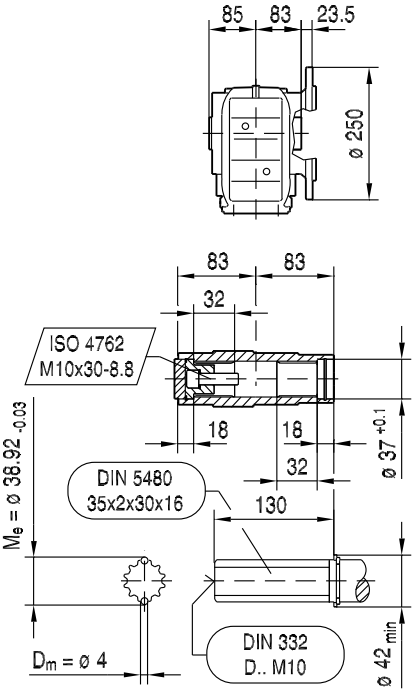
KAF57..



KHF57..



KVF57..

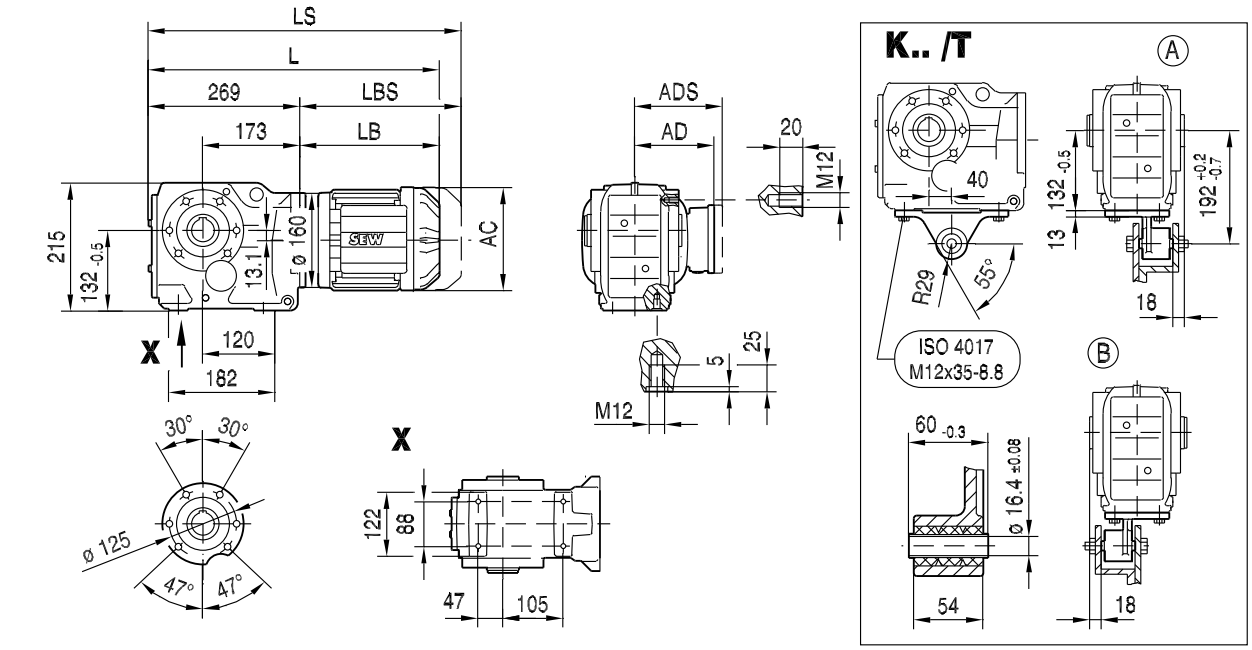


(→ 🗎 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M
AC	132	139	139	156	179	179	197	197	221
AD	105	119	119	128	140	140	157	157	170
ADS	105	129	129	139	150	150	158	158	172
L	454	465	490	544	546	578	574	624	655
LS	509	533	558	625	639	671	668	718	767
LB	185	196	221	275	277	309	305	355	386
LBS	240	264	289	356	370	402	399	449	498

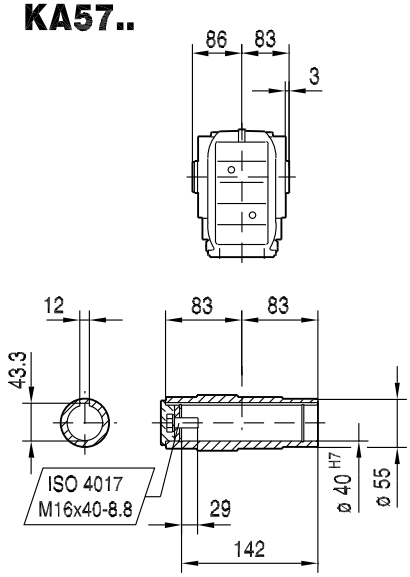
21933189/EN – 11/2015

33 049 00 14

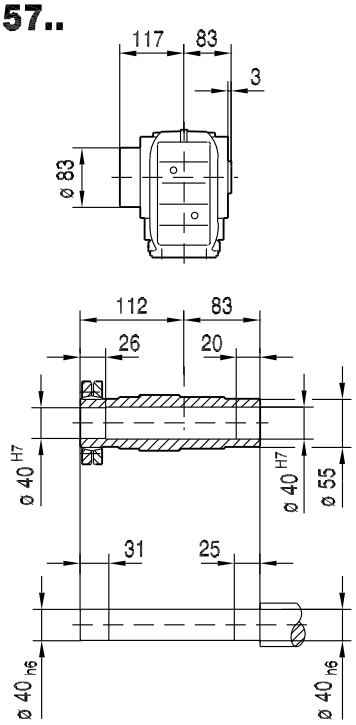
KA57..



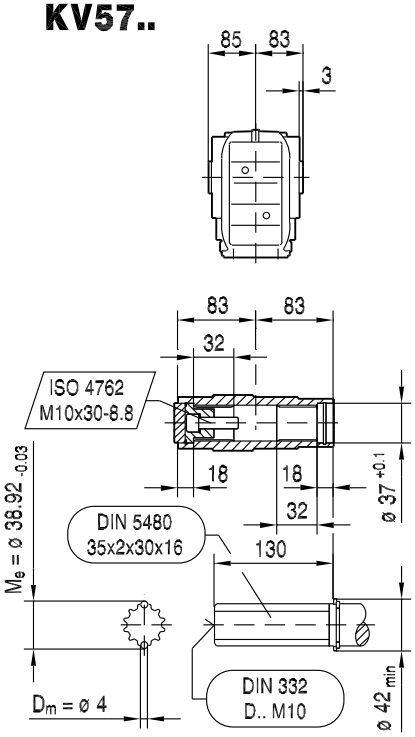
KA57..



KH57..



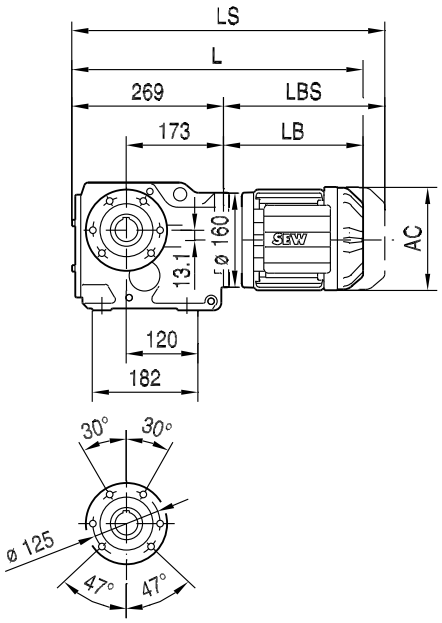
KV57..

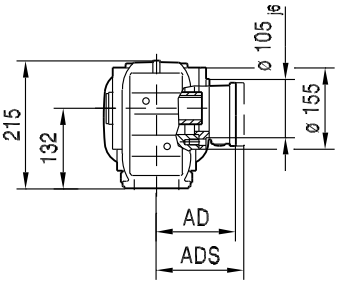


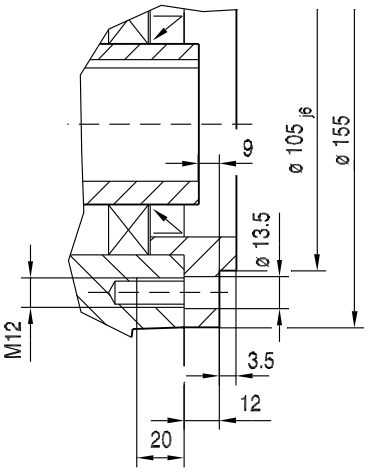
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M
AC	132	139	139	156	179	179	197	197	221
AD	105	119	119	128	140	140	157	157	170
ADS	105	129	129	139	150	150	158	158	172
L	454	465	490	544	546	578	574	624	655
LS	509	533	558	625	639	671	668	718	767
LB	185	196	221	275	277	309	305	355	386
LBS	240	264	289	356	370	402	399	449	498

33 050 00 14

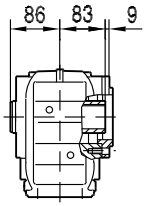
KAZ57..

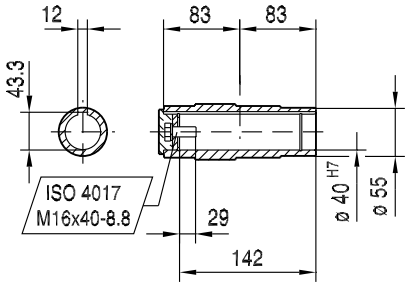




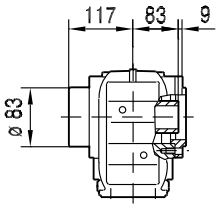


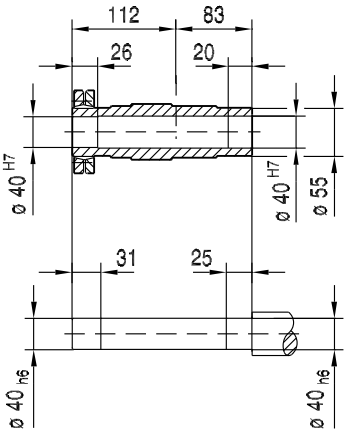
KAZ57..



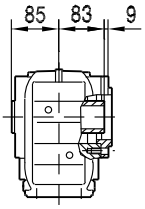


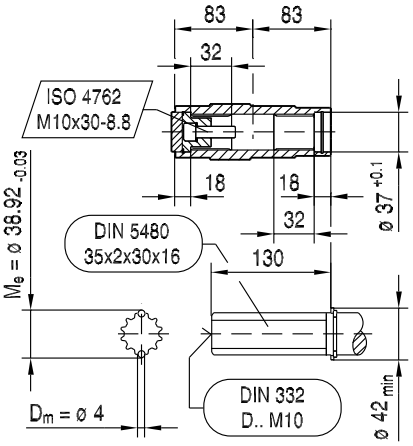
KHZ57..





KVZ57..



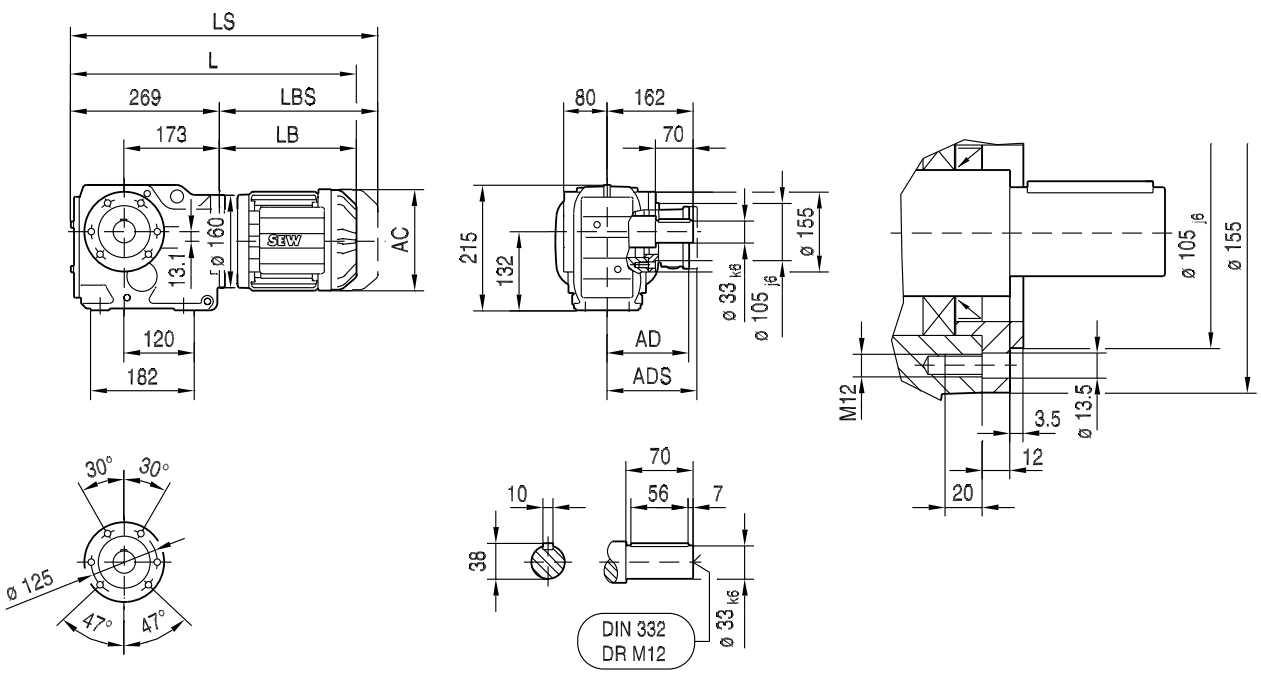


(→ 🗎 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M
AC	132	139	139	156	179	179	197	197	221
AD	105	119	119	128	140	140	157	157	170
ADS	105	129	129	139	150	150	158	158	172
L	454	465	490	544	546	578	574	624	655
LS	509	533	558	625	639	671	668	718	767
LB	185	196	221	275	277	309	305	355	386
LBS	240	264	289	356	370	402	399	449	498

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33 234 00 15

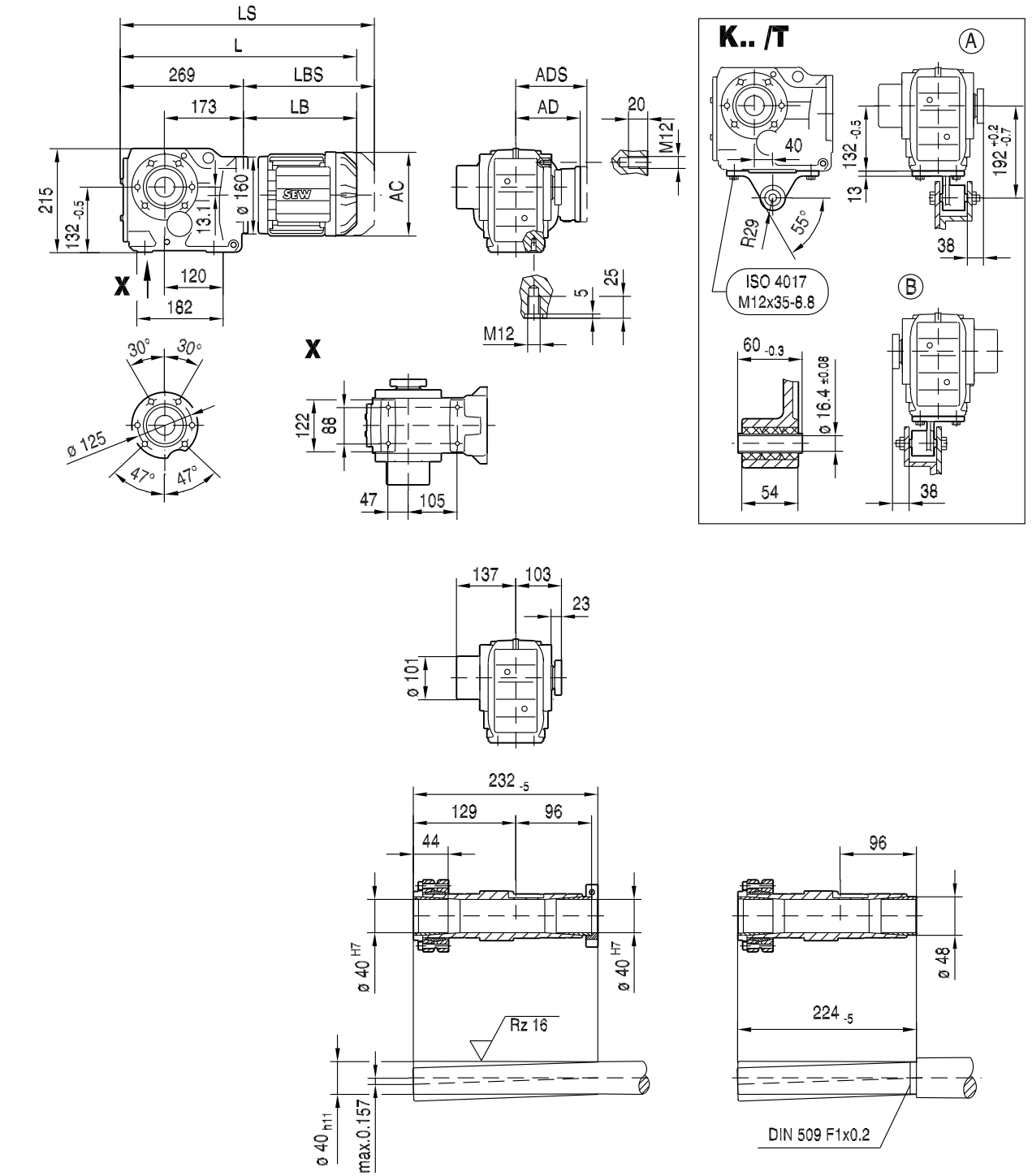
KZ57..



(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M
AC	132	139	139	156	179	179	197	197	221
AD	105	119	119	128	140	140	157	157	170
ADS	105	129	129	139	150	150	158	158	172
L	454	465	490	544	546	578	574	624	655
LS	509	533	558	625	639	671	668	718	767
LB	185	196	221	275	277	309	305	355	386
LBS	240	264	289	356	370	402	399	449	498

KT57..

33 051 00 14

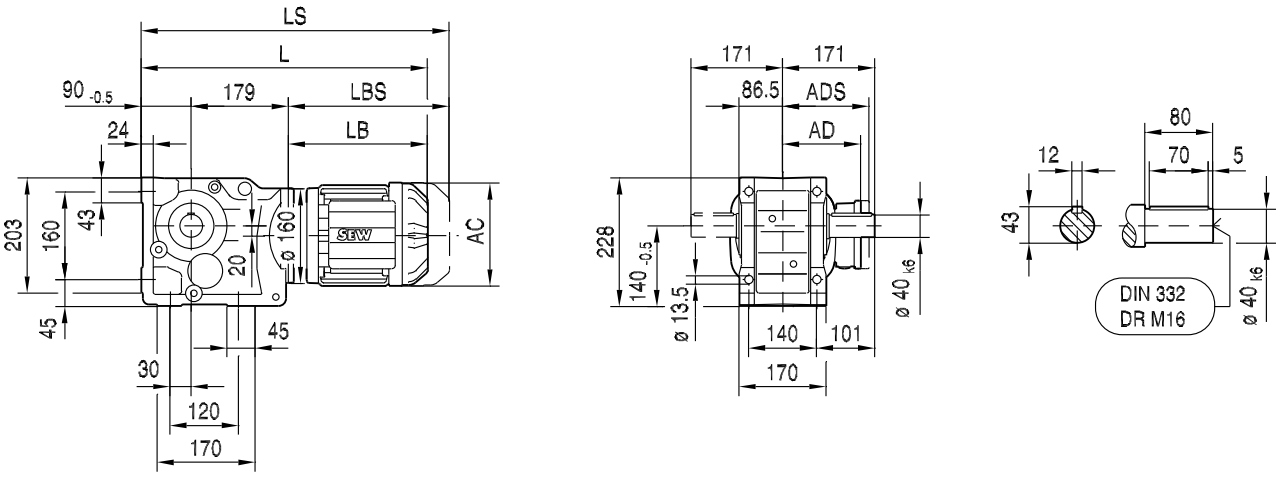


(→ 🗎 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M
AC	132	139	139	156	179	179	197	197	221
AD	105	119	119	128	140	140	157	157	170
ADS	105	129	129	139	150	150	158	158	172
L	454	465	490	544	546	578	574	624	655
LS	509	533	558	625	639	671	668	718	767
LB	185	196	221	275	277	309	305	355	386
LBS	240	264	289	356	370	402	399	449	498

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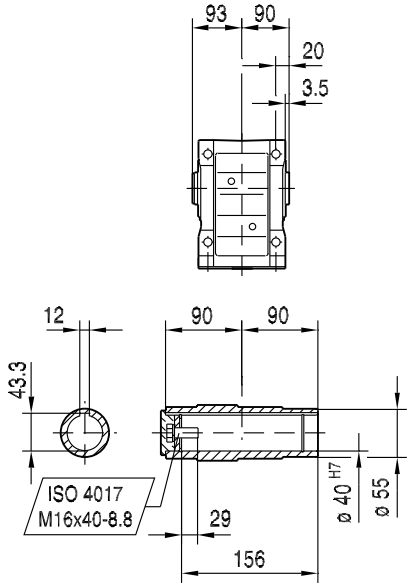
K67..

33 052 00 14

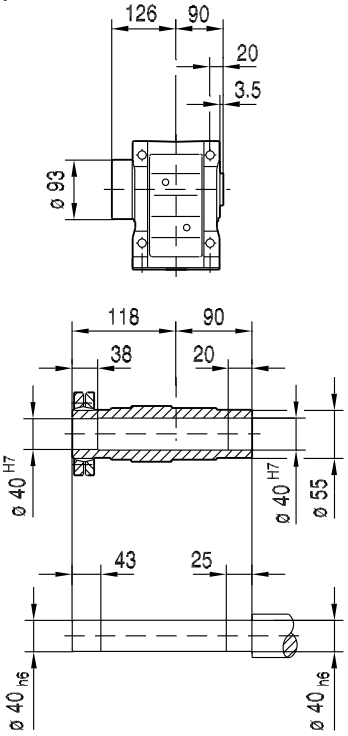


10

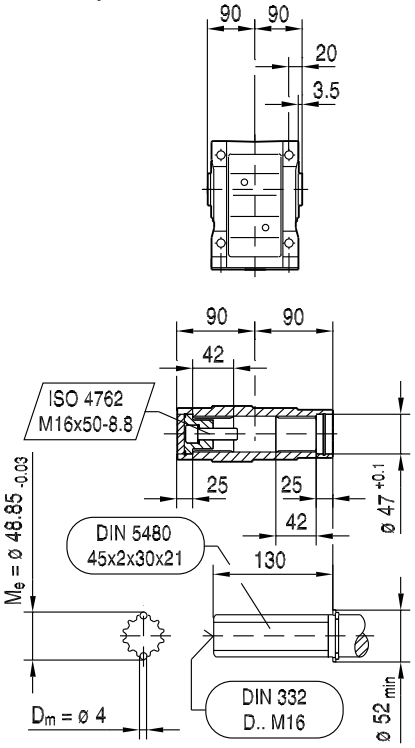
KA67B..



KH67B..



KV67B..

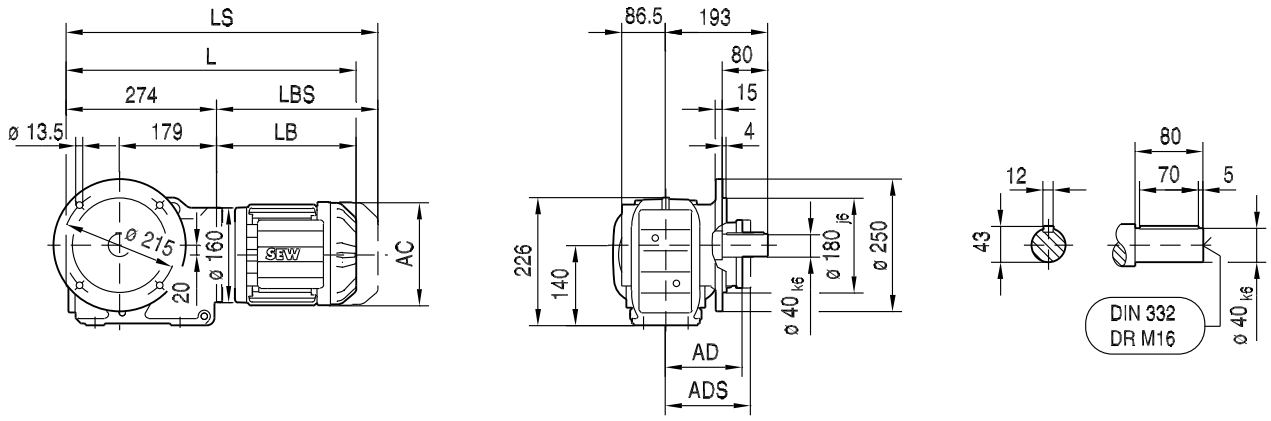


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	454	465	490	544	546	578	574	624	655	709
LS	509	533	558	625	639	671	668	718	767	821
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

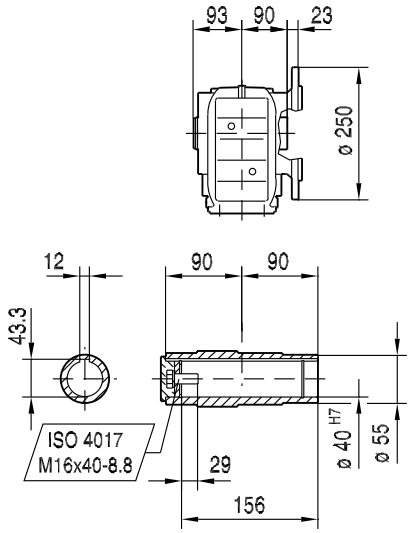
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KF67..

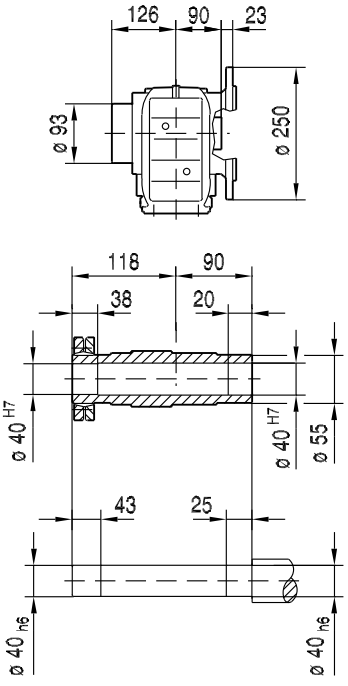
33 053 00 14



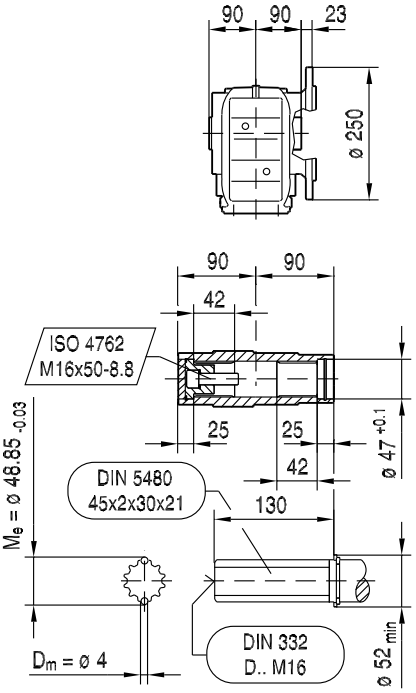
KAF67..



KHF67..



KVF67..

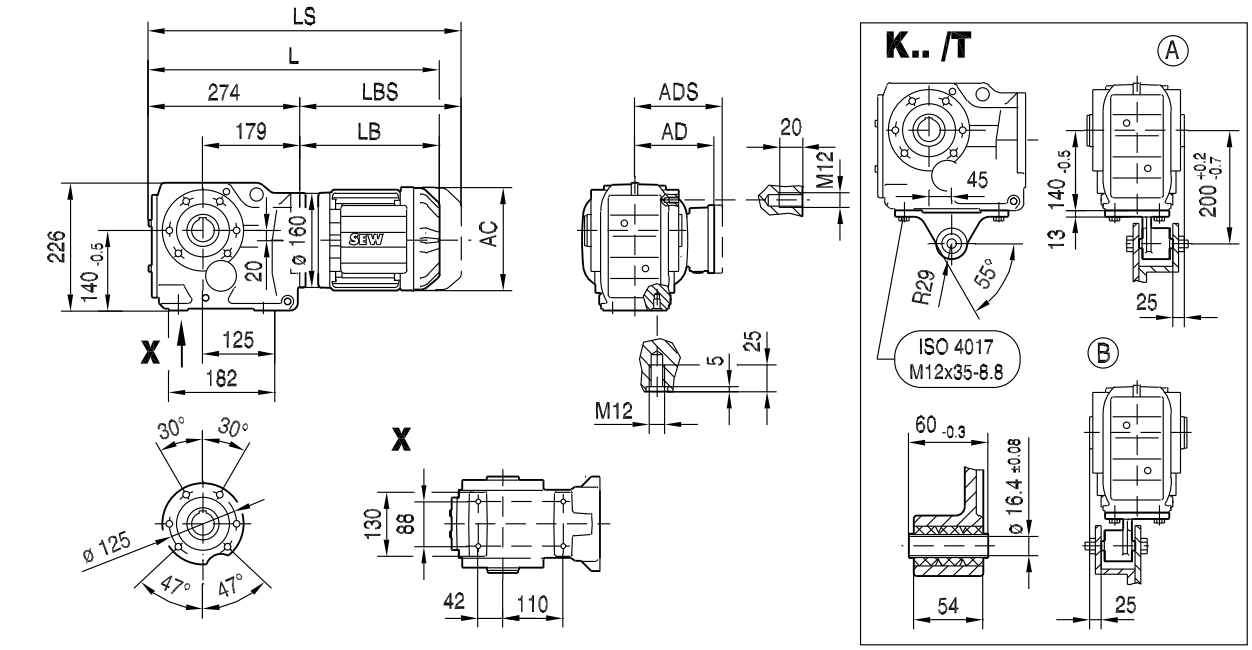


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	459	470	495	549	551	583	579	629	660	714
LS	514	538	563	630	644	676	673	723	772	826
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

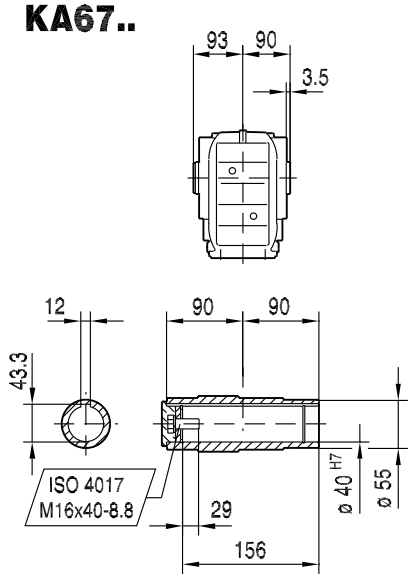
21933189/EN – 11/2015

33 054 00 14

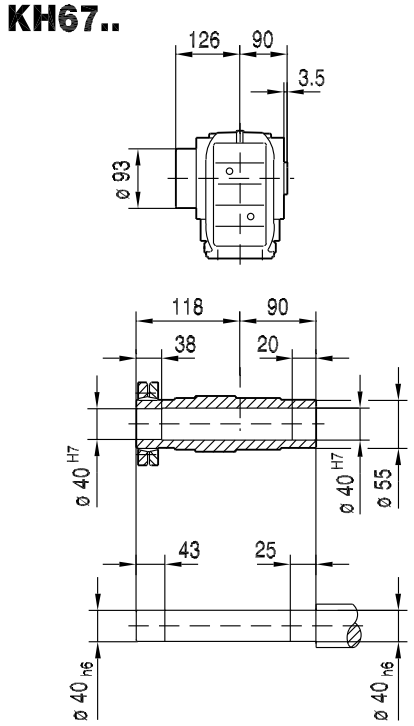
KA67..



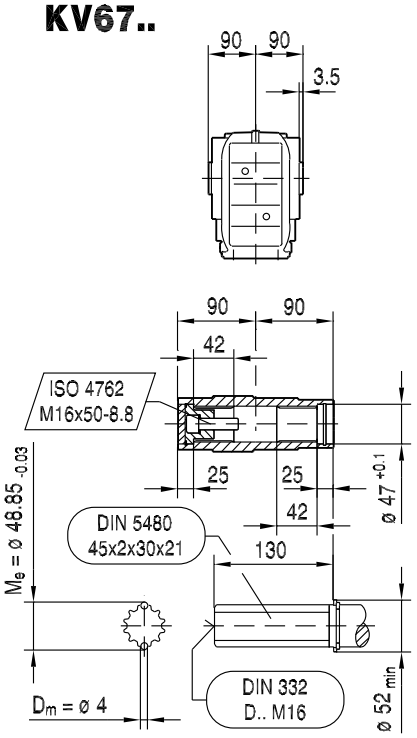
KA67..



KH67..



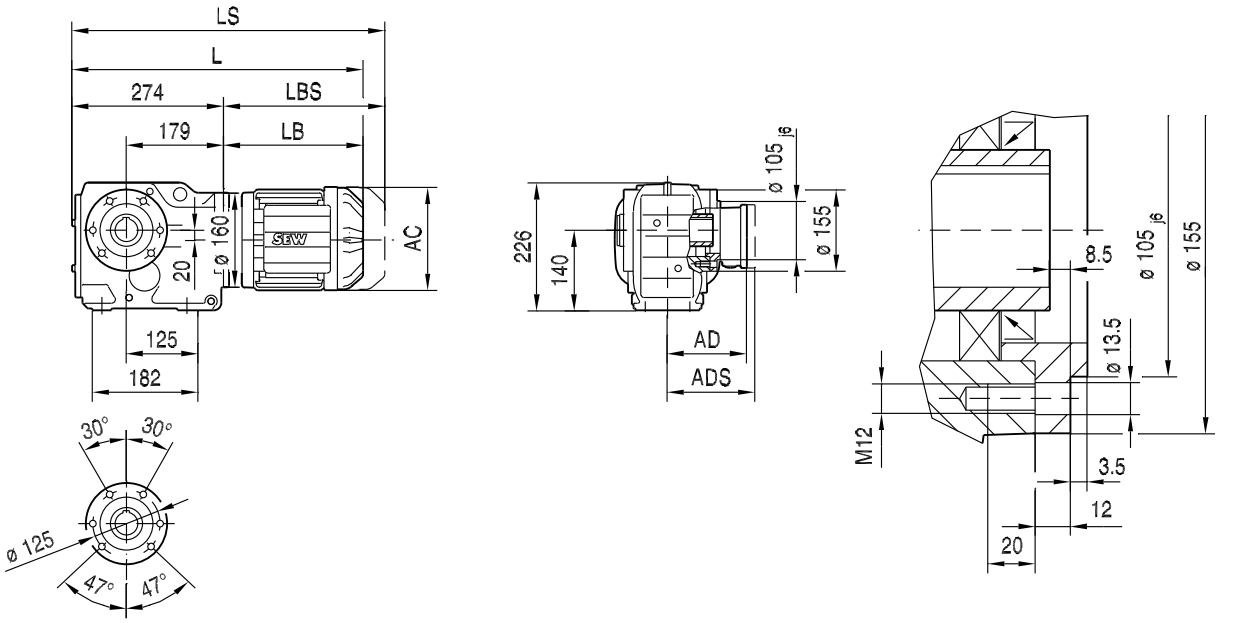
KV67..



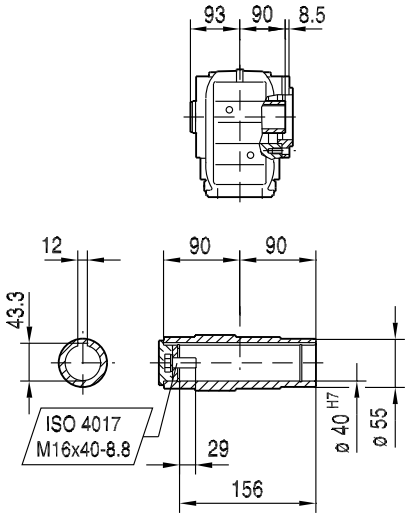
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	459	470	495	549	551	583	579	629	660	714
LS	514	538	563	630	644	676	673	723	772	826
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

33 055 00 14

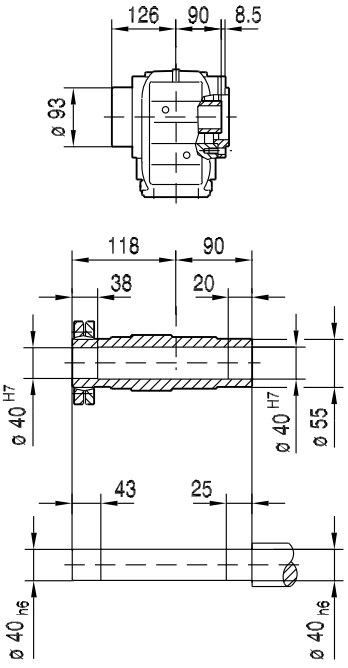
KAZ67..



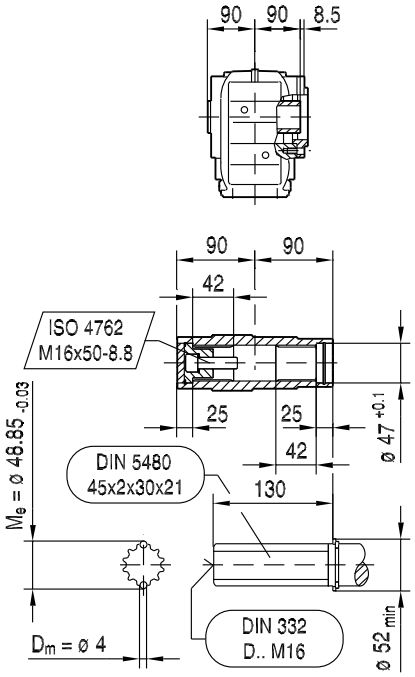
KAZ67..



KHZ67..



KVZ67..

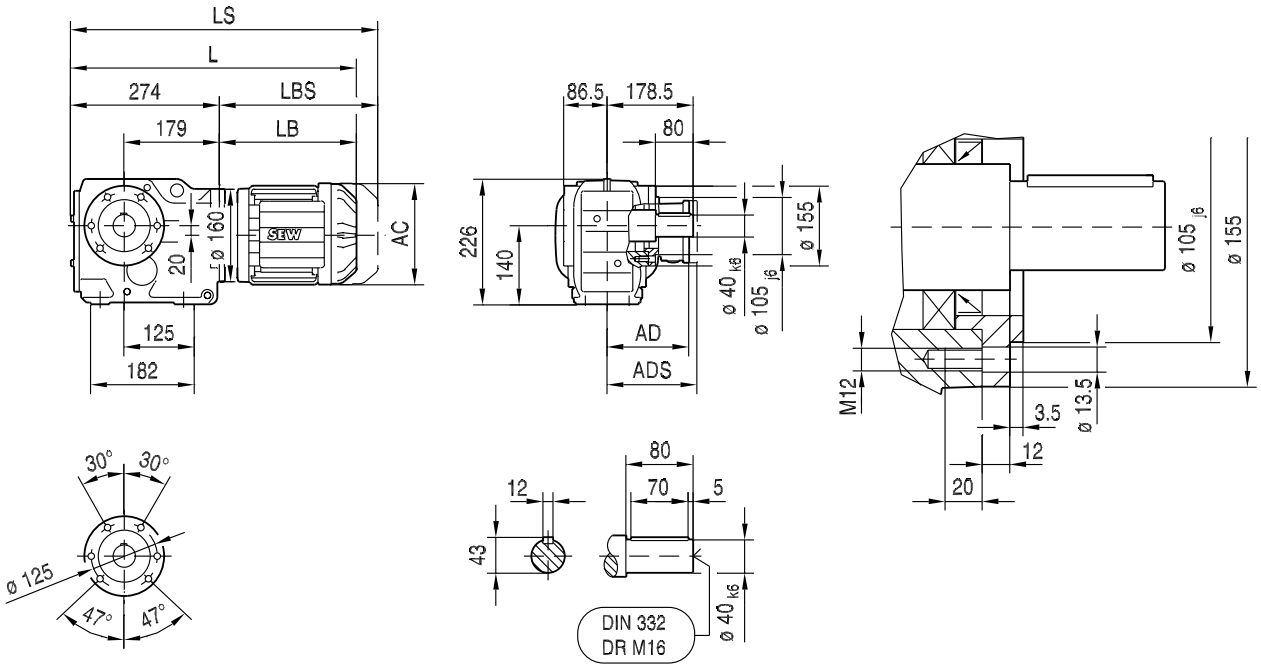


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	459	470	495	549	551	583	579	629	660	714
LS	514	538	563	630	644	676	673	723	772	826
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

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33 235 00 15

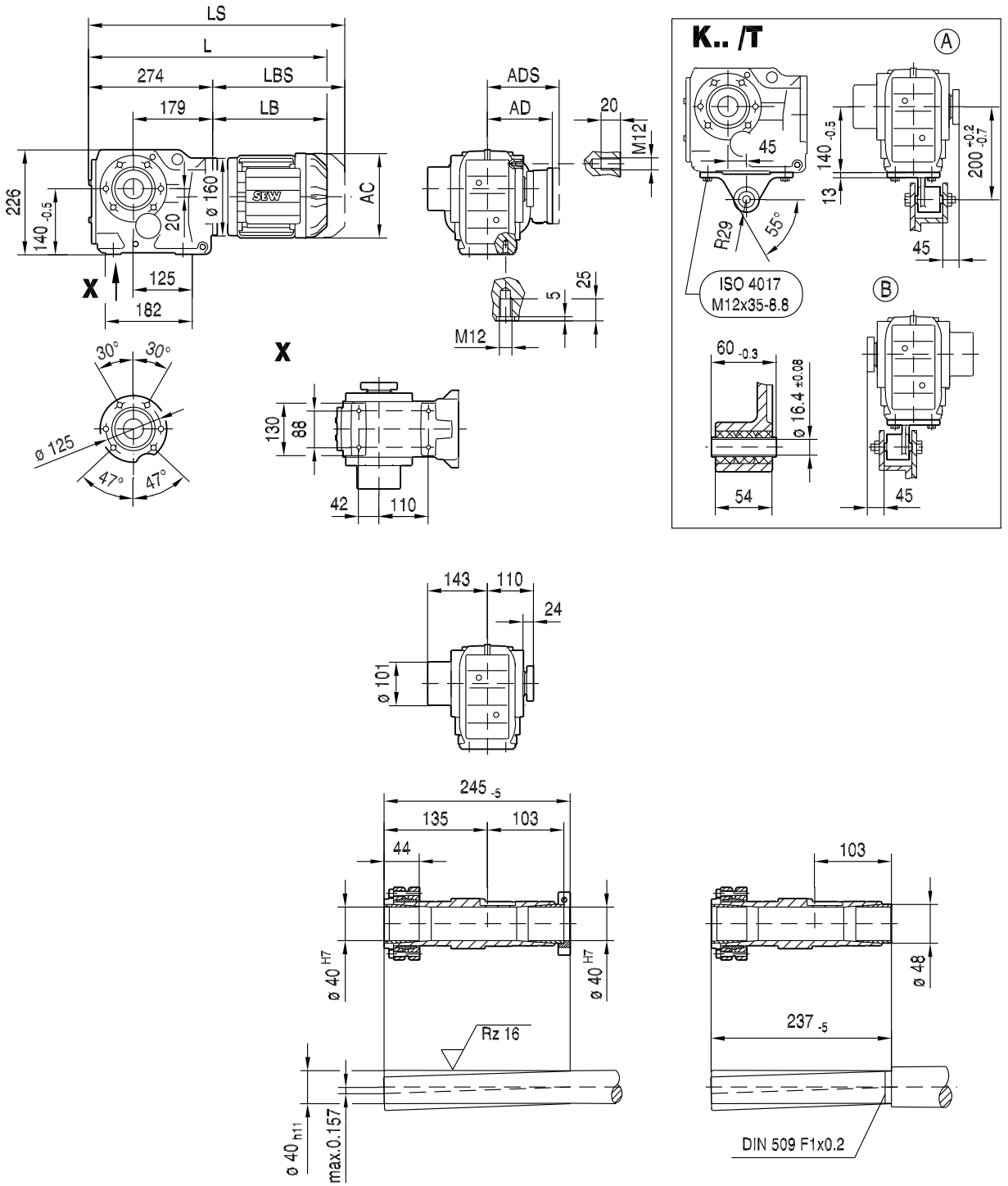
KZ67..



(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	459	470	495	549	551	583	579	629	660	714
LS	514	538	563	630	644	676	673	723	772	826
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

KT67..

33 056 00 14

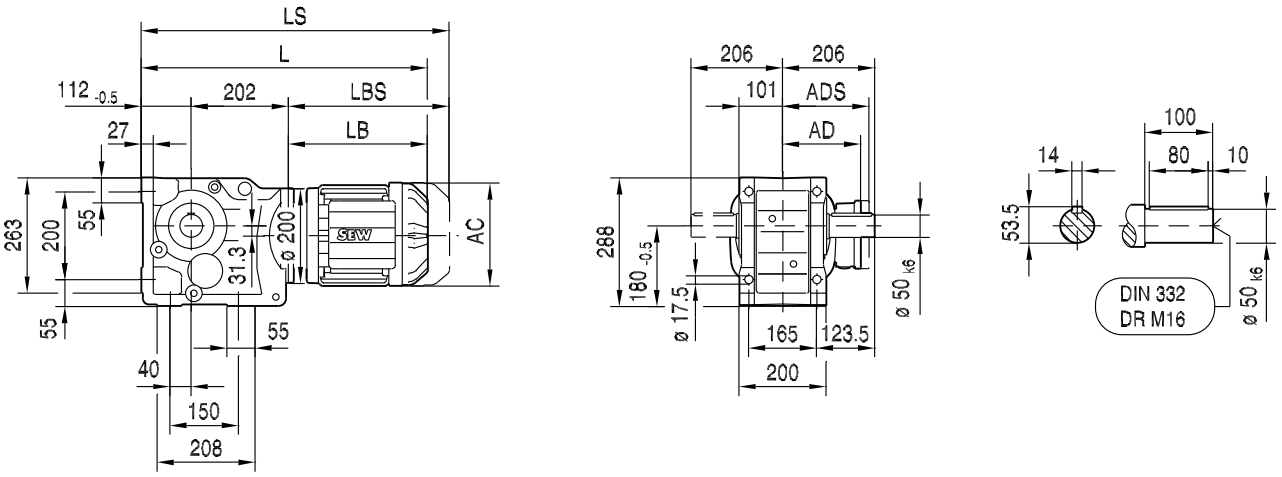


(→ 🗎 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	459	470	495	549	551	583	579	629	660	714
LS	514	538	563	630	644	676	673	723	772	826
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

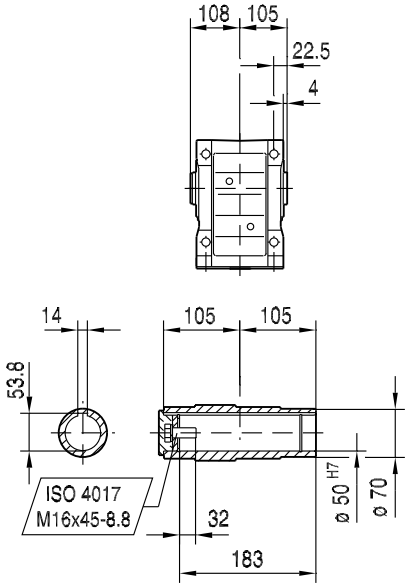
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33 057 00 14

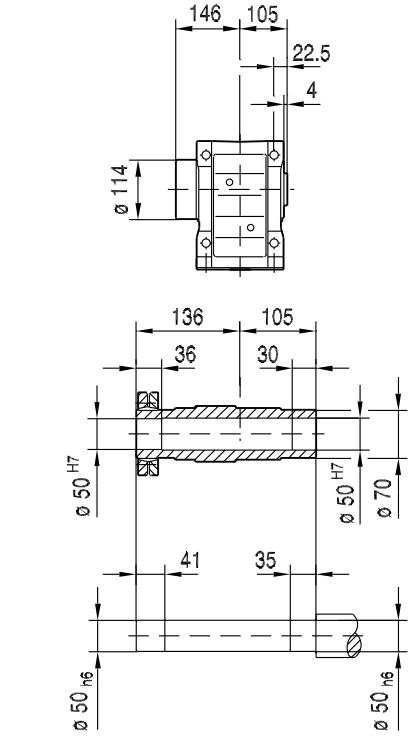
K77..



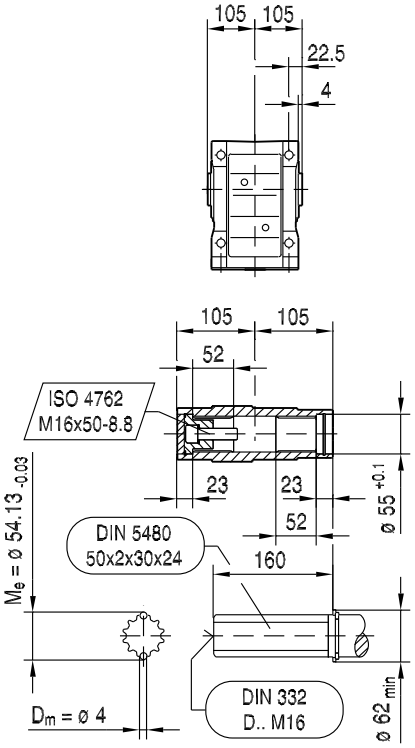
KA77B..



KH77B..



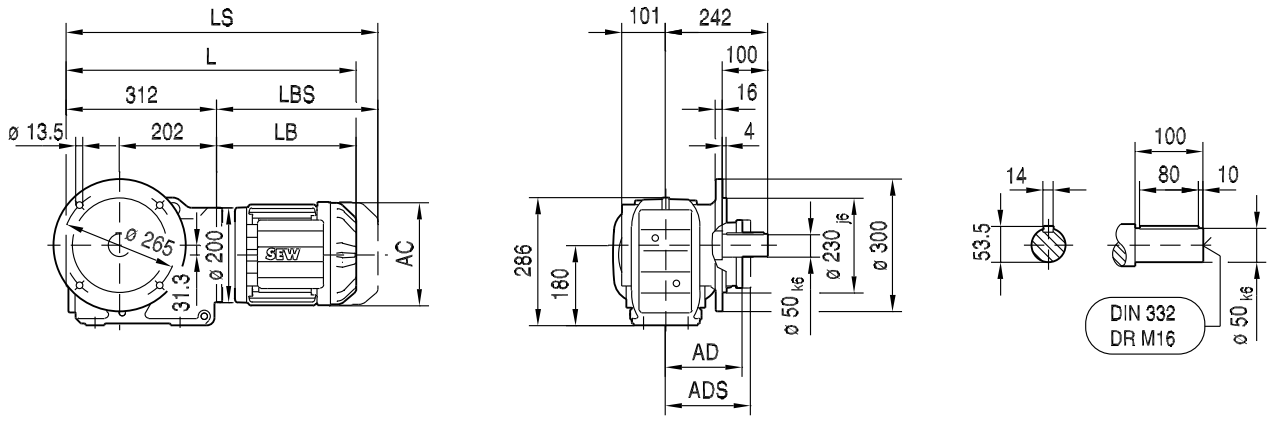
KV77B..



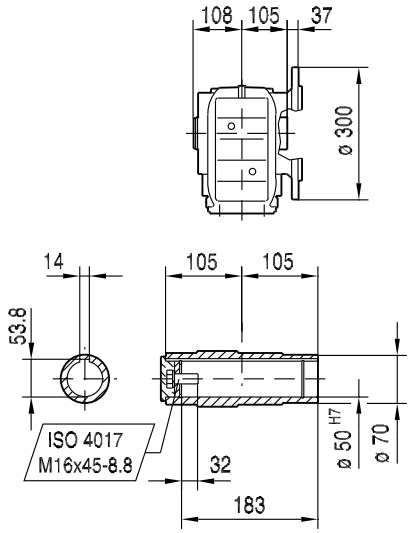
(→ 155)	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M
AC	156	179	179	197	197	221	221	261	261	314
AD	128	140	140	157	157	170	170	228	228	253
ADS	139	150	150	158	158	172	172	228	228	253
L	582	584	616	612	662	693	743	761	787	853
LS	663	677	709	706	756	805	855	899	924	1042
LB	268	270	302	298	348	379	429	447	473	539
LBS	349	363	395	392	442	491	541	585	610	728

33 058 00 14

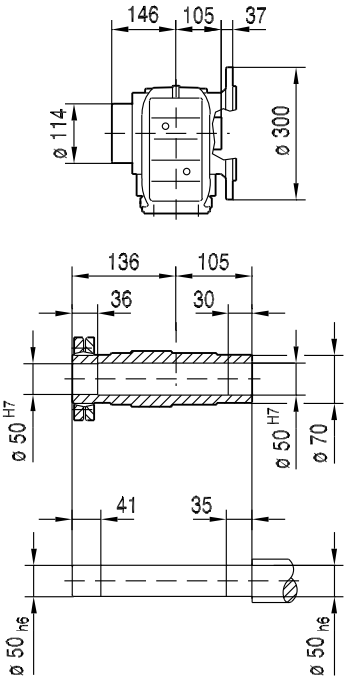
KF77..



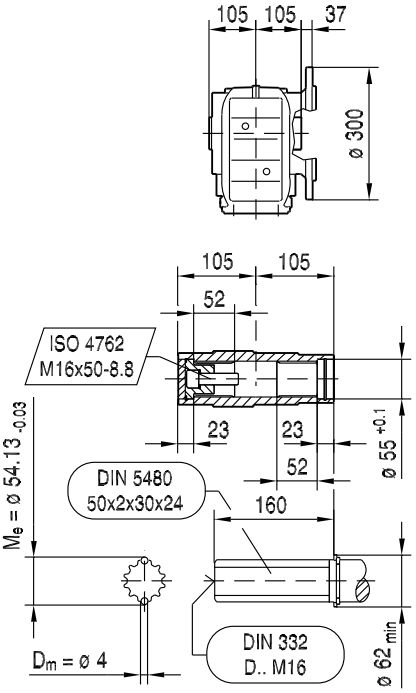
KAF77..



KHF77..



KVF77..

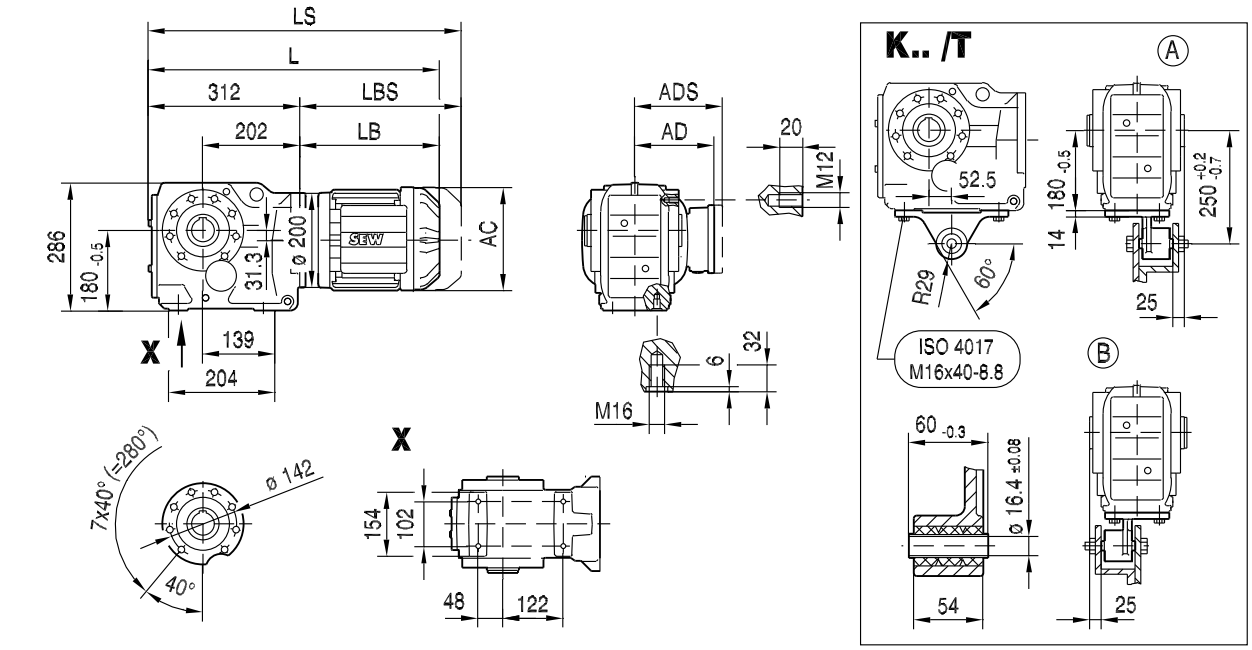


(→ 155)	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M
AC	156	179	179	197	197	221	221	261	261	314
AD	128	140	140	157	157	170	170	228	228	253
ADS	139	150	150	158	158	172	172	228	228	253
L	580	582	614	610	660	691	741	759	785	851
LS	661	675	707	704	754	803	853	897	922	1040
LB	268	270	302	298	348	379	429	447	473	539
LBS	349	363	395	392	442	491	541	585	610	728

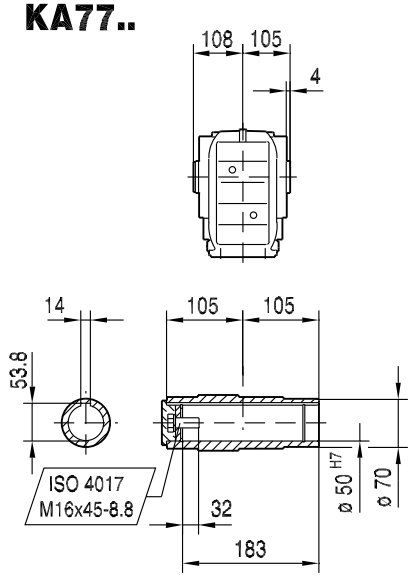
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33 059 00 14

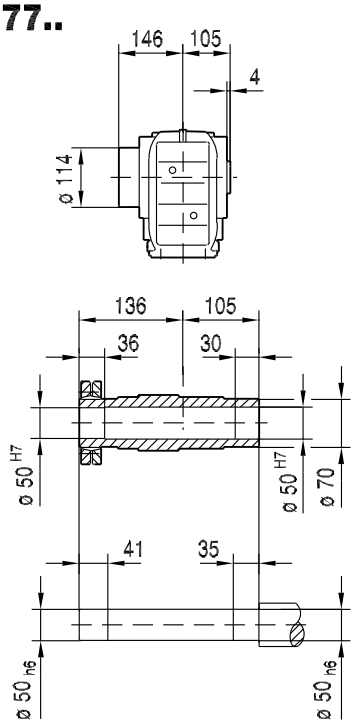
KA77..



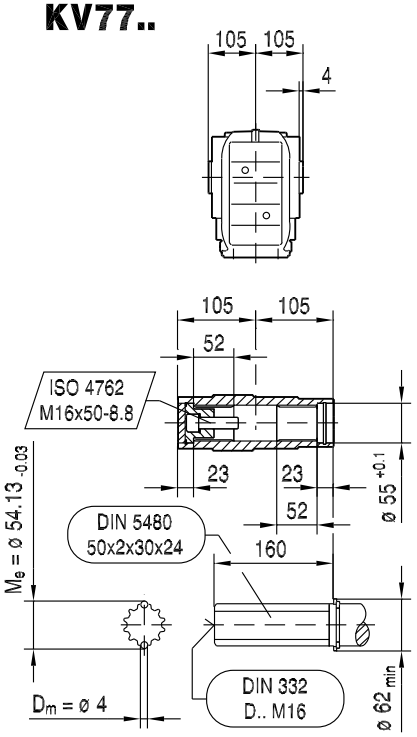
KA77..



KH77..



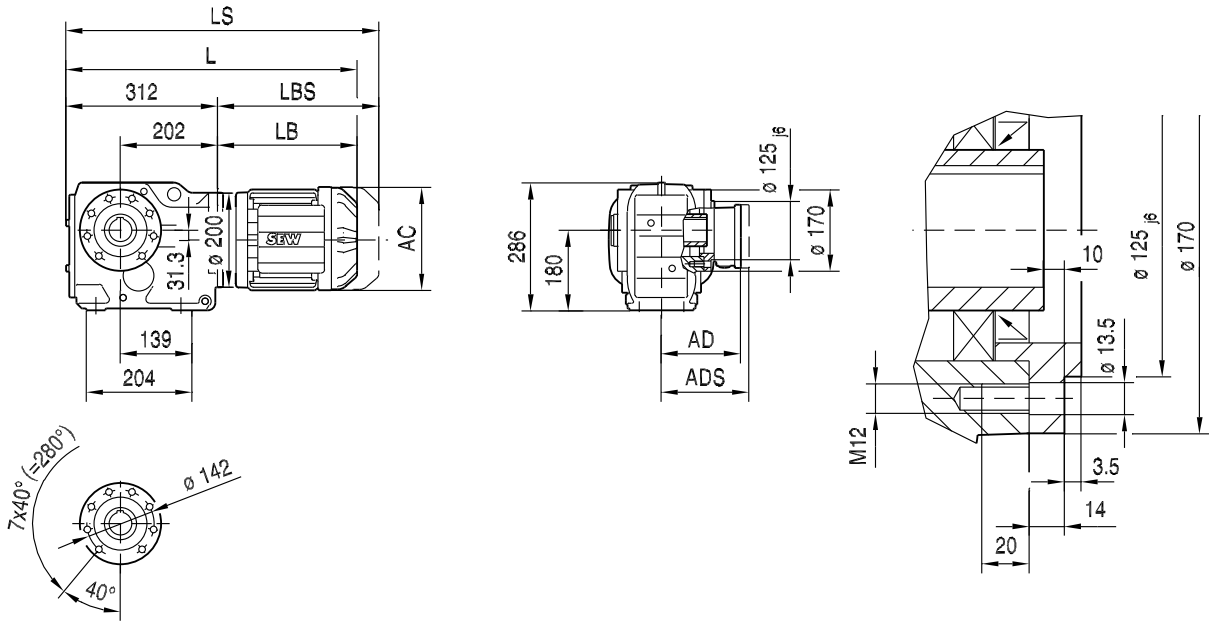
KV77..



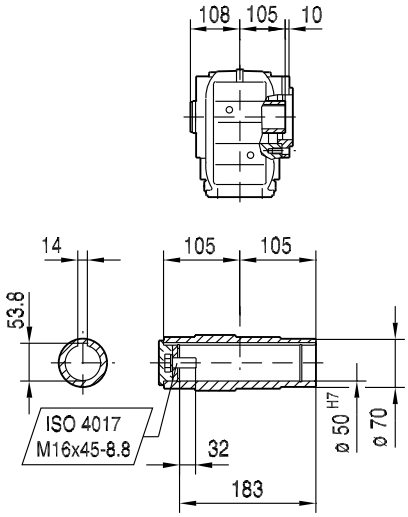
(→ 155)	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M
AC	156	179	179	197	197	221	221	261	261	314
AD	128	140	140	157	157	170	170	228	228	253
ADS	139	150	150	158	158	172	172	228	228	253
L	580	582	614	610	660	691	741	759	785	851
LS	661	675	707	704	754	803	853	897	922	1040
LB	268	270	302	298	348	379	429	447	473	539
LBS	349	363	395	392	442	491	541	585	610	728

KAZ77..

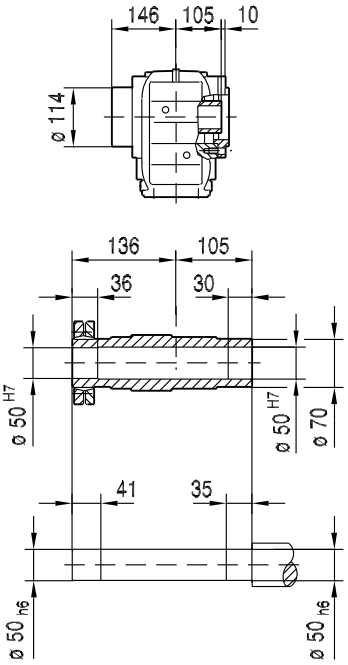
33 060 00 14



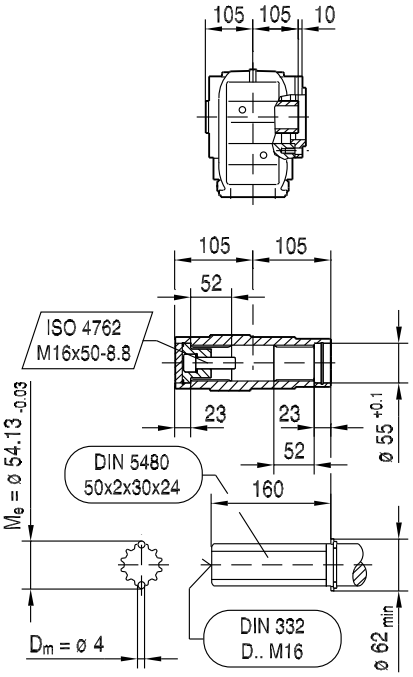
KAZ77..



KHZ77..



KVZ77..

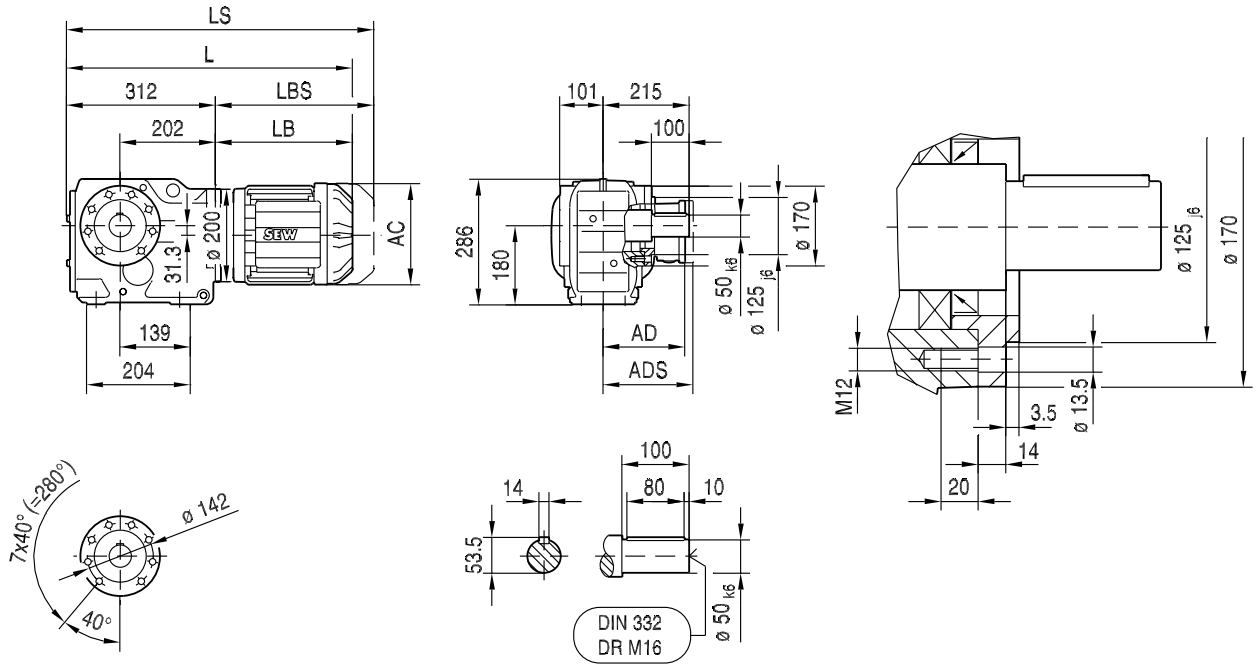


(→ 🗎 155)	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M
AC	156	179	179	197	197	221	221	261	261	314
AD	128	140	140	157	157	170	170	228	228	253
ADS	139	150	150	158	158	172	172	228	228	253
L	580	582	614	610	660	691	741	759	785	851
LS	661	675	707	704	754	803	853	897	922	1040
LB	268	270	302	298	348	379	429	447	473	539
LBS	349	363	395	392	442	491	541	585	610	728

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33 236 00 15

KZ77..

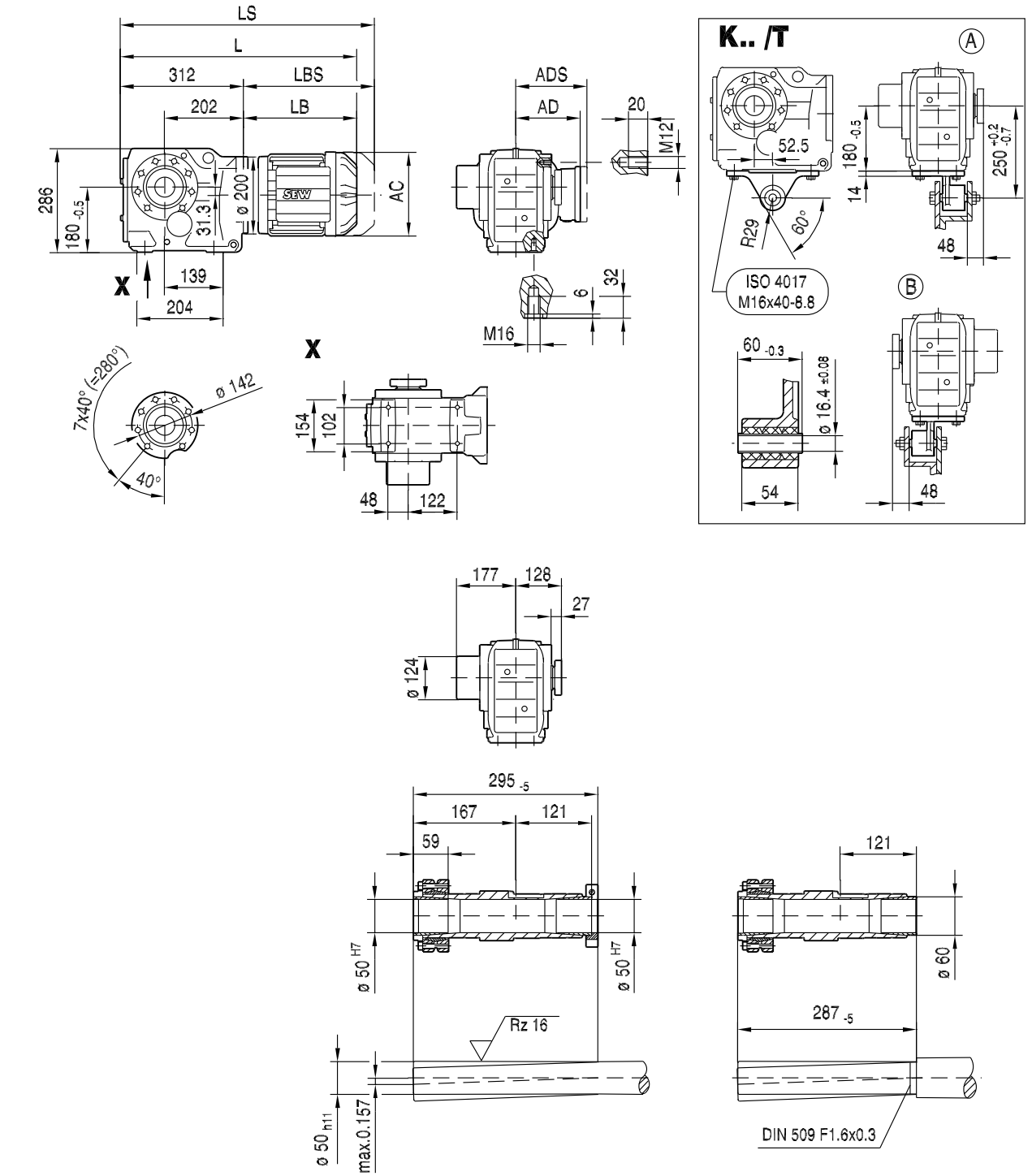


(→ 155)	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M
AC	156	179	179	197	197	221	221	261	261	314
AD	128	140	140	157	157	170	170	228	228	253
ADS	139	150	150	158	158	172	172	228	228	253
L	580	582	614	610	660	691	741	759	785	851
LS	661	675	707	704	754	803	853	897	922	1040
LB	268	270	302	298	348	379	429	447	473	539
LBS	349	363	395	392	442	491	541	585	610	728

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KT77..

33 061 00 14

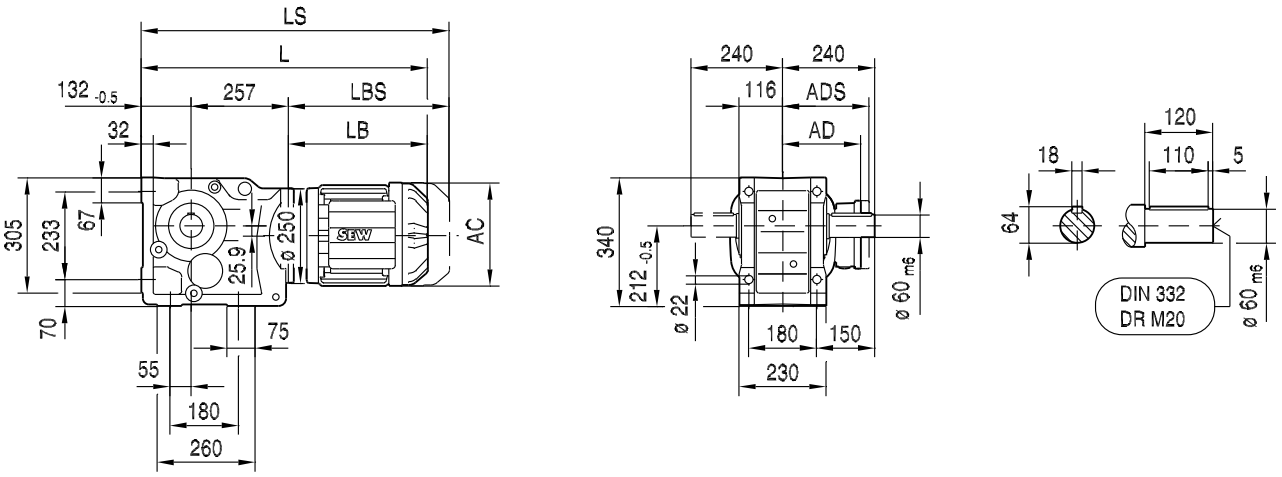


(→ 155)	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M
AC	156	179	179	197	197	221	221	261	261	314
AD	128	140	140	157	157	170	170	228	228	253
ADS	139	150	150	158	158	172	172	228	228	253
L	580	582	614	610	660	691	741	759	785	851
LS	661	675	707	704	754	803	853	897	922	1040
LB	268	270	302	298	348	379	429	447	473	539
LBS	349	363	395	392	442	491	541	585	610	728

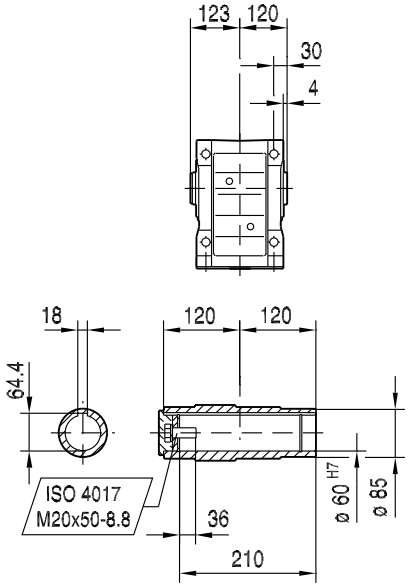
21933189/EN – 11/2015

33 062 00 14

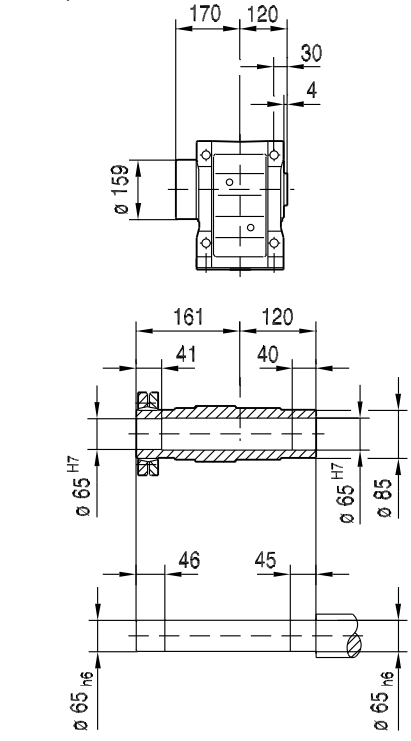
K87..



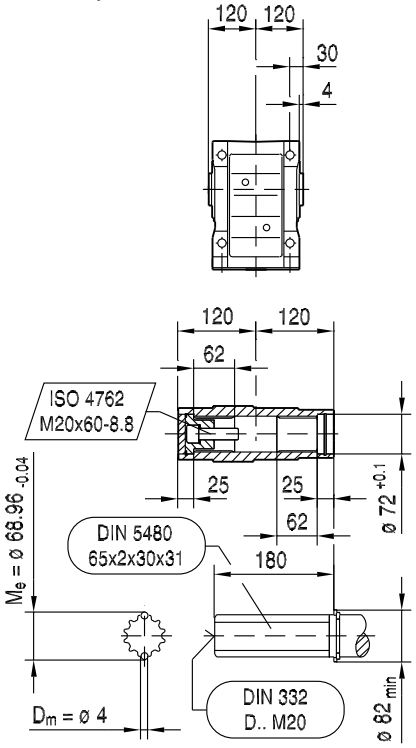
KA87B..



KH87B..



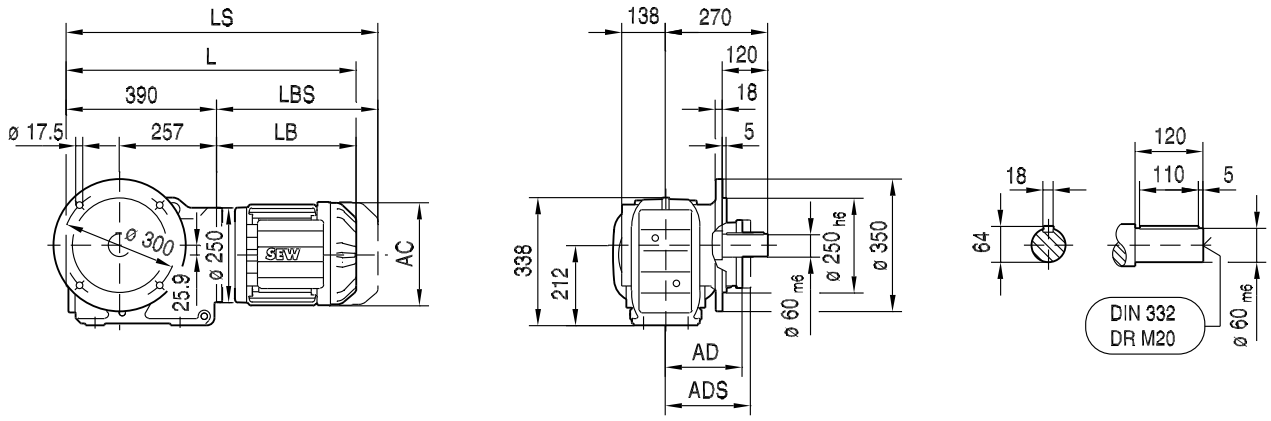
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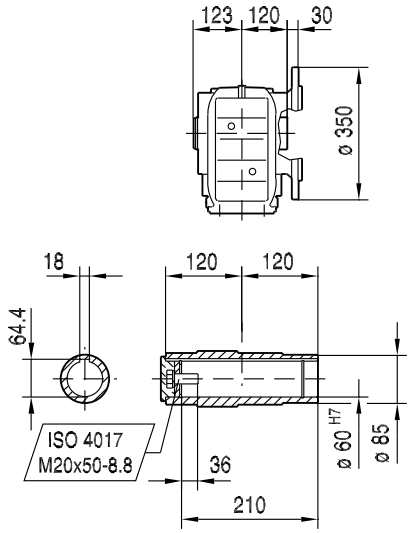
(→ 155)	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	179	197	197	221	221	261	261	314	314	357
AD	140	157	157	170	170	228	228	253	253	268
ADS	150	158	158	172	172	228	228	253	253	268
L	686	682	732	763	813	831	857	923	923	946
LS	779	776	826	875	925	969	994	1112	1112	1135
LB	297	293	343	374	424	442	468	534	534	557
LBS	390	387	437	486	536	580	605	723	723	746

33 063 00 14

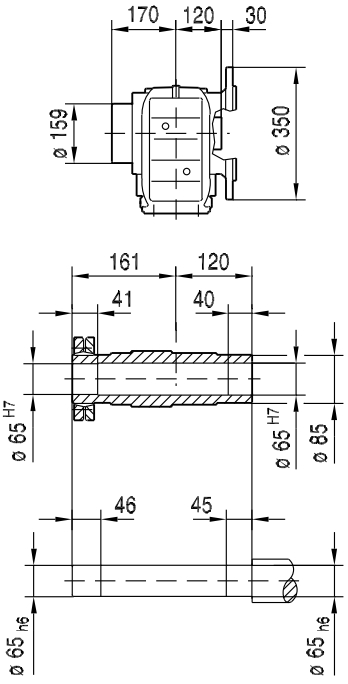
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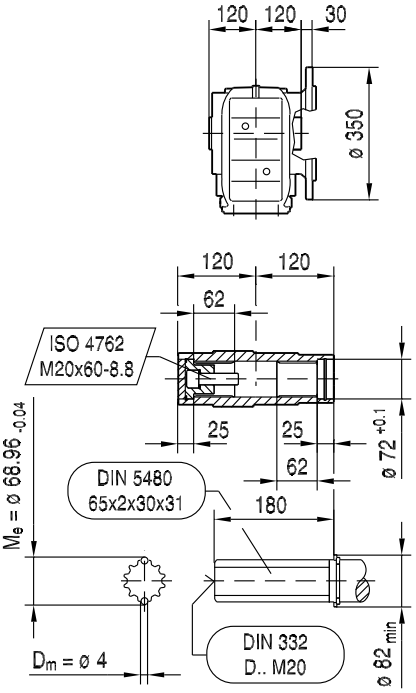
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KHF87..



KVF87..

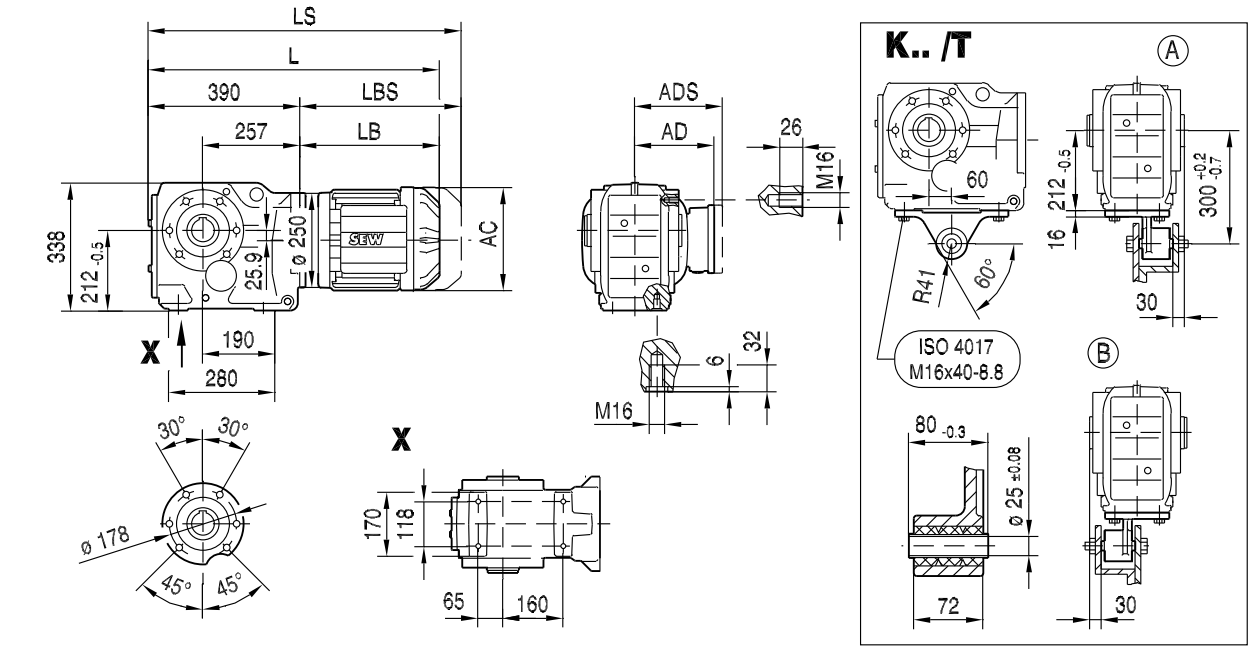


(→ 🗎 155)	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	179	197	197	221	221	261	261	314	314	357
AD	140	157	157	170	170	228	228	253	253	268
ADS	150	158	158	172	172	228	228	253	253	268
L	687	683	733	764	814	832	858	924	924	947
LS	780	777	827	876	926	970	995	1113	1113	1136
LB	297	293	343	374	424	442	468	534	534	557
LBS	390	387	437	486	536	580	605	723	723	746

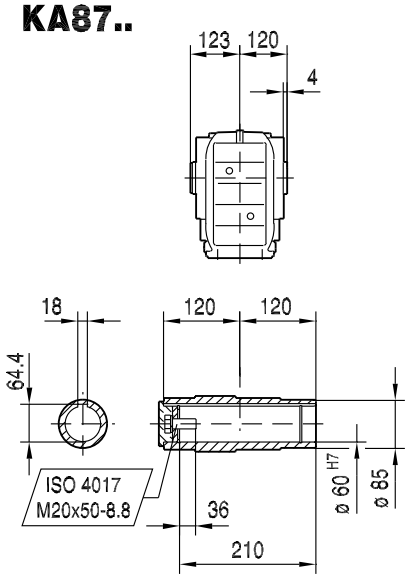
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33 064 00 14

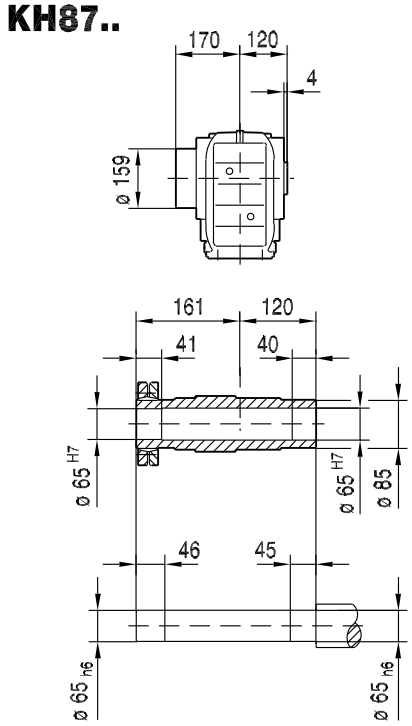
KA87..



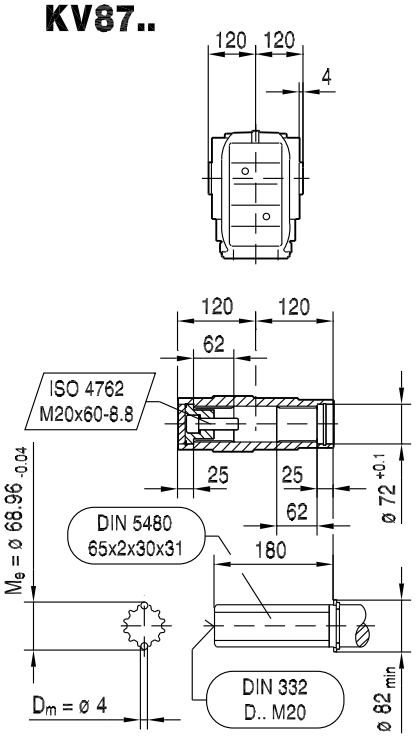
KA87..



KH87..



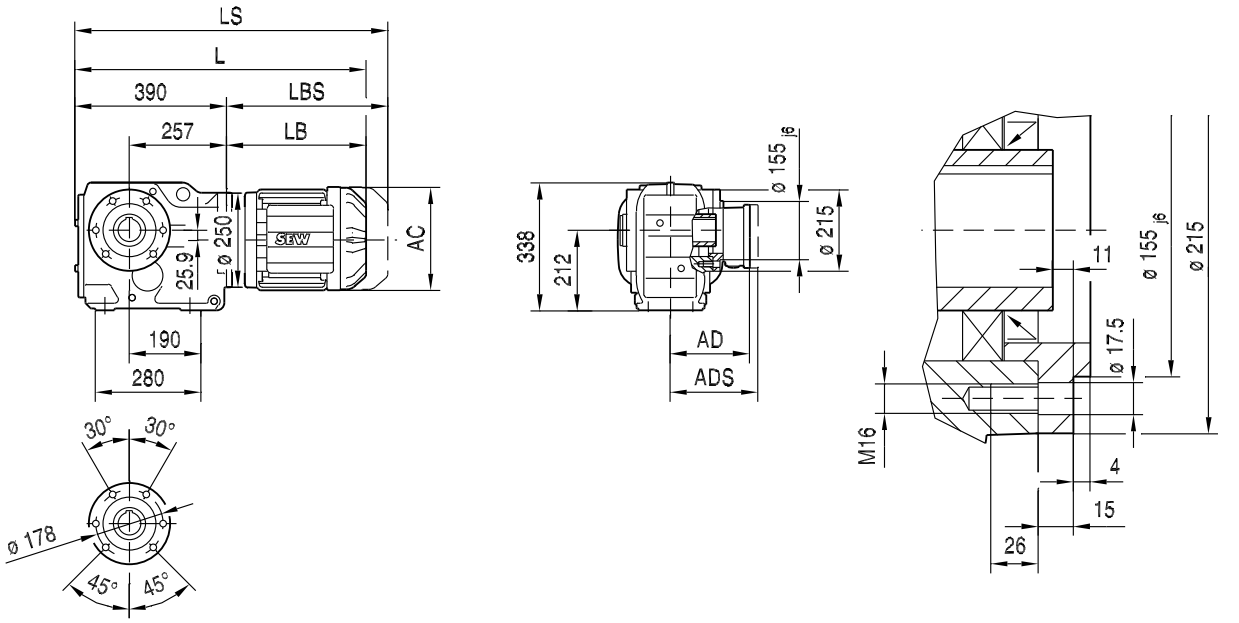
KV87..



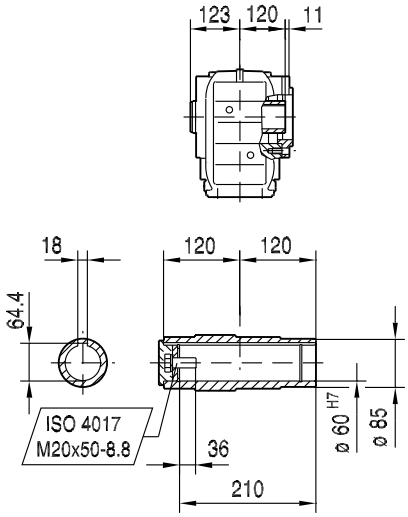
(→ 155)	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	179	197	197	221	221	261	261	314	314	357
AD	140	157	157	170	170	228	228	253	253	268
ADS	150	158	158	172	172	228	228	253	253	268
L	687	683	733	764	814	832	858	924	924	947
LS	780	777	827	876	926	970	995	1113	1113	1136
LB	297	293	343	374	424	442	468	534	534	557
LBS	390	387	437	486	536	580	605	723	723	746

33 065 00 14

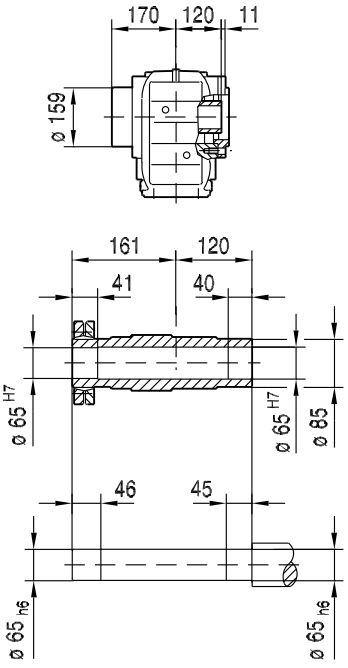
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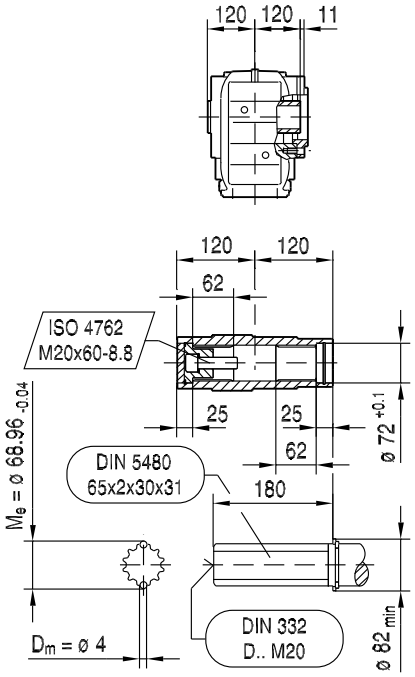
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KVZ87..

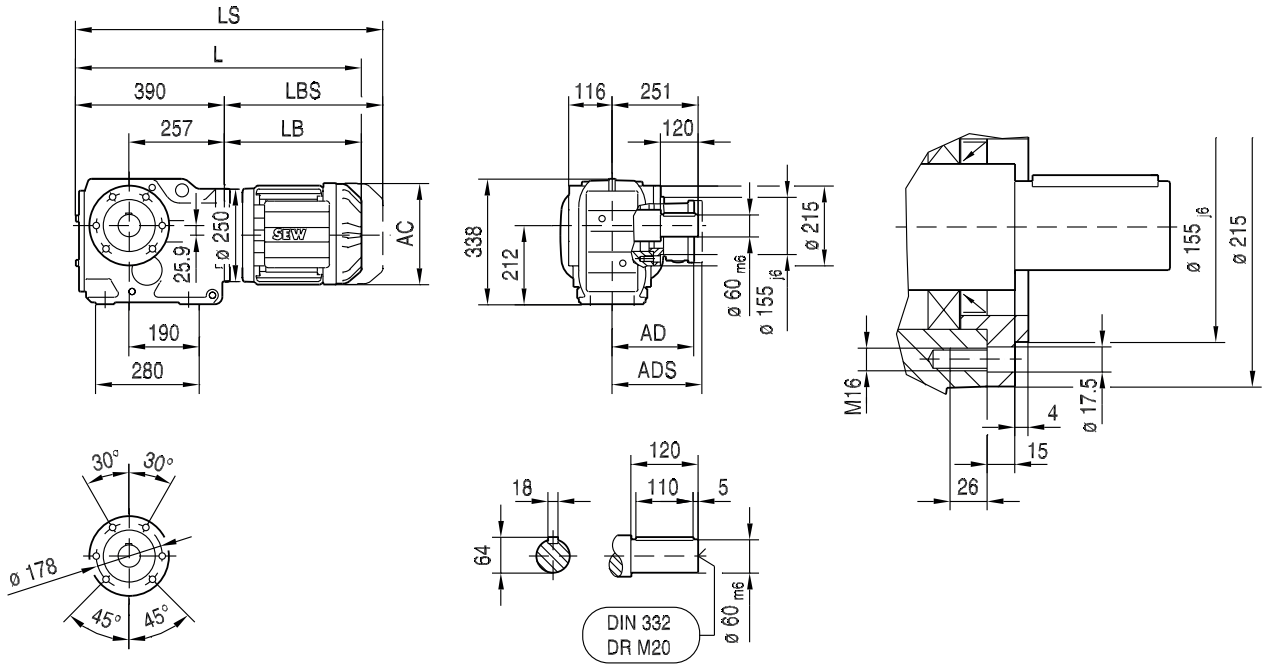


(→ 🗎 155)	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	179	197	197	221	221	261	261	314	314	357
AD	140	157	157	170	170	228	228	253	253	268
ADS	150	158	158	172	172	228	228	253	253	268
L	687	683	733	764	814	832	858	924	924	947
LS	780	777	827	876	926	970	995	1113	1113	1136
LB	297	293	343	374	424	442	468	534	534	557
LBS	390	387	437	486	536	580	605	723	723	746

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KZ87..

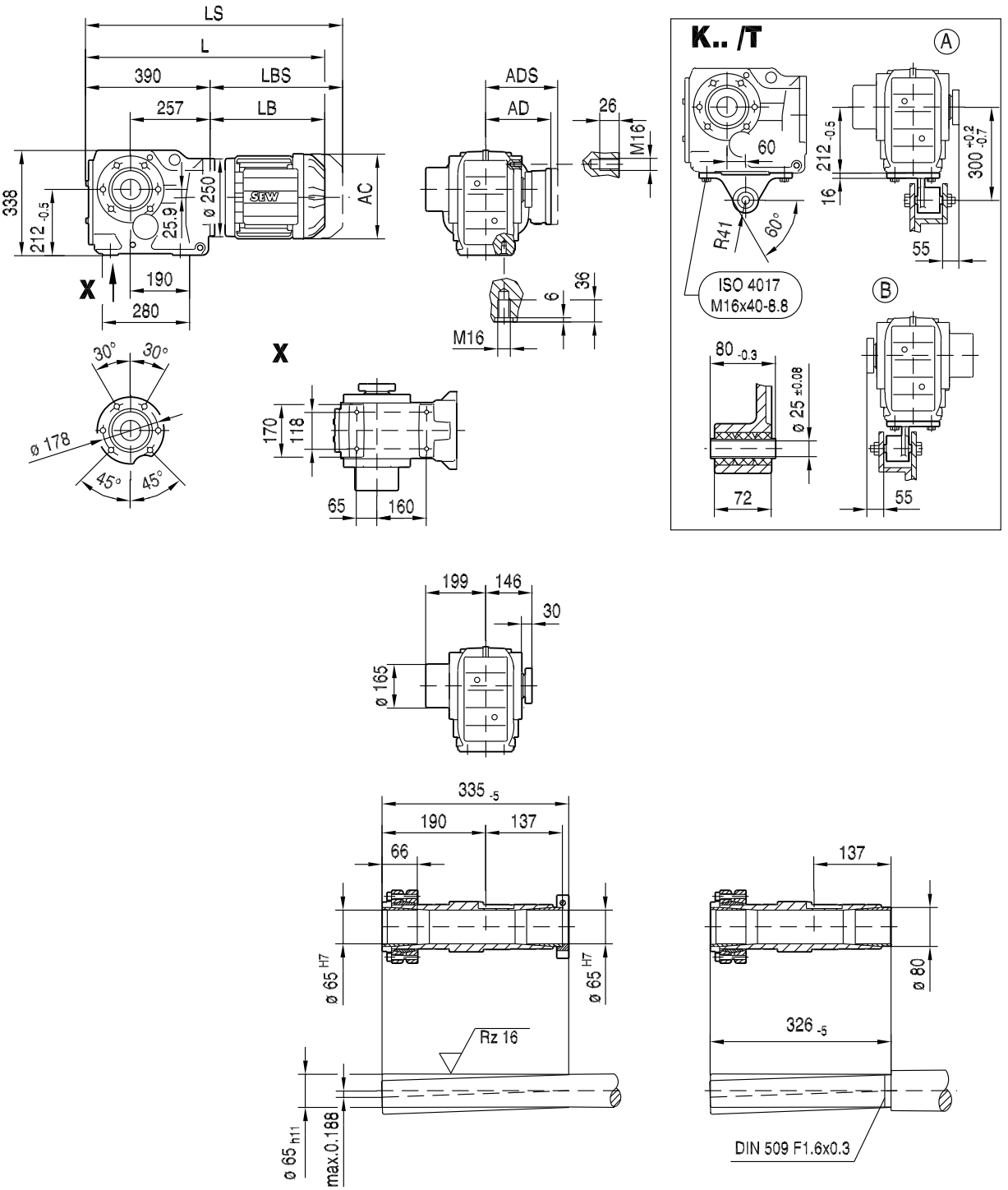
33 237 00 15



(→ 155)	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	179	197	197	221	221	261	261	314	314	357
AD	140	157	157	170	170	228	228	253	253	268
ADS	150	158	158	172	172	228	228	253	253	268
L	687	683	733	764	814	832	858	924	924	947
LS	780	777	827	876	926	970	995	1113	1113	1136
LB	297	293	343	374	424	442	468	534	534	557
LBS	390	387	437	486	536	580	605	723	723	746

KT87..

33 066 00 14

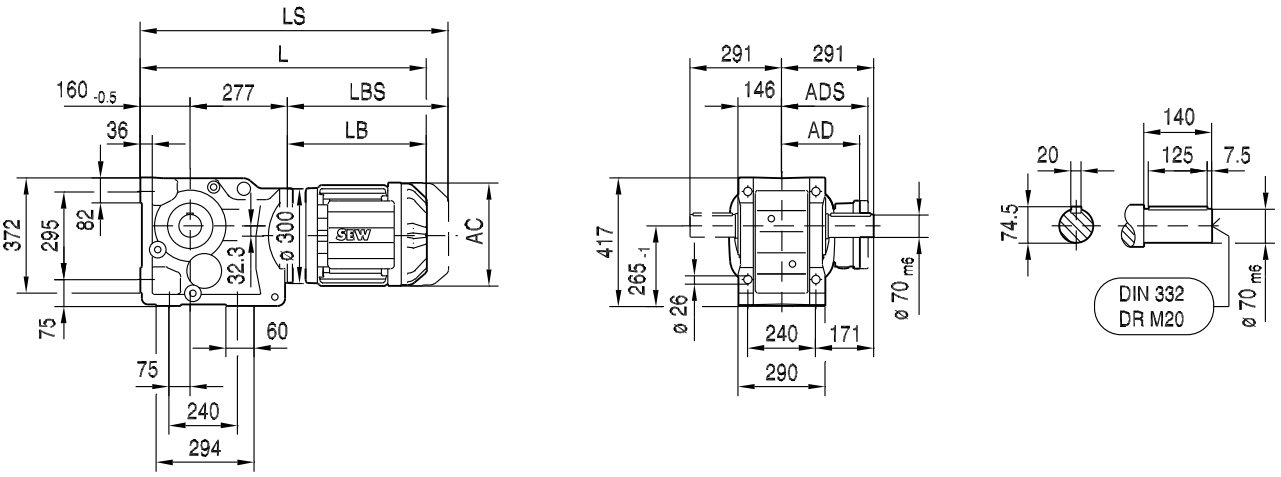


(→ 155)	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	179	197	197	221	221	261	261	314	314	357
AD	140	157	157	170	170	228	228	253	253	268
ADS	150	158	158	172	172	228	228	253	253	268
L	687	683	733	764	814	832	858	924	924	947
LS	780	777	827	876	926	970	995	1113	1113	1136
LB	297	293	343	374	424	442	468	534	534	557
LBS	390	387	437	486	536	580	605	723	723	746

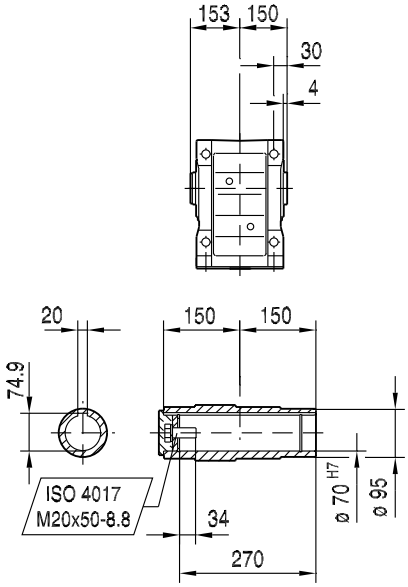
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K97..

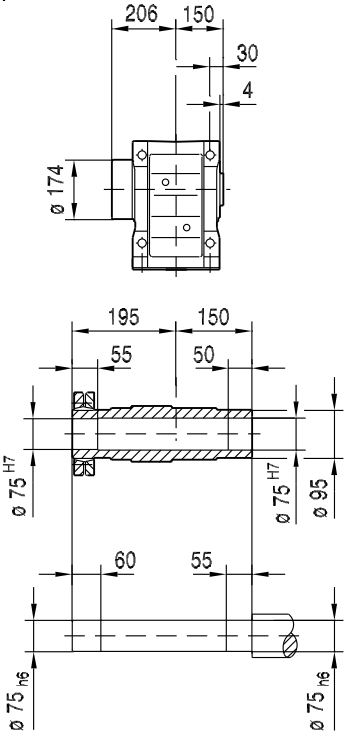
33 067 00 14



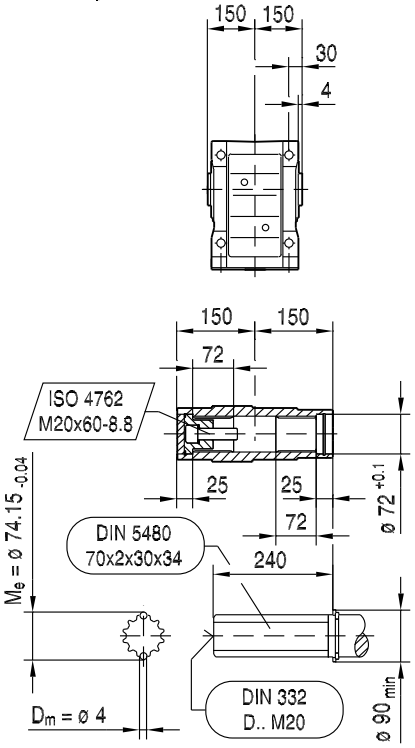
KA97B..



KH97B..



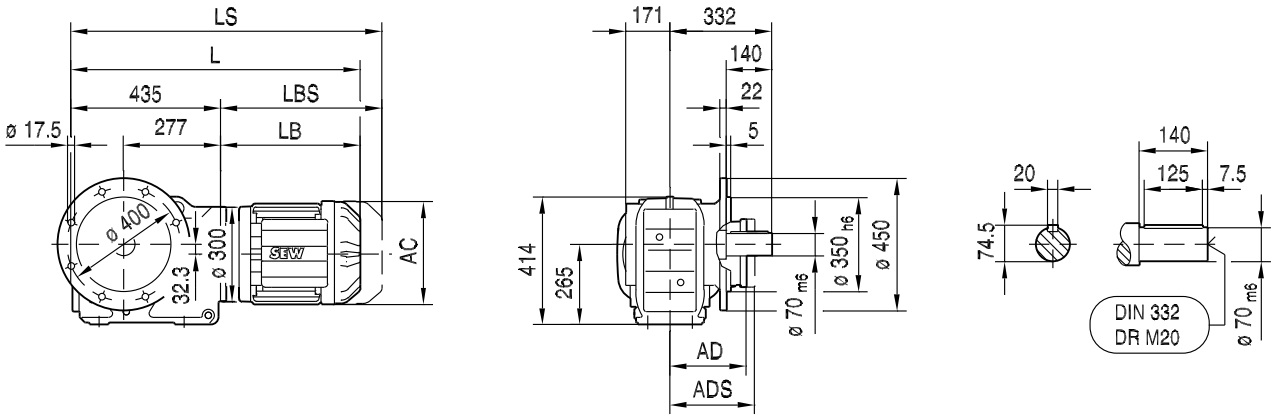
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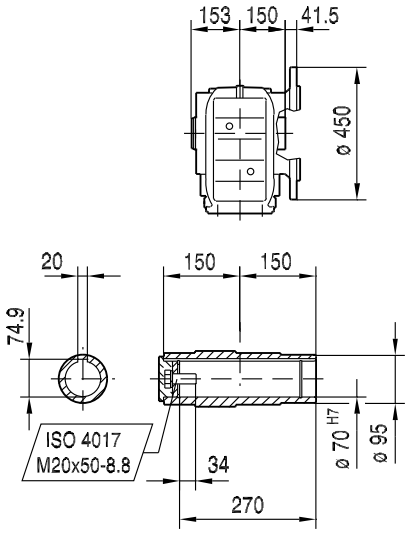
(→ 155)	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L
AC	197	197	221	221	261	261	314	314	357	394
AD	157	157	170	170	228	228	253	253	268	283
ADS	158	158	172	172	228	228	253	253	268	283
L	725	775	806	856	874	900	966	966	989	1099
LS	819	869	918	968	1012	1037	1155	1155	1178	1304
LB	288	338	369	419	437	463	529	529	552	662
LBS	382	432	481	531	575	600	718	718	741	867

KF97..

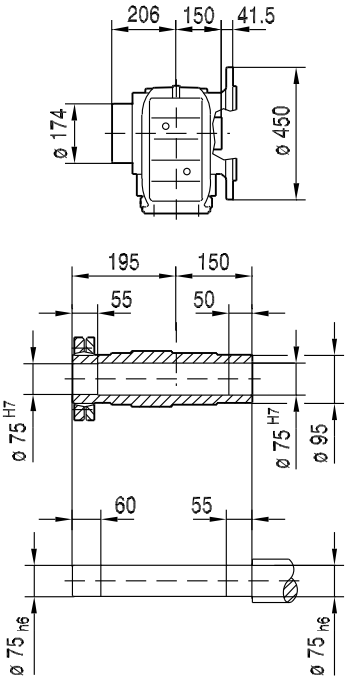
33 068 00 14



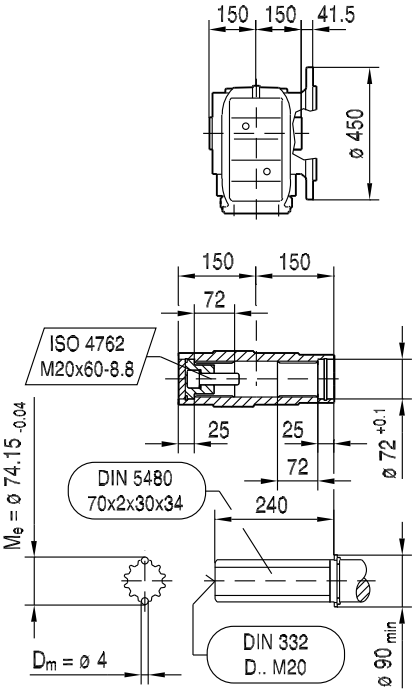
KAF97..



KHF97..



KVF97..

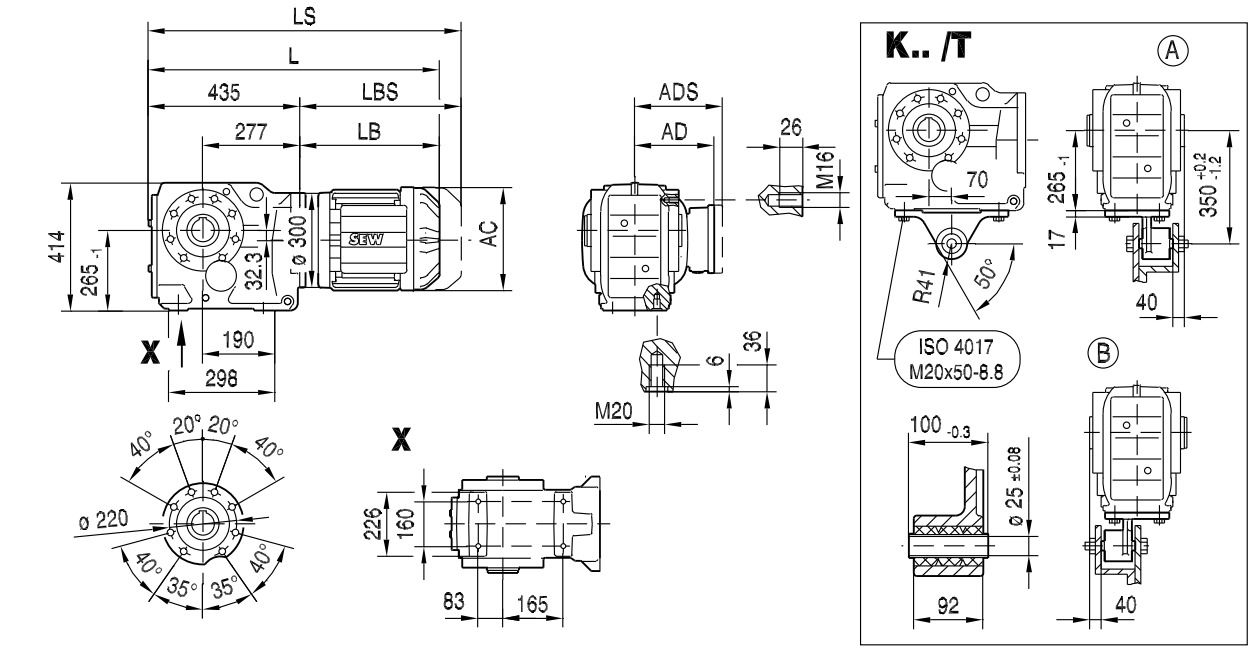


(→ 155)	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L
AC	197	197	221	221	261	261	314	314	357	394
AD	157	157	170	170	228	228	253	253	268	283
ADS	158	158	172	172	228	228	253	253	268	283
L	723	773	804	854	872	898	964	964	987	1097
LS	817	867	916	966	1010	1035	1153	1153	1176	1302
LB	288	338	369	419	437	463	529	529	552	662
LBS	382	432	481	531	575	600	718	718	741	867

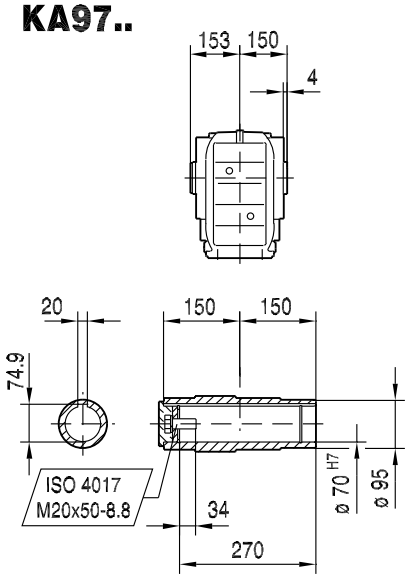
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33 069 00 14

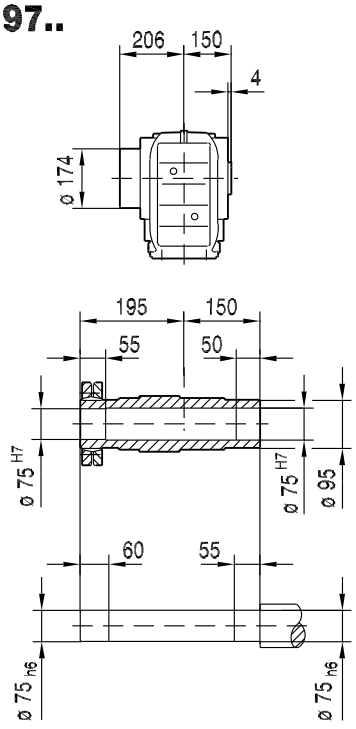
KA97..



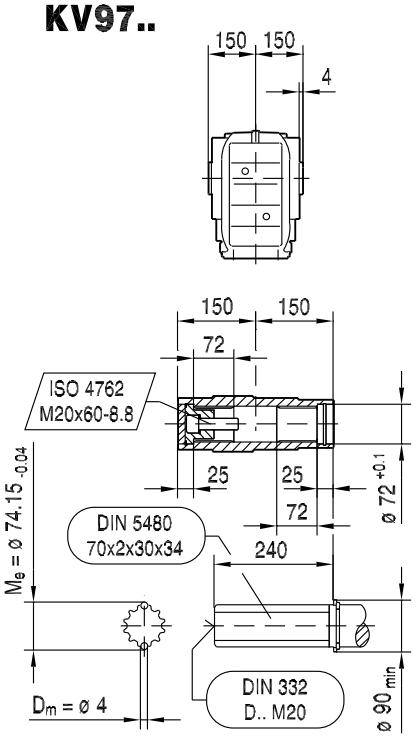
KA97..



KH97..



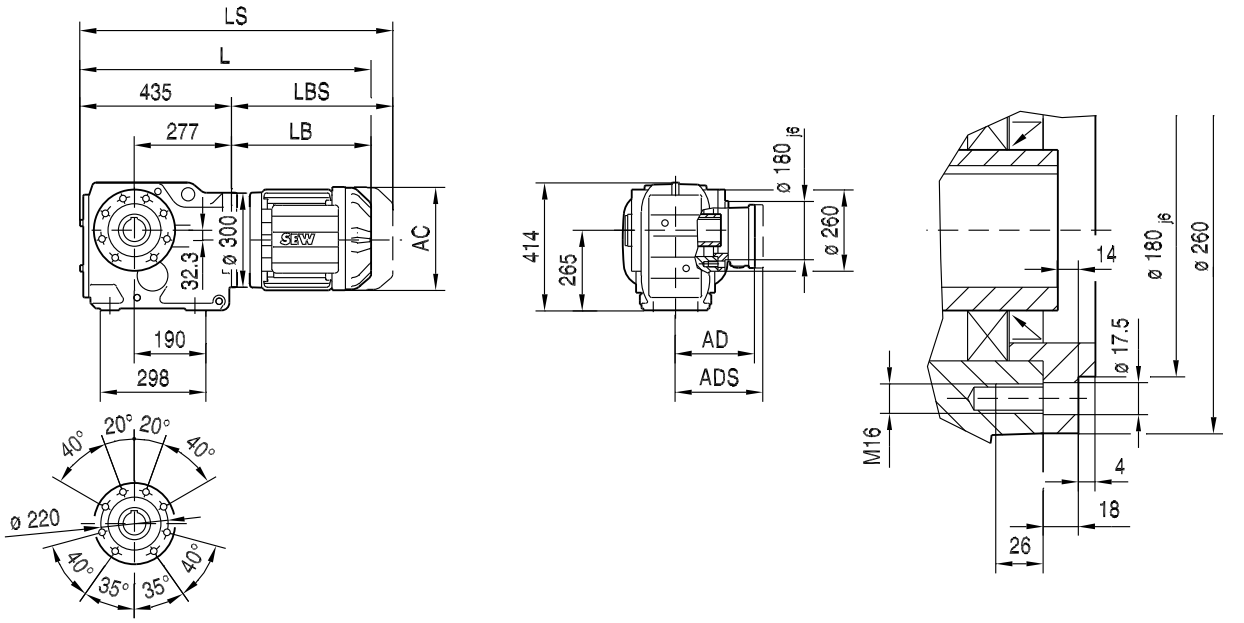
KV97..



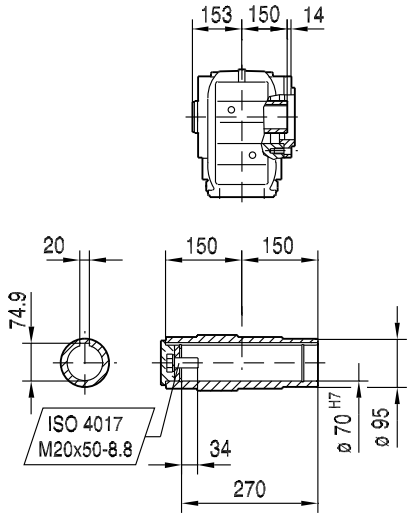
(→ 🗎 155)	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L
AC	197	197	221	221	261	261	314	314	357	394
AD	157	157	170	170	228	228	253	253	268	283
ADS	158	158	172	172	228	228	253	253	268	283
L	723	773	804	854	872	898	964	964	987	1097
LS	817	867	916	966	1010	1035	1153	1153	1176	1302
LB	288	338	369	419	437	463	529	529	552	662
LBS	382	432	481	531	575	600	718	718	741	867

33 070 00 14

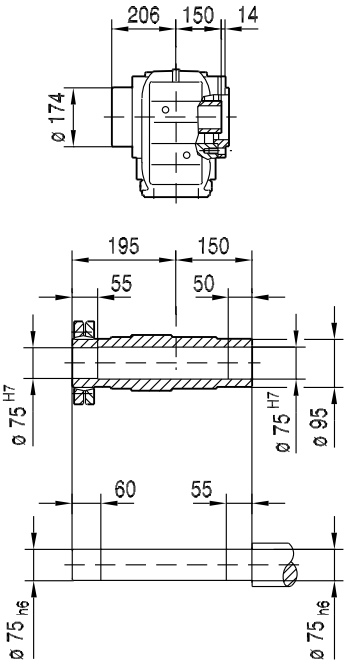
KAZ97..



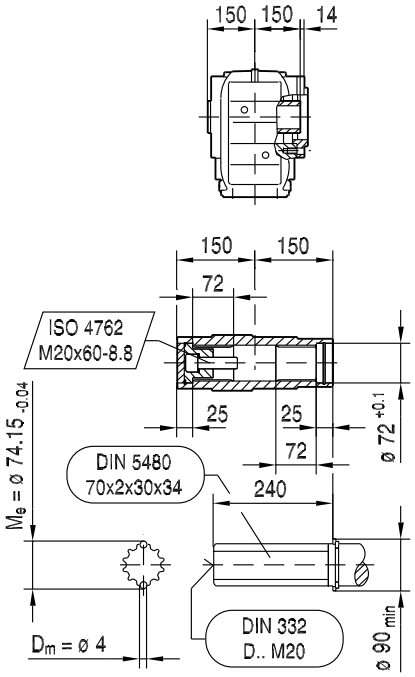
KAZ97..



KHZ97..



KVZ97..

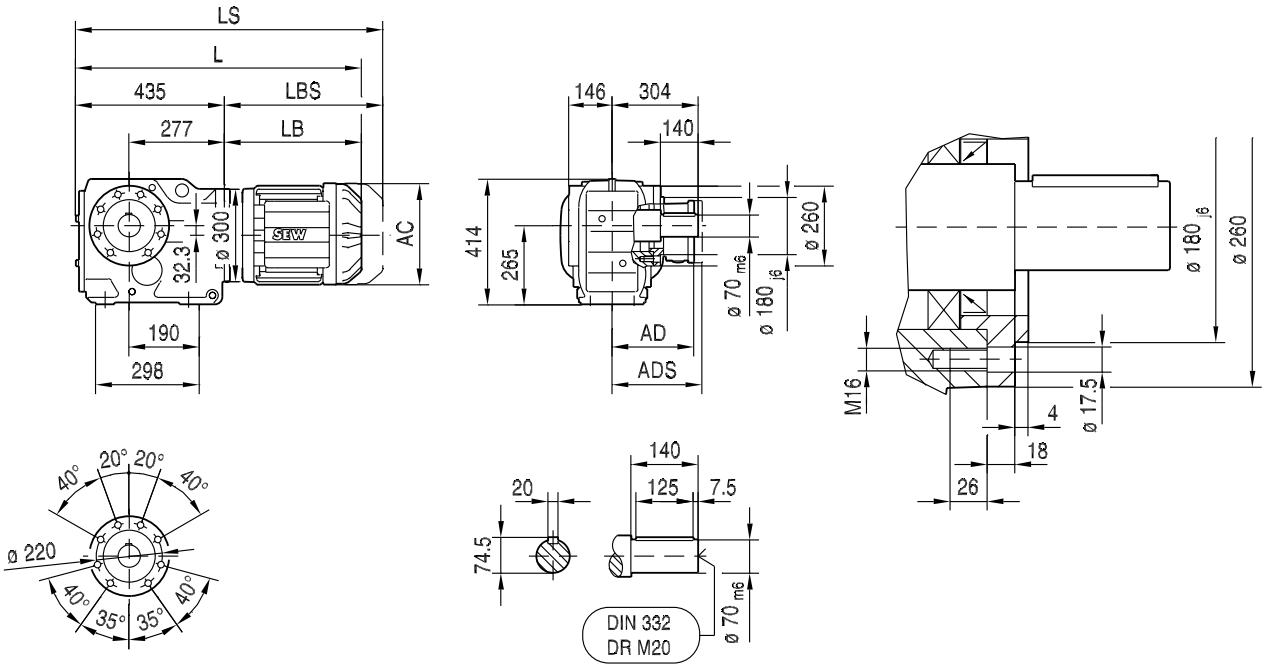


(→ 155)	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L
AC	197	197	221	221	261	261	314	314	357	394
AD	157	157	170	170	228	228	253	253	268	283
ADS	158	158	172	172	228	228	253	253	268	283
L	723	773	804	854	872	898	964	964	987	1097
LS	817	867	916	966	1010	1035	1153	1153	1176	1302
LB	288	338	369	419	437	463	529	529	552	662
LBS	382	432	481	531	575	600	718	718	741	867

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33 238 00 15

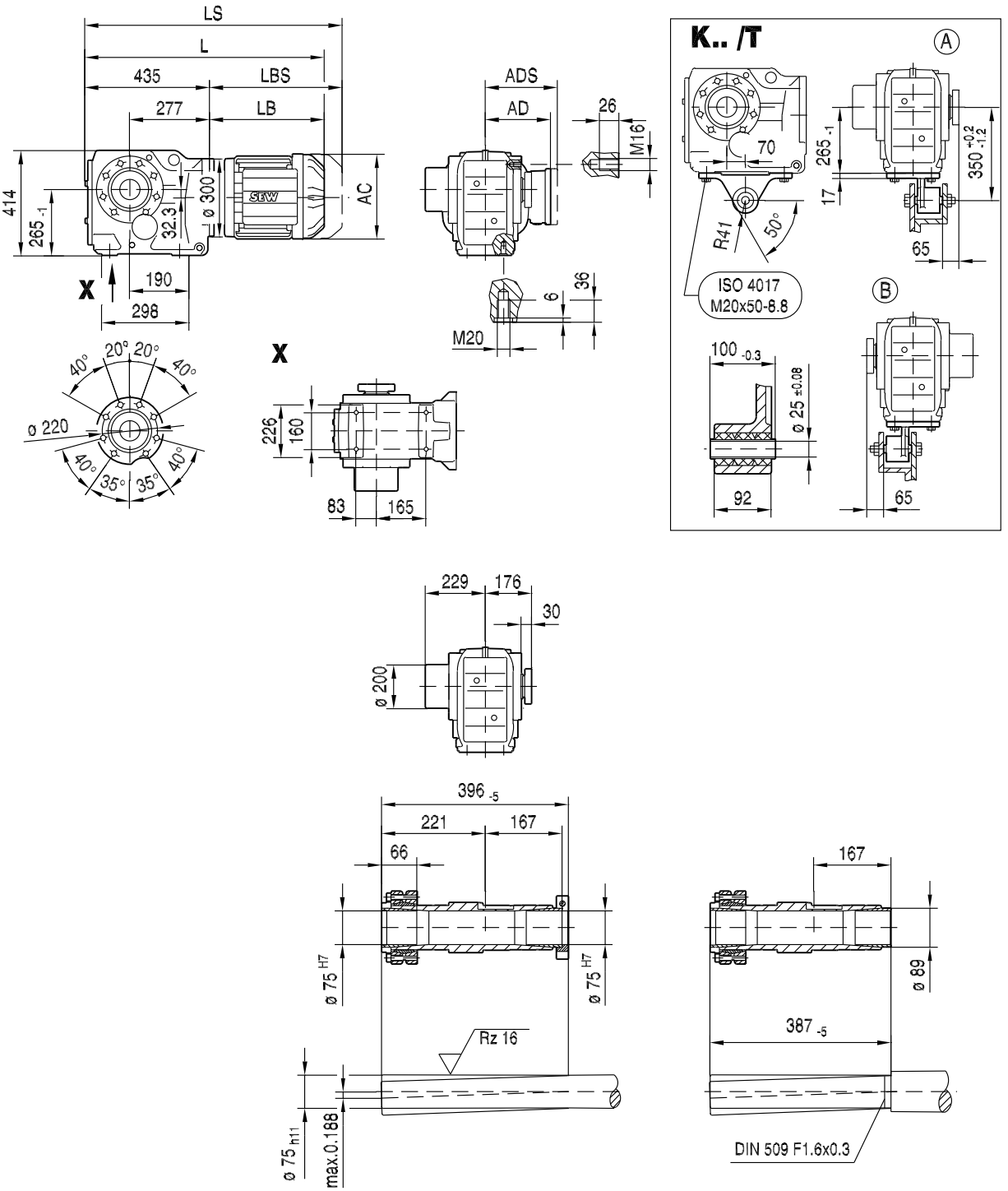
KZ97..



(→ 🗎 155)	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L
AC	197	197	221	221	261	261	314	314	357	394
AD	157	157	170	170	228	228	253	253	268	283
ADS	158	158	172	172	228	228	253	253	268	283
L	723	773	804	854	872	898	964	964	987	1097
LS	817	867	916	966	1010	1035	1153	1153	1176	1302
LB	288	338	369	419	437	463	529	529	552	662
LBS	382	432	481	531	575	600	718	718	741	867

KT97..

33 071 00 14

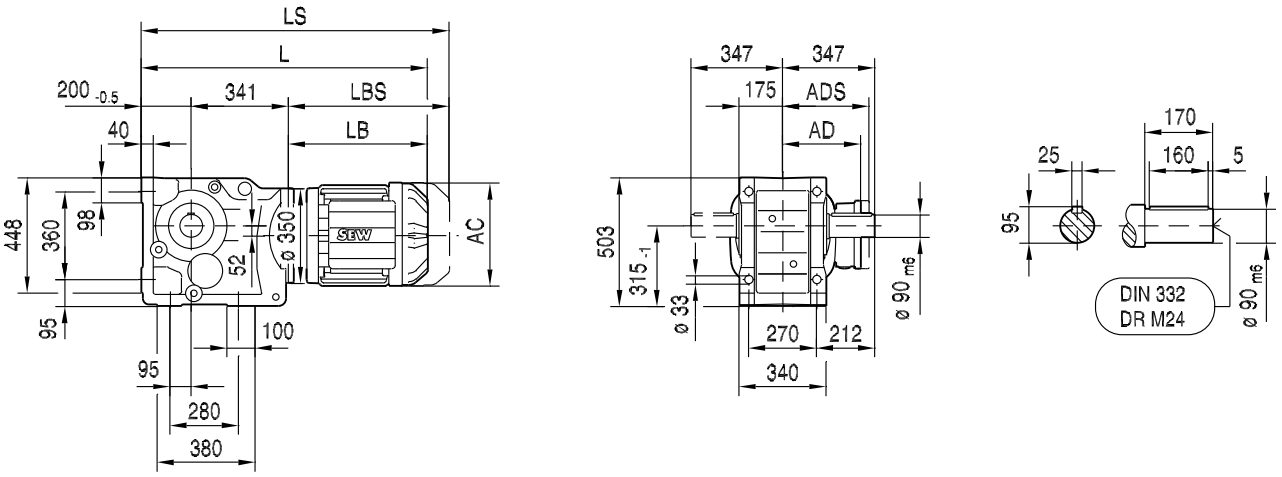


(→ 155)	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L
AC	197	197	221	221	261	261	314	314	357	394
AD	157	157	170	170	228	228	253	253	268	283
ADS	158	158	172	172	228	228	253	253	268	283
L	723	773	804	854	872	898	964	964	987	1097
LS	817	867	916	966	1010	1035	1153	1153	1176	1302
LB	288	338	369	419	437	463	529	529	552	662
LBS	382	432	481	531	575	600	718	718	741	867

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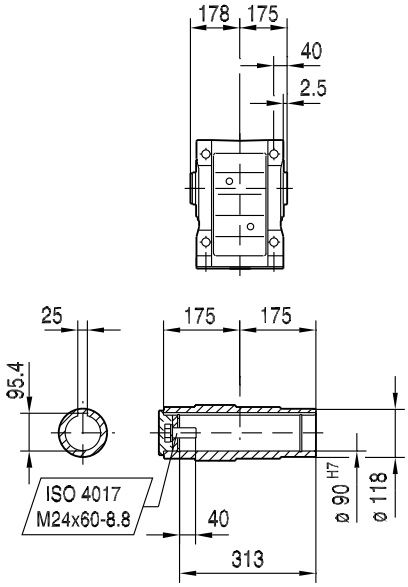
33 072 00 14

K107..

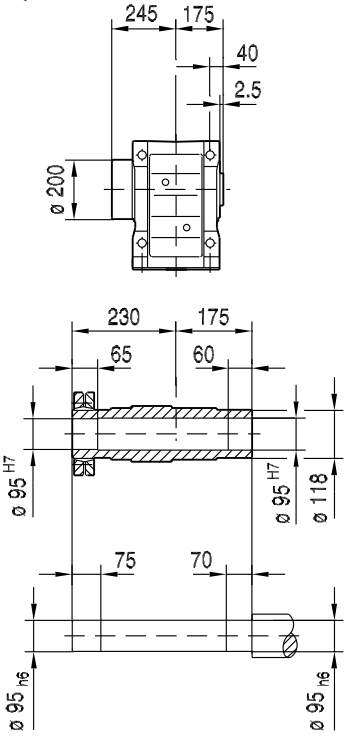


10

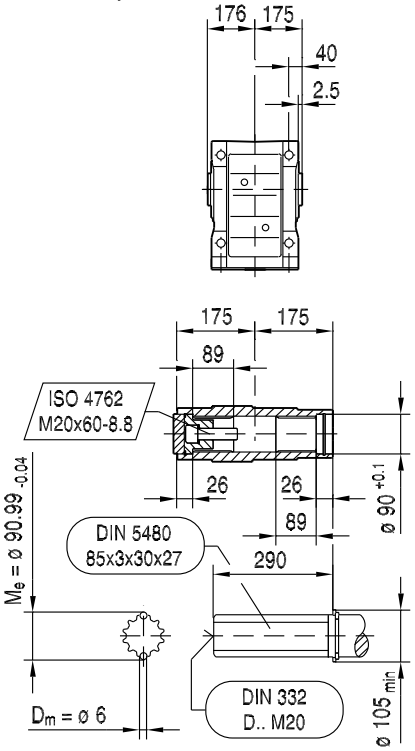
KA107B..



KH107B..



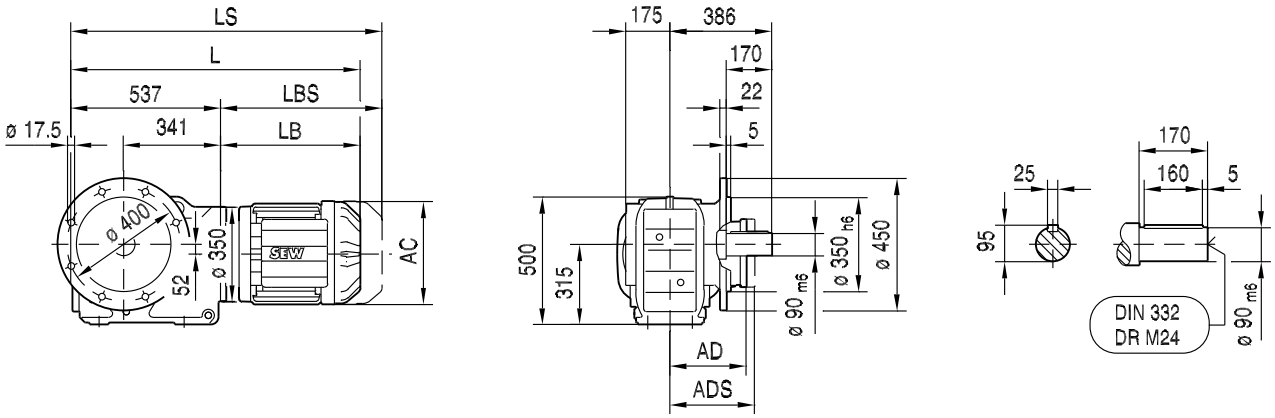
KV107B..



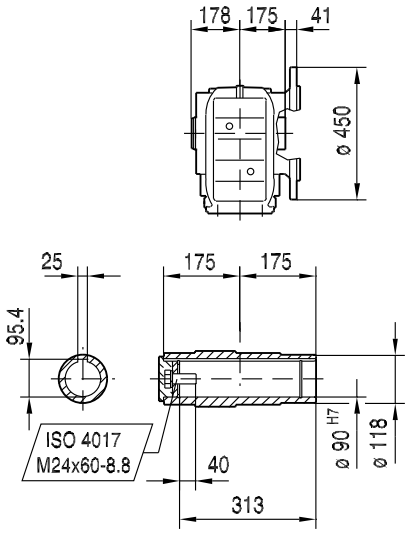
(→ 155)	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..
AC	197	221	221	261	261	314	314	357	394	434
AD	157	170	170	228	228	253	253	268	283	305
ADS	158	172	172	228	228	253	253	268	283	305
L	873	904	954	972	998	1064	1064	1087	1197	1171
LS	967	1016	1066	1110	1135	1253	1253	1276	1402	1376
LB	332	363	413	431	457	523	523	546	656	630
LBS	426	475	525	569	594	712	712	735	861	835

KF107..

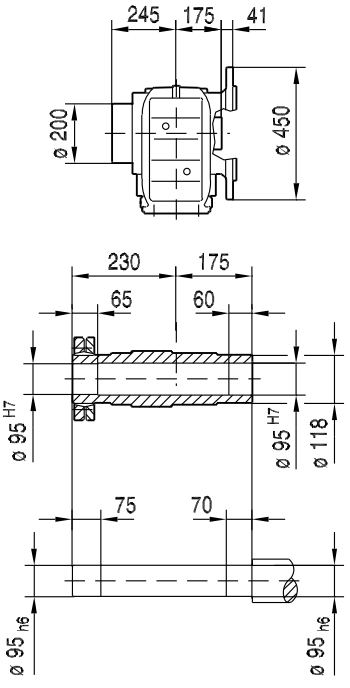
33 073 00 14



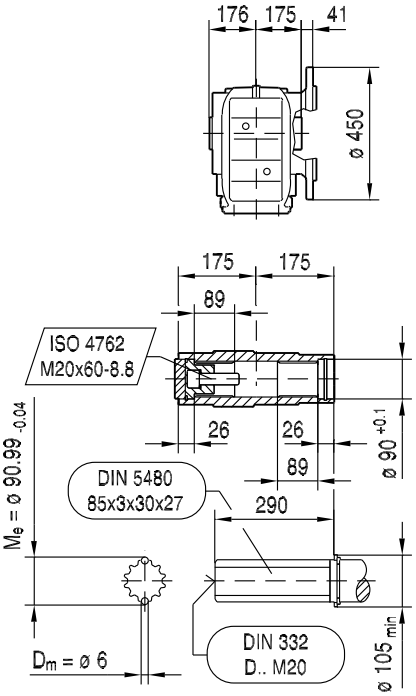
KAF107..



KHF107..



KVF107..

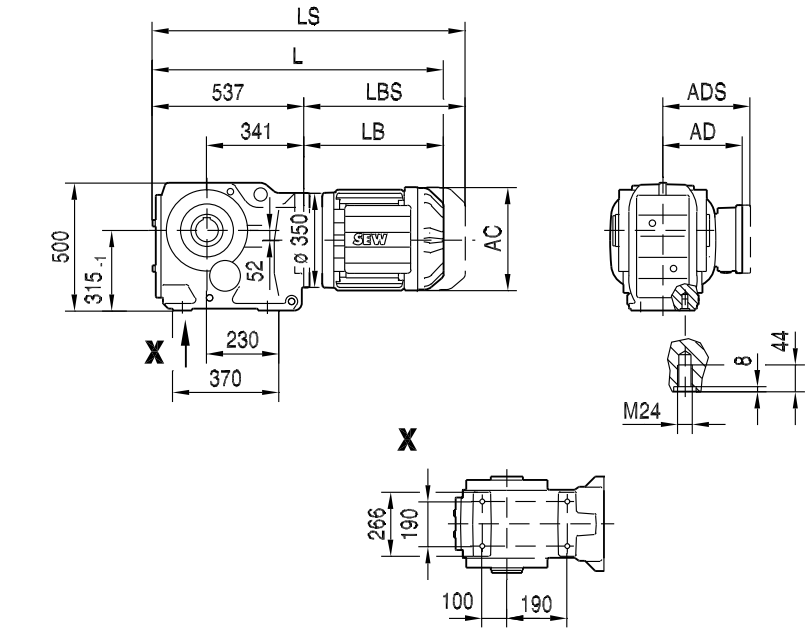


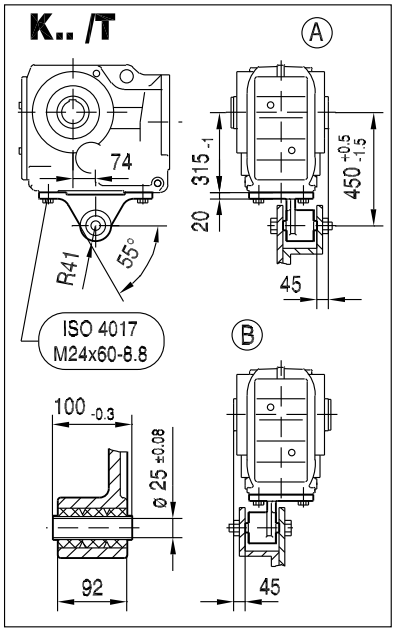
(→ 155)	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..
AC	197	221	221	261	261	314	314	357	394	434
AD	157	170	170	228	228	253	253	268	283	305
ADS	158	172	172	228	228	253	253	268	283	305
L	869	900	950	968	994	1060	1060	1083	1193	1167
LS	963	1012	1062	1106	1131	1249	1249	1272	1398	1372
LB	332	363	413	431	457	523	523	546	656	630
LBS	426	475	525	569	594	712	712	735	861	835

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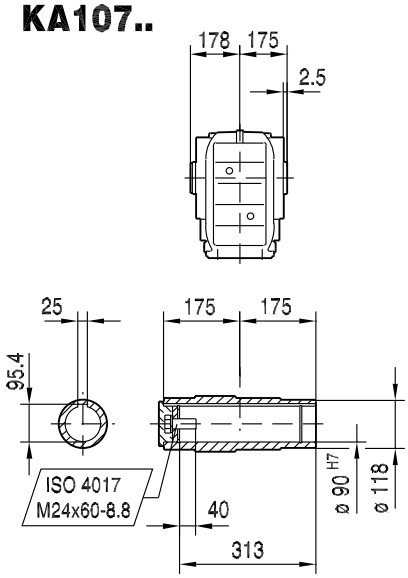
33 074 00 14

KA107..

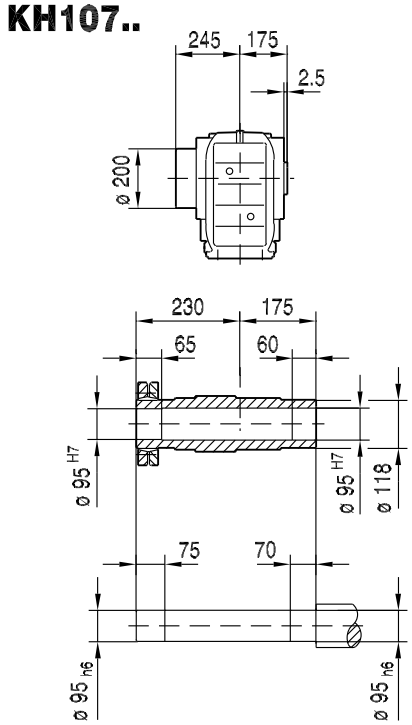




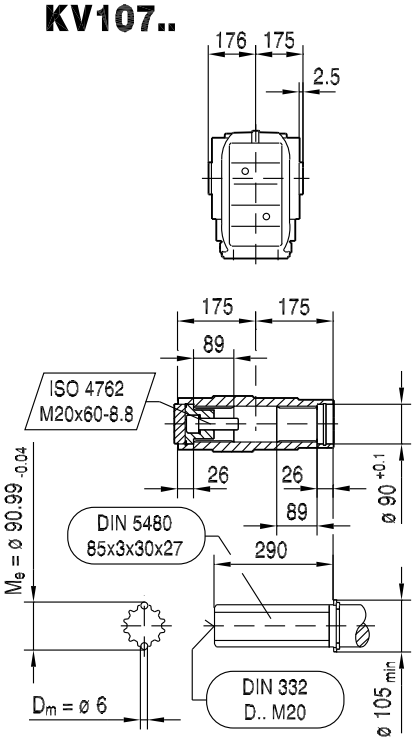
KA107..



KH107..



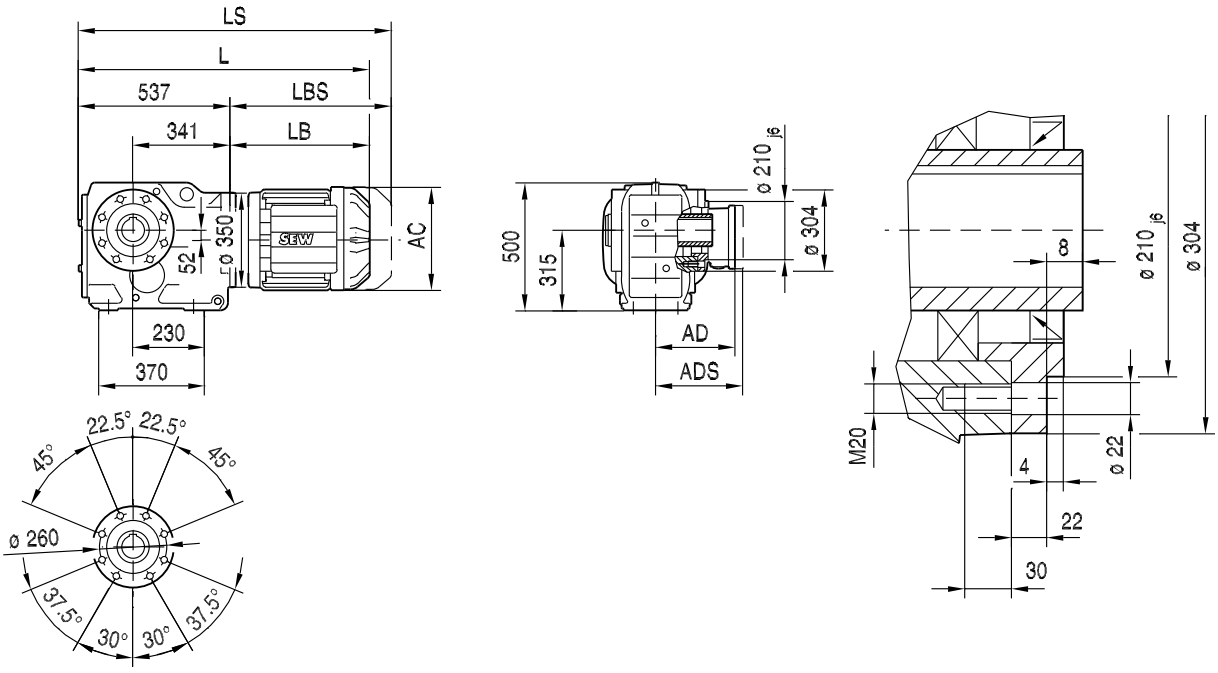
KV107..



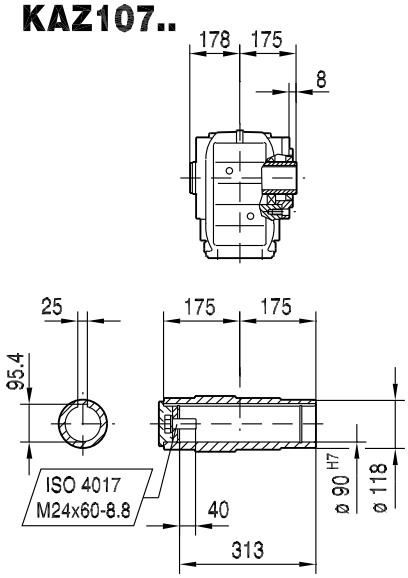
(→ 155)	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..
AC	197	221	221	261	261	314	314	357	394	434
AD	157	170	170	228	228	253	253	268	283	305
ADS	158	172	172	228	228	253	253	268	283	305
L	869	900	950	968	994	1060	1060	1083	1193	1167
LS	963	1012	1062	1106	1131	1249	1249	1272	1398	1372
LB	332	363	413	431	457	523	523	546	656	630
LBS	426	475	525	569	594	712	712	735	861	835

33 075 00 14

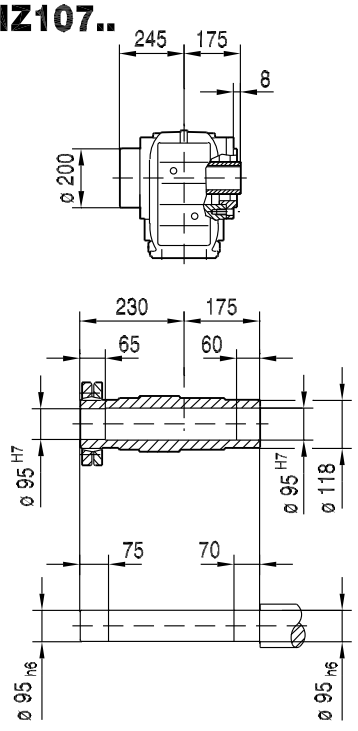
KAZ107..



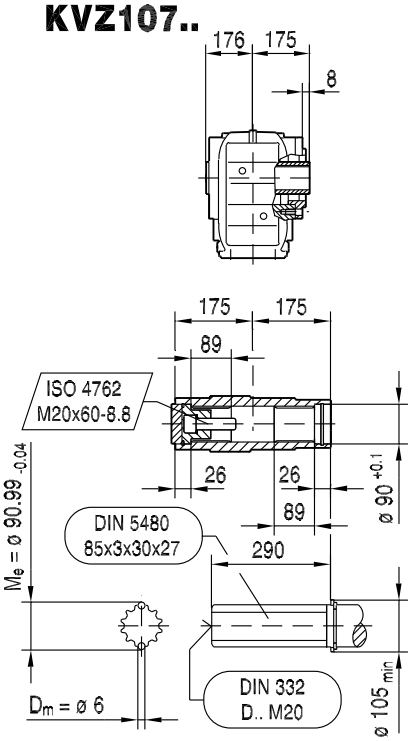
KAZ107..



KHZ107..



KVZ107..

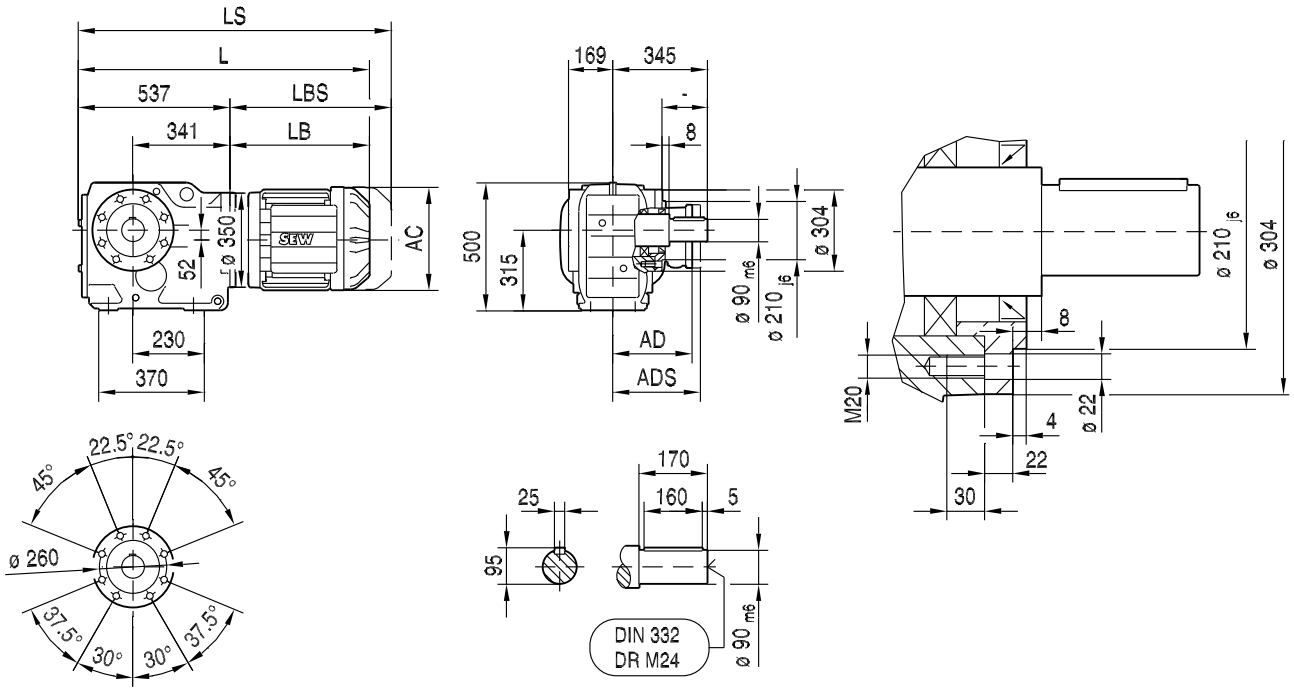


(→ 155)	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..
AC	197	221	221	261	261	314	314	357	394	434
AD	157	170	170	228	228	253	253	268	283	305
ADS	158	172	172	228	228	253	253	268	283	305
L	869	900	950	968	994	1060	1060	1083	1193	1167
LS	963	1012	1062	1106	1131	1249	1249	1272	1398	1372
LB	332	363	413	431	457	523	523	546	656	630
LBS	426	475	525	569	594	712	712	735	861	835

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KZ107..

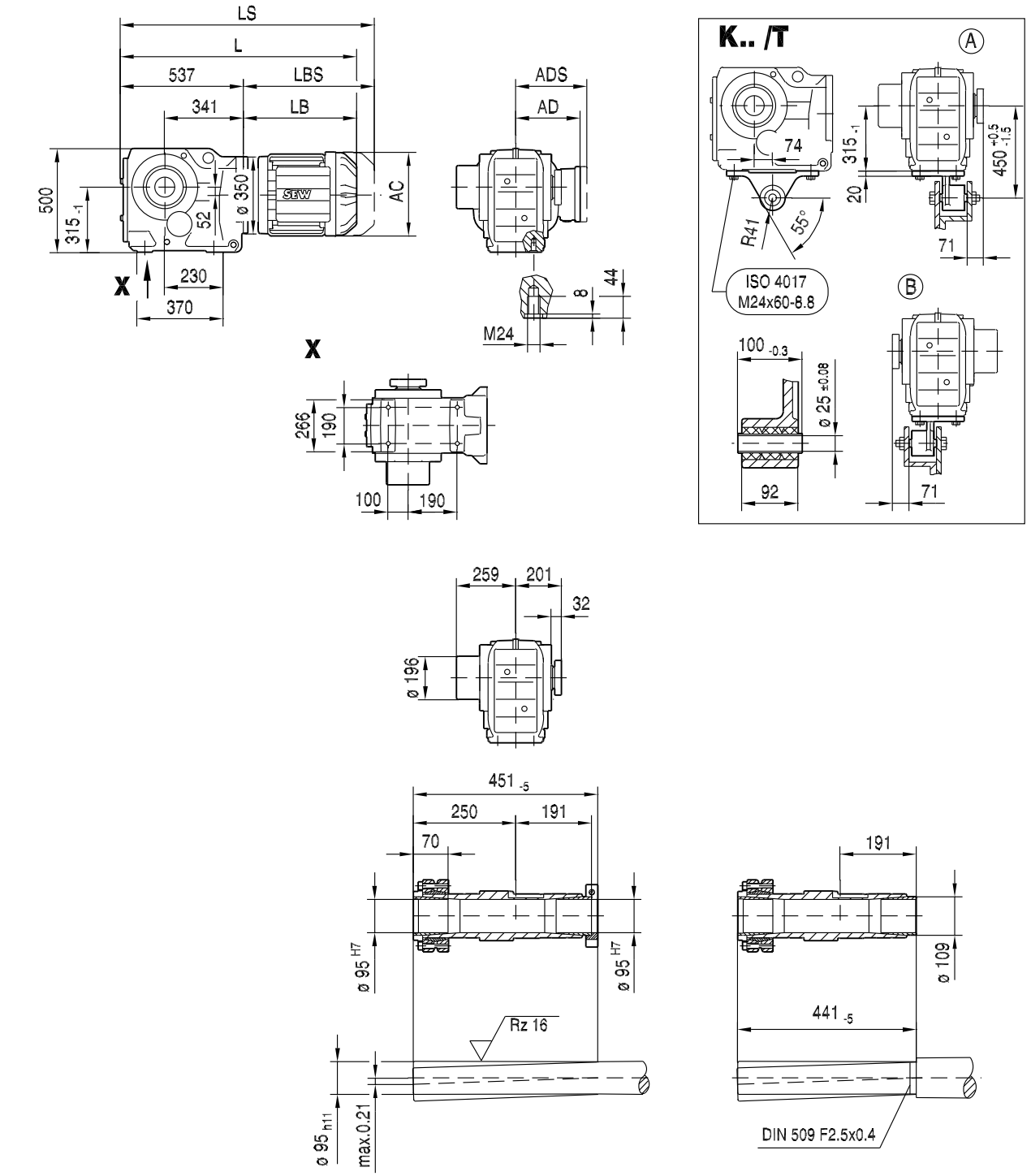
33 239 00 15



(→ 155)	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..
AC	197	221	221	261	261	314	314	357	394	434
AD	157	170	170	228	228	253	253	268	283	305
ADS	158	172	172	228	228	253	253	268	283	305
L	869	900	950	968	994	1060	1060	1083	1193	1167
LS	963	1012	1062	1106	1131	1249	1249	1272	1398	1372
LB	332	363	413	431	457	523	523	546	656	630
LBS	426	475	525	569	594	712	712	735	861	835

KT107..

33 076 00 14

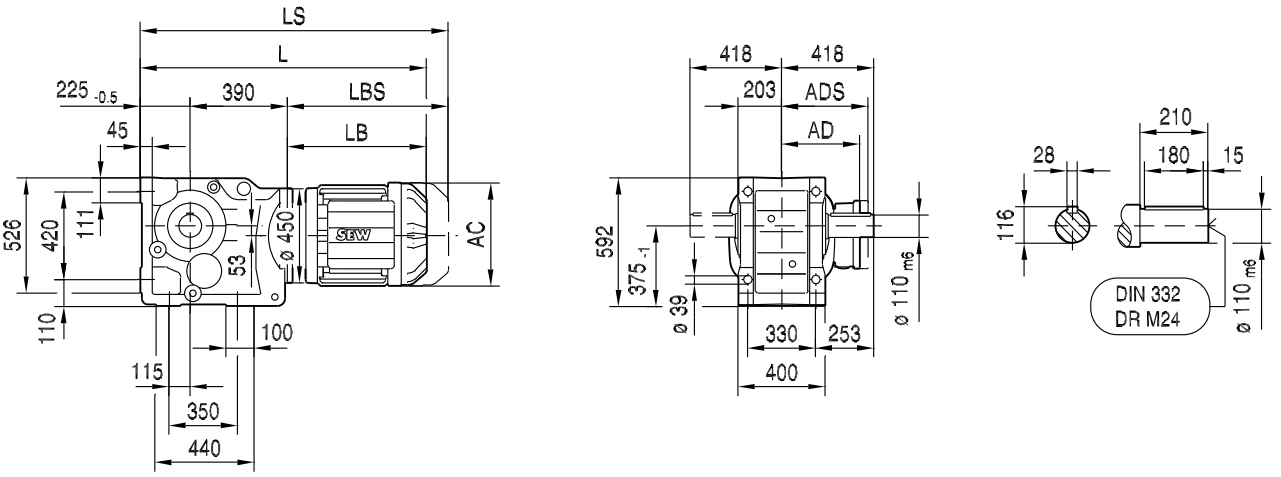


(→ 155)	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..
AC	197	221	221	261	261	314	314	357	394	434
AD	157	170	170	228	228	253	253	268	283	305
ADS	158	172	172	228	228	253	253	268	283	305
L	869	900	950	968	994	1060	1060	1083	1193	1167
LS	963	1012	1062	1106	1131	1249	1249	1272	1398	1372
LB	332	363	413	431	457	523	523	546	656	630
LBS	426	475	525	569	594	712	712	735	861	835

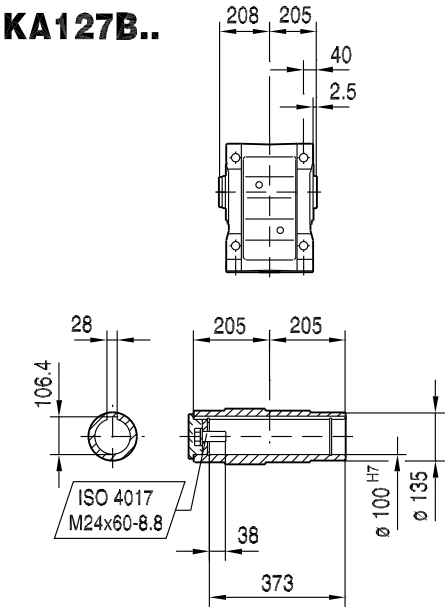
21933189/EN – 11/2015

33 077 00 14

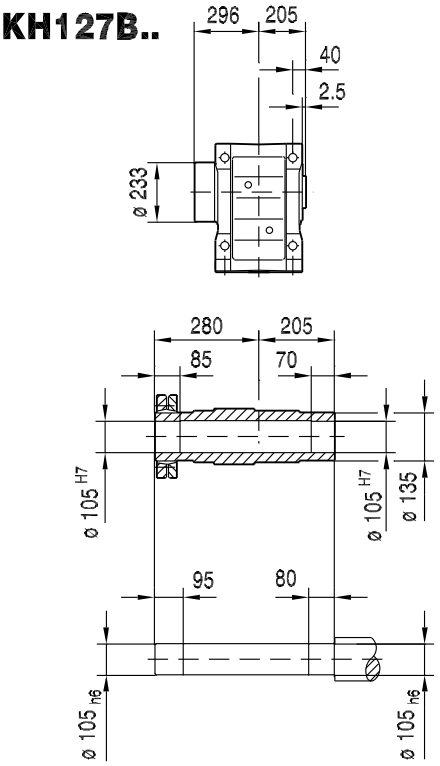
K127..



KA127B..



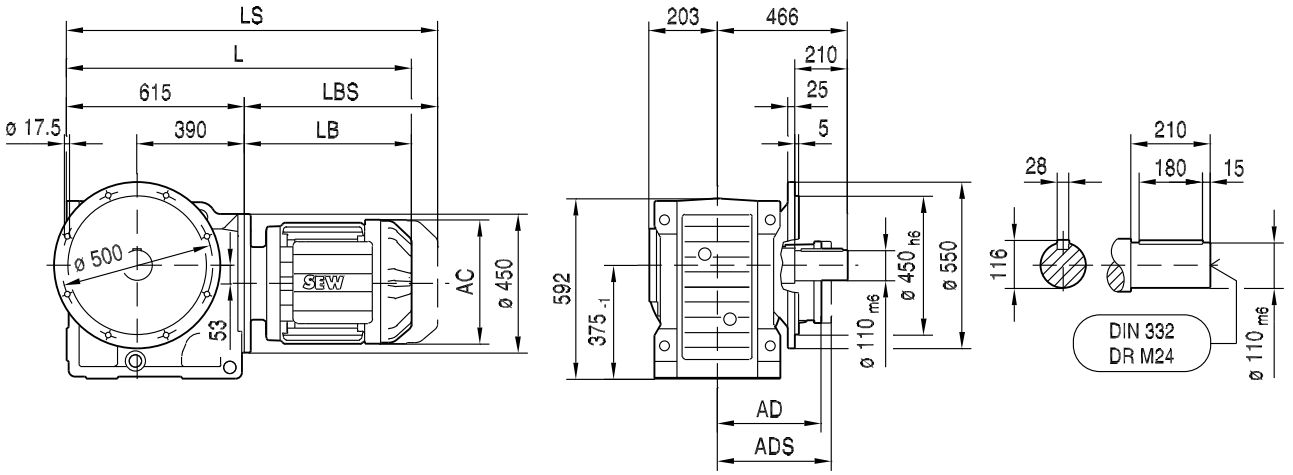
KH127B..



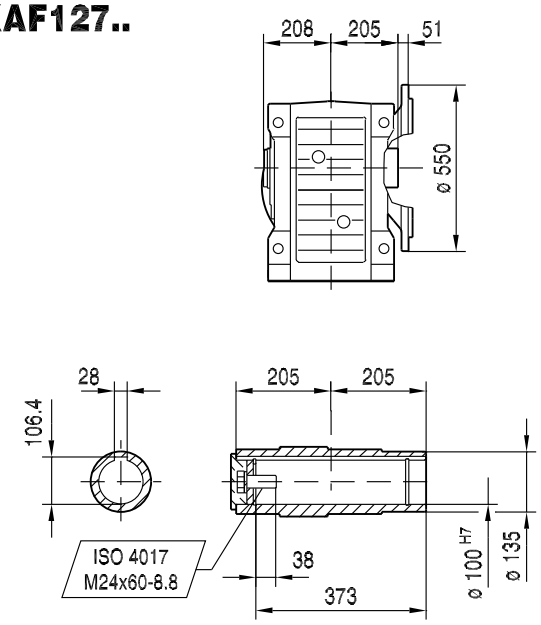
(→ 155)	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M
AC	261	261	314	314	357	394	434	495	495	495
AD	228	228	253	253	268	283	305	394	394	394
ADS	228	228	253	253	268	283	305	394	394	394
L	1031	1057	1123	1123	1146	1256	1230	1367	1367	1462
LS	1169	1194	1312	1312	1335	1461	1435	1607	1607	1702
LB	416	442	508	508	531	641	615	752	752	847
LBS	554	579	697	697	720	846	820	992	992	1087

33 078 00 14

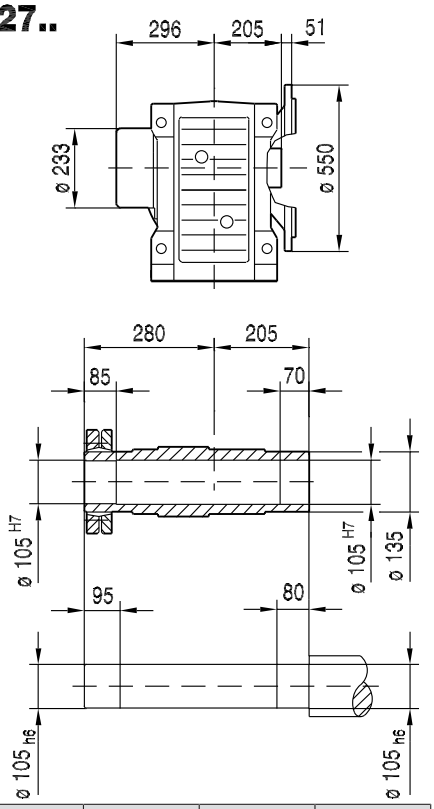
KF127..



KAF127..



KHF127..

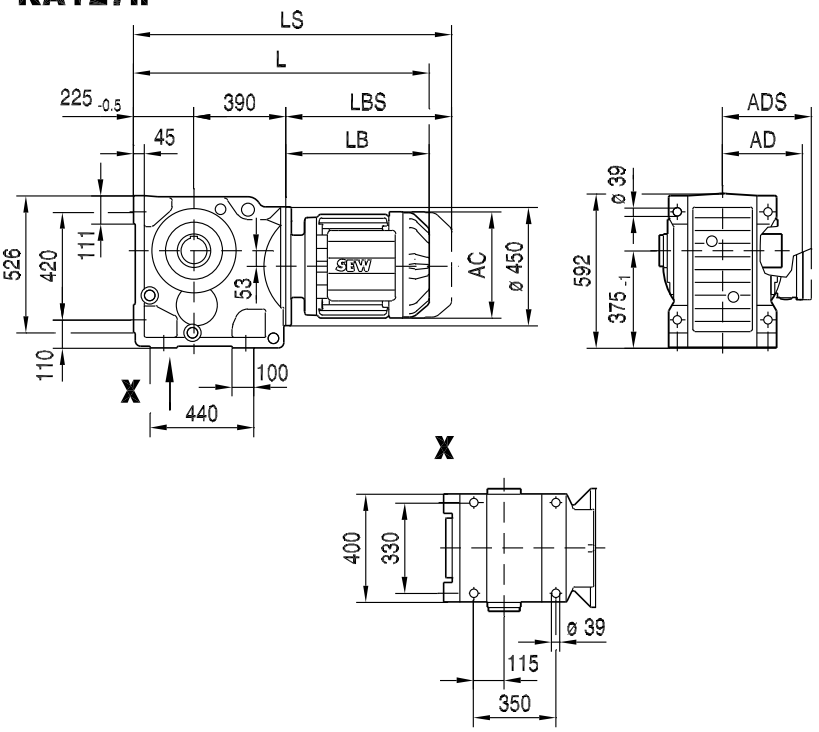


(→ 155)	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M
AC	261	261	314	314	357	394	434	495	495	495
AD	228	228	253	253	268	283	305	394	394	394
ADS	228	228	253	253	268	283	305	394	394	394
L	1031	1057	1123	1123	1146	1256	1230	1367	1367	1462
LS	1169	1194	1312	1312	1335	1461	1435	1607	1607	1702
LB	416	442	508	508	531	641	615	752	752	847
LBS	554	579	697	697	720	846	820	992	992	1087

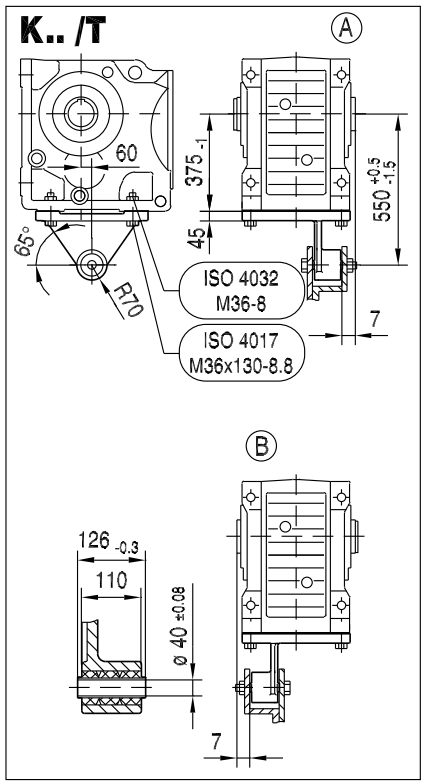
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33 079 00 14

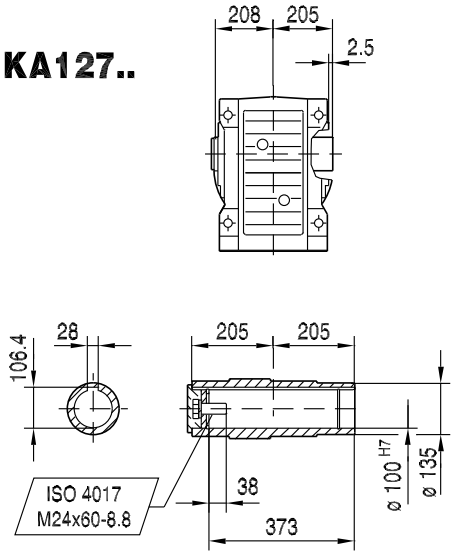
KA127..



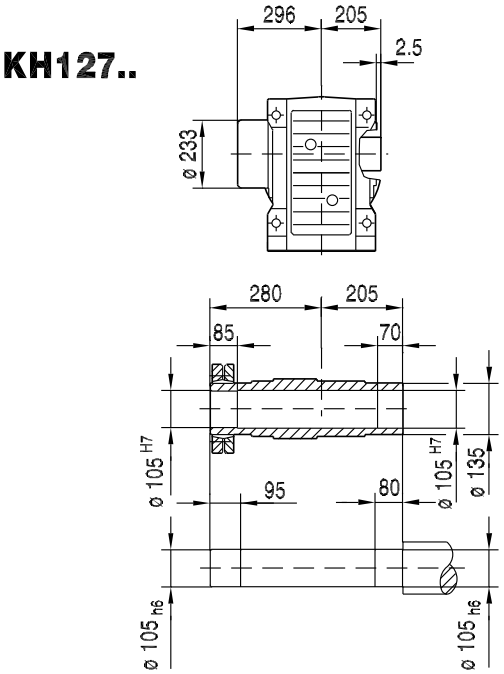
K.. /T



KA127..



KH127..

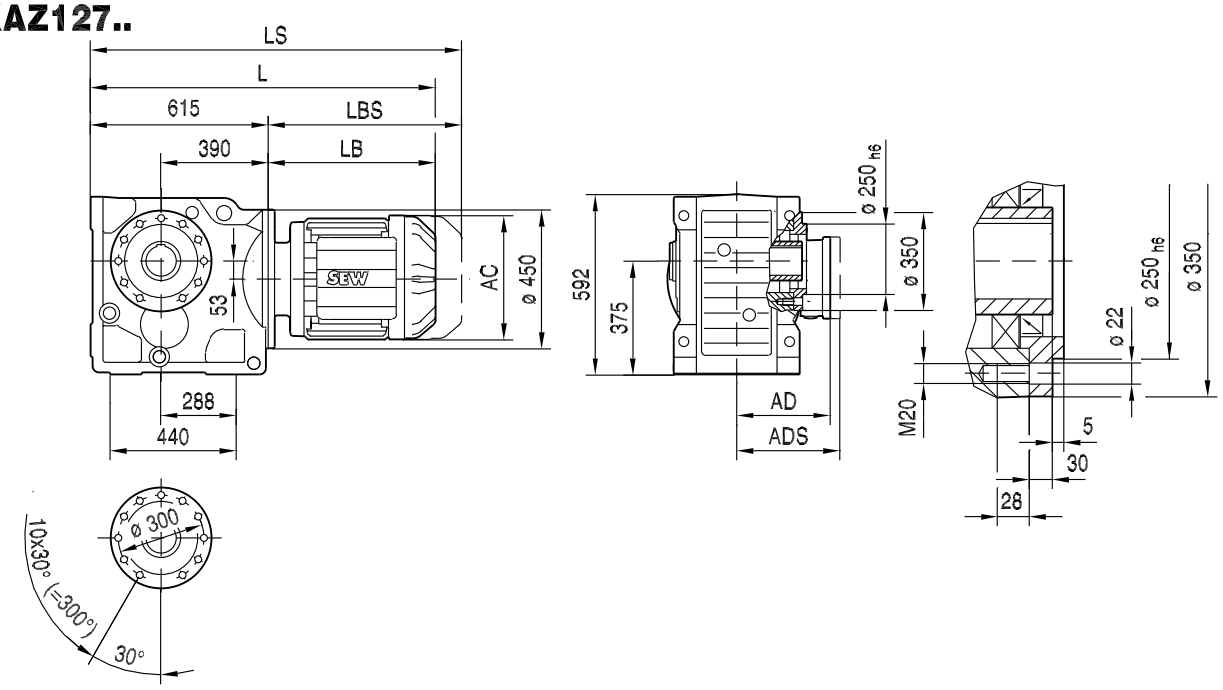


(→ 🗎 155)	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M
AC	261	261	314	314	357	394	434	495	495	495
AD	228	228	253	253	268	283	305	394	394	394
ADS	228	228	253	253	268	283	305	394	394	394
L	1031	1057	1123	1123	1146	1256	1230	1367	1367	1462
LS	1169	1194	1312	1312	1335	1461	1435	1607	1607	1702
LB	416	442	508	508	531	641	615	752	752	847
LBS	554	579	697	697	720	846	820	992	992	1087

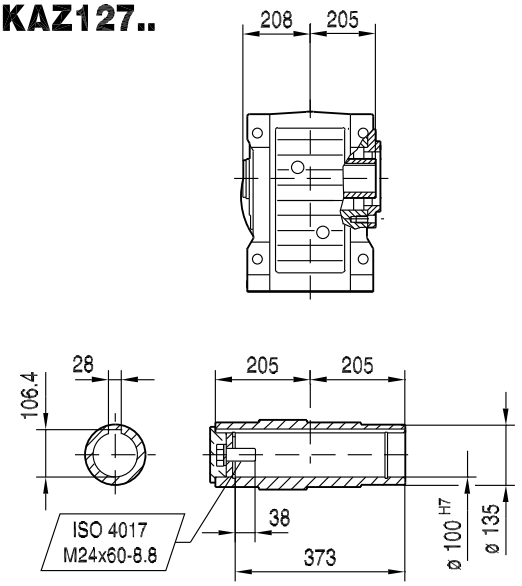
21933189/EN – 11/2015

33 080 00 14

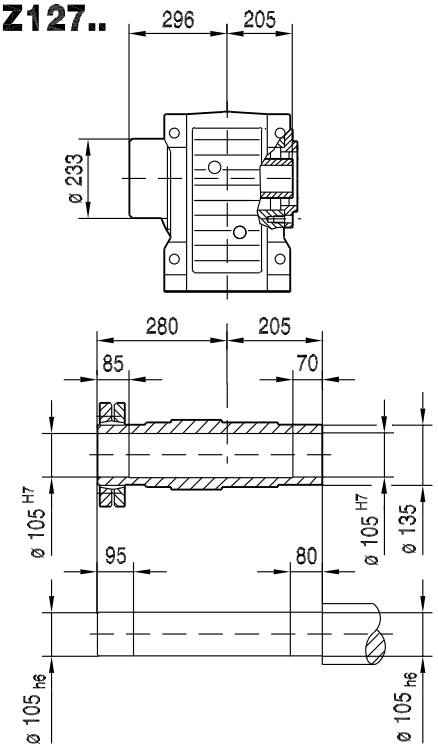
KAZ127..



KAZ127..



KHZ127..

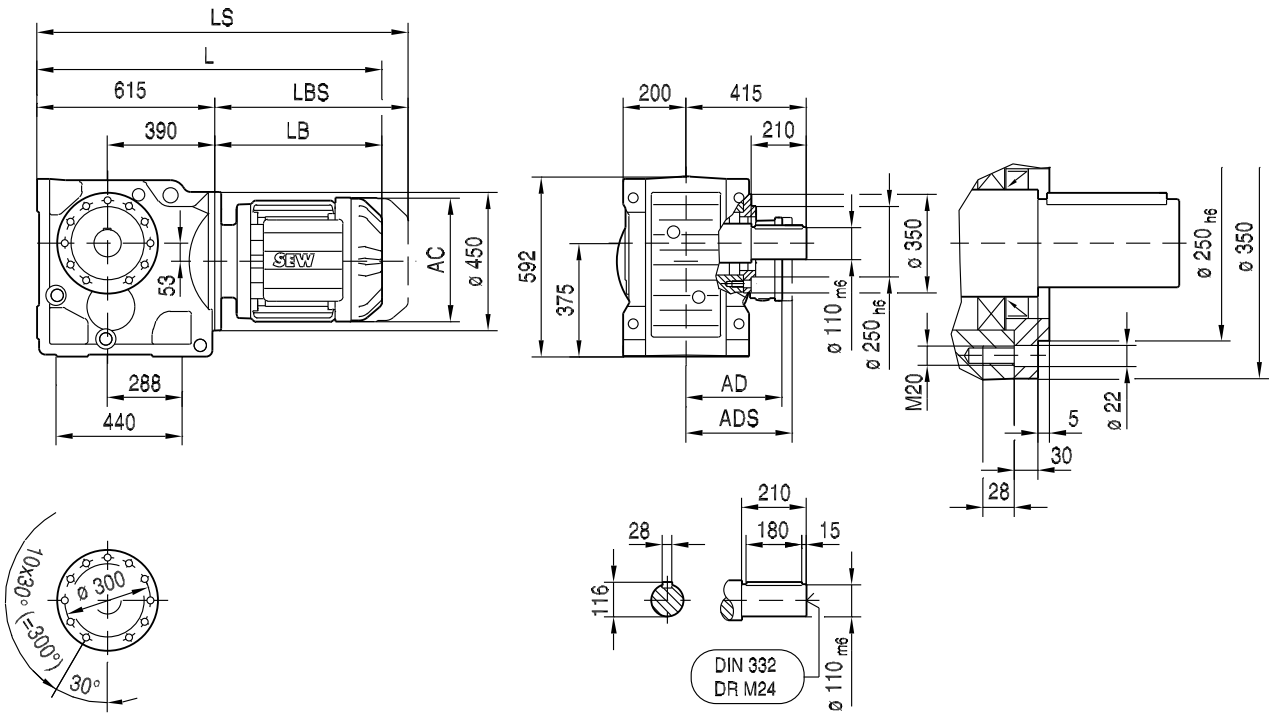


(→ 155)	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M
AC	261	261	314	314	357	394	434	495	495	495
AD	228	228	253	253	268	283	305	394	394	394
ADS	228	228	253	253	268	283	305	394	394	394
L	1031	1057	1123	1123	1146	1256	1230	1367	1367	1462
LS	1169	1194	1312	1312	1335	1461	1435	1607	1607	1702
LB	416	442	508	508	531	641	615	752	752	847
LBS	554	579	697	697	720	846	820	992	992	1087

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33 240 00 15

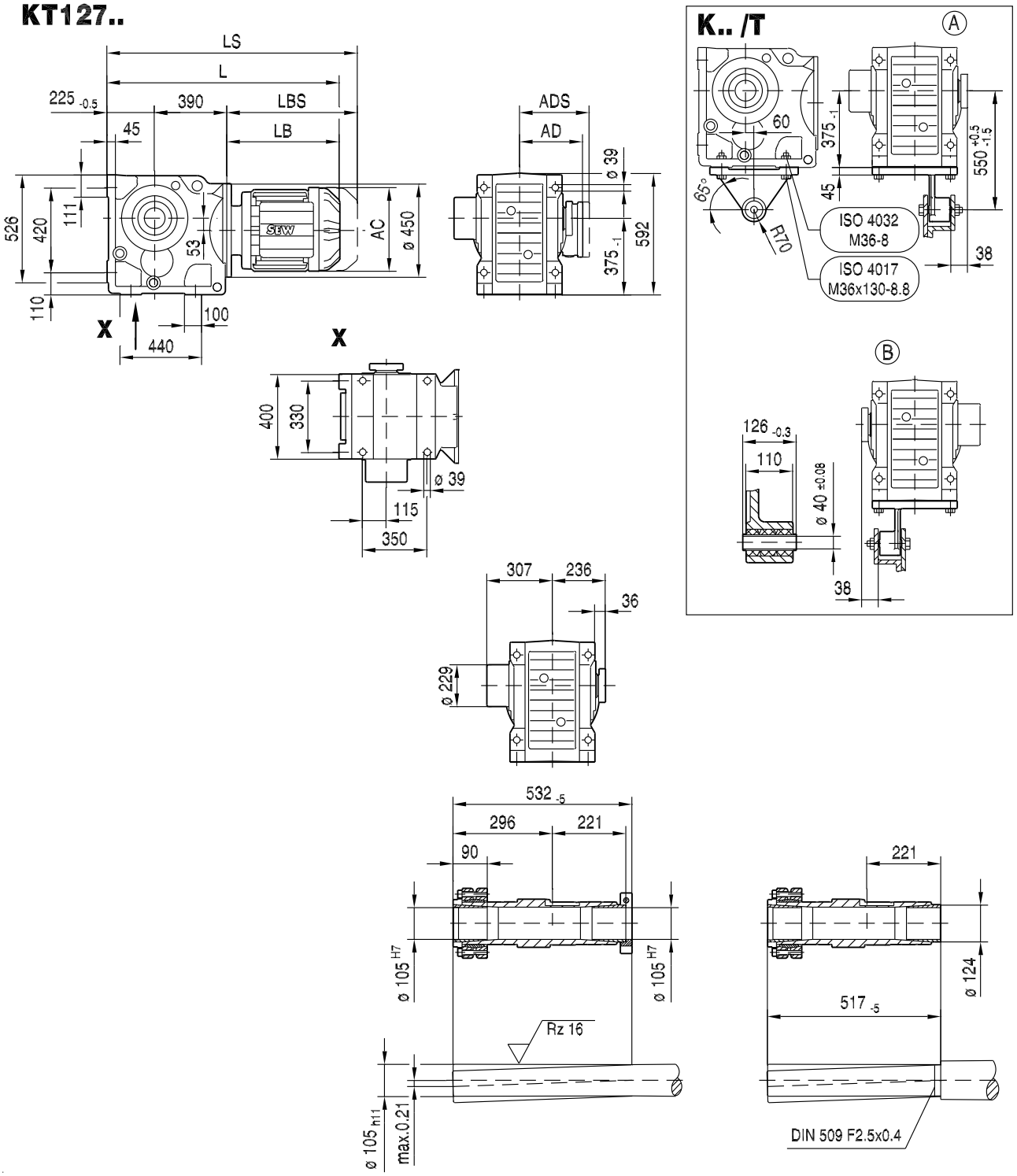
KZ127..



(→ 🗎 155)	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M
AC	261	261	314	314	357	394	434	495	495	495
AD	228	228	253	253	268	283	305	394	394	394
ADS	228	228	253	253	268	283	305	394	394	394
L	1031	1057	1123	1123	1146	1256	1230	1367	1367	1462
LS	1169	1194	1312	1312	1335	1461	1435	1607	1607	1702
LB	416	442	508	508	531	641	615	752	752	847
LBS	554	579	697	697	720	846	820	992	992	1087

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33 081 00 14

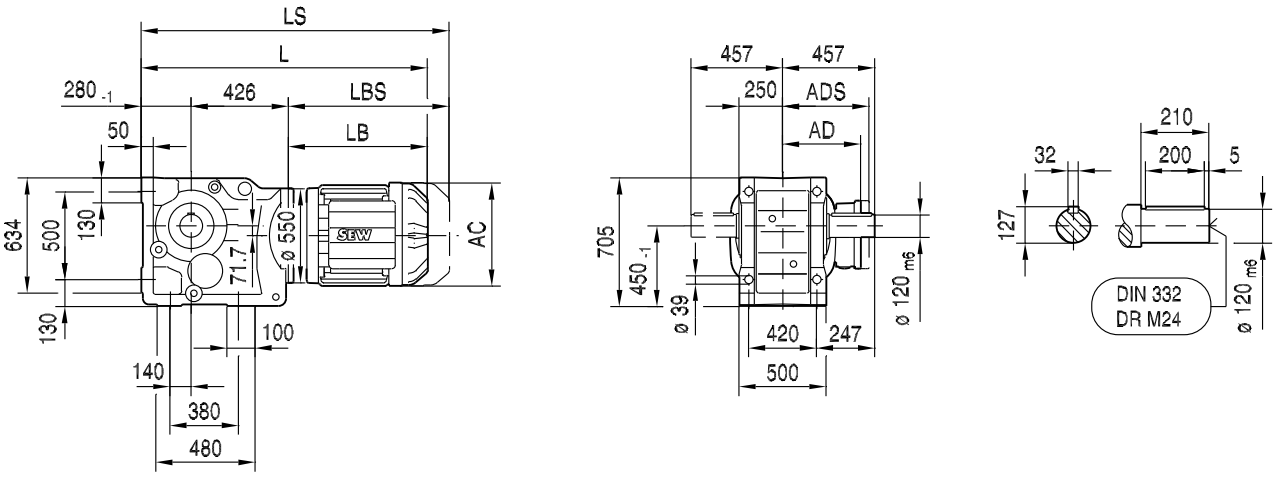


(→ 155)	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M
AC	261	261	314	314	357	394	434	495	495	495
AD	228	228	253	253	268	283	305	394	394	394
ADS	228	228	253	253	268	283	305	394	394	394
L	1031	1057	1123	1123	1146	1256	1230	1367	1367	1462
LS	1169	1194	1312	1312	1335	1461	1435	1607	1607	1702
LB	416	442	508	508	531	641	615	752	752	847
LBS	554	579	697	697	720	846	820	992	992	1087

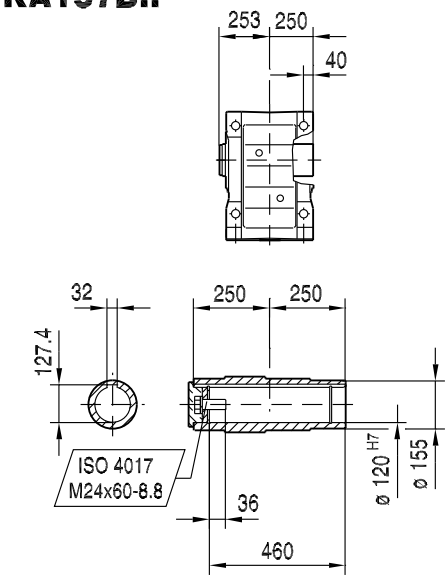
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33 082 00 14

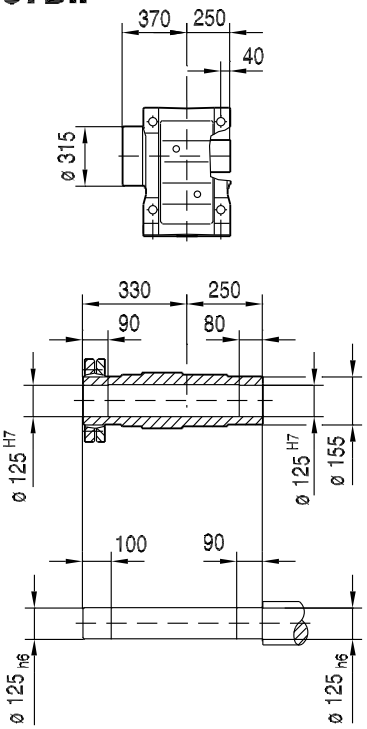
K157..



KA157B..



KH157B..

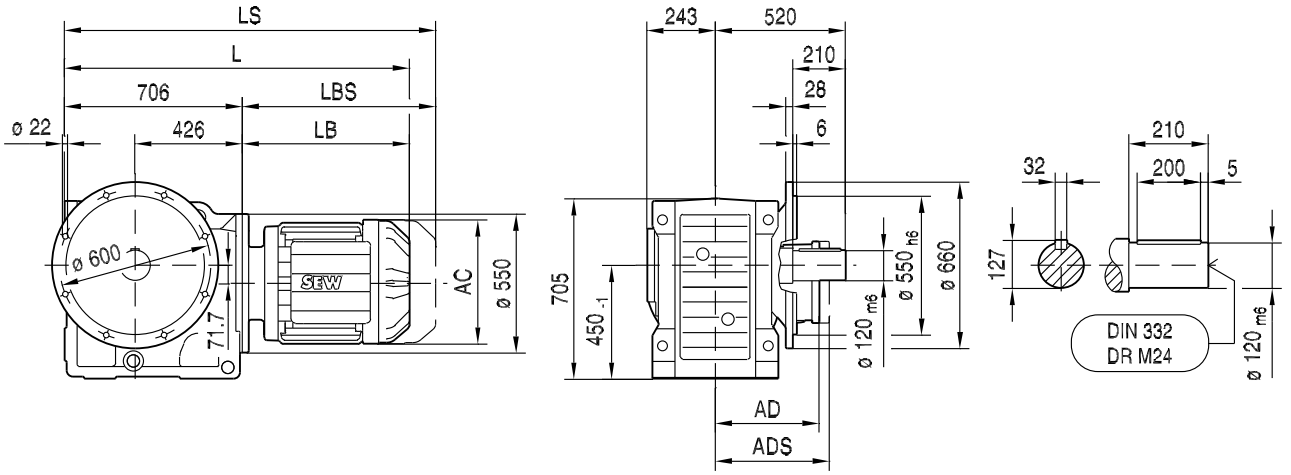


(→ 155)	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M	DRN315S-M	DRN315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1206	1229	1339	1313	1450	1450	1545	1647	1777
LS	1395	1418	1544	1518	1690	1690	1785	1898	2028
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

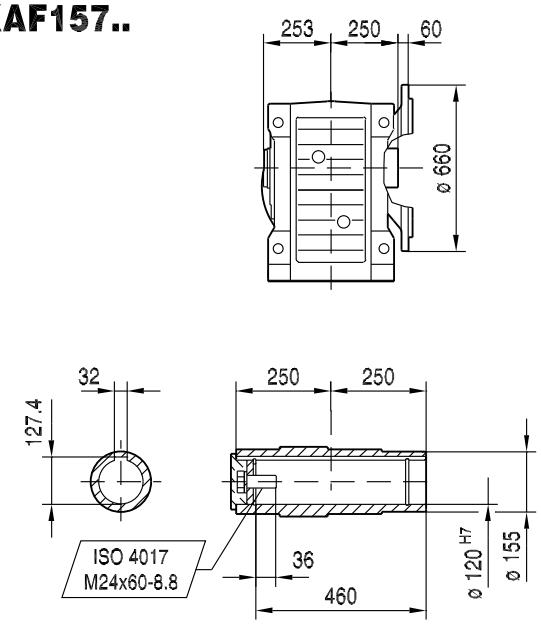
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33 083 00 14

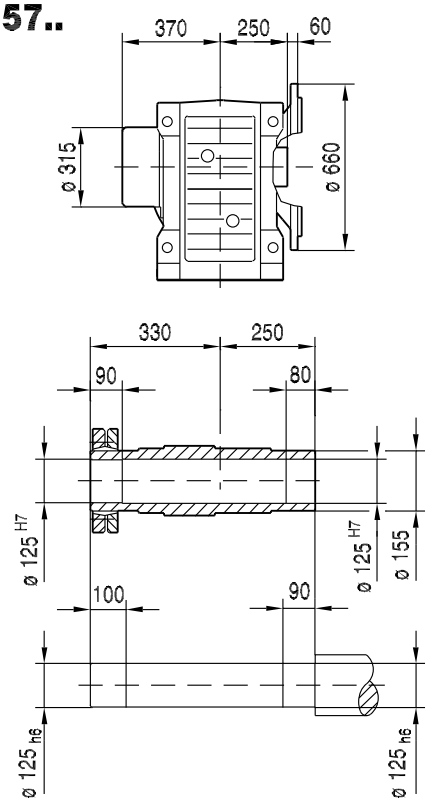
KF157..



KAF157..



KHF157..

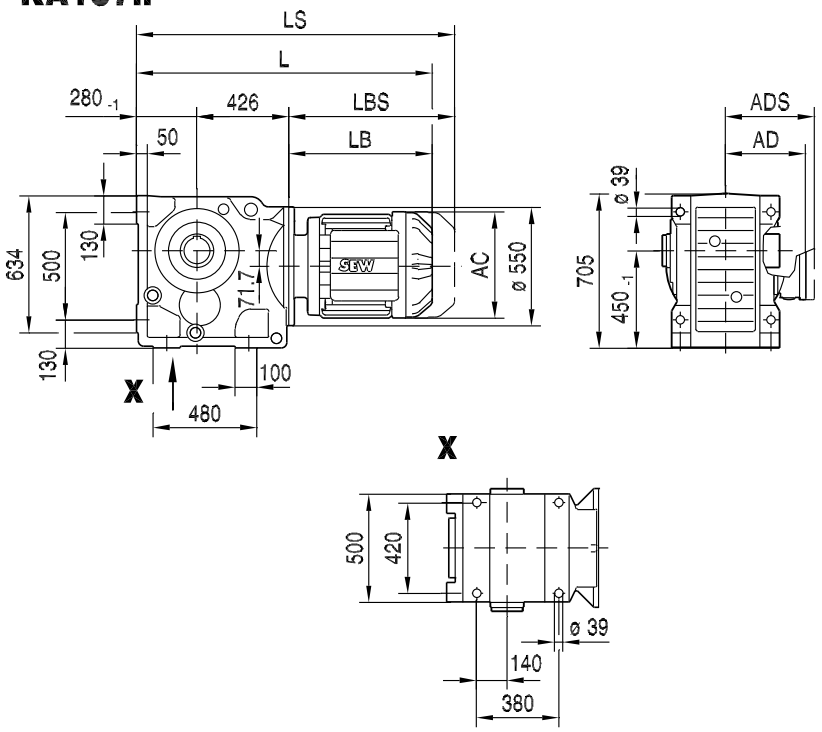


(→ 155)	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M	DRN315S-M	DRN315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1206	1229	1339	1313	1450	1450	1545	1647	1777
LS	1395	1418	1544	1518	1690	1690	1785	1898	2028
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

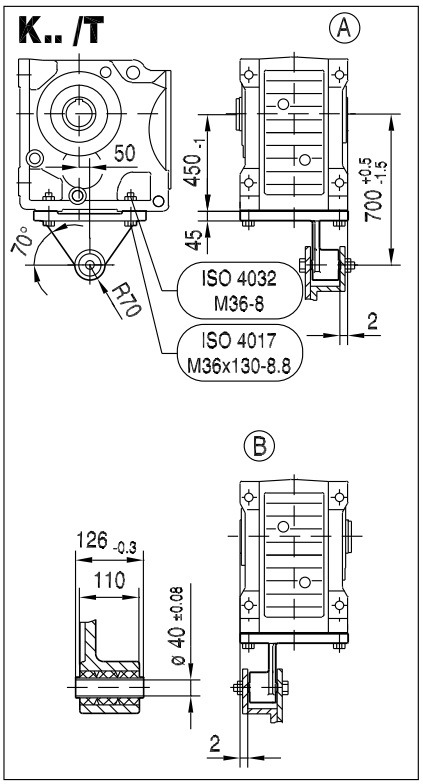
21933189/EN – 11/2015

33 084 00 14

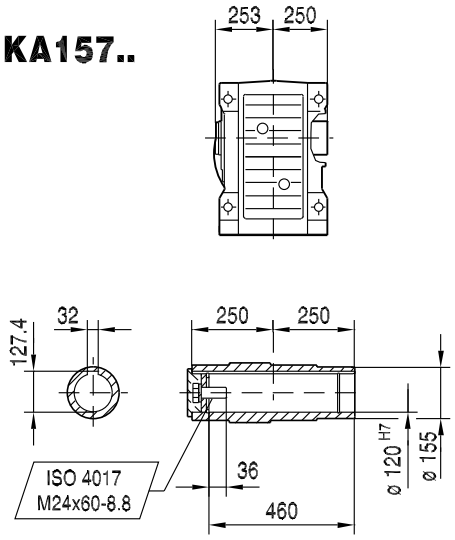
KA157..



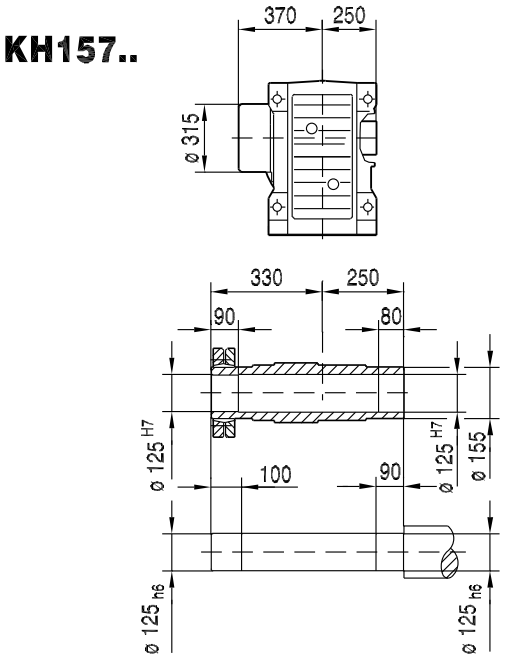
K.. /T



KA157..



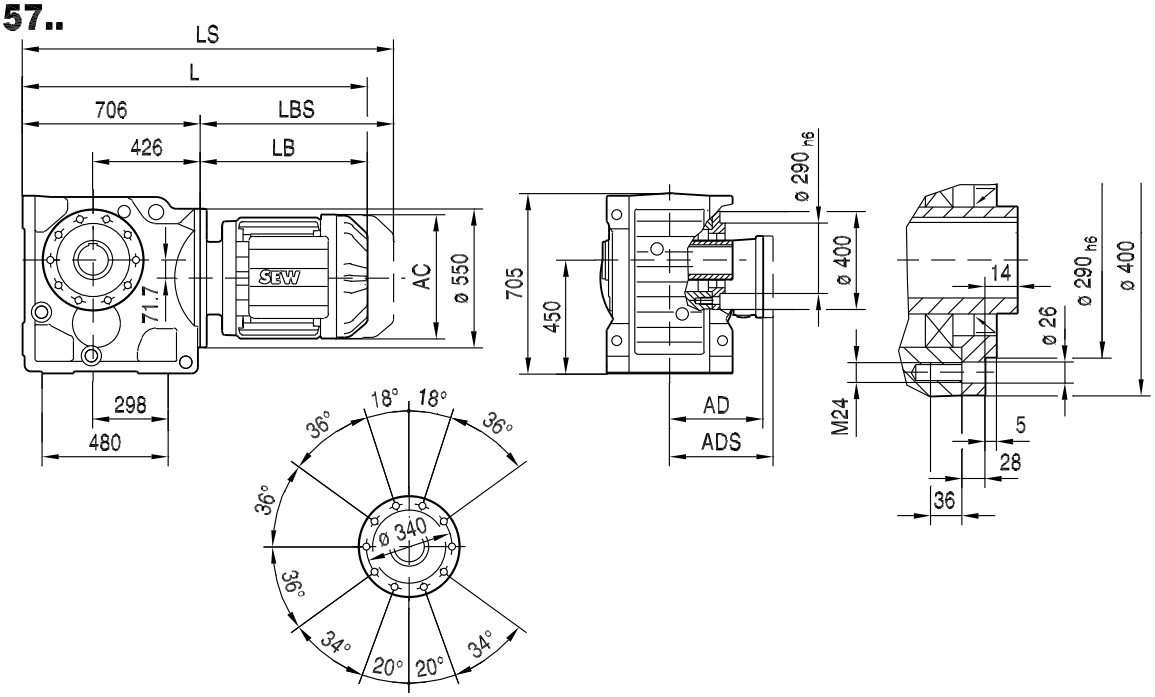
KH157..



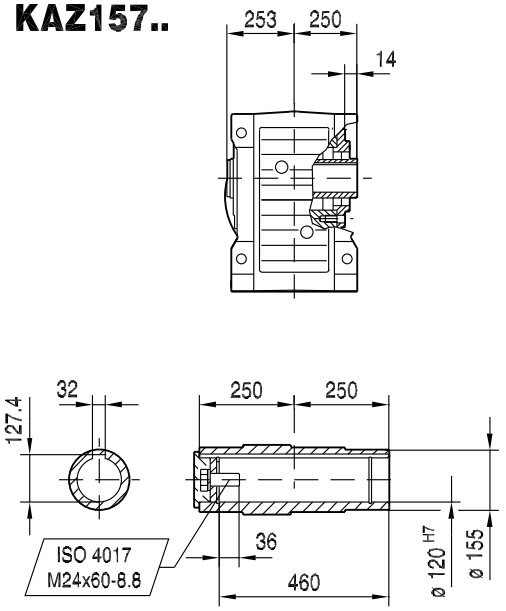
(→ 155)	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M	DRN315S-M	DRN315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1206	1229	1339	1313	1450	1450	1545	1647	1777
LS	1395	1418	1544	1518	1690	1690	1785	1898	2028
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

33 085 00 14

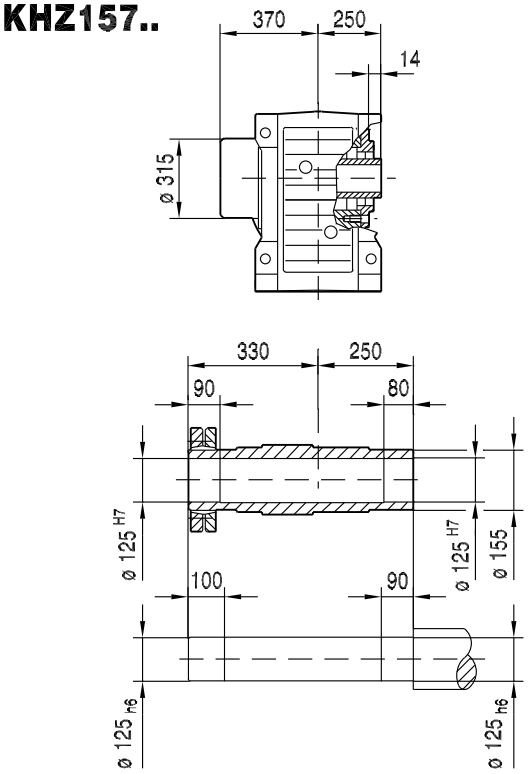
KAZ157..



KAZ157..



KHZ157..

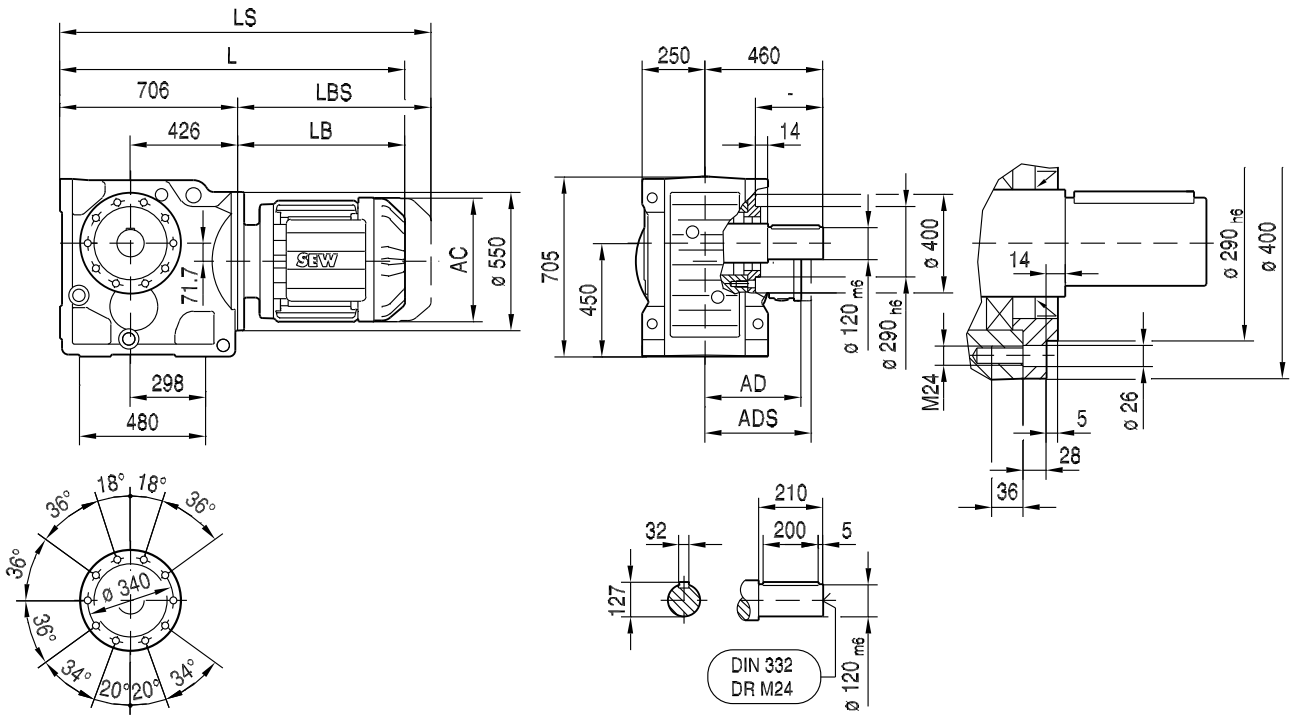


(→ 155)	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M	DRN315S-M	DRN315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1206	1229	1339	1313	1450	1450	1545	1647	1777
LS	1395	1418	1544	1518	1690	1690	1785	1898	2028
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

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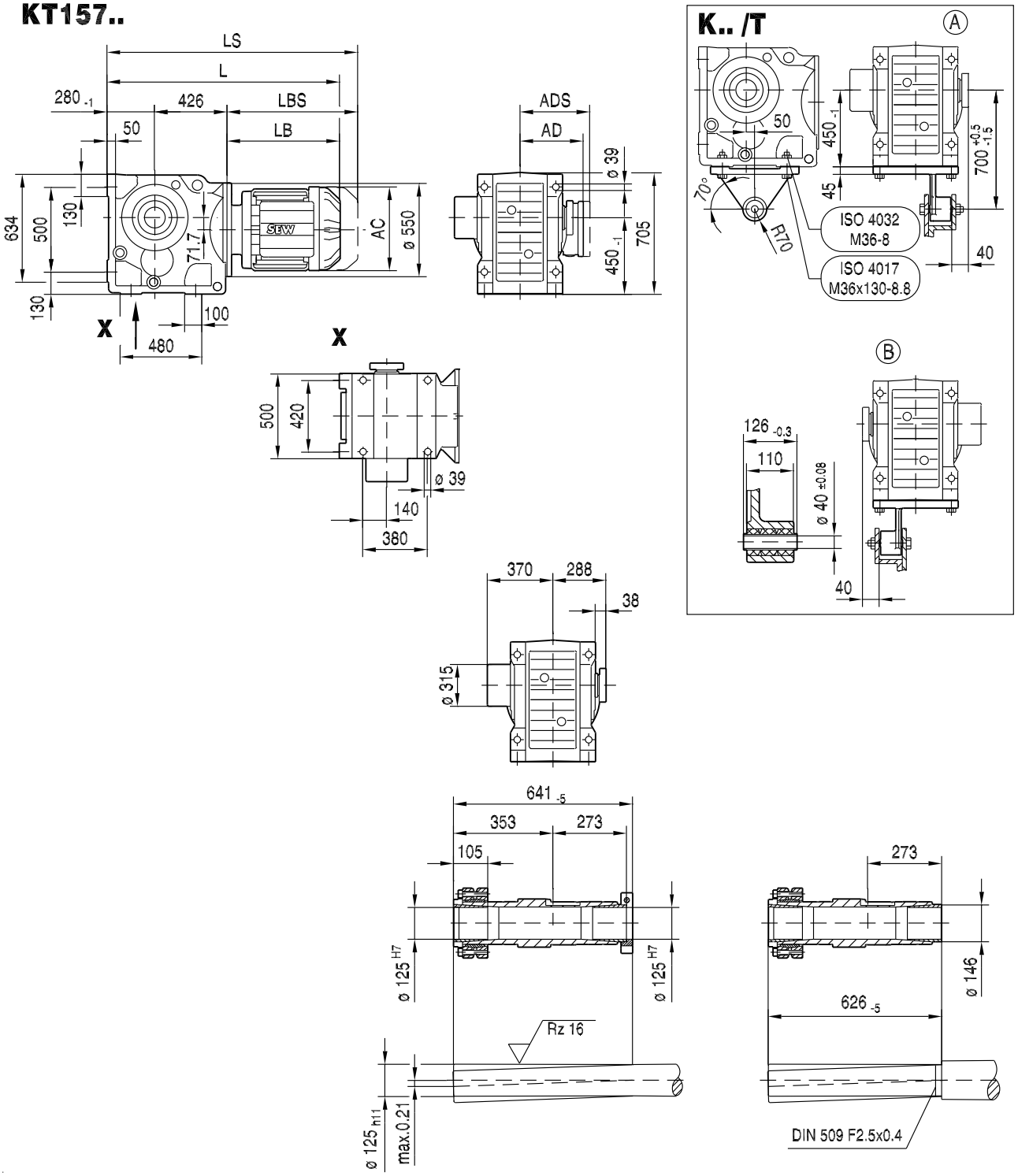
33 241 00 15

KZ157..



(→ 155)	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M	DRN315S-M	DRN315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1206	1229	1339	1313	1450	1450	1545	1647	1777
LS	1395	1418	1544	1518	1690	1690	1785	1898	2028
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

33 086 00 14

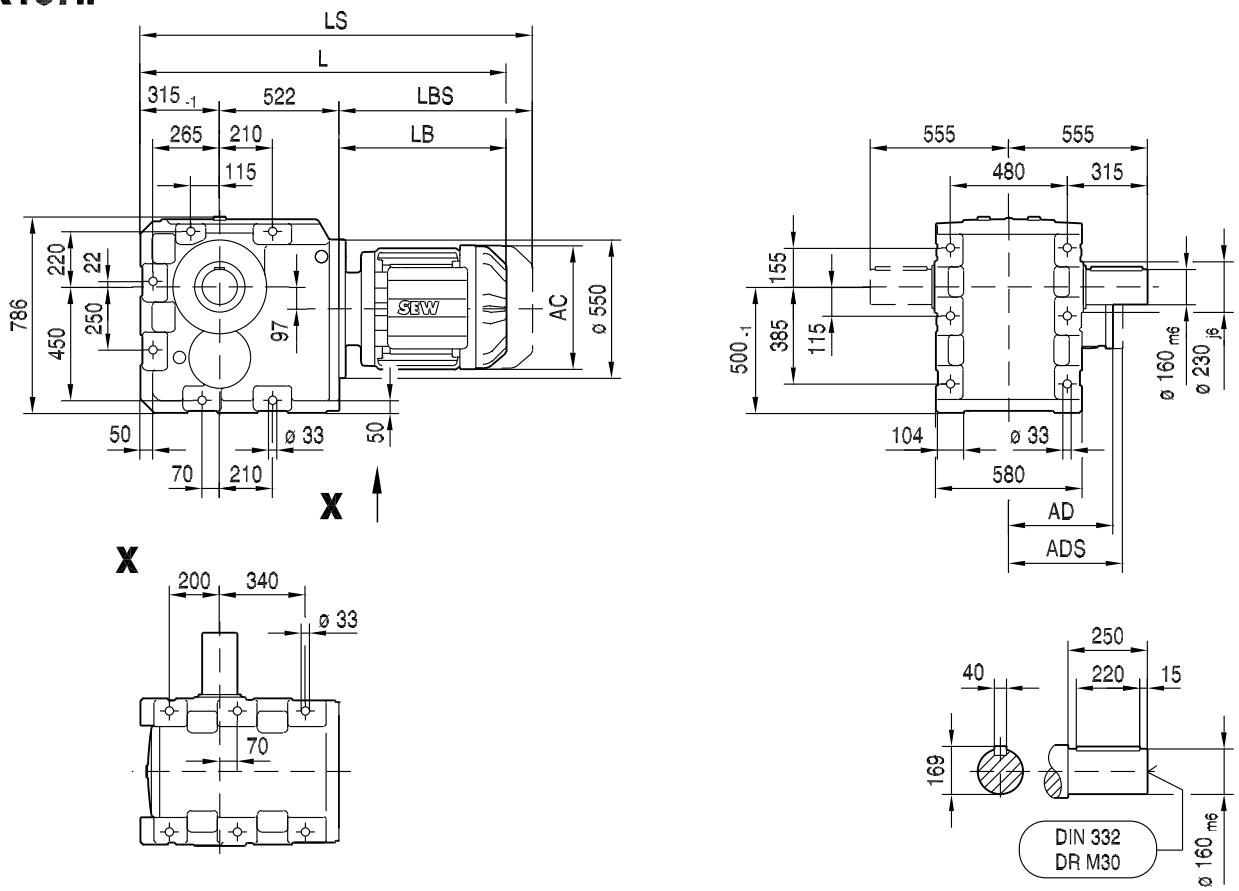


(→ 155)	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M	DRN315S-M	DRN315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1206	1229	1339	1313	1450	1450	1545	1647	1777
LS	1395	1418	1544	1518	1690	1690	1785	1898	2028
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

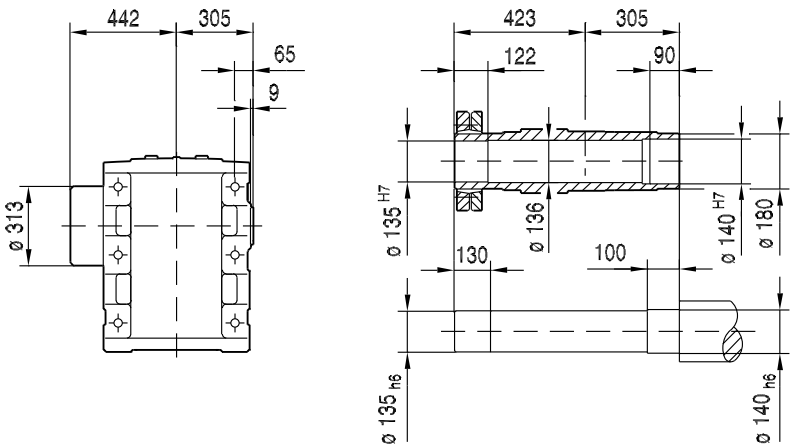
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33 087 00 14

K167..



KH167B..

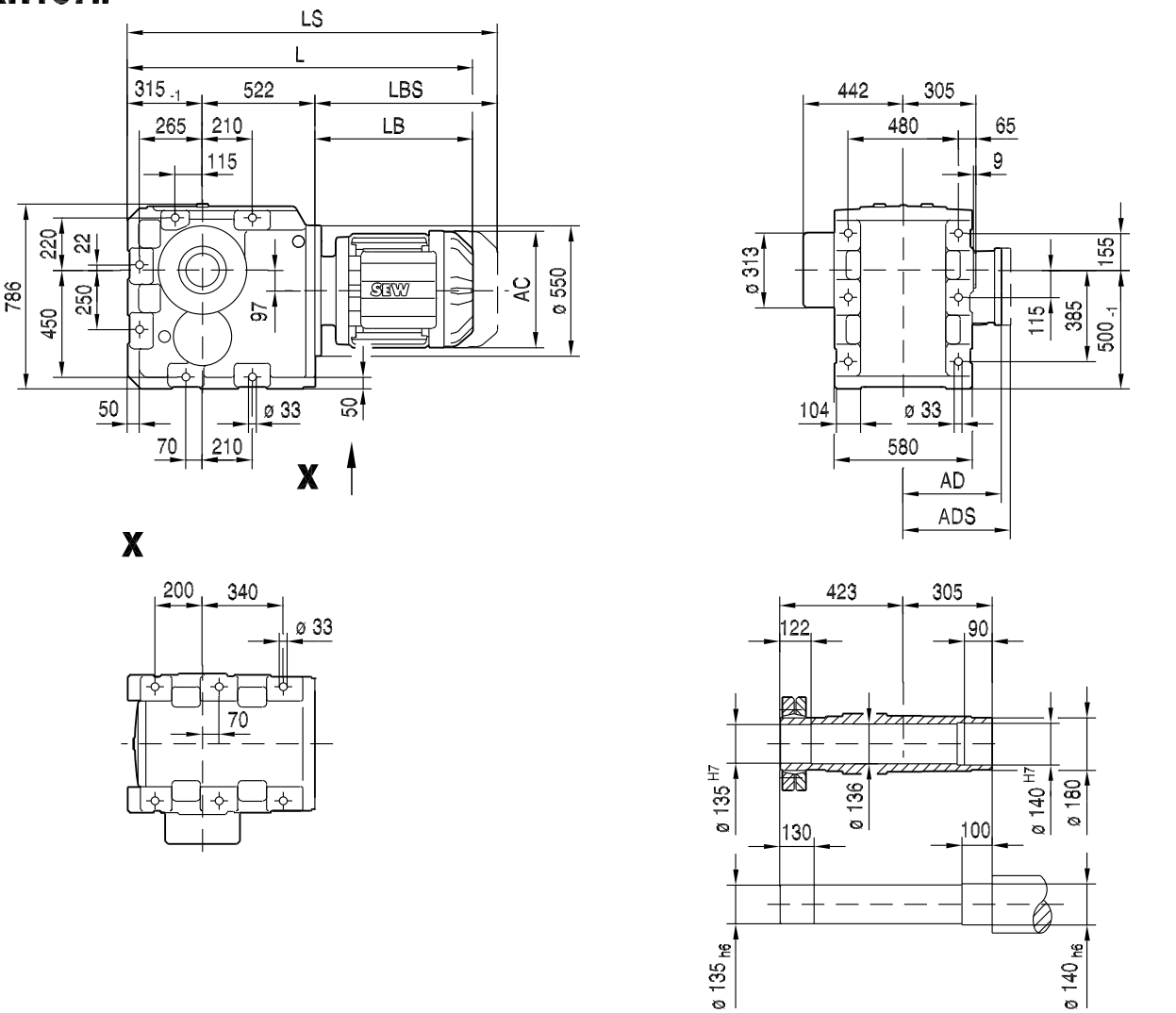


(→ 155)	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M	DRN315S-M	DRN315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1337	1360	1470	1444	1581	1581	1676	1778	1908
LS	1526	1549	1675	1649	1821	1821	1916	2029	2159
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

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33 088 00 14

KH167..

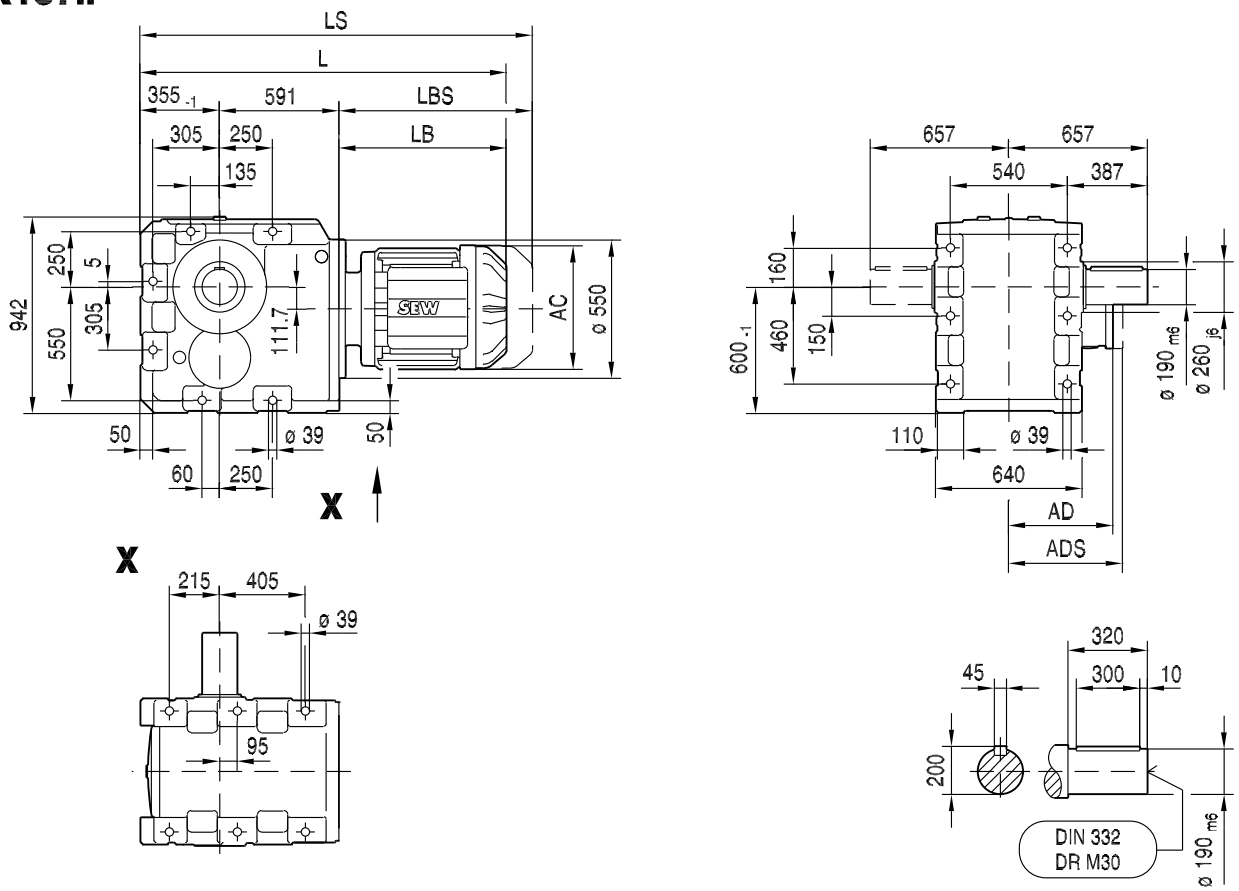


(→ 155)	DRN160L	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M	DRN315S-M	DRN315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1337	1360	1470	1444	1581	1581	1676	1778	1908
LS	1526	1549	1675	1649	1821	1821	1916	2029	2159
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

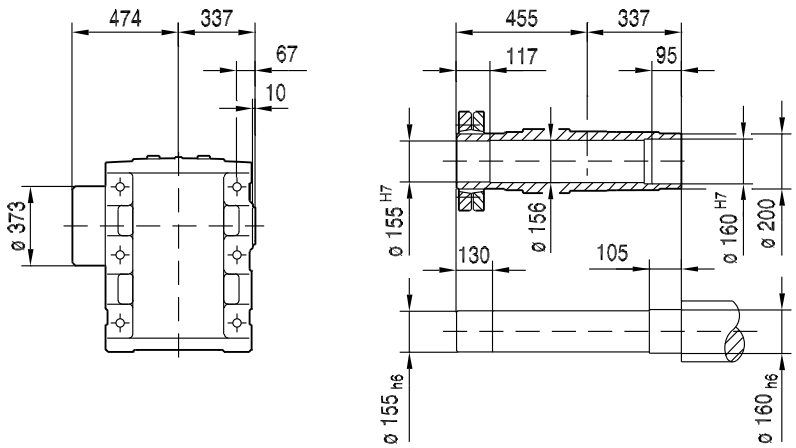
21933189/EN – 11/2015

33 089 00 14

K187..



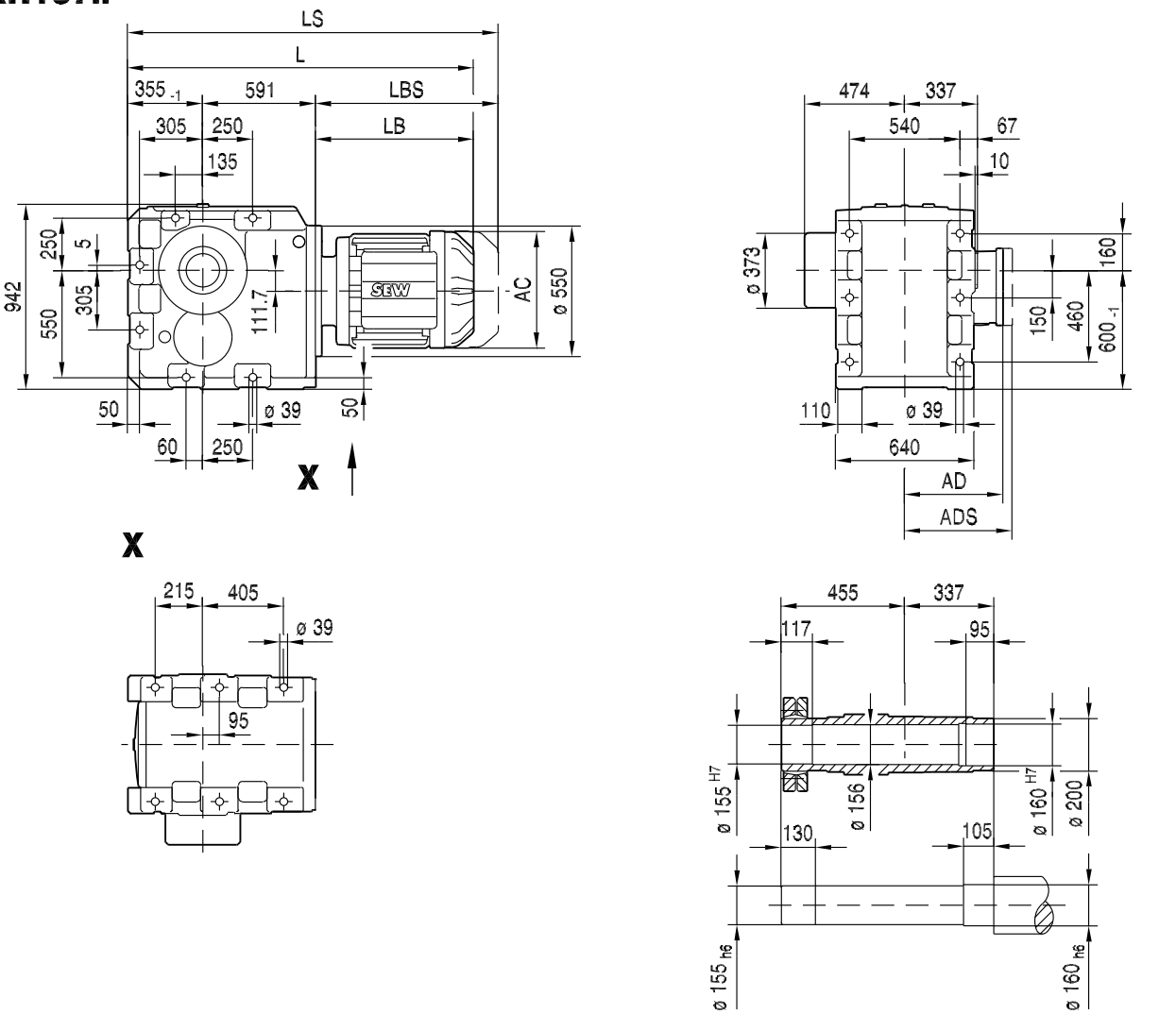
KH187B..



(→ 155)	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M	DRN315S-M	DRN315ME-H
AC	357	394	434	495	495	495	624	624
AD	268	283	305	394	394	394	506	506
ADS	268	283	305	394	394	394	506	506
L	1469	1579	1553	1690	1690	1785	1887	2017
LS	1658	1784	1758	1930	1930	2025	2138	2268
LB	523	633	607	744	744	839	941	1071
LBS	712	838	812	984	984	1079	1192	1322

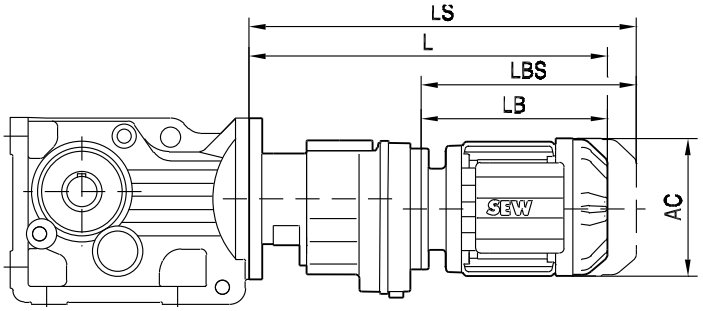
33 090 00 14

KH187..



(→ 155)	DRN180..	DRN200L	DRN225..	DRN250M	DRN280S	DRN280M	DRN315S-M	DRN315ME-H
AC	357	394	434	495	495	495	624	624
AD	268	283	305	394	394	394	506	506
ADS	268	283	305	394	394	394	506	506
L	1469	1579	1553	1690	1690	1785	1887	2017
LS	1658	1784	1758	1930	1930	2025	2138	2268
LB	523	633	607	744	744	839	941	1071
LBS	712	838	812	984	984	1079	1192	1322

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33 133 00 06

(→ 155)		AC	L	LS	LB	LBS
K..37R17	**DR63..**	132	324	379	149	204
	DR71S	139	335	403	160	228
K..39R17	**DR63..**	132	324	379	149	204
	DR71S	139	335	403	160	204
K..47R37	**DR63..**	132	356	411	191	246
	DR71S	139	367	434	202	269
	DR71M	139	392	459	227	294
	DRN80M	156	446	527	281	362
K..49R37	**DR63..**	132	348	403	191	246
	DR71S	139	359	426	202	269
	DR71M	139	384	451	227	294
	DRN80M	156	438	519	281	362
	DRN90S	179	440	533	283	376
	DRN90L	179	472	565	315	408
	DRN100LS	197	471	564	314	407
K..57R37	**DR63..**	132	356	411	191	246
	DR71S	139	367	434	202	269
	DR71M	139	392	459	227	294
	DRN80M	156	446	527	281	362
	DRN90S	179	448	541	283	376
K..67R37	**DR63..**	132	356	411	191	246
	DR71S	139	367	434	202	269
	DR71M	139	392	459	227	294
	DRN80M	156	446	527	281	362
	DRN90S	179	448	541	283	376
K..77R37	**DR63..**	132	348	403	191	246
	DR71S	139	359	426	202	269
	DR71M	139	384	451	227	294
	DRN80M	156	438	519	281	362
	DRN90S	179	440	533	283	376
	DRN90L	179	472	565	315	408
	DRN100LS	197	471	564	314	407
K..87R57	**DR63..**	132	412	467	185	240
	DR71S	139	423	491	196	264
	DR71M	139	448	516	221	289
	DRN80M	156	502	583	275	356
	DRN90S	179	504	597	277	370
	DRN90L	179	536	629	309	402
	DRN100LS	197	533	626	305	398
	DRN100L	197	583	676	355	448
	DRN112M	221	613	725	386	498

(→ 155)		AC	L	LS	LB	LBS
K..97R57	**DR63..**	132	407	462	185	240
	DR71S	139	418	486	196	264
	DR71M	139	443	511	221	289
	DRN80M	156	497	578	275	356
	DRN90S	179	499	592	277	370
	DRN90L	179	531	624	309	402
	DRN100LS	197	528	621	305	398
	DRN100L	197	578	671	355	448
	DRN112M	221	608	720	386	498
K..107R77	**DR63..**	132	425	480	178	233
	DR71S	139	436	504	189	257
	DR71M	139	461	529	214	282
	DRN80M	156	515	596	268	349
	DRN90S	179	517	610	270	363
	DRN90L	179	549	642	302	395
	DRN100LS	197	545	638	298	391
	DRN100L	197	595	688	348	441
	DRN112M	221	626	738	379	491
	DRN132S	221	676	788	429	541
	DRN132M	261	692	831	445	584
	DRN132L	261	717	856	470	609
K..127R77	**DR63..**	132	410	465	178	233
	DR71S	139	421	489	189	257
	DR71M	139	446	514	214	282
	DRN80M	156	500	581	268	349
	DRN90S	179	502	595	270	363
	DRN90L	179	534	627	302	395
	DRN100LS	197	530	623	298	391
	DRN100L	197	580	673	348	441
	DRN112M	221	611	723	379	491
	DRN132S	221	661	773	429	541
K..127R87	**DRN90L**	179	577	670	297	390
	DRN100LS	197	573	666	293	386
	DRN100L	197	623	716	343	436
	DRN112M	221	654	766	374	486
	DRN132S	221	704	816	424	536
	DRN132M	261	720	859	440	579
	DRN132L	261	745	884	465	604
	DRN160M	314	814	1003	534	723
	DRN160L	314	814	1003	534	723

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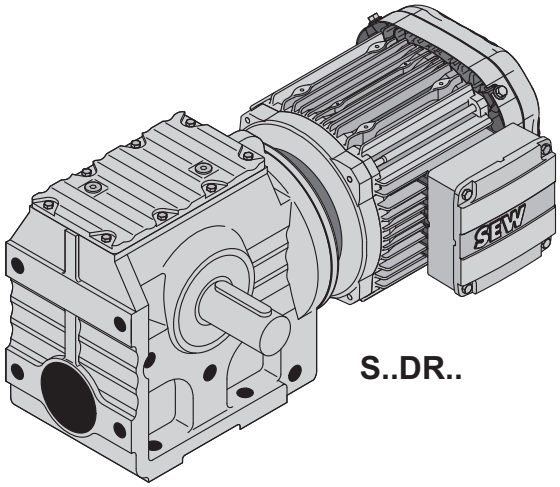
(→ 155)		AC	L	LS	LB	LBS
K..157R97	**DR71M**	139	529	597	204	272
	DRN80M	156	583	664	258	339
	DRN90S	179	585	678	260	353
	DRN90L	179	617	710	292	385
	DRN100LS	197	613	706	288	381
	DRN100L	197	663	756	338	431
	DRN112M	221	694	806	369	481
	DRN132S	221	744	856	419	531
	DRN132M	261	760	899	435	574
	DRN132L	261	785	924	460	599
	DRN160M	314	854	1043	529	718
K..167R97	**DR71M**	139	529	597	204	272
	DRN80M	156	583	664	258	339
	DRN90S	179	585	678	260	353
	DRN90L	179	617	710	292	385
	DRN100LS	197	613	706	288	381
	DRN100L	197	663	756	338	431
	DRN112M	221	694	806	369	481
	DRN132S	221	744	856	419	531
	DRN132M	261	760	899	435	574
	DRN132L	261	785	924	460	599
	DRN160M	314	854	1043	529	718
	DRN160L	314	854	1043	529	718
K..187R97	**DR71M**	139	529	597	204	272
	DRN80M	156	583	664	258	339
	DRN90S	179	585	678	260	353
	DRN90L	179	617	710	292	385
	DRN100LS	197	613	706	288	381
	DRN100L	197	663	756	338	431
	DRN112M	221	694	806	369	481
	DRN132S	221	744	856	419	531
	DRN132M	261	760	899	435	574
	DRN132L	261	785	924	460	599
K..157R107	**DRN132L**	261	836	975	454	593
	DRN160M	314	905	1094	523	712
	DRN160L	314	905	1094	523	712
	DRN180M	357	930	1119	548	737
	DRN180L	357	930	1119	548	737
	DRN200L	394	1038	1243	656	861
K..167R107	**DRN132L**	261	836	975	454	593
	DRN160M	314	905	1094	523	712
	DRN160L	314	905	1094	523	712
	DRN180M	357	930	1119	548	737
	DRN180L	357	930	1119	548	737
	DRN200L	394	1038	1243	656	861
	DRN225S	434	993	1198	611	816
	DRN225M	434	1083	1288	701	906

(→ 155)		AC	L	LS	LB	LBS
K..187R107	**DRN112M**	221	745	857	363	475
	DRN132M	261	811	950	429	568
	DRN132L	261	836	975	454	593
	DRN160M	314	905	1094	523	712
	DRN160L	314	905	1094	523	712
	DRN180M	357	930	1119	548	737
	DRN180L	357	930	1119	548	737
	DRN200L	394	1038	1243	656	861
	DRN225S	434	993	1198	611	816
	DRN225M	434	1083	1288	701	906
	DRN250M	495	1149	1389	767	1007

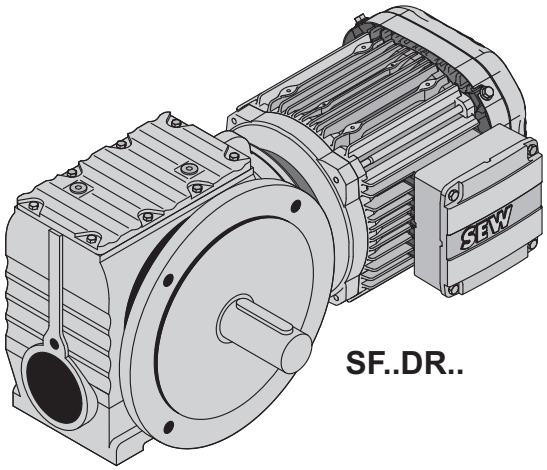
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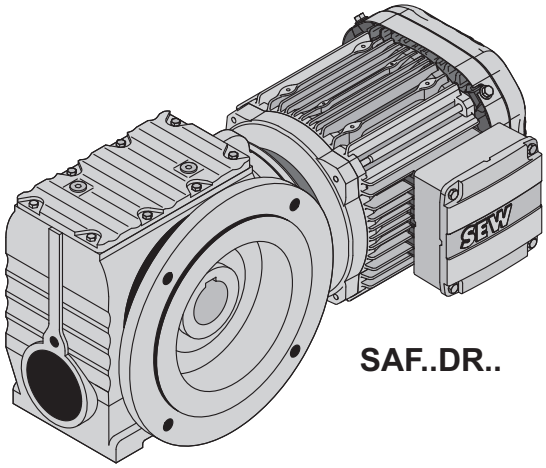
11.1 S..DRN.. designs



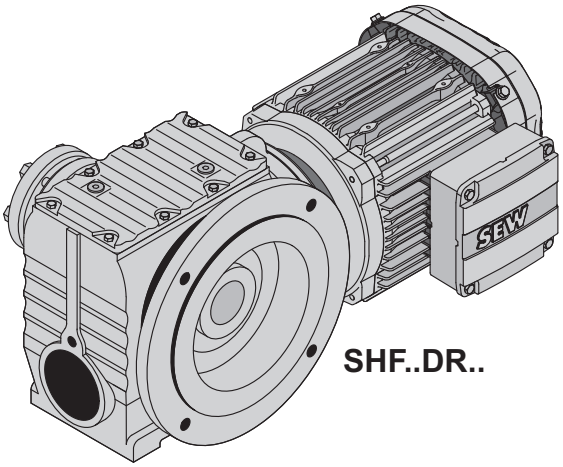
S..DR..



SF..DR..



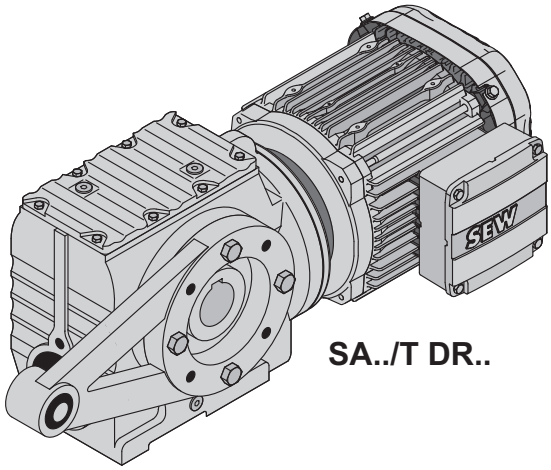
SAF..DR..



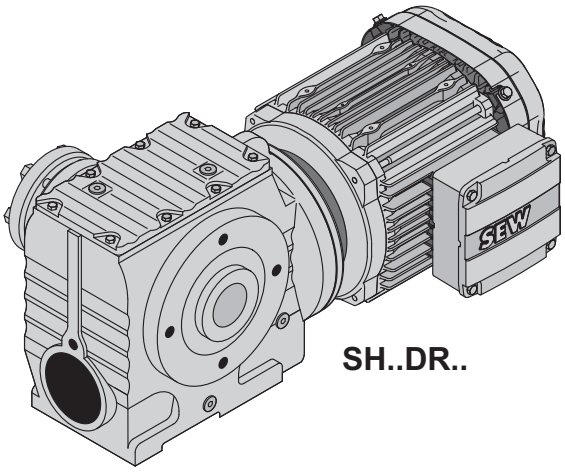
SHF..DR..

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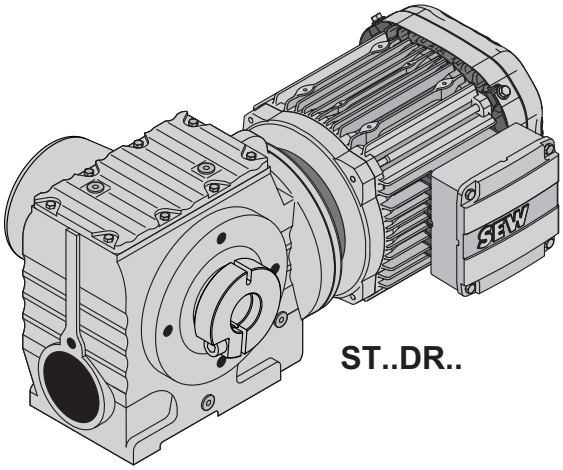
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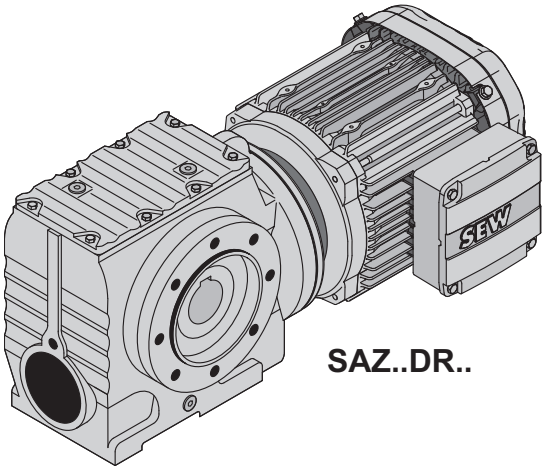
SA../T DR..



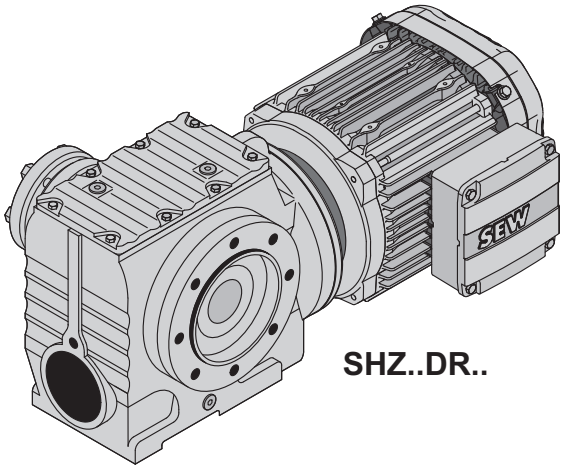
SH..DR..



ST..DR..



SAZ..DR..



SHZ..DR..

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11.2 Possible geometrical combinations of S..DRN..

S37, n_e=1400 1/min							92 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L
					2		
8.9	92	3000	-	157.43			
9.7	92	3000	-	144.40*			
11	91	3000	-	122.94			
13	88	3000	-	106.00*			
14	87	3000	-	98.80*			
16	86	3000	-	86.36			
17	85	3000	-	80.96			
20	84	3000	-	71.44*			
22	82	3000	-	63.33			
25	81	3000	-	55.93			
26	80	3000	-	53.83			
27	81	3000	-	51.30*			
32	81	3000	-	43.68			
37	79	3000	-	37.66			
40	78	3000	-	35.10*			
46	76	2860	-	30.68			
49	75	2800	-	28.76			
55	74	2660	-	25.38*			
62	73	2530	-	22.50*			
70	52	2470	-	19.89			
73	71	2380	-	19.13*			
77	52	2380	-	18.24*			
90	50	2240	-	15.53			
105	49	2110	-	13.39			
112	48	2060	-	12.48*			
128	48	1940	-	10.91			
137	47	1900	-	10.23			
155	46	1810	-	9.02*			
175	45	1730	-	8.00*			
206	43	1630	-	6.80*			
221	35	1670	-	6.33			
260	34	1570	-	5.38			
288	33	1520	-	4.86*			
353	32	1400	-	3.97			

S37R17, n_e=1400 1/min						92 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
					2 3	
0.14	92	3000	-	10037		
0.16	92	3000	-	8654		
0.17	92	3000	-	8066		
0.20	92	3000	-	7051		

S37R17, n_e=1400 1/min						92 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
0.23	92	3000	-	6079		
0.26	92	3000	-	5431		
0.29	92	3000	-	4747		
0.34	92	3000	-	4155		
0.39	92	3000	-	3632		
0.49	92	3000	-	2866		
0.57	92	3000	-	2471		
0.65	92	3000	-	2160		
0.74	92	3000	-	1887		
0.84	92	3000	-	1665		
0.96	92	3000	-	1456		
1.1	92	3000	-	1271		
1.2	92	3000	-	1121		
1.4	92	3000	-	994		
1.6	92	3000	-	869		
					 2 2	
1.8	92	3000	-	774		
2.1	92	3000	-	666		
2.3	92	3000	-	596		
2.7	92	3000	-	521		
3.1	92	3000	-	456		
3.5	92	3000	-	398		
4.0	92	3000	-	351		
4.6	92	3000	-	303		
5.3	92	3000	-	265		
6.0	92	3000	-	232		
6.9	92	3000	-	202		
7.8	92	3000	-	179		
8.9	92	3000	-	158		
9.7	92	3000	-	144		
12	92	3000	-	118		
13	92	3000	-	110*		

S47, n_e=1400 1/min								170 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
						 2		
7.0	170	5340	-	201.00*				
7.6	170	5340	-	184.80*				
8.9	170	5340	-	158.12				
10	168	5350	-	137.05				
11	168	5350	-	128.10*				
13	168	5350	-	110.73				
15	168	5350	-	94.08*				
17	167	5360	-	84.00*				
20	167	5360	-	71.75*				
20	155	5370	-	69.39				

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S47, n_e=1400 1/min								170 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
21	167	5360	-	67.20*				
22	155	5370	-	63.80*				
25	165	5320	-	56.61				
26	155	5150	-	54.59				
30	155	4850	-	47.32				
32	155	4710	-	44.22*				
37	155	4420	-	38.23				
43	155	4120	-	32.48*				
48	155	3920	-	29.00*				
57	155	3650	-	24.77				
60	152	3570	-	23.20*				
69	110	3370	-	20.33				
72	144	3370	-	19.54				
79	110	3160	-	17.62				
85	110	3060	-	16.47*				
98	110	2850	-	14.24				
116	109	2650	-	12.10*				
130	109	2500	-	10.80*				
152	109	2310	-	9.23*				
162	109	2230	-	8.64*				
192	103	2110	-	7.28				
205	78	2300	-	6.83				
219	76	2260	-	6.40*				
260	74	2110	-	5.39				
294	72	2010	-	4.76				
350	61	1980	-	4.00*				

S47R17, n_e=1400 1/min						185 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
					2 3	
0.11	185	5250	-	12909		
0.13	185	5250	-	11189		
0.13	185	5250	-	10374		
0.16	185	5250	-	8992		
0.18	185	5250	-	7860		
0.20	185	5250	-	6887		
0.23	185	5250	-	6055		
0.26	185	5250	-	5292		
0.30	185	5250	-	4637		
0.34	185	5250	-	4092		
0.39	185	5200	-	3582		
0.45	185	5200	-	3131		
0.52	185	5200	-	2714		
0.58	185	5200	-	2412		
0.66	185	5200	-	2131		
0.75	185	5200	-	1863		

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S47R17, n_e=1400 1/min						185 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
0.84	185	5200	-	1663		
0.98	185	5200	-	1435		
1.1	185	5200	-	1254		
1.2	185	5200	-	1120		
1.3	185	5200	-	1083		
1.5	183	5210	-	956		
					2 2	
1.5	185	5200	-	965		
1.6	185	5200	-	865		
1.9	185	5200	-	750		
2.1	185	5200	-	655		
2.4	185	5200	-	574		
2.8	185	5200	-	506		
3.2	185	5200	-	438		
3.6	185	5200	-	388		
4.2	185	5200	-	336		
4.8	185	5200	-	294		
5.4	185	5260	-	257*		
6.1	185	5200	-	229		
7.0	185	5200	-	200		
7.5	185	5200	-	187		
8.5	185	5200	-	165		
9.5	185	5200	-	148		
11	185	5200	-	131		

S57, n_e=1400 1/min								295 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
						2		
7.0	295	7130	-	201.00*				
7.6	295	7130	-	184.80*				
8.9	295	7130	-	158.12				
10	295	7130	-	137.05				
11	295	7130	-	128.10*				
13	295	7130	-	110.73				
15	295	7130	-	94.08*				
17	295	7130	-	84.00*				
20	290	7170	-	71.75*				
20	245	7520	-	69.39				
21	285	7220	-	67.20*				
22	245	7520	-	63.80*				
25	265	7370	-	56.61				
26	245	7520	-	54.59				
30	245	7520	-	47.32				
32	245	7520	-	44.22*				
37	245	7320	-	38.23				
43	245	6840	-	32.48*				

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S57, n_e=1400 1/min								295 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
48	245	6520	-	29.00*				
57	245	6100	-	24.77				
60	245	5930	-	23.20*				
69	168	5690	-	20.33				
72	215	5720	-	19.54				
79	168	5350	-	17.62				
85	168	5200	-	16.47*				
98	169	4860	-	14.24				
116	169	4520	-	12.10*				
130	169	4290	-	10.80*				
152	169	3990	-	9.23*				
162	166	3900	-	8.64*				
192	146	3790	-	7.28				
205	100	4100	-	6.83				
219	98	4010	-	6.40*				
260	95	3760	-	5.39				
294	93	3590	-	4.76				
350	88	3380	-	4.00*				

S57R17, n_e=1400 1/min						330 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
					2 3	
0.11	330	6800	-	12909		
0.13	330	6800	-	11189		
0.13	330	6800	-	10374		
0.16	330	6800	-	8992		
0.18	330	6800	-	7860		
0.20	330	6800	-	6887		
0.23	330	6800	-	6055		
0.26	330	6800	-	5292		
0.30	330	6800	-	4637		
0.34	330	6800	-	4092		
0.39	330	6800	-	3628		
0.45	300	7080	-	3131		
0.52	300	7080	-	2714		
0.58	300	7080	-	2412		
0.66	300	7080	-	2131		
0.75	300	7080	-	1863		
0.84	300	7080	-	1663		
0.98	300	7080	-	1435		
1.1	300	7080	-	1254		
1.3	300	7080	-	1083		
					2 2	
1.5	300	7080	-	965		
1.6	300	7080	-	865		
1.9	300	7080	-	750		

S57R17, n_e=1400 1/min						330 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
2.1	300	7080	-	655		
2.4	300	7080	-	574		
2.8	300	7080	-	506		
3.2	300	7080	-	438		
3.6	300	7080	-	388		
4.2	300	7080	-	336		
4.8	300	7080	-	294		
5.2	300	7080	-	269		
6.1	300	7080	-	229		
6.9	300	7080	-	204		
7.5	300	7080	-	187		
8.5	300	7080	-	165		
11	300	7080	-	131		

S67, n_e=1400 1/min										520 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
						2				
6.4	520	8680	-	217.41						
7.4	520	8680	-	190.11						
7.8	520	8680	-	180.60*						
8.8	520	8680	-	158.45						
10	520	8680	-	134.40*						
12	520	8680	-	121.33						
13	520	8680	-	106.75*						
14	520	8680	-	100.80*						
16	520	8680	-	85.83						
18	520	8680	-	78.00*						
19	480	9020	-	75.06						
21	520	8680	-	67.57						
21	480	9020	-	65.63						
22	480	9020	-	62.35*						
24	500	8850	-	58.80*						
26	480	8670	-	54.70						
30	480	8060	-	46.40*						
33	480	7690	-	41.89						
38	480	7250	-	36.85						
40	480	7060	-	34.80*						
47	480	6540	-	29.63						
52	480	6240	-	26.93						
57	340	6040	-	24.44						
60	480	5810	-	23.33						
60	340	5890	-	23.22*						
69	340	5520	-	20.37						
69	425	5760	-	20.30*						
81	340	5080	-	17.28*						
90	340	4820	-	15.60*						

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S67, n_e=1400 1/min										520 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
102	340	4510	-	13.73*						
108	340	4310	-	12.96*						
127	340	3660	-	11.03						
140	340	3290	-	10.03						
161	335	2860	-	8.69						
185	295	3220	-	7.56*						

S67R37, n_e=1400 1/min								570 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
					2 3			
0.07	570	8190	-	21362*				
0.07	570	8190	-	19594*				
0.08	570	8190	-	18120*				
0.08	570	8190	-	16682				
0.10	570	8190	-	14383				
0.11	570	8190	-	12774				
0.13	570	8190	-	11013				
0.14	570	8190	-	9694*				
0.16	570	8190	-	8529*				
0.19	570	8190	-	7455*				
0.21	570	8190	-	6531				
0.24	570	8190	-	5759				
0.28	570	8190	-	4965				
0.32	570	8190	-	4410				
0.36	570	8190	-	3880				
0.41	570	8190	-	3432				
0.48	570	8190	-	2944*				
0.53	570	8190	-	2630				
0.61	570	8190	-	2279				
0.70	570	8190	-	2014				
0.79	570	8190	-	1772				
0.90	570	8190	-	1559				
1.0	570	8190	-	1363				
1.2	570	8190	-	1194				
1.3	570	8190	-	1045				
1.5	570	8190	-	914				
					2 2			
1.7	570	8190	-	809				
2.0	570	8190	-	712				
2.3	570	8190	-	615				
2.6	570	8190	-	543				
3.0	570	8190	-	469				
3.3	570	8190	-	424				
3.8	570	8190	-	365				
4.4	570	8190	-	319				
5.0	570	8190	-	281				

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S67R37, n_e=1400 1/min								570 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
5.7	570	8190	-	246				
6.3	570	8190	-	221				
7.1	570	8190	-	198				
8.3	570	8190	-	168				
9.0	570	8190	-	156				

S77, n_e=1400 1/min											1270 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L
						 2					
5.5	1270	11700	-	256.47							
6.2	1270	11700	-	225.26							
6.5	1270	11700	-	214.00*							
7.4	1270	11700	-	189.09							
8.7	1260	11800	-	161.60*							
9.4	1240	12000	-	148.15							
11	1210	12200	-	130.00*							
11	1200	12300	-	123.20*							
13	1170	12600	-	107.83							
14	1140	12800	-	97.14							
16	1100	13100	-	85.22							
19	1070	12800	-	75.20*							
19	1100	11900	-	75.09							
20	1100	11600	-	71.33							
21	1040	12300	-	66.67							
22	1100	10900	-	63.03							
25	990	11600	-	56.92							
26	1100	10100	-	53.87							
28	1100	9650	-	49.38							
32	1100	9010	-	43.33							
34	1100	8750	-	41.07							
39	1100	8140	-	35.94							
43	1090	7720	-	32.38							
49	1050	7370	-	28.41							
56	1020	7010	-	25.07							
61	705	5960	-	22.89							
63	980	6740	-	22.22							
67	705	5380	-	20.99							
74	930	6390	-	18.97							
76	705	4550	-	18.42							
80	710	4120	-	17.45							
92	710	3320	-	15.28							
102	710	2710	-	13.76							
116	720	1800	-	12.07							
131	720	1130	-	10.65							
148	725	415	-	9.44							
174	680	440	-	8.06							

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S77R37, n_e=1400 1/min								1270 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L
					2	3		
0.05	1270	11700	-	25493				
0.06	1270	11700	-	21787				
0.07	1270	11700	-	19907				
0.08	1270	11700	-	17013				
0.10	1270	11700	-	14668				
0.11	1270	11700	-	13110				
0.12	1270	11700	-	11569				
0.14	1270	11700	-	9887				
0.16	1270	11700	-	8817				
0.18	1270	11700	-	7735				
0.21	1270	11700	-	6735				
0.24	1270	11700	-	5943				
0.27	1270	11700	-	5214				
0.30	1270	11700	-	4618				
0.35	1270	11700	-	3992				
0.40	1270	11700	-	3540				
0.45	1270	11700	-	3098				
0.51	1240	12000	-	2753				
0.59	1240	12000	-	2374				
0.67	1240	12000	-	2083				
0.77	1240	12000	-	1813				
0.80	1240	12000	-	1745				
0.88	1240	12000	-	1600				
1.00	1240	12000	-	1404				
1.1	1240	12000	-	1245				
					2	2		
1.3	1240	12000	-	1100				
1.5	1240	12000	-	954				
1.7	1240	12000	-	837				
2.0	1240	12000	-	714				
2.2	1240	12000	-	637				
2.4	1240	12000	-	574				
2.8	1240	12000	-	499				
3.2	1240	12000	-	438				
3.6	1240	12000	-	389				
4.3	1240	12000	-	327				
4.8	1240	12000	-	289				
5.6	1240	12000	-	250				
6.4	1240	12000	-	219				

S87, n_e=1400 1/min												2280 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L
							2					
4.9	2280	27900	-	288.00*								
5.4	2280	27900	-	258.18								
6.3	2280	27900	-	222.40*								

S87, n_e=1400 1/min												2280 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L
6.9	2260	28000	-	202.96								
7.8	2210	28100	-	180.00*								
9.3	2150	28200	-	151.30								
10	2100	28300	-	139.05								
11	2060	28300	-	123.48								
13	2000	28400	-	110.40*								
14	1960	28500	-	99.26								
15	1510	29100	-	91.20*								
16	1880	28600	-	86.15								
17	1600	29000	-	81.76								
18	1820	28700	-	77.14								
20	1600	29000	-	70.43								
22	1600	29000	-	64.27								
22	1700	28900	-	64.00*								
25	1600	29000	-	57.00*								
29	1600	29000	-	47.91								
32	1600	29000	-	44.03								
36	1600	28200	-	39.10								
40	1600	27100	-	34.96*								
45	1600	26000	-	31.43								
51	1600	24700	-	27.28								
55	1240	23400	-	25.50*								
57	1600	23700	-	24.43								
65	1240	21800	-	21.43								
69	1600	22100	-	20.27								
71	1240	21100	-	19.70								
80	1240	20200	-	17.49								
90	1240	19300	-	15.64*								
100	1240	18500	-	14.06								
115	1240	17400	-	12.21								
128	1240	16400	-	10.93								
154	1140	15900	-	9.07								
178	1010	15700	-	7.88								

S87R57, n_e=1400 1/min										2500 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
						2 3				
0.05	2500	27500	-	25987						
0.06	2500	27500	-	23940						
0.07	2500	27500	-	20568						
0.08	2500	27500	-	18265						
0.08	2500	27500	-	16774						
0.09	2500	27500	-	14820						
0.11	2500	27500	-	13160						
0.12	2500	27500	-	11200						
0.14	2500	27500	-	9904						
0.16	2500	27500	-	8549						
0.18	2500	27500	-	7643						

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S87R57, n_e=1400 1/min — 2500 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
0.21	2500	27500	-	6706						
0.24	2500	27500	-	5875						
0.27	2500	27500	-	5187						
0.30	2500	27500	-	4606						
0.36	2500	27500	-	3872						
						2	2			
0.40	2500	27500	-	3475						
0.48	2500	27500	-	2905						
0.54	2500	27500	-	2586						
0.60	2500	27500	-	2335						
0.68	2500	27500	-	2054						
0.77	2500	27500	-	1824						
0.86	2500	27500	-	1631*						
1.1	2500	27500	-	1332						
1.2	2500	27500	-	1191						
1.4	2500	27500	-	1032*						
1.5	2500	27500	-	930						
1.7	2500	27500	-	831						
1.9	2500	27500	-	719						
2.2	2500	27500	-	624						
2.5	2500	27500	-	558						
2.9	2500	27500	-	485						
3.2	2450	27600	-	435						
3.7	2450	27600	-	378						
4.3	2400	27700	-	323						
5.0	2400	27700	-	281						
5.5	1980	28400	-	255						
6.3	1980	28400	-	222						
6.8	1980	28400	-	205						

S97, n_e=1400 1/min — 4000 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S
							2						
4.9	4000	33200	-	286.40*									
5.3	4000	33200	-	262.22									
6.0	4000	33200	-	231.67									
7.1	4000	33200	-	196.52									
7.7	3920	33400	-	180.95									
8.7	3840	33500	-	161.74									
9.6	3730	33700	-	145.60*									
11	3650	33900	-	131.85									
12	3510	34100	-	116.92									
13	3440	34300	-	105.71									
16	3240	34600	-	89.60*									
17	3230	34600	-	80.85									
18	3080	34800	-	78.26									
20	3300	34500	-	71.43									

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S97, n_e=1400 1/min													4000 Nm
n_a 1/ min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M	DRN132L DRN160M DRN160L	DRN180M DRN180L	DRN200L DRN225S
21	2900	35100	-	65.45									
23	3300	34500	-	60.59									
25	3300	34500	-	55.79									
28	3300	34500	-	49.87									
31	3300	34100	-	44.89									
34	3300	32800	-	40.65									
39	3300	31300	-	36.05									
43	3200	30400	-	32.60									
51	3010	29000	-	27.63									
53	2600	26100	-	26.39									
58	2870	28000	-	24.13									
59	2600	24500	-	23.59									
66	2600	22800	-	21.23									
73	2600	21200	-	19.23									
82	2570	19700	-	17.05									
91	2470	19400	-	15.42									
107	2330	18800	-	13.07									
123	2210	18400	-	11.41									
147	2040	18200	-	9.55									
169	1770	18800	-	8.26									

S97R57, n_e=1400 1/min										4200 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
						2 3				
0.04	4200	32800	-	33818						
0.04	4200	32800	-	31154						
0.05	4200	32800	-	27847						
0.06	4200	32800	-	24641						
0.07	4200	32800	-	21537						
0.07	4200	32800	-	18749*						
0.09	4200	32800	-	16233						
0.10	4200	32800	-	14576						
0.11	4200	32800	-	12752						
0.12	4200	32800	-	11267						
0.14	4200	32800	-	10078						
0.16	4200	32800	-	8608						
0.19	4200	32800	-	7554						
0.21	4200	31300	-	6640						
0.24	4200	31300	-	5780*						
0.28	4200	31300	-	4937						
0.32	4200	31300	-	4444						
0.35	4200	31300	-	4017						
0.41	4200	31300	-	3453						
0.45	4200	31300	-	3108						
0.53	4200	31300	-	2654						
0.60	4200	31300	-	2329						
0.67	4200	31300	-	2081						

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S97R57, n_e=1400 1/min										4200 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M	DRN132S DRN132M
0.75	4200	31300	-	1860						
0.89	4200	31300	-	1574*						
										
1.0	4200	31300	-	1394						
1.1	4200	31300	-	1223						
1.3	4200	31300	-	1070						
1.5	4200	31300	-	928						
1.7	4200	31300	-	824						
2.0	4200	32800	-	714						
2.2	4200	31300	-	626*						
2.6	4200	31300	-	538						
2.9	4200	31400	-	484*						
3.3	4200	31400	-	420						
3.7	4200	31400	-	376						
4.3	4200	31500	-	327						
4.9	4200	31500	-	287						
5.6	4200	31500	-	252						
6.4	4200	31600	-	219						
6.8	4200	31600	-	205						

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11.3 S..DRN.. selection tables in kW

P_m = 0.12 kW											
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
0.12	4740	11267	25100	0.90	**S**	**97R57**	**DR**	**63S4**		170	709
0.14	4330	10078	32500	0.95	**SF**	**97R57**	**DR**	**63S4**		200	709
0.16	3590	8608	34000	1.15	**SA**	**97R57**	**DR**	**63S4**		160	709
0.18	3180	7554	34700	1.30	**SAF**	**97R57**	**DR**	**63S4**		190	709
0.21	2690	6706	27100	0.95							
0.23	2400	5875	27700	1.05	**S**	**87R57**	**DR**	**63S4**		110	709
0.27	1980	5187	28500	1.25	**SF**	**87R57**	**DR**	**63S4**		130	709
0.30	1760	4606	28800	1.40	**SA**	**87R57**	**DR**	**63S4**		105	709
0.36	1460	3872	29200	1.70	**SAF**	**87R57**	**DR**	**63S4**		120	709
0.39	1370	3540	7240	0.90							
0.45	1200	3098	12300	1.05							
0.58	1320	2374	10600	0.95							
0.66	1160	2083	12600	1.05	**S**	**77R37**	**DR**	**63S4**		59	709
0.76	980	1813	13900	1.25	**SF**	**77R37**	**DR**	**63S4**		68	709
0.79	930	1745	14200	1.30	**SA**	**77R37**	**DR**	**63S4**		58	709
0.86	860	1600	14600	1.45	**SAF**	**77R37**	**DR**	**63S4**		65	709
0.98	755	1404	15100	1.65							
1.1	660	1245	15500	1.90							
1.2	585	1194	7990	0.95	**S**	**67R37**	**DR**	**63S4**		39	709
1.3	530	1045	8560	1.05	**SF**	**67R37**	**DR**	**63S4**		46	709
1.5	455	914	9180	1.25	**SA**	**67R37**	**DR**	**63S4**		40	709
					SAF	**67R37**	**DR**	**63S4**		45	709
1.7	415	809	9460	1.35							
1.9	365	712	9780	1.55							
2.2	305	615	10100	1.85	**S**	**67R37**	**DR**	**63S4**		39	709
2.5	275	543	10200	2.1	**SF**	**67R37**	**DR**	**63S4**		46	709
2.9	225	469	10400	2.5	**SA**	**67R37**	**DR**	**63S4**		40	709
3.3	200	424	10500	2.8	**SAF**	**67R37**	**DR**	**63S4**		45	709
3.8	187	365	10500	3.0							
2.1	325	655	6800	0.90							
2.4	285	574	7200	1.05							
2.7	250	506	7480	1.20	**S**	**57R17**	**DR**	**63S4**		20	709
3.2	215	438	7700	1.40	**SF**	**57R17**	**DR**	**63S4**		24	709
3.6	189	388	7850	1.60	**SA**	**57R17**	**DR**	**63S4**		20	709
4.1	169	336	7950	1.80	**SAF**	**57R17**	**DR**	**63S4**		23	709
4.7	145	294	8050	2.1							
5.1	139	269	8070	2.2							
3.2	215	438	5010	0.85							
3.6	189	388	5170	1.00							
4.1	168	336	5290	1.10	**S**	**47R17**	**DR**	**63S4**		17	709
4.7	143	294	5420	1.30	**SF**	**47R17**	**DR**	**63S4**		20	709
5.4	98	257	5660	1.90	**SA**	**47R17**	**DR**	**63S4**		18	709
6.0	118	229	5550	1.55	**SAF**	**47R17**	**DR**	**63S4**		19	709
6.9	102	200	5610	1.80							
7.4	96	187	5640	1.95							
6.8	103	202	3000	0.90							
7.7	91	179	3000	1.00	**S**	**37R17**	**DR**	**63S4**		14	709
8.7	82	158	3000	1.15	**SF**	**37R17**	**DR**	**63S4**		15	709
9.6	75	144	3000	1.20	**SA**	**37R17**	**DR**	**63S4**		13	709
12	61	118	3000	1.50	**SAF**	**37R17**	**DR**	**63S4**		15	709
13	57	110	3000	1.60							
4.5	143	201.00*	8050	2.1	**S**	**57**	**DR**	**63M6**		17	684
4.9	133	184.80*	8090	2.2	**SF**	**57**	**DR**	**63M6**		21	685
5.7	116	158.12	8140	2.5	**SA**	**57**	**DR**	**63M6**		17	686
6.6	103	137.05	8180	2.9	**SAF**	**57**	**DR**	**63M6**		20	685
4.5	138	201.00*	5490	1.30							
4.9	129	184.80*	5540	1.40	**S**	**47**	**DR**	**63M6**		14	679
5.7	112	158.12	5610	1.55	**SF**	**47**	**DR**	**63M6**		17	680
6.6	99	137.05	5660	1.75	**SA**	**47**	**DR**	**63M6**		15	681
7.0	93	128.10*	5680	1.85	**SAF**	**47**	**DR**	**63M6**		16	680

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P_m = 0.12 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
6.9	95	201.00*	5680	1.80						
7.5	89	184.80*	5700	1.90	**S**	**47**	**DR**	**63S4**	14	679
8.7	77	158.12	5740	2.2	**SF**	**47**	**DR**	**63S4**	17	680
10	68	137.05	5770	2.5	**SA**	**47**	**DR**	**63S4**	15	681
11	64	128.10*	5790	2.6	**SAF**	**47**	**DR**	**63S4**	16	680
12	57	110.73	5810	3.0						
5.7	107	157.43	3000	0.85						
6.2	99	144.40*	3000	0.95	**S**	**37**	**DR**	**63M6**	11	675
7.3	86	122.94	3000	1.05	**SF**	**37**	**DR**	**63M6**	12	676
8.5	76	106.00*	3000	1.20	**SA**	**37**	**DR**	**63M6**	10	677
9.1	71	98.80*	3000	1.30	**SAF**	**37**	**DR**	**63M6**	12	676
10	63	86.36	3000	1.45						
8.8	74	157.43	3000	1.25						
9.6	68	144.40*	3000	1.35						
11	59	122.94	3000	1.55	**S**	**37**	**DR**	**63S4**	11	675
13	52	106.00*	3000	1.70	**SF**	**37**	**DR**	**63S4**	12	676
14	49	98.80*	3000	1.75	**SA**	**37**	**DR**	**63S4**	10	677
16	44	86.36	3000	1.95	**SAF**	**37**	**DR**	**63S4**	12	676
17	41	80.96	3000	2.1						
19	37	71.44*	3000	2.3						
22	33	63.33	3000	2.5						
25	35	55.93	3000	2.3						
27	33	51.30*	3000	2.5						
32	28	43.68	3000	2.9						
37	25	37.66	3000	3.2	**S**	**37**	**DR**	**63S4**	11	675
39	23	35.10*	3000	3.4	**SF**	**37**	**DR**	**63S4**	12	676
45	20	30.68	3000	3.8	**SA**	**37**	**DR**	**63S4**	10	677
48	19	28.76	3000	3.9	**SAF**	**37**	**DR**	**63S4**	12	676
54	17	25.38*	3000	4.4						
61	15	22.50*	3000	4.8						
69	14	19.89	3000	3.6						
76	13	18.24*	3000	4.0						
89	11	15.53	2870	4.4						

P_m = 0.18 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					S	**87R57**	**DR**	**63M4**	110	709
0.29	3010	4606	19200	0.85	**SF**	**87R57**	**DR**	**63M4**	130	709
0.34	2510	3872	27500	1.00	**SA**	**87R57**	**DR**	**63M4**	105	709
					SAF	**87R57**	**DR**	**63M4**	120	709
0.38	2420	3475	27700	1.05						
0.45	2030	2905	28400	1.25						
0.51	1760	2586	28800	1.40	**S**	**87R57**	**DR**	**63M4**	105	709
0.57	1570	2335	29100	1.60	**SF**	**87R57**	**DR**	**63M4**	130	709
0.64	1360	2054	29300	1.85	**SA**	**87R57**	**DR**	**63M4**	105	709
0.72	1200	1824	29500	2.1	**SAF**	**87R57**	**DR**	**63M4**	120	709
0.81	1080	1631	29600	2.3						
					S	**77R37**	**DR**	**63M4**	59	709
0.94	1240	1404	11900	1.00	**SF**	**77R37**	**DR**	**63M4**	68	709
1.1	1090	1245	13200	1.15	**SA**	**77R37**	**DR**	**63M4**	58	709
					SAF	**77R37**	**DR**	**63M4**	65	709
1.2	1020	1100	13700	1.20						
1.4	870	954	14500	1.40	**S**	**77R37**	**DR**	**63M4**	58	709
1.6	770	837	15000	1.60	**SF**	**77R37**	**DR**	**63M4**	68	709
1.8	640	714	15600	1.95	**SA**	**77R37**	**DR**	**63M4**	58	709
2.1	565	637	15800	2.2	**SAF**	**77R37**	**DR**	**63M4**	65	709
2.3	515	574	16000	2.4						
1.9	600	712	7860	0.95						
2.2	505	615	8800	1.15	**S**	**67R37**	**DR**	**63M4**	39	709
2.4	450	543	9230	1.25	**SF**	**67R37**	**DR**	**63M4**	46	709
2.8	375	469	9720	1.50	**SA**	**67R37**	**DR**	**63M4**	40	709
3.1	340	424	9930	1.65	**SAF**	**67R37**	**DR**	**63M4**	45	709
3.6	305	365	10100	1.85						

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P_m = 0.18 kW										
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.0	355	438	6520	0.85						
3.4	310	388	6970	0.95						
3.9	275	336	7290	1.10	**S**	**57R17**	**DR**	**63M4**	20	709
4.5	235	294	7560	1.25	**SF**	**57R17**	**DR**	**63M4**	24	709
4.9	225	269	7650	1.35	**SA**	**57R17**	**DR**	**63M4**	20	709
5.8	193	229	7830	1.55	**SAF**	**57R17**	**DR**	**63M4**	23	709
6.5	174	204	7920	1.75						
7.0	159	187	7990	1.90						
4.5	235	294	4480	0.80						
5.1	162	257	5380	1.15						
5.8	190	229	5170	0.95	**S**	**47R17**	**DR**	**63M4**	17	709
6.6	167	200	5300	1.10	**SF**	**47R17**	**DR**	**63M4**	20	709
7.0	156	187	5360	1.20	**SA**	**47R17**	**DR**	**63M4**	18	709
8.0	138	165	5450	1.35	**SAF**	**47R17**	**DR**	**63M4**	19	709
9.0	124	148	5520	1.50						
10	110	131	5580	1.70						
4.0	250	217.41	10300	2.2	**S**	**67**	**DR**	**63L6**	29	689
4.6	220	190.11	10400	2.5	**SF**	**67**	**DR**	**63L6**	35	690
4.8	210	180.60*	10400	2.6	**SA**	**67**	**DR**	**63L6**	30	691
					SAF	**67**	**DR**	**63L6**	34	690
4.3	220	201.00*	7670	1.35	**S**	**57**	**DR**	**63L6**	18	684
4.7	205	184.80*	7760	1.45	**SF**	**57**	**DR**	**63L6**	22	685
5.5	180	158.12	7900	1.65	**SA**	**57**	**DR**	**63L6**	18	686
6.4	159	137.05	7990	1.85	**SAF**	**57**	**DR**	**63L6**	21	685
6.6	154	201.00*	8010	1.90	**S**	**57**	**DR**	**63M4**	17	684
7.1	143	184.80*	8050	2.1	**SF**	**57**	**DR**	**63M4**	21	685
8.4	125	158.12	8120	2.4	**SA**	**57**	**DR**	**63M4**	17	686
9.6	110	137.05	8160	2.7	**SAF**	**57**	**DR**	**63M4**	20	685
4.3	210	201.00*	5090	0.85						
4.7	199	184.80*	5180	0.90	**S**	**47**	**DR**	**63L6**	14	679
5.5	173	158.12	5320	1.00	**SF**	**47**	**DR**	**63L6**	18	680
6.4	153	137.05	5420	1.10	**SA**	**47**	**DR**	**63L6**	15	681
6.8	144	128.10*	5460	1.20	**SAF**	**47**	**DR**	**63L6**	17	680
6.6	149	201.00*	5440	1.15						
7.1	138	184.80*	5490	1.25						
8.4	121	158.12	5570	1.40						
9.6	107	137.05	5630	1.60	**S**	**47**	**DR**	**63M4**	14	679
10	100	128.10*	5660	1.65	**SF**	**47**	**DR**	**63M4**	17	680
12	88	110.73	5700	1.90	**SA**	**47**	**DR**	**63M4**	15	681
14	77	94.08*	5750	2.2	**SAF**	**47**	**DR**	**63M4**	16	680
16	69	84.00*	5770	2.4						
18	60	71.75*	5800	2.8						
19	69	69.39	5750	2.2						
8.4	115	157.43	3000	0.80						
9.1	107	144.40*	3000	0.85						
11	93	122.94	3000	1.00	**S**	**37**	**DR**	**63M4**	11	675
12	82	106.00*	3000	1.10	**SF**	**37**	**DR**	**63M4**	12	676
13	77	98.80*	3000	1.15	**SA**	**37**	**DR**	**63M4**	10	677
15	68	86.36	3000	1.25	**SAF**	**37**	**DR**	**63M4**	12	676
16	64	80.96	3000	1.30						

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P_m = 0.18 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
18	58	71.44*	3000	1.45						
21	52	63.33	3000	1.60						
24	55	55.93	3000	1.45						
26	51	51.30*	3000	1.60						
30	44	43.68	3000	1.85						
35	38	37.66	3000	2.1						
38	36	35.10*	3000	2.2						
43	32	30.68	3000	2.4	**S**	**37**	**DR**	**63M4**	11	675
46	30	28.76	3000	2.5	**SF**	**37**	**DR**	**63M4**	12	676
52	27	25.38*	3000	2.8	**SA**	**37**	**DR**	**63M4**	10	677
59	24	22.50*	3000	3.1	**SAF**	**37**	**DR**	**63M4**	12	676
66	22	19.89	3000	2.3						
72	21	18.24*	2950	2.5						
85	18	15.53	2820	2.8						
99	15	13.39	2710	3.2						
106	14	12.48*	2660	3.4						
121	13	10.91	2560	3.8						
129	12	10.23	2510	4.0						

P_m = 0.25 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.45	2930	2905	22200	0.85						
0.50	2560	2586	27400	1.00						
0.56	2290	2335	27900	1.10	**S**	**87R57**	**DR**	**63L4**	110	709
0.63	1990	2054	28400	1.25	**SF**	**87R57**	**DR**	**63L4**	130	709
0.71	1770	1824	28800	1.40	**SA**	**87R57**	**DR**	**63L4**	105	709
0.80	1580	1631	29100	1.60	**SAF**	**87R57**	**DR**	**63L4**	120	709
1.4	930	930	29700	2.7						
1.4	1250	954	11800	1.00						
1.6	1100	837	13100	1.10	**S**	**77R37**	**DR**	**63L4**	59	709
1.8	920	714	14200	1.35	**SF**	**77R37**	**DR**	**63L4**	69	709
2.0	820	637	14800	1.50	**SA**	**77R37**	**DR**	**63L4**	59	709
2.3	745	574	15200	1.65	**SAF**	**77R37**	**DR**	**63L4**	65	709
2.6	635	499	15600	1.95						
2.4	650	543	6280	0.85						
2.8	550	469	8390	1.05	**S**	**67R37**	**DR**	**63L4**	40	709
3.1	495	424	8880	1.15	**SF**	**67R37**	**DR**	**63L4**	46	709
3.6	440	365	9320	1.30	**SA**	**67R37**	**DR**	**63L4**	41	709
4.1	380	319	9700	1.50	**SAF**	**67R37**	**DR**	**63L4**	45	709
4.6	335	281	9960	1.70						
4.4	340	294	6640	0.85						
4.8	320	269	6870	0.95						
5.7	275	229	7280	1.10	**S**	**57R17**	**DR**	**63L4**	21	709
6.4	245	204	7490	1.20	**SF**	**57R17**	**DR**	**63L4**	25	709
6.9	225	187	7630	1.30	**SA**	**57R17**	**DR**	**63L4**	21	709
7.9	200	165	7780	1.50	**SAF**	**57R17**	**DR**	**63L4**	24	709
9.9	162	131	7980	1.85						
4.1	340	217.41	9920	1.65	**S**	**67**	**DRS**	**71S6**	31	689
4.7	300	190.11	10100	1.85	**SF**	**67**	**DRS**	**71S6**	37	690
5.0	290	180.60*	10200	1.90	**SA**	**67**	**DRS**	**71S6**	32	691
5.6	255	158.45	10300	2.1	**SAF**	**67**	**DRS**	**71S6**	36	690
6.0	245	217.41	10300	2.1						
6.8	215	190.11	10400	2.4						
7.2	205	180.60*	10500	2.5	**S**	**67**	**DR**	**63L4**	29	689
8.2	187	158.45	10500	2.8	**SF**	**67**	**DR**	**63L4**	35	690
9.7	161	134.40*	10600	3.2	**SA**	**67**	**DR**	**63L4**	30	691
11	147	121.33	10600	3.5	**SAF**	**67**	**DR**	**63L4**	34	690
12	131	106.75*	10700	4.0						
4.4	295	201.00*	7080	1.00						
4.8	275	184.80*	7260	1.10	**S**	**57**	**DRS**	**71S6**	20	684
5.7	240	158.12	7530	1.20	**SF**	**57**	**DRS**	**71S6**	24	685
6.5	210	137.05	7710	1.35	**SA**	**57**	**DRS**	**71S6**	20	686
7.0	200	128.10*	7780	1.45	**SAF**	**57**	**DRS**	**71S6**	23	685

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P_m = 0.25 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
6.5	215	201.00*	7700	1.35						
7.0	200	184.80*	7790	1.45						
8.2	176	158.12	7920	1.70	**S**	**57**	**DR**	**63L4**	18	684
9.5	155	137.05	8010	1.90	**SF**	**57**	**DR**	**63L4**	22	685
10	146	128.10*	8040	2.0	**SA**	**57**	**DR**	**63L4**	18	686
12	128	110.73	8100	2.3	**SAF**	**57**	**DR**	**63L4**	21	685
14	111	94.08*	8160	2.6						
15	101	84.00*	8190	2.9						
6.5	205	201.00*	5120	0.80						
7.0	194	184.80*	5200	0.85						
8.2	170	158.12	5340	1.00						
9.5	150	137.05	5440	1.10						
10	141	128.10*	5480	1.20						
12	124	110.73	5560	1.35	**S**	**47**	**DR**	**63L4**	14	679
14	108	94.08*	5630	1.55	**SF**	**47**	**DR**	**63L4**	18	680
15	98	84.00*	5670	1.70	**SA**	**47**	**DR**	**63L4**	15	681
18	85	71.75*	5720	1.95	**SAF**	**47**	**DR**	**63L4**	17	680
19	97	69.39	5640	1.60						
19	80	67.20*	5730	2.1						
20	90	63.80*	5670	1.70						
24	78	54.59	5720	2.00						
27	68	47.32	5760	2.3						
13	108	98.80*	3000	0.80						
15	96	86.36	3000	0.90						
16	91	80.96	3000	0.95						
18	81	71.44*	3000	1.05						
21	73	63.33	3000	1.10						
23	78	55.93	3000	1.05						
25	72	51.30*	3000	1.15						
30	62	43.68	3000	1.30						
35	54	37.66	3000	1.45						
37	51	35.10*	3000	1.55						
42	45	30.68	3000	1.70						
45	42	28.76	3000	1.80						
51	37	25.38*	3000	2.00	**S**	**37**	**DR**	**63L4**	11	675
58	33	22.50*	3000	2.2	**SF**	**37**	**DR**	**63L4**	13	676
65	32	19.89	2890	1.65	**SA**	**37**	**DR**	**63L4**	11	677
71	29	18.24*	2830	1.80	**SAF**	**37**	**DR**	**63L4**	13	676
84	25	15.53	2730	2.0						
97	22	13.39	2630	2.3						
104	20	12.48*	2580	2.4						
119	18	10.91	2490	2.7						
127	17	10.23	2450	2.8						
144	15	9.02*	2370	3.1						
162	13	8.00*	2290	3.4						
191	11	6.80*	2190	3.8						
205	11	6.33	2140	3.3						
241	9.0	5.38	2040	3.8						
267	8.1	4.86*	1980	4.0						
328	6.7	3.97	1870	4.8						
92	21	28.76	2740	3.0						
105	19	25.38*	2650	3.3						
118	17	22.50*	2560	3.4	**S**	**37**	**DR**	**63M2**	11	675
134	16	19.89	2420	2.8	**SF**	**37**	**DR**	**63M2**	12	676
146	15	18.24*	2360	3.0	**SA**	**37**	**DR**	**63M2**	10	677
171	12	15.53	2260	3.4	**SAF**	**37**	**DR**	**63M2**	12	676
199	11	13.39	2170	3.8						
213	10	12.48*	2120	4.0						

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P_m = 0.37 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.67	2850	2054	24500	0.90	**S**	**87R57**	**DRS**	**71S4**	110	709
0.76	2530	1824	27400	1.00	**SF**	**87R57**	**DRS**	**71S4**	130	709
0.85	2260	1631	28000	1.10	**SA**	**87R57**	**DRS**	**71S4**	105	709
1.5	1340	930	29400	1.85	**SAF**	**87R57**	**DRS**	**71S4**	125	709
1.7	1210	831	29500	2.1						
1.9	1310	714	11300	0.95						
2.2	1160	637	12600	1.05	**S**	**77R37**	**DRS**	**71S4**	61	709
2.4	1050	574	13400	1.15	**SF**	**77R37**	**DRS**	**71S4**	71	709
2.8	900	499	14300	1.35	**SA**	**77R37**	**DRS**	**71S4**	61	709
3.2	795	438	14900	1.55	**SAF**	**77R37**	**DRS**	**71S4**	67	709
3.6	705	389	15300	1.75						
3.8	620	365	7560	0.90	**S**	**67R37**	**DRS**	**71S4**	42	709
4.3	540	319	8450	1.05	**SF**	**67R37**	**DRS**	**71S4**	48	709
4.9	475	281	9030	1.20	**SA**	**67R37**	**DRS**	**71S4**	43	709
5.6	430	246	9380	1.30	**SAF**	**67R37**	**DRS**	**71S4**	47	709
					S	**77**	**DRS**	**71M6**	53	694
3.5	635	256.47	15600	2.00	**SF**	**77**	**DRS**	**71M6**	63	695
4.0	565	225.26	15800	2.2	**SA**	**77**	**DRS**	**71M6**	52	696
4.2	540	214.00*	15900	2.3	**SAF**	**77**	**DRS**	**71M6**	59	695
4.2	500	217.41	8830	1.10	**S**	**67**	**DRS**	**71M6**	32	689
4.8	445	190.11	9280	1.25	**SF**	**67**	**DRS**	**71M6**	38	690
5.0	425	180.60*	9410	1.30	**SA**	**67**	**DRS**	**71M6**	33	691
5.7	380	158.45	9710	1.45	**SAF**	**67**	**DRS**	**71M6**	37	690
6.4	345	217.41	9900	1.50						
7.3	305	190.11	10100	1.70	**S**	**67**	**DRS**	**71S4**	31	689
7.6	290	180.60*	10100	1.75	**SF**	**67**	**DRS**	**71S4**	37	690
8.7	260	158.45	10300	2.00	**SA**	**67**	**DRS**	**71S4**	32	691
10	225	134.40*	10400	2.3	**SAF**	**67**	**DRS**	**71S4**	36	690
11	205	121.33	10500	2.5						
5.7	355	158.12	6510	0.85						
6.6	310	137.05	6950	0.95	**S**	**57**	**DRS**	**71M6**	21	684
7.1	295	128.10*	7110	1.00	**SF**	**57**	**DRS**	**71M6**	25	685
8.2	260	110.73	7400	1.15	**SA**	**57**	**DRS**	**71M6**	21	686
9.6	225	94.08*	7640	1.30	**SAF**	**57**	**DRS**	**71M6**	24	685
11	205	84.00*	7760	1.45						
6.9	300	201.00*	7040	0.95						
7.5	280	184.80*	7230	1.05						
8.7	245	158.12	7500	1.20						
10	215	137.05	7690	1.35						
11	205	128.10*	7760	1.45	**S**	**57**	**DRS**	**71S4**	20	684
12	180	110.73	7890	1.65	**SF**	**57**	**DRS**	**71S4**	24	685
15	156	94.08*	8000	1.90	**SA**	**57**	**DRS**	**71S4**	20	686
16	141	84.00*	8060	2.1	**SAF**	**57**	**DRS**	**71S4**	23	685
19	122	71.75*	8120	2.4						
20	139	69.39	8070	1.75						
21	115	67.20*	8150	2.5						
22	128	63.80*	8110	1.90						

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P_m = 0.37 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
10	210	137.05	5110	0.80						
11	199	128.10*	5180	0.85						
12	175	110.73	5320	0.95						
15	151	94.08*	5430	1.10						
16	137	84.00*	5500	1.20						
19	119	71.75*	5580	1.40						
20	136	69.39	5460	1.15						
21	112	67.20*	5610	1.50						
22	126	63.80*	5510	1.25	**S**	**47**	**DRS**	**71S4**	16	679
25	109	54.59	5590	1.40	**SF**	**47**	**DRS**	**71S4**	20	680
29	96	47.32	5420	1.60	**SA**	**47**	**DRS**	**71S4**	17	681
31	90	44.22*	5330	1.75	**SAF**	**47**	**DRS**	**71S4**	19	680
36	78	38.23	5140	2.00						
42	67	32.48*	4940	2.3						
48	60	29.00*	4790	2.6						
56	52	24.77	4590	3.0						
59	49	23.20*	4510	3.1						
68	46	20.33	4200	2.4						
78	40	17.62	4050	2.8						
84	37	16.47*	3980	3.0						
22	103	63.33	3000	0.80						
27	101	51.30*	3000	0.80						
32	87	43.68	3000	0.95						
37	76	37.66	3000	1.05						
39	71	35.10*	3000	1.10						
45	62	30.68	3000	1.20						
48	59	28.76	3000	1.30						
54	52	25.38*	2950	1.40						
61	47	22.50*	2870	1.55						
69	44	19.89	2630	1.20	**S**	**37**	**DRS**	**71S4**	13	675
76	41	18.24*	2590	1.30	**SF**	**37**	**DRS**	**71S4**	15	676
89	35	15.53	2520	1.45	**SA**	**37**	**DRS**	**71S4**	13	677
103	30	13.39	2440	1.60	**SAF**	**37**	**DRS**	**71S4**	15	676
111	28	12.48*	2400	1.70						
126	25	10.91	2330	1.95						
135	23	10.23	2300	2.0						
153	21	9.02*	2230	2.2						
172	18	8.00*	2160	2.4						
203	16	6.80*	2080	2.7						
218	15	6.33	2030	2.4						
256	13	5.38	1940	2.7						
284	11	4.86*	1890	2.9						
348	9.3	3.97	1790	3.4						
104	28	25.38*	2540	2.2						
118	25	22.50*	2470	2.3						
133	24	19.89	2300	1.85						
145	22	18.24*	2260	2.0	**S**	**37**	**DR**	**63L2**	11	675
171	19	15.53	2170	2.3	**SF**	**37**	**DR**	**63L2**	13	676
198	16	13.39	2090	2.6	**SA**	**37**	**DR**	**63L2**	11	677
212	15	12.48*	2050	2.7	**SAF**	**37**	**DR**	**63L2**	13	676
243	13	10.91	1980	3.0						
259	12	10.23	1950	3.1						
294	11	9.02*	1880	3.3						

P_m = 0.55 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.0	2840	1332	24800	0.90						
1.1	2560	1191	27300	0.95						
1.3	2230	1032	28000	1.10	**S**	**87R57**	**DRS**	**71M4**	110	709
1.5	2060	930	28300	1.20	**SF**	**87R57**	**DRS**	**71M4**	130	709
1.6	1860	831	28700	1.35	**SA**	**87R57**	**DRS**	**71M4**	110	709
1.9	1620	719	29000	1.55	**SAF**	**87R57**	**DRS**	**71M4**	125	709
2.2	1410	624	29300	1.75						
2.4	1280	558	29400	1.95						
3.1	1020	435	29700	2.4						

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P_m = 0.55 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.1	1220	438	12100	1.00	**S**	**77R37**	**DRS**	**71M4**	62	709
3.5	1080	389	13200	1.15	**SF**	**77R37**	**DRS**	**71M4**	72	709
4.2	920	327	14300	1.35	**SA**	**77R37**	**DRS**	**71M4**	62	709
4.7	830	289	14800	1.50	**SAF**	**77R37**	**DRS**	**71M4**	68	709
5.4	715	250	15300	1.70						
5.5	655	246	5530	0.85	**S**	**67R37**	**DRS**	**71M4**	43	709
6.2	585	221	7990	0.95	**SF**	**67R37**	**DRS**	**71M4**	49	709
6.9	535	198	8520	1.05	**SA**	**67R37**	**DRS**	**71M4**	44	709
8.1	460	168	9170	1.25	**SAF**	**67R37**	**DRS**	**71M4**	48	709
3.2	1110	288.00*	29600	2.2	**S**	**87**	**DRS**	**80S6**	91	699
3.5	1000	258.18	29700	2.4	**SF**	**87**	**DRS**	**80S6**	115	700
4.1	880	222.40*	29800	2.7	**SA**	**87**	**DRS**	**80S6**	89	701
4.5	810	202.96	29800	2.9	**SAF**	**87**	**DRS**	**80S6**	105	700
3.6	940	256.47	14200	1.35						
4.1	830	225.26	14700	1.50	**S**	**77**	**DRS**	**80S6**	55	694
4.3	800	214.00*	14900	1.60	**SF**	**77**	**DRS**	**80S6**	65	695
4.8	715	189.09	15300	1.75	**SA**	**77**	**DRS**	**80S6**	55	696
5.7	620	161.60*	15600	2.0	**SAF**	**77**	**DRS**	**80S6**	61	695
5.3	660	256.47	15500	1.90	**S**	**77**	**DRS**	**71M4**	53	694
6.0	585	225.26	15800	2.2	**SF**	**77**	**DRS**	**71M4**	63	695
6.4	560	214.00*	15800	2.3	**SA**	**77**	**DRS**	**71M4**	52	696
7.2	500	189.09	16000	2.5	**SAF**	**77**	**DRS**	**71M4**	59	695
6.3	520	217.41	8660	1.00						
7.2	460	190.11	9150	1.10						
7.5	440	180.60*	9300	1.15						
8.6	390	158.45	9620	1.30						
10	340	134.40*	9930	1.55	**S**	**67**	**DRS**	**71M4**	32	689
11	310	121.33	10100	1.65	**SF**	**67**	**DRS**	**71M4**	38	690
13	275	106.75*	10200	1.85	**SA**	**67**	**DRS**	**71M4**	33	691
13	260	100.80*	10300	1.95	**SAF**	**67**	**DRS**	**71M4**	37	690
16	225	85.83	10400	2.3						
18	230	75.06	10400	2.1						
21	200	65.63	10500	2.4						
9.7	330	94.08*	6760	0.90						
11	300	84.00*	7070	1.00						
13	260	71.75*	7390	1.10	**S**	**57**	**DRS**	**80S6**	23	684
14	245	67.20*	7500	1.20	**SF**	**57**	**DRS**	**80S6**	27	685
17	240	54.59	7540	1.10	**SA**	**57**	**DRS**	**80S6**	23	686
19	210	47.32	7730	1.30	**SAF**	**57**	**DRS**	**80S6**	26	685
21	199	44.22*	7800	1.35						
24	173	38.23	7930	1.55						
8.6	370	158.12	6330	0.80						
9.9	325	137.05	6820	0.90						
11	305	128.10*	7000	0.95						
12	270	110.73	7320	1.10						
14	230	94.08*	7580	1.25						
16	210	84.00*	7720	1.40						
19	184	71.75*	7870	1.55						
20	174	67.20*	7920	1.65	**S**	**57**	**DRS**	**71M4**	21	684
25	167	54.59	7960	1.45	**SF**	**57**	**DRS**	**71M4**	25	685
29	146	47.32	8040	1.70	**SA**	**57**	**DRS**	**71M4**	21	686
31	137	44.22*	8080	1.80	**SAF**	**57**	**DRS**	**71M4**	24	685
36	120	38.23	8130	2.0						
42	103	32.48*	7980	2.4						
47	92	29.00*	7730	2.7						
55	79	24.77	7390	3.1						
59	75	23.20*	7260	3.3						
67	69	20.33	6790	2.4						

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P_m = 0.55 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
16	205	84.00*	5140	0.80						
19	179	71.75*	5290	0.95						
20	169	67.20*	5350	1.00						
25	165	54.59	5140	0.95						
29	144	47.32	5020	1.10						
31	135	44.22*	4960	1.15						
36	118	38.23	4820	1.30						
42	101	32.48*	4660	1.55	**S**	**47**	**DRS**	**71M4**	17	679
47	91	29.00*	4540	1.70	**SF**	**47**	**DRS**	**71M4**	21	680
55	78	24.77	4380	2.00	**SA**	**47**	**DRS**	**71M4**	18	681
59	74	23.20*	4320	2.1	**SAF**	**47**	**DRS**	**71M4**	20	680
67	69	20.33	3950	1.60						
77	60	17.62	3840	1.85						
83	56	16.47*	3780	1.95						
96	49	14.24	3660	2.2						
112	42	12.10*	3520	2.6						
126	37	10.80*	3420	2.9						
147	32	9.23*	3280	3.4						
44	94	30.68	2680	0.80						
47	89	28.76	2670	0.85						
54	79	25.38*	2640	0.95						
60	70	22.50*	2600	1.05						
71	60	19.13*	2540	1.20						
88	52	15.53	2260	0.95						
102	46	13.39	2220	1.10	**S**	**37**	**DRS**	**71M4**	14	675
109	43	12.48*	2200	1.15	**SF**	**37**	**DRS**	**71M4**	16	676
125	37	10.91	2160	1.30	**SA**	**37**	**DRS**	**71M4**	14	677
133	35	10.23	2130	1.35	**SAF**	**37**	**DRS**	**71M4**	16	676
151	31	9.02*	2080	1.50						
170	28	8.00*	2040	1.60						
200	24	6.80*	1970	1.80						
215	22	6.33	1920	1.60						
253	19	5.38	1850	1.80						
280	17	4.86*	1810	1.95						
343	14	3.97	1720	2.3						
98	45	28.76	2400	1.45						
111	40	25.38*	2350	1.55						
125	35	22.50*	2290	1.60						
141	33	19.89	2110	1.35						
154	30	18.24*	2080	1.45						
181	26	15.53	2010	1.60	**S**	**37**	**DRS**	**71M2**	14	675
210	23	13.39	1950	1.80	**SF**	**37**	**DRS**	**71M2**	16	676
225	21	12.48*	1920	1.90	**SA**	**37**	**DRS**	**71M2**	14	677
258	18	10.91	1860	2.1	**SAF**	**37**	**DRS**	**71M2**	16	676
275	17	10.23	1830	2.2						
311	15	9.02*	1780	2.3						
351	14	8.00*	1720	2.6						
413	12	6.80*	1650	2.5						

P_m = 0.75 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.2	4690	1223	24000	0.90						
1.4	4110	1070	32700	1.00						
1.6	3540	928	34100	1.20	**S**	**97R57**	**DRN**	**80M4**	175	709
1.8	3130	824	34800	1.35	**SF**	**97R57**	**DRN**	**80M4**	210	709
2.0	2230	714	35900	1.90	**SA**	**97R57**	**DRN**	**80M4**	170	709
2.3	2380	626	35800	1.75	**SAF**	**97R57**	**DRN**	**80M4**	195	709
2.7	2040	538	36100	2.1						
3.0	1840	484	36300	2.3						

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P_m = 0.75 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.4	2930	1032	22000	0.85						
1.6	2700	930	27000	0.90						
1.7	2440	831	27600	1.00	**S**	**87R57**	**DRN**	**80M4**	115	709
2.0	2120	719	28200	1.15	**SF**	**87R57**	**DRN**	**80M4**	135	709
2.3	1860	624	28700	1.35	**SA**	**87R57**	**DRN**	**80M4**	115	709
2.6	1680	558	28900	1.50	**SAF**	**87R57**	**DRN**	**80M4**	130	709
3.3	1340	435	29400	1.80						
4.5	1020	323	29700	2.3						
4.4	1190	327	12300	1.05	**S**	**77R37**	**DRN**	**80M4**	67	709
5.0	1070	289	13300	1.15	**SF**	**77R37**	**DRN**	**80M4**	77	709
5.8	930	250	14200	1.35	**SA**	**77R37**	**DRN**	**80M4**	66	709
6.6	820	219	14800	1.50	**SAF**	**77R37**	**DRN**	**80M4**	73	709
5.0	1000	288.00*	29700	2.3	**S**	**87**	**DRN**	**80M4**	94	699
5.6	910	258.18	29800	2.5	**SF**	**87**	**DRN**	**80M4**	115	700
6.5	795	222.40*	29800	2.9	**SA**	**87**	**DRN**	**80M4**	91	701
7.1	730	202.96	29900	3.1	**SAF**	**87**	**DRN**	**80M4**	105	700
5.6	850	256.47	14600	1.50						
6.4	760	225.26	15100	1.65						
6.7	725	214.00*	15200	1.75						
7.6	650	189.09	15500	1.95	**S**	**77**	**DRN**	**80M4**	58	694
8.9	560	161.60*	15800	2.2	**SF**	**77**	**DRN**	**80M4**	67	695
9.7	520	148.15	16000	2.4	**SA**	**77**	**DRN**	**80M4**	57	696
11	460	130.00*	16000	2.6	**SAF**	**77**	**DRN**	**80M4**	64	695
12	440	123.20*	16000	2.7						
13	390	107.83	16000	3.0						
7.6	600	190.11	7850	0.85						
8.0	570	180.60*	8140	0.90						
9.1	510	158.45	8750	1.00						
11	440	134.40*	9310	1.20						
12	400	121.33	9570	1.30						
13	355	106.75*	9830	1.45	**S**	**67**	**DRN**	**80M4**	37	689
14	340	100.80*	9930	1.50	**SF**	**67**	**DRN**	**80M4**	43	690
17	290	85.83	10100	1.75	**SA**	**67**	**DRN**	**80M4**	38	691
19	295	75.06	10100	1.60	**SAF**	**67**	**DRN**	**80M4**	42	690
22	260	65.63	10300	1.80						
23	250	62.35*	10300	1.90						
26	220	54.70	10200	2.2						
31	190	46.40*	9740	2.5						
13	350	110.73	6560	0.85						
15	300	94.08*	7040	0.95						
17	275	84.00*	7290	1.05						
20	235	71.75*	7560	1.20						
21	225	67.20*	7650	1.25						
26	215	54.59	7700	1.15						
30	189	47.32	7850	1.30						
33	177	44.22*	7910	1.40	**S**	**57**	**DRN**	**80M4**	26	684
38	155	38.23	7910	1.60	**SF**	**57**	**DRN**	**80M4**	30	685
44	132	32.48*	7590	1.85	**SA**	**57**	**DRN**	**80M4**	26	686
50	119	29.00*	7370	2.1	**SAF**	**57**	**DRN**	**80M4**	28	685
58	102	24.77	7070	2.4						
62	96	23.20*	6950	2.6						
71	89	20.33	6450	1.90						
82	78	17.62	6230	2.2						
87	73	16.47*	6120	2.3						
101	63	14.24	5890	2.7						
30	186	47.32	4520	0.85						
33	175	44.22*	4490	0.90	**S**	**47**	**DRN**	**80M4**	22	679
38	153	38.23	4400	1.00	**SF**	**47**	**DRN**	**80M4**	26	680
44	131	32.48*	4290	1.20	**SA**	**47**	**DRN**	**80M4**	23	681
50	118	29.00*	4210	1.30	**SAF**	**47**	**DRN**	**80M4**	25	680

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P_m = 0.75 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
58	101	24.77	4080	1.55						
62	95	23.20*	4030	1.60						
71	89	20.33	3630	1.25						
82	77	17.62	3550	1.40						
87	73	16.47*	3510	1.50						
101	63	14.24	3410	1.75						
119	54	12.10*	3300	2.0	**S**	**47**	**DRN**	**80M4**	22	679
133	48	10.80*	3220	2.3	**SF**	**47**	**DRN**	**80M4**	26	680
156	41	9.23*	3110	2.6	**SA**	**47**	**DRN**	**80M4**	23	681
167	39	8.64*	3060	2.8	**SAF**	**47**	**DRN**	**80M4**	25	680
198	33	7.28	2940	3.1						
225	29	6.40*	2830	2.6						
267	25	5.39	2700	3.0						
302	22	4.76	2620	3.3						
360	18	4.00*	2500	3.3						
75	78	19.13*	2260	0.90						
115	55	12.48*	1960	0.85						
132	48	10.91	1940	1.00						
141	45	10.23	1930	1.05						
160	40	9.02*	1900	1.15	**S**	**37**	**DRN**	**80M4**	19	675
180	36	8.00*	1870	1.25	**SF**	**37**	**DRN**	**80M4**	20	676
212	31	6.80*	1820	1.40	**SA**	**37**	**DRN**	**80M4**	19	677
227	29	6.33	1780	1.20	**SAF**	**37**	**DRN**	**80M4**	20	676
267	24	5.38	1730	1.40						
296	22	4.86*	1690	1.50						
363	18	3.97	1620	1.75						

P_m = 1.1 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.8	4590	824	25600	0.90						
2.0	3280	714	34500	1.30	**S**	**97R57**	**DRN**	**90S4**	180	709
2.3	3490	626	34200	1.20	**SF**	**97R57**	**DRN**	**90S4**	215	709
2.7	3000	538	34900	1.40	**SA**	**97R57**	**DRN**	**90S4**	175	709
3.0	2710	484	35400	1.55	**SAF**	**97R57**	**DRN**	**90S4**	200	709
3.5	2350	420	35800	1.80						
2.3	2740	624	26500	0.90						
2.6	2480	558	27500	1.00						
3.0	2180	485	28100	1.15						
3.4	1980	435	28500	1.25	**S**	**87R57**	**DRN**	**90S4**	120	709
3.8	1740	378	28800	1.40	**SF**	**87R57**	**DRN**	**90S4**	145	709
4.5	1510	323	29100	1.60	**SA**	**87R57**	**DRN**	**90S4**	120	709
5.2	1330	281	29400	1.80	**SAF**	**87R57**	**DRN**	**90S4**	135	709
5.7	1420	255	29200	1.40						
6.6	1240	222	29400	1.60						
7.1	1160	205	29500	1.70						
6.6	1200	219	12200	1.05	**S**	**77R37**	**DRN**	**90S4**	73	709
					SF	**77R37**	**DRN**	**90S4**	82	709
					SA	**77R37**	**DRN**	**90S4**	72	709
					SAF	**77R37**	**DRN**	**90S4**	79	709
5.0	1460	288.00*	29200	1.55						
5.6	1320	258.18	29400	1.70	**S**	**87**	**DRN**	**90S4**	99	699
6.5	1150	222.40*	29500	1.95	**SF**	**87**	**DRN**	**90S4**	120	700
7.2	1060	202.96	29600	2.1	**SA**	**87**	**DRN**	**90S4**	96	701
8.1	950	180.00*	29700	2.3	**SAF**	**87**	**DRN**	**90S4**	110	700
9.6	810	151.30	29800	2.6						

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P_m = 1.1 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
6.5	1100	225.26	13100	1.15						
6.8	1050	214.00*	13400	1.20						
7.7	940	189.09	14100	1.35						
9.0	820	161.60*	14800	1.55	**S**	**77**	**DRN**	**90S4**	63	694
9.8	755	148.15	15100	1.65	**SF**	**77**	**DRN**	**90S4**	72	695
11	670	130.00*	15500	1.80	**SA**	**77**	**DRN**	**90S4**	62	696
12	640	123.20*	15600	1.85	**SAF**	**77**	**DRN**	**90S4**	69	695
13	565	107.83	15800	2.1						
15	510	97.14	16000	2.2						
17	455	85.22	16000	2.4						
12	585	121.33	8020	0.90						
14	520	106.75*	8660	1.00						
14	495	100.80*	8890	1.05						
17	425	85.83	9400	1.20						
19	390	78.00*	9640	1.30						
22	380	65.63	9690	1.25	**S**	**67**	**DRN**	**90S4**	43	689
23	365	62.35*	9750	1.30	**SF**	**67**	**DRN**	**90S4**	50	690
27	320	54.70	9500	1.50	**SA**	**67**	**DRN**	**90S4**	44	691
31	275	46.40*	9170	1.75	**SAF**	**67**	**DRN**	**90S4**	48	690
35	250	41.89	8960	1.90						
39	220	36.85	8700	2.2						
42	210	34.80*	8590	2.3						
49	180	29.63	8260	2.7						
20	345	71.75*	6620	0.85	**S**	**57**	**DRN**	**90S4**	32	684
22	325	67.20*	6830	0.85	**SF**	**57**	**DRN**	**90S4**	35	685
26	275	56.61	7260	0.95	**SA**	**57**	**DRN**	**90S4**	31	686
31	270	47.32	7300	0.90	**SAF**	**57**	**DRN**	**90S4**	34	685
33	255	44.22*	7430	0.95						
38	220	38.23	7360	1.10						
45	192	32.48*	7120	1.25						
50	173	29.00*	6950	1.40						
59	149	24.77	6710	1.65						
63	140	23.20*	6610	1.75	**S**	**57**	**DRN**	**90S4**	32	684
74	119	19.54	6340	1.80	**SF**	**57**	**DRN**	**90S4**	35	685
83	113	17.62	5860	1.50	**SA**	**57**	**DRN**	**90S4**	31	686
88	106	16.47*	5780	1.60	**SAF**	**57**	**DRN**	**90S4**	34	685
102	92	14.24	5590	1.85						
120	78	12.10*	5380	2.2						
135	70	10.80*	5230	2.4						
158	60	9.23*	5030	2.8						
50	171	29.00*	3720	0.90						
59	147	24.77	3660	1.05	**S**	**47**	**DRN**	**90S4**	28	679
63	138	23.20*	3630	1.10	**SF**	**47**	**DRN**	**90S4**	32	680
74	117	19.54	3550	1.25	**SA**	**47**	**DRN**	**90S4**	29	681
83	113	17.62	3120	1.00	**SAF**	**47**	**DRN**	**90S4**	31	680
88	105	16.47*	3110	1.05						
102	92	14.24	3070	1.20						
120	78	12.10*	3010	1.40						
135	70	10.80*	2960	1.55						
158	60	9.23*	2880	1.80	**S**	**47**	**DRN**	**90S4**	28	679
168	56	8.64*	2850	1.95	**SF**	**47**	**DRN**	**90S4**	32	680
200	48	7.28	2750	2.2	**SA**	**47**	**DRN**	**90S4**	29	681
227	42	6.40*	2660	1.80	**SAF**	**47**	**DRN**	**90S4**	31	680
270	36	5.39	2560	2.1						
306	32	4.76	2490	2.3						
364	27	4.00*	2390	2.3						
182	52	8.00*	1620	0.85						
214	44	6.80*	1610	0.95	**S**	**37**	**DRN**	**90S4**	25	675
230	42	6.33	1570	0.85	**SF**	**37**	**DRN**	**90S4**	26	676
270	35	5.38	1540	0.95	**SA**	**37**	**DRN**	**90S4**	25	677
299	32	4.86*	1530	1.05	**SAF**	**37**	**DRN**	**90S4**	26	676
367	26	3.97	1490	1.20						

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P_m = 1.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.0	4490	714	30600	0.95						
2.3	4770	626	22600	0.90						
2.7	4110	538	32800	1.00	**S**	**97R57**	**DRN**	**90L4**	185	709
3.0	3710	484	33700	1.15	**SF**	**97R57**	**DRN**	**90L4**	220	709
3.5	3230	420	34600	1.30	**SA**	**97R57**	**DRN**	**90L4**	180	709
3.9	2920	376	35100	1.45	**SAF**	**97R57**	**DRN**	**90L4**	205	709
4.5	2560	327	35500	1.65						
3.0	2990	485	20100	0.85						
3.4	2710	435	27000	0.90						
3.9	2390	378	27700	1.00	**S**	**87R57**	**DRN**	**90L4**	125	709
4.5	2070	323	28300	1.15	**SF**	**87R57**	**DRN**	**90L4**	145	709
5.2	1820	281	28700	1.30	**SA**	**87R57**	**DRN**	**90L4**	125	709
5.7	1940	255	28500	1.00	**SAF**	**87R57**	**DRN**	**90L4**	140	709
6.6	1700	222	28900	1.15						
7.1	1590	205	29000	1.25						
5.1	2060	286.40*	36100	1.95	**S**	**97**	**DRN**	**90L4**	160	704
5.6	1900	262.22	36300	2.1	**SF**	**97**	**DRN**	**90L4**	195	705
6.3	1690	231.67	36400	2.4	**SA**	**97**	**DRN**	**90L4**	155	706
7.4	1450	196.52	36600	2.7	**SAF**	**97**	**DRN**	**90L4**	180	705
5.1	1990	288.00*	28500	1.15						
5.7	1800	258.18	28800	1.25						
6.6	1570	222.40*	29100	1.45						
7.2	1440	202.96	29200	1.55	**S**	**87**	**DRN**	**90L4**	100	699
8.1	1290	180.00*	29400	1.70	**SF**	**87**	**DRN**	**90L4**	125	700
9.7	1100	151.30	29600	1.95	**SA**	**87**	**DRN**	**90L4**	99	701
11	1020	139.05	29700	2.0	**SAF**	**87**	**DRN**	**90L4**	115	700
12	910	123.48	29800	2.2						
13	820	110.40*	29800	2.4						
15	745	99.26	29900	2.6						
7.7	1280	189.09	11500	1.00						
9.0	1110	161.60*	13000	1.15						
9.9	1030	148.15	13600	1.20						
11	910	130.00*	14300	1.30						
12	870	123.20*	14600	1.40						
14	765	107.83	15000	1.50						
15	695	97.14	15300	1.65	**S**	**77**	**DRN**	**90L4**	66	694
17	615	85.22	15300	1.80	**SF**	**77**	**DRN**	**90L4**	76	695
19	625	75.09	14100	1.75	**SA**	**77**	**DRN**	**90L4**	65	696
20	595	71.33	13900	1.85	**SAF**	**77**	**DRN**	**90L4**	72	695
22	490	66.67	14400	2.1						
23	530	63.03	13600	2.1						
26	420	56.92	13900	2.3						
27	455	53.87	13100	2.4						
30	420	49.38	12900	2.6						
34	370	43.33	12500	3.0						
17	580	85.83	8060	0.90	**S**	**67**	**DRN**	**90L4**	46	689
19	530	78.00*	8560	1.00	**SF**	**67**	**DRN**	**90L4**	53	690
22	520	65.63	8670	0.90	**SA**	**67**	**DRN**	**90L4**	47	691
					SAF	**67**	**DRN**	**90L4**	52	690
23	495	62.35*	8880	0.95						
27	435	54.70	8770	1.10						
31	375	46.40*	8550	1.30						
35	340	41.89	8400	1.40						
40	300	36.85	8200	1.60						
42	285	34.80*	8110	1.70	**S**	**67**	**DRN**	**90L4**	46	689
49	245	29.63	7850	1.95	**SF**	**67**	**DRN**	**90L4**	53	690
54	220	26.93	7690	2.2	**SA**	**67**	**DRN**	**90L4**	47	691
60	210	24.44	7040	1.60	**SAF**	**67**	**DRN**	**90L4**	52	690
63	200	23.22*	6970	1.65						
72	180	20.37	6800	1.90						
85	153	17.28*	6580	2.2						
94	139	15.60*	6430	2.4						
106	123	13.73*	6250	2.8						

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P_m = 1.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
45	260	32.48*	6610	0.95						
50	230	29.00*	6490	1.05						
59	200	24.77	6310	1.20						
63	190	23.20*	6230	1.30						
75	161	19.54	6020	1.35	**S**	**57**	**DRN**	**90L4**	35	684
83	153	17.62	5460	1.10	**SF**	**57**	**DRN**	**90L4**	39	685
89	144	16.47*	5400	1.15	**SA**	**57**	**DRN**	**90L4**	35	686
103	125	14.24	5260	1.35	**SAF**	**57**	**DRN**	**90L4**	37	685
121	107	12.10*	5100	1.60						
135	95	10.80*	4980	1.75						
158	82	9.23*	4810	2.1						
103	124	14.24	2680	0.90	**S**	**47**	**DRN**	**90L4**	31	679
121	106	12.10*	2680	1.05	**SF**	**47**	**DRN**	**90L4**	35	680
135	95	10.80*	2660	1.15	**SA**	**47**	**DRN**	**90L4**	32	681
					SAF	**47**	**DRN**	**90L4**	34	680
158	82	9.23*	2630	1.35						
169	77	8.64*	2610	1.40						
201	65	7.28	2550	1.60	**S**	**47**	**DRN**	**90L4**	31	679
228	58	6.40*	2470	1.30	**SF**	**47**	**DRN**	**90L4**	35	680
271	49	5.39	2400	1.50	**SA**	**47**	**DRN**	**90L4**	32	681
307	43	4.76	2350	1.65	**SAF**	**47**	**DRN**	**90L4**	34	680
365	36	4.00*	2270	1.70						

P_m = 2.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.4	4810	420	22200	0.85	**S**	**97R57**	**DRN**	**100LS4**	190	709
3.9	4340	376	29600	0.95	**SF**	**97R57**	**DRN**	**100LS4**	220	709
4.4	3800	327	33600	1.10	**SA**	**97R57**	**DRN**	**100LS4**	185	709
5.0	3360	287	34400	1.25	**SAF**	**97R57**	**DRN**	**100LS4**	210	709
5.8	2940	252	35000	1.40						
5.1	3040	286.40*	34900	1.30						
5.5	2810	262.22	35200	1.40						
6.3	2500	231.67	35600	1.60						
7.4	2150	196.52	36000	1.85						
8.0	1990	180.95	36200	1.95	**S**	**97**	**DRN**	**100LS4**	165	704
9.0	1790	161.74	36300	2.1	**SF**	**97**	**DRN**	**100LS4**	200	705
10.0	1620	145.60*	36500	2.3	**SA**	**97**	**DRN**	**100LS4**	160	706
11	1480	131.85	36600	2.5	**SAF**	**97**	**DRN**	**100LS4**	185	705
12	1320	116.92	36700	2.6						
14	1200	105.71	36800	2.9						
16	1020	89.60*	36900	3.2						
5.6	2660	258.18	27100	0.85						
6.5	2320	222.40*	27900	1.00						
7.1	2130	202.96	28200	1.05						
8.1	1910	180.00*	28600	1.15						
9.6	1630	151.30	29000	1.30						
10	1500	139.05	29200	1.40						
12	1350	123.48	29300	1.50	**S**	**87**	**DRN**	**100LS4**	105	699
13	1210	110.40*	29500	1.65	**SF**	**87**	**DRN**	**100LS4**	130	700
15	1100	99.26	29600	1.80	**SA**	**87**	**DRN**	**100LS4**	105	701
17	960	86.15	29700	1.95	**SAF**	**87**	**DRN**	**100LS4**	120	700
18	1030	81.76	29600	1.55						
19	860	77.14	29800	2.1						
21	890	70.43	29800	1.80						
23	810	64.27	29800	1.95						
25	730	57.00*	29900	2.2						

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P_m = 2.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
11	1350	130.00*	9150	0.90						
12	1280	123.20*	11500	0.95						
13	1130	107.83	12800	1.05						
15	1030	97.14	13600	1.10						
17	910	85.22	14000	1.20						
19	810	75.20*	13800	1.30						
22	725	66.67	13500	1.45						
23	780	63.03	12400	1.40						
25	625	56.92	13000	1.60	**S**	**77**	**DRN**	**100LS4**	70	694
27	670	53.87	12100	1.65	**SF**	**77**	**DRN**	**100LS4**	80	695
29	620	49.38	11900	1.75	**SA**	**77**	**DRN**	**100LS4**	69	696
33	545	43.33	11700	2.0	**SAF**	**77**	**DRN**	**100LS4**	76	695
35	515	41.07	11500	2.1						
40	455	35.94	11200	2.4						
45	410	32.38	11000	2.6						
51	360	28.41	10700	2.9						
58	320	25.07	10400	3.2						
63	300	22.89	9550	2.3						
69	275	20.99	9390	2.5						
31	550	46.40*	7480	0.85						
35	500	41.89	7430	0.95						
39	445	36.85	7350	1.10						
42	420	34.80*	7300	1.15						
49	360	29.63	7160	1.35						
54	330	26.93	7060	1.45						
62	285	23.33	6900	1.65	**S**	**67**	**DRN**	**100LS4**	50	689
71	265	20.37	6130	1.30	**SF**	**67**	**DRN**	**100LS4**	57	690
84	225	17.28*	6010	1.50	**SA**	**67**	**DRN**	**100LS4**	51	691
93	205	15.60*	5920	1.65	**SAF**	**67**	**DRN**	**100LS4**	55	690
106	181	13.73*	5800	1.90						
112	171	12.96*	5740	2.00						
131	146	11.03	5570	2.3						
145	133	10.03	5470	2.6						
167	116	8.69	5300	2.9						
102	184	14.24	4700	0.90						
120	158	12.10*	4620	1.05						
134	141	10.80*	4560	1.20						
157	121	9.23*	4450	1.40	**S**	**57**	**DRN**	**100LS4**	39	684
168	114	8.64*	4400	1.45	**SF**	**57**	**DRN**	**100LS4**	43	685
199	96	7.28	4270	1.50	**SA**	**57**	**DRN**	**100LS4**	39	686
227	85	6.40*	4120	1.15	**SAF**	**57**	**DRN**	**100LS4**	41	685
269	72	5.39	3980	1.30						
304	64	4.76	3870	1.45						
362	54	4.00*	3720	1.65						

P_m = 3.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.1	4580	287	26000	0.90	**S**	**97R57**	**DRN**	**100L4**	195	709
5.8	4020	252	33100	1.05	**SF**	**97R57**	**DRN**	**100L4**	230	709
6.6	3510	219	34100	1.20	**SA**	**97R57**	**DRN**	**100L4**	190	709
7.1	3300	205	34500	1.25	**SAF**	**97R57**	**DRN**	**100L4**	215	709
5.1	4140	286.40*	32900	0.95						
5.6	3820	262.22	33600	1.05						
6.3	3400	231.67	34300	1.15						
7.4	2920	196.52	35100	1.35						
8.0	2710	180.95	35400	1.45	**S**	**97**	**DRN**	**100L4**	170	704
9.0	2440	161.74	35700	1.55	**SF**	**97**	**DRN**	**100L4**	205	705
10	2210	145.60*	36000	1.70	**SA**	**97**	**DRN**	**100L4**	165	706
11	2010	131.85	36200	1.80	**SAF**	**97**	**DRN**	**100L4**	195	705
12	1790	116.92	36300	1.95						
14	1630	105.71	36500	2.1						
16	1390	89.60*	36600	2.3						
18	1410	80.85	36600	2.3						

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P_m = 3.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
8.1	2600	180.00*	27300	0.85						
9.6	2210	151.30	28100	0.95						
10	2050	139.05	28400	1.00						
12	1830	123.48	28700	1.10						
13	1650	110.40*	29000	1.20						
15	1490	99.26	29200	1.30						
17	1310	86.15	29400	1.45	**S**	**87**	**DRN**	**100L4**	115	699
18	1400	81.76	29300	1.15	**SF**	**87**	**DRN**	**100L4**	135	700
19	1180	77.14	29500	1.55	**SA**	**87**	**DRN**	**100L4**	110	701
21	1210	70.43	29500	1.30	**SAF**	**87**	**DRN**	**100L4**	125	700
23	1110	64.27	29600	1.45						
26	990	57.00*	29700	1.60						
30	830	47.91	29800	1.90						
33	770	44.03	29800	2.1						
37	685	39.10	29900	2.3						
42	615	34.96*	29900	2.6						
17	1240	85.22	12000	0.90	**S**	**77**	**DRN**	**100L4**	77	694
19	1100	75.20*	12500	0.95	**SF**	**77**	**DRN**	**100L4**	87	695
22	980	66.67	12300	1.05	**SA**	**77**	**DRN**	**100L4**	77	696
23	1060	63.03	10900	1.05	**SAF**	**77**	**DRN**	**100L4**	83	695
26	850	56.92	12000	1.15						
27	910	53.87	10900	1.20						
29	840	49.38	10800	1.30						
34	740	43.33	10700	1.50						
35	705	41.07	10600	1.55						
41	620	35.94	10400	1.75						
45	560	32.38	10200	1.95						
51	490	28.41	10000	2.1	**S**	**77**	**DRN**	**100L4**	77	694
58	435	25.07	9790	2.3	**SF**	**77**	**DRN**	**100L4**	87	695
64	410	22.89	8790	1.70	**SA**	**77**	**DRN**	**100L4**	77	696
69	375	20.99	8690	1.85	**SAF**	**77**	**DRN**	**100L4**	83	695
79	330	18.42	8520	2.1						
83	315	17.45	8450	2.2						
95	275	15.28	8250	2.6						
106	250	13.76	8090	2.8						
121	220	12.07	7880	3.3						
137	195	10.65	7670	3.7						
					S	**67**	**DRN**	**100L4**	57	689
42	570	34.80*	6370	0.85	**SF**	**67**	**DRN**	**100L4**	64	690
49	490	29.63	6350	1.00	**SA**	**67**	**DRN**	**100L4**	58	691
54	445	26.93	6320	1.05	**SAF**	**67**	**DRN**	**100L4**	63	690
62	390	23.33	6260	1.25						
71	360	20.37	5360	0.95						
84	305	17.28*	5350	1.10						
93	275	15.60*	5320	1.20	**S**	**67**	**DRN**	**100L4**	57	689
106	245	13.73*	5270	1.40	**SF**	**67**	**DRN**	**100L4**	64	690
112	230	12.96*	5240	1.45	**SA**	**67**	**DRN**	**100L4**	58	691
132	199	11.03	5150	1.70	**SAF**	**67**	**DRN**	**100L4**	63	690
145	181	10.03	5080	1.90						
168	157	8.69	4960	2.1						
193	137	7.56*	4840	2.2						
135	192	10.80*	4060	0.90						
158	164	9.23*	4030	1.05						
169	154	8.64*	4000	1.10	**S**	**57**	**DRN**	**100L4**	46	684
200	130	7.28	3930	1.10	**SF**	**57**	**DRN**	**100L4**	50	685
228	116	6.40*	3810	0.85	**SA**	**57**	**DRN**	**100L4**	46	686
270	98	5.39	3710	0.95	**SAF**	**57**	**DRN**	**100L4**	49	685
306	87	4.76	3630	1.05						
364	73	4.00*	3520	1.20						

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P_m = 4.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					S	**97R57**	**DRN**	**112M4**	205	709
6.7	4670	219	24500	0.90	**SF**	**97R57**	**DRN**	**112M4**	240	709
7.1	4390	205	28900	0.95	**SA**	**97R57**	**DRN**	**112M4**	200	709
					SAF	**97R57**	**DRN**	**112M4**	225	709
6.3	4520	231.67	30300	0.90						
7.4	3880	196.52	33400	1.05						
8.1	3590	180.95	34000	1.10						
9.0	3230	161.74	34600	1.20						
10	2930	145.60*	35000	1.25						
11	2670	131.85	35400	1.35	**S**	**97**	**DRN**	**112M4**	180	704
13	2380	116.92	35800	1.45	**SF**	**97**	**DRN**	**112M4**	215	705
14	2170	105.71	36000	1.60	**SA**	**97**	**DRN**	**112M4**	175	706
16	1850	89.60*	36300	1.75	**SAF**	**97**	**DRN**	**112M4**	200	705
18	1880	80.85	36300	1.70						
20	1660	71.43	36400	2.00						
24	1420	60.59	36600	2.3						
26	1310	55.79	36700	2.5						
12	2430	123.48	27600	0.85						
13	2190	110.40*	28100	0.90						
15	1980	99.26	28500	1.00						
17	1730	86.15	28800	1.10						
19	1560	77.14	29100	1.15						
21	1610	70.43	29000	1.00						
23	1470	64.27	29200	1.10	**S**	**87**	**DRN**	**112M4**	125	699
26	1310	57.00*	29400	1.20	**SF**	**87**	**DRN**	**112M4**	145	700
31	1110	47.91	29600	1.45	**SA**	**87**	**DRN**	**112M4**	120	701
33	1020	44.03	29700	1.55	**SAF**	**87**	**DRN**	**112M4**	135	700
37	910	39.10	29700	1.75						
42	810	34.96*	29700	1.95						
47	735	31.43	28900	2.2						
54	640	27.28	28000	2.5						
57	615	25.50*	26600	2.0						
26	1120	56.92	10800	0.90	**S**	**77**	**DRN**	**112M4**	86	694
27	1210	53.87	9340	0.90	**SF**	**77**	**DRN**	**112M4**	96	695
30	1110	49.38	9390	1.00	**SA**	**77**	**DRN**	**112M4**	86	696
34	980	43.33	9420	1.10	**SAF**	**77**	**DRN**	**112M4**	93	695
36	930	41.07	9410	1.15						
41	820	35.94	9370	1.35						
45	740	32.38	9300	1.45						
52	655	28.41	9190	1.60						
58	580	25.07	9060	1.75						
64	545	22.89	7840	1.30						
70	500	20.99	7820	1.40	**S**	**77**	**DRN**	**112M4**	86	694
79	440	18.42	7760	1.60	**SF**	**77**	**DRN**	**112M4**	96	695
84	415	17.45	7720	1.70	**SA**	**77**	**DRN**	**112M4**	86	696
96	365	15.28	7620	1.95	**SAF**	**77**	**DRN**	**112M4**	93	695
106	330	13.76	7520	2.1						
121	290	12.07	7380	2.5						
137	255	10.65	7220	2.8						
155	225	9.44	7070	3.2						
182	197	8.06	6850	3.5						
85	405	17.28*	4060	0.85						
94	365	15.60*	4400	0.90						
107	325	13.73*	4620	1.05	**S**	**67**	**DRN**	**112M4**	67	689
113	305	12.96*	4620	1.10	**SF**	**67**	**DRN**	**112M4**	73	690
133	260	11.03	4620	1.30	**SA**	**67**	**DRN**	**112M4**	68	691
146	240	10.03	4600	1.40	**SAF**	**67**	**DRN**	**112M4**	72	690
169	205	8.69	4540	1.60						
194	182	7.56*	4480	1.60						

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P_m = 5.5 kW										
n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
9.0	4460	161.74	31200	0.85						
10	4040	145.60*	33100	0.90						
11	3680	131.85	33800	1.00						
12	3280	116.92	34500	1.05						
14	2980	105.71	35000	1.15						
16	2550	89.60*	35600	1.25	**S**	**97**	**DRN**	**132S4**	190	704
19	2240	78.26	35900	1.35	**SF**	**97**	**DRN**	**132S4**	225	705
20	2290	71.43	35900	1.45	**SA**	**97**	**DRN**	**132S4**	185	706
22	1890	65.45	36300	1.55	**SAF**	**97**	**DRN**	**132S4**	215	705
24	1960	60.59	36200	1.70						
26	1800	55.79	36300	1.80						
29	1620	49.87	36500	2.0						
33	1460	44.89	36600	2.2						
36	1320	40.65	36700	2.5						
19	2150	77.14	28200	0.85	**S**	**87**	**DRN**	**132S4**	135	699
23	1800	64.00*	28700	0.95	**SF**	**87**	**DRN**	**132S4**	155	700
26	1810	57.00*	28700	0.90	**SA**	**87**	**DRN**	**132S4**	130	701
30	1530	47.91	29100	1.05	**SAF**	**87**	**DRN**	**132S4**	150	700
33	1410	44.03	29300	1.15						
37	1250	39.10	29100	1.25						
42	1120	34.96*	28500	1.40						
46	1010	31.43	27900	1.55						
54	880	27.28	27100	1.80						
57	840	25.50*	25400	1.45	**S**	**87**	**DRN**	**132S4**	135	699
68	715	21.43	24600	1.75	**SF**	**87**	**DRN**	**132S4**	155	700
74	655	19.70	24200	1.90	**SA**	**87**	**DRN**	**132S4**	130	701
84	585	17.49	23600	2.1	**SAF**	**87**	**DRN**	**132S4**	150	700
93	525	15.64*	23000	2.4						
104	470	14.06	22500	2.6						
120	410	12.21	21800	3.0						
134	365	10.93	21200	3.4						
36	1290	41.07	7660	0.85	**S**	**77**	**DRN**	**132S4**	98	694
41	1130	35.94	7830	0.95	**SF**	**77**	**DRN**	**132S4**	105	695
45	1020	32.38	7910	1.05	**SA**	**77**	**DRN**	**132S4**	97	696
					SAF	**77**	**DRN**	**132S4**	105	695
51	900	28.41	7970	1.15						
58	800	25.07	7980	1.25						
66	710	22.22	7950	1.40						
79	605	18.42	6230	1.15						
84	575	17.45	6460	1.25	**S**	**77**	**DRN**	**132S4**	98	694
96	505	15.28	6680	1.40	**SF**	**77**	**DRN**	**132S4**	105	695
106	455	13.76	6670	1.55	**SA**	**77**	**DRN**	**132S4**	97	696
121	400	12.07	6630	1.80	**SAF**	**77**	**DRN**	**132S4**	105	695
137	355	10.65	6570	2.0						
155	315	9.44	6490	2.3						
181	270	8.06	6360	2.5						
132	360	11.03	3120	0.95	**S**	**67**	**DRN**	**132S4**	78	689
146	330	10.03	3430	1.05	**SF**	**67**	**DRN**	**132S4**	85	690
168	285	8.69	3820	1.15	**SA**	**67**	**DRN**	**132S4**	79	691
193	250	7.56*	3940	1.20	**SAF**	**67**	**DRN**	**132S4**	84	690

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P_m = 7.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
14	4050	105.71	33100	0.85						
16	3460	89.60*	34200	0.95						
19	3040	78.26	34900	1.00						
21	3120	71.43	34800	1.05						
22	2560	65.45	35500	1.15						
24	2660	60.59	35400	1.25						
26	2450	55.79	35700	1.35	**S**	**97**	**DRN**	**132M4**	210	704
29	2200	49.87	36000	1.50	**SF**	**97**	**DRN**	**132M4**	245	705
33	1980	44.89	36200	1.65	**SA**	**97**	**DRN**	**132M4**	205	706
36	1800	40.65	36300	1.85	**SAF**	**97**	**DRN**	**132M4**	230	705
41	1600	36.05	36100	2.1						
45	1450	32.60	35300	2.2						
56	1210	26.39	32100	2.2						
62	1080	23.59	31400	2.4						
69	970	21.23	30800	2.7						
76	880	19.23	30100	2.9						
33	1910	44.03	27800	0.85	**S**	**87**	**DRN**	**132M4**	150	699
38	1700	39.10	27400	0.95	**SF**	**87**	**DRN**	**132M4**	175	700
42	1530	34.96*	26900	1.05	**SA**	**87**	**DRN**	**132M4**	150	701
					SAF	**87**	**DRN**	**132M4**	165	700
47	1380	31.43	26500	1.15						
54	1200	27.28	25800	1.35						
58	1150	25.50*	23700	1.10						
68	970	21.43	23200	1.30						
75	890	19.70	22900	1.40	**S**	**87**	**DRN**	**132M4**	150	699
84	795	17.49	22400	1.55	**SF**	**87**	**DRN**	**132M4**	175	700
94	710	15.64*	22000	1.75	**SA**	**87**	**DRN**	**132M4**	150	701
104	640	14.06	21600	1.95	**SAF**	**87**	**DRN**	**132M4**	165	700
120	555	12.21	21000	2.2						
134	500	10.93	20500	2.5						
162	415	9.07	19700	2.7						
186	360	7.88	19100	2.8						
52	1220	28.41	6340	0.85	**S**	**77**	**DRN**	**132M4**	115	694
59	1080	25.07	6540	0.95	**SF**	**77**	**DRN**	**132M4**	125	695
66	960	22.22	6670	1.00	**SA**	**77**	**DRN**	**132M4**	115	696
80	820	18.42	2360	0.85	**SAF**	**77**	**DRN**	**132M4**	120	695
84	785	17.45	2770	0.90						
96	685	15.28	3660	1.05						
107	620	13.76	4250	1.15	**S**	**77**	**DRN**	**132M4**	115	694
122	545	12.07	4880	1.30	**SF**	**77**	**DRN**	**132M4**	125	695
138	480	10.65	5380	1.50	**SA**	**77**	**DRN**	**132M4**	115	696
155	425	9.44	5710	1.70	**SAF**	**77**	**DRN**	**132M4**	120	695
182	365	8.06	5690	1.85						

P_m = 9.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
19	3730	78.26	33700	0.80	**S**	**97**	**DRN**	**132L4**	220	704
22	3140	65.45	34700	0.90	**SF**	**97**	**DRN**	**132L4**	250	705
26	3000	55.79	34900	1.10	**SA**	**97**	**DRN**	**132L4**	215	706
					SAF	**97**	**DRN**	**132L4**	240	705
29	2690	49.87	35400	1.20						
33	2430	44.89	35700	1.35						
36	2210	40.65	35700	1.50						
41	1960	36.05	34900	1.70						
45	1780	32.60	34300	1.80						
56	1480	26.39	30900	1.75	**S**	**97**	**DRN**	**132L4**	220	704
62	1320	23.59	30400	1.95	**SF**	**97**	**DRN**	**132L4**	250	705
69	1190	21.23	29800	2.2	**SA**	**97**	**DRN**	**132L4**	215	706
76	1080	19.23	29300	2.4	**SAF**	**97**	**DRN**	**132L4**	240	705
86	960	17.05	28600	2.7						
95	870	15.42	28000	2.8						
112	740	13.07	27000	3.1						
129	645	11.41	26200	3.4						

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P_m = 9.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
42	1870	34.96*	25600	0.85	**S**	**87**	**DRN**	**132L4**	160	699
47	1690	31.43	25300	0.95	**SF**	**87**	**DRN**	**132L4**	180	700
54	1470	27.28	24800	1.10	**SA**	**87**	**DRN**	**132L4**	160	701
60	1320	24.43	24400	1.20	**SAF**	**87**	**DRN**	**132L4**	175	700
73	1100	20.27	23600	1.45						
75	1090	19.70	21800	1.15						
84	970	17.49	21500	1.25						
94	870	15.64*	21100	1.40	**S**	**87**	**DRN**	**132L4**	160	699
105	785	14.06	20800	1.55	**SF**	**87**	**DRN**	**132L4**	180	700
120	680	12.21	20300	1.80	**SA**	**87**	**DRN**	**132L4**	160	701
135	610	10.93	19900	2.0	**SAF**	**87**	**DRN**	**132L4**	175	700
162	510	9.07	19200	2.2						
186	440	7.88	18600	2.3						
77	1010	18.97	5840	0.90						
107	760	13.76	1770	0.95	**S**	**77**	**DRN**	**132L4**	125	694
122	670	12.07	2660	1.05	**SF**	**77**	**DRN**	**132L4**	135	695
138	590	10.65	3380	1.20	**SA**	**77**	**DRN**	**132L4**	125	696
156	525	9.44	3970	1.40	**SAF**	**77**	**DRN**	**132L4**	130	695
182	450	8.06	4590	1.50						

P_m = 11.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
26	3590	55.79	34000	0.90						
30	3210	49.87	34600	1.05						
33	2900	44.89	34800	1.15						
36	2630	40.65	34300	1.25						
41	2340	36.05	33700	1.40						
45	2120	32.60	33200	1.50	**S**	**97**	**DRN**	**160M4**	250	704
56	1760	26.39	29700	1.45	**SF**	**97**	**DRN**	**160M4**	285	705
62	1580	23.59	29200	1.65	**SA**	**97**	**DRN**	**160M4**	245	706
69	1420	21.23	28800	1.80	**SAF**	**97**	**DRN**	**160M4**	270	705
77	1290	19.23	28300	2.0						
86	1150	17.05	27800	2.2						
96	1040	15.42	27300	2.4						
113	880	13.07	26400	2.6						
129	770	11.41	25700	2.9						
54	1750	27.28	23700	0.90	**S**	**87**	**DRN**	**160M4**	190	699
60	1570	24.43	23400	1.00	**SF**	**87**	**DRN**	**160M4**	215	700
73	1310	20.27	22800	1.20	**SA**	**87**	**DRN**	**160M4**	190	701
					SAF	**87**	**DRN**	**160M4**	205	700
75	1300	19.70	20700	0.95						
84	1160	17.49	20500	1.05						
94	1040	15.64*	20200	1.20	**S**	**87**	**DRN**	**160M4**	190	699
105	930	14.06	20000	1.30	**SF**	**87**	**DRN**	**160M4**	215	700
121	810	12.21	19600	1.50	**SA**	**87**	**DRN**	**160M4**	190	701
135	730	10.93	19300	1.70	**SAF**	**87**	**DRN**	**160M4**	205	700
162	605	9.07	18700	1.85						
187	530	7.88	18200	1.90						

P_m = 15.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
33	3950	44.89	31500	0.85	**S**	**97**	**DRN**	**160L4**	265	704
36	3590	40.65	31400	0.90	**SF**	**97**	**DRN**	**160L4**	300	705
41	3190	36.05	31100	1.05	**SA**	**97**	**DRN**	**160L4**	260	706
					SAF	**97**	**DRN**	**160L4**	290	705

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P_m = 15.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
45	2890	32.60	30800	1.10						
56	2410	26.39	26900	1.10						
62	2150	23.59	26700	1.20						
69	1940	21.23	26600	1.35						
77	1760	19.23	26300	1.45	**S**	**97**	**DRN**	**160L4**	265	704
86	1560	17.05	26000	1.65	**SF**	**97**	**DRN**	**160L4**	300	705
96	1410	15.42	25600	1.75	**SA**	**97**	**DRN**	**160L4**	260	706
113	1200	13.07	25000	1.95	**SAF**	**97**	**DRN**	**160L4**	290	705
129	1050	11.41	24500	2.1						
154	880	9.55	23700	2.3						
178	765	8.26	23000	2.3						
94	1420	15.64*	16800	0.85	**S**	**87**	**DRN**	**160L4**	210	699
105	1280	14.06	17900	0.95	**SF**	**87**	**DRN**	**160L4**	230	700
121	1110	12.21	18000	1.10	**SA**	**87**	**DRN**	**160L4**	205	701
					SAF	**87**	**DRN**	**160L4**	220	700
135	990	10.93	17900	1.25	**S**	**87**	**DRN**	**160L4**	210	699
163	830	9.07	17500	1.35	**SF**	**87**	**DRN**	**160L4**	230	700
187	720	7.88	17200	1.40	**SA**	**87**	**DRN**	**160L4**	205	701
					SAF	**87**	**DRN**	**160L4**	220	700

P_m = 18.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
41	3930	36.05	28800	0.85						
45	3560	32.60	28700	0.90						
54	3020	27.63	28500	1.00						
61	2650	24.13	28100	1.10						
70	2390	21.23	24500	1.10	**S**	**97**	**DRN**	**180M4**	290	704
77	2170	19.23	24500	1.20	**SF**	**97**	**DRN**	**180M4**	320	705
87	1920	17.05	24400	1.35	**SA**	**97**	**DRN**	**180M4**	285	706
96	1740	15.42	24200	1.40	**SAF**	**97**	**DRN**	**180M4**	310	705
113	1480	13.07	23800	1.55						
130	1290	11.41	23400	1.70						
155	1080	9.55	22800	1.90						
179	940	8.26	22300	1.90						

P_m = 22 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
53	3600	27.63	26700	0.85	**S**	**97**	**DRN**	**180L4**	305	704
61	3150	24.13	26600	0.90	**SF**	**97**	**DRN**	**180L4**	340	705
70	2840	21.23	18600	0.90	**SA**	**97**	**DRN**	**180L4**	300	706
77	2580	19.23	20500	1.00	**SAF**	**97**	**DRN**	**180L4**	325	705
87	2290	17.05	22400	1.10						
96	2070	15.42	22800	1.20	**S**	**97**	**DRN**	**180L4**	305	704
113	1760	13.07	22600	1.30	**SF**	**97**	**DRN**	**180L4**	340	705
129	1540	11.41	22400	1.45	**SA**	**97**	**DRN**	**180L4**	300	706
155	1290	9.55	21900	1.60	**SAF**	**97**	**DRN**	**180L4**	325	705
179	1120	8.26	21500	1.60						

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11.4 S..R..DRN.. selection tables for low output speeds in Nm

$M_{a\ max}$ = 92 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.14	10037	3000						
0.16	8654	3000						
0.17	8066	3000						
0.20	7051	3000						
0.23	6079	3000						
0.25	5431	3000						
0.29	4747	3000						
0.33	4155	3000						
0.38	3632	3000	**S**	**37R17**	**DR**	**63S4**	14	709
0.48	2866	3000	**SF**	**37R17**	**DR**	**63S4**	15	709
0.56	2471	3000	**SA**	**37R17**	**DR**	**63S4**	14	709
0.64	2160	3000	**SAF**	**37R17**	**DR**	**63S4**	15	709
0.73	1887	3000						
0.83	1665	3000						
0.95	1456	3000						
1.1	1271	3000						
1.2	1121	3000						
1.4	994	3000						
1.6	869	3000						
1.8	774	3000						
2.1	666	3000						
2.3	596	3000						
2.6	521	3000						
3.0	456	3000	**S**	**37R17**	**DR**	**63S4**	14	709
3.5	398	3000	**SF**	**37R17**	**DR**	**63S4**	15	709
3.9	351	3000	**SA**	**37R17**	**DR**	**63S4**	13	709
4.6	303	3000	**SAF**	**37R17**	**DR**	**63S4**	15	709
5.2	265	3000						
6.0	232	3000						
6.8	202	3000						
7.4	179	3000						
8.3	158	3000	**S**	**37R17**	**DR**	**63M4**	14	709
9.1	144	3000	**SF**	**37R17**	**DR**	**63M4**	15	709
11	118	3000	**SA**	**37R17**	**DR**	**63M4**	13	709
12	110	3000	**SAF**	**37R17**	**DR**	**63M4**	15	709

$M_{a\ max}$ = 185 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.11	12909	5250						
0.12	11189	5250						
0.13	10374	5250						
0.15	8992	5250						
0.18	7860	5250						
0.20	6887	5250						
0.23	6055	5250						
0.26	5292	5250						
0.30	4637	5250						
0.34	4092	5250	**S**	**47R17**	**DR**	**63S4**	17	709
0.39	3582	5200	**SF**	**47R17**	**DR**	**63S4**	20	709
0.44	3131	5200	**SA**	**47R17**	**DR**	**63S4**	18	709
0.51	2714	5200	**SAF**	**47R17**	**DR**	**63S4**	20	709
0.57	2412	5200						
0.65	2131	5200						
0.74	1863	5200						
0.83	1663	5200						
0.96	1435	5200						
1.1	1254	5200						
1.2	1120	5200						
1.3	1083	5200						

$M_{a\ max}$ = 185 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
1.4	965	5200						
1.6	865	5200						
1.8	750	5200	**S**	**47R17**	**DR**	**63S4**	17	709
2.1	655	5200	**SF**	**47R17**	**DR**	**63S4**	20	709
2.4	574	5200	**SA**	**47R17**	**DR**	**63S4**	18	709
2.7	506	5200	**SAF**	**47R17**	**DR**	**63S4**	19	709
3.2	438	5200						
3.6	388	5200						
			S	**47R17**	**DR**	**63M4**	17	709
3.9	336	5200	**SF**	**47R17**	**DR**	**63M4**	20	709
4.5	294	5200	**SA**	**47R17**	**DR**	**63M4**	18	709
			SAF	**47R17**	**DR**	**63M4**	19	709
			S	**47R17**	**DR**	**63L4**	17	709
			SF	**47R17**	**DR**	**63L4**	21	709
5.0	257	5260	**SA**	**47R17**	**DR**	**63L4**	18	709
			SAF	**47R17**	**DR**	**63L4**	20	709
			S	**47R17**	**DR**	**63M4**	17	709
5.8	229	5200	**SF**	**47R17**	**DR**	**63M4**	20	709
			SA	**47R17**	**DR**	**63M4**	18	709
			SAF	**47R17**	**DR**	**63M4**	19	709
			S	**47R17**	**DR**	**63L4**	17	709
6.5	200	5200	**SF**	**47R17**	**DR**	**63L4**	21	709
6.9	187	5200	**SA**	**47R17**	**DR**	**63L4**	18	709
7.9	165	5200	**SAF**	**47R17**	**DR**	**63L4**	20	709
			S	**47R17**	**DRS**	**71S4**	19	709
9.4	148	5200	**SF**	**47R17**	**DRS**	**71S4**	23	709
11	131	5200	**SA**	**47R17**	**DRS**	**71S4**	20	709
			SAF	**47R17**	**DRS**	**71S4**	22	709

$M_{a\ max}$ = 300 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.44	3131	7080						
0.51	2714	7080						
0.57	2412	7080	**S**	**57R17**	**DR**	**63S4**	21	709
0.65	2131	7080	**SF**	**57R17**	**DR**	**63S4**	24	709
0.74	1863	7080	**SA**	**57R17**	**DR**	**63S4**	20	709
0.83	1663	7080	**SAF**	**57R17**	**DR**	**63S4**	23	709
0.96	1435	7080						
1.1	1254	7080						
1.3	1083	7080						
1.4	965	7080	**S**	**57R17**	**DR**	**63S4**	20	709
1.6	865	7080	**SF**	**57R17**	**DR**	**63S4**	24	709
1.8	750	7080	**SA**	**57R17**	**DR**	**63S4**	20	709
2.1	655	7080	**SAF**	**57R17**	**DR**	**63S4**	23	709
2.3	574	7080	**S**	**57R17**	**DR**	**63M4**	20	709
2.6	506	7080	**SF**	**57R17**	**DR**	**63M4**	24	709
3.0	438	7080	**SA**	**57R17**	**DR**	**63M4**	20	709
3.4	388	7080	**SAF**	**57R17**	**DR**	**63M4**	23	709
			S	**57R17**	**DR**	**63L4**	21	709
3.9	336	7080	**SF**	**57R17**	**DR**	**63L4**	25	709
4.4	294	7080	**SA**	**57R17**	**DR**	**63L4**	21	709
4.8	269	7080	**SAF**	**57R17**	**DR**	**63L4**	24	709
			S	**57R17**	**DRS**	**71S4**	23	709
6.0	229	7080	**SF**	**57R17**	**DRS**	**71S4**	27	709
6.8	204	7080	**SA**	**57R17**	**DRS**	**71S4**	23	709
7.4	187	7080	**SAF**	**57R17**	**DRS**	**71S4**	25	709
			S	**57R17**	**DRS**	**71M4**	24	709
8.2	165	7080	**SF**	**57R17**	**DRS**	**71M4**	28	709
10	131	7080	**SA**	**57R17**	**DRS**	**71M4**	24	709
			SAF	**57R17**	**DRS**	**71M4**	27	709

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$M_{a\ max}$ = 330 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.11	12909	6800						
0.12	11189	6800						
0.13	10374	6800						
0.15	8992	6800	**S**	**57R17**	**DR**	**63S4**	21	709
0.18	7860	6800	**SF**	**57R17**	**DR**	**63S4**	24	709
0.20	6887	6800	**SA**	**57R17**	**DR**	**63S4**	20	709
0.23	6055	6800	**SAF**	**57R17**	**DR**	**63S4**	23	709
0.26	5292	6800						
0.30	4637	6800						
0.34	4092	6800						
0.38	3628	6800						

$M_{a\ max}$ = 570 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.06	21362	8190						
0.07	19594	8190						
0.08	18120	8190						
0.08	16682	8190						
0.10	14383	8190						
0.11	12774	8190						
0.13	11013	8190						
0.14	9694	8190						
0.16	8529	8190						
0.19	7455	8190						
0.21	6531	8190	**S**	**67R37**	**DR**	**63S4**	39	709
0.24	5759	8190	**SF**	**67R37**	**DR**	**63S4**	46	709
0.28	4965	8190	**SA**	**67R37**	**DR**	**63S4**	40	709
0.31	4410	8190	**SAF**	**67R37**	**DR**	**63S4**	45	709
0.36	3880	8190						
0.40	3432	8190						
0.47	2944	8190						
0.52	2630	8190						
0.61	2279	8190						
0.69	2014	8190						
0.78	1772	8190						
0.88	1559	8190						
1.0	1363	8190						
1.2	1194	8190						
			S	**67R37**	**DR**	**63M4**	39	709
1.3	1045	8190	**SF**	**67R37**	**DR**	**63M4**	46	709
1.4	914	8190	**SA**	**67R37**	**DR**	**63M4**	40	709
			SAF	**67R37**	**DR**	**63M4**	45	709
			S	**67R37**	**DR**	**63M4**	39	709
1.6	809	8190	**SF**	**67R37**	**DR**	**63M4**	46	709
1.9	712	8190	**SA**	**67R37**	**DR**	**63M4**	40	709
			SAF	**67R37**	**DR**	**63M4**	45	709
			S	**67R37**	**DR**	**63L4**	40	709
2.1	615	8190	**SF**	**67R37**	**DR**	**63L4**	46	709
2.4	543	8190	**SA**	**67R37**	**DR**	**63L4**	41	709
			SAF	**67R37**	**DR**	**63L4**	45	709
			S	**67R37**	**DRS**	**71S4**	42	709
2.9	469	8190	**SF**	**67R37**	**DRS**	**71S4**	48	709
3.3	424	8190	**SA**	**67R37**	**DRS**	**71S4**	43	709
3.8	365	8190	**SAF**	**67R37**	**DRS**	**71S4**	47	709
4.3	319	8190	**S**	**67R37**	**DRS**	**71M4**	43	709
4.8	281	8190	**SF**	**67R37**	**DRS**	**71M4**	49	709
5.5	246	8190	**SA**	**67R37**	**DRS**	**71M4**	44	709
6.2	221	8190	**SAF**	**67R37**	**DRS**	**71M4**	48	709
			S	**67R37**	**DRN**	**80M4**	48	709
7.3	198	8190	**SF**	**67R37**	**DRN**	**80M4**	54	709
			SA	**67R37**	**DRN**	**80M4**	49	709
			SAF	**67R37**	**DRN**	**80M4**	53	709

$M_{a\ max}$ = 1240 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
			S	77R37	DR	63S4	59	709
0.50	2753	12000	SF	77R37	DR	63S4	68	709
0.58	2374	12000	SA	77R37	DR	63S4	58	709
			SAF	77R37	DR	63S4	65	709
0.63	2083	12000						
0.73	1813	12000	S	77R37	DR	63M4	59	709
0.76	1745	12000	SF	77R37	DR	63M4	68	709
0.82	1600	12000	SA	77R37	DR	63M4	58	709
0.94	1404	12000	SAF	77R37	DR	63M4	65	709
			S	77R37	DR	63L4	59	709
1.0	1245	12000	SF	77R37	DR	63L4	69	709
			SA	77R37	DR	63L4	59	709
			SAF	77R37	DR	63L4	65	709
			S	77R37	DR	63L4	59	709
1.2	1100	12000	SF	77R37	DR	63L4	69	709
1.4	954	12000	SA	77R37	DR	63L4	59	709
			SAF	77R37	DR	63L4	65	709
			S	77R37	DRS	71S4	61	709
1.6	837	12000	SF	77R37	DRS	71S4	71	709
1.9	714	12000	SA	77R37	DRS	71S4	61	709
			SAF	77R37	DRS	71S4	67	709
			S	77R37	DRS	71M4	62	709
2.1	637	12000	SF	77R37	DRS	71M4	72	709
2.4	574	12000	SA	77R37	DRS	71M4	62	709
2.7	499	12000	SAF	77R37	DRS	71M4	68	709
			S	77R37	DRN	80M4	67	709
3.3	438	12000	SF	77R37	DRN	80M4	77	709
3.7	389	12000	SA	77R37	DRN	80M4	66	709
			SAF	77R37	DRN	80M4	73	709
			S	77R37	DRN	90S4	73	709
4.4	327	12000	SF	77R37	DRN	90S4	82	709
5.0	289	12000	SA	77R37	DRN	90S4	72	709
5.8	250	12000	SAF	77R37	DRN	90S4	79	709
			S	77R37	DRN	90L4	76	709
6.7	219	12000	SF	77R37	DRN	90L4	86	709
			SA	77R37	DRN	90L4	75	709
			SAF	77R37	DRN	90L4	82	709

$M_{a\ max}$ = 1270 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.05	25493	11700						
0.06	21787	11700						
0.07	19907	11700						
0.08	17013	11700						
0.09	14668	11700						
0.11	13110	11700						
0.12	11569	11700	S	77R37	DR	63S4	59	709
0.14	9887	11700	SF	77R37	DR	63S4	68	709
0.16	8817	11700	SA	77R37	DR	63S4	58	709
0.18	7735	11700	SAF	77R37	DR	63S4	65	709
0.20	6735	11700						
0.23	5943	11700						
0.26	5214	11700						
0.30	4618	11700						
0.35	3992	11700						
0.39	3540	11700						
			S	77R37	DR	63M4	59	709
0.43	3098	11700	SF	77R37	DR	63M4	68	709
			SA	77R37	DR	63M4	58	709
			SAF	77R37	DR	63M4	65	709

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$M_{a\ max}$ = 2400 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
			S	**87R57**	**DRN**	**100LS4**	130	709
4.5	323	27700	**SF**	**87R57**	**DRN**	**100LS4**	150	709
5.2	281	27700	**SA**	**87R57**	**DRN**	**100LS4**	125	709
			SAF	**87R57**	**DRN**	**100LS4**	145	709

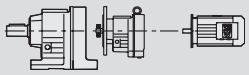
$M_{a\ max}$ = 2450 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
			S	**87R57**	**DRN**	**90L4**	125	709
3.4	435	27600	**SF**	**87R57**	**DRN**	**90L4**	145	709
			SA	**87R57**	**DRN**	**90L4**	125	709
			SAF	**87R57**	**DRN**	**90L4**	140	709
			S	**87R57**	**DRN**	**100LS4**	130	709
3.8	378	27600	**SF**	**87R57**	**DRN**	**100LS4**	150	709
			SA	**87R57**	**DRN**	**100LS4**	125	709
			SAF	**87R57**	**DRN**	**100LS4**	145	709

$M_{a\ max}$ = 2500 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.05	25987	27500						
0.06	23940	27500						
0.07	20568	27500						
0.08	18265	27500						
0.08	16774	27500	**S**	**87R57**	**DR**	**63S4**	110	709
0.09	14820	27500	**SF**	**87R57**	**DR**	**63S4**	130	709
0.10	13160	27500	**SA**	**87R57**	**DR**	**63S4**	105	709
0.12	11200	27500	**SAF**	**87R57**	**DR**	**63S4**	120	709
0.14	9904	27500						
0.16	8549	27500						
0.18	7643	27500						
0.21	6706	27500						
0.22	5875	27500	**S**	**87R57**	**DR**	**63M4**	110	709
0.25	5187	27500	**SF**	**87R57**	**DR**	**63M4**	130	709
0.29	4606	27500	**SA**	**87R57**	**DR**	**63M4**	105	709
0.34	3872	27500	**SAF**	**87R57**	**DR**	**63M4**	120	709
			S	**87R57**	**DR**	**63L4**	110	709
0.37	3475	27500	**SF**	**87R57**	**DR**	**63L4**	130	709
0.45	2905	27500	**SA**	**87R57**	**DR**	**63L4**	105	709
0.50	2586	27500	**SAF**	**87R57**	**DR**	**63L4**	120	709
			S	**87R57**	**DRS**	**71S4**	110	709
0.59	2335	27500	**SF**	**87R57**	**DRS**	**71S4**	130	709
0.67	2054	27500	**SA**	**87R57**	**DRS**	**71S4**	105	709
0.76	1824	27500	**SAF**	**87R57**	**DRS**	**71S4**	125	709
			S	**87R57**	**DRS**	**71M4**	110	709
0.83	1631	27500	**SF**	**87R57**	**DRS**	**71M4**	130	709
1.0	1332	27500	**SA**	**87R57**	**DRS**	**71M4**	110	709
1.1	1191	27500	**SAF**	**87R57**	**DRS**	**71M4**	125	709
			S	**87R57**	**DRN**	**80M4**	115	709
1.4	1032	27500	**SF**	**87R57**	**DRN**	**80M4**	135	709
1.6	930	27500	**SA**	**87R57**	**DRN**	**80M4**	115	709
			SAF	**87R57**	**DRN**	**80M4**	130	709
			S	**87R57**	**DRN**	**90S4**	120	709
1.8	831	27500	**SF**	**87R57**	**DRN**	**90S4**	145	709
2.0	719	27500	**SA**	**87R57**	**DRN**	**90S4**	120	709
2.3	624	27500	**SAF**	**87R57**	**DRN**	**90S4**	135	709
			S	**87R57**	**DRN**	**90L4**	125	709
2.6	558	27500	**SF**	**87R57**	**DRN**	**90L4**	145	709
3.0	485	27500	**SA**	**87R57**	**DRN**	**90L4**	125	709
			SAF	**87R57**	**DRN**	**90L4**	140	709

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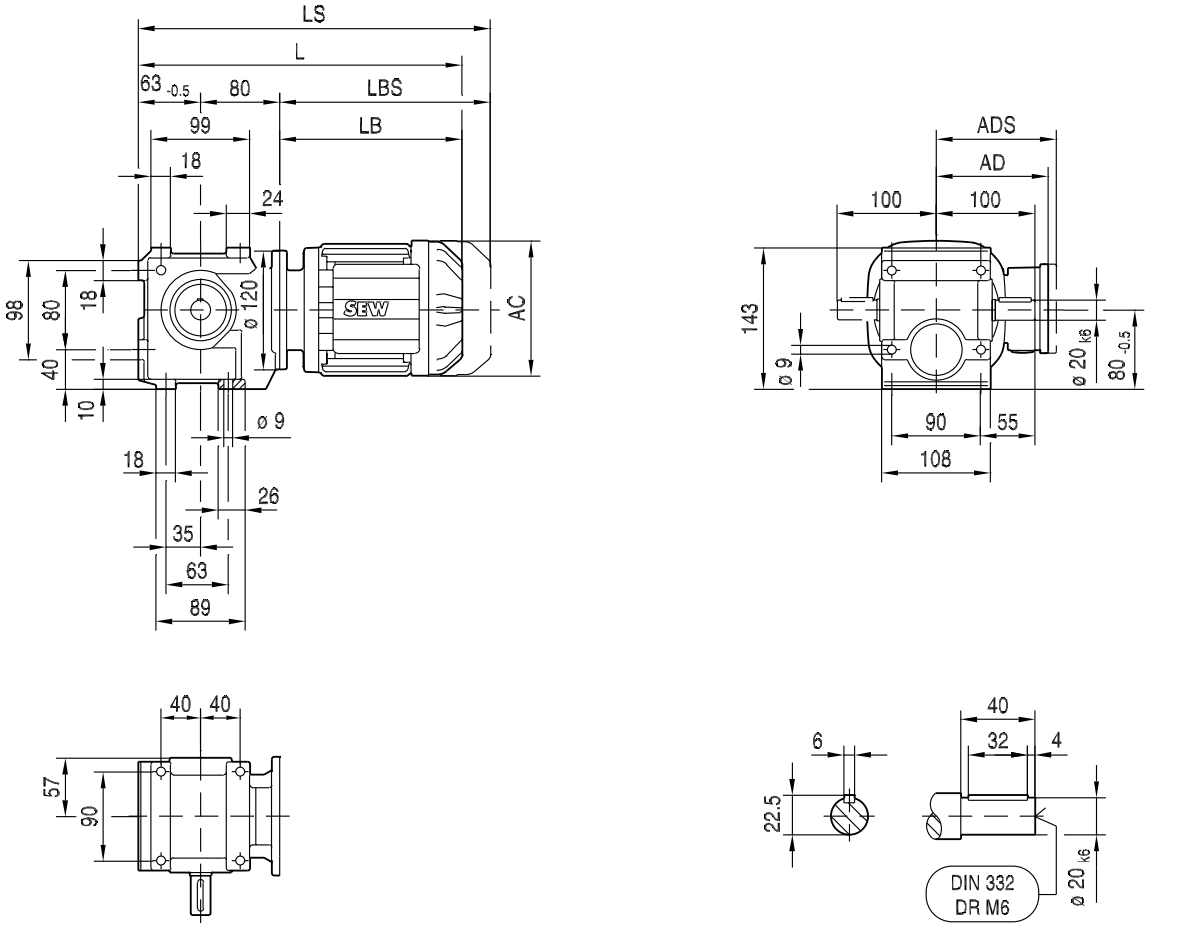
$M_{a\ max}$ = 4200 Nm									
n_a 1/min	i	F_{Ra} [1] N						m kg	
0.04	33818	32800							
0.04	31154	32800							
0.05	27847	32800							
0.06	24641	32800							
0.06	21537	32800	S	97R57	DR	63S4		170	709
0.07	18749	32800	SF	97R57	DR	63S4		200	709
0.09	16233	32800	SA	97R57	DR	63S4		165	709
0.09	14576	32800	SAF	97R57	DR	63S4		190	709
0.11	12752	32800							
0.12	11267	32800							
0.14	10078	32800							
0.15	8608	32800							
0.17	7554	32800	S	97R57	DR	63M4		170	709
0.20	6640	31500	SF	97R57	DR	63M4		200	709
0.23	5780	31500	SA	97R57	DR	63M4		165	709
0.27	4937	31500	SAF	97R57	DR	63M4		190	709
0.29	4444	31500	S	97R57	DR	63L4		170	709
0.32	4017	31500	SF	97R57	DR	63L4		200	709
0.38	3453	31500	SA	97R57	DR	63L4		165	709
0.42	3108	31500	SAF	97R57	DR	63L4		190	709
			S	97R57	DRS	71S4		170	709
0.52	2654	31500	SF	97R57	DRS	71S4		205	709
0.59	2329	31500	SA	97R57	DRS	71S4		165	709
			SAF	97R57	DRS	71S4		190	709
			S	97R57	DRS	71M4		170	709
0.65	2081	31500	SF	97R57	DRS	71M4		205	709
0.73	1860	31500	SA	97R57	DRS	71M4		165	709
0.86	1574	31500	SAF	97R57	DRS	71M4		190	709
			S	97R57	DRN	80M4		175	709
1.0	1394	31500	SF	97R57	DRN	80M4		210	709
1.2	1223	31500	SA	97R57	DRN	80M4		170	709
			SAF	97R57	DRN	80M4		195	709
			S	97R57	DRN	90S4		180	709
1.4	1070	31500	SF	97R57	DRN	90S4		215	709
1.6	928	31500	SA	97R57	DRN	90S4		175	709
1.8	824	31500	SAF	97R57	DRN	90S4		200	709
			S	97R57	DRN	90L4		185	709
2.0	714	32800	SF	97R57	DRN	90L4		220	709
2.3	626	31500	SA	97R57	DRN	90L4		180	709
			SAF	97R57	DRN	90L4		205	709
2.7	538	31600	S	97R57	DRN	100LS4		190	709
3.0	484	31600	SF	97R57	DRN	100LS4		220	709
3.4	420	31600	SA	97R57	DRN	100LS4		185	709
3.9	376	31700	SAF	97R57	DRN	100LS4		210	709
			S	97R57	DRN	100L4		195	709
4.5	327	31700	SF	97R57	DRN	100L4		230	709
5.1	287	31700	SA	97R57	DRN	100L4		190	709
			SAF	97R57	DRN	100L4		215	709
			S	97R57	DRN	112M4		205	709
5.8	252	31800	SF	97R57	DRN	112M4		240	709
6.7	219	31800	SA	97R57	DRN	112M4		200	709
			SAF	97R57	DRN	112M4		225	709

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11.5 S..DRN.. dimension sheets in mm

02 008 00 14

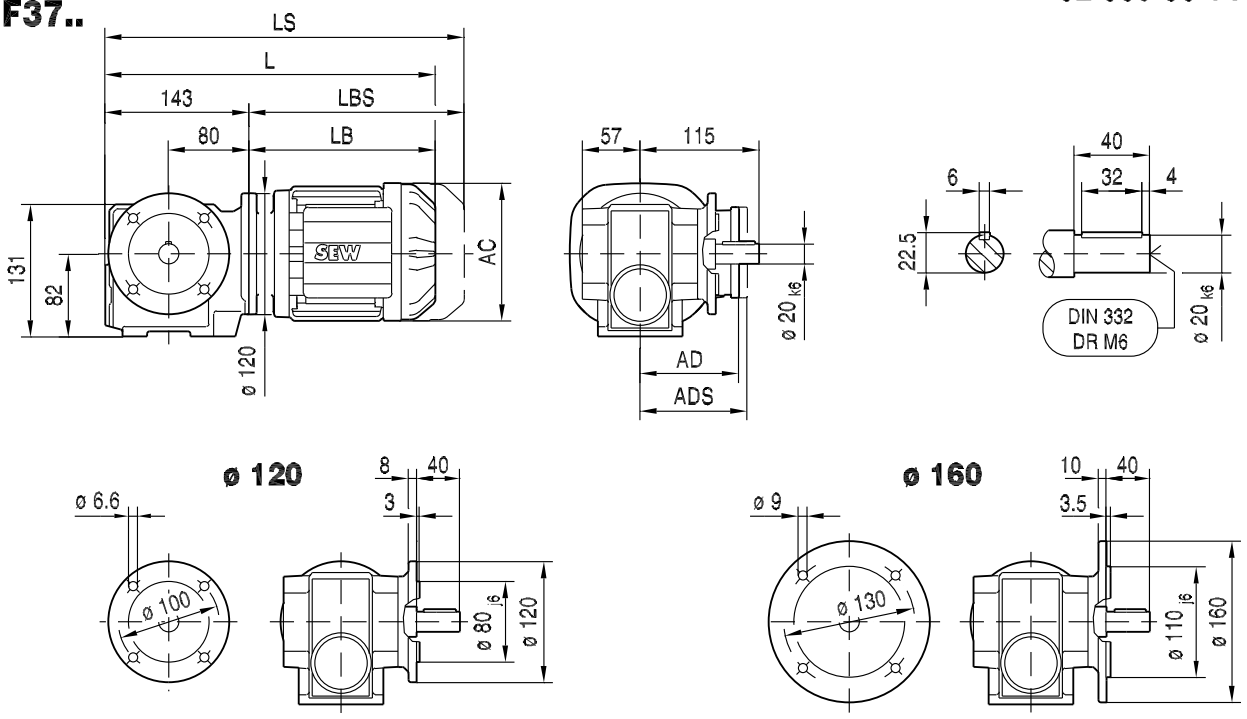
S37..



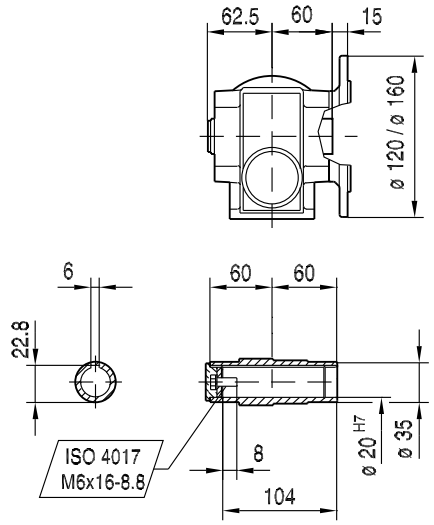
(→ 🗎 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S			
AC	132	139	139	156	179			
AD	105	119	119	128	140			
ADS	105	129	129	139	150			
L	334	345	370	425	426			
LS	389	413	438	506	520			
LB	191	202	227	282	283			
LBS	246	270	295	363	377			

02 009 00 14

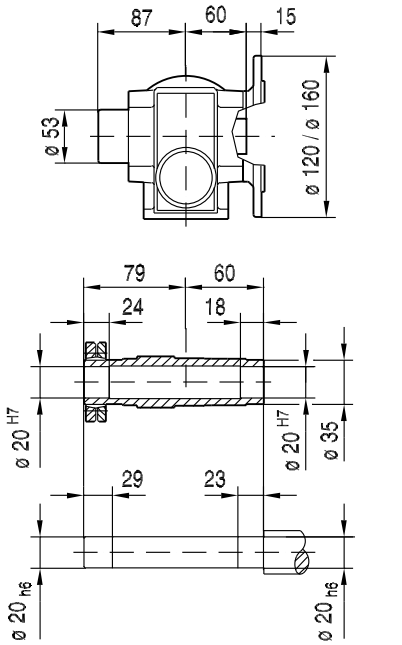
SF37..



SAF37..



SHF37..

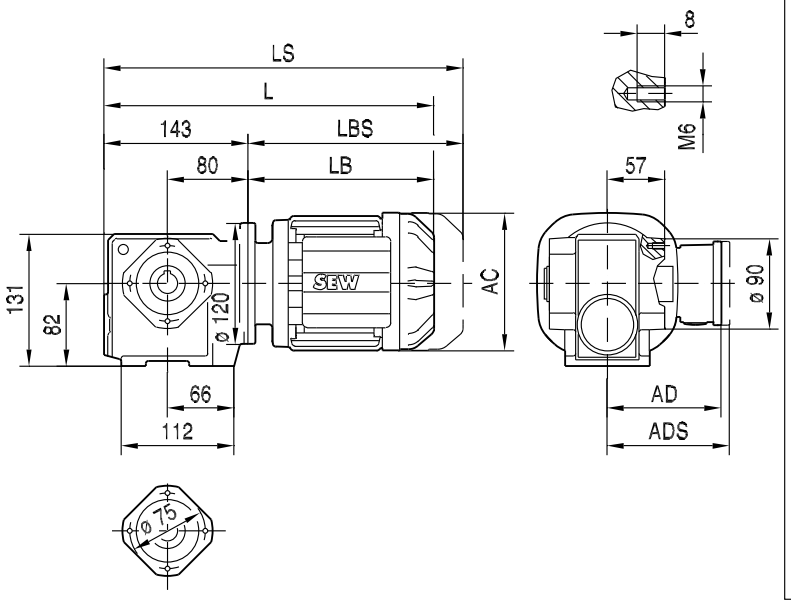


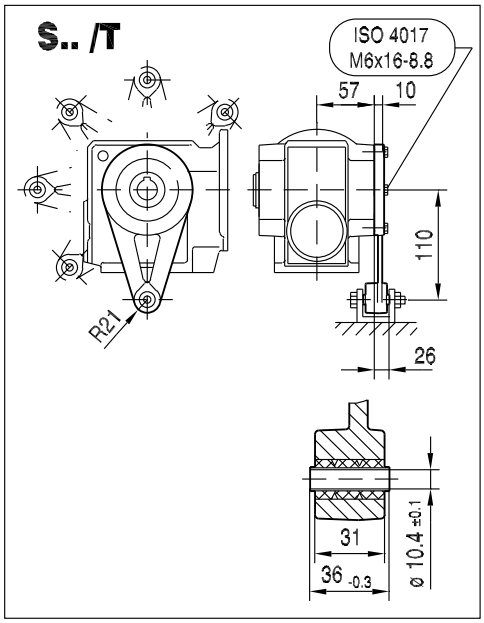
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S			
AC	132	139	139	156	179			
AD	105	119	119	128	140			
ADS	105	129	129	139	150			
L	334	345	370	425	426			
LS	389	413	438	506	520			
LB	191	202	227	282	283			
LBS	246	270	295	363	377			

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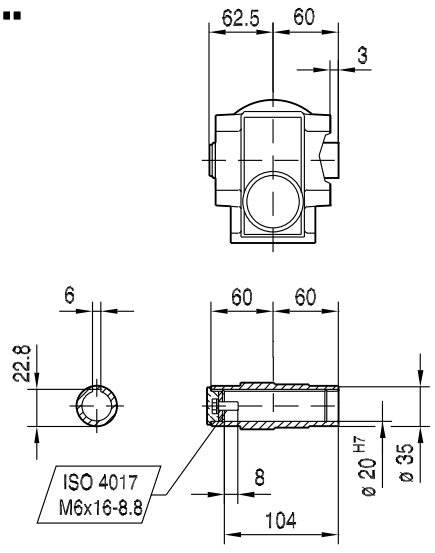
02 010 00 14

SA37..

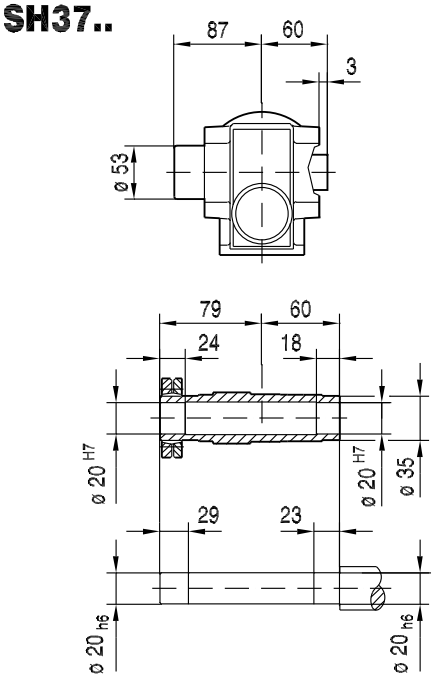




SA37..

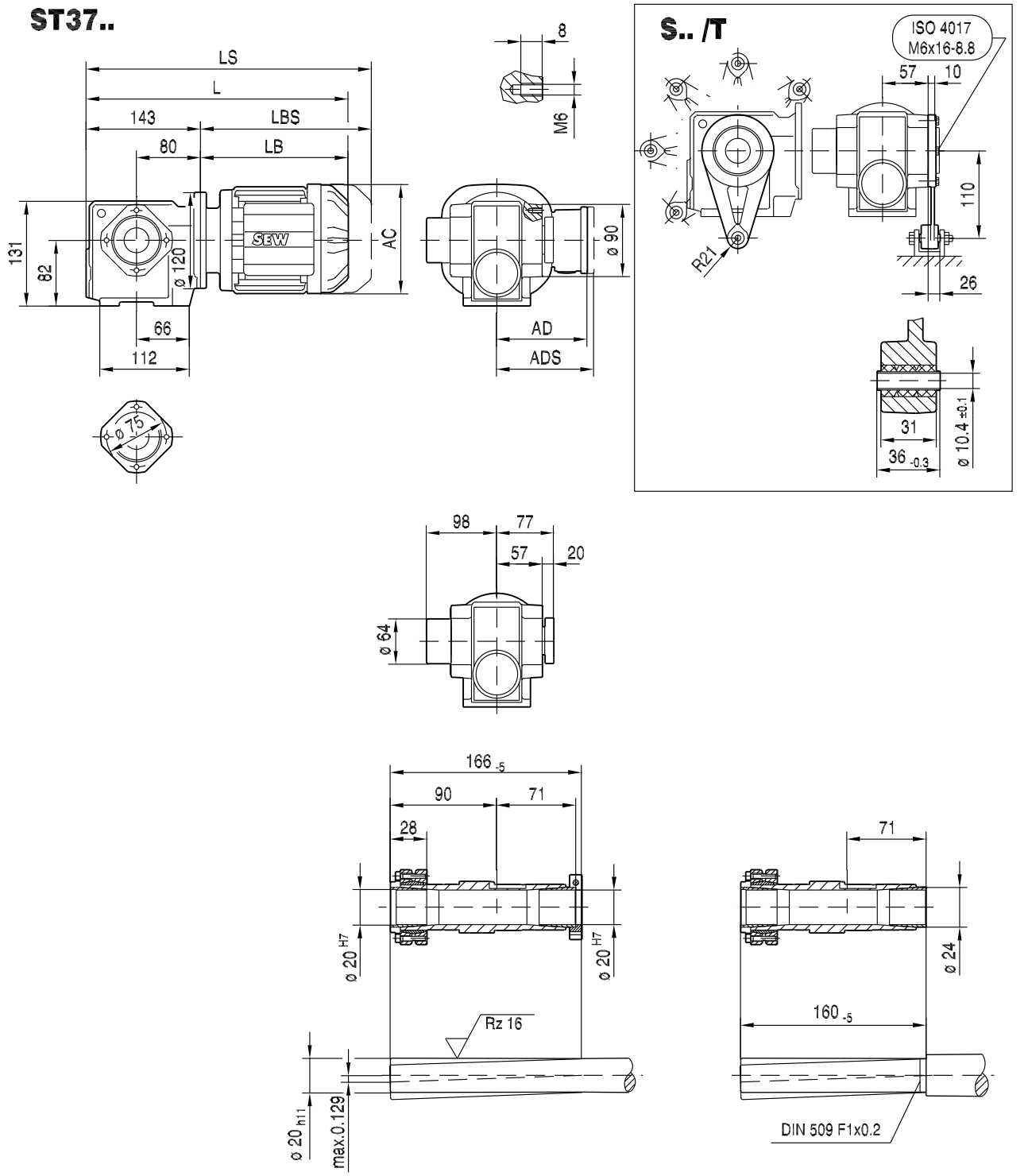


SH37..



(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S			
AC	132	139	139	156	179			
AD	105	119	119	128	140			
ADS	105	129	129	139	150			
L	334	345	370	425	426			
LS	389	413	438	506	520			
LB	191	202	227	282	283			
LBS	246	270	295	363	377			

02 011 00 14

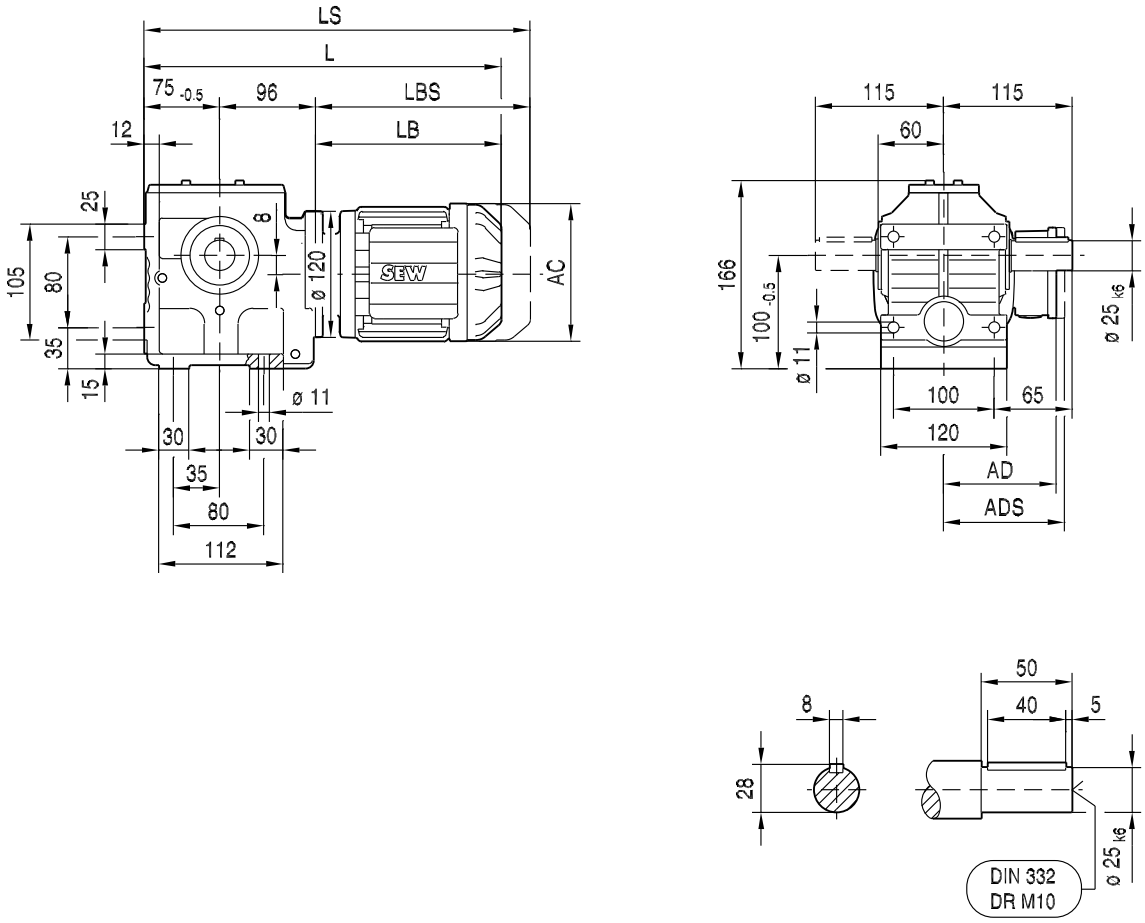


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S			
AC	132	139	139	156	179			
AD	105	119	119	128	140			
ADS	105	129	129	139	150			
L	334	345	370	425	426			
LS	389	413	438	506	520			
LB	191	202	227	282	283			
LBS	246	270	295	363	377			

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02 012 00 14

S47..

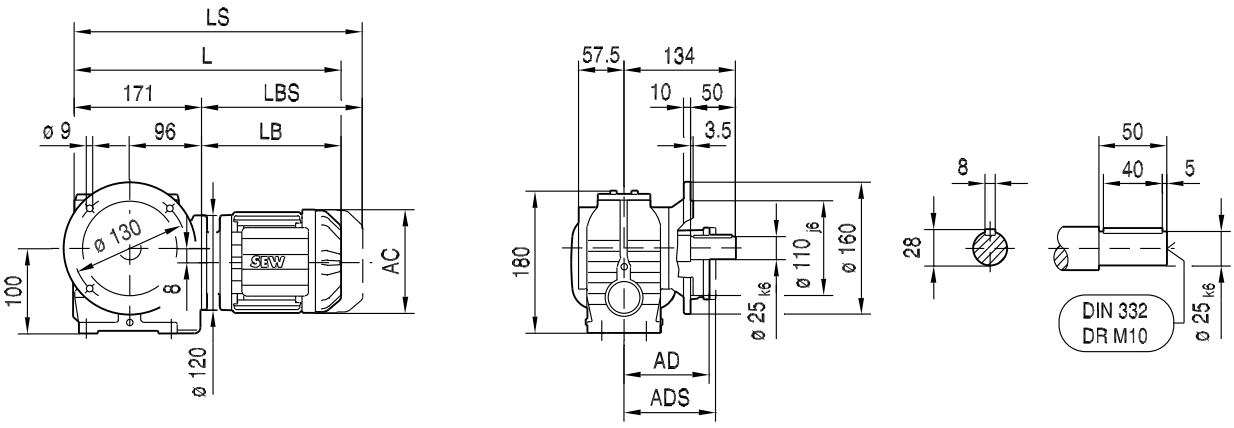


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	362	373	398	453	454	486		
LS	417	441	466	534	548	580		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

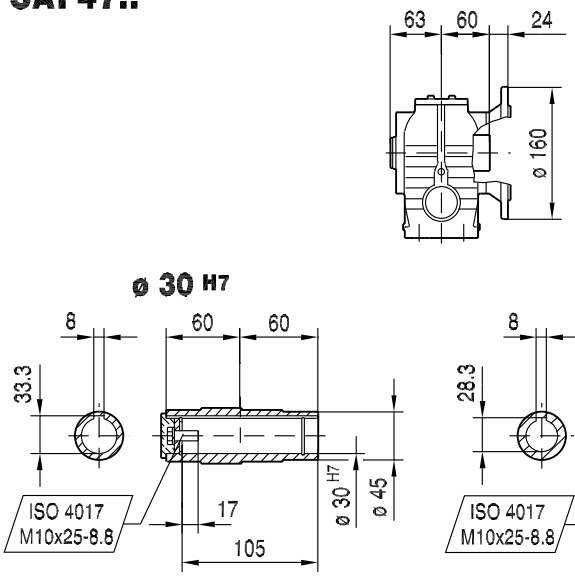
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02 013 00 14

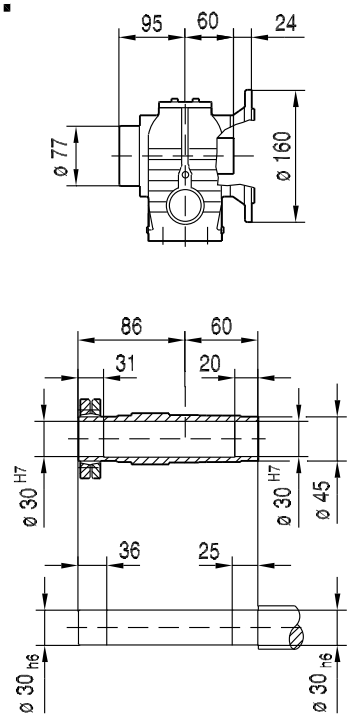
SF47..



SAF47..



SHF47..

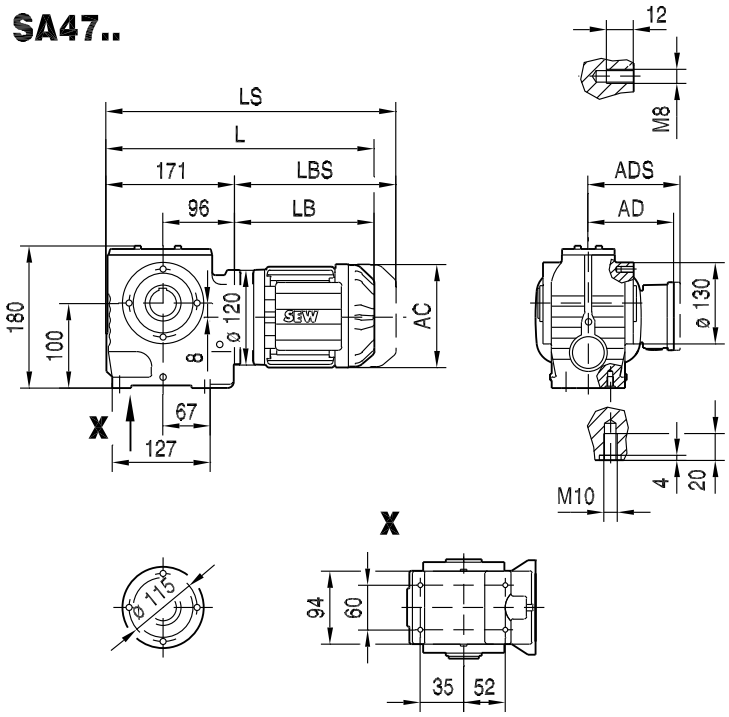


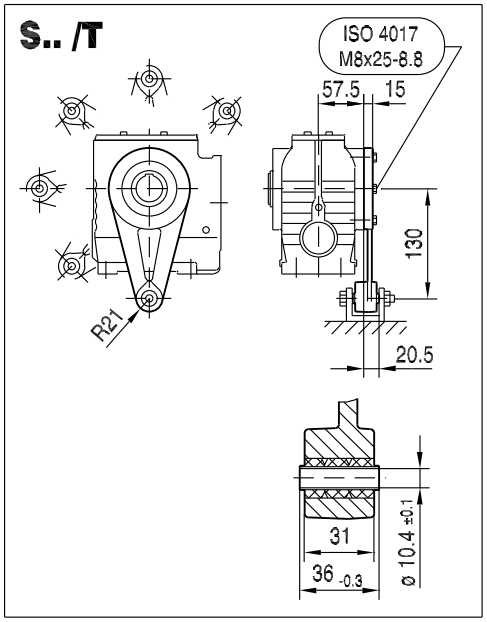
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	362	373	398	453	454	486		
LS	417	441	466	534	548	580		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

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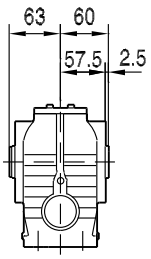
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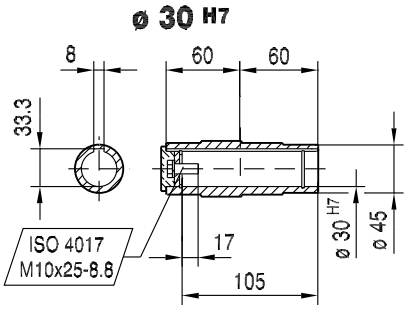
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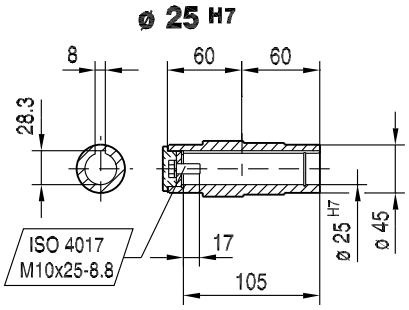




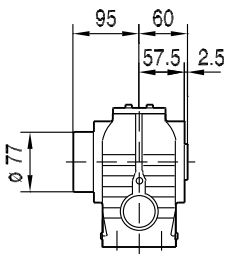
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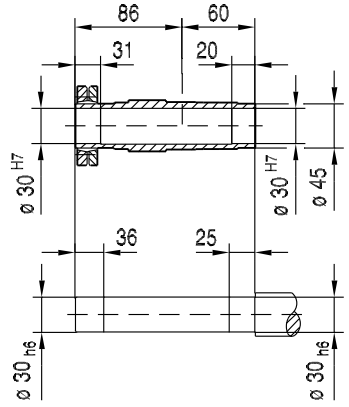






SH47..



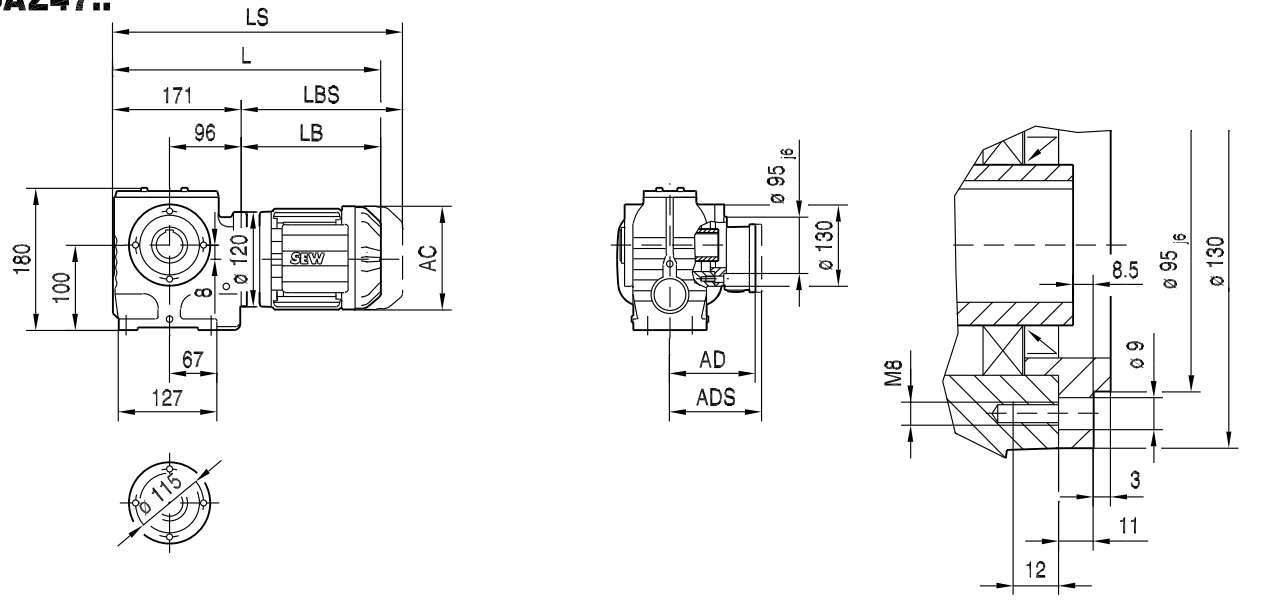


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	362	373	398	453	454	486		
LS	417	441	466	534	548	580		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

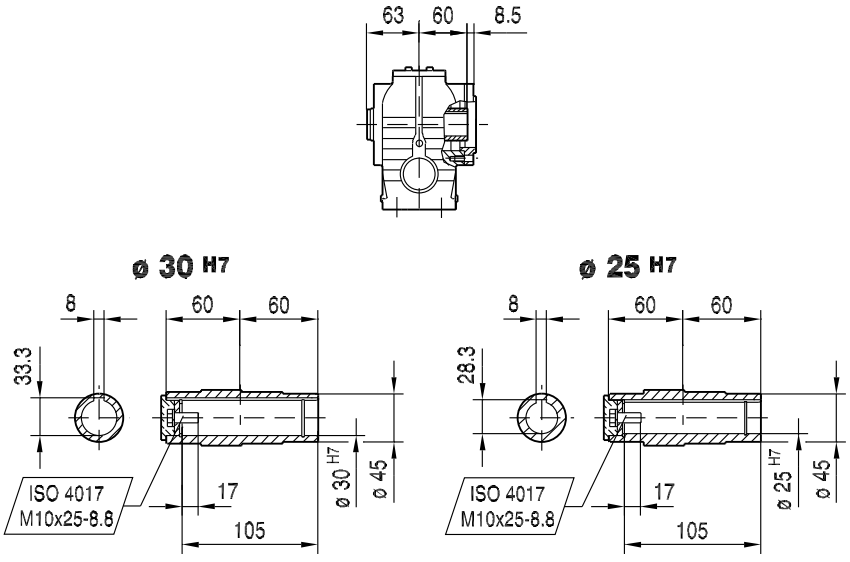
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02 015 00 14

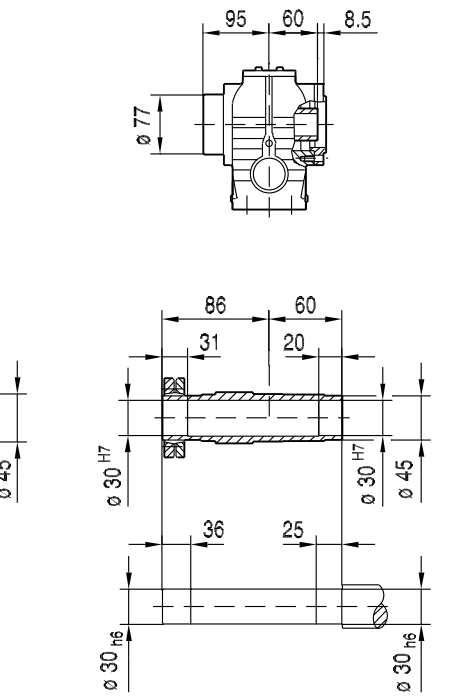
SAZ47..



SAZ47..

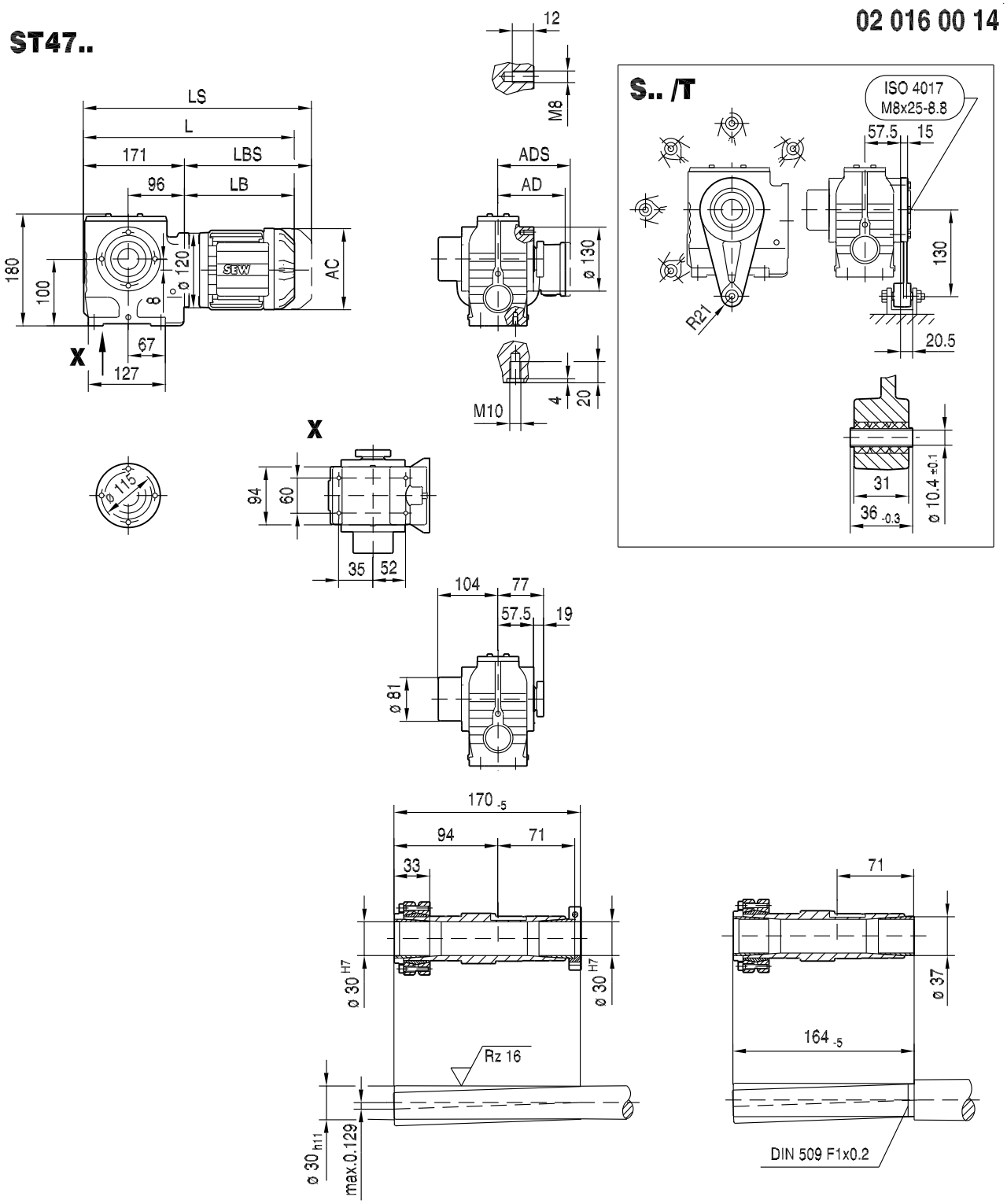


SHZ47..



(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	362	373	398	453	454	486		
LS	417	441	466	534	548	580		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

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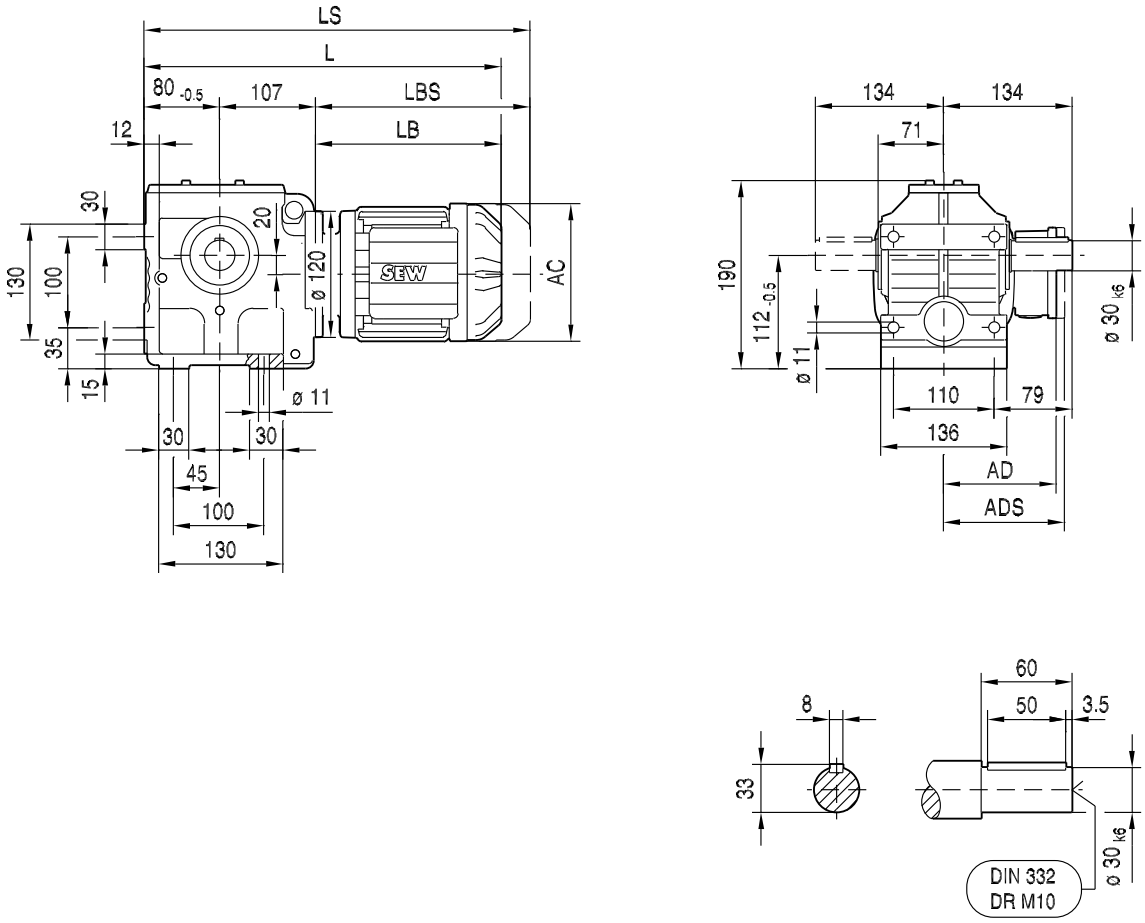


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	362	373	398	453	454	486		
LS	417	441	466	534	548	580		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

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02 017 00 14

S57..

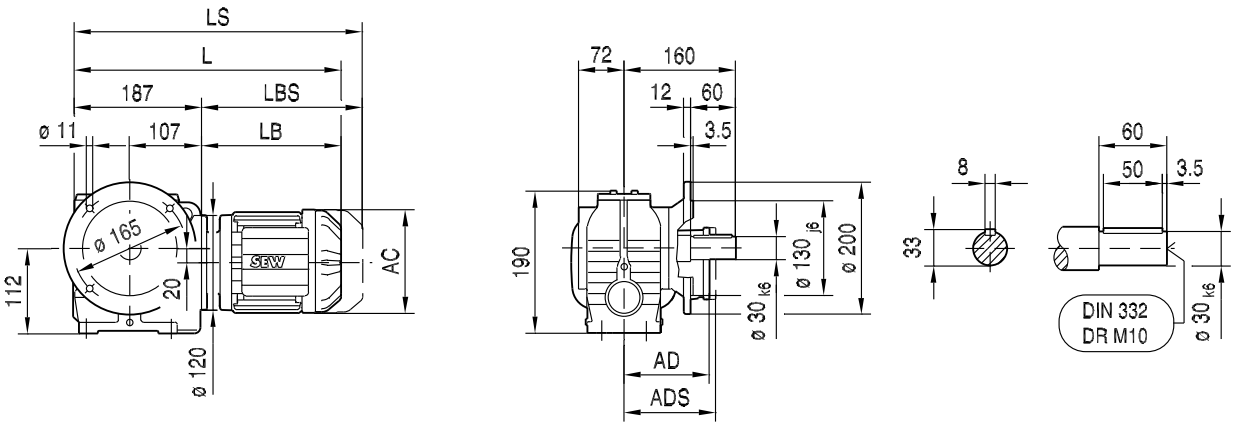


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	378	389	414	469	470	502	501	551
LS	433	457	482	550	564	596	595	645
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

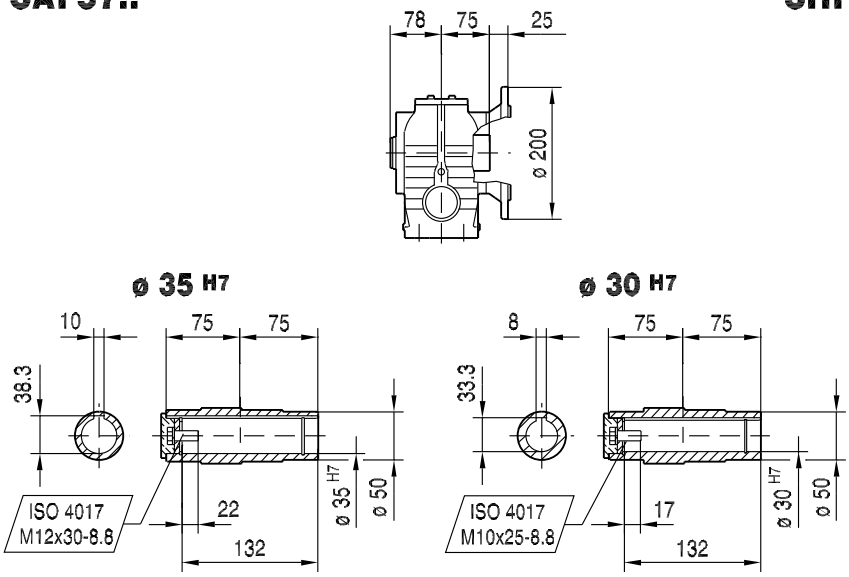
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02 018 00 14

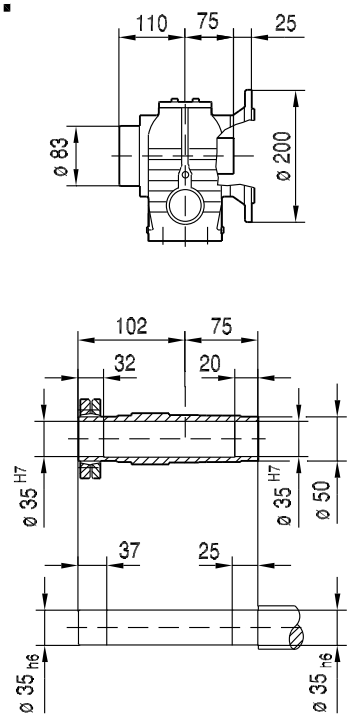
SF57..



SAF57..



SHF57..

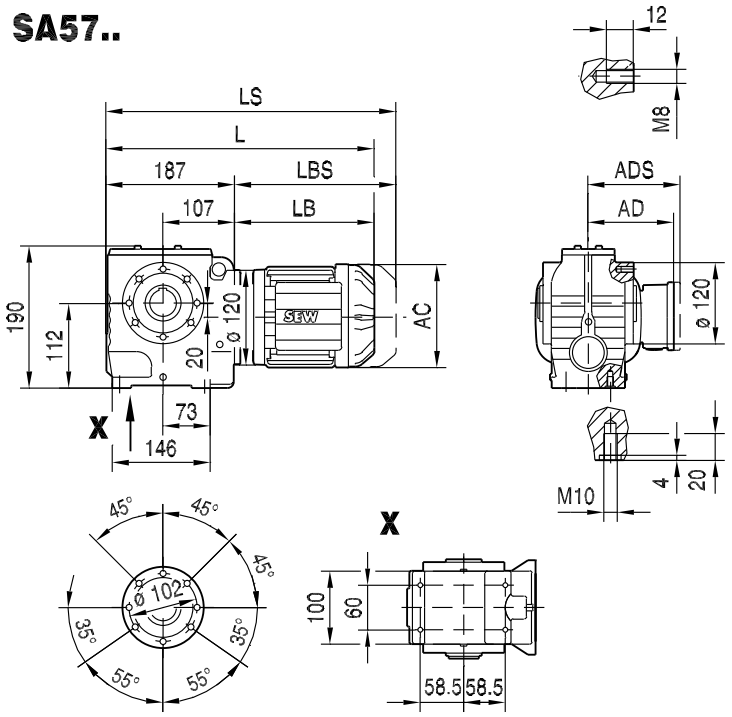


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	378	389	414	469	470	502	501	551
LS	433	457	482	550	564	596	595	645
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

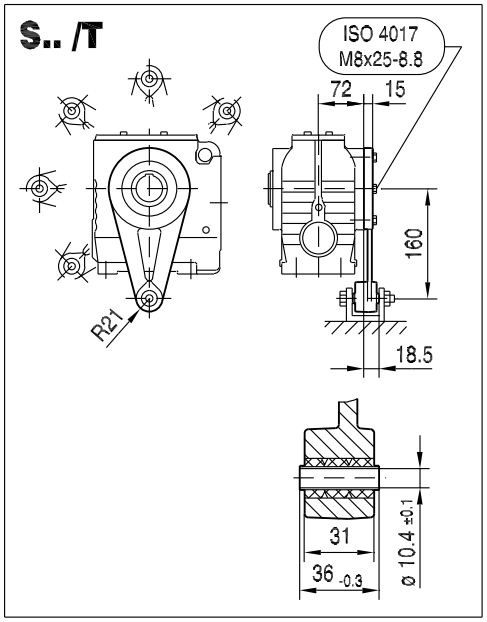
21933189/EN – 11/2015

02 019 00 14

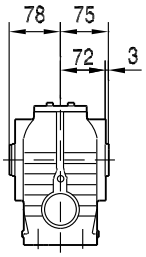
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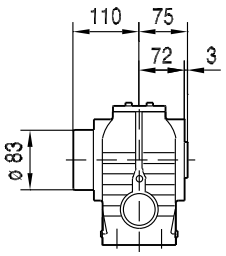
S.. /T

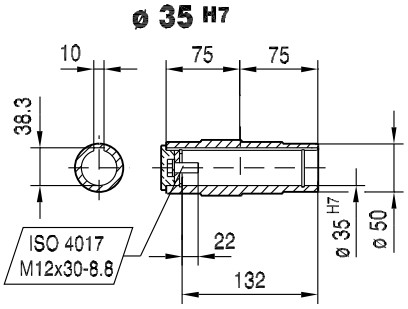


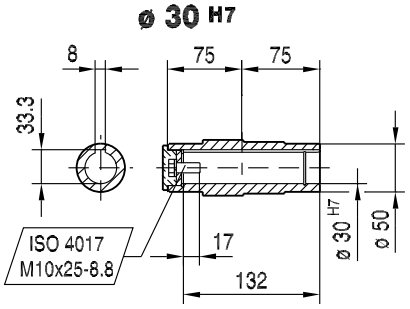
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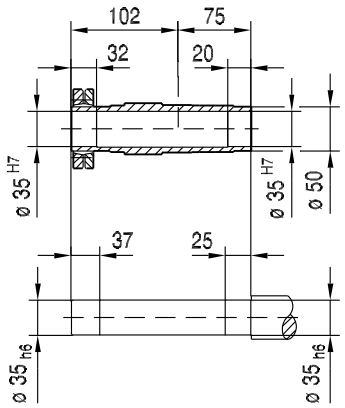


SH57..







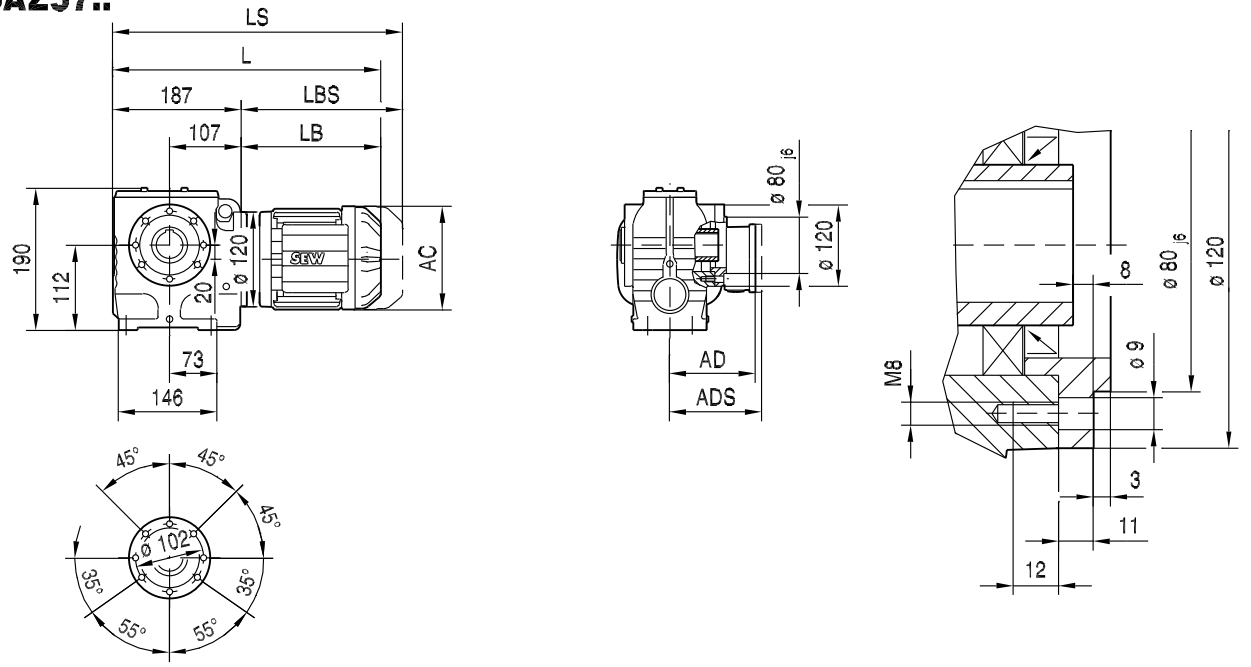


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	378	389	414	469	470	502	501	551
LS	433	457	482	550	564	596	595	645
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

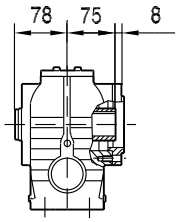
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02 020 00 14

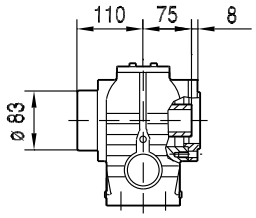
SAZ57..

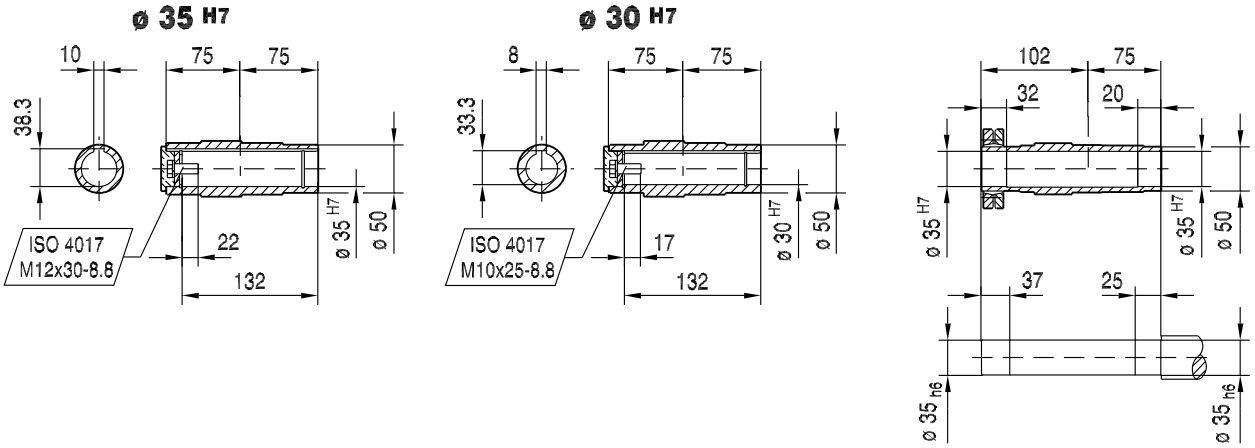


SAZ57..



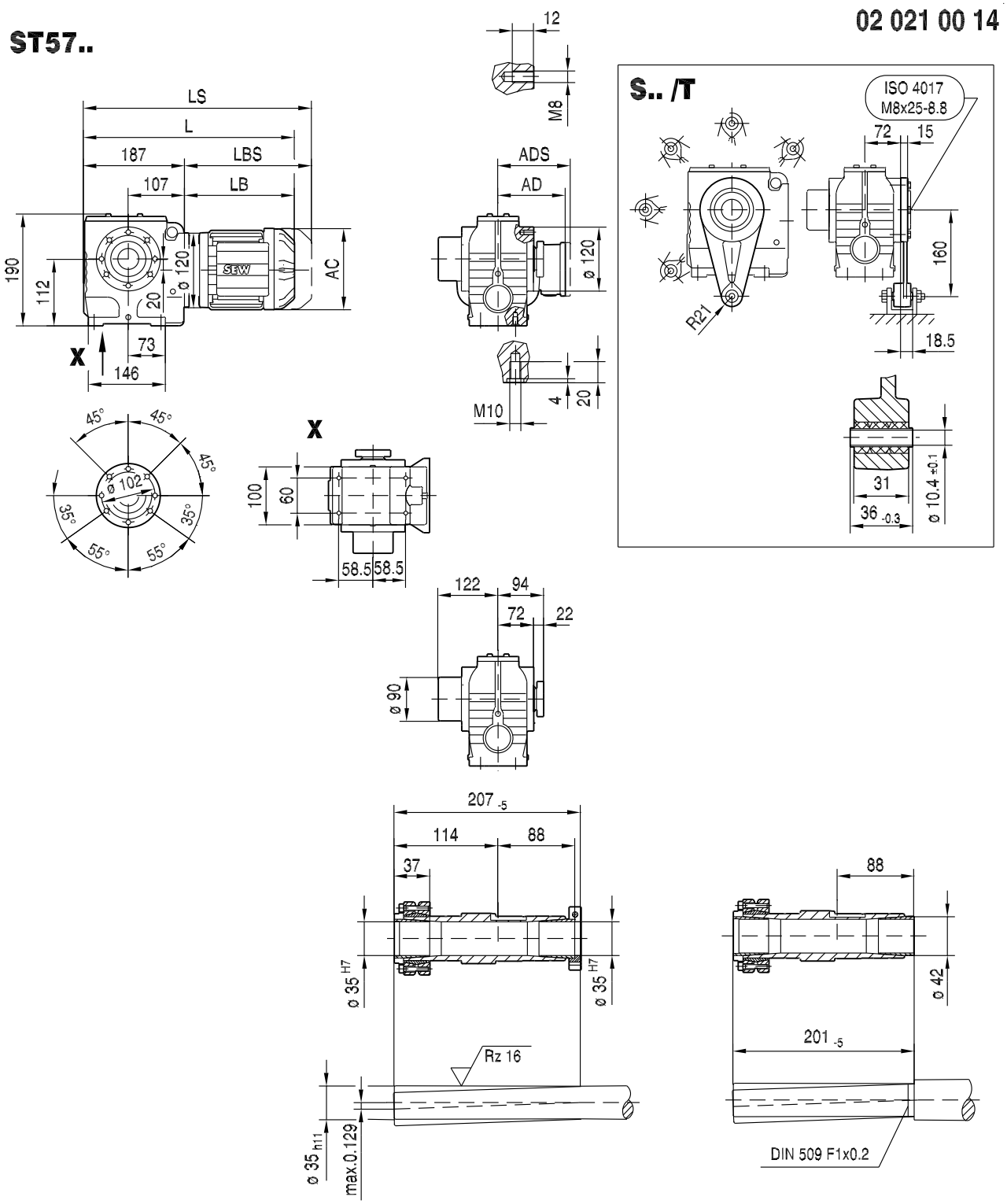
SHZ57..





(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	378	389	414	469	470	502	501	551
LS	433	457	482	550	564	596	595	645
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

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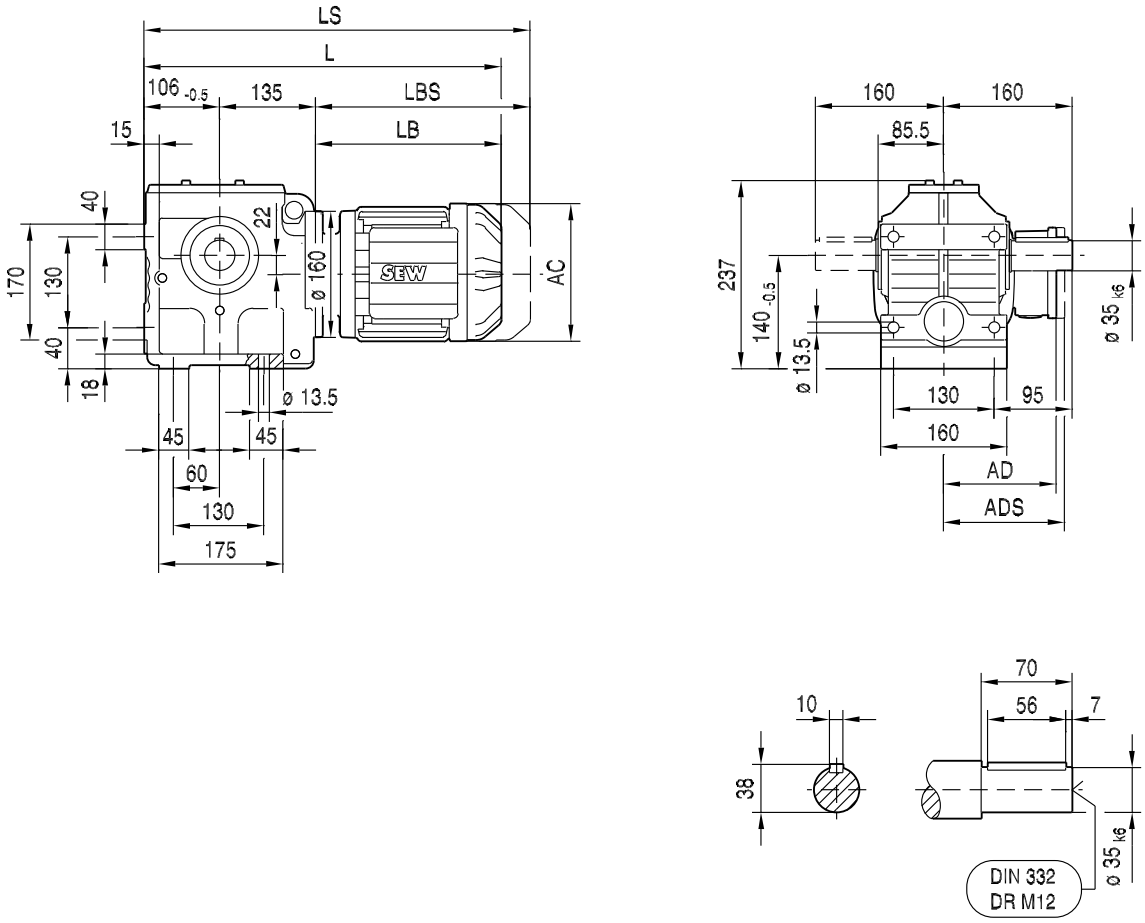


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L
AC	132	139	139	156	179	179	197	197
AD	105	119	119	128	140	140	157	157
ADS	105	129	129	139	150	150	158	158
L	378	389	414	469	470	502	501	551
LS	433	457	482	550	564	596	595	645
LB	191	202	227	282	283	315	314	364
LBS	246	270	295	363	377	409	408	458

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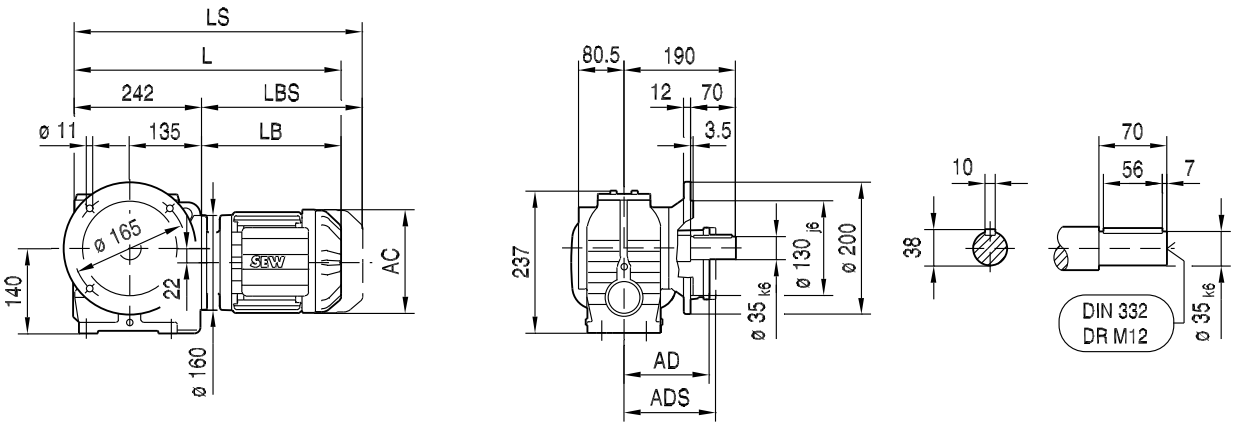
S67..



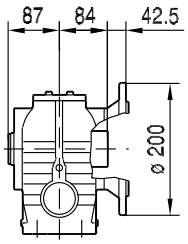
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	426	437	462	516	518	550	546	596	627	681
LS	481	505	530	597	611	643	640	690	739	793
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

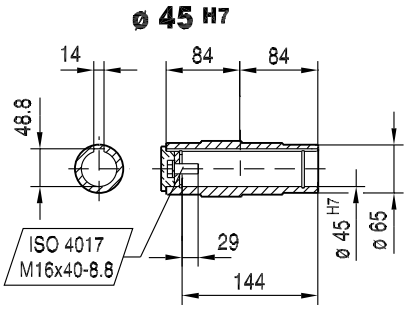
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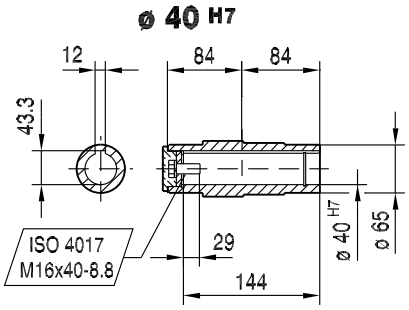
SF67..



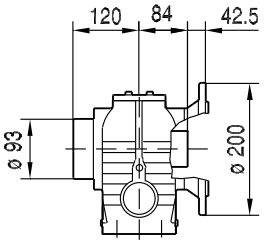
SAF67..

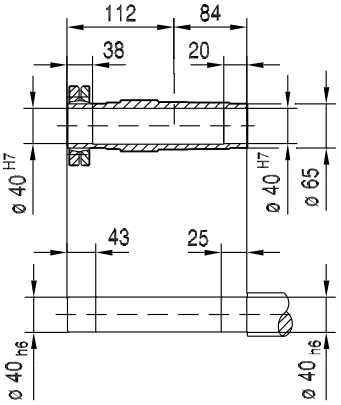






SHF67..



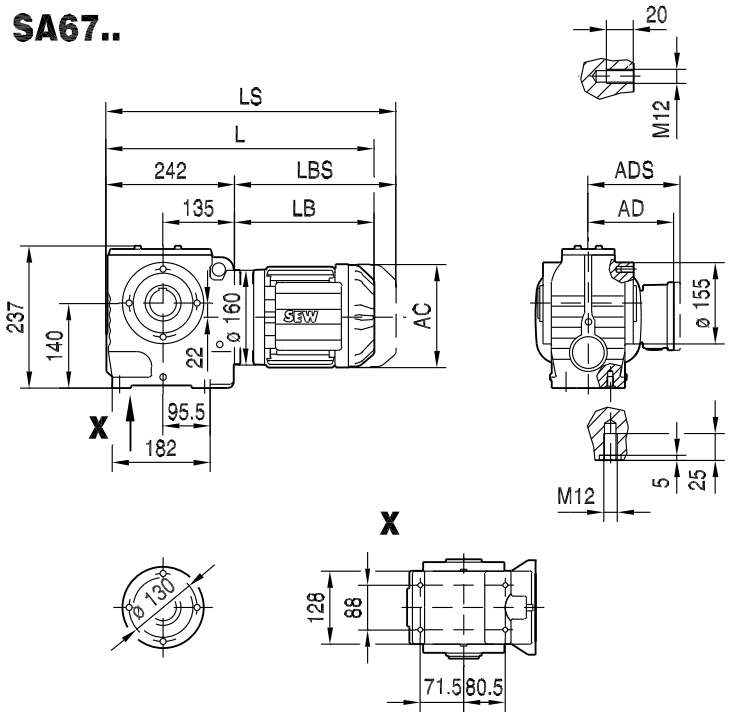


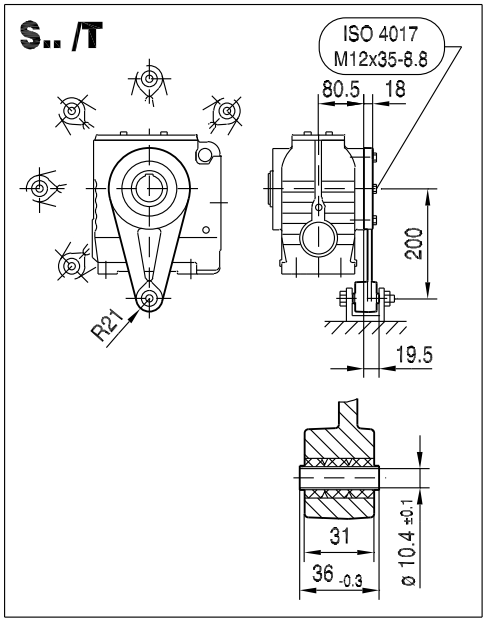
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	427	438	463	517	519	551	547	597	628	682
LS	482	506	531	598	612	644	641	691	740	794
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

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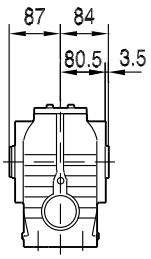
02 024 00 14

SA67..

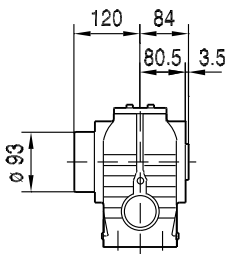


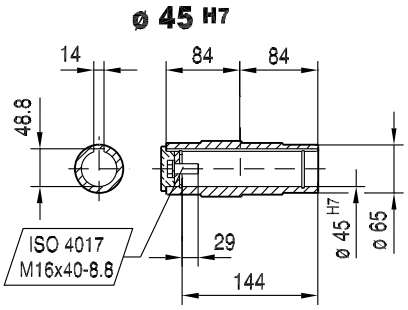


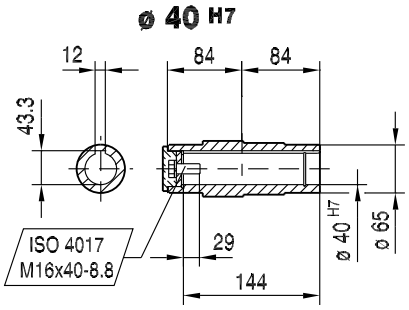
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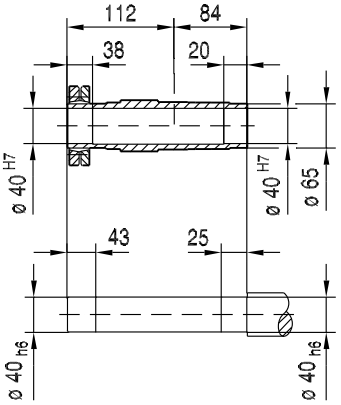


SH67..





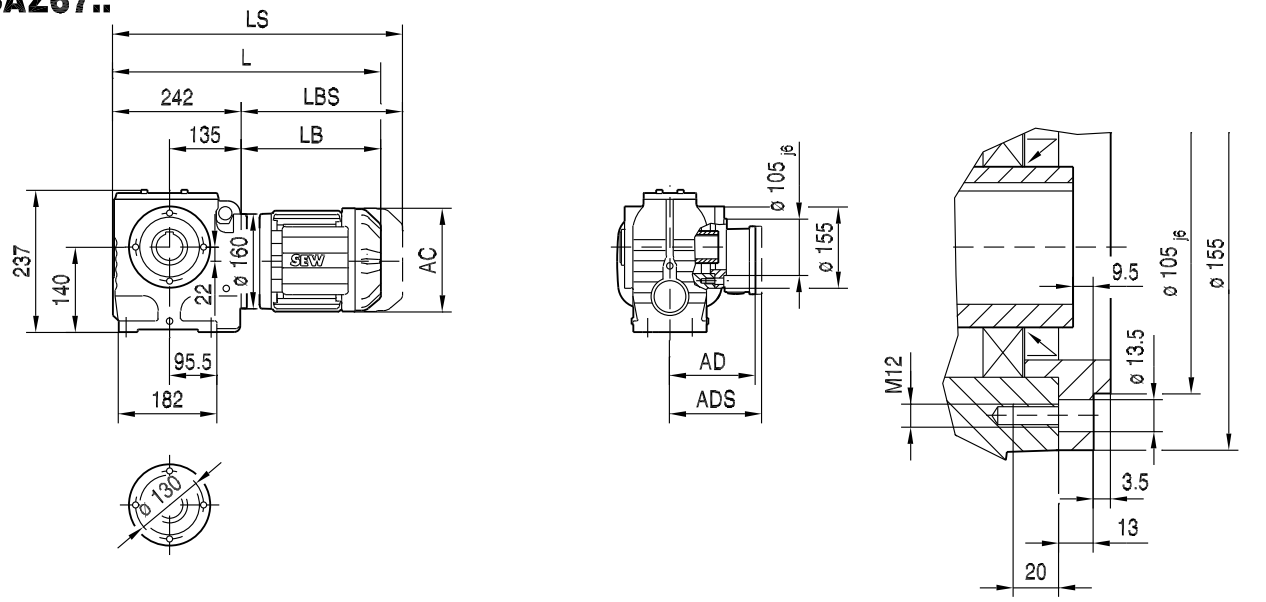




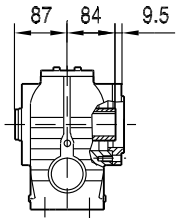
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	427	438	463	517	519	551	547	597	628	682
LS	482	506	531	598	612	644	641	691	740	794
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

02 025 00 14

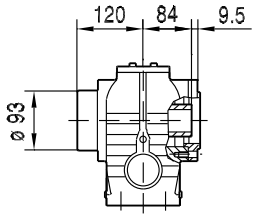
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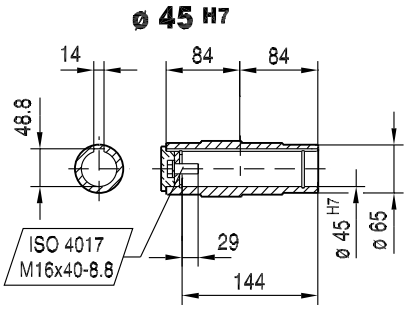


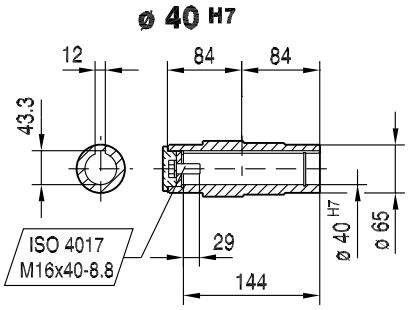
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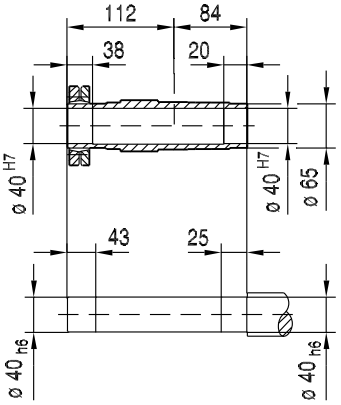


SHZ67..



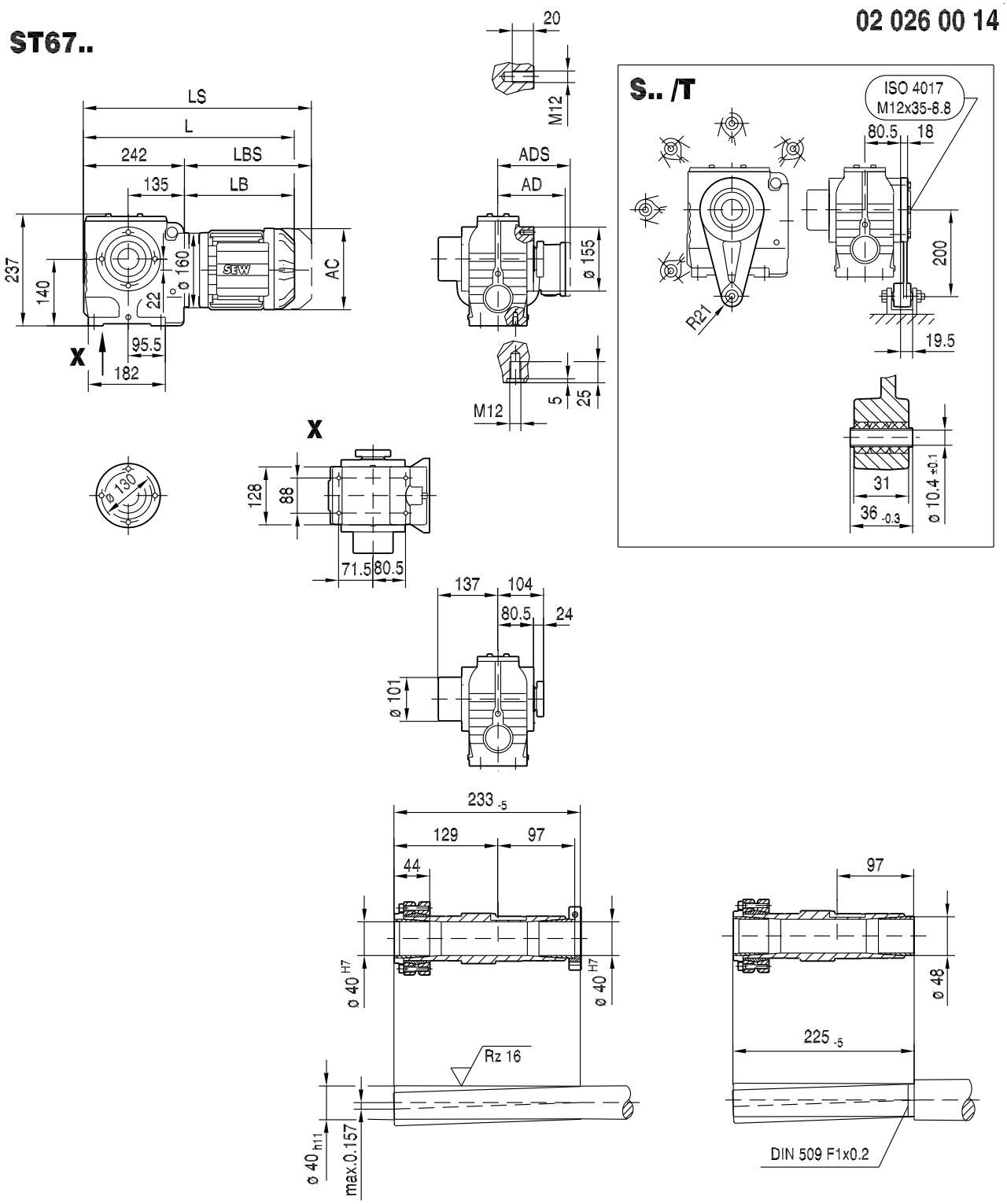






(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	427	438	463	517	519	551	547	597	628	682
LS	482	506	531	598	612	644	641	691	740	794
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

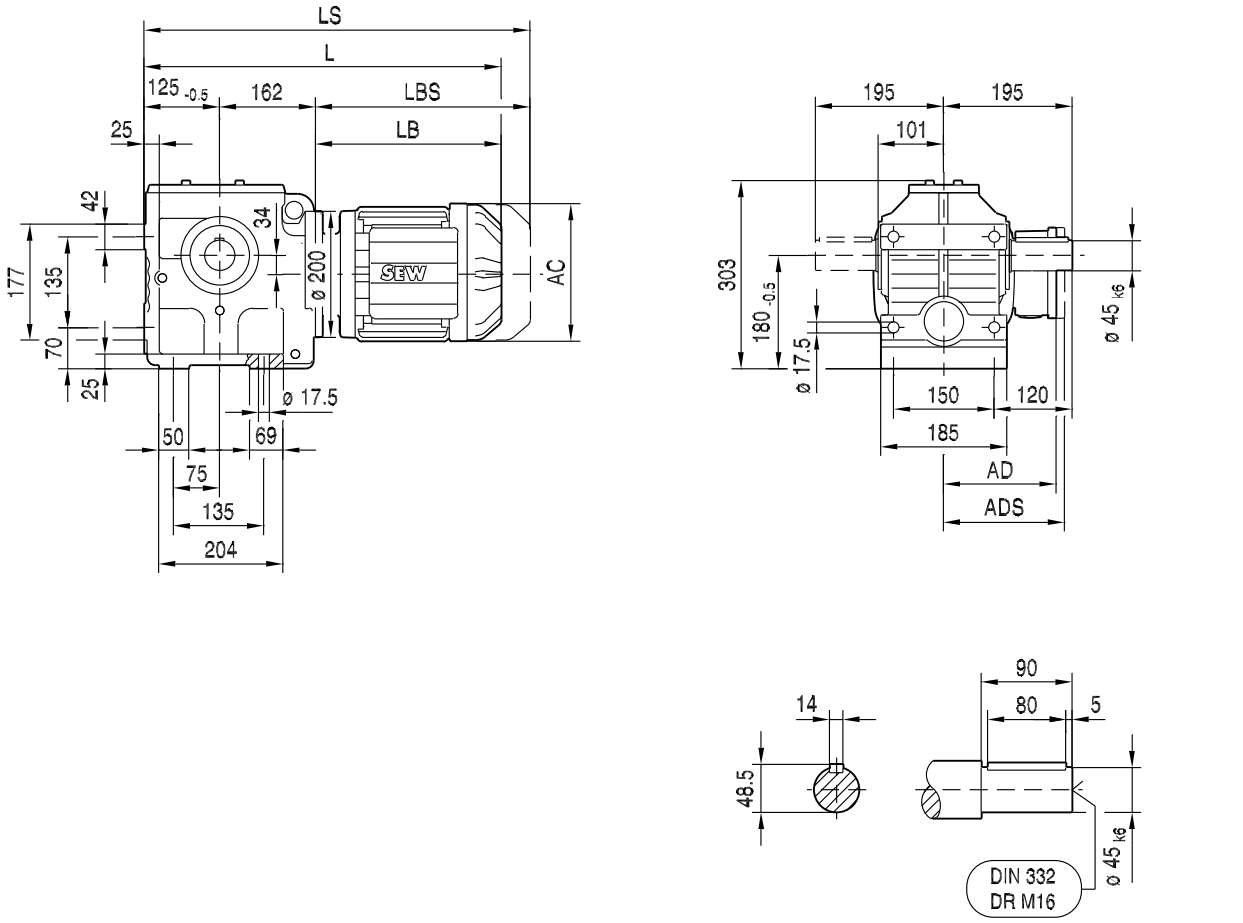
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(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S
AC	132	139	139	156	179	179	197	197	221	221
AD	105	119	119	128	140	140	157	157	170	170
ADS	105	129	129	139	150	150	158	158	172	172
L	427	438	463	517	519	551	547	597	628	682
LS	482	506	531	598	612	644	641	691	740	794
LB	185	196	221	275	277	309	305	355	386	440
LBS	240	264	289	356	370	402	399	449	498	552

02 027 00 14

S77..

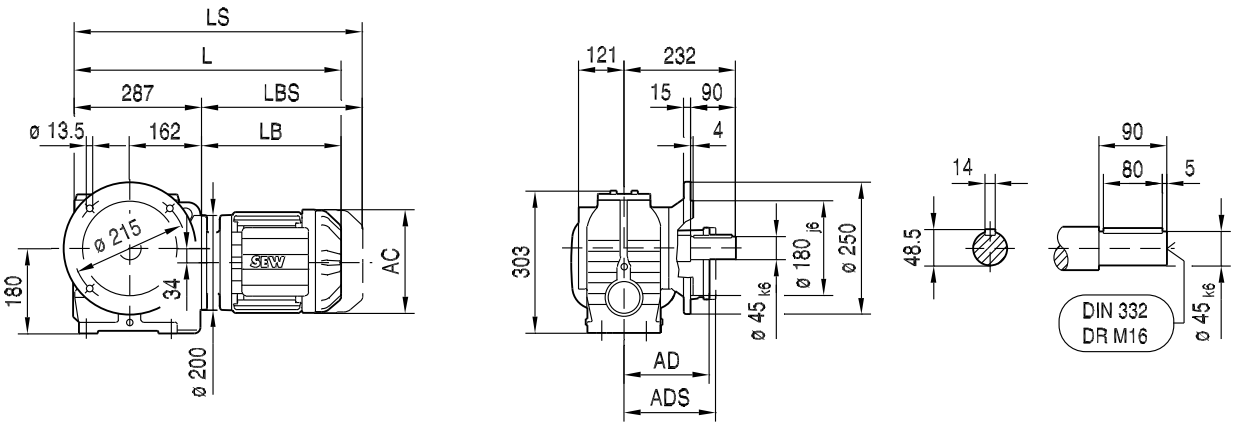


(→ 155)	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L
AC	139	156	179	179	197	197	221	221	261	261
AD	119	128	140	140	157	157	170	170	228	228
ADS	129	139	150	150	158	158	172	172	228	228
L	501	555	557	589	585	635	666	716	734	760
LS	569	636	650	682	679	729	778	828	872	897
LB	214	268	270	302	298	348	379	429	447	473
LBS	282	349	363	395	392	442	491	541	585	610

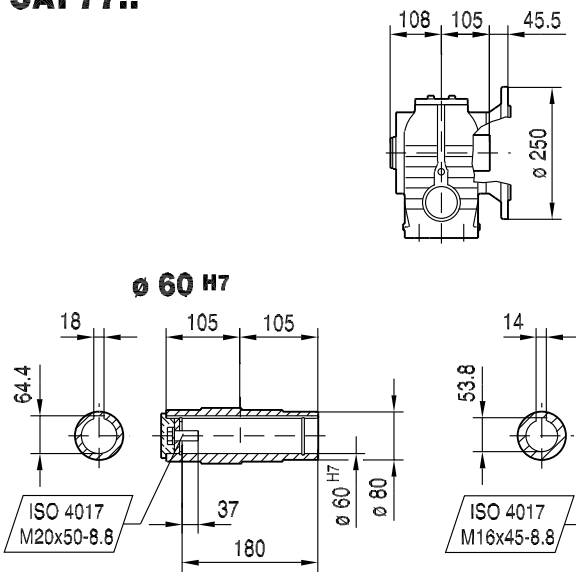
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02 028 00 14

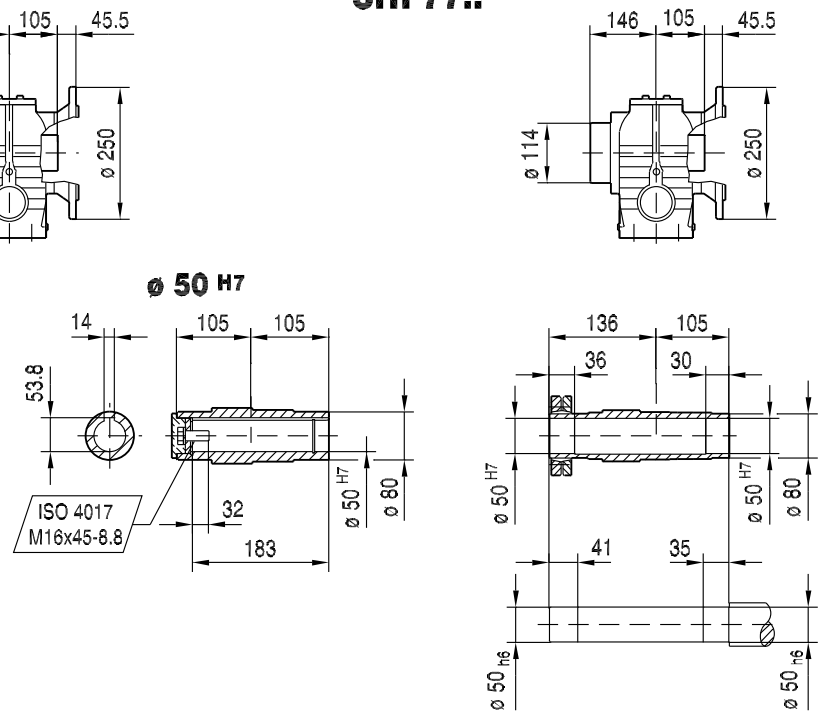
SF77..



SAF77..



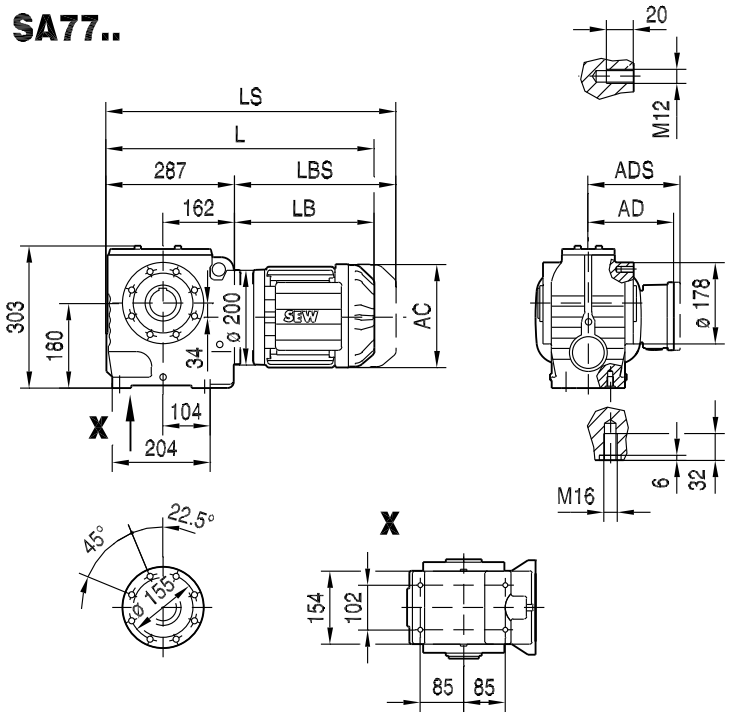
SHF77..

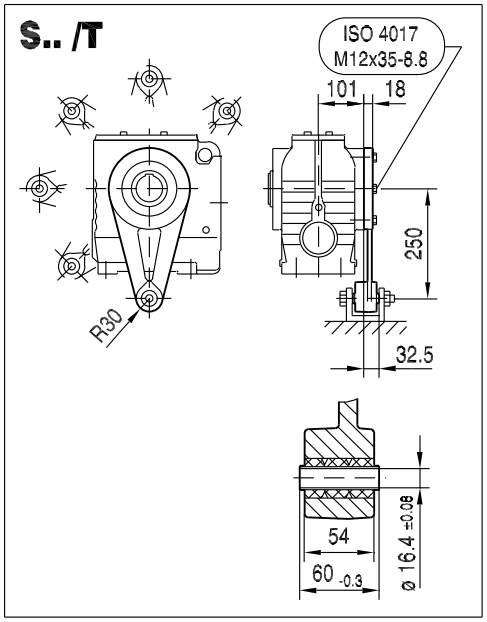


(→ 155)	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L
AC	139	156	179	179	197	197	221	221	261	261
AD	119	128	140	140	157	157	170	170	228	228
ADS	129	139	150	150	158	158	172	172	228	228
L	501	555	557	589	585	635	666	716	734	760
LS	569	636	650	682	679	729	778	828	872	897
LB	214	268	270	302	298	348	379	429	447	473
LBS	282	349	363	395	392	442	491	541	585	610

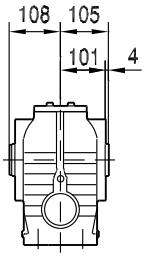
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SA77..

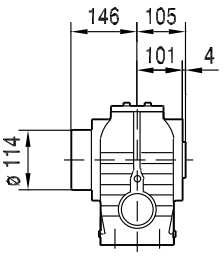


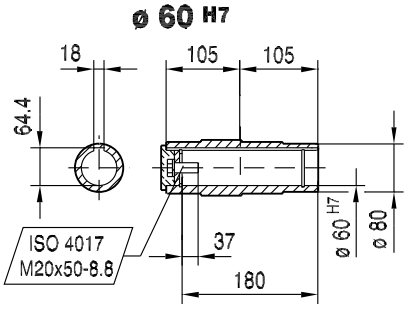


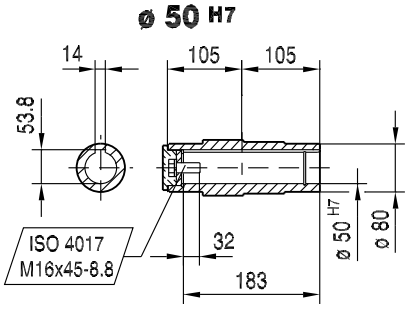
SA77..

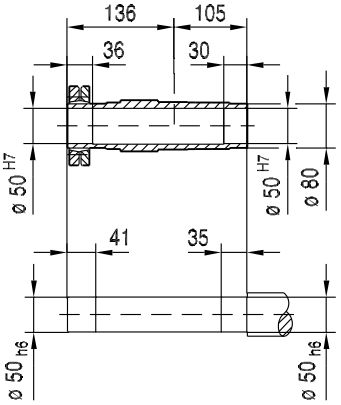


SH77..







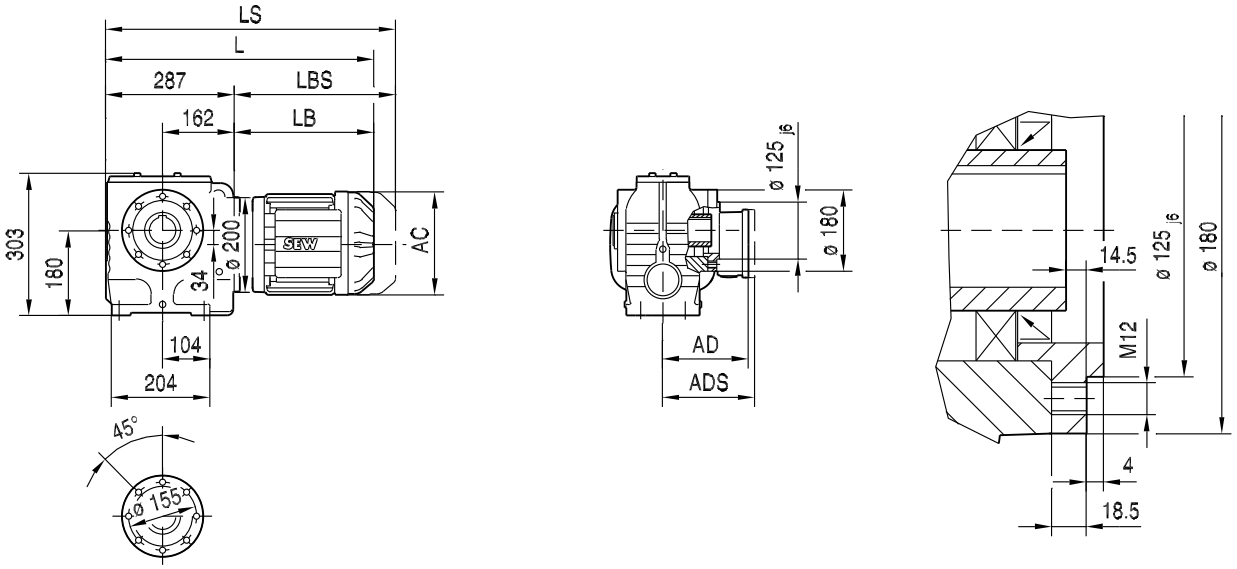


(→ 155)	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L
AC	139	156	179	179	197	197	221	221	261	261
AD	119	128	140	140	157	157	170	170	228	228
ADS	129	139	150	150	158	158	172	172	228	228
L	501	555	557	589	585	635	666	716	734	760
LS	569	636	650	682	679	729	778	828	872	897
LB	214	268	270	302	298	348	379	429	447	473
LBS	282	349	363	395	392	442	491	541	585	610

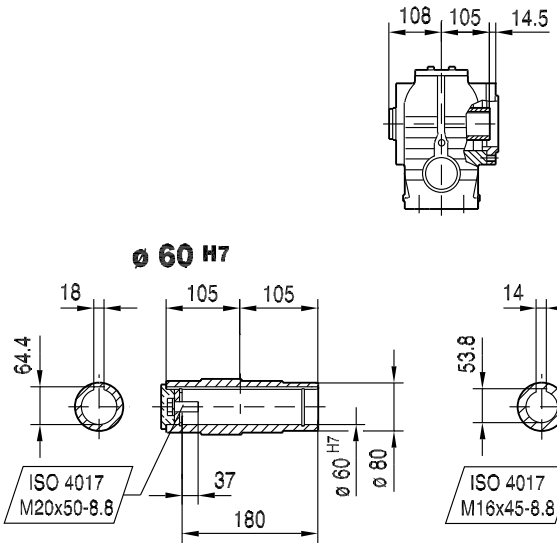
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02 030 00 14

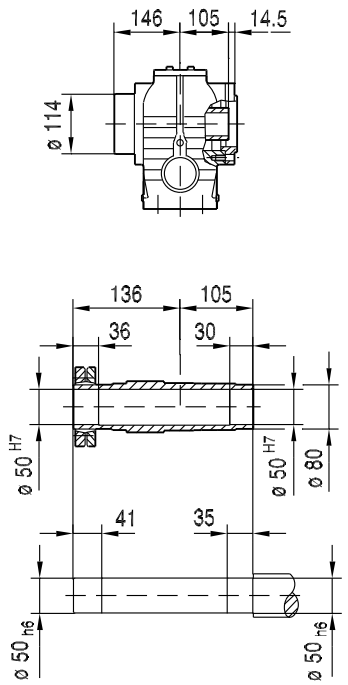
SAZ77..



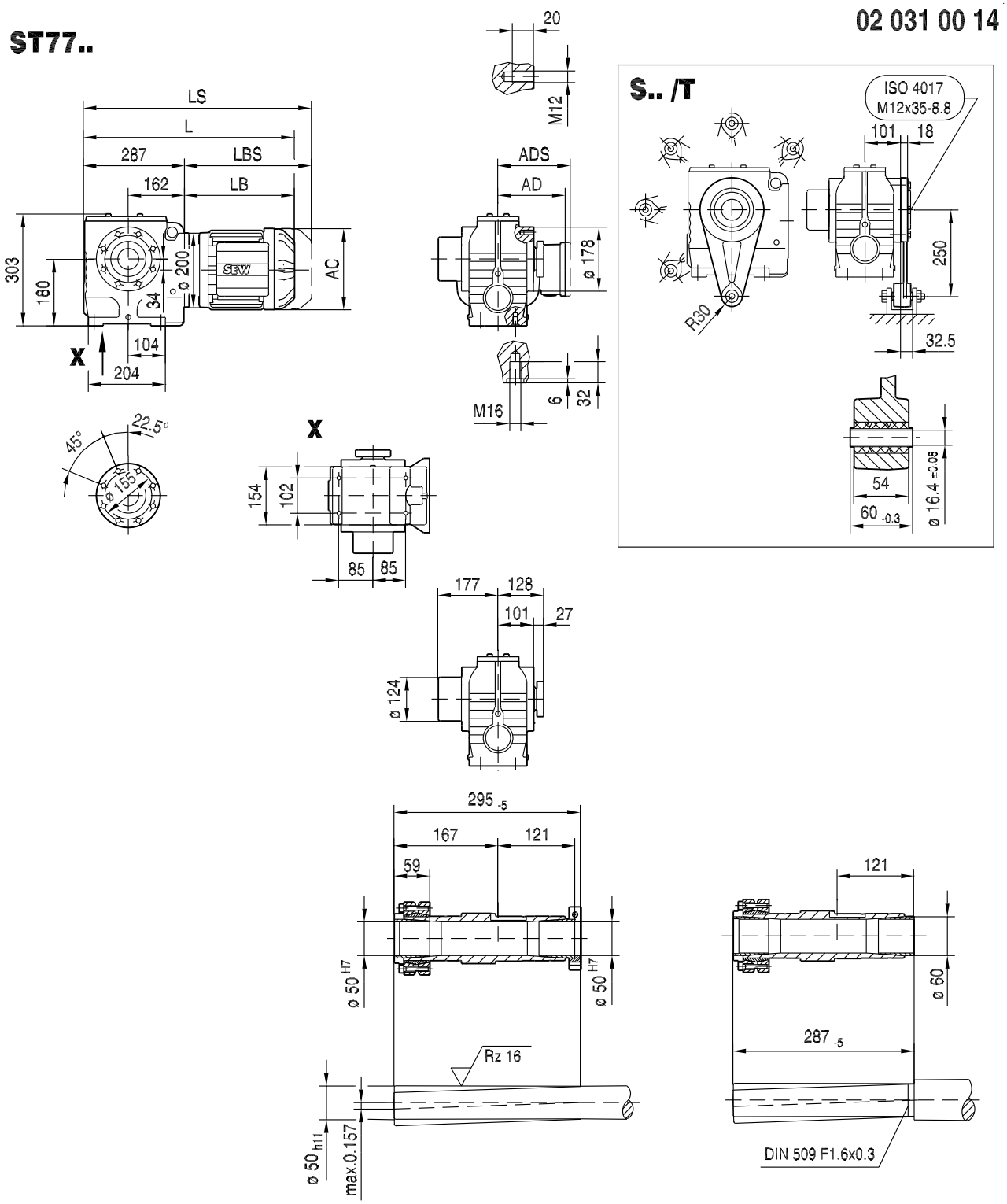
SAZ77..



SHZ77..



(→ 155)	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L
AC	139	156	179	179	197	197	221	221	261	261
AD	119	128	140	140	157	157	170	170	228	228
ADS	129	139	150	150	158	158	172	172	228	228
L	501	555	557	589	585	635	666	716	734	760
LS	569	636	650	682	679	729	778	828	872	897
LB	214	268	270	302	298	348	379	429	447	473
LBS	282	349	363	395	392	442	491	541	585	610

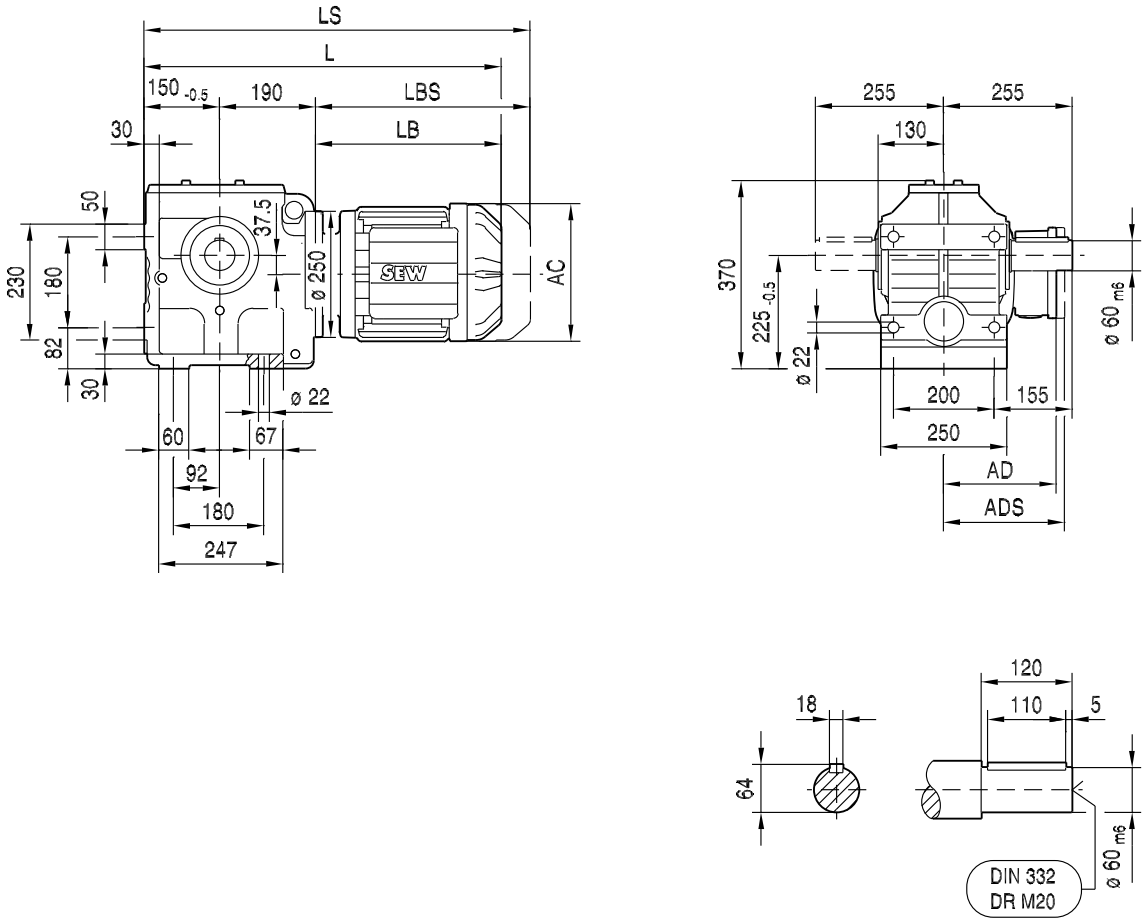


(→ 155)	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L
AC	139	156	179	179	197	197	221	221	261	261
AD	119	128	140	140	157	157	170	170	228	228
ADS	129	139	150	150	158	158	172	172	228	228
L	501	555	557	589	585	635	666	716	734	760
LS	569	636	650	682	679	729	778	828	872	897
LB	214	268	270	302	298	348	379	429	447	473
LBS	282	349	363	395	392	442	491	541	585	610

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02 032 00 14

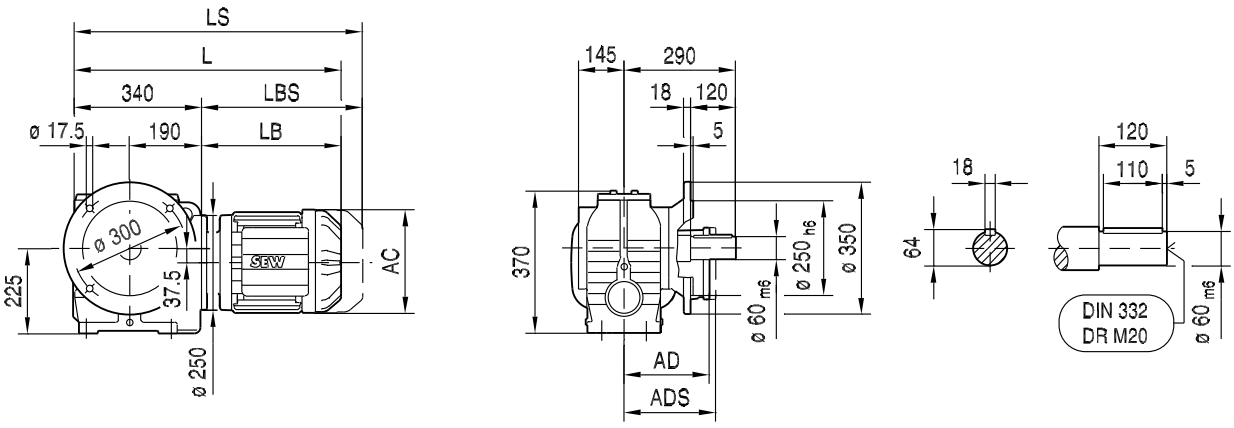
S87..



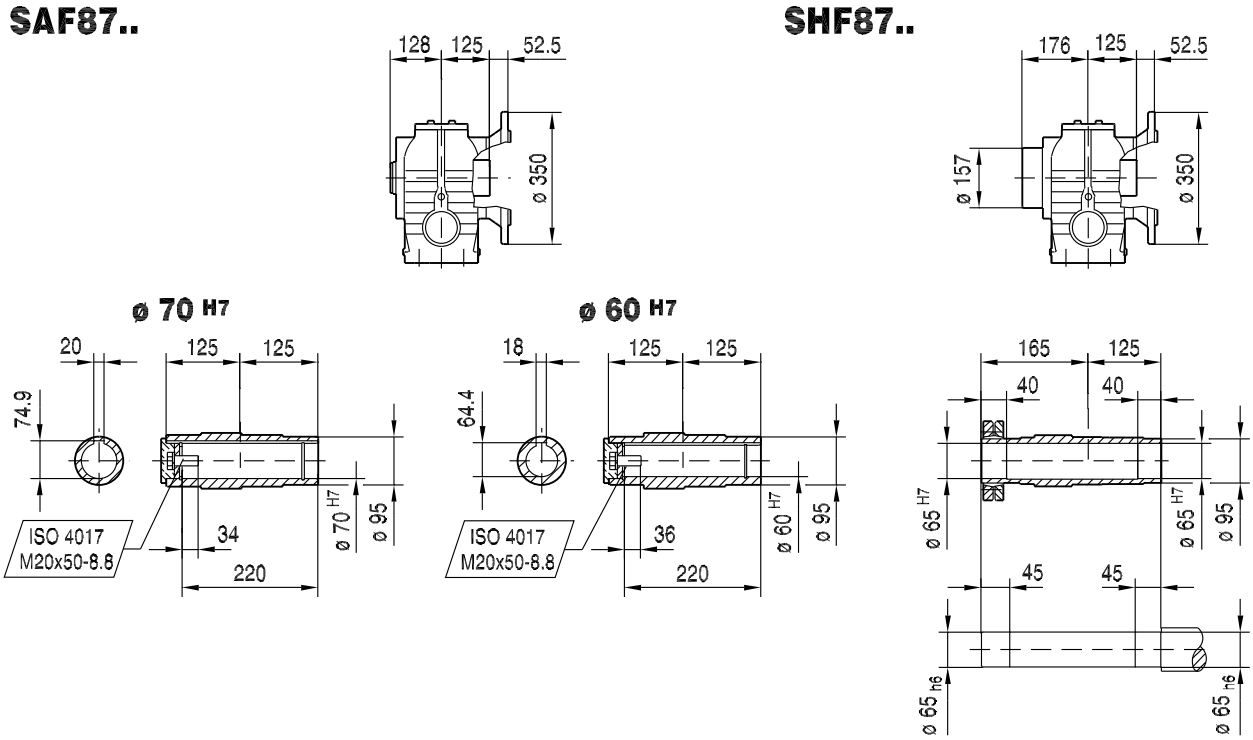
(→ 155)	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L
AC	179	179	197	197	221	221	261	261	314	314
AD	140	140	157	157	170	170	228	228	253	253
ADS	150	150	158	158	172	172	228	228	253	253
L	605	637	633	683	714	764	782	808	874	874
LS	698	730	727	777	826	876	920	945	1063	1063
LB	265	297	293	343	374	424	442	468	534	534
LBS	358	390	387	437	486	536	580	605	723	723

02 033 00 14

SF87..



SAF87..



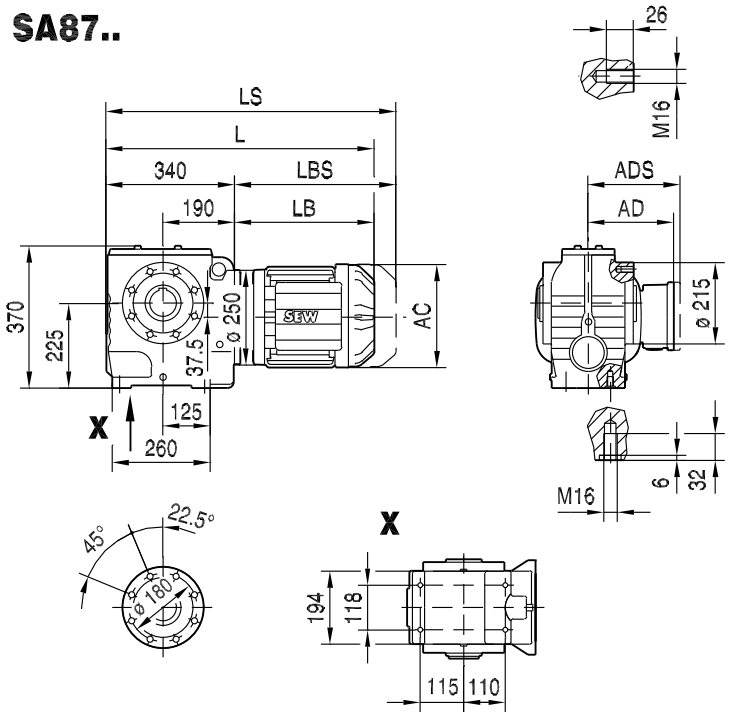
SHF87..

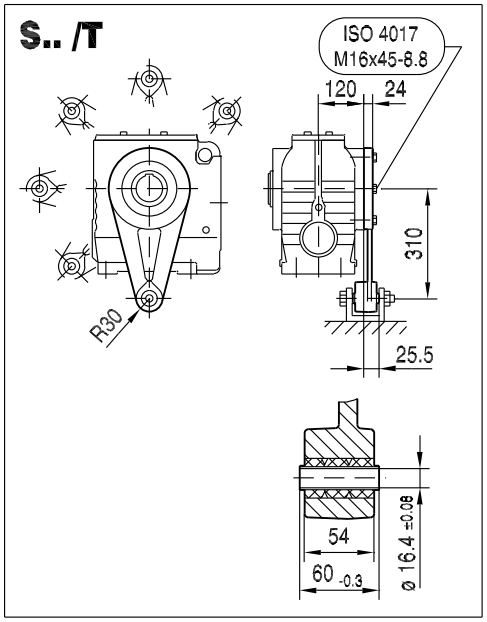
(→ 155)	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L
AC	179	179	197	197	221	221	261	261	314	314
AD	140	140	157	157	170	170	228	228	253	253
ADS	150	150	158	158	172	172	228	228	253	253
L	605	637	633	683	714	764	782	808	874	874
LS	698	730	727	777	826	876	920	945	1063	1063
LB	265	297	293	343	374	424	442	468	534	534
LBS	358	390	387	437	486	536	580	605	723	723

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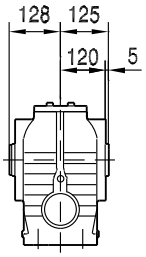
02 034 00 14

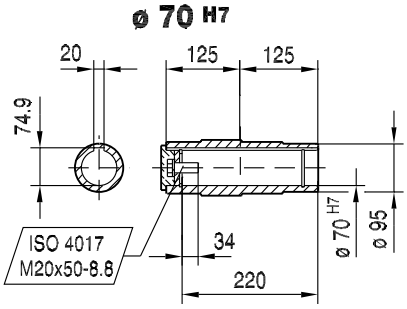
SA87..

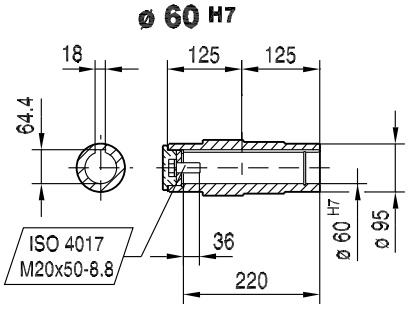




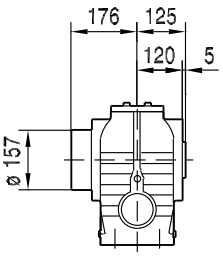
SA87..

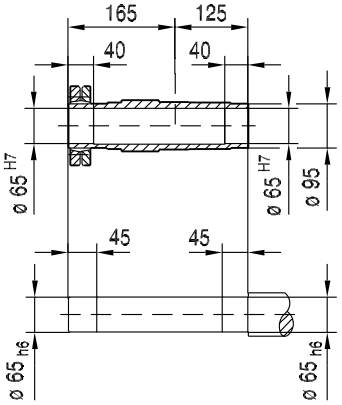






SH87..

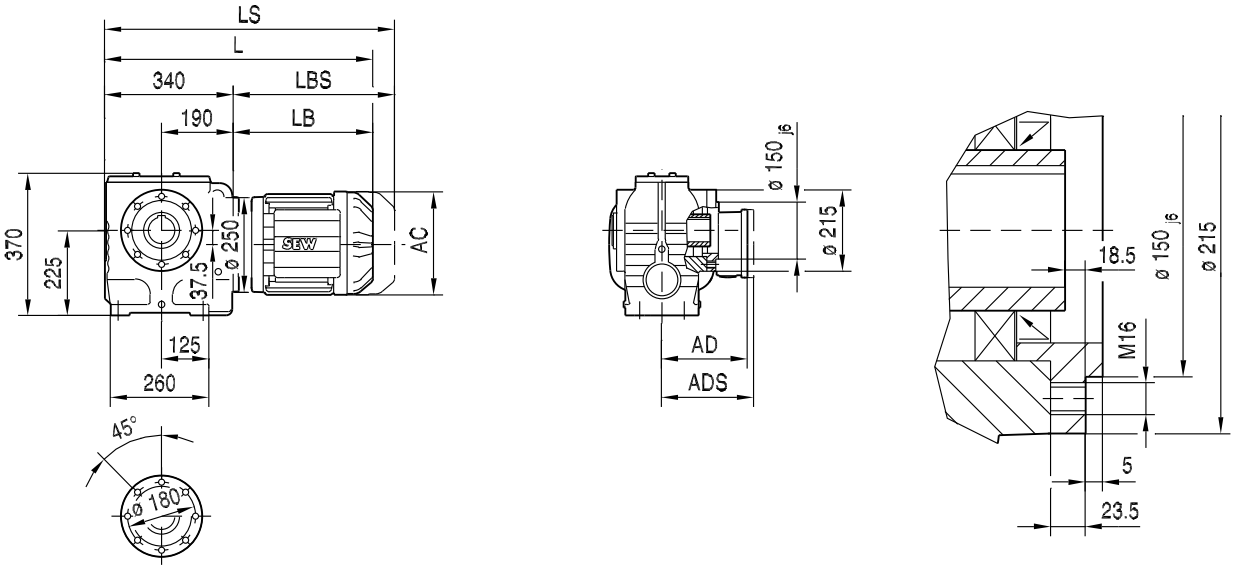




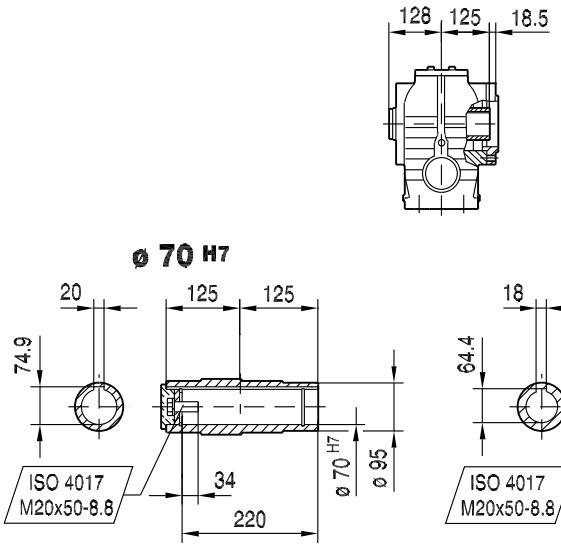
(→ 155)	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L
AC	179	179	197	197	221	221	261	261	314	314
AD	140	140	157	157	170	170	228	228	253	253
ADS	150	150	158	158	172	172	228	228	253	253
L	605	637	633	683	714	764	782	808	874	874
LS	698	730	727	777	826	876	920	945	1063	1063
LB	265	297	293	343	374	424	442	468	534	534
LBS	358	390	387	437	486	536	580	605	723	723

02 035 00 14

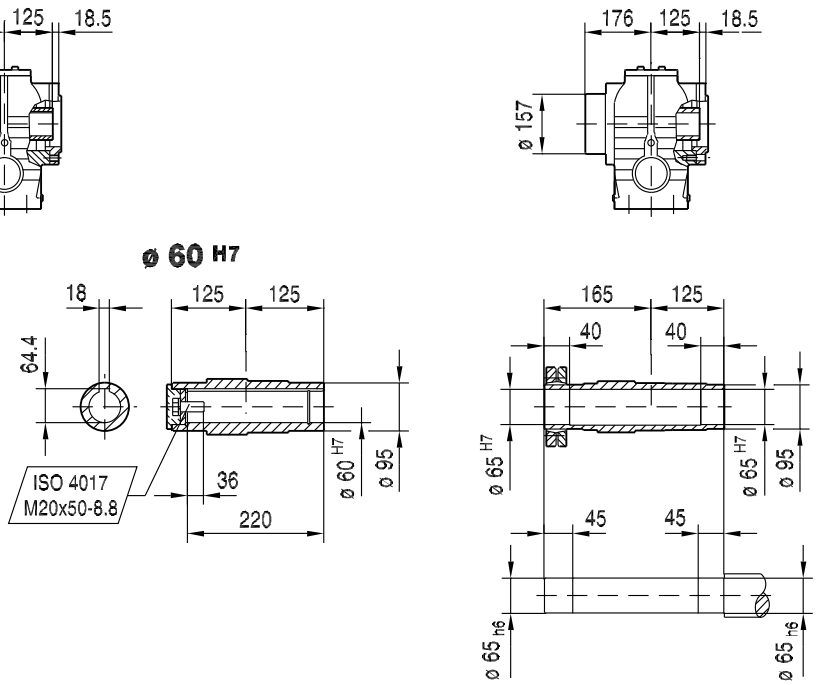
SAZ87..



SAZ87..

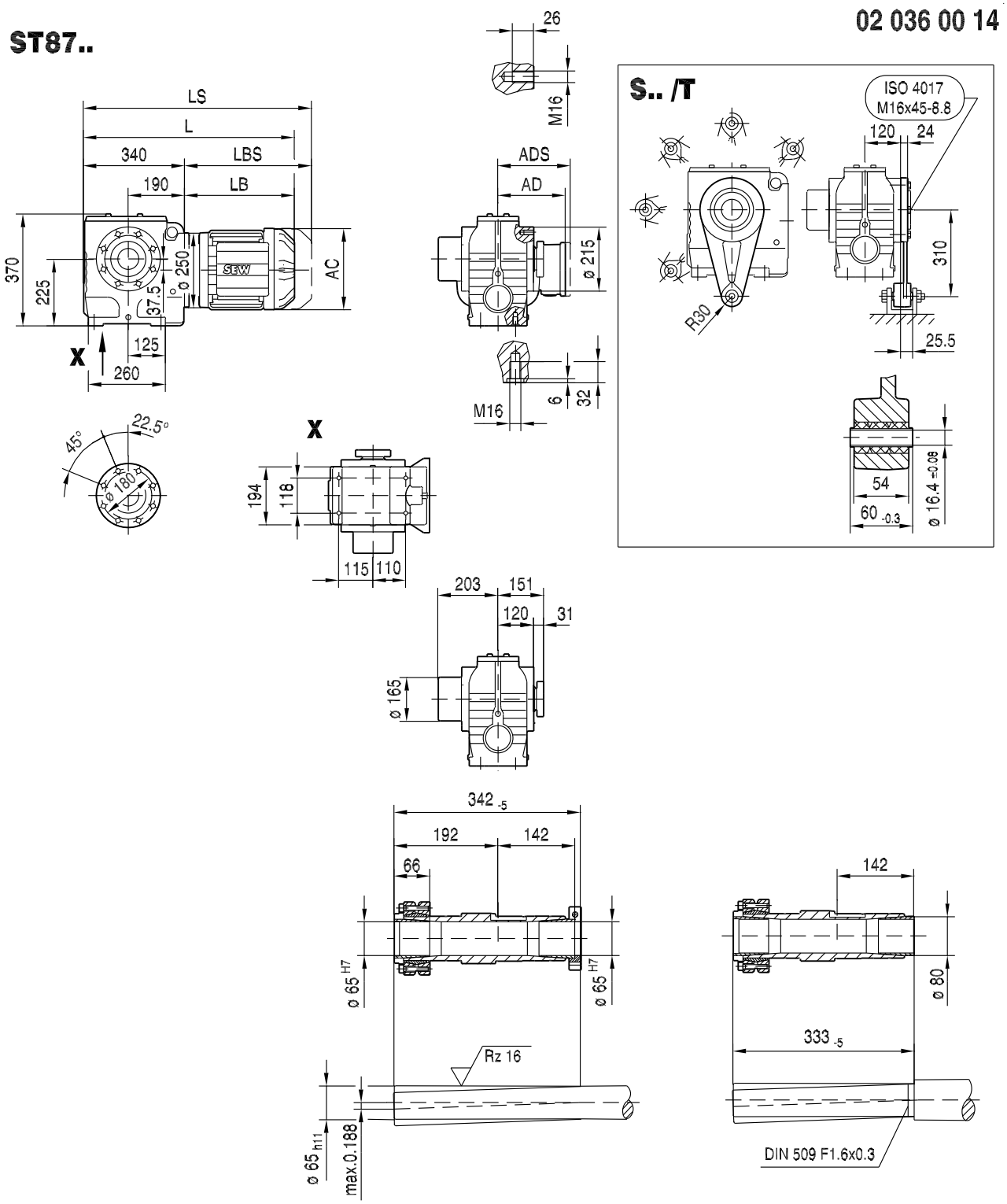


SHZ87..



(→ 155)	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L
AC	179	179	197	197	221	221	261	261	314	314
AD	140	140	157	157	170	170	228	228	253	253
ADS	150	150	158	158	172	172	228	228	253	253
L	605	637	633	683	714	764	782	808	874	874
LS	698	730	727	777	826	876	920	945	1063	1063
LB	265	297	293	343	374	424	442	468	534	534
LBS	358	390	387	437	486	536	580	605	723	723

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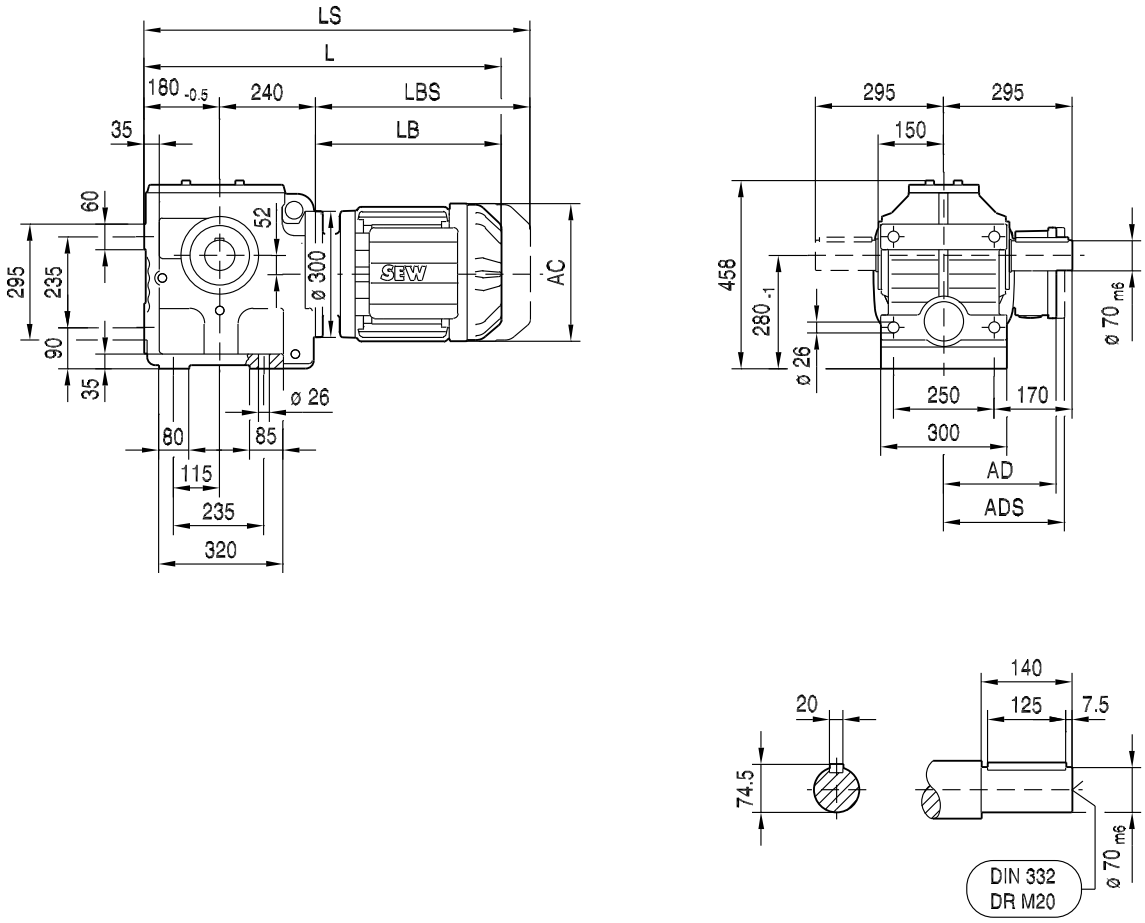


(→ 155)	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L
AC	179	179	197	197	221	221	261	261	314	314
AD	140	140	157	157	170	170	228	228	253	253
ADS	150	150	158	158	172	172	228	228	253	253
L	605	637	633	683	714	764	782	808	874	874
LS	698	730	727	777	826	876	920	945	1063	1063
LB	265	297	293	343	374	424	442	468	534	534
LBS	358	390	387	437	486	536	580	605	723	723

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02 037 00 14

S97..

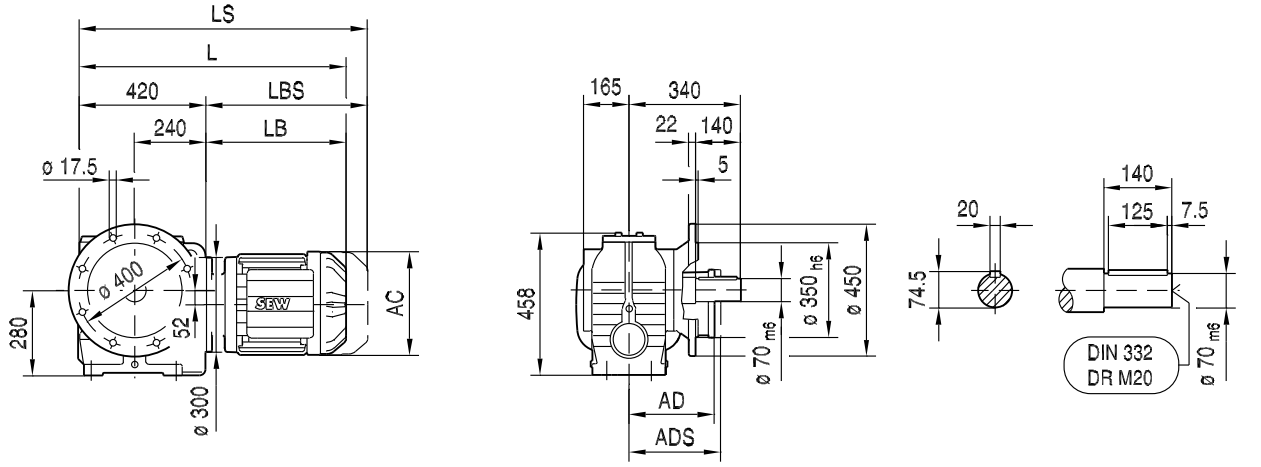


(→ 🗎 155)	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	179	197	197	221	221	261	261	314	314	357
AD	140	157	157	170	170	228	228	253	253	268
ADS	150	158	158	172	172	228	228	253	253	268
L	712	708	758	789	839	857	883	949	949	972
LS	805	802	852	901	951	995	1020	1138	1138	1161
LB	292	288	338	369	419	437	463	529	529	552
LBS	385	382	432	481	531	575	600	718	718	741

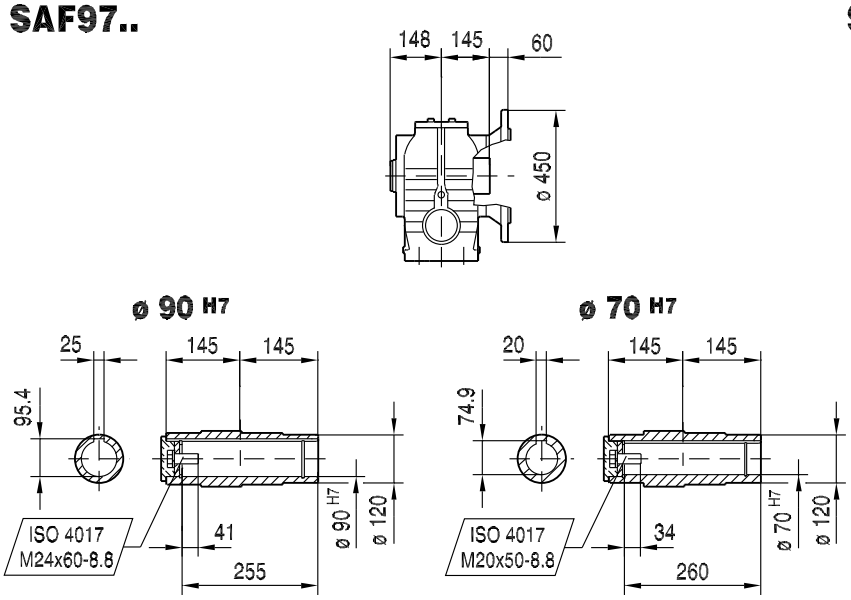
21933189/EN – 11/2015

SF97..

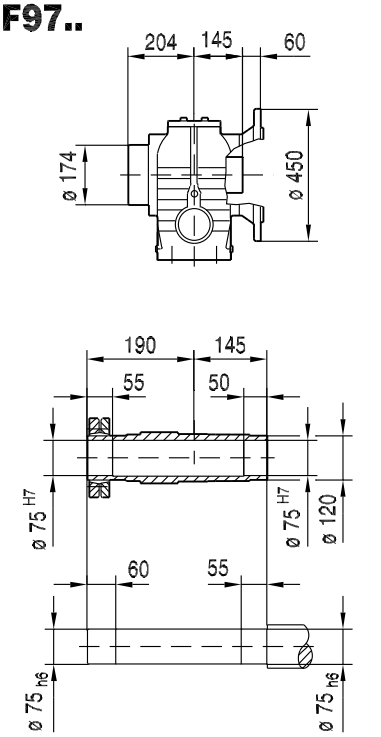
02 038 00 14



SAF97..



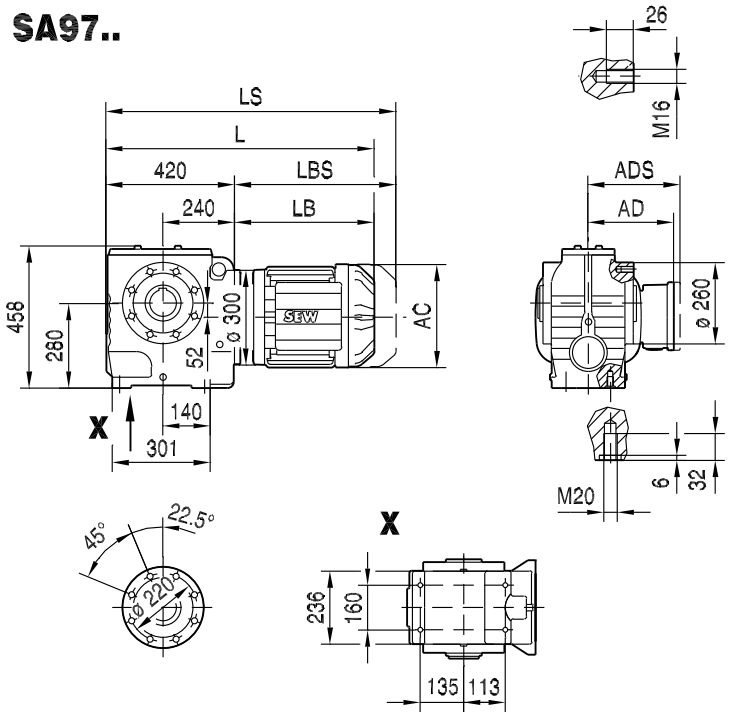
SHF97..



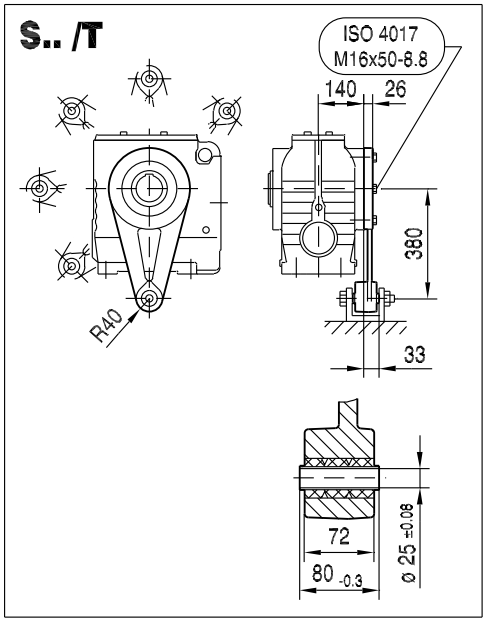
(→ 155)	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	179	197	197	221	221	261	261	314	314	357
AD	140	157	157	170	170	228	228	253	253	268
ADS	150	158	158	172	172	228	228	253	253	268
L	712	708	758	789	839	857	883	949	949	972
LS	805	802	852	901	951	995	1020	1138	1138	1161
LB	292	288	338	369	419	437	463	529	529	552
LBS	385	382	432	481	531	575	600	718	718	741

02 039 00 14

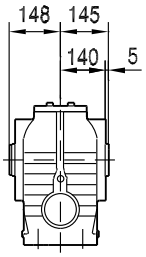
SA97..



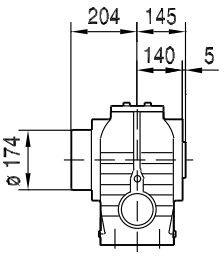
S.. /T

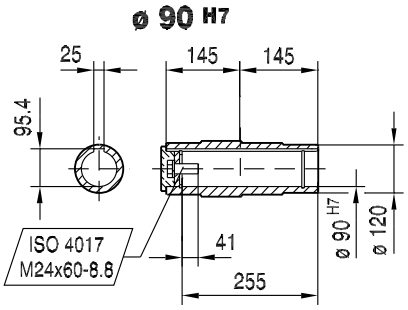


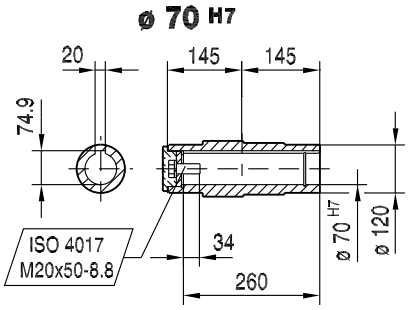
SA97..

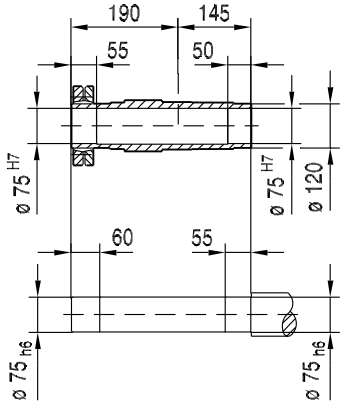


SH97..







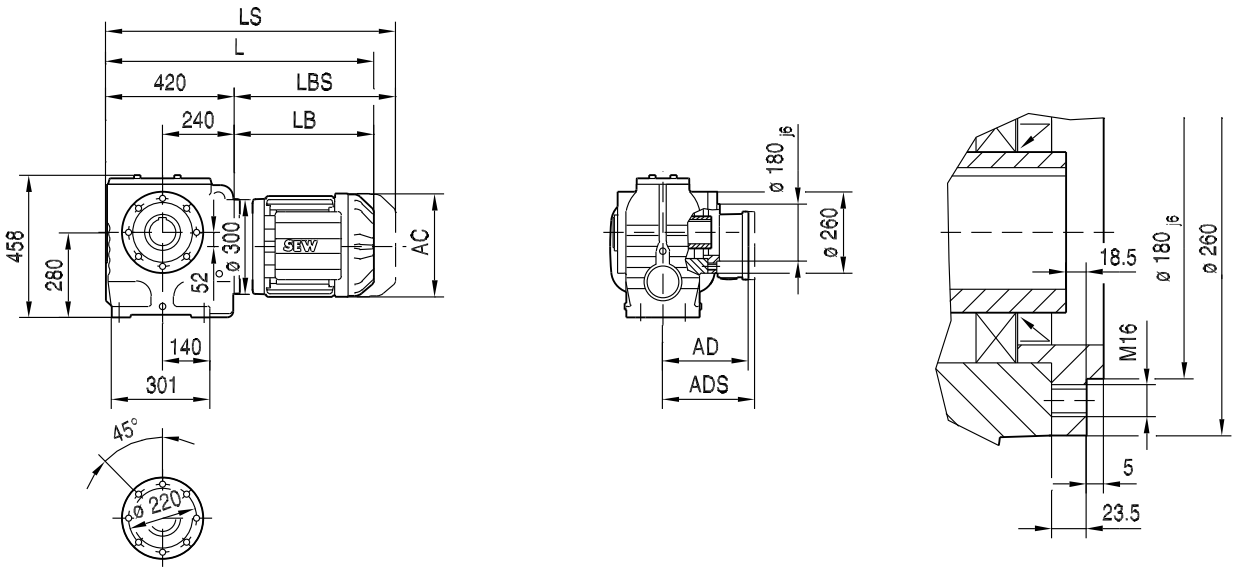


(→ 155)	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	179	197	197	221	221	261	261	314	314	357
AD	140	157	157	170	170	228	228	253	253	268
ADS	150	158	158	172	172	228	228	253	253	268
L	712	708	758	789	839	857	883	949	949	972
LS	805	802	852	901	951	995	1020	1138	1138	1161
LB	292	288	338	369	419	437	463	529	529	552
LBS	385	382	432	481	531	575	600	718	718	741

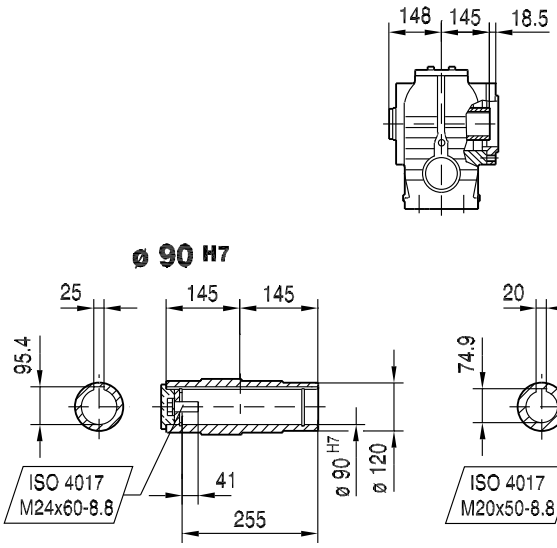
21933189/EN – 11/2015

02 040 00 14

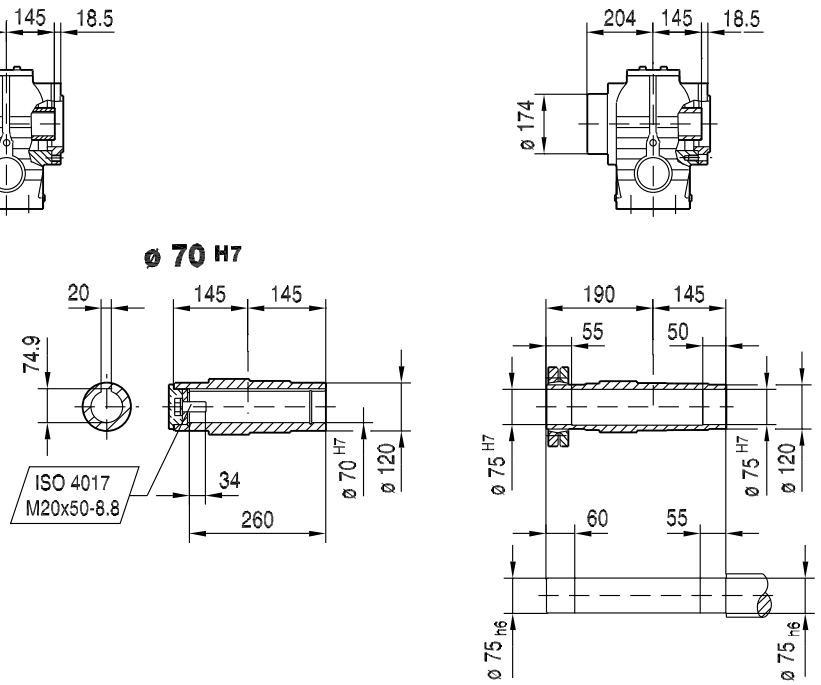
SAZ97..



SAZ97..



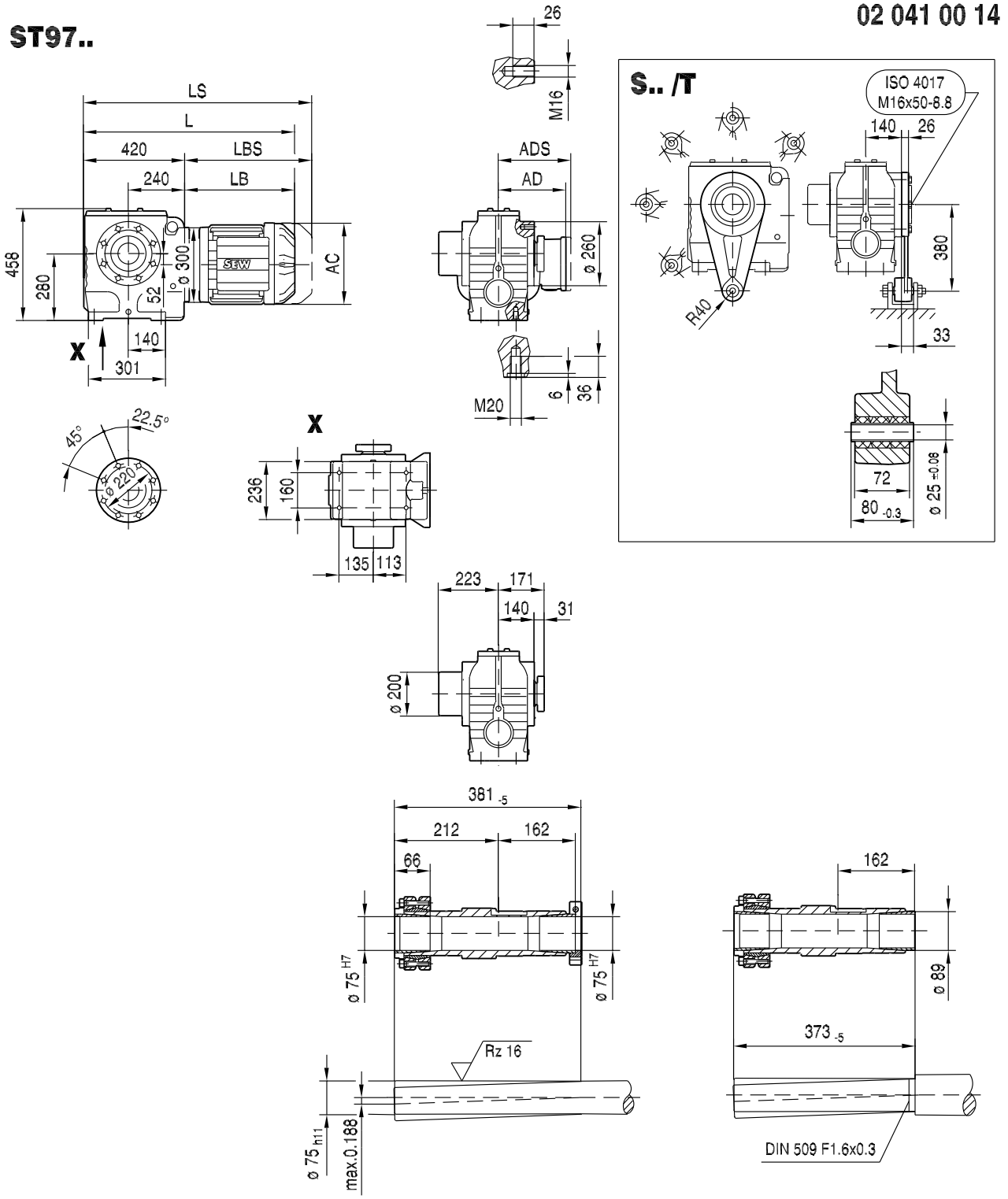
SHZ97..



(→ 155)	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	179	197	197	221	221	261	261	314	314	357
AD	140	157	157	170	170	228	228	253	253	268
ADS	150	158	158	172	172	228	228	253	253	268
L	712	708	758	789	839	857	883	949	949	972
LS	805	802	852	901	951	995	1020	1138	1138	1161
LB	292	288	338	369	419	437	463	529	529	552
LBS	385	382	432	481	531	575	600	718	718	741

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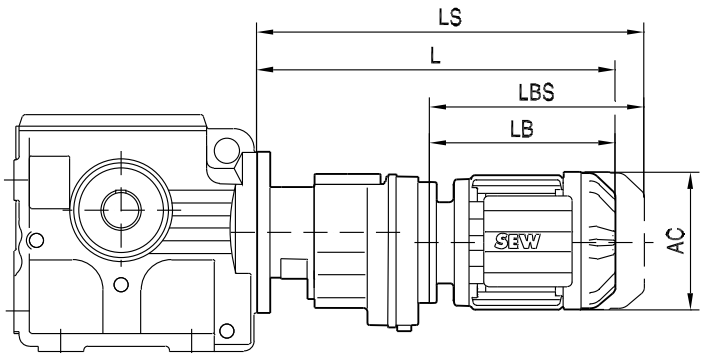
02 041 00 14



(→ 155)	DRN90L	DRN100LS	DRN100L	DRN112M	DRN132S	DRN132M	DRN132L	DRN160M	DRN160L	DRN180..
AC	179	197	197	221	221	261	261	314	314	357
AD	140	157	157	170	170	228	228	253	253	268
ADS	150	158	158	172	172	228	228	253	253	268
L	712	708	758	789	839	857	883	949	949	972
LS	805	802	852	901	951	995	1020	1138	1138	1161
LB	292	288	338	369	419	437	463	529	529	552
LBS	385	382	432	481	531	575	600	718	718	741

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02 080 00 06



(→ 155)		AC	L	LS	LB	LBS
S..37R17	**DR63..**	132	324	379	149	204
S..47R17	**DR63..**	132	324	379	149	204
	DR71S	139	335	403	160	228
S..57R17	**DR63..**	132	324	379	149	204
	DR71S	139	335	403	160	228
	DR71M	139	360	428	185	253
S..67R37	**DR63..**	132	356	411	191	246
	DR71S	139	367	434	202	269
	DR71M	139	392	459	227	294
	DRN80M	156	446	527	281	362
	DRN90S	179	448	541	283	376
S..77R37	**DR63..**	132	348	403	191	246
	DR71S	139	359	426	202	269
	DR71M	139	384	451	227	294
	DRN80M	156	438	519	281	362
	DRN90S	179	440	533	283	376
	DRN90L	179	472	565	315	408
S..87R57	**DR63..**	132	412	467	185	240
	DR71S	139	423	491	196	264
	DR71M	139	448	516	221	289
	DRN80M	156	502	583	275	356
	DRN90S	179	504	597	277	370
	DRN90L	179	536	629	309	402
	DRN100LS	197	533	626	305	398
S..97R57	**DR63..**	132	407	462	185	240
	DR71S	139	418	486	196	264
	DR71M	139	443	511	221	289
	DRN80M	156	497	578	275	356
	DRN90S	179	499	592	277	370
	DRN90L	179	531	624	309	402
	DRN100LS	197	528	621	305	398
	DRN100L	197	578	671	355	448
	DRN112M	221	608	720	386	498

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11.6 Technical data S. SF. SA. SAF 37

3400 - 2800 1/min

i_{tot}	i_{worm}	n_e = 3400 1/min				n_e = 3200 1/min				n_e = 2800 1/min			
		n_a 1/min	M_{amax} Nm	P_e kW	η %	n_a 1/min	M_{amax} Nm	P_e kW	η %	n_a 1/min	M_{amax} Nm	P_e kW	η %
157.43	38/1	22	78	0.31	57	20	80	0.30	57	18	82	0.27	57
144.40		24	76	0.33	58	22	78	0.31	58	19	80	0.28	57
122.94		28	74	0.37	58	26	75	0.35	58	23	78	0.32	58
106.00		32	71	0.41	59	30	72	0.39	59	26	76	0.36	59
98.80		34	70	0.43	59	32	72	0.41	59	28	75	0.38	59
86.36		39	68	0.47	60	37	69	0.45	60	32	72	0.41	60
80.96		42	66	0.49	60	40	68	0.47	60	35	72	0.43	60
71.44		48	55	0.47	58	45	64	0.50	60	39	70	0.47	61
63.33		54	37	0.41	51	51	51	0.47	57	44	67	0.51	61
53.83		63	29	0.39	49	59	32	0.40	50	52	53	0.49	59
55.93	27/2	61	70	0.58	77	57	71	0.56	76	50	72	0.50	76
51.30		66	68	0.61	77	62	70	0.60	77	55	72	0.54	76
43.68		78	66	0.70	77	73	67	0.67	77	64	70	0.61	77
37.66		90	64	0.78	78	85	65	0.74	78	74	68	0.68	78
35.10		97	62	0.81	78	91	64	0.78	78	80	66	0.71	78
30.68		111	61	0.90	78	104	62	0.87	78	91	64	0.78	78
28.76		118	58	0.92	78	111	61	0.91	78	97	64	0.83	78
25.38		134	47	0.86	77	126	53	0.90	78	110	62	0.91	79
22.50		151	31	0.69	71	142	43	0.84	76	124	57	0.94	79
19.13		178	24	0.65	69	167	27	0.67	70	146	44	0.87	77
19.89	24/5	171	42	0.88	86	161	43	0.85	86	141	44	0.76	86
18.24		186	41	0.93	86	175	42	0.90	86	154	44	0.83	86
15.53		219	39	1.0	86	206	40	1.0	86	180	42	0.92	86
13.39		254	37	1.1	86	239	39	1.1	86	209	41	1.0	86
12.48		272	37	1.2 *	86	256	38	1.2 *	86	224	40	1.1	86
10.91		312	35	1.3 *	86	293	36	1.3 *	86	257	39	1.2 *	87
10.23		332	35	1.4 *	87	313	36	1.4 *	87	274	38	1.3 *	87
9.02		377	31	1.4 *	86	355	34	1.5 *	87	310	36	1.3 *	87
8.00		425	20	1.1	82	400	29	1.4 *	86	350	35	1.5 *	87
6.80		500	16	1.0	81	471	18	1.1	82	412	29	1.4 *	86
6.33	19/5	537	24	1.5 *	87	506	27	1.6 *	88	442	32	1.7 *	88
5.38		632	20	1.5 *	87	595	22	1.6 *	87	520	26	1.6 *	88
4.86		700	18	1.5 *	87	658	19	1.5 *	87	576	24	1.6 *	88
3.97		856	14	1.5 *	86	806	15	1.5 *	87	705	19	1.6 *	88

* P_{emax} = 1.1 kW

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2200 - 1400 1/min

i_{tot}	i_{worm}	n_e = 2200 1/min				n_e = 1700 1/min				n_e = 1400 1/min			
		n_a 1/min	M_{amax} Nm	P_e kW	η %	n_a 1/min	M_{amax} Nm	P_e kW	η %	n_a 1/min	M_{amax} Nm	P_e kW	η %
157.43	38/1	14	87	0.23	56	11	91	0.19	54	8.9	92	0.16	53
144.40		15	86	0.24	56	12	90	0.20	55	9.7	92	0.17	54
122.94		18	83	0.27	57	14	87	0.22	56	11	91	0.20	55
106.00		21	81	0.30	58	16	86	0.25	57	13	88	0.22	56
98.80		22	80	0.32	58	17	85	0.27	57	14	87	0.23	56
86.36		25	78	0.35	59	20	82	0.29	58	16	86	0.25	57
80.96		27	77	0.37	60	21	82	0.31	59	17	85	0.27	58
71.44		31	75	0.40	60	24	80	0.33	60	20	84	0.29	59
63.33		35	73	0.44	61	27	79	0.37	60	22	82	0.32	60
53.83		41	69	0.48	62	32	76	0.41	61	26	80	0.36	61
55.93	27/2	39	77	0.42	75	30	81	0.35	74	25	81	0.29	73
51.30		43	76	0.45	76	33	80	0.37	75	27	81	0.31	74
43.68		50	74	0.51	76	39	78	0.42	76	32	81	0.36	75
37.66		58	72	0.57	77	45	76	0.47	76	37	79	0.41	76
35.10		63	71	0.60	77	48	75	0.50	77	40	78	0.43	76
30.68		72	70	0.67	78	55	73	0.55	77	46	76	0.47	76
28.76		76	68	0.70	78	59	73	0.58	77	49	75	0.50	77
25.38		87	67	0.77	79	67	71	0.64	78	55	74	0.55	77
22.50		98	66	0.85	79	76	70	0.70	79	62	73	0.61	78
19.13		115	63	0.95	80	89	68	0.80	79	73	71	0.69	79
19.89	24/5	111	48	0.65	85	85	50	0.53	85	70	52	0.46	84
18.24		121	47	0.70	85	93	49	0.56	85	77	52	0.50	84
15.53		142	45	0.78	86	109	48	0.64	85	90	50	0.56	85
13.39		164	44	0.88	86	127	47	0.73	86	105	49	0.63	85
12.48		176	43	0.92	86	136	46	0.76	86	112	48	0.66	86
10.91		202	42	1.0	87	156	45	0.85	86	128	48	0.75	86
10.23		215	41	1.1	87	166	45	0.90	87	137	47	0.78	86
9.02		244	40	1.2 *	87	188	43	0.98	87	155	46	0.86	87
8.00		275	39	1.3 *	87	213	43	1.1	87	175	45	0.95	87
6.80		324	37	1.4 *	88	250	41	1.2 *	88	206	43	1.1	87
6.33	19/5	348	35	1.4 *	88	269	35	1.1	88	221	35	0.93	87
5.38		409	34	1.6 *	88	316	34	1.3 *	88	260	34	1.1	88
4.86		453	32	1.7 *	89	350	33	1.4 *	88	288	33	1.1	88
3.97		554	26	1.7 *	88	428	32	1.6 *	89	353	32	1.3 *	88

* P_{emax} = 1.1 kW

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1100 - 700 1/min

i_{tot}	i_{worm}	n_e = 1100 1/min				n_e = 900 1/min				n_e = 700 1/min			
		n_a 1/min	M_{amax} Nm	P_e kW	η %	n_a 1/min	M_{amax} Nm	P_e kW	η %	n_a 1/min	M_{amax} Nm	P_e kW	η %
157.43	38/1	7.0	92	0.13	52	5.7	92	0.11	50	4.4	92	0.09	49
144.40		7.6	92	0.14	52	6.2	92	0.12	51	4.8	92	0.09	50
122.94		8.9	92	0.16	54	7.3	92	0.14	52	5.7	92	0.11	51
106.00		10	92	0.18	55	8.5	92	0.15	53	6.6	92	0.12	52
98.80		11	92	0.19	55	9.1	92	0.16	54	7.1	92	0.13	52
86.36		13	90	0.21	56	10	92	0.18	55	8.1	92	0.15	53
80.96		14	89	0.22	57	11	92	0.19	55	8.6	92	0.16	54
71.44		15	87	0.24	57	13	91	0.21	56	9.8	92	0.17	55
63.33		17	86	0.27	58	14	89	0.23	57	11	92	0.19	56
53.83		20	84	0.30	60	17	87	0.26	58	13	91	0.22	57
55.93	27/2	20	87	0.25	72	16	91	0.21	71	13	92	0.17	70
51.30		21	87	0.27	73	18	90	0.23	72	14	92	0.19	71
43.68		25	84	0.30	74	21	87	0.26	73	16	92	0.22	71
37.66		29	82	0.34	75	24	86	0.29	74	19	89	0.24	72
35.10		31	82	0.36	75	26	84	0.31	74	20	88	0.25	73
30.68		36	80	0.40	76	29	82	0.34	75	23	87	0.28	74
28.76		38	79	0.42	76	31	82	0.36	75	24	86	0.30	74
25.38		43	78	0.46	77	35	81	0.40	76	28	84	0.33	75
22.50		49	77	0.51	77	40	79	0.43	76	31	82	0.36	75
19.13		58	75	0.58	78	47	78	0.50	77	37	81	0.41	76
19.89	24/5	55	55	0.38	83	45	58	0.33	83	35	60	0.27	82
18.24		60	54	0.41	84	49	56	0.35	83	38	60	0.29	82
15.53		71	53	0.47	84	58	55	0.40	84	45	58	0.33	83
13.39		82	52	0.53	85	67	54	0.45	84	52	56	0.37	83
12.48		88	51	0.55	85	72	53	0.47	84	56	55	0.39	84
10.91		101	50	0.62	86	82	52	0.53	85	64	54	0.43	84
10.23		108	49	0.64	86	88	51	0.55	85	68	54	0.46	84
9.02		122	48	0.71	86	100	50	0.61	86	78	53	0.51	85
8.00		138	47	0.78	87	113	49	0.67	86	88	52	0.56	85
6.80		162	46	0.90	87	132	48	0.77	87	103	51	0.64	86
6.33	19/5	174	45	0.94	87	142	45	0.77	87	111	45	0.61	86
5.38		204	43	1.1	88	167	43	0.86	87	130	43	0.68	87
4.86		226	42	1.1	88	185	42	0.93	88	144	42	0.73	87
3.97		277	40	1.3 *	88	227	40	1.1	88	176	40	0.84	88

* P_{emax} = 1.1 kW

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500 - 10 1/min

i_{tot}	i_{worm}	n_e = 500 1/min				n_e = 250 1/min				n_e = 10 1/min			
		n_a 1/min	M_{amax} Nm	P_e kW	η %	n_a 1/min	M_{amax} Nm	P_e kW	η %	n_a 1/min	M_{amax} Nm	P_e kW	η %
157.43	38/1	3.2	92	0.06	47	1.6	92	0.033	46	0.06	92	< 0.05	26
144.40		3.5	92	0.07	48	1.7	92	0.036	46	0.07	92	< 0.05	27
122.94		4.1	92	0.08	49	2.0	92	0.042	46	0.08	92	< 0.05	29
106.00		4.7	92	0.09	50	2.4	92	0.049	47	0.09	92	< 0.05	30
98.80		5.1	92	0.10	50	2.5	92	0.05	47	0.10	92	< 0.05	31
86.36		5.8	92	0.11	51	2.9	92	0.06	47	0.12	92	< 0.05	32
80.96		6.2	92	0.12	51	3.1	92	0.06	47	0.12	92	< 0.05	33
71.44		7.0	92	0.13	52	3.5	92	0.07	48	0.14	92	< 0.05	35
63.33		7.9	92	0.14	53	3.9	92	0.08	49	0.16	92	< 0.05	37
53.83		9.3	92	0.16	55	4.6	92	0.09	50	0.19	92	< 0.05	39
55.93	27/2	8.9	92	0.13	69	4.5	92	0.06	67	0.18	92	< 0.05	48
51.30		9.7	92	0.14	69	4.9	92	0.07	67	0.19	92	< 0.05	49
43.68		11	92	0.16	70	5.7	92	0.08	67	0.23	92	< 0.05	51
37.66		13	92	0.18	71	6.6	92	0.10	67	0.27	92	< 0.05	53
35.10		14	92	0.19	71	7.1	92	0.10	68	0.28	92	< 0.05	54
30.68		16	92	0.22	72	8.1	92	0.11	68	0.33	92	< 0.05	56
28.76		17	91	0.23	72	8.7	92	0.12	69	0.35	92	< 0.05	57
25.38		20	89	0.25	73	9.9	92	0.14	69	0.39	92	< 0.05	59
22.50		22	87	0.28	74	11	92	0.15	70	0.44	92	< 0.05	61
19.13		26	85	0.31	75	13	92	0.18	71	0.52	92	< 0.05	62
19.89	24/5	25	68	0.22	81	13	72	0.12	79	0.50	72	< 0.05	65
18.24		27	66	0.23	81	14	72	0.13	79	0.55	72	< 0.05	66
15.53		32	63	0.26	82	16	72	0.15	79	0.64	72	< 0.05	68
13.39		37	61	0.29	82	19	72	0.18	80	0.75	72	< 0.05	71
12.48		40	59	0.30	82	20	72	0.19	80	0.80	72	< 0.05	72
10.91		46	58	0.34	83	23	71	0.21	81	0.92	71	< 0.05	73
10.23		49	57	0.35	83	24	70	0.22	81	0.98	70	< 0.05	73
9.02		55	56	0.39	84	28	66	0.24	81	1.1	66	< 0.05	74
8.00		63	55	0.43	84	31	63	0.25	82	1.2	63	< 0.05	74
6.80		74	54	0.49	85	37	61	0.29	82	1.5	61	< 0.05	75
6.33	19/5	79	45	0.44	85	39	45	0.23	83	1.6	45	<0.05	80
5.38		93	43	0.49	86	46	43	0.25	83	1.9	43	<0.05	80
4.86		103	42	0.53	86	51	42	0.27	84	2.1	42	<0.05	80
3.97		126	40	0.61	87	63	40	0.31	84	2.5	40	<0.05	80

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11.7 Technical data S. SF. SA. SAF 47

3400 - 2800 1/min

i_{tot}	i_{worm}	n_e = 3400 1/min				n_e = 3200 1/min				n_e = 2800 1/min			
		n_a 1/min	M_{amax} Nm	P_e kW	η %	n_a 1/min	M_{amax} Nm	P_e kW	η %	n_a 1/min	M_{amax} Nm	P_e kW	η %
201.00	42/1	17	150	0.44	60	16	150	0.42	60	14	150	0.37	59
184.80		18	150	0.48	60	17	150	0.45	60	15	150	0.40	59
158.12		22	150	0.55	61	20	150	0.52	61	18	150	0.46	60
137.05		25	150	0.63	62	23	150	0.59	62	20	150	0.52	61
128.10		27	150	0.67	63	25	150	0.63	62	22	150	0.56	62
110.73		31	138	0.70	63	29	148	0.71	63	25	150	0.63	63
94.08		36	113	0.69	62	34	123	0.70	63	30	146	0.72	63
84.00		40	95	0.66	61	38	107	0.69	62	33	130	0.71	63
71.75		47	58	0.55	53	45	82	0.64	60	39	107	0.70	63
67.20		51	53	0.54	52	48	68	0.60	57	42	99	0.69	62
56.61		60	40	0.51	49	57	46	0.53	51	49	75	0.65	60
69.39	29/2	49	140	0.91	79	46	140	0.86	78	40	140	0.76	78
63.80		53	140	0.99	79	50	140	0.93	79	44	140	0.82	78
54.59		62	140	1.1	80	59	140	1.1	79	51	140	0.95	79
47.32		72	139	1.3	80	68	140	1.2	80	59	140	1.1	80
44.22		77	129	1.3	80	72	139	1.3	80	63	140	1.2	80
38.23		89	112	1.3	80	84	120	1.3	80	73	139	1.3	80
32.48		105	91	1.3	79	99	100	1.3	80	86	117	1.3	80
29.00		117	76	1.2	78	110	86	1.3	79	97	104	1.3	80
24.77		137	47	0.94	72	129	66	1.2	77	113	87	1.3	80
23.20		147	42	0.90	71	138	54	1.0	75	121	79	1.3	79
19.54		174	32	0.84	69	164	37	0.89	71	143	59	1.1	77
20.33	27/5	167	100	2.0 *	88	157	100	1.9 *	88	138	100	1.6 *	88
17.62		193	97	2.2 *	88	182	100	2.2 *	88	159	100	1.9 *	88
16.47		206	90	2.2 *	88	194	97	2.2 *	88	170	100	2.0 *	88
14.24		239	78	2.2 *	88	225	83	2.2 *	88	197	97	2.3 *	88
12.10		281	63	2.1 *	88	264	69	2.2 *	88	231	82	2.2 *	88
10.80		315	53	2.0 *	87	296	60	2.1 *	88	259	72	2.2 *	88
9.23		368	32	1.5	83	347	45	1.9 *	86	303	60	2.2 *	88
8.64		394	29	1.5	82	370	37	1.7 *	85	324	55	2.1 *	88
7.28		467	22	1.3	81	440	25	1.4	82	385	41	1.9 *	86
6.83	20/5	498	34	2.0 *	87	469	37	2.1 *	88	410	45	2.2 *	88
6.4		531	31	2.0 *	87	500	34	2.0 *	87	438	42	2.2 *	88
5.39		631	24	1.8 *	86	594	27	1.9 *	87	519	34	2.1 *	88
4.76		714	20	1.8 *	85	672	23	1.9 *	86	588	29	2.0 *	87
4		850	16	1.7 *	85	800	18	1.8 *	85	700	23	1.9 *	87

* P_{emax} = 1.5 kW

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2200 - 1400 1/min

i_{tot}	i_{worm}	n_e = 2200 1/min				n_e = 1700 1/min				n_e = 1400 1/min			
		n_a 1/min	M_{amax} Nm	P_e kW	η %	n_a 1/min	M_{amax} Nm	P_e kW	η %	n_a 1/min	M_{amax} Nm	P_e kW	η %
201.00	42/1	11	167	0.33	58	8.5	170	0.27	56	7.0	170	0.23	55
184.80		12	167	0.36	58	9.2	168	0.29	57	7.6	170	0.24	56
158.12		14	167	0.41	60	11	168	0.33	58	8.9	170	0.28	57
137.05		16	165	0.46	60	12	167	0.37	59	10	168	0.31	58
128.10		17	165	0.49	61	13	167	0.39	59	11	168	0.33	58
110.73		20	165	0.55	62	15	167	0.44	61	13	168	0.38	59
94.08		23	165	0.64	63	18	167	0.51	62	15	168	0.43	60
84.00		26	162	0.70	64	20	167	0.57	62	17	167	0.48	61
71.75		31	145	0.73	64	24	167	0.65	63	20	167	0.55	62
67.20		33	137	0.73	64	25	164	0.68	64	21	167	0.58	63
56.61		39	115	0.73	64	30	152	0.74	65	25	165	0.67	64
69.39	29/2	32	155	0.67	77	24	155	0.52	76	20	155	0.44	75
63.80		34	155	0.72	77	27	155	0.57	76	22	155	0.47	75
54.59		40	155	0.84	78	31	155	0.66	77	26	155	0.55	76
47.32		46	155	0.96	79	36	155	0.75	78	30	155	0.63	77
44.22		50	155	1.0	79	38	155	0.80	78	32	155	0.67	77
38.23		58	154	1.2	80	44	155	0.92	79	37	155	0.76	78
32.48		68	146	1.3	80	52	155	1.1	80	43	155	0.89	79
29.00		76	137	1.3	81	59	154	1.2	80	48	155	0.99	79
24.77		89	117	1.3	81	69	145	1.3	81	57	155	1.1	80
23.20		95	111	1.4	81	73	142	1.3	81	60	152	1.2	80
19.54		113	92	1.3	81	87	123	1.4	81	72	144	1.3	81
20.33	27/5	108	109	1.4	87	84	110	1.1	87	69	110	0.92	86
17.62		125	108	1.6 *	88	96	109	1.3	87	79	110	1.1	86
16.47		134	108	1.7 *	88	103	109	1.4	87	85	110	1.1	87
14.24		154	108	2.0 *	88	119	109	1.6 *	88	98	110	1.3	87
12.10		182	105	2.3 *	89	140	109	1.8 *	88	116	109	1.5	88
10.80		204	95	2.3 *	89	157	108	2.0 *	88	130	109	1.7 *	88
9.23		238	82	2.3 *	89	184	105	2.3 *	89	152	109	2.0 *	88
8.64		255	77	2.3 *	89	197	100	2.3 *	89	162	109	2.1 *	88
7.28		302	64	2.3 *	89	234	86	2.4 *	89	192	103	2.3 *	89
6.83	20/5	322	62	2.4 *	89	249	78	2.3 *	89	205	78	1.9 *	89
6.4		344	58	2.3 *	89	266	76	2.4 *	89	219	76	2.0 *	89
5.39		408	48	2.3 *	89	315	65	2.4 *	89	260	74	2.3 *	89
4.76		462	42	2.3 *	89	357	58	2.4 *	89	294	72	2.5 *	90
4		550	34	2.2 *	88	425	48	2.4 *	89	350	61	2.5 *	90

* P_{emax} = 1.5 kW

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1100 - 700 1/min

i_{tot}	i_{worm}	n_e = 1100 1/min				n_e = 900 1/min				n_e = 700 1/min			
		n_a 1/min	M_{amax} Nm	P_e kW	η %	n_a 1/min	M_{amax} Nm	P_e kW	η %	n_a 1/min	M_{amax} Nm	P_e kW	η %
201.00	42/1	5.5	176	0.19	53	4.5	180	0.16	52	3.5	185	0.13	51
184.80		6.0	174	0.20	54	4.9	178	0.17	53	3.8	183	0.14	51
158.12		7.0	172	0.23	55	5.7	176	0.20	54	4.4	180	0.16	52
137.05		8.0	171	0.26	56	6.6	172	0.22	55	5.1	178	0.18	53
128.10		8.6	171	0.27	57	7.0	172	0.23	55	5.5	176	0.19	54
110.73		9.9	169	0.30	58	8.1	171	0.26	56	6.3	174	0.21	55
94.08		12	169	0.35	59	9.6	171	0.30	57	7.4	172	0.24	56
84.00		13	169	0.39	60	11	169	0.32	58	8.3	171	0.26	57
71.75		15	169	0.45	61	13	169	0.37	60	9.8	171	0.30	58
67.20		16	169	0.47	61	13	169	0.40	60	10	171	0.32	58
56.61		19	169	0.55	63	16	169	0.46	61	12	171	0.37	60
69.39	29/2	16	173	0.39	74	13	176	0.33	73	10	180	0.27	71
63.80		17	173	0.42	74	14	175	0.35	73	11	180	0.29	72
54.59		20	171	0.48	75	16	173	0.40	74	13	176	0.33	73
47.32		23	171	0.55	76	19	173	0.46	75	15	175	0.37	73
44.22		25	171	0.58	76	20	171	0.49	75	16	175	0.39	74
38.23		29	169	0.66	77	24	171	0.56	76	18	173	0.44	75
32.48		34	169	0.77	78	28	171	0.65	77	22	171	0.51	75
29.00		38	170	0.86	78	31	171	0.72	77	24	171	0.57	76
24.77		44	169	0.99	79	36	170	0.83	78	28	171	0.66	77
23.20		47	164	1.0	79	39	170	0.88	79	30	171	0.70	77
19.54		56	154	1.1	80	46	165	1.0	79	36	170	0.81	78
20.33	27/5	54	112	0.75	85	44	114	0.63	84	34	116	0.50	83
17.62		62	112	0.86	86	51	113	0.71	85	40	115	0.57	84
16.47		67	112	0.91	86	55	113	0.76	85	43	114	0.60	84
14.24		77	111	1.0	86	63	112	0.86	86	49	113	0.69	85
12.10		91	111	1.2	87	74	111	1.0	86	58	113	0.80	85
10.80		102	111	1.4	87	83	111	1.1	87	65	112	0.88	86
9.23		119	110	1.6 *	88	98	111	1.3	87	76	112	1.0	86
8.64		127	109	1.7 *	88	104	111	1.4	87	81	112	1.1	87
7.28		151	109	2.0 *	88	124	111	1.6 *	88	96	111	1.3	87
6.83	20/5	161	95	1.8 *	89	132	95	1.5	88	102	95	1.2	88
6.4		172	93	1.9 *	89	141	93	1.6 *	88	109	93	1.2	88
5.39		204	89	2.1 *	89	167	89	1.8 *	89	130	89	1.4	88
4.76		231	87	2.4 *	89	189	87	1.9 *	89	147	87	1.5	89
4		275	78	2.5 *	90	225	84	2.2 *	89	175	84	1.7 *	89

* P_{emax} = 1.5 kW

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500 - 10 1/min

i_{tot}	i_{worm}	n_e = 500 1/min				n_e = 250 1/min				n_e = 10 1/min			
		n_a 1/min	M_{amax} Nm	P_e kW	η %	n_a 1/min	M_{amax} Nm	P_e kW	η %	n_a 1/min	M_{amax} Nm	P_e kW	η %
201.00	42/1	2.5	185	0.10	49	1.2	185	0.05	48	0.05	185	< 0.05	32
184.80		2.7	185	0.11	49	1.4	185	0.05	48	0.05	185	< 0.05	32
158.12		3.2	185	0.12	50	1.6	185	0.06	48	0.06	185	< 0.05	35
137.05		3.6	185	0.14	51	1.8	185	0.07	48	0.07	185	< 0.05	37
128.10		3.9	183	0.15	51	2.0	185	0.08	48	0.08	185	< 0.05	38
110.73		4.5	181	0.16	52	2.3	185	0.09	49	0.09	185	< 0.05	40
94.08		5.3	178	0.19	54	2.7	185	0.10	49	0.11	185	< 0.05	42
84.00		6.0	176	0.20	54	3.0	185	0.12	50	0.12	185	< 0.05	43
71.75		7.0	174	0.23	56	3.5	185	0.13	51	0.14	185	< 0.05	44
67.20		7.4	172	0.24	56	3.7	185	0.14	51	0.15	185	< 0.05	44
56.61		8.8	172	0.28	57	4.4	181	0.16	53	0.18	181	< 0.05	45
69.39	29/2	7.2	185	0.20	70	3.6	185	0.10	68	0.14	185	< 0.05	56
63.80		7.8	185	0.22	70	3.9	185	0.11	68	0.16	185	< 0.05	57
54.59		9.2	185	0.25	71	4.6	185	0.13	68	0.18	185	< 0.05	60
47.32		11	181	0.28	72	5.3	185	0.15	68	0.21	185	< 0.05	61
44.22		11	180	0.30	72	5.7	185	0.16	69	0.23	185	< 0.05	62
38.23		13	178	0.33	73	6.5	185	0.18	69	0.26	185	< 0.05	63
32.48		15	174	0.38	74	7.7	185	0.21	70	0.31	185	< 0.05	64
29.00		17	174	0.42	74	8.6	185	0.24	71	0.34	185	< 0.05	65
24.77		20	172	0.48	75	10	183	0.27	71	0.40	183	< 0.05	66
23.20		22	172	0.51	76	11	181	0.28	72	0.43	181	< 0.05	66
19.54		26	172	0.60	77	13	178	0.33	73	0.51	178	< 0.05	67
20.33	27/5	25	124	0.39	82	12	157	0.25	80	0.49	157	< 0.05	75
17.62		28	120	0.43	83	14	149	0.28	80	0.57	149	< 0.05	76
16.47		30	118	0.45	83	15	145	0.29	81	0.61	145	< 0.05	76
14.24		35	116	0.51	84	18	138	0.31	81	0.70	138	< 0.05	77
12.10		41	115	0.59	84	21	131	0.35	82	0.83	131	< 0.05	77
10.80		46	114	0.65	85	23	127	0.37	82	0.93	127	< 0.05	77
9.23		54	113	0.75	85	27	121	0.41	83	1.1	121	< 0.05	78
8.64		58	113	0.80	86	29	120	0.44	83	1.2	120	< 0.05	78
7.28		69	112	0.93	86	34	117	0.50	84	1.4	117	< 0.05	78
6.83	20/5	73	95	0.84	87	7	95	0.43	84	1.5	95	<0.05	81
6.4		78	93	0.88	87	39	93	0.45	85	1.6	93	<0.05	81
5.39		93	89	0.99	87	46	89	0.51	85	1.9	89	<0.05	81
4.76		105	87	1.1	88	53	87	0.56	86	2.1	87	<0.05	81
4		125	84	1.2	88	63	84	0.64	86	2.5	84	<0.05	81

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11.8 Technical data S. SF. SA. SAF 57

3400 - 2800 rpm

i_{tot}	i_{worm}	n_e = 3400 rpm				n_e = 3200 rpm				n_e = 2800 rpm			
		n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %
201.00	42/1	17	270	0.75	64	16	270	0.71	63	14	270	0.63	62
184.80		18	270	0.81	64	17	270	0.77	64	15	270	0.68	63
158.12		22	270	0.93	65	20	270	0.88	65	18	270	0.78	64
137.05		25	255	1.0	66	23	270	1.0	66	20	270	0.89	65
128.10		27	245	1.0	66	25	255	1.0	66	22	270	0.94	65
110.73		31	215	1.0	67	29	230	1.0	67	25	255	1.0	66
94.08		36	184	1.0	67	34	196	1.0	67	30	225	1.1	67
84.00		40	165	1.0	67	38	175	1.0	67	33	200	1.0	67
71.75		47	139	1.0	67	45	149	1.0	67	39	174	1.1	67
67.20		51	128	1.0	66	48	139	1.0	67	42	164	1.1	67
56.61		60	103	1.0	65	57	114	1.0	66	49	138	1.1	67
69.39	29/2	49	220	1.4	81	46	220	1.3	80	40	220	1.2	80
63.80		53	220	1.5	81	50	220	1.4	81	44	220	1.3	80
54.59		62	220	1.8	81	59	220	1.7	81	51	220	1.5	81
47.32		72	210	1.9	82	68	220	1.9	82	59	220	1.7	81
44.22		77	197	1.9	82	72	205	1.9	82	63	220	1.8	81
38.23		89	174	2.0	82	84	184	2.0	82	73	205	1.9	82
32.48		105	148	2.0	82	99	157	2.0	82	86	180	2.0	82
29.00		117	131	2.0	82	110	141	2.0	82	97	162	2.0	82
24.77		137	111	1.9	82	129	120	2.0	82	113	139	2.0	82
23.20		147	102	1.9	82	138	111	2.0	82	121	131	2.0	82
19.54		174	81	1.8	81	164	90	1.9	82	143	109	2.0	82
20.33	27/5	167	160	3.2 *	89	157	160	3.0	89	138	160	2.6	88
17.62		193	140	3.2 *	89	182	149	3.2 *	89	159	160	3.0	89
16.47		206	132	3.2 *	89	194	140	3.2 *	89	170	158	3.2 *	89
14.24		239	116	3.2 *	89	225	123	3.2 *	89	197	139	3.2 *	89
12.10		281	99	3.3 *	89	264	105	3.3 *	89	231	121	3.3 *	89
10.80		315	88	3.3 *	89	296	94	3.3 *	89	259	108	3.3 *	89
9.23		368	73	3.2 *	89	347	79	3.2 *	89	303	93	3.3 *	89
8.64		394	68	3.2 *	89	370	74	3.2 *	89	324	87	3.3 *	89
7.28		467	54	3.0	88	440	60	3.1 *	89	385	72	3.2 *	89
6.8	20/5	498	54	3.2 *	89	469	58	3.2 *	89	410	69	3.3 *	90
6.4		531	50	3.1 *	89	500	54	3.2 *	89	438	64	3.3 *	89
5.4		631	41	3.1 *	89	594	44	3.1 *	89	519	53	3.2 *	89
4.8		714	35	3.0	88	672	38	3.0	89	588	46	3.2 *	89
4		850	28	2.8	88	800	31	2.9	88	700	38	3.1 *	89

* P_{emax} = 3.0 kW

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2200 - 1400 rpm

i_{tot}	i_{worm}	n_e = 2200 rpm				n_e = 1700 rpm				n_e = 1400 rpm			
		n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %
201.00	42/1	11	295	0.55	61	8.5	295	0.44	59	7.0	295	0.37	58
184.80		12	295	0.60	62	9.2	295	0.48	60	7.6	295	0.40	58
158.12		14	295	0.69	63	11	295	0.55	61	8.9	295	0.46	60
137.05		16	295	0.78	64	12	295	0.62	62	10	295	0.52	61
128.10		17	295	0.83	64	13	295	0.66	62	11	295	0.55	61
110.73		20	290	0.93	65	15	295	0.75	63	13	295	0.63	62
94.08		23	275	1.0	66	18	300	0.88	65	15	295	0.73	63
84.00		26	250	1.0	67	20	285	0.93	65	17	295	0.80	64
71.75		31	220	1.1	67	24	275	1.0	66	20	290	0.91	65
67.20		33	210	1.1	67	25	260	1.0	67	21	285	0.95	65
56.61		39	179	1.1	68	30	225	1.1	67	25	265	1.0	67
69.39	29/2	32	245	1.0	79	24	245	0.81	77	20	245	0.68	76
63.80		34	245	1.1	79	27	245	0.88	78	22	245	0.73	77
54.59		40	245	1.3	80	31	245	1.0	79	26	245	0.85	78
47.32		46	245	1.5	81	36	245	1.2	79	30	245	0.97	79
44.22		50	245	1.6	81	38	245	1.2	80	32	245	1.0	79
38.23		58	245	1.8	81	44	245	1.4	80	37	245	1.2	80
32.48		68	225	1.9	82	52	245	1.7	81	43	245	1.4	80
29.00		76	200	1.9	82	59	245	1.8	81	48	245	1.5	81
24.77		89	177	2.0	82	69	220	1.9	82	57	245	1.8	81
23.20		95	167	2.0	83	73	210	2.0	82	60	245	1.9	82
19.54		113	143	2.0	83	87	183	2.0	83	72	215	2.0	82
20.33	27/5	108	168	2.2	88	84	168	1.7	87	69	168	1.4	87
17.62		125	168	2.5	88	96	168	1.9	88	79	168	1.6	87
16.47		134	169	2.7	88	103	168	2.1	88	85	168	1.7	87
14.24		154	169	3.1 *	89	119	169	2.4	88	98	169	2.0	88
12.10		182	150	3.2 *	89	140	169	2.8	89	116	169	2.3	88
10.80		204	136	3.2 *	89	157	169	3.1 *	89	130	169	2.6	88
9.23		238	119	3.3 *	89	184	149	3.2 *	89	152	169	3.0	89
8.64		255	112	3.3 *	89	197	141	3.3 *	89	162	166	3.2 *	89
7.28		302	96	3.4 *	90	234	122	3.3 *	90	192	146	3.3 *	89
6.8	20/5	322	91	3.4 *	90	249	100	2.9	90	205	100	2.4	89
6.4		344	85	3.4 *	90	266	98	3.0	90	219	98	2.5	89
5.4		408	72	3.4 *	90	315	95	3.5 *	90	260	95	2.9	90
4.8		462	63	3.4 *	90	357	84	3.5 *	90	294	93	3.2 *	90
4		550	53	3.4 *	90	425	71	3.5 *	90	350	88	3.6 *	90

* P_{emax} = 3.0 kW

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1100 - 700 rpm

i_{tot}	i_{worm}	n_e = 1100 rpm				n_e = 900 rpm				n_e = 700 rpm			
		n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %
201.00	42/1	5.5	295	0.30	56	4.5	300	0.26	55	3.5	310	0.21	53
184.80		6.0	295	0.32	57	4.9	300	0.28	55	3.8	305	0.23	54
158.12		7.0	295	0.37	58	5.7	295	0.31	56	4.4	300	0.25	55
137.05		8.0	295	0.42	59	6.6	295	0.35	57	5.1	300	0.29	56
128.10		8.6	295	0.45	59	7.0	295	0.37	58	5.5	295	0.30	56
110.73		9.9	295	0.51	61	8.1	295	0.43	59	6.3	295	0.34	57
94.08		12	295	0.59	62	9.6	295	0.49	60	7.4	295	0.39	58
84.00		13	295	0.65	63	11	295	0.54	61	8.3	295	0.43	59
71.75		15	295	0.74	64	13	295	0.62	62	9.8	295	0.50	61
67.20		16	300	0.80	64	13	295	0.66	63	10	295	0.53	61
56.61		19	290	0.91	65	16	300	0.78	64	12	295	0.61	62
69.39	29/2	16	270	0.60	75	13	270	0.49	74	10	270	0.39	73
63.80		17	270	0.64	76	14	270	0.53	75	11	270	0.42	73
54.59		20	270	0.74	77	16	270	0.62	75	13	270	0.49	74
47.32		23	270	0.85	77	19	270	0.70	76	15	270	0.56	75
44.22		25	270	0.91	78	20	270	0.75	77	16	270	0.59	75
38.23		29	270	1.0	79	24	270	0.86	77	18	270	0.68	76
32.48		34	270	1.2	79	28	270	1.0	78	22	270	0.79	77
29.00		38	270	1.3	80	31	270	1.1	79	24	270	0.88	78
24.77		44	270	1.6	81	36	270	1.3	80	28	270	1.0	78
23.20		47	270	1.7	81	39	270	1.4	80	30	270	1.1	79
19.54		56	250	1.8	81	46	270	1.6	81	36	270	1.3	80
20.33	27/5	54	168	1.1	86	44	170	0.93	85	34	172	0.74	84
17.62		62	169	1.3	86	51	169	1.1	86	40	170	0.83	85
16.47		67	168	1.4	87	55	168	1.1	86	43	170	0.89	85
14.24		77	168	1.6	87	63	168	1.3	86	49	170	1.0	86
12.10		91	169	1.8	88	74	169	1.5	87	58	169	1.2	86
10.80		102	169	2.1	88	83	169	1.7	87	65	169	1.3	87
9.23		119	170	2.4	88	98	168	2.0	88	76	168	1.5	87
8.64		127	170	2.6	88	104	169	2.1	88	81	168	1.6	87
7.28		151	170	3.0	89	124	170	2.5	88	96	170	1.9	88
6.8	20/5	161	120	2.3	89	132	120	1.9	89	102	120	1.5	88
6.4		172	117	2.4	89	141	117	1.9	89	109	117	1.5	88
5.4		204	111	2.6	90	167	111	2.2	89	130	111	1.7	89
4.8		231	108	2.9	90	189	108	2.4	90	147	108	1.9	89
4		275	103	3.3 *	90	225	103	2.7	90	175	103	2.1	89

* P_{emax} = 3.0 kW

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500 - 10 rpm

i_{tot}	i_{worm}	n_e = 500 rpm				n_e = 250 rpm				n_e = 10 rpm			
		n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %
201.00	42/1	2.5	330	0.17	51	1.2	330	0.09	49	0.05	330	< 0.05	42
184.80		2.7	330	0.18	51	1.4	330	0.10	49	0.05	330	< 0.05	43
158.12		3.2	315	0.20	52	1.6	330	0.11	49	0.06	330	< 0.05	44
137.05		3.6	310	0.22	53	1.8	330	0.13	50	0.07	330	< 0.05	45
128.10		3.9	305	0.23	54	2.0	330	0.14	50	0.08	330	< 0.05	46
110.73		4.5	300	0.26	55	2.3	330	0.15	51	0.09	330	< 0.05	46
94.08		5.3	300	0.30	56	2.7	330	0.18	51	0.11	330	< 0.05	47
84.00		6.0	295	0.32	57	3.0	325	0.19	52	0.12	325	< 0.05	47
71.75		7.0	295	0.37	58	3.5	310	0.21	53	0.14	310	< 0.05	48
67.20		7.4	295	0.39	58	3.7	310	0.23	54	0.15	310	< 0.05	48
56.61		8.8	295	0.46	60	4.4	300	0.25	55	0.18	300	< 0.05	48
69.39	29/2	7.2	300	0.32	71	3.6	300	0.17	68	0.14	300	< 0.05	63
63.80		7.8	300	0.34	71	3.9	300	0.18	68	0.16	300	< 0.05	64
54.59		9.2	300	0.40	72	4.6	300	0.21	69	0.18	300	< 0.05	65
47.32		11	300	0.45	73	5.3	300	0.24	70	0.21	300	< 0.05	66
44.22		11	300	0.48	74	5.7	300	0.25	70	0.23	300	< 0.05	66
38.23		13	295	0.54	74	6.5	300	0.29	71	0.26	300	< 0.05	67
32.48		15	295	0.63	75	7.7	300	0.34	71	0.31	300	< 0.05	67
29.00		17	295	0.70	76	8.6	300	0.38	72	0.34	300	< 0.05	67
24.77		20	295	0.81	77	10	300	0.43	73	0.40	300	< 0.05	68
23.20		22	295	0.86	77	11	300	0.46	73	0.43	300	< 0.05	68
19.54		26	295	1.0	78	13	295	0.53	74	0.51	295	< 0.05	68
20.33	27/5	25	181	0.56	83	12	215	0.35	80	0.49	215	< 0.05	77
17.62		28	175	0.62	83	14	210	0.39	81	0.57	210	< 0.05	77
16.47		30	174	0.66	84	15	205	0.40	81	0.61	205	< 0.05	78
14.24		35	172	0.75	84	18	198	0.45	81	0.70	198	< 0.05	78
12.10		41	170	0.87	85	21	188	0.49	82	0.83	188	< 0.05	78
10.80		46	170	0.97	85	23	184	0.54	83	0.93	184	< 0.05	78
9.23		54	170	1.1	86	27	177	0.60	83	1.1	177	< 0.05	79
8.64		58	170	1.2	86	29	175	0.64	83	1.2	175	< 0.05	79
7.28		69	170	1.4	87	34	172	0.73	84	1.4	172	< 0.05	79
6.8	20/5	73	120	1.1	87	37	120	0.54	85	1.5	120	<0.05	81
6.4		78	117	1.1	87	39	117	0.56	85	1.6	117	<0.05	81
5.4		93	111	1.2	88	46	111	0.63	86	1.9	111	<0.05	81
4.8		105	108	1.3	88	53	108	0.69	86	2.1	108	<0.05	81
4		125	103	1.5	89	63	103	0.78	87	2.5	103	<0.05	81

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11.9 Technical data S. SF. SA. SAF 67

3400 - 2800 rpm

i_{tot}	i_{worm}	n_e = 3400 rpm				n_e = 3200 rpm				n_e = 2800 rpm			
		n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %
217.41	42/1	16	465	1.2	66	15	465	1.1	66	13	465	0.96	65
190.11		18	465	1.3	67	17	465	1.2	67	15	465	1.1	66
180.60		19	465	1.4	67	18	465	1.3	67	16	465	1.1	66
158.45		21	465	1.5	68	20	465	1.5	68	18	465	1.3	67
134.40		25	465	1.8	69	24	465	1.7	68	21	465	1.5	68
121.33		28	455	1.9	69	26	465	1.9	69	23	465	1.6	68
106.75		32	405	2.0	69	30	430	2.0	69	26	465	1.9	69
100.80		34	380	1.9	69	32	410	2.0	69	28	465	2.0	69
85.83		40	320	1.9	69	37	345	1.9	69	33	400	2.0	70
78.00		44	285	1.9	69	41	310	1.9	69	36	365	2.0	70
67.57		50	235	1.8	67	47	260	1.9	68	41	315	2.0	69
58.80		58	184	1.7	65	54	215	1.8	67	48	270	1.9	69
75.06	29/2	45	435	2.5	82	43	435	2.4	82	37	435	2.1	81
65.63		52	435	2.9	82	49	435	2.7	82	43	435	2.4	82
62.35		55	435	3.0	83	51	435	2.8	82	45	435	2.5	82
54.70		62	435	3.4	83	59	435	3.2	83	51	435	2.8	83
46.40		73	395	3.6	83	69	415	3.6	83	60	435	3.3	83
41.89		81	355	3.6	83	76	380	3.6	83	67	430	3.6	83
36.85		92	310	3.6	83	87	335	3.6	84	76	380	3.6	84
34.80		98	295	3.6	83	92	315	3.6	84	80	365	3.7	84
29.63		115	250	3.6	83	108	270	3.7	83	94	310	3.7	84
26.93		126	220	3.5	83	119	240	3.6	83	104	280	3.6	84
23.33		146	182	3.4	82	137	200	3.5	83	120	245	3.7	84
20.30		167	141	3.1	81	158	164	3.3	82	138	205	3.6	83
24.44	27/5	139	315	5.1	90	131	315	4.8	90	115	315	4.2	89
23.22		146	315	5.4	90	138	315	5.1	90	121	315	4.4	90
20.37		167	315	6.1 *	90	157	315	5.8 *	90	137	315	5.0	90
17.28		197	270	6.2 *	90	185	290	6.2 *	90	162	315	5.9 *	90
15.60		218	245	6.2 *	90	205	260	6.2 *	90	179	295	6.1 *	90
13.73		248	215	6.2 *	90	233	230	6.2 *	90	204	265	6.3 *	90
12.96		262	200	6.1 *	90	247	215	6.1 *	90	216	250	6.3 *	90
11.03		308	169	6.1 *	90	290	183	6.2 *	90	254	215	6.3 *	90
10.03		339	151	6.0 *	90	319	164	6.1 *	90	279	194	6.3 *	90
8.69		391	124	5.7 *	89	368	137	5.9 *	90	322	166	6.2 *	90
7.56		450	95	5.1	88	423	112	5.6 *	89	370	141	6.1 *	90

* P_{emax} = 5.5 kW

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2200 - 1400 rpm

i_{tot}	i_{worm}	n_e = 2200 rpm				n_e = 1700 rpm				n_e = 1400 rpm			
		n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %
217.41	42/1	10	520	0.86	64	7.8	520	0.69	62	6.4	520	0.58	61
190.11		12	520	0.97	65	8.9	520	0.77	63	7.4	520	0.65	62
180.60		12	520	1.0	65	9.4	520	0.81	63	7.8	520	0.68	62
158.45		14	520	1.1	66	11	520	0.91	64	8.8	520	0.76	63
134.40		16	520	1.3	67	13	520	1.1	65	10	520	0.88	64
121.33		18	520	1.5	68	14	520	1.2	66	12	520	0.97	65
106.75		21	520	1.6	68	16	520	1.3	67	13	520	1.1	66
100.80		22	510	1.7	69	17	520	1.4	67	14	520	1.1	66
85.83		26	490	1.9	69	20	520	1.6	68	16	520	1.3	67
78.00		28	465	2.0	70	22	510	1.7	69	18	520	1.4	68
67.57		33	410	2.0	70	25	495	1.9	69	21	520	1.6	69
58.80		37	360	2.0	70	29	460	2.0	70	24	500	1.8	69
75.06	29/2	29	480	1.8	81	23	480	1.4	79	19	480	1.2	79
65.63		34	480	2.1	81	26	480	1.6	80	21	480	1.4	79
62.35		35	480	2.2	81	27	480	1.7	80	22	480	1.4	79
54.70		40	480	2.5	82	31	480	1.9	81	26	480	1.6	80
46.40		47	480	2.9	82	37	480	2.3	82	30	480	1.9	81
41.89		53	480	3.2	83	41	480	2.5	82	33	480	2.1	81
36.85		60	475	3.6	83	46	480	2.8	82	38	480	2.3	82
34.80		63	450	3.6	83	49	480	3.0	83	40	480	2.5	82
29.63		74	395	3.7	84	57	480	3.5	83	47	480	2.9	83
26.93		82	360	3.7	84	63	455	3.6	83	52	480	3.2	83
23.33		94	320	3.8	84	73	405	3.7	84	60	480	3.6	83
20.30		108	280	3.8	84	84	360	3.8	84	69	425	3.7	84
24.44	27/5	90	340	3.6	89	70	340	2.8	88	57	340	2.3	88
23.22		95	340	3.8	89	73	340	2.9	89	60	340	2.4	88
20.37		108	340	4.3	89	83	340	3.3	89	69	340	2.8	88
17.28		127	340	5.0	90	98	340	3.9	89	81	340	3.2	89
15.60		141	340	5.6 *	90	109	340	4.3	89	90	340	3.6	89
13.73		160	330	6.1 *	90	124	340	4.9	90	102	340	4.1	89
12.96		170	315	6.2 *	90	131	340	5.2	90	108	340	4.3	89
11.03		199	275	6.3 *	90	154	340	6.1 *	90	127	340	5.0	90
10.03		219	250	6.3 *	91	169	315	6.2 *	90	140	340	5.5	90
8.69		253	220	6.4 *	91	196	280	6.3 *	91	161	335	6.3 *	90
7.56		291	192	6.5 *	91	225	250	6.5 *	91	185	295	6.3 *	91

* P_{emax} = 5.5 kW

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1100 - 700 rpm

i_{tot}	i_{worm}	n_e = 1100 rpm				n_e = 900 rpm				n_e = 700 rpm			
		n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %
217.41	42/1	5.1	555	0.50	59	4.1	560	0.42	58	3.2	570	0.34	56
190.11		5.8	555	0.56	60	4.7	560	0.47	59	3.7	565	0.38	57
180.60		6.1	555	0.59	61	5.0	555	0.49	59	3.9	565	0.40	57
158.45		6.9	550	0.65	62	5.7	555	0.55	60	4.4	560	0.44	58
134.40		8.2	550	0.75	63	6.7	550	0.63	61	5.2	555	0.51	60
121.33		9.1	550	0.82	63	7.4	550	0.69	62	5.8	555	0.56	60
106.75		10	550	0.92	64	8.4	550	0.77	63	6.6	555	0.62	61
100.80		11	550	0.97	65	8.9	550	0.81	63	6.9	555	0.66	62
85.83		13	550	1.1	66	10	550	0.94	64	8.2	550	0.75	63
78.00		14	550	1.2	66	12	550	1.0	65	9.0	550	0.82	63
67.57		16	550	1.4	67	13	550	1.2	66	10	550	0.93	64
58.80		19	530	1.5	68	15	550	1.3	67	12	550	1.0	65
75.06	29/2	15	525	1.0	77	12	525	0.86	76	9.3	525	0.68	75
65.63		17	525	1.2	78	14	525	0.98	77	11	525	0.77	76
62.35		18	525	1.2	78	14	525	1.0	77	11	525	0.81	76
54.70		20	525	1.4	79	16	525	1.2	78	13	525	0.92	77
46.40		24	525	1.6	80	19	525	1.4	79	15	525	1.1	78
41.89		26	525	1.8	80	21	525	1.5	79	17	525	1.2	78
36.85		30	525	2.0	81	24	525	1.7	80	19	525	1.3	79
34.80		32	525	2.1	81	26	525	1.8	80	20	525	1.4	79
29.63		37	525	2.5	82	30	525	2.1	81	24	525	1.6	80
26.93		41	525	2.7	82	33	525	2.3	81	26	525	1.8	80
23.33		47	525	3.1	83	39	525	2.6	82	30	525	2.0	81
20.30		54	520	3.5	83	44	525	3.0	82	34	525	2.3	81
24.44	27/5	45	355	1.9	87	37	360	1.6	87	29	365	1.3	86
23.22		47	355	2.0	87	39	360	1.7	87	30	365	1.3	86
20.37		54	355	2.3	88	44	355	1.9	87	34	365	1.5	86
17.28		64	355	2.7	88	52	355	2.2	88	41	360	1.8	87
15.60		71	350	2.9	88	58	355	2.4	88	45	355	1.9	87
13.73		80	350	3.3	89	66	355	2.8	88	51	355	2.2	88
12.96		85	350	3.5	89	69	350	2.9	88	54	355	2.3	88
11.03		100	350	4.1	89	82	350	3.4	89	63	355	2.7	88
10.03		110	345	4.4	90	90	350	3.7	89	70	355	2.9	88
8.69		127	345	5.1	90	104	350	4.2	89	81	350	3.3	89
7.56		146	345	5.8 *	90	119	345	4.8	90	93	350	3.8	89

* P_{emax} = 5.5 kW

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500 - 10 rpm

i_{tot}	i_{worm}	n_e = 500 rpm				n_e = 250 rpm				n_e = 10 rpm			
		n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %
217.41	42/1	2.3	570	0.25	54	1.1	570	0.13	51	0.05	570	< 0.05	47
190.11		2.6	570	0.29	55	1.3	570	0.15	51	0.05	570	< 0.05	48
180.60		2.8	570	0.30	55	1.4	570	0.16	51	0.06	570	< 0.05	48
158.45		3.2	570	0.34	56	1.6	570	0.18	52	0.06	570	< 0.05	49
134.40		3.7	565	0.38	57	1.9	570	0.21	53	0.07	570	< 0.05	50
121.33		4.1	560	0.42	58	2.1	570	0.23	53	0.08	570	< 0.05	50
106.75		4.7	560	0.47	59	2.3	570	0.26	54	0.09	570	< 0.05	50
100.80		5.0	560	0.49	59	2.5	570	0.27	55	0.10	570	< 0.05	50
85.83		5.8	555	0.56	60	2.9	570	0.31	56	0.12	570	< 0.05	51
78.00		6.4	555	0.61	61	3.2	570	0.34	56	0.13	570	< 0.05	51
67.57		7.4	555	0.69	62	3.7	565	0.38	57	0.15	565	< 0.05	51
58.80		8.5	550	0.78	63	4.3	560	0.43	58	0.17	560	< 0.05	51
75.06	29/2	6.7	570	0.54	73	3.3	570	0.28	70	0.13	570	< 0.05	68
65.63		7.6	570	0.61	74	3.8	570	0.32	71	0.15	570	< 0.05	68
62.35		8.0	570	0.64	74	4.0	570	0.34	71	0.16	570	< 0.05	69
54.70		9.1	570	0.73	75	4.6	570	0.38	71	0.18	570	< 0.05	69
46.40		11	570	0.85	76	5.4	570	0.44	72	0.22	570	< 0.05	69
41.89		12	570	0.93	76	6.0	570	0.49	73	0.24	570	< 0.05	69
36.85		14	570	1.1	77	6.8	570	0.55	73	0.27	570	< 0.05	69
34.80		14	570	1.1	77	7.2	570	0.58	74	0.29	570	< 0.05	69
29.63		17	565	1.3	78	8.4	570	0.68	75	0.34	570	< 0.05	70
26.93		19	565	1.4	79	9.3	570	0.74	75	0.37	570	< 0.05	70
23.33		21	565	1.6	79	11	570	0.84	76	0.43	570	< 0.05	70
20.30		25	565	1.8	80	12	570	0.96	77	0.49	570	< 0.05	70
24.44	27/5	20	365	0.93	85	10	355	0.46	82	0.41	355	0.019	80
23.22		22	365	0.97	85	11	355	0.49	82	0.43	355	< 0.05	80
20.37		25	380	1.1	85	12	365	0.57	83	0.49	365	< 0.05	80
17.28		29	365	1.3	86	14	435	0.79	83	0.58	435	< 0.05	81
15.60		32	365	1.4	86	16	430	0.86	84	0.64	430	< 0.05	81
13.73		36	365	1.6	87	18	415	0.94	84	0.73	415	< 0.05	81
12.96		39	360	1.7	87	19	410	0.98	84	0.77	410	< 0.05	81
11.03		45	355	1.9	87	23	390	1.1	85	0.91	390	< 0.05	81
10.03		50	355	2.1	88	25	380	1.2	85	1.0	380	< 0.05	81
8.69		58	355	2.4	88	29	370	1.3	86	1.2	370	0.06	81
7.56		66	355	2.8	88	33	365	1.5	86	1.3	365	0.06	81

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11.10 Technical data S. SF. SA. SAF 77

3400 - 2800 rpm

i_{tot}	i_{worm}	n_e = 3400 rpm				n_e = 3200 rpm				n_e = 2800 rpm			
		n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %
256.47	40/1	13	1160	2.3	71	12	1160	2.1	71	11	1160	1.9	70
225.26		15	1130	2.5	72	14	1150	2.4	71	12	1160	2.1	71
214.00		16	1110	2.6	72	15	1140	2.5	71	13	1160	2.2	71
189.09		18	1080	2.8	72	17	1100	2.7	72	15	1140	2.5	71
161.60		21	1040	3.1	73	20	1050	3.0	73	17	1090	2.7	72
148.15		23	1010	3.3	73	22	1030	3.2	73	19	1070	2.9	73
130.00		26	970	3.6	74	25	990	3.5	74	22	1030	3.2	73
123.20		28	950	3.7	74	26	970	3.6	74	23	1010	3.3	73
107.83		32	900	4.0	74	30	920	3.9	74	26	970	3.6	74
97.14		35	860	4.2	75	33	880	4.1	74	29	930	3.8	74
85.22		40	770	4.3	75	38	820	4.3	75	33	880	4.1	75
75.20		45	675	4.3	74	43	725	4.3	75	37	830	4.3	75
66.67		51	585	4.2	74	48	635	4.3	75	42	745	4.4	75
56.92		60	485	4.1	73	56	530	4.2	74	49	635	4.4	75
75.09	40/3	45	1020	5.6	86	43	1020	5.3	86	37	1020	4.6	86
71.33		48	1020	5.9	87	45	1020	5.5	86	39	1020	4.9	86
63.03		54	1020	6.6	87	51	1020	6.2	87	44	1020	5.5	86
53.87		63	980	7.4	87	59	1000	7.1	87	52	1020	6.4	87
49.38		69	950	7.8	87	65	970	7.5	87	57	1010	6.9	87
43.33		78	910	8.5	88	74	930	8.2	88	65	970	7.5	87
41.07		83	900	8.9	88	78	910	8.5	88	68	950	7.8	87
35.94		95	800	9.0	88	89	850	9.0	88	78	910	8.5	88
32.38		105	725	9.1	88	99	770	9.1	88	86	880	9.1	88
28.41		120	635	9.1	88	113	680	9.1	88	99	780	9.1	88
25.07		136	560	9.1	88	128	600	9.1	88	112	695	9.2	88
22.22		153	485	8.9	88	144	525	9.0	88	126	615	9.2	88
18.97		179	395	8.5	87	169	440	8.9	88	148	520	9.1	88
22.89	34/6	149	590	10.0 *	91	140	590	9.5 *	91	122	590	8.3	91
20.99		162	590	10.9 *	92	152	590	10.3 *	92	133	590	9.0	91
18.42		185	590	12.4 *	92	174	590	11.7 *	92	152	590	10.3 *	92
17.45		195	590	13.1 *	92	183	590	12.4 *	92	160	590	10.8 *	92
15.28		223	530	13.5 *	92	209	560	13.4 *	92	183	590	12.3 *	92
13.76		247	480	13.5 *	92	233	505	13.4 *	92	203	585	13.6 *	92
12.07		282	415	13.3 *	92	265	445	13.4 *	92	232	515	13.6 *	92
10.65		319	365	13.3 *	92	300	390	13.4 *	92	263	455	13.6 *	92
9.44		360	315	13.0 *	92	339	345	13.3 *	92	297	405	13.7 *	92
8.06		422	260	12.6 *	91	397	285	12.9 *	92	347	340	13.5 *	92

* P_{emax} = 9.2 kW

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2200 - 1400 rpm

i_{tot}	i_{worm}	n_e = 2200 rpm				n_e = 1700 rpm				n_e = 1400 rpm			
		n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %
256.47	40/1	8.6	1260	1.6	69	6.6	1270	1.3	67	5.5	1270	1.1	66
225.26		9.8	1230	1.8	69	7.5	1270	1.5	68	6.2	1270	1.2	67
214.00		10	1220	1.9	70	7.9	1270	1.6	68	6.5	1270	1.3	67
189.09		12	1200	2.1	70	9.0	1240	1.7	69	7.4	1270	1.5	68
161.60		14	1160	2.3	71	11	1220	1.9	70	8.7	1260	1.7	69
148.15		15	1140	2.5	72	11	1200	2.1	70	9.4	1240	1.8	69
130.00		17	1100	2.7	72	13	1170	2.3	71	11	1210	1.9	70
123.20		18	1080	2.8	73	14	1150	2.3	71	11	1200	2.0	70
107.83		20	1040	3.0	73	16	1110	2.5	72	13	1170	2.2	71
97.14		23	1010	3.3	74	18	1090	2.8	73	14	1140	2.4	72
85.22		26	970	3.5	74	20	1050	3.0	73	16	1100	2.6	72
75.20		29	920	3.8	74	23	1010	3.2	74	19	1070	2.9	73
66.67		33	880	4.1	75	25	970	3.5	74	21	1040	3.1	73
56.92		39	830	4.5	75	30	920	3.9	75	25	990	3.4	74
75.09	40/3	29	1100	4.0	85	23	1100	3.1	84	19	1100	2.6	83
71.33		31	1100	4.2	85	24	1100	3.2	85	20	1100	2.7	84
63.03		35	1100	4.7	86	27	1100	3.7	85	22	1100	3.0	84
53.87		41	1100	5.5	86	32	1100	4.3	86	26	1100	3.5	85
49.38		45	1080	5.8	87	34	1100	4.6	86	28	1100	3.8	85
43.33		51	1050	6.4	87	39	1100	5.2	86	32	1100	4.3	86
41.07		54	1030	6.6	87	41	1100	5.5	86	34	1100	4.6	86
35.94		61	980	7.2	87	47	1060	6.1	87	39	1100	5.2	86
32.38		68	960	7.8	88	53	1040	6.6	87	43	1090	5.7	87
28.41		77	920	8.5	88	60	990	7.1	87	49	1050	6.2	87
25.07		88	870	9.1	88	68	960	7.8	88	56	1020	6.8	87
22.22		99	790	9.3 *	88	77	920	8.4	88	63	980	7.4	87
18.97		116	680	9.4 *	88	90	860	9.2	88	74	930	8.2	88
22.89	34/6	96	710	7.9	91	74	705	6.1	90	61	705	5.0	90
20.99		105	710	8.6	91	81	705	6.6	91	67	705	5.5	90
18.42		119	720	9.9 *	91	92	710	7.6	91	76	705	6.2	90
17.45		126	720	10.4 *	91	97	710	8.0	91	80	710	6.6	91
15.28		144	720	11.9 *	92	111	720	9.2	91	92	710	7.5	91
13.76		160	725	13.2 *	92	124	720	10.2 *	91	102	710	8.3	91
12.07		182	650	13.5 *	92	141	725	11.7 *	92	116	720	9.6 *	91
10.65		207	580	13.6 *	92	160	725	13.2 *	92	131	720	10.8 *	92
9.44		233	520	13.8 *	92	180	655	13.4 *	92	148	725	12.3 *	92
8.06		273	445	13.8 *	92	211	575	13.8 *	92	174	680	13.5 *	92

* P_{emax} = 9.2 kW

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1100 - 700 rpm

i_{tot}	i_{worm}	n_e = 1100 rpm				n_e = 900 rpm				n_e = 700 rpm			
		n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %
256.47	40/1	4.3	1270	0.89	64	3.5	1270	0.75	63	2.7	1270	0.60	61
225.26		4.9	1270	1.0	65	4.0	1270	0.84	63	3.1	1270	0.67	62
214.00		5.1	1270	1.0	65	4.2	1270	0.88	64	3.3	1270	0.70	62
189.09		5.8	1270	1.2	66	4.8	1270	0.98	65	3.7	1270	0.78	63
161.60		6.8	1270	1.3	67	5.6	1270	1.1	66	4.3	1270	0.90	64
148.15		7.4	1270	1.5	68	6.1	1270	1.2	66	4.7	1270	0.97	65
130.00		8.5	1260	1.6	69	6.9	1270	1.4	67	5.4	1270	1.1	66
123.20		8.9	1250	1.7	69	7.3	1270	1.4	68	5.7	1270	1.1	66
107.83		10	1220	1.9	70	8.3	1260	1.6	69	6.5	1270	1.3	67
97.14		11	1200	2.0	70	9.3	1250	1.8	69	7.2	1270	1.4	68
85.22		13	1170	2.2	71	11	1220	1.9	70	8.2	1270	1.6	69
75.20		15	1140	2.4	72	12	1190	2.1	71	9.3	1250	1.8	69
66.67		16	1110	2.6	72	13	1160	2.3	71	10	1220	1.9	70
56.92		19	1060	2.9	73	16	1120	2.6	72	12	1190	2.2	71
75.09	40/3	15	1120	2.1	83	12	1130	1.7	82	9.3	1170	1.4	81
71.33		15	1120	2.2	83	13	1130	1.8	82	9.8	1120	1.4	81
63.03		17	1120	2.5	83	14	1120	2.0	82	11	1130	1.6	81
53.87		20	1120	2.9	84	17	1120	2.4	83	13	1120	1.9	82
49.38		22	1120	3.1	84	18	1120	2.6	83	14	1120	2.0	82
43.33		25	1130	3.5	85	21	1120	2.9	84	16	1120	2.3	83
41.07		27	1130	3.7	85	22	1120	3.1	84	17	1120	2.4	83
35.94		31	1150	4.3	85	25	1130	3.5	85	19	1120	2.7	84
32.38		34	1130	4.7	86	28	1130	3.9	85	22	1120	3.0	84
28.41		39	1110	5.2	86	32	1150	4.5	86	25	1130	3.4	85
25.07		44	1080	5.7	87	36	1120	4.9	86	28	1130	3.9	85
22.22		50	1050	6.3	87	41	1100	5.4	86	32	1150	4.4	86
18.97		58	1010	7.0	87	47	1060	6.1	87	37	1120	5.0	86
22.89	34/6	48	695	3.9	89	39	695	3.2	89	31	705	2.6	88
20.99		52	705	4.3	90	43	695	3.5	89	33	705	2.8	88
18.42		60	700	4.9	90	49	700	4.0	89	38	700	3.1	89
17.45		63	700	5.1	90	52	700	4.2	90	40	700	3.3	89
15.28		72	710	5.9	90	59	700	4.8	90	46	700	3.8	89
13.76		80	710	6.6	91	65	700	5.3	90	51	700	4.2	90
12.07		91	710	7.5	91	75	710	6.1	90	58	700	4.7	90
10.65		103	715	8.5	91	85	710	6.9	91	66	710	5.4	90
9.44		117	720	9.6 *	91	95	715	7.8	91	74	710	6.1	90
8.06		136	725	11.3 *	92	112	720	9.2	91	87	710	7.1	91

* P_{emax} = 9.2 kW

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500 - 10 rpm

i_{tot}	i_{worm}	n_e = 500 rpm				n_e = 250 rpm				n_e = 10 rpm			
		n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %
256.47	40/1	1.9	1270	0.44	59	0.97	1270	0.23	56	0.04	1270	< 0.05	54
225.26		2.2	1270	0.49	60	1.1	1270	0.26	56	0.04	1270	< 0.05	55
214.00		2.3	1270	0.52	60	1.2	1270	0.28	56	0.05	1270	< 0.05	55
189.09		2.6	1270	0.58	61	1.3	1270	0.31	57	0.05	1270	< 0.05	55
161.60		3.1	1270	0.67	62	1.5	1270	0.36	58	0.06	1270	< 0.05	55
148.15		3.4	1270	0.72	62	1.7	1270	0.39	58	0.07	1270	< 0.05	55
130.00		3.8	1270	0.81	63	1.9	1270	0.43	59	0.08	1270	< 0.05	55
123.20		4.1	1270	0.85	64	2.0	1270	0.46	59	0.08	1270	< 0.05	55
107.83		4.6	1270	0.95	65	2.3	1270	0.51	60	0.09	1270	< 0.05	56
97.14		5.1	1270	1.0	65	2.6	1270	0.56	61	0.10	1270	< 0.05	56
85.22		5.9	1270	1.2	66	2.9	1270	0.63	62	0.12	1270	< 0.05	56
75.20		6.6	1270	1.3	67	3.3	1270	0.71	62	0.13	1270	< 0.05	56
66.67		7.5	1270	1.5	68	3.7	1270	0.79	63	0.15	1270	< 0.05	56
56.92		8.8	1260	1.7	69	4.4	1270	0.91	64	0.18	1270	< 0.05	56
75.09	40/3	6.7	1160	1.0	79	3.3	1120	0.51	76	0.13	1120	< 0.05	75
71.33		7.0	1110	1.0	79	3.5	1060	0.51	77	0.14	1060	< 0.05	75
63.03		7.9	1230	1.3	80	4.0	1200	0.65	77	0.16	1200	< 0.05	76
53.87		9.3	1180	1.4	81	4.6	1240	0.77	78	0.19	1240	< 0.05	76
49.38		10	1160	1.5	81	5.1	1240	0.84	78	0.20	1240	< 0.05	76
43.33		12	1120	1.7	82	5.8	1240	0.95	79	0.23	1240	< 0.05	76
41.07		12	1120	1.7	82	6.1	1240	1.0	79	0.24	1240	< 0.05	76
35.94		14	1120	2.0	82	7.0	1240	1.1	79	0.28	1240	< 0.05	76
32.38		15	1120	2.2	83	7.7	1240	1.3	80	0.31	1240	0.05	76
28.41		18	1120	2.5	83	8.8	1190	1.4	80	0.35	1190	0.06	76
25.07		20	1120	2.8	84	10	1170	1.5	81	0.40	1170	0.06	76
22.22		23	1130	3.2	84	11	1130	1.6	81	0.45	1130	0.07	76
18.97		26	1130	3.7	85	13	1120	1.9	82	0.53	1120	0.08	76
22.89	34/6	22	690	1.8	87	11	675	0.91	85	0.44	675	< 0.05	83
20.99		24	725	2.1	87	12	740	1.1	85	0.48	740	< 0.05	83
18.42		27	705	2.3	88	14	830	1.4	86	0.54	830	0.06	83
17.45		29	705	2.4	88	14	810	1.4	86	0.57	810	0.06	83
15.28		33	705	2.7	88	16	785	1.6	86	0.65	785	0.06	83
13.76		36	695	3.0	89	18	770	1.7	87	0.73	770	0.07	83
12.07		41	695	3.4	89	21	750	1.9	87	0.83	750	0.08	83
10.65		47	695	3.8	89	23	725	2.0	87	0.94	725	0.09	83
9.44		53	705	4.4	90	26	705	2.2	88	1.1	705	0.09	83
8.06		62	705	5.1	90	31	705	2.6	88	1.2	705	0.11	83

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11.11 Technical data S. SF. SA. SAF 87

3400 - 2800 rpm

i_{tot}	i_{worm}	n_e = 3400 rpm				n_e = 3200 rpm				n_e = 2800 rpm			
		n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %
288.00	40/1	12	2030	3.4	74	11	2070	3.3	73	9.7	2070	2.9	73
258.18		13	1990	3.7	74	12	2010	3.5	74	11	2070	3.2	73
222.40		15	1910	4.1	75	14	1950	4.0	74	13	2010	3.6	74
202.96		17	1850	4.3	75	16	1890	4.2	75	14	1970	3.8	74
180.00		19	1800	4.7	75	18	1830	4.5	75	16	1910	4.2	75
151.30		22	1690	5.3	75	21	1730	5.1	75	19	1800	4.6	75
139.05		24	1630	5.5	76	23	1680	5.4	76	20	1760	4.9	75
123.48		28	1570	6.0	76	26	1600	5.7	76	23	1690	5.3	76
110.40		31	1430	6.1	76	29	1540	6.2	76	25	1620	5.7	76
99.26		34	1260	6.0	75	32	1380	6.2	76	28	1550	6.0	76
86.15		39	1030	5.8	74	37	1150	6.0	75	33	1390	6.2	76
77.14		44	830	5.3	72	41	970	5.7	74	36	1220	6.1	76
64.00		53	500	4.3	65	50	620	4.7	68	44	960	5.9	75
91.20	38/3	37	1470	6.6	88	35	1470	6.2	87	31	1470	5.4	87
81.76		42	1470	7.3	88	39	1470	6.9	88	34	1470	6.0	87
70.43		48	1470	8.4	88	45	1470	7.9	88	40	1470	7.0	88
64.27		53	1470	9.2	88	50	1470	8.7	88	44	1470	7.6	88
57.00		60	1470	10.4	88	56	1470	9.8	88	49	1470	8.6	88
47.91		71	1470	12.3	89	67	1470	11.6	89	58	1470	10.2	88
44.03		77	1470	13.4	89	73	1470	12.6	89	64	1470	11.0	89
39.10		87	1300	13.3	89	82	1400	13.5	89	72	1470	12.4	89
34.96		97	1140	13.1	89	92	1240	13.4	89	80	1440	13.6	89
31.43		108	1000	12.8	88	102	1090	13.1	89	89	1290	13.5	89
27.28		125	810	12.1	88	117	910	12.7	88	103	1110	13.4	89
24.43		139	660	112-13 2S	87	131	775	12.1	88	115	960	13.0	89
20.27		168	395	8.4	82	158	490	9.6	84	138	755	12.4	88
25.50	34/6	133	990	15.0	92	125	990	14.1	92	110	990	12.4	92
21.43		159	990	17.8 *	92	149	990	16.8 *	92	131	990	14.7	92
19.70		173	990	19 *	92	162	990	18.3 *	92	142	990	16.0 *	92
17.49		194	870	19 *	92	183	930	19 *	92	160	990	18.0 *	92
15.64		217	760	19 *	92	205	830	19 *	92	179	960	19 *	92
14.06		242	660	18.2 *	92	228	725	19 *	92	199	860	19 *	92
12.21		278	540	17.2 *	91	262	605	18.1 *	92	229	730	19 *	92
10.93		311	440	15.8 *	90	293	510	17.1 *	91	256	645	19 *	92
9.07		375	255	11.5	87	353	325	13.5	89	309	500	17.7 *	92
7.88		431	200	10.5	86	406	230	11.3	87	355	375	15.5 *	90

* P_{emax} =15 kW

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2200 - 1400 rpm

i_{tot}	i_{worm}	n_e = 2200 rpm				n_e = 1700 rpm				n_e = 1400 rpm			
		n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %
288.00	40/1	7.6	2210	2.5	71	5.9	2280	2.0	70	4.9	2280	1.7	69
258.18		8.5	2170	2.7	72	6.6	2260	2.2	71	5.4	2280	1.9	69
222.40		9.9	2130	3.0	73	7.6	2210	2.5	71	6.3	2280	2.1	70
202.96		11	2080	3.2	73	8.4	2190	2.7	72	6.9	2260	2.3	71
180.00		12	2020	3.5	74	9.4	2130	2.9	73	7.8	2210	2.5	72
151.30		15	1940	4.0	75	11	2060	3.3	74	9.3	2150	2.9	73
139.05		16	1880	4.2	75	12	2020	3.5	74	10	2100	3.0	73
123.48		18	1820	4.5	75	14	1960	3.8	74	11	2060	3.3	74
110.40		20	1770	4.9	76	15	1900	4.1	75	13	2000	3.6	74
99.26		22	1700	5.2	76	17	1840	4.4	75	14	1960	3.9	75
86.15		26	1620	5.7	76	20	1770	4.8	76	16	1880	4.3	75
77.14		29	1540	6.0	76	22	1700	5.2	76	18	1820	4.6	76
64.00		34	1360	6.4	77	27	1580	5.7	77	22	1700	5.1	76
91.20	38/3	24	1540	4.5	87	19	1520	3.5	86	15	1510	2.9	85
81.76		27	1600	5.2	87	21	1600	4.0	86	17	1600	3.4	86
70.43		31	1600	6.0	87	24	1600	4.7	87	20	1600	3.9	86
64.27		34	1600	6.6	88	26	1600	5.1	87	22	1600	4.2	86
57.00		39	1600	7.4	88	30	1600	5.7	87	25	1600	4.8	87
47.91		46	1600	8.7	88	35	1600	6.8	88	29	1600	5.6	87
44.03		50	1600	9.5	88	39	1600	7.4	88	32	1600	6.1	87
39.10		56	1600	10.6	89	43	1600	8.3	88	36	1600	6.8	88
34.96		63	1600	11.9	89	49	1600	9.2	88	40	1600	7.6	88
31.43		70	1600	13.2	89	54	1600	10.2	89	45	1600	8.5	88
27.28		81	1450	13.7	89	62	1600	11.7	89	51	1600	9.7	89
24.43		90	1310	13.8	89	70	1600	13.1	89	57	1600	10.8	89
20.27		109	1080	13.8	89	84	1420	14.0	89	69	1600	13.0	89
25.50	34/6	86	1240	12.2	92	67	1240	9.5	91	55	1240	7.8	91
21.43		103	1240	14.5	92	79	1240	11.2	92	65	1240	9.3	91
19.70		112	1240	15.7 *	92	86	1240	12.2	92	71	1240	10.1	91
17.49		126	1240	17.7 *	92	97	1240	13.7	92	80	1240	11.3	92
15.64		141	1230	20 *	92	109	1240	15.3 *	92	90	1240	12.7	92
14.06		156	1110	20 *	92	121	1240	17.0 *	92	100	1240	14.1	92
12.21		180	970	20 *	93	139	1240	20 *	92	115	1240	16.1 *	92
10.93		201	870	20 *	93	156	1130	20 *	93	128	1240	18.0 *	92
9.07		243	720	20 *	92	187	950	20 *	93	154	1140	20 *	93
7.88		279	605	19 *	92	216	830	20 *	93	178	1010	20 *	93

* P_{emax} = 15 kW

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1100 - 700 rpm

i_{tot}	i_{worm}	n_e = 1100 rpm				n_e = 900 rpm				n_e = 700 rpm			
		n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %
288.00	40/1	3.8	2400	1.4	67	3.1	2450	1.2	66	2.4	2480	0.98	64
258.18		4.3	2380	1.6	68	3.5	2430	1.3	67	2.7	2470	1.1	65
222.40		4.9	2350	1.8	69	4.0	2400	1.5	68	3.1	2450	1.2	66
202.96		5.4	2330	1.9	70	4.4	2380	1.6	68	3.4	2430	1.3	67
180.00		6.1	2280	2.1	70	5.0	2350	1.8	69	3.9	2400	1.4	68
151.30		7.3	2240	2.4	71	5.9	2310	2.0	70	4.6	2350	1.7	69
139.05		7.9	2190	2.5	72	6.5	2260	2.2	71	5.0	2330	1.8	69
123.48		8.9	2150	2.8	73	7.3	2240	2.4	71	5.7	2310	2.0	70
110.40		10	2110	3.0	73	8.2	2190	2.6	72	6.3	2280	2.1	71
99.26		11	2070	3.3	74	9.1	2150	2.8	73	7.1	2240	2.3	71
86.15		13	2000	3.6	74	10	2090	3.1	73	8.1	2190	2.6	72
77.14		14	1940	3.9	75	12	2040	3.4	74	9.1	2150	2.8	73
64.00		17	1840	4.4	76	14	1960	3.9	75	11	2070	3.2	74
91.20	38/3	12	1490	2.2	84	9.9	1480	1.8	83	7.7	1460	1.4	82
81.76		13	1760	2.9	85	11	1760	2.4	84	8.6	1760	1.9	83
70.43		16	1760	3.4	85	13	1760	2.8	85	9.9	1760	2.2	83
64.27		17	1760	3.7	86	14	1760	3.0	85	11	1760	2.4	84
57.00		19	1760	4.1	86	16	1760	3.4	85	12	1760	2.7	84
47.91		23	1760	4.9	87	19	1760	4.0	86	15	1760	3.2	85
44.03		25	1760	5.3	87	20	1760	4.4	86	16	1760	3.4	85
39.10		28	1760	6.0	87	23	1760	4.9	87	18	1760	3.9	86
34.96		31	1760	6.6	88	26	1760	5.5	87	20	1760	4.3	86
31.43		35	1760	7.4	88	29	1760	6.1	87	22	1760	4.7	87
27.28		40	1760	8.4	88	33	1760	6.9	88	26	1760	5.4	87
24.43		45	1760	9.4	88	37	1760	7.7	88	29	1760	6.0	87
20.27		54	1760	11.3	89	44	1760	9.3	88	35	1760	7.2	88
25.50	34/6	43	1340	6.7	90	35	1340	5.5	90	27	1340	4.3	89
21.43		51	1340	7.9	91	42	1340	6.5	90	33	1340	5.1	90
19.70		56	1340	8.6	91	46	1340	7.1	91	36	1340	5.5	90
17.49		63	1340	9.7	91	51	1340	7.9	91	40	1340	6.2	90
15.64		70	1340	10.8	92	58	1340	8.9	91	45	1340	6.9	91
14.06		78	1340	12.0	92	64	1340	9.8	91	50	1340	7.7	91
12.21		90	1340	13.8	92	74	1340	11.3	92	57	1340	8.8	91
10.93		101	1340	15.3 *	92	82	1340	12.6	92	64	1340	9.8	91
9.07		121	1340	18.4 *	92	99	1340	15.1 *	92	77	1340	11.8	92
7.88		140	1260	20 *	93	114	1340	17.4 *	92	89	1340	13.6	92

* P_{emax} = 15 kW

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500 - 10 rpm

i_{tot}	i_{worm}	n_e = 500 rpm				n_e = 250 rpm				n_e = 10 rpm			
		n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %
288.00	40/1	1.7	2500	0.73	62	0.87	2500	0.38	59	0.03	2500	< 0.05	58
258.18		1.9	2500	0.80	63	0.97	2500	0.43	59	0.04	2500	< 0.05	58
222.40		2.2	2500	0.92	64	1.1	2500	0.49	60	0.04	2500	< 0.05	59
202.96		2.5	2480	0.99	64	1.2	2500	0.53	61	0.05	2500	< 0.05	59
180.00		2.8	2480	1.1	65	1.4	2500	0.60	61	0.06	2500	< 0.05	59
151.30		3.3	2430	1.3	67	1.7	2500	0.70	62	0.07	2500	< 0.05	59
139.05		3.6	2430	1.4	67	1.8	2500	0.75	63	0.07	2500	< 0.05	59
123.48		4.0	2400	1.5	68	2.0	2500	0.84	63	0.08	2500	< 0.05	59
110.40		4.5	2380	1.6	69	2.3	2500	0.93	64	0.09	2500	< 0.05	59
99.26		5.0	2330	1.8	69	2.5	2470	1.0	65	0.10	2470	< 0.05	59
86.15		5.8	2310	2.0	70	2.9	2450	1.1	66	0.12	2450	0.05	59
77.14		6.5	2260	2.2	71	3.2	2430	1.2	66	0.13	2430	0.06	59
64.00		7.8	2220	2.5	72	3.9	2400	1.5	68	0.16	2400	0.07	59
91.20	38/3	5.5	1450	1.0	81	2.7	1390	0.51	79	0.11	1390	< 0.05	78
81.76		6.1	1960	1.5	82	3.1	1880	0.76	79	0.12	1880	< 0.05	78
70.43		7.1	1980	1.8	82	3.5	1980	0.92	80	0.14	1980	< 0.05	79
64.27		7.8	1980	2.0	83	3.9	1980	1.0	80	0.16	1980	< 0.05	79
57.00		8.8	1980	2.2	83	4.4	1980	1.1	80	0.18	1980	< 0.05	79
47.91		10	1980	2.6	84	5.2	1980	1.3	81	0.21	1980	0.06	79
44.03		11	1980	2.8	84	5.7	1980	1.4	81	0.23	1980	0.06	79
39.10		13	1980	3.1	85	6.4	1980	1.6	82	0.26	1980	0.07	79
34.96		14	1980	3.5	85	7.2	1980	1.8	82	0.29	1980	0.08	79
31.43		16	1980	3.9	85	8.0	1980	2.0	83	0.32	1980	0.08	79
27.28		18	1980	4.4	86	9.2	1980	2.3	83	0.37	1980	0.10	79
24.43		20	1980	4.9	86	10	1980	2.5	84	0.41	1980	0.11	79
20.27		25	1980	5.9	87	12	1980	3.0	85	0.49	1980	0.13	79
25.50	34/6	20	1430	3.3	88	9.8	1390	1.6	87	0.39	1390	0.07	85
21.43		23	1420	3.9	89	12	1510	2.1	87	0.47	1510	0.09	85
19.70		25	1410	4.2	89	13	1570	2.4	87	0.51	1570	0.10	85
17.49		29	1390	4.6	89	14	1570	2.7	88	0.57	1570	0.11	85
15.64		32	1390	5.2	90	16	1540	2.9	88	0.64	1540	0.12	85
14.06		36	1390	5.7	90	18	1510	3.2	88	0.71	1510	0.13	85
12.21		41	1390	6.6	90	20	1460	3.5	89	0.82	1460	0.15	85
10.93		46	1390	7.3	91	23	1430	3.9	89	0.91	1430	0.16	85
9.07		55	1410	8.9	91	28	1390	4.5	89	1.1	1390	0.19	85
7.88		63	1410	10.3	91	32	1390	5.1	90	1.3	1390	0.22	85

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11.12 Technical data S. SF. SA. SAF 97

3400 - 2800 rpm

i_{tot}	i_{worm}	n_e = 3400 rpm				n_e = 3200 rpm				n_e = 2800 rpm			
		n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %
286.40	40/1	12	3520	5.8	76	11	3590	5.6	76	9.8	3700	5.0	75
262.22		13	3450	6.2	76	12	3520	5.9	76	11	3630	5.4	75
231.67		15	3310	6.7	76	14	3380	6.4	76	12	3520	5.9	76
196.52		17	3120	7.4	77	16	3210	7.2	76	14	3350	6.6	76
180.95		19	3030	7.8	77	18	3120	7.5	77	15	3250	6.9	76
161.74		21	2910	8.3	77	20	2970	8.0	77	17	3120	7.4	77
145.60		23	2760	8.8	77	22	2850	8.5	77	19	3000	7.9	77
131.85		26	2660	9.4	77	24	2740	9.1	77	21	2880	8.3	77
116.92		29	2320	9.3	76	27	2550	9.5	77	24	2740	8.9	77
105.71		32	1980	8.9	75	30	2210	9.2	76	26	2630	9.5	77
89.60		38	1280	7.3	70	36	1670	8.5	74	31	2210	9.4	77
78.26		43	920	6.4	65	41	1040	6.7	67	36	1770	8.8	75
65.45		52	675	5.9	63	49	775	6.2	64	43	1030	6.8	68
80.85	37/3	42	3150	15.5	89	40	3150	14.6	89	35	3150	12.8	89
71.43		48	3090	17.2	90	45	3150	16.5	89	39	3150	14.5	89
60.59		56	2910	19	90	53	2970	18.3	90	46	3120	16.9	90
55.79		61	2820	20	90	57	2880	19	90	50	3030	17.8	90
49.87		68	2710	22	90	64	2760	21	90	56	2910	19	90
44.89		76	2430	21	90	71	2630	22	90	62	2790	20	90
40.65		84	2170	21	90	79	2350	22	90	69	2680	21	90
36.05		94	1830	20	89	89	2020	21	89	78	2400	22	90
32.60		104	1560	19	89	98	1760	20	89	86	2150	22	90
27.63		123	1010	15.2	86	116	1320	18.2	88	101	1740	21	89
24.13		141	725	12.9	83	133	820	13.6	84	116	1390	19	88
26.39	35/6	129	1750	25 *	93	121	1750	24 *	93	106	1750	21	93
23.59		144	1750	28 *	93	136	1750	27 *	93	119	1750	23 *	93
21.23		160	1750	32 *	93	151	1750	30 *	93	132	1750	26 *	93
19.23		177	1550	31 *	93	166	1680	31 *	93	146	1750	29 *	93
17.05		199	1320	30 *	93	188	1450	31 *	93	164	1730	32 *	93
15.42		220	1110	28 *	92	208	1260	30 *	93	182	1540	31 *	93
13.07		260	725	22	90	245	940	26 *	92	214	1240	30 *	93
11.41		298	515	18.3	88	280	585	19	89	245	1000	28 *	92
9.55		356	375	16.2	87	335	435	17.5	87	293	580	20	89
8.26		412	290	14.7	85	387	335	15.8	86	339	455	18.4	88

* P_{emax} = 22 kW

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2200 - 1400 rpm

i_{tot}	i_{worm}	n_e = 2200 rpm				n_e = 1700 rpm				n_e = 1400 rpm			
		n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %
286.40	40/1	7.7	3920	4.2	74	5.9	4000	3.4	73	4.9	4000	2.9	72
262.22		8.4	3840	4.5	75	6.5	4000	3.7	73	5.3	4000	3.1	72
231.67		9.5	3770	5.0	75	7.3	3960	4.1	74	6.0	4000	3.5	73
196.52		11	3580	5.5	76	8.7	3840	4.7	75	7.1	4000	4.0	74
180.95		12	3510	5.9	76	9.4	3770	4.9	75	7.7	3920	4.3	74
161.74		14	3410	6.4	76	11	3650	5.3	76	8.7	3840	4.7	75
145.60		15	3270	6.8	77	12	3550	5.7	76	9.6	3730	5.0	75
131.85		17	3170	7.2	77	13	3440	6.1	76	11	3650	5.4	76
116.92		19	3020	7.7	77	15	3340	6.6	77	12	3510	5.8	76
105.71		21	2930	8.3	77	16	3210	7.0	77	13	3440	6.2	76
89.60		25	2730	9.1	77	19	3020	7.8	77	16	3240	6.9	77
78.26		28	2540	9.6	78	22	2870	8.4	78	18	3080	7.5	77
65.45		34	2120	9.7	77	26	2650	9.2	78	21	2900	8.3	78
80.85	37/3	27	3300	10.6	89	21	3270	8.2	88	17	3230	6.7	88
71.43		31	3300	12.0	89	24	3300	9.3	88	20	3300	7.7	88
60.59		36	3300	14.1	89	28	3300	10.9	89	23	3300	9.0	88
55.79		39	3270	15.1	89	30	3300	11.8	89	25	3300	9.8	88
49.87		44	3170	16.3	90	34	3300	13.2	89	28	3300	10.9	89
44.89		49	3050	17.5	90	38	3300	14.6	89	31	3300	12.1	89
40.65		54	2950	19	90	42	3230	15.8	90	34	3300	13.3	89
36.05		61	2810	20	90	47	3110	17.1	90	39	3300	15.0	89
32.60		67	2700	21	90	52	2980	18.1	90	43	3200	16.0	90
27.63		80	2390	22	90	62	2810	20	90	51	3010	17.8	90
24.13		91	2060	22	90	70	2670	22	90	58	2870	19	90
26.39	35/6	83	2550	24 *	93	64	2600	19	93	53	2600	15.6	92
23.59		93	2450	26 *	93	72	2600	21	93	59	2600	17.5	93
21.23		104	2380	28 *	93	80	2570	23 *	93	66	2600	19	93
19.23		114	2280	29 *	93	88	2500	25 *	93	73	2600	21	93
17.05		129	2170	31 *	93	100	2400	27 *	93	82	2570	24 *	93
15.42		143	2040	33 *	93	110	2300	28 *	93	91	2470	25 *	93
13.07		168	1720	32 *	93	130	2170	32 *	93	107	2330	28 *	93
11.41		193	1480	32 *	93	149	2000	33 *	93	123	2210	30 *	93
9.55		230	1200	31 *	93	178	1670	33 *	93	147	2040	33 *	94
8.26		266	980	30 *	93	206	1440	33 *	93	169	1770	34 *	94

* P_{emax} = 22 kW

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1100 - 700 rpm

i_{tot}	i_{worm}	n_e = 1100 rpm				n_e = 900 rpm				n_e = 700 rpm			
		n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %
286.40	40/1	3.8	4200	2.4	70	3.1	4200	2.0	69	2.4	4200	1.6	68
262.22		4.2	4200	2.6	71	3.4	4200	2.2	70	2.7	4200	1.7	68
231.67		4.7	4200	2.9	72	3.9	4200	2.4	70	3.0	4200	1.9	69
196.52		5.6	4160	3.4	73	4.6	4200	2.8	71	3.6	4200	2.2	70
180.95		6.1	4120	3.6	73	5.0	4200	3.0	72	3.9	4200	2.4	70
161.74		6.8	4030	3.9	74	5.6	4160	3.3	73	4.3	4200	2.7	71
145.60		7.6	3950	4.2	74	6.2	4080	3.6	73	4.8	4200	2.9	72
131.85		8.3	3880	4.5	75	6.8	4030	3.9	74	5.3	4200	3.2	72
116.92		9.4	3760	4.9	75	7.7	3910	4.2	74	6.0	4120	3.5	73
105.71		10	3650	5.3	76	8.5	3840	4.6	75	6.6	4030	3.8	74
89.60		12	3500	5.9	76	10	3690	5.1	76	7.8	3910	4.3	75
78.26		14	3370	6.5	77	12	3580	5.7	76	8.9	3800	4.7	75
65.45		17	3170	7.2	77	14	3400	6.4	77	11	3650	5.4	76
80.85	37/3	14	3230	5.3	87	11	3200	4.3	86	8.7	3170	3.4	85
71.43		15	3600	6.7	87	13	3600	5.5	87	9.8	3600	4.3	86
60.59		18	3600	7.8	88	15	3600	6.4	87	12	3600	5.0	86
55.79		20	3600	8.5	88	16	3600	7.0	87	13	3600	5.5	87
49.87		22	3600	9.4	88	18	3600	7.8	88	14	3600	6.1	87
44.89		25	3600	10.4	88	20	3600	8.6	88	16	3600	6.7	87
40.65		27	3600	11.5	89	22	3600	9.5	88	17	3600	7.4	88
36.05		31	3530	12.7	89	25	3600	10.6	89	19	3600	8.3	88
32.60		34	3420	13.5	89	28	3600	11.7	89	21	3600	9.2	88
27.63		40	3260	15.2	90	33	3460	13.2	89	25	3600	10.8	89
24.13		46	3130	16.6	90	37	3320	14.5	89	29	3560	12.2	89
26.39	35/6	42	2650	12.6	92	34	2620	10.2	92	27	2620	8.0	91
23.59		47	2650	14.0	92	38	2650	11.5	92	30	2620	8.9	91
21.23		52	2650	15.6	92	42	2650	12.8	92	33	2620	9.9	92
19.23		57	2650	17.2	93	47	2650	14.1	92	36	2620	10.9	92
17.05		65	2670	19	93	53	2650	15.9	92	41	2650	12.4	92
15.42		71	2670	21	93	58	2650	17.5	93	45	2650	13.7	92
13.07		84	2540	24 *	93	69	2670	21	93	54	2650	16.1	92
11.41		96	2420	26 *	93	79	2590	23 *	93	61	2650	18.4	93
9.55		115	2280	29 *	93	94	2440	26 *	93	73	2650	22	93
8.26		133	2140	32 *	94	109	2320	28 *	93	85	2540	24 *	93

* P_{emax} = 22 kW

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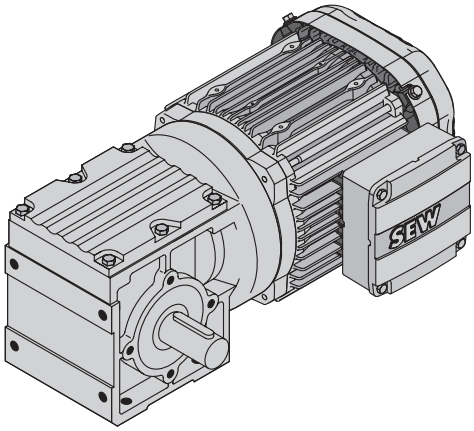
500 - 10 rpm

i_{tot}	i_{worm}	n_e = 500 rpm				n_e = 250 rpm				n_e = 10 rpm			
		n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %	n_a rpm	M_{amax} Nm	P_e kW	η %
286.40	40/1	1.7	4200	1.2	65	0.87	4200	0.62	62	0.03	4200	< 0.05	60
262.22		1.9	4200	1.3	66	0.95	4200	0.68	62	0.04	4200	< 0.05	60
231.67		2.2	4200	1.4	67	1.1	4200	0.76	63	0.04	4200	< 0.05	60
196.52		2.5	4200	1.6	68	1.3	4200	0.88	64	0.05	4200	< 0.05	60
180.95		2.8	4200	1.8	68	1.4	4200	0.95	64	0.06	4200	< 0.05	60
161.74		3.1	4200	2.0	69	1.5	4200	1.1	65	0.06	4200	< 0.05	60
145.60		3.4	4200	2.2	70	1.7	4200	1.2	65	0.07	4200	0.05	60
131.85		3.8	4200	2.4	70	1.9	4200	1.3	66	0.08	4200	0.06	60
116.92		4.3	4200	2.6	71	2.1	4200	1.4	67	0.09	4200	0.06	60
105.71		4.7	4200	2.9	72	2.4	4200	1.5	67	0.09	4200	0.07	60
89.60		5.6	4160	3.3	73	2.8	4200	1.8	69	0.11	4200	0.08	60
78.26		6.4	4080	3.7	74	3.2	4200	2.0	69	0.13	4200	0.09	60
65.45		7.6	3910	4.2	75	3.8	4200	2.4	70	0.15	4200	0.11	60
80.85	37/3	6.2	3110	2.4	84	3.1	3010	1.2	82	0.12	3010	< 0.05	80
71.43		7.0	4200	3.6	85	3.5	4160	1.9	82	0.14	4160	0.08	81
60.59		8.3	4200	4.3	85	4.1	4080	2.1	83	0.17	4080	0.09	81
55.79		9.0	4200	4.6	86	4.5	4200	2.4	83	0.18	4200	0.10	81
49.87		10	4200	5.1	86	5.0	4200	2.6	83	0.20	4200	0.11	81
44.89		11	4160	5.6	86	5.6	4200	2.9	84	0.22	4200	0.12	81
40.65		12	4120	6.1	87	6.2	4200	3.2	84	0.25	4200	0.13	81
36.05		14	4080	6.8	87	6.9	4200	3.6	85	0.28	4200	0.15	81
32.60		15	3990	7.3	87	7.7	4200	4.0	85	0.31	4200	0.17	81
27.63		18	3910	8.4	88	9.0	4200	4.7	86	0.36	4200	0.20	81
24.13		21	3800	9.3	88	10	4200	5.3	86	0.41	4200	0.23	81
26.39	35/6	19	2590	5.7	90	9.5	2540	2.8	89	0.38	2540	0.12	87
23.59		21	2590	6.3	91	11	2540	3.2	89	0.42	2540	0.13	87
21.23		24	2590	7.0	91	12	2570	3.6	89	0.47	2570	0.15	87
19.23		26	2620	7.8	91	13	2570	3.9	89	0.52	2570	0.16	87
17.05		29	2620	8.8	91	15	2570	4.4	90	0.59	2570	0.18	87
15.42		32	2620	9.7	92	16	2570	4.8	90	0.65	2570	0.20	87
13.07		38	2650	11.6	92	19	2590	5.7	90	0.77	2590	0.24	87
11.41		44	2650	13.2	92	22	2590	6.6	91	0.88	2590	0.27	87
9.55		52	2650	15.7	92	26	2620	7.9	91	1.0	2620	0.33	87
8.26		61	2650	18.1	93	30	2620	9.1	91	1.2	2620	0.38	87

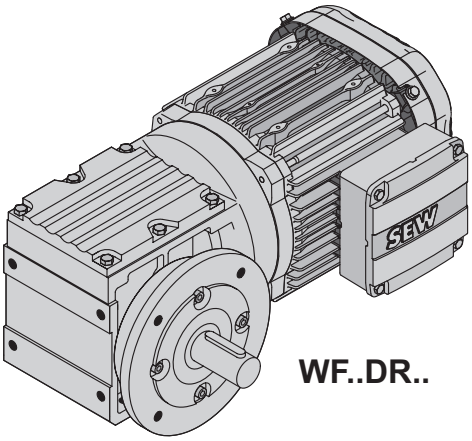
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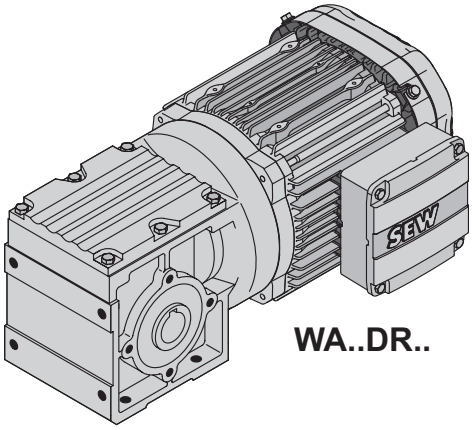
12.1 W..DRN.. designs



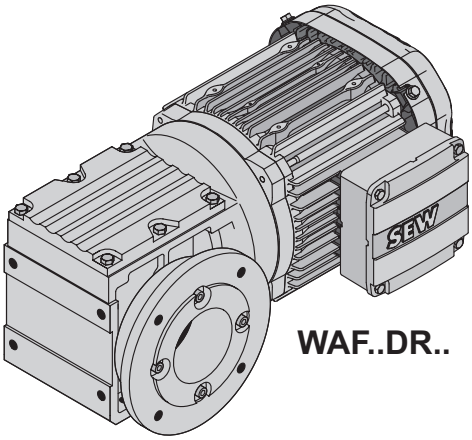
W..DR..



WF..DR..



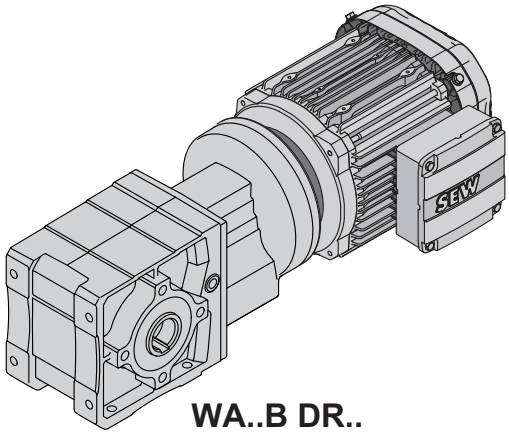
WA..DR..



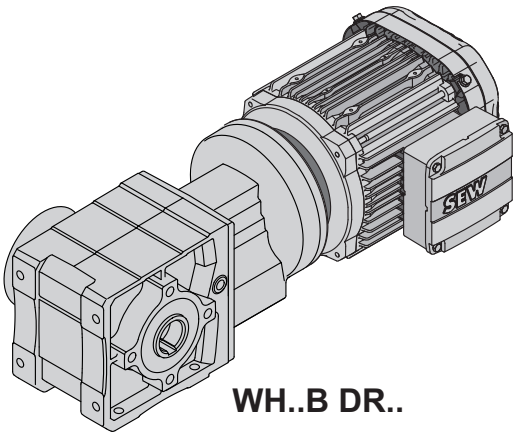
WAF..DR..

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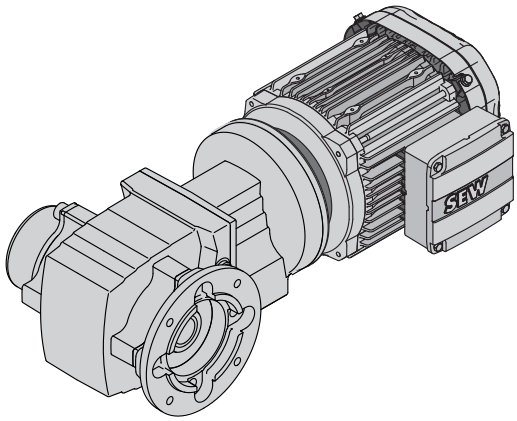
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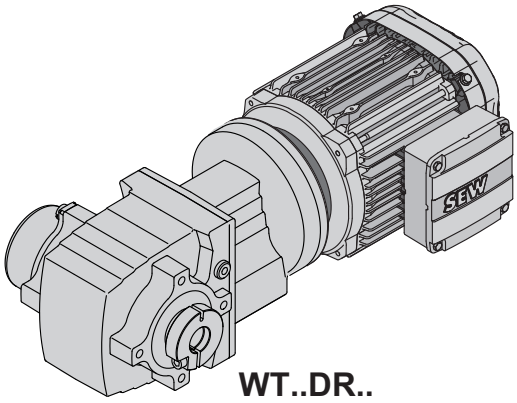
WA..B DR..



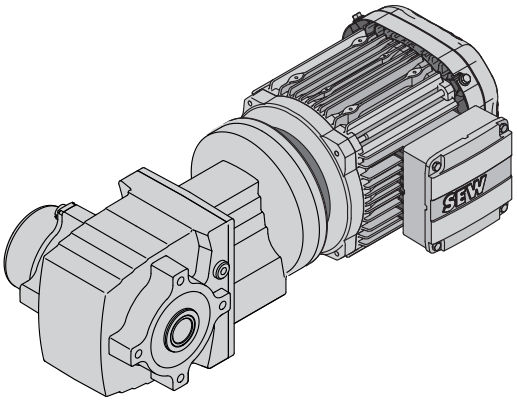
WH..B DR..



WHF..DR..



WT..DR..



WH..DR..

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12.2 Possible geometrical combinations of W..DRN..

W10, n_e=1400 1/min					25 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DT56M DT56L
					1
19	25	1960	-	75.00*	
23	25	1960	-	60.00*	
29	25	1960	-	48.00*	
36	25	1960	-	39.00*	
43	25	1960	-	32.50*	
51	24	1970	-	27.50*	
57	25	1960	-	24.50*	
72	25	1960	-	19.50*	
85	20	1990	-	16.50*	
98	22	1980	-	14.33	
137	13	1990	-	10.25*	
171	12	1850	-	8.20*	
213	12	1740	-	6.57	

W20, n_e=1400 1/min					40 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M
					1
19	40	2200	-	75.00*	
23	40	2200	-	60.00*	
29	40	2200	-	48.00*	
36	40	2200	-	39.00*	
43	40	2200	-	32.50*	
51	40	2200	-	27.50*	
57	40	2200	-	24.50*	
72	35	2200	-	19.50*	
85	30	2200	-	16.50*	
98	30	2110	-	14.33	
137	25	1920	-	10.25*	
171	20	1830	-	8.20*	
213	20	1740	-	6.57	

W30, n_e=1400 1/min						70 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
					1	
19	70	3000	-	75.00*		
23	70	3000	-	60.00*		
29	70	3000	-	48.00*		
36	70	3000	-	39.00*		
43	70	3000	-	32.50*		
51	70	3000	-	27.50*		
57	70	3000	-	24.50*		

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W30, n_e=1400 1/min — 70 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
72	70	3000	-	19.50*		
86	60	3000	-	16.33		
98	60	3000	-	14.33		
137	50	2970	-	10.25*		
171	40	2810	-	8.20*		
213	40	2640	-	6.57		

W37, n_e=1400 1/min — 110 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L
					2		
20	110	3320	-	69.05			
22	110	3320	-	63.33			
26	110	3320	-	53.92			
30	110	3320	-	46.49			
37	110	3320	-	37.88			
41	90	3610	-	34.52			
44	90	3610	-	31.67			
45	110	3320	-	31.33			
50	110	3320	-	27.78			
52	90	3610	-	26.96			
60	90	3610	-	23.25			
66	110	3320	-	21.33			
74	90	3610	-	18.94			
89	90	3430	-	15.67			
101	90	3250	-	13.89			
110	70	3800	-	12.70			
120	70	3680	-	11.65			
131	90	2880	-	10.67			
141	70	3460	-	9.92			
164	70	3270	-	8.55			
201	70	3020	-	6.97			
243	70	2810	-	5.77			
274	70	2680	-	5.11			
356	70	2410	-	3.93			
438	70	2220	-	3.20*			

W37R17, n_e=1400 1/min — 110 Nm

n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M
					2 3
0.32	110	3320	-	4402	
0.37	110	3320	-	3795	
0.43	110	3320	-	3272	

W37R17, n_e=1400 1/min					110 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M
0.48	110	3320	-	2899	
0.55	110	3320	-	2558	
0.59	110	3320	-	2382	
0.64	110	3320	-	2172	
0.72	110	3320	-	1952	
0.78	110	3320	-	1795	
0.88	110	3320	-	1593	
0.96	110	3320	-	1463	
1.1	110	3320	-	1298	
1.9	110	3320	-	754	
2.1	110	3320	-	669	
					2 2
1.2	110	3320	-	1173	
1.3	110	3320	-	1063	
1.5	110	3320	-	956	
1.6	110	3320	-	854	
2.3	110	3320	-	600	
2.6	110	3320	-	532	
3.0	110	3320	-	472	
3.2	110	3320	-	434	
3.6	110	3320	-	384	
3.9	110	3320	-	359	
4.3	110	3320	-	327	
4.9	110	3320	-	286	
5.2	110	3320	-	267	
6.0	110	3320	-	233	
6.8	110	3320	-	207	
7.6	110	3320	-	184	
8.8	110	3320	-	160	
9.9	110	3320	-	141	
11	110	3320	-	125	
13	110	3320	-	109	
15	110	3320	-	96	
17	110	3320	-	82	
19	90	3610	-	73	
22	90	3610	-	63	
26	90	3610	-	53	
29	90	3610	-	48	

W47, n_e=1400 1/min									180 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M
						2			
19	180	6400	-	74.98					
20	180	6400	-	68.93					
24	180	6400	-	58.98					
27	180	6230	-	51.12					

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W47, n_e=1400 1/min									180 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M DRN90S	DRN90L	DRN100LS DRN100L	DRN112M
29	180	6040	-	47.78					
34	180	5650	-	41.30					
40	180	5230	-	35.09					
44	160	5560	-	31.62					
45	180	4950	-	31.33					
51	160	5220	-	27.41					
52	180	4580	-	26.76					
55	160	5070	-	25.62					
56	180	4430	-	25.07					
63	160	4750	-	22.15					
74	160	4410	-	18.82					
83	160	4180	-	16.80					
98	160	3880	-	14.35					
104	160	3760	-	13.44					
114	110	4550	-	12.30					
124	160	3460	-	11.32					
131	110	4300	-	10.66					
141	110	4190	-	9.96					
163	110	3960	-	8.61					
191	110	3710	-	7.32					
214	110	3540	-	6.53					
251	110	3320	-	5.58					
268	110	3240	-	5.23					
318	110	3020	-	4.40					
360	110	2860	-	3.89					
428	110	2660	-	3.27					

W47R17, n_e=1400 1/min						180 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
					2 3	
0.29	180	6400	-	4815		
0.34	180	6400	-	4173		
0.36	180	6400	-	3870		
0.39	180	6400	-	3598		
0.42	180	6400	-	3354		
0.44	180	6400	-	3171		
0.51	180	6400	-	2748		
0.58	180	6400	-	2425		
0.62	180	6400	-	2258		
0.66	180	6400	-	2111		
0.71	180	6400	-	1959		
0.78	180	6400	-	1797		
0.88	180	6400	-	1595		
0.94	180	6400	-	1486		
0.97	180	6400	-	1448		
1.2	180	6400	-	1170		

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W47R17, n_e=1400 1/min						180 Nm
n_a 1/min	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR63S DR63M DR63L DRS71S DRS71M	DRN80M
1.9	180	6400	-	754		
					 2 2	
1.1	180	6400	-	1290		
1.2	180	6400	-	1183		
1.3	180	6400	-	1042		
1.5	180	6400	-	956		
1.6	180	6400	-	869		
2.1	180	6400	-	661		
2.3	180	6400	-	596		
2.6	180	6400	-	536		
3.0	180	6400	-	473		
3.2	180	6400	-	434		
3.6	180	6400	-	386		
3.9	180	6400	-	359		
4.4	180	6400	-	318		
4.8	180	6400	-	291		
5.2	180	6400	-	270		
5.3	180	6400	-	265		
5.9	180	6400	-	237		
6.7	180	6400	-	210		
7.7	180	6400	-	183		
8.8	180	6400	-	159		
9.9	180	6400	-	141		
11	160	6650	-	124		
12	180	6400	-	120		
13	160	6650	-	105		
15	160	6650	-	95		
16	160	6650	-	85		
18	160	6650	-	77		
19	160	6650	-	72		

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12.3 W..DRN.. selection tables in kW

P_m = 0.09 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
17	20	75.00*	1800	1.25						
22	17	60.00*	1800	1.45						
27	16	48.00*	1800	1.55						
33	15	39.00*	1800	1.70						
40	13	32.50*	1800	1.90						
47	12	27.50*	1800	2.0	**W**	**10**	**DT**	**56M4**	5.3	757
53	11	24.50*	1800	2.3	**WF**	**10**	**DT**	**56M4**	5.5	758
67	9.4	19.50*	1800	2.6	**WA**	**10**	**DT**	**56M4**	5.3	759
79	8.4	16.50*	1800	2.4	**WAF**	**10**	**DT**	**56M4**	5.5	758
91	7.6	14.33	1800	2.9						
127	5.8	10.25*	1800	2.2						
159	4.8	8.20*	1800	2.5						
198	4.0	6.57	1800	3.0						

P_m = 0.12 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.8	135	359	-	0.80						
4.2	128	327	1780	0.85						
4.8	112	286	3280	1.00						
5.2	107	267	3370	1.05						
5.9	94	233	3560	1.15						
6.7	81	207	3720	1.35						
7.5	73	184	3800	1.50						
8.6	68	160	3850	1.60	**W**	**37R17**	**DR**	**63S4**	13	777
9.8	60	141	3910	1.80	**WF**	**37R17**	**DR**	**63S4**	13	777
11	54	125	3960	2.0	**WA**	**37R17**	**DR**	**63S4**	13	777
13	48	109	4000	2.3	**WAF**	**37R17**	**DR**	**63S4**	13	777
14	43	96	4030	2.6						
17	37	82	4060	3.0						
19	38	73	4050	2.3						
22	34	63	4070	2.6						
26	29	53	4090	3.1						
29	27	48	4100	3.3						
20	39	69.05	4050	2.8						
22	36	63.33	4060	3.1						
26	31	53.92	4080	3.5	**W**	**37**	**DR**	**63S4**	10	767
30	27	46.49	4100	4.0	**WF**	**37**	**DR**	**63S4**	10	768
36	23	37.88	4110	4.8	**WA**	**37**	**DR**	**63S4**	10	770
40	24	34.52	4110	3.8	**WAF**	**37**	**DR**	**63S4**	10	768
44	22	31.67	4120	4.1						
12	40	75.00*	3000	1.75	**W**	**30**	**DR**	**63M6**	9.0	763
15	38	60.00*	3000	1.85	**WF**	**30**	**DR**	**63M6**	9.4	764
28	25	32.50*	3000	2.8	**WA**	**30**	**DR**	**63M6**	8.8	766
33	24	27.50*	3000	3.0	**WAF**	**30**	**DR**	**63M6**	9.1	765
18	28	75.00*	3000	2.5						
23	26	60.00*	3000	2.7	**W**	**30**	**DR**	**63S4**	9.0	763
29	23	48.00*	3000	3.1	**WF**	**30**	**DR**	**63S4**	9.4	764
35	20	39.00*	3000	3.4	**WA**	**30**	**DR**	**63S4**	8.8	766
42	17	32.50*	3000	4.1	**WAF**	**30**	**DR**	**63S4**	9.1	765
12	36	75.00*	2200	1.10	**W**	**20**	**DR**	**63M6**	6.6	760
15	32	60.00*	2200	1.25	**WF**	**20**	**DR**	**63M6**	6.8	761
28	27	32.50*	2200	1.50	**WA**	**20**	**DR**	**63M6**	6.3	762
33	22	27.50*	2200	1.80	**WAF**	**20**	**DR**	**63M6**	6.3	761

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P_m = 0.12 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
18	25	75.00*	2200	1.60						
23	22	60.00*	2200	1.80						
29	20	48.00*	2200	1.95						
35	19	39.00*	2200	2.2						
42	18	32.50*	2200	2.2	**W**	**20**	**DR**	**63S4**	6.6	760
50	15	27.50*	2200	2.6	**WF**	**20**	**DR**	**63S4**	6.8	761
56	14	24.50*	2200	2.9	**WA**	**20**	**DR**	**63S4**	6.3	762
71	12	19.50*	2200	3.0	**WAF**	**20**	**DR**	**63S4**	6.3	761
84	10	16.50*	2200	2.9						
96	9.6	14.33	2200	3.1						
135	7.2	10.25*	2160	3.5						
168	5.9	8.20*	2020	3.4						
210	4.9	6.57	1890	4.0						
17	27	75.00*	1800	0.95						
22	23	60.00*	1800	1.05						
27	21	48.00*	1800	1.15						
33	20	39.00*	1800	1.30						
40	18	32.50*	1800	1.40						
47	16	27.50*	1800	1.55	**W**	**10**	**DT**	**56L4**	5.3	757
53	15	24.50*	1800	1.70	**WF**	**10**	**DT**	**56L4**	5.5	758
67	13	19.50*	1800	2.00	**WA**	**10**	**DT**	**56L4**	5.3	759
79	11	16.50*	1800	1.80	**WAF**	**10**	**DT**	**56L4**	5.5	758
91	10	14.33	1800	2.2						
127	7.7	10.25*	1800	1.70						
159	6.3	8.20*	1800	1.90						
198	5.3	6.57	1800	2.3						

P_m = 0.18 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
4.2	225	318	6080	0.80						
4.9	193	270	6320	0.95						
5.6	178	237	6420	1.00						
6.3	156	210	6560	1.15						
7.2	135	183	6680	1.35						
8.3	122	159	6760	1.50	**W**	**47R17**	**DR**	**63M4**	18	777
9.3	108	141	6840	1.65	**WF**	**47R17**	**DR**	**63M4**	19	777
11	114	124	6900	1.40	**WA**	**47R17**	**DR**	**63M4**	17	777
11	93	120	6930	1.95	**WAF**	**47R17**	**DR**	**63M4**	18	777
13	96	105	6990	1.65						
14	90	95	7020	1.75						
16	79	85	7070	2.0						
17	74	77	7090	2.2						
18	67	72	7120	2.4						
6.4	134	207	580	0.80						
7.2	121	184	2620	0.90						
8.2	110	160	3320	1.00						
9.3	99	141	3500	1.10						
11	88	125	3630	1.25	**W**	**37R17**	**DR**	**63M4**	13	777
12	79	109	3740	1.40	**WF**	**37R17**	**DR**	**63M4**	13	777
14	71	96	3820	1.55	**WA**	**37R17**	**DR**	**63M4**	13	777
16	61	82	3910	1.80	**WAF**	**37R17**	**DR**	**63M4**	13	777
18	64	73	3890	1.40						
21	56	63	3940	1.60						
25	48	53	4000	1.85						
27	44	48	4020	2.0						
18	70	74.98	7060	2.6						
19	65	68.93	7080	2.8						
22	56	58.98	7130	3.2	**W**	**47**	**DR**	**63M4**	16	772
26	50	51.12	7160	3.6	**WF**	**47**	**DR**	**63M4**	16	773
28	47	47.78	7180	3.8	**WA**	**47**	**DR**	**63M4**	14	775
32	41	41.30	7210	4.4	**WAF**	**47**	**DR**	**63M4**	15	773
42	35	31.62	7020	4.6						

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P_m = 0.18 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
19	60	69.05	3920	1.85						
21	56	63.33	3950	1.95						
24	48	53.92	4000	2.3						
28	43	46.49	4030	2.6						
35	36	37.88	4070	3.1	**W**	**37**	**DR**	**63M4**	10	767
38	37	34.52	4060	2.4	**WF**	**37**	**DR**	**63M4**	10	768
42	34	31.67	4070	2.6	**WA**	**37**	**DR**	**63M4**	10	770
48	27	27.78	4100	4.1	**WAF**	**37**	**DR**	**63M4**	10	768
49	29	26.96	4090	3.1						
57	26	23.25	4100	3.5						
62	21	21.33	4120	5.2						
70	21	18.94	4120	4.3						
12	62	75.00*	3000	1.10	**W**	**30**	**DR**	**63L6**	9.8	763
14	58	60.00*	3000	1.20	**WF**	**30**	**DR**	**63L6**	10	764
27	39	32.50*	3000	1.80	**WA**	**30**	**DR**	**63L6**	9.5	766
32	37	27.50*	3000	1.90	**WAF**	**30**	**DR**	**63L6**	9.8	765
18	44	75.00*	3000	1.60						
22	40	60.00*	3000	1.75						
28	35	48.00*	3000	2.00						
34	32	39.00*	3000	2.2						
41	27	32.50*	3000	2.6						
48	25	27.50*	3000	2.8	**W**	**30**	**DR**	**63M4**	9.0	763
54	23	24.50*	3000	3.0	**WF**	**30**	**DR**	**63M4**	9.4	764
68	20	19.50*	3000	3.6	**WA**	**30**	**DR**	**63M4**	8.8	766
81	17	16.33	3000	3.5	**WAF**	**30**	**DR**	**63M4**	9.1	765
92	15	14.33	3000	3.9						
129	12	10.25*	3000	4.3						
161	9.5	8.20*	3000	4.2						
201	8.0	6.57	2980	5.0						
111	12	24.50*	3000	6.0						
139	9.9	19.50*	3000	7.1	**W**	**30**	**DR**	**63S2**	9.0	763
167	8.5	16.33	3000	7.1	**WF**	**30**	**DR**	**63S2**	9.4	764
190	7.7	14.33	3000	7.8	**WA**	**30**	**DR**	**63S2**	8.8	766
265	5.7	10.25*	2720	8.7	**WAF**	**30**	**DR**	**63S2**	9.1	765
332	4.7	8.20*	2540	8.6						
14	49	60.00*	2200	0.80	**W**	**20**	**DR**	**63L6**	7.3	760
32	35	27.50*	2200	1.15	**WF**	**20**	**DR**	**63L6**	7.4	761
45	27	19.50*	2200	1.30	**WA**	**20**	**DR**	**63L6**	7.0	762
					WAF	**20**	**DR**	**63L6**	7.0	761
18	39	75.00*	2200	1.00						
22	34	60.00*	2200	1.15						
28	32	48.00*	2200	1.25						
34	29	39.00*	2200	1.40						
41	28	32.50*	2200	1.40						
48	24	27.50*	2200	1.70	**W**	**20**	**DR**	**63M4**	6.6	760
54	22	24.50*	2200	1.85	**WF**	**20**	**DR**	**63M4**	6.8	761
68	19	19.50*	2200	1.90	**WA**	**20**	**DR**	**63M4**	6.3	762
80	16	16.50*	2200	1.85	**WAF**	**20**	**DR**	**63M4**	6.3	761
92	15	14.33	2200	2.0						
129	11	10.25*	2140	2.2						
161	9.2	8.20*	2010	2.2						
201	7.7	6.57	1890	2.6						
111	11	24.50*	2200	3.6						
139	9.4	19.50*	2090	3.7	**W**	**20**	**DR**	**63S2**	6.6	760
165	8.2	16.50*	1980	3.7	**WF**	**20**	**DR**	**63S2**	6.8	761
190	7.5	14.33	1910	4.0	**WA**	**20**	**DR**	**63S2**	6.3	762
265	5.6	10.25*	1720	4.5	**WAF**	**20**	**DR**	**63S2**	6.3	761
332	4.6	8.20*	1610	4.4						

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P_m = 0.25 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.1	196	183	6300	0.90						
8.2	175	159	6430	1.05						
9.2	157	141	6550	1.15						
11	164	124	6630	0.95	**W**	**47R17**	**DR**	**63L4**	19	777
11	134	120	6690	1.35	**WF**	**47R17**	**DR**	**63L4**	20	777
12	139	105	6760	1.15	**WA**	**47R17**	**DR**	**63L4**	18	777
14	129	95	6820	1.25	**WAF**	**47R17**	**DR**	**63L4**	18	777
15	114	85	6900	1.40						
17	106	77	6940	1.50						
18	97	72	6980	1.65						
10	128	125	1880	0.85						
12	114	109	3220	0.95						
14	102	96	3450	1.10	**W**	**37R17**	**DR**	**63L4**	14	777
16	88	82	3640	1.25	**WF**	**37R17**	**DR**	**63L4**	14	777
18	92	73	3580	0.95	**WA**	**37R17**	**DR**	**63L4**	14	777
21	82	63	3720	1.10	**WAF**	**37R17**	**DR**	**63L4**	14	777
24	70	53	3840	1.30						
27	64	48	3880	1.40						
					W	**47**	**DRS**	**71S6**	18	772
12	136	74.98	6680	1.30	**WF**	**47**	**DRS**	**71S6**	19	773
13	127	68.93	6730	1.40	**WA**	**47**	**DRS**	**71S6**	17	775
					WAF	**47**	**DRS**	**71S6**	17	773
17	98	74.98	6900	1.85						
19	91	68.93	6940	2.00	**W**	**47**	**DR**	**63L4**	16	772
22	79	58.98	7000	2.3	**WF**	**47**	**DR**	**63L4**	17	773
25	70	51.12	7060	2.6	**WA**	**47**	**DR**	**63L4**	15	775
27	66	47.78	7080	2.7	**WAF**	**47**	**DR**	**63L4**	16	773
19	85	69.05	3680	1.30						
21	78	63.33	3750	1.40						
24	68	53.92	3850	1.60						
28	60	46.49	3920	1.85						
34	50	37.88	3990	2.2						
38	52	34.52	3980	1.75						
41	48	31.67	4000	1.90						
47	38	27.78	4060	2.9	**W**	**37**	**DR**	**63L4**	11	767
48	41	26.96	4040	2.2	**WF**	**37**	**DR**	**63L4**	11	768
56	36	23.25	4060	2.5	**WA**	**37**	**DR**	**63L4**	11	770
61	30	21.33	4090	3.7	**WAF**	**37**	**DR**	**63L4**	11	768
69	30	18.94	4090	3.0						
83	25	15.67	4110	3.6						
94	22	13.89	4110	4.0						
102	21	12.70	4120	3.3						
112	20	11.65	4120	3.6						
122	17	10.67	3910	5.2						
131	17	9.92	3920	4.2						
12	85	75.00*	3000	0.85						
15	79	60.00*	3000	0.90	**W**	**30**	**DRS**	**71S6**	12	763
28	53	32.50*	3000	1.35	**WF**	**30**	**DRS**	**71S6**	12	764
37	46	24.50*	3000	1.50	**WA**	**30**	**DRS**	**71S6**	11	766
46	39	19.50*	3000	1.80	**WAF**	**30**	**DRS**	**71S6**	12	765
17	61	75.00*	3000	1.15						
22	57	60.00*	3000	1.25						
27	50	48.00*	3000	1.40						
33	45	39.00*	3000	1.55						
40	38	32.50*	3000	1.85						
47	35	27.50*	3000	2.00	**W**	**30**	**DR**	**63L4**	9.8	763
53	33	24.50*	3000	2.1	**WF**	**30**	**DR**	**63L4**	10	764
67	28	19.50*	3000	2.5	**WA**	**30**	**DR**	**63L4**	9.5	766
80	24	16.33	3000	2.5	**WAF**	**30**	**DR**	**63L4**	9.8	765
91	22	14.33	3000	2.8						
127	16	10.25*	3000	3.1						
159	13	8.20*	3000	3.0						
198	11	6.57	2970	3.6						

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P_m = 0.25 kW

n_a 1/min	M_a Nm	i	F_{Ra} 1) N	SEW f_B					m kg	
109	17	24.50*	3000	4.2						
136	14	19.50*	3000	5.0	**W**	**30**	**DR**	**63M2**	9.0	763
163	12	16.33	3000	5.0	**WF**	**30**	**DR**	**63M2**	9.4	764
186	11	14.33	3000	5.5	**WA**	**30**	**DR**	**63M2**	8.8	766
260	8.1	10.25*	2720	6.2	**WAF**	**30**	**DR**	**63M2**	9.1	765
324	6.6	8.20*	2540	6.0						
33	47	27.50*	2200	0.85						
37	43	24.50*	2200	0.95						
46	37	19.50*	2200	0.95	**W**	**20**	**DRS**	**71S6**	9.1	760
62	30	14.33	2200	1.00	**WF**	**20**	**DRS**	**71S6**	9.2	761
87	22	10.25*	2200	1.10	**WA**	**20**	**DRS**	**71S6**	8.8	762
109	19	8.20*	2190	1.10	**WAF**	**20**	**DRS**	**71S6**	8.8	761
136	16	6.57	2090	1.30						
22	48	60.00*	2200	0.85						
27	45	48.00*	2200	0.90						
33	41	39.00*	2200	1.00						
40	40	32.50*	2200	1.00						
47	34	27.50*	2200	1.20	**W**	**20**	**DR**	**63L4**	7.3	760
53	30	24.50*	2200	1.30	**WF**	**20**	**DR**	**63L4**	7.4	761
67	26	19.50*	2200	1.35	**WA**	**20**	**DR**	**63L4**	7.0	762
79	23	16.50*	2200	1.30	**WAF**	**20**	**DR**	**63L4**	7.0	761
91	21	14.33	2200	1.45						
127	16	10.25*	2100	1.60						
159	13	8.20*	1970	1.55						
198	11	6.57	1870	1.85						
82	21	32.50*	2200	1.95						
97	17	27.50*	2200	2.3						
109	16	24.50*	2190	2.6	**W**	**20**	**DR**	**63M2**	6.6	760
136	13	19.50*	2050	2.6	**WF**	**20**	**DR**	**63M2**	6.8	761
161	12	16.50*	1950	2.6	**WA**	**20**	**DR**	**63M2**	6.3	762
186	11	14.33	1880	2.8	**WAF**	**20**	**DR**	**63M2**	6.3	761
260	7.9	10.25*	1710	3.2						
324	6.5	8.20*	1600	3.1						

P_m = 0.37 kW

n_a 1/min	M_a Nm	i	F_{Ra} 1) N	SEW f_B					m kg	
9.8	220	141	6110	0.80						
11	192	120	6320	0.95						
13	198	105	6430	0.80	**W**	**47R17**	**DRS**	**71S4**	21	777
15	183	95	6520	0.90	**WF**	**47R17**	**DRS**	**71S4**	21	777
16	163	85	6640	1.00	**WA**	**47R17**	**DRS**	**71S4**	19	777
18	150	77	6710	1.05	**WAF**	**47R17**	**DRS**	**71S4**	20	777
19	138	72	6770	1.15						
17	126	82	2020	0.85	**W**	**37R17**	**DRS**	**71S4**	15	777
26	100	53	3480	0.90	**WF**	**37R17**	**DRS**	**71S4**	15	777
29	91	48	3600	1.00	**WA**	**37R17**	**DRS**	**71S4**	15	777
					WAF	**37R17**	**DRS**	**71S4**	15	777
12	200	74.98	6270	0.90						
13	186	68.93	6360	0.95	**W**	**47**	**DRS**	**71M6**	19	772
15	162	58.98	6520	1.10	**WF**	**47**	**DRS**	**71M6**	20	773
18	143	51.12	6640	1.25	**WA**	**47**	**DRS**	**71M6**	18	775
19	134	47.78	6690	1.35	**WAF**	**47**	**DRS**	**71M6**	19	773

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P_m = 0.37 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
18	138	74.98	6670	1.30						
20	128	68.93	6730	1.40						
23	111	58.98	6820	1.60						
27	98	51.12	6900	1.85						
29	92	47.78	6930	1.95						
33	81	41.30	6940	2.2						
39	70	35.09	6660	2.6						
44	69	31.62	6560	2.3						
44	63	31.33	6460	2.9	**W**	**47**	**DRS**	**71S4**	18	772
50	60	27.41	6310	2.7	**WF**	**47**	**DRS**	**71S4**	19	773
52	54	26.76	6200	3.3	**WA**	**47**	**DRS**	**71S4**	17	775
54	56	25.62	6200	2.8	**WAF**	**47**	**DRS**	**71S4**	17	773
55	51	25.07	6090	3.5						
62	49	22.15	5950	3.3						
73	42	18.82	5680	3.8						
82	38	16.80	5500	4.2						
96	32	14.35	5250	4.9						
112	30	12.30	5120	3.7						
129	26	10.66	4890	4.3						
139	24	9.96	4790	4.6						
22	110	63.33	3320	1.00						
26	96	53.92	3540	1.15						
30	84	46.49	3680	1.30						
36	70	37.88	3830	1.55						
40	73	34.52	3810	1.25						
44	67	31.67	3860	1.35						
50	53	27.78	3970	2.1						
51	58	26.96	3930	1.55	**W**	**37**	**DRS**	**71S4**	13	767
59	50	23.25	3990	1.80	**WF**	**37**	**DRS**	**71S4**	13	768
65	42	21.33	4030	2.6	**WA**	**37**	**DRS**	**71S4**	13	770
73	42	18.94	4040	2.2	**WAF**	**37**	**DRS**	**71S4**	13	768
88	35	15.67	4070	2.6						
99	31	13.89	4030	2.9						
109	30	12.70	4090	2.3						
118	27	11.65	3990	2.6						
129	24	10.67	3740	3.7						
139	23	9.92	3800	3.0						
161	20	8.55	3630	3.5						
18	86	75.00*	3000	0.80						
23	80	60.00*	3000	0.90						
29	69	48.00*	3000	1.00						
35	63	39.00*	3000	1.10						
42	53	32.50*	3000	1.30						
50	49	27.50*	3000	1.40	**W**	**30**	**DRS**	**71S4**	12	763
56	46	24.50*	3000	1.55	**WF**	**30**	**DRS**	**71S4**	12	764
71	39	19.50*	3000	1.80	**WA**	**30**	**DRS**	**71S4**	11	766
84	33	16.33	3000	1.80	**WAF**	**30**	**DRS**	**71S4**	12	765
96	30	14.33	3000	2.00						
135	23	10.25*	3000	2.2						
168	19	8.20*	3000	2.1						
210	16	6.57	2870	2.6						
108	25	24.50*	3000	2.8						
136	21	19.50*	3000	3.4	**W**	**30**	**DR**	**63L2**	9.8	763
162	18	16.33	3000	3.4	**WF**	**30**	**DR**	**63L2**	10	764
185	16	14.33	2960	3.7	**WA**	**30**	**DR**	**63L2**	9.5	766
259	12	10.25*	2690	4.1	**WAF**	**30**	**DR**	**63L2**	9.8	765
323	9.9	8.20*	2510	4.0						
50	47	27.50*	2200	0.85						
56	43	24.50*	2200	0.95						
71	37	19.50*	2200	0.95	**W**	**20**	**DRS**	**71S4**	9.1	760
84	32	16.50*	2180	0.95	**WF**	**20**	**DRS**	**71S4**	9.2	761
96	29	14.33	2130	1.00	**WA**	**20**	**DRS**	**71S4**	8.8	762
135	22	10.25*	1970	1.15	**WAF**	**20**	**DRS**	**71S4**	8.8	761
168	18	8.20*	1870	1.10						
210	15	6.57	1800	1.30						

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P_m = 0.37 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
108	23	24.50*	2080	1.70						
136	20	19.50*	1970	1.75	**W**	**20**	**DR**	**63L2**	7.3	760
161	17	16.50*	1880	1.75	**WF**	**20**	**DR**	**63L2**	7.4	761
185	16	14.33	1820	1.90	**WA**	**20**	**DR**	**63L2**	7.0	762
259	12	10.25*	1660	2.1	**WAF**	**20**	**DR**	**63L2**	7.0	761
323	9.6	8.20*	1560	2.1						

P_m = 0.55 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
18	205	51.12	6200	0.85						
19	198	47.78	6280	0.90						
22	174	41.30	6440	1.05	**W**	**47**	**DRS**	**80S6**	22	772
26	150	35.09	6590	1.20	**WF**	**47**	**DRS**	**80S6**	22	773
29	151	31.62	6700	1.05	**WA**	**47**	**DRS**	**80S6**	20	775
29	136	31.33	6610	1.35	**WAF**	**47**	**DRS**	**80S6**	21	773
33	132	27.41	6570	1.20						
36	124	25.62	6480	1.30						
18	205	74.98	6220	0.85						
20	192	68.93	6320	0.95						
23	168	58.98	6480	1.05						
27	147	51.12	6610	1.20						
28	139	47.78	6640	1.30	**W**	**47**	**DRS**	**71M4**	19	772
33	122	41.30	6460	1.50	**WF**	**47**	**DRS**	**71M4**	20	773
39	105	35.09	6250	1.70	**WA**	**47**	**DRS**	**71M4**	18	775
43	104	31.62	6220	1.55	**WAF**	**47**	**DRS**	**71M4**	19	773
43	95	31.33	6100	1.90						
50	90	27.41	6020	1.75						
53	85	25.62	5930	1.90						
36	106	37.88	3390	1.05						
43	101	31.67	3460	0.90						
49	80	27.78	3730	1.35						
50	87	26.96	3650	1.05						
59	76	23.25	3780	1.20						
64	63	21.33	3890	1.75						
72	63	18.94	3900	1.45						
87	52	15.67	3960	1.70	**W**	**37**	**DRS**	**71M4**	14	767
98	47	13.89	3850	1.95	**WF**	**37**	**DRS**	**71M4**	14	768
107	45	12.70	4010	1.55	**WA**	**37**	**DRS**	**71M4**	14	770
117	41	11.65	3910	1.70	**WAF**	**37**	**DRS**	**71M4**	14	768
128	36	10.67	3610	2.5						
137	35	9.92	3730	2.00						
159	30	8.55	3580	2.3						
195	25	6.97	3360	2.8						
236	21	5.77	3180	3.4						
266	18	5.11	3060	3.8						
346	14	3.93	2820	4.9						
42	80	32.50*	3000	0.90						
49	74	27.50*	3000	0.95						
56	69	24.50*	3000	1.00	**W**	**30**	**DRS**	**71M4**	13	763
83	50	16.33	3000	1.20	**WF**	**30**	**DRS**	**71M4**	13	764
95	46	14.33	3000	1.30	**WA**	**30**	**DRS**	**71M4**	13	766
133	34	10.25*	3000	1.45	**WAF**	**30**	**DRS**	**71M4**	13	765
166	28	8.20*	2990	1.40						
207	24	6.57	2810	1.70						
115	35	24.50*	3000	2.0						
144	29	19.50*	3000	2.4	**W**	**30**	**DRS**	**71M2**	13	763
172	25	16.33	2940	2.4	**WF**	**30**	**DRS**	**71M2**	13	764
196	23	14.33	2840	2.6	**WA**	**30**	**DRS**	**71M2**	13	766
274	17	10.25*	2590	3.0	**WAF**	**30**	**DRS**	**71M2**	13	765
343	14	8.20*	2420	2.9						

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P_m = 0.55 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
115	33	24.50*	1900	1.20						
144	28	19.50*	1810	1.25						
170	24	16.50*	1740	1.25	**W**	**20**	**DRS**	**71M2**	10	760
196	22	14.33	1700	1.35	**WF**	**20**	**DRS**	**71M2**	11	761
274	17	10.25*	1570	1.50	**WA**	**20**	**DRS**	**71M2**	10	762
343	14	8.20*	1480	1.50	**WAF**	**20**	**DRS**	**71M2**	10	761
428	11	6.57	1420	1.75						

P_m = 0.75 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
24	215	58.98	6090	0.85						
28	191	51.12	6010	0.95						
30	180	47.78	5960	1.00						
35	158	41.30	5850	1.15						
41	136	35.09	5710	1.30						
46	134	31.62	5770	1.20	**W**	**47**	**DRN**	**80M4**	24	772
46	123	31.33	5600	1.45	**WF**	**47**	**DRN**	**80M4**	25	773
53	117	27.41	5610	1.35	**WA**	**47**	**DRN**	**80M4**	23	775
54	106	26.76	5450	1.70	**WAF**	**47**	**DRN**	**80M4**	24	773
56	110	25.62	5540	1.45						
57	100	25.07	5380	1.80						
65	95	22.15	5370	1.70						
77	82	18.82	5180	1.95						
117	58	12.30	4850	1.90						
46	116	31.33	3050	0.95						
52	104	27.78	3420	1.05						
62	98	23.25	3510	0.90						
68	82	21.33	3710	1.35						
76	81	18.94	3720	1.10						
92	68	15.67	3670	1.35						
104	60	13.89	3590	1.50	**W**	**37**	**DRN**	**80M4**	18	767
135	47	10.67	3390	1.90	**WF**	**37**	**DRN**	**80M4**	18	768
145	45	9.92	3590	1.55	**WA**	**37**	**DRN**	**80M4**	18	770
168	39	8.55	3440	1.80	**WAF**	**37**	**DRN**	**80M4**	18	768
207	32	6.97	3250	2.2						
250	27	5.77	3070	2.6						
282	24	5.11	2960	3.0						
367	18	3.93	2740	3.8						
450	15	3.20*	2570	4.7						
88	65	16.33	3000	0.90						
100	59	14.33	3000	1.00	**W**	**30**	**DRN**	**80M4**	17	763
140	44	10.25*	3000	1.15	**WF**	**30**	**DRN**	**80M4**	18	764
176	36	8.20*	2850	1.10	**WA**	**30**	**DRN**	**80M4**	17	766
219	31	6.57	2700	1.30	**WAF**	**30**	**DRN**	**80M4**	17	765

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P_m = 1.1 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
41	198	35.09	4910	0.90						
46	194	31.62	5110	0.80						
46	178	31.33	4880	1.00						
53	170	27.41	5030	0.95						
54	154	26.76	4820	1.15						
57	159	25.62	4990	1.00						
58	145	25.07	4780	1.25	**W**	**47**	**DRN**	**90S4**	30	772
66	139	22.15	4890	1.15	**WF**	**47**	**DRN**	**90S4**	31	773
77	119	18.82	4760	1.35	**WA**	**47**	**DRN**	**90S4**	29	775
87	107	16.80	4670	1.50	**WAF**	**47**	**DRN**	**90S4**	30	773
101	92	14.35	4530	1.75						
108	86	13.44	4470	1.85						
118	84	12.30	4660	1.30						
136	73	10.66	4490	1.50						
146	68	9.96	4410	1.60						
169	59	8.61	4240	1.85						
93	98	15.67	3260	0.90						
105	88	13.89	3220	1.05						
136	68	10.67	3110	1.30						
147	66	9.92	3440	1.05	**W**	**37**	**DRN**	**90S4**	24	767
170	57	8.55	3310	1.25	**WF**	**37**	**DRN**	**90S4**	24	768
209	47	6.97	3140	1.50	**WA**	**37**	**DRN**	**90S4**	24	770
252	39	5.77	2980	1.80	**WAF**	**37**	**DRN**	**90S4**	24	768
285	34	5.11	2880	2.0						
371	26	3.93	2670	2.6						
455	22	3.20*	2520	3.2						

P_m = 1.5 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
55	205	26.76	4110	0.85						
58	198	25.07	4120	0.90						
66	188	22.15	4360	0.85						
78	161	18.82	4310	1.00						
87	145	16.80	4260	1.10	**W**	**47**	**DRN**	**90L4**	34	772
102	125	14.35	4180	1.30	**WF**	**47**	**DRN**	**90L4**	34	773
109	117	13.44	4140	1.35	**WA**	**47**	**DRN**	**90L4**	32	775
129	99	11.32	4020	1.60	**WAF**	**47**	**DRN**	**90L4**	33	773
137	99	10.66	4310	1.10						
147	93	9.96	4240	1.20						
170	80	8.61	4090	1.35						
200	68	7.32	3920	1.60						
224	61	6.53	3810	1.80						
137	93	10.67	2790	0.95						
171	78	8.55	3170	0.90						
210	63	6.97	3020	1.10	**W**	**37**	**DRN**	**90L4**	27	767
253	53	5.77	2880	1.35	**WF**	**37**	**DRN**	**90L4**	27	768
286	47	5.11	2790	1.50	**WA**	**37**	**DRN**	**90L4**	27	770
372	36	3.93	2600	1.95	**WAF**	**37**	**DRN**	**90L4**	27	768
457	29	3.20*	2460	2.4						

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P_m = 2.2 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
101	184	14.35	3560	0.85						
108	173	13.44	3560	0.90						
128	147	11.32	3540	1.10						
168	119	8.61	3840	0.95						
198	101	7.32	3720	1.10	**W**	**47**	**DRN**	**100LS4**	38	772
222	91	6.53	3620	1.20	**WF**	**47**	**DRN**	**100LS4**	38	773
260	78	5.58	3500	1.40	**WA**	**47**	**DRN**	**100LS4**	36	775
277	73	5.23	3440	1.50	**WAF**	**47**	**DRN**	**100LS4**	37	773
329	61	4.40	3300	1.80						
373	54	3.89	3200	2.0						
444	46	3.27	3050	2.4						

P_m = 3.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
223	123	6.53	3400	0.90						
261	105	5.58	3300	1.05	**W**	**47**	**DRN**	**100L4**	45	772
279	99	5.23	3260	1.10	**WF**	**47**	**DRN**	**100L4**	45	773
331	83	4.40	3150	1.30	**WA**	**47**	**DRN**	**100L4**	43	775
374	74	3.89	3060	1.50	**WAF**	**47**	**DRN**	**100L4**	44	773
446	62	3.27	2940	1.75						

P_m = 4.0 kW

n_a 1/min	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
280	131	5.23	3040	0.85	**W**	**47**	**DRN**	**112M4**	54	772
333	111	4.40	2960	1.00	**WF**	**47**	**DRN**	**112M4**	55	773
376	98	3.89	2890	1.10	**WA**	**47**	**DRN**	**112M4**	53	775
448	82	3.27	2800	1.35	**WAF**	**47**	**DRN**	**112M4**	53	773

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12.4 W..R..DRN.. selection tables for low output speeds in Nm

$M_{a\,max}$ = 90 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
18	73	3610	W	37R17	DR	63L4	14	777
			WF	37R17	DR	63L4	14	777
			WA	37R17	DR	63L4	14	777
			WAF	37R17	DR	63L4	14	777
22	63	3610	W	37R17	DRS	71S4	15	777
26	53	3610	WF	37R17	DRS	71S4	15	777
29	48	3610	WA	37R17	DRS	71S4	15	777
			WAF	37R17	DRS	71S4	15	777

$M_{a\,max}$ = 110 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
0.31	4402	3320						
0.36	3795	3320						
0.42	3272	3320						
0.48	2899	3320						
0.54	2558	3320						
0.58	2382	3320	W	37R17	DR	63S4	13	777
0.64	2172	3320	WF	37R17	DR	63S4	13	777
0.71	1952	3320	WA	37R17	DR	63S4	13	777
0.77	1795	3320	WAF	37R17	DR	63S4	13	777
0.87	1593	3320						
0.94	1463	3320						
1.1	1298	3320						
1.8	754	3320						
2.1	669	3320						
1.2	1173	3320						
1.3	1063	3320						
1.4	956	3320						
1.6	854	3320						
2.3	600	3320	W	37R17	DR	63S4	13	777
2.6	532	3320	WF	37R17	DR	63S4	13	777
2.9	472	3320	WA	37R17	DR	63S4	13	777
3.2	434	3320	WAF	37R17	DR	63S4	13	777
3.6	384	3320						
3.8	359	3320						
4.2	327	3320						
4.8	286	3320						
5.0	267	3320	W	37R17	DR	63M4	13	777
5.7	233	3320	WF	37R17	DR	63M4	13	777
6.4	207	3320	WA	37R17	DR	63M4	13	777
7.2	184	3320	WAF	37R17	DR	63M4	13	777
8.2	160	3320						
9.2	141	3320	W	37R17	DR	63L4	14	777
10	125	3320	WF	37R17	DR	63L4	14	777
12	109	3320	WA	37R17	DR	63L4	14	777
			WAF	37R17	DR	63L4	14	777
14	96	3320	W	37R17	DRS	71S4	15	777
17	82	3320	WF	37R17	DRS	71S4	15	777
			WA	37R17	DRS	71S4	15	777
			WAF	37R17	DRS	71S4	15	777

$M_{a\,max}$ = 160 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
11	124	6650	W	47R17	DR	63L4	19	777
			WF	47R17	DR	63L4	20	777
			WA	47R17	DR	63L4	18	777
			WAF	47R17	DR	63L4	18	777

$M_{a\ max}$ = 160 Nm

n_a 1/min	i	F_{Ra} [1] N					m kg	
13	105	6650	**W**	**47R17**	**DRS**	**71S4**	21	777
			WF	**47R17**	**DRS**	**71S4**	21	777
15	95	6650	**WA**	**47R17**	**DRS**	**71S4**	19	777
16	85	6650	**WAF**	**47R17**	**DRS**	**71S4**	20	777
			W	**47R17**	**DRS**	**71M4**	22	777
18	77	6650	**WF**	**47R17**	**DRS**	**71M4**	23	777
19	72	6650	**WA**	**47R17**	**DRS**	**71M4**	21	777
			WAF	**47R17**	**DRS**	**71M4**	22	777

$M_{a\ max}$ = 180 Nm

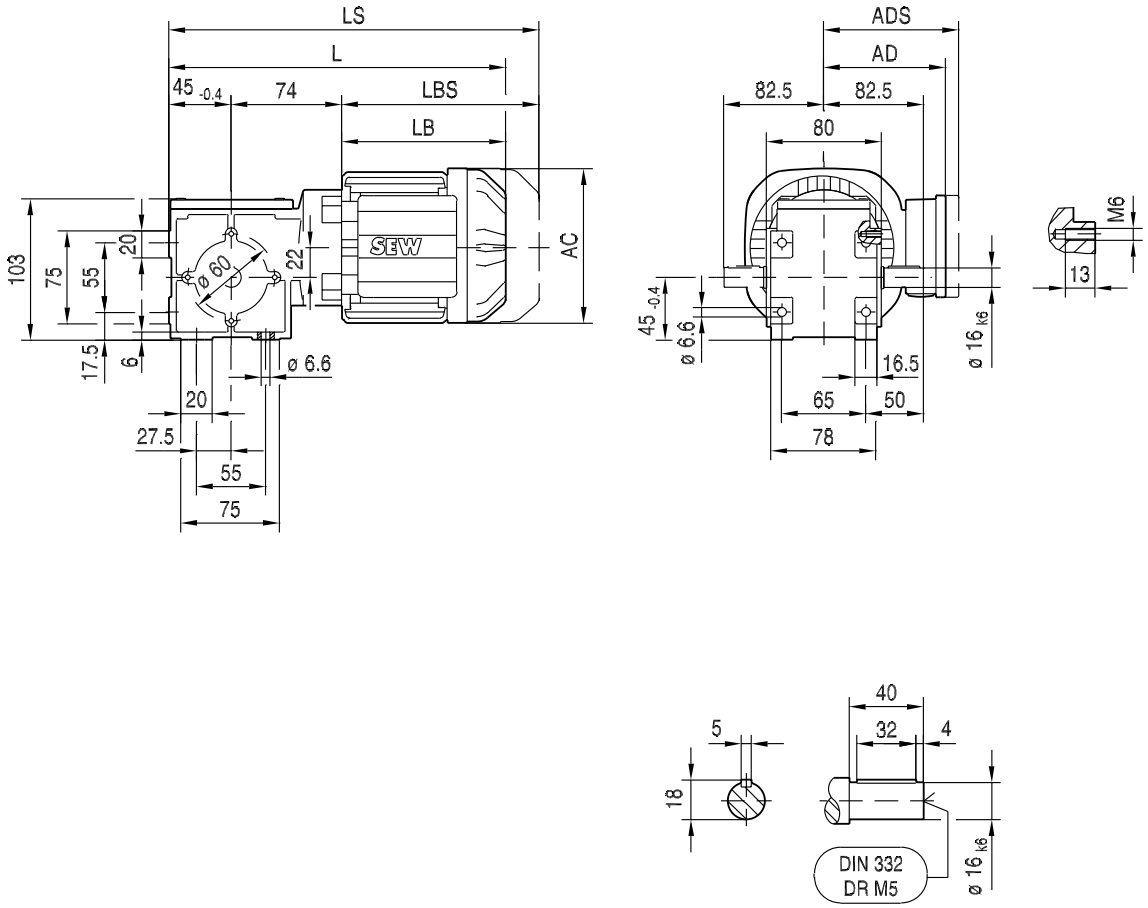
n_a 1/min	i	F_{Ra} [1] N					m kg	
0.29	4815	6400						
0.33	4173	6400						
0.36	3870	6400						
0.38	3598	6400						
0.41	3354	6400						
0.44	3171	6400						
0.50	2748	6400						
0.57	2425	6400	**W**	**47R17**	**DR**	**63S4**	19	777
0.61	2258	6400	**WF**	**47R17**	**DR**	**63S4**	19	777
0.65	2111	6400	**WA**	**47R17**	**DR**	**63S4**	17	777
0.70	1959	6400	**WAF**	**47R17**	**DR**	**63S4**	18	777
0.77	1797	6400						
0.87	1595	6400						
0.93	1486	6400						
0.95	1448	6400						
1.2	1170	6400						
1.8	754	6400						
1.1	1290	6400						
1.2	1183	6400						
1.3	1042	6400						
1.4	956	6400	**W**	**47R17**	**DR**	**63S4**	18	777
1.6	869	6400	**WF**	**47R17**	**DR**	**63S4**	19	777
2.1	661	6400	**WA**	**47R17**	**DR**	**63S4**	17	777
2.3	596	6400	**WAF**	**47R17**	**DR**	**63S4**	18	777
2.6	536	6400						
2.9	473	6400						
3.2	434	6400						
3.4	386	6400						
3.7	359	6400	**W**	**47R17**	**DR**	**63M4**	18	777
4.2	318	6400	**WF**	**47R17**	**DR**	**63M4**	19	777
4.5	291	6400	**WA**	**47R17**	**DR**	**63M4**	17	777
4.9	270	6400	**WAF**	**47R17**	**DR**	**63M4**	18	777
5.0	265	6400						
			W	**47R17**	**DR**	**63L4**	19	777
5.5	237	6400	**WF**	**47R17**	**DR**	**63L4**	20	777
6.2	210	6400	**WA**	**47R17**	**DR**	**63L4**	18	777
7.1	183	6400	**WAF**	**47R17**	**DR**	**63L4**	18	777
			W	**47R17**	**DRS**	**71S4**	21	777
8.7	159	6400	**WF**	**47R17**	**DRS**	**71S4**	21	777
9.8	141	6400	**WA**	**47R17**	**DRS**	**71S4**	19	777
11	120	6400	**WAF**	**47R17**	**DRS**	**71S4**	20	777

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12.5 W..DRN.. dimension sheets in mm

W10..

20 001 00 14

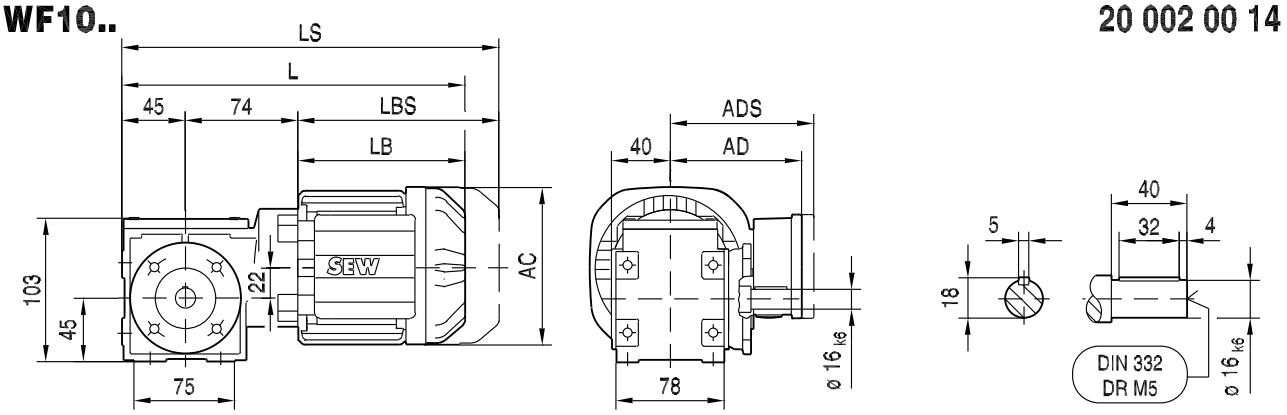


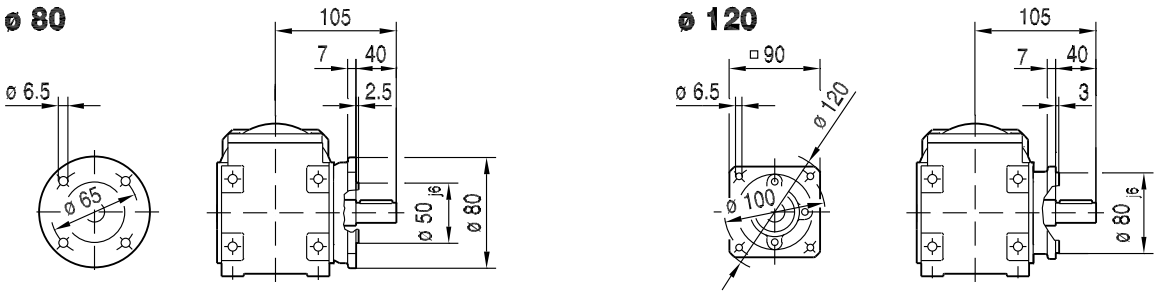
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ADS	87							
L	255							
LS	291							
LB	136							
LBS	172							

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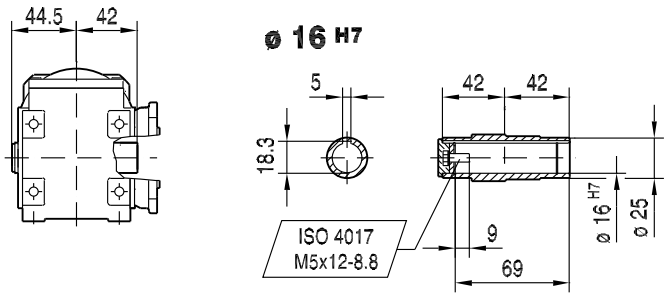
WF10..

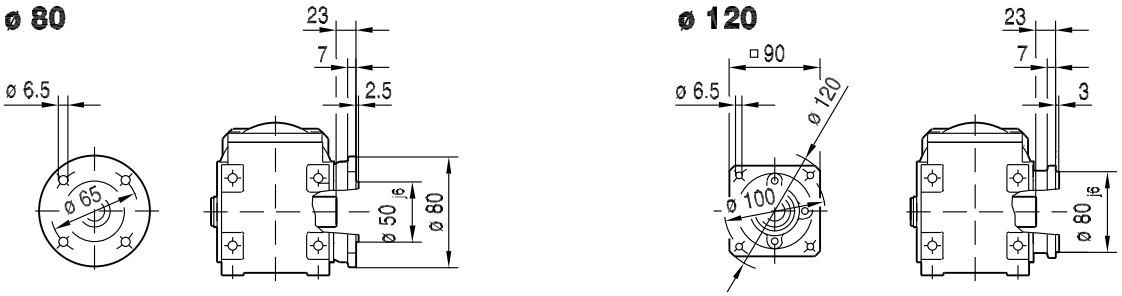
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WAF10..

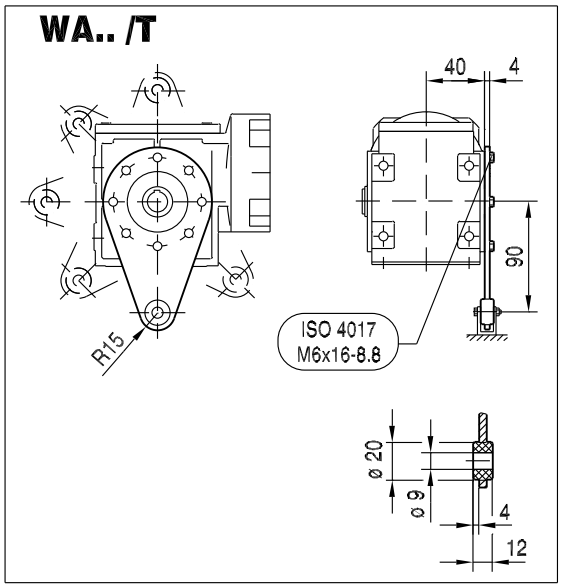


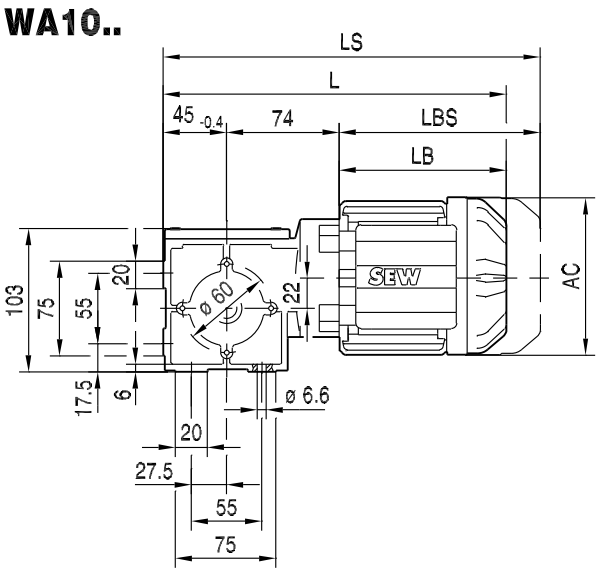


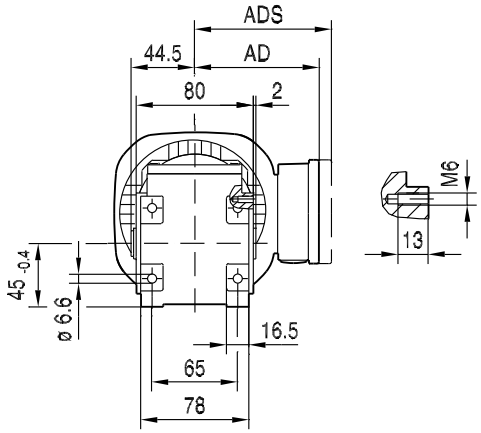
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ADS	87							
L	255							
LS	291							
LB	136							
LBS	172							

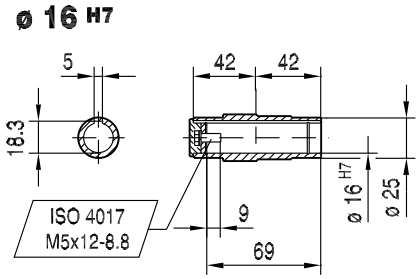
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20 003 00 14







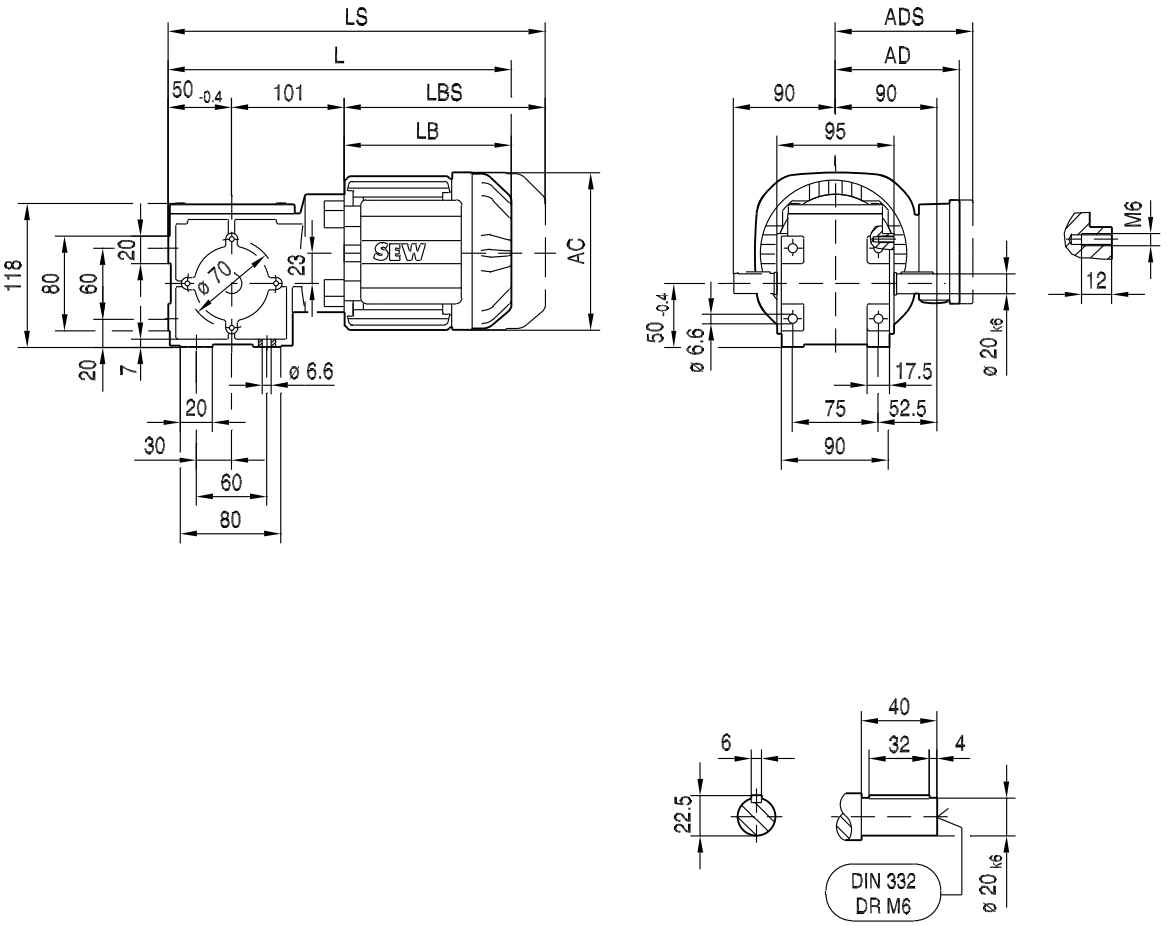


(→ 🗎 155)	DT56..							
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LS	291							
LB	136							
LBS	172							

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W20..

20 004 00 14

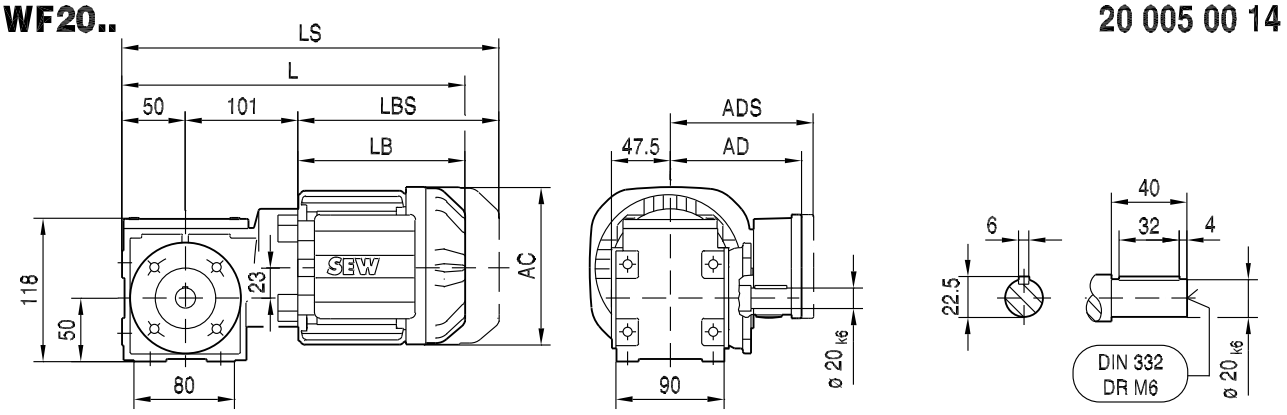


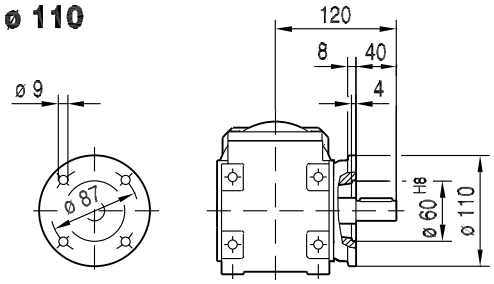
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AD	105	119	119					
ADS	105	129	129					
L	300	311	336					
LS	355	379	404					
LB	149	160	185					
LBS	204	228	253					

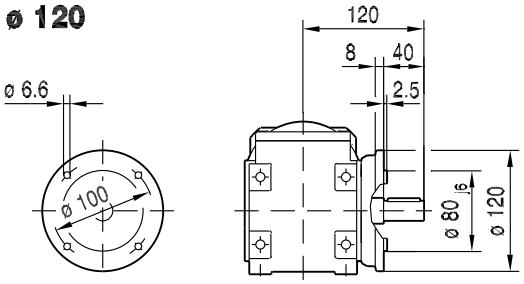
21933189/EN – 11/2015

WF20..

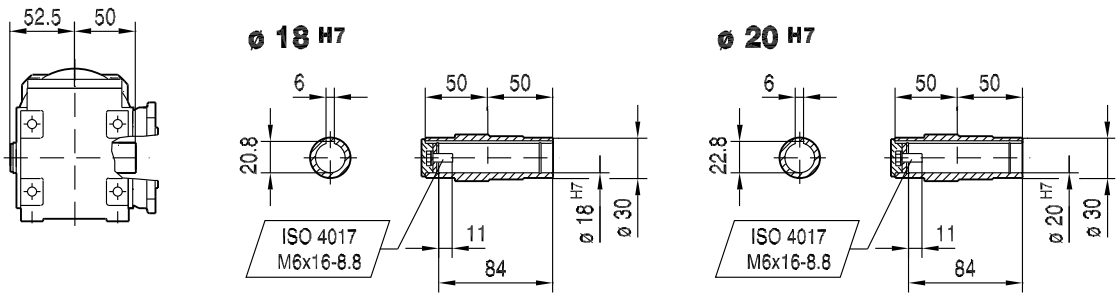
20 005 00 14

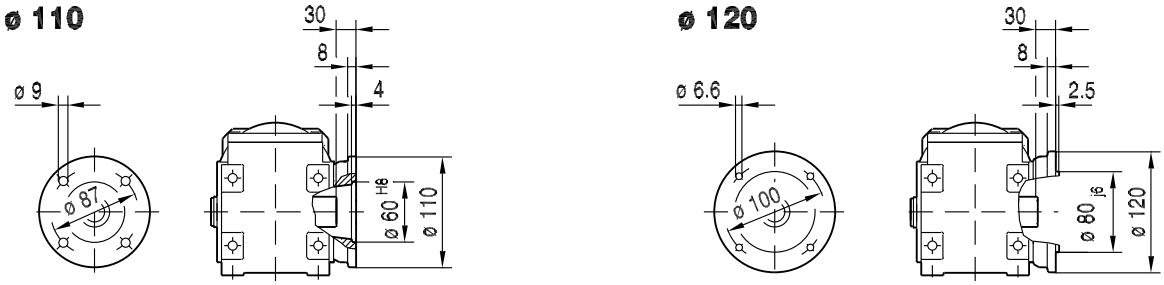






WAF20..

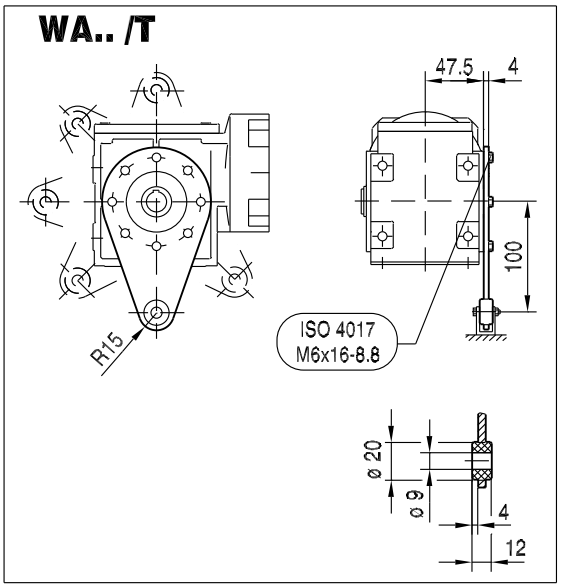


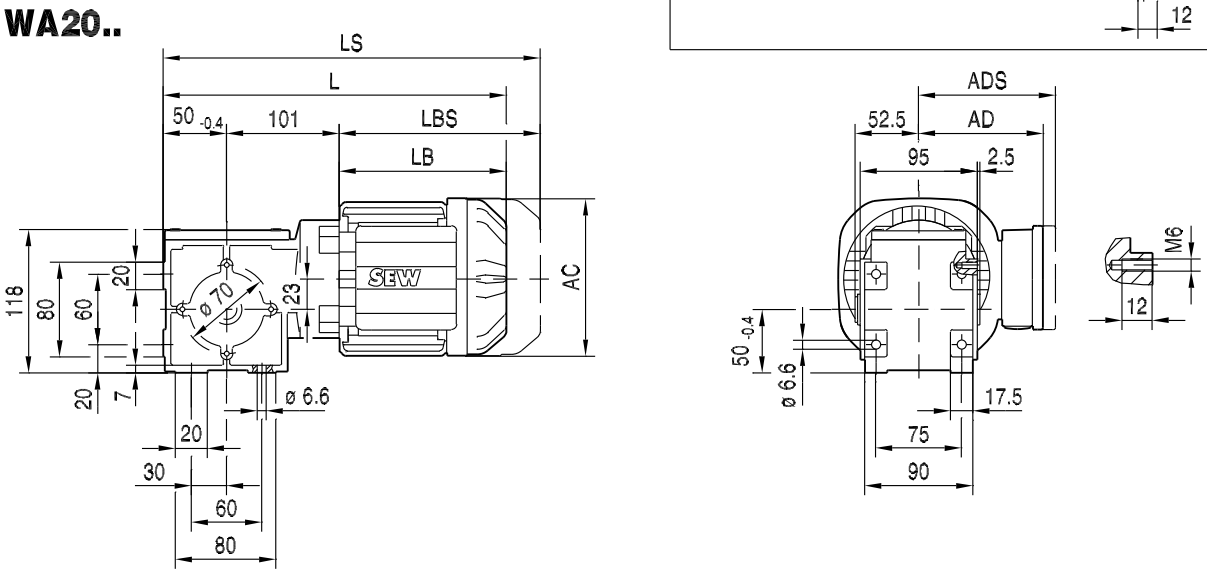


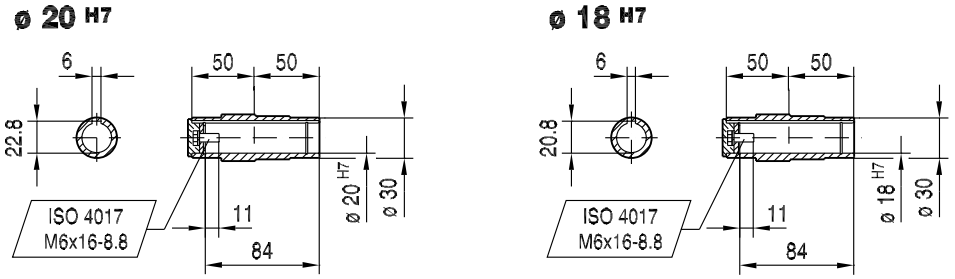
(→ 🗎 155)	DR63..	DR71S	DR71M					
AC	132	139	139					
AD	105	119	119					
ADS	105	129	129					
L	300	311	336					
LS	355	379	404					
LB	149	160	185					
LBS	204	228	253					

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20 006 00 14





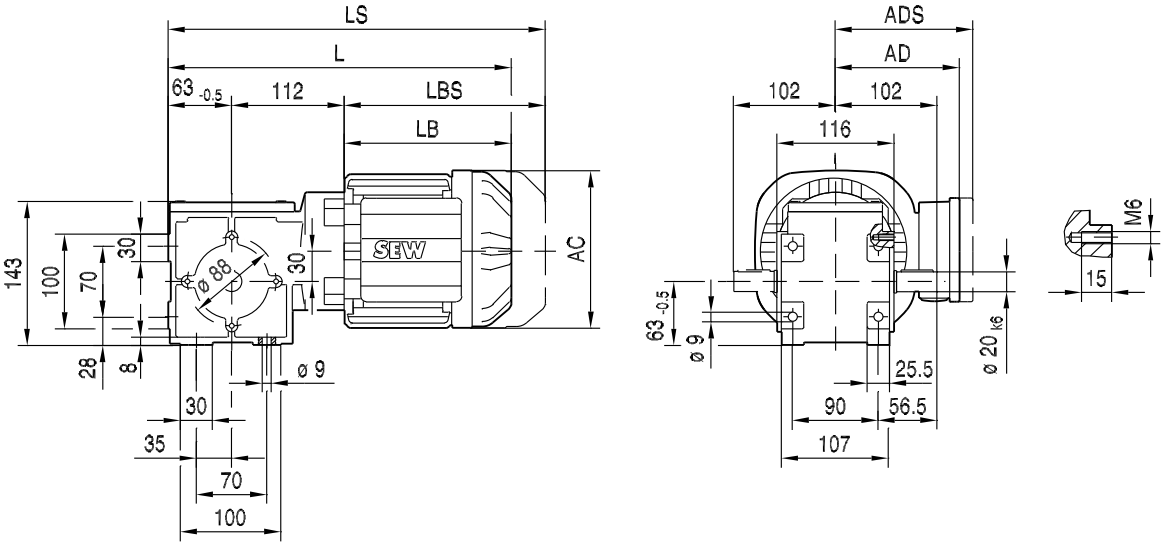


(→ 🗎 155)	DR63..	DR71S	DR71M					
AC	132	139	139					
AD	105	119	119					
ADS	105	129	129					
L	300	311	336					
LS	355	379	404					
LB	149	160	185					
LBS	204	228	253					

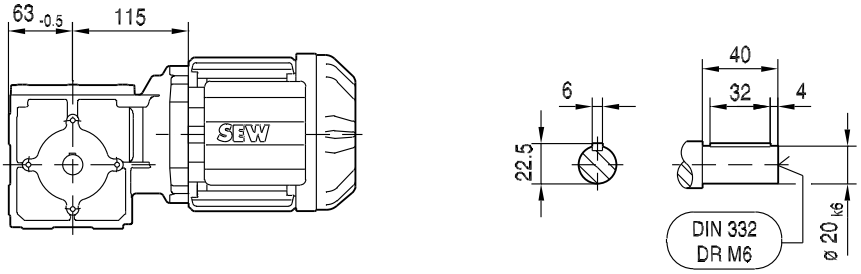
21933189/EN – 11/2015

20 007 00 14

W30..



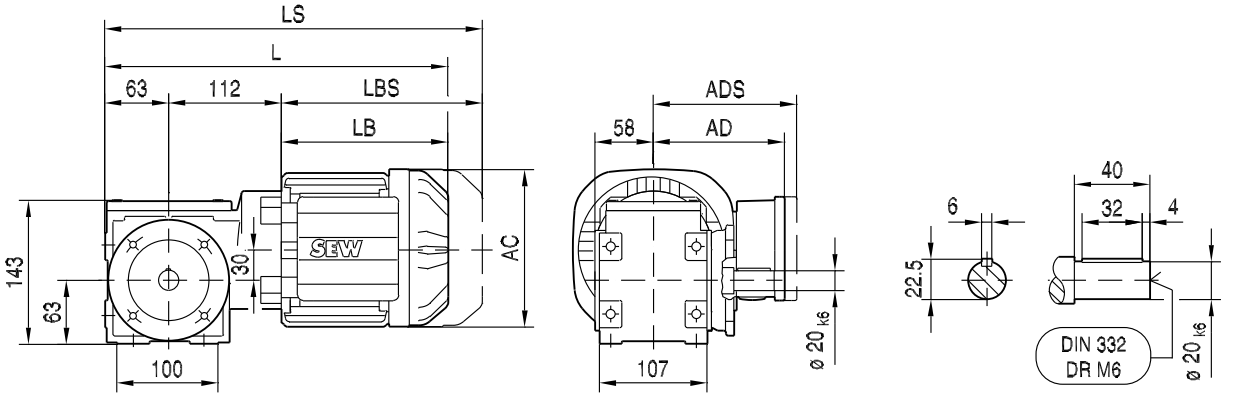
DR80..



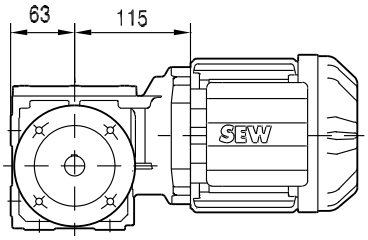
(→ 🗎 155)	DR63..	DR71S	DR71M	DRN80M				
AC	132	139	139	156				
AD	105	119	119	128				
ADS	105	129	129	139				
L	324	335	360	410				
LS	379	403	428	491				
LB	149	160	185	235				
LBS	204	228	253	316				

WF30..

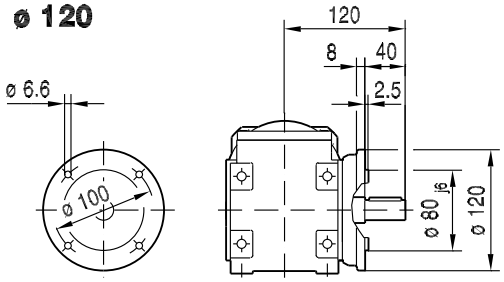
20 008 00 14



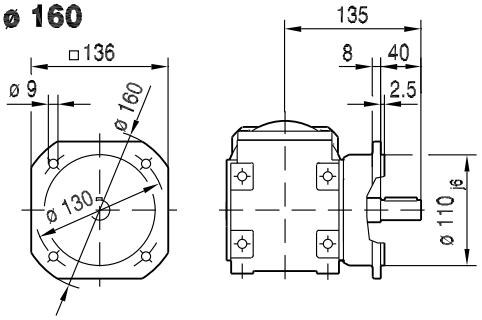
DR80..



ø 120



ø 160

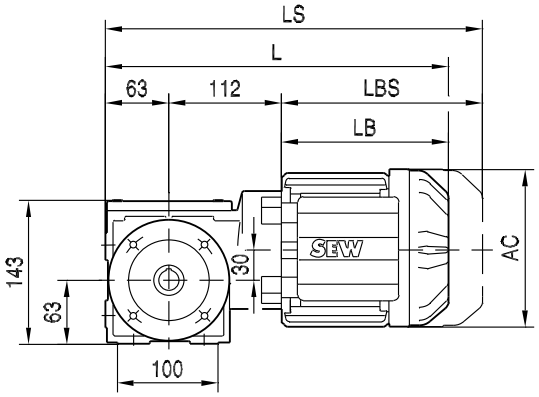


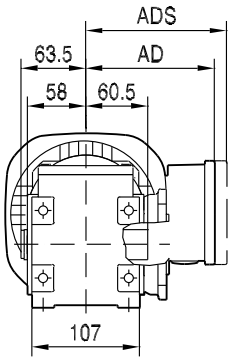
(→ 🗎 155)	DR63..	DR71S	DR71M	DRN80M				
AC	132	139	139	156				
AD	105	119	119	128				
ADS	105	129	129	139				
L	324	335	360	410				
LS	379	403	428	491				
LB	149	160	185	235				
LBS	204	228	253	316				

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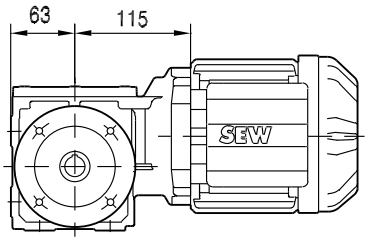
WAF30..

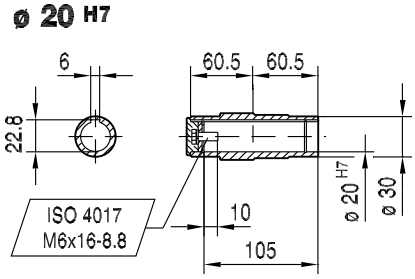
20 009 00 14

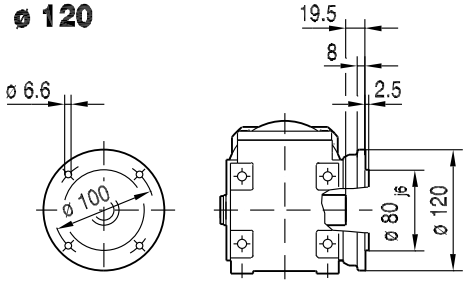


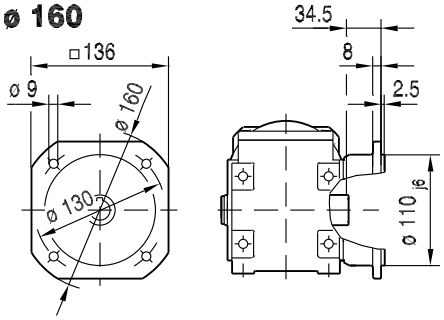


DR80..





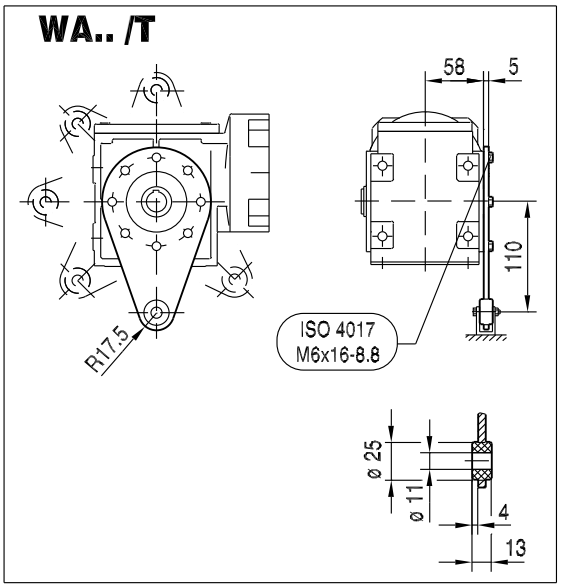


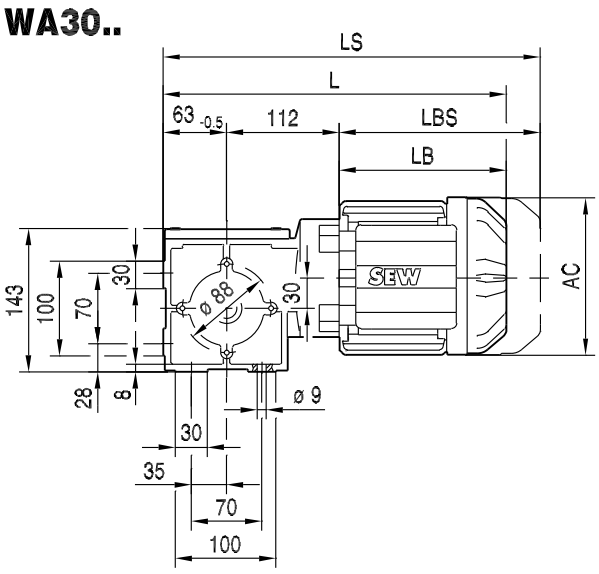


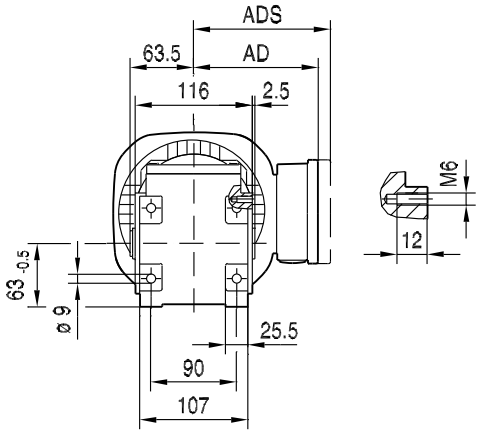
(→ 155)	DR63..	DR71S	DR71M	DRN80M				
AC	132	139	139	156				
AD	105	119	119	128				
ADS	105	129	129	139				
L	324	335	360	410				
LS	379	403	428	491				
LB	149	160	185	235				
LBS	204	228	253	316				

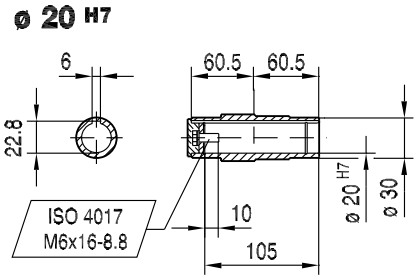
21933189/EN – 11/2015

20 010 00 14







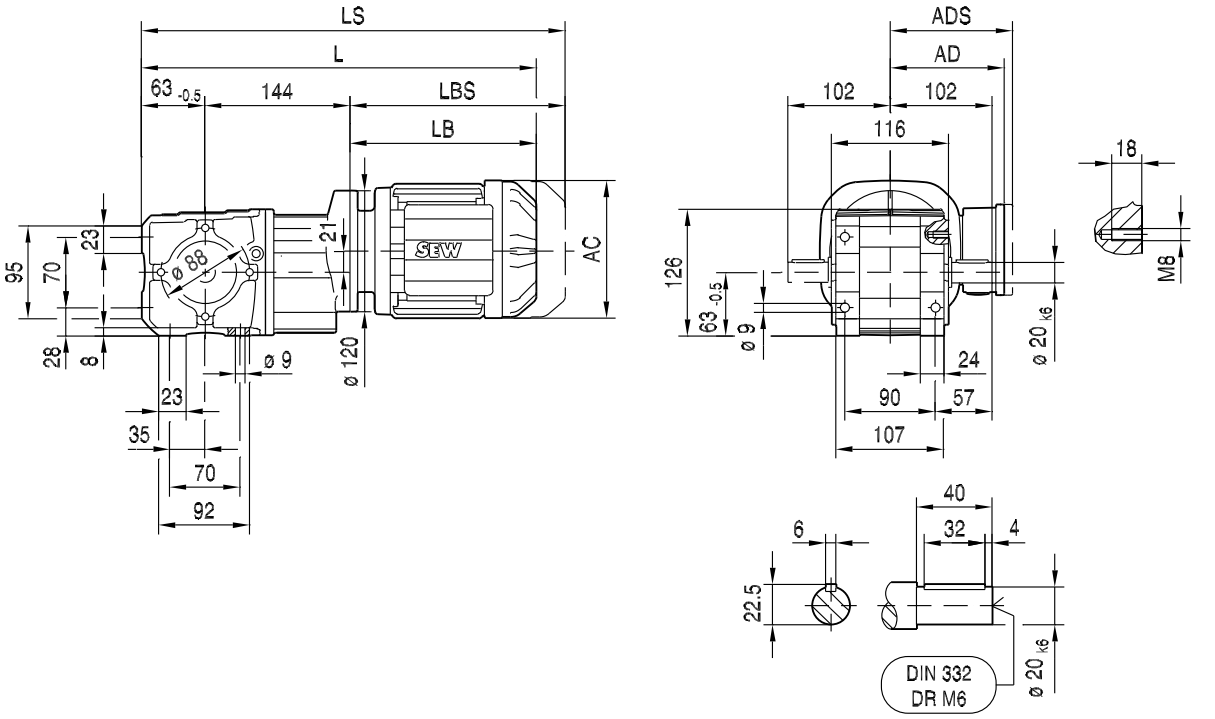


(→ 🗎 155)	DR63..	DR71S	DR71M	DRN80M				
AC	132	139	139	156				
AD	105	119	119	128				
ADS	105	129	129	139				
L	324	335	360	410				
LS	379	403	428	491				
LB	149	160	185	235				
LBS	204	228	253	316				

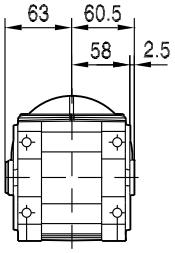
21933189/EN – 11/2015

20 011 00 14

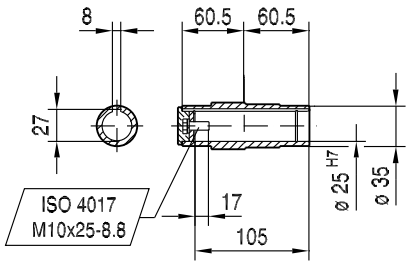
W37..



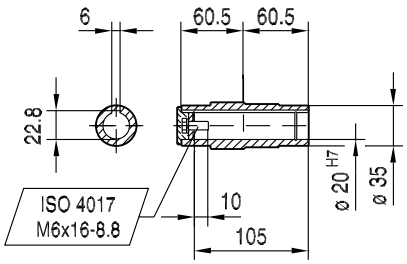
WA37B..



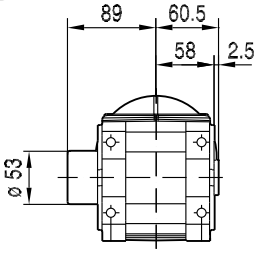
ø 25 H7
DIN 6885-3

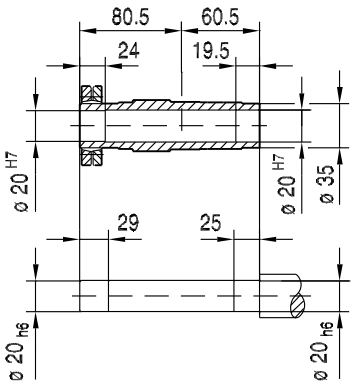


ø 20 H7



WH37B..

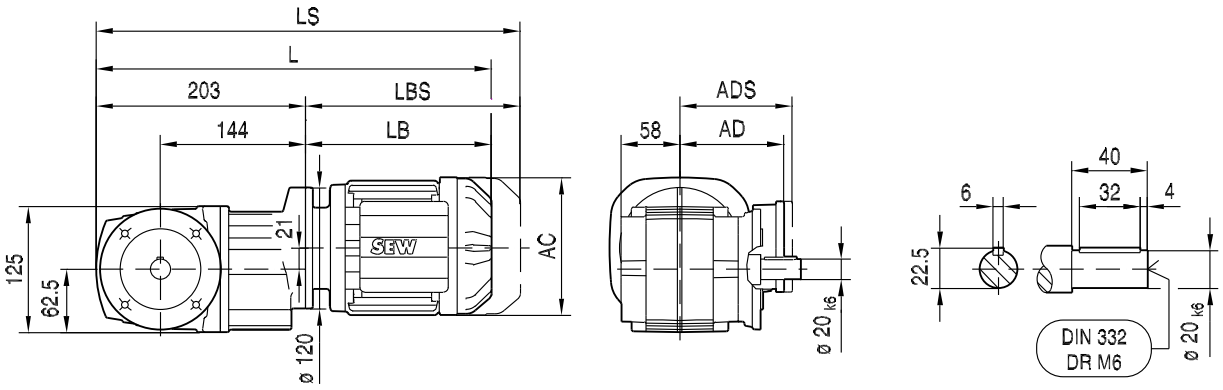




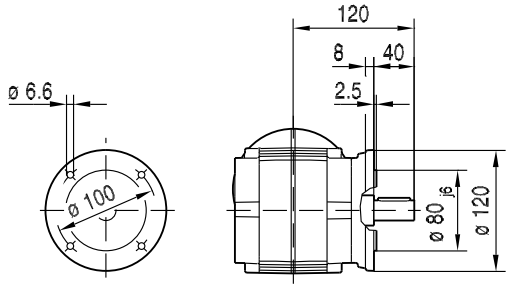
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	398	409	434	489	490	522		
LS	453	477	502	570	584	616		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

20 012 00 14

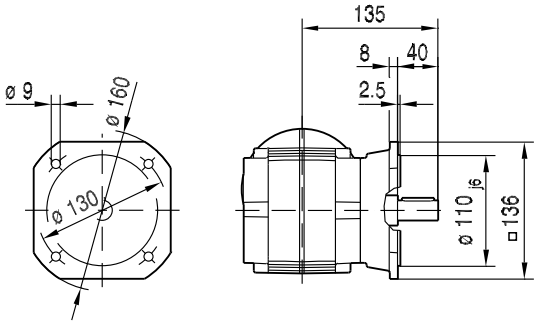
WF37..



ø 120
max. DR71..

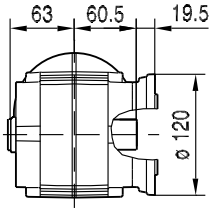


ø 160

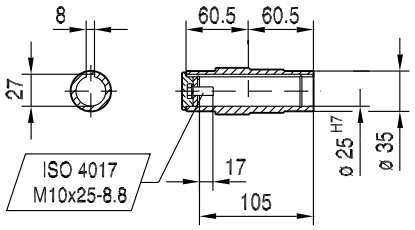


WAF37..

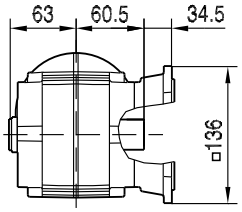
ø 120
max. DR71..



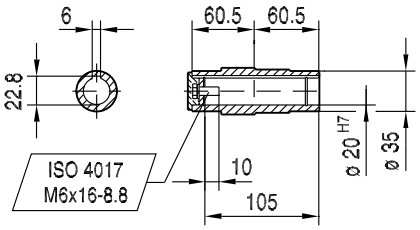
ø 25 H7
DIN 6885-3



ø 160



ø 20 H7

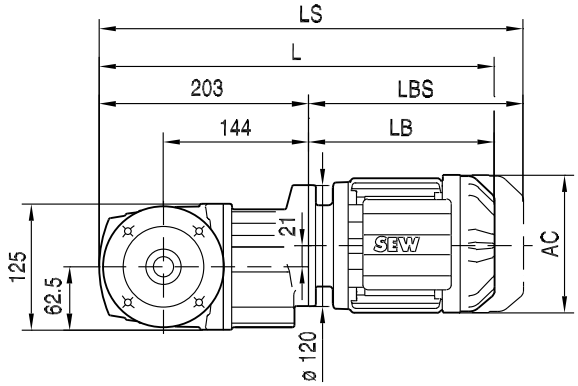


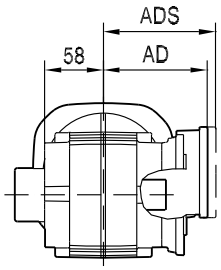
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	394	405	430	485	486	518		
LS	449	473	498	566	580	612		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

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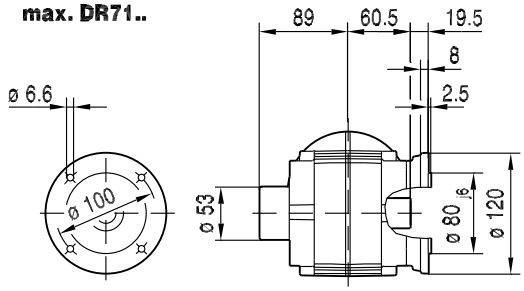
20 013 00 14

WHF37..

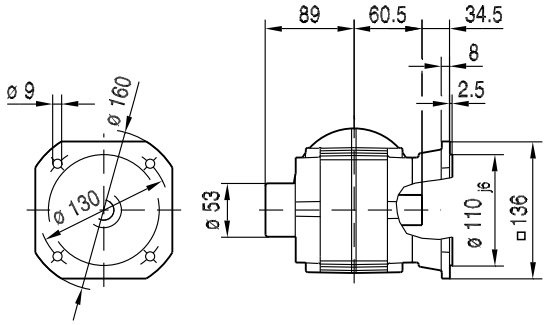


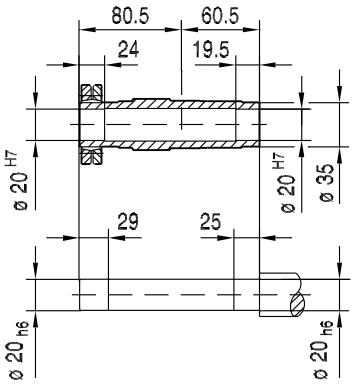


ø 120
max. DR71..



ø 160



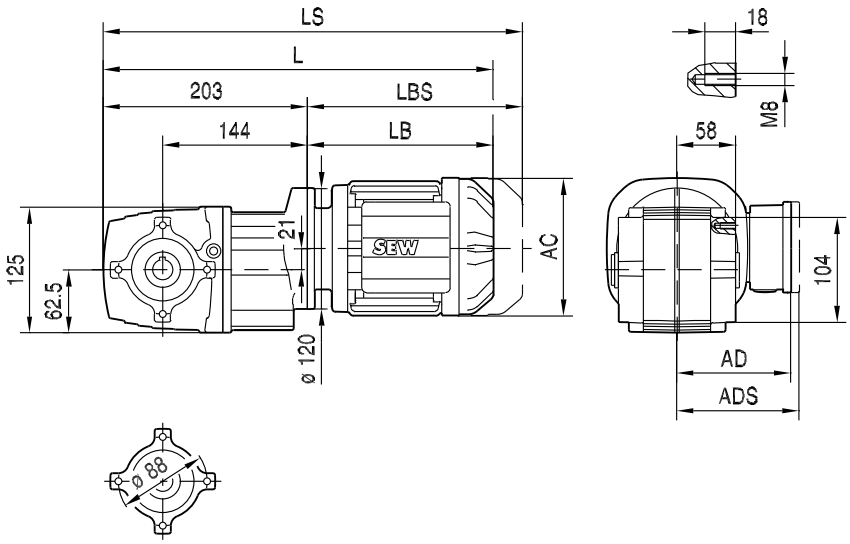


(→ 🗎 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	394	405	430	485	486	518		
LS	449	473	498	566	580	612		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

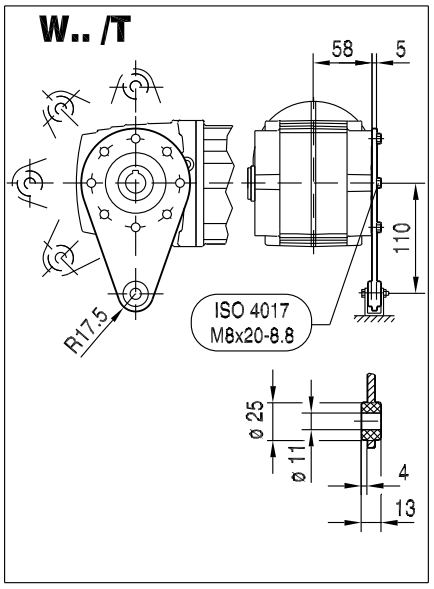
21933189/EN – 11/2015

20 014 00 14

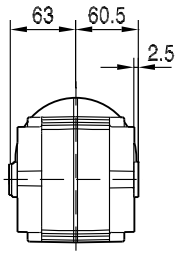
WA37..



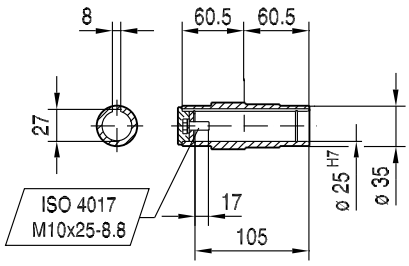
W.. /T



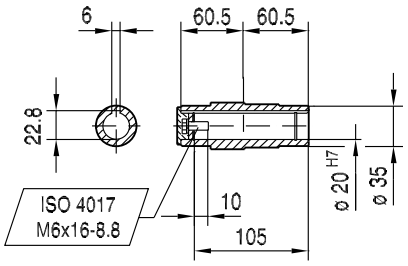
WA37..



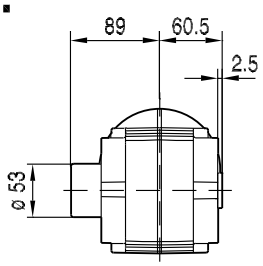
ø 25 H7
DIN 6885-3

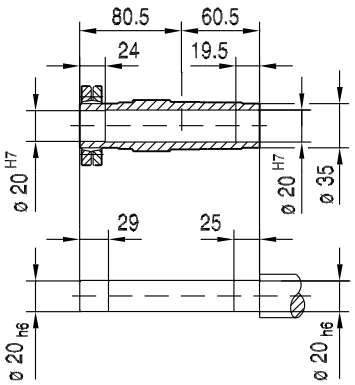


ø 20 H7



WH37..



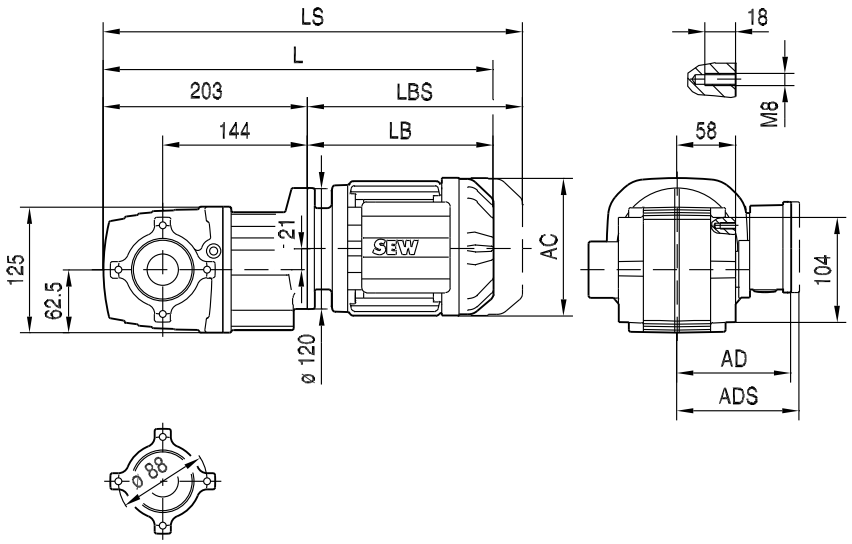


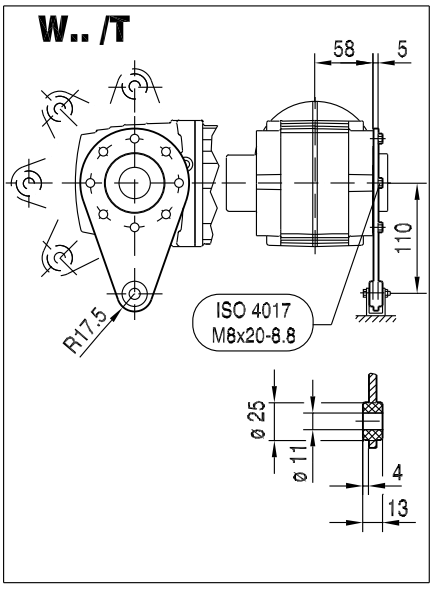
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	394	405	430	485	486	518		
LS	449	473	498	566	580	612		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

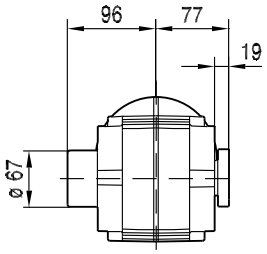
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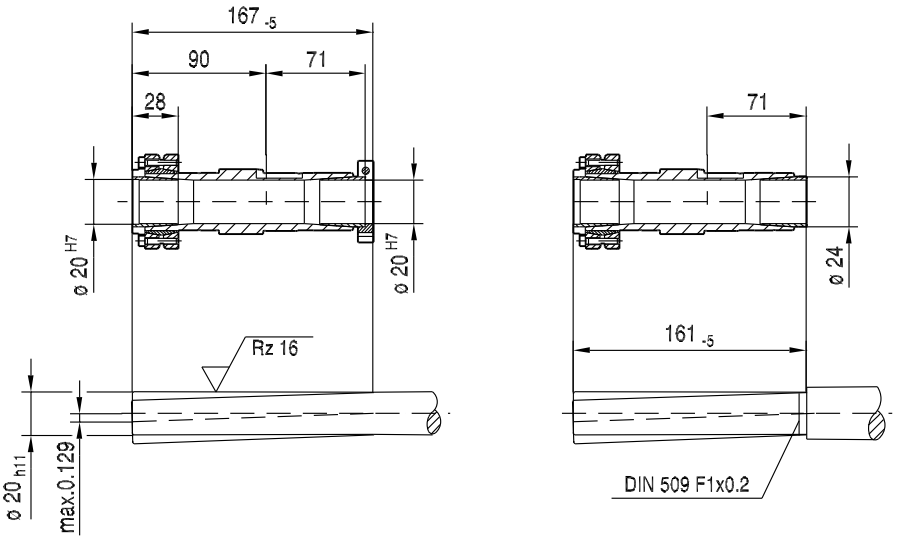
20 015 00 14

WT37..







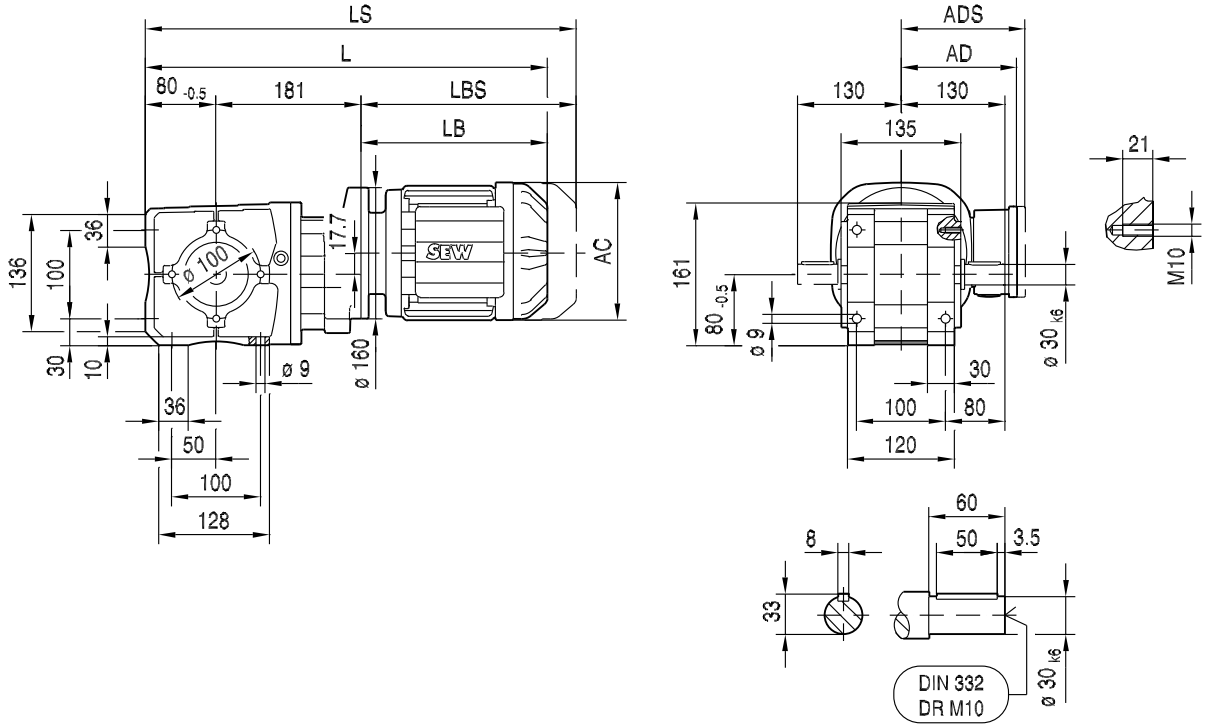


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L		
AC	132	139	139	156	179	179		
AD	105	119	119	128	140	140		
ADS	105	129	129	139	150	150		
L	394	405	430	485	486	518		
LS	449	473	498	566	580	612		
LB	191	202	227	282	283	315		
LBS	246	270	295	363	377	409		

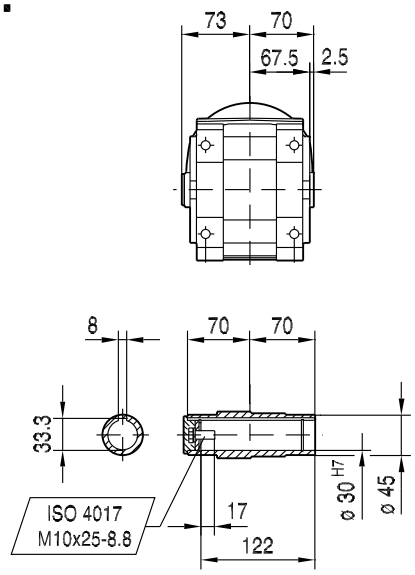
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20 016 00 14

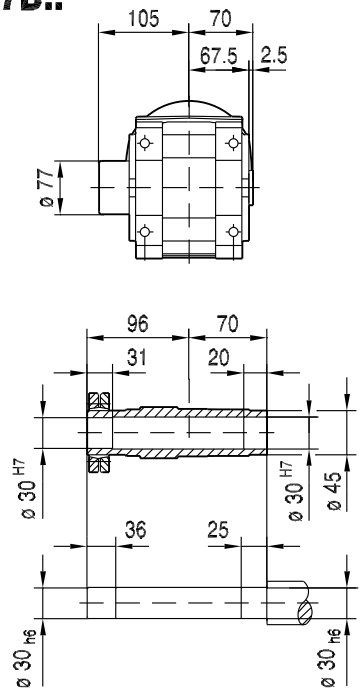
W47..



WA47B..



WH47B..

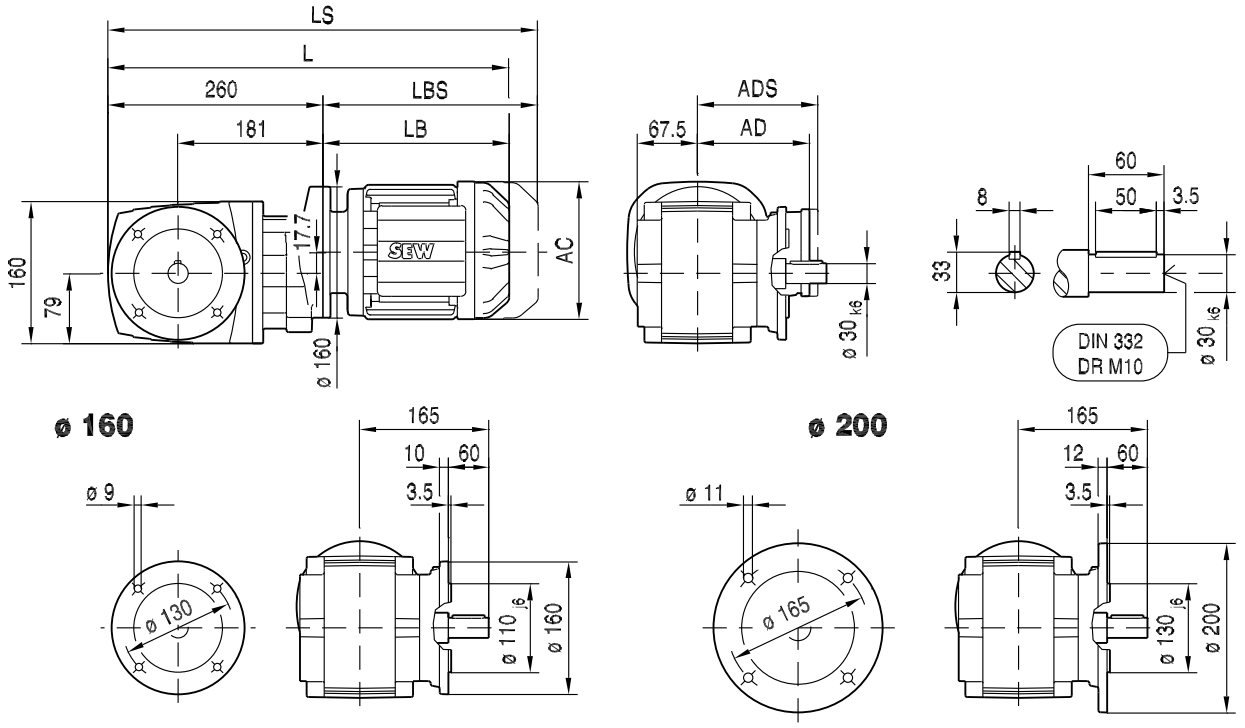


(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M
AC	132	139	139	156	179	179	197	197	221
AD	105	119	119	128	140	140	157	157	170
ADS	105	129	129	139	150	150	158	158	172
L	446	457	482	536	538	570	566	616	647
LS	501	525	550	617	631	663	660	710	759
LB	185	196	221	275	277	309	305	355	386
LBS	240	264	289	356	370	402	399	449	498

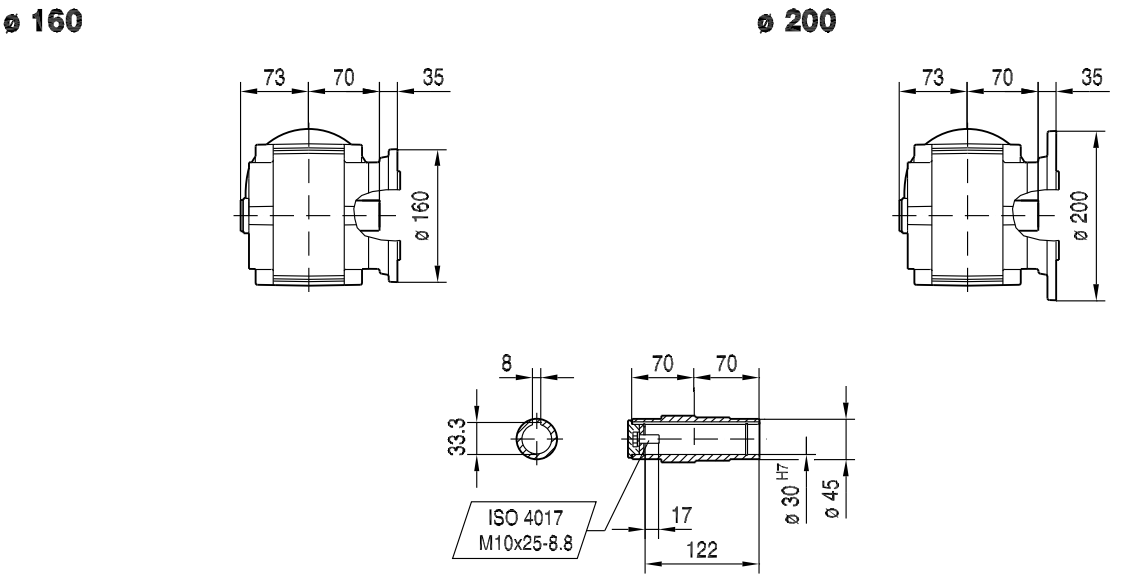
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20 017 01 14

WF47..



WAF47..

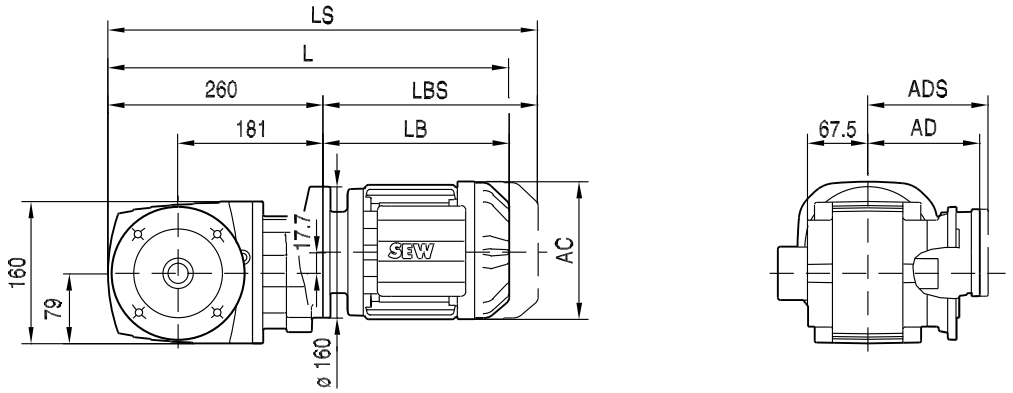


(→ 🗎 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M
AC	132	139	139	156	179	179	197	197	221
AD	105	119	119	128	140	140	157	157	170
ADS	105	129	129	139	150	150	158	158	172
L	445	456	481	535	537	569	565	615	646
LS	500	524	549	616	630	662	659	709	758
LB	185	196	221	275	277	309	305	355	386
LBS	240	264	289	356	370	402	399	449	498

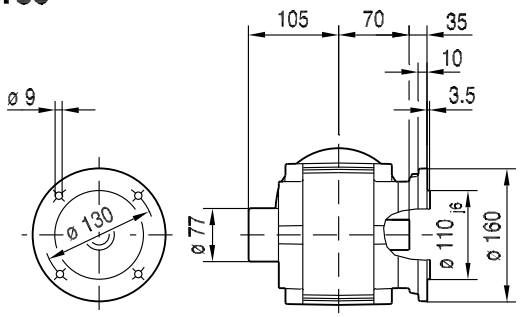
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20 054 00 15

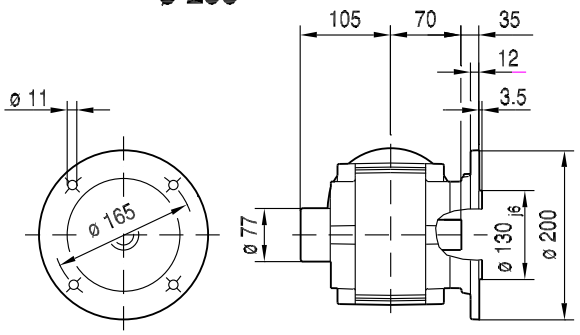
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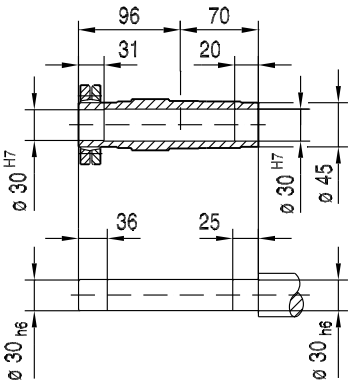


ø 160



ø 200



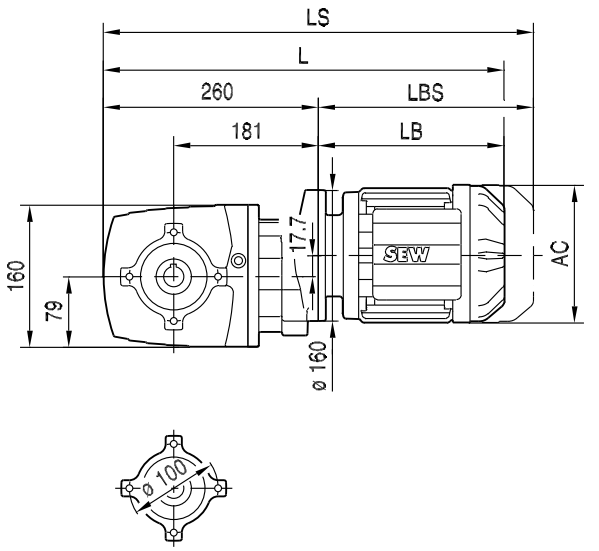


(→ 🗎 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M
AC	132	139	139	156	179	179	197	197	221
AD	105	119	119	128	140	140	157	157	170
ADS	105	129	129	139	150	150	158	158	172
L	445	456	481	535	537	569	565	615	646
LS	500	524	549	616	630	662	659	709	758
LB	185	196	221	275	277	309	305	355	386
LBS	240	264	289	356	370	402	399	449	498

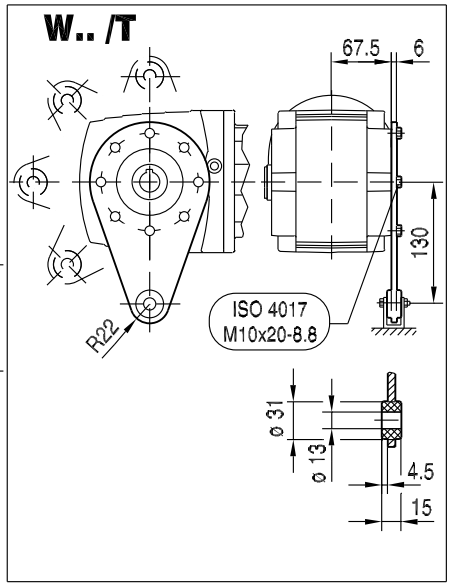
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20 018 00 14

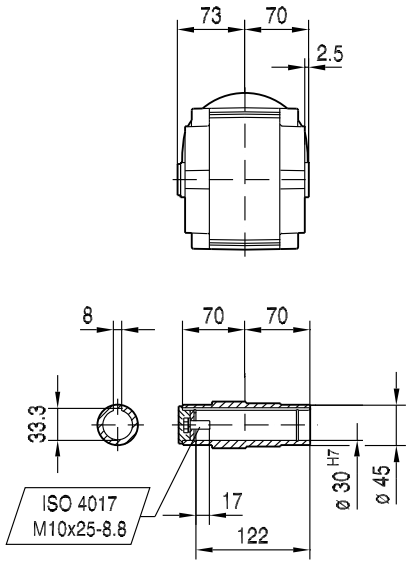
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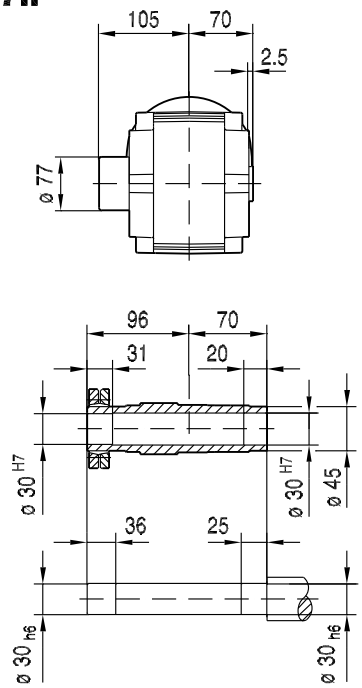
W.. /T



WA47..



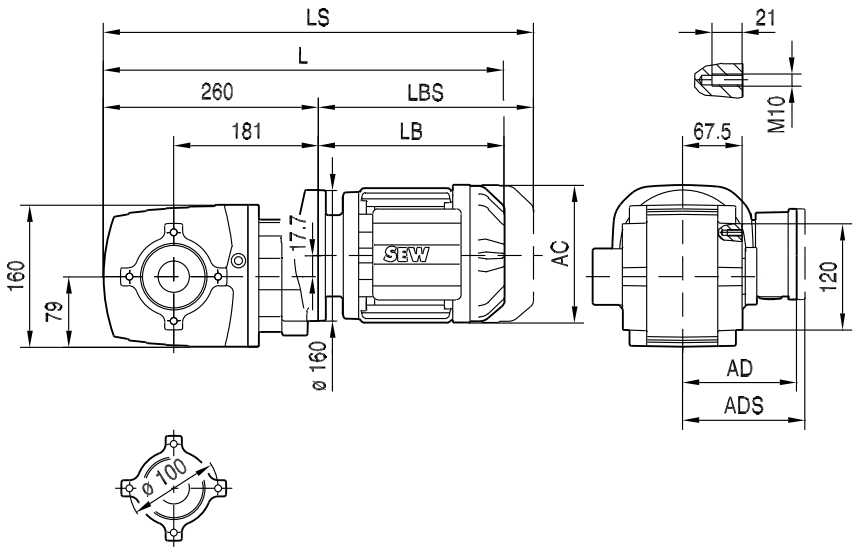
WH47..



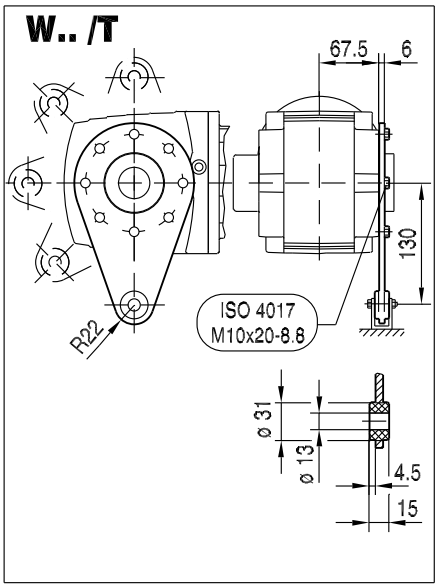
(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M
AC	132	139	139	156	179	179	197	197	221
AD	105	119	119	128	140	140	157	157	170
ADS	105	129	129	139	150	150	158	158	172
L	445	456	481	535	537	569	565	615	646
LS	500	524	549	616	630	662	659	709	758
LB	185	196	221	275	277	309	305	355	386
LBS	240	264	289	356	370	402	399	449	498

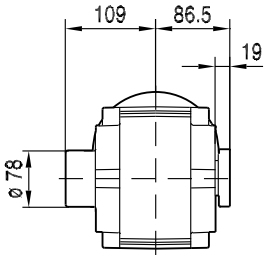
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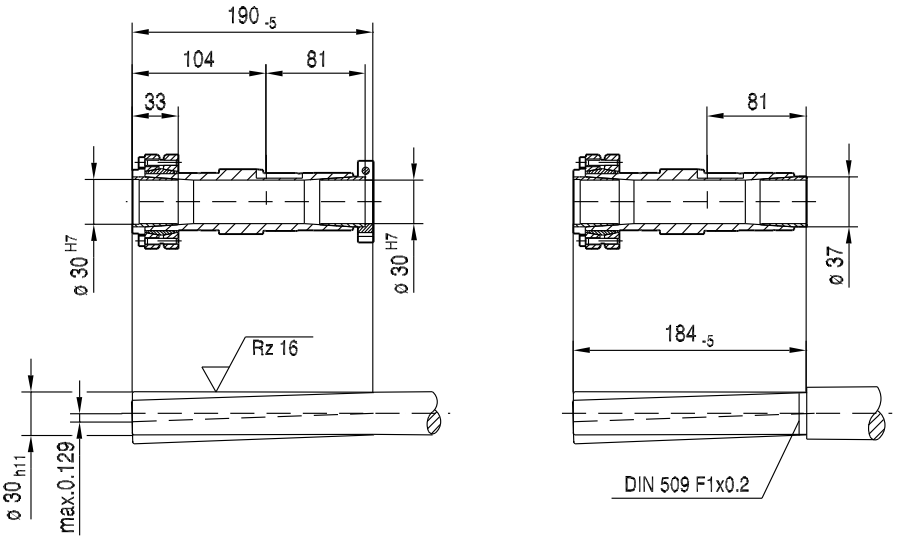
WT47..



W.. /T



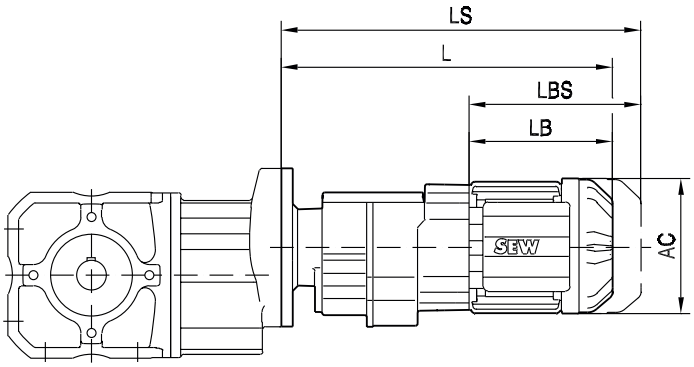




(→ 155)	DR63..	DR71S	DR71M	DRN80M	DRN90S	DRN90L	DRN100LS	DRN100L	DRN112M
AC	132	139	139	156	179	179	197	197	221
AD	105	119	119	128	140	140	157	157	170
ADS	105	129	129	139	150	150	158	158	172
L	445	456	481	535	537	569	565	615	646
LS	500	524	549	616	630	662	659	709	758
LB	185	196	221	275	277	309	305	355	386
LBS	240	264	289	356	370	402	399	449	498

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20 018 00 09



(→ 155)		AC	L	LS	LB	LBS
W..37R17	**DR63..**	132	324	379	149	204
	DR71S..	139	335	403	160	228
W..47R17	**DR63..**	132	324	379	149	204
	DR71S..	139	335	403	160	228
	DR71M..	139	360	428	185	253

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13 Technical data of the motors

13.1 Key to the data tables

The following table lists the short symbols used in the "Technical data" tables:

P_N	Rated power
M_N	Rated torque
n_N	Rated speed
I_N	Rated current
cosφ	Power factor
IE	International energy efficiency class
$\eta_{50\%}$	Efficiency at 50% of the rated power
$\eta_{75\%}$	Efficiency at 75% of the rated power
$\eta_{100\%}$	Efficiency at 100% of the rated power
I_A/I_N	Starting current ratio
M_A/M_N	Starting torque ratio
M_H/M_N	Ramp-up torque ratio
M_K/M_N	Breakdown torque ratio
m_{Mot}	Mass of the motor
J_{Mot}	Mass moment of inertia of the motor
Z_0 BG	Switching frequency for operation with BG brake control
Z_0 BGE	Switching frequency for operation with BGE brake control
M_B	Braking torque
m_{Bmot}	Mass of the brakemotor
J_{BMot}	Mass moment of inertia of the brakemotor

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13.2 DR.., DRS.. motors, 50 Hz, 2-pole, S1

2-pole DR63.., DRS71.. motors for 400 V (380 – 420 V), 50 Hz

DR../DRS.. motor type	P_N kW	M_N Nm	n_N 1/min	I_N 400 V A	I_N 380-420 V A	cosφ	IE	$\eta_{50\%}$ %	$\eta_{75\%}$ %	$\eta_{100\%}$ %	I_A/I_N	M_A/M_N M_H/M_N	M_K/M_N
DR63S2	0.18	0.63	2720	0.45	0.46	0.88	-	-	-	-	4.2	2.4 2.2	-
DR63M2	0.25	0.9	2660	0.65	0.66	0.86	-	-	-	-	3.5	2.2 1.9	-
DR63L2	0.37	1.3	2650	0.92	1.0	0.87	-	-	-	-	3.5	2.1 1.9	-
DRS71S2	0.37	1.31	2700	1.01	1.06	0.89	IE1	72.0	73.2	70.5	3.2	2.2 1.9	2.0
DRS71M2	0.55	1.87	2810	1.37	1.42	0.79	IE1	70.7	73.5	72.9	4.9	2.9 2.1	2.3

2-pole DR63.., DRS71.. motors/brakemotors for 400 V (380 – 420 V), 50 Hz

DR../DRS.. motor type	P_N kW	M_N Nm	n_N 1/min	m kg	J_{Mot} 10^{-4} kgm²	Brake	Z_0 BG BGE h^{-1}	M_B Nm	m_{BMot} kg	J_{BMot} 10^{-4} kgm²
DR63S2	0.18	0.63	2720	6.2	3.6	BR03	5000 -	1.6	8.0	4.8
DR63M2	0.25	0.9	2660	6.2	3.6	BR03	4500 -	2.4	8.0	4.8
DR63L2	0.37	1.3	2650	6.7	4.4	BR03	4000 -	3.2	8.5	5.6
DRS71S2	0.37	1.31	2700	7.8	5.13	BE05	2450 4150	5	10	6.43
DRS71M2	0.55	1.87	2810	9.1	7.21	BE05	2000 4500	3.5	12	8.51

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13.3 DT.., DR.., DRS.. motors, 50 Hz, 4-pole, S1

4-pole DT56.., DR63.., DRS71.. motors for 400 V (380 – 420 V), 50 Hz

DT../DR../ DRS.. motor type	P_N kW	M_N Nm	n_N 1/min	I_N 400 V A	I_N 380-420 V A	cosφ	IE	$\eta_{50\%}$ %	$\eta_{75\%}$ %	$\eta_{100\%}$ %	I_A/I_N	M_A/M_N M_H/M_N	M_K/M_N
DT56M4	0.09	0.66	1300	0.29	0.31	0.68	-	-	-	-	2.6	2.1 1.8	-
DT56L4	0.12	0.88	1300	0.42	0.46	0.68	-	-	-	-	2.6	2.2 1.9	-
DR63S4	0.12	0.83	1380	0.39	0.39	0.69	-	-	-	-	3.3	2.4 2.2	-
DR63M4	0.18	1.3	1320	0.55	0.55	0.78	-	-	-	-	2.9	1.8 1.7	-
DR63L4	0.25	1.8	1300	0.68	0.73	0.81	-	-	-	-	2.8	1.8 1.7	-
DRS71S4	0.18	1.25	1380	0.64	0.66	0.70	IE1	59.1	65.3	66.6	3.5	1.8 1.8	2.1
DRS71S4	0.25	1.72	1390	0.67	0.69	0.75	IE1	68.6	72.6	72.6	4.1	1.9 1.9	2.3
DRS71S4	0.37	2.55	1380	1.14	1.24	0.70	IE1	59.1	65.3	66.6	3.5	1.8 1.8	2.1
DRS71M4	0.55	3.85	1360	1.55	1.62	0.72	IE1	69.1	71.9	70.6	3.6	2.1 2.1	2.2

4-pole DT56.., DR63.., DRS71.. motors/brakemotors for 400 V (380 – 420 V), 50 Hz

DT../DR../ DRS.. motor type	P_N kW	M_N Nm	n_N 1/min	m kg	J_{Mot} 10^{-4} kgm²	Brake	Z_0 BG BGE h^{-1}	M_B Nm	m_{BMot} kg	J_{BMot} 10^{-4} kgm²
DT56M4	0.09	0.66	1300	-[1]	1.1	BMG02	10000 -	0.8	-[1]	1.2
DT56L4	0.12	0.88	1300	-[1]	1.1	BMG02	10000 -	1.2	-[1]	1.2
DR63S4	0.12	0.83	1380	6.1	3.6	BR03	10000 -	2.4	7.6	4.8
DR63M4	0.18	1.3	1320	6.1	3.6	BR03	10000 -	3.2	7.6	4.8
DR63L4	0.25	1.8	1300	6.7	4.4	BR03	10000 -	3.2	8.2	5.6
DRS71S4	0.18	1.25	1380	7.8	5.13	BE05	6000 9500	5	10	6.43
DRS71S4	0.25	1.72	1390	7.8	5.13	BE05	6000 9500	5	10	6.43
DRS71S4	0.37	2.55	1380	7.8	5.13	BE05	6000 9500	5	10	6.43
DRS71M4	0.55	3.85	1360	9.1	7.21	BE1	4100 11000	10	12	8.51

1) Only available as gearmotor

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13.4 DR.., DRS.. motors, 50 Hz, 6-pole, S1

6-pole DR63.., DRS71.. motors for 400 V (380 – 420 V), 50 Hz

DR../DRS.. motor type	P_N kW	M_N Nm	n_N 1/min	I_N 400 V A	I_N 380-420 V A	cosφ	IE	$\eta_{50\%}$ %	$\eta_{75\%}$ %	$\eta_{100\%}$ %	I_A/I_N	M_A/M_N M_H/M_N	M_K/M_N
DR63S6	0.09	0.95	900	0.38	0.42	0.64	-	-	-	-	2.2	1.8 1.6	-
DR63M6	0.12	1.2	900	0.58	0.62	0.65	-	-	-	-	2.1	1.8 1.7	-
DR63L6	0.18	2	870	0.78	0.81	0.70	-	-	-	-	2.2	1.6 1.5	-
DRS71S6	0.25	2.65	895	0.83	0.86	0.70	IE1	55.3	61.4	62.2	2.7	1.7 1.7	2.0
DRS71M6	0.37	3.9	905	1.13	1.16	0.71	IE1	61.9	66.4	66.5	3.1	1.9 1.9	2.0

6-pole DR63.., DRS71.. motors/brakemotors for 400 V (380 – 420 V), 50 Hz

DR../DRS.. motor type	P_N kW	M_N Nm	n_N 1/min	m kg	J_{Mot} 10^{-4} kgm²	Brake	Z_0 BG BGE h^{-1}	M_B Nm	m_{BMot} kg	J_{BMot} 10^{-4} kgm²
DR63S6	0.09	0.95	900	6.0	5.4	BR03	20000 -	2.5	7.5	6.6
DR63M6	0.12	1.2	900	6.0	5.4	BR03	20000 -	3.2	7.5	6.6
DR63L6	0.18	2	870	6.6	6.8	BR03	20000 -	3.2	8.1	8.0
DRS71S6	0.25	2.65	895	7.8	8.29	BE05	7000 16000	5	10	9.59
DRS71M6	0.37	3.9	905	9.1	11.9	BE1	6600 15000	10	12	13.2

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13.5 DRN.. motors, 50 Hz, 4-pole, S1

4-pole DRN.. motors for 400 V, 50 Hz, IE3

DRN.. motor type	P_N kW	M_N Nm	n_N 1/min	I_N 400 V A	cosφ	IE	$\eta_{50\%}$ %	$\eta_{75\%}$ %	$\eta_{100\%}$ %	I_A/I_N	M_A/M_N M_H/M_N	M_K/M_N
DRN 80M 4	0.75	4.95	1440	1.75	0.74	IE3	80.7	82.9	82.9	6.7	3.1 2.7	3.4
DRN 90S 4	1.1	7.2	1455	2.55	0.73	IE3	83.5	85.0	84.5	6.9	2.7 2.1	3.3
DRN 90L 4	1.5	9.8	1461	3.4	0.74	IE3	84.6	86.1	85.6	7.5	2.7 2.0	3.3
DRN 100LS 4	2.2	14.5	1450	4.75	0.76	IE3	86.4	87.5	86.9	7.1	2.9 2.2	3.3
DRN 100L 4	3	19.7	1456	6.4	0.76	IE3	87.3	88.3	87.8	8.2	3.4 2.3	3.7
DRN 112M 4	4	26	1464	7.9	0.81	IE3	88.6	89.4	88.7	8.2	2.4 1.6	3.6
DRN 132S 4	5.5	36	1461	10.5	0.84	IE3	90.6	90.6	89.6	8.3	2.8 2.2	3.5
DRN 132M 4	7.5	49	1468	15.2	0.78	IE3	90.8	91.1	90.4	7.8	3.1 2.4	3.3
DRN 132L 4	9.2	60	1470	18.7	0.77	IE3	90.8	91.6	91.0	8.4	3.7 1.8	3.7
DRN 160M 4	11	71	1473	21	0.81	IE3	91.1	91.7	91.4	7.3	2.6 2.2	3.0
DRN 160L 4	15	97	1474	29	0.80	IE3	91.9	92.5	92.1	8.0	3.0 2.0	3.4
DRN 180M 4	18.5	120	1478	33.5	0.85	IE3	92.8	93.1	92.6	9.5	3.6 2.9	3.6
DRN 180L 4	22	142	1477	38.5	0.87	IE3	93.4	93.6	93.0	9.6	3.5 2.1	3.4
DRN 200L 4	30	194	1480	56	0.82	IE3	93.3	93.9	93.6	8.2	2.9 2.5	3.3
DRN 225S 4	37	240	1482	64	0.88	IE3	94.3	94.4	93.9	8.4	3.0 2.3	2.7
DRN 225M 4	45	290	1482	81	0.85	IE3	94.1	94.5	94.2	8.8	3.0 2.2	2.7
DRN 250M 4	55	355	1482	104	0.80	IE3	94.4	94.8	94.6	8.2	4.0 2.5	2.9
DRN 280S 4	75	485	1482	143	0.79	IE3	94.9	95.3	95.0	7.6	3.7 2.6	2.9
DRN 280M 4	90	580	1481	161	0.84	IE3	95.4	95.6	95.2	7.7	3.6 2.0	2.7
DRN 315S 4	110	710	1488	189	0.87	IE3	95.4	95.7	95.5	6.7	2.9 2.1	3.1
DRN 315M 4	132	850	1487	230	0.87	IE3	95.6	95.9	95.6	6.5	2.7 2.0	2.9
DRN 315L 4	160	1030	1486	275	0.87	IE3	95.9	96.1	95.9	6.5	2.7 2.0	2.8
DRN 315H 4	200	1280	1489	355	0.84	IE3	95.4	96.0	96.0	8.1	3.7 2.8	3.8

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4-pole DRN.. motors/brakemotors for 400 V, 50 Hz, IE3

DRN.. motor type	P_N	M_N	n_N	m_{Mot}	J_{Mot}	Brake	Z_0 BG BGE	M_B	m_{BMot}	J_{BMot}
	kW	Nm	1/min	kg	10^{-4} kgm^2		h^{-1}	Nm	kg	10^{-4} kgm^2
DRN 80M 4	0.75	4.95	1440	14	24.7	BE1	3200 8200	10	18	26.2
DRN 90S 4	1.1	7.2	1455	20	54	BE2	2300 6000	14	24	58.7
DRN 90L 4	1.5	9.8	1461	23	67.2	BE2	2200 5800	20	27	71.9
DRN 100LS 4	2.2	14.5	1450	27	81.4	BE5	- 6100	28	33	87.4
DRN 100L 4	3	19.7	1456	34	112	BE5	- 3700	40	40	118
DRN 112M 4	4	26	1464	45	178	BE5	- 2900	55	52	183
DRN 132S 4	5.5	36	1461	56	241	BE11	- 2100	80	71	251
DRN 132M 4	7.5	49	1468	73	381	BE11	- 1100	110	91	403
DRN 132L 4	9.2	60	1470	81	439	BE20	- 980	130	110	490
DRN 160M 4	11	71	1473	115	817	BE20	- 900	150	145	877
DRN 160L 4	15	97	1474	130	1040	BE20	- 800	200	165	1100
DRN 180M 4	18.5	120	1478	155	1630	BE30	- 510	300	195	1770
DRN 180L 4	22	142	1477	170	1950	BE30	- 470	300	210	2090
DRN 200L 4	30	194	1480	280	2660	BE32	- 500	400	335	2890
DRN 225S 4	37	240	1482	310	4350	BE32	- 230	500	365	4580
DRN 225M 4	45	290	1482	310	4350	BE32	- 200	600	365	4580
DRN 250M 4	55	355	1482	460	7360	BE62	- 180	800	550	7960
DRN 280S 4	75	485	1482	520	8940	BE62	- 150	1000	600	9530
DRN 280M 4	90	580	1481	630	12000	BE62	- 79	1200	720	12600
DRN 315S 4	110	710	1488	870	23400	BE122	- 53	1600	1000	24400
DRN 315M 4	132	850	1487	890	24800	BE122	- 46	2000	1020	25800
DRN 315L 4	160	1030	1486	1020	28600	BE122	- 34	2000	1150	29600
DRN 315H 4	200	1280	1489	1140	35200	BE122	- 23	2000	1270	36200

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Estonia			
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	South	SEW-EURODRIVE GmbH & Co KG Domagkstraße 5 D-85551 Kirchheim (München)	Tel. +49 89 909552-10 Fax +49 89 909552-50 dtc-sued@sew-eurodrive.de
	West	SEW-EURODRIVE GmbH & Co KG Siemensstraße 1 D-40764 Langenfeld (Düsseldorf)	Tel. +49 2173 8507-30 Fax +49 2173 8507-55 dtc-west@sew-eurodrive.de
Drive Center	Berlin	SEW-EURODRIVE GmbH & Co KG Alexander-Meißner-Straße 44 D-12526 Berlin	Tel. +49 306331131-30 Fax +49 306331131-36 dc-berlin@sew-eurodrive.de
	Ludwigshafen	SEW-EURODRIVE GmbH & Co KG c/o BASF SE Gebäude W130 Raum 101 D-67056 Ludwigshafen	Tel. +49 7251 75 3759 Fax +49 7251 75 503759 dc-ludwigshafen@sew-eurodrive.de
	Saarland	SEW-EURODRIVE GmbH & Co KG Gottlieb-Daimler-Straße 4 D-66773 Schwalbach Saar – Hülzweiler	Tel. +49 6831 48946 10 Fax +49 6831 48946 13 dc-saarland@sew-eurodrive.de
	Ulm	SEW-EURODRIVE GmbH & Co KG Dieselstraße 18 D-89160 Dornstadt	Tel. +49 7348 9885-0 Fax +49 7348 9885-90 dc-ulm@sew-eurodrive.de

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Drive Service Hotline / 24 Hour Service			0 800 SEWHELP 0 800 7394357
Technical Offices	Augsburg	SEW-EURODRIVE GmbH & Co KG August-Wessels-Straße 27 D-86156 Augsburg	Tel. +49 821 22779-10 Fax +49 821 22779-50 tb-augsburg@sew-eurodrive.de
	Lake Constance	SEW-EURODRIVE GmbH & Co KG Dornierstraße 4 D-88677 Markdorf	Tel. +49 7544 96590-90 Fax +49 7544 96590-99 tb-bodensee@sew-eurodrive.de
	Bremen	SEW-EURODRIVE GmbH & Co KG Bornstr.19 ... 22 D-28195 Bremen	Tel. +49 421 33918-10 Fax +49 421 33918-22 tb-bremen@sew-eurodrive.de
	Dortmund	SEW-EURODRIVE GmbH & Co KG Hildastraße 8 D-44145 Dortmund	Tel. +49 231 229028-10 Fax +49 231 229028-20 tb-dortmund@sew-eurodrive.de
	Dresden	SEW-EURODRIVE GmbH & Co KG Hauptstraße 32 D-01445 Radebeul	Tel. +49 351 26338-0 Fax +49 351 26338-38 tb-dresden@sew-eurodrive.de
	Erfurt	SEW-EURODRIVE GmbH & Co KG Dubliner Straße 12 D-99091 Erfurt	Tel. +49 361 21709-70 Fax +49 361 21709-79 tb-erfurt@sew-eurodrive.de
	Güstrow	SEW-EURODRIVE GmbH & Co KG Glasewitzer Chaussee 33 B D-18273 Güstrow P.O. Box Postfach 1216 – D-18262 Güstrow	Tel. +49 3843 8557-80 Fax +49 3843 8557-88 tb-guestrow@sew-eurodrive.de
	Hamburg	SEW-EURODRIVE GmbH & Co KG Bramfelder Straße 119 D-22305 Hamburg	Tel. +49 40 298109-60 Fax +49 40 298109-70 tb-hamburg@sew-eurodrive.de
	Hannover / Garbsen	SEW-EURODRIVE GmbH & Co KG Alte Ricklinger Str.40-42 D-30823 Garbsen P.O. Box Postfach 1104 53 – D-30804 Garbsen	Tel. +49 5137 8798-10 Fax +49 5137 8798-50 tb-hannover@sew-eurodrive.de
	Heilbronn	SEW-EURODRIVE GmbH & Co KG Zeppelinstraße 7 D-74357 Bönnigheim	Tel. +49 7143 8738-0 Fax +49 7143 8738-25 tb-heilbronn@sew-eurodrive.de
	Herford	SEW-EURODRIVE GmbH & Co KG Goebenstraße 3 – 7 D-32052 Herford	Tel. +49 5221 9141-0 Fax +49 5221 9141-20 tb-herford@sew-eurodrive.de
	Karlsruhe	SEW-EURODRIVE GmbH & Co KG Ettlinger Weg 2 D-76467 Bietigheim P.O. Box Postfach 43 – D-76463 Bietigheim	Tel. +49 7245 9190-10 Fax +49 7245 9190-20 tb-karlsruhe@sew-eurodrive.de
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	Koblenz	SEW-EURODRIVE GmbH & Co KG Bahnstraße 17a D-56743 Mendig	Tel. +49 2652 9713-30 Fax +49 2652 9713-40 tb-koblenz@sew-eurodrive.de
	Lahr	SEW-EURODRIVE GmbH & Co KG Europastraße 3/1 D-77933 Lahr / Schwarzwald	Tel. +49 7821 90999-60 Fax +49 7821 90999-79 tb-lahr@sew-eurodrive.de
	Langenfeld	SEW-EURODRIVE GmbH & Co KG Siemensstraße 1 D-40764 Langenfeld	Tel. +49 2173 8507-10 Fax +49 2173 8507-50 tb-langenfeld@sew-eurodrive.de
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	Regensburg	SEW-EURODRIVE GmbH & Co KG Im Gewerbepark A15 D-93059 Regensburg	Tel. +49 941 46668-68 Fax +49 941 46668-66 tb-regensburg@sew-eurodrive.de
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	Drive Service Hotline / 24 Hour Service		Tel. 01924 896911
Service Competence Center	Southern England	SEW-EURODRIVE Ltd. Unit 41 Easter Park Benyon Road Silchester Reading Berkshire RG7 2PQ	Tel. +44 1189 701-699 Fax +44 1189 701-021
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	Scotland	SEW-EURODRIVE Ltd. No 37 Enterprise House Springkerse Business Park Stirling FK7 7UF	Tel. +44 17 8647-8730 Fax +44 17 8645-0223
	Northern Ireland	Heyn Engineering (NI) Ltd. 1 Corry Place, Belfast, BT3 9AH	Tel. +44 02890350022 Fax +44 02890350012 http://www.heyn.co.uk info@heyn.co.uk
Greece			
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Assembly Sales Service	Chennai	SEW-EURODRIVE India Private Limited Plot No. K3/1, Sipcot Industrial Park Phase II Mambakkam Village Sriperumbudur - 602105 Kancheepuram Dist, Tamil Nadu	Tel. +91 44 37188888 Fax +91 44 37188811 saleschennai@seweurodriveindia.com
	Pune	SEW-EURODRIVE India Private Limited Plant: Plot No. D236/1, Chakan Industrial Area Phase- II, Warale, Tal- Khed, Pune-410501, Maharashtra	Tel. +91 21 35 628700 Fax +91 21 35 628715 salespune@seweurodriveindia.com
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	Bangalore	SEW-EURODRIVE India Private Limited # C-104, 3rd Block, KSSIDC Complex, Electronic City. Bangalore – 560100, Karnataka	Tel. +91 80 28522662 / 28522663 salesbangalore@seweurodriveindia.com
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	Bellary	SEW-EURODRIVE India Private Limited Door no-56/279 Ward No-15, Sindhigi compound, Near Raghavendra talkies, Bellary-583101, Karnataka	Tel. +91 77609 88668 salesbellary@seweurodriveindia.com
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	Kochi	SEW-EURODRIVE India Private Limited House No: 30/1168 A Kaniyampuzha Road Vyttila Post Office Cochin – 682019, Kerala	Tel. +91 98951 30375 salescochin@seweurodriveindia.com
	Coimbatore	SEW-EURODRIVE India Private Limited 687/2, Sri Sakthivel Towers (Near Deepam Hospital) Trichy Road, Ramanathapuram Coimbatore - 641 045, Tamil Nadu	Tel. +91 422 2322420 Fax +91 422 2323988 salescoimbatore@seweurodriveindia.com

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Indore	SEW-EURODRIVE India Private Limited 103, Abhishek Avenue, Slide-4, Sch. No. 78, Indore - 452010, Madhya Pradesh	Tel. +91 97524 12068 salesindore@seweurodriveindia.com
Jamshedpur	SEW-EURODRIVE India Private Limited Flat No :- S1 "Kashi Kunj",h. No. 60, New Rani Kudar Road No - 3, P.o. + P.s. - Kadma Jamshedpur - 831005, Jharkhand	Tel. +91 99341 23671 salesjamshedpur@seweurodriveindia.com
Kolhapur	SEW-EURODRIVE India Private Limited C/O. Mr.S.V.Pawar.461/37, Abhideep Residency, Opp-Shriram Petrol Pump, Kasaba Bawada, Kolhapur - 416 122, Maharashtra	Tel. +91 86000 20846 saleskolhapur@seweurodriveindia.com
Kolkata	SEW-EURODRIVE India Private Limited 2nd floor, Room No. 35 Chowringhee Court 55, Chowringhee Road Kolkata - 700 071, West Bengal	Tel. +91 33 22827457 Fax +91 33 22894204 saleskolkata@seweurodriveindia.com
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	Pune	SEW-EURODRIVE India Private Limited Plot No. 7,"Shri Shantadurga Niwas" Shivaji Co –operative Housing Society Ltd., Behind J.W. Marriot. Off Senapati Bapat Marg. Pune –411 016, Maharashtra	Tel. +91 20 25635466 / 467 salespune@seweurodriveindia.com
	Pune	SEW-EURODRIVE India Private Limited Jai Tulajabhavani Complex. Office No:- 15 First Floor, Opp. Century Enka Company, MIDC Bhosari , Pune 411 026	Tel. +91 20-65118890 / 91 Fax +91 20 25380721 salespune@seweurodriveindia.com
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	Ranchi	SEW-EURODRIVE India Private Limited 1D- Shail Madhuri Apartment, Near Kokar Pool, H.B Road, Kokar Ranchi - 834001, Jharkhand.	Tel. +91 82946 30772 salesranchi@seweurodriveindia.com
	Tiruchirappalli	SEW-EURODRIVE India Private Limited 12B, Indira Gandhi Street, K.K Nagar Trichy-620 021, Tamilnadu	Tel. +91 97899 79855 salestrichy@seweurodriveindia.com
	Vadodara	SEW-EURODRIVE India Private Limited Unit No. 301, Savorite Bldg, Plot No. 143, Vinayak Society, off old Padra Road, Vadodara - 390 007, Gujarat	Tel. +91 265 2325258 Fax +91 265 2325259 salesvadodara@seweurodriveindia.com
	Vizag	SEW-EURODRIVE India Private Limited D.No.7-13-50/1, Near Padmaja hospital, Ramalayam street, Chittinaidu colony,Old gajuwaka, Visakhapatnam – 530026, Andhra Pradesh	Tel. +91 99895 01748 salesvizag@seweurodriveindia.com
Indonesia			
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	Jakarta	PT. Cahaya Sukses Abadi Komplek Rukan Puri Mutiara Blok A no 99, Sunter Jakarta 14350	Tel. +62 21 65310599 Fax +62 21 65310600 csajkt@cbn.net.id
	Jakarta	PT. Agrindo Putra Lestari JL.Pantai Indah Selatan, Komplek Sentra Industri Terpadu, Pantai indah Kapuk Tahap III, Blok E No. 27 Jakarta 14470	Tel. +62 21 2921-8899 Fax +62 21 2921-8988 aplindo@indosat.net.id http://www.aplindo.com
	Surabaya	PT. TRIAGRI JAYA ABADI Jl. Sukosemolo No. 63, Galaxi Bumi Permai G6 No. 11 Surabaya 60111	Tel. +62 31 5990128 Fax +62 31 5962666 sales@triagri.co.id http://www.triagri.co.id
	Surabaya	CV. Multi Mas Jl. Raden Saleh 43A Kav. 18 Surabaya 60174	Tel. +62 31 5458589 Fax +62 31 5317220 sianhwa@sby.centrin.net.id http://www.cvmultimas.com
Ireland			
Sales Service	Dublin	Alperton Engineering Ltd. 48 Moyle Road Dublin Industrial Estate Glasnevin, Dublin 11	Tel. +353 1 830-6277 Fax +353 1 830-6458 http://www.alperton.ie info@alperton.ie

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Drive Center	Bologna	SEW-EURODRIVE di R. Blickle & Co.s.a.s. Via della Grafica, 47 I-40064 Ozzano dell'Emilia (Bo)	Tel. +39 051 65-23-801 Fax +39 02 96 980 499 bologna@sew-eurodrive.it
	Caserta	SEW-EURODRIVE di R. Blickle & Co.s.a.s. Viale Carlo III Km. 23,300 I-81020 S. Nicola la Strada (Caserta)	Tel. +39 0823 219011 Fax +39 02 96 980 599 caserta@sew-eurodrive.it
	Milan	SEW-EURODRIVE di R. Blickle & Co.s.a.s. Via Bernini,14 I-20020 Solaro (Milano)	Tel. +39 02 96 980229 Fax +39 02 96 980 999 milano@sew-eurodrive.it
	Pescara	SEW-EURODRIVE di R. Blickle & Co.s.a.s. Viale Europa,132 I-65010 Villa Raspa di Spoltore (PE)	Tel. +39 085 41-59-427 Fax +39 02 96 980 699 pescara@sew-eurodrive.it
	Turin	SEW-EURODRIVE di R. Blickle & Co.s.a.s. Filiale Torino c.so Unione Sovietica 612/15 - int. C I-10135 Torino	Tel. +39 011 3473780 Fax +39 02 96 980 799 torino@sew-eurodrive.it
	Verona	SEW-EURODRIVE di R. Blickle & Co.s.a.s. Via Antonio Meucci, 5 I-37042 - Caldiero (VR)	Tel. +39 045 89-239-11 Fax +39 02 96 980 814 verona@sew-eurodrive.it
Ivory Coast			
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Japan			
Assembly Sales Service	Iwata	SEW-EURODRIVE JAPAN CO., LTD 250-1, Shimoman-no, Iwata Shizuoka 438-0818	Tel. +81 538 373811 Fax +81 538 373814 http://www.sew-eurodrive.co.jp sewjapan@sew-eurodrive.co.jp hamamatsu@sew-eurodrive.co.jp
Technical Offices	Fukuoka	SEW-EURODRIVE JAPAN CO., LTD C-go, 5th-floor, Yakuin-Hiruzu-Bldg. 1-5-11, Yakuin, Chuo-ku Fukuoka, 810-0022	Tel. +81 92 713-6955 Fax +81 92 713-6860 fukuoka@sew-eurodrive.co.jp
	Kyoto	SEW-EURODRIVE JAPAN CO., LTD Kyoto Operation Center 9-1-11 Seikadai, Seika-cho, Souraku-gun, Kyoto 619-0238	Tel. +81 774 98-2750 Fax +81 774 93-2100 sewjapan@sew-eurodrive.co.jp
	Osaka	SEW-EURODRIVE JAPAN CO., LTD Higobashi Shimizu Bldg. 10th flor 1-3-7 Tosabori, Nishi-ku Osaka, 550-0001	Tel. +81 6 6444--8330 Fax +81 6 6444--8338 osaka@sew-eurodrive.co.jp
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	Oskemen	SEW-EURODRIVE LLP 20, Auezov street 070000, Oskemen	Tel. +7 (7232) 913 748 Fax +7 (7232) 913 748 oskemen@sew-eurodrive.kz
Kenya			
representation: Tanzania			
Latvia			
Sales	Riga	SIA Alas-Kuul Katlakalna 11C LV-1073 Riga	Tel. +371 6 7139253 Fax +371 6 7139386 http://www.alas-kuul.lv info@alas-kuul.com
Lebanon			
Sales (Lebanon)	Beirut	Gabriel Acar & Fils sarl B. P. 80484 Bourj Hammoud, Beirut	Tel. +961 1 510 532 Fax +961 1 494 971 ssacar@inco.com.lb
Sales (Jordan, Kuwait , Saudi Arabia, Syria)	Beirut	Middle East Drives S.A.L. (offshore) Sin El Fil. B. P. 55-378 Beirut	Tel. +961 1 494 786 Fax +961 1 494 971 http://www.medrives.com info@medrives.com
Lithuania			
Sales	Alytus	UAB Irseva Statybininku 106C LT-63431 Alytus	Tel. +370 315 79204 Fax +370 315 56175 http://www.irseva.lt irmantas@irseva.lt
Luxembourg			
representation: Belgium			
Macedonia			
Sales	Skopje	Boznos DOOEL Dime Anicin 2A/7A 1000 Skopje	Tel. +389 23256553 Fax +389 23256554 http://www.boznos.mk
Madagascar			
Sales	Antananarivo	Ocean Trade BP21bis. Andraharo Antananarivo 101 Madagascar	Tel. +261 20 2330303 Fax +261 20 2330330 oceantrabp@moov.mg
Malaysia			
Assembly Sales Service	Johor	SEW-EURODRIVE SDN BHD No. 95, Jalan Seroja 39, Taman Johor Jaya 81000 Johor Bahru, Johor West Malaysia	Tel. +60 7 3549409 Fax +60 7 3541404 sales@sew-eurodrive.com.my
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Mexiko			
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Morocco			
Sales Service	Bouskoura	SEW-EURODRIVE Marokko Parc Industriel CFCIM, Lot 55 et 59 Bouskoura	Tel. +212 522 88 84 50 Fax +212 522 88 85 00 http://www.sew-eurodrive.ma sew@sew-eurodrive.ma
Namibia			
Sales	Swakopmund	DB Mining & Industrial Services Einstein Street Strauss Industrial Park Unit1 Swakopmund	Tel. +264 64 462 738 Fax +264 64 462 734 anton@dbminingnam.com
Netherlands			
Assembly Sales Service	Rotterdam	SEW-EURODRIVE B.V. Industrieweg 175 NL-3044 AS Rotterdam Postbus 10085 NL-3004 AB Rotterdam	Tel. +31 10 4463-700 Fax +31 10 4155-552 Service: 0800-SEWHELP http://www.sew-eurodrive.nl info@sew-eurodrive.nl
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	Christchurch	SEW-EURODRIVE NEW ZEALAND LTD. 30 Lodestar Avenue, Wigram Christchurch	Tel. +64 3 384-6251 Fax +64 3 384-6455 sales@sew-eurodrive.co.nz
Technical Office	Palmerston North	SEW-EURODRIVE NEW ZEALAND LTD. C/-Grant Shearman, RD 5, Aronui Road Palmerston North	Tel. +64 6 355-2165 Fax +64 6 355-2316 sales@sew-eurodrive.co.nz
Nigeria			
Sales	Lagos	Greenpeg Nig. Ltd Plot 296A, Adeyemo Akapo Str. Omole GRA Ikeja Lagos-Nigeria	Tel. +234-701-821-9200-1 http://www.greenpegltd.com bolaji.adekunle@greenpegltd.com

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Pakistan			
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Paraguay			
Sales	Fernando de la Mora	SEW-EURODRIVE PARAGUAY S.R.L De la Victoria 112, Esquina nueva Asunción Departamento Central Fernando de la Mora, Barrio Bernardino	Tel. +595 991 519695 Fax +595 21 3285539 sewpy@sew-eurodrive.com.py
Peru			
Assembly Sales Service	Lima	SEW EURODRIVE DEL PERU S.A.C. Los Calderos, 120-124 Urbanizacion Industrial Vulcano, ATE, Lima	Tel. +51 1 3495280 Fax +51 1 3493002 http://www.sew-eurodrive.com.pe sewperu@sew-eurodrive.com.pe
Philippines			
Sales	Makati	P.T. Cerna Corporation 4137 Ponte St., Brgy. Sta. Cruz Makati City 1205	Tel. +63 2 519 6214 Fax +63 2 890 2802 mech_drive_sys@ptcerna.com http://www.ptcerna.com
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representation: South Africa.			
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Serbia			
Sales	Belgrade	DIPAR d.o.o. Ustanicka 128a PC Košum, IV floor SRB-11000 Beograd	Tel. +381 11 347 3244 / +381 11 288 0393 Fax +381 11 347 1337 office@dipar.rs
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Assembly Sales Service	Singapore	SEW-EURODRIVE PTE. LTD. No 9, Tuas Drive 2 Jurong Industrial Estate Singapore 638644	Tel. +65 68621701 Fax +65 68612827 http://www.sew-eurodrive.com.sg sewsingapore@sew-eurodrive.com
Slovakia			
Sales	Bratislava	SEW-Eurodrive SK s.r.o. Rybničná 40 SK-831 06 Bratislava	Tel.+421 2 33595 202, 217, 201 Fax +421 2 33595 200 http://www.sew-eurodrive.sk sew@sew-eurodrive.sk
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	Cape Town	SEW-EURODRIVE (PROPRIETARY) LIMITED Rainbow Park Cnr. Racecourse & Omuramba Road Montague Gardens Cape Town P.O.Box 36556 Chempet 7442	Tel. +27 21 552-9820 Fax +27 21 552-9830 Telex 576 062 bgriffiths@sew.co.za
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	Nelspruit	SEW-EURODRIVE (PROPRIETARY) LIMITED 7 Christie Crescent Vintonia P.O.Box 1942 Nelspruit 1200	Tel. +27 13 752-8007 Fax +27 13 752-8008 robermeyer@sew.co.za
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	Busan	SEW-EURODRIVE KOREA CO., LTD. 28, Noksansandan 262-ro 50beon-gil, Gangseo-gu, Busan, Zip 618-820	Tel. +82 51 832-0204 Fax +82 51 832-0230
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	Daejeon	SEW-EURODRIVE KOREA CO., LTD. No.302 Hongin officetel, 28, Daehak-ro, Yuseong-gu, Daejeon, Zip 305-710	Tel. +82 42 828-6461 Fax +82 42 828-6463
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	Valencia	MEB Músico Andreu i Piqueres, 4 E-46.900 Torrente (Valencia)	Tel. +34 961 565 493 Fax +34 961 566 688 mebsa.valencia@mebsa.com
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Sales	Manzini	C G Trading Co. (Pty) Ltd PO Box 2960 Manzini M200	Tel. +268 2 518 6343 Fax +268 2 518 5033 engineering@cgtrading.co.sz
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	Stockholm	SEW-EURODRIVE AB Björkholmsvägen 10 S-141 46 Huddinge	Tel. +46 8 449 86 80 Fax +46 8 449 86 93 stockholm@sew.se
	Malmö	SEW-EURODRIVE AB Borrgatan 5 S-211 24 Malmö	Tel. +46 40 680 64 80 Fax +46 40 680 64 93 malmo@sew.se
	Skellefteå	SEW-EURODRIVE AB Trädgårdsgatan 8 S-931 31 Skellefteå	Tel. +46 910 71 53 80 Fax +46 910 71 53 93 skelleftea@sew.se
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Technical Offices	Rhaetian Switzerland	Patrice Salvi Rue des Ormes 10 CH-2300 La Chaux-de-Fonds	Tel. +41 61 417 17 81 Fax +41 61 417 17 00
	Bern / Solothurn	Rudolf Bühler Muntersweg 5 CH-2540 Grenchen	Tel. +41 32 652 2339 Fax +41 32 652 2331
	Central Switzerland, Aargau	Armin Pfister Stierenweid CH-4950 Huttwil, BE	Tel. +41 62 962 54 55 Fax +41 62 962 54 56
	Zürich, Ticino	Gian-Michele Muletta Fischerstrasse 61 CH-8132 Egg bei Zürich	Tel. +41 44 994 81 15 Fax +41 44 994 81 16
	Lake Constance and East Switzerland	Markus Künzle Eichweg 4 CH-9403 Goldach	Tel. +41 71 845 2808 Fax +41 71 845 2809

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	Nan Tou	Ting Shou Trading Co., Ltd. No. 55 Kung Yeh N. Road Industrial District Nan Tou 540	Tel. +886 49 255353 Fax +886 49 257878 sewtwn@ms63.hinet.net http://www.tingshou.com.tw
Tanzania			
Sales	Daressalam	SEW-EURODRIVE PTY LIMITED TANZANIA Plot 52, Regent Estate PO Box 106274 Dar Es Salaam	Tel. +255 0 22 277 5780 Fax +255 0 22 277 5788 http://www.sew-eurodrive.co.tz info@sew.co.tz
Thailand			
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	Hat Yai	SEW-EURODRIVE (Thailand) Ltd. Hadyai Country Home Condominium 59/101 Soi.17/1 Rachas-Utid Road. Hadyai, Songkhla 90110	Tel. +66 74 359441 Fax +66 74 359442 sewthailand@sew-eurodrive.com
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Turkey			
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Technical Offices	Adana	SEW-EURODRİVE Hareket	Tel. +90 533 491 81 77 / +90 542 660 34 89 Fax +90 262 999 10 09
	Ankara	SEW-EURODRİVE Hareket Sistemleri San. Ve TIC. Ltd. Sti 1368.Cadde Eminel İşmerkezi No: 18/68 İvogsan / Ankara	Tel. +90 312 385 33 90 Fax +90 312 385 32 58
	Bursa	SEW-EURODRİVE Hareket Sistemleri San. Ve TIC. Ltd. Sti Üçevler Mah. Bayraktepe Sok. Akay İş Merkezi Kat:3 No: 7/6 Nilüfer / Bursa	Tel. +90 224 443 45 60 Fax +90 224 443 45 58
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	Midwest Region	SEW-EURODRIVE INC. 2001 West Main Street Troy, Ohio 45373	Tel. +1 937 335-0036 Fax +1 937 332-0038 cstroy@seweurodrive.com
	Southwest Region	SEW-EURODRIVE INC. 3950 Platinum Way Dallas, Texas 75237	Tel. +1 214 330-4824 Fax +1 214 330-4724 csdallas@seweurodrive.com
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	Wellford	SEW-EURODRIVE INC. 148/150 Finch Rd. Wellford, S.C. 29385	IGLogistics@seweurodrive.com
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Sales	Ho Chi Minh City	Nam Trung Co., Ltd Huế - South Vietnam / Construction Materials 250 Binh Duong Avenue, Thu Dau Mot Town, Binh Duong Province HCM office: 91 Tran Minh Quyen Street District 10, Ho Chi Minh City	Tel. +84 8 8301026 Fax +84 8 8392223 khanh-nguyen@namtrung.com.vn http://www.namtrung.com.vn
	Hanoi	MICO LTD Quảng Trị - North Vietnam / All sectors except Construction Materials 8th Floor, Ocean Park Building, 01 Dao Duy Anh St, Ha Noi, Viet Nam	Tel. +84 4 39386666 Fax +84 4 3938 6888 nam_ph@micogroup.com.vn http://www.micogroup.com.vn

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Inquiry/order

Customer data:

Company: _____ Customer no.: _____
Department: _____
Name: _____ Phone: _____
Street/P.O. box: _____ Fax: _____
_____ Email: _____
Zip code/city: _____

Contact at SEW:

Name: _____ Phone: _____
Technical office: _____ Fax: _____

Technical data:

Quantity: _____ Desired delivery date: _____
Catalog designation: _____

Gear unit type:

☐ Helical gear units ☐ Parallel-shaft helical gear units ☐ Helical-bevel gear unit ☐ Helical-worm gear unit ☐ Spiroplan® gear units
☐ Double gear units ☐ Servo gear units ☐ Variable-speed gear unit ☐ Electrified monorail system ☐ Miscellaneous: _____

Power: _____ kW **Output speed:** _____ rpm **Output torque:** _____ Nm

Cycles/hour: _____ c/h **Cyclic duration factor:** S _____ / _____ % cdf

☐ 1-shift operation ☐ 2-shift operation ☐ 3-shift operation
☐ Regular ☐ Irregular ☐ Very irregular

Mounting position: [1)]

M1 ☐ M2 ☐ M3 ☐ M4 ☐ M5 ☐ M6 ☐ Pivoted ☐

Housing form:

☐ Foot-mounted ☐ Flange (bore) ☐ Flange (thread)
☐ Torque arm ☐ Miscellaneous: _____

Shaft design:

☐ Solid shaft with key ☐ Shrink disk Shaft/hollow shaft Ø: _____ mm
☐ Hollow shaft with key ☐ TorqLOC® Flange Ø : _____ mm

Shaft position (for right-angle gear units): ☐ A | ☐ B | ☐ AB

Terminal box position: ☐ 0°(R) ☐ 90°(B) | ☐ 180°(L) | ☐ 270°(T)

Cable entry: ☐X ☐1 | ☐2 | ☐3

Degree of protection:

IP54 ☐ IP55 ☐ IP56 ☐ IP65 ☐ IP66 ☐ IP69K ☐

Thermal class:

130(B) ☐ 155(F) ☐ 180(H) ☐

Surface/corrosion protection:

KS ☐ OS1 ☐ OS2 ☐ OS3 ☐ OS4 ☐

Line voltage: _____ V
Line frequency: ☐ 50Hz ☐ 60Hz

Connection type: ☐ Δ | ☐ Y | ☐ YY | ☐ Y/Y

Energy efficiency class: ☐IE1 | ☐IE2 | ☐IE3 | ☐IE4

☐ For inverter operation: Max. frequency: _____ Hz | **Control range:** _____

Required options:

☐ Brake: Voltage _____ V Braking torque: _____ Nm
☐ Manual brake release: ☐ HR or ☐ HF
☐ Forced cooling fan: Forced cooling fan voltage: ____ V
☐ Motor protection: ☐ TF or ☐ TH
☐ Encoder: _____
☐ Plug connector connection: _____
☐ Inverter: _____
☐ RAL 7031 or ☐ RAL _____

Further options:

Special ambient conditions:

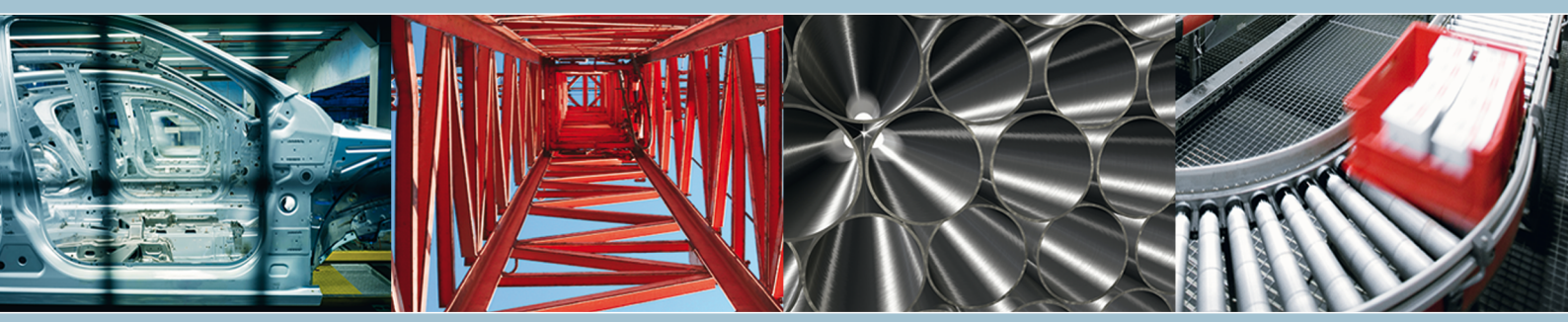
Temperature: from _____ °C to _____ °C | ☐ Operation outdoors | ☐ Installation altitude >1000m above NN
Further environmental conditions: _____

Miscellaneous: _____

1) see back

Place, date _____ **Signature:** _____

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