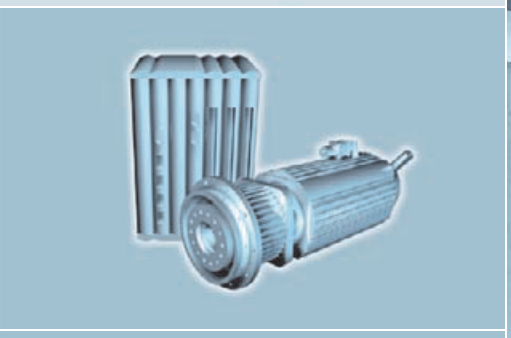
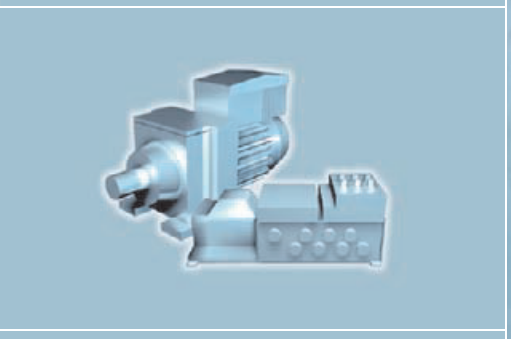
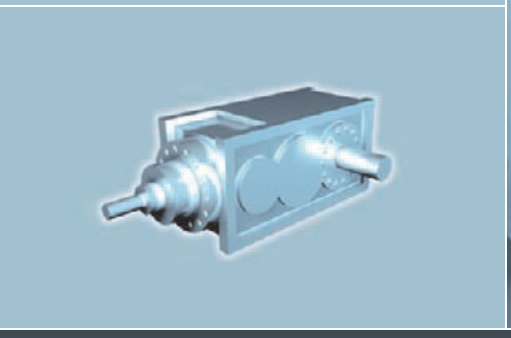
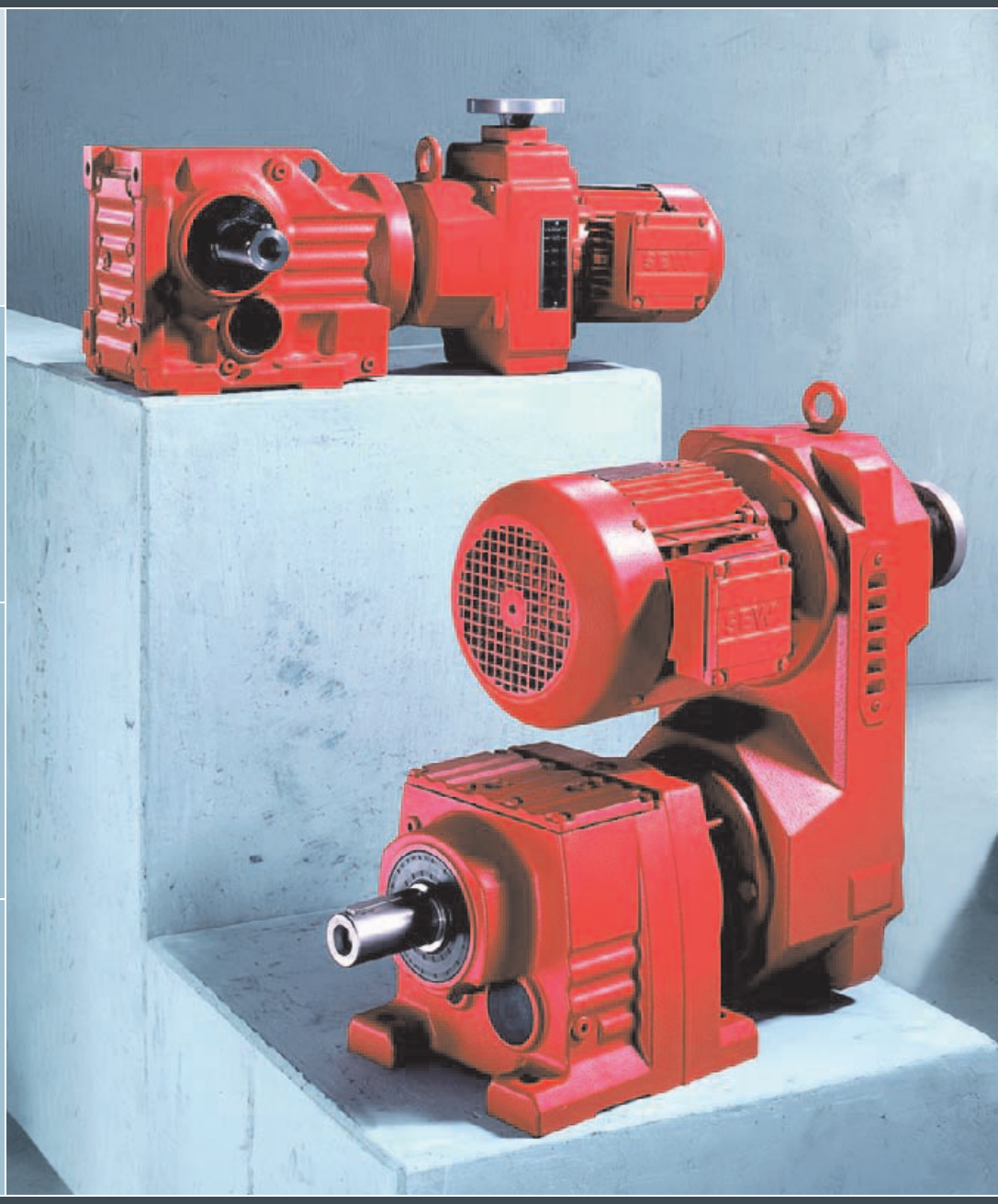
SEW EURODRIVE









Variable Speed Gearmotors

A3.D03

Edition 08/2004
11230126 / EN

Catalog

SEW EURODRIVE

Contents

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1 The SEW-EURODRIVE Group of Companies

SEW-EURODRIVE Introduction

SEW-EURODRIVE is a leading company in the global market for electrical drive engineering. 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 applications.

SEW-EURODRIVE possesses many years of experience in drive engineering which it puts to good use when developing, producing and selling all its drives with components drawn from mechanical and electrical engineering and electronics.

The company headquarters are in Bruchsal, Germany. Components for the SEW-EURODRIVE modular drive system are manufactured to the highest quality standards in production plants sited in Germany, France, Finland, the United States, Brazil and China. The individual drive systems are assembled with a consistently high quality standard and very short delivery times from stocked components in our assembly plants located in more than 30 industrialized countries all over the world. SEW-EURODRIVE sales, consulting, customer and spare parts services are available in more than 50 countries around the globe.

The product range

- Gearmotors, gear units and motors
  - Helical gear units/gearmotors
  - Parallel shaft helical gear units/gearmotors
  - Helical-bevel gear units/gearmotors
  - Helical-worm gear units/gearmotors
  - Spiroplan® right-angle gearmotors
  - Planetary gearmotors
  - Industrial gear units
  - Low backlash gear units/gearmotors
  - Brake motors
  - Drives for overhead trolley systems
  - Geared torque motors
  - Pole-changing gearmotors
  - Aseptic gearmotors

- Electronically controlled drives with
  - MOVITRAC® frequency inverters
  - MOVIDRIVE® drive inverters
  - MOVIDYN® servo controllers
  - Technology and communication options for the inverters
  - Asynchronous AC motors and AC gearmotors
  - Asynchronous and synchronous servomotors and geared servomotors
  - DC motors, brake motors and gearmotors
  - Synchronous and asynchronous linear motors

- Components for decentralized installation
  - MOVIMOT® gearmotors with integrated frequency inverter
  - MOVI-SWITCH® gearmotors with integrated switching and protection function
  - Field distributors, fieldbus interfaces

- Mechanical variable speed drives
  - VARIBLOC® wide V-belt variable speed gearmotors
  - VARIMOT® friction disc variable speed gearmotors

- Explosion-proof drives to ATEX 100a for category 2 and category 3

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

Content of the catalog

This catalog describes VARIBLOC® and VARIMOT® variable speed gearmotors. It contains project planning notes, mounting positions, technical data, selection tables and dimension sheets for standard variable speed gearmotors.
The catalog also provides notes on using variable speed gearmotors in potentially explosive atmospheres.
Please refer to separate catalogs for information about other SEW products:

Other catalogs

- Gearmotors
- Gear units
- Low backlash planetary gear units
- Geared servomotors
- Pole-changing gearmotors
- Drives for overhead trolley systems
- Explosion-proof drives
- MOVIMOT® Gearmotors
- Compact gear units
- Planetary gearmotors
- DAS Aseptic drives

2 Product Description and Overview of Types

Variable speed gearmotors

VARIBLOC® and VARIMOT® variable speed gearmotors are simple and robust drives used for infinitely variable mechanical speed control in a setting range from 1:3 to 1:8. They can be combined with SEW AC motors and reduction gear units to produce variable speed drives with a low output speed and high output torque.

Application areas

Variable speed gearmotors are low-cost drives with speed and torque values that can be individually adapted by mounting helical, parallel shaft helical, helical-bevel and helical-worm gear units. They are used in simple materials handling and process engineering applications such as in the chemicals industry, the construction materials industry and in foodstuffs and luxury goods production.

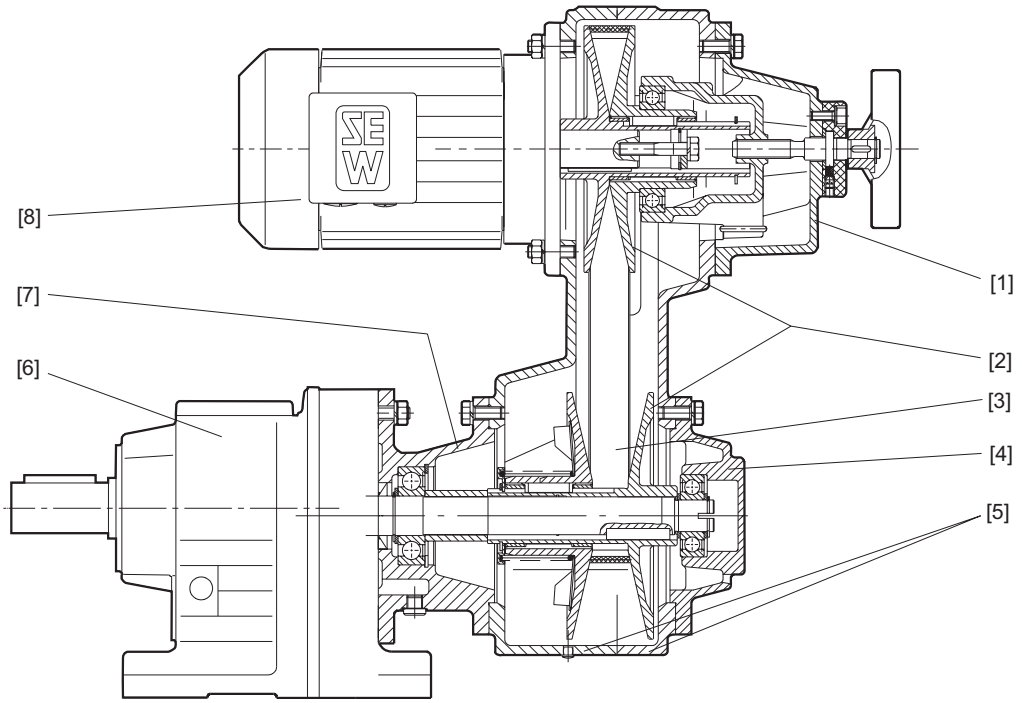
The advantages at a glance

- Robust with increased starting torque
- Large permitted overhung loads of the reduction gear units
- Large number of finely spaced gear ratios of the reduction gear unit, depending on size
- Speed can be adjusted either manually or by remote control
- Speed can be selected even when at a standstill (only VARIMOT®)

Explosion-proof variable speed gearmotors

SEW-EURODRIVE also supplies VARIBLOC® and VARIMOT® variable speed gearmotors for use in potentially explosive atmospheres according to directive 94/9/EC (ATEX 100a). Please contact SEW-EURODRIVE if required.

2.1 VARIBLOC® variable speed gearmotor



[1] Control head for front adjustment
[2] Variable pulleys
[3] Wide V-belt
[4] Bearing cover
[5] Two-part pulley housing
[6] Reduction gear unit connected at the output end
[7] Output flange
[8] Driving motor

SEW VARIBLOC® variable speed gearmotors are low-maintenance wide V-belt variable speed units with flange-mounted AC motors.

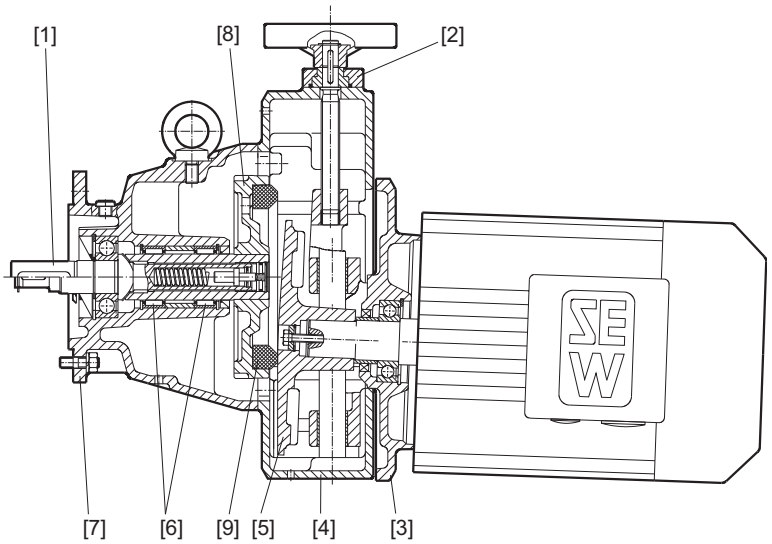
They are used for infinitely variable speed control. They are adjusted using a constrained adjustable variable pulley and a spring-loaded variable pulley. The transmission element is a double-toothed, raw-edged wide V-belt according to DIN 7719.

The speed can be adjusted mechanically, e.g. with a handwheel, or electromechanically using a variable motor.

The setting range (1:3 to 1:8) can be extended further by mounting pole-changing motors. VARIBLOC® variable speed gear units are not allowed to be operated with 2-pole motors or at 2-pole speed.

The power flow is U-shaped (type VU) or Z-shaped (type VZ). This means the drives can easily be adapted to different machine designs. The units can easily be converted from one configuration to the other by swapping over the output flange and bearing cover of the
VARIBLOC®.

2.2 VARIMOT® variable speed gearmotor



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[1] Complete output shaft
[2] Plate
[3] Adjusting plate
[4] Housing cover
[5] Driving pulley
[6] Needle roller bearing
[7] Housing
[8] Complete hollow shaft
[9] Friction ring

SEW VARIMOT® variable speed gearmotors (type D) are maintenance-free friction disc gear units with flange-mounted AC motors with or without a brake.

They are used for infinitely variable speed control. The power flow is from the motor via the cone pulley on a shaft, and onto a friction ring to the output shaft. The contact pressure between the driving pulley and the friction ring required for torque transmission is established automatically depending on the torque.

The speed can be adjusted mechanically, e.g. with a handwheel, or electromechanically using a variable motor.

The setting range (1:4 to 1:5) can be extended further by mounting pole-changing motors.

2.3 General information

Power output and torque

The details on power and torque given in the catalog refer to mounting position M1 and similar mounting positions, where the input gear stage does not completely run under oil. In addition, the gearmotors are assumed to be standard versions with standard lubrication and under normal ambient conditions.

Please note that the motor power shown in the gearmotor tables is subject to selection. However, the output torque at the required output speed are essential for the application.

Speeds

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

Noise levels

The noise levels of all variable speed gearmotors are well within the maximum permissible noise levels set forth in the VDI guideline 2159 for gear units and EN 60034 for motors.

Coating

The variable speed gearmotors are painted with "blue gray" machine paint RAL 7031 as per DIN 1843 as standard. Special coatings are available on request.

Surface protection

If required, all variable speed gearmotors can also be supplied with special surface protection (OS1/2/3) for applications in extremely humid and chemically aggressive environments. The following table gives an overview of possible protection types.

	Standard	OS1	OS2	OS3	Z
Description	– 1 x dip primer – 1 x one-pack topcoat	– 1 x dip primer – 1 x two-pack base coat – 1 x two-pack varnish	– 1 x dip primer – 2 x two-pack base coat – 1 x two-pack varnish	– 1 x dip primer – 2 x two-pack base coat – 2 x two-pack varnish	Before coating: Surface recesses are sprayed with a rubber filling
Standard coat thickness	ca. 50 -70 µm	ca. 120 -150 µm	ca. 170 -210 µm	ca. 220 - 270 µm	-
Application	– Normal ambient conditions – Relative humidity below 90 % – Surface temperature up to 120 °C – Corrosivity category C1[1)]	– Low environmental pollution – Relative humidity max. 95 % – Surface temperature up to 120 °C – Corrosivity category C2 [1)]	– Medium environmental pollution – Relative humidity up to 100 % – Surface temperature up to 120 °C – Corrosivity category C3 [1)]	– High environmental pollution – Relative humidity up to 100 % – Surface temperature up to 120 °C – Corrosivity category C4 [1)]	Special procedure in addition to OS1/2/3 to avoid corrosion of surface recesses of units installed in particularly harsh environments.

1) according to DIN EN ISO 12 944-2

Corrosion protection

In addition to the standard type, SEW offers the following corrosion protection solutions for VARIBLOC® and VARIMOT® variable speed gear units:

- All unmachined internal surfaces have a special coating
- Corrosion protection for variable pulleys in VARIBLOC®
- Hard chromium plated driving pulley in VARIMOT®
- Fastening parts made from non-rusting material

The dimensions of the terminal box on motors with additional internal corrosion protection (feature KS) differ slightly from those of the standard type. Please request a special dimension sheet if required.

Weights angaben

Please note that all weights shown in the catalog exclude the oil fill for the variable speed gearmotors. The weight varies according to gear unit design and gear unit size. The lubricant fill is dependent on the mounting position, and consequently it is impossible to make any generally valid statements.
Please refer to "Lubricants" in the "Design and Operating Notes" section for recommended lubricant fill quantities depending on the mounting position. The exact weight is given in the order confirmation.

Air admission and accessibility

The variable speed gearmotors must be mounted on the driven machine in such a way that both axially and radially there is enough space left for unimpeded air admission and for the purposes of maintenance of the brake and, if necessary, for service work on the variable speed gear unit. Please also refer to the notes on the motor dimension sheets in this regard.

2.4 Variable speed gearmotor versions

R, F, K, S gearmotors

The following table shows available types of helical (R), parallel shaft helical (F), helical-bevel (K) and helical-worm (S) variable speed gearmotors.

Version	Variable speed gearmotors			
	Helical (R)	Parallel shaft (F)	Helical-bevel (K)[1]	Worm (S)
Foot-mounted	•	•	•	•
B5 flange	•	•	•	•
Foot-mounted/B5 flange	•[2]	•	•[3]	–
Hollow shaft with keyway	–	•	•	•
Hollow shaft with shrink disc	–	•	•	•
Splined hollow shaft	–	•	•	–
Hollow shaft with keyway + foot-mounted	–	•	•	–
Hollow shaft with shrink disc + foot-mounted	–	•	•	–
Splined hollow shaft + foot-mounted	–	•	•	–
Hollow shaft with keyway + B5 flange	–	•	•	•
Hollow shaft with shrink disc + B5 flange	–	•	•	•
Splined hollow shaft + B5 flange	–	•	•	–
Hollow shaft with keyway + B14 flange	–	•	•	•
Hollow shaft with shrink disc + B14 flange	–	•	•	•
Splined hollow shaft + B14 flange	–	•	•	–

- • Available as standard version
- – Not available

1) Helical-bevel and helical-worm variable speed gearmotors are also available with an additional torque arm

2) Only with R27 - R87 gearmotors

[3] Only with K127 - K157 gearmotors

NOCO® fluid against corrosion protection

As standard, all shaft-mounted gearmotors are supplied with NOCO® fluid, a paste that prevents contact corrosion. Use this paste in accordance with the instructions in the gear unit operating instructions. It facilitates service and stripping down jobs.

RM gearmotors

RM variable speed gearmotors are a special type of helical variable speed gearmotor with an extended output bearing hub. They are specifically designed for agitating applications and can be used in applications subject to high overhung and axial loads as well as flexural torque. The remaining data correspond to the standard helical variable speed gearmotors (→ Sec. "RM gear units").

Multi-stage gearmotors

You can achieve particularly low output speeds by using multi-stage variable speed gearmotors with a multi-stage reduction gear unit. Such a step requires a helical gear unit as a second gear unit.

Brake motors

On request, SEW motors and gearmotors can be supplied with an integrated mechanical brake. The SEW brake is an electromagnetic disc brake with a DC coil that releases electrically and brakes using spring force. The brake can also be released mechanically if equipped with manual brake release. For this purpose, either a hand lever or a setscrew is supplied with the brake. The hand lever springs back automatically and the setscrew is lockable.

A significant feature of the brake is its very short length. The brake bearing end shield is a part of both the motor and the brake. The integrated construction of the brake motor permits particularly compact and sturdy solutions.

International markets

SEW-EURODRIVE is a member of the AGMA (American Gear Manufacturer's Association), and, as such, all its gear units and gearmotors conform to AGMA specifications.

We supply motors for connection conditions according to CSA and NEMA standards on request (registered with UL).

For the Japanese market, we offer motors conforming to JIS standards. Contact your sales representative to assist you in such cases.

2.5 Unit designations for variable speed gear units and options

Variable speed gear unit

VU..	VARIBLOC® variable speed gear unit with U-shaped power flow
VZ..	VARIBLOC® variable speed gear unit with Z-shaped power flow
D..	VARIMOT® variable speed gear unit
..B..	.. with corrosion protection

Optional additional features of VARIBLOC® variable speed gear units

/BMG	With mounted disc brake
../HF	.. with lockable manual brake release
../HR	.. with automatic manual brake release
/LVT	Adapter with hydraulic centrifugal coupling
/U	Non-ventilated
/C	With protection canopy (cannot be combined with display units)
/AR..WS	Adapter with torque limiting coupling and slip monitoring
/ANTRG..	Input shaft assembly

Adjustment device options

/EF	Electromechanical remote speed control
/EFV	Electromechanical remote speed control without variable motor
/EFPA	Electromechanical remote speed control with remote setting indicator
/EFP	Electrom. remote speed control with potentiometer without remote setting indicator (VARIBLOC® only)
/H	Control head with handwheel to DIN 950 (only VARIBLOC®)
/HS	Control head with handwheel and setting indicator
/K	Front adjustment with chain sprocket to DIN 8180
/NV	Control head with exposed shaft-end
/VR	Only adjusting ring (without control head, only VARIBLOC®)

Indicator options

/DA	Digital remote speed indicator
/FA	Analog remote speed indicator, 0 % ...100 % (only VARIBLOC®)
/FD	Analog remote speed indicator, special scale (only VARIBLOC®)
/FL	Analog remote speed indicator for encoder (only VARIBLOC® VU6 and VARIMOT®)
/GW	With AC tachogenerator, without indicator (only VARIBLOC®)
/IG	With encoder without indicator unit
/MU	With measuring transducer
/TW	Richt angle tachometer (only VARIBLOC®)
/TA	Axial tachogenerator (only VARIBLOC®)
/TV	With tacho mounting device (only VARIBLOC®)
/IGV	Prepared for encoder mounting
/IGUX	prepared for encoder mounting (only in explosion-protected areas)
/IGEX	with encoder (only in explosion-protected areas)
/WEX	with encoder (only in explosion-protected areas) and speed monitor

2.6 Gear unit designations

Helical gear units

R..	Foot-mounted version
RF..	Flange-mounted
R..F	Foot and flange-mounted
RM..	Flange-mounted with extended output bearing hub
RX..	Single-stage foot-mounted
RXF..	Single-stage flange-mounted
R..R..	Multi-stage gear units

Parallel shaft helical gear units

F..	Foot-mounted
FA..B	Foot-mounted with hollow shaft
FH..B	Foot-mounted with hollow shaft and shrink disc
FV..B	Foot-mounted with splined hollow shaft to DIN 5480
FF..	B5 flange-mounted
FAF..	B5 flange-mounted and hollow shaft
FHF..	B5 flange-mounted and hollow shaft with shrink disc
FVF..	B5 flange-mounted and splined hollow shaft to DIN 5480
FA..	Hollow shaft
FH..	Hollow shaft with shrink disc
FT..	Hollow shaft with TorqLOC® hollow shaft mounting system
FV..	Splined hollow shaft to DIN 5480
FAZ..	B14 flange-mounted and hollow shaft
FHZ..	B14 flange-mounted and hollow shaft with shrink disc
FVZ..	B14 flange-mounted and splined hollow shaft to DIN 5480
F..R..	Multi-stage gear units

Helical-bevel gear units

K..	Foot-mounted
KA..B	Foot-mounted and hollow shaft
KH..B	Foot-mounted and hollow shaft with shrink disc
KV..B	Foot-mounted and splined hollow shaft to DIN 5480
KF..	B5 flange-mounted
KAF..	B5 flange-mounted and hollow shaft
KHF..	B5 flange-mounted and hollow shaft with shrink disc
KVF..	B5 flange-mounted and splined hollow shaft to DIN 5480
KA..	Hollow shaft
KH..	Hollow shaft with shrink disc
KT..	Hollow shaft with TorqLOC® hollow shaft mounting system
KV..	Splined hollow shaft to DIN 5480
KAZ..	B14 flange-mounted with hollow shaft
KHZ..	B14 flange-mounted with hollow shaft and shrink disc
KVZ..	B14 flange-mounted with splined hollow shaft to DIN 5480
K..R..	Multi-stage gear units

Helical-worm gear units

S..	Foot-mounted
SF..	B5 flange-mounted
SAF..	B5 flange-mounted with hollow shaft
SHF..	B5 flange-mounted with hollow shaft and shrink disc
SA..	Foot-mounted and hollow shaft
SH..	Foot-mounted and hollow shaft with shrink disc
ST..	Hollow shaft with TorqLOC® hollow shaft mounting system
SAZ..	B14 flange-mounted with hollow shaft
SHZ..	B14 flange-mounted with hollow shaft and shrink disc
S..R..	Multi-stage gear units

K and S gear unit option

/T	With torque arm

F gear unit option

/G	With rubber buffer

2.7 Unit designations for AC motors and options

Standard AC motors, series

DR.., DT.., DV..	Attached motor for variable speed gear units

AC motor options

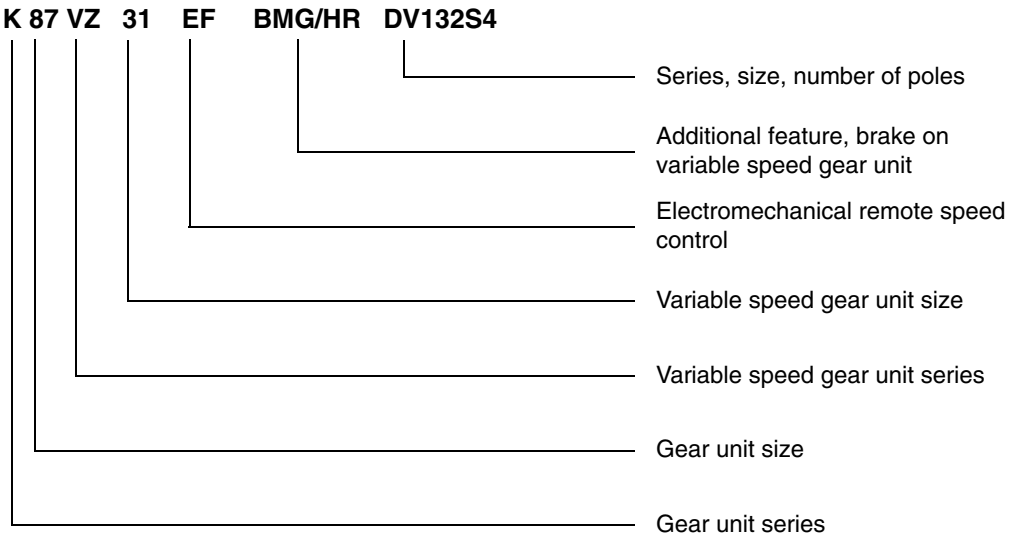
/BMG	Brake (reduced noise)
../HF	.. with lockable manual brake release
../HR	.. with automatic manual brake release
/C	Protection canopy for the fan guard
/TF	With thermistor sensor
/TH	With thermostat
/MSW..	MOVI-SWITCH® type (integrated circuit breaker and protective function)

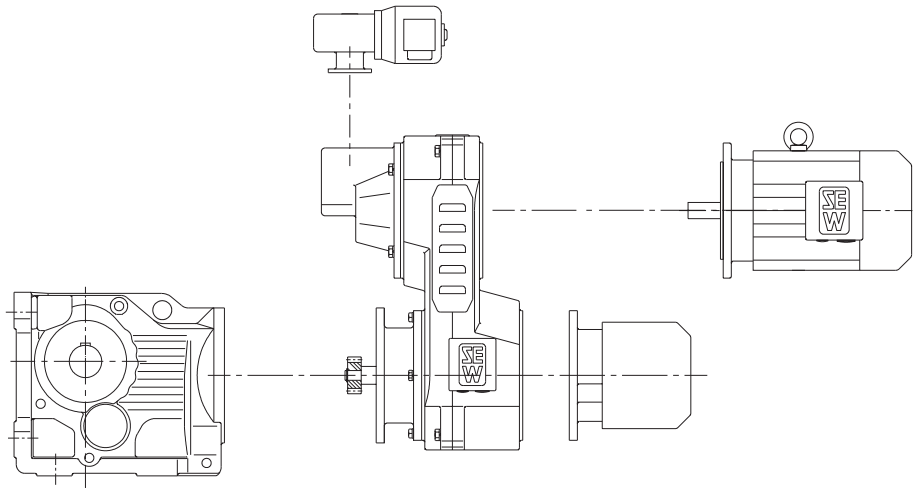
Plug connector on AC motor options

/IS	Integrated plug connector
/AMA1	HAN modular plug connector on terminal box with two-clamp closure
/AMD1	HAN modular plug connector on terminal box with one-clamp closure
/ASA1	HAN 10ES plug connector on terminal box with two-clamp closure
/ASD1	HAN 10ES plug connector on terminal box with one-clamp closure

2.8 Sample unit designation of a variable speed gearmotor

The unit designation of the variable speed gearmotor starts from the component on the output end. For instance, a VARIBLOC® variable speed gearmotor with a helical-bevel gear unit, brake with self-reengaging manual brake release and electromechanical remote speed control has the following unit designation:





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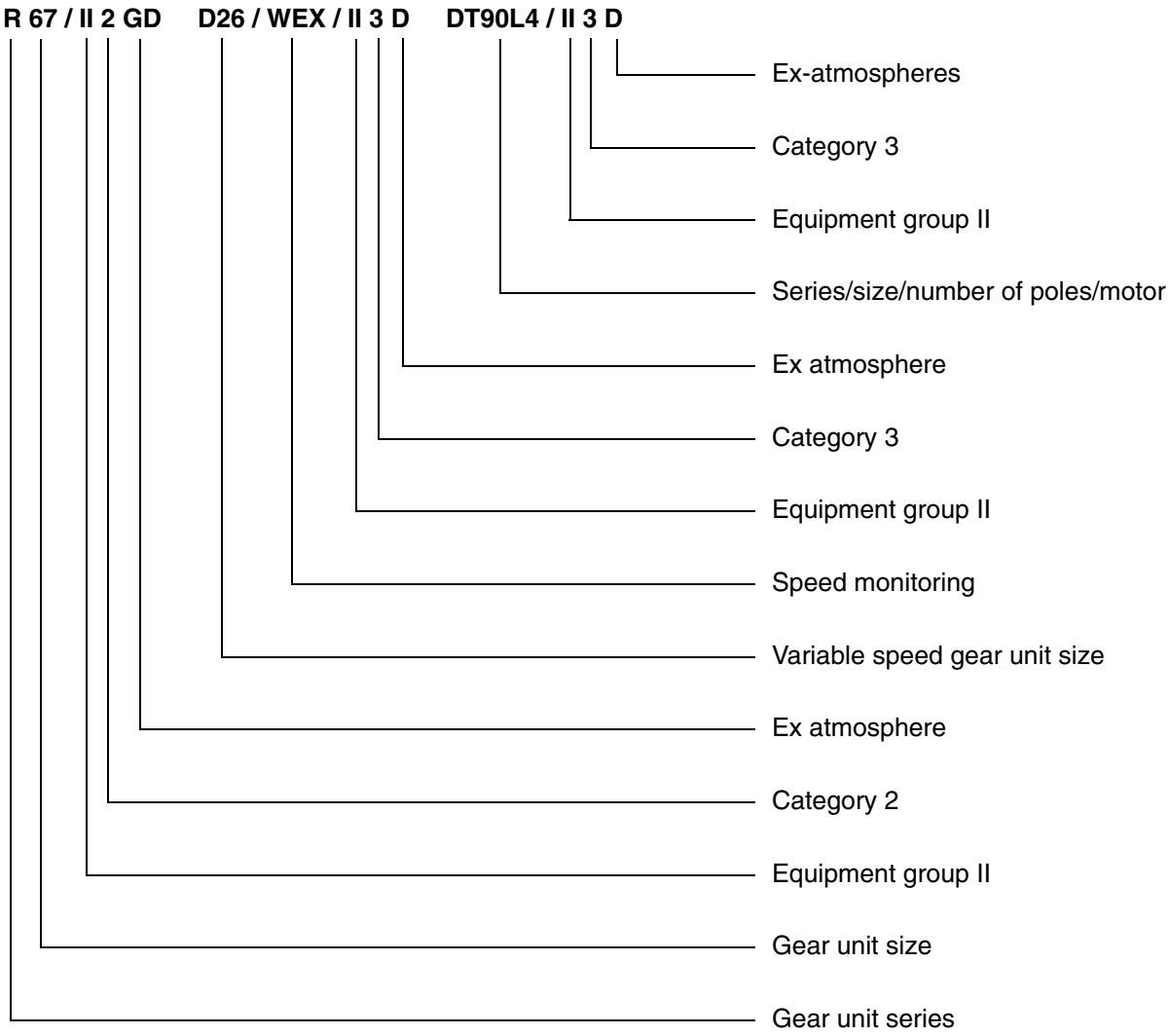
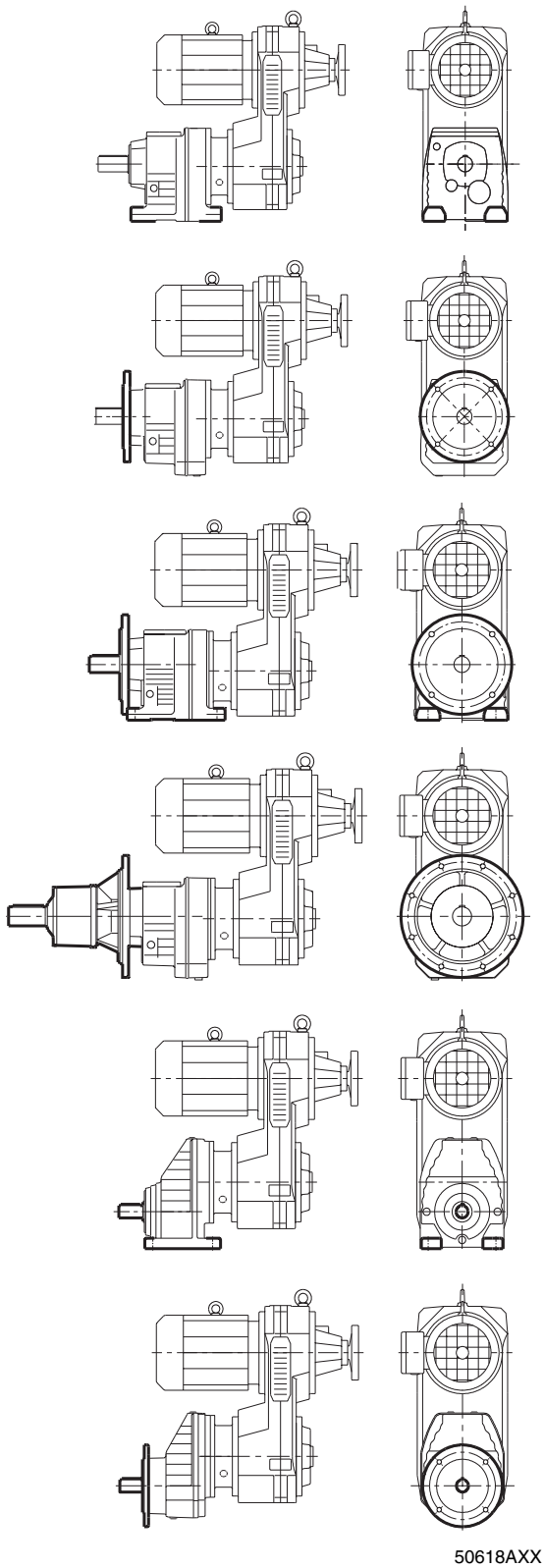
Example for an explosion-protected version:



2.9 Versions

VARIBLOC® with helical gear unit

VARIBLOC® variable speed gearmotors with a helical gear unit can be supplied in the following versions (mounting position VU is shown):



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R..VU/VZ..DR/DT/DV..

VARIBLOC® with foot-mounted helical gear unit

RF..VU/VZ..DR/DT/DV..

VARIBLOC® with flange-mounted helical gear unit

R..F VU/VZ..DR/DT/DV..

VARIBLOC® with foot/flange-mounted helical gear unit (sizes 27 to 87 only)

RM..VU/VZ..DR/DT/DV..

VARIBLOC® with flange-mounted helical gear unit and extended bearing hub

RX..VU/VZ..DR/DT/DV..

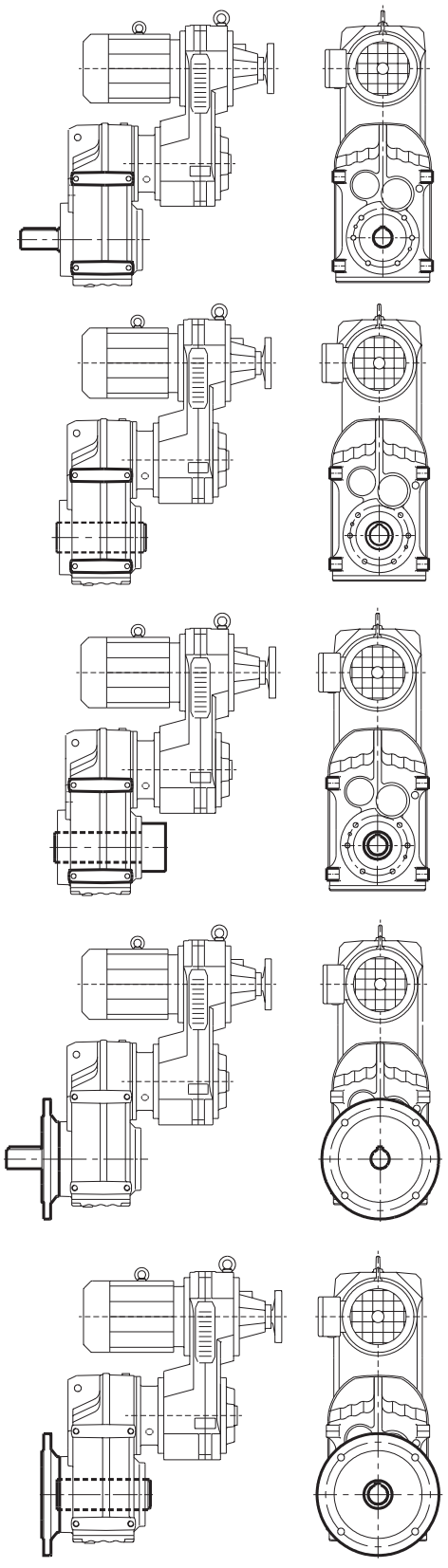
Single stage variable speed gearmotor with foot-mounted helical gear unit

RXF..VU/VZ..DR/DT/DV..

Single stage variable speed gearmotor with flange-mounted helical gear unit

VARIBLOC® with parallel shaft helical gear unit

VARIBLOC® variable speed gearmotors with a parallel shaft helical gear unit can be supplied in the following versions:



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F..VU/VZ..DR/DT/DV..

VARIBLOC® with foot-mounted parallel shaft helical gear unit

FA..B VU/VZ..DR/DT/DV..

VARIBLOC® with parallel shaft helical gear unit and hollow shaft
Foot-mounted

FV..B VU/VZ..DR/DT/DV..

VARIBLOC® with foot-mounted parallel shaft helical gear unit and splined hollow shaft to DIN 5480

FH..B VU/VZ..DR/DT/DV..

VARIBLOC® with foot-mounted parallel shaft helical gear unit and hollow shaft with shrink disc

FF..VU/VZ..DR/DT/DV..

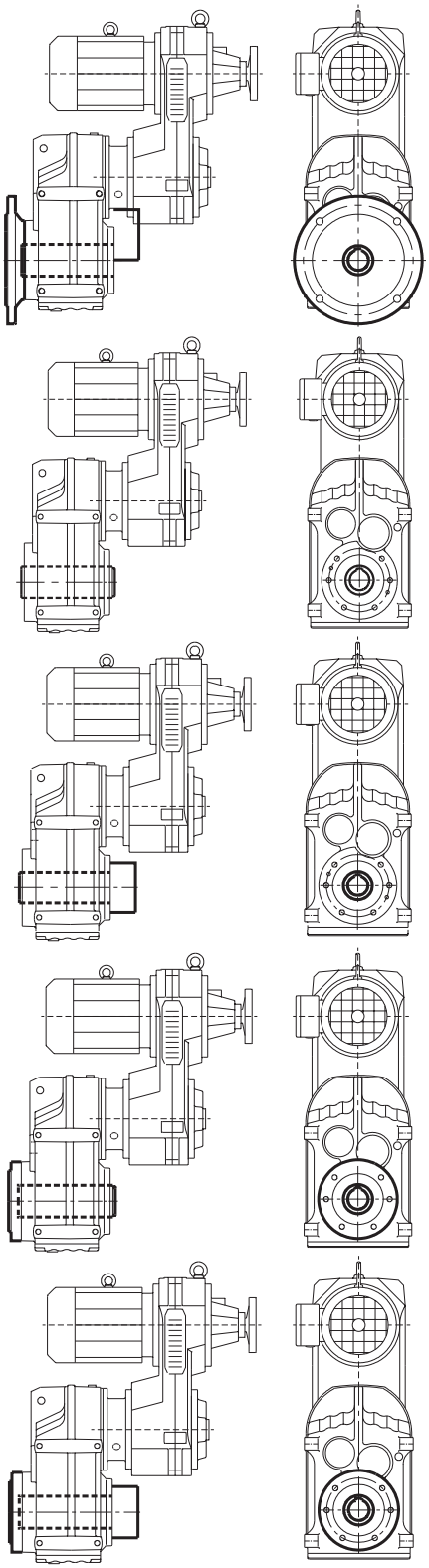
VARIBLOC® with B5 flange-mounted parallel shaft helical gear unit

FAF..VU/VZ..DR/DT/DV..

VARIBLOC® with parallel shaft helical gear unit and hollow shaft
B5 flange-mounted

FVF..VU/VZ..DR/DT/DV..

VARIBLOC® with B5 flange-mounted parallel shaft helical gear unit and splined hollow shaft to DIN 5480



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FHF..VU/VZ..DR/DT/DV..

VARIBLOC® with B5 flange-mounted parallel shaft helical gear unit and hollow shaft with shrink disc

FA..VU/VZ..DR/DT/DV..

VARIBLOC® with parallel shaft helical gear unit and hollow shaft

FV..VU/VZ..DR/DT/DV..

VARIBLOC® with parallel shaft helical gear unit and splined hollow shaft to DIN 5480

FH..VU/VZ..DR/DT/DV..

VARIBLOC® with parallel shaft helical gear unit and hollow shaft
and shrink disc

FT..VU/VZ..DR/DT/DV..

VARIBLOC® with parallel shaft helical gear unit and hollow shaft
TorqLOC® hollow shaft mounting system

FAZ..VU/VZ..DR/DT/DV..

VARIBLOC® with parallel shaft helical gear unit and hollow shaft
in B14 flange-mounted version

FVZ..VU/VZ..DR/DT/DV..

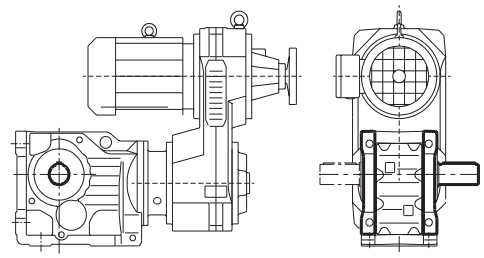
VARIBLOC® with B14 flange-mounted parallel shaft helical gear unit and splined hollow shaft to DIN 5480

FHZ..VU/VZ..DR/DT/DV..

VARIBLOC® with B14 flange-mounted parallel shaft helical gear unit and hollow shaft with shrink disc

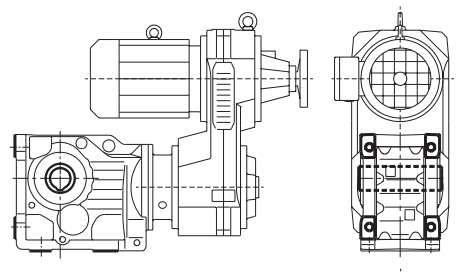
VARIBLOC® with helical-bevel gear unit

VARIBLOC® variable speed gearmotors with a helical-bevel gear unit can be supplied in the following versions:



K..VU/VZ..DR/DT/DV..

VARIBLOC® with foot-mounted helical-bevel gear unit

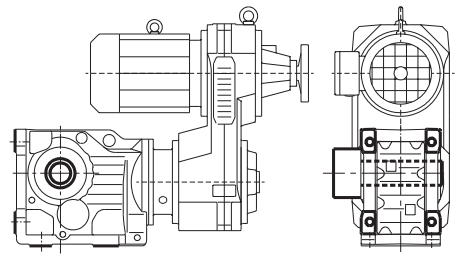


KA..B VU/VZ..DR/DT/DV..

VARIBLOC® with foot-mounted helical-bevel gear unit and hollow shaft

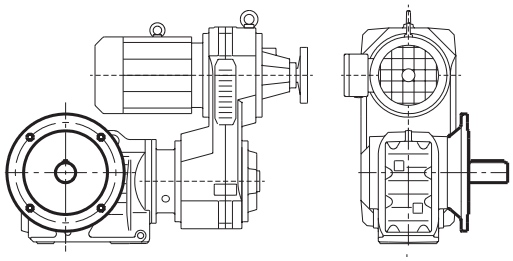
KV..B VU/VZ..DR/DT/DV..

VARIBLOC® with helical-bevel gear unit and splined hollow shaft to DIN 5480
in foot-mounted version



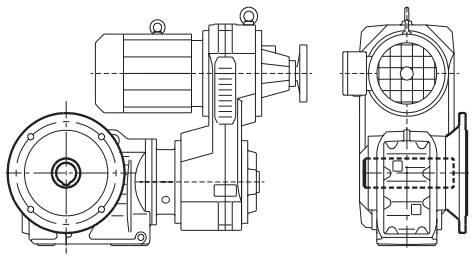
KH..B VU/VZ..DR/DT/DV..

VARIBLOC® with foot-mounted helical-bevel gear unit and hollow shaft with shrink disc



KF..VU/VZ..DR/DT/DV..

VARIBLOC® with B5 flange-mounted helical-bevel gear unit



KAF..VU/VZ..DR/DT/DV..

VARIBLOC® with B5 flange-mounted helical-bevel gear unit and hollow shaft

KVF..VU/VZ..DR/DT/DV..

VARIBLOC® with B5 flange-mounted helical-bevel gear unit and splined hollow shaft to DIN 5480

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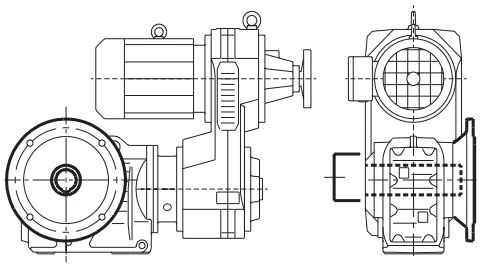
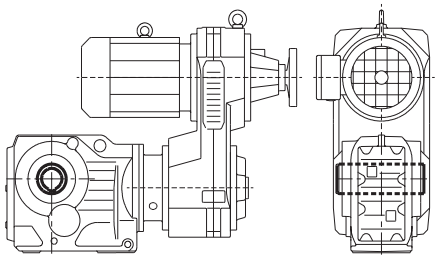


KHF..VU/VZ..DR/DT/DV..

VARIBLOC® with B5 flange-mounted helical-bevel gear unit and hollow shaft with shrink disc

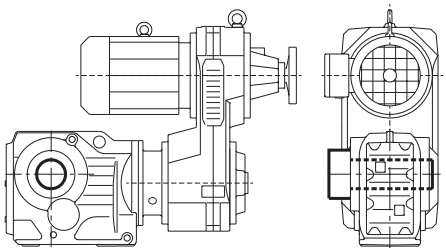


KA..VU/VZ..DR/DT/DV..

VARIBLOC® with helical-bevel gear unit and hollow shaft

KV..VU/VZ..DR/DT/DV..

VARIBLOC® with helical-bevel gear unit and splined hollow shaft to DIN 5480

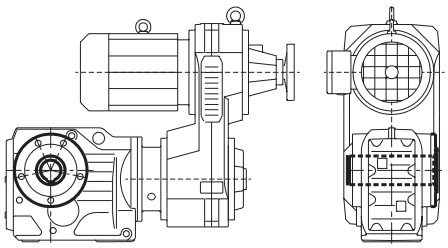


KH..VU/VZ..DR/DT/DV..

VARIBLOC® with helical-bevel gear unit and hollow shaft with shrink disc

KT..VU/VZ..DR/DT/DV..

VARIBLOC® with helical-bevel gear unit and hollow shaft and TorqLOC® hollow shaft mounting system

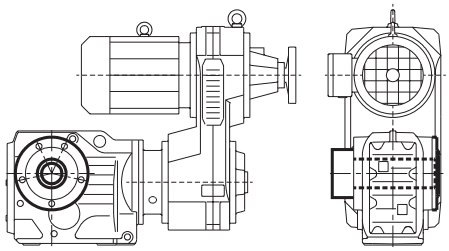


KAZ..VU/VZ..DR/DT/DV..

VARIBLOC® with B14 flange-mounted helical-bevel gear unit and hollow shaft

KVZ..VU/VZ..DR/DT/DV..

VARIBLOC® with B14 flange-mounted helical-bevel gear unit and splined hollow shaft to DIN 5480



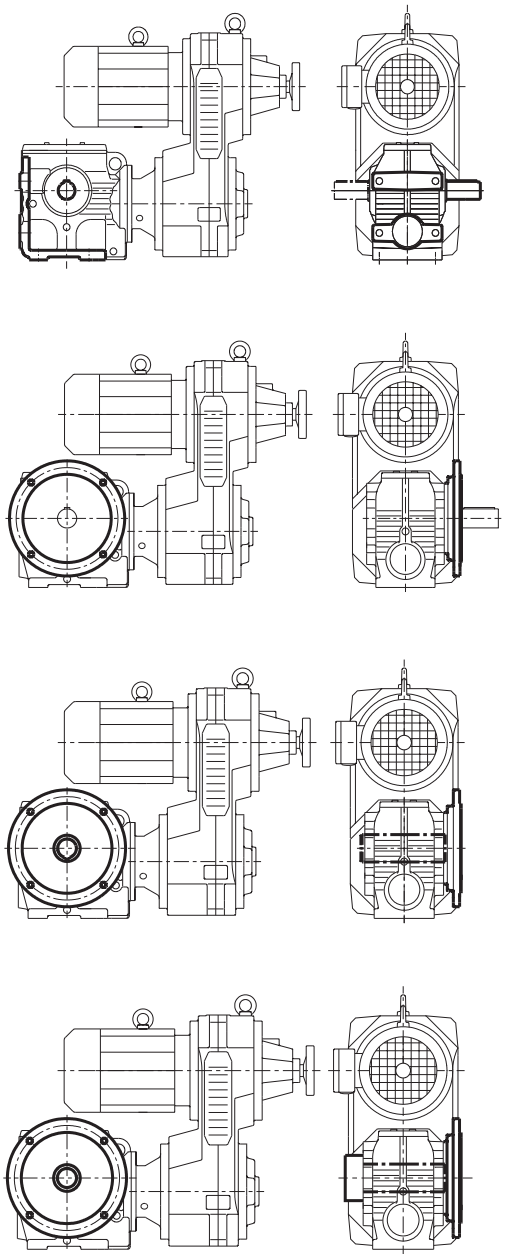
KHZ..VU/VZ..DR/DT/DV..

VARIBLOC® with B14 flange-mounted helical-bevel gear unit and hollow shaft with shrink disc

50622AXX

VARIBLOC® with helical-worm gear unit

VARIBLOC® variable speed gearmotors with a helical-worm gear unit can be supplied in the following versions:



50623AXX

S..VU/VZ..DR/DT/DV..

VARIBLOC® with foot-mounted helical-worm gear unit

SF..VU/VZ..DR/DT/DV..

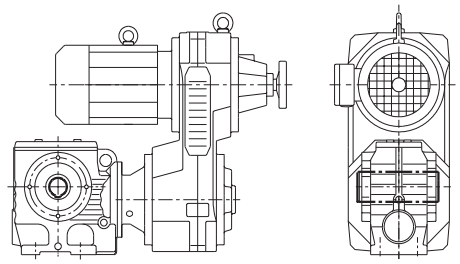
VARIBLOC® with flange-mounted helical-worm gear unit

SAF..VU/VZ..DR/DT/DV..

VARIBLOC® with B5 flange-mounted helical-worm gear unit and hollow shaft

SHF..VU/VZ..DR/DT/DV..

VARIBLOC® with B5 flange-mounted helical-worm gear unit and hollow shaft with shrink disc



50624AXX

SA..VU/VZ..DR/DT/DV..

VARIBLOC® with helical-worm gear unit and hollow shaft

SH..VU/VZ..DR/DT/DV..

VARIBLOC® with helical-worm gear unit and hollow shaft with shrink disc

ST..VU/VZ..DR/DT/DV..

VARIBLOC® with helical-worm gear unit and hollow shaft and TorqLOC® hollow shaft mounting system

SAZ..VU/VZ..DR/DT/DV..

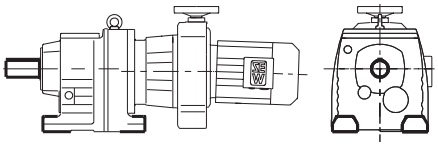
VARIBLOC® with B14 flange-mounted helical-worm gear unit and hollow shaft

SHZ..VU/VZ..DR/DT/DV..

VARIBLOC® with B14 flange-mounted helical-worm gear unit and hollow shaft with shrink disc

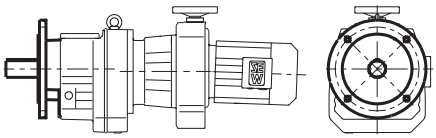
VARIMOT® with helical gear unit

VARIMOT® variable speed gearmotors with a helical gear unit can be supplied in the following versions::



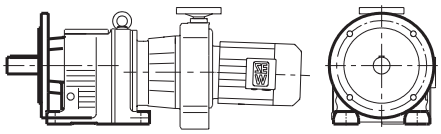
R..D..DT/DV..

VARIMOT® with foot-mounted helical gear unit



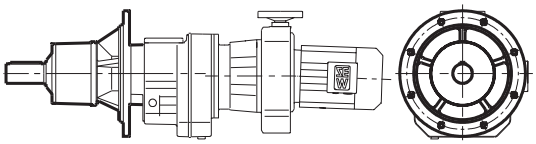
RF..D..DT/DV..

VARIMOT® with flange-mounted helical gear unit



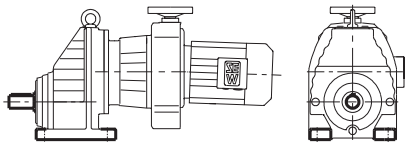
R..F D..DT/DV..

VARIMOT® with foot/flange-mounted helical gear unit (sizes 27 to 87 only)



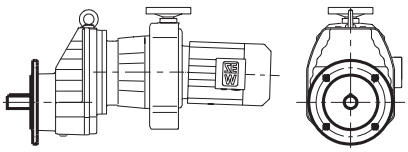
RM..D..DT/DV..

VARIMOT® with flange-mounted helical gear unit and extended bearing hub



RX..D..DT/DV..

Single stage variable speed gearmotor with foot-mounted helical gear unit



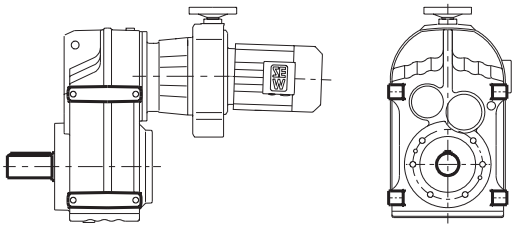
RXF..D..DT/DV..

Single stage variable speed gearmotor with flange-mounted helical gear unit

50641AXX

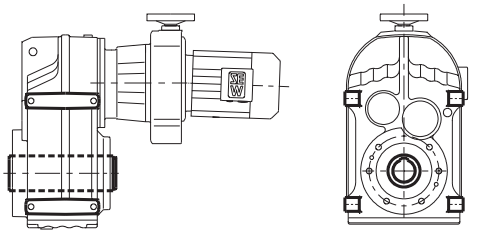
VARIMOT® with parallel shaft helical gear unit

VARIMOT® variable speed gearmotors with a parallel shaft helical gear unit can be supplied in the following versions:



F..D..DT/DV..

VARIMOT® with foot-mounted parallel shaft helical gear unit

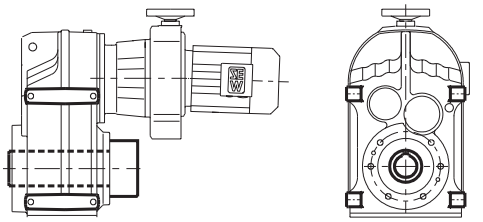


FA..B D..DT/DV..

VARIMOT® with parallel shaft helical gear unit and hollow shaft
Foot-mounted

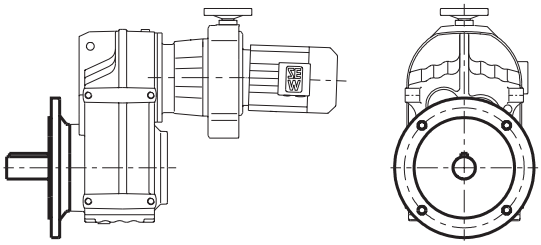
FV..B D..DT/DV..

VARIMOT® with foot-mounted parallel shaft helical gear unit and splined hollow shaft to DIN 5480



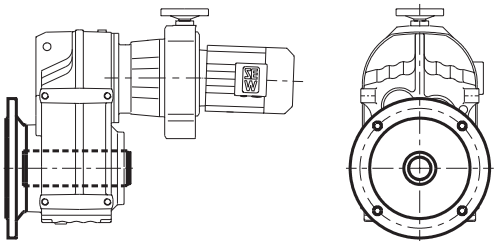
FH..B D..DT/DV..

VARIMOT® with foot-mounted parallel shaft helical gear unit and hollow shaft with shrink disc



FF..D..DT/DV..

VARIMOT® with B5 flange-mounted parallel shaft helical gear unit



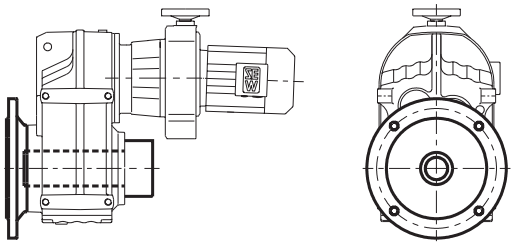
50640AXX

FAF..D..DT/DV..

VARIMOT® with parallel shaft helical gear unit and hollow shaft
B5 flange-mounted

FVF..D..DT/DV..

VARIMOT® with B5 flange-mounted parallel shaft helical gear unit and splined hollow shaft to DIN 5480



50642AXX

FHF..D..DT/DV..

VARIMOT® with B5 flange-mounted parallel shaft helical gear unit and hollow shaft with shrink disc

FA..D..DT/DV..

VARIMOT® with parallel shaft helical gear unit and hollow shaft

FV..D..DT/DV..

VARIMOT® with parallel shaft helical gear unit and splined hollow shaft to DIN 5480

FH..D..DT/DV..

VARIMOT® with parallel shaft helical gear unit and hollow shaft with shrink disc

FT..D..DT/DV..

VARIMOT® with parallel shaft helical gear unit and hollow shaft and TorqLOC® hollow shaft mounting system

FAZ..D..DT/DV..

VARIMOT® with B14 flange-mounted parallel shaft helical gear unit and hollow shaft

FVZ..D..DT/DV..

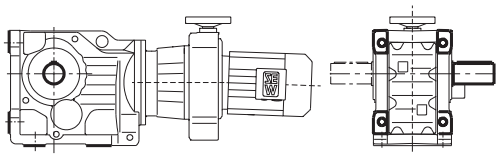
VARIMOT® with B14 flange-mounted parallel shaft helical gear unit and splined hollow shaft to DIN 5480

FHZ..D..DT/DV..

VARIMOT® with B14 flange-mounted parallel shaft helical gear unit and hollow shaft with shrink disc

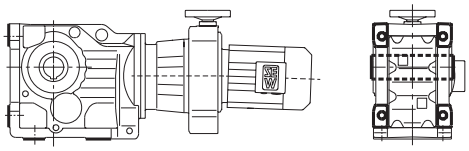
VARIMOT® with helical-bevel gear unit

VARIMOT® variable speed gearmotors with a helical-bevel gear unit can be supplied in the following versions:



K..D..DT/DV..

VARIMOT® with foot-mounted helical-bevel gear unit

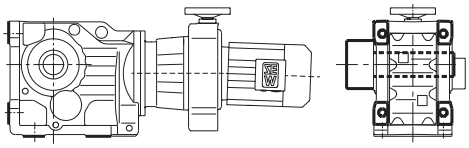


KA..B D..DT/DV..

VARIMOT® with foot-mounted helical-bevel gear unit and hollow shaft

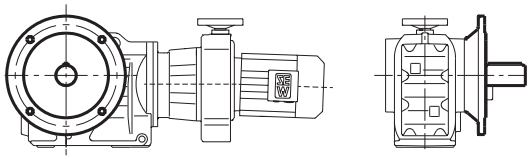
KV..B D..DT/DV..

VARIMOT® with helical-bevel gear unit and splined hollow shaft to DIN 5480
in foot-mounted version



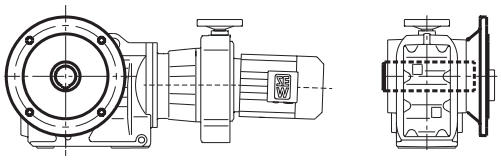
KH..B D..DT/DV..

VARIMOT® with foot-mounted helical-bevel gear unit and hollow shaft with shrink disc



KF..D..DT/DV..

VARIMOT® with B5 flange-mounted helical-bevel gear unit



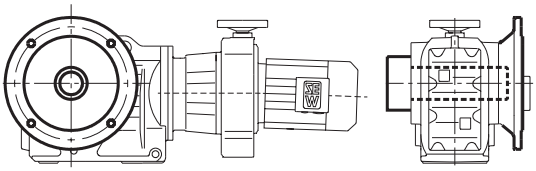
KAF..D..DT/DV..

VARIMOT® with B5 flange-mounted helical-bevel gear unit and hollow shaft

KVF..D..DT/DV..

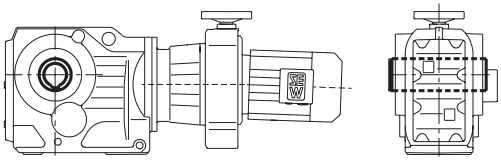
50643AXX

VARIMOT® with B5 flange-mounted helical-bevel gear unit and splined hollow shaft to DIN 5480



KHF..D..DT/DV..

VARIMOT® with B5 flange-mounted helical-bevel gear unit and hollow shaft with shrink disc

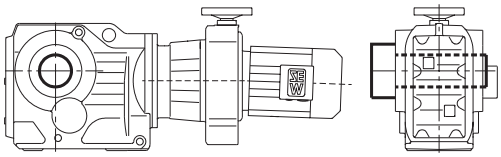


KA..D..DT/DV..

VARIMOT® with helical-bevel gear unit and hollow shaft

KV..D..DT/DV..

VARIMOT® with helical-bevel gear unit and splined hollow shaft to DIN 5480

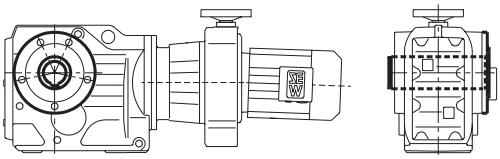


KH..D..DT/DV..

VARIMOT® with helical-bevel gear unit and hollow shaft with shrink disc

KT..D..DT/DV..

VARIMOT® with helical-bevel gear unit and hollow shaft and TorqLOC® hollow shaft mounting system

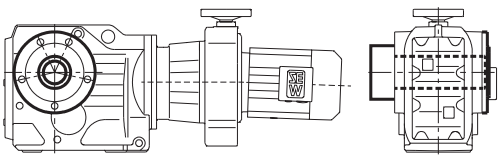


KAZ..D..DT/DV..

VARIMOT® with B14 flange-mounted helical-bevel gear unit and hollow shaft

KVZ..D..DT/DV..

VARIMOT® with B14 flange-mounted helical-bevel gear unit and splined hollow shaft to DIN 5480



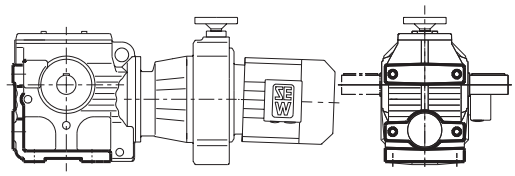
KHZ..D..DT/DV..

VARIMOT® with B14 flange-mounted helical-bevel gear unit and hollow shaft with shrink disc

50644AXX

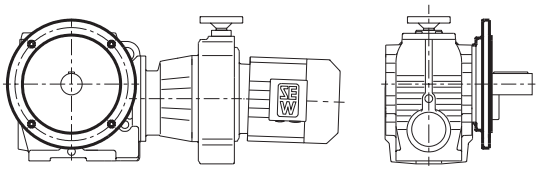
VARIMOT® with helical-worm gear unit

VARIMOT® variable speed gearmotors with a helical-worm gear unit can be supplied in the following versions:



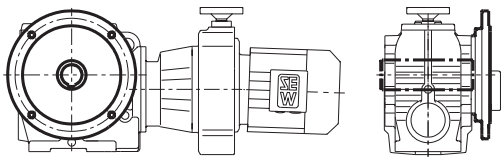
S..D..DT/DV..

VARIMOT® with foot-mounted helical-worm gear unit



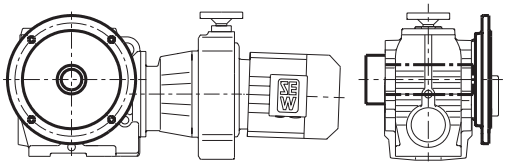
SF..D..DT/DV..

VARIMOT® with flange-mounted helical-worm gear unit



SAF..D..DT/DV..

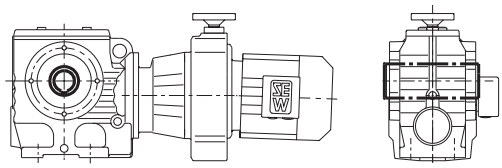
VARIMOT® with B5 flange-mounted helical-worm gear unit and hollow shaft



SHF..D..DT/DV..

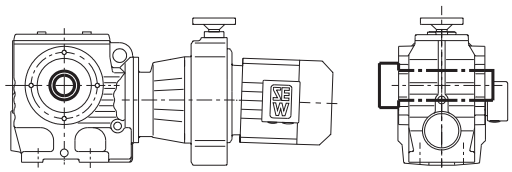
VARIMOT® with B5 flange-mounted helical-worm gear unit and hollow shaft with shrink disc

50645AXX



SA..D..DT/DV..

VARIMOT® with helical-worm gear unit and hollow shaft

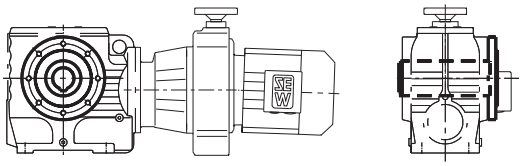


SH..D..DT/DV..

VARIMOT® with helical-worm gear unit and hollow shaft with shrink disc

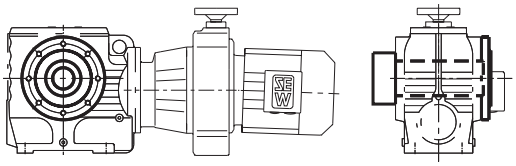
ST..D..DT/DV..

VARIBLOC® with helical-worm gear unit and hollow shaft and TorqLOC® hollow shaft mounting system



SAZ..D..DT/DV..

VARIMOT® with B14 flange-mounted helical-worm gear unit and hollow shaft



SHZ..D..DT/DV..

VARIMOT® with B14 flange-mounted helical-worm gear unit and hollow shaft with shrink disc

50646AXX

3 Explosion protection to ATEX

3.1 Drive engineering to EU Directive 94/9/EC (ATEX 100a)

Why explosion protection?

Explosion protection for electrical and mechanical machinery is an important precaution for safeguarding people and all kinds of production, storage and distribution equipment whenever potentially explosive mixtures of combustible gases or dust and air may occur.

What does explosion protection achieve?

Explosion protection can mean preventing an explosive mixture from ever occurring at all. Explosion protection can also be achieved by preventing possible sources of ignition, e.g. hot surfaces and sparking, through designing components with a suitable size and by having constant monitoring in operation. Alternatively, suitable measures can be taken to prevent explosions being caused by existing sources of ignition (e.g. flameproof enclosure).

Harmonized European design provisions

EU directive 94/9/EC provides binding minimum requiremens to be applied within the European Union to equipment intended for use in potentially explosive atmospheres. In relation to drives, the directive covers motors as well as all other electrical and mechanical components such as gear units, mechanical variable speed gear units, brakes, forced cooling fans, integrated frequency inverters, sensors, actuators, and more.

Directive 94/9/EC defines the minimum requirements for units and divides the units into categories.

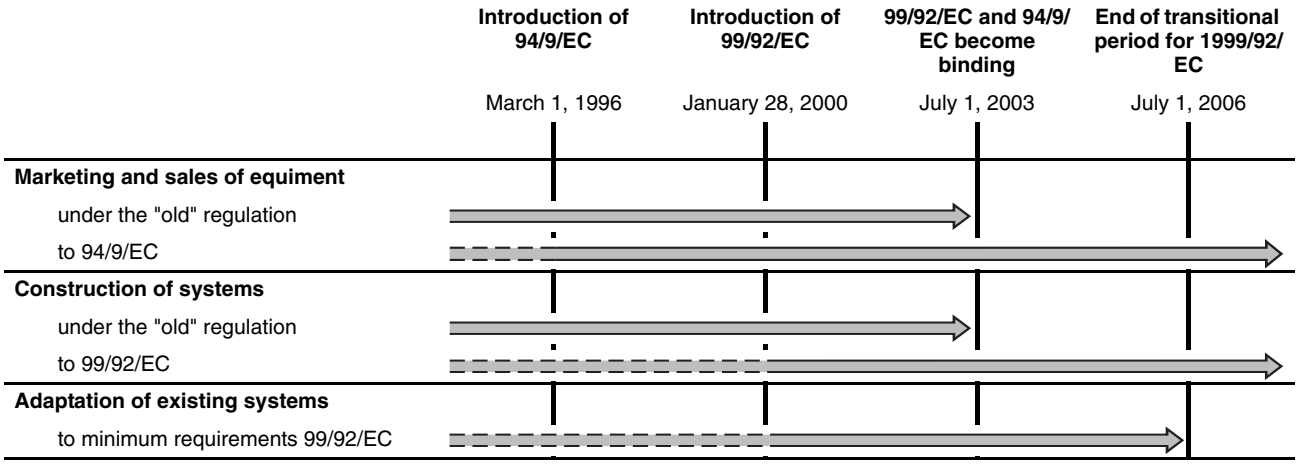
The requirements for production plants, division into zones and the assignment of equipment categories to zones are defined in EU Directive 1999/92/EC (ATEX 137).

Transitional periods

Since July 1, 2003, only directives 94/9/EC and 1999/92/EC have been mandatory in the EU. This comprehensive harmonization of explosion protection throughout the EU means that all remaining trade barriers between EU member states in this area will be removed.

A transition period up to June 30, 2006 has been granted for any equipment that came into use before June 30, 2003 and that did not yet comply with the new Directive 1999/92/EC at that time.

Transitional periods 94/9/EC and 1999/92/EC



CE

Naturally, EU Directive 94/9/EC also applies to all products which are manufactured outside the EU and imported into the EU. To indicate compliance with EU Directive 94/9/EC, explosion-proof devices will now also bear the CE mark on their nameplates.

In contrast to the regulations which also apply in parallel during the transitional period, explosion protection according to 94/9/EC applies to both electrical and mechanical equipment, and defines equipment categories for the first time.

1999/92/EC redefines the assignment of equipment categories to hazard zones.

Designations

The term **ATEX** (**At**mosphères **Ex**plosibles) has become common usage for the new directives. **ATEX 95** regulates all requirements for the characteristics of explosion-proof equipment, while **ATEX 137** is a directive for the protection of personnel potentially at risk during installation, operation and maintenance of equipment in hazardous areas.

Explosion-proof drives from SEW-EURODRIVE

Drives from SEW-EURODRIVE for potentially explosive atmospheres have the following characteristics:

- Included are all product areas from mains operated AC gearmotors and MOVIMOT® gearmotors with integrated frequency inverters through to controlled drives for particularly exacting applications.
- All components can be combined with one another according to the rules of the SEW-EURODRIVE modular concept.
- All drives satisfy typical market requirements in terms of their power range and functions.

3.2 Regulations

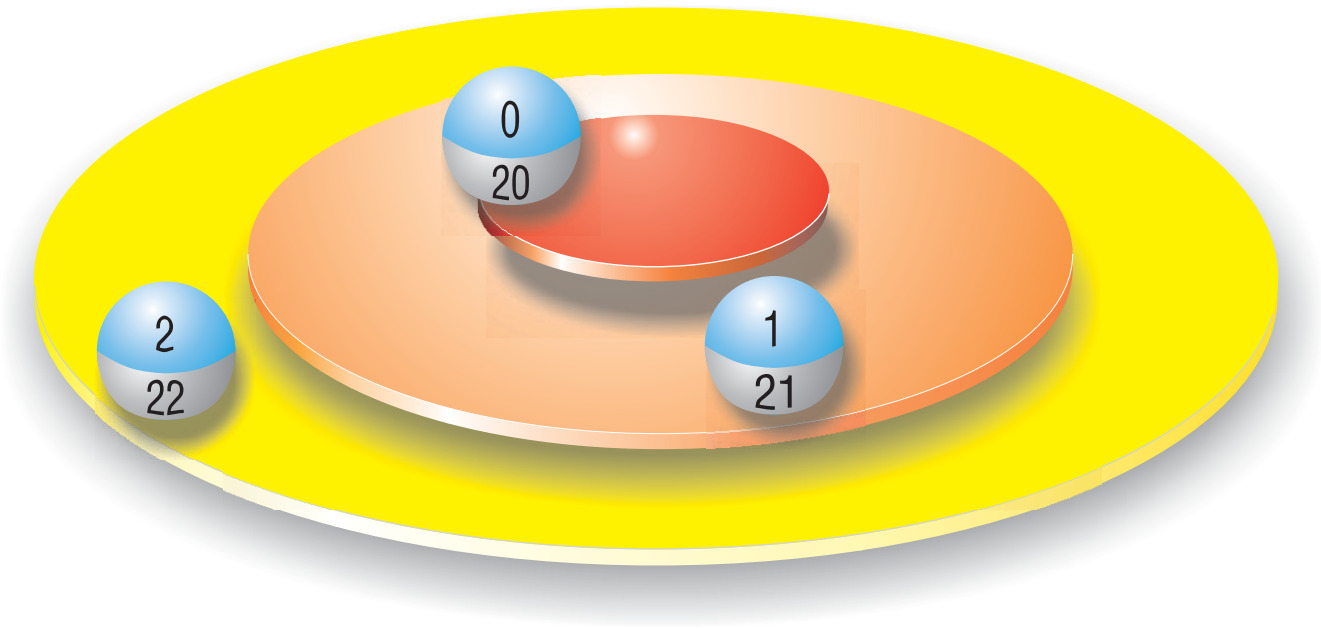
Zones in a potentially explosive atmosphere

According to EU Directive 99/92/EC (ATEX 137), the owner of the machine must divide potentially explosive atmospheres into zones.

Zone[1]		Probability of a potentially explosive atmosphere occuring
Gas	Dust	
0[2]	20[2]	Continuous, long-term, frequent, predominant in time
1	21	Occasional, in normal operation
2	22	Seldom, short-term

1) Only the gray boxes are relevant to drives from SEW-EURODRIVE.

2) Not relevant for electric drives.



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Division of explosion-proof equipment into categories

According to EU Directive 94/9/EC, explosion-proof equipment is divided into categories. The category specifies the protection level of the equipment, describes the operating conditions and makes it easier to assign permitted equipment to a zone. In addition to the degree of protection of enclosures (normal, high, very high), the directive distinguishes between G (gas) and D (dust) explosive atmospheres.

Category[1)]	Protection level	Guaranteed protection	Operating conditions
M1	Very high	With two independent preventive measures; two faults are allowed to occur independently of one another	Equipment continues to operate in the presence of a potentially explosive atmosphere
1	Very high	With two independent preventive measures; two faults are allowed to occur independently of one another	Equipment continues to operate in the presence of a potentially explosive atmosphere
M2	High	Suitable for normal operation and harsh operating conditions	Equipment is switched off in the presence of a potentially explosive atmosphere
2	High	One preventive measure; suitable for normal operation with the likeliness of frequent malfunctions, one fault is allowed to occur	Equipment continues to operate in the presence of a potentially explosive atmosphere
3	standard	Suitable for standard operation	Equipment continues to operate in the presence of a potentially explosive atmosphere

1) Only the gray boxes are relevant to drives from SEW-EURODRIVE.

Overview of explosion-proof equipment

	Equipment group I Mines, firedamp		Equipment group II Other areas with potentially explosive atmospheres due to gas or dust					
Category	M1	M2	1		2		3	
Ex atmosphere[1)]			G	D	G	D	G	D
Zone			0	20	1	21	2	22
Protection type **Motor** **Gear unit[2)]**					d, e, i, p ... (c, k ...)	(c, k ...)	n(A)	

1) G = Gas atmosphere, D = Dust atmosphere

2) Standardization of protection types for gear units has not yet been completed.

All gear units and motors offered by SEW-EURODRIVE for potentially explosive atmospheres are equipment group II units. SEW-EURODRIVE does not supply any drives for use in equipment group I (mining).

Potentially explosive atmospheres

Potentially explosive atmospheres are divided into gas and dust. The atmosphere is abbreviated as G (gas) or D (dust) in the type identification.

Protection types

Unit type	Type of protection[1)]	Norm	Description
Motors (electrical units)	d	EN 50014 + EN 50018	Flameproof enclosure
	e	EN 50014 + EN 50019	Increased safety
	i	EN 50014 + EN 50020	Intrinsic safety
	n / nA	EN 50014 + EN 50021	Non-sparking
	m	EN 50014 + EN 50028	Encapsulation
	o	EN 50014 + EN 50015	Oil immersion
	p	EN 50014 + EN 50016	Pressurized enclosure
	q	EN 50014 + EN 50017	Sand filling
	[2)]	EN 50014 + EN 50281	Dust explosion protection
Gear units (mechanical units)[3)]	b	EN 13463 parts 1 and 6	Protection by monitoring sources of ignition
	c	EN 13463 parts 1 and 5	Constructional safety
	d	EN 13463 parts 1 and 3	Flameproof enclosure
	fr	EN 13463 parts 1 and 2	Restricted breathing
	g	EN 13463 parts 1 and 4	Intrinsic safety
	k	EN 13463 parts 1 and 8	Liquid immersion
	p	EN 13463 parts 1 and 7	Pressurized enclosure

1) Only the gray boxes are relevant to drives from SEW-EURODRIVE.

2) No explicit protection types are defined for dust explosion protection.

3) Standardization of protection types for gear units (mechanical units) has not yet been completed.

Validity of the statement of conformance

The statement of conformance is a statement for demonstrating that a device complies with Directive 94/9/EC. The validity of this statement of conformance is bindingly linked to compliance with the operating instructions supplied with the explosion-proof unit (in particular maintenance and servicing measures and permitted ambient conditions, e.g. ambient temperature, unit heating from other customer's equipment). This is necessary for adequate risk minimization. The statement of conformance will be invalidated if the ambient conditions described in the operating instructions are not present.

The validity of the statement of conformance exclusively refers to the gear unit and motor types listed in the catalog. For customer-specific types, it is essential that you contact SEW-EURODRIVE!

3.3 Categories and protection types

Category 1 – Particularly high safety

SEW-EURODRIVE does not provide category 1 gear units and electric motors. Consequently, drives from SEW-EURODRIVE cannot be used for electrical drives in zone 0 and 20 within which potentially explosive atmospheres are to be expected on a continuous and long-term basis.

Category 2 – High safety

Units in category 2 are safe in terms of the expected unit malfunctions and are predominantly designed for zone 1 and 21 in which a potentially explosive mixture may occur. It goes without saying that they can also be used for zone 2 / 22.

Motors

Typical electrical drives of the II2G type for zone 1 are motors with the following protection types:

Protection type d – Flameproof enclosure

The housing is able to withstand the pressure even if an explosion occurs inside the motor. Gas which may escape is sufficiently cooled so it will not ignite a potentially explosive atmosphere outside the motor.

The units have ignition gaps to dissipate the pressure arising from an explosion. These ignition gaps are designed in such a way that escaping hot gases are sufficiently cooled by the time they emerge so they will not ignite a potentially explosive atmosphere outside the motor.

Protection type e – Increased safety

No source of ignition is present in normal operation and in the event of a foreseeable malfunction. This safety is achieved by design measures such as higher quality insulation systems or larger clearances. Normal operation is referred to as operation with the usual unit malfunctions.

Category 3 – Normal safety

Category 3 equipment is only intended for zone 2 or 22 where there is a low probability of potentially explosive atmospheres occurring.

Protection type n

Typical electrical drives of the II3G type for zone 2 (gas) are motors with protection type nA – non-sparking. The requirements of protection type n largely correspond to the requirements of protection type e, but for operation without malfunctions.

Gear units

Compliance with DIN EN 13463-1 must be guaranteed for gear units. In this category, no particular type of protection is required for gear units.

For more detailed information, please refer to the current "Explosion-Proof Drives" catalog.

3.4 Requirements for operating variable speed gear units in potentially explosive atmospheres

The following basically applies to all explosion-protected variable speed gear units:

- Permitted ambient temperature from -20 °C to +40 °C

3.5 VARIBLOC® in explosion-proof design

Approval basically only without

- Front adjustment
- Mounted BMG disc brake
- Adapter with torque limiting coupling and slip monitoring

Category	for zone	VARIBLOC® in Ex atmosphere
2G	1	• Sizes VU/VZ01 - VU/VZ41, VU51 **(not VU6)** • Operation basically with **speed monitor** • Starting compensation maximum 5 seconds • Switch-off when speed drops 10 % below minimum • Temperature class T3 • Control range 1:6
2D	21	• Sizes VU/VZ01 **B** - VU/VZ41**B non-ventilated (not VU51 and VU6)** • Operation basically with **speed monitor** • Starting compensation maximum 5 seconds • Switch-off when speed drops 10 % below minimum • Maximum surface temperature 200 °C • Control range 1:6 • **6-pole and 8-pole SEW motors have not yet been approved. Operation only possible with 6-pole or 8-pole non-SEW motors in category 2D.**
3G	2	• Sizes VU/VZ01 - VU/VZ41, VU51 **(not VU6)** • Operation also permitted without speed monitor • Temperature class T4 • Control range 1:6
3D	22	• Sizes VU/VZ01 - VU/VZ41, VU51 **(not VU6)** • Operation also permitted without speed monitor • Maximum surface temperature 135 °C • Control range 1:6

If overloading of the VARIBLOC® unit in category 3G or 3D may occur in normal operation, then a VARIBLOC® with activated speed monitor must be used!

3.6 VARIMOT® in explosion-proof design

Design for D16 - D46 in the various categories:

Category	for zone	VARIMOT® in Ex atmosphere
2G	1	• Operation basically with **speed monitor** • Starting compensation maximum 3 seconds • Switch-off when speed drops 10 % below minimum • Temperature class T3
2D	21	• **Safe operation not possible, no approval**
3G	2	• Operation also permitted without speed monitor • Temperature class T3
3D	22	• Operation also permitted without speed monitor • Maximum surface temperature 135 °C

If overloading of the VARIMOT® unit in category 3G or 3D may occur in normal operation, then a VARIMOT® with activated speed monitor must be used.

3.7 Drive selection for explosion protected designs

Unlike the "Explosion-Proof Drives" catalog, this catalog does not provide an overview of approved gearmotor combinations. If you require variable speed gear units in explosion-proof design, please contact SEW-EURODRIVE.

4 Project Planning for Variable Speed Drives

4.1 Additional documentation

In addition to the information in this catalog, SEW-EURODRIVE offers extensive documentation covering the entire topic of electrical drive engineering. These are mainly the publications in the "Drive Engineering - Practical Implementation" series as well as the manuals and catalogs for electronically controlled drives.

You will find additional links to a wide selection of our documentation in many languages for download on the SEW-EURODRIVE homepage (http://www.sew-eurodrive.com). The list below includes other documents that are of interest in terms of project planning. You can order these publications from SEW-EURODRIVE.

Gearmotors catalog

The SEW "Gearmotors" catalog provides information in the form of

- Project planning notes
- Technical data
- Selection tables
- Dimension sheets

It provides detailed information for selecting SEW gearmotors, AC (brake) motors and their accessories, as well as about their functional principles.

Operating instructions

The SEW "VARIBLOC®/VARIMOT® Variable Speed Gear Units and Options" operating instructions contain extensive safety notes as well as information about

- Installation
- Assembly
- Removal
- Startup
- Inspection
- Maintenance
- Troubleshooting

for SEW variable speed gear units as well as components on the input side and options.

Drive engineering - practical implementation

The "Drive Engineering - Practical Implementation, Drive Planning" publication contains extensive information about the properties, differentiating characteristics and fields of application of SEW drives. This publication contains the most important drive calculation formulae as well as detailed examples of the most frequent applications making the publication an important tool for project planning and an essential complement to SEW product catalogs.

The following chapters also contain important information about rating variable speed gear units. On request, we gladly provide the SEW PRODRIVE program which can be used for drive project planning on a PC. In addition, SEW is happy to offer additional advice.

4.2 Drive selection data for standard variable speed gearmotors

Certain data is essential to specify the components for your drive precisely. These are:

Data for drive dimensioning			Your entry
n_{a1}	Minimum output speed	[1/min]	
n_{a2}	Maximum output speed	[1/min]	
P_{a1} at n_{a1}	Output power at minimum output speed	[kW]	
P_{a2} at n_{a2}	Output power at maximum output speed	[kW]	
M_{a1} at n_{a1}	Output torque at minimum output speed	[Nm]	
M_{a2} at n_{a2}	Output torque at maximum output speed	[Nm]	
F_{Ra}	Overhung load on the gear unit output (in drives with input shaft assembly)	[N]	
F_{Aa}	Axial load on the gear unit output (in drives with input shaft assembly)	[N]	
n_e	Input speed (in drives with input shaft assembly)	[1/min]	
P_m at n_e	Input power = motor power	[kW]	
M_e at n_e	Input torque	[Nm]	
$M_{e\ max}$	Maximum input torque	[Nm]	
F_{Re}	Overhung load on gear unit input	[N]	
F_{Ae}	Axial load on gear unit input	[N]	
J_{load}	Mass moment of inertia to be driven	[10^{-4} kgm^2]	
R, F, K, S M1 - M6	Required gear unit type and mounting position (→ Sec. Mounting Positions)	-	
IP..	Required enclosure	-	
ϑ_{amb}	Ambient temperature	[°C]	
H	Altitude	[m above sea level]	
S.., ..%cdf	Duty type and cyclic duration factor (cdf) or exact load cycle can be entered.	-	
Z	Starting frequency; alternatively, exact load cycle can be specified	[1/h]	
V_{brake}	Operating voltage of the brake	[V]	
V_{motor}	Operating voltage of the motor	[V]	
M_B	Required braking torque	[Nm]	
M_R	Slip torque (AR)	[Nm]	

4.3 Drive selection data for explosion-proof standard variable speed gearmotors

Certain data is essential to specify the components for your drive precisely. These are:

Data for drive dimensioning			Your entry		
Potentially explosive mixture of air and		–			Gas
					Dust
Ambient atmosphere at the location where the drive will be used, divided into zones		–	**Gas**		1
					2
			Dust		21
					22 (non-conductive)
Category II2D equipment must be used if the ambient atomosphere is electro-conductive dust with specific electrical resistance $\rho \leq 10^3\ \Omega$!					22 (conductive)
Maximum permitted surface temperature with dust/air mixtures		–	**Dust**		T 120 °C
					T 140 °C
Temperature class with gas/air mixtures		–	**Gas**		T1
					T2
					T3
					T4
In the case of zone 1, the protection type is prescribed by the customer as		–	Flameproof enclosure (d)		
			Increased safety (e)		
Only with flameproof enclosure: Specify the explosion group		–			IIA
					IIB
					IIC
n_{amin}	Minimum output speed	[1/min]			
n_{amax}	Maximum output speed	[1/min]			
P_a at n_{amin}	Output power at minimum output speed	[kW]			
P_a at n_{amax}	Output power at maximum output speed	[kW]			
M_a at n_{amin}	Output torque at minimum output speed	[Nm]			
M_a at n_{amax}	Output torque at maximum output speed	[Nm]			
F_R	Overhung load on output shaft. Force application in center of shaft end is assumed. If not, please specify the exact application point giving the application angle and direction of rotation of the shaft for recalculation.	[N]			
F_A	Axial load (tension and compression) on output shaft	[N]			
J_{load}	Mass moment of inertia to be driven	[10^{-4} kgm^2]			
R, F, K, S, W M1 - M6	Required gear unit type and mounting position (→ Sec. Mounting Positions, Churning losses)	-			
IP..	Required enclosure	-			
ϑ_{amb}	Ambient temperature (with ambient temperatures < –20 °C and > 40 °C, please contact SEW-EURODRIVE)	[°C]			
H	Altitude	[m above sea level]			
S.., ..%cdf	Duty type and cyclic duration factor (cdf) or exact load cycle can be entered.	-			
Z	Starting frequency; alternatively, exact load cycle can be specified	[1/h]			
f_{mains}	Supply 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					

4.4 Project planning process for standard variable speed gearmotors

The following flowchart displays a schematic view of the procedure for project planning a project incorporating a variable speed gear unit with a component on the input side.

Necessary information about the machine to be driven
- Technical data and environmental conditions
- Starting frequency
- Travel cycle

↓

Calculation of the relevant application data
- Static, dynamic and regenerative power
- Speeds
- Torques
- Travel cycle

↓

Variable speed gearmotor selection
- Definition of the variable speed gearmotor size, gear unit reduction ratio and gear head unit type
- Check for gear unit utilization ($M_{a\ max} \geq M_{a\ (t)}$)

↓

Calculation of the data on the output shaft
- Output torque
- Output power
- Output speed
- Overhung loads and axial forces

↓

Variable speed gear unit options
- Monitoring functions (units, equipment)
- Brake for VARIBLOC®
- Control heads
- Indicator units
- Centering shoulder (only VARIBLOC® with input shaft assembly)

↓

Motor options
- Brake
- Plug connector
- TF temperature sensor monitoring

↓

Make sure that all requirements have been met.

In case of questions please contact SEW-EURODRIVE.

4.5 Project planning notes for standard variable speed gearmotors

The selection of variable speed gear units depends on various parameters. The most important project planning notes for
VARIBLOC® and VARIMOT® are shown in below table.

Criterion	VARIBLOC® (variable speed belt drive gear unit)	VARIMOT® (variable speed friction disc gear unit)
Power ranges	0.25kW ... 45 kW	0.25kW ... 11 kW
Setting range	1:3, 1:4, 1:5, 1:6, 1:7, 1:8 depending on the number of poles of the driving motor and the input power.	1:4, 1:5 depending on the number of poles of the driving motor and the input power.
Adjustment at standstill	Adjustment at standstill is not permitted because the belt tension is only adjusted automatically when the drive is running.	Adjustment at standstill is possible, however this should not be done too frequently in operation.
Load type	Also suitable for variable loads (load shocks due to material feed, etc.), damping by the belt.	Only suitable for constant load (e.g. conveyor belts); load shocks can cause the friction ring to slip and lead to surface damage.
Adjustment options	Handwheel or chain sprocket, electrical or hydraulic remote control.	Handwheel, electrical remote control.
Indicator units	Analog or digital indicator units, analog display with special scale is possible.	Analog or digital indicator units, analog display with special scale is possible, setting indicator on the housing.
Wear	The wide V-belt must be replaced after approx. 6000 h under rated load. The service life is considerably longer at lower loadings. The service life of the wide V-belt is reduced by higher ambient temperatures and harsher environmental conditions.	Low wear, it is not possible to provide specific information about replacement intervals.

Belt life

The service factors f_B and f_T (→ Sec. "Service factors") can be used for determining the minimum life L_{nB} (h) of the wide V-belt according to the following relationship:

$$L_{nB} = \frac{6000}{f_B \times f_T}$$

Abrasive dust or aggressive ambient air shorten the service life. The service life is extended by having a reduced setting range and a low belt flexing frequency.

4.6 Efficiency of SEW gear units

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 factor is especially pronounced in the case of helical-worm gear units.

R, F, K gear units

The efficiency of helical, parallel shaft and helical-bevel gear units varies with the number of gear stages, between 94 % (3-stage) and 98 % (1-stage).

S gear units

The gearing of helical-worm gear units produces a high proportion of sliding friction. As a result, these gear units may have higher gearing losses than R, F or K gear units and thus be less efficient.

The efficiency depends on the following factors:

- Gear ratio of the helical-worm gear stage

- Input speed
- Gear unit temperature

Helical-worm gear units are designed as helical worm gear units which makes them significantly more efficient than straightforward worm gear units. The efficiency may reach $\eta < 0.5$ if the worm gear stage has a very high ratio step.

Self-locking

Retrodriving torques on helical-worm gear units produce a reverse efficiency of $\eta' = -2 - 1/h$, which is significantly less favorable than the forward efficiency h. The helical-worm gear unit is self-locking if the forward efficiency $\eta \leq 0.5$. A few helical-worm gear units with the largest gear ratio are statically self-locking, although not dynamically self-braking. Please contact SEW-EURODRIVE if you wish to make technical use of the braking effect of self-locking charcteristics.

Run-in phase

The tooth flanks of new helical-worm gear units are not yet completely smooth. That fact makes for a greater friction angle and less efficiency than during later operation. This effect becomes more apparent the greater the gear ratio. Subtract the following values from the listed efficiency during the running-in phase:

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

The run-in phase usually lasts 24 hours. The helical-worm gear units achieve their listed rated efficiency values when:

- the gear unit has been run in completely,
- the gear unit has reached nominal operating temperature,
- the recommended lubricant has been filled in and
- the gear unit is working within the rated load range.

overhung load Determining 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 also have to be considered for various transmission elements.

Transmission element	Transmission element factor f_Z	Comments
Gears	1.15	< 17 teeth
Chain sprockets	1.40	< 13 teeth
Chain sprockets	1.25	< 20 teeth
Narrow V-belt pulleys	1.75	Pre-tensioning influence
Flat belt pulleys	2.50	Pre-tensioning influence
Toothed belt pulleys	2.50	Pre-tensioning influence

The overhung load exerted on the gear 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 mounted transmission element in mm

f_Z = Transmission element factor

Permitted overhung load

The basis for determining the permitted overhung loads is the computation of the rated service life L_{H10} of the anti-friction bearings (according to ISO 281). For special operating conditions, the permitted overhung loads can be determined with regard to 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. Contact SEW-EURODRIVE in case of other versions.

The data refer to the radial force acting midway on the shaft end (with right-angle gear units on the A-side output). Worst case conditions have been assumed for the force application angle α and the direction of rotation.

- 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.
- Foot and flange-mounted helical gear units (R..F): A maximum of 50 % of the overhung load F_{Ra} specified in the selection tables in the case of torque transmission via the flange mounting.

Higher permitted overhung loads

Higher output shaft loads are permitted if heavy duty bearings are installed, especially with R, F and K gear units. Exactly considering the force application angle α and the direction of rotation also makes it possible to achieve a higher overhung load. Contact SEW in such cases.

Definition of force application

Force application is defined according to the following figure:

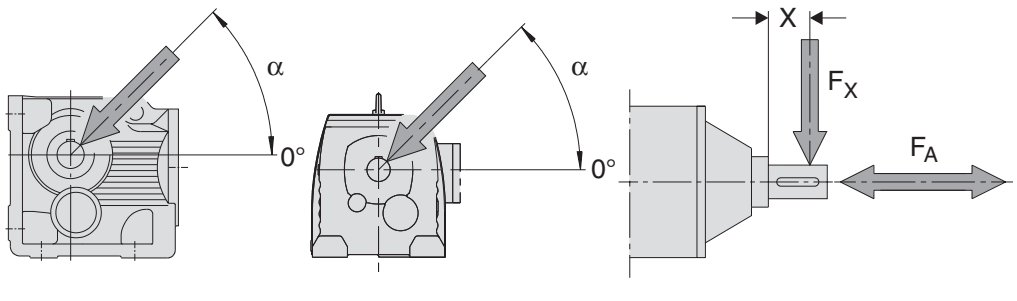


Figure 1: Definition of force application

F_X = Permitted overhung load at point x [N]

F_A = Permitted axial force [N]

Permitted axial forces

If there is no overhung load, then an axial force F_A (tension or compression) **on the output end amounting to 50 %** of the overhung load given in the selection tables is permitted.

- for helical gear units except for R..137... to R..167...
- for parallel shaft and helical-bevel gear units with solid shaft except for F97...
- for helical-worm gear units with solid shaft

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.

Overhung load conversion on the output side for off-center force application

The permitted overhung loads given in the selection tables must be calculated using the following formulae in the event of force application not in the center of the shaft end. The smaller of the two values F_{xL} (according to bearing service life) and F_{xW} (according to shaft strength) is the permitted value for the overhung load at point x. Note that the calculations apply to $M_{a\,max}$.

F_{XL} according to bearing service life

$$F_{xL} = F_{Ra} \bullet \frac{a}{b + x} \; [N]$$

F_{xW} from the shaft strength

$$F_{xW} = \frac{c}{f + x} \; [N]$$

F_{Ra} = Permitted overhung load (x = l/2) for foot-mounted gear units according to the selection tables in [N]

x = Distance from the shaft shoulder to the force application point in [mm]

a, b, f = Gear unit constants for overhung load conversion [mm]

c = Gear unit constant for overhung load conversion [Nmm]

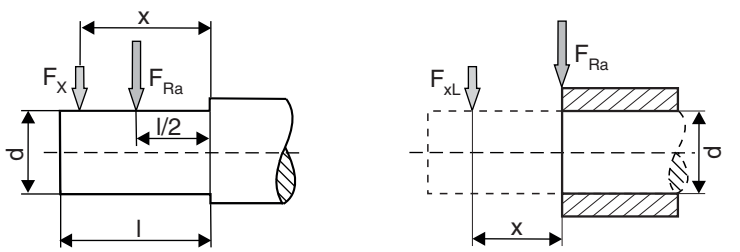


Figure 2: Overhung load F_x for off-center force application

Gear unit constants for overhung load conversion

Gear unit type	a [mm]	b [mm]	c [Nmm]	f [mm]	d [mm]	l [mm]
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	2.51×10^5	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	1.19×10^6	0	60	120
R107	285.5	215.5	2.06×10^6	0	70	140
R137	343.5	258.5	6.14×10^6	30	90	170
R147	402	297	8.65×10^6	33	110	210
R167	450	345	1.26×10^7	0	120	210
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
F37	123.5	98.5	1.07×10^5	0	25	50
F47	153.5	123.5	1.78×10^5	0	30	60
F57	170.7	135.7	5.49×10^5	32	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	1.19×10^6	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
K37	123.5	98.5	1.41×10^5	0	25	50
K47	153.5	123.5	1.78×10^5	0	30	60
K57	169.7	134.7	6.8×10^5	31	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	2.8×10^6	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
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

Values for types not listed are available on request.

4.7 Permitted overhung loads of reduction gear units

R27 - R67

Gear unit type	P_m [kW]	F_{Ra}[N]									
		≤ 20 [1/min]	40 [1/min]	60 [1/min]	90 [1/min]	130 [1/min]	180 [1/min]	250 [1/min]	350 [1/min]	500 [1/min]	700 [1/min]
R27	0.25	4440	3640	3220	2840	2530	2280	2050	1840	1640	1470
	0.37	4360	3600	3200	2830	2520	2270	2050	1840	1640	1470
	0.55	3730	3440	3090	2750	2470	2240	2020	1820	1620	1460
	0.75	795	3240	2960	2670	2410	2190	1990	1800	1610	1450
	1.1		2950	2810	2570	2340	2140	1950	1770	1590	1430
	1.5		775	2120	2400	2230	2060	1900	1730	1560	1410
R37	0.25	5960	5350	4710	4140	3680	3310	2970	2660	2370	2120
	0.37	5900	5310	4680	4120	3660	3300	2970	2660	2360	2120
	0.55	5570	5170	4590	4060	3620	3270	2940	2640	2350	2110
	0.75	4400	4990	4470	3980	3570	3230	2910	2620	2340	2100
	1.1		4790	4330	3890	3500	3180	2880	2600	2320	2090
	1.5		3150	4110	3740	3400	3110	2830	2560	2300	2070
R47	0.25	6140	5480	4820	4230	3760	3380	3030	2720	2420	2160
	0.37	6120	5460	4800	4220	3750	3370	3030	2710	2410	2160
	0.55	6020	5340	4720	4170	3710	3350	3010	2700	2400	2150
	0.75	5830	5190	4630	4100	3670	3310	2990	2680	2390	2150
	1.1	5490	5030	4520	4030	3620	3280	2960	2670	2380	2140
	1.5		4750	4330	3910	3530	3220	2920	2630	2360	2120
	2.2		4430	4120	3760	3430	3150	2870	2600	2330	2100
	3.0			3750	3520	3260	3020	2780	2530	2290	2070
R57	0.25	8010	6880	6040	5290	4690	4220	3780	3390	3010	
	0.37	8000	6860	6020	5280	4680	4210	3780	3380	3010	
	0.55	7940	6760	5950	5240	4650	4190	3760	3370	3000	2680
	0.75	7840	6640	5870	5180	4620	4160	3740	3360	2990	2680
	1.1	7670	6500	5780	5120	4570	4130	3720	3340	2980	2670
	1.5	7250	6270	5630	5020	4500	4080	3690	3320	2960	2660
	2.2	4050	6010	5450	4900	4420	4020	3640	3290	2940	2640
	3.0		5550	5150	4700	4280	3920	3570	3230	2900	2620
	4.0		3650	4800	4460	4120	3800	3490	3170	2860	2590
	5.5			2880	4160	3910	3650	3380	3090	2810	2550
R67	0.25	9920	9940	9470	8290	7350	6600	5920	5300	4710	
	0.37	9880	9930	9410	8250	7320	6580	5910	5290	4700	4200
	0.55	9810	9910	9340	8200	7290	6560	5890	5270	4690	4200
	0.75	9640	9880	9260	8150	7250	6530	5870	5260	4680	4190
	1.1	8900	9810	9120	8060	7180	6480	5840	5240	4660	4180
	1.5	7540	9650	8960	7950	7110	6430	5800	5210	4640	4160
	2.2		8900	8680	7760	6980	6340	5730	5160	4610	4140
	3.0		7560	8360	7550	6830	6230	5650	5110	4570	4110
	4.0			7940	7270	6640	6090	5550	5030	4520	4080
	5.5				6880	6370	5890	5410	4930	4450	4030

R77 - R97

Gear unit type	P_m [kW]	F_{Ra}[N]									
		≤ 20 [1/min]	40 [1/min]	60 [1/min]	90 [1/min]	130 [1/min]	180 [1/min]	250 [1/min]	350 [1/min]	500 [1/min]	700 [1/min]
R77	0.25	13000	13000								
	0.37	13000	13000	11500	10100	8920	8010	7190	6430		
	0.55	13000	13000	11400	10000	8890	7990	7170	6420		
	0.75	12800	12900	11400	9970	8860	7970	7160	6410		
	1.1	12400	12700	11200	9900	8800	7930	7130	6390	5680	5090
	1.5	11700	12500	11100	9810	8740	7890	7100	6370	5670	5080
	2.2	9800	12200	10900	9660	8640	7810	7040	6330	5640	5060
	3.0		11700	10600	9490	8520	7720	6980	6280	5610	5040
	4.0		10400	10300	9260	8360	7610	6900	6220	5570	5010
	5.5			9110	8940	8140	7450	6780	6140	5510	4970
	7.5				7390	7830	7220	6620	6030	5430	4910
	9.2				4960	7090	7050	6500	5940	5370	4860
	11.0					5150	6660	6350	5830	5300	4810
R87	0.25	20000									
	0.37	20000									
	0.55	20000									
	0.75	20000	18500	16200	14200	12600	11300	10100	9080	8070	
	1.1	20000	18400	16100	14100	12500	11300	10100	9060	8060	
	1.5	20000	18200	16000	14100	12500	11200	10100	9050	8050	
	2.2	20000	17900	15800	14000	12400	11200	10100	9020	8020	
	3.0	19300	17700	15700	13800	12300	11100	10000	8980	8000	
	4.0	17100	17300	15400	13700	12200	11000	9950	8640	7670	
	5.5		16700	15000	13400	12000	10900	9860	8880	7930	
	7.5		15900	14500	13100	11800	10700	9740	8790	7860	
	9.2		15300	14100	12800	11600	10600	9640	8720	7820	
	11.0			13700	12500	11400	10500	9530	8640	7760	
	15.0				11800	10900	10100	9290	8470	7640	
	18.5				11200	10500	9830	9080	8320	7530	
	22.0				10700	10100	9540	8880	8170	7430	
R97	0.25	28700									
	0.37	28700									
	0.55	28700									
	0.75	28600									
	1.1	28600									
	1.5	28500	23700	20800	18200	16200	14500	13000			
	2.2	28400	23500	20600	18100	16100	14500	13000	11600	10400	
	3.0	28100	23200	20500	18000	16000	14400	13000	11600	10300	9250
	4.0	27600	22900	20300	17900	15900	14300	12900	11600	10300	9230
	5.5	26100	22400	2000	17700	15800	14200	12800	11500	10300	9210
	7.5	21900	21800	19500	17400	15600	14100	12700	11500	10200	9170
	9.2		21300	19200	17200	15400	14000	12700	11400	10200	9140
	11.0		20700	18800	16900	15200	13900	12600	11300	10100	9110
	15.0		19500	18000	16300	14900	13600	12400	11200	10000	9030
	18.5			17200	15900	14500	13300	12200	11100	9940	8970
	22.0			16500	15400	14200	13100	12000	10900	9860	8910

R107 - R137

Gear unit type	P_m [kW]	F_{Ra}[N]									
		≤ 20 [1/min]	40 [1/min]	60 [1/min]	90 [1/min]	130 [1/min]	180 [1/min]	250 [1/min]	350 [1/min]	500 [1/min]	700 [1/min]
R107	**0.37**	37000									
	0.55	36900									
	0.75	36800									
	1.1	36600									
	1.5	36400	29100								
	2.2	36000	28900								
	3.0	35600	28700								
	4.0	35000	28400	25100	22000	19600	17600	15800	14200		
	5.5	34200	28000	24800	21900	19500	17500	15800	14100		
	7.5	33100	27500	24400	21600	19300	17400	15700	14100	12500	11200
	9.2	32300	27100	24100	21400	19200	17300	15600	14000	12500	11200
	11.0	30200	26600	23800	21200	19000	17200	15500	14000	12500	11200
	15.0		25500	23100	20700	18700	17000	15400	13900	12400	11100
	18.5		24600	22500	20300	18400	16800	15200	13800	12300	11100
	22.0		23700	21900	19900	18100	16600	15100	13600	12200	11000
	30.0			20400	18900	17400	16100	14700	13400	12100	10900
	37.0			19300	18200	16900	15700	14500	13200	11900	
	45.0				17200	16200	15200	14100	12900	11800	
R137	**0.37**	61400									
	0.55	61400									
	0.75	61400									
	1.1	61400									
	1.5	61400	61400								
	2.2	61300	61400								
	3.0	61300									
	4.0	61100									
	5.5	60900									
	7.5	60400									
	9.2	60000									
	11.0	59300	60900	61200	61300	61400	58900	53800	48900		
	15.0	57500	60500	61000	61200	61300	58200	53200	48500	43800	
	18.5	55300	59900	60800	61100	61300	57600	52800	48200	43600	
	22.0	52500	59300	60500	61000	61200	57000	52400	47900	43400	
	30.0		57400	59600	60600	59600	55500	51300	47100	42900	
	37.0		55500	58800	60300	58200	54400	50500	46500	42500	
	45.0		51600	57500	59000	56100	52900	49400	45800	41900	

R147 - R167

Gear unit type	P_m [kW]	F_{Ra}[N]									
		≤ 20 [1/min]	40 [1/min]	60 [1/min]	90 [1/min]	130 [1/min]	180 [1/min]	250 [1/min]	350 [1/min]	500 [1/min]	700 [1/min]
R147	**0.37**	74600									
	0.55	74600									
	0.75	74600									
	1.1	74600									
	1.5	74600									
	2.2	74500									
	3.0	74500	74600								
	4.0	74400	74600								
	5.5	74300	74500								
	7.5	74100	74500								
	9.2	73800	74400								
	11.0	73500	74300	74500	74500	74600	74600	74600	70800		
	15.0	72500	74100	74400	74500	74500	74600	74600	70500	63500	
	18.5	71300	73800	74200	74400	74500	74500	74600	70300	63400	
	22.0	69900	73500	74100	74400	74500	74500	74600	70000	63200	
	30.0	65300	72400	73600	74200	74400	74500	74500	69500	62800	
	37.0	60800	71400	73200	74000	74300	74400	74500	69000	62500	
	45.0		69700	72400	73600	74100	74400	74500	68500	62100	
R167	**1.5**	120000									
	2.2	120000									
	3.0	120000									
	4.0	120000									
	5.5	120000									
	7.5	120000									
	9.2	120000									
	11.0	120000									
	15.0	120000									
	18.5	120000									
	22.0	120000									
	30.0	120000	120000	120000	120000	120000	114600	104500			
	37.0	120000	120000	120000	120000	120000	113900				
	45.0	120000	120000	120000	120000	120000	113000				

Permitted overhung loads of reduction gear units

RX57-RX107

Gear unit type	P_m [kW]	F_{Ra}[N]									
		100 [1/min]	150 [1/min]	200 [1/min]	300 [1/min]	450 [1/min]	600 [1/min]	800 [1/min]	1000 [1/min]	1200 [1/min]	1600 [1/min]
RX57	**0.25**	4000	4240	4320	4360	4120	3720	3350	3000	2680	2400
	0.37	3890	4200	4290	4340	4100	3700	3340	3000	2670	2390
	0.55		4000	4170	4270	4010	3640	3290	2960	2650	2380
	0.75		3720	4000	4170	3900	3560	3230	2920	2620	2360
	1.1			3800	4040	3770	3460	3160	2870	2580	2330
	1.5				3280	3560	3310	3050	2790	2530	2290
	2.2				645	2460	3130	2920	2700	2460	2250
	3.0						1130	2280	2540	2350	2170
RX67	**0.25**	5840	6030	6090	5710	5080	4580	4120	3690	3280	2940
	0.37	5770	5990	6060	5680	5060	4560	4110	3680	3280	2940
	0.55	5420	5850	5970	5570	4980	4510	4060	3650	3260	2920
	0.75	4920	5640	5850	5430	4880	4430	4010	3610	3230	2900
	1.1		5390	5700	5260	4770	4350	3950	3570	3200	2880
	1.5		4920	5410	4990	4580	4220	3860	3500	3150	2850
	2.2			3920	4680	4370	4060	3740	3420	3100	2810
	3.0				2180	3990	3790	3550	3280	3000	2740
RX77	**0.37**	10000	10000	9280	8150	7240	6520	5850	5240	4660	
	0.55	10000	10000	9130	8050	7170	6470	5820	5220	4640	4160
	0.75	10000	10000	8950	7930	7090	6400	5770	5190	4620	4140
	1.1	10000	9730	8740	7790	6990	6330	5720	5150	4600	41301
	1.5		9210	8390	7560	6830	6220	5640	5090	4560	4100
	2.2		7080	7980	7290	6640	6080	5540	5020	4510	4060
	3.0			4720	6820	6320	5850	5370	4900	4420	4000
	4.0				3650	5690	5580	5180	4760	4330	3930
	5.5					2620	4440	4930	4580	4200	2840
RX87	**0.75**	13000	12900	11400	10100	8960	8080	7270	6520	5800	
	1.1	13000	12600	11200	9940	8880	8020	7230	6490	5780	5180
	1.5	12500	12200	10900	9750	8750	7920	7160	6440	5750	5160
	2.2	11700	11700	10600	9520	8590	7810	7070	6380	5710	5130
	3.0	4360	10800	10000	9130	8310	7610	6930	6280	5640	5080
	4.0		7810	9330	8680	8000	7390	6770	6160	5550	5020
	5.5		295	6300	8090	7600	7090	6560	6010	5450	4940
	7.5				4820	7020	6680	6260	5800	5300	4840
	9.2					3040	5680	5840	5500	5090	4690
	11.0						3130	5410	5260	4930	4570
RX97	**0.75**	20000	16300	14400	12600	11200	10100	9080	8130	7240	6480
	1.1	19600	16100	14200	12500	11200	10100	9040	8110	7220	6460
	1.5	18900	15700	14000	12400	11000	9970	8980	8070	7190	6440
	2.2	18000	15300	13700	12200	10900	9870	8910	8020	7150	6420
	3.0	16500	14500	13200	11800	10700	9710	8790	7930	7090	6380
	4.0	4190	13700	12600	11500	10400	9520	8660	7830	7020	6330
	5.5		12500	11900	11000	10100	9270	8480	7700	6930	6260
	7.5		4930	10800	10300	9580	8910	8220	7520	6810	6170
	9.2			2880	8590	8890	8420	7860	7270	6630	6040
	11.0				4490	8360	8030	7590	7070	6490	5950
	15.0					5250	7590	7270	6840	6330	5830
	18.5						2950	6070	6350	5980	5580
	22.0							2780	5580	5680	5360

RX107

Gear unit type	P_m [kW]	F_{Ra}[N]									
		100 [1/min]	150 [1/min]	200 [1/min]	300 [1/min]	450 [1/min]	600 [1/min]	800 [1/min]	1000 [1/min]	1200 [1/min]	1600 [1/min]
RX107	4.0	15600	15800	14700	13400	12200	11200	10200	9250	8300	
	5.5	2140	14300	13700	12700	11800	10900	9960	9070	8180	
	7.5		7010	12200	11800	11100	10400	9620	8820	8010	7270
	9.2		3720	8470	11000	10600	10000	9350	8630	7870	7180
	11.0			2850	9470	9990	9590	9040	8420	7720	7070
	15.0				1230	7000	8650	8370	7930	7380	6830
	18.5					1990	6380	7780	7510	7090	6610
	22.0						2890	6560	7100	6800	6410

F37 - F67

Type	P_m [kW]	F_{Ra}[N]													
		≤ 10 [1/min]	25 [1/min]	40 [1/min]	60 [1/min]	90 [1/min]	130 [1/min]	170 [1/min]	220 [1/min]	280 [1/min]	350 [1/min]	420 [1/min]	500 [1/min]	650 [1/min]	900 [1/min]
F37	0.25	4710	5420	5490	5110	4520	4030	3710	3410	3160	2940	2770	2620	2410	2170
	0.37		5190	5410	4950	4410	3950	3650	3370	3120	2910	2750	2600	2390	2150
	0.55		4710	5200	4740	4270	3860	3570	3310	3080	2880	2720	2580	2370	2140
	0.75		3810	4840	4500	4110	3750	3490	3250	3030	2840	2690	2550	2350	2120
	1.1			4170	4100	3850	3570	3350	3140	2940	2770	2630	2500	2310	2100
	1.5				3640	3540	3350	3190	3010	2840	2690	2560	2440	2270	2070
F47	0.25	7940	8240	8270	7720	6790	6040	5540	5090	4710	4380	4120	3900		
	0.37	7250	8140	8240	7580	6700	5970	5490	5050	4680	4350	4100	3880		
	0.55	4710	7940	8160	7410	6580	5890	5420	5010	4640	4320	4080	3860	3550	3190
	0.75		7600	7990	7210	6450	5800	5350	4950	4600	4290	4050	3830	3530	3180
	1.1		6740	7500	6880	6230	5650	5240	4860	4530	4230	4000	3790	3500	3160
	1.5			6910	6490	5970	5470	5100	4760	4440	4170	3950	3750	3460	3130
F57	0.25	10200	10400	10500	10100	8850	7850	7190	6600	6100	5670	5340	5040		
	0.37	10100	10400	10400	10100	8830	7830	7180	6600	6090	5660	5330	5040		
	0.55	9700	10300	10400	9940	8750	7780	7130	6560	6070	5640	5320	5020	4610	
	0.75	9080	10100	10300	9780	8640	7710	7080	6520	6040	5620	5290	5000	4590	
	1.1	8220	9880	10200	9610	8530	7630	7020	6470	6000	5590	5270	4980	4580	
	1.5		9470	9950	9330	8340	7490	6920	6400	5940	5540	5230	4950	4550	4100
	2.2		8890	9670	8990	8110	7340	6800	6300	5860	5480	5180	4910	4520	4080
	3.0		4370	8970	8410	7730	7070	6590	6150	5740	5380	5100	4840	4470	
	4.0			7980	7740	7280	6760	6360	5960	5600	5270	5000	4760	4410	
	5.5				6880	6710	6360	6050	5730	5410	5120	4880	4650	4330	
F67	0.25	13000	13000	13000	13000	13000	13000	13000	12900	12000	11300	10700			
	0.37	13000	13000	13000	13000	13000	13000	13000	12900	12000	11200	10600			
	0.55	12800	13000	13000	13000	13000	13000	13000	12900	12000	11200	10600	10100	9340	
	0.75	12000	13000	13000	13000	13000	13000	13000	12800	12000	11200	10600	10100	9330	
	1.1	10200	13000	13000	13000	13000	13000	13000	12800	11900	11200	10600	10000	9300	8450
	1.5		12600	13000	13000	13000	13000	13000	12700	11800	11100	10500	10000	9280	8440
	2.2		11500	12800	13000	13000	13000	13000	12500	11700	11000	10500	9950	9230	8400
	3.0			12100	12900	13000	13000	13000	12400	11600	10900	10400	9880	9180	8360
	4.0			10800	12400	13000	13000	13000	12200	11400	10800	10300	9790	9110	8310
	5.5				11300	12600	13000	12600	11900	11200	10600	10100	9670	9010	8240

Permitted overhung loads of reduction gear units

F77 - F97

Type	P_m [kW]	F_{Ra}[N]													
		≤ 10 [1/min]	25 [1/min]	40 [1/min]	60 [1/min]	90 [1/min]	130 [1/min]	170 [1/min]	220 [1/min]	280 [1/min]	350 [1/min]	420 [1/min]	500 [1/min]	650 [1/min]	900 [1/min]
F77	**0.25**	20000													
	0.37	20000	20000	20000	20000	20000	19600	18100	16700	15600	14600				
	0.55	19800	20000	20000	20000	20000	19500	18000	16700	15600	14600	13800			
	0.75	19600	20000	20000	20000	20000	19500	18000	16700	15500	14500	13800	13100		
	1.1	18900	19900	20000	20000	20000	19400	17900	16600	15500	14500	13700	13100	12100	
	1.5	17700	19800	20000	20000	20000	19300	17800	16600	15400	14500	13700	13000	12100	11000
	2.2	14500	19300	19800	20000	20000	19100	17700	16400	15300	14400	13700	13000	12000	10900
	3.0		18600	19600	19900	20000	18800	17500	16300	15200	14300	13600	12900	12000	10900
	4.0		17300	19100	19700	19900	18600	17300	16100	15100	14200	13500	12800	11900	10900
	5.5		14500	18100	19300	19800	18200	17000	15900	14900	14100	13400	12700	11800	10800
	7.5			16100	18500	19000	17600	16600	15600	14700	13800	13200	12600	11700	10700
	9.2			13900	17600	18400	17200	16200	15300	14500	13700	13100	12500	11600	10700
	11.0				16400	17600	16700	15900	15000	14200	13500	12900	12400	11500	10600
F87	**0.25**	30000													
	0.37	30000	28700												
	0.55	30000	28400												
	0.75	29700	28200	24300	21400	18700	16600	15200	14000	12900	12000				
	1.1	29200	27700	24000	21200	18600	16600	15200	14000	12900	12000	11300			
	1.5	28500	27200	23700	21000	18500	16400	15100	13900	12900	12000	11300	10700	9780	
	2.2	27200	26300	23100	20600	18200	16300	15000	13800	12800	11900	11200	10600	9750	
	3.0	25300	25300	22500	20200	17900	16100	14800	13700	12700	11800	11200	10600	9710	8740
	4.0	17500	23900	21700	19600	17600	15800	14600	13500	12600	11700	11100	10500	9660	8700
	5.5		22000	20500	18800	17000	15500	14300	13300	12400	11600	11000	10400	9580	8650
	7.5		19300	18800	17700	16300	14900	13900	13000	12200	11400	10800	10300	9480	8570
	9.2		17300	17500	16800	15700	14500	13600	12800	12000	11300	10700	10200	9400	8520
	11.0			16000	15800	15100	14100	13300	12500	11800	11100	10500	10000	9310	8450
	15.0			12800	13700	13600	13100	12500	11900	11300	10700	10200	9780	9110	8310
	18.5				11800	12300	12200	11900	11400	10900	10400	9960	9550	8930	8180
	22.0				9910	11100	11400	11200	10900	10500	10100	9700	9330	8760	8060
F97	**0.25**	38100													
	0.37	37900													
	0.55	37800													
	0.75	37500													
	1.1	37200													
	1.5	36700	37700	34600	30500	26800	23800	21800	20100	18500					
	2.2	35800	37400	34100	30100	26600	23600	21700	20000	18500	17200	16200			
	3.0	34600	37100	33500	29800	26300	23500	21600	19900	18400	17100	16100	15300	14000	12600
	4.0	32800	36600	32800	29200	26000	23200	21400	19700	18300	17000	16100	15200	14000	12600
	5.5	29800	35300	31700	28500	25500	22900	21100	19500	18100	16900	16000	15100	13900	12500
	7.5		32800	30100	27500	24800	22400	20800	19200	17900	16700	15800	15000	13800	12400
	9.2		30900	29000	26700	24300	22100	20500	19000	17700	16600	15700	14900	13700	12400
	11.0		28800	27600	25800	23700	21600	20200	18800	17500	16400	15600	14800	13600	12300
	15.0		24000	24600	23800	22300	20700	19500	18200	17100	16100	15300	14500	13500	12200
	18.5			22000	22100	21200	19900	18800	17800	16700	15800	15000	14300	13300	12100
	22.0			19500	20400	20000	19100	18200	17300	16400	15500	14800	14100	13100	12000

F107 - F157

Type	P_m	F_{Ra}[N]													
	[kW]	≤10 [1/min]	25 [1/min]	40 [1/min]	60 [1/min]	90 [1/min]	130 [1/min]	170 [1/min]	220 [1/min]	280 [1/min]	350 [1/min]	420 [1/min]	500 [1/min]	650 [1/min]	900 [1/min]
F107	0.37	64900													
	0.55	64700	65000												
	0.75	64400	65000												
	1.1	64000	64800												
	1.1	64000	64800												
	1.5	63500	64600												
	2.2	62500	64300												
	3.0	61400	63900												
	4.0	59800	63300	56400	50400	45000	40500	37500	34800	32400					
	5.5	57400	62500	55600	49900	44600	40200	37300	34600	32300					
	7.5	53700	60700	54400	49100	44100	39900	37000	34400	32100	30100	28600	27200	25200	
	9.2	50600	59300	53500	48500	43700	39600	36800	34300	32000	30000	28500	27100	25100	
	11.0	46700	57700	52500	47800	43300	39300	36600	34100	31900	29900	28400	27000	25100	
	15.0		54100	50200	46300	42300	38600	36000	33700	31500	29700	28200	26900		
	18.5		50900	48300	45000	41400	38000	35600	33300	31300	29400	28000	26700		
	22.0		47900	46400	43700	40500	37400	35100	33000	31000	29200	27800	26500		
	30.0			41600	40600	38400	35900	34000	32100	30300	28700	27400			
	37.0			38200	38300	36900	34900	33200	31500	29800	28300				
	45.0			30800	35100	34800	33400	32100	30600	29100	27700				
F127	0.37	90000													
	0.55	90000													
	0.75	90000													
	1.1	90000	90000												
	1.5	90000	90000												
	2.2	90000	90000												
	3.0	90000	90000												
	4.0	90000	90000												
	5.5	90000	89400												
	7.5	90000	87900												
	9.2	90000	86700												
	11.0	90000	85300	76100	68500	61400	55500	51500	47800	44600	41900				
	15.0	90000	82200	74200	67300	60600	54900	51000	47500	44400	41600	39500	37600		
	18.5	85400	79500	72500	66100	59800	54400	50600	47200	44100	41400	39400	37400		
	22.0		77000	70900	65100	59100	53900	50200	46900	43900	41300	39200	37300		
	30.0		70500	66800	62400	57300	52700	49300	46100	43300	40800	38800	37000		
	37.0		65800	63900	60400	56000	51800	48600	45600	42900	40500	38500			
	45.0		59400	59900	57700	54200	50500	47700	44900	42300	40000	38200			
F157	1.5	120000	113100												
	2.2	120000	112700												
	3.0	120000	112200												
	4.0	120000	111600												
	5.5	120000	110700												
	7.5	120000	109500												
	9.2	120000	108500												
	11.0	119400	107400	94900	85000	75800	68300	63300	58700	54700					
	15.0	115200	105000	93400	83900	75200	67900	62900	58400	54500	51100	48400			
	18.5	110100	102900	92100	83100	74600	67400	62600	58200	54300	50900	48200			
	22.0	104000	100800	90800	82200	74000	67100	62300	58000	54100	50800	48100			
	30.0	59800	95700	87600	80100	72600	66100	61500	57400	53700	50400	47800			
	37.0		92000	85300	78500	71600	65400	61000	57000	53300	50100	47600			
	45.0		86900	82100	76400	70100	64400	60200	56400	52900	49800	47300			

Permitted overhung loads of reduction gear units

K37 - K77

Type	P_m	F_{Ra}[N]												
	[kW]	≤10 [1/min]	25 [1/min]	40 [1/min]	60 [1/min]	90 [1/min]	130 [1/min]	170 [1/min]	220 [1/min]	280 [1/min]	350 [1/min]	420 [1/min]	500 [1/min]	650 [1/min]
K37	0.25	6020	6160	5400	4800	4240	3790	3480	3210	2970	2760	2610	2460	2260
	0.37		5760	5160	4630	4130	3710	3420	3160	2930	2740	2580	2440	2250
	0.55		5270	4850	4430	4000	3620	3350	3110	2890	2700	2550	2420	2230
	0.75		4710	4500	4190	3840	3510	3270	3040	2840	2660	2520	2390	2210
	1.1			3920	3810	3580	3330	3130	2940	2760	2590	2460	2340	2170
K47	0.25	7960	8250	8280	7730	6800	6050	5550	5100	4720	4380	4130		
	0.37	7310	8150	8240	7580	6700	5980	5490	5060	4680	4360	4110	3880	
	0.55	5740	7960	8170	7400	6580	5890	5430	5010	4650	4330	4080	3860	3550
	0.75		7630	7960	7190	6440	5800	5350	4950	4600	4290	4050	3840	3530
	1.1		6820	7450	6850	6210	5640	5230	4860	4530	4230	4000	3800	3500
	1.5			6840	6440	5940	5450	5090	4750	4440	4160	3950	3750	3460
	2.2			5650	5740	5480	5130	4840	4560	4290	4040	3850	3660	3400
	3.0				4950	4940	4760	4560	4340	4120	3910	3730	3570	
K57	0.25	9800	10000	10100	10100	8900	7900	7240	6650	6150	5710			
	0.37	9710	10000	10100	10100	8880	7880	7230	6640	6140	5700			
	0.55	9320	9880	9990	9980	8790	7820	7180	610	6110	5680	5350	5060	
	0.75	8740	9710	9900	9810	8680	7740	7120	6560	6070	5650	5330	5040	
	1.1	7620	9500	9780	9620	8550	7660	7050	6510	6030	5620	5300	5010	
	1.5		9100	9570	9300	8340	7510	6940	6420	5960	5570	5260	4980	4580
	2.2		8550	9290	8930	8090	7340	6810	6320	5880	5500	5200	4930	4540
	3.0		6100	8740	8290	7660	7040	6580	6140	5750	5390	5110	4850	
	4.0			7660	7550	7170	6700	6320	5940	5590	5270	5010	4770	
	5.5				6590	6530	6260	5980	5680	5380	5100	4870	4650	
K67	0.25	13000	13000	13000	13000	13000	13000	13000	12900	12000				
	0.37	13000	13000	13000	13000	13000	13000	13000	12900	12000	11200			
	0.55	12800	13000	13000	13000	13000	13000	13000	12900	12000	11200	10600		
	0.75	12100	13000	13000	13000	13000	13000	13000	12800	11900	11200	10600		
	1.1	10300	13000	13000	13000	13000	13000	13000	12700	11900	11100	10600		
	1.5		12600	13000	13000	13000	13000	13000	12600	11800	11100	10500	10000	
	2.2		11600	12800	13000	13000	13000	13000	12500	11700	11000	10400	9930	
	3.0			12100	12900	13000	13000	13000	12300	11500	10900	10300	9850	
	4.0			10900	12400	13000	13000	12800	12100	11400	10700	10200	9750	
	5.5				11400	12600	13000	12400	11700	11100	10500	10000	9600	
K77	0.25	20000	20000											
	0.37	20000	20000	20000	20000	20000	19600	18100	16700	15600				
	0.55	19800	20000	20000	20000	20000	19500	18000	16700	15600	14600			
	0.75	19600	20000	20000	20000	20000	19400	18000	16700	15500	14500	13800		
	1.1	18900	20000	20000	20000	20000	19300	17900	16600	15500	14500	13700	13100	
	1.5	17800	19800	20000	20000	20000	19200	17800	16500	15400	14500	13700	13000	
	2.2	14700	19400	19800	20000	20000	19000	17600	16400	15300	14400	13600	13000	
	3.0		18700	19600	19900	20000	18800	17500	16300	15200	14300	13600	12900	
	4.0		17400	19100	19700	19900	18400	17200	16100	15100	14200	13500	12800	
	5.5		14700	18200	19300	19500	18000	16900	15800	14900	14000	13300	12700	
	7.5			16300	18500	18600	17400	16400	15400	14600	13800	13100	12500	
	9.2			14200	17700	17900	16900	16000	15100	14300	13600	13000	12400	
	11.0				16600	17100	16300	15600	14800	14100	13400	12800	12300	

K87 - K107

Type	P_m [kW]	F_{Ra}[N]												
		≤10 [1/min]	25 [1/min]	40 [1/min]	60 [1/min]	90 [1/min]	130 [1/min]	170 [1/min]	220 [1/min]	280 [1/min]	350 [1/min]	420 [1/min]	500 [1/min]	650 [1/min]
K87	0.25	29100	29100											
	0.37	29100	29100											
	0.55	29000	29100											
	0.75	29000	29100	29100	27100	24100	21600	20000	18500	17200				
	1.1	28900	29000	29100	26900	23900	21500	19900	18500	17200				
	1.5	28700	29000	29000	26600	23800	21400	19800	18400	17100	16100	15200	14500	
	2.2	28300	28900	29000	26200	23500	21200	19700	18300	17100	16000	15200	14400	
	3.0	27800	28800	28400	25700	23200	21000	19500	18200	17000	15900	15100	14400	
	4.0	26800	28700	27500	25100	22800	20700	19300	18000	16800	15800	15000	14300	
	5.5		28000	26200	24300	22200	20300	19000	1800	16600	15700	14900	14200	
	7.5		25100	24400	23000	21400	19800	18600	17400	16400	15500	14700	14000	
	9.2		22800	23000	22100	20800	19300	18200	17200	16200	15300	14600	13900	
	11.0			21400	21000	20000	18800	17800	16900	16000	15100	14400	13800	
	15.0			17800	18700	18500	17700	17000	16200	15400	14700	14100	13500	
	18.5				16600	17100	16800	16300	15700	15000	14300	13800	13300	
	22.0				14600	15700	15900	15600	15100	14600	14000	13500	13000	
K97	0.25	40000	40000											
	0.37	40000	40000											
	0.55	40000	40000											
	0.75	40000	40000											
	1.1	40000	40000											
	1.5	40000	40000	39800	35500	31600	28400							
	2.2	40000	40000	39200	35100	31400	28300	26200						
	3.0	40000	40000	38600	34700	31100	28100	26000	24200	22500	21100	20000		
	4.0	40000	40000	37800	34200	30700	27800	25800	24000	22400	21000	19900		
	5.5	40000	40000	36700	33400	30200	27500	25500	23800	22300	20900	19800		
	7.5		37700	35000	32300	29500	27000	25200	23500	22000	20700	19700		
	9.2		35700	33800	31500	28900	26600	24900	23300	21800	20600	19600		
	11.0		33400	32300	30500	28300	26100	24500	23000	21600	20400	19400		
	15.0		28300	29200	28400	26900	25200	23800	22400	21200	20000	19100		
	18.5			26400	26600	25700	24300	23100	21900	20800	19700	18900		
	22.0			23700	24800	24500	23500	22500	21500	20400	19400	18600		
K107	0.37	65000												
	0.55	65000	65000											
	0.75	65000	65000											
	1.1	65000	65000											
	1.5	65000	65000											
	2.2	65000	65000											
	3.0	65000	64500											
	4.0	65000	63400	56100	50200	44900	40400	37400	34700	32400				
	5.5	65000	61900	55200	49600	44500	40100	37200	34600	32200				
	7.5	65000	59800	53800	48700	43900	39700	36900	34300	32100	30100	28500		
	9.2	65000	58200	52800	48000	43400	39400	36700	34100	31900	30000	28400		
	11.0	60800	56300	51600	47300	42900	39100	36400	33900	31700	29800	28300		
	15.0		52200	49100	45500	41700	38300	35800	33500	31400	29500	28100		
	18.5		48500	46800	44000	40700	37600	35200	33000	31100	29300	27900		
	22.0		45000	44600	42600	39800	36900	34700	32600	30700	29000	27600		
	30.0			39100	38900	37300	35200	33400	31700	30000	28400			
	37.0			35200	36300	35600	34000	32500	30900	29400				
	45.0			29500	32700	33200	32300	31200	29900	28600				

K127 - K157

Type	P_m	F_{Ra}[N]												
	[kW]	≤10 [1/min]	25 [1/min]	40 [1/min]	60 [1/min]	90 [1/min]	130 [1/min]	170 [1/min]	220 [1/min]	280 [1/min]	350 [1/min]	420 [1/min]	500 [1/min]	650 [1/min]
K127	0.37	82900												
	0.55	82900												
	0.75	82900												
	1.1	82800	82900											
	1.5	82800	82900											
	2.2	82800	82900											
	3.0	82700	82800											
	4.0	82600	82800											
	5.5	82500	82800											
	7.5	82100	82700											
	9.2	81800	82700											
	11.0	81400	82600	75300	67900	61000	55200	51200	47600					
	15.0	80100	80500	73100	66500	60100	54500	50700	47200	44100	41400			
	18.5	76000	77500	71200	65200	59200	53900	50300	46900	43900	41200			
	22.0	116600	74500	69300	64000	58400	53400	49800	46600	43600	41000			
	30.0		67100	64700	60900	56400	52000	48800	45700	42900	40500			
	37.0		61900	61400	58700	54900	51000	48000	45100	42500				
	45.0		54500	56800	55700	52900	49500	46900	44300	41800				
K157	1.5	116600												
	2.2	116600												
	3.0	116600	113600											
	4.0	116500	112900											
	5.5	116400	111900											
	7.5	116200	110600	97300										
	9.2	116000	109500	96600										
	11.0	115700	108300	95900										
	15.0	114900	103400	92800										
	18.5	114000	103400	92800										
	22.0	113000	101100	31400										
	30.0		95500	87900	80600	73200	66700	62100						
	37.0		91500	85400	78900	72100	65900	61500						
	45.0		85900	81900	76600	70500	64800	60700						

S37 - S77

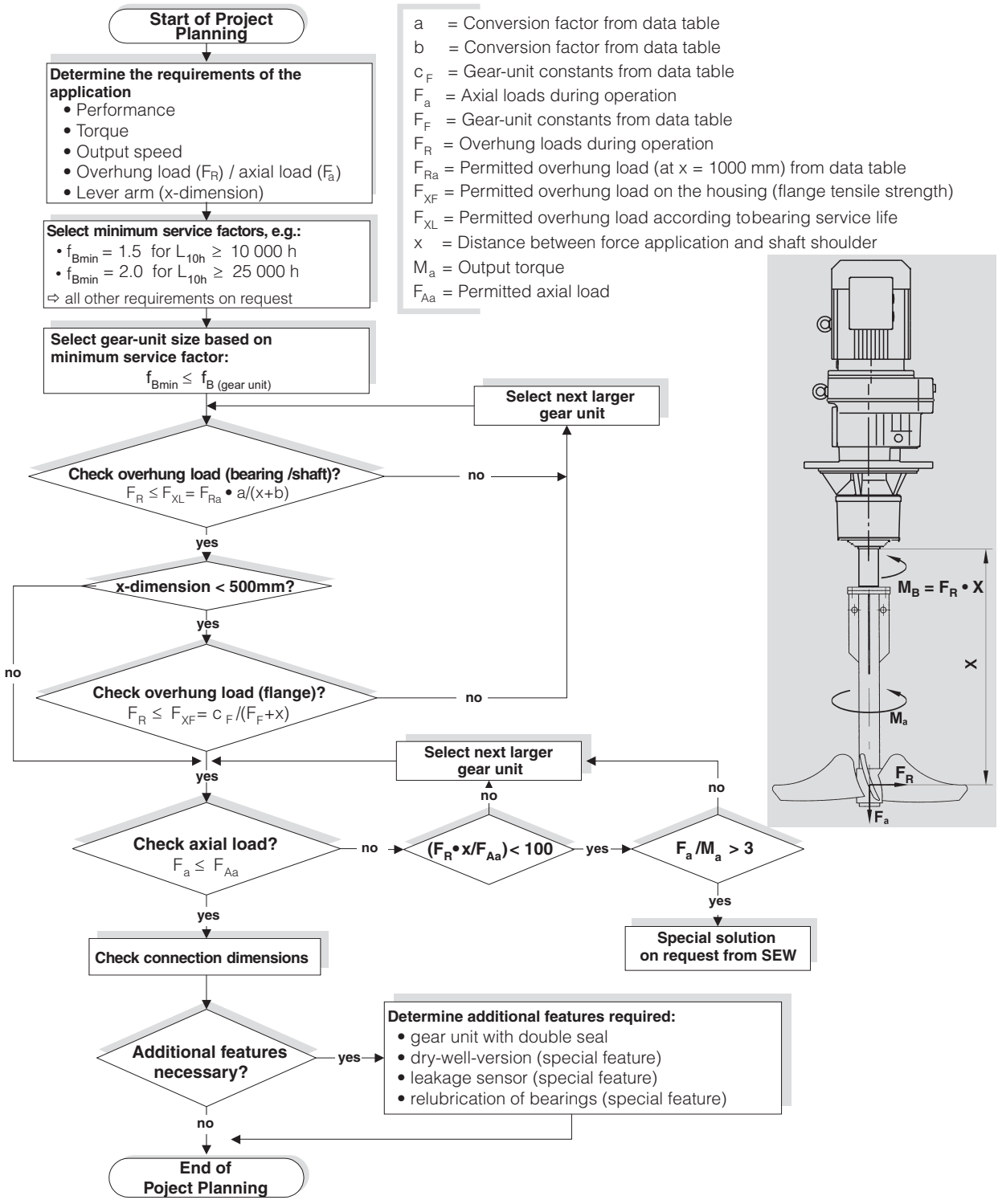
Type	P_m [kW]	F_{Ra}[N]									
		≤10 [1/min]	30 [1/min]	50 [1/min]	70 [1/min]	100 [1/min]	1300 [1/min]	160 [1/min]	200 [1/min]	250 [1/min]	400 [1/min]
S37	0.25	3000	3000	3000	2990	2720	2530	2380	2230	2090	1810
	0.37	82900	3000	2930	2760	2560	2410	2290	2150	2030	1770
	0.55	82900		2540	2480	2350	2250	2150	2050	1950	1720
	0.75	82800	82900		2160	2130	2070	2010	1930	1850	1670
	1.1	82800	82900			1560	1780	1770	1740	1700	1570
S47	0.25	5570	5630	4900	4460	4010	3700	3470	3240	3020	2610
	0.37	5220	5230	4650	4270	3880	3610	3400	3180	2970	2580
	0.55	82600	4740	4350	4050	3720	3490	3300	3100	2910	2540
	0.75	82500	4180	4010	3800	3540	3340	3190	3020	2840	2490
	1.1	82100	82700	3450	3400	3260	3120	3000	2860	2730	2420
	1.5	81800	82700		2920	2920	2860	2780	2690	2580	2340
S57	0.25	8210	8290	7940	7160	6400	5890	5510	5130	4770	4100
	0.37	8010	8240	7730	7010	6300	5810	5450	5080	4730	4080
	0.55	7600	8130	7480	6820	6160	5710	5370	5020	4680	4040
	0.75	6900	7970	7200	6620	6020	5590	5270	4940	4620	4010
	1.1		7280	6730	6280	5770	5400	5120	4820	4530	3950
	1.5		6370	6180	5880	5490	5190	4940	4670	4410	3880
S67	0.25	10700	10600	9080	8170	7290	6700	6270	5830	5430	
	0.37	10600	10300	8900	8050	7200	6640	6220	5790	5390	4640
	0.55	10400	9990	8680	7890	7100	6550	6150	5740	5350	4610
	0.75	9990	9590	8440	7710	6970	6460	6070	5680	5300	4580
	1.1	9030	8940	8040	7420	6760	6300	5950	5580	5220	4530
	1.5		8170	7580	7080	6520	6110	5790	5460	5130	4470
	2.2	6850	6770	6500	6110	5790	5530	5240	4960	4370	
	3.0			5860	5840	5650	5430	5230	5000	4760	4250
	4.0			3530	4980	5040	4960	4850	4690	4510	4100
	5.5				2020	3700	4300	4310	4260	4160	3870
S77	0.37	16000	15400	13200	11800	10600	9700	9070	8440	7850	
	0.55	16000	15200	13000	11700	10500	9630	9020	8400	7820	6720
	0.75	16000	14900	12800	11600	10400	9560	8960	8350	7780	6990
	1.1	16000	14400	12500	11400	10200	9450	8870	8270	7720	6660
	2.2	13800	12800	11500	10700	9730	9070	8560	8030	7520	6530
	3.0	5660	11600	10800	10200	9370	8790	8330	7860	7380	6450
	4.0		9320	9940	9500	8910	8430	8040	7620	7200	6330
	5.5		3600	7790	8590	8270	7930	7630	7280	6930	6170
	7.5			2770	5430	7150	7220	7050	6820	6550	5940
	9.2				2650	5090	6250	6610	6460	6270	5750
	11.0					2790	4400	5310	6020	5940	5540

S87 - S97

Type	P_m [kW]	F_{Ra}[N]									
		≤10 [1/min]	30 [1/min]	50 [1/min]	70 [1/min]	100 [1/min]	1300 [1/min]	160 [1/min]	200 [1/min]	250 [1/min]	400 [1/min]
S87	**0.75**	30000	30000	30000	27700	25000	23200	21800	20500	19200	
	1.1	30000	30000	30000	27600	24900	23100	21700	20400	19100	16700
	1.5	29900	30000	29900	27300	24700	23000	21600	20300	19000	16600
	2.2	29600	30000	29400	26900	24500	22800	21500	20200	18900	16500
	3.0	29200	29900	28800	26500	24100	22500	21300	20000	18800	16500
	4.0	28600	29700	27900	25900	23700	22200	21000	19800	18600	16400
	5.5	21600	29100	26800	25000	23100	21700	20600	19500	18400	16200
	7.5		26400	25100	23800	22300	21100	20100	19100	18100	16000
	9.2		22200	23900	22900	21600	20600	19700	18800	17800	15800
	11.0		13700	22400	21900	20900	20000	19200	18400	17500	15700
	15.0			13700	19600	19300	18800	18200	17600	16800	15300
	18.5			3010	13300	17900	17700	17300	16800	16300	14900
	22.0				6070	14500	16600	16500	16200	15700	14500
S97	**1.5**	39900	40000	37700	34300	30900	28700				
	2.2	39800	40000	37200	33900	30700	28500	26900	25200	23600	
	3.0	39600	39900	36700	33600	30400	28300	26700	25100	23500	20600
	4.0	39200	39800	36000	33000	30100	28000	26500	24900	23400	20400
	5.5	38500	39000	35000	32300	29600	27700	26200	24700	23200	20400
	7.5	32800	36700	33600	31300	28900	27100	25800	24300	22900	20200
	9.2	21400	35000	32600	30600	28400	26700	25400	24100	22700	20100
	11.0		33000	31400	29700	27800	26200	25100	23800	22500	19900
	15.0		26100	28700	27800	26400	25200	24200	23100	22000	19600
	18.5		13500	26400	26200	25200	24300	23400	22500	21500	19300
	22.0			21400	24600	24100	23400	22700	21900	21000	19000

4.8 RM gear units

Project planning You must take account of the higher overhung and axial loads when planning projects with RM helical gear units with extended bearing housing. Observe the following project planning procedure:



Permitted overhung loads and axial forces

The permitted overhung loads F_{Ra} and axial loads F_{Aa} are specified for various service factors f_B and nominal bearing service life L_{H10}.

f_{Bmin} = 1.5 / L_{H10} = 10 000 h

		n_a [1/min]							
		< 16	16-25	26-40	41-60	61-100	101-160	161-250	251-400
RM57	F_{Ra} [N]	400	400	400	400	400	405	410	415
	F_{Aa} [N]	18800	15000	11500	9700	7100	5650	4450	3800
RM67	F_{Ra} [N]	575	575	575	580	575	585	590	600
	F_{Aa} [N]	19000	18900	15300	11900	9210	7470	5870	5050
RM77	F_{Ra} [N]	1200	1200	1200	1200	1200	1210	1210	1220
	F_{Aa} [N]	22000	22000	19400	15100	11400	9220	7200	6710
RM87	F_{Ra} [N]	1970	1970	1970	1970	1980	1990	2000	2010
	F_{Aa} [N]	30000	30000	23600	18000	14300	11000	8940	8030
RM97	F_{Ra} [N]	2980	2980	2980	2990	3010	3050	3060	3080
	F_{Aa} [N]	40000	36100	27300	20300	15900	12600	9640	7810
RM107	F_{Ra} [N]	4230	4230	4230	4230	4230	4230	3580	3830
	F_{Aa} [N]	48000	41000	30300	23000	18000	13100	9550	9030
RM137	F_{Ra} [N]	8710	8710	8710	8710	7220	5060	3980	6750
	F_{Aa} [N]	70000	70000	70000	57600	46900	44000	35600	32400
RM147	F_{Ra} [N]	11100	11100	11100	11100	11100	10600	8640	10800
	F_{Aa} [N]	70000	70000	69700	58400	45600	38000	32800	30800
RM167	F_{Ra} [N]	14600	14600	14600	14600	14600	14700	-	-
	F_{Aa} [N]	70000	70000	70000	60300	45300	36900	-	-

f_{Bmin} = 2.0 / L_{H10} = 25,000 h

		n_a [1/min]							
		< 16	16-25	26-40	41-60	61-100	101-160	161-250	251-400
RM57	F_{Ra} [N]	410	410	410	410	410	415	415	420
	F_{Aa} [N]	12100	9600	7350	6050	4300	3350	2600	2200
RM67	F_{Ra} [N]	590	590	590	595	590	595	600	605
	F_{Aa} [N]	15800	12000	9580	7330	5580	4460	3460	2930
RM77	F_{Ra} [N]	1210	1210	1210	1210	1210	1220	1220	1220
	F_{Aa} [N]	20000	15400	11900	9070	6670	5280	4010	3700
RM87	F_{Ra} [N]	2000	2000	2000	2000	2000	1720	1690	1710
	F_{Aa} [N]	24600	19200	14300	10600	8190	6100	5490	4860
RM97	F_{Ra} [N]	3040	3040	3040	3050	3070	3080	2540	2430
	F_{Aa} [N]	28400	22000	16200	11600	8850	6840	5830	4760
RM107	F_{Ra} [N]	4330	4330	4330	4330	4330	3350	2810	2990
	F_{Aa} [N]	32300	24800	17800	13000	9780	8170	5950	5620
RM137	F_{Ra} [N]	8850	8850	8850	8830	5660	4020	3200	5240
	F_{Aa} [N]	70000	59900	48000	37900	33800	31700	25600	23300
RM147	F_{Ra} [N]	11400	11400	11400	11400	11400	8320	6850	8440
	F_{Aa} [N]	70000	60600	45900	39900	33500	27900	24100	22600
RM167	F_{Ra} [N]	15100	15100	15100	15100	15100	13100	-	-
	F_{Aa} [N]	70000	63500	51600	37800	26800	23600	-	-

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 ¼ 1000 mm for RM gear units:

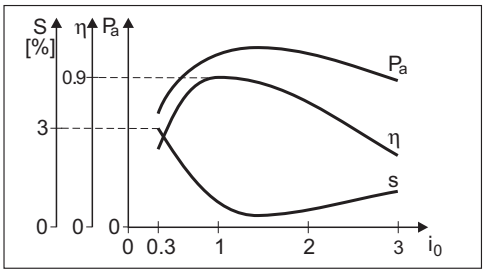
Gear unit type	a	b	c_F (f_B = 1.5)	c_F (f_B = 2.0)	F_F
RM57	1047	47	1220600	1260400	277
RM67	1047	47	2047600	2100000	297.5
RM77	1050	50	2512800	2574700	340.5
RM87	1056.5	56.5	4917800	5029000	414
RM97	1061	61	10911600	11124100	481
RM107	1069	69	15367000	15652000	554.5
RM137	1088	88	25291700	25993600	650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

Additional weights of RM gear units

Type	Additional weight in addition to RF, related to the smallest RF flange ∆m [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

4.9 Standard variable speed gearmotor selection

In order to establish the correct size of variable speed drive, it is necessary to know the power required, the speed setting range, the ambient temperature, the installation altitude and the operating mode. The following figure shows the output power P_a, the efficiency η and the slip s as a function of the gear ratio i.



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Key

P_a	Output power
η	Efficiency
s	Slip
i_0	Variable speed gear unit ratio

$$i_0 = \frac{n_{a0}}{n_{e0}}$$

n_{a0} = Output speed without load
n_{e0} = Input speed without load

The figure above shows the profiles of P_a, s and η according to measurements on variable speed gear units with a load applied. The diagram shows there is a close correlation between efficiency and slip at the set ratio. There are no linear relationships here for mechanical reasons such as maximum friction between the belt (friction disc) and maximum circumferential velocity as well as speed-dependent friction factors. As a result, it is necessary to consider the specific application in order to enable a variable speed gear unit to be used optimally.

Dimensioning criteria

Mechanical variable speed gear units not only serve as speed converters but also as torque converters. As a result, their dimensions can be selected according to various criteria:

- Constant torque
- Constant power
- Constant torque and power (in partial speed ranges in each case)

The "Drive Engineering - Practical Implementation, Drive Planning" publication contains extensive information about this topic.

Selection according to the selection tables

Selecting a variable speed gear unit according to the information in the selection tables means that its capabilities will be optimally exploited. The reduction gear unit must be configured so the maximum occurring output torques can be transmitted.

If you do not want to fully exploit the available setting range of the variable speed gear unit, it is a good idea to position the speed range to be used at the top end of the overall speed range since this gives better efficiency. The slip of the variable speed gear unit is at its lowest in the top speed range and the transmissible power is at its largest.

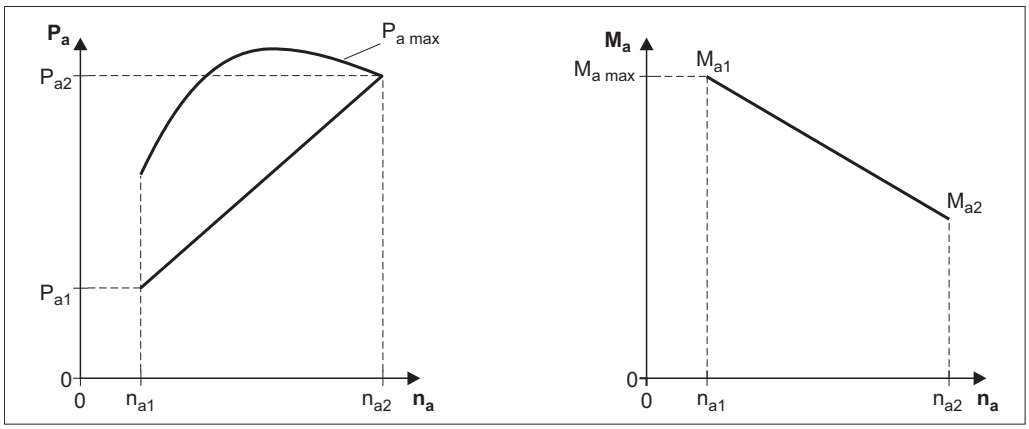

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Figure 3: Characteristic values of the variable speed gear unit (simplified representation)

Key

$P_{a\,max}$	Maximum output power (based on experiment)
P_{a1}	Minimum output power at n_{a1}
P_{a2}	Maximum output power at n_{a2}
n_{a1}	Minimum output speed
n_{a2}	Maximum output speed
$M_{a\,max}$	Maximum output torque of the variable speed gear unit
M_{a1}	Output torque at n_{a1}
M_{a2}	Output torque at n_{a2}

4.10 Service factors

It is essential to know exactly what the drive application is in order to select the correct size and type of drive. The operating conditions of the driven machine are represented by its duty cycle. Precise project planning work on the basis of the duty cycle demands extensive calculations to be performed. As a result, the effects of the driven machine on the gear unit and the variable speed gear unit are represented to an adequate degree of accuracy by the service factor f_B.

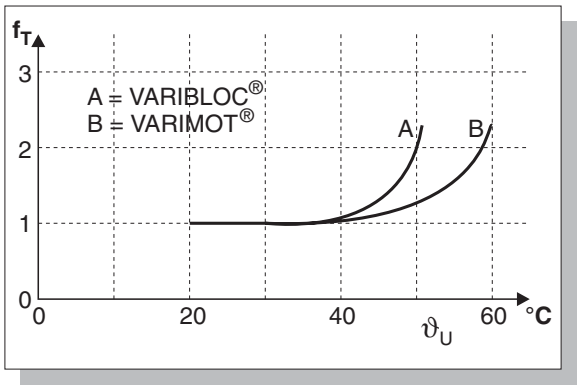
Service factor f_B for load type

A service factor of 0.8 f_B can be expected for a daily operating time of 2 hours.

Load type	f_B	Notes on Repair Procedure	Examples
I	1.0	Uniform, smooth operation	Fans, light conveyor belts, filling machines
II	1.25	Non-uniform operation with medium shocks	Hoists, balancing machines, crane trolleys
III	1.5	Highly non-uniform operation with powerful shocks	Heavy mixers, roller tables, punching machinery, stone crushers

Factor f_T at elevated ambient temperature

The load on the variable speed gear unit must be reduced at elevated ambient temperature. The following diagram shows the required factor f_T at elevated ambient temperature J_{amb}.



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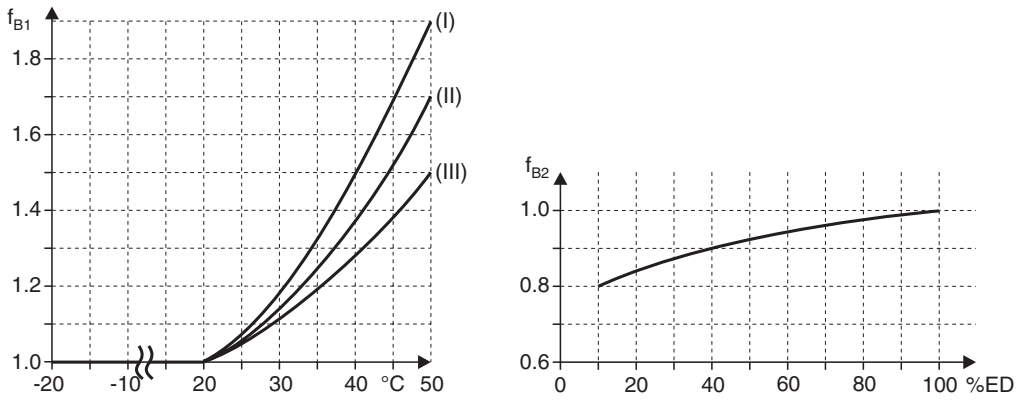
The variable speed gear unit must be selected for the factor $f = f_B \times f_T$ larger than the original calculation.

Special considerations for helical-worm gear units

With helical-worm gear units, it is necessary to take account of the service factor f_B and, in addition, the influence of ambient temperature above 20 °C in terms of the load type I, II and III (service factor f_{B1}) as well as the cyclic duration factor (service factor f_{B2}).

The additional service factors f_{B1} and f_{B2} can be determined by referring to the following diagrams. The load type is taken into consideration in f_{B1} in the same way as in f_B.



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The cyclic duration factor (cdf) is calculated using the following formula:

$$\text{ED (\%)} = \frac{\text{Time under load in min/h}}{60} \bullet 100$$

Contact SEW-EURODRIVE in case of temperatures below –20 °C ($\rightarrow$ f_{B1}).

The total service factor for a variable speed gearmotor in conjunction with a helical-worm gear unit is calculated as follows:

$$f_{Btot} = f_B \bullet f_{B2} \bullet f_{B3}$$

In this case, the larger of the two factors f_T and f_{B1} is used for f_{B3}.

Starting frequency of variable speed gear units

Variable speed gearmotors are designed for continuous operation. Variable speed drives with a high starting frequency are preferably designed as electronically controlled AC or DC drives.

Note the following points for the special application of increased starting frequency:

VARIBLOC® and VARIMOT® variable speed gear units will operate reliably and can be expected to have a normal service life even given frequent load variations. The maximum permitted number of starts is higher than that of the particular motor. The additional mass moment of inertia J_Z to be accelerated by the motor is calculated using the following equation:

$$J_Z = J_1 + \frac{n_a^2}{n_n^2} \bullet (k \bullet J_1 \bullet i_G^2 + J_{ext})$$

Key

J_Z [kgm^2]	Mass moment of inertia to be accelerated
J_1 [kgm^2]	Mass moment of inertia of the driving variable pulley or drive disk
n_a [1/min]	Output speed in the range n_{a1} to n_{a2} (n_{a2} = most unfavorable speed setting)
n_n [1/min]	Rated speed of the motor
k	Coefficient according to table
i_G	Ratio of the reduction gear unit on the output end (if there is no reduction gear unit: $i_G = 1$)
J_{ext} [kgm^2]	External mass moment of inertia

Variable speed gear unit Type	J_1 [10^{-4} kgm^2]	k
VU/VZ01	12.52	1.1
VU/VZ11	29.78	1.1
VU/VZ21	39.72	1.22
VU/VZ31	209.65	1.1
VU/VZ41	456.48	1.6
VU51	917.94	1.56
VU6	2529	2.1
D/DF16	23	0.77
D/DF26	74	0.84
D/DF36	280	1.08
D/DF46	597	1.21

4.11 Protection and monitoring of standard variable speed gearmotors

The WS option described in this section is not available for explosion-proof variable speed gearmotors.

Overload protection

The motor protection system, regardless of what type is installed, does not protect the gear units connected to the motor output. An adapter with a torque limiting coupling (AR) can be used with variable speed gear units to limit the mechanical torque and protect the gear stages connected on the output end.

Slip monitor /WS

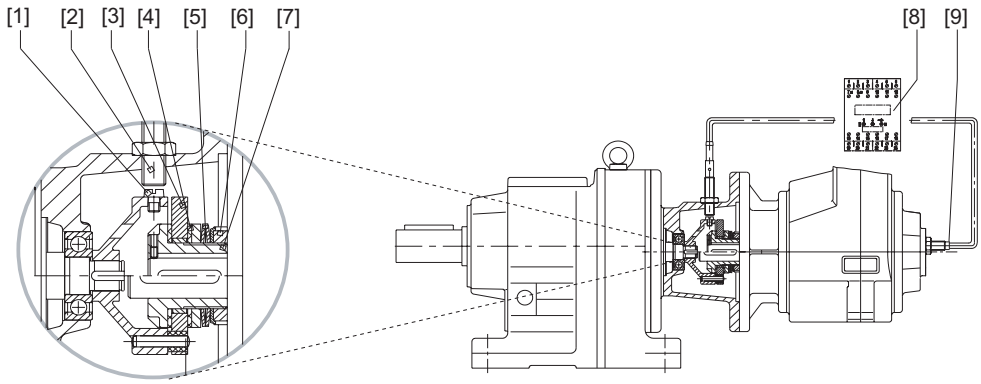


Figure 4: Adapter with torque limiting coupling and slip monitor /WS

[1] Trigger cam
[2] Encoder (adapter)
[3] Driving disc
[4] Friction ring pads
[5] Cup springs
[6] Slotted round nut
[7] Friction hub
[8] Slip monitor /WS
[9] Encoder IG

Connection

The encoder is connected to the monitor using a 2 or 3-core cable (depending on the encoder type).

- Maximum cable length: 500 m with a line cross section of 1.5 mm^2
- Standard incoming cable: 3-core / 2 m
- Route the signal lines separately (not in multicore cables) and shield them if necessary
- Enclosure: IP40 (terminals IP20)
- Operating voltage: 220 V_{AC} or 24 V_{DC}
- Maximum switching capability of the output relay: 6 A (250 V_{AC})

Terminal assignment WS

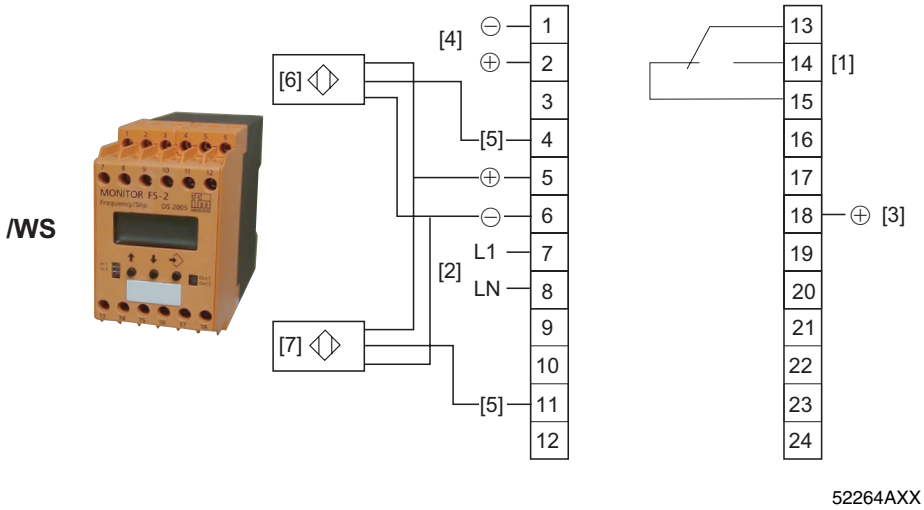


Figure 5: Terminal assignment/WS

[1] Relay output
[2] Supply voltage 230 V_{AC} (47 Hz ... 63 Hz)
[3] External slip reset
[4] Supply voltage 24 V_{DC}
[5] Signal
[6] Encoder 1
[7] Encoder 2
[/WS] slip monitor

Dimensions WS

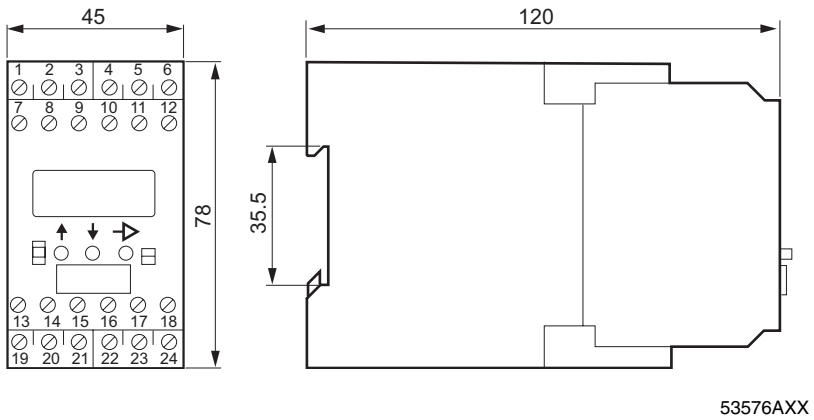
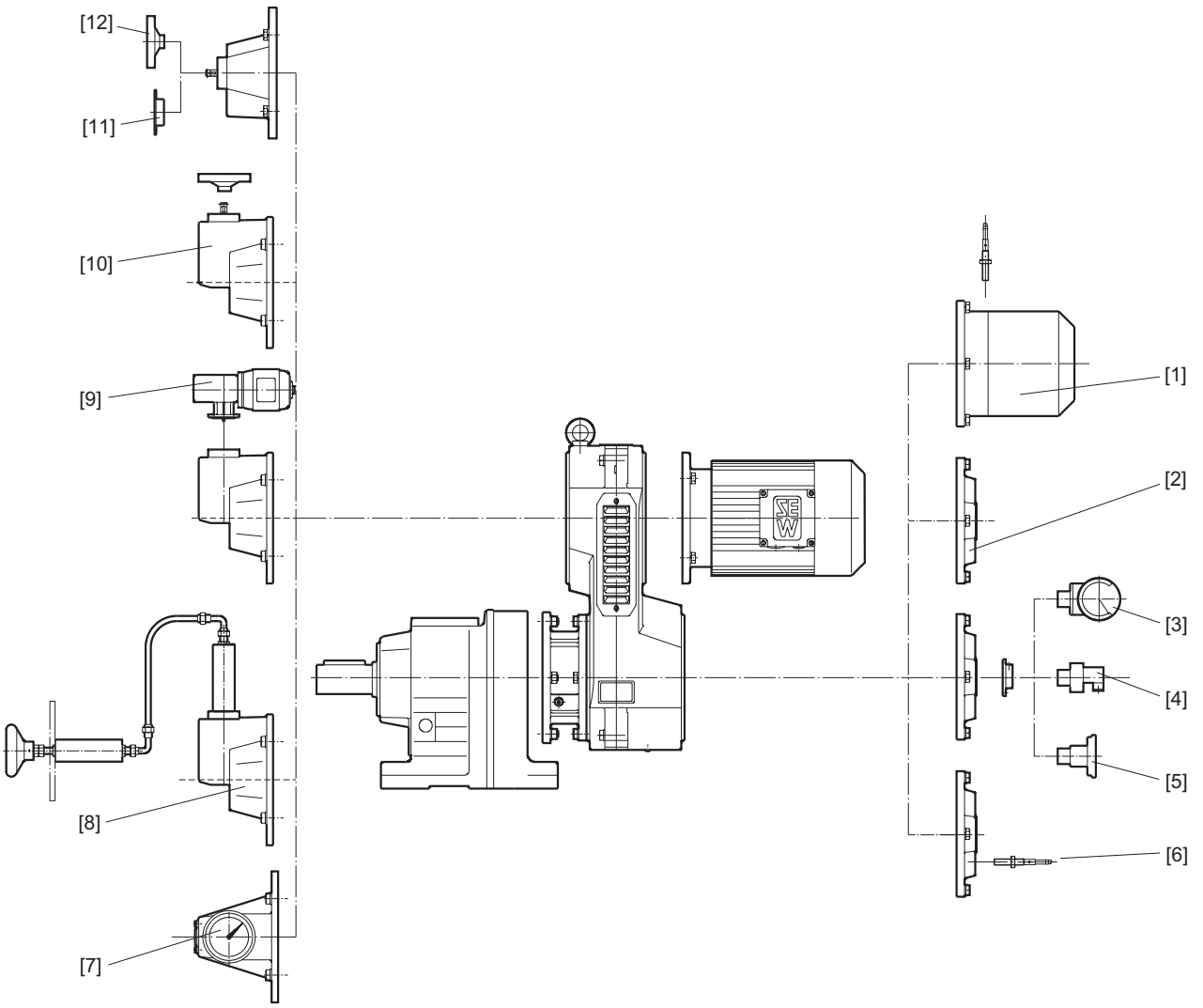


Figure 6: Dimensions /WS

4.12 VARIBLOC® options

Standard VARIBLOC®



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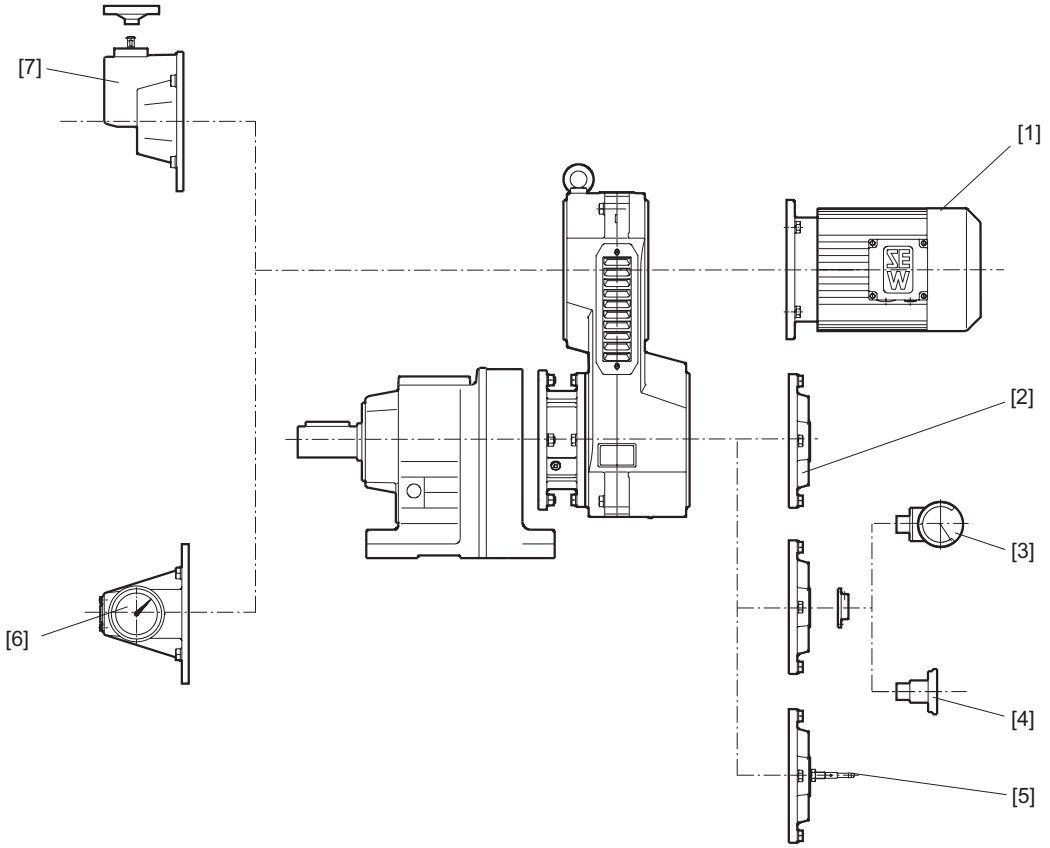
[1] Brake BM(G) (with tachogenerator IG)
[2] Bearing cover
[3] Rightangled tachometer TW
[4] AC tachogenerator GW
[5] Axial tachogenerator TA
[6] Tachogenerator IG
[7] Control head with handwheel and setting indicator HS
[8] Hydraulic setting unit HY
[9] Electromechanical remote speed control EF
[10] Control head with hand wheel H / with exposed shaft end NV
[11] Front adjustment with chain sprocket
[12] Front adjustment with handwheel (standard version)

Explosion-proof VARIBLOC®



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[1] Driving motor
[2] Bearing cover with M12x1 tapped hole (standard equipment)
[3] Rightangle tachometer TW
[4] Axial tachogenerator TA
[5] Voltage encoder IGEX
[6] Control head with handwheel and setting indicator HS
[7] Control head with hand wheel H (standard type) / with exposed shaft end NV

VARIBLOC® with brake

If VARIBLOC® is used with a brakemotor, the brake torque listed in the following table must not be exceeded for safety reasons!

If operating VARIBLOC® with mass acceleration factors of > 10, VARIBLOC® must be used with a brake.

Type	Max. permitted braking torque of the motor [Nm]
VU/VZ01	5
VU/VZ11	10
VU/VZ21	20
VUVZ31	40
VU/VZ41	75

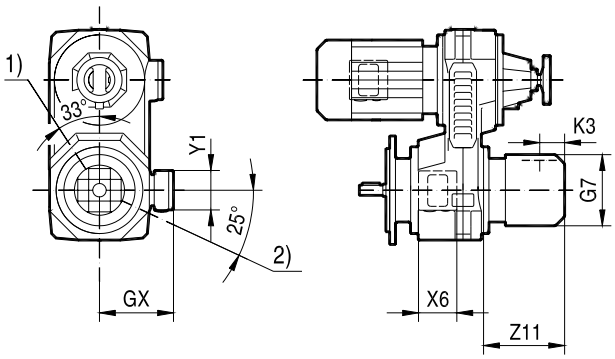
If the VARIBLOC® variable speed gear unit cannot be combined with a brakemotor for reasons of safety, a safe solution can be achieved by mounting the BMG brake onto the output shaft of the variable speed gear unit.

VARIBLOC® with a brake is only availalble with manual brake release (BMG/HF or BMG/HR). The brake rectifier is installed in a special terminal box on the VARIBLOC® housing. Standard supply voltages are 230 V_{AC} und 400 V_{AC}.

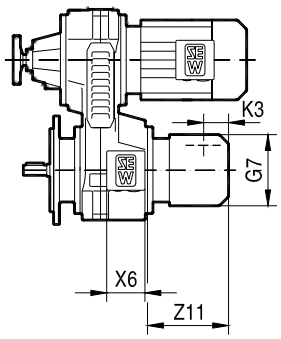
Dimensions VU/VZ with brake

12 006 001

VU..



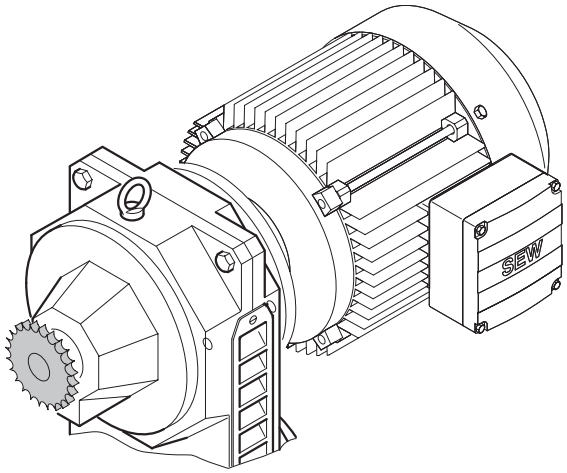
VZ..



1) Manual brake release HF or HR for brake
2) Connection hole for proximity-type speed measurement FL

	Brake type	$M_{B\ max}$ [Nm]	GX [mm]	G7 [mm]	K3 [mm]	X6 [mm]	Y1 [mm]	Z11 [mm]
VU/VZ01 BMG/HF (HR)	BMG05	5	152	145	59	106	109	168
VU/VZ11 BMG/HF (HR)	BMG1	10	155	145	59	106	109	176
VU/VZ21 BMG/HF (HR)	BMG2	20	177	197	69	106	109	211
VU/VZ31 BMG/HF (HR)	BMG4	40	205	197	69	106	109	225
VU/VZ41 BMG/HF (HR)	BMG8	75	237	221	97	106	109	255

Front adjustment with chain sprocket

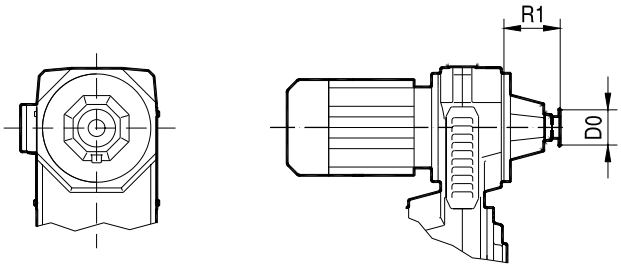


50605AXX

CW direction of rotation on the chain sprocket means an increase in speed.

Dimensions

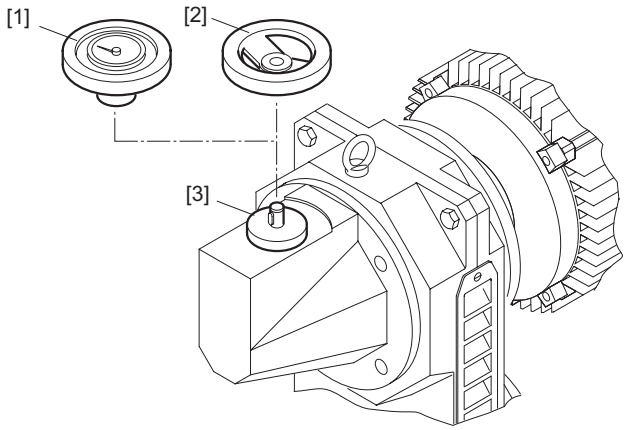
12 001 001



	R1	D0	1)	2) DIN 8187	3) 1:4	3) 1:6	3) 1:8	4) [Nm]
VU/VZ01 K	82	81.19	20	12.7x3.3	-	10	-	1.8
VU/VZ11 K	99	81.19	20	12.7x3.3	-	12	13	2.7
VU/VZ21 K	106	81.19	20	12.7x3.3	-	15	16	4.0
VU/VZ31 K	129	81.19	20	12.7x3.3	-	18	19	6.5
VU/VZ41 K	160	121.5	30	12.7x3.3	-	18	-	9.0
VU51 K	195	121.5	30	12.7x3.3	-	20	-	12.0
VU6 K	158	254.8	63	12.7x3.3	27	-	-	17.0

1) Number of teeth
2) Single row roller chain
3) Chain sprocket rotation for setting range
4) Torque needed for adjustment

Exposed shaft end NV, Handwheel with setting indicator HS



52301AXX

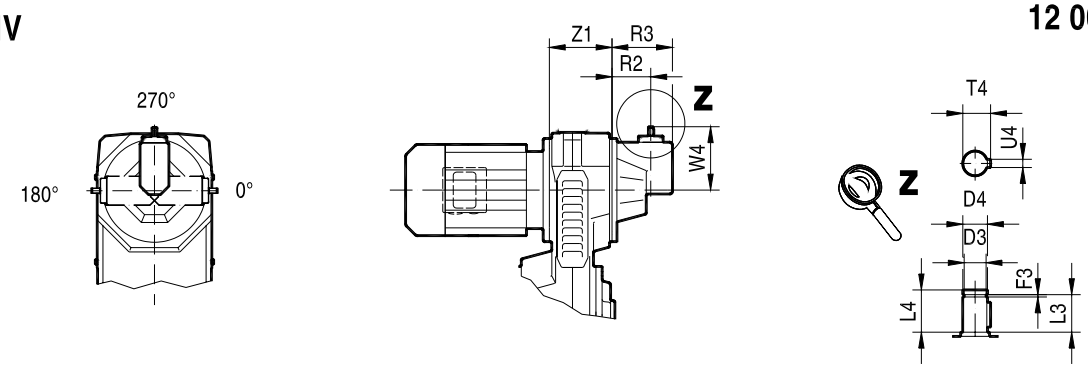
[1] Handwheel with setting indicator HS
[2] Handwheel H
[3] Exposed shaft end NV

The control heads can be swiveled to the positions shown in the following dimensional diagram. Specify the required position in your order. CW direction of rotation on the handwheel H means an increase in speed. The handwheel with setting indicator HS only functions when the adjustment spindle is horizontal.

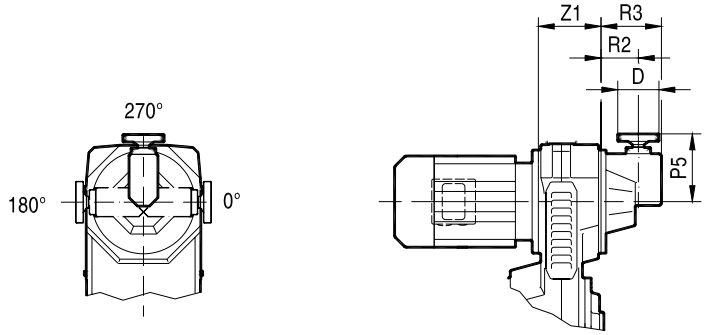
Dimensions NV, H, HS

NV

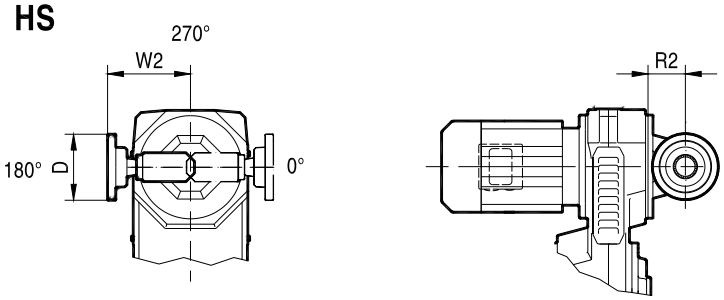
12 002 001



H



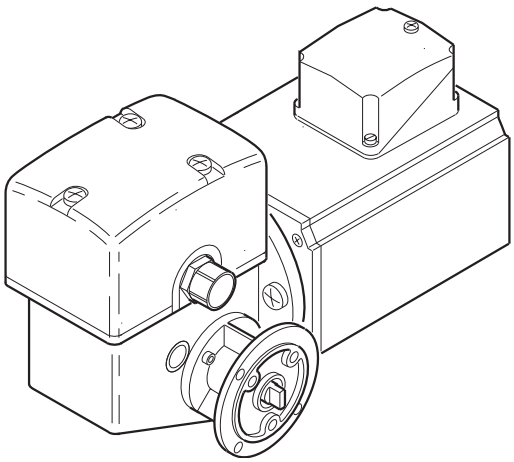
HS



	D	D3	D4	F3	L3	L4	P5	R2	R3	T4	U4	W2	W4	2) 1:4	2) 1:6	2) 1:8	1) [Nm]
VU/VZ01 NV/H/HS	100	11.5	12	1.1	18.2	20.5	119	60	112.5	13.5	4	144	103	-	7	-	1.8
VU/VZ11 NV/H/HS	100	11.5	12	1.1	18.2	20.5	119	60	112.5	13.5	4	144	103	-	10	11	2.7
VU/VZ21 NV/H/HS	100	11.5	12	1.1	18.2	20.5	138.5	75	129.5	13.5	4	163.5	122.5	-	11	13	4.0
VU/VZ31 NV/H/HS	100	11.5	12	1.1	18.2	20.5	165	94	146.5	13.5	4	190	149	-	14	15	6.5
VU/VZ41 NV/H/HS	160	17	18	1.3	21.4	25	202	122	190	20.5	6	235	185	-	14	-	9.0
VU51 NV/H/HS	160	17	18	1.3	21.4	25	216	134	200	20.5	6	249	199	-	17	-	12.0
VU6 NV/H/HS	160	17	18	1.3	21.4	25	225	156	230	20.5	6	253	210	18	-	-	17.0

1) Torque needed for adjustment
2) Handwheel rotations for setting range

Electromechanical remote speed control EF/EFPA



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Electromechanical remote speed control consists of a servo motor which, in the EFPA type, is supplemented by an indicator unit. This indicator unit can be installed in a control cabinet. Speed changes resulting from load fluctuations are not shown on the display.

The electromechanical remote speed control EF/EFPA is designed for maximum 40 % cdf and and a starting frequency of < 20 cycles per hour. The minimum and maximum speeds are determined by setting the two limit switches. The control unit can be swiveled to the positions shown in the following dimension drawing (270° = standard position).

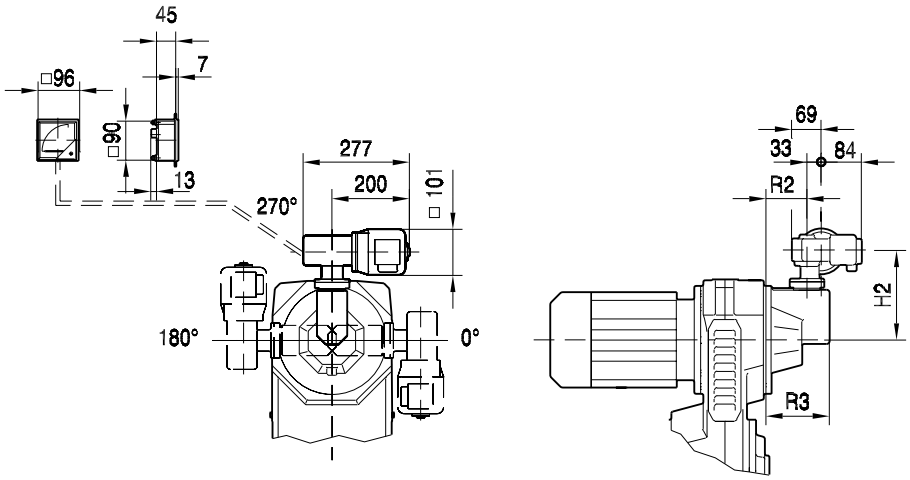
Electromechanical remote speed adjustment is not suitable for automatic control but only for occasional adjustment.

Technical data

VARIBLOC® type	Adjustment device	Variable motor Type	P_m [W]	U [V_{AC}]	f [Hz]	I [A_{AC}]	n_a [1/min]	Enclosure	Part number
VU/VZ01 - 41	**EF/EFPA**	DM90-60K + E13 with potentiometer	75	230/400	50	0.76/0.44	25	IP55	150 292 1
VU51									
VU6									

Dimensions EF/ EFPA

12 003 01 01



	H2	R2	R3	1) 1:4	1) 1:6	1) 1:8
VU/VZ01 EF/EFPA	159	60	112.5	-	17	-
VU/VZ11 EF/EFPA	159	60	112.5	-	22	24
VU/VZ21 EF/EFPA	178.5	75	129.5	-	26	31
VU/VZ31 EF/EFPA	205	94	146.5	-	36	39
VU/VZ41 EF/EFPA	236	122	190	-	34	-
VU51 EF/EFPA	250	134	200	-	41	-
VU6 EF/EFPA	260	156	230	46	-	-

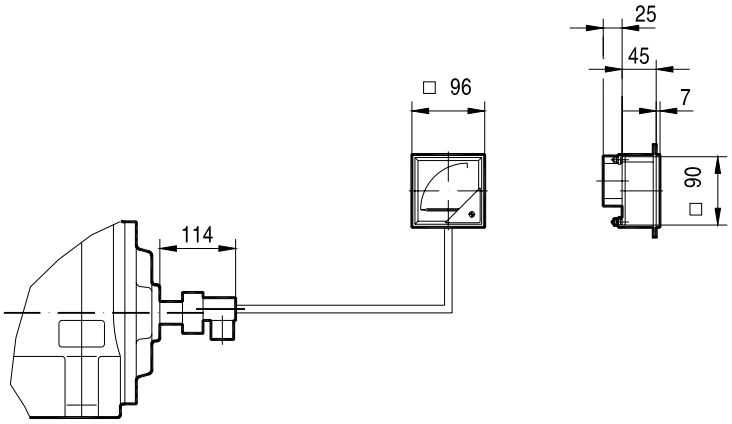
1) Adjustment time in seconds for setting range

Analog remote speed indicators FA, FD

The analog remote speed indicators FA and FD comprise the AC tachogenerator GW mounted to the VARIBLOC® with 10 V / 1000 1/min ánd the indicator unit size 96. The indicator unit with the scale 0 % ...100 % (only FA) or with individual customer-specific scale (only FD) is matched to the mounted AC tachogenerator GW. FA and FD are used in VU/VZ01-41 and VU51.

Dimensions FA, FD

12 014 001

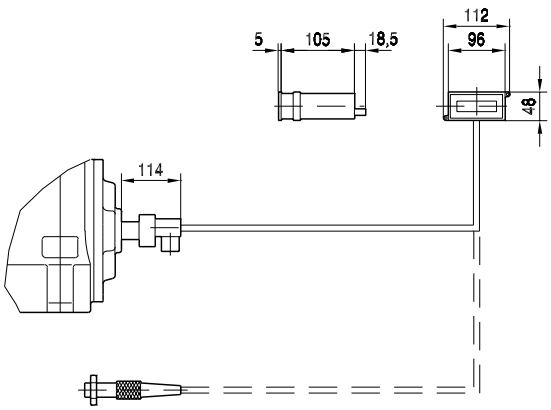


Digital remote speed indicator DA

The digital indicator unit DA with its 4-digit display (red 7-segment LEDs) is used for connecting to the AC tachogenerator GW in the VU/VZ01-41 and VU51 or to the encoder IG in the VU/VZ01-41BMG and VU6. The unit is suitable for use as a time-based counter for representing all measured quantities which have a measurement signal in the form of a frequency as pulses or as an AC voltage. The universal adjustment function for the calibration values makes it possible to assign the input frequency (speed of the output shaft of the variable speed gear unit) to the required display.

Dimensions DA

12 015 001

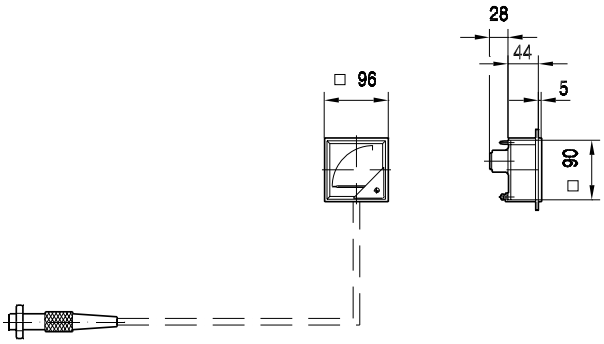


Remote speed indicators FL

VARIBLOC® VU6 and VU/VZ01 - 41BMG are exclusively equipped with a proximity-type encoder IG for speed measurement. This means the analog remote speed indicator FL can be used. FL is equipped for mains connection 220 V / 50 Hz and has a size 96 indicator unit (scale 0 % ... 100 %). Note that the maximum cable length is 100 m and the maximum cable resistance is
3 ohms.

Dimensions FL

12 016 001

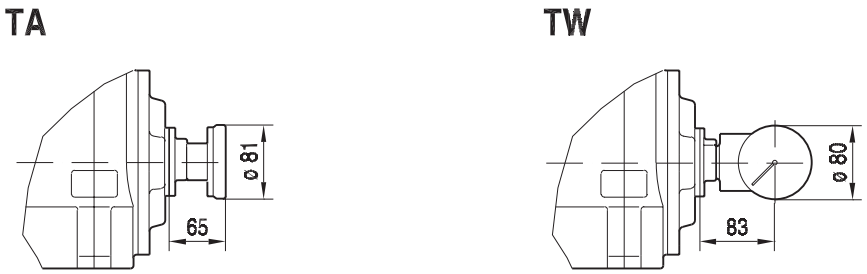


Axial tachogenerator TA, rightangled tachometer TW

Tachos TA or TW can be fitted as an alternative to the AC tachogenerator GW. They are equipped with scales for CW and CCW operation. The scale values are configured according to the customer's requirements.

Dimensions TA, TW

12 017 001



Special VARIBLOC® designs

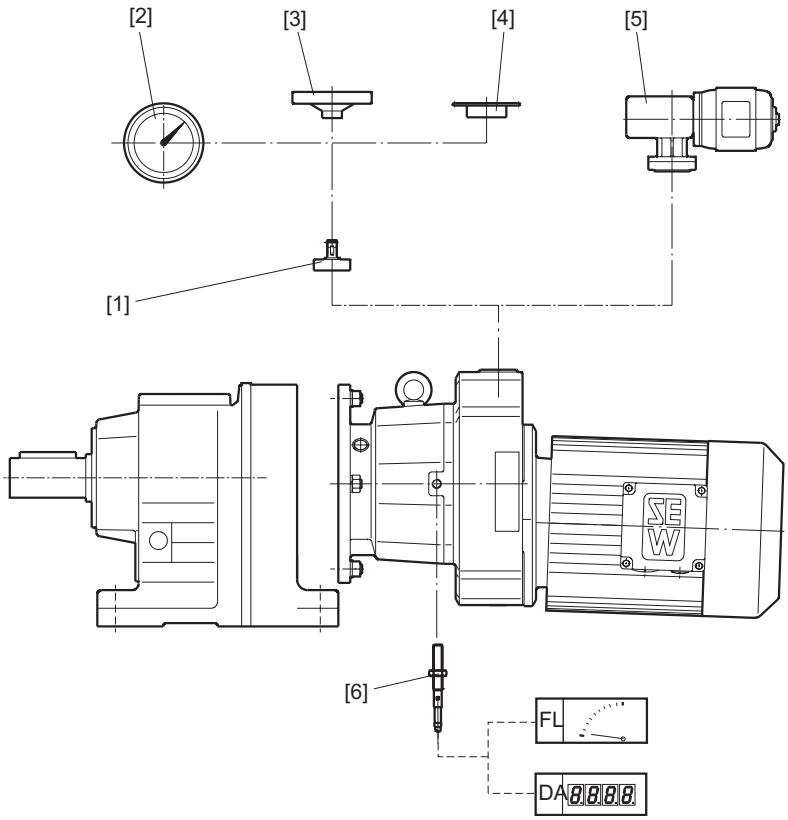
The VARIBLOC® drive can be especially accurately adapted to the available installation space by swiveling the variable speed gear unit to different 45° positions in relation to the reduction gear unit.

Ventilation of VARIBLOC®

The basic version of VARIBLOC® variable speed gear units are ventilated to provide better heat dissipation. The drawn-in cooling air emerges through openings on the side. On request (option pricing) VARIBLOC® VU/VZ01...41 variable speed gear units can also be supplied as non-ventilated, completely enclosed versions (designation VU/VZ..U, → Selection tables, Sec. "VUF/VZF..").

4.13 VARIMOT® options

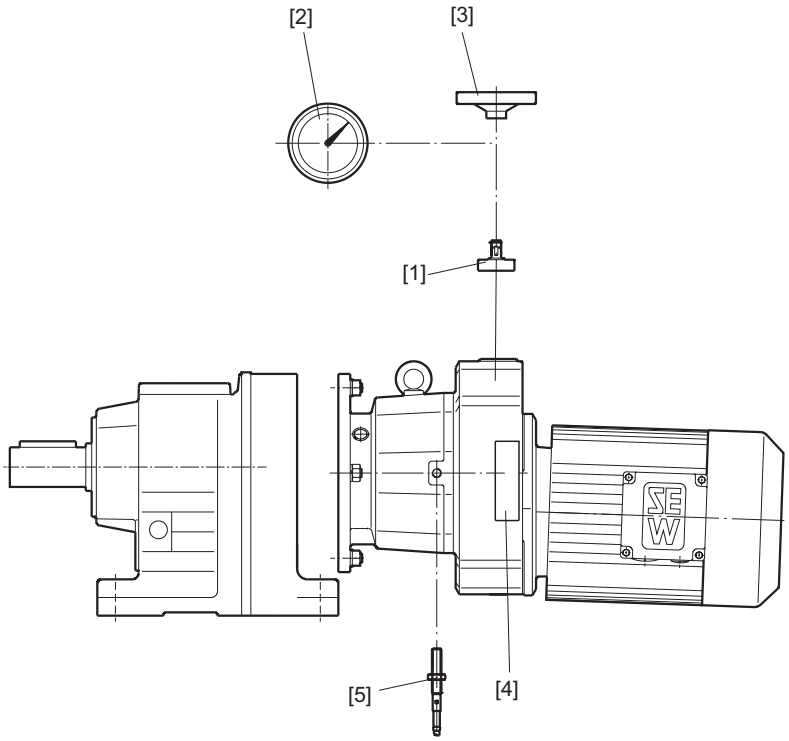
Standard VARIMOT®



52302AXX

[1] Control head with exposed shaft end NV
[2] Control head with handwheel and setting indicator HS
[3] Front adjustment with handwheel (standard version)
[4] Control head with chain sprocket K
[5] Electromechanical remote control EF and EFPA (with remote setting indicator)
[6] Tachogenerator IG with analog/digital remote speed indicator FL/DA

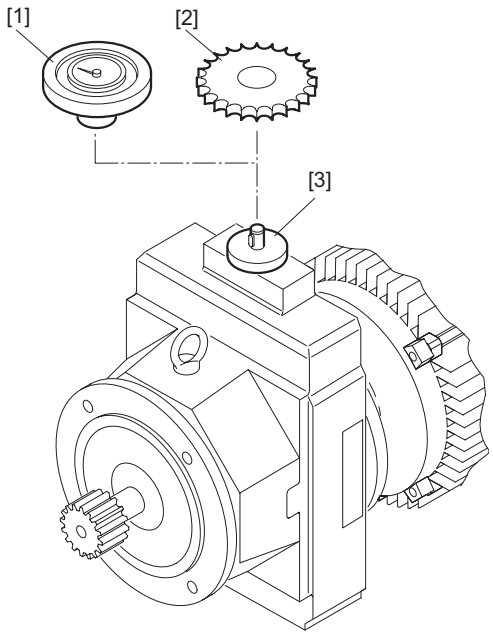
Explosion-proof VARIMOT®



52019AXX

[1] Control head with exposed shaft end NV
[2] Control head with handwheel and setting indicator HS
[3] Front adjustment with handwheel (standard version)
[4] Display scale
[5] Voltage encoder IGEX

Adjustment with chain sprocket K, with exposed shaft end NV or with handwheel with setting indicator HS



52304AXX

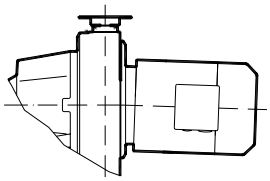
[1] Handwheel with setting indicator HS
[2] Chain sprocket K
[3] Exposed shaft end NV

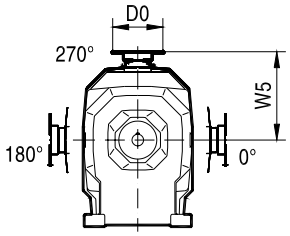
CCW direction of rotation on the adjustment spindle means an increase in speed. The handwheel with installed setting indicator HS only functions when the adjustment spindle is horizontal.

Dimensions K, NV, HS

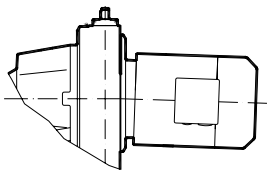
12 004 001

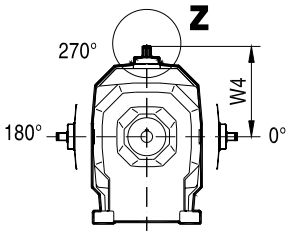
K

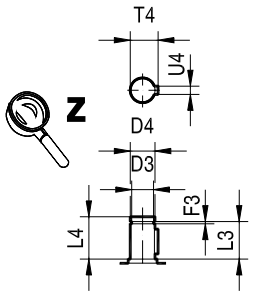




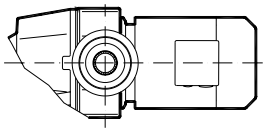
NV

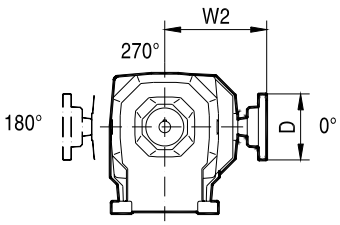






HS

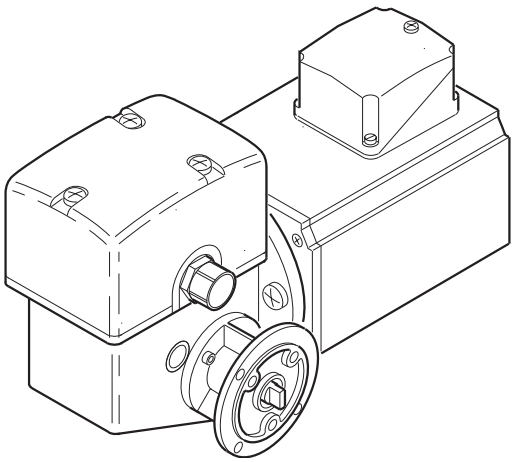




	D	D0	D3	D4	F3	L3	L4	T4	U4	W2	W4	W5	1)	2) DIN 8187	3)	4) [Ncm]
D16 K/NV/HS	100	81.19	11.5	12	1.1	18.2	20.5	13.5	4	184	149.5	146	20	12.7x3.3	25.5	150
D26 K/NV/HS	100	81.19	11.5	12	1.1	18.2	20.5	13.5	4	217	179.5	179	20	12.7x3.3	34	250
D36 K/NV/HS	160	121.5	17	18	1.3	21.4	24	20.5	6	265	219	215	30	12.7x3.3	29	450
D46 K/NV/HS	160	121.5	17	18	1.3	21.4	24	20.5	6	295	246	240	30	12.7x3.3	31	800

1) Number of teeth
2) Single row roller chain
3) Spindle rotation for entire setting range
4) Torque needed for adjustment

Electromechanical remote speed control EF/EFPA



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Electromechanical remote speed control consists of a servo motor which, in the EFPA type, is supplemented by an indicator unit. This indicator unit can be installed in a control cabinet. Speed changes resulting from load fluctuations are not shown on the display.
The electromechanical remote speed control EF/EFPA is designed for maximal 40 % cdf and a starting frequency of < 20 cycles per hour. The minimum and maximum speeds are determined by setting the two limit switches. The control unit can be swiveled to the positions shown (270° = normal position).
The setting indicator is located at either 0° or 180° when the control head is in its normal position. Specify the position of the control unit and, if required, the setting indicator and the voltage of the variable motor in your order.

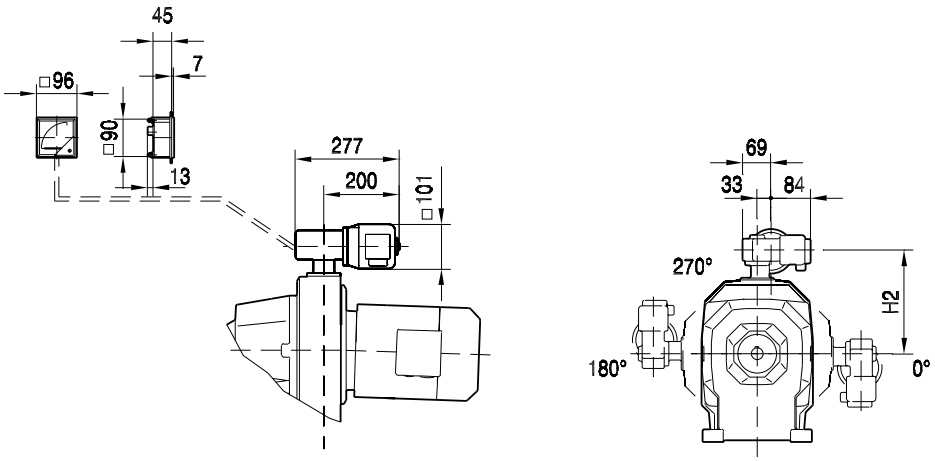
Electromechanical remote speed adjustments are not suitable for automatic control but only for occasional adjustment.

Technical data

VARIMOT® type	Adjustment device	Variable motor								
		Type	P_m [W]	U [V_{AC}]	f [Hz]	I [A_{AC}]	n_a [1/min]	Enclosure	Part number
D16...D46	**EF/EFPA**	DM90-60K + E13 with potentiometer	75	230/400	50	0.76/0.44	69	IP55	150 283 2

Dimensions EF/ EFPA

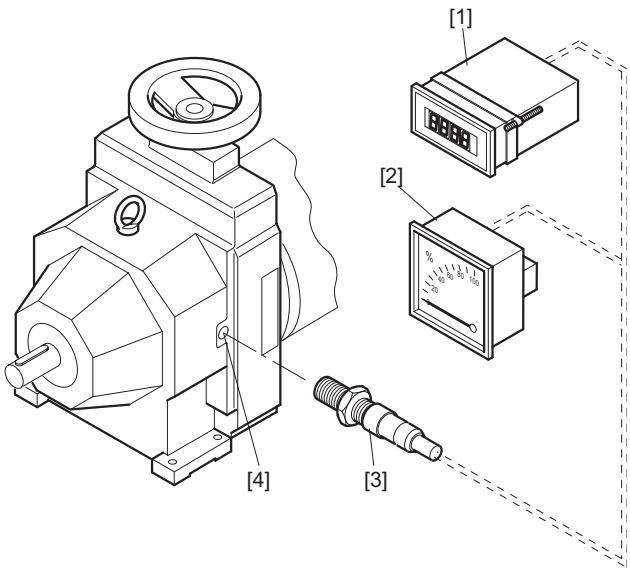
12 005 01 01



	H2	1)
D16 EF/EFPA	202	22
D26 EF/EFPA	232	29
D36 EF/EFPA	268	25
D46 EF/EFPA	293	27

1) Adjustment time in seconds

Encoder IG, remote speed indicators FL and DA



52305AXX

[1] Display DA
[2] Remote speed indicator FL
[3] Voltage encoder IG (3)

The analog remote speed indicator FL [2] and the digital indicator DA [1] operate in conjunction with a proximity-type tachogenerator IG [3] mounted on the left or right side of VARIMOT®.

The following types are possible:

1. IG:
   - The scope of delivery for this type only includes the tachogenerator IG [3] without indicator unit FL [2] or DA [1].
2. FL:
   - In this type, the tachogenerator IG [3] with analog remote speed indicator FL [2] is included in the scope of delivery.
3. DA:
   - In this type, the tachogenerator IG [3] with digital remote speed indicator DA [1] is included in the scope of delivery.
4. IGV:
   - In this type, the housing of the variable speed gear unit has a tapped hole M16x1 [4] for accommodating a tachogenerator.

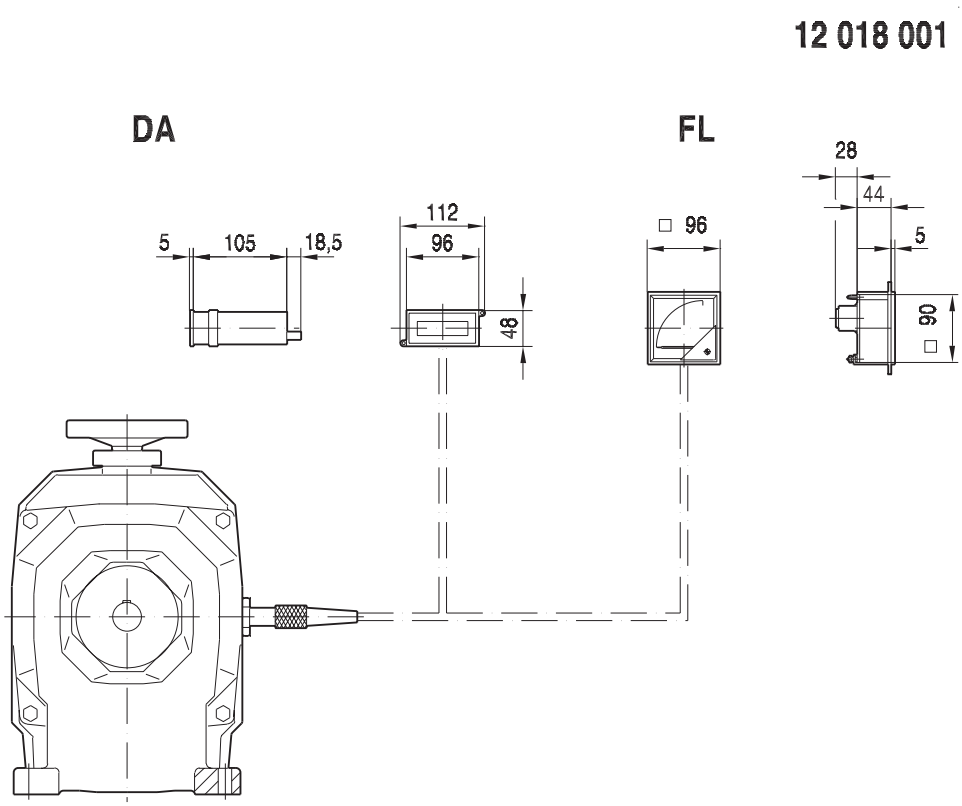
Remote speed indicator FL

The analog remote speed indicator FL with encoder IG and a suitable switchboard measuring instrument size 96 with display scale 0 – 100 % can also be supplied with special scale notation. Note that the maximum cable length is 100 m and the maximum cable resistance is 3 ohms.

Digital remote speed indicator DA

The digital indicator unit DA with 4-digit display is used for connecting to the encoder IG on VARIMOT®. The unit is suitable for use as a time-based counter for representing all measured quantities which have a measurement signal in the form of a frequency as pulses or as an AC voltage.

Dimensions DA, FL



5 Mounting Positions

5.1 General information on mounting positions

Mounting position designation: SEW-EURODRIVE differentiates between six mounting positions M1...M6 for variable speed gearmotors. The following figure shows the position of the variable speed gearmotor in mounting positions M1...M6.

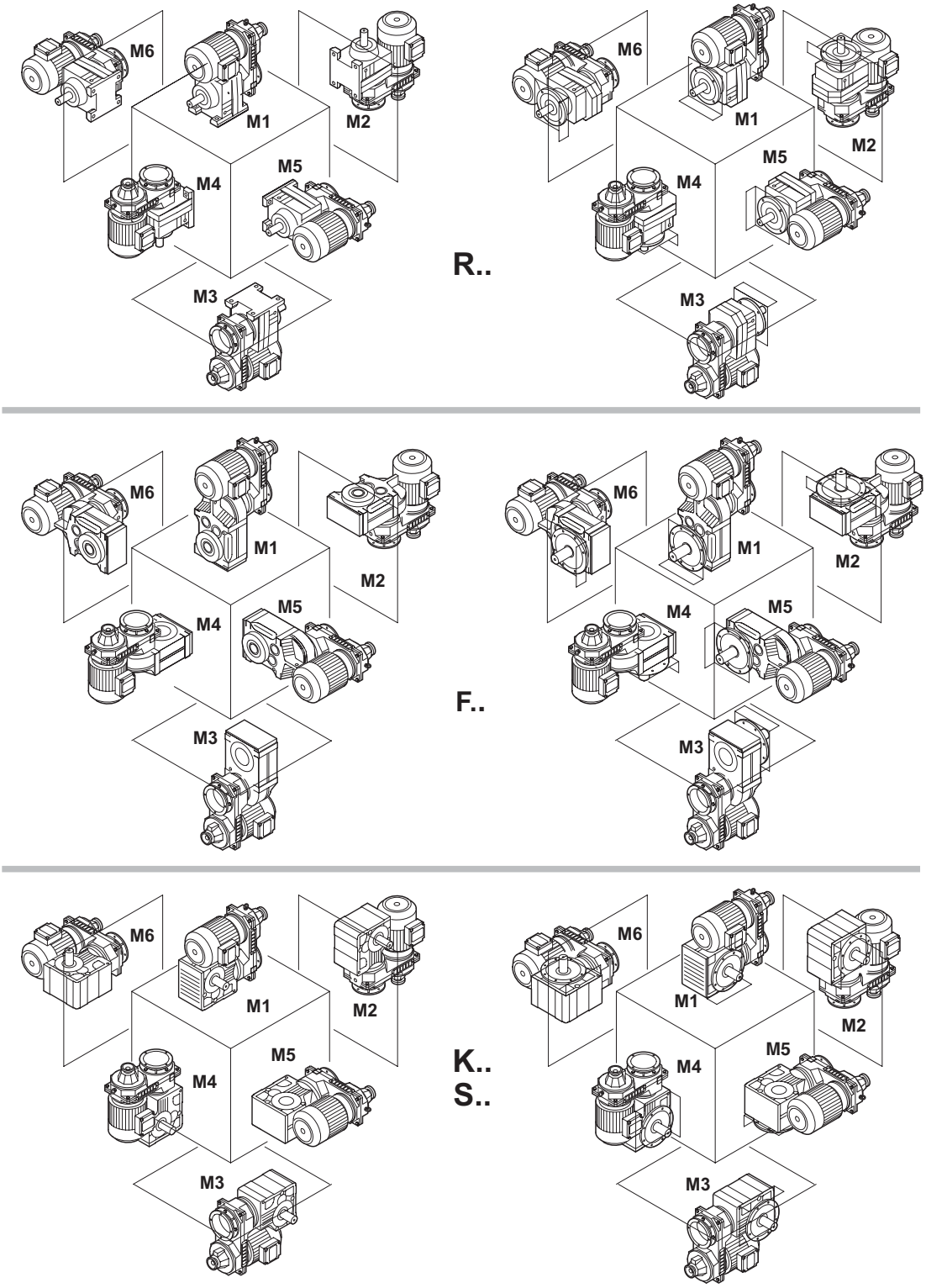


Figure 5: Mounting positions M1...M6

5.2 Important order information

The following order information is required in addition to the mounting position to exactly determine the design of the drive:

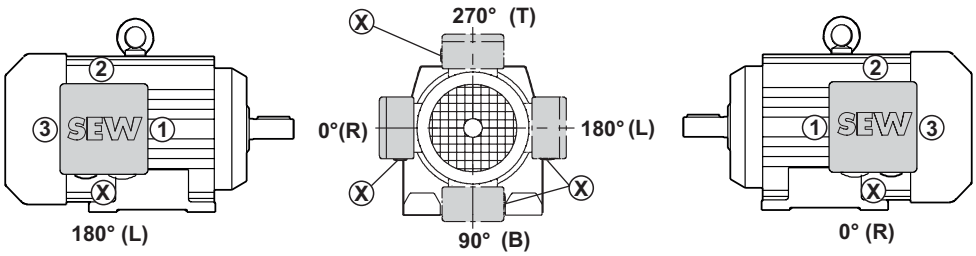
- Position of the handwheel or adjusting device (0°, 90°, 180° or 270°) in VARIBLOC® and VARIMOT® variable speed gear units can be selected as required
- Position of the setting position indicator in VARIMOT® variable speed gear units: 0°, 180° or 0° + 180°

Position of the VARIBLOC® variable speed gear unit VU/VZ

Only those combinations listed in the section "Combination overviews VARIBLOC® and Gear Units" (gear unit – variable speed gear unit – motor) are available. If a VARIBLOC® is to be delivered in one of the inclined mounting positions X, Y or Z opposite the gear unit as defined in that section, the desired inclined mounting position designation has to be added to the mounting position designation (e.g. M1X).

Position of motor terminal box and cable entry

Possible positions of the terminal box are 0°, 90°, 180° or 270° as viewed onto the fan guard = B-end.
The position of the cable entry can be selected as well. Available positions are "X" (= standard position), "1", "2" or "3."



50286AXX

Figure 6: Position of terminal box and cable entry

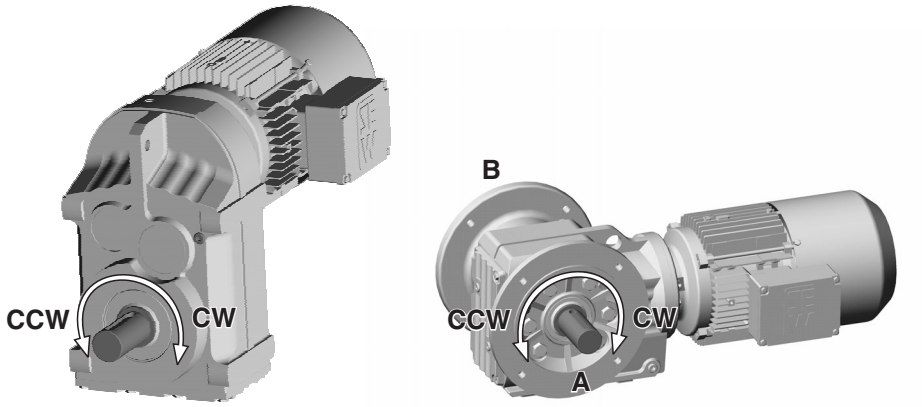
Unless indicated otherwise, you will receive the terminal box type 0° with "X" cable entry. We recommend selecting cable entry "2" for mounting position M3.

Important: For **DR63** motors, **only** cable entries Ⓧ and **"2"** are possible.
Exception: This restriction does not apply with the IS plug connection.

Direction of rotation of the drive with a backstop

If the drive has a backstop RS, it will be necessary to indicate the direction of rotation for the drive. The following definition applies:

Looking onto the output shaft:	Clockwise (CW) = Rotating clockwise Counterclockwise (CCW) = Rotating counterclockwise



02584BXX

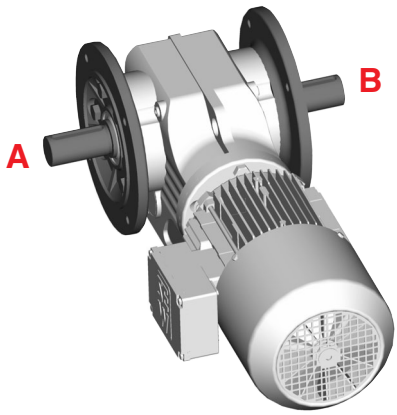
Figure 7: Direction of rotation of output

In right-angle gear units, it is also necessary to indicate if the direction of rotation is given looking onto the A or B end.

Position of the output shaft and the output flange

In right-angle gear units, it is also necessary to indicate the position of the output shaft and the output flange:

- A or B or AB



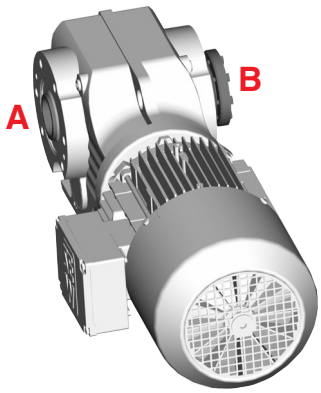
02585BXX

Figure 8: Position of the output shaft and the output flange

Position of the output end in right-angle gear units

In shaft mounted right-angle gear units with a shrink disc, it is also necessary to indicate whether the A or B end is the output end. In figure 13, the A end is the output end. The shrink disc is located opposite the output end.

In shaft mounted right-angle gear units, the output end is equivalent to the shaft position of right-angle gear units with solid shaft.



03204AXX

Figure 9: Position of the output end

You will find the permitted mounting surfaces (= hatched area) in the mounting position sheets (page 107 and following pages).

Example: Only the mounting surface at the bottom is possible with helical-bevel gear units K167/K187 in mounting positions M5 and M6.

Sample orders

Type (examples)	Mounting position	Shaft position	Flange position	Position of terminal box	Position of cable entry	Direction of rotation of output
K47DT71D4/RS	M2	A	-	0°	"X"	CW
SF77DV100L4	M6	AB	AB	90°	"3"	-
KA97DV132M4	M4	B	-	270°	"2"	-
KH107DV160L4	M1	A	-	180°	"3"	-
KAF67A	M3	A	B	-	-	-

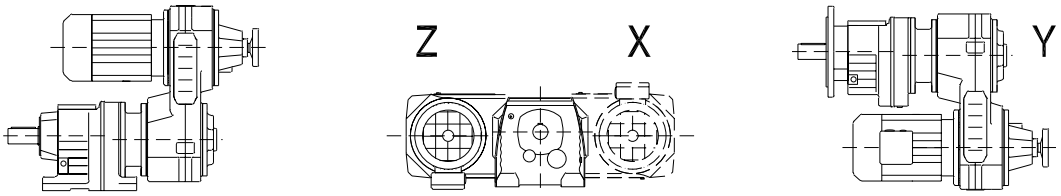
Change in mounting position

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 lubricant fill quantity to match the new mounting position
- Adjust position of breather valve
- For helical-bevel gearmotors: Contact the SEW-EURODRIVE customer service prior to changing to mounting position M5 or M6 and when changing from M5 to M6 or vice versa.
  EURODRIVE einschalten.
- For helical-worm gearmotors: Contact the SEW-EURODRIVE customer service when changing to mounting position M2.

5.3 Overview of standard VARIBLOC® and gear unit combinations

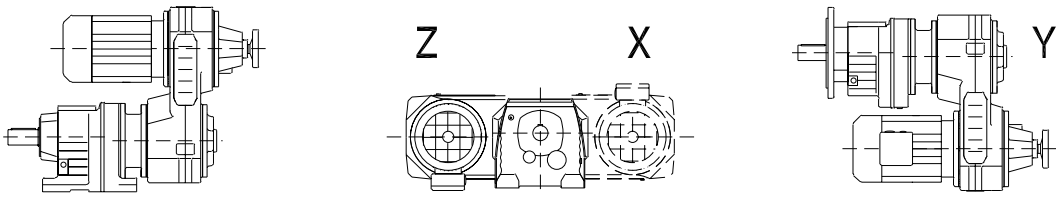
Standard VARIBLOC® VU.. with helical gear unit



Type	VU01	VU11	VU21	VU31	VU41	VU51	VU6	VU01	VU11	VU21	VU31	VU41	VU51	VU6	VU01	VU11	VU21	VU31	VU41	VU51	VU6
R27	1							1													
RF27	1							1							1						
R37	1	1						1	3												
RF37	1	1						1	1						1	1					
R47	1	1	1					1	1	1	1										
RF47	1	1	1					1	1	1					1	1	1				
RX57	1	1	1					1	1	1											
RXF57	1	1	1					1	1	1						1					
R57	1	1	1	1				1	1	1	1										
RF57	1	1	1	4				1	1	1	4					1	1	4			
RX67	1	1	1					1	1	1											
RXF67	1	1	1						1	1						3	1				
R67	1	1	1	1				2	1	1	1										
RF67	1	1	1	1				2	1	1	1				2	1	1	1			
RX77		1	1	1					1	1	1										
RXF77		1	1	1					1	1	1					3	1				
R77		1	1	1	1				1	1	1	1									
RF77		1	1	1	1				1	1	1	1				1	1	1	1		
RX87			1	1	1					1	1	1									
RXF87			1	1	1						1	1						1	1		
R87			1	1	1	1				1	1	1	1								
RF87			1	1	1	1				1	1	1	1					1	1	1	
RX97				1	1	1					1	1	1								
RXF97				1	1	1					1	1	1						1	1	
R97				1	1	1					1	1	1								
RF97				1	1	1					1	1	1						1	1	
RX107					1	1						1	1								
RXF107					1	1						1	1							1	
R107					1	1	1					1	1	1							
RF107					1	1	1					1	1	1					1	1	1
R137						1	1						1	1							
RF137						1	1						1	1							1
R147						1	1						1	1							
RF147						1	1						1	1							1
R167							1							1							
RF167							1							1							1

1) Combination possible without restriction
2) Combination possible with DR63 only
3) Combination possible with DT80 only
4) Combination possible with DV112 only

Standard VARIBLOC® VU.. with two helical gear units



Type	VU01	VU11	VU21	VU31	VU41	VU51	VU6	VU01	VU11	VU21	VU31	VU41	VU51	VU6	VU01	VU11	VU21	VU31	VU41	VU51	VU6
R47R37	1	1						1	1												
RF47R37	1	1						1	1						1	1					
R57R37	1	1						1	1												
RF57R37	1	1						1	1						1	1					
R67R37	1	1						1	1												
RF67R37	1	1						1	1						1	1					
R77R37	1	1						1	1												
RF77R37	1	1						1	1						1	1					
R87R57	1	1	1	1				1	1	1	1										
RF87R57	1	1	1	1				1	1	1	1					1	1	1			
R97R57	1	1	1	1				1	1	1	1										
RF97R57	1	1	1	1				1	1	1	1					1	1				
R107R77		1	1	4	1				1	1	4	1									
RF107R77		1	1	4	1				1	1	4	1				1	1	4	1		
R137R77		1	1	4	1				1	1	4	1									
R137R77		1	1	4	1				1	1	4	1				1	1	4	5		
R147R77		1	1	4	5				1	1	4	5									
RF147R77		1	1	4	5				1	1	4	5				1	1	4	5		
R147R87			1	1	1	1					1	5	1								
RF147R87			1	1	1	1					1	5	1					1	5		
R167R97				1	1	1					1	1	6								
RF167R97				1	1	1					1	1	6						1	6	
R167R107					1	1	1					1	1	1							
RF167R107					1	1	1					1	1	1					1	1	1

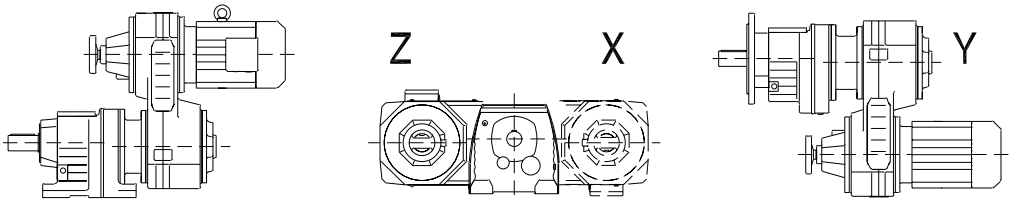
1) Combination possible without restriction

4) Combination possible with DV112 only

5) Combination possible with DV132M only

6) Combination possible with DV160L only

Standard VARIBLOC® VZ.. with helical gear unit

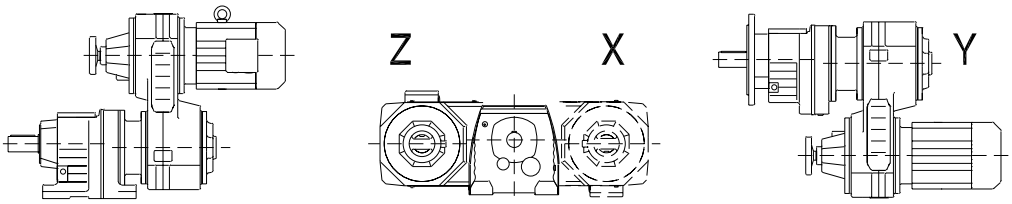


Type	VZ01	VZ11	VZ21	VZ31	VZ41	VZ01	VZ11	VZ21	VZ31	VZ41	VZ01	VZ11	VZ21	VZ31	VZ41
R27	1					1									
RF27	1					1					1				
R37	1	1				1	1								
RF37	1	1				1	1				1	1			
R47	1	1	1			1	1	1	1						
RF47	1	1	1			1	1	1	1		2	1	1	1	
RX57	1	1	1			1	1	1							
RXF57	1	1	1			1	1	1			2	1	1		
R57	1	1	1	1		1	1	1	1						
RF57	1	1	1	1		1	1	1	1		2	1	1	1	
RX67	1	1	1			1	1	1							
RXF67	1	1	1			1	1	1			2	1	1		
R67	1	1	1	1		1	1	1	1						
RF67	1	1	1	1		1	1	1	1		2	1	1	1	
RX77		1	1	1			1	1	1						
RXF77		1	1	1			1	1	1			1	1	1	
R77		1	1	1	1		1	1	1	1					
RF77		1	1	1	1		1	1	1	1		1	1	1	1
RX87			1	1	1			1	1	1					
RXF87			1	1	1			1	1	1				1	1
R87			1	1	1			1	1	1					
RF87			1	1	1			1	1	1			2	1	1
RX97				1	1				1	1					
RXF97				1	1				1	1				2	1
R97				1	1				1	1					
RF97				1	1				1	1				2	1
RX107					1					1					
RXF107					1					1					2
R107					1					1					
RF107					1					1					2

1) Combination possible without restriction

2) Combination only possible in conjunction with control head (NV, H, HS, EF)

Standard VARIBLOC® VZ.. with two helical gear units



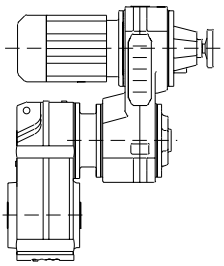
Type	VZ01	VZ11	VZ21	VZ31	VZ41	VZ01	VZ11	VZ21	VZ31	VZ41	VZ01	VZ11	VZ21	VZ31	VZ41
R47R37	1	1				1	1								
RF47R37	1	1				1	1				1	1			
R57R37	1	1				1	1								
RF57R37	1	1				1	1				1	1			
R67R37	1	1				1	1								
RF67R37	1	1				1	1				1	1			
R77R37	1	1				1	1								
RF77R37	1	1				1	1				1	1			
R87R57	1	1	1	1		1	1	1	1						
RF87R57	1	1	1	1		1	1	1	1		1	1	1	1	
R97R57	1	1	1	1		1	1	1	1						
RF97R57	1	1	1	1		1	1	1	1		1	1	1	1	
R107R77		1	1	1	1		1	1	1	1					
RF107R77		1	1	1	1		1	1	1	1		1	1	1	1
R137R77		1	1	1	1		1	1	1	1					
RF137R77		1	1	1	1		1	1	1	1		1	1	1	1
R147R77		1	1	1	1		1	1	1	1					
RF147R77		1	1	1	1		1	1	1	1		1	1	1	1
R147R87			1	1	1			1	1	1					
RF147R87			1	1	1			1	1	1			2	1	1
R167R97				1	1				1	1					
RF167R97				1	1				1	1				2	1
R167R107					1					1					
RF167R107					1					1					2

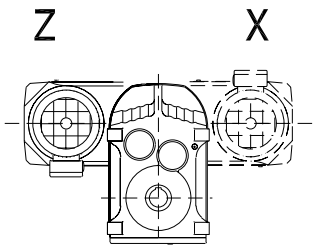
1) Combination possible

2) Combination only possible in conjunction with control head (NV, H, HS, EF)

3) Gear unit must be mounted on a base

Standard VARIBLOC® VU.. with parallel shaft helical gear unit



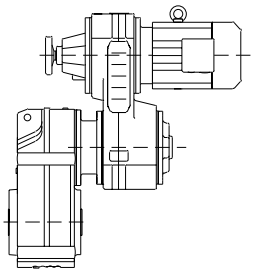


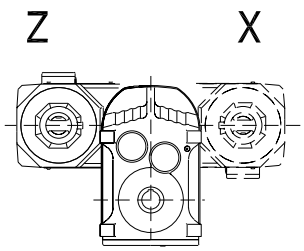
Type	VU01	VU11	VU21	VU31	VU41	VU51	VU6	VU01	VU11	VU21	VU31	VU41	VU51	VU6
F37	1	1						1	1					
FF37	1	1						1	1					
FA37	1	1						1	1					
F47	1	1						1	1					
FF47	1	1						1	1					
FA47	1	1						1	1					
F57	1	1	1	1				1	1	1	1			
FF57	1	1	1	1				1	1	1	1			
FA57	1	1	1	1				1	1	1	1			
F67	1	1	1	1				1	1	1	1			
FF67	1	1	1	1				1	1	1	1			
FA67	1	1	1	1				1	1	1	1			
F77		1	1	1	1				2	1	1	1		
FF77		1	1	1	1				2	1	1	1		
FA77		1	1	1	1				2	1	1	1		
F87			1	1	1	1					1	1	1	
FF87			1	1	1	1					1	1	1	
FA87			1	1	1	1					1	1	1	
F97				1	1	1						1	1	
FF97				1	1	1						1	1	
FA97				1	1	1						1	1	
F107					1	1	1					1	1	1
FF107					1	1	1					1	1	1
FA107					1	1	1					1	1	1
F127						1	1						1	1
FF127						1	1						1	1
FA127						1	1						1	1
F157						1	1							1
FF157						1	1							1
FA157						1	1							1

1) Combination possible without restriction

2) Combination possible with DT80 only

Standard VARIBLOC® VZ.. with parallel shaft helical gear unit

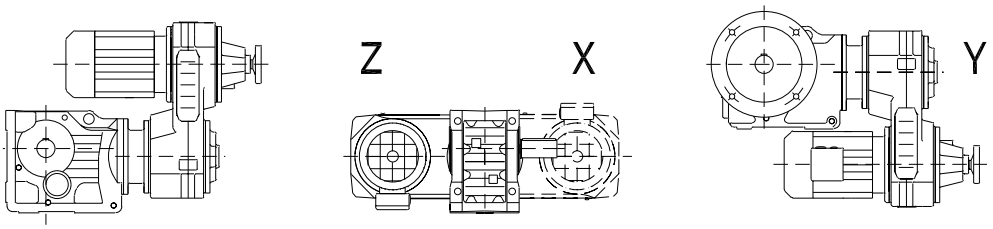




Type	VZ01	VZ11	VZ21	VZ31	VZ41	VZ01	VZ11	VZ21	VZ31	VZ41
F37	1	1				1	1			
FF37	1	1				1	1			
FA37	1	1				1	1			
F47	1	1				1	1			
FF47	1	1				1	1			
FA47	1	1				1	1			
F57	1	1	1	1		1	1	1	1	
FF57	1	1	1	1		1	1	1	1	
FA57	1	1	1	1		1	1	1	1	
F67	1	1	1	1		1	1	1	1	
FF67	1	1	1	1		1	1	1	1	
FA67	1	1	1	1		1	1	1	1	
F77		1	1	1	1		1	1	1	1
FF77		1	1	1	1		1	1	1	1
FA77		1	1	1	1		1	1	1	1
F87			1	1	1			1	1	1
FF87			1	1	1			1	1	1
FA87			1	1	1			1	1	1
F97				1	1				1	1
FF97				1	1				1	1
FA97				1	1				1	1
F107					1					1
FF107					1					1
FA107					1					1

1) Combination possible without restriction

Standard VARIBLOC® VU.. with helical-bevel gear unit



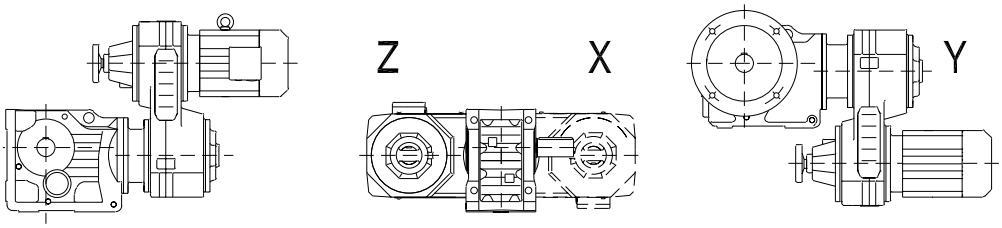
Type	VU01	VU11	VU21	VU31	VU41	VU51	VU6	VU01	VU11	VU21	VU31	VU41	VU51	VU6	VU01	VU11	VU21	VU31	VU41	VU51	VU6
K37	1	1						1	1												
KF37	1	1						1	1						1	1					
KA37	1	1						1	1						3	3					
K47	1	1	1					1	1	1											
KF47	1	1	1					1	1	1					1	1	1				
KA47	1	1	1					1	1	1					3	3	3				
K57	1	1	1	1				1	1	1	1										
KF57	1	1	1	1				1	1	1	1					1	1	1			
KA57	1	1	1	1				1	1	1	1					3	3	3			
K67	1	1	1	1				1	1	1	1										
KF67	1	1	1	1				1	1	1	1					1	1	1			
KA67	1	1	1	1				1	1	1	1					3	3	3			
K77		2	1	1	1				1	1	1	1									
KF77		2	1	1	1				1	1	1	1						1	1		
KA77		2	1	1	1				1	1	1	1						3	3		
K87				1	1	1				1	1	1	1								
KF87				1	1	1				1	1	1	1					1	1	1	
KA87				1	1	1				1	1	1	1					3	3	3	
K97				1	1	1					1	1	1								
KF97				1	1	1					1	1	1						1	1	
KA97				1	1	1					1	1	1						3	3	
K107					1	1	1					1	1	1							
KF107					1	1	1					1	1	1						1	1
KA107					1	1	1					1	1	1						3	3
K127						1	1						1	1							
KF127						1	1						1	1							1
KA127						1	1						1	1							3
K157							1							1							
KF157							1							1							1
KA157							1							1							1

1) Combination possible without restriction

2) Combination possible with DT80 only

3) Contact SEW-EURODRIVE if you want to install a torque arm

Standard VARIBLOC® VZ.. with helical-bevel gear unit



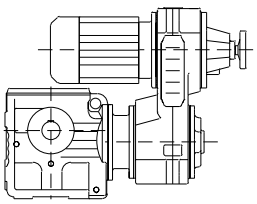
Type	VZ01	VZ11	VZ21	VZ31	VZ41	VZ01	VZ11	VZ21	VZ31	VZ41	VZ01	VZ11	VZ21	VZ31	VZ41
K37	1	1				1	1								
KF37	1	1				1	1				1	1			
KA37	1	1				1	1				3	3			
K47	1	1	1			1	1	1							
KF47	1	1	1			1	1	1			1	1	1		
KA47	1	1	1			1	1	1			3	3	3		
K57	1	1	1	1		1	1	1	1						
KF57	1	1	1	1		1	1	1	1		2	1	1	1	
KA57	1	1	1	1		1	1	1	1			3	3	3	
K67	1	1	1	1		1	1	1	1						
KF67	1	1	1	1		1	1	1	1		2	1	1	1	
KA67	1	1	1	1		1	1	1	1			3	3	3	
K77		1	1	1	1		1	1	1	1					
KF77		1	1	1	1		1	1	1	1		1	1	1	1
KA77		1	1	1	1		1	1	1	1		2/3	3	3	3
K87			1	1	1			1	1	1					
KF87			1	1	1			1	1	1			2	1	1
KA87			1	1	1			1	1	1			2/3	3	3
K97				1	1				1	1					
KF97				1	1				1	1				2	1
KA97				1	1				1	1				2/3	3
K107					1					1					
KF107					1					1					2
KA107					1					1					3

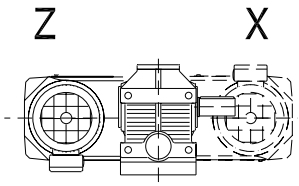
1) Combination possible without restriction

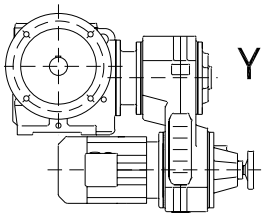
2) Combination only possible in conjunction with control head (NV, H, HS, EF)

3) Contact SEW-EURODRIVE if you want to install a torque arm

Standard VARIBLOC® VU.. with helical-worm gear unit





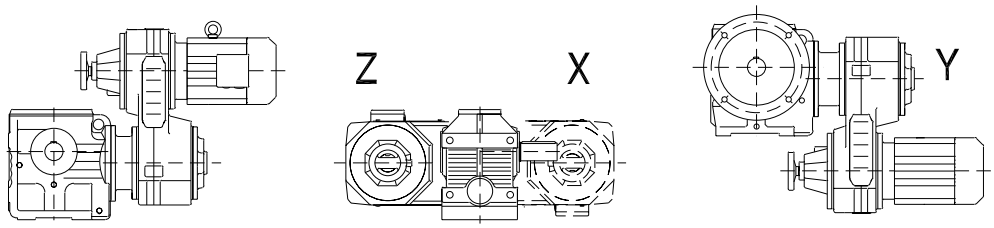


Type	VU01	VU11	VU21	VU31	VU41	VU51	VU01	VU11	VU21	VU31	VU41	VU51	VU01	VU11	VU21	VU31	VU41	VU51
S37	1						1											
SF37	1						1						1					
SA37	1						1						1					
S47	1	1					1	1										
SF47	1	1					1	1					1	1				
SA47	1	1					1	1					1	1				
S57	1	1					1	1										
SF57	1	1					1	1					1	1				
SA57	1	1					1	1					1	1				
S67		1	1	1			1	1	1	1								
SF67		1	1	1			1	1	1	1				1	1	1		
SA67		1	1	1			1	1	1	1				1	1	1		
S77		2		1	1			1	1	1	1							
SF77		2		1	1			1	1	1	1			2		1	1	
SA77		2		1	1			1	1	1	1			2		1	1	
S87				1	1	1			1	1	1	1						
SF87				1	1	1				1	1	1				1	1	1
SA87				1	1	1				1	1	1				1	1	1
S97					1	1				1	1	1						
SF97					1	1				1	1	1						
SA97					1	1				1	1	1					1	1

1) Combination possible without restriction

2) Combination possible with DT80 only

Standard VARIBLOC® VZ.. with helical-worm gear unit



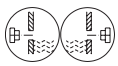
Type	VZ01	VZ11	VZ21	VZ31	VZ41	VZ01	VZ11	VZ21	VZ31	VZ41	VZ01	VZ11	VZ21	VZ31	VZ41
S37	1					1									
SF37	1					1					1				
SA37	1					1					1				
S47	1	1				1	1								
SF47	1	1				1	1				1	1			
SA47	1	1				1	1				1	1			
S57	1	1				1	1								
SF57	1	1				1	1				1	1			
SA57	1	1				1	1				1	1			
S67		1	1	1		1	1	1	1						
SF67		1	1	1		1	1	1	1			1	1	1	
SA67		1	1	1		1	1	1	1			1	1	1	
S77		1	1	1	1		1	1	1	1					
SF77		1	1	1	1		1	1	1	1		1	1	1	1
SA77		1	1	1	1		1	1	1	1		1	1	1	1
S87			1	1	1			1	1	1					
SF87			1	1	1			1	1	1				1	1
SA87			1	1	1			1	1	1				1	1
S97				1	1				1	1					
SF97				1	1				1	1					1
SA97				1	1				1	1					1

1) Combination possible without restriction

5.4 Key to mounting position sheets

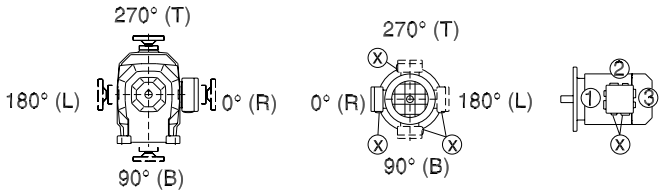
Symbols used

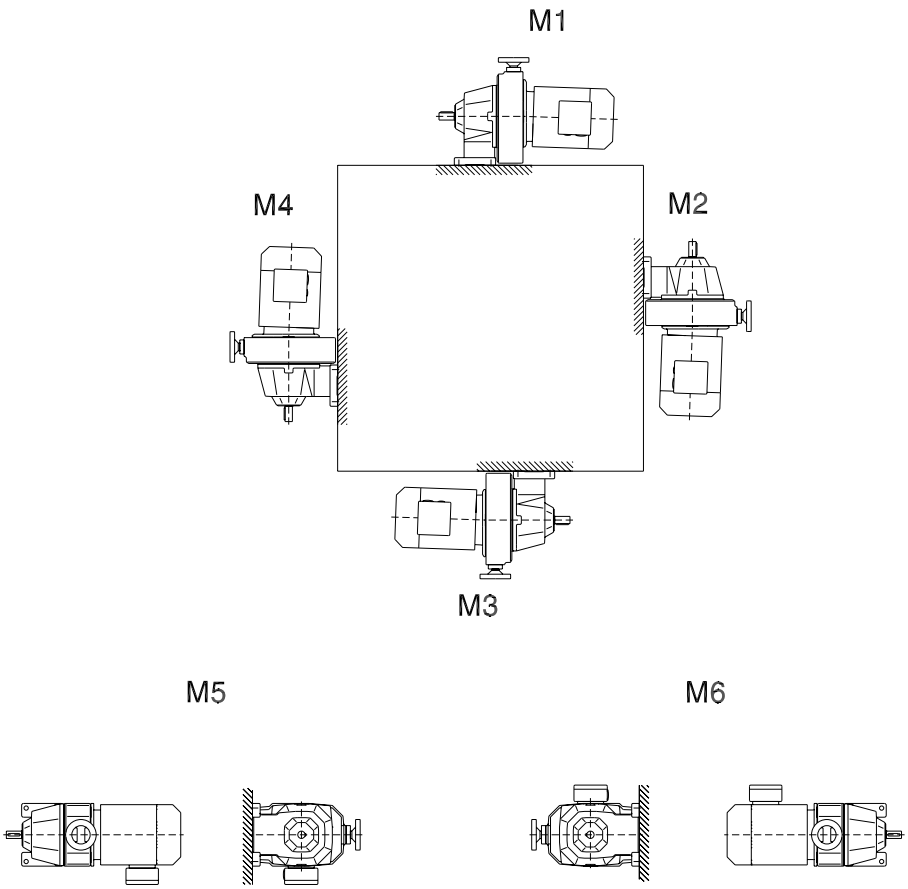
The following table shows the symbols used in the mounting position sheets and their meaning:

Symbol	Meaning
	Breather valve
	Oil level plug
	Oil drain plug
	Cable entry "standard position"

5.5 VARIMOT® D.. variable speed gear units

15 002 01 01





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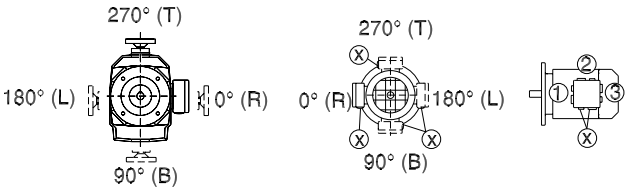
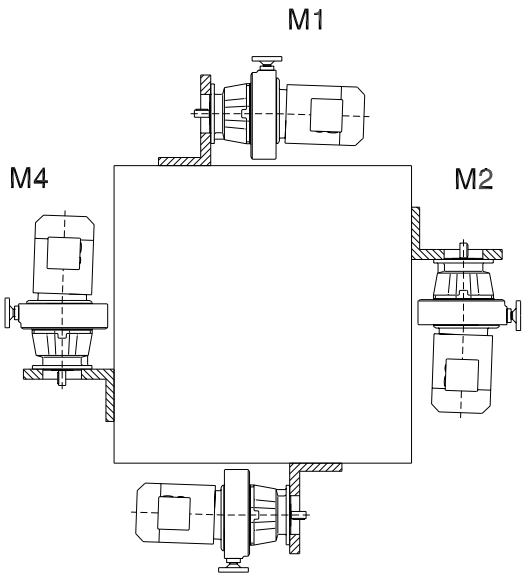
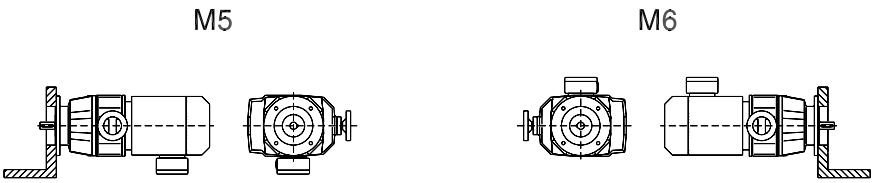
5.6 VARIMOT® DF... variable speed gear units

15 003 01 01







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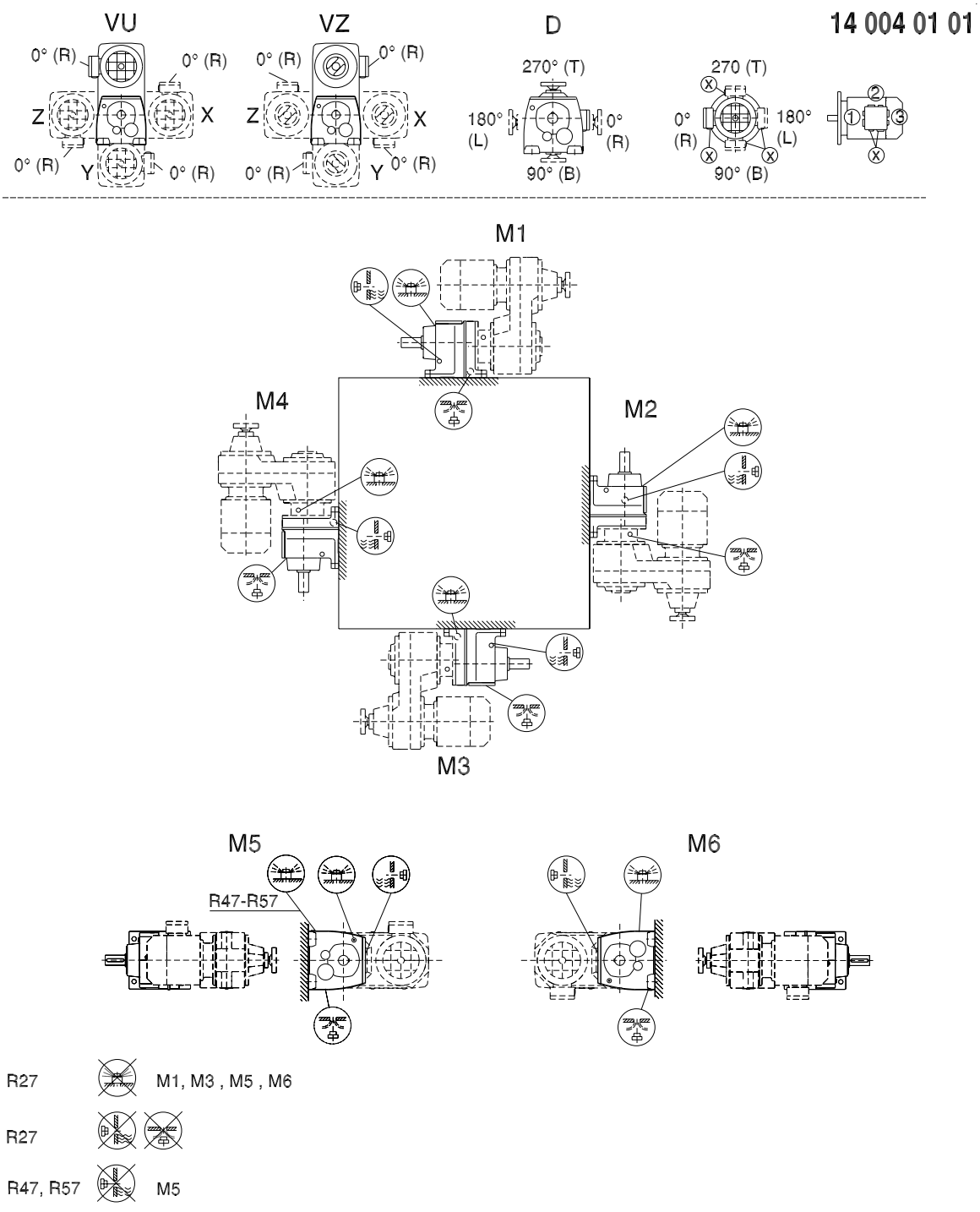
5.7 Variable speed gearmotors with helical gear unit

R27 - R167



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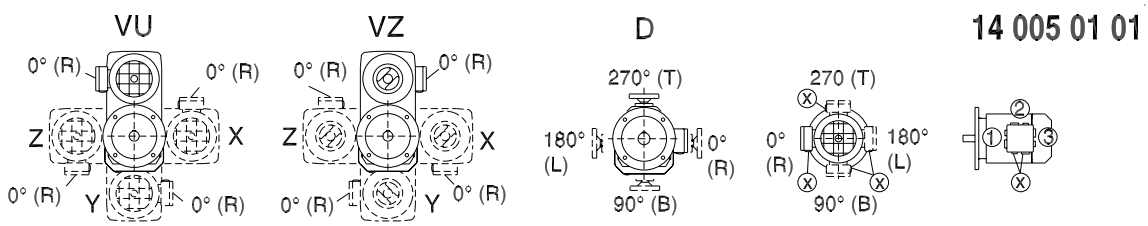
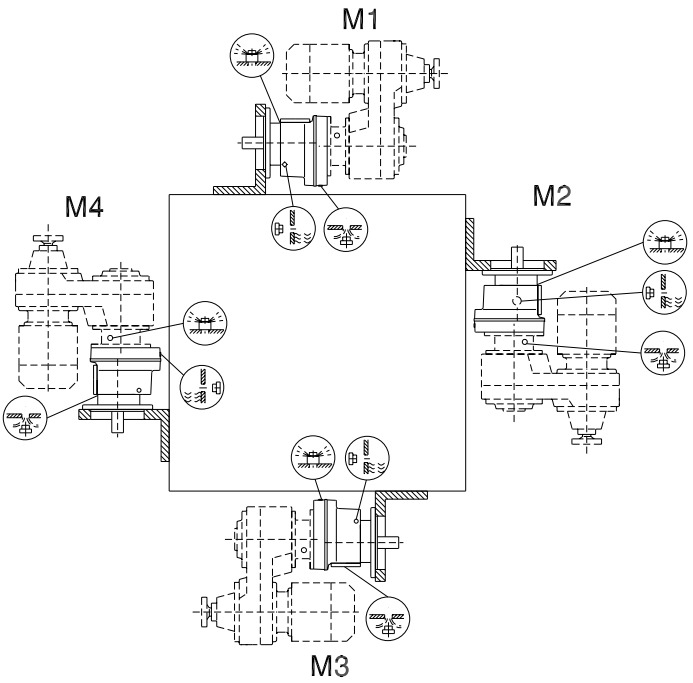
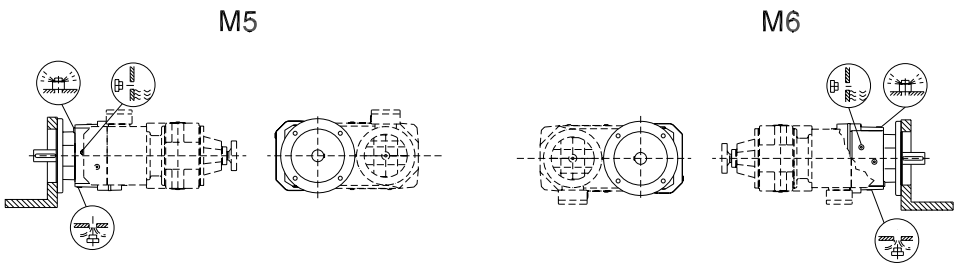
RF27 - RF167







RF27		M1, M3 , M5 , M6
RF27		
RF47, RF57		M5

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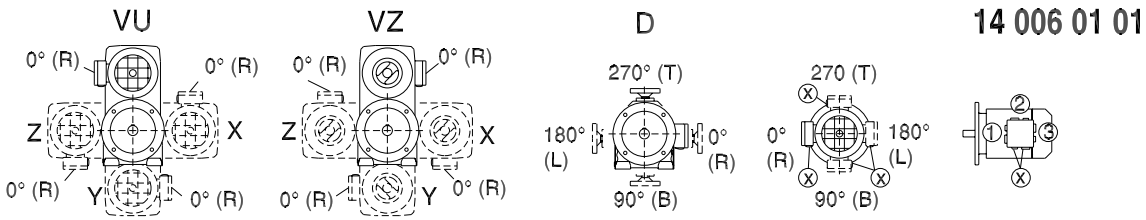
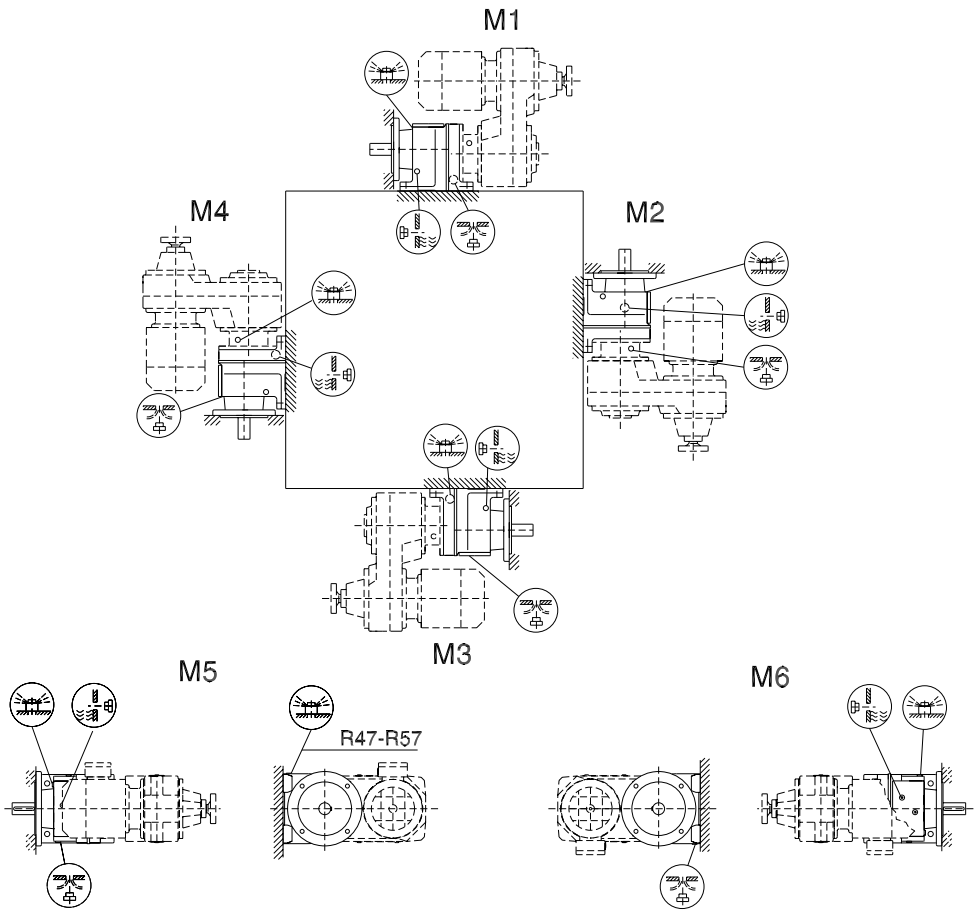
R27F - R87F

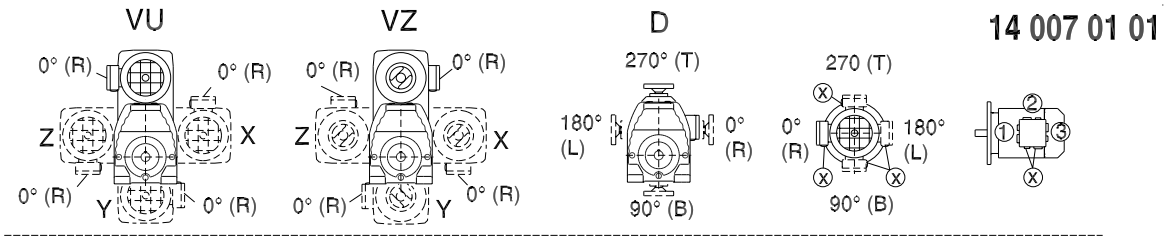


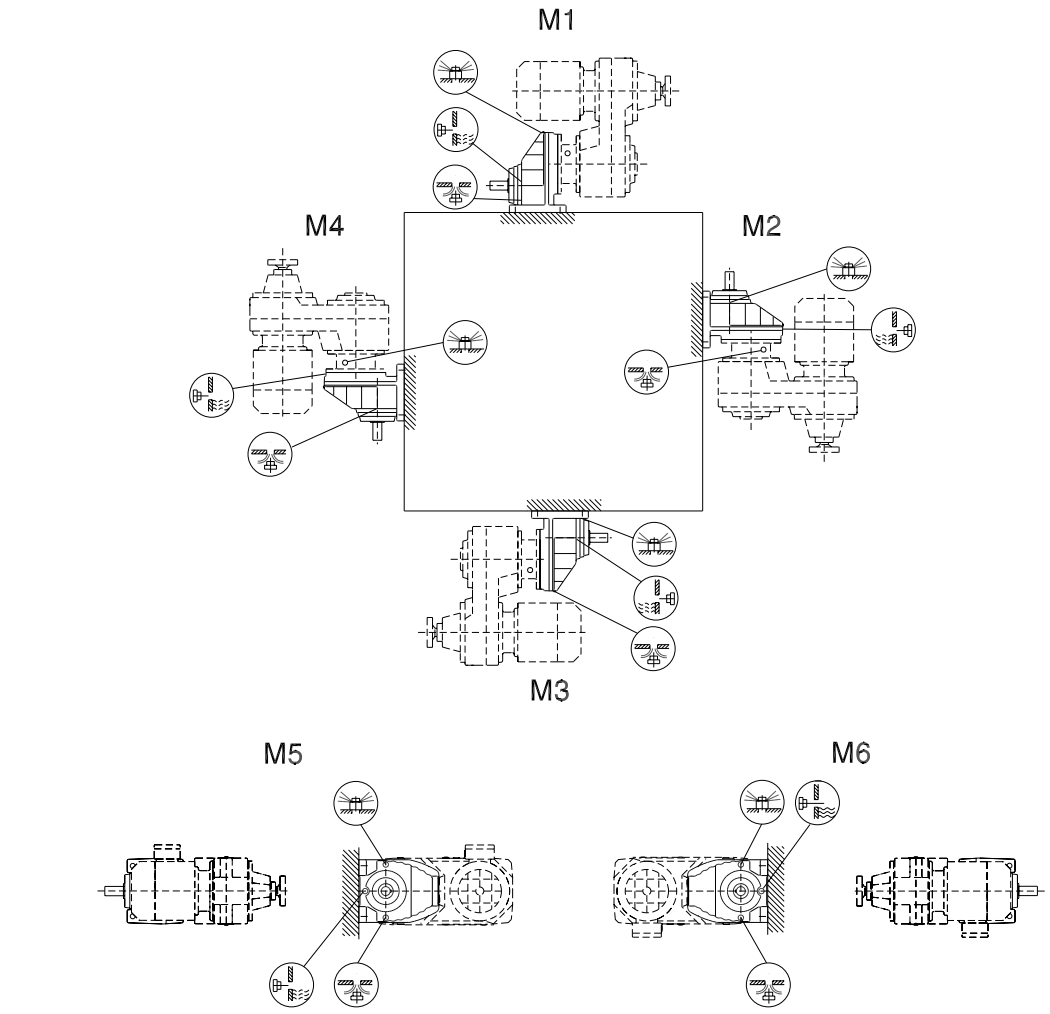


R27F		M1, M3 , M5 , M6
R27F		
R47F, R57F		M5

* → page 106

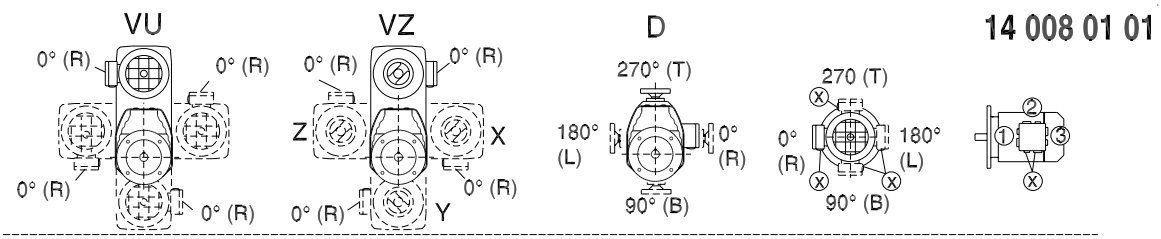
RX57-RX107

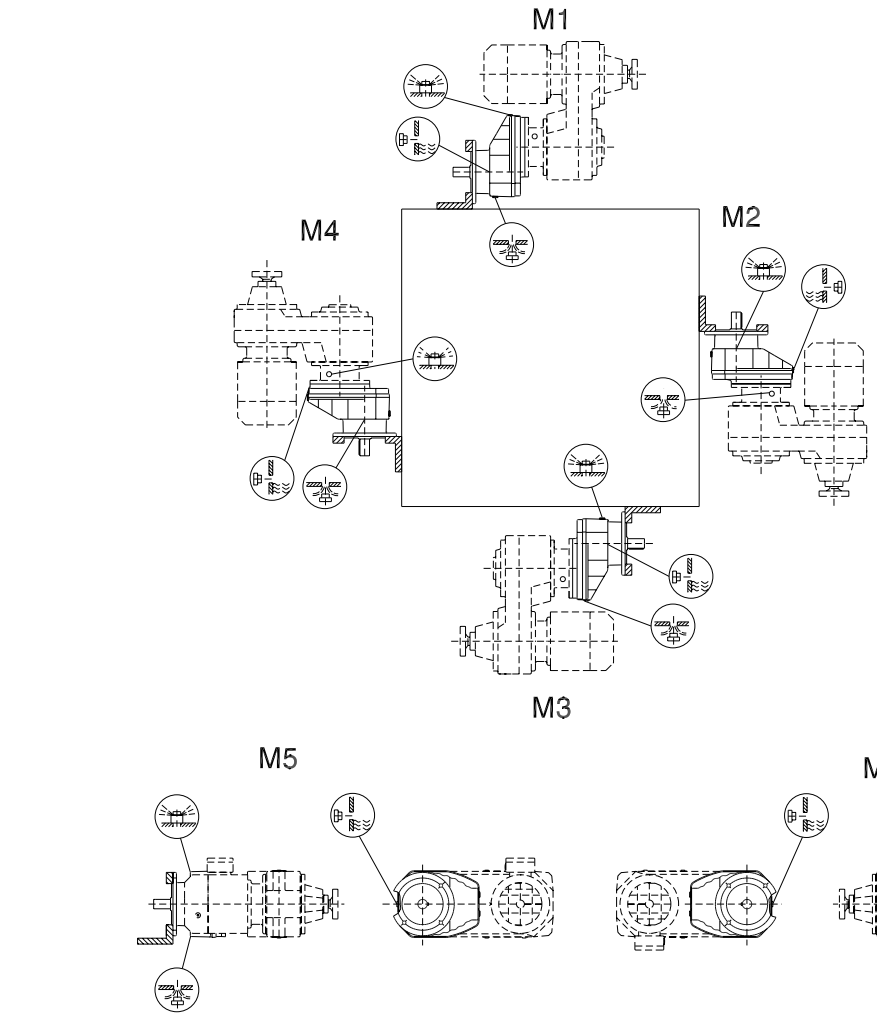




* → page 106

RXF57 - RXF107





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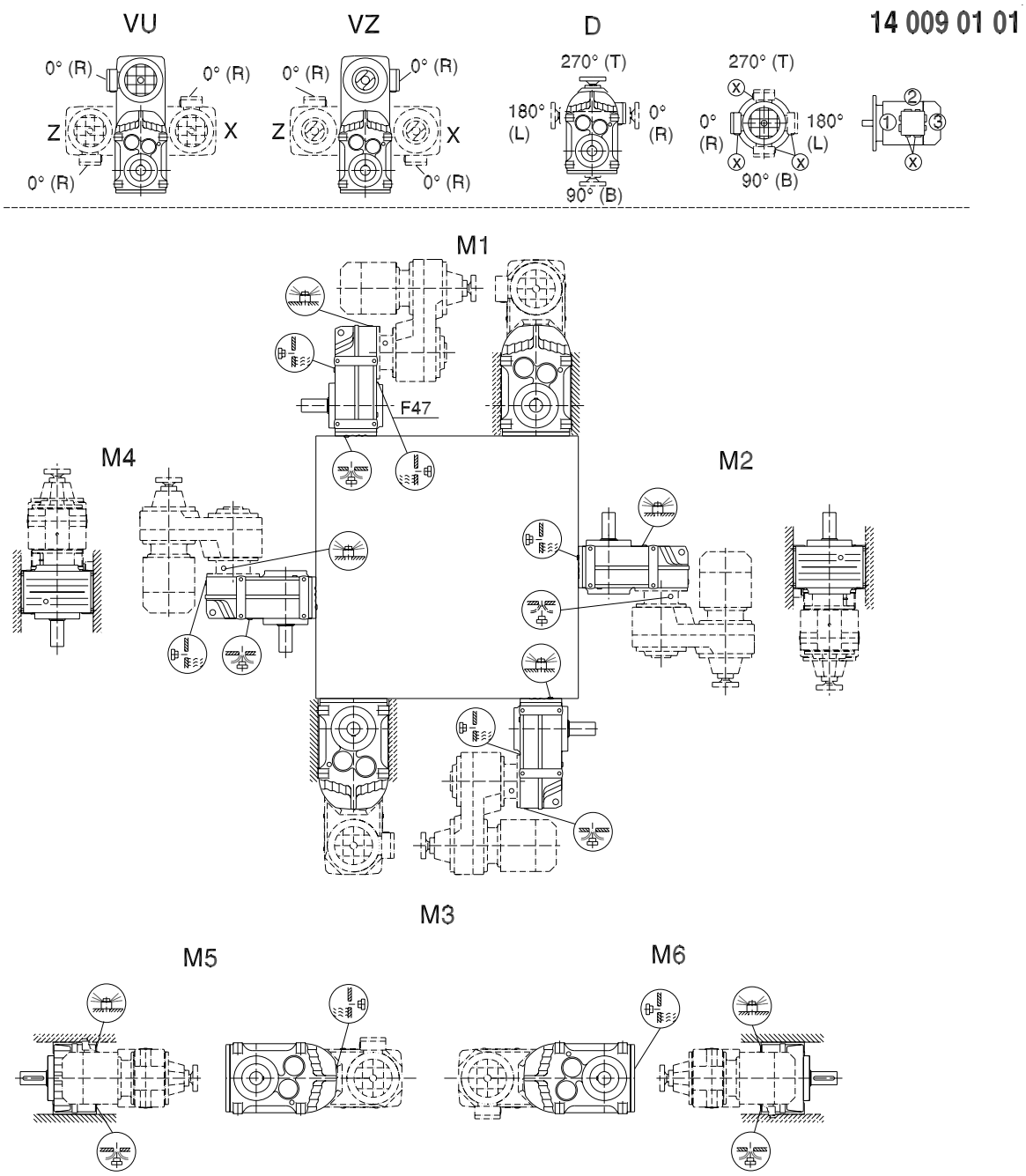
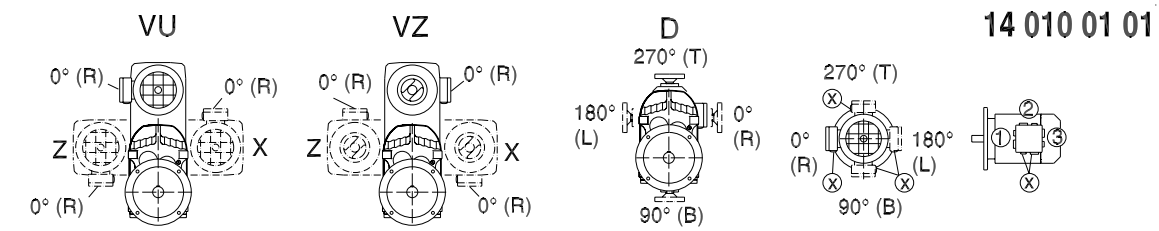
5.8 Variable speed gearmotors with parallel shaft helical gear unit

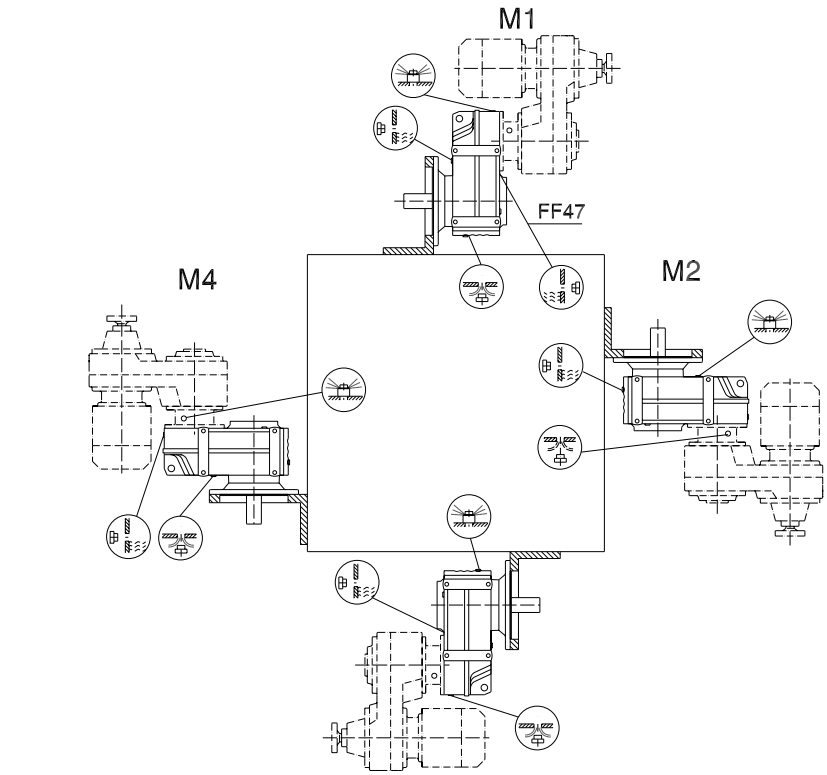
F/FA..B/FH27B - 157B, FV27B - 107B

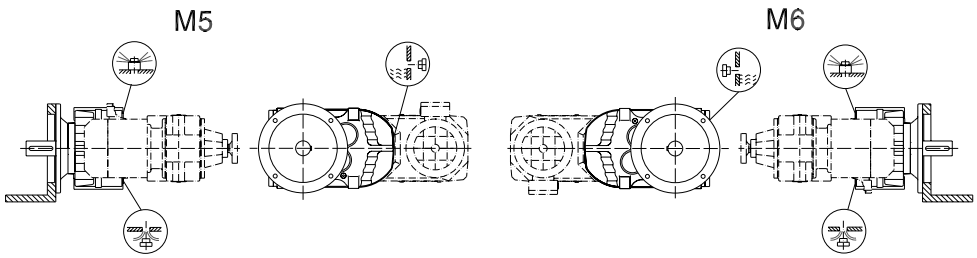


* → page 106

FF/FAF/FHF/FAZ/FHZ27 - 157, FVF/FVZ37 -107







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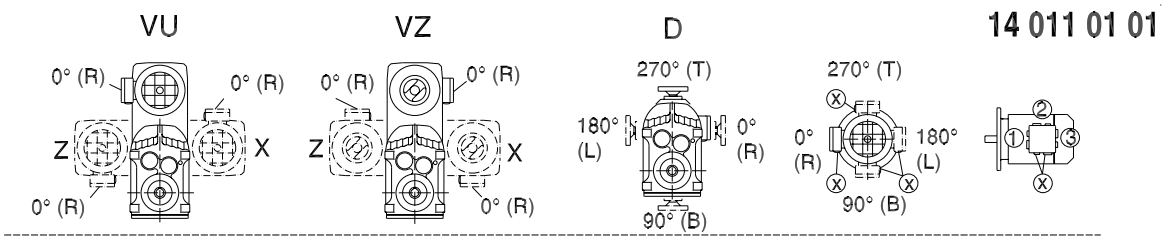
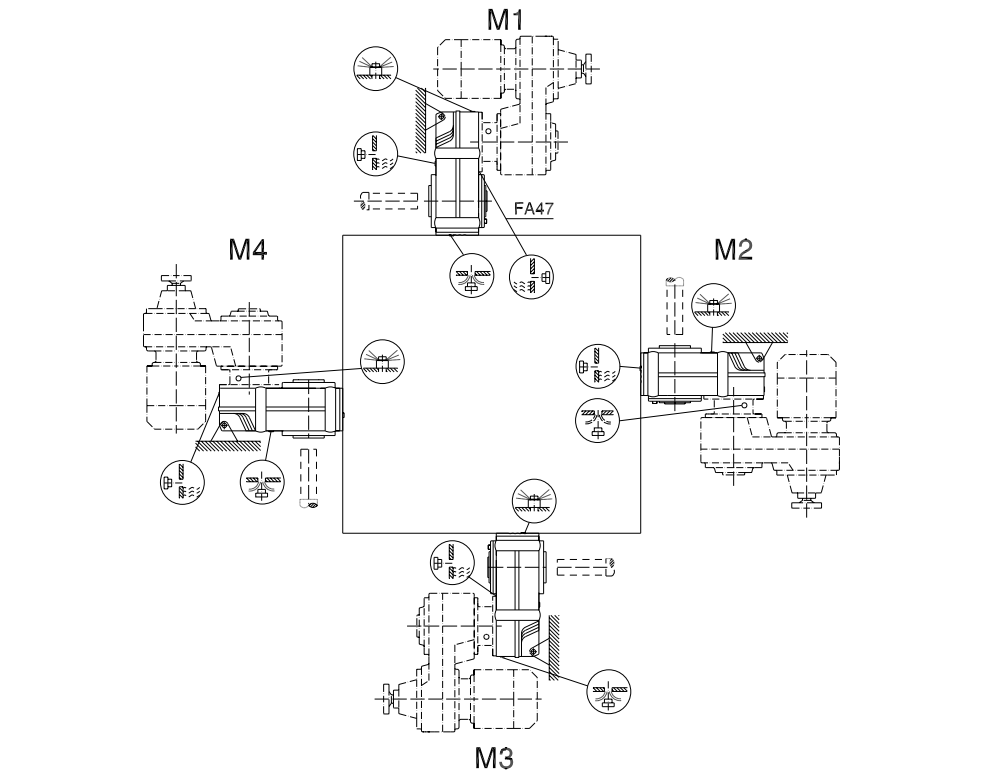
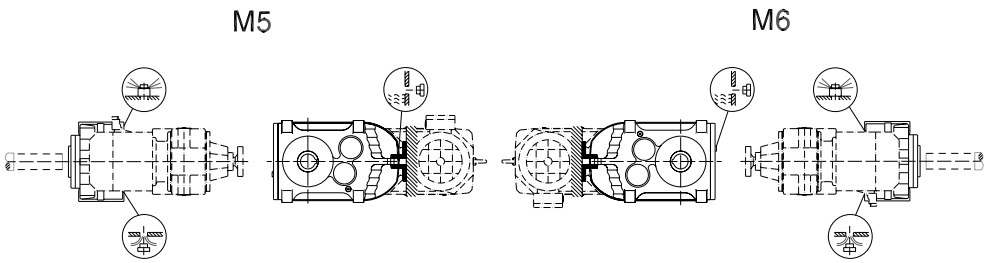
FA/FH27 - 157, FV27 - 107







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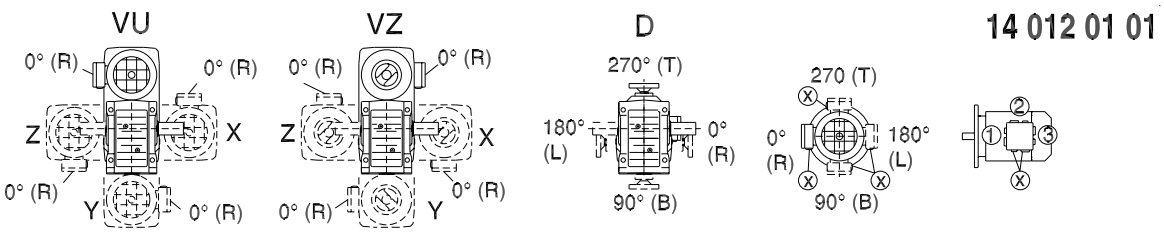
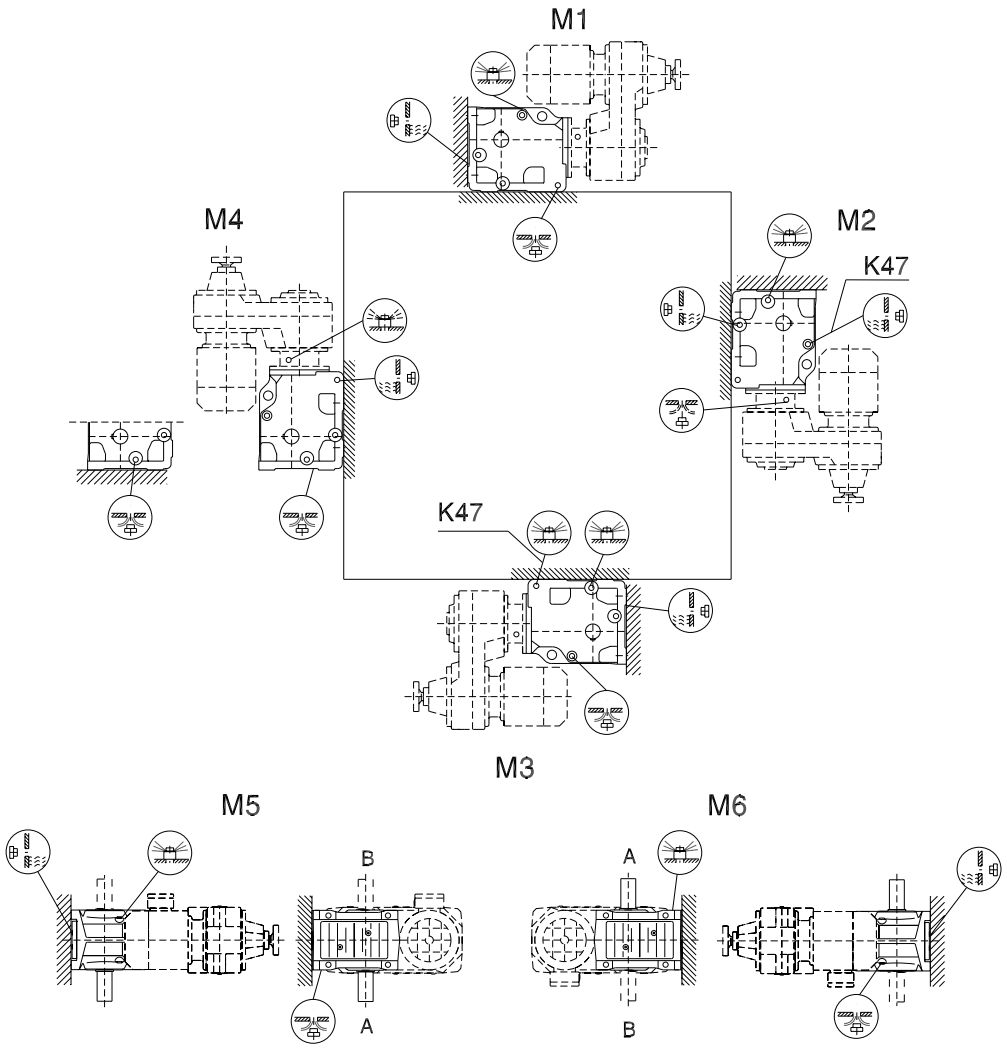
5.9 Variable speed gearmotors with helical-bevel gear unit

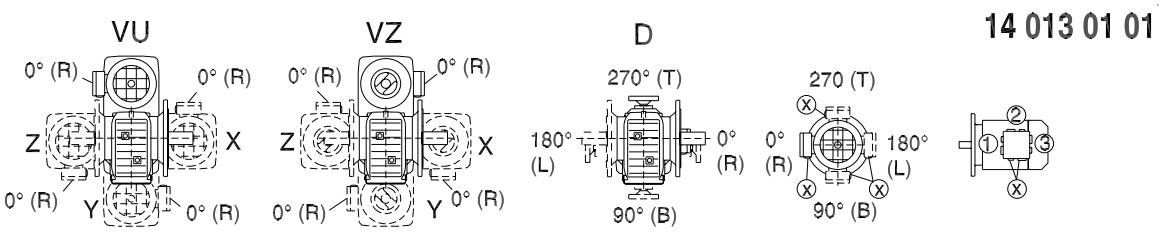
K/KA..B/KH37B - 157B, KV37B -107B

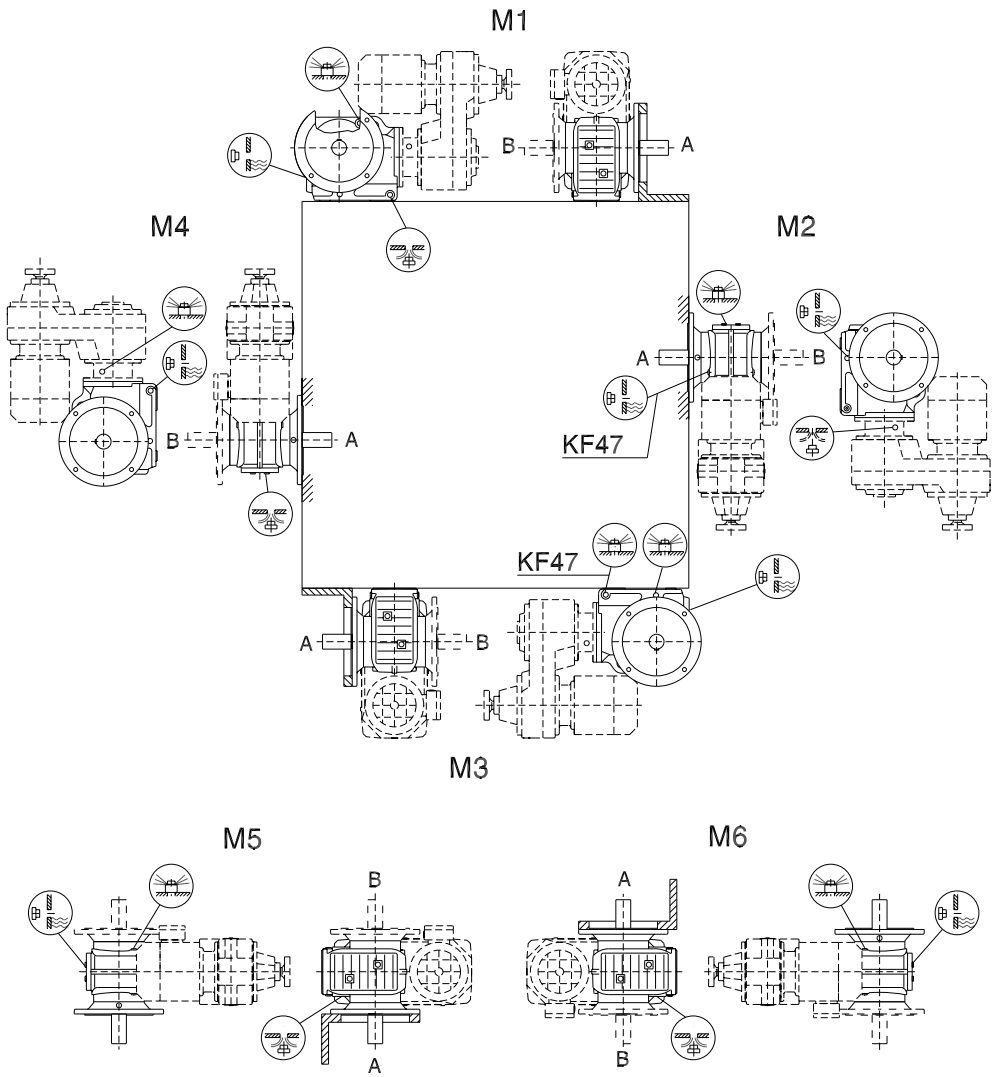




* → page 106

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





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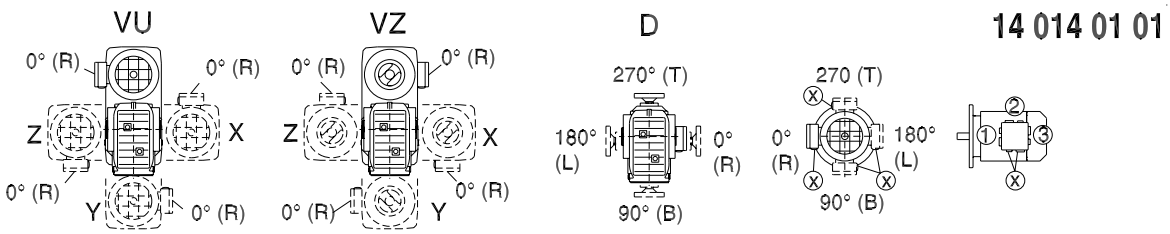
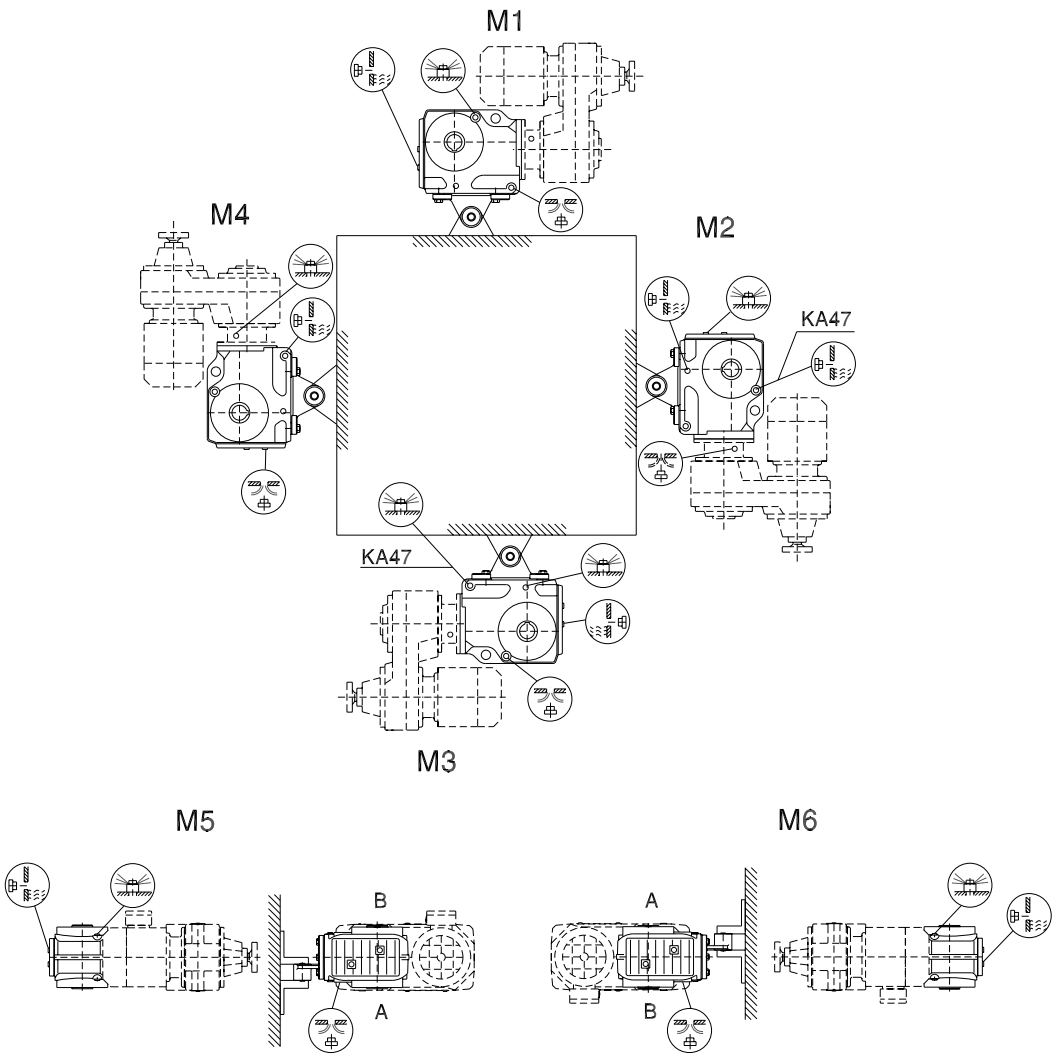
KA/KH37 - 157, KV37 - 107





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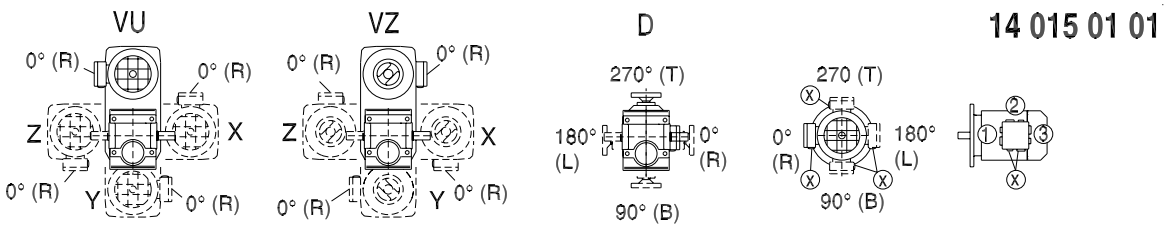
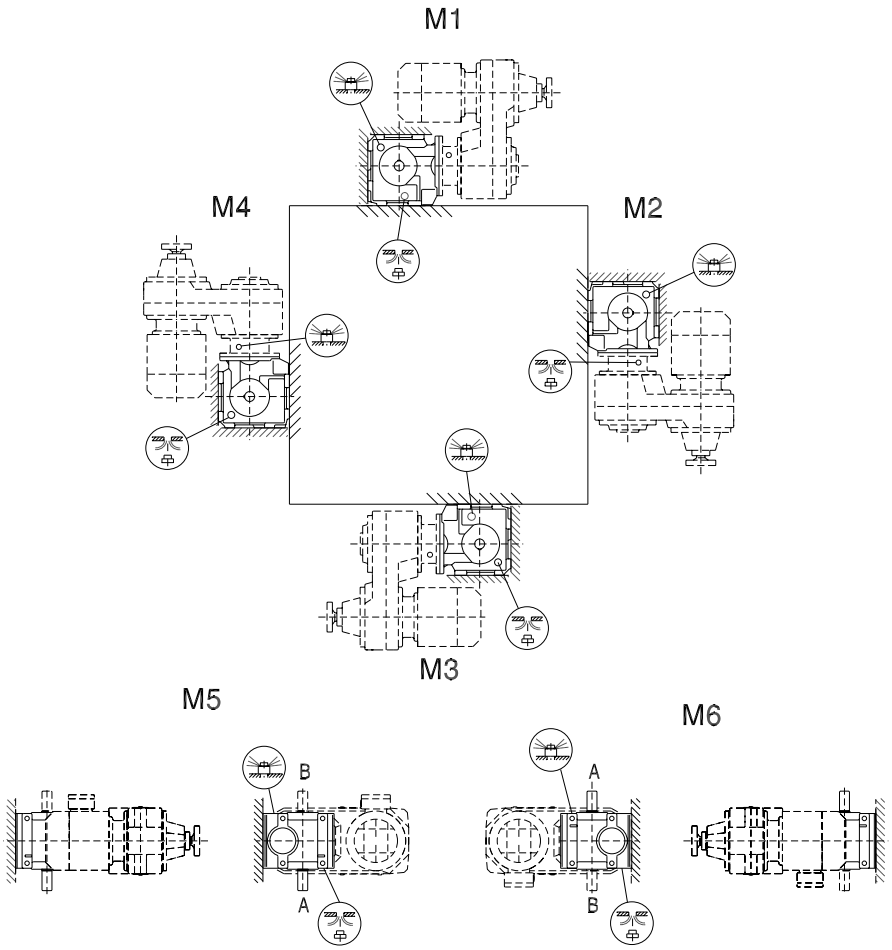
5.10 Variable speed gearmotors with helical-worm gear unit

S37





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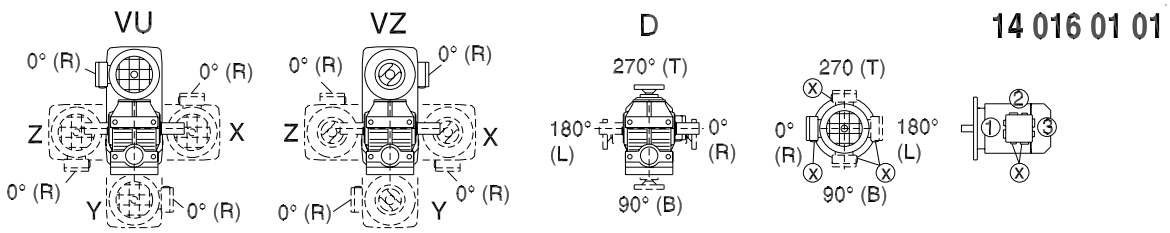
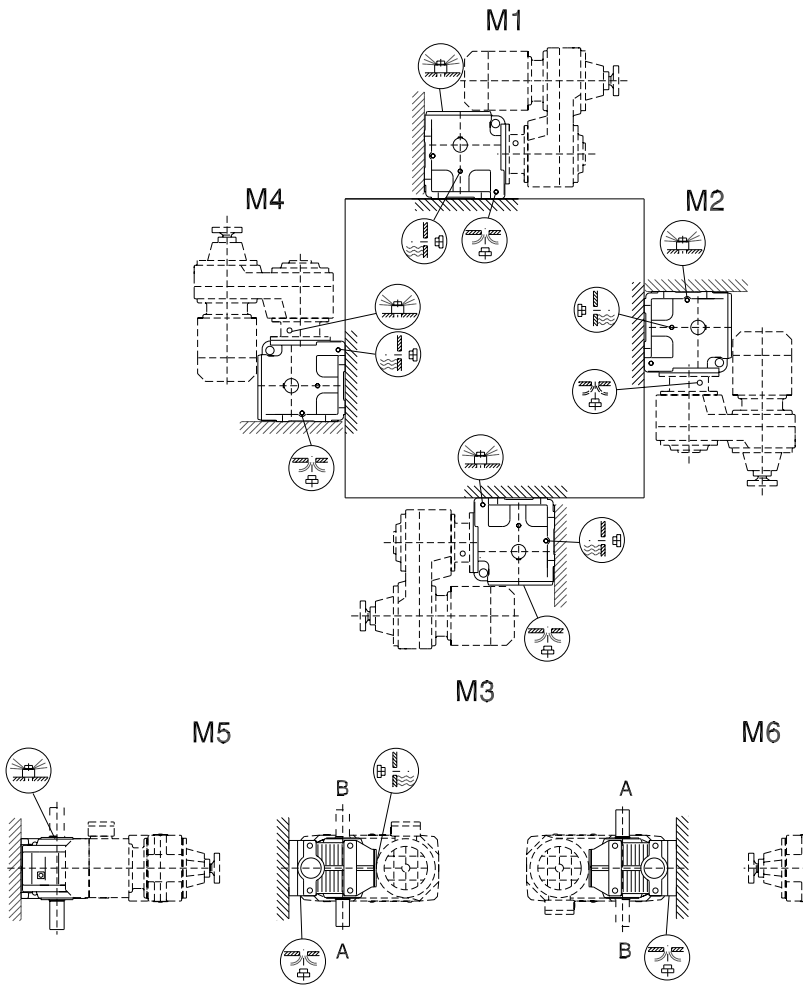
S47 - S97





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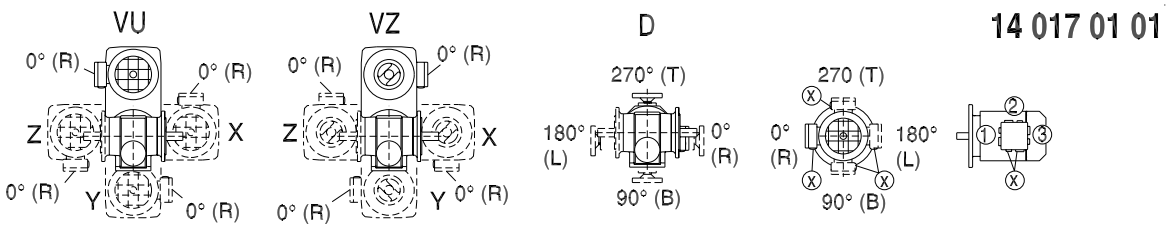
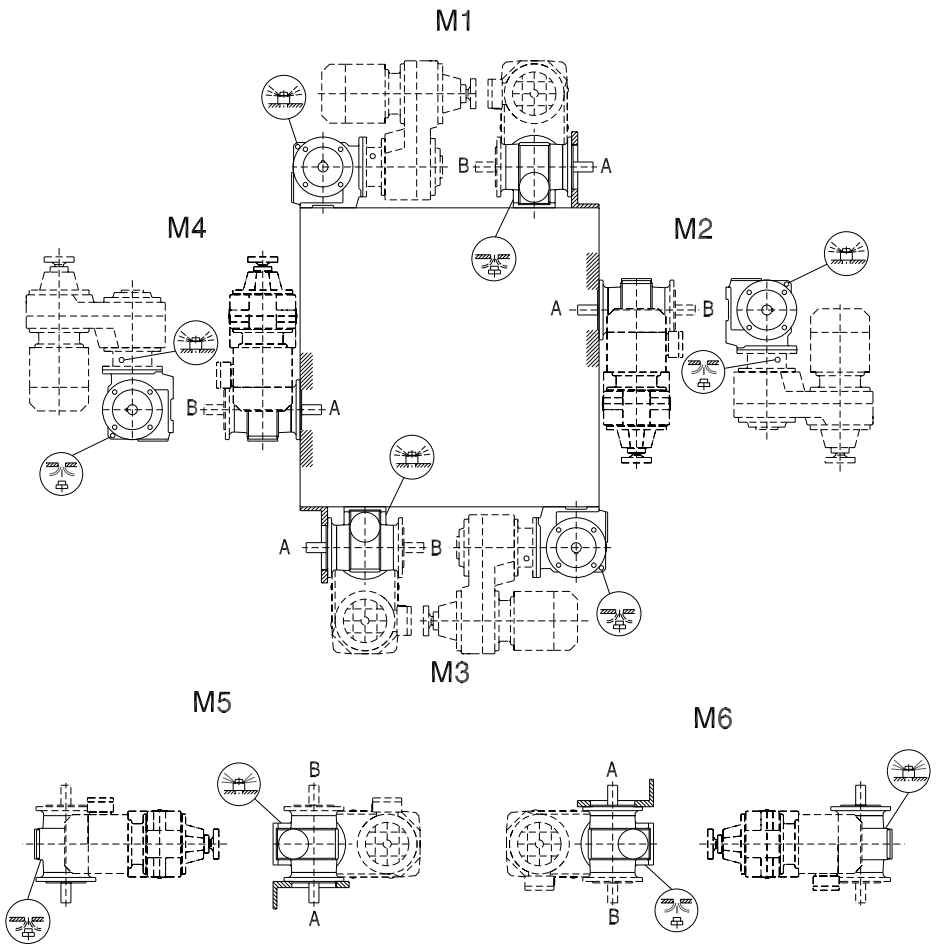
SF/SAF/SHF37





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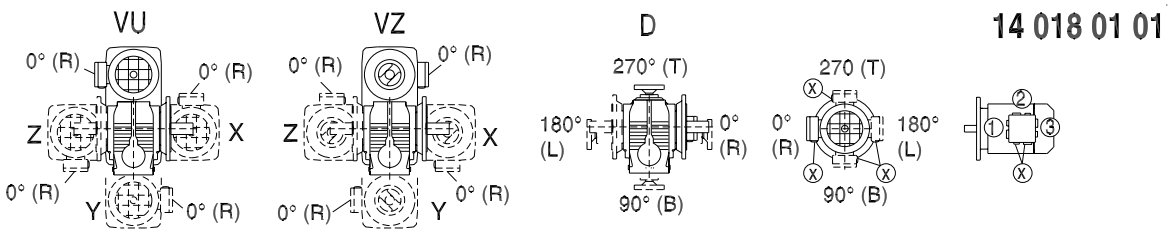
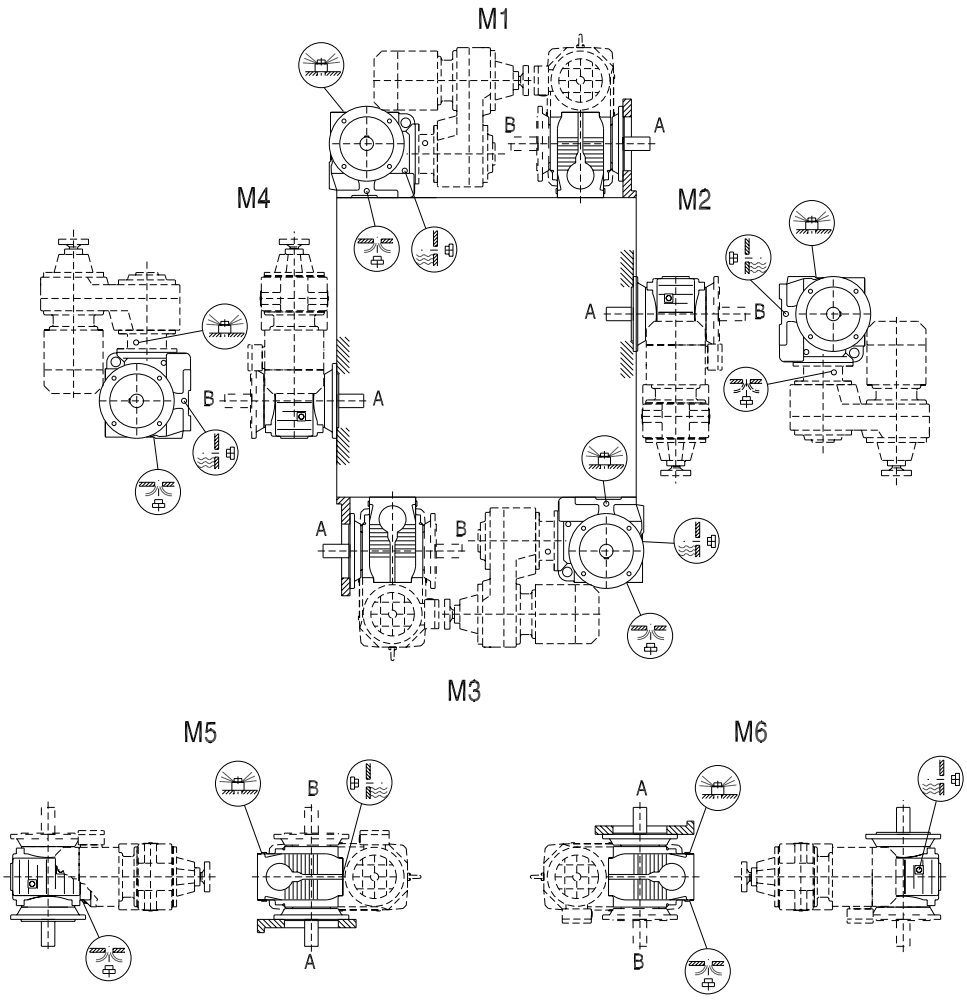
SF/SAF/SHF/SAZ/SHZ47 - 97





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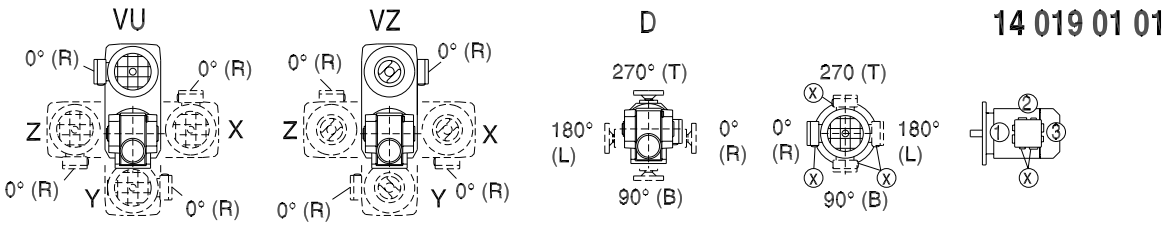
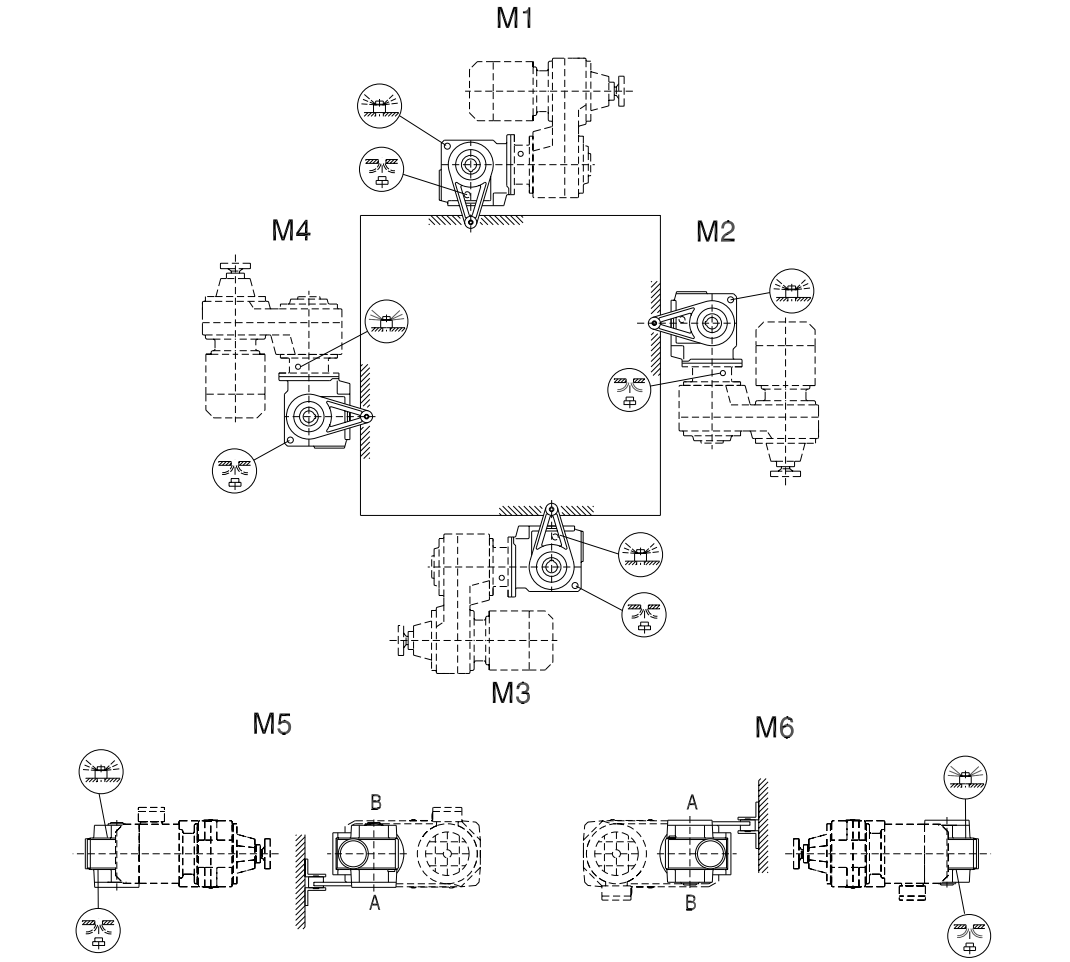
SA/SH37





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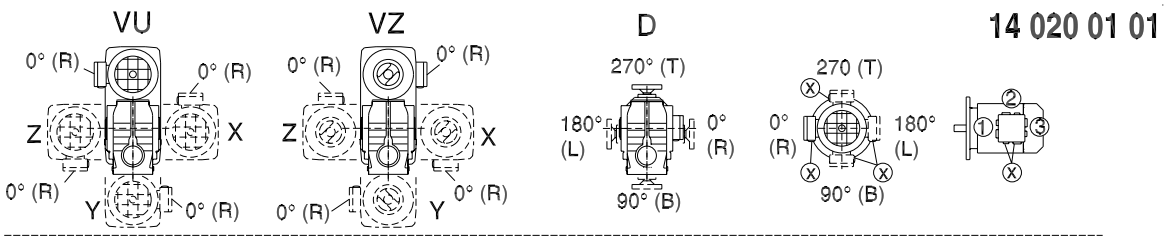
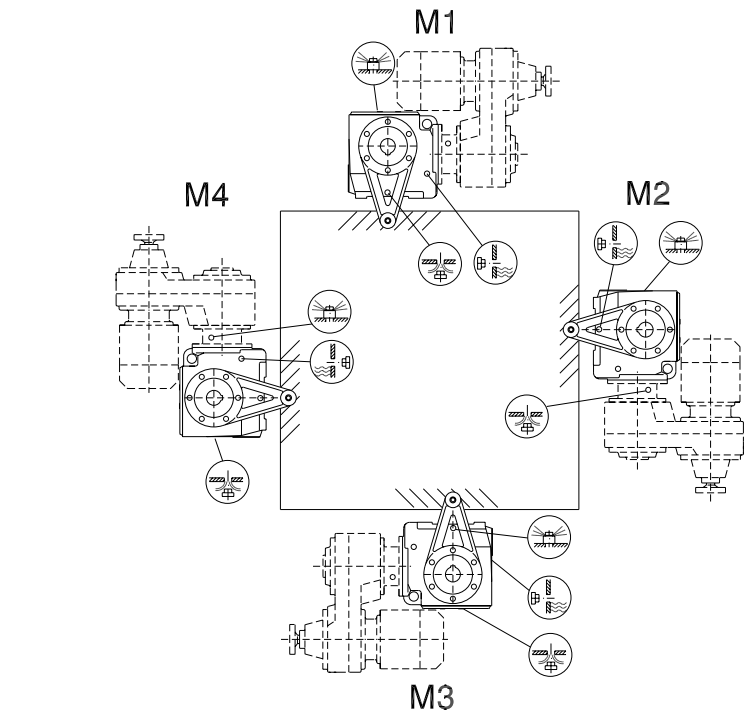
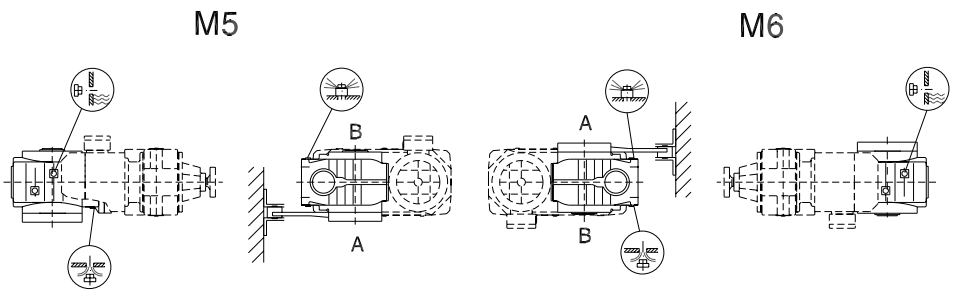
SA/SH47 - 97







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6 Design and Operating Notes

6.1 Lubricants

General information

Unless a special arrangement is made, SEW supplies the drives with a lubricant fill adapted for the specific gear unit and mounting position. The decisive factor is the mounting position (M1...M6, → Sec. "Mounting Positions and Important Order Information") specified when ordering the drive. You must adapt the lubricant fill in case of any subsequent changes made to the mounting position (→ Lubricant fill quantities).

Lubricant table

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

Key to the lubricant table

Abbreviations used, meaning of shading and notes:

CLP	= Mineral oil
CLP PG	= Polyglycol (W gear units, conforms to USDA-H)
CLP HC	= Synthetic hydrocarbons
E	= Ester oil (water pollution danger category WGK 1)
HCE	= Synthetic hydrocarbons + ester oil (USDA - H1 certification)
HLP	= Hydraulic oil
	= Synthetic lubricant (= synthetic anti-friction bearing grease)
	= Mineral lubricant (= mineral-based anti-friction bearing grease)
1)	Helical-worm gear units with PG oil: Please contact SEW
2)	Special lubricant for Spiroplan® gear units only
3)	Recommendation: Select SEW $f_B \geq 1.2$
4)	Pay attention to critical starting behavior at low temperatures!
5)	Low-viscosity grease
6)	Ambient temperature
	Lubricant for the food industry
	Biodegradable oil (lubricant for use in agriculture, forestry and water resources)

Anti-friction bearing greases

The anti-friction bearings in gear units and motors are given a factory-fill with the greases listed below. SEW-EURODRIVE recommends regreasing anti-friction bearings with a grease fill at the same time as changing the oil.

	Ambient temperature	Manufacturer	Type
Anti-friction bearing in gear unit	-20 °C ... +60 °C	Mobil	Mobilux EP 2
	-40 °C ... +80 °C	Mobil	Mobiltemp SHC 100
Anti-friction bearing in motor	-20 °C ... +80 °C	Esso	Unirex EQ3
	-20 °C ... +60°C	Shell	Alvania RL3
	+80 °C ... +100 °C	Klüber	Barrierta L55/2
	-45 °C ... -25 °C	Shell	Aero Shell Grease 16[1)]
Special greases for anti-friction bearings in gear units:			
	-30 °C ... +40 °C	Aral	Aral Eural Grease EP 2
	-20 °C ... +40 °C	Aral	Aral Aralube BAB EP2

1) Recommended for continuous operation at ambient temperatures below 0 °C, for example in a cold storage.

The following grease quantities are required:

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

6.2 Lubricant table for standard variable speed gearmotors

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	6) °C	DIN (ISO)	ISO,NLGI	Mobil®	Shell	KLÜBER LUBRICATION	ARAL	bp	Tribol	TEXACO	Optimol	FUCHS
R...	Standard -10 +40	CLP(CC)	VG 220	Mobilgear 630	Shell Omala 220	Klüberoil GEM 1-220	Aral Degol BG 220	BP Energol GR-XP 220	Tribol 1100/220	Meropa 220	Optigear BM 220	Renolin CLP 220
	-25 +80	CLP PG	VG 220	Mobil Glygoyle 30	Shell Tivela S 220	Klübersynth GH 6-220	Aral Degol GS 220	BP Enersyn SG-XP 220	Tribol 800/220	Synlube CLP 220	Optiflex A 220	
	4) -40 +80	CLP HC	VG 220	Mobil SHC 630	Shell Omala HD 220	Klübersynth EG 4-220	Aral Degol PAS 220		Tribol 1510/220	Pinnacle EP 220	Optigear Synthetic A 220	Renolin Unisyn CLP 220
K...(HK...)	4) -40 +40		VG 150	Mobil SHC 629	Shell Omala HD 150	Klübersynth EG 4-150				Pinnacle EP 150		
	-20 +25	CLP (CC)	VG 150 VG 100	Mobilgear 627	Shell Omala 100	Klüberoil GEM 1-150	Aral Degol BG 100	BP Energol GR-XP 100	Tribol 1100/100	Meropa 150	Optigear BM 100	Renolin CLP 150
	-30 +10	HLP (HM)	VG 68-46 VG 32	Mobil D.T.E. 13M	Shell Tellus T 32	Klüberoil GEM 1-68	Aral Degol BG 46		Tribol 1100/68	Rando EP Ashless 46	Optigear 32	Renolin CLP 150
F...	4) -40 +10	CLP HC	VG 32	Mobil SHC 624		Klüber-Summit HySyn FG-32				Cetus PAO 46		Renolin B 46 HVI
	4) -40 -20	HLP (HM)	VG 22 VG 15	Mobil D.T.E. 11M	Shell Tellus T 15	Isoflex MT 30 ROT		BP Energol HLP-HM 15		Rando HDZ 15		
	Standard 0 +40	CLP (CC)	VG 680	Mobilgear 636	Shell Omala 680	Klüberoil GEM 1-680	Aral Degol BG 680	BP Energol GR-XP 680	Tribol 1100/680	Meropa 680	Optigear BM 680	Renolin CLP 680
	-20 +60	CLP PG	VG 680 1)		Shell Tivela S 680	Klübersynth GH 6-680		BP Enersyn SG-XP 680	Tribol 800/680	Synlube CLP 680		
	4) -30 +80	CLP HC	VG 460	Mobil SHC 634	Shell Omala HD 460	Klübersynth EG 4-460				Pinnacle EP 460		
S...(HS...)	4) -40 +10		VG 150	Mobil SHC 629	Shell Omala HD 150	Klübersynth EG 4-150				Pinnacle EP 150		
	-20 +10	CLP (CC)	VG 150 VG 100	Mobilgear 627	Shell Omala 100	Klüberoil GEM 1-150	Aral Degol BG 100	BP Energol GR-XP 100	Tribol 1100/100	Meropa 100	Optigear BM 100	Renolin CLP 150
	-25 +20	CLP PG	VG 220 1)	Mobil Glygoyle 30	Shell Tivela S 220	Klübersynth GH 6-220			Tribol 800/220	Synlube CLP 220	Optiflex A 220	
	4) -40 0	CLP HC	VG 32	Mobil SHC 624		Klüber-Summit HySyn FG-32				Cetus PAO 46		
	4) -30 +40	HCE	VG 460		Shell Cassida Fluid GL 460	Klüberoil 4UH1-460 N	Aral Eural Gear 460				Optileb GT 460	
R...,K...(HK...), F...,S...(HS...)	-20 +40	E	VG 460			Klüberbio CA2-460	Aral Degol BAB 460				Optisynt BS 460	
	Standard -20 +40	SEW PG	VG 460 2)			Klüber SEW HT-460-5						
W...(HW...)	4) -40 +10	API GL5	SAE 75W90 (~VG 100)	Mobilube SHC 75 W90-LS								
	-20 +40	CLP PG	VG 460 3)			Klübersynth UH1 6-460						
R32 R302	-25 +60	DIN 51 818 5)	00	Glygoyle Grease 00	Shell Tivela GL 00	Klübersynth GE 46-1200		BP Energrease LS-EP 00		Multifak 6833 EP 00		
	Standard -15 +40		000 - 0	Mobilux EP 004	Shell Alvania GL 00		Aralub MFL 00			Multifak EP 000	Longtime PD 00	Renolin SF 7 - 041

6.3 Lubricant table for explosion-proof variable speed gearmotors

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	5)	DIN (ISO)	ISO,NLGI	Mobil®	Shell	KLÜBER LUBRICATION	ARAL	Tribol	TEXACO	Optimol	FUCHS
R...	3) -40 Standard +80	CLP HC	VG 220	Mobil SHC630	Shell Omala 220 HD	Klübersynth EG 4-220	Aral Degol PAS 220	Tribol 1510/220	Pinnacle EP 220	Optigear Synthetic A 220	Renolin Unisyn CLP 220
K...	3) -40 +40	CLP HC	VG 150	Mobil SHC629		Klübersynth EG 4-150			Pinnacle EP 150		
F...	3) -40 +10	CLP HC	VG 32	Mobil SHC 624		Klüber-Summit HySyn FG-32			Cetus PAO 46		
S..	3) -30 Standard +80	CLP HC	VG 460	Mobil SHC 634	Shell Omala 460 HD	Klübersynth EG 4-460			Pinnacle EP 460		
	3) -40 +10	CLP HC	VG 150	Mobil SHC 629		Klübersynth EG 4-150			Pinnacle EP 150		
	3) -40 0	CLP HC	VG 32	Mobil SHC 624		Klüber-Summit HySyn FG-32			Cetus PAO 46		
R...,K... F...,S...	3) -30 +40	HCE	VG 460		Shell Cassida Fluid GL 460	Klüberoil 4UH1-460	4) Aral Eural Gear 460			Optileb GT 460	
	-20 +40	E	VG 460			Klüberbio CA2-460	Aral Degol BAB 460			Optisynt BS 460	
W...	Standard -20 +40	SEW PG	1) VG 460			Klüber SEW HT-460-5					
	-20 +40	CLP PG	2) VG 460			Klübersynth UH1 6-460					

6.4 Lubricant fill quantities for variable speed gearmotors

The specified fill quantities are **recommended values**. 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 capacity**.

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

Standard and explosion-proof variable speed gearmotors have the same lubricant full quantity.

Helical (R) gear units

RX..

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

RXF..

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

R.., R..F

Gear units	Fill quantity in liters					
	M1[1)]	M2[1]	M3	M4	M5	M6
R07	0.12	0.20	0.20	0.20	0.20	0.20
R17	0.25	0.55	0.35	0.55	0.35	0.35
R27	0.25/0.40	0.70	0.50	0.70	0.50	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	1.50
R57	0.80/1.70	1.90	1.70	2.10	1.70	1.70
R67	1.10/2.30	2.60/3.50	2.80	3.20	1.80	2.00
R77	1.20/3.00	3.80/4.10	3.60	4.10	2.50	3.40
R87	2.30/6.0	6.7/8.2	7.2	7.7	6.3	6.5
R97	4.60/9.8	11.7/14.0	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	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 volume.

Lubricant fill quantities for variable speed gearmotors

RF..

Gear units	Fill quantity in liters					
	M1[1)]	M2[1]	M3	M4	M5	M6
RF07	0.12	0.20	0.20	0.20	0.20	0.20
RF17	0.25	0.55	0.35	0.55	0.35	0.35
RF27	0.25/0.40	0.70	0.50	0.70	0.50	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	1.50
RF57	0.80/1.70	1.80	1.70	2.00	1.70	1.70
RF67	1.20/2.50	2.70/3.60	2.70	2.60	1.90	2.10
RF77	1.20/2.60	3.80/4.10	3.30	4.10	2.40	3.00
RF87	2.40/6.0	6.8/7.9	7.1	7.7	6.3	6.4
RF97	5.1/10.2	11.9/14.0	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	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 volume.

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	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	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	0.60
FF37	1.00	1.25	0.70	1.30	1.00	1.10
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

FA.., FH.., FV.., FAF.., FAZ.., FHF.., 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	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	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	77.0

Helical-bevel (K) gear units

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

Gear units	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
K..37	0.50	1.00	1.00	1.25	0.95	0.95
K..47	0.80	1.30	1.50	2.00	1.60	1.60
K..57	1.20	2.30	2.50	2.80	2.60	2.40
K..67	1.10	2.40	2.60	3.45	2.60	2.60
K..77	2.20	4.10	4.40	5.8	4.20	4.40
K..87	3.70	8.0	8.7	10.9	8.0	8.0
K..97	7.0	14.0	15.7	20.0	15.7	15.5
K..107	10.0	21.0	25.5	33.5	24.0	24.0
K..127	21.0	41.5	44.0	54.0	40.0	41.0
K..157	31.0	62.0	65.0	90.0	58.0	62.0
K..167	33.0	95.0	105.0	123.0	85.0	84.0
K..187	53.0	152.0	167.0	200	143.0	143.0

KF..

Gear units	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
KF37	0.50	1.10	1.10	1.50	1.00	1.00
KF47	0.80	1.30	1.70	2.20	1.60	1.60
KF57	1.30	2.30	2.70	3.15	2.90	2.70
KF67	1.10	2.40	2.80	3.70	2.70	2.70
KF77	2.10	4.10	4.40	5.9	4.50	4.50
KF87	3.70	8.2	9.0	11.9	8.4	8.4
KF97	7.0	14.7	17.3	21.5	15.7	16.5
KF107	10.0	21.8	25.8	35.1	25.2	25.2
KF127	21.0	41.5	46.0	55.0	41.0	41.0
KF157	31.0	66.0	69.0	92.0	62.0	62.0

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

Gear units	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
K..37	0.50	1.00	1.00	1.40	1.00	1.00
K..47	0.80	1.30	1.60	2.15	1.60	1.60
K..57	1.30	2.30	2.70	3.15	2.90	2.70
K..67	1.10	2.40	2.70	3.70	2.60	2.60

Gear units	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
K..77	2.10	4.10	4.60	5.9	4.40	4.40
K..87	3.70	8.2	8.8	11.1	8.0	8.0
K..97	7.0	14.7	15.7	20.0	15.7	15.7
K..107	10.0	20.5	24.0	32.4	24.0	24.0
K..127	21.0	41.5	43.0	52.0	40.0	40.0
K..157	31.0	66.0	67.0	87.0	62.0	62.0
K..167	33.0	95.0	105.0	123.0	85.0	84.0
K..187	53.0	152.0	167.0	200	143.0	143.0

Helical-worm (S) gear units

S..

Gear units	Fill quantity in liters					
	M1	M2	M3 [1]	M4	M5	M6
S..37	0.25	0.40	0.50	0.55	0.40	0.40
S..47	0.35	0.80	0.70/0.90	1.00	0.80	0.80
S..57	0.50	1.20	1.00/1.20	1.45	1.30	1.30
S..67	1.00	2.00	2.20/3.10	3.10	2.60	2.60
S..77	1.90	4.20	3.70/5.4	5.9	4.40	4.40
S..87	3.30	8.1	6.9/10.4	11.3	8.4	8.4
S..97	6.8	15.0	13.4/18.0	21.8	17.0	17.0

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

SF..

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

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

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

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

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

6.5 Installation/removal of gear units with hollow shafts and keys

- Always use the supplied NOCO® fluid for installation. The fluid prevents contact corrosion and facilitates subsequent removal.
- The key dimension X is defined by the customer, however X must be > DK.

Assembly

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

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

1. Supplied fastening parts

The following fastening parts are supplied as standard:

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

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.

00 001 00 02

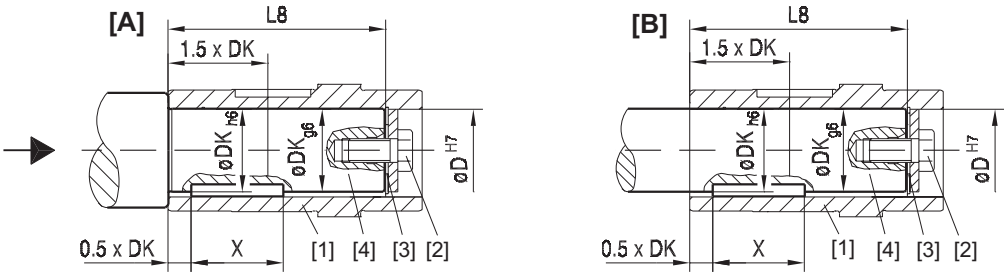

Figure 10: Customer shaft with contact shoulder [A] and without contact shoulder [B]

[1] Hollow shaft
[2] Retaining screw with washer
[3] Circlip
[4] Customer shaft

Dimensions and tightening torque

The retaining screw [2] must be tightened to the tightening torque MS given in the following table.

Gear unit type	D^{H7} [mm]	DK [mm]	L8 [mm]	MS [Nm]
SA..37	20	20	84, 106, 104	8
FA..27, SA..47	25	25	88, 105	20
FA..37, KA..37, SA..47 SA..57	30	30	105 132	20
FA..47, KA..47, SA..57	35	35	132	20
FA..57, KA..57 FA..67, KA..67 SA..67	40	40	142 156 144	40
SA..67	45	45	144	40
FA..77, KA..77, SA..77	50	50	183	40
FA..87, KA..87 SA..77, SA..87	60	60	210 180, 220	80
FA..97, KA..97 SA..87, SA..97	70	70	270 220, 260	80
FA..107, KA..107, SA..97	90	90	313, 313, 255	200
FA..127, KA..127	100	100	373	200
FA..157, KA..157	120	120	460	200

2. Assembly/ disassembly kit

You can also use the optional installation/removal kit for installation. You order the kit for the specific gear unit type(s) by quoting the part numbers in the table below. The scope of 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 supplied as standard is not used.

Customer shaft

- The installation length of the customer shaft must be LK2. Do not use the spacer if the customer shaft **has a contact shoulder [A]**.
- The installation length of the customer shaft must be LK2. Use the spacer if the customer shaft **has a contact shoulder [B]**.

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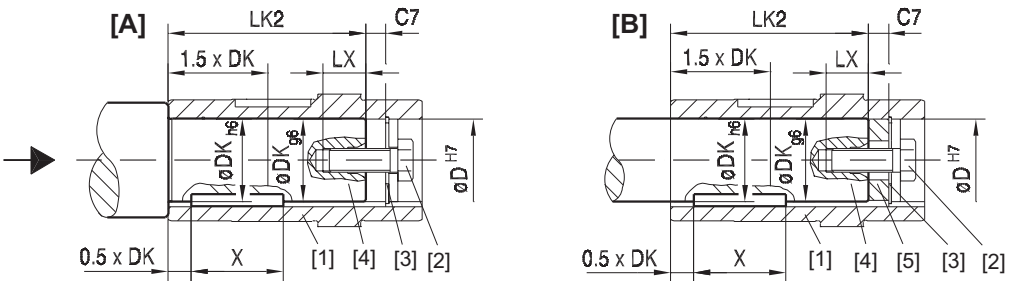

Figure 11: Customer shaft with contact shoulder [A] and without contact shoulder [B]

[1] Hollow shaft
[2] Retaining screw with washer
[3] Circlip
[4] Customer shaft
[5] Distance piece

Dimensions, tightening torques and part numbers

The retaining screw [2] must be tightened to the tightening torque MS given in the following table.

Type	D^{H7} [mm]	DK [mm]	LK2 [mm]	LX^{+2} [mm]	C7 [mm]	MS [Nm]	Part number installation/ removal kit
SA..37	20	20	72, 93 92	16	12	8	643 683 8
FA..27, SA..47	25	25	72, 89	22	16	20	643 684 6
FA..37, KA..37 SA..47, SA..57	30	30	89 89, 116	22	16	20	643 685 4
FA..47, KA..47, SA..57	35	35	114	28	18	20	643 686 2
FA..57, KA..57 FA..67, KA..67, SA..67	40	40	124 138, 138, 126	36	18	40	643 687 0
SA..67	45	45	126	36	18	40	643 688 9
FA..77, KA..77, SA..77	50	50	165	36	18	40	643 689 7
FA..87, KA..87 SA..77, SA..87	60	60	188 158, 198	42	22	80	643 690 0
FA..97, KA..97 SA..87, SA..97	70	70	248 198, 238	42	22	80	643 691 9
FA..107, KA..107 SA..97	90	90	287 229	50	26	200	643 692 7
FA..127, KA..127	100	100	347	50	26	200	643 693 5
FA..157, KA..157	120	120	434	50	26	200	643 694 3

Removal

Applies only if installation/removal kit was previously used for assembly (→ Fig. 11).

Proceed as follows for removal:

1. Loosen the retaining screw [6].
2. Remove the circlip [3] and, if used, the spacer tube [5].
3. Place the forcing washer [7] and the locked nut [8] between the customer shaft [4] and circlip [3] according to figure 11.
4. Re-install the circlip [3].
5. Re-install the retaining screw [6]. You can now push the gear unit off the shaft.

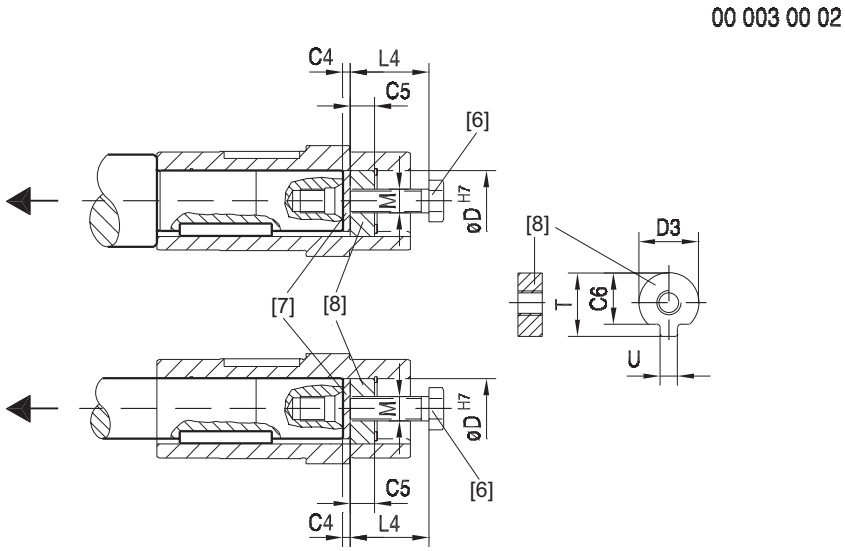

Figure 12: Removal

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

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 installation/removal kit
SA..37	20	M6	5	6	15.5	5.5	22.5	19.7	25	643 683 8
FA27.., SA..47	25	M10	5	10	20	7.5	28	24.7	35	643 684 6
FA..37, KA..37, SA..47, SA..57	30	M10	5	10	25	7.5	33	29.7	35	643 685 4
FA..47, KA..47, SA..57	35	M12	5	12	29	9.5	38	34.7	45	643 686 2
FA..57, KA..57, FA..67, KA..67, SA..67	40	M16	5	12	34	11.5	41.9	39.7	50	643 687 0
SA..67	45	M16	5	12	38.5	13.5	48.5	44.7	50	643 688 9
FA..77, KA..77, SA..77	50	M16	5	12	43.5	13.5	53.5	49.7	50	643 689 7
FA..87, KA..87, SA..77, SA..87	60	M20	5	16	56	17.5	64	59.7	60	643 690 0
FA..97, KA..97, SA..87, SA..97	70	M20	5	16	65.5	19.5	74.5	69.7	60	643 691 9
FA..107, KA..107, SA..97	90	M24	5	20	80	24.5	95	89.7	70	643 692 7
FA..127, KA..127	100	M24	5	20	89	27.5	106	99.7	70	643 693 5
FA..157, KA..157	120	M24	5	20	107	31	127	119.7	70	643 694 3

6.6 Gear units with hollow shaft

Chamfers on hollow shafts

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

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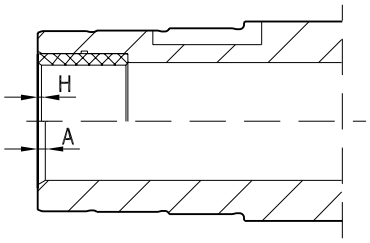

Figure 13: Chamfers on hollow shafts

Gear units	Version	
	with hollow shaft (A)	with hollow shaft and shrink disc (H)
F..27	2 × 30°	0.5 × 45°
F../K..37	2 × 30°	0.5 × 45°
F../K..47	2 × 30°	0.5 × 45°
F../K..57	2 × 30°	0.5 × 45°
F../K..67	2 × 30°	0.5 × 45°
F../K..77	2 × 30°	0.5 × 45°
F../K..87	3 × 30°	0.5 × 45°
F../K..97	3 × 30°	0.5 × 45°
F../K..107	3 × 30°	3 × 2°
F../K..127	5 × 30°	1.5 × 30°
F../K..157	5 × 30°	1.5 × 30°
KH167	-	1.5 × 30°
KH187	-	1.5 × 30°

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 G (see dimension sheets) to decide whether there will be a collision with a pushed-through customer shaft.

6.7 TorqLOC® mounting system for units with hollow shaft

Description of TorqLOC®

The TorqLOC® hollow shaft mounting system is used for achieving a non-positive connection between customer shaft and the hollow shaft in the gear unit. As a result, 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:

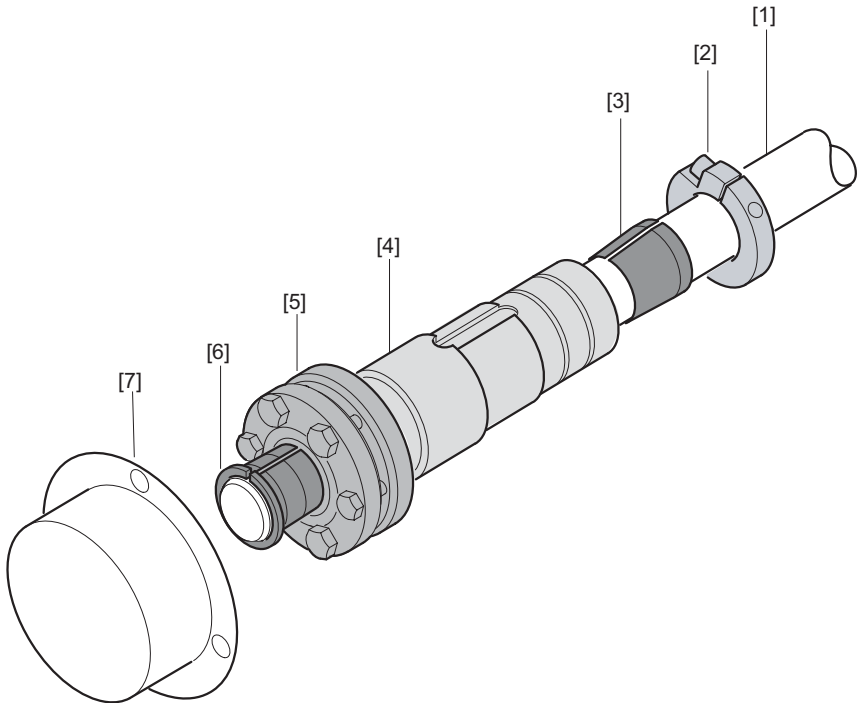

Figure 14: Components of the TorqLOC® hollow shaft mounting system

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

Advantages of TorqLOC®

The TorqLOC® hollow shaft mounting system is characterized by 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.
- Removal is easy even after many hours of operation because the formation of contact corrosion has been reduced and the conical connections can easily be released.

Technical data

The TorqLOC® hollow shaft mounting system is approved for input torques of 92 Nm to 4300 Nm.

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

- Parallel shaft helical gear units in gear unit sizes 37 to 97 (FT37 ... FT97)
- Helical-bevel gear units in gear unit sizes 37 to 97 (KT37 ... KT97)
- Helical-worm gear units in gear unit sizes 37 to 97 (ST37 ... ST97)

Available options

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

- Helical-bevel and helical-worm gear units with TorqLOC® (KT.., ST..): The "torque arm" (../T) option is available.
- Parallel shaft helical gear units with TorqLOC® (FT..): The "rubber buffer" (../G) option is available.

6.8 Option, offset hollow shaft with shrink disk

As an option, gear units with a hollow shaft and shrink disc (parallel shaft helical gear units FH/FHF/FHZ37-157, helical-bevel gear units KH/KHF/KHZ37-157 and helical-worm gear units SH/SHF47-97) can be supplied with a larger bore diameter D'.

As standard, D' = D.

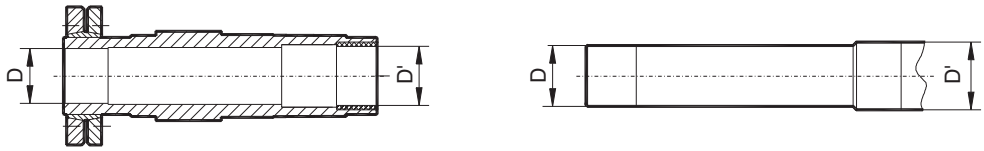

Figure 15: Optional bore diameter D'

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').

Sample order FH37 DT80N4 with hollow shaft 30/32 mm

Parallel shaft helical gear unit with shouldered hollow shaft

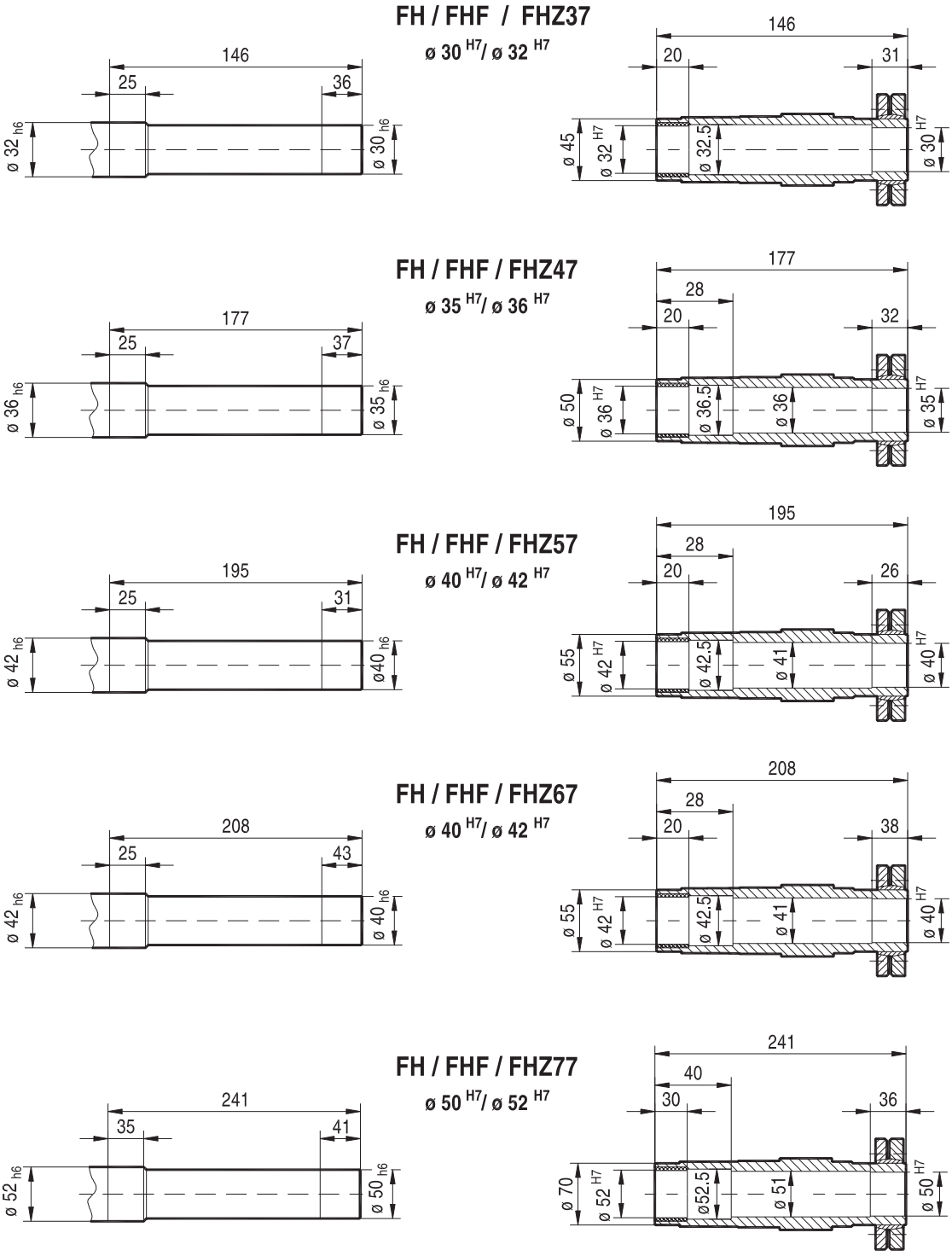

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Figure 16: Shouldered hollow shaft FH/FHF/FHZ37...77

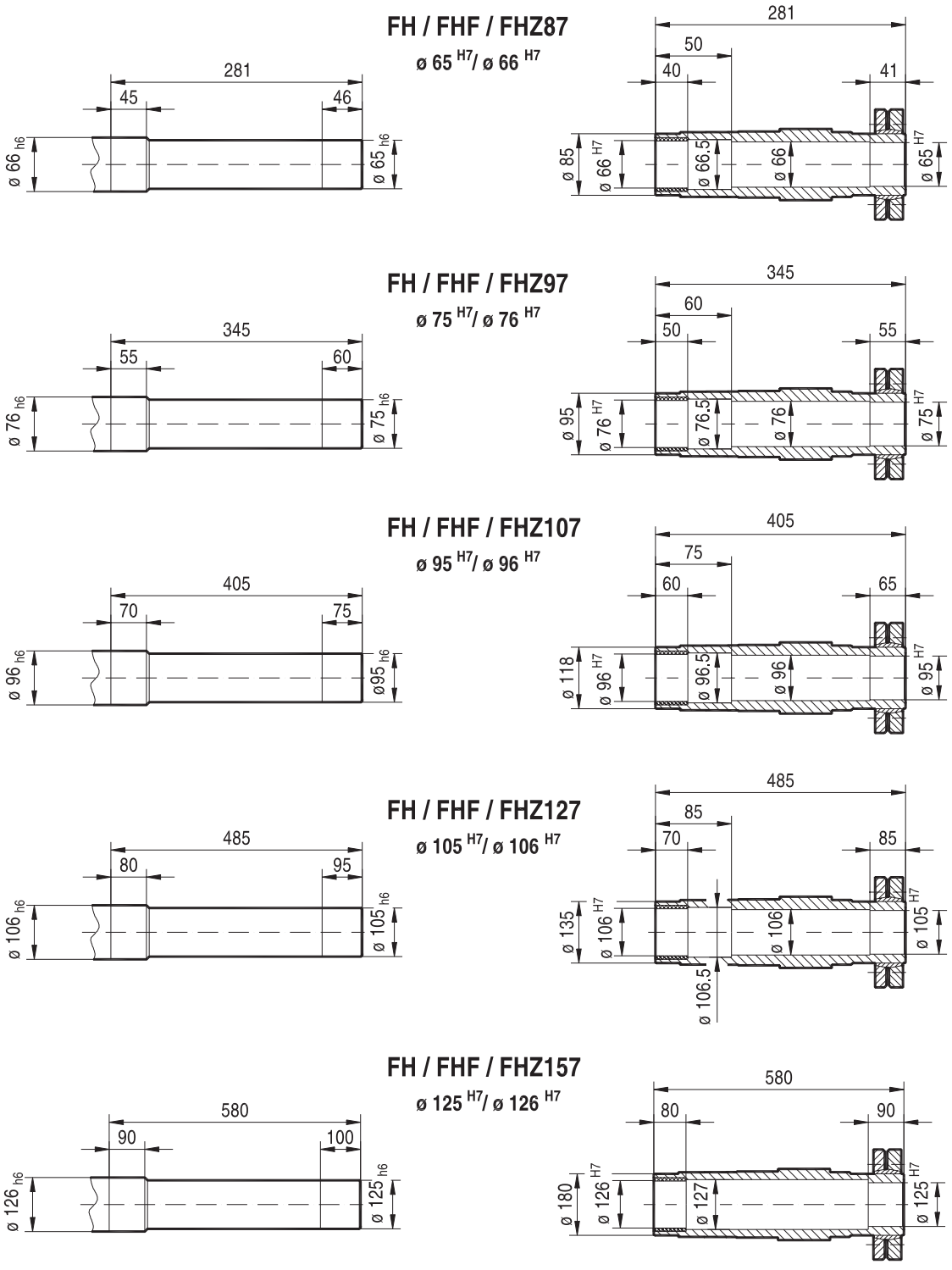

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Figure 17: Shouldered hollow shaft FH/FHF/FHZ87...157

Helical-bevel gear unit with shouldered hollow shaft

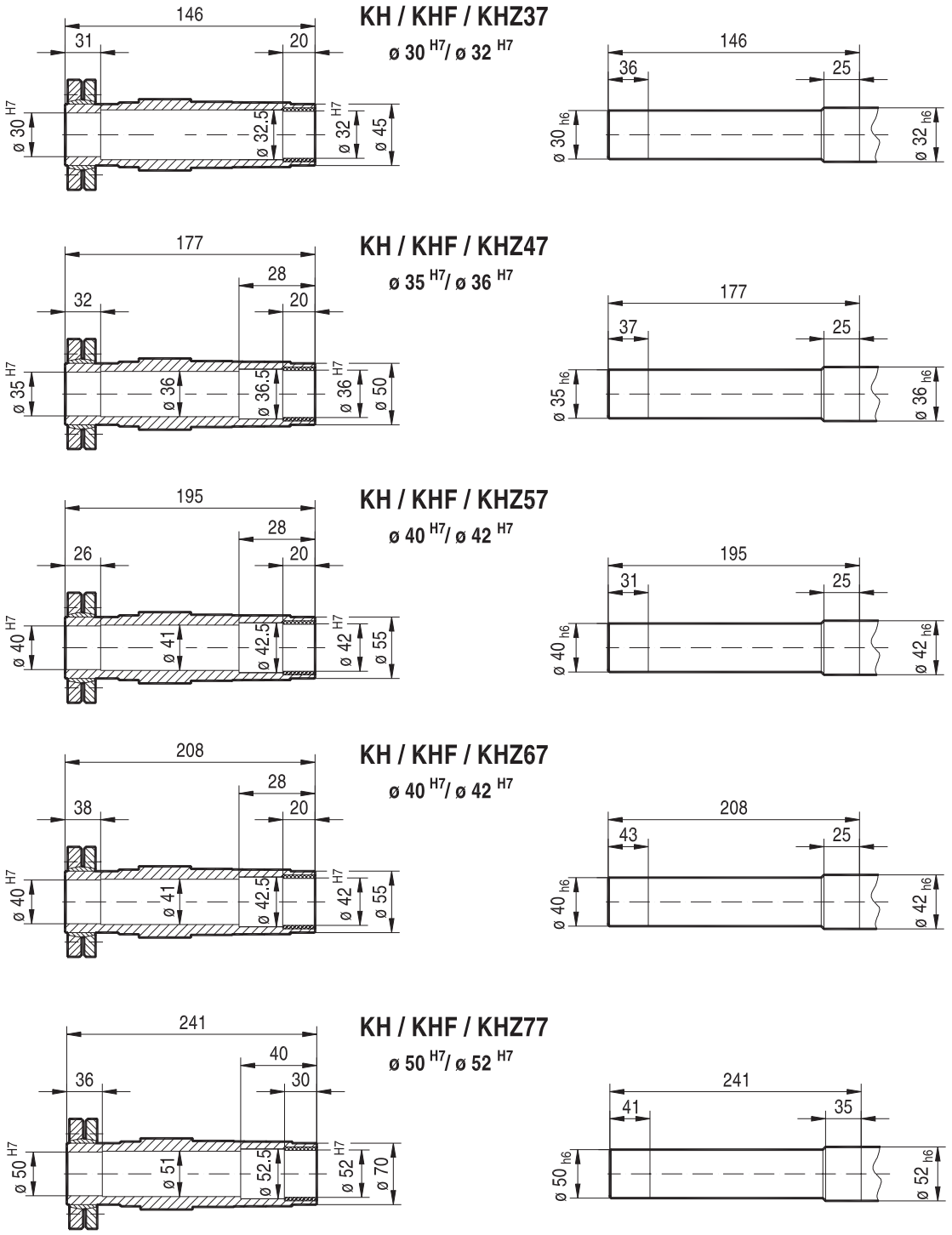

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Figure 18: Shouldered hollow shaft KH/KHF/KHZ37...77

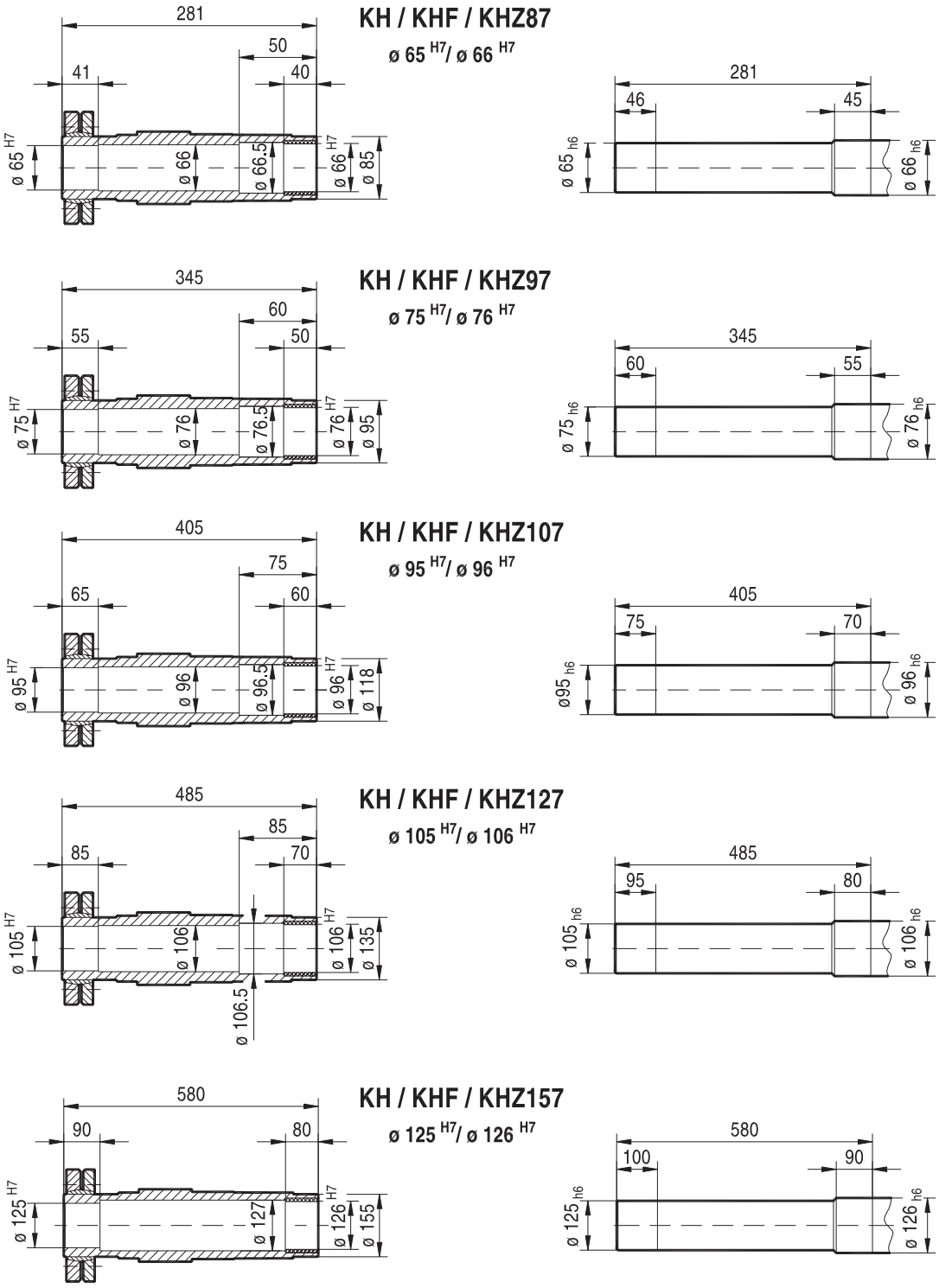

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Figure 19: Shouldered hollow shaft KH/KHF/KHZ87...157

Helical-worm gear unit with shouldered hollow shaft

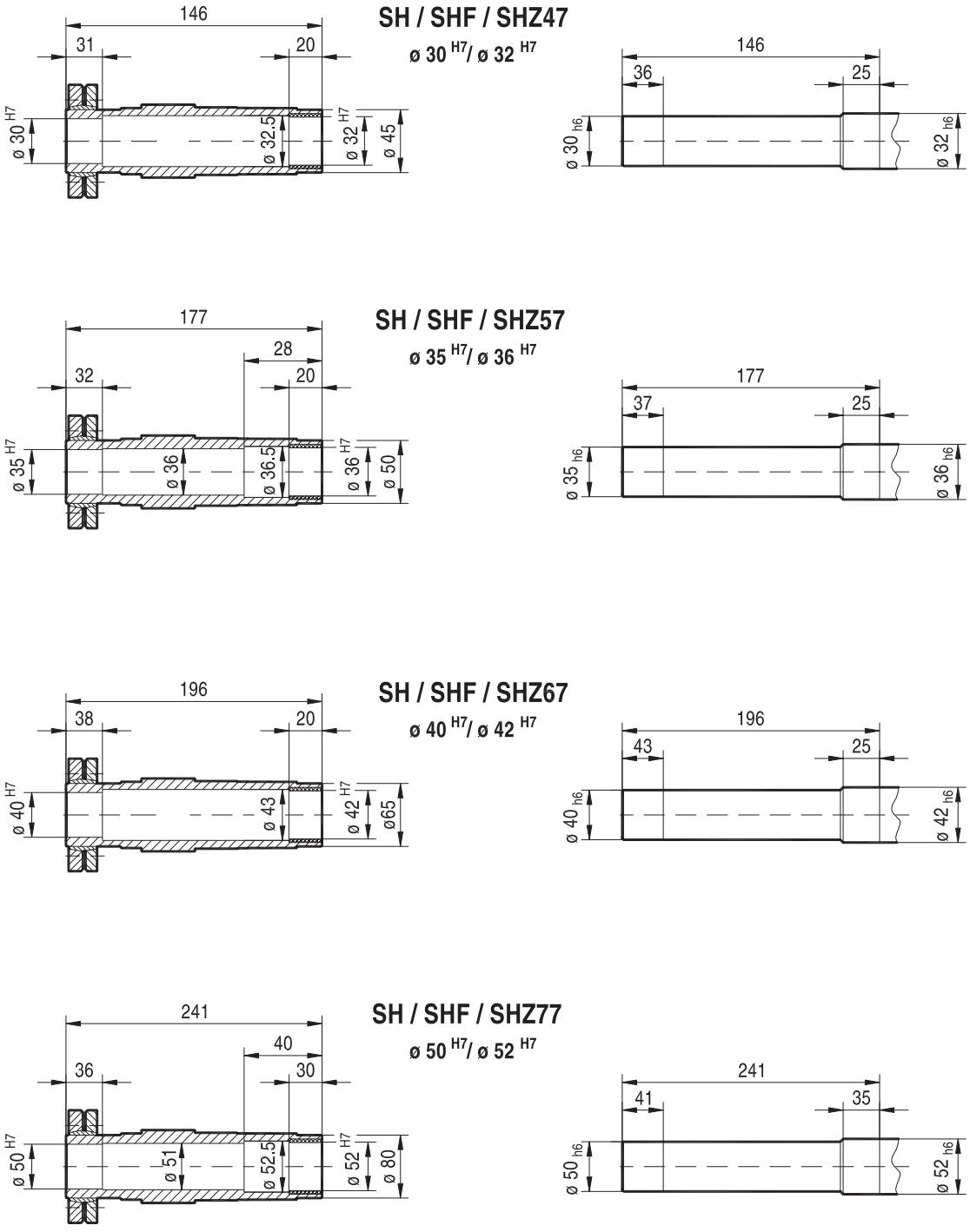

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Figure 20: Shouldered hollow shaft SH/SHF/SHZ47...77

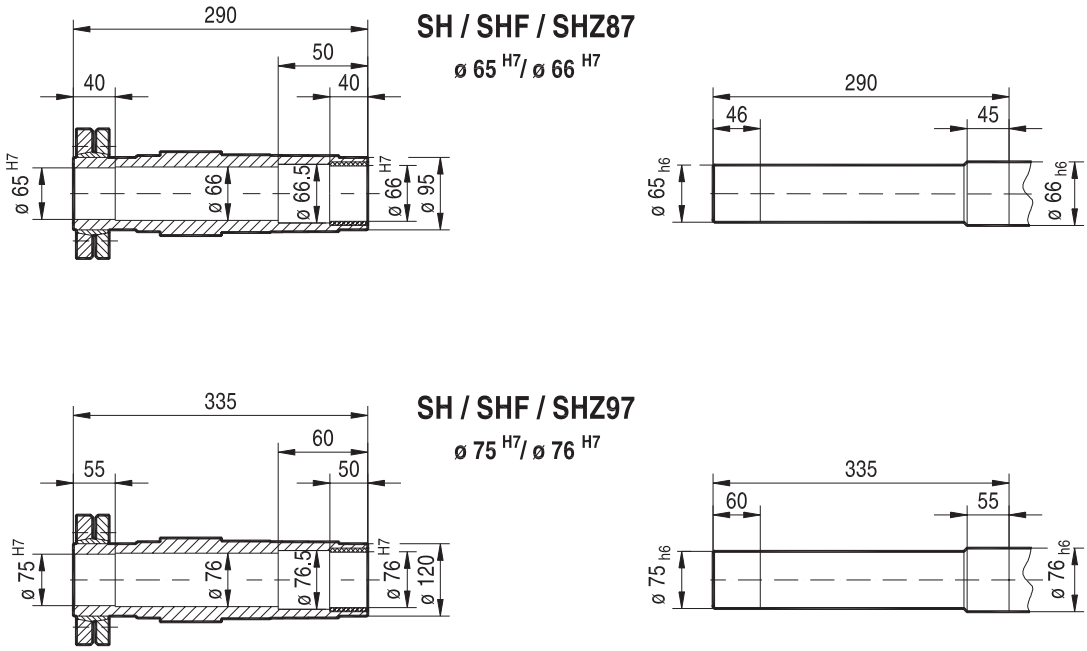

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Figure 21: Shouldered hollow shaft SH/SHF/SHZ87...97

6.9 Flange contours of the RF.. and R..F gear units

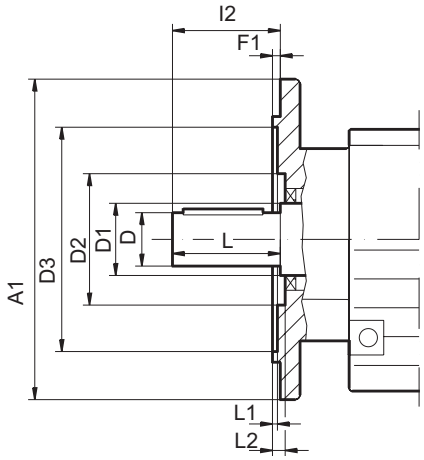

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Figure 22: Flange contours

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

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

6.10 Fastening of gear units

Use bolts of quality 8.8 to fasten gear units.

Exception

In case of the following flange-mounted helical gear units (RF..) and foot/flange-mounted helical gear units (R..F), use bolts of **quality 10.9** to fasten the customer flange to transmit the rated torque:

- RF37, R37F with flange ∅ 120 mm
- RF47, R47F with flange ∅ 140 mm
- RF57, R57F with flange ∅ 160 mm

6.11 Torque arms

Available torque arms

Gear units	Size					
	27	37	47	57	67	77
KA, KH, KV, KT	-	643 425 8	643 428 2	643 431 2	643 431 2	643 434 7
SA, SH, ST	-	126 994 1	644 237 4	644 240 4	644 243 9	644 246 3
FA, FH, FV, FT Rubber buffers (2 pcs.)	013 348 5	013 348 5	013 348 5	013 348 5	013 348 5	013 349 3

Gear units	Size				
	87	97	107	127	157
KA, KH, KV, KT	643 437 1	643 440 1	643 443 6	643 294 8	-
SA, SH, ST	644 249 8	644 252 8	-	-	-
FA, FH, FV, FT Rubber buffers (2 pcs.)	013 349 3	013 350 7	013 350 7	013 351 5	013 347 7

Torque arms for KH167.., KH187..

As standard, torque arms are not available for gear unit sizes KH167.. and KH187... Please contact SEW-EURODRIVE for design proposals if you require torque arms for these gear units.

6.12 Fixed covers

As standard, parallel shaft helical gear units, helical-bevel gear units and helical-worm gear units with hollow shafts and shrink disks from size 37 up to and including size 97 have a cover that turns with the unit. If for safety reasons fixed covers are required for these gear units, you can order them for the respective gear unit types by quoting the part numbers in the following tables. As standard, parallel shaft helical gear units and helical-bevel gear units with hollow shafts and shrink discs of size 107 and parallel shaft helical gear units of size 27 come equipped with a fixed cover.

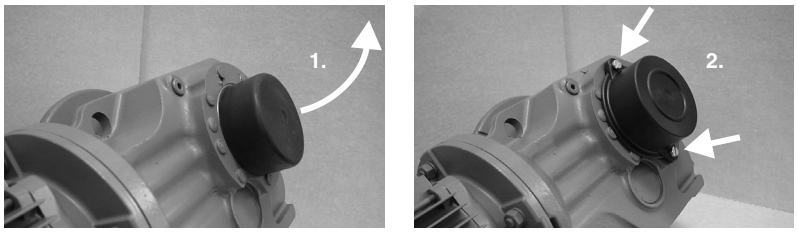

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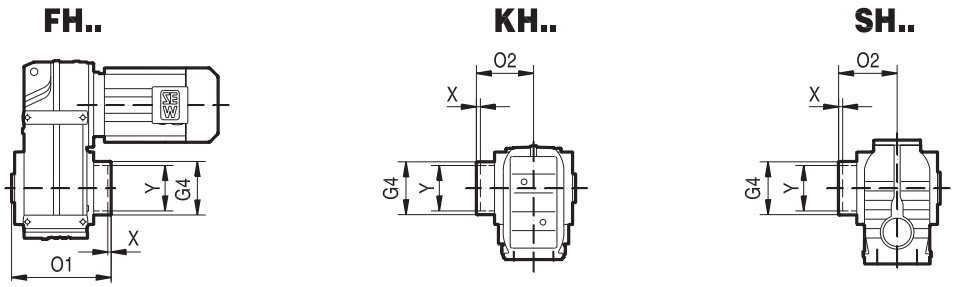
Figure 23: Replacing a rotating cover with a fixed cover

1. Pull off the rotating cover.
2. Install and fasten fixed cover.

Part numbers and dimensions



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Parallel shaft helical gearmotors	FH..37	FH..47	FH..57	FH..67	FH..77	FH..87	FH..97
Part number	643 513 0	643 514 9	643 515 7	643 515 7	643 516 5	643 517 3	643 518 1
Max. size of motor that can be mounted	DT80..	DT80..	DT80..	DV132S	DV160M	DV180..	DV180..
G4	78	88	100	100	121	164	185
O1	157	188.5	207.5	221.5	255	295	363.5
X	2	4.5	7.5	6	6	4	6.5
Y	75	83	83	93	114	159	174

Helical-bevel gearmotors[1)]	KH..37	KH..47	KH..57	KH..67	KH..77	KH..87	KH..97
Part number	643 513 0	643 514 9	643 515 7	643 515 7	643 516 5	643 517 3	643 518 1
G4	78	88	100	100	121	164	185
O2	95	111.5	122.5	129	147	172	210.5
X	0	1.5	5.5	3	1	2	4.5
Y	75	83	83	93	114	159	174

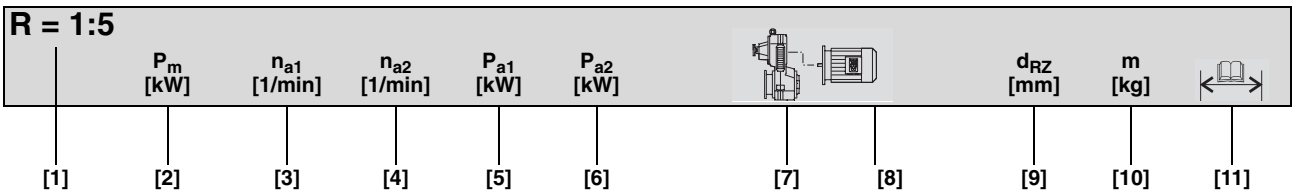
1) Not possible in foot-mounted helical-bevel gear units with hollow shafts and shrink discs (KH..B).

Helical-worm gearmotors	SH..37	SH..47	SH..57	SH..67	SH..77	SH..87	SH..97
Part number	643 512 2	643 513 0	643 514 9	643 515 7	643 516 5	643 517 3	643 518 1
G4	59	78	88	100	121	164	185
O2	88	95	111.5	123	147	176	204.5
X	1	0	1.5	3	1	0	0.5
Y	53	75	83	93	114	159	174

7 Important Information, Tables and Dimension Sheets

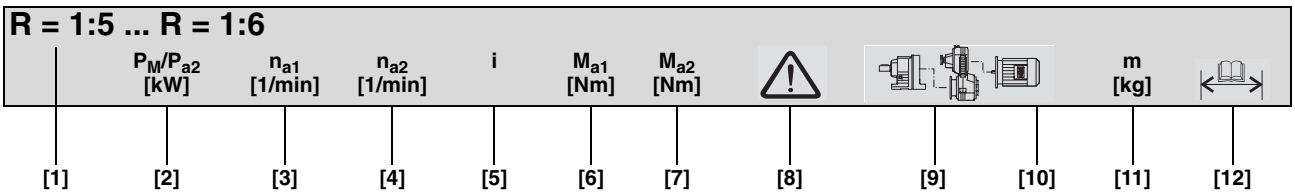
7.1 Structure of the selection tables

Example: Selection table for solo variable speed geared motors:



[1] Setting range
[2] Rated power of driving motor
[3] Minimum output speed
[4] Maximum output speed
[5] Output power at n_{a1}
[6] Output power at n_{a2}
[7] Variable speed gear unit type
[8] Motor type
[9] Diameter of pinion spigot
[10] Weight
[11] Dimension sheet page number

Example: Selection table for R, F, K and S variable speed gearmotors:



[1] Setting range
[2] Rated power of driving motor / output power at n_{a2} (only for R, F and K gear units)
[3] Minimum output speed
[4] Maximum output speed
[5] Gear unit reduction ratio (* Finite gear unit reduction ratio)
[6] Output torque at n_{a1}
[7] Output torque at n_{a2}
[8] Please refer to Sec. "Thermal limit power for variable speed gearmotors"
[9] Gear unit and variable speed gear unit size
[10] Motor type
[11] Weight
[12] Dimension sheet page number

Thermal limit power for variable speed gearmotors

The power values given in the selection tables for variable speed gearmotors are mechanical power limits. Depending on the mounting position, however, gear units may become thermally overloaded before they reach the mechanical power limit. For mineral oils, corresponding cases are indicated in the selection tables by having the mounting position specified (see the column shown in the illustration below).

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Please contact SEW if the mounting position you require is the same as one of those indicated. By considering the actual operating conditions, it will then be possible to recalculate the thermal limit rating based on the specific application. Alternatively, suitable measures can be taken (e.g. using a synthetic lubricant with higher thermal stability) to increase the thermal limit rating of the gear unit. The following data are required for recalculation:

Gear unit type .....

Output speed range [n_{a1} -n_{a2}] ..... 1/min **Gear ratio i** .....

Ambient temperature ..... °C **Cyclic duration factor cdf** ..... %

Power drawn [P] ..... kW

Installation location:.....
...in small, enclosed rooms
...in large rooms, halls
...in the open

Installation situation: .....
e.g. steel foundation, concrete foundation

7.2 Dimension sheet information

Scope of delivery

= Standard parts supplied by SEW.

= Standard parts not supplied by SEW.

Tolerances

Shaft heights

The following tolerances apply to the dimensions given:

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:

∅	≤ 50 mm	→ ISO k6
∅	> 50 mm	→ ISO m6

Center bores according to DIN 332, shape DR:

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

Keys: according to DIN 6885 (domed type)

Hollow shafts

Diameter tolerance:

∅	→ ISO H7 measured with plug gauge

Multiple-spline shafts

Dm	= Measuring roller diameter
Me	= Check size

Flanges

Centering shoulder tolerance:

∅	≤ 230 mm (flange sizes A120...A300)	→ ISO j6
∅	> 230 mm (flange sizes A350...A660)	→ ISO h6

Up to three different flange dimensions are available for each size of VARIBLOC®, VARIMOT®, helical gear unit, AC (brake) motor and explosion-proof AC (brake) motor. Flange dimensions available for each size. The possible flanges per size are indicated in the relevant dimension sheets.

Lifting eyebolts, suspension eye lugs

The gear units and motors listed in the overview below are equipped with cast-on suspension eye lugs, screw-on suspension eye lugs or screw-on lifting eyebolts. All other gear unit or motor sizes are supplied without any special transport fixtures.

Gear unit/motor type	Screw-on,		cast-on suspension eye lugs
	lifting eyebolts	Eyebolts	
R..37-R..57	-	•	-
R..67-R..167	•	-	-
RX57-RX67	-	•	-
RX77-RX107	•	-	-
F..27-F..157	-	-	•
K..37-K..157	-	-	•
K..167-K..187	•	-	-
S..37-S..47	-	•	-
S..57-S..97	-	-	•
≥ DV112	•	-	-

Breather valves

The gear unit dimension drawings are always shown with screw plugs. The corresponding screw plug is replaced by an activated breather valve at the factory depending on the ordered mounting position M1...M6. This means the contour dimensions may be slightly different.

Shrink disc connection

Hollow shaft gear unit with shrink disc connection: If required, please request a detailed data sheet on shrink discs from SEW-EURODRIVE, data sheet no. 33 753 ..95.

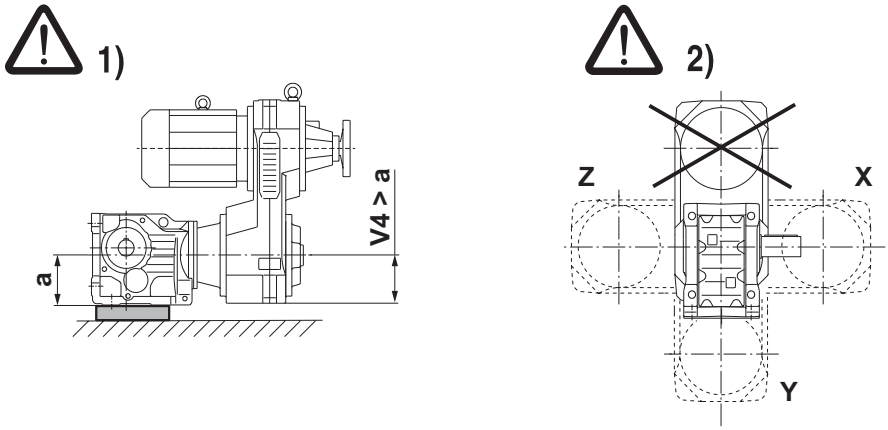
Splined hollow shaft

FV.. hollow shaft gear units in sizes 37 ... 107 and KV.. in sizes 37 ... 107 are delivered with a splined hollow shaft according to DIN 5480.

Rubber buffer for FA/FH/FV

f = Spring travel at $M_{a\ max}$

The following cases are identified in the dimension sheets for the variable speed gearmotors:



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1) Gear unit must be supported (dimension V4 ≥ shaft height a of the gear unit)
2) Only the specified inclined mounting positions are permitted

Motor dimensions

Brake motors

In brake motors, dimensions G1B apply instead of G1 and KB instead of K.

Special designs

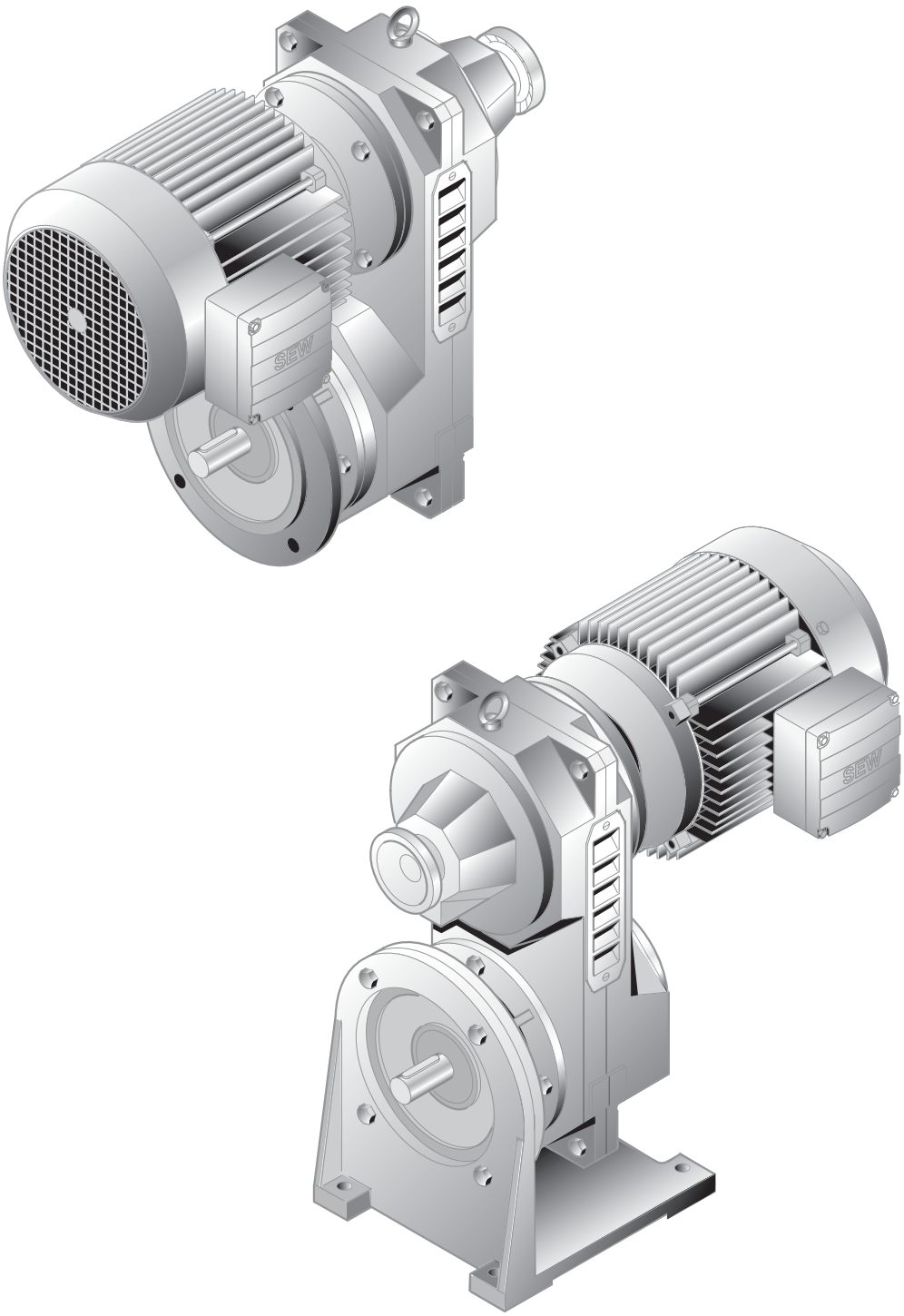
The dimensions of the terminal box on special designs such as KS or CSA may deviate from the standard dimensions.

EN 50347

European standard EN 50347 became effective in August 2001. This standard adopts the dimension designations for three-phase AC motors of sizes 56 to 315M and flange sizes 65 to 740 from the IEC 72-1 standard.

8 VUF/VZF..

8.1 VUF/VZF..DR/DT/DV..



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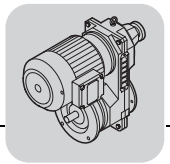
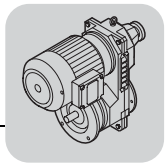
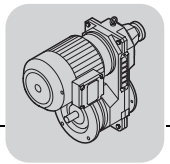


8.2 VUF/VZF..DR/DT/DV.. [kW]

P_m [kW]	n_{a1} [1/min]	-	n_{a2}	P_{a1} [kW]	-	P_{a2}					d_{RZ} [mm]	m [kg]	
R = 1:5													
0.25	**309**	-	**1545**	0.05	-	0.20	**VUF 01 VZF 01**		**DT**	**80N8**	10	32	160
	408	-	**2000**	0.07	-	0.20	**VUF 01 VZF 01**		**DT**	**71D6**	10	29	160
	604	-	**2950**	0.10	-	0.20	**VUF 01 VZF 01**		**DR**	**63L4**	10	28	160
0.37	**410**	-	**2045**	0.14	-	0.30	**VUF 01 VZF 01**		**DT**	**80K6**	10	31	160
	613	-	**3135**	0.15	-	0.30	**VUF 01 VZF 01**		**DT**	**71D4**	10	29	160
0.55	**410**	-	**2045**	0.14	-	0.45	**VUF 01 VZF 01**		**DT**	**80N6**	10	32	160
	610	-	**3085**	0.20	-	0.45	**VUF 01 VZF 01**		**DT**	**80K4**	10	31	160
0.75	**613**	-	**3135**	0.20	-	0.62	**VUF 01 VZF 01**		**DT**	**80N4**	10	32	160
R = 1:6													
0.37	**256**	-	**1505**	0.27	-	0.30	**VUF 21 VZF 21**		**DT**	**90S8**	14	81	162
	270	-	**1565**	0.17	-	0.30	**VUF 11 VZF 11**		**DT**	**90S8**	12	53	161
	358	-	**2070**	0.23	-	0.30	**VUF 11 VZF 11**		**DT**	**80K6**	12	46	161
0.55	**256**	-	**1505**	0.27	-	0.45	**VUF 21 VZF 21**		**DT**	**90L8**	14	82	162
	270	-	**1565**	0.17	-	0.45	**VUF 11 VZF 11**		**DT**	**90L8**	12	55	161
	358	-	**2070**	0.23	-	0.45	**VUF 11 VZF 11**		**DT**	**80N6**	12	47	161
	533	-	**3130**	0.27	-	0.45	**VUF 11 VZF 11**		**DT**	**80K4**	12	46	161
0.75	**256**	-	**1525**	0.35	-	0.62	**VUF 21 VZF 21**		**DV**	**100M8**	14	89	162
	339	-	**1990**	0.35	-	0.62	**VUF 21 VZF 21**		**DT**	**90S6**	14	81	162
	358	-	**2070**	0.23	-	0.62	**VUF 11 VZF 11**		**DT**	**90S6**	12	53	161
	535	-	**3175**	0.27	-	0.62	**VUF 11 VZF 11**		**DT**	**80N4**	12	47	161
1.1	**256**	-	**1505**	0.35	-	0.90	**VUF 21 VZF 21**		**DV**	**100L8**	14	93	162
	340	-	**2035**	0.35	-	0.90	**VUF 21 VZF 21**		**DT**	**90L6**	14	82	162
	509	-	**3095**	0.54	-	0.90	**VUF 21 VZF 21**		**DT**	**90S4**	14	81	162
	359	-	**2115**	0.23	-	0.90	**VUF 11 VZF 11**		**DT**	**90L6**	12	55	161
	536	-	**3220**	0.35	-	0.90	**VUF 11 VZF 11**		**DT**	**90S4**	12	53	161
1.5	**256**	-	**1510**	0.62	-	1.2	**VUF 31 VZF 31**		**DV**	**112M8**	18	130	163
	340	-	**2035**	0.46	-	1.2	**VUF 21 VZF 21**		**DV**	**100M6**	14	89	162
	509	-	**3115**	0.54	-	1.2	**VUF 21 VZF 21**		**DT**	**90L4**	14	82	162
	537	-	**3245**	0.35	-	1.2	**VUF 11 VZF 11**		**DT**	**90L4**	12	55	161
2.2	**256**	-	**1510**	0.62	-	1.8	**VUF 31 VZF 31**		**DV**	**132S8**	18	135	163
	341	-	**2030**	0.83	-	1.8	**VUF 31 VZF 31**		**DV**	**112M6**	18	130	163

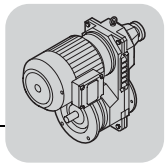


P_m [kW]	n_{a1} [1/min]	-	n_{a2}	P_{a1} [kW]	-	P_{a2}					d_{RZ} [mm]	m [kg]	
R = 1:6													
2.2	**509**	-	**3115**	0.70	-	1.8	**VUF 21 VZF 21**	**DV**	**100M4**		14	89	162
3.0	**253**	-	**1525**	1.3	-	2.5	**VUF 41 VZF 41**	**DV**	**132M8**		22	210	164
	341	-	**2030**	0.83	-	2.5	**VUF 31 VZF 31**	**DV**	**132S6**		18	135	163
	509	-	**3095**	0.70	-	2.5	**VUF 21 VZF 21**	**DV**	**100L4**		14	93	162
4.0	**253**	-	**1525**	1.3	-	3.3	**VUF 41 VZF 41**	**DV**	**132ML8**		22	220	164
	337	-	**2035**	1.7	-	3.3	**VUF 41 VZF 41**	**DV**	**132M6**		22	210	164
	510	-	**3065**	1.2	-	3.3	**VUF 31 VZF 31**	**DV**	**112M4**		18	130	163
5.5	**253**	-	**1505**	1.3	-	4.5	**VUF 41 VZF 41**	**DV**	**160M8**		22	225	164
	337	-	**2035**	1.7	-	4.5	**VUF 41 VZF 41**	**DV**	**132ML6**		22	220	164
	511	-	**3090**	1.2	-	4.5	**VUF 31 VZF 31**	**DV**	**132S4**		18	135	163
7.5	**257**	-	**1525**	2.2	-	6.2	**VUF 51**	**DV**	**160L8**		28	355	165
	337	-	**2035**	1.7	-	6.2	**VUF 41 VZF 41**	**DV**	**160M6**		22	225	164
	503	-	**3030**	2.5	-	6.2	**VUF 41 VZF 41**	**DV**	**132M4**		22	210	164
9.2	**503**	-	**3055**	2.5	-	7.5	**VUF 41 VZF 41**	**DV**	**132ML4**		22	220	164
11.0	**257**	-	**1525**	2.2	-	9.0	**VUF 51**	**DV**	**180L8**		28	420	165
	343	-	**2035**	3.0	-	9.0	**VUF 51**	**DV**	**160L6**		28	355	165
	503	-	**3055**	2.5	-	9.0	**VUF 41 VZF 41**	**DV**	**160M4**		22	225	164
15.0	**343**	-	**2055**	3.0	-	12.3	**VUF 51**	**DV**	**180L6**		28	420	165
	514	-	**3095**	4.5	-	12.3	**VUF 51**	**DV**	**160L4**		28	355	165
18.5	**514**	-	**3105**	4.5	-	15.2	**VUF 51**	**DV**	**180M4**		28	405	165
22	**514**	-	**3105**	4.5	-	18.0	**VUF 51**	**DV**	**180L4**		28	420	165
R = 1:4													
15.0	**274**	-	**1240**	5.0	-	13.0	**VUF 6**	**DV**	**200L8**		32	550	166
18.5	**366**	-	**1670**	7.5	-	16.0	**VUF 6**	**DV**	**200LS6**		32	540	166
22	**366**	-	**1670**	7.5	-	19	**VUF 6**	**DV**	**200L6**		32	550	166
30	**549**	-	**2530**	10.0	-	25	**VUF 6**	**DV**	**200L4**		32	550	166
R = 1:3													
37	**688**	-	**2085**	15.0	-	30	**VUF 6**	**DV**	**225S4**		32	640	166
45	**688**	-	**2085**	15.0	-	37	**VUF 6**	**DV**	**225M4**		32	660	166
R = 1:7													
0.37	**270**	-	**1870**	0.17	-	0.30	**VUF 11 VZF 11**	**DT**	**90S8**		12	53	161
	358	-	**2475**	0.23	-	0.30	**VUF 11 VZF 11**	**DT**	**80K6**		12	46	161
0.55	**270**	-	**1870**	0.17	-	0.45	**VUF 11 VZF 11**	**DT**	**90L8**		12	55	161



VUF/VZF..DR/DT/DV.. [kW]

P_m [kW]	n_{a1} [1/min]	-	n_{a2}	P_{a1} [kW]	-	P_{a2}					d_{RZ} [mm]	m [kg]	
R = 1:7													
0.55	**358**	-	**2475**	0.23	-	0.45	**VUF 11 VZF 11**		**DT**	**80N6**	12	47	161
	533	-	**3740**	0.27	-	0.45	**VUF 11 VZF 11**		**DT**	**80K4**	12	46	161
0.75	**358**	-	**2475**	0.23	-	0.62	**VUF 11 VZF 11**		**DT**	**90S6**	12	53	161
	535	-	**3795**	0.27	-	0.62	**VUF 11 VZF 11**		**DT**	**80N4**	12	47	161
1.1	**359**	-	**2530**	0.23	-	0.90	**VUF 11 VZF 11**		**DT**	**90L6**	12	55	161
	536	-	**3850**	0.35	-	0.90	**VUF 11 VZF 11**		**DT**	**90S4**	12	53	161
1.5	**537**	-	**3880**	0.35	-	1.2	**VUF 11 VZF 11**		**DT**	**90L4**	12	55	161
R = 1:8													
0.37	**256**	-	**1945**	0.27	-	0.30	**VUF 21 VZF 21**		**DT**	**90S8**	14	81	162
0.55	**256**	-	**1945**	0.27	-	0.45	**VUF 21 VZF 21**		**DT**	**90L8**	14	82	162
0.75	**256**	-	**1975**	0.35	-	0.62	**VUF 21 VZF 21**		**DV**	**100M8**	14	89	162
	339	-	**2575**	0.35	-	0.62	**VUF 21 VZF 21**		**DT**	**90S6**	14	81	162
1.1	**256**	-	**1945**	0.35	-	0.90	**VUF 21 VZF 21**		**DV**	**100L8**	14	93	162
	340	-	**2630**	0.35	-	0.90	**VUF 21 VZF 21**		**DT**	**90L6**	14	82	162
	509	-	**4005**	0.54	-	0.90	**VUF 21 VZF 21**		**DT**	**90S4**	14	81	162
1.5	**256**	-	**2000**	0.62	-	1.2	**VUF 31 VZF 31**		**DV**	**112M8**	18	130	163
	340	-	**2630**	0.46	-	1.2	**VUF 21 VZF 21**		**DV**	**100M6**	14	89	162
	509	-	**4035**	0.54	-	1.2	**VUF 21 VZF 21**		**DT**	**90L4**	14	82	162
2.2	**256**	-	**2000**	0.62	-	1.8	**VUF 31 VZF 31**		**DV**	**132S8**	18	135	163
	341	-	**2690**	0.83	-	1.8	**VUF 31 VZF 31**		**DV**	**112M6**	18	130	163
	509	-	**4035**	0.70	-	1.8	**VUF 21 VZF 21**		**DV**	**100M4**	14	89	162
3.0	**341**	-	**2690**	0.83	-	2.5	**VUF 31 VZF 31**		**DV**	**132S6**	18	135	163
	509	-	**4005**	0.70	-	2.5	**VUF 21 VZF 21**		**DV**	**100L4**	14	93	162
4.0	**510**	-	**4060**	1.2	-	3.3	**VUF 31 VZF 31**		**DV**	**112M4**	18	130	163
5.5	**511**	-	**4090**	1.2	-	4.5	**VUF 31 VZF 31**		**DV**	**132S4**	18	135	163



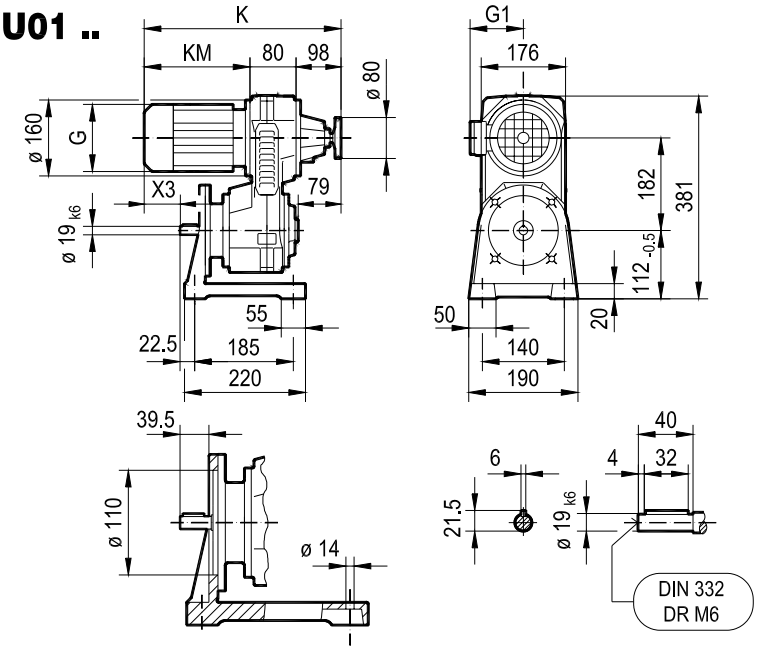
8.3 VUF..U/VZF..U DR/DT/DV.. [kW]

P_m [kW]	n_{a1} [1/min]	-	n_{a2}	P_{a1} [kW]	-	P_{a2}					d_{RZ} [mm]	m [kg]	
R = 1:5													
0.25	**309**	-	**1545**	0.05	-	0.20	**VUF VZF**	**01U 01U**	**DT**	**80N8**	10	32	160
	408	-	**2000**	0.07	-	0.20	**VUF VZF**	**01U 01U**	**DT**	**71D6**	10	29	160
0.37	**410**	-	**2045**	0.14	-	0.30	**VUF VZF**	**01U 01U**	**DT**	**80K6**	10	31	160
0.55	**410**	-	**2045**	0.14	-	0.45	**VUF VZF**	**01U 01U**	**DT**	**80N6**	10	32	160
R = 1:6													
0.37	**256**	-	**1505**	0.27	-	0.30	**VUF VZF**	**21U 21U**	**DT**	**90S8**	14	81	162
	270	-	**1565**	0.17	-	0.30	**VUF VZF**	**11U 11U**	**DT**	**90S8**	12	53	161
	358	-	**2070**	0.23	-	0.30	**VUF VZF**	**11U 11U**	**DT**	**80K6**	12	46	161
0.55	**256**	-	**1505**	0.27	-	0.45	**VUF VZF**	**21U 21U**	**DT**	**90L8**	14	82	162
	270	-	**1565**	0.17	-	0.45	**VUF VZF**	**11U 11U**	**DT**	**90L8**	12	55	161
	358	-	**2070**	0.23	-	0.45	**VUF VZF**	**11U 11U**	**DT**	**80N6**	12	47	161
0.75	**256**	-	**1525**	0.35	-	0.62	**VUF VZF**	**21U 21U**	**DV**	**100M8**	14	89	162
	339	-	**1990**	0.35	-	0.62	**VUF VZF**	**21U 21U**	**DT**	**90S6**	14	81	162
	358	-	**2070**	0.23	-	0.62	**VUF VZF**	**11U 11U**	**DT**	**90S6**	12	53	161
1.1	**256**	-	**1505**	0.35	-	0.90	**VUF VZF**	**21U 21U**	**DV**	**100L8**	14	93	162
	340	-	**2035**	0.35	-	0.90	**VUF VZF**	**21U 21U**	**DT**	**90L6**	14	82	162
	359	-	**2115**	0.23	-	0.90	**VUF VZF**	**11U 11U**	**DT**	**90L6**	12	55	161
1.5	**256**	-	**1510**	0.62	-	1.2	**VUF VZF**	**31U 31U**	**DV**	**112M8**	18	130	163
	340	-	**2035**	0.46	-	1.2	**VUF VZF**	**21U 21U**	**DV**	**100M6**	14	89	162
2.2	**341**	-	**2030**	0.83	-	1.8	**VUF VZF**	**31U 31U**	**DV**	**112M6**	18	130	163
3.0	**253**	-	**1525**	1.3	-	2.5	**VUF VZF**	**41U 41U**	**DV**	**132M8**	22	210	164
	341	-	**2030**	0.83	-	2.5	**VUF VZF**	**31U 31U**	**DV**	**132S6**	18	135	163
4.0	**253**	-	**1525**	1.3	-	3.3	**VUF VZF**	**41U 41U**	**DV**	**132ML8**	22	220	164
	337	-	**2035**	1.7	-	3.3	**VUF VZF**	**41U 41U**	**DV**	**132M6**	22	210	164
5.5	**253**	-	**1505**	1.3	-	4.5	**VUF VZF**	**41U 41U**	**DV**	**160M8**	22	225	164
	337	-	**2035**	1.7	-	4.5	**VUF VZF**	**41U 41U**	**DV**	**132ML6**	22	220	164

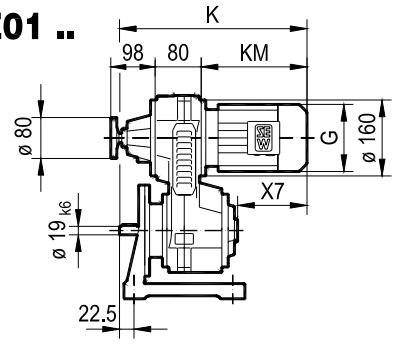
8.4 VUF/VZF..DR/DT/DV.. [mm]

12 007 001

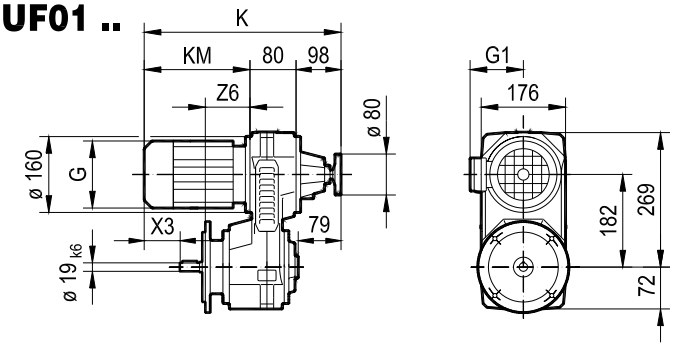
VU01 ..



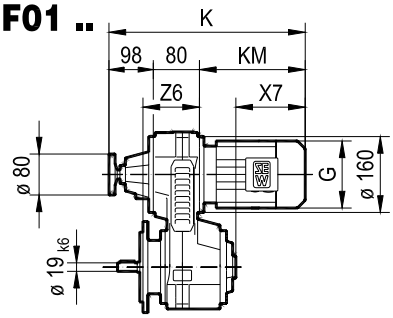
VZ01 ..



VUF01 ..



VZF01 ..



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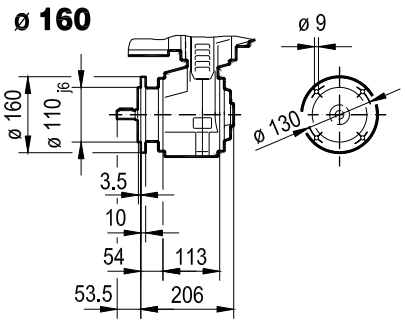
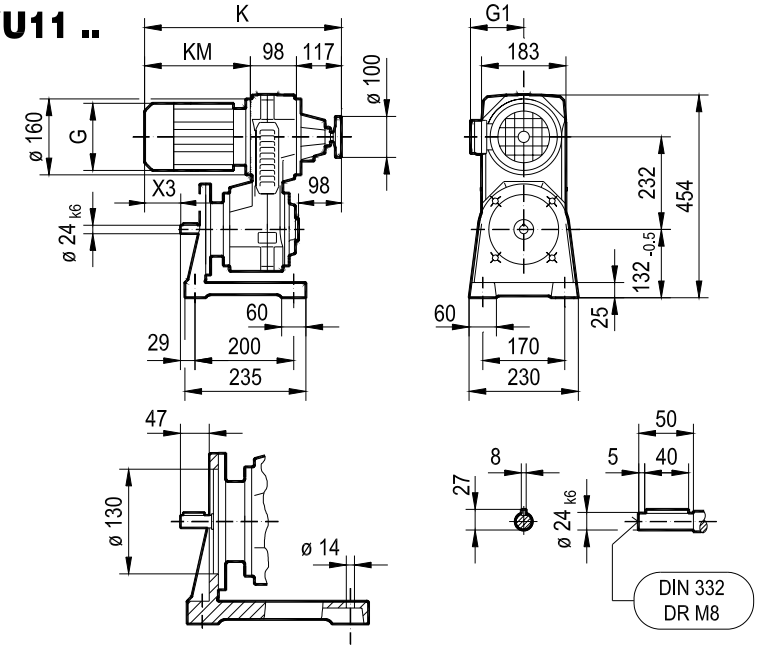


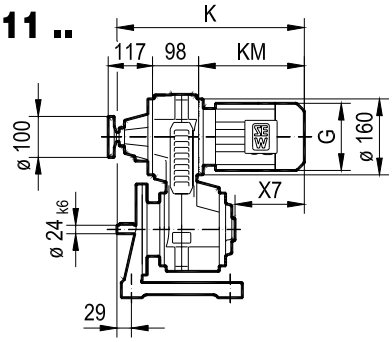
(→ 151)		G	G1	K	KM	X3	X7	Z6
VU01 VUF01	DR63..	132	105	370	192	31.5	-	107
	DT71D	145	122	380	202	41.5	-	107
	DT80..	145	122	430	252	91.5	-	107
VZ01 VZF01	DR63..	132	105	360	192	-	100	114
	DT71D	145	122	370	202	-	110	114
	DT80..	145	122	420	252	-	160	114

12 008 001

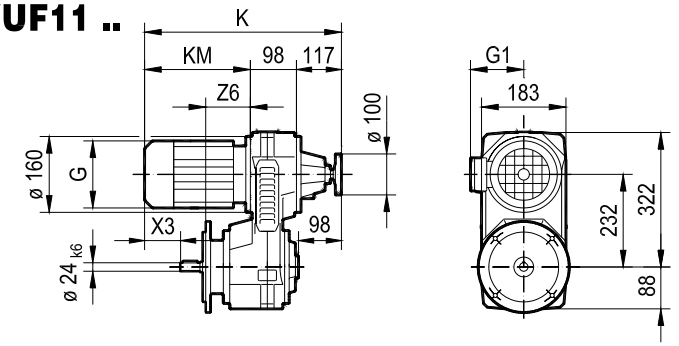
VU11 ..



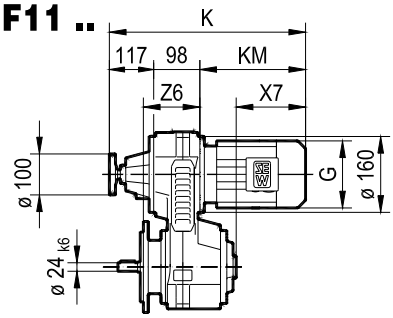
VZ11 ..



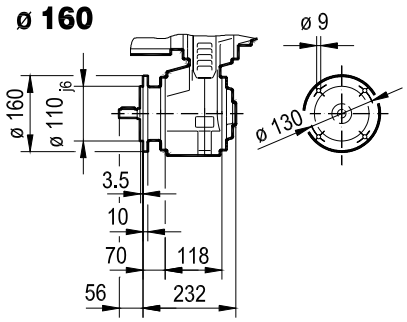
VUF11 ..



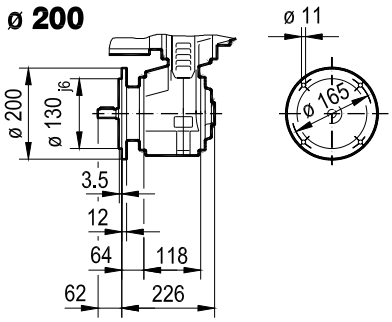
VZF11 ..



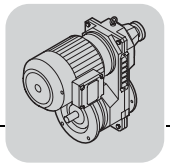
ø 160



ø 200



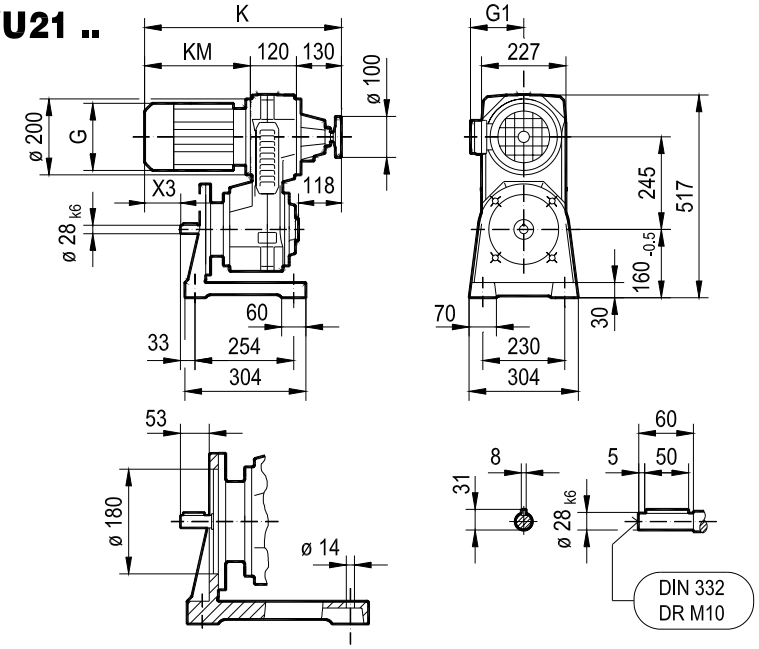
(→ 151)		G	G1	K	KM	X3	X7	Z6	
								ø 160	ø 200
VU11 VUF11	DT80..	145	122	467	252	81	-	115	109
	DT90..	197	154	488	273	102	-	115	109
VZ11 VZF11	DT80..	145	122	451	252	-	163	143	137
	DT90..	197	154	472	273	-	184	143	137



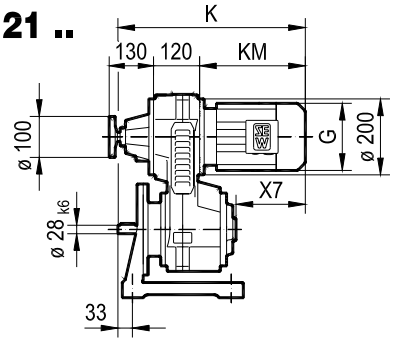
VUF/VZF..DR/DT/DV.. [mm]

12 009 001

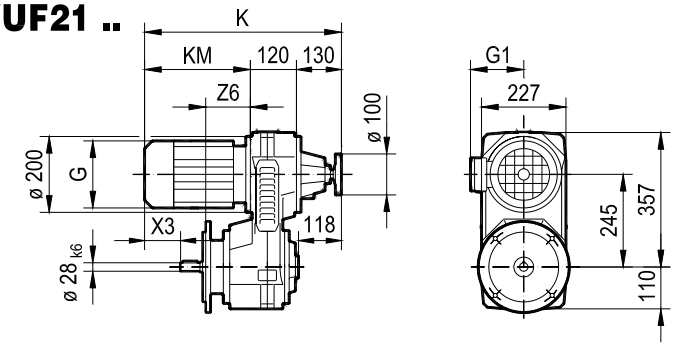
VU21 ..



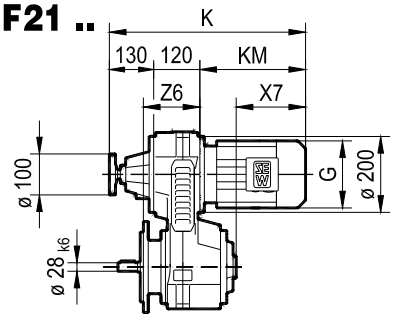
VZ21 ..



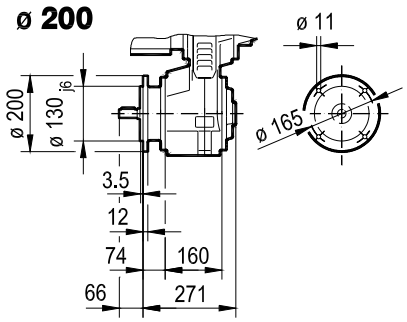
VUF21 ..



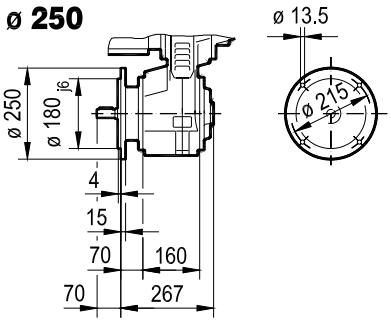
VZF21 ..



ø 200



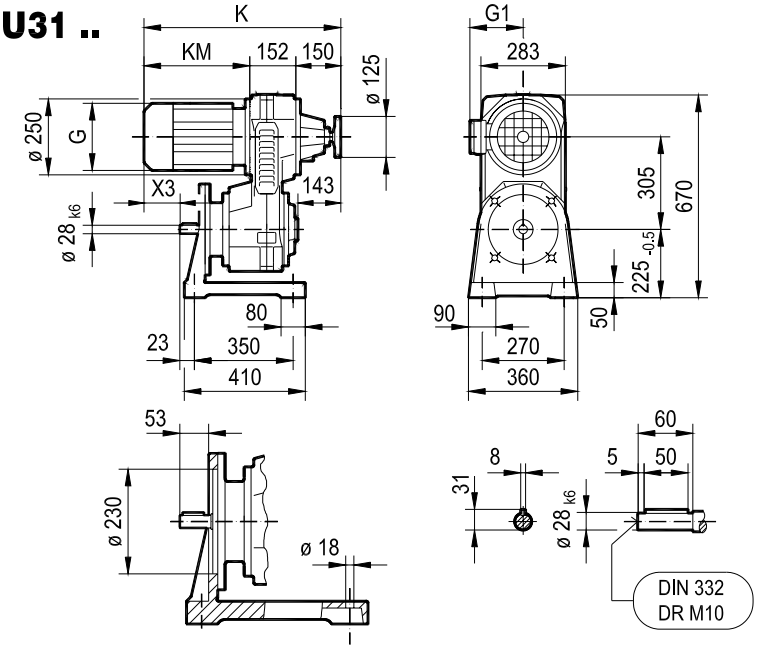
ø 250



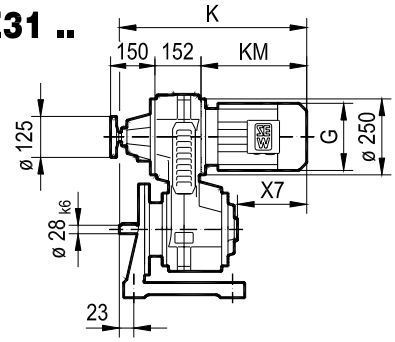
(→ 151)		G	G1	K	KM	X3	X7	Z6	
								ø 200	ø 250
VU21 VUF21	DT90..	197	154	523	273	68	-	139	135
	DV100M	197	166	561	311	106	-	139	135
	DV100L	197	166	591	341	136	-	139	135
VZ21 VZF21	DT90..	197	154	508	273	-	171	169	165
	DV100M	197	166	546	311	-	209	169	165
	DV100L	197	166	576	341	-	239	169	165

12 010 001

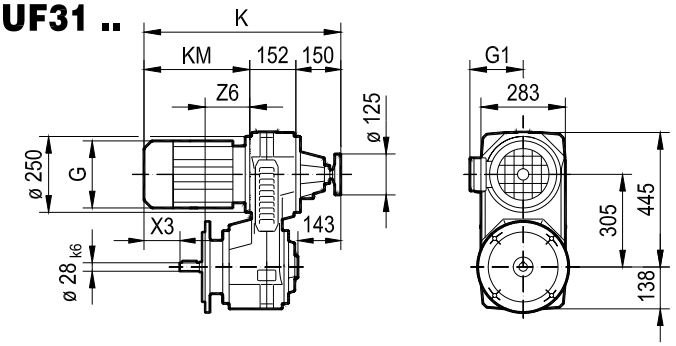
VU31 ..



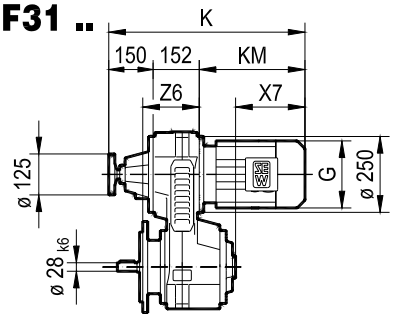
VZ31 ..



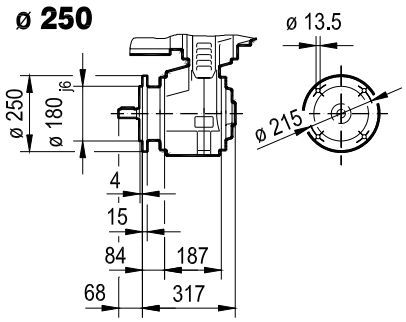
VUF31 ..



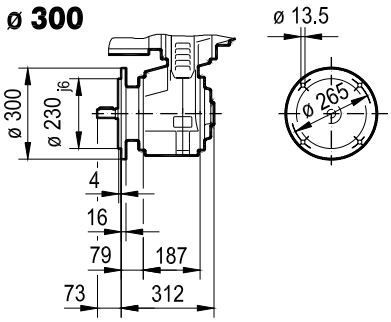
VZF31 ..



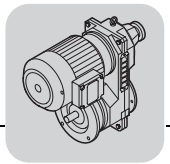
ø 250



ø 300



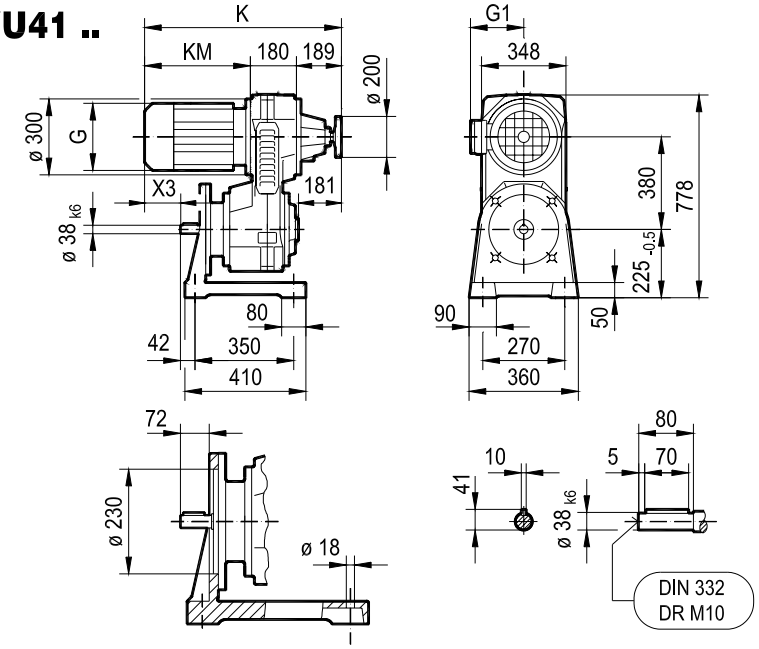
(→ 151)		G	G1	K	KM	X3	X7	Z6	
								ø 250	ø 300
VU31 VUF31	DV112M	221	179	651	349	123	-	158	153
	DV132S	221	179	696	394	168	-	158	153
VZ31 VZF31	DV112M	221	179	614	349	-	229	197	192
	DV132S	221	179	659	394	-	274	197	192



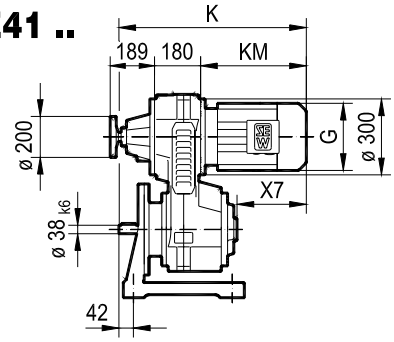
VUF/VZF..DR/DT/DV.. [mm]

12 011 001

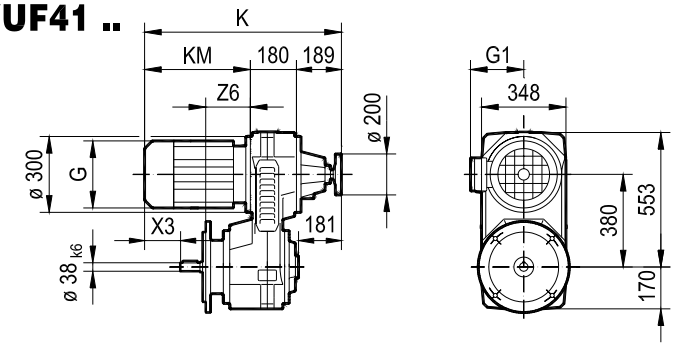
VU41 ..



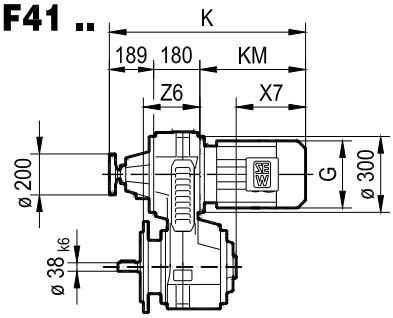
VZ41 ..



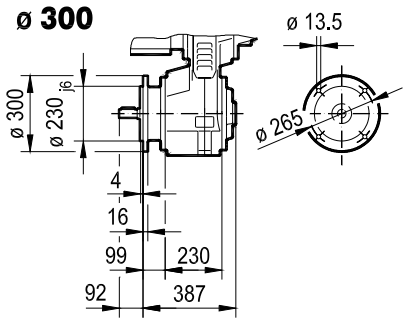
VUF41 ..



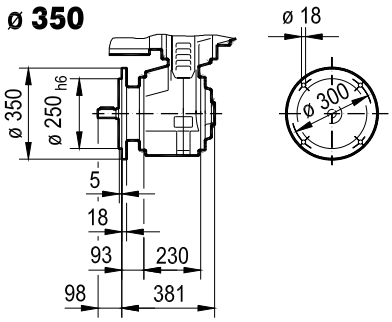
VZF41 ..



ø 300



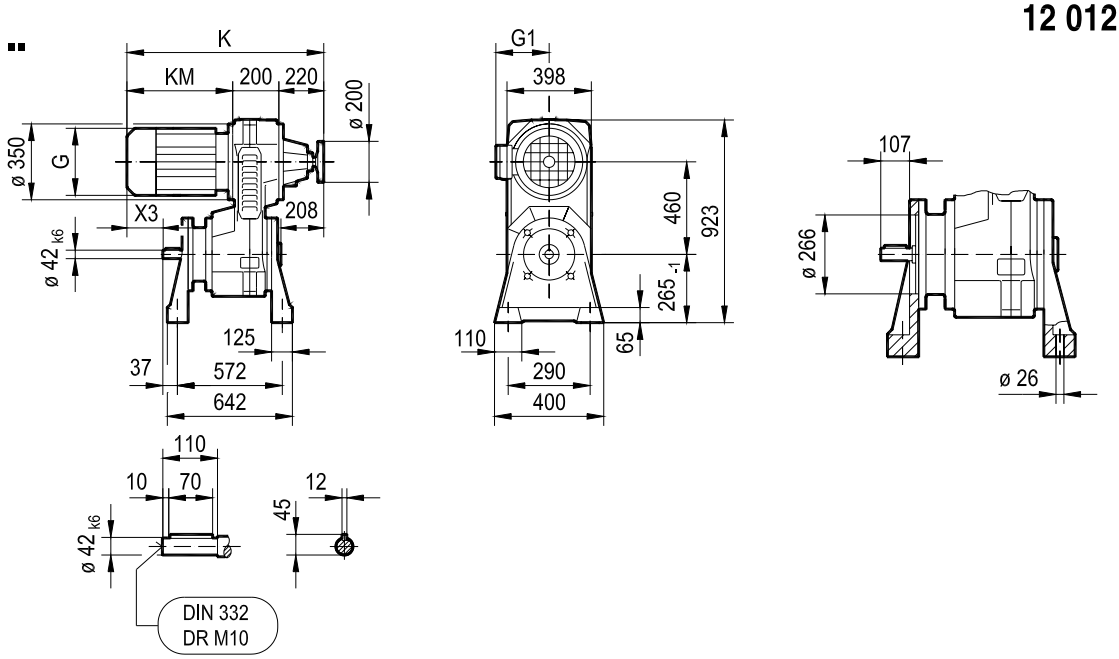
ø 350



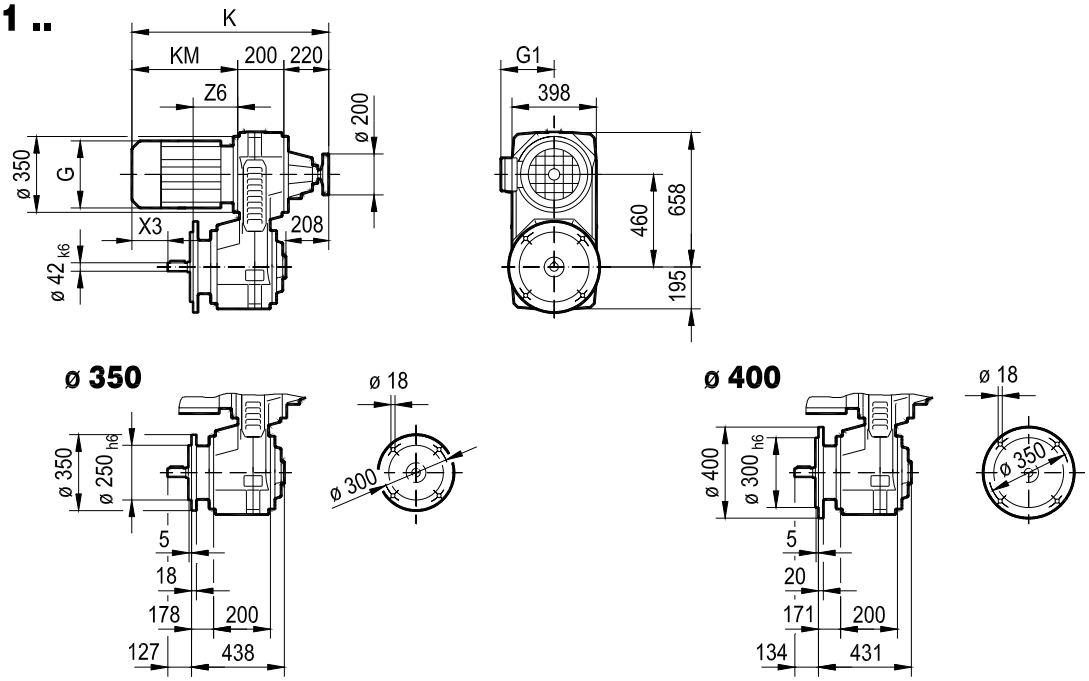
(→ 151)		G	G1	K	KM	X3	X7	Z6	
								ø 300	ø 350
VU41 VUF41	DV132M	275	230	771	402	111	-	199	193
	DV132ML	275	230	831	462	171	-	199	193
	DV160M	275	230	831	462	171	-	199	193
VZ41 VZF41	DV132M	275	230	723	402	-	244	229	223
	DV132ML	275	230	783	462	-	304	229	223
	DV160M	275	230	783	462	-	304	229	223

12 012 001

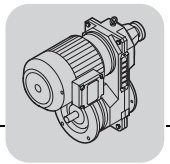
VU51 ..



VUF51 ..



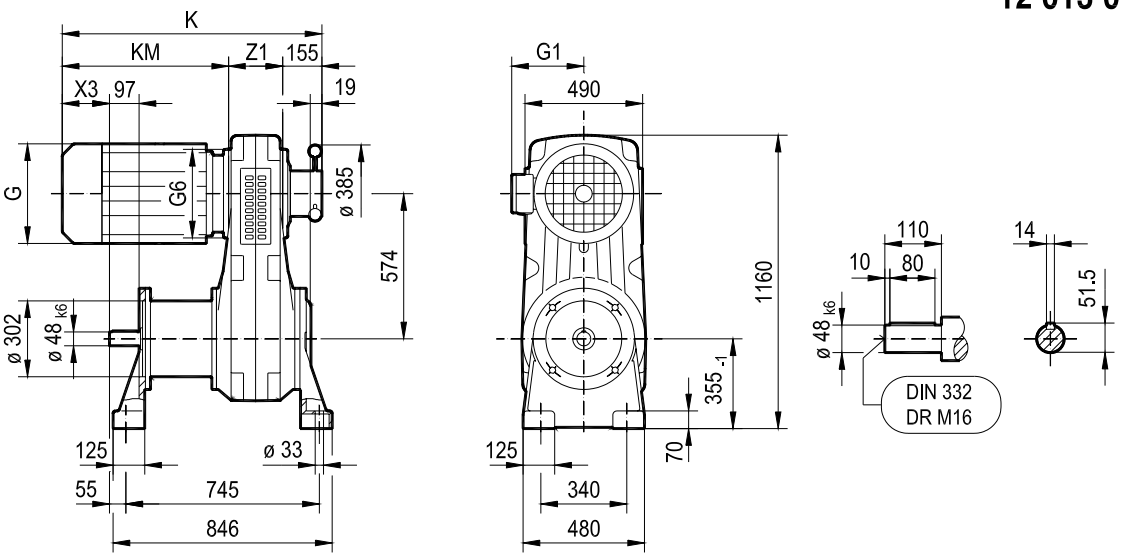
(→ 151)		G	G1	K	KM	X3	Z6	
							ø 350	ø 400
VU51 **VUF51**	**DV160L**	331	259	923	503	150	226	219
	DV180..	331	253	995	575	222	226	219



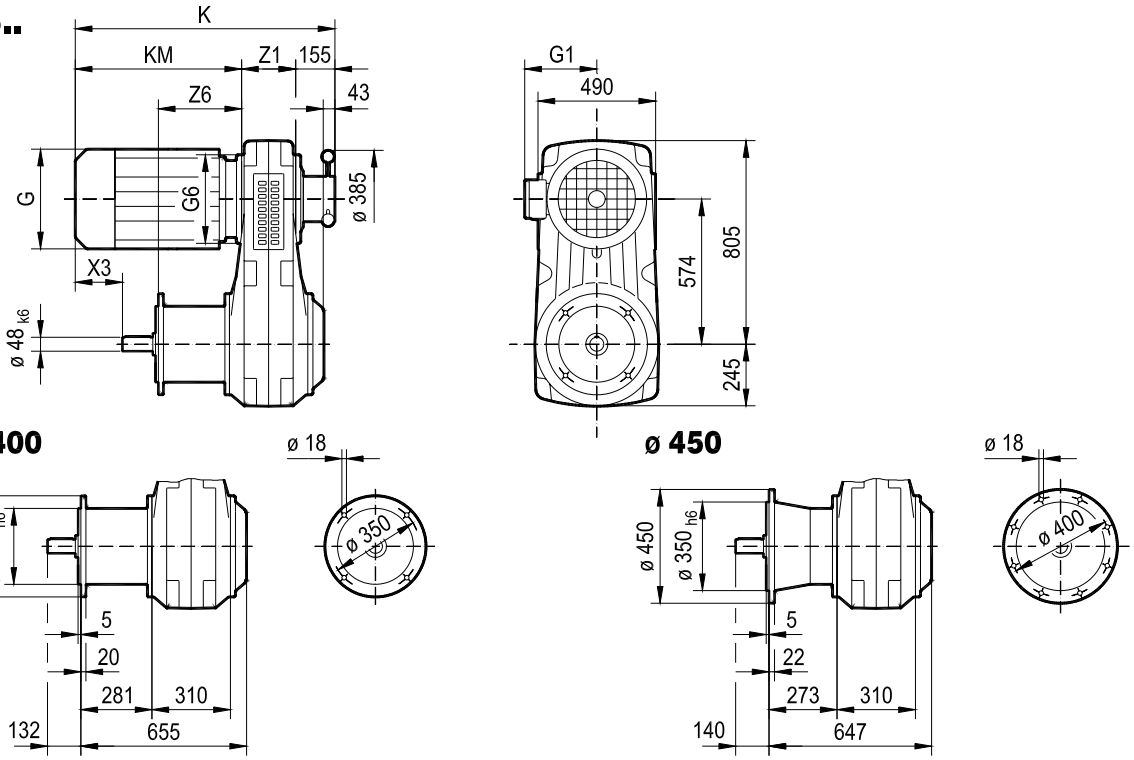
VUF/VZF..DR/DT/DV.. [mm]

VU6..

12 013 001



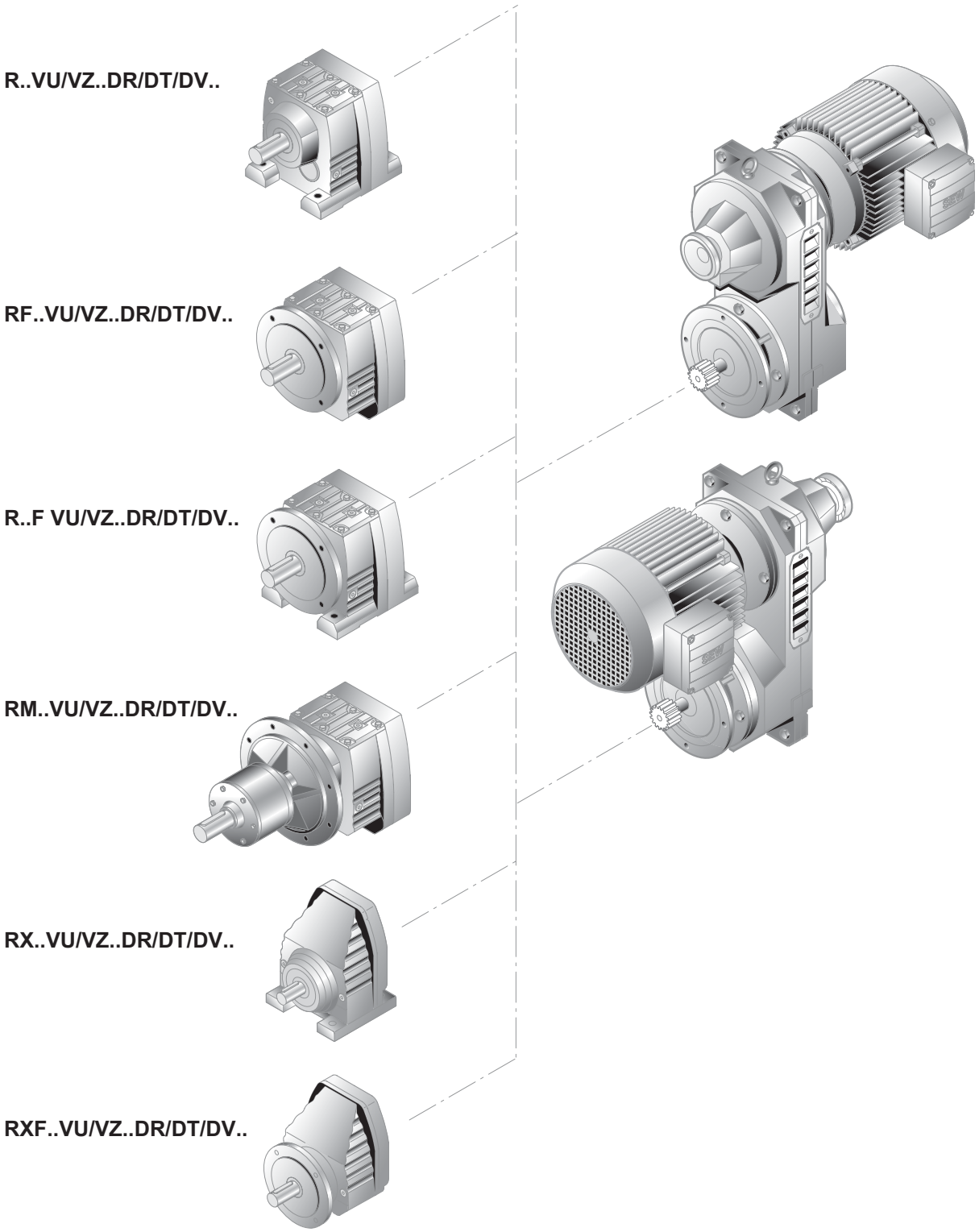
VUF6..



(→ 151)		G	G1	G6	K	KM	X3	Z1	Z6	
									ø 400	ø 450
VU6 VUF6	DV200..	394	285	350	992	623	162	214	329	321
	DV225..	394	285	450	1094	690	264	249	294	286

9 R..

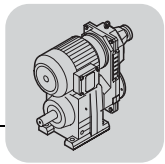
9.1 R..VU/VZ..DR/DT/DV..



9.2 R..VU/VZ..DR/DT/DV.. [kW]

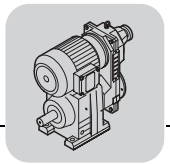
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} [1/min]	-	n_{a2}	i	M_{a1} [Nm]	M_{a2}	⚠							m [kg]	
0.25 / 0.18	**0.20**	-	**0.96**	3065	3000	1840	-								
	0.22	-	**1.1**	2722	3000	1630	-								
	0.26	-	**1.3**	2311	3000	1390	-								
	0.29	-	**1.4**	2078	3000	1250	-								
	0.33	-	**1.6**	1823	2670	1090	-								
	0.38	-	**1.9**	1583	2320	950	-	**R**	**97 R57**	**VU/VZ**	**01**	**DR**	**63L4**	140	-
	0.43	-	**2.1**	1396	2050	840	-	**RF**	**97 R57**	**VU/VZ**	**01**	**DR**	**63L4**	155	-
	0.49	-	**2.4**	1228	1800	735	-								
	0.57	-	**2.8**	1069	1570	640	-								
	0.64	-	**3.1**	938	1370	565	-								
	0.73	-	**3.6**	824	1210	495	-								
	0.82	-	**4.0**	737	1080	440	-								
	0.97	-	**4.7**	625	930	380	-								
	1.1	-	**5.4**	549	820	335	-								
	1.3	-	**6.3**	466	695	285	-								
	1.4	-	**7.0**	420	625	255	-	**R**	**97 R57**	**VU/VZ**	**01**	**DR**	**63L4**	135	-
	1.6	-	**8.0**	370	550	225	-	**RF**	**97 R57**	**VU/VZ**	**01**	**DR**	**63L4**	155	-
	1.7	-	**8.5**	349	520	215	-								
	2.0	-	**9.9**	297	440	181	-								
	2.7	-	**13**	227	340	138	-								
	0.35	-	**1.7**	1737	1550	1040	-								
	0.40	-	**1.9**	1524	1550	910	-								
	0.46	-	**2.3**	1303	1550	780	-								
	0.53	-	**2.6**	1143	1550	685	-	**R**	**87 R57**	**VU/VZ**	**01**	**DR**	**63L4**	100	-
	0.68	-	**3.3**	885	1300	530	-	**RF**	**87 R57**	**VU/VZ**	**01**	**DR**	**63L4**	105	-
	0.78	-	**3.8**	776	1140	465	-								
	0.88	-	**4.3**	685	1000	410	-								
	1.0	-	**4.9**	599	880	360	-								
	1.1	-	**5.5**	538	800	330	-								
	1.3	-	**6.2**	472	700	290	-								
	1.5	-	**7.4**	400	595	245	-								
	1.7	-	**8.2**	361	535	220	-	**R**	**87 R57**	**VU/VZ**	**01**	**DR**	**63L4**	99	-
	2.0	-	**9.8**	300	445	183	-	**RF**	**87 R57**	**VU/VZ**	**01**	**DR**	**63L4**	105	-
	2.4	-	**12**	256	380	156	-								
	3.1	-	**15**	195	290	119	-								
	0.64	-	**3.1**	940	820	565	-								
	0.74	-	**3.6**	821	820	495	-								
	0.83	-	**4.0**	731	820	440	-	**R**	**77 R37**	**VU/VZ**	**01**	**DR**	**63L4**	64	-
	0.94	-	**4.6**	646	820	390	-	**RF**	**77 R37**	**VU/VZ**	**01**	**DR**	**63L4**	70	-
	1.1	-	**5.3**	560	820	335	-								
	1.2	-	**5.7**	520	775	315	-								
	1.3	-	**6.5**	451	670	275	-								
	1.4	-	**7.0**	422	630	255	-								
	1.7	-	**8.1**	365	545	220	-								
	1.9	-	**9.5**	310	460	189	-	**R**	**77 R37**	**VU/VZ**	**01**	**DR**	**63L4**	63	-
	2.2	-	**11**	276	410	168	-	**RF**	**77 R37**	**VU/VZ**	**01**	**DR**	**63L4**	69	-
	2.6	-	**13**	236	350	144	-								
	2.7	-	**13**	221	330	135	-								
	3.2	-	**16**	186	275	113	-								
	0.94	-	**4.6**	646	600	390	-								
	1.1	-	**5.1**	574	600	345	-	**R**	**67 R37**	**VU/VZ**	**01**	**DR**	**63L4**	59	-
	1.2	-	**6.0**	495	600	295	-	**RF**	**67 R37**	**VU/VZ**	**01**	**DR**	**63L4**	62	-
	1.4	-	**6.7**	443	600	270	-								
	1.6	-	**7.7**	384	570	235	-								
	1.7	-	**8.2**	359	535	220	-								
	1.9	-	**9.5**	310	460	189	-								
	2.3	-	**11**	264	395	161	-	**R**	**67 R37**	**VU/VZ**	**01**	**DR**	**63L4**	58	-
	2.6	-	**13**	235	350	143	-	**RF**	**67 R37**	**VU/VZ**	**01**	**DR**	**63L4**	62	-
	3.0	-	**15**	201	300	123	-								
	3.3	-	**16**	181	270	110	-								
	3.8	-	**19**	159	235	97	-								
	1.3	-	**6.3**	471	450	285	-								
	1.7	-	**8.3**	357	450	215	-	**R**	**57 R37**	**VU/VZ**	**01**	**DR**	**63L4**	53	-
	1.9	-	**9.2**	319	450	191	-	**RF**	**57 R37**	**VU/VZ**	**01**	**DR**	**63L4**	56	-



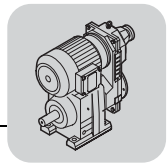
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} [1/min]	-	n_{a2}	i	M_{a1} [Nm]	M_{a2}	⚠							m [kg]	📖
0.25 / 0.18	**2.1**	-	**10**	290	430	177	-								
	2.3	-	**11**	262	390	160	-								
	2.5	-	**12**	246	365	150	-								
	2.8	-	**13**	220	325	134	-	**R**	**57 R37**	**VU/VZ**	**01**	**DR**	**63L4**	52	-
	3.2	-	**16**	188	280	115	-	**RF**	**57 R37**	**VU/VZ**	**01**	**DR**	**63L4**	55	-
	3.8	-	**19**	159	235	97	-								
	4.1	-	**20**	146	215	89	-								
	4.5	-	**22**	134	199	82	-								
	2.0	-	**9.8**	301	300	183	-								
	2.4	-	**12**	255	300	155	-								
	2.6	-	**13**	228	300	139	-								
	3.1	-	**15**	195	290	119	-								
	3.3	-	**16**	182	270	111	-	**R**	**47 R37**	**VU/VZ**	**01**	**DR**	**63L4**	47	-
	3.9	-	**19**	154	230	94	-	**RF**	**47 R37**	**VU/VZ**	**01**	**DR**	**63L4**	47	-
	4.7	-	**23**	129	192	79	-								
	5.5	-	**27**	109	162	66	-								
	6.2	-	**30**	98	146	60	-								
	3.4	-	**17**	176.88	280	115	-								
	3.7	-	**18**	162.94	260	106	-	**R**	**47**	**VU/VZ**	**01**	**DR**	**63L4**	37	228
	4.3	-	**21**	139.99	220	91	-	**RF**	**47**	**VU/VZ**	**01**	**DR**	**63L4**	37	229
	4.5	-	**22**	134.82	200	87	-								
	4.9	-	**24**	123.66	196	80	-	**R**	**37**	**VU/VZ**	**01**	**DR**	**63L4**	33	226
	5.7	-	**28**	105.28	166	68	-	**RF**	**37**	**VU/VZ**	**01**	**DR**	**63L4**	34	227
	4.5	-	**22**	135.09	130	87	-								
	4.9	-	**24**	123.91	130	80	-								
	5.7	-	**28**	105.49	130	68	-								
	6.6	-	**32**	90.96	130	59	-								
	7.1	-	**35**	84.78	130	55	-								
	8.2	-	**40**	74.11	117	48	-								
	8.7	-	**42**	69.47	110	45	-								
	9.9	-	**48**	61.30	97	40	-	**R**	**27**	**VU/VZ**	**01**	**DR**	**63L4**	29	224
	11	-	**53**	55.87	88	36	-	**RF**	**27**	**VU/VZ**	**01**	**DR**	**63L4**	30	225
	13	-	**61**	48.17	76	31	-								
	13	-	**66**	44.90	71	29	-								
	15	-	**75**	39.25	62	25	-								
	16	-	**80**	36.79	58	24	-								
	19	-	**91**	32.47	51	21	-								
	21	-	**103**	28.78	46	19	-								
	25	-	**121**	24.47	39	16	-								
	21	-	**104**	28.37	45	18	-								
	23	-	**113**	26.09	41	17	-								
	27	-	**132**	22.32	35	14	-								
	31	-	**153**	19.35	31	13	-								
	33	-	**163**	18.08	29	12	-								
	39	-	**189**	15.63	25	10	-								
	45	-	**222**	13.28*	21	8.6	-	**R**	**27**	**VU/VZ**	**01**	**DR**	**63L4**	29	224
	51	-	**249**	11.86	19	7.7	-	**RF**	**27**	**VU/VZ**	**01**	**DR**	**63L4**	29	225
	60	-	**291**	10.13	16	6.6	-								
	64	-	**314**	9.41	15	6.1	-								
	74	-	**362**	8.16	13	5.3	-								
	79	-	**387**	7.63*	12	4.9	-								
	92	-	**448**	6.59	10	4.3	-								
	108	-	**527**	5.60*	8.9	3.6	-								
	100	-	**486**	6.07	9.6	3.9	-	**RX**	**67**	**VU/VZ**	**01**	**DR**	**63L4**	36	214
	117	-	**570**	5.18	8.2	3.4	-	**RXF**	**67**	**VU/VZ**	**01**	**DR**	**63L4**	40	215
	133	-	**651**	4.53	7.2	2.9	-								



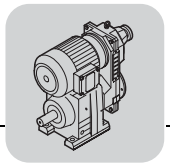
R..VU/VZ..DR/DT/DV.. [kW]

R = 1:5 ... R = 1:6															
P_m/P_{a2} [kW]	n_{a1} [1/min]	-	n_{a2}	i	M_{a1} [Nm]	M_{a2}	⚠							m [kg]	
0.25 / 0.18	**110**	-	**537**	5.50*	8.7	3.6	-								
	119	-	**582**	5.07	8.0	3.3	-								
	139	-	**678**	4.35	6.9	2.8	-								
	159	-	**779**	3.79	6.0	2.5	-								
	170	-	**831**	3.55*	5.6	2.3	-								
	192	-	**940**	3.14	5.0	2.0	-	**RX**	**57**		**VU/VZ**	**01**	**DR**	**63L4**	33	212
	208	-	**1015**	2.91	4.6	1.9	-	**RXF**	**57**		**VU/VZ**	**01**	**DR**	**63L4**	35	213
	229	-	**1120**	2.64*	4.2	1.7	-								
	255	-	**1245**	2.37	3.7	1.5	-								
	296	-	**1445**	2.04	3.2	1.3	-								
	315	-	**1535**	1.92*	3.0	1.2	-								
	366	-	**1790**	1.65	2.6	1.1	-								
0.37 / 0.28	**0.18**	-	**1.0**	1987	4300	2550	-								
	0.20	-	**1.1**	1827	4300	2340	-								
	0.22	-	**1.3**	1599	4300	2050	-	**R**	**107 R77**		**VU/VZ**	**11**	**DT**	**80K6**	220	-
	0.26	-	**1.5**	1400	4300	1800	-	**RF**	**107 R77**		**VU/VZ**	**11**	**DT**	**80K6**	225	-
	0.29	-	**1.7**	1226	4300	1570	-								
	0.23	-	**1.3**	1583	3000	2030	-								
	0.26	-	**1.5**	1396	3000	1790	-	**R**	**97 R57**		**VU/VZ**	**11**	**DT**	**80K6**	150	-
	0.29	-	**1.7**	1228	3000	1580	-	**RF**	**97 R57**		**VU/VZ**	**11**	**DT**	**80K6**	165	-
	0.27	-	**1.4**	2311	3000	1960	-								
	0.29	-	**1.5**	2078	3000	1760	-								
	0.34	-	**1.7**	1823	3000	1550	-								
	0.39	-	**2.0**	1583	3000	1340	-								
	0.44	-	**2.2**	1396	3000	1180	-								
	0.50	-	**2.6**	1228	2660	1040	-	**R**	**97 R57**		**VU/VZ**	**01**	**DT**	**71D4**	140	-
	0.57	-	**2.9**	1069	2320	910	-	**RF**	**97 R57**		**VU/VZ**	**01**	**DT**	**71D4**	160	-
	0.65	-	**3.3**	938	2030	795	-								
	0.74	-	**3.8**	824	1790	700	-								
	0.83	-	**4.2**	737	1600	625	-								
	0.97	-	**5.0**	632	1370	535	-								
	0.98	-	**5.0**	625	1380	540	-								
	1.1	-	**5.7**	549	1210	475	-								
	1.3	-	**6.7**	466	1030	400	-								
	1.5	-	**7.5**	420	920	360	-	**R**	**97 R57**		**VU/VZ**	**01**	**DT**	**71D4**	140	-
	1.7	-	**8.5**	370	810	320	-	**RF**	**97 R57**		**VU/VZ**	**01**	**DT**	**71D4**	155	-
	1.8	-	**9.0**	349	770	300	-								
	2.1	-	**11**	297	655	255	-								
	2.7	-	**14**	227	500	195	-								
	0.54	-	**2.7**	1143	1550	970	-								
	0.69	-	**3.5**	885	1550	750	-								
	0.79	-	**4.0**	776	1550	660	-	**R**	**87 R57**		**VU/VZ**	**01**	**DT**	**71D4**	100	-
	0.89	-	**4.6**	685	1490	580	-	**RF**	**87 R57**		**VU/VZ**	**01**	**DT**	**71D4**	110	-
	1.0	-	**5.2**	599	1300	510	-								
	1.1	-	**5.8**	538	1180	465	-								
	1.3	-	**6.6**	472	1040	405	-								
	1.5	-	**7.8**	400	880	345	-								
	1.7	-	**8.7**	361	795	310	-	**R**	**87 R57**		**VU/VZ**	**01**	**DT**	**71D4**	100	-
	2.0	-	**10**	300	660	260	-	**RF**	**87 R57**		**VU/VZ**	**01**	**DT**	**71D4**	105	-
	2.4	-	**12**	256	565	220	-								
	3.1	-	**16**	195	430	168	-								
	0.95	-	**4.9**	646	820	550	-								
	1.1	-	**5.6**	560	820	475	-	**R**	**77 R37**		**VU/VZ**	**01**	**DT**	**71D4**	66	-
	1.3	-	**6.4**	488	820	415	-	**RF**	**77 R37**		**VU/VZ**	**01**	**DT**	**71D4**	72	-
	1.4	-	**7.0**	451	820	390	-								
	1.4	-	**7.4**	422	820	365	-								
	1.7	-	**8.6**	365	800	315	-								
	2.0	-	**10**	310	685	265	-	**R**	**77 R37**		**VU/VZ**	**01**	**DT**	**71D4**	65	-
	2.2	-	**11**	276	610	240	-	**RF**	**77 R37**		**VU/VZ**	**01**	**DT**	**71D4**	70	-
	2.6	-	**13**	236	520	205	-								
	2.8	-	**14**	221	485	190	-								
	3.3	-	**17**	186	410	160	-								



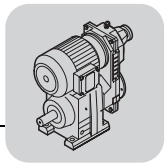
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	📖
0.37 / 0.28	**1.4 - 7.1**	443	600	380	-								
	1.6 - 8.2	384	600	330	-								
	1.7 - 8.7	359	600	310	-								
	2.0 - 10	310	600	265	-								
	2.3 - 12	264	580	225	-	**R**	**67 R37**	**VU/VZ**	**01**	**DT**	**71D4**	60	-
	2.6 - 13	235	515	200	-	**RF**	**67 R37**	**VU/VZ**	**01**	**DT**	**71D4**	63	-
	3.1 - 16	201	445	173	-								
	3.4 - 17	181	400	156	-								
	3.9 - 20	159	350	137	-								
	1.7 - 8.7	359	450	310	-								
	1.9 - 9.7	324	450	280	-								
	2.1 - 11	290	450	250	-								
	2.3 - 12	262	450	225	-								
	2.5 - 13	246	450	210	-	**R**	**57 R37**	**VU/VZ**	**01**	**DT**	**71D4**	53	-
	2.8 - 14	220	450	189	-	**RF**	**57 R37**	**VU/VZ**	**01**	**DT**	**71D4**	57	-
	3.3 - 17	188	415	162	-								
	3.9 - 20	159	350	137	-								
	4.2 - 21	146	320	126	-								
	4.6 - 23	134	295	115	-								
	2.7 - 14	228	300	196	-								
	3.1 - 16	195	300	168	-								
	3.4 - 17	182	300	157	-								
	4.0 - 20	154	300	133	-	**R**	**47 R37**	**VU/VZ**	**01**	**DT**	**71D4**	48	-
	4.8 - 24	129	285	111	-	**RF**	**47 R37**	**VU/VZ**	**01**	**DT**	**71D4**	49	-
	5.6 - 29	109	240	94	-								
	6.2 - 32	98	215	84	-								
0.37 / 0.30	**2.1 - 12**	166.59	820	230	-								
	2.5 - 14	145.67	820	200	-	**R**	**77**	**VU/VZ**	**11**	**DT**	**80K6**	67	234
	2.6 - 15	138.39	820	192	-	**RF**	**77**	**VU/VZ**	**11**	**DT**	**80K6**	72	235
	2.9 - 17	121.42	745	168	-								
	2.3 - 13	158.14	600	220	-								
	2.6 - 15	137.67	600	191	-								
	2.8 - 16	128.97	600	179	-								
	3.1 - 18	113.94	600	158	-	**R**	**67**	**VU/VZ**	**11**	**DT**	**80K6**	58	232
	3.4 - 20	105.83	600	147	-	**RF**	**67**	**VU/VZ**	**11**	**DT**	**80K6**	62	233
	3.7 - 22	95.91	590	133	-								
	4.2 - 24	86.11	530	119	-								
	3.1 - 16	199.81	465	183	-								
	3.3 - 17	184.07	430	168	-								
	3.9 - 20	158.14	370	145	-	**R**	**67**	**VU/VZ**	**01**	**DT**	**71D4**	50	232
	4.5 - 23	137.67	320	126	-	**RF**	**67**	**VU/VZ**	**01**	**DT**	**71D4**	54	233
	4.8 - 24	128.97	300	118	-								
	3.3 - 17	186.89	435	171	-								
	3.6 - 18	172.17	405	158	-	**R**	**57**	**VU/VZ**	**01**	**DT**	**71D4**	44	230
	4.1 - 21	147.92	345	135	-	**RF**	**57**	**VU/VZ**	**01**	**DT**	**71D4**	47	-
	4.8 - 24	128.77	300	118	-								
	3.5 - 18	176.88	300	162	-								
	3.8 - 19	162.94	300	149	-								
	4.4 - 22	139.99	300	128	-								
	5.0 - 26	121.87	285	112	-	**R**	**47**	**VU/VZ**	**01**	**DT**	**71D4**	39	228
	5.4 - 27	114.17	265	104	-	**RF**	**47**	**VU/VZ**	**01**	**DT**	**71D4**	39	229
	6.1 - 31	100.86	235	92	-								
	6.5 - 33	93.68	220	86	-								
	4.5 - 23	134.82	200	123	-								
	5.0 - 25	123.66	200	113	-								
	5.8 - 30	105.28	200	96	-								
	6.8 - 35	90.77	200	83	-								
	7.2 - 37	84.61	198	77	-	**R**	**37**	**VU/VZ**	**01**	**DT**	**71D4**	34	226
	8.3 - 42	73.96	173	68	-	**RF**	**37**	**VU/VZ**	**01**	**DT**	**71D4**	36	227
	8.8 - 45	69.33	162	63	-								
	10 - 51	61.18	143	56	-								
	11 - 56	55.76	130	51	-								
	13 - 65	48.08	112	44	-								



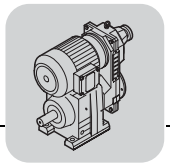
R..VU/VZ..DR/DT/DV.. [kW]

R = 1:5 ... R = 1:6														
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠						m [kg]	
0.37 / 0.30	**4.5**	-	**23**	135.09	130	124	-							
	4.9	-	**25**	123.91	130	113	-							
	5.8	-	**30**	105.49	130	97	-							
	6.7	-	**34**	90.96	130	83	-							
	7.2	-	**37**	84.78	130	78	-							
	8.3	-	**42**	74.11	130	68	-							
	8.8	-	**45**	69.47	130	64	-							
	10	-	**51**	61.30	130	56	-	**R**	**27**	**VU/VZ**	**01**	**DT**	**71D4**	31	224
	11	-	**56**	55.87	130	51	-	**RF**	**27**	**VU/VZ**	**01**	**DT**	**71D4**	31	225
	13	-	**65**	48.17	113	44	-								
	14	-	**70**	44.90	105	41	-								
	16	-	**80**	39.25	92	36	-								
	17	-	**85**	36.79	86	34	-								
	19	-	**96**	32.47	76	30	-								
	21	-	**109**	28.78	67	26	-								
	25	-	**128**	24.47	57	22	-								
	22	-	**110**	28.37	66	26	-								
	23	-	**120**	26.09	61	24	-								
	27	-	**140**	22.32	52	20	-								
	32	-	**162**	19.35	45	18	-								
	34	-	**173**	18.08	42	17	-								
	39	-	**200**	15.63	37	14	-								
	46	-	**236**	13.28*	31	12	-								
	52	-	**264**	11.86	28	11	-	**R**	**27**	**VU/VZ**	**01**	**DT**	**71D4**	30	224
	60	-	**309**	10.13	24	9.3	-	**RF**	**27**	**VU/VZ**	**01**	**DT**	**71D4**	31	225
	65	-	**333**	9.41	22	8.6	-								
	75	-	**384**	8.16	19	7.5	-								
	80	-	**411**	7.63*	18	7.0	-								
	93	-	**475**	6.59	15	6.0	-								
	109	-	**559**	5.60*	13	5.1	-								
	123	-	**627**	5.00*	12	4.6	-								
	101	-	**516**	6.07	14	5.6	-								
	118	-	**605**	5.18	12	4.7	-	**RX**	**67**	**VU/VZ**	**01**	**DT**	**71D4**	37	214
	135	-	**692**	4.53	11	4.1	-	**RXF**	**67**	**VU/VZ**	**01**	**DT**	**71D4**	41	215
	111	-	**570**	5.50*	13	5.0	-								
	121	-	**618**	5.07	12	4.6	-								
	141	-	**720**	4.35	10	4.0	-								
	162	-	**827**	3.79	8.9	3.5	-								
	173	-	**882**	3.55*	8.3	3.2	-								
	195	-	**998**	3.14	7.3	2.9	-	**RX**	**57**	**VU/VZ**	**01**	**DT**	**71D4**	34	212
	210	-	**1075**	2.91	6.8	2.7	-	**RXF**	**57**	**VU/VZ**	**01**	**DT**	**71D4**	36	213
	232	-	**1185**	2.64*	6.2	2.4	-								
	258	-	**1320**	2.37	5.5	2.2	-								
	300	-	**1535**	2.04	4.8	1.9	-								
	319	-	**1630**	1.92*	4.5	1.8	-								
	371	-	**1900**	1.65	3.9	1.5	-								
0.55 / 0.42	**0.13**	-	**0.78**	4018	8000	5120	-								
	0.15	-	**0.89**	3514	8000	4480	-								
	0.16	-	**0.94**	3338	8000	4250	-								
	0.18	-	**1.1**	2929	8000	3730	-								
	0.21	-	**1.3**	2484	8000	3160	-								
	0.24	-	**1.4**	2242	8000	2860	-								
	0.29	-	**1.7**	1863	8000	2370	-	**R**	**137 R77**	**VU/VZ**	**11**	**DT**	**80K4**	295	-
	0.34	-	**2.0**	1586	7120	2020	-	**RF**	**137 R77**	**VU/VZ**	**11**	**DT**	**80K4**	315	-
	0.38	-	**2.2**	1391	6240	1770	-								
	0.42	-	**2.5**	1256	5640	1600	-								
	0.48	-	**2.8**	1105	4960	1410	-								
	0.51	-	**3.0**	1043	4680	1330	-								
	0.60	-	**3.5**	888	3990	1130	-								
	0.76	-	**4.5**	699	3140	890	-								



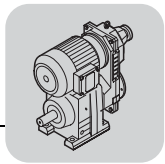
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
0.55 / 0.42	**0.94 - 5.5**	564	2570	730	-								
	1.0 - 6.0	517	2360	670	-								
	1.2 - 6.9	453	2060	585	-	**R**	**137 R77**	**VU/VZ**	**11**	**DT**	**80K4**	290	-
	1.4 - 8.3	376	1710	485	-	**RF**	**137 R77**	**VU/VZ**	**11**	**DT**	**80K4**	315	-
	1.6 - 9.2	339	1540	440	-								
	1.8 - 11	297	1350	385	-								
	0.23 - 1.4	2280	4300	2900	-								
	0.26 - 1.5	2067	4300	2630	-								
	0.31 - 1.9	1693	4300	2160	-								
	0.34 - 2.0	1550	4300	1970	-								
	0.38 - 2.2	1407	4300	1790	-								
	0.44 - 2.6	1209	4300	1540	-	**R**	**107 R77**	**VU/VZ**	**11**	**DT**	**80K4**	215	-
	0.50 - 3.0	1055	4300	1340	-	**RF**	**107 R77**	**VU/VZ**	**11**	**DT**	**80K4**	220	-
	0.58 - 3.4	919	4120	1170	-								
	0.65 - 3.8	815	3660	1040	-								
	0.74 - 4.4	717	3220	910	-								
	0.85 - 5.0	626	2810	800	-								
	1.0 - 5.9	528	2370	675	-								
	1.1 - 6.7	469	2140	605	-								
	1.2 - 7.3	426	1940	550	-								
	1.4 - 8.3	377	1720	490	-								
	1.6 - 9.6	325	1480	420	-	**R**	**107 R77**	**VU/VZ**	**11**	**DT**	**80K4**	215	-
	1.9 - 11	284	1290	365	-	**RF**	**107 R77**	**VU/VZ**	**11**	**DT**	**80K4**	220	-
	2.1 - 12	256	1170	330	-								
	2.4 - 14	220	1000	285	-								
	3.1 - 18	172	785	220	-								
	0.34 - 2.0	1583	3000	2020	-								
	0.38 - 2.2	1396	3000	1780	-								
	0.43 - 2.6	1228	3000	1560	-								
	0.50 - 2.9	1069	3000	1360	-	**R**	**97 R57**	**VU/VZ**	**11**	**DT**	**80K4**	150	-
	0.57 - 3.3	938	3000	1190	-	**RF**	**97 R57**	**VU/VZ**	**11**	**DT**	**80K4**	165	-
	0.65 - 3.8	824	3000	1050	-								
	0.72 - 4.2	737	3000	940	-								
	0.84 - 5.0	632	2840	810	-								
	0.85 - 5.0	625	2850	810	-								
	0.97 - 5.7	549	2500	710	-								
	1.1 - 6.7	466	2120	605	-								
	1.3 - 7.5	420	1910	545	-								
	1.4 - 8.4	370	1690	480	-	**R**	**97 R57**	**VU/VZ**	**11**	**DT**	**80K4**	145	-
	1.5 - 9.0	349	1590	450	-	**RF**	**97 R57**	**VU/VZ**	**11**	**DT**	**80K4**	165	-
	1.8 - 11	297	1350	385	-								
	2.0 - 12	270	1230	350	-								
	2.4 - 14	227	1030	295	-								
	0.69 - 4.0	776	1550	990	-								
	0.78 - 4.6	685	1550	870	-	**R**	**87 R57**	**VU/VZ**	**11**	**DT**	**80K4**	110	-
	0.89 - 5.2	599	1550	765	-	**RF**	**87 R57**	**VU/VZ**	**11**	**DT**	**80K4**	115	-
	0.99 - 5.8	538	1550	695	-								
	1.1 - 6.6	472	1550	610	-								
	1.3 - 7.8	400	1550	515	-								
	1.5 - 8.7	361	1550	465	-	**R**	**87 R57**	**VU/VZ**	**11**	**DT**	**80K4**	110	-
	1.8 - 10	300	1370	390	-	**RF**	**87 R57**	**VU/VZ**	**11**	**DT**	**80K4**	115	-
	2.1 - 12	256	1170	330	-								
	2.3 - 13	232	1060	300	-								
	2.7 - 16	195	890	250	-								
	1.4 - 7.3	422	820	555	-								
	1.7 - 8.5	365	820	480	-								
	2.0 - 10	310	820	405	-								
	2.2 - 11	276	810	360	-	**R**	**77 R37**	**VU/VZ**	**01**	**DT**	**80K4**	67	-
	2.6 - 13	236	695	310	-	**RF**	**77 R37**	**VU/VZ**	**01**	**DT**	**80K4**	72	-
	2.8 - 14	221	650	290	-								
	3.3 - 17	186	550	245	-								

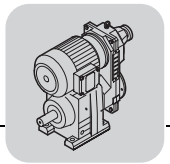


R..VU/VZ..DR/DT/DV.. [kW]

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
R = 1:5 ... R = 1:6													
0.55 / 0.42	**2.0 - 10**	310	600	405	-								
	2.3 - 12	264	600	345	-								
	2.6 - 13	235	600	310	-	**R**	**67 R37**	**VU/VZ**	**01**	**DT**	**80K4**	62	-
	3.0 - 15	201	590	265	-	**RF**	**67 R37**	**VU/VZ**	**01**	**DT**	**80K4**	65	-
	3.4 - 17	181	535	235	-								
	3.8 - 19	159	470	210	-								
	2.8 - 14	220	450	290	-								
	3.2 - 16	188	450	245	-								
	3.8 - 19	159	450	210	-	**R**	**57 R37**	**VU/VZ**	**01**	**DT**	**80K4**	55	-
	4.2 - 21	146	430	191	-	**RF**	**57 R37**	**VU/VZ**	**01**	**DT**	**80K4**	59	-
	4.6 - 23	134	395	176	-								
	4.0 - 20	154	300	200	-								
	4.7 - 24	129	300	169	-	**R**	**47 R37**	**VU/VZ**	**01**	**DT**	**80K4**	50	-
	5.6 - 28	109	300	143	-	**RF**	**47 R37**	**VU/VZ**	**01**	**DT**	**80K4**	51	-
	6.2 - 32	98	290	128	-								
0.55 / 0.45	**3.2 - 19**	166.59	810	230	-								
	3.7 - 21	145.67	705	200	-								
	3.9 - 23	138.39	670	190	-	**R**	**77**	**VU/VZ**	**11**	**DT**	**80K4**	67	234
	4.4 - 26	121.42	590	167	-	**RF**	**77**	**VU/VZ**	**11**	**DT**	**80K4**	72	235
	5.2 - 30	102.99	500	142	-								
	3.1 - 15	199.81	600	280	-								
	3.3 - 17	184.07	575	255	-								
	3.9 - 20	158.14	495	220	-								
	4.4 - 22	137.67	430	192	-	**R**	**67**	**VU/VZ**	**01**	**DT**	**80K4**	52	232
	4.7 - 24	128.97	405	180	-	**RF**	**67**	**VU/VZ**	**01**	**DT**	**80K4**	56	233
	5.4 - 27	113.94	355	159	-								
	5.8 - 29	105.83	330	147	-								
	6.4 - 32	95.91	300	134	-								
	3.3 - 17	186.89	450	260	-								
	3.6 - 18	172.17	450	240	-								
	4.1 - 21	147.92	450	205	-								
	4.7 - 24	128.77	405	179	-	**R**	**57**	**VU/VZ**	**01**	**DT**	**80K4**	46	230
	5.1 - 26	120.63	380	168	-	**RF**	**57**	**VU/VZ**	**01**	**DT**	**80K4**	49	-
	5.7 - 29	106.58	335	148	-								
	6.2 - 31	98.99	310	138	-								
	3.5 - 17	176.88	300	245	-								
	3.8 - 19	162.94	300	225	-								
	4.4 - 22	139.99	300	195	-								
	5.0 - 25	121.87	300	170	-								
	5.4 - 27	114.17	300	159	-								
	6.0 - 31	100.86	300	140	-	**R**	**47**	**VU/VZ**	**01**	**DT**	**80K4**	41	228
	6.5 - 33	93.68	295	130	-	**RF**	**47**	**VU/VZ**	**01**	**DT**	**80K4**	41	229
	7.2 - 36	84.90	265	118	-								
	8.0 - 41	76.23	240	106	-								
	8.9 - 45	68.54	215	95	-								
	9.5 - 48	64.21	200	89	-								
	11 - 54	56.73	178	79	-								
	4.5 - 23	134.82	200	188	-								
	4.9 - 25	123.66	200	172	-								
	5.8 - 29	105.28	200	147	-								
	6.7 - 34	90.77	200	126	-								
	7.2 - 36	84.61	200	118	-								
	8.2 - 42	73.96	200	103	-	**R**	**37**	**VU/VZ**	**01**	**DT**	**80K4**	36	226
	8.8 - 45	69.33	200	97	-	**RF**	**37**	**VU/VZ**	**01**	**DT**	**80K4**	38	227
	10 - 50	61.18	191	85	-								
	11 - 55	55.76	175	78	-								
	13 - 64	48.08	150	67	-								
	14 - 69	44.81	140	62	-								

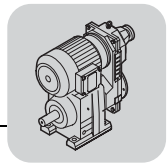


R = 1:5 ... R = 1:6															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
0.55 / 0.45	**6.7**	-	**34**	90.96	130	127	-								
	7.2	-	**36**	84.78	130	118	-								
	8.2	-	**42**	74.11	130	103	-								
	8.8	-	**44**	69.47	130	97	-								
	10	-	**50**	61.30	130	85	-								
	11	-	**55**	55.87	130	78	-								
	13	-	**64**	48.17	130	67	-	**R**	**27**		**VU/VZ**	**01**	**DT**	**80K4**	32	224
	14	-	**69**	44.90	130	63	-	**RF**	**27**		**VU/VZ**	**01**	**DT**	**80K4**	32	225
	16	-	**79**	39.25	123	55	-								
	17	-	**84**	36.79	115	51	-								
	19	-	**95**	32.47	102	45	-								
	21	-	**107**	28.78	90	40	-								
	25	-	**126**	24.47	77	34	-								
	22	-	**109**	28.37	89	40	-								
	23	-	**118**	26.09	82	36	-								
	27	-	**138**	22.32	70	31	-								
	32	-	**160**	19.35	61	27	-								
	34	-	**171**	18.08	57	25	-								
	39	-	**198**	15.63	49	22	-								
	46	-	**232**	13.28*	42	19	-								
	51	-	**260**	11.86	37	17	-	**R**	**27**		**VU/VZ**	**01**	**DT**	**80K4**	31	224
	60	-	**305**	10.13	32	14	-	**RF**	**27**		**VU/VZ**	**01**	**DT**	**80K4**	32	225
	65	-	**328**	9.41	29	13	-								
	75	-	**378**	8.16	26	11	-								
	80	-	**405**	7.63*	24	11	-								
	93	-	**468**	6.59	21	9.2	-								
	109	-	**551**	5.60*	18	7.8	-								
	122	-	**617**	5.00*	16	7.0	-								
	101	-	**509**	6.07	19	8.4	-								
	118	-	**596**	5.18	16	7.2	-	**RX**	**67**		**VU/VZ**	**01**	**DT**	**80K4**	39	214
	135	-	**682**	4.53	14	6.3	-	**RXF**	**67**		**VU/VZ**	**01**	**DT**	**80K4**	43	215
	111	-	**561**	5.50*	17	7.7	-								
	120	-	**609**	5.07	16	7.1	-								
	140	-	**710**	4.35	14	6.1	-								
	161	-	**815**	3.79	12	5.3	-								
	172	-	**870**	3.55*	11	4.9	-								
	194	-	**983**	3.14	9.8	4.4	-	**RX**	**57**		**VU/VZ**	**01**	**DT**	**80K4**	36	212
	210	-	**1060**	2.91	9.1	4.1	-	**RXF**	**57**		**VU/VZ**	**01**	**DT**	**80K4**	38	213
	231	-	**1170**	2.64*	8.3	3.7	-								
	258	-	**1305**	2.37	7.4	3.3	-								
	299	-	**1515**	2.04	6.4	2.8	-								
	318	-	**1610**	1.92*	6.0	2.7	-								
	370	-	**1870**	1.65	5.2	2.3	-								
0.75 / 0.58	**0.11**	-	**0.64**	4926	13000	8390	-								
	0.12	-	**0.73**	4325	13000	7370	-								
	0.14	-	**0.85**	3754	13000	6400	-	**R**	**147 R77**		**VU/VZ**	**11**	**DT**	**80N4**	430	-
	0.16	-	**0.96**	3302	13000	5630	-	**RF**	**147 R77**		**VU/VZ**	**11**	**DT**	**80N4**	440	-
	0.18	-	**1.1**	2898	12800	4940	-								
	0.21	-	**1.2**	2555	11400	4420	-								
	0.24	-	**1.4**	2211	9890	3820	-								
	0.27	-	**1.6**	1951	8730	3370	-								
	0.31	-	**1.9**	1705	7630	2950	-								
	0.35	-	**2.1**	1536	6870	2660	-								
	0.40	-	**2.4**	1329	5940	2300	-	**R**	**147 R77**		**VU/VZ**	**11**	**DT**	**80N4**	430	-
	0.46	-	**2.7**	1166	5220	2020	-	**RF**	**147 R77**		**VU/VZ**	**11**	**DT**	**80N4**	435	-
	0.60	-	**3.6**	889	3980	1540	-								
	0.86	-	**5.1**	619	2770	1070	-								
	0.96	-	**5.7**	558	2500	970	-								
	1.1	-	**6.5**	489	2190	850	-								
	1.3	-	**7.7**	415	1860	720	-								



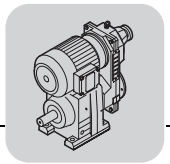
R..VU/VZ..DR/DT/DV.. [kW]

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
R = 1:5 ... R = 1:6													
0.75 / 0.58	**0.13 - 0.79**	4018	8000	6950	-								
	0.15 - 0.90	3514	8000	6080	-								
	0.16 - 0.95	3338	8000	5770	-								
	0.18 - 1.1	2929	8000	5070	-								
	0.22 - 1.3	2484	8000	4300	-								
	0.24 - 1.4	2242	8000	3880	-								
	0.29 - 1.7	1863	8000	3220	-	**R**	**137 R77**	**VU/VZ**	**11**	**DT**	**80N4**	295	-
	0.34 - 2.0	1586	7090	2740	-	**RF**	**137 R77**	**VU/VZ**	**11**	**DT**	**80N4**	315	-
	0.38 - 2.3	1391	6220	2410	-								
	0.43 - 2.5	1256	5620	2170	-								
	0.48 - 2.9	1105	4940	1910	-								
	0.51 - 3.0	1043	4670	1800	-								
	0.60 - 3.6	888	3970	1540	-								
	0.76 - 4.5	699	3130	1210	-								
	0.95 - 5.6	564	2560	990	-								
	1.0 - 6.1	517	2350	910	-								
	1.2 - 7.0	453	2060	795	-	**R**	**137 R77**	**VU/VZ**	**11**	**DT**	**80N4**	295	-
	1.4 - 8.4	376	1710	660	-	**RF**	**137 R77**	**VU/VZ**	**11**	**DT**	**80N4**	315	-
	1.6 - 9.4	339	1540	595	-								
	1.8 - 11	297	1350	520	-								
	0.33 - 2.0	1599	4300	2770	-								
	0.38 - 2.3	1400	4300	2420	-								
	0.44 - 2.6	1226	4300	2120	-	**R**	**107 R77**	**VU/VZ**	**11**	**DT**	**80N4**	220	-
	0.48 - 2.9	1104	4300	1910	-	**RF**	**107 R77**	**VU/VZ**	**11**	**DT**	**80N4**	225	-
	0.57 - 3.4	939	4200	1620	-								
	0.65 - 3.9	822	3680	1420	-								
	1.1 - 6.8	469	2130	820	-								
	1.2 - 7.5	426	1930	750	-								
	1.4 - 8.4	377	1710	660	-								
	1.6 - 9.8	325	1480	570	-	**R**	**107 R77**	**VU/VZ**	**11**	**DT**	**80N4**	215	-
	1.9 - 11	284	1290	500	-	**RF**	**107 R77**	**VU/VZ**	**11**	**DT**	**80N4**	220	-
	2.1 - 12	256	1160	450	-								
	2.4 - 14	220	1000	385	-								
	3.1 - 18	172	780	300	-								
	0.50 - 3.0	1069	3000	1850	-								
	0.57 - 3.4	938	3000	1620	-								
	0.65 - 3.9	824	3000	1430	-	**R**	**97 R57**	**VU/VZ**	**11**	**DT**	**80N4**	150	-
	0.73 - 4.3	737	3000	1270	-	**RF**	**97 R57**	**VU/VZ**	**11**	**DT**	**80N4**	165	-
	0.85 - 5.0	632	2830	1090	-								
	0.86 - 5.1	625	2840	1100	-								
	0.97 - 5.8	549	2490	960	-								
	1.2 - 6.8	466	2120	820	-								
	1.3 - 7.6	420	1910	740	-								
	1.4 - 8.6	370	1680	650	-	**R**	**97 R57**	**VU/VZ**	**11**	**DT**	**80N4**	145	-
	1.5 - 9.1	349	1580	615	-	**RF**	**97 R57**	**VU/VZ**	**11**	**DT**	**80N4**	165	-
	1.8 - 11	297	1350	520	-								
	2.0 - 12	270	1230	475	-								
	2.4 - 14	227	1030	400	-								
	0.99 - 5.9	538	1550	940	-								
	1.1 - 6.7	472	1550	830	-								
	1.3 - 7.9	400	1550	700	-								
	1.5 - 8.8	361	1550	635	-	**R**	**87 R57**	**VU/VZ**	**11**	**DT**	**80N4**	110	-
	1.8 - 11	300	1360	525	-	**RF**	**87 R57**	**VU/VZ**	**11**	**DT**	**80N4**	115	-
	2.1 - 12	256	1160	450	-								
	2.3 - 14	232	1050	405	-								
	2.7 - 16	195	890	340	-								
	2.0 - 10	310	820	550	-								
	2.2 - 11	276	810	490	-								
	2.6 - 13	236	695	420	-	**R**	**77 R37**	**VU/VZ**	**01**	**DT**	**80N4**	68	-
	2.8 - 14	221	650	395	-	**RF**	**77 R37**	**VU/VZ**	**01**	**DT**	**80N4**	73	-
	3.3 - 17	186	545	330	-								



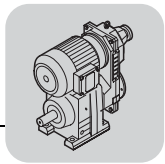
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
0.75 / 0.58	2.6 - 13	235	600	420	-								
	3.1 - 16	201	590	360	-	R	67 R37	VU/VZ	01	DT	80N4	63	-
	3.4 - 17	181	530	320	-	RF	67 R37	VU/VZ	01	DT	80N4	66	-
	3.9 - 20	159	465	285	-								
0.75 / 0.62	3.2 - 19	166.59	800	310	-								
	3.7 - 22	145.67	705	270	-								
	3.9 - 23	138.39	670	260	-	R	77	VU/VZ	11	DT	80N4	68	234
	4.4 - 26	121.42	585	225	-	RF	77	VU/VZ	11	DT	80N4	73	235
	5.2 - 31	102.99	495	192	-								
	3.1 - 16	199.81	600	380	-								
	3.3 - 17	184.07	575	350	-								
	3.9 - 20	158.14	495	300	-	R	67	VU/VZ	01	DT	80N4	53	232
	4.5 - 23	137.67	430	260	-	RF	67	VU/VZ	01	DT	80N4	57	233
	4.8 - 24	128.97	400	245	-								
	3.3 - 17	186.89	450	355	-								
	3.6 - 18	172.17	450	325	-								
	4.1 - 21	147.92	450	280	-								
	4.8 - 24	128.77	400	245	-	R	57	VU/VZ	01	DT	80N4	47	230
	5.1 - 26	120.63	375	230	-	RF	57	VU/VZ	01	DT	80N4	50	-
	5.8 - 29	106.58	330	200	-								
	6.2 - 32	98.99	310	187	-								
	4.4 - 22	139.99	300	265	-								
	5.0 - 26	121.87	300	230	-								
	5.4 - 27	114.17	300	215	-								
	6.1 - 31	100.86	300	191	-								
	6.5 - 33	93.68	290	177	-	R	47	VU/VZ	01	DT	80N4	42	228
	7.2 - 37	84.90	265	161	-	RF	47	VU/VZ	01	DT	80N4	42	229
	8.0 - 41	76.23	240	144	-								
	8.9 - 46	68.54	215	130	-								
	9.5 - 49	64.21	200	121	-								
	5.8 - 30	105.28	200	199	-								
	6.8 - 35	90.77	200	172	-								
	7.2 - 37	84.61	200	160	-								
	8.3 - 42	73.96	200	140	-								
	8.8 - 45	69.33	200	131	-	R	37	VU/VZ	01	DT	80N4	37	226
	10 - 51	61.18	191	116	-	RF	37	VU/VZ	01	DT	80N4	39	227
	11 - 56	55.76	174	105	-								
	13 - 65	48.08	150	91	-								
	14 - 70	44.81	140	85	-								
	10 - 51	61.30	130	116	-								
	11 - 56	55.87	130	106	-								
	13 - 65	48.17	130	91	-								
	14 - 70	44.90	130	85	-								
	16 - 80	39.25	122	74	-	R	27	VU/VZ	01	DT	80N4	34	224
	17 - 85	36.79	115	70	-	RF	27	VU/VZ	01	DT	80N4	34	225
	19 - 96	32.47	101	61	-								
	21 - 109	28.78	90	54	-								
	25 - 128	24.47	76	46	-								
	22 - 110	28.37	89	54	-								
	23 - 120	26.09	81	49	-								
	27 - 140	22.32	70	42	-								
	32 - 162	19.35	60	37	-								
	34 - 173	18.08	56	34	-								
	39 - 200	15.63	49	30	-								
	46 - 236	13.28*	41	25	-								
	52 - 264	11.86	37	22	-	R	27	VU/VZ	01	DT	80N4	33	224
	60 - 309	10.13	32	19	-	RF	27	VU/VZ	01	DT	80N4	34	225
	65 - 333	9.41	29	18	-								
	75 - 384	8.16	25	15	-								
	80 - 411	7.63*	24	14	-								
	93 - 475	6.59	21	13	-								
	109 - 559	5.60*	18	11	-								
	123 - 627	5.00*	16	9.5	-								

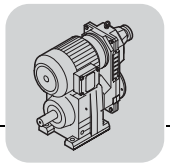


R..VU/VZ..DR/DT/DV.. [kW]

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
R = 1:5 ... R = 1:6													
0.75 / 0.62	**101 - 516**	6.07	19	12	-	**RX**	**67**	**VU/VZ**	**01**	**DT**	**80N4**	40	214
	118 - 605	5.18	16	9.8	-	**RXF**	**67**	**VU/VZ**	**01**	**DT**	**80N4**	44	215
	135 - 692	4.53	14	8.6	-								
	111 - 570	5.50*	17	10	-								
	121 - 618	5.07	16	9.6	-								
	141 - 720	4.35	14	8.2	-								
	162 - 827	3.79	12	7.2	-								
	173 - 882	3.55*	11	6.7	-								
	195 - 998	3.14	9.8	5.9	-	**RX**	**57**	**VU/VZ**	**01**	**DT**	**80N4**	37	212
	210 - 1075	2.91	9.1	5.5	-	**RXF**	**57**	**VU/VZ**	**01**	**DT**	**80N4**	39	213
	232 - 1185	2.64*	8.2	5.0	-								
	258 - 1320	2.37	7.4	4.5	-								
	300 - 1535	2.04	6.4	3.9	-								
	319 - 1630	1.92*	6.0	3.6	-								
	371 - 1900	1.65	5.1	3.1	-								
1.1 / 0.84	**0.14 - 0.86**	3754	13000	9150	-								
	0.16 - 0.98	3302	13000	8050	-	**R**	**147 R77**	**VU/VZ**	**11**	**DT**	**90S4**	435	-
	0.19 - 1.1	2898	13000	7060	-	**RF**	**147 R77**	**VU/VZ**	**11**	**DT**	**90S4**	445	-
	0.21 - 1.3	2555	13000	6320	-								
	0.24 - 1.5	2211	12800	5470	-								
	0.27 - 1.7	1951	11300	4830	-								
	0.31 - 1.9	1705	9850	4220	-								
	0.35 - 2.1	1536	8880	3800	-								
	0.40 - 2.4	1329	7680	3290	-	**R**	**147 R77**	**VU/VZ**	**11**	**DT**	**90S4**	435	-
	0.46 - 2.8	1166	6740	2890	-	**RF**	**147 R77**	**VU/VZ**	**11**	**DT**	**90S4**	440	-
	0.60 - 3.6	889	5140	2200	-								
	0.87 - 5.2	619	3580	1530	-								
	0.96 - 5.8	558	3220	1380	-								
	1.1 - 6.6	489	2830	1210	-								
	1.3 - 7.8	415	2400	1030	-								
	0.26 - 1.6	2073	8000	5130	-								
	0.29 - 1.8	1839	8000	4550	-								
	0.34 - 2.0	1598	8000	3960	-								
	0.38 - 2.3	1397	8000	3460	-								
	0.44 - 2.6	1226	7080	3030	-								
	0.49 - 3.0	1090	6300	2700	-	**R**	**137 R77**	**VU/VZ**	**11**	**DT**	**90S4**	310	-
	0.56 - 3.4	951	5500	2350	-	**RF**	**137 R77**	**VU/VZ**	**11**	**DT**	**90S4**	330	-
	0.65 - 3.9	831	4800	2060	-								
	0.73 - 4.4	730	4220	1810	-								
	0.96 - 5.8	560	3240	1390	-								
	1.4 - 8.4	381	2200	940	-								
	0.38 - 2.3	1400	4300	3470	-								
	0.44 - 2.6	1226	4300	3030	-								
	0.49 - 2.9	1104	4300	2730	-	**R**	**107 R77**	**VU/VZ**	**11**	**DT**	**90S4**	225	-
	0.57 - 3.4	939	4300	2320	-	**RF**	**107 R77**	**VU/VZ**	**11**	**DT**	**90S4**	230	-
	0.65 - 3.9	822	4300	2030	-								
	1.4 - 8.7	369	2130	910	-								
	1.1 - 6.9	469	2750	1180	-								
	1.3 - 7.6	426	2500	1070	-								
	1.4 - 8.5	377	2210	950	-								
	1.7 - 9.9	325	1910	820	-	**R**	**107 R77**	**VU/VZ**	**11**	**DT**	**90S4**	220	-
	1.9 - 11	284	1670	715	-	**RF**	**107 R77**	**VU/VZ**	**11**	**DT**	**90S4**	225	-
	2.1 - 13	256	1500	645	-								
	2.4 - 15	220	1290	555	-								
	3.1 - 19	172	1010	430	-								
	0.65 - 3.9	824	3000	2040	-								
	0.73 - 4.4	737	3000	1820	-	**R**	**97 R57**	**VU/VZ**	**11**	**DT**	**90S4**	155	-
	0.85 - 5.1	632	3000	1560	-	**RF**	**97 R57**	**VU/VZ**	**11**	**DT**	**90S4**	170	-

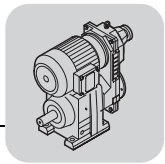


R = 1:5 ... R = 1:6															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
1.1 / 0.84	0.86	-	5.2	625	3000	1570	-								
	0.98	-	5.9	549	3000	1380	-								
	1.2	-	6.9	466	2730	1170	-								
	1.3	-	7.7	420	2460	1060	-								
	1.4	-	8.7	370	2170	930	-	R	97 R57	VU/VZ	11	DT	90S4	150	-
	1.5	-	9.2	349	2050	880	-	RF	97 R57	VU/VZ	11	DT	90S4	170	-
	1.8	-	11	297	1740	745	-								
	2.0	-	12	270	1580	680	-								
	2.4	-	14	227	1330	570	-								
	1.3	-	8.1	400	1550	1010	-								
	1.5	-	8.9	361	1550	910	-								
	1.8	-	11	300	1550	755	-	R	87 R57	VU/VZ	11	DT	90S4	115	-
	2.1	-	13	256	1500	645	-	RF	87 R57	VU/VZ	11	DT	90S4	120	-
	2.3	-	14	232	1360	585	-								
	2.8	-	17	195	1140	490	-								
1.1 / 0.90	2.4	-	14	216.54	1550	600	-								
	2.5	-	15	205.71	1550	570	-								
	2.8	-	17	181.77	1550	505	-								
	3.3	-	20	155.34	1550	430	-	R	87	VU/VZ	21	DT	90S4	120	236
	3.6	-	22	142.41	1440	395	-	RF	87	VU/VZ	21	DT	90S4	125	237
	4.1	-	25	124.97	1270	345	-								
	4.3	-	26	118.43*	1200	330	-								
	3.2	-	19	166.59	820	445	-								
	3.7	-	22	145.67	820	390	-								
	3.9	-	23	138.39	820	370	-	R	77	VU/VZ	11	DT	90S4	73	234
	4.4	-	27	121.42	755	325	-	RF	77	VU/VZ	11	DT	90S4	78	235
	5.2	-	31	102.99	640	275	-								
	3.4	-	20	158.14	600	420	-								
	3.9	-	23	137.67	600	370	-								
	4.2	-	25	128.97	600	345	-								
	4.7	-	28	113.94	600	305	-	R	67	VU/VZ	11	DT	90S4	65	232
	5.1	-	30	105.83	600	285	-	RF	67	VU/VZ	11	DT	90S4	68	233
	5.6	-	34	95.91	600	255	-								
	6.2	-	37	86.11	535	230	-								
	3.6	-	22	147.92	450	395	-								
	4.2	-	25	128.77	450	345	-								
	4.5	-	27	120.63	450	320	-								
	5.0	-	30	106.58	450	285	-								
	5.4	-	33	98.99	450	265	-								
	6.0	-	36	89.71	450	240	-	R	57	VU/VZ	11	DT	90S4	58	230
	6.7	-	40	80.55	450	215	-	RF	57	VU/VZ	11	DT	90S4	61	231
	7.8	-	47	69.23	430	185	-								
	8.3	-	50	64.85	405	173	-								
	9.4	-	56	57.29	355	153	-								
	10	-	61	53.22	330	142	-								
	11	-	67	48.23	300	129	-								
	5.3	-	32	100.86	300	270	-								
	5.7	-	34	93.68	300	250	-								
	6.3	-	38	84.90	300	225	-								
	7.0	-	42	76.23	300	205	-								
	7.8	-	47	68.54	300	183	-								
	8.3	-	50	64.21	300	171	-	R	47	VU/VZ	11	DT	90S4	53	228
	9.5	-	57	56.73	300	151	-	RF	47	VU/VZ	11	DT	90S4	53	229
	10	-	61	52.69	300	141	-								
	11	-	67	47.75	300	128	-								
	13	-	75	42.87	265	114	-								
	15	-	87	36.93	230	99	-								
	15	-	93	34.73	215	93	-								



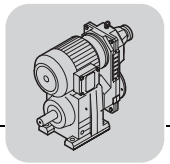
R..VU/VZ..DR/DT/DV.. [kW]

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
R = 1:5 ... R = 1:6													
1.1 / 0.90	**7.2 - 44**	73.96	200	197	-								
	7.7 - 46	69.33	200	185	-								
	8.8 - 53	61.18	200	163	-								
	9.6 - 58	55.76	200	149	-								
	11 - 67	48.08	200	128	-								
	12 - 72	44.81	200	120	-	**R**	**37**	**VU/VZ**	**11**	**DT**	**90S4**	51	226
	14 - 82	39.17	200	105	-	**RF**	**37**	**VU/VZ**	**11**	**DT**	**90S4**	52	227
	15 - 88	36.72	200	98	-								
	17 - 99	32.40	200	87	-								
	19 - 112	28.73	179	77	-								
	22 - 132	24.42	152	65	-								
	24 - 145	22.27	139	59	-								
	28 - 167	19.31	120	52	-								
	30 - 178	18.05	113	48	-								
	34 - 206	15.60	97	42	-								
	40 - 243	13.25	83	35	-								
	45 - 272	11.83	74	32	-	**R**	**37**	**VU/VZ**	**11**	**DT**	**90S4**	50	226
	53 - 319	10.11	63	27	-	**RF**	**37**	**VU/VZ**	**11**	**DT**	**90S4**	52	227
	57 - 340	9.47	59	25	-								
	67 - 404	7.97	50	21	-								
	80 - 483	6.67	42	18	-								
	95 - 568	5.67	35	15	-								
	106 - 636	5.06	32	14	-								
	104 - 622	5.18	32	14	-								
	118 - 711	4.53	28	12	-	**RX**	**67**	**VU/VZ**	**11**	**DT**	**90S4**	51	214
	125 - 749	4.30*	27	12	-	**RXF**	**67**	**VU/VZ**	**11**	**DT**	**90S4**	55	215
	123 - 740	4.35	27	12	-								
	142 - 850	3.79	24	10	-								
	151 - 907	3.55*	22	9.5	-								
	171 - 1025	3.14	20	8.4	-								
	184 - 1105	2.91	18	7.8	-								
	203 - 1220	2.64*	17	7.0	-	**RX**	**57**	**VU/VZ**	**11**	**DT**	**90S4**	48	212
	226 - 1360	2.37	15	6.3	-	**RXF**	**57**	**VU/VZ**	**11**	**DT**	**90S4**	50	213
	263 - 1580	2.04	13	5.4	-								
	279 - 1675	1.92*	12	5.1	-								
	325 - 1950	1.65	10	4.4	-								
	362 - 2175	1.48	9.2	4.0	-								
	413 - 2475	1.30	8.1	3.5	-								
1.5 / 1.2	**0.21 - 1.3**	2555	13000	8580	-								
	0.24 - 1.5	2211	12800	7430	-								
	0.28 - 1.7	1951	11300	6550	-								
	0.32 - 1.9	1705	9840	5730	-	**R**	**147 R77**	**VU/VZ**	**11**	**DT**	**90L4**	435	-
	0.35 - 2.1	1536	8860	5160	-	**RF**	**147 R77**	**VU/VZ**	**11**	**DT**	**90L4**	445	-
	0.40 - 2.4	1329	7670	4460	-								
	0.46 - 2.8	1166	6730	3920	-								
	0.60 - 3.6	889	5130	2990	-								
	0.34 - 2.0	1598	8000	5370	-								
	0.38 - 2.3	1397	8000	4690	-								
	0.44 - 2.6	1226	7070	4120	-								
	0.49 - 3.0	1090	6290	3660	-								
	0.56 - 3.4	951	5490	3190	-	**R**	**137 R77**	**VU/VZ**	**11**	**DT**	**90L4**	310	-
	0.65 - 3.9	831	4790	2790	-	**RF**	**137 R77**	**VU/VZ**	**11**	**DT**	**90L4**	335	-
	0.74 - 4.4	730	4210	2450	-								
	0.96 - 5.8	560	3230	1880	-								
	1.4 - 8.5	381	2200	1280	-								
	0.57 - 3.5	939	4300	3150	-								
	0.65 - 4.0	822	4300	2760	-	**R**	**107 R77**	**VU/VZ**	**11**	**DT**	**90L4**	230	-
	1.5 - 8.8	369	2130	1240	-	**RF**	**107 R77**	**VU/VZ**	**11**	**DT**	**90L4**	235	-
	1.7 - 10	323	1860	1080	-								



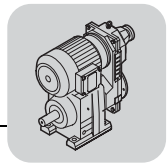
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
1.5 / 1.2	1.2 - 6.9	469	2750	1600	-								
	1.3 - 7.6	426	2490	1450	-								
	1.4 - 8.6	377	2210	1290	-								
	1.7 - 10	325	1900	1110	-	R	107 R77	VU/VZ	11	DT	90L4	220	-
	1.9 - 11	284	1660	970	-	RF	107 R77	VU/VZ	11	DT	90L4	230	-
	2.1 - 13	256	1500	870	-								
	2.4 - 15	220	1290	750	-								
	3.1 - 19	172	1010	585	-								
	0.98 - 5.9	549	3000	1870	-								
	1.2 - 7.0	466	2730	1590	-								
	1.3 - 7.7	420	2460	1430	-								
	1.4 - 8.8	370	2170	1260	-	R	97 R57	VU/VZ	11	DT	90L4	155	-
	1.5 - 9.3	349	2040	1190	-	RF	97 R57	VU/VZ	11	DT	90L4	170	-
	1.8 - 11	297	1740	1010	-								
	2.0 - 12	270	1580	920	-								
	2.4 - 14	227	1330	775	-								
	1.8 - 11	300	1550	1020	-								
	2.1 - 13	256	1500	870	-	R	87 R57	VU/VZ	11	DT	90L4	115	-
	2.3 - 14	232	1360	790	-	RF	87 R57	VU/VZ	11	DT	90L4	125	-
	2.8 - 17	195	1140	665	-								
1.5 / 1.2	2.4 - 14	216.54	1550	820	-								
	2.5 - 15	205.71	1550	775	-								
	2.8 - 17	181.77	1550	685	-								
	3.3 - 20	155.34	1550	585	-	R	87	VU/VZ	21	DT	90L4	120	236
	3.6 - 22	142.41	1440	535	-	RF	87	VU/VZ	21	DT	90L4	130	237
	4.1 - 25	124.97	1270	470	-								
	4.3 - 26	118.43*	1200	445	-								
	3.2 - 19	166.59	820	605	-								
	3.7 - 22	145.67	820	530	-								
	3.9 - 23	138.39	820	500	-	R	77	VU/VZ	11	DT	90L4	75	234
	4.4 - 27	121.42	755	440	-	RF	77	VU/VZ	11	DT	90L4	80	235
	5.2 - 31	102.99	640	375	-								
	5.8 - 35	92.97	580	335	-								
	3.4 - 21	158.14	600	575	-								
	3.9 - 24	137.67	600	500	-								
	4.2 - 25	128.97	600	465	-								
	4.7 - 28	113.94	600	415	-	R	67	VU/VZ	11	DT	90L4	67	232
	5.1 - 31	105.83	600	385	-	RF	67	VU/VZ	11	DT	90L4	70	233
	5.6 - 34	95.91	595	345	-								
	6.2 - 38	86.11	535	310	-								
	4.5 - 27	120.63	450	435	-								
	5.0 - 30	106.58	450	385	-								
	5.4 - 33	98.99	450	360	-								
	6.0 - 36	89.71	450	325	-								
	6.7 - 40	80.55	450	290	-	R	57	VU/VZ	11	DT	90L4	60	230
	7.8 - 47	69.23	430	250	-	RF	57	VU/VZ	11	DT	90L4	63	231
	8.3 - 50	64.85	405	235	-								
	9.4 - 57	57.29	355	210	-								
	10 - 61	53.22	330	193	-								
	11 - 67	48.23	300	175	-								
	7.0 - 43	76.23	300	275	-								
	7.8 - 47	68.54	300	250	-								
	8.4 - 51	64.21	300	235	-								
	9.5 - 57	56.73	300	205	-								
	10 - 62	52.69	300	191	-	R	47	VU/VZ	11	DT	90L4	55	228
	11 - 68	47.75	295	173	-	RF	47	VU/VZ	11	DT	90L4	55	229
	13 - 76	42.87	265	155	-								
	15 - 88	36.93	230	134	-								
	15 - 93	34.73	215	126	-								



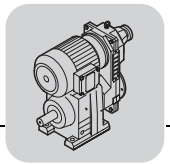
R..VU/VZ..DR/DT/DV.. [kW]

R = 1:5 ... R = 1:6															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
1.5 / 1.2	11	-	67	48.08	200	174	-								
	12	-	72	44.81	200	162	-								
	14	-	83	39.17	200	142	-								
	15	-	88	36.72	200	133	-	R	37	VU/VZ	11	DT	90L4	53	226
	17	-	100	32.40	200	117	-	RF	37	VU/VZ	11	DT	90L4	54	227
	19	-	113	28.73	179	104	-								
	22	-	133	24.42	152	89	-								
	24	-	146	22.27	139	81	-								
	28	-	168	19.31	120	70	-								
	30	-	180	18.05	112	65	-								
	34	-	208	15.60	97	57	-								
	41	-	245	13.25	82	48	-								
	45	-	274	11.83	74	43	-	R	37	VU/VZ	11	DT	90L4	52	226
	53	-	321	10.11	63	37	-	RF	37	VU/VZ	11	DT	90L4	54	227
	57	-	342	9.47	59	34	-								
	67	-	407	7.97	50	29	-								
	81	-	486	6.67	42	24	-								
	95	-	572	5.67	35	21	-								
	106	-	641	5.06	32	18	-								
	104	-	626	5.18	32	19	-								
	119	-	716	4.53	28	16	-	RX	67	VU/VZ	11	DT	90L4	53	214
	125	-	754	4.30*	27	16	-	RXF	67	VU/VZ	11	DT	90L4	57	215
	124	-	746	4.35	27	16	-								
	142	-	856	3.79	24	14	-								
	151	-	914	3.55*	22	13	-								
	171	-	1035	3.14	20	11	-								
	185	-	1115	2.91	18	11	-								
	204	-	1230	2.64*	16	9.6	-	RX	57	VU/VZ	11	DT	90L4	50	212
	227	-	1370	2.37	15	8.6	-	RXF	57	VU/VZ	11	DT	90L4	52	213
	263	-	1590	2.04	13	7.4	-								
	280	-	1690	1.92*	12	7.0	-								
	326	-	1965	1.65	10	6.0	-								
	363	-	2190	1.48	9.2	5.4	-								
	413	-	2495	1.30	8.1	4.7	-								
2.2 / 1.7	0.30	-	1.8	1705	13000	8720	-								
	0.33	-	2.0	1536	13000	7860	-								
	0.38	-	2.3	1329	13000	6800	-								
	0.44	-	2.7	1166	13000	5960	-								
	0.50	-	3.0	1029	12500	5260	-								
	0.57	-	3.5	889	10800	4550	-	R	147 R77	VU/VZ	21	DV	100M4	460	-
	0.65	-	4.0	784	9540	4010	-	RF	147 R77	VU/VZ	21	DV	100M4	470	-
	0.73	-	4.5	695	8460	3550	-								
	0.82	-	5.0	619	7530	3170	-								
	0.91	-	5.6	558	6790	2850	-								
	1.0	-	6.4	489	5950	2500	-								
	1.2	-	7.5	415	5050	2120	-								
	0.47	-	2.9	1090	8000	5580	-								
	0.54	-	3.3	951	8000	4860	-								
	0.61	-	3.8	831	8000	4250	-								
	0.70	-	4.3	730	8000	3730	-								
	0.81	-	5.0	629	7650	3220	-								
	0.91	-	5.6	560	6810	2860	-								
	1.0	-	6.4	490	5960	2510	-								
	1.2	-	7.3	428	5210	2190	-	R	137 R77	VU/VZ	21	DV	100M4	335	-
	1.3	-	8.2	381	4640	1950	-	RF	137 R77	VU/VZ	21	DV	100M4	360	-
	1.6	-	9.7	323	3930	1650	-								
	1.8	-	11	291	3540	1490	-								
	2.0	-	12	255	3100	1300	-								
	2.3	-	14	223	2710	1140	-								
	2.6	-	16	197	2400	1010	-								
	2.9	-	18	175	2130	900	-								
	0.83	-	5.1	614	4300	3140	-								
	0.94	-	5.7	544	4300	2780	-	R	107 R77	VU/VZ	21	DV	100M4	255	-
	1.0	-	6.3	492	4300	2520	-	RF	107 R77	VU/VZ	21	DV	100M4	260	-



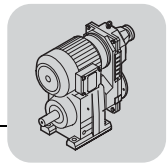
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} [1/min]	-	n_{a2}	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
2.2 / 1.7	**1.1**	-	**6.6**	469	4300	2440	-								
	1.2	-	**7.3**	426	4300	2210	-								
	1.4	-	**8.3**	377	4300	1960	-								
	1.6	-	**9.6**	325	4010	1690	-								
	1.8	-	**11**	284	3510	1470	-	**R**	**107 R77**	**VU/VZ**	**21**	**DV**	**100M4**	250	-
	2.0	-	**12**	256	3160	1330	-	**RF**	**107 R77**	**VU/VZ**	**21**	**DV**	**100M4**	255	-
	2.3	-	**14**	220	2720	1140	-								
	2.6	-	**16**	193	2380	1000	-								
	3.0	-	**18**	172	2120	890	-								
	1.4	-	**8.4**	370	3000	1920	-								
	1.5	-	**8.9**	349	3000	1810	-								
	1.7	-	**10**	297	3000	1540	-	**R**	**97 R57**	**VU/VZ**	**21**	**DV**	**100M4**	180	-
	1.9	-	**12**	270	3000	1400	-	**RF**	**97 R57**	**VU/VZ**	**21**	**DV**	**100M4**	200	-
	2.2	-	**14**	227	2800	1180	-								
2.2 / 1.8	**2.4**	-	**14**	216.54	1550	1190	-								
	2.5	-	**15**	205.71	1550	1130	-								
	2.8	-	**17**	181.77	1550	1000	-								
	3.3	-	**20**	155.34	1550	860	-	**R**	**87**	**VU/VZ**	**21**	**DV**	**100M4**	130	236
	3.6	-	**22**	142.41	1550	785	-	**RF**	**87**	**VU/VZ**	**21**	**DV**	**100M4**	135	237
	4.1	-	**25**	124.97	1550	690	-								
	4.3	-	**26**	118.43*	1550	655	-								
	4.9	-	**30**	103.65	1360	570	-								
	3.5	-	**21**	145.67	820	800	-								
	3.7	-	**23**	138.39	820	765	-								
	4.2	-	**26**	121.42	820	670	-								
	5.0	-	**30**	102.99	820	570	-								
	5.5	-	**34**	92.97	820	515	-	**R**	**77**	**VU/VZ**	**21**	**DV**	**100M4**	100	234
	6.2	-	**38**	81.80	820	450	-	**RF**	**77**	**VU/VZ**	**21**	**DV**	**100M4**	105	235
	6.6	-	**40**	77.24	820	425	-								
	7.8	-	**47**	65.77	820	365	-								
	8.8	-	**54**	57.68	755	320	-								
	4.8	-	**29**	105.83	600	585	-								
	5.3	-	**32**	95.91	600	530	-								
	5.9	-	**36**	86.11	600	475	-								
	6.9	-	**42**	74.17	600	410	-	**R**	**67**	**VU/VZ**	**21**	**DV**	**100M4**	94	232
	7.3	-	**45**	69.75	600	385	-	**RF**	**67**	**VU/VZ**	**21**	**DV**	**100M4**	98	233
	8.3	-	**51**	61.26	600	340	-								
	9.0	-	**55**	56.89	600	315	-								
	9.9	-	**60**	51.56	600	285	-								
	6.3	-	**39**	80.55	450	445	-								
	7.4	-	**45**	69.23	450	380	-								
	7.9	-	**48**	64.85	450	360	-								
	8.9	-	**54**	57.29	450	315	-								
	9.6	-	**59**	53.22	450	295	-								
	11	-	**65**	48.23	450	265	-	**R**	**57**	**VU/VZ**	**21**	**DV**	**100M4**	88	230
	12	-	**72**	43.30	450	240	-	**RF**	**57**	**VU/VZ**	**21**	**DV**	**100M4**	91	231
	14	-	**84**	37.30*	450	205	-								
	15	-	**89**	35.07	450	194	-								
	17	-	**103**	30.18	395	167	-								
	19	-	**116**	26.97	355	149	-								
	9.7	-	**59**	52.69	300	290	-								
	11	-	**65**	47.75	300	265	-								
	12	-	**73**	42.87	300	235	-								
	14	-	**84**	36.93	300	205	-	**R**	**47**	**VU/VZ**	**21**	**DV**	**100M4**	83	228
	15	-	**90**	34.73	300	192	-	**RF**	**47**	**VU/VZ**	**21**	**DV**	**100M4**	83	229
	17	-	**104**	29.88	300	165	-								
	19	-	**117**	26.70	300	147	-								
	22	-	**132**	23.59	300	130	-								



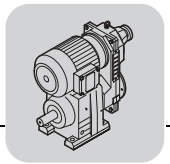
R..VU/VZ..DR/DT/DV.. [kW]

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
R = 1:5 ... R = 1:6													
2.2 / 1.8	**22 - 134**	23.28	300	128	-								
	23 - 143	21.81	285	120	-								
	26 - 162	19.27	255	106	-								
	28 - 174	17.89	235	99	-								
	31 - 192	16.22	215	90	-								
	35 - 214	14.56	191	80	-								
	41 - 248	12.54	165	69	-								
	43 - 264	11.79	155	65	-								
	50 - 307	10.15	133	56	-	**R**	**47**	**VU/VZ**	**21**	**DV**	**100M4**	82	228
	56 - 344	9.07	119	50	-	**RF**	**47**	**VU/VZ**	**21**	**DV**	**100M4**	82	229
	64 - 389	8.01	105	44	-								
	66 - 402	7.76*	102	43	-								
	73 - 448	6.96	91	38	-								
	85 - 519	6.00	79	33	-								
	90 - 553	5.64*	74	31	-								
	105 - 642	4.85	64	27	-								
	117 - 718	4.34	57	24	-								
	133 - 814	3.83	50	21	-								
	90 - 553	5.63	74	31	-	**RX**	**77**	**VU/VZ**	**21**	**DV**	**100M4**	92	216
	95 - 582	5.35*	70	30	-	**RXF**	**77**	**VU/VZ**	**21**	**DV**	**100M4**	94	217
	108 - 659	4.73	62	26	-								
	112 - 688	4.53	59	25	-								
	118 - 725	4.30*	56	24	-	**RX**	**67**	**VU/VZ**	**21**	**DV**	**100M4**	81	214
	135 - 827	3.77	50	21	-	**RXF**	**67**	**VU/VZ**	**21**	**DV**	**100M4**	85	215
	134 - 822	3.79	50	21	-								
	144 - 878	3.55*	47	20	-								
	162 - 992	3.14	41	17	-								
	175 - 1070	2.91	38	16	-								
	193 - 1180	2.64*	35	15	-								
	215 - 1315	2.37	31	13	-	**RX**	**57**	**VU/VZ**	**21**	**DV**	**100M4**	78	212
	250 - 1530	2.04	27	11	-	**RXF**	**57**	**VU/VZ**	**21**	**DV**	**100M4**	80	213
	265 - 1625	1.92*	25	11	-								
	309 - 1890	1.65	22	9.1	-								
	344 - 2105	1.48	19	8.2	-								
	392 - 2395	1.30	17	7.2	-								
3.0 / 2.3	**0.44 - 2.6**	1166	13000	8180	-								
	0.49 - 3.0	1029	12500	7220	-								
	0.57 - 3.5	889	10800	6230	-								
	0.65 - 4.0	784	9550	5500	-								
	0.73 - 4.5	695	8470	4870	-	**R**	**147 R77**	**VU/VZ**	**21**	**DV**	**100L4**	465	-
	0.82 - 5.0	619	7540	4340	-	**RF**	**147 R77**	**VU/VZ**	**21**	**DV**	**100L4**	475	-
	0.91 - 5.5	558	6800	3910	-								
	1.0 - 6.3	489	5960	3430	-								
	1.2 - 7.5	415	5060	2910	-								
	0.70 - 4.2	730	8000	5120	-								
	0.81 - 4.9	629	7670	4410	-								
	0.91 - 5.5	560	6820	3930	-								
	1.0 - 6.3	490	5970	3440	-								
	1.2 - 7.2	428	5220	3000	-								
	1.3 - 8.1	381	4640	2670	-	**R**	**137 R77**	**VU/VZ**	**21**	**DV**	**100L4**	340	-
	1.6 - 9.6	323	3940	2260	-	**RF**	**137 R77**	**VU/VZ**	**21**	**DV**	**100L4**	365	-
	1.8 - 11	291	3550	2040	-								
	2.0 - 12	255	3110	1790	-								
	2.3 - 14	223	2720	1560	-								
	2.6 - 16	197	2400	1380	-								
	2.9 - 18	175	2130	1230	-								
	1.2 - 7.3	426	4300	3030	-								
	1.4 - 8.2	377	4300	2680	-								
	1.6 - 9.5	325	4020	2310	-								
	1.8 - 11	284	3510	2020	-	**R**	**107 R77**	**VU/VZ**	**21**	**DV**	**100L4**	255	-
	2.0 - 12	256	3170	1820	-	**RF**	**107 R77**	**VU/VZ**	**21**	**DV**	**100L4**	260	-
	2.3 - 14	220	2720	1570	-								
	2.6 - 16	193	2390	1370	-								
	3.0 - 18	172	2130	1220	-								



R = 1:5 ... R = 1:6

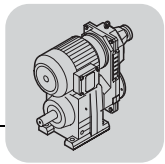
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
3.0 / 2.3	**1.7 - 10**	297	3000	2110	-									
	1.9 - 11	270	3000	1920	-	**R**	**97 R57**	**VU/VZ**	**21**	**DV**	**100L4**		185	-
	2.2 - 14	227	2810	1620	-	**RF**	**97 R57**	**VU/VZ**	**21**	**DV**	**100L4**		205	-
3.0 / 2.5	**3.3 - 20**	155.34	1550	1170	-									
	3.6 - 22	142.41	1550	1080	-									
	4.1 - 25	124.97	1550	950	-									
	4.3 - 26	118.43*	1550	900	-	**R**	**87**	**VU/VZ**	**21**	**DV**	**100L4**		130	236
	4.9 - 30	103.65	1360	785	-	**RF**	**87**	**VU/VZ**	**21**	**DV**	**100L4**		140	237
	5.5 - 33	93.38	1230	705	-									
	6.2 - 38	81.92	1080	620	-									
	7.0 - 43	72.57	950	550	-									
	4.9 - 30	102.99	820	780	-									
	5.5 - 33	92.97	820	705	-									
	6.2 - 38	81.80	820	620	-									
	6.6 - 40	77.24	820	585	-									
	7.7 - 47	65.77	820	495	-	**R**	**77**	**VU/VZ**	**21**	**DV**	**100L4**		105	234
	8.8 - 54	57.68	760	435	-	**RF**	**77**	**VU/VZ**	**21**	**DV**	**100L4**		110	235
	9.8 - 59	52.07	685	395	-									
	11 - 68	45.81	600	345	-									
	12 - 72	43.26	570	325	-									
	6.9 - 42	74.17	600	560	-									
	7.3 - 44	69.75	600	530	-									
	8.3 - 51	61.26	600	465	-	**R**	**67**	**VU/VZ**	**21**	**DV**	**100L4**		98	232
	8.9 - 54	56.89	600	430	-	**RF**	**67**	**VU/VZ**	**21**	**DV**	**100L4**		100	233
	9.9 - 60	51.56	600	390	-									
	11 - 67	46.29	600	350	-									
	8.9 - 54	57.29	450	435	-									
	9.6 - 58	53.22	450	405	-									
	11 - 64	48.23	450	365	-									
	12 - 71	43.30	450	325	-	**R**	**57**	**VU/VZ**	**21**	**DV**	**100L4**		92	230
	14 - 83	37.30*	450	280	-	**RF**	**57**	**VU/VZ**	**21**	**DV**	**100L4**		95	231
	15 - 88	35.07	450	265	-									
	17 - 103	30.18	395	230	-									
	19 - 115	26.97	355	205	-									
	14 - 84	36.93	300	280	-									
	15 - 89	34.73	300	265	-									
	17 - 104	29.88	300	225	-	**R**	**47**	**VU/VZ**	**21**	**DV**	**100L4**		87	228
	19 - 116	26.70	300	200	-	**RF**	**47**	**VU/VZ**	**21**	**DV**	**100L4**		87	229
	22 - 131	23.59	300	178	-									
	22 - 133	23.28	300	176	-									
	23 - 142	21.81	285	165	-									
	26 - 161	19.27	255	146	-									
	28 - 173	17.89	235	135	-									
	31 - 191	16.22	215	123	-									
	35 - 213	14.56	191	110	-									
	41 - 247	12.54	165	95	-									
	43 - 262	11.79	155	89	-									
	50 - 305	10.15	133	77	-	**R**	**47**	**VU/VZ**	**21**	**DV**	**100L4**		86	228
	56 - 341	9.07	119	69	-	**RF**	**47**	**VU/VZ**	**21**	**DV**	**100L4**		86	229
	64 - 386	8.01	105	61	-									
	66 - 399	7.76*	102	59	-									
	73 - 445	6.96	92	53	-									
	85 - 516	6.00	79	45	-									
	90 - 549	5.64*	74	43	-									
	105 - 638	4.85	64	37	-									
	117 - 713	4.34	57	33	-									
	133 - 808	3.83	50	29	-									
	90 - 550	5.63	74	43	-									
	95 - 578	5.35*	70	41	-	**RX**	**77**	**VU/VZ**	**21**	**DV**	**100L4**		96	216
	108 - 654	4.73	62	36	-	**RXF**	**77**	**VU/VZ**	**21**	**DV**	**100L4**		98	217
	112 - 683	4.53	60	34	-									
	118 - 720	4.30*	57	33	-	**RX**	**67**	**VU/VZ**	**21**	**DV**	**100L4**		85	214
	135 - 821	3.77	50	29	-	**RXF**	**67**	**VU/VZ**	**21**	**DV**	**100L4**		89	215



R..VU/VZ..DR/DT/DV.. [kW]

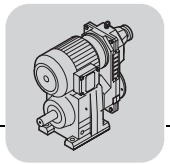
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
3.0 / 2.5	**134 - 816**	3.79	50	29	-								
	143 - 872	3.55*	47	27	-								
	162 - 985	3.14	41	24	-								
	175 - 1065	2.91	38	22	-								
	193 - 1170	2.64*	35	20	-								
	215 - 1305	2.37	31	18	-	**RX**	**57**	**VU/VZ**	**21**	**DV**	**100L4**	82	212
	249 - 1515	2.04	27	15	-	**RXF**	**57**	**VU/VZ**	**21**	**DV**	**100L4**	84	213
	265 - 1610	1.92*	25	15	-								
	308 - 1875	1.65	22	13	-								
	344 - 2090	1.48	20	11	-								
	391 - 2380	1.30	17	9.8	-								
4.0 / 3.1	**0.57 - 3.5**	889	13000	8470	-								
	0.65 - 3.9	784	13000	7470	-								
	0.73 - 4.4	695	13000	6620	-								
	0.82 - 5.0	619	13000	5900	-	**R**	**147 R77**	**VU/VZ**	**31**	**DV**	**112M4**	500	-
	0.91 - 5.5	558	12100	5320	-	**RF**	**147 R77**	**VU/VZ**	**31**	**DV**	**112M4**	510	-
	1.0 - 6.3	489	10600	4660	-								
	1.2 - 7.4	415	9000	3950	-								
	0.91 - 5.5	560	8000	5340	-								
	1.0 - 6.3	490	8000	4670	-								
	1.2 - 7.2	428	8000	4080	-								
	1.3 - 8.1	381	8000	3630	-								
	1.6 - 9.5	323	7010	3080	-	**R**	**137 R77**	**VU/VZ**	**31**	**DV**	**112M4**	375	-
	1.8 - 11	291	6310	2770	-	**RF**	**137 R77**	**VU/VZ**	**31**	**DV**	**112M4**	400	-
	2.0 - 12	255	5530	2430	-								
	2.3 - 14	223	4840	2120	-								
	2.6 - 16	197	4270	1880	-								
	2.9 - 18	175	3800	1670	-								
	1.6 - 9.4	325	4300	3140	-								
	1.8 - 11	284	4300	2750	-								
	2.0 - 12	256	4300	2480	-	**R**	**107 R77**	**VU/VZ**	**31**	**DV**	**112M4**	285	-
	2.3 - 14	220	4300	2130	-	**RF**	**107 R77**	**VU/VZ**	**31**	**DV**	**112M4**	290	-
	2.6 - 16	193	4250	1870	-								
	3.0 - 18	172	3790	1660	-								
4.0 / 3.3	**2.7 - 16**	186.30	3000	1910	-								
	3.0 - 18	170.02	3000	1750	-								
	3.4 - 20	150.78	3000	1550	-	**R**	**97**	**VU/VZ**	**31**	**DV**	**112M4**	210	238
	4.0 - 24	126.75	2960	1300	-	**RF**	**97**	**VU/VZ**	**31**	**DV**	**112M4**	225	239
	4.4 - 26	116.48	2720	1200	-								
	4.9 - 30	103.44	2420	1060	-								
	4.9 - 30	103.65	1550	1070	-								
	5.5 - 33	93.38	1550	960	-								
	6.2 - 37	81.92	1550	840	-								
	7.0 - 42	72.57	1550	745	-								
	8.0 - 48	63.68*	1490	655	-	**R**	**87**	**VU/VZ**	**31**	**DV**	**112M4**	165	236
	8.5 - 51	60.35*	1410	620	-	**RF**	**87**	**VU/VZ**	**31**	**DV**	**112M4**	175	237
	9.7 - 58	52.82	1240	545	-								
	11 - 64	47.58	1110	490	-								
	12 - 73	41.74	980	430	-								
	9.8 - 59	52.07	820	535	-								
	11 - 67	45.81	820	470	-								
	12 - 71	43.26	820	445	-								
	14 - 83	36.83	820	380	-	**R**	**77**	**VU/VZ**	**31**	**DV**	**112M4**	140	234
	15 - 92	33.47	785	345	-	**RF**	**77**	**VU/VZ**	**31**	**DV**	**112M4**	145	235
	18 - 106	29.00	680	300	-								
	20 - 122	25.23	590	260	-								
	9.9 - 59	51.56	600	530	-								
	11 - 66	46.29	600	475	-	**R**	**67**	**VU/VZ**	**31**	**DV**	**112M4**	135	232
	13 - 77	39.88*	580	410	-	**RF**	**67**	**VU/VZ**	**31**	**DV**	**112M4**	135	233
	12 - 71	43.30	450	445	-								
	14 - 82	37.30*	450	385	-								
	15 - 87	35.07	450	360	-	**R**	**57**	**VU/VZ**	**31**	**DV**	**112M4**	125	230
	17 - 102	30.18	450	310	-	**RF**	**57**	**VU/VZ**	**31**	**DV**	**112M4**	130	231
	19 - 114	26.97	450	275	-								



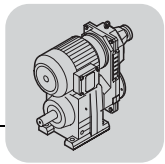
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
4.0 / 3.3	**27 - 165**	18.60*	435	191	-								
	30 - 183	16.79	395	173	-								
	35 - 208	14.77*	345	152	-								
	37 - 220	13.95*	325	143	-								
	43 - 258	11.88	280	122	-								
	47 - 284	10.79	250	111	-								
	55 - 328	9.35	220	96	-	**R**	**57**	**VU/VZ**	**31**	**DV**	**112M4**	125	230
	56 - 339	9.06	210	93	-	**RF**	**57**	**VU/VZ**	**31**	**DV**	**112M4**	130	231
	64 - 385	7.97	186	82	-								
	68 - 407	7.53	176	77	-								
	80 - 479	6.41	150	66	-								
	88 - 527	5.82	136	60	-								
	101 - 607	5.05	118	52	-								
	116 - 699	4.39	103	45	-								
	71 - 428	7.16*	168	74	-								
	78 - 468	6.56	153	67	-	**RX**	**97**	**VU/VZ**	**31**	**DV**	**112M4**	170	220
	88 - 530	5.79	135	60	-	**RXF**	**97**	**VU/VZ**	**31**	**DV**	**112M4**	180	221
	92 - 552	5.56*	130	57	-								
	101 - 605	5.07	119	52	-	**RX**	**87**	**VU/VZ**	**31**	**DV**	**112M4**	145	218
	113 - 682	4.50*	105	46	-	**RXF**	**87**	**VU/VZ**	**31**	**DV**	**112M4**	150	219
	126 - 759	4.04*	95	42	-								
	138 - 829	3.70	87	38	-								
	157 - 944	3.25*	76	33	-								
	166 - 996	3.08*	72	32	-								
	189 - 1135	2.70	63	28	-	**RX**	**77**	**VU/VZ**	**31**	**DV**	**112M4**	130	216
	210 - 1260	2.43	57	25	-	**RXF**	**77**	**VU/VZ**	**31**	**DV**	**112M4**	130	217
	240 - 1440	2.13	50	22	-								
	271 - 1630	1.88*	44	19	-								
	306 - 1835	1.67	39	17	-								
	359 - 2160	1.42	33	15	-								
5.5 / 4.2	**0.51 - 3.1**	999	18000	12900	-								
	0.59 - 3.6	861	18000	11100	-								
	0.67 - 4.1	760	16500	9800	-								
	0.78 - 4.7	656	14200	8460	-	**R**	**167 R97**	**VU/VZ**	**31**	**DV**	**132S4**	820	-
	1.0 - 6.1	503	10900	6490	-	**RF**	**167 R97**	**VU/VZ**	**31**	**DV**	**132S4**	830	-
	1.4 - 8.2	376	8140	4850	-								
	1.5 - 9.2	335	7250	4320	-								
	0.74 - 4.4	695	13000	8970	-								
	0.83 - 5.0	619	13000	7990	-								
	0.92 - 5.5	558	12100	7200	-	**R**	**147 R77**	**VZ**	**31**	**DV**	**132S4**	510	-
	1.1 - 6.3	489	10600	6310	-	**RF**	**147 R77**	**VZ**	**31**	**DV**	**132S4**	510	-
	1.2 - 7.4	415	8990	5350	-								
	1.2 - 7.2	428	8000	5520	-								
	1.3 - 8.1	381	8000	4920	-								
	1.6 - 9.6	323	6990	4170	-								
	1.8 - 11	291	6300	3750	-	**R**	**137 R77**	**VZ**	**31**	**DV**	**132S4**	380	-
	2.0 - 12	255	5520	3290	-	**RF**	**137 R77**	**VZ**	**31**	**DV**	**132S4**	405	-
	2.3 - 14	223	4830	2880	-								
	2.6 - 16	197	4270	2540	-								
	2.9 - 18	175	3790	2260	-								
	2.3 - 14	220	4300	2880	-								
	2.6 - 16	193	4240	2530	-	**R**	**107 R77**	**VZ**	**31**	**DV**	**132S4**	290	-
	3.0 - 18	172	3780	2250	-	**RF**	**107 R77**	**VZ**	**31**	**DV**	**132S4**	300	-
5.5 / 4.5	**2.7 - 17**	186.30	3000	2590	-								
	3.0 - 18	170.02	3000	2370	-								
	3.4 - 20	150.78	3000	2100	-								
	4.0 - 24	126.75	2960	1760	-	**R**	**97**	**VU/VZ**	**31**	**DV**	**132S4**	215	238
	4.4 - 27	116.48	2720	1620	-	**RF**	**97**	**VU/VZ**	**31**	**DV**	**132S4**	230	239
	4.9 - 30	103.44	2420	1440	-								
	5.5 - 33	92.48	2160	1290	-								
	6.2 - 37	83.15	1940	1160	-								



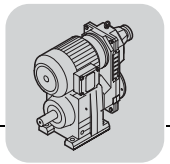
R..VU/VZ..DR/DT/DV.. [kW]

R = 1:5 ... R = 1:6															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
5.5 / 4.5	**5.5**	-	**33**	93.38	1550	1300	-								
	6.2	-	**38**	81.92	1550	1140	-								
	7.0	-	**43**	72.57	1550	1010	-								
	8.0	-	**49**	63.68*	1490	890	-								
	8.5	-	**51**	60.35*	1410	840	-	**R**	**87**	**VU/VZ**	**31**	**DV**	**132S4**	170	236
	9.7	-	**58**	52.82	1230	735	-	**RF**	**87**	**VU/VZ**	**31**	**DV**	**132S4**	180	237
	11	-	**65**	47.58	1110	660	-								
	12	-	**74**	41.74	970	580	-								
	14	-	**84**	36.84*	860	515	-								
	11	-	**67**	45.81	820	635	-								
	12	-	**71**	43.26	820	600	-								
	14	-	**84**	36.83	820	510	-	**R**	**77**	**VU/VZ**	**31**	**DV**	**132S4**	145	234
	15	-	**92**	33.47	780	465	-	**RF**	**77**	**VU/VZ**	**31**	**DV**	**132S4**	150	235
	18	-	**107**	29.00	675	405	-								
	20	-	**122**	25.23	590	350	-								
	13	-	**77**	39.88*	580	555	-								
	14	-	**82**	37.50	570	520	-	**R**	**67**	**VU/VZ**	**31**	**DV**	**132S4**	140	232
	16	-	**96**	32.27	540	450	-	**RF**	**67**	**VU/VZ**	**31**	**DV**	**132S4**	145	233
	18	-	**107**	28.83	520	400	-								
	17	-	**102**	30.18	450	420	-	**R**	**57**	**VU/VZ**	**31**	**DV**	**132S4**	135	230
	19	-	**115**	26.97	450	375	-	**RF**	**57**	**VU/VZ**	**31**	**DV**	**132S4**	135	231
	27	-	**166**	18.60*	435	260	-								
	30	-	**184**	16.79	390	235	-								
	35	-	**209**	14.77*	345	205	-								
	37	-	**221**	13.95*	325	194	-								
	43	-	**260**	11.88	275	165	-								
	47	-	**286**	10.79	250	150	-								
	55	-	**330**	9.35	220	130	-	**R**	**57**	**VU/VZ**	**31**	**DV**	**132S4**	130	230
	56	-	**341**	9.06	210	126	-	**RF**	**57**	**VU/VZ**	**31**	**DV**	**132S4**	135	231
	64	-	**388**	7.97	186	111	-								
	68	-	**410**	7.53	176	105	-								
	80	-	**482**	6.41	150	89	-								
	88	-	**531**	5.82	136	81	-								
	101	-	**612**	5.05	118	70	-								
	116	-	**704**	4.39	103	61	-								
	71	-	**431**	7.16*	167	100	-								
	78	-	**471**	6.56	153	91	-	**RX**	**97**	**VU/VZ**	**31**	**DV**	**132S4**	175	220
	88	-	**533**	5.79	135	81	-	**RXF**	**97**	**VU/VZ**	**31**	**DV**	**132S4**	185	221
	92	-	**556**	5.56*	130	77	-								
	101	-	**609**	5.07	118	71	-	**RX**	**87**	**VU/VZ**	**31**	**DV**	**132S4**	150	218
	114	-	**686**	4.50*	105	63	-	**RXF**	**87**	**VU/VZ**	**31**	**DV**	**132S4**	155	219
	127	-	**765**	4.04*	94	56	-								
	138	-	**835**	3.70	86	52	-								
	157	-	**950**	3.25*	76	45	-								
	166	-	**1005**	3.08*	72	43	-								
	189	-	**1145**	2.70	63	38	-	**RX**	**77**	**VU/VZ**	**31**	**DV**	**132S4**	135	216
	210	-	**1270**	2.43	57	34	-	**RXF**	**77**	**VU/VZ**	**31**	**DV**	**132S4**	135	217
	240	-	**1450**	2.13	50	30	-								
	272	-	**1645**	1.88*	44	26	-								
	306	-	**1850**	1.67	39	23	-								
	360	-	**2175**	1.42	33	20	-								
7.5 / 5.8	**0.66**	-	**4.0**	760	18000	13800	-								
	0.77	-	**4.6**	656	18000	11900	-								
	0.87	-	**5.2**	579	18000	10500	-								
	1.0	-	**6.0**	503	18000	9110	-								
	1.2	-	**7.0**	432	18000	7820	-	**R**	**167 R97**	**VU/VZ**	**41**	**DV**	**132M4**	890	-
	1.3	-	**8.1**	376	16600	6810	-	**RF**	**167 R97**	**VU/VZ**	**41**	**DV**	**132M4**	900	-
	1.5	-	**9.1**	335	14800	6070	-								
	1.7	-	**10**	303	13300	5490	-								
	1.8	-	**11**	279	12300	5050	-								



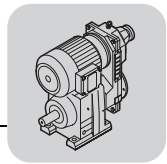
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
7.5 / 5.8	**0.72 - 4.4**	695	13000	12600	-								
	0.81 - 4.9	619	13000	11200	-								
	0.90 - 5.4	558	13000	10100	-	**R**	**147 R77**	**VU/VZ**	**41**	**DV**	**132M4**	570	-
	1.0 - 6.2	489	13000	8860	-	**RF**	**147 R77**	**VU/VZ**	**41**	**DV**	**132M4**	580	-
	1.2 - 7.3	415	13000	7520	-								
	1.6 - 9.4	323	8000	5850	-								
	1.7 - 10	291	8000	5270	-								
	2.0 - 12	255	8000	4620	-	**R**	**137 R77**	**VU/VZ**	**41**	**DV**	**132M4**	450	-
	2.2 - 14	223	8000	4040	-	**RF**	**137 R77**	**VU/VZ**	**41**	**DV**	**132M4**	470	-
	2.6 - 15	197	8000	3570	-								
	2.9 - 17	175	7710	3170	-								
7.5 / 6.2	**2.5 - 15**	203.16	4300	3970	-								
	2.9 - 18	172.34	4300	3370	-								
	3.2 - 19	158.68	4300	3100	-	**R**	**107**	**VU/VZ**	**41**	**DV**	**132M4**	335	240
	3.5 - 21	141.83	4300	2770	-	**RF**	**107**	**VU/VZ**	**41**	**DV**	**132M4**	345	241
	3.9 - 24	127.68	4300	2490	-								
	4.4 - 26	115.63	4300	2260	-								
	4.0 - 24	126.75	3000	2480	-								
	4.3 - 26	116.48	3000	2280	-								
	4.9 - 29	103.44	3000	2020	-								
	5.4 - 33	92.48	3000	1810	-	**R**	**97**	**VU/VZ**	**41**	**DV**	**132M4**	280	238
	6.0 - 36	83.15	3000	1620	-	**RF**	**97**	**VU/VZ**	**41**	**DV**	**132M4**	300	239
	7.0 - 42	72.17	3000	1410	-								
	7.7 - 46	65.21	3000	1270	-								
	8.4 - 51	59.92	2850	1170	-								
	8.3 - 50	60.35*	1550	1180	-								
	9.5 - 57	52.82	1550	1030	-								
	11 - 64	47.58	1550	930	-								
	12 - 73	41.74	1550	820	-	**R**	**87**	**VU/VZ**	**41**	**DV**	**132M4**	240	236
	14 - 82	36.84*	1550	720	-	**RF**	**87**	**VU/VZ**	**41**	**DV**	**132M4**	245	237
	15 - 93	32.66*	1550	640	-								
	18 - 109	27.88	1320	545	-								
	14 - 82	36.83	820	720	-								
	15 - 91	33.47	820	655	-	**R**	**77**	**VU/VZ**	**41**	**DV**	**132M4**	215	234
	17 - 105	29.00	820	565	-	**RF**	**77**	**VU/VZ**	**41**	**DV**	**132M4**	220	235
	20 - 120	25.23	780	495	-								
	27 - 161	18.80	780	365	-								
	28 - 170	17.82*	780	350	-								
	32 - 194	15.60	740	305	-								
	36 - 216	14.05	670	275	-								
	41 - 246	12.33	585	240	-								
	46 - 279	10.88	515	215	-	**R**	**77**	**VU/VZ**	**41**	**DV**	**132M4**	210	234
	52 - 314	9.64	460	188	-	**RF**	**77**	**VU/VZ**	**41**	**DV**	**132M4**	220	235
	59 - 353	8.59	410	168	-								
	65 - 392	7.74	370	151	-								
	74 - 446	6.79	325	133	-								
	84 - 506	5.99*	285	117	-								
	95 - 571	5.31*	250	104	-								
	76 - 457	6.63*	315	130	-								
	90 - 540	5.61	265	110	-	**RX**	**107**	**VU/VZ**	**41**	**DV**	**132M4**	275	222
	97 - 584	5.19	245	101	-	**RXF**	**107**	**VU/VZ**	**41**	**DV**	**132M4**	290	223
	87 - 524	5.79	275	113	-								
	102 - 617	4.91	235	96	-	**RX**	**97**	**VU/VZ**	**41**	**DV**	**132M4**	245	220
	111 - 671	4.52	215	88	-	**RXF**	**97**	**VU/VZ**	**41**	**DV**	**132M4**	250	221



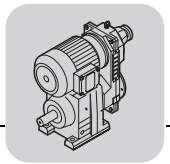
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
7.5 / 6.2	**112 - 674**	4.50*	215	88	-								
	133 - 802	3.78	180	74	-								
	144 - 871	3.48	165	68	-								
	163 - 981	3.09	147	60	-								
	182 - 1100	2.76*	131	54	-	**RX**	**87**	**VU/VZ**	**41**	**DV**	**132M4**	220	218
	203 - 1220	2.48	118	48	-	**RXF**	**87**	**VU/VZ**	**41**	**DV**	**132M4**	225	219
	234 - 1410	2.15	102	42	-								
	260 - 1570	1.93	92	38	-								
	314 - 1895	1.60*	76	31	M2								
	362 - 2180	1.39	66	27	M2								
9.2 / 7.0	**0.87 - 5.3**	579	18000	12600	-								
	1.0 - 6.1	503	18000	10900	-								
	1.2 - 7.1	432	18000	9400	-								
	1.3 - 8.1	376	16500	8180	-	**R**	**167 R97**	**VU/VZ**	**41**	**DV**	**132ML4**	900	-
	1.5 - 9.1	335	14700	7290	-	**RF**	**167 R97**	**VU/VZ**	**41**	**DV**	**132ML4**	910	-
	1.7 - 10	303	13300	6590	-								
	1.8 - 11	279	12300	6070	-								
	1.2 - 7.2	426	13000	9270	-								
	1.4 - 8.3	368	13000	8010	-								
	1.5 - 9.4	326	13000	7090	-								
	1.8 - 11	280	12300	6090	-	**R**	**147 R87**	**VU/VZ**	**41**	**DV**	**132ML4**	610	-
	2.0 - 12	247	10900	5370	-	**RF**	**147 R87**	**VU/VZ**	**41**	**DV**	**132ML4**	620	-
	2.4 - 14	214	9410	4660	-								
	2.7 - 16	189	8310	4110	-								
	3.2 - 19	159	6990	3460	-								
	2.0 - 12	255	8000	5550	-								
	2.3 - 14	223	8000	4850	-	**R**	**137 R77**	**VU/VZ**	**41**	**DV**	**132ML4**	460	-
	2.6 - 16	197	8000	4290	-	**RF**	**137 R77**	**VU/VZ**	**41**	**DV**	**132ML4**	480	-
	2.9 - 17	175	7700	3810	-								
9.2 / 7.5	**3.2 - 19**	158.68	4300	3720	-								
	3.6 - 22	141.83	4300	3330	-								
	3.9 - 24	127.68	4300	3000	-	**R**	**107**	**VU/VZ**	**41**	**DV**	**132ML4**	345	240
	4.4 - 26	115.63	4300	2710	-	**RF**	**107**	**VU/VZ**	**41**	**DV**	**132ML4**	355	241
	4.9 - 30	102.53	4300	2410	-								
	5.4 - 33	92.70	4300	2170	-								
	5.4 - 33	92.48	3000	2170	-								
	6.0 - 37	83.15	3000	1950	-								
	7.0 - 42	72.17	3000	1690	-								
	7.7 - 47	65.21	3000	1530	-	**R**	**97**	**VU/VZ**	**41**	**DV**	**132ML4**	290	238
	8.4 - 51	59.92	2840	1410	-	**RF**	**97**	**VU/VZ**	**41**	**DV**	**132ML4**	310	239
	9.5 - 57	53.21	2520	1250	-								
	11 - 64	47.58	2260	1120	-								
	9.5 - 58	52.82	1550	1240	-								
	11 - 64	47.58	1550	1120	-								
	12 - 73	41.74	1550	980	-	**R**	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	250	236
	14 - 83	36.84*	1550	860	-	**RF**	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	255	237
	15 - 93	32.66*	1550	765	-								
	18 - 110	27.88	1320	655	-								
	18 - 110	27.84*	1320	655	-								
	22 - 130	23.40	1110	550	-								
	23 - 142	21.51	1020	505	-	**R**	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	250	236
	26 - 160	19.10	910	450	-	**RF**	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	255	237
	29 - 179	17.08*	810	400	-								



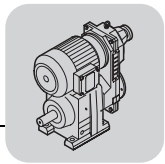
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
9.2 / 7.5	**27 - 162**	18.80	780	440	-								
	28 - 171	17.82*	780	420	-								
	32 - 196	15.60	740	365	-								
	36 - 217	14.05	665	330	-								
	41 - 248	12.33	585	290	-								
	46 - 281	10.88	515	255	-	**R**	**77**	**VU/VZ**	**41**	**DV**	**132ML4**	220	234
	52 - 317	9.64	455	225	-	**RF**	**77**	**VU/VZ**	**41**	**DV**	**132ML4**	230	235
	59 - 355	8.59	405	200	-								
	65 - 394	7.74	365	182	-								
	74 - 450	6.79	320	159	-								
	84 - 510	5.99*	285	141	-								
	95 - 575	5.31*	250	125	-								
	76 - 460	6.63*	315	156	-								
	90 - 544	5.61	265	132	-								
	97 - 588	5.19	245	122	-	**RX**	**107**	**VU/VZ**	**41**	**DV**	**132ML4**	285	222
	108 - 657	4.65	220	109	-	**RXF**	**107**	**VU/VZ**	**41**	**DV**	**132ML4**	300	223
	120 - 727	4.20*	199	99	-								
	132 - 801	3.81	181	89	-								
	87 - 527	5.79	275	136	-								
	103 - 622	4.91	235	115	-								
	111 - 675	4.52	215	106	-								
	125 - 756	4.04	192	95	-								
	138 - 839	3.64*	173	85	-								
	153 - 925	3.30	157	77	-	**RX**	**97**	**VU/VZ**	**41**	**DV**	**132ML4**	255	220
	172 - 1045	2.92	139	69	-	**RXF**	**97**	**VU/VZ**	**41**	**DV**	**132ML4**	260	221
	191 - 1155	2.64	125	62	M2								
	225 - 1365	2.24*	106	53	M2								
	257 - 1560	1.96	93	46	M2,4								
	307 - 1860	1.64	78	39	M2,4								
	355 - 2150	1.42	67	33	M2,4								
	112 - 678	4.50*	215	106	-								
	133 - 808	3.78	179	89	-								
	145 - 877	3.48	165	82	-								
	163 - 988	3.09	147	73	-								
	182 - 1105	2.76*	131	65	-	**RX**	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	230	218
	203 - 1230	2.48	118	58	-	**RXF**	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	235	219
	234 - 1420	2.15	102	50	-								
	261 - 1580	1.93	92	45	M2								
	315 - 1910	1.60*	76	38	M2								
	362 - 2195	1.39	66	33	M2								
11.0 / 8.4	**1.0 - 6.1**	503	18000	13100	-								
	1.2 - 7.1	432	18000	11300	-								
	1.3 - 8.1	376	16500	9820	-	**R**	**167 R97**	**VU/VZ**	**41**	**DV**	**160M4**	900	-
	1.5 - 9.1	335	14700	8750	-	**RF**	**167 R97**	**VU/VZ**	**41**	**DV**	**160M4**	910	-
	1.7 - 10	303	13300	7910	-								
	1.8 - 11	279	12300	7280	-								
	1.4 - 8.3	368	13000	9610	-								
	1.5 - 9.4	326	13000	8510	-								
	1.8 - 11	280	12300	7310	-								
	2.0 - 12	247	10900	6450	-	**R**	**147 R87**	**VU/VZ**	**41**	**DV**	**160M4**	620	-
	2.4 - 14	214	9410	5590	-	**RF**	**147 R87**	**VU/VZ**	**41**	**DV**	**160M4**	620	-
	2.7 - 16	189	8310	4930	-								
	3.2 - 19	159	6990	4150	-								
	2.3 - 14	223	8000	5820	-								
	2.6 - 16	197	8000	5140	-	**R**	**137 R77**	**VU/VZ**	**41**	**DV**	**160M4**	465	-
	2.9 - 17	175	7700	4570	-	**RF**	**137 R77**	**VU/VZ**	**41**	**DV**	**160M4**	485	-
11.0 / 9.0	**3.6 - 22**	141.83	4300	3990	-								
	3.9 - 24	127.68	4300	3590	-								
	4.4 - 26	115.63	4300	3260	-								
	4.9 - 30	102.53	4300	2890	-	**R**	**107**	**VU/VZ**	**41**	**DV**	**160M4**	350	240
	5.4 - 33	92.70	4300	2610	-	**RF**	**107**	**VU/VZ**	**41**	**DV**	**160M4**	355	241
	6.4 - 39	78.57	3730	2210	-								
	6.9 - 42	72.88	3460	2050	-								
	7.7 - 47	65.60*	3110	1850	-								



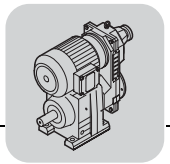
R..VU/VZ..DR/DT/DV.. [kW]

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
R = 1:5 ... R = 1:6													
11.0 / 9.0	**7.0 - 42**	72.17	3000	2030	-								
	7.7 - 47	65.21	3000	1840	-								
	8.4 - 51	59.92	2840	1690	-								
	9.5 - 57	53.21	2520	1500	-	**R**	**97**	**VU/VZ**	**41**	**DV**	**160M4**	295	238
	11 - 64	47.58	2260	1340	-	**RF**	**97**	**VU/VZ**	**41**	**DV**	**160M4**	310	239
	12 - 71	42.78	2030	1200	-								
	14 - 82	37.13	1760	1050	-								
	11 - 64	47.58	1550	1340	-								
	12 - 73	41.74	1550	1180	-								
	14 - 83	36.84*	1550	1040	-	**R**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	255	236
	15 - 93	32.66*	1550	920	-	**RF**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	260	237
	18 - 110	27.88	1320	785	-								
	18 - 110	27.84*	1320	785	-								
	22 - 130	23.40	1110	660	-								
	23 - 142	21.51	1020	605	-	**R**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	255	236
	26 - 160	19.10	910	540	-	**RF**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	260	237
	29 - 179	17.08*	810	480	-								
	33 - 199	15.35	730	430	-								
	28 - 171	17.82*	780	500	-								
	32 - 196	15.60	740	440	-								
	36 - 217	14.05	665	395	-								
	41 - 248	12.33	585	345	-								
	46 - 281	10.88	515	305	-								
	52 - 317	9.64	455	270	-	**R**	**77**	**VU/VZ**	**41**	**DV**	**160M4**	225	234
	59 - 355	8.59	405	240	-	**RF**	**77**	**VU/VZ**	**41**	**DV**	**160M4**	230	235
	65 - 394	7.74	365	220	-								
	74 - 450	6.79	320	191	-								
	84 - 510	5.99*	285	169	-								
	95 - 575	5.31*	250	150	-								
	76 - 460	6.63*	315	187	-								
	90 - 544	5.61	265	158	-	**RX**	**107**	**VU/VZ**	**41**	**DV**	**160M4**	290	222
	97 - 588	5.19	245	146	-	**RXF**	**107**	**VU/VZ**	**41**	**DV**	**160M4**	305	223
	87 - 527	5.79	275	163	-								
	103 - 622	4.91	235	138	-	**RX**	**97**	**VU/VZ**	**41**	**DV**	**160M4**	255	220
	111 - 675	4.52	215	127	-	**RXF**	**97**	**VU/VZ**	**41**	**DV**	**160M4**	265	221
	112 - 678	4.50*	215	127	-								
	133 - 808	3.78	179	106	-								
	145 - 877	3.48	165	98	-								
	163 - 988	3.09	147	87	-								
	182 - 1105	2.76*	131	78	-	**RX**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	235	218
	203 - 1230	2.48	118	70	-	**RXF**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	240	219
	234 - 1420	2.15	102	61	-								
	261 - 1580	1.93	92	54	M2								
	315 - 1910	1.60*	76	45	M2								
	362 - 2195	1.39	66	39	M2,4								
15.0 / 11.4	**1.4 - 8.2**	376	18000	13200	-								
	1.5 - 9.2	335	18000	11800	-	**R**	**167 R97**	**VU**	**51**	**DV**	**160L4**	1010	-
	1.7 - 10	303	18000	10700	-	**RF**	**167 R97**	**VU**	**51**	**DV**	**160L4**	1020	-
	1.8 - 11	279	18000	9820	-								
	1.8 - 11	280	13000	9850	-								
	2.1 - 13	247	13000	8690	-								
	2.4 - 14	214	13000	7530	-	**R**	**147 R87**	**VU**	**51**	**DV**	**160L4**	730	-
	2.7 - 16	189	13000	6650	-	**RF**	**147 R87**	**VU**	**51**	**DV**	**160L4**	730	-
	3.2 - 19	159	12300	5600	-								
15.0 / 12.3	**4.3 - 26**	119.86	10000	4550	-	**R**	**147**	**VU**	**51**	**DV**	**160L4**	680	244
	4.7 - 28	109.31	9140	4150	-	**RF**	**147**	**VU**	**51**	**DV**	**160L4**	690	245
	4.5 - 27	113.72	8000	4320	-								
	5.0 - 30	103.20*	8000	3920	-	**R**	**137**	**VU**	**51**	**DV**	**160L4**	550	242
	5.8 - 35	88.70*	7420	3370	-	**RF**	**137**	**VU**	**51**	**DV**	**160L4**	570	243
	6.4 - 38	80.91*	6770	3070	-								



R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
15.0 / 12.3	**5.0 - 30**	102.53	4300	3890	-								
	5.5 - 33	92.70	4300	3520	-								
	6.5 - 39	78.57	4300	2980	M2								
	7.0 - 42	72.88	4300	2770	-	**R**	**107**	**VU**	**51**	**DV**	**160L4**	465	240
	7.8 - 47	65.60*	4300	2490	-	**RF**	**107**	**VU**	**51**	**DV**	**160L4**	470	241
	8.7 - 52	59.41	4300	2250	-								
	9.8 - 59	52.68	4300	2000	-								
	11 - 65	47.63	3980	1810	-								
	9.7 - 58	53.21	3000	2020	-								
	11 - 65	47.58	3000	1810	-								
	12 - 72	42.78	3000	1620	-	**R**	**97**	**VU**	**51**	**DV**	**160L4**	405	238
	14 - 83	37.13	3000	1410	-	**RF**	**97**	**VU**	**51**	**DV**	**160L4**	425	239
	15 - 93	33.25	2780	1260	-								
	19 - 112	27.58	2310	1050	M2								
	21 - 124	25.03	2090	950	-								
	23 - 138	22.37	1870	850	-								
	26 - 154	20.14	1680	765	-	**R**	**97**	**VU**	**51**	**DV**	**160L4**	405	238
	28 - 170	18.24	1530	690	-	**RF**	**97**	**VU**	**51**	**DV**	**160L4**	420	239
	32 - 191	16.17	1350	615	-								
	24 - 144	21.51	1500	820	-								
	27 - 162	19.10	1440	725	-								
	30 - 181	17.08*	1390	650	-								
	33 - 202	15.35	1280	585	-								
	39 - 232	13.33	1120	505	-								
	43 - 259	11.93	1000	455	-	**R**	**87**	**VU**	**51**	**DV**	**160L4**	360	236
	52 - 313	9.90*	830	375	M2	**RF**	**87**	**VU**	**51**	**DV**	**160L4**	370	237
	56 - 339	9.14*	765	345	-								
	63 - 377	8.22	690	310	-								
	72 - 434	7.13	595	270	-								
	80 - 484	6.39	535	245	-								
	97 - 584	5.30*	445	200	M2								
	99 - 596	5.19	435	197	-								
	110 - 666	4.65	390	177	-	**RX**	**107**	**VU**	**51**	**DV**	**160L4**	405	222
	122 - 737	4.20*	350	159	-	**RXF**	**107**	**VU**	**51**	**DV**	**160L4**	420	223
	114 - 685	4.52	380	172	-								
	127 - 766	4.04	340	153	-								
	141 - 850	3.64*	305	138	-								
	156 - 938	3.30	275	125	-								
	176 - 1060	2.92	245	111	-	**RX**	**97**	**VU**	**51**	**DV**	**160L4**	370	220
	195 - 1170	2.64	220	100	M2	**RXF**	**97**	**VU**	**51**	**DV**	**160L4**	375	221
	229 - 1380	2.24*	187	85	M2								
	262 - 1580	1.96	164	74	M2,4								
	313 - 1885	1.64	137	62	M2,4								
	362 - 2180	1.42	119	54	M2,4								
18.5 / 14.1	**1.4 - 8.3**	376	18000	16300	-								
	1.5 - 9.3	335	18000	14500	-	**R**	**167 R97**	**VU**	**51**	**DV**	**180M4**	1060	-
	1.7 - 10	303	18000	13100	-	**RF**	**167 R97**	**VU**	**51**	**DV**	**180M4**	1070	-
	1.8 - 11	279	18000	12100	-								
	2.4 - 15	214	13000	9270	-								
	2.7 - 16	189	13000	8190	-	**R**	**147 R87**	**VU**	**51**	**DV**	**180M4**	780	-
	3.2 - 20	159	12300	6890	-	**RF**	**147 R87**	**VU**	**51**	**DV**	**180M4**	780	-
18.5 / 15.2	**4.3 - 26**	119.86	10000	5600	-								
	4.7 - 28	109.31	9140	5110	-	**R**	**147**	**VU**	**51**	**DV**	**180M4**	730	244
	5.4 - 33	94.60*	7910	4420	-	**RF**	**147**	**VU**	**51**	**DV**	**180M4**	740	245
	4.5 - 27	113.72	8000	5320	-								
	5.0 - 30	103.20*	8000	4820	-	**R**	**137**	**VU**	**51**	**DV**	**180M4**	600	242
	5.8 - 35	88.70*	7410	4150	M2	**RF**	**137**	**VU**	**51**	**DV**	**180M4**	620	243
	6.4 - 38	80.91*	6760	3780	-								

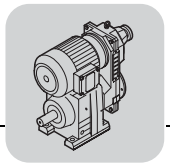


R..VU/VZ..DR/DT/DV.. [kW]

R = 1:5 ... R = 1:6

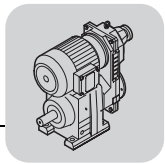
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
18.5 / 15.2	**6.5 - 40**	78.57	4300	3670	M2								
	7.1 - 43	72.88	4300	3410	-								
	7.8 - 47	65.60*	4300	3070	-	**R**	**107**	**VU**	**51**	**DV**	**180M4**	520	240
	8.7 - 52	59.41	4300	2780	-	**RF**	**107**	**VU**	**51**	**DV**	**180M4**	520	241
	9.8 - 59	52.68	4300	2460	-								
	11 - 65	47.63	3980	2230	-								
	9.7 - 58	53.21	3000	2490	-								
	11 - 65	47.58	3000	2220	-								
	12 - 73	42.78	3000	2000	-	**R**	**97**	**VU**	**51**	**DV**	**180M4**	455	238
	14 - 84	37.13	3000	1740	-	**RF**	**97**	**VU**	**51**	**DV**	**180M4**	475	239
	15 - 93	33.25	2780	1550	-								
	19 - 113	27.58	2300	1290	M2								
	21 - 124	25.03	2090	1170	-								
	23 - 139	22.37	1870	1050	-								
	26 - 154	20.14	1680	940	-	**R**	**97**	**VU**	**51**	**DV**	**180M4**	455	238
	28 - 170	18.24	1520	850	-	**RF**	**97**	**VU**	**51**	**DV**	**180M4**	470	239
	32 - 192	16.17	1350	755	-								
	24 - 144	21.51	1500	1010	-								
	27 - 163	19.10	1440	890	-								
	30 - 182	17.08*	1390	800	-								
	34 - 202	15.35	1280	715	-								
	39 - 233	13.33	1110	625	-								
	43 - 260	11.93	1000	560	-	**R**	**87**	**VU**	**51**	**DV**	**180M4**	410	236
	52 - 314	9.90*	830	465	M2	**RF**	**87**	**VU**	**51**	**DV**	**180M4**	420	237
	56 - 340	9.14*	765	425	-								
	63 - 378	8.22	685	385	-								
	72 - 436	7.13	595	335	-								
	80 - 486	6.39	535	300	-								
	97 - 586	5.30*	445	250	M2								
	99 - 598	5.19	435	245	-								
	111 - 668	4.65	390	215	-	**RX**	**107**	**VU**	**51**	**DV**	**180M4**	455	222
	122 - 739	4.20*	350	196	-	**RXF**	**107**	**VU**	**51**	**DV**	**180M4**	470	223
	114 - 687	4.52	380	210	-								
	127 - 769	4.04	340	189	-								
	141 - 853	3.64*	305	170	-								
	156 - 941	3.30	275	154	-								
	176 - 1065	2.92	245	137	M2	**RX**	**97**	**VU**	**51**	**DV**	**180M4**	420	220
	195 - 1175	2.64	220	123	M2	**RXF**	**97**	**VU**	**51**	**DV**	**180M4**	425	221
	230 - 1385	2.24*	187	105	M2								
	262 - 1585	1.96	164	92	M2,4								
	314 - 1895	1.64	137	77	M2,4								
	362 - 2185	1.42	119	66	M2,4								
22 / 16.8	**1.5 - 9.3**	335	18000	17200	-								
	1.7 - 10	303	18000	15500	-	**R**	**167 R97**	**VU**	**51**	**DV**	**180L4**	1080	-
	1.8 - 11	279	18000	14300	-	**RF**	**167 R97**	**VU**	**51**	**DV**	**180L4**	1090	-
	2.7 - 16	189	13000	9700	-	**R**	**147 R87**	**VU**	**51**	**DV**	**180L4**	790	-
	3.2 - 20	159	12300	8160	-	**RF**	**147 R87**	**VU**	**51**	**DV**	**180L4**	800	-
22 / 18.0	**4.7 - 28**	109.31	9140	6050	-	**R**	**147**	**VU**	**51**	**DV**	**180L4**	750	244
	5.4 - 33	94.60*	7910	5240	-	**RF**	**147**	**VU**	**51**	**DV**	**180L4**	750	245
	4.5 - 27	113.72	8000	6290	-								
	5.0 - 30	103.20*	8000	5710	-								
	5.8 - 35	88.70*	7410	4910	M2	**R**	**137**	**VU**	**51**	**DV**	**180L4**	610	242
	6.4 - 38	80.91*	6760	4480	-	**RF**	**137**	**VU**	**51**	**DV**	**180L4**	640	243
	7.0 - 42	73.49	6140	4070	-								
	7.1 - 43	72.88	4300	4030	-								
	7.8 - 47	65.60*	4300	3630	-								
	8.7 - 52	59.41	4300	3290	-	**R**	**107**	**VU**	**51**	**DV**	**180L4**	530	240
	9.8 - 59	52.68	4300	2920	-	**RF**	**107**	**VU**	**51**	**DV**	**180L4**	540	241
	11 - 65	47.63	3980	2640	-								
	13 - 77	40.37*	3370	2230	M2								

R = 1:5 ... R = 1:6																
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
22 / 18.0	**11**	-	**65**	47.58	3000	2630	-									
	12	-	**73**	42.78	3000	2370	-									
	14	-	**84**	37.13	3000	2060	-	**R**	**97**	**VU**	**51**	**DV**	**180L4**		470	238
	15	-	**93**	33.25	2780	1840	M2	**RF**	**97**	**VU**	**51**	**DV**	**180L4**		485	239
	19	-	**113**	27.58	2300	1530	M2									
	21	-	**124**	25.03	2090	1390	-									
	23	-	**139**	22.37	1870	1240	-									
	26	-	**154**	20.14	1680	1110	-	**R**	**97**	**VU**	**51**	**DV**	**180L4**		465	238
	28	-	**170**	18.24	1520	1010	-	**RF**	**97**	**VU**	**51**	**DV**	**180L4**		485	239
	32	-	**192**	16.17	1350	900	-									
	35	-	**212**	14.62	1220	810	-									
	24	-	**144**	21.51	1500	1190	-									
	27	-	**163**	19.10	1440	1060	-									
	30	-	**182**	17.08*	1390	950	-									
	34	-	**202**	15.35	1280	850	-									
	39	-	**233**	13.33	1110	740	-									
	43	-	**260**	11.93	1000	660	M2	**R**	**87**	**VU**	**51**	**DV**	**180L4**		425	236
	52	-	**314**	9.90*	830	550	M2	**RF**	**87**	**VU**	**51**	**DV**	**180L4**		435	237
	56	-	**340**	9.14*	765	505	-									
	63	-	**378**	8.22	685	455	-									
	72	-	**436**	7.13	595	395	-									
	80	-	**486**	6.39	535	355	M2									
	97	-	**586**	5.30*	445	295	M2									
	99	-	**598**	5.19	435	285	-									
	111	-	**668**	4.65	390	255	-	**RX**	**107**	**VU**	**51**	**DV**	**180L4**		470	222
	122	-	**739**	4.20*	350	235	-	**RXF**	**107**	**VU**	**51**	**DV**	**180L4**		485	223
	114	-	**687**	4.52	380	250	-									
	127	-	**769**	4.04	340	225	-									
	141	-	**853**	3.64*	305	200	-									
	156	-	**941**	3.30	275	183	-									
	176	-	**1065**	2.92	245	162	M2	**RX**	**97**	**VU**	**51**	**DV**	**180L4**		435	220
	195	-	**1175**	2.64	220	146	M2	**RXF**	**97**	**VU**	**51**	**DV**	**180L4**		440	221
	230	-	**1385**	2.24*	187	124	M2,4									
	262	-	**1585**	1.96	164	109	M2,4									
	314	-	**1895**	1.64	137	91	M2,4									
	362	-	**2185**	1.42	119	79	M2,4									

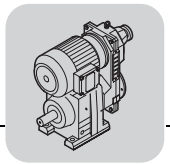


R..VU/VZ..DR/DT/DV.. [kW]

R = 1:4																
P_m/P_{a2} [kW]	n_{a1} [1/min]	-	n_{a2}	i	M_{a1} [Nm]	M_{a2}	⚠								m [kg]	
30 / 23	**2.7**	**-**	**13**	200	18000	17500	M1-6	**R**	**167**	**R107**	**VU**	**6**	**DV**	**200L4**	1250	-
	3.2	**-**	**15**	169	18000	14800	M1-6	**RF**	**167**	**R107**	**VU**	**6**	**DV**	**200L4**	1260	-
30 / 25	**2.9**	**-**	**14**	186.93*	18000	17700	-									
	3.6	**-**	**17**	153.07	18000	14500	-									
	3.9	**-**	**18**	139.98	18000	13200	-	**R**	**167**		**VU**	**6**	**DV**	**200L4**	1140	246
	4.5	**-**	**21**	121.81*	18000	11500	-	**RF**	**167**		**VU**	**6**	**DV**	**200L4**	1140	247
	5.1	**-**	**24**	107.49	18000	10200	-									
	5.9	**-**	**27**	93.19	16200	8800	-									
	4.6	**-**	**21**	119.86	13000	11300	-									
	5.0	**-**	**23**	109.31	13000	10300	-									
	5.8	**-**	**27**	94.60*	13000	8930	-	**R**	**147**		**VU**	**6**	**DV**	**200L4**	870	244
	6.6	**-**	**30**	83.47	13000	7880	-	**RF**	**147**		**VU**	**6**	**DV**	**200L4**	880	245
	7.6	**-**	**35**	72.09	12500	6810	M2									
	8.2	**-**	**38**	66.99	11700	6330	-									
	6.8	**-**	**31**	80.91*	8000	7640	-									
	7.5	**-**	**34**	73.49	8000	6940	-									
	8.4	**-**	**39**	65.20	8000	6160	-	**R**	**137**		**VU**	**6**	**DV**	**200L4**	740	242
	9.3	**-**	**43**	59.17*	8000	5590	-	**RF**	**137**		**VU**	**6**	**DV**	**200L4**	760	243
	11	**-**	**50**	50.86*	8000	4800	-									
	12	**-**	**57**	44.39	7730	4190	-									
	14	**-**	**63**	40.37*	4300	3810	-									
	16	**-**	**72**	35.26	4300	3330	M2	**R**	**107**		**VU**	**6**	**DV**	**200L4**	660	240
	19	**-**	**86**	29.49	4300	2780	M2	**RF**	**107**		**VU**	**6**	**DV**	**200L4**	670	241
	22	**-**	**102**	24.90*	4300	2350	-									
	24	**-**	**112**	22.62	3940	2140	-									
	27	**-**	**126**	20.07	3490	1900	-									
	30	**-**	**139**	18.21	3170	1720	-									
	35	**-**	**162**	15.65	2720	1480	-									
	40	**-**	**185**	13.66	2380	1290	-									
	47	**-**	**218**	11.59	2020	1090	M2	**R**	**107**		**VU**	**6**	**DV**	**200L4**	650	240
	54	**-**	**250**	10.13	1760	960	M2	**RF**	**107**		**VU**	**6**	**DV**	**200L4**	660	241
	64	**-**	**295**	8.56	1490	810	M2,4									
	70	**-**	**322**	7.86	1370	740	-									
	82	**-**	**380**	6.66	1160	630	M2									
	94	**-**	**434**	5.82	1010	550	M2									
	112	**-**	**514**	4.92	860	465	M2,4									

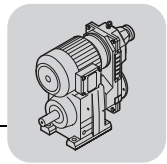


R = 1:3															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2}	⚠									m [kg]	
37 / 30	**6.4 - 19**	107.49	18000	14800	-										
	7.4 - 22	93.19	18000	12800	-										
	8.3 - 25	82.91*	17300	11400	-	**R**	**167**	**VU**	**6**	**DV**	**225S4**	1220	246
	9.3 - 28	73.70*	15400	10100	-	**RF**	**167**	**VU**	**6**	**DV**	**225S4**	1230	247
	10 - 31	67.40	14000	9250	-								
	12 - 36	58.65	12200	8050	-								
	10 - 31	66.99	13000	9190	-								
	11 - 34	61.09	12700	8380	-	**R**	**147**	**VU**	**6**	**DV**	**225S4**	950	244
	13 - 39	52.87	11000	7260	-	**RF**	**147**	**VU**	**6**	**DV**	**225S4**	960	245
	15 - 45	46.65	9720	6400	-								
	15 - 47	44.39	8000	6090	-								
	18 - 55	37.65	7840	5170	-	**R**	**137**	**VU**	**6**	**DV**	**225S4**	820	242
	21 - 63	32.91	6850	4520	M2	**RF**	**137**	**VU**	**6**	**DV**	**225S4**	840	243
	25 - 75	27.83	5800	3820	M2								
	23 - 71	29.49	4300	4050	M2	**R**	**107**	**VU**	**6**	**DV**	**225S4**	740	240
						RF	**107**	**VU**	**6**	**DV**	**225S4**	750	241
	28 - 84	24.90*	4300	3420	-								
	30 - 92	22.62	4300	3100	-								
	34 - 104	20.07	4180	2750	-								
	38 - 115	18.21	3790	2500	-								
	44 - 133	15.65	3260	2150	-								
	50 - 153	13.66	2850	1870	-								
	59 - 180	11.59	2410	1590	-	**R**	**107**	**VU**	**6**	**DV**	**225S4**	740	240
	68 - 206	10.13	2110	1390	-	**RF**	**107**	**VU**	**6**	**DV**	**225S4**	740	241
	80 - 244	8.56	1780	1170	M2								
	88 - 266	7.86	1640	1080	-								
	103 - 313	6.66	1390	910	-								
	118 - 359	5.82	1210	800	-								
	140 - 424	4.92	1020	675	M2								
45 / 37	**7.4 - 22**	93.19	18000	15800	-								
	8.3 - 25	82.91*	17300	14000	-								
	9.3 - 28	73.70*	15400	12500	-								
	10 - 31	67.40	14000	11400	-	**R**	**167**	**VU**	**6**	**DV**	**225M4**	1250	246
	12 - 36	58.65	12200	9930	-	**RF**	**167**	**VU**	**6**	**DV**	**225M4**	1260	247
	13 - 40	51.76	10800	8760	-								
	15 - 47	44.87	9350	7600	-								
	11 - 34	61.09	12700	10300	-								
	13 - 39	52.87	11000	8950	-								
	15 - 45	46.65	9720	7900	-								
	17 - 52	40.29	8390	6820	-	**R**	**147**	**VU**	**6**	**DV**	**225M4**	980	244
	19 - 59	35.64	7420	6030	-	**RF**	**147**	**VU**	**6**	**DV**	**225M4**	990	245
	23 - 70	29.95	6240	5070	M2								
	28 - 86	24.19	5040	4090	M2,4								
	18 - 55	37.65	7840	6370	M2								
	21 - 63	32.91	6850	5570	M2	**R**	**137**	**VU**	**6**	**DV**	**225M4**	850	242
	25 - 75	27.83	5800	4710	M2,4	**RF**	**137**	**VU**	**6**	**DV**	**225M4**	870	243
	28 - 84	24.90*	4300	4220	-								
	30 - 92	22.62	4300	3830	-								
	34 - 104	20.07	4180	3400	-								
	38 - 115	18.21	3790	3080	-								
	44 - 133	15.65	3260	2650	-								
	50 - 153	13.66	2850	2310	-								
	59 - 180	11.59	2410	1960	-	**R**	**107**	**VU**	**6**	**DV**	**225M4**	770	240
	68 - 206	10.13	2110	1710	M2	**RF**	**107**	**VU**	**6**	**DV**	**225M4**	770	241
	80 - 244	8.56	1780	1450	M2								
	88 - 266	7.86	1640	1330	-								
	103 - 313	6.66	1390	1130	-								
	118 - 359	5.82	1210	990	M2								
	140 - 424	4.92	1020	830	M2								



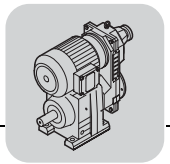
R..VU/VZ..DR/DT/DV.. [kW]

R = 1:7... R = 1:8														
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
0.37 / 0.28	0.16 - 1.1	2280	4300	2450	-	R	107 R77	VU/VZ	11	DT	80K6		215	-
	0.17 - 1.2	2067	4300	2220	-	RF	107 R77	VU/VZ	11	DT	80K6		220	-
	0.18 - 1.2	1987	4300	2130	-									
	0.20 - 1.4	1827	4300	1960	-									
	0.22 - 1.6	1599	4300	1720	-									
	0.26 - 1.8	1400	4300	1500	-	R	107 R77	VU/VZ	11	DT	80K6		220	-
	0.29 - 2.0	1226	4300	1320	-	RF	107 R77	VU/VZ	11	DT	80K6		225	-
	0.32 - 2.2	1104	4300	1180	-									
	0.38 - 2.6	939	4300	1010	-									
	0.44 - 3.0	822	4300	880	-									
	0.76 - 5.3	469	2710	510	-									
	0.84 - 5.8	426	2460	465	-									
	0.95 - 6.6	377	2180	410	-									
	1.1 - 7.6	325	1880	355	-	R	107 R77	VU/VZ	11	DT	80K6		215	-
	1.3 - 8.7	284	1640	310	-	RF	107 R77	VU/VZ	11	DT	80K6		220	-
	1.4 - 9.7	256	1480	280	-									
	1.6 - 11	220	1270	240	-									
	2.1 - 14	172	990	187	-									
	0.23 - 1.6	1583	3000	1700	-									
	0.26 - 1.8	1396	3000	1500	-									
	0.29 - 2.0	1228	3000	1320	-									
	0.33 - 2.3	1069	3000	1150	-	R	97 R57	VU/VZ	11	DT	80K6		150	-
	0.38 - 2.6	938	3000	1010	-	RF	97 R57	VU/VZ	11	DT	80K6		165	-
	0.43 - 3.0	824	3000	880	-									
	0.49 - 3.4	737	3000	790	-									
	0.57 - 3.9	632	3000	680	-									
	0.57 - 4.0	625	3000	680	-									
	0.65 - 4.5	549	3000	600	-									
	0.77 - 5.3	466	2690	510	-									
	0.85 - 5.9	420	2430	460	-									
	0.97 - 6.7	370	2140	405	-	R	97 R57	VU/VZ	11	DT	80K6		145	-
	1.0 - 7.1	349	2020	380	-	RF	97 R57	VU/VZ	11	DT	80K6		165	-
	1.2 - 8.3	297	1720	325	-									
	1.3 - 9.2	270	1560	295	-									
	1.6 - 11	227	1310	245	-									
	0.46 - 3.2	776	1550	830	-									
	0.52 - 3.6	685	1550	735	-	R	87 R57	VU/VZ	11	DT	80K6		110	-
	0.60 - 4.1	599	1550	645	-	RF	87 R57	VU/VZ	11	DT	80K6		115	-
	0.66 - 4.6	538	1550	585	-									
	0.76 - 5.2	472	1550	515	-									
	0.89 - 6.2	400	1550	435	-									
	0.99 - 6.9	361	1550	395	-	R	87 R57	VU/VZ	11	DT	80K6		110	-
	1.2 - 8.2	300	1550	325	-	RF	87 R57	VU/VZ	11	DT	80K6		115	-
	1.4 - 9.7	256	1480	280	-									
	1.5 - 11	232	1340	255	-									
	1.8 - 13	195	1130	215	-									
	0.85 - 5.9	422	820	460	-									
	0.98 - 6.8	365	820	400	-									
	1.2 - 8.0	310	820	340	-									
	1.3 - 9.0	276	820	300	-	R	77 R37	VU/VZ	11	DT	80K6		75	-
	1.5 - 10	236	820	255	-	RF	77 R37	VU/VZ	11	DT	80K6		80	-
	1.6 - 11	221	820	240	-									
	1.9 - 13	186	820	205	-									
	1.2 - 8.0	310	600	340	-									
	1.4 - 9.4	264	600	290	-									
	1.5 - 11	235	600	255	-	R	67 R37	VU/VZ	11	DT	80K6		70	-
	1.8 - 12	201	600	220	-	RF	67 R37	VU/VZ	11	DT	80K6		73	-
	2.0 - 14	181	600	197	-									
	2.2 - 16	159	600	173	-									



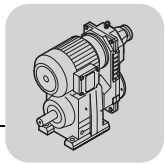
R = 1:7... R = 1:8

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
0.37 / 0.28	**1.6 - 11**	220	450	240	-								
	1.9 - 13	188	450	205	-	**R**	**57 R37**	**VU/VZ**	**11**	**DT**	**80K6**	63	-
	2.2 - 16	159	450	173	-	**RF**	**57 R37**	**VU/VZ**	**11**	**DT**	**80K6**	67	-
	2.5 - 17	146	450	159	-								
	2.7 - 18	134	450	146	-								
	2.3 - 16	154	300	168	-								
	2.8 - 19	129	300	141	-	**R**	**47 R37**	**VU/VZ**	**11**	**DT**	**80K6**	58	-
	3.3 - 23	109	300	119	-	**RF**	**47 R37**	**VU/VZ**	**11**	**DT**	**80K6**	59	-
	3.6 - 25	98	300	107	-								
0.37 / 0.30	**2.1 - 15**	166.59	820	193	-								
	2.5 - 17	145.67	820	169	-	**R**	**77**	**VU/VZ**	**11**	**DT**	**80K6**	67	234
	2.6 - 18	138.39	820	160	-	**RF**	**77**	**VU/VZ**	**11**	**DT**	**80K6**	72	235
	2.9 - 20	121.42	745	141	-								
	2.3 - 16	158.14	600	183	-								
	2.6 - 18	137.67	600	159	-								
	2.8 - 19	128.97	600	149	-								
	3.1 - 22	113.94	600	132	-								
	3.4 - 23	105.83	600	123	-	**R**	**67**	**VU/VZ**	**11**	**DT**	**80K6**	58	232
	3.7 - 26	95.91	590	111	-	**RF**	**67**	**VU/VZ**	**11**	**DT**	**80K6**	62	233
	4.2 - 29	86.11	530	100	-								
	4.8 - 33	74.17	455	86	-								
	5.1 - 35	69.75	430	81	-								
	2.4 - 17	147.92	450	171	-								
	2.8 - 19	128.77	450	149	-								
	3.0 - 21	120.63	450	140	-								
	3.4 - 23	106.58	450	123	-								
	3.6 - 25	98.99	450	115	-								
	4.0 - 28	89.71	450	104	-	**R**	**57**	**VU/VZ**	**11**	**DT**	**80K6**	52	230
	4.4 - 31	80.55	450	93	-	**RF**	**57**	**VU/VZ**	**11**	**DT**	**80K6**	55	231
	5.2 - 36	69.23	425	80	-								
	5.5 - 38	64.85	400	75	-								
	6.2 - 43	57.29	350	66	-								
	6.7 - 47	53.22	325	62	-								
	2.6 - 18	139.99	300	162	-								
	2.9 - 20	121.87	300	141	-								
	3.1 - 22	114.17	300	132	-								
	3.6 - 25	100.86	300	117	-								
	3.8 - 26	93.68	300	108	-								
	4.2 - 29	84.90	300	98	-								
	4.7 - 32	76.23	300	88	-								
	5.2 - 36	68.54	300	79	-	**R**	**47**	**VU/VZ**	**11**	**DT**	**80K6**	47	228
	5.6 - 39	64.21	300	74	-	**RF**	**47**	**VU/VZ**	**11**	**DT**	**80K6**	47	229
	6.3 - 44	56.73	300	66	-								
	6.8 - 47	52.69	300	61	-								
	7.5 - 52	47.75	295	55	-								
	8.3 - 58	42.87	265	50	-								
	9.7 - 67	36.93	225	43	-								
	10 - 71	34.73	215	40	-								
	3.4 - 24	105.28	200	122	-								
	3.9 - 27	90.77	200	105	-								
	4.2 - 29	84.61	200	98	-								
	4.8 - 33	73.96	200	86	-								
	5.2 - 36	69.33	200	80	-								
	5.8 - 40	61.18	200	71	-								
	6.4 - 44	55.76	200	65	-	**R**	**37**	**VU/VZ**	**11**	**DT**	**80K6**	45	226
	7.4 - 51	48.08	200	56	-	**RF**	**37**	**VU/VZ**	**11**	**DT**	**80K6**	46	227
	8.0 - 55	44.81	200	52	-								
	9.1 - 63	39.17	200	45	-								
	9.7 - 67	36.72	200	43	-								
	11 - 76	32.40	199	38	-								
	12 - 86	28.73	177	33	-								
	15 - 101	24.42	150	28	-								

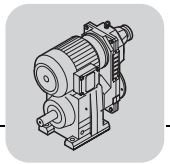


R..VU/VZ..DR/DT/DV.. [kW]

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
R = 1:7... R = 1:8													
0.37 / 0.30	**16 - 111**	22.27	137	26	-								
	19 - 128	19.31	119	22	-								
	20 - 137	18.05	111	21	-								
	23 - 159	15.60	96	18	-								
	27 - 187	13.25	81	15	-								
	30 - 209	11.83	73	14	-	**R**	**37**	**VU/VZ**	**11**	**DT**	**80K6**	44	226
	35 - 245	10.11	62	12	-	**RF**	**37**	**VU/VZ**	**11**	**DT**	**80K6**	46	227
	38 - 261	9.47	58	11	-								
	45 - 311	7.97	49	9.2	-								
	54 - 371	6.67	41	7.7	-								
	63 - 437	5.67	35	6.6	-								
	71 - 489	5.06	31	5.9	-								
	69 - 478	5.18	32	6.0	-								
	79 - 546	4.53	28	5.2	-	**RX**	**67**	**VU/VZ**	**11**	**DT**	**80K6**	45	214
	83 - 576	4.30*	26	5.0	-	**RXF**	**67**	**VU/VZ**	**11**	**DT**	**80K6**	49	215
	82 - 569	4.35	27	5.0	-								
	94 - 653	3.79	23	4.4	-								
	101 - 697	3.55*	22	4.1	-								
	114 - 788	3.14	19	3.6	-								
	123 - 851	2.91	18	3.4	-								
	135 - 938	2.64*	16	3.1	-	**RX**	**57**	**VU/VZ**	**11**	**DT**	**80K6**	42	212
	151 - 1045	2.37	15	2.7	-	**RXF**	**57**	**VU/VZ**	**11**	**DT**	**80K6**	44	213
	175 - 1215	2.04	13	2.4	-								
	186 - 1290	1.92*	12	2.2	-								
	217 - 1500	1.65	10	1.9	-								
	242 - 1670	1.48	9.1	1.7	-								
	275 - 1905	1.30	8.0	1.5	-								
0.55 / 0.42	**0.25 - 1.8**	1407	4300	2270	-								
	0.30 - 2.0	1209	4300	1950	-								
	0.34 - 2.4	1055	4300	1700	-								
	0.39 - 2.7	919	4300	1480	-	**R**	**107 R77**	**VU/VZ**	**11**	**DT**	**80N6**	215	-
	0.44 - 3.0	815	4300	1310	-	**RF**	**107 R77**	**VU/VZ**	**11**	**DT**	**80N6**	220	-
	0.50 - 3.5	717	4080	1150	-								
	0.57 - 4.0	626	3570	1010	-								
	0.68 - 4.7	528	3010	850	-								
	0.76 - 5.3	469	2710	765	-								
	0.84 - 5.8	426	2460	695	-								
	0.95 - 6.6	377	2180	615	-								
	1.1 - 7.6	325	1880	530	-	**R**	**107 R77**	**VU/VZ**	**11**	**DT**	**80N6**	215	-
	1.3 - 8.7	284	1640	465	-	**RF**	**107 R77**	**VU/VZ**	**11**	**DT**	**80N6**	220	-
	1.4 - 9.7	256	1480	420	-								
	1.6 - 11	220	1270	360	-								
	2.1 - 14	172	990	280	-								
	0.33 - 2.3	1069	3000	1720	-								
	0.38 - 2.6	938	3000	1510	-								
	0.43 - 3.0	824	3000	1330	-	**R**	**97 R57**	**VU/VZ**	**11**	**DT**	**80N6**	150	-
	0.49 - 3.4	737	3000	1190	-	**RF**	**97 R57**	**VU/VZ**	**11**	**DT**	**80N6**	165	-
	0.57 - 3.9	632	3000	1020	-								
	0.57 - 4.0	625	3000	1020	-								
	0.65 - 4.5	549	3000	900	-								
	0.77 - 5.3	466	2690	760	-								
	0.85 - 5.9	420	2430	685	-								
	0.97 - 6.7	370	2140	605	-	**R**	**97 R57**	**VU/VZ**	**11**	**DT**	**80N6**	145	-
	1.0 - 7.1	349	2020	570	-	**RF**	**97 R57**	**VU/VZ**	**11**	**DT**	**80N6**	165	-
	1.2 - 8.3	297	1720	485	-								
	1.3 - 9.2	270	1560	440	-								
	1.6 - 11	227	1310	370	-								

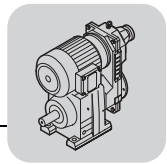


R = 1:7... R = 1:8															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
0.55 / 0.42	0.66	-	4.6	538	1550	880	-								
	0.76	-	5.2	472	1550	770	-								
	0.89	-	6.2	400	1550	655	-								
	0.99	-	6.9	361	1550	590	-	R	87 R57	VU/VZ	11	DT	80N6	110	-
	1.2	-	8.2	300	1550	490	-	RF	87 R57	VU/VZ	11	DT	80N6	115	-
	1.4	-	9.7	256	1480	420	-								
	1.5	-	11	232	1340	380	-								
	1.8	-	13	195	1130	320	-								
	1.3	-	9.0	276	820	450	-								
	1.5	-	10	236	820	385	-	R	77 R37	VU/VZ	11	DT	80N6	76	-
	1.6	-	11	221	820	360	-	RF	77 R37	VU/VZ	11	DT	80N6	81	-
	1.9	-	13	186	820	305	-								
	1.8	-	12	201	600	330	-								
	2.0	-	14	181	600	295	-	R	67 R37	VU/VZ	11	DT	80N6	71	-
	2.2	-	16	159	600	260	-	RF	67 R37	VU/VZ	11	DT	80N6	74	-
	2.2	-	16	159	450	260	-								
	2.5	-	17	146	450	240	-	R	57 R37	VU/VZ	11	DT	80N6	64	-
	2.7	-	18	134	450	220	-	RF	57 R37	VU/VZ	11	DT	80N6	68	-
0.55 / 0.45	2.1	-	15	166.59	820	290	-								
	2.5	-	17	145.67	820	255	-	R	77	VU/VZ	11	DT	80N6	68	234
	2.6	-	18	138.39	820	240	-	RF	77	VU/VZ	11	DT	80N6	73	235
	2.9	-	20	121.42	745	210	-								
	2.3	-	16	158.14	600	275	-								
	2.6	-	18	137.67	600	240	-								
	2.8	-	19	128.97	600	225	-	R	67	VU/VZ	11	DT	80N6	59	232
	3.1	-	22	113.94	600	198	-	RF	67	VU/VZ	11	DT	80N6	63	233
	3.4	-	23	105.83	600	184	-								
	3.7	-	26	95.91	590	167	-								
	2.4	-	17	147.92	450	255	-								
	2.8	-	19	128.77	450	225	-								
	3.0	-	21	120.63	450	210	-								
	3.4	-	23	106.58	450	185	-								
	3.6	-	25	98.99	450	172	-								
	4.0	-	28	89.71	450	156	-	R	57	VU/VZ	11	DT	80N6	53	230
	4.4	-	31	80.55	450	140	-	RF	57	VU/VZ	11	DT	80N6	56	231
	5.2	-	36	69.23	425	120	-								
	5.5	-	38	64.85	400	113	-								
	6.2	-	43	57.29	350	100	-								
	6.7	-	47	53.22	325	92	-								
	2.6	-	18	139.99	300	245	-								
	2.9	-	20	121.87	300	210	-								
	3.1	-	22	114.17	300	198	-								
	3.6	-	25	100.86	300	175	-								
	3.8	-	26	93.68	300	163	-								
	4.2	-	29	84.90	300	147	-								
	4.7	-	32	76.23	300	132	-								
	5.2	-	36	68.54	300	119	-	R	47	VU/VZ	11	DT	80N6	48	228
	5.6	-	39	64.21	300	112	-	RF	47	VU/VZ	11	DT	80N6	48	229
	6.3	-	44	56.73	300	99	-								
	6.8	-	47	52.69	300	92	-								
	7.5	-	52	47.75	295	83	-								
	8.3	-	58	42.87	265	74	-								
	9.7	-	67	36.93	225	64	-								
	10	-	71	34.73	215	60	-								



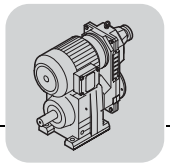
R..VU/VZ..DR/DT/DV.. [kW]

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
R = 1:7... R = 1:8													
0.55 / 0.45	**3.4 - 24**	105.28	200	183	-								
	3.9 - 27	90.77	200	158	-								
	4.2 - 29	84.61	200	147	-								
	4.8 - 33	73.96	200	128	-								
	5.2 - 36	69.33	200	120	-								
	5.8 - 40	61.18	200	106	-								
	6.4 - 44	55.76	200	97	-	**R**	**37**	**VU/VZ**	**11**	**DT**	**80N6**	46	226
	7.4 - 51	48.08	200	84	-	**RF**	**37**	**VU/VZ**	**11**	**DT**	**80N6**	47	227
	8.0 - 55	44.81	200	78	-								
	9.1 - 63	39.17	200	68	-								
	9.7 - 67	36.72	200	64	-								
	11 - 76	32.40	199	56	-								
	12 - 86	28.73	177	50	-								
	15 - 101	24.42	150	42	-								
	16 - 111	22.27	137	39	-								
	19 - 128	19.31	119	34	-								
	20 - 137	18.05	111	31	-								
	23 - 159	15.60	96	27	-								
	27 - 187	13.25	81	23	-								
	30 - 209	11.83	73	21	-								
	35 - 245	10.11	62	18	-	**R**	**37**	**VU/VZ**	**11**	**DT**	**80N6**	45	226
	38 - 261	9.47	58	16	-	**RF**	**37**	**VU/VZ**	**11**	**DT**	**80N6**	47	227
	45 - 311	7.97	49	14	-								
	54 - 371	6.67	41	12	-								
	63 - 437	5.67	35	9.8	-								
	71 - 489	5.06	31	8.8	-								
	83 - 573	4.32	27	7.5	-								
	69 - 478	5.18	32	9.0	-								
	79 - 546	4.53	28	7.9	-	**RX**	**67**	**VU/VZ**	**11**	**DT**	**80N6**	46	214
	83 - 576	4.30*	26	7.5	-	**RXF**	**67**	**VU/VZ**	**11**	**DT**	**80N6**	50	215
	82 - 569	4.35	27	7.6	-								
	94 - 653	3.79	23	6.6	-								
	101 - 697	3.55*	22	6.2	-								
	114 - 788	3.14	19	5.5	-								
	123 - 851	2.91	18	5.1	-								
	135 - 938	2.64*	16	4.6	-	**RX**	**57**	**VU/VZ**	**11**	**DT**	**80N6**	43	212
	151 - 1045	2.37	15	4.1	-	**RXF**	**57**	**VU/VZ**	**11**	**DT**	**80N6**	45	213
	175 - 1215	2.04	13	3.5	-								
	186 - 1290	1.92*	12	3.3	-								
	217 - 1500	1.65	10	2.9	-								
	242 - 1670	1.48	9.1	2.6	-								
	275 - 1905	1.30	8.0	2.3	-								
0.75 / 0.58	**0.14 - 0.97**	2555	13000	5670	-								
	0.16 - 1.1	2211	12600	4900	-								
	0.18 - 1.3	1951	11100	4330	-								
	0.21 - 1.4	1705	9710	3780	-	**R**	**147 R77**	**VU/VZ**	**11**	**DT**	**90S6**	435	-
	0.23 - 1.6	1536	8750	3410	-	**RF**	**147 R77**	**VU/VZ**	**11**	**DT**	**90S6**	440	-
	0.27 - 1.9	1329	7570	2950	-								
	0.31 - 2.1	1166	6640	2590	-								
	0.40 - 2.8	889	5060	1970	-								
	0.13 - 0.93	2658	8000	5900	-								
	0.15 - 1.0	2412	8000	5350	-								
	0.17 - 1.2	2073	8000	4600	-								
	0.19 - 1.4	1839	8000	4080	-								
	0.22 - 1.6	1598	8000	3540	-								
	0.26 - 1.8	1397	7960	3100	-	**R**	**137 R77**	**VU/VZ**	**11**	**DT**	**90S6**	310	-
	0.29 - 2.0	1226	6980	2720	-	**RF**	**137 R77**	**VU/VZ**	**11**	**DT**	**90S6**	330	-
	0.33 - 2.3	1090	6210	2420	-								
	0.38 - 2.6	951	5420	2110	-								
	0.43 - 3.0	831	4730	1840	-								
	0.49 - 3.4	730	4160	1620	-								



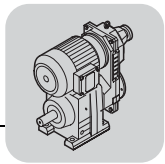
R = 1:7... R = 1:8

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
0.75 / 0.58	0.26 - 1.8	1400	4300	3110	-								
	0.29 - 2.0	1226	4300	2720	-								
	0.32 - 2.2	1104	4300	2450	-	R	107 R77	VU/VZ	11	DT	90S6	225	-
	0.38 - 2.6	939	4300	2080	-	RF	107 R77	VU/VZ	11	DT	90S6	230	-
	0.44 - 3.0	822	4300	1820	-								
	0.76 - 5.3	469	2710	1060	-								
	0.84 - 5.8	426	2460	960	-								
	0.95 - 6.6	377	2180	850	-								
	1.1 - 7.6	325	1880	730	-	R	107 R77	VU/VZ	11	DT	90S6	220	-
	1.3 - 8.7	284	1640	640	-	RF	107 R77	VU/VZ	11	DT	90S6	225	-
	1.4 - 9.7	256	1480	575	-								
	1.6 - 11	220	1270	495	-								
	2.1 - 14	172	990	385	-								
	0.49 - 3.4	737	3000	1630	-	R	97 R57	VU/VZ	11	DT	90S6	155	-
	0.57 - 3.9	632	3000	1400	-	RF	97 R57	VU/VZ	11	DT	90S6	170	-
	0.57 - 4.0	625	3000	1410	-								
	0.65 - 4.5	549	3000	1240	-								
	0.77 - 5.3	466	2690	1050	-								
	0.85 - 5.9	420	2430	950	-								
	0.97 - 6.7	370	2140	830	-	R	97 R57	VU/VZ	11	DT	90S6	150	-
	1.0 - 7.1	349	2020	785	-	RF	97 R57	VU/VZ	11	DT	90S6	170	-
	1.2 - 8.3	297	1720	670	-								
	1.3 - 9.2	270	1560	610	-								
	1.6 - 11	227	1310	510	-								
	0.89 - 6.2	400	1550	900	-								
	0.99 - 6.9	361	1550	810	-								
	1.2 - 8.2	300	1550	675	-	R	87 R57	VU/VZ	11	DT	90S6	115	-
	1.4 - 9.7	256	1480	575	-	RF	87 R57	VU/VZ	11	DT	90S6	120	-
	1.5 - 11	232	1340	525	-								
	1.8 - 13	195	1130	440	-								
	1.6 - 11	221	820	500	-	R	77 R37	VU/VZ	11	DT	90S6	81	-
	1.9 - 13	186	820	420	-	RF	77 R37	VU/VZ	11	DT	90S6	87	-
0.75 / 0.62	1.6 - 12	216.54	1550	500	-								
	1.7 - 13	205.71	1550	475	-								
	1.9 - 14	181.77	1550	420	-	R	87	VU/VZ	21	DT	90S6	120	236
	2.2 - 17	155.34	1530	355	-	RF	87	VU/VZ	21	DT	90S6	125	237
	2.4 - 18	142.41	1400	330	-								
	2.7 - 21	124.97	1230	290	-								
	2.1 - 15	166.59	820	400	-								
	2.5 - 17	145.67	820	350	-								
	2.6 - 18	138.39	820	330	-	R	77	VU/VZ	11	DT	90S6	73	234
	2.9 - 20	121.42	745	290	-	RF	77	VU/VZ	11	DT	90S6	78	235
	3.5 - 24	102.99	635	245	-								
	2.3 - 16	158.14	600	380	-								
	2.6 - 18	137.67	600	330	-								
	2.8 - 19	128.97	600	310	-	R	67	VU/VZ	11	DT	90S6	65	232
	3.1 - 22	113.94	600	275	-	RF	67	VU/VZ	11	DT	90S6	68	233
	3.4 - 23	105.83	600	255	-								
	3.7 - 26	95.91	590	230	-								
	2.4 - 17	147.92	450	355	-								
	2.8 - 19	128.77	450	310	-								
	3.0 - 21	120.63	450	290	-								
	3.4 - 23	106.58	450	255	-								
	3.6 - 25	98.99	450	235	-								
	4.0 - 28	89.71	450	215	-	R	57	VU/VZ	11	DT	90S6	58	230
	4.4 - 31	80.55	450	193	-	RF	57	VU/VZ	11	DT	90S6	61	231
	5.2 - 36	69.23	425	166	-								
	5.5 - 38	64.85	400	155	-								
	6.2 - 43	57.29	350	137	-								
	6.7 - 47	53.22	325	127	-								



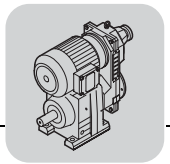
R..VU/VZ..DR/DT/DV.. [kW]

R = 1:7... R = 1:8														
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
0.75 / 0.62	**2.9 - 20**	121.87	300	290	-								
	3.1 - 22	114.17	300	275	-								
	3.6 - 25	100.86	300	240	-								
	3.8 - 26	93.68	300	225	-								
	4.2 - 29	84.90	300	205	-								
	4.7 - 32	76.23	300	182	-								
	5.2 - 36	68.54	300	164	-	**R**	**47**	**VU/VZ**	**11**	**DT**	**90S6**	53	228
	5.6 - 39	64.21	300	154	-	**RF**	**47**	**VU/VZ**	**11**	**DT**	**90S6**	53	229
	6.3 - 44	56.73	300	136	-								
	6.8 - 47	52.69	300	126	-								
	7.5 - 52	47.75	295	114	-								
	8.3 - 58	42.87	265	103	-								
	9.7 - 67	36.93	225	88	-								
	10 - 71	34.73	215	83	-								
	4.8 - 33	73.96	200	177	-								
	5.2 - 36	69.33	200	166	-								
	5.8 - 40	61.18	200	146	-								
	6.4 - 44	55.76	200	133	-								
	7.4 - 51	48.08	200	115	-								
	8.0 - 55	44.81	200	107	-	**R**	**37**	**VU/VZ**	**11**	**DT**	**90S6**	51	226
	9.1 - 63	39.17	200	94	-	**RF**	**37**	**VU/VZ**	**11**	**DT**	**90S6**	52	227
	9.7 - 67	36.72	200	88	-								
	11 - 76	32.40	199	78	-								
	12 - 86	28.73	177	69	-								
	15 - 101	24.42	150	58	-								
	16 - 111	22.27	137	53	-								
	19 - 128	19.31	119	46	-								
	20 - 137	18.05	111	43	-								
	23 - 159	15.60	96	37	-								
	27 - 187	13.25	81	32	-								
	30 - 209	11.83	73	28	-	**R**	**37**	**VU/VZ**	**11**	**DT**	**90S6**	50	226
	35 - 245	10.11	62	24	-	**RF**	**37**	**VU/VZ**	**11**	**DT**	**90S6**	52	227
	38 - 261	9.47	58	23	-								
	45 - 311	7.97	49	19	-								
	54 - 371	6.67	41	16	-								
	63 - 437	5.67	35	14	-								
	71 - 489	5.06	31	12	-								
	69 - 478	5.18	32	12	-								
	79 - 546	4.53	28	11	-	**RX**	**67**	**VU/VZ**	**11**	**DT**	**90S6**	51	214
	83 - 576	4.30*	26	10	-	**RXF**	**67**	**VU/VZ**	**11**	**DT**	**90S6**	55	215
	82 - 569	4.35	27	10	-								
	94 - 653	3.79	23	9.1	-								
	101 - 697	3.55*	22	8.5	-								
	114 - 788	3.14	19	7.5	-								
	123 - 851	2.91	18	7.0	-								
	135 - 938	2.64*	16	6.3	-	**RX**	**57**	**VU/VZ**	**11**	**DT**	**90S6**	48	212
	151 - 1045	2.37	15	5.7	-	**RXF**	**57**	**VU/VZ**	**11**	**DT**	**90S6**	50	213
	175 - 1215	2.04	13	4.9	-								
	186 - 1290	1.92*	12	4.6	-								
	217 - 1500	1.65	10	3.9	-								
	242 - 1670	1.48	9.1	3.5	-								
	275 - 1905	1.30	8.0	3.1	-								
1.1 / 0.84	**0.14 - 0.99**	2555	13000	8050	-								
	0.16 - 1.1	2211	12600	6960	-								
	0.18 - 1.3	1951	11100	6150	-								
	0.21 - 1.5	1705	9680	5370	-	**R**	**147 R77**	**VU/VZ**	**11**	**DT**	**90L6**	435	-
	0.23 - 1.7	1536	8720	4840	-	**RF**	**147 R77**	**VU/VZ**	**11**	**DT**	**90L6**	445	-
	0.27 - 1.9	1329	7540	4190	-								
	0.31 - 2.2	1166	6620	3670	-								
	0.40 - 2.9	889	5050	2800	-								



R = 1:7... R = 1:8

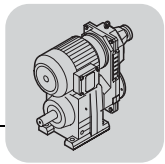
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
1.1 / 0.84	**0.22 - 1.6**	1598	8000	5030	-								
	0.26 - 1.8	1397	7930	4400	-								
	0.29 - 2.1	1226	6960	3860	-								
	0.33 - 2.3	1090	6190	3430	-								
	0.38 - 2.7	951	5400	3000	-	**R**	**137 R77**	**VU/VZ**	**11**	**DT**	**90L6**	310	-
	0.43 - 3.0	831	4720	2620	-	**RF**	**137 R77**	**VU/VZ**	**11**	**DT**	**90L6**	335	-
	0.49 - 3.5	730	4140	2300	-								
	0.64 - 4.5	560	3180	1760	-								
	0.94 - 6.6	381	2160	1200	-								
	0.38 - 2.7	939	4300	2960	-								
	0.44 - 3.1	822	4300	2590	-	**R**	**107 R77**	**VU/VZ**	**11**	**DT**	**90L6**	230	-
	0.97 - 6.9	369	2090	1160	-	**RF**	**107 R77**	**VU/VZ**	**11**	**DT**	**90L6**	235	-
	1.1 - 7.8	323	1830	1020	-								
	0.77 - 5.4	469	2700	1500	-								
	0.84 - 5.9	426	2460	1360	-								
	0.95 - 6.7	377	2170	1210	-								
	1.1 - 7.8	325	1870	1040	-	**R**	**107 R77**	**VU/VZ**	**11**	**DT**	**90L6**	220	-
	1.3 - 8.9	284	1640	910	-	**RF**	**107 R77**	**VU/VZ**	**11**	**DT**	**90L6**	230	-
	1.4 - 9.9	256	1480	820	-								
	1.6 - 12	220	1270	705	-								
	2.1 - 15	172	990	550	-								
	0.65 - 4.6	549	3000	1760	-								
	0.77 - 5.4	466	2690	1490	-								
	0.85 - 6.0	420	2420	1340	-								
	0.97 - 6.8	370	2130	1180	-	**R**	**97 R57**	**VU/VZ**	**11**	**DT**	**90L6**	155	-
	1.0 - 7.2	349	2010	1120	-	**RF**	**97 R57**	**VU/VZ**	**11**	**DT**	**90L6**	170	-
	1.2 - 8.5	297	1710	950	-								
	1.3 - 9.4	270	1560	860	-								
	1.6 - 11	227	1310	725	-								
	1.4 - 9.9	256	1480	820	-								
	1.6 - 11	232	1340	740	-	**R**	**87 R57**	**VU/VZ**	**11**	**DT**	**90L6**	115	-
	1.8 - 13	195	1120	625	-	**RF**	**87 R57**	**VU/VZ**	**11**	**DT**	**90L6**	125	-
1.1 / 0.90	**1.6 - 12**	216.54	1550	705	-								
	1.7 - 13	205.71	1550	670	-								
	1.9 - 14	181.77	1550	595	-								
	2.2 - 17	155.34	1530	505	-	**R**	**87**	**VU/VZ**	**21**	**DT**	**90L6**	120	236
	2.4 - 18	142.41	1400	465	-	**RF**	**87**	**VU/VZ**	**21**	**DT**	**90L6**	130	237
	2.7 - 21	124.97	1230	410	-								
	2.9 - 22	118.43*	1160	385	-								
	2.1 - 15	166.59	820	565	-								
	2.5 - 17	145.67	820	495	-								
	2.6 - 18	138.39	820	470	-								
	3.0 - 21	121.42	745	415	-	**R**	**77**	**VU/VZ**	**11**	**DT**	**90L6**	75	234
	3.5 - 25	102.99	630	350	-	**RF**	**77**	**VU/VZ**	**11**	**DT**	**90L6**	80	235
	3.9 - 27	92.97	570	315	-								
	4.4 - 31	81.80	500	280	-								
	2.8 - 20	128.97	600	440	-								
	3.1 - 22	113.94	600	385	-								
	3.4 - 24	105.83	600	360	-	**R**	**67**	**VU/VZ**	**11**	**DT**	**90L6**	67	232
	3.7 - 26	95.91	585	325	-	**RF**	**67**	**VU/VZ**	**11**	**DT**	**90L6**	70	233
	4.2 - 29	86.11	525	295	-								
	4.8 - 34	74.17	455	250	-								



R..VU/VZ..DR/DT/DV.. [kW]

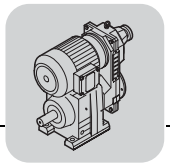
R = 1:7... R = 1:8

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
1.1 / 0.90	**2.8 - 20**	128.77	450	440	-								
	3.0 - 21	120.63	450	410	-								
	3.4 - 24	106.58	450	360	-								
	3.6 - 26	98.99	450	335	-								
	4.0 - 28	89.71	450	305	-								
	4.5 - 31	80.55	450	275	-								
	5.2 - 37	69.23	425	235	-								
	5.5 - 39	64.85	395	220	-	**R**	**57**	**VU/VZ**	**11**	**DT**	**90L6**	60	230
	6.3 - 44	57.29	350	195	-	**RF**	**57**	**VU/VZ**	**11**	**DT**	**90L6**	63	231
	6.7 - 48	53.22	325	181	-								
	7.4 - 52	48.23	295	164	-								
	8.3 - 58	43.30	265	147	-								
	9.6 - 68	37.30*	230	127	-								
	10 - 72	35.07	215	119	-								
	12 - 84	30.18	185	103	-								
	13 - 94	26.97	165	92	-								
	4.2 - 30	84.90	300	290	-								
	4.7 - 33	76.23	300	260	-								
	5.2 - 37	68.54	300	235	-								
	5.6 - 39	64.21	300	220	-								
	6.3 - 45	56.73	300	193	-	**R**	**47**	**VU/VZ**	**11**	**DT**	**90L6**	55	228
	6.8 - 48	52.69	300	179	-	**RF**	**47**	**VU/VZ**	**11**	**DT**	**90L6**	55	229
	7.5 - 53	47.75	290	162	-								
	8.4 - 59	42.87	265	146	-								
	9.7 - 69	36.93	225	126	-								
	10 - 73	34.73	215	118	-								
	6.4 - 45	55.76	200	189	-								
	7.5 - 53	48.08	200	163	-								
	8.0 - 56	44.81	200	152	-								
	9.2 - 65	39.17	200	133	-	**R**	**37**	**VU/VZ**	**11**	**DT**	**90L6**	53	226
	9.8 - 69	36.72	200	125	-	**RF**	**37**	**VU/VZ**	**11**	**DT**	**90L6**	54	227
	11 - 78	32.40	198	110	-								
	12 - 88	28.73	176	98	-								
	15 - 104	24.42	150	83	-								
	16 - 114	22.27	136	76	-								
	19 - 131	19.31	118	66	-								
	20 - 140	18.05	111	61	-								
	23 - 162	15.60	96	53	-								
	27 - 191	13.25	81	45	-								
	30 - 214	11.83	72	40	-	**R**	**37**	**VU/VZ**	**11**	**DT**	**90L6**	52	226
	35 - 250	10.11	62	34	-	**RF**	**37**	**VU/VZ**	**11**	**DT**	**90L6**	54	227
	38 - 267	9.47	58	32	-								
	45 - 317	7.97	49	27	-								
	54 - 379	6.67	41	23	-								
	63 - 446	5.67	35	19	-								
	71 - 500	5.06	31	17	-								
	69 - 488	5.18	32	18	-								
	79 - 559	4.53	28	15	-	**RX**	**67**	**VU/VZ**	**11**	**DT**	**90L6**	53	214
	83 - 588	4.30*	26	15	-	**RXF**	**67**	**VU/VZ**	**11**	**DT**	**90L6**	57	215
	82 - 582	4.35	27	15	-								
	95 - 668	3.79	23	13	-								
	101 - 713	3.55*	22	12	-								
	114 - 806	3.14	19	11	-								
	123 - 869	2.91	18	9.9	-								
	136 - 958	2.64*	16	9.0	-	**RX**	**57**	**VU/VZ**	**11**	**DT**	**90L6**	50	212
	151 - 1070	2.37	15	8.1	-	**RXF**	**57**	**VU/VZ**	**11**	**DT**	**90L6**	52	213
	176 - 1240	2.04	13	6.9	-								
	187 - 1320	1.92*	12	6.5	-								
	217 - 1535	1.65	10	5.6	-								
	242 - 1710	1.48	9.1	5.0	-								
	276 - 1945	1.30	8.0	4.4	-								



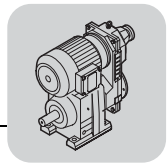
R = 1:7... R = 1:8

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
1.5 / 1.2	0.20 - 1.5	1705	13000	7060	-								
	0.22 - 1.7	1536	13000	6360	-								
	0.26 - 2.0	1329	13000	5500	-								
	0.29 - 2.3	1166	13000	4830	-								
	0.33 - 2.6	1029	12300	4260	-								
	0.38 - 3.0	889	10600	3680	-	**R**	**147 R77**	**VU/VZ**	**21**	**DV**	**100M6**	460	-
	0.43 - 3.4	784	9390	3250	-	**RF**	**147 R77**	**VU/VZ**	**21**	**DV**	**100M6**	470	-
	0.49 - 3.8	695	8320	2880	-								
	0.55 - 4.2	619	7410	2560	-								
	0.61 - 4.7	558	6680	2310	-								
	0.70 - 5.4	489	5850	2020	-								
	0.82 - 6.3	415	4970	1720	-								
	0.31 - 2.4	1090	8000	4510	-								
	0.36 - 2.8	951	8000	3940	-								
	0.41 - 3.2	831	8000	3440	-								
	0.47 - 3.6	730	8000	3020	-								
	0.54 - 4.2	629	7530	2600	-								
	0.61 - 4.7	560	6700	2320	-								
	0.69 - 5.4	490	5870	2030	-								
	0.79 - 6.2	428	5120	1770	-	**R**	**137 R77**	**VU/VZ**	**21**	**DV**	**100M6**	335	-
	0.89 - 6.9	381	4560	1580	-	**RF**	**137 R77**	**VU/VZ**	**21**	**DV**	**100M6**	360	-
	1.1 - 8.2	323	3870	1340	-								
	1.2 - 9.0	291	3480	1200	-								
	1.3 - 10	255	3050	1060	-								
	1.5 - 12	223	2670	920	-								
	1.7 - 13	197	2360	820	-								
	1.9 - 15	175	2100	725	-								
	0.63 - 4.8	544	4300	2250	-								
	0.69 - 5.4	492	4300	2040	-	**R**	**107 R77**	**VU/VZ**	**21**	**DV**	**100M6**	255	-
	0.82 - 6.3	417	4300	1730	-	**RF**	**107 R77**	**VU/VZ**	**21**	**DV**	**100M6**	260	-
	0.73 - 5.6	469	4300	1970	-								
	0.80 - 6.2	426	4300	1790	-								
	0.90 - 7.0	377	4300	1580	-								
	1.1 - 8.1	325	3950	1370	-								
	1.2 - 9.3	284	3450	1190	-	**R**	**107 R77**	**VU/VZ**	**21**	**DV**	**100M6**	250	-
	1.3 - 10	256	3110	1080	-	**RF**	**107 R77**	**VU/VZ**	**21**	**DV**	**100M6**	255	-
	1.6 - 12	220	2670	920	-								
	1.8 - 14	193	2350	810	-								
	2.0 - 15	172	2090	725	-								
	0.92 - 7.1	370	3000	1550	-								
	0.97 - 7.5	349	3000	1470	-								
	1.2 - 8.9	297	3000	1250	-	**R**	**97 R57**	**VU/VZ**	**21**	**DV**	**100M6**	180	-
	1.3 - 9.8	270	3000	1130	-	**RF**	**97 R57**	**VU/VZ**	**21**	**DV**	**100M6**	200	-
	1.5 - 12	227	2760	950	-								
1.5 / 1.2	1.6 - 12	216.54	1550	970	-								
	1.7 - 13	205.71	1550	920	-								
	1.9 - 14	181.77	1550	810	-								
	2.2 - 17	155.34	1550	695	-	**R**	**87**	**VU/VZ**	**21**	**DV**	**100M6**	130	236
	2.4 - 18	142.41	1550	635	-	**RF**	**87**	**VU/VZ**	**21**	**DV**	**100M6**	135	237
	2.7 - 21	124.97	1550	560	-								
	2.9 - 22	118.43*	1530	530	-								
	3.3 - 25	103.65	1340	465	-								
	2.8 - 22	121.42	820	540	-								
	3.3 - 26	102.99	820	460	-								
	3.7 - 28	92.97	820	415	-	**R**	**77**	**VU/VZ**	**21**	**DV**	**100M6**	100	234
	4.2 - 32	81.80	820	365	-	**RF**	**77**	**VU/VZ**	**21**	**DV**	**100M6**	105	235
	4.4 - 34	77.24	820	345	-								
	5.2 - 40	65.77	820	295	-								
	3.2 - 25	105.83	600	475	-								
	3.6 - 27	95.91	600	430	-								
	4.0 - 31	86.11	600	385	-	**R**	**67**	**VU/VZ**	**21**	**DV**	**100M6**	94	232
	4.6 - 35	74.17	600	330	-	**RF**	**67**	**VU/VZ**	**21**	**DV**	**100M6**	98	233
	4.9 - 38	69.75	600	310	-								



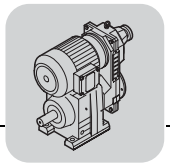
R..VU/VZ..DR/DT/DV.. [kW]

R = 1:7... R = 1:8															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
1.5 / 1.2	3.4	-	27	98.99	450	440	-								
	3.8	-	29	89.71	450	400	-								
	4.2	-	33	80.55	450	360	-								
	4.9	-	38	69.23	450	310	-								
	5.2	-	41	64.85	450	290	-								
	5.9	-	46	57.29	450	255	-								
	6.4	-	49	53.22	450	240	-	R	57	VU/VZ	21	DV	100M6	88	230
	7.0	-	55	48.23	450	215	-	RF	57	VU/VZ	21	DV	100M6	91	231
	7.9	-	61	43.30	450	193	-								
	9.1	-	71	37.30*	450	167	-								
	9.7	-	75	35.07	450	157	-								
	11	-	87	30.18	390	135	-								
	13	-	98	26.97	350	120	-								
	5.3	-	41	64.21	300	285	-								
	6.0	-	46	56.73	300	255	-								
	6.5	-	50	52.69	300	235	-								
	7.1	-	55	47.75	300	215	-								
	7.9	-	61	42.87	300	191	-	R	47	VU/VZ	21	DV	100M6	83	228
	9.2	-	71	36.93	300	165	-	RF	47	VU/VZ	21	DV	100M6	83	229
	9.8	-	76	34.73	300	155	-								
	11	-	88	29.88	300	133	-								
	13	-	99	26.70	300	119	-								
	14	-	112	23.59	300	105	-								
	15	-	113	23.28	300	104	-								
	16	-	121	21.81	280	97	-								
	18	-	137	19.27	250	86	-								
	19	-	147	17.89	230	80	-								
	21	-	162	16.22	210	72	-								
	23	-	181	14.56	188	65	-								
	27	-	210	12.54	162	56	-								
	29	-	223	11.79	152	53	-								
	34	-	259	10.15	131	45	-	R	47	VU/VZ	21	DV	100M6	82	228
	38	-	290	9.07	117	41	-	RF	47	VU/VZ	21	DV	100M6	82	229
	42	-	328	8.01	103	36	-								
	44	-	339	7.76*	100	35	-								
	49	-	378	6.96	90	31	-								
	57	-	439	6.00	78	27	-								
	60	-	467	5.64*	73	25	-								
	70	-	543	4.85	63	22	-								
	78	-	606	4.34	56	19	-								
	89	-	687	3.83	50	17	-								
	60	-	467	5.63	73	25	-								
	64	-	492	5.35*	69	24	-	RX	77	VU/VZ	21	DV	100M6	92	216
	72	-	556	4.73	61	21	-	RXF	77	VU/VZ	21	DV	100M6	94	217
	75	-	581	4.53	59	20	-								
	79	-	612	4.30*	56	19	-	RX	67	VU/VZ	21	DV	100M6	81	214
	90	-	698	3.77	49	17	-	RXF	67	VU/VZ	21	DV	100M6	85	215
	90	-	694	3.79	49	17	-								
	96	-	741	3.55*	46	16	-								
	108	-	838	3.14	41	14	-								
	117	-	904	2.91	38	13	-								
	129	-	997	2.64*	34	12	-								
	144	-	1110	2.37	31	11	-	RX	57	VU/VZ	21	DV	100M6	78	212
	167	-	1290	2.04	26	9.1	-	RXF	57	VU/VZ	21	DV	100M6	80	213
	177	-	1370	1.92*	25	8.6	-								
	206	-	1595	1.65	21	7.4	-								
	230	-	1780	1.48	19	6.6	-								
	262	-	2025	1.30	17	5.8	-								



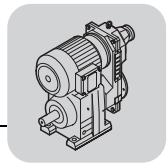
R = 1:7... R = 1:8

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
2.2 / 1.7	**0.29 - 2.3**	1166	13000	6910	-								
	0.33 - 2.6	1029	13000	6100	-								
	0.38 - 3.0	889	13000	5270	-								
	0.44 - 3.4	784	13000	4650	-								
	0.49 - 3.9	695	13000	4120	-	**R**	**147 R77**	**VU/VZ**	**31**	**DV**	**112M6**	500	-
	0.55 - 4.3	619	13000	3670	-	**RF**	**147 R77**	**VU/VZ**	**31**	**DV**	**112M6**	510	-
	0.61 - 4.8	558	12000	3310	-								
	0.70 - 5.5	489	10500	2900	-								
	0.82 - 6.5	415	8930	2460	-								
	0.47 - 3.7	730	8000	4330	-								
	0.54 - 4.3	629	8000	3730	-								
	0.61 - 4.8	560	8000	3320	-								
	0.70 - 5.5	490	8000	2910	-								
	0.80 - 6.3	428	8000	2540	-								
	0.90 - 7.1	381	8000	2260	-	**R**	**137 R77**	**VU/VZ**	**31**	**DV**	**112M6**	375	-
	1.1 - 8.3	323	6950	1920	-	**RF**	**137 R77**	**VU/VZ**	**31**	**DV**	**112M6**	400	-
	1.2 - 9.2	291	6270	1730	-								
	1.3 - 11	255	5490	1510	-								
	1.5 - 12	223	4800	1320	-								
	1.7 - 14	197	4240	1170	-								
	1.9 - 15	175	3770	1040	-								
	0.91 - 7.1	377	4300	2270	-								
	1.1 - 8.3	325	4300	1960	-								
	1.2 - 9.5	284	4300	1710	-								
	1.3 - 11	256	4300	1540	-	**R**	**107 R77**	**VU/VZ**	**31**	**DV**	**112M6**	285	-
	1.6 - 12	220	4300	1320	-	**RF**	**107 R77**	**VU/VZ**	**31**	**DV**	**112M6**	290	-
	1.8 - 14	193	4220	1160	-								
	2.0 - 16	172	3760	1040	-								
	1.3 - 10	270	3000	1630	-	**R**	**97 R57**	**VU/VZ**	**31**	**DV**	**112M6**	220	-
	1.5 - 12	227	3000	1370	-	**RF**	**97 R57**	**VU/VZ**	**31**	**DV**	**112M6**	240	-
2.2 / 1.8	**1.8 - 14**	186.30	3000	1190	-								
	2.0 - 16	170.02	3000	1090	-								
	2.3 - 18	150.78	3000	960	-	**R**	**97**	**VU/VZ**	**31**	**DV**	**112M6**	210	238
	2.7 - 21	126.75	2940	810	-	**RF**	**97**	**VU/VZ**	**31**	**DV**	**112M6**	225	239
	2.9 - 23	116.48	2700	745	-								
	2.4 - 19	142.41	1550	910	-								
	2.7 - 22	124.97	1550	800	-								
	2.9 - 23	118.43*	1550	755	-								
	3.3 - 26	103.65	1550	665	-								
	3.7 - 29	93.38	1550	595	-	**R**	**87**	**VU/VZ**	**31**	**DV**	**112M6**	165	236
	4.2 - 33	81.92	1550	525	-	**RF**	**87**	**VU/VZ**	**31**	**DV**	**112M6**	175	237
	4.7 - 37	72.57	1550	465	-								
	5.4 - 42	63.68*	1480	405	-								
	5.7 - 45	60.35*	1400	385	-								
	6.5 - 51	52.82	1230	340	-								
	5.2 - 41	65.77	820	420	-								
	5.9 - 47	57.68	820	370	-								
	6.6 - 52	52.07	820	335	-								
	7.5 - 59	45.81	820	295	-	**R**	**77**	**VU/VZ**	**31**	**DV**	**112M6**	140	234
	7.9 - 62	43.26	820	275	-	**RF**	**77**	**VU/VZ**	**31**	**DV**	**112M6**	145	235
	9.3 - 73	36.83	820	235	-								
	10 - 80	33.47	775	215	-								
	12 - 93	29.00	675	185	-								
	4.9 - 39	69.75	600	445	-								
	6.6 - 52	51.56	600	330	-								
	7.4 - 58	46.29	600	295	-								
	8.6 - 67	39.88*	580	255	-	**R**	**67**	**VU/VZ**	**31**	**DV**	**112M6**	135	232
	9.1 - 72	37.50	570	240	-	**RF**	**67**	**VU/VZ**	**31**	**DV**	**112M6**	135	233
	11 - 83	32.27	540	205	-								
	12 - 93	28.83	520	184	-								



R..VU/VZ..DR/DT/DV.. [kW]

R = 1:7... R = 1:8															
P_m/P_{a2} [kW]	n_{a1} [1/min]	-	n_{a2}	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
2.2 / 1.8	**7.1**	**-**	**56**	48.23	450	310	-								
	7.9	**-**	**62**	43.30	450	275	-								
	9.2	**-**	**72**	37.30*	450	240	-	**R**	**57**	**VU/VZ**	**31**	**DV**	**112M6**	125	230
	9.7	**-**	**77**	35.07	450	225	-	**RF**	**57**	**VU/VZ**	**31**	**DV**	**112M6**	130	231
	11	**-**	**89**	30.18	450	193	-								
	13	**-**	**100**	26.97	450	172	-								
	18	**-**	**145**	18.60*	430	119	-								
	20	**-**	**160**	16.79	390	107	-								
	23	**-**	**182**	14.77*	345	94	-								
	24	**-**	**193**	13.95*	325	89	-								
	29	**-**	**226**	11.88	275	76	-								
	32	**-**	**249**	10.79	250	69	-								
	37	**-**	**288**	9.35	215	60	-	**R**	**57**	**VU/VZ**	**31**	**DV**	**112M6**	125	230
	38	**-**	**297**	9.06	210	58	-	**RF**	**57**	**VU/VZ**	**31**	**DV**	**112M6**	130	231
	43	**-**	**337**	7.97	185	51	-								
	45	**-**	**357**	7.53	175	48	-								
	53	**-**	**419**	6.41	149	41	-								
	59	**-**	**462**	5.82	135	37	-								
	68	**-**	**532**	5.05	117	32	-								
	78	**-**	**612**	4.39	102	28	-								
	61	**-**	**484**	5.56*	129	36	-								
	67	**-**	**530**	5.07	118	32	-	**RX**	**87**	**VU/VZ**	**31**	**DV**	**112M6**	145	218
	76	**-**	**597**	4.50*	105	29	-	**RXF**	**87**	**VU/VZ**	**31**	**DV**	**112M6**	150	219
	85	**-**	**665**	4.04*	94	26	-								
	92	**-**	**727**	3.70	86	24	-								
	105	**-**	**827**	3.25*	76	21	-								
	111	**-**	**873**	3.08*	72	20	-								
	126	**-**	**996**	2.70	63	17	-	**RX**	**77**	**VU/VZ**	**31**	**DV**	**112M6**	130	216
	140	**-**	**1105**	2.43	56	16	-	**RXF**	**77**	**VU/VZ**	**31**	**DV**	**112M6**	130	217
	160	**-**	**1260**	2.13	50	14	-								
	182	**-**	**1430**	1.88*	44	12	-								
	204	**-**	**1610**	1.67	39	11	-								
	240	**-**	**1895**	1.42	33	9.1	-								
3.0 / 2.3	**0.38**	**-**	**3.0**	889	13000	7170	-								
	0.44	**-**	**3.4**	784	13000	6330	-								
	0.49	**-**	**3.9**	695	13000	5610	-								
	0.55	**-**	**4.3**	619	13000	5000	-	**R**	**147 R77**	**VZ**	**31**	**DV**	**132S6**	510	-
	0.61	**-**	**4.8**	558	12000	4500	-	**RF**	**147 R77**	**VZ**	**31**	**DV**	**132S6**	510	-
	0.70	**-**	**5.5**	489	10500	3950	-								
	0.82	**-**	**6.5**	415	8930	3350	-								
	0.70	**-**	**5.5**	490	8000	3950	-								
	0.80	**-**	**6.3**	428	8000	3450	-								
	0.90	**-**	**7.1**	381	8000	3070	-								
	1.1	**-**	**8.3**	323	6950	2610	-								
	1.2	**-**	**9.2**	291	6270	2350	-	**R**	**137 R77**	**VZ**	**31**	**DV**	**132S6**	380	-
	1.3	**-**	**11**	255	5490	2060	-	**RF**	**137 R77**	**VZ**	**31**	**DV**	**132S6**	405	-
	1.5	**-**	**12**	223	4800	1800	-								
	1.7	**-**	**14**	197	4240	1590	-								
	1.9	**-**	**15**	175	3770	1410	-								
	1.2	**-**	**9.5**	284	4300	2330	-								
	1.3	**-**	**11**	256	4300	2100	-								
	1.6	**-**	**12**	220	4300	1800	-	**R**	**107 R77**	**VZ**	**31**	**DV**	**132S6**	290	-
	1.8	**-**	**14**	193	4220	1580	-	**RF**	**107 R77**	**VZ**	**31**	**DV**	**132S6**	300	-
	2.0	**-**	**16**	172	3760	1410	-								
3.0 / 2.5	**1.8**	**-**	**14**	186.30	3000	1620	-								
	2.0	**-**	**16**	170.02	3000	1480	-								
	2.3	**-**	**18**	150.78	3000	1310	-	**R**	**97**	**VU/VZ**	**31**	**DV**	**132S6**	215	238
	2.7	**-**	**21**	126.75	2940	1100	-	**RF**	**97**	**VU/VZ**	**31**	**DV**	**132S6**	230	239
	2.9	**-**	**23**	116.48	2700	1010	-								



R = 1:7... R = 1:8

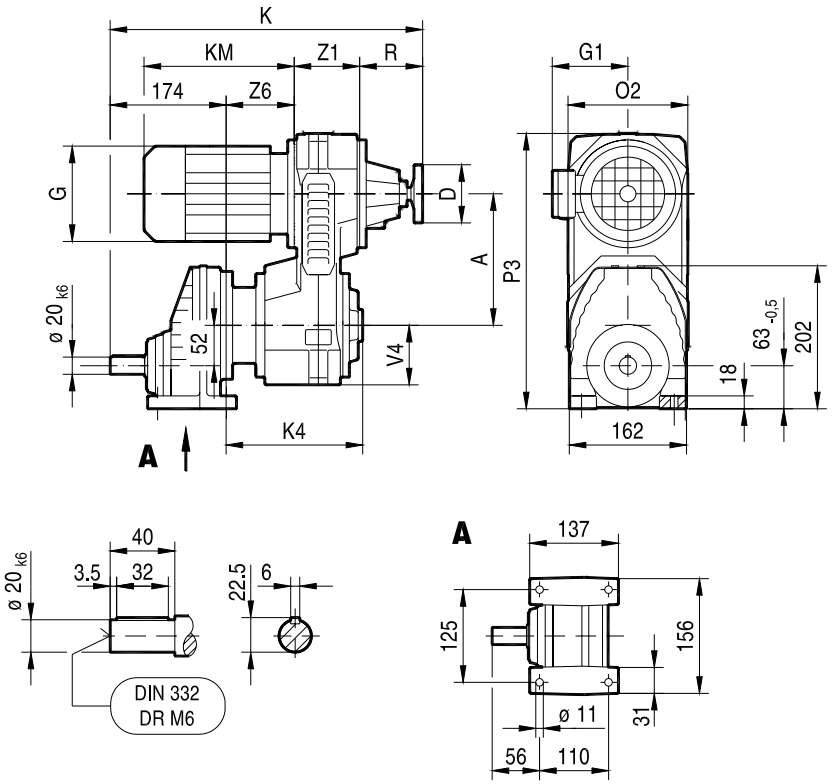
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
3.0 / 2.5	**2.7 - 22**	124.97	1550	1090	-								
	2.9 - 23	118.43*	1550	1030	-								
	3.3 - 26	103.65	1550	900	-								
	3.7 - 29	93.38	1550	810	-								
	4.2 - 33	81.92	1550	715	-	**R**	**87**	**VU/VZ**	**31**	**DV**	**132S6**	170	236
	4.7 - 37	72.57	1550	630	-	**RF**	**87**	**VU/VZ**	**31**	**DV**	**132S6**	180	237
	5.4 - 42	63.68*	1480	555	-								
	5.7 - 45	60.35*	1400	525	-								
	6.5 - 51	52.82	1230	460	-								
	7.2 - 57	47.58	1100	415	-								
	5.9 - 47	57.68	820	500	-								
	6.6 - 52	52.07	820	455	-								
	7.5 - 59	45.81	820	400	-								
	7.9 - 62	43.26	820	375	-	**R**	**77**	**VU/VZ**	**31**	**DV**	**132S6**	145	234
	9.3 - 73	36.83	820	320	-	**RF**	**77**	**VU/VZ**	**31**	**DV**	**132S6**	150	235
	10 - 80	33.47	775	290	-								
	12 - 93	29.00	675	250	-								
	14 - 107	25.23	585	220	-								
	6.6 - 52	51.56	600	450	-								
	7.4 - 58	46.29	600	405	-								
	8.6 - 67	39.88*	580	345	-	**R**	**67**	**VU/VZ**	**31**	**DV**	**132S6**	140	232
	9.1 - 72	37.50	570	325	-	**RF**	**67**	**VU/VZ**	**31**	**DV**	**132S6**	145	233
	11 - 83	32.27	540	280	-								
	12 - 93	28.83	520	250	-								
	7.1 - 56	48.23	450	420	-								
	7.9 - 62	43.30	450	375	-								
	9.2 - 72	37.30*	450	325	-	**R**	**57**	**VU/VZ**	**31**	**DV**	**132S6**	135	230
	9.7 - 77	35.07	450	305	-	**RF**	**57**	**VU/VZ**	**31**	**DV**	**132S6**	135	231
	11 - 89	30.18	450	265	-								
	13 - 100	26.97	450	235	-								
	18 - 145	18.60*	430	162	-								
	20 - 160	16.79	390	146	-								
	23 - 182	14.77*	345	129	-								
	24 - 193	13.95*	325	121	-								
	29 - 226	11.88	275	103	-								
	32 - 249	10.79	250	94	-								
	37 - 288	9.35	215	81	-	**R**	**57**	**VU/VZ**	**31**	**DV**	**132S6**	130	230
	38 - 297	9.06	210	79	-	**RF**	**57**	**VU/VZ**	**31**	**DV**	**132S6**	135	231
	43 - 337	7.97	185	69	-								
	45 - 357	7.53	175	66	-								
	53 - 419	6.41	149	56	-								
	59 - 462	5.82	135	51	-								
	68 - 532	5.05	117	44	-								
	78 - 612	4.39	102	38	-								
	48 - 375	7.16*	166	62	-	**RX**	**97**	**VU/VZ**	**31**	**DV**	**132S6**	175	220
	52 - 410	6.56	152	57	-	**RXF**	**97**	**VU/VZ**	**31**	**DV**	**132S6**	185	221
	59 - 464	5.79	134	50	-								
	61 - 484	5.56*	129	48	-								
	67 - 530	5.07	118	44	-	**RX**	**87**	**VU/VZ**	**31**	**DV**	**132S6**	150	218
	76 - 597	4.50*	105	39	-	**RXF**	**87**	**VU/VZ**	**31**	**DV**	**132S6**	155	219
	85 - 665	4.04*	94	35	-								
	92 - 727	3.70	86	32	-								
	105 - 827	3.25*	76	28	-								
	111 - 873	3.08*	72	27	-								
	126 - 996	2.70	63	24	-	**RX**	**77**	**VU/VZ**	**31**	**DV**	**132S6**	135	216
	140 - 1105	2.43	56	21	-	**RXF**	**77**	**VU/VZ**	**31**	**DV**	**132S6**	135	217
	160 - 1260	2.13	50	19	-								
	182 - 1430	1.88*	44	16	-								
	204 - 1610	1.67	39	15	-								
	240 - 1895	1.42	33	12	-								

9.3 R..VU/VZ..DR/DT/DV.. [mm]

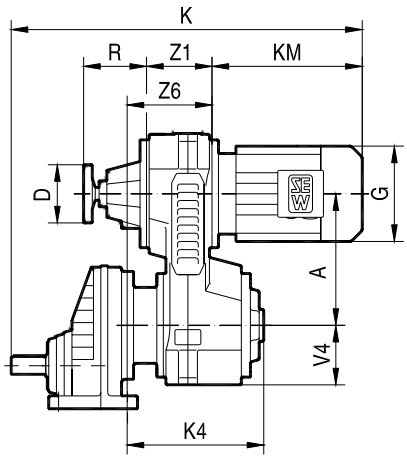
14 021 001

RX57..

VU ..



VZ ..

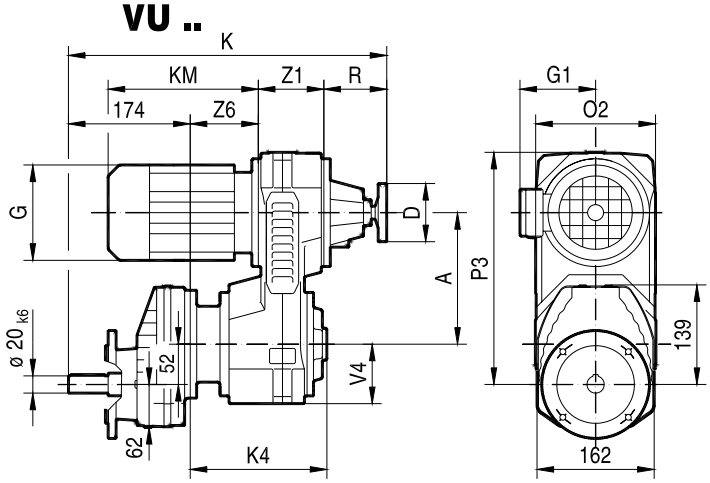


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
RX57	VU01 VZ01	DR63..	182	80	132	105	459	475	187	206	176	384	98	72	80	107	114
		DT71D	182	80	145	122	459	490	202	206	176	384	98	72	80	107	114
		DT80..	182	80	145	122	459	540	252	206	176	384	98	72	80	107	114
	VU11 VZ11	DT80..	232	100	145	122	504	569	252	232	183	437	117	88	98	115	143
		DT90..	232	100	197	154	504	590	273	232	183	437	117	88	98	115	143
	VU21 VZ21	DT90..	245	100	197	154	571	624	273	279	227	472	130	110	120	147	177
		DV100M	245	100	197	166	571	662	311	279	227	472	130	110	120	147	177
		DV100L	245	100	197	166	571	692	341	279	227	472	130	110	120	147	177

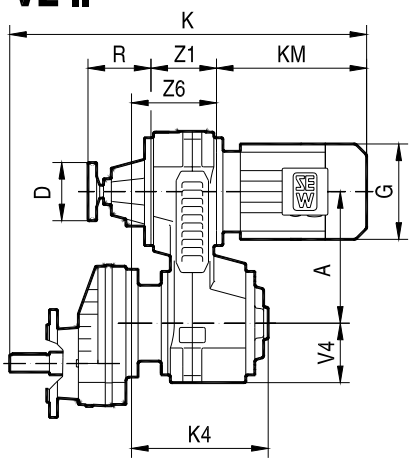
14 022 001

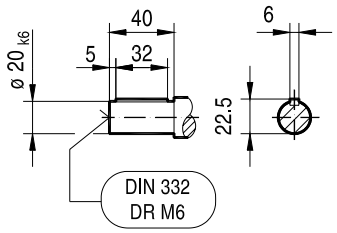
RXF57..

VU ..



VZ ..





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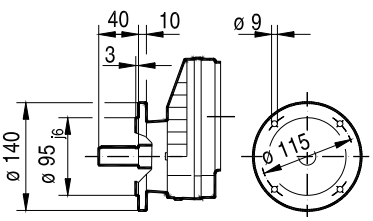
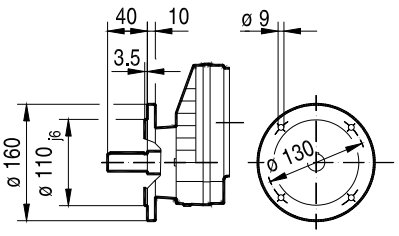
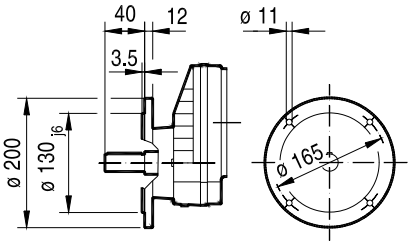
ø 140



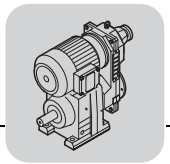
ø 160



ø 200



(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
RXF57	VU01 VZ01	DR63..	182	80	132	105	459	475	187	206	176	321	98	72	80	107	114
		DT71D	182	80	145	122	459	490	202	206	176	321	98	72	80	107	114
		DT80..	182	80	145	122	459	540	252	206	176	321	98	72	80	107	114
	VU11 VZ11	DT80..	232	100	145	122	504	569	252	232	183	374	117	88	98	115	143
		DT90..	232	100	197	154	504	590	273	232	183	374	117	88	98	115	143
	VU21 VZ21	DT90..	245	100	197	154	571	624	273	279	227	409	130	110	120	147	177
		DV100M	245	100	197	166	571	662	311	279	227	409	130	110	120	147	177
		DV100L	245	100	197	166	571	692	341	279	227	409	130	110	120	147	177

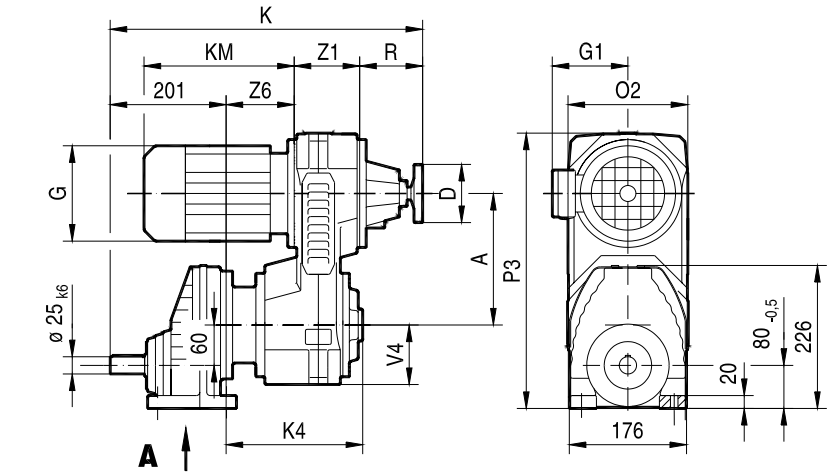


R..VU/VZ..DR/DT/DV.. [mm]

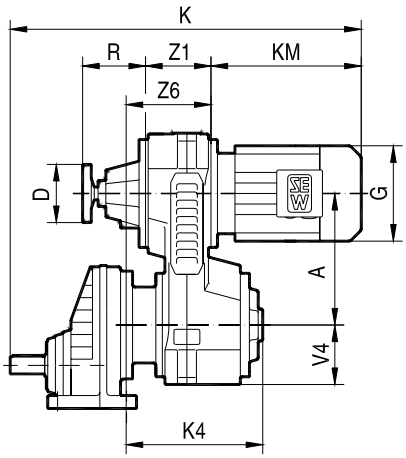
14 023 001

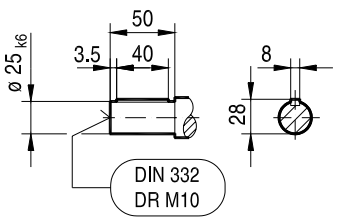
RX67..

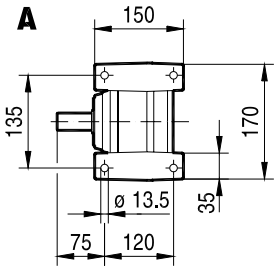
VU ..



VZ ..





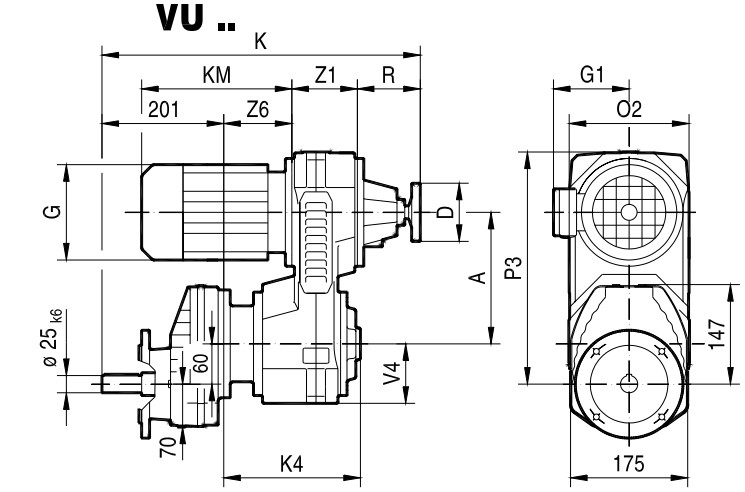


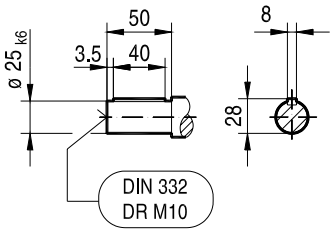
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
RX67	VU01 VZ01	DR63..	182	80	132	105	486	502	187	206	176	409	98	72	80	107	114
		DT71D	182	80	145	122	486	517	202	206	176	409	98	72	80	107	114
		DT80..	182	80	145	122	486	567	252	206	176	409	98	72	80	107	114
	VU11 VZ11	DT80..	232	100	145	122	531	596	252	232	183	462	117	88	98	115	143
		DT90..	232	100	197	154	531	617	273	232	183	462	117	88	98	115	143
	VU21 VZ21	DT90..	245	100	197	154	598	651	273	279	227	497	130	110	120	147	177
		DV100M	245	100	197	166	598	689	311	279	227	497	130	110	120	147	177
		DV100L	245	100	197	166	598	719	341	279	227	497	130	110	120	147	177

14 024 001

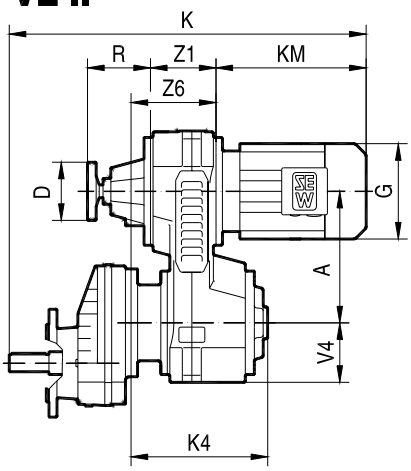
RXF67..

VU ..





VZ ..



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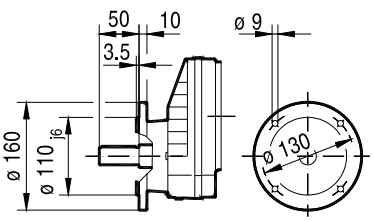
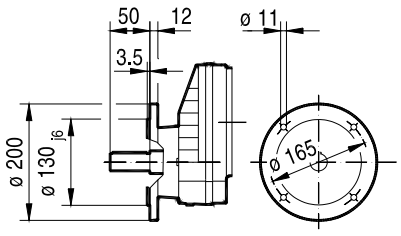
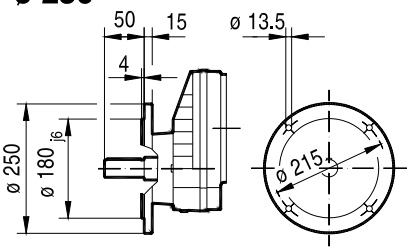
ø 160



ø 200



ø 250

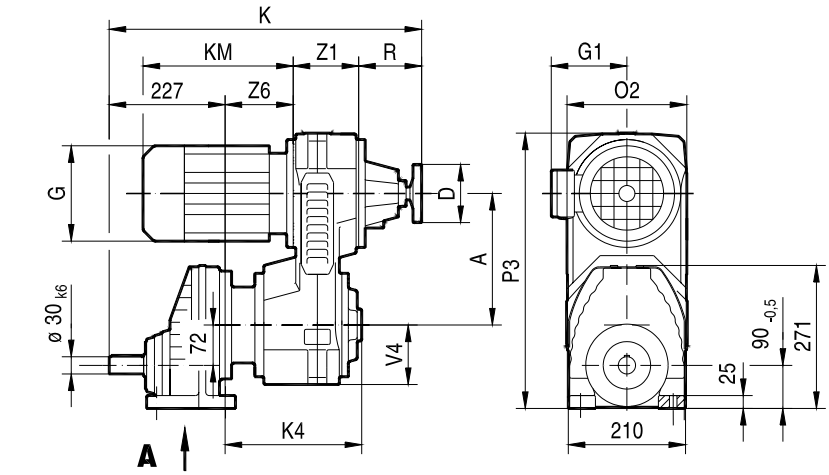


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
RXF67	VU01 VZ01	DR63..	182	80	132	105	486	502	187	206	176	329	98	72	80	107	114
		DT71D	182	80	145	122	486	517	202	206	176	329	98	72	80	107	114
		DT80..	182	80	145	122	486	567	252	206	176	329	98	72	80	107	114
	VU11 VZ11	DT80..	232	100	145	122	531	596	252	232	183	382	117	88	98	115	143
		DT90..	232	100	197	154	531	617	273	232	183	382	117	88	98	115	143
	VU21 VZ21	DT90..	245	100	197	154	598	651	273	279	227	417	130	110	120	147	177
		DV100M	245	100	197	166	598	689	311	279	227	417	130	110	120	147	177
		DV100L	245	100	197	166	598	719	341	279	227	417	130	110	120	147	177

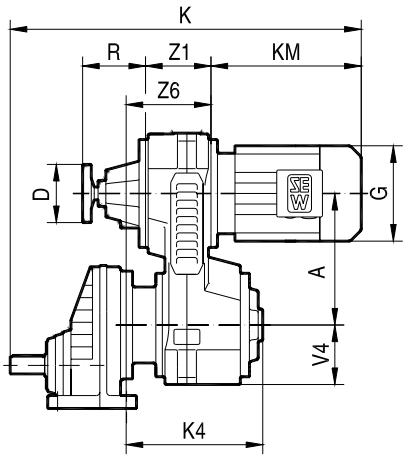
14 025 001

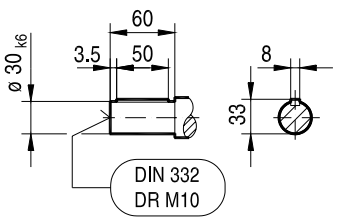
RX77..

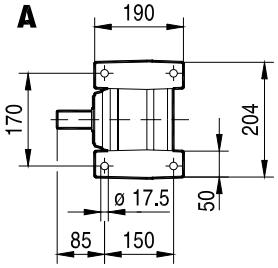
VU ..



VZ ..





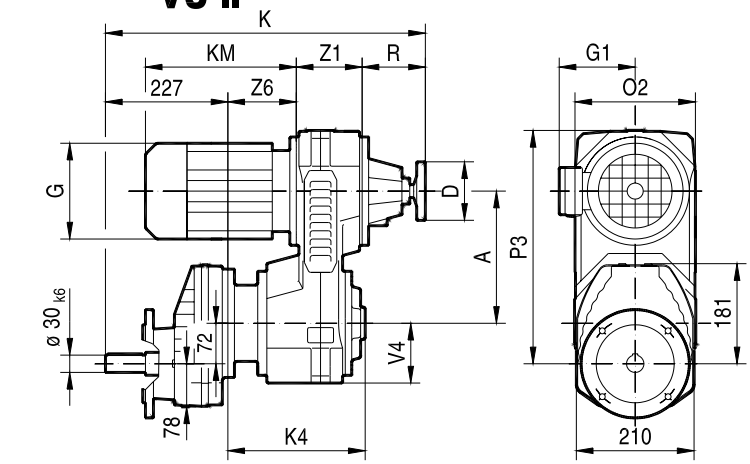


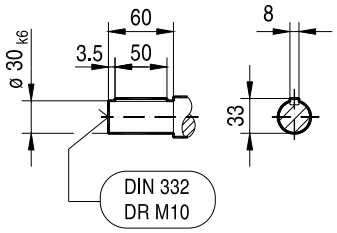
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
RX77	VU21 VZ21	DT90..	245	100	197	154	616	669	273	271	227	519	130	110	120	139	169
		DV100M	245	100	197	166	616	707	311	271	227	519	130	110	120	139	169
		DV100L	245	100	197	166	616	737	341	271	227	519	130	110	120	139	169
	VU31 VZ31	DV112M	305	125	221	179	692	778	349	322	283	607	150	138	152	163	202
		DV132S	305	125	221	179	692	823	394	322	283	607	150	138	152	163	202

14 026 001

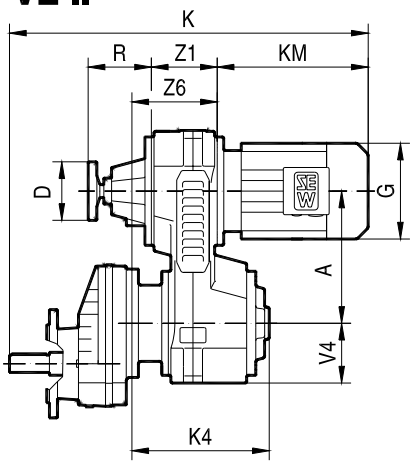
RXF77..

VU ..

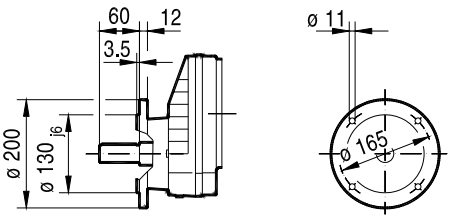




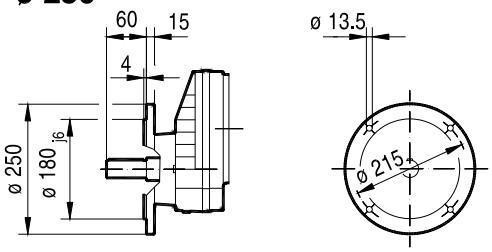
VZ ..



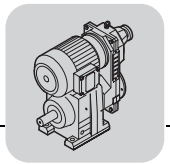
ø 200



ø 250



(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
RXF77	VU21 VZ21	DT90..	245	100	197	154	616	669	273	271	227	429	130	110	120	139	169
		DV100M	245	100	197	166	616	707	311	271	227	429	130	110	120	139	169
		DV100L	245	100	197	166	616	737	341	271	227	429	130	110	120	139	169
	VU31 VZ31	DV112M	305	125	221	179	692	778	349	322	283	517	150	138	152	163	202
		DV132S	305	125	221	179	692	823	394	322	283	517	150	138	152	163	202

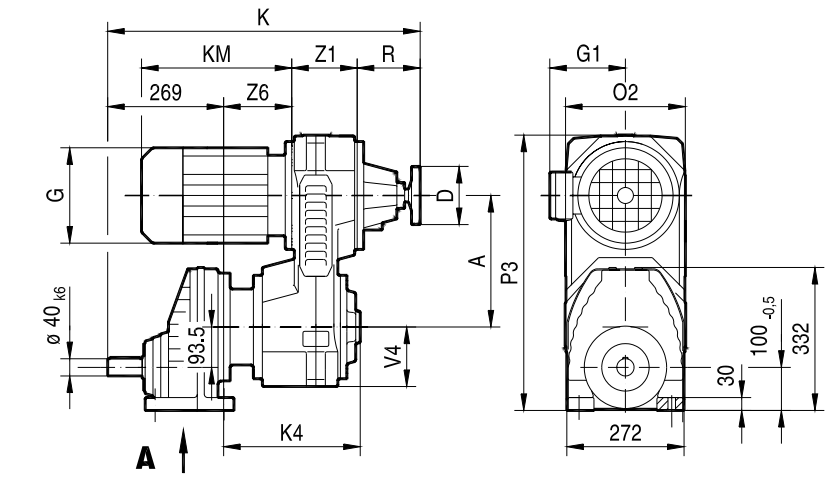


R..VU/VZ..DR/DT/DV.. [mm]

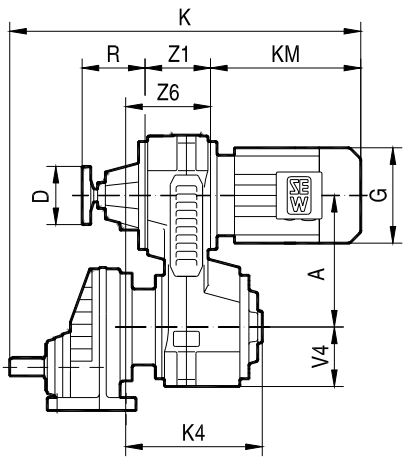
14 027 001

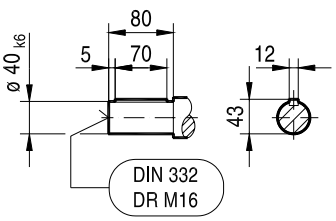
RX87..

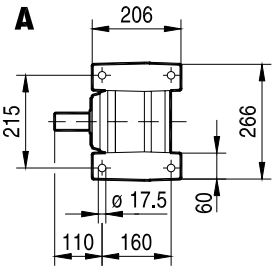
VU ..



VZ ..





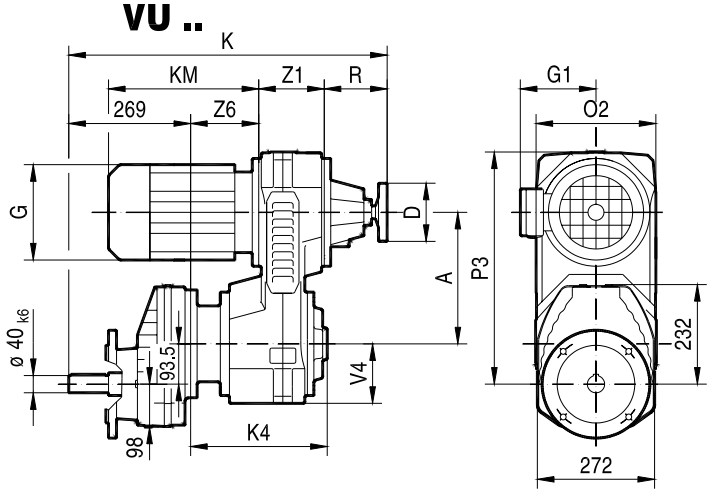


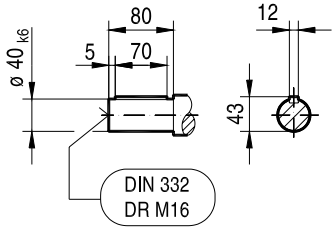
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
RX87	VU31 VZ31	DV112M	305	125	221	179	729	815	349	317	283	639	150	138	152	158	197
		DV132S	305	125	221	179	729	860	394	317	283	639	150	138	152	158	197
	VU41 VZ41	DV132M	380	200	275	230	842	905	402	392	348	747	189	170	180	204	234
		DV132ML	380	200	275	230	842	965	462	392	348	747	189	170	180	204	234
		DV160M	380	200	275	230	842	965	462	392	348	747	189	170	180	204	234

14 028 001

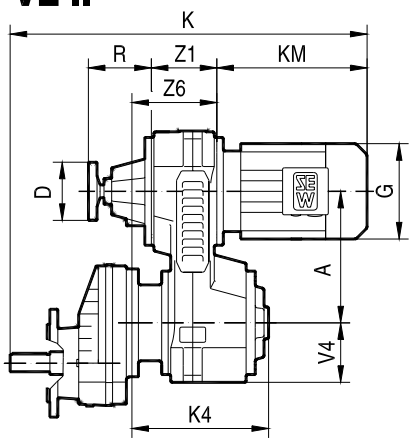
RXF87..

VU ..

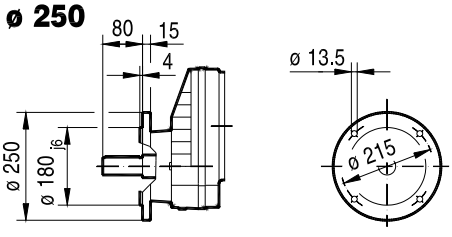




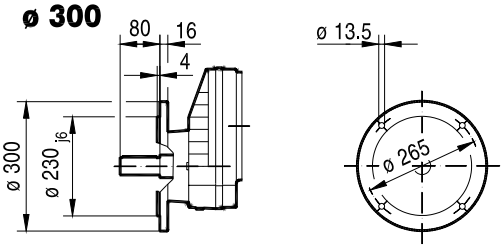
VZ ..



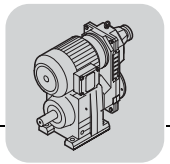
ø 250



ø 300



(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
RXF87	VU31 VZ31	DV112M	305	125	221	179	729	815	349	317	283	539	150	138	152	158	197
		DV132S	305	125	221	179	729	860	394	317	283	539	150	138	152	158	197
	VU41 VZ41	DV132M	380	200	275	230	842	905	402	392	348	647	189	170	180	204	234
		DV132ML	380	200	275	230	842	965	462	392	348	647	189	170	180	204	234
		DV160M	380	200	275	230	842	965	462	392	348	647	189	170	180	204	234

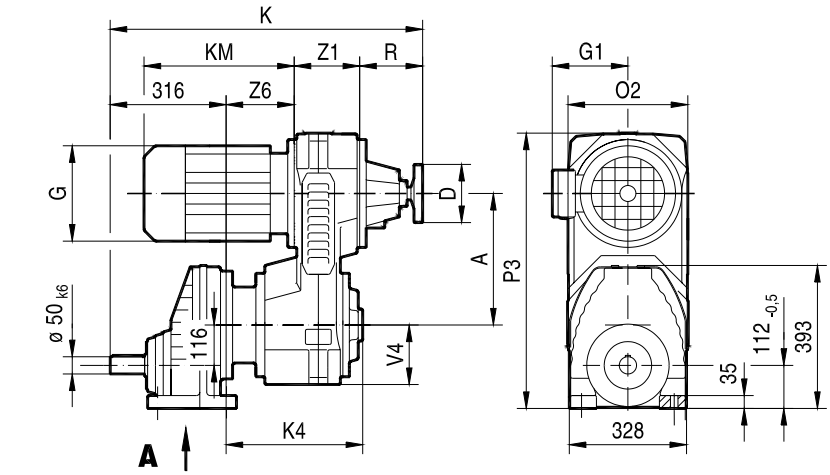


R..VU/VZ..DR/DT/DV.. [mm]

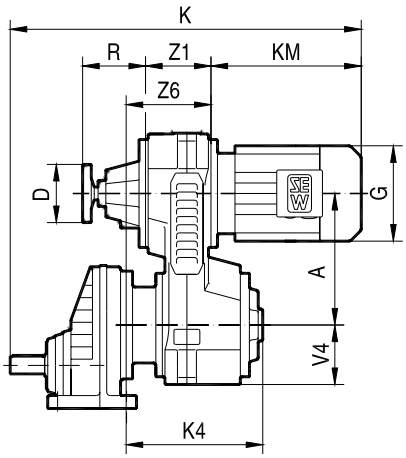
14 029 001

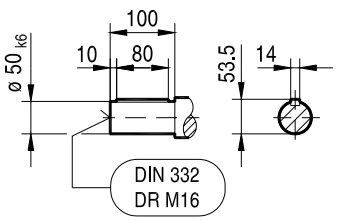
RX97..

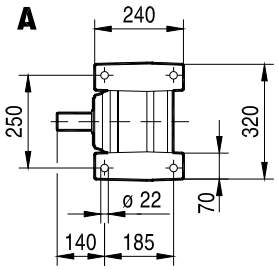
VU ..



VZ ..





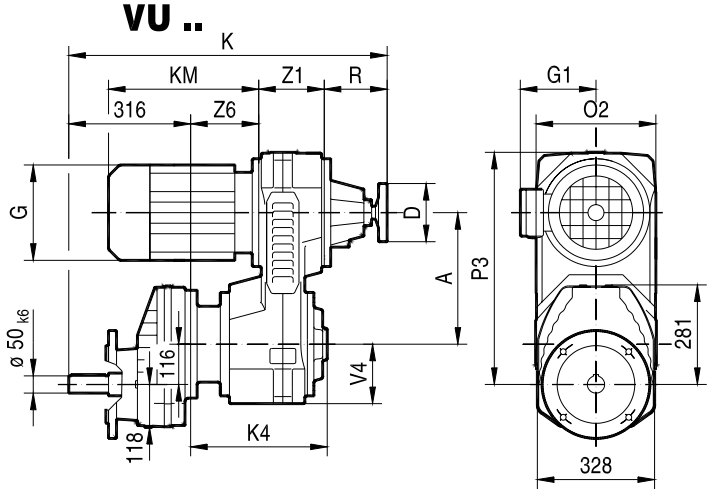


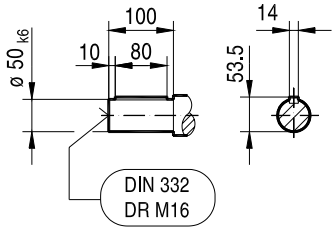
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
RX97	VU31 VZ31	DV112M	305	125	221	179	771	857	349	312	283	673	150	138	152	153	192
		DV132S	305	125	221	179	771	902	394	312	283	673	150	138	152	153	192
	VU41 VZ41	DV132M	380	200	275	230	884	947	402	387	348	781	189	170	180	199	229
		DV132ML	380	200	275	230	884	1007	462	387	348	781	189	170	180	199	229
		DV160M	380	200	275	230	884	1007	462	387	348	781	189	170	180	199	229
	VU51	DV160L	460	200	331	259	968	-	503	444	398	886	220	195	200	232	-
		DV180..	460	200	331	253	968	-	575	444	398	886	220	195	200	232	-

14 030 001

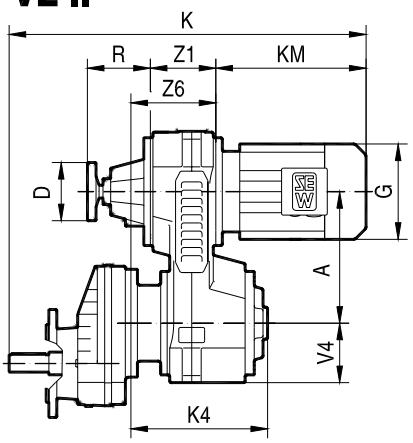
RXF97..

VU ..





VZ ..



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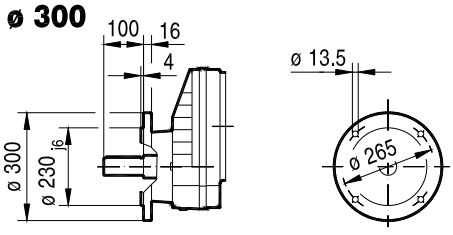
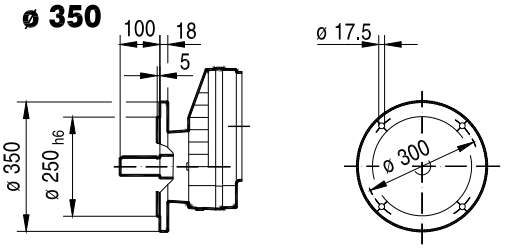
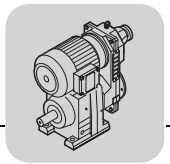
ø 300



ø 350



(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
RXF97	VU31 VZ31	DV112M	305	125	221	179	771	857	349	312	283	561	150	138	152	153	192
		DV132S	305	125	221	179	771	902	394	312	283	561	150	138	152	153	192
	VU41 VZ41	DV132M	380	200	275	230	884	947	402	387	348	669	189	170	180	199	229
		DV132ML	380	200	275	230	884	1007	462	387	348	669	189	170	180	199	229
		DV160M	380	200	275	230	884	1007	462	387	348	669	189	170	180	199	229
	VU51	DV160L	460	200	331	259	968	-	503	444	398	774	220	195	200	232	-
		DV180..	460	200	331	253	968	-	575	444	398	774	220	195	200	232	-

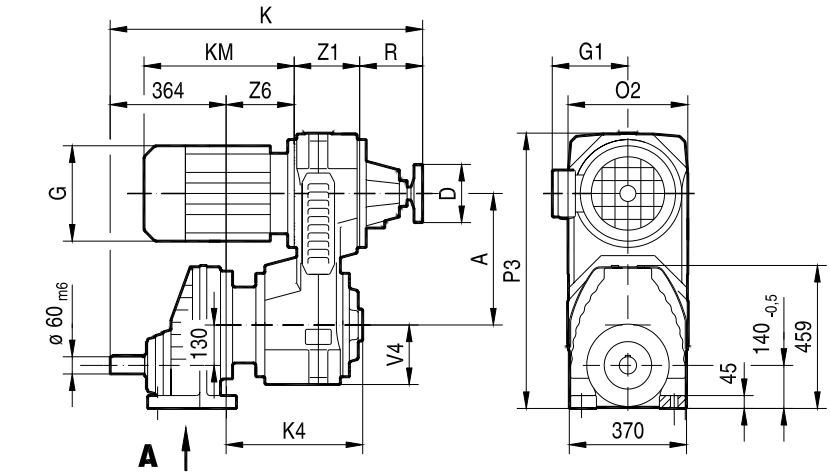


R..VU/VZ..DR/DT/DV.. [mm]

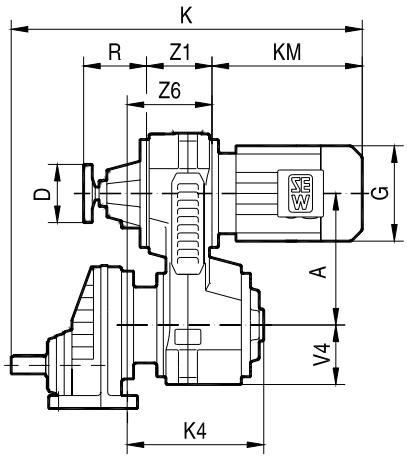
14 031 001

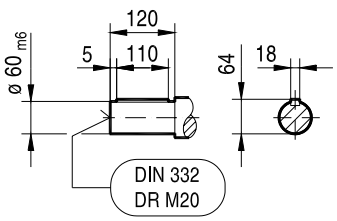
RX107..

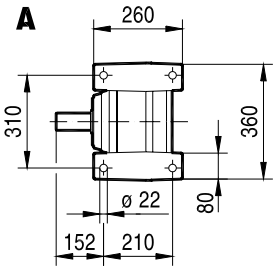
VU ..



VZ ..





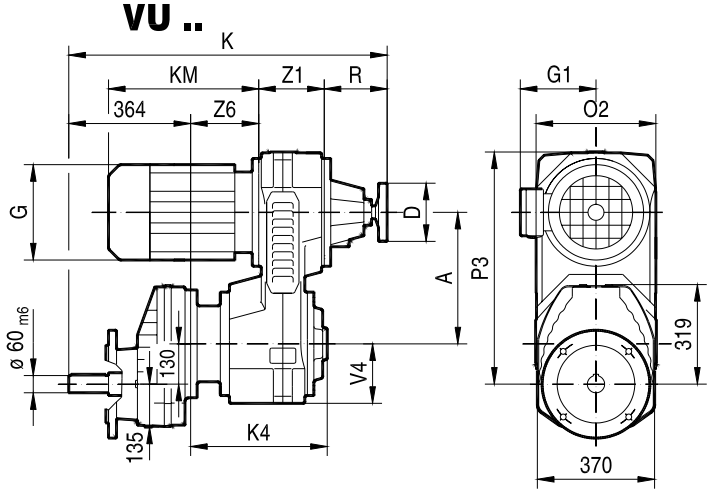


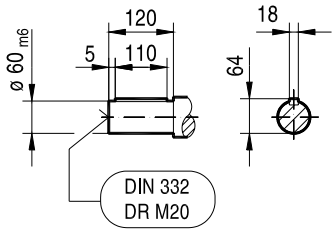
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
RX107	VU41 VZ41	DV132M	380	200	275	230	926	989	402	381	348	823	189	170	180	193	223
		DV132ML	380	200	275	230	926	1049	462	381	348	823	189	170	180	193	223
		DV160M	380	200	275	230	926	1049	462	381	348	823	189	170	180	193	223
	VU51	DV160L	460	200	331	259	1010	-	503	438	398	928	220	195	200	226	-
		DV180..	460	200	331	253	1010	-	575	438	398	928	220	195	200	226	-

14 032 001

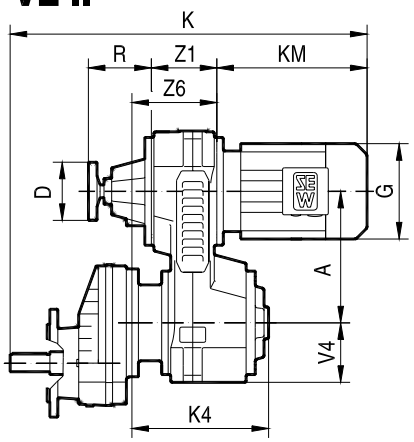
RXF107..

VU ..

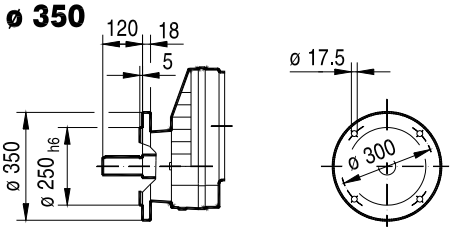




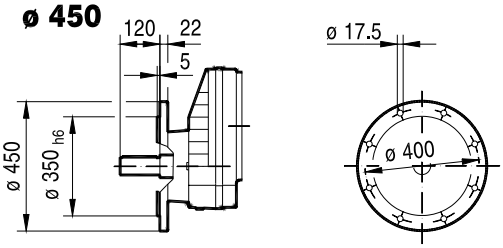
VZ ..



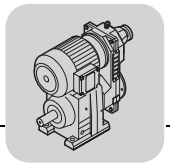
ø 350



ø 450



(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
RXF107	VU41 VZ41	DV132M	380	200	275	230	926	989	402	381	348	683	189	170	180	193	223
		DV132ML	380	200	275	230	926	1049	462	381	348	683	189	170	180	193	223
		DV160M	380	200	275	230	926	1049	462	381	348	683	189	170	180	193	223
	VU51	DV160L	460	200	331	259	1010	-	503	438	398	788	220	195	200	226	-
		DV180..	460	200	331	253	1010	-	575	438	398	788	220	195	200	226	-

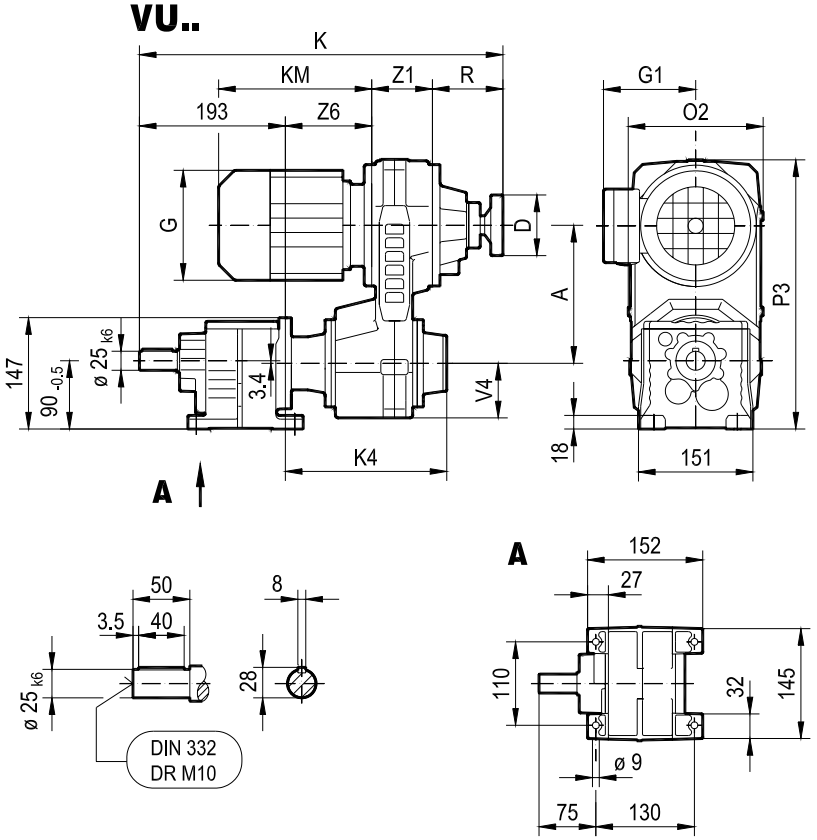


R..VU/VZ..DR/DT/DV.. [mm]

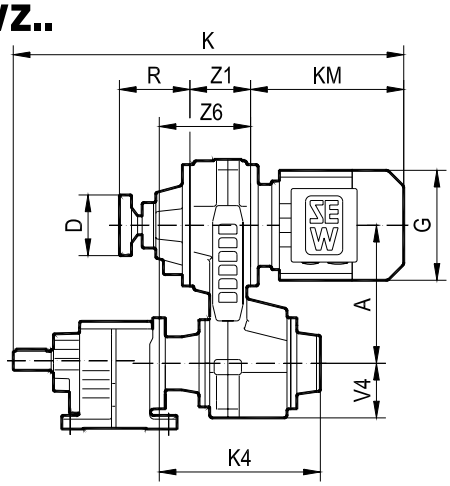
14 122 001

R27..

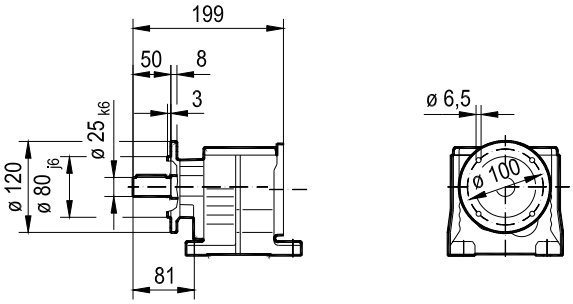
VU..



VZ..



R27F..

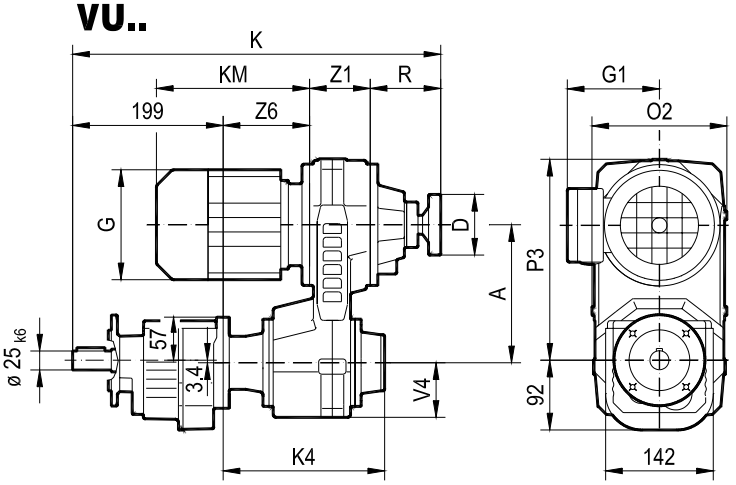


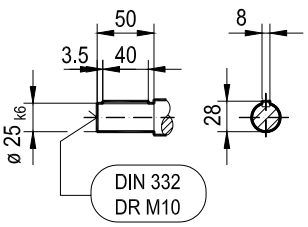
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
R27 R27F	VU01 VZ01	DR63..	182	80	132	105	485	501	187	213	176	356	98	72	80	114	121
		DT71D	182	80	145	122	485	516	202	213	176	356	98	72	80	114	121
		DT80..	182	80	145	122	485	566	252	213	176	356	98	72	80	114	121

14 123 001

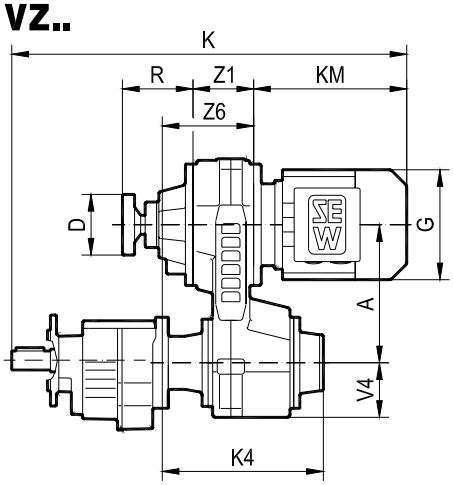
RF27..

VU..





VZ..



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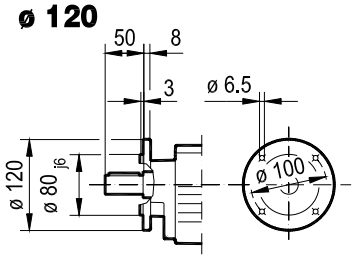
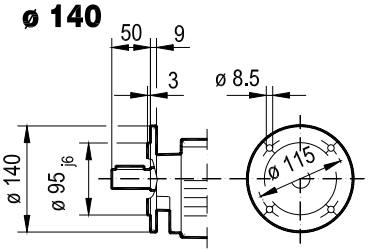
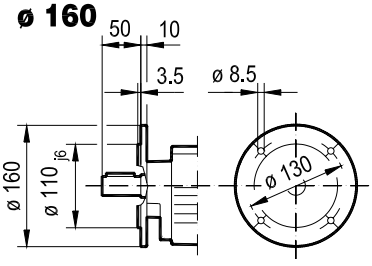
ø 120



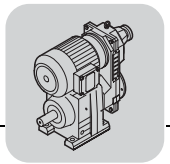
ø 140



ø 160



(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
RF27	VU01 VZ01	DR63..	182	80	132	105	491	507	187	213	176	266	98	72	80	114	121
		DT71D	182	80	145	122	491	522	202	213	176	266	98	72	80	114	121
		DT80..	182	80	145	122	491	572	252	213	176	266	98	72	80	114	121

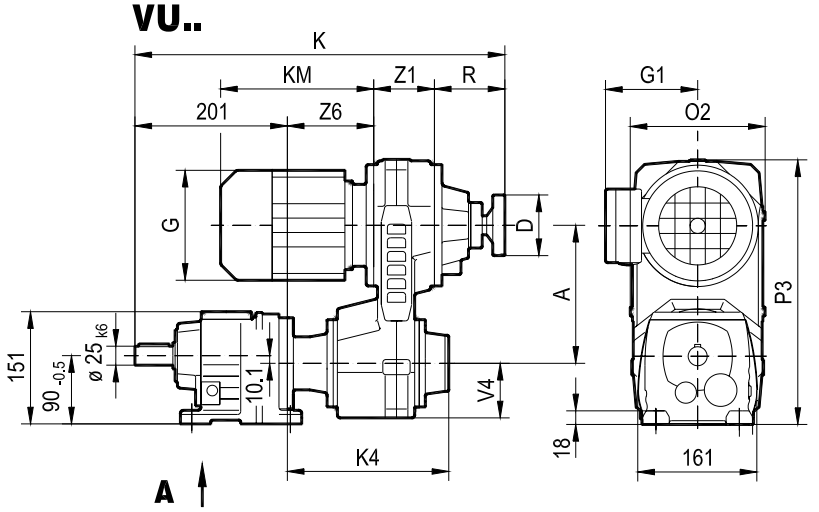


R..VU/VZ..DR/DT/DV.. [mm]

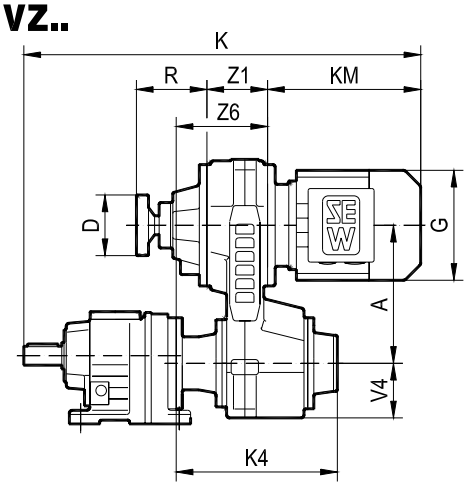
14 033 001

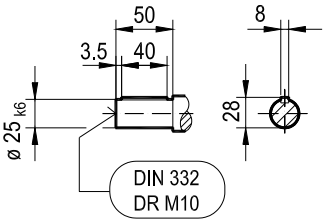
R37..

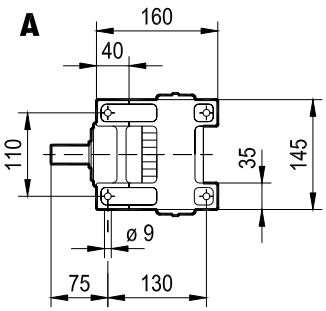
VU..

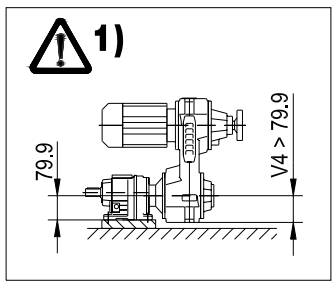


VZ..

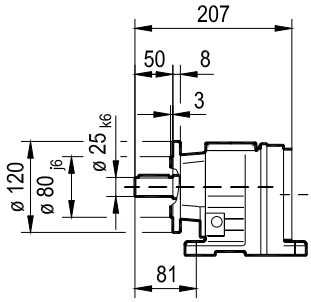


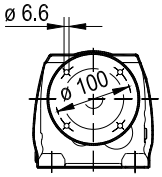






R37F..



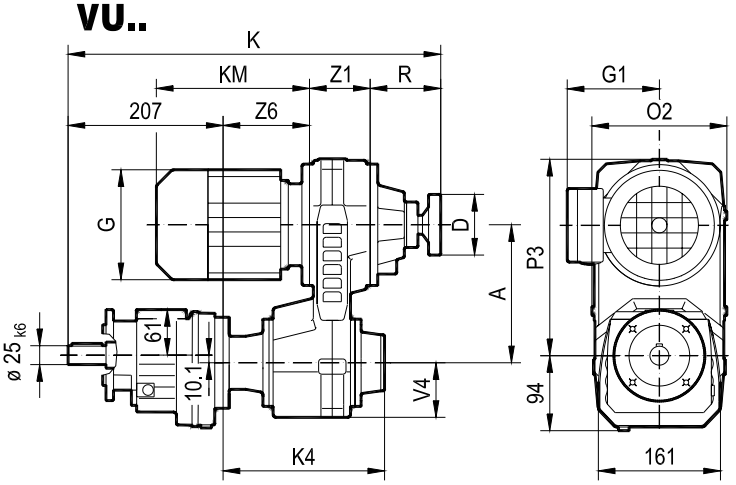


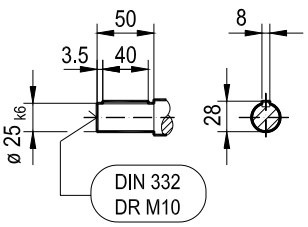
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
R37 R37F	VU01 VZ01	DR63..	182	80	132	105	493	509	187	213	176	349	98	72	80	114	121		
		DT71D	182	80	145	122	493	524	202	213	176	349	98	72	80	114	121		
		DT80..	182	80	145	122	493	574	252	213	176	349	98	72	80	114	121		
	VU11 VZ11	DT80..	232	100	145	122	538	603	252	238	183	402	117	88	98	122	150	1)	1)
		DT90..	232	100	197	154	538	624	273	238	183	402	117	88	98	122	150	1)	1)

14 034 001

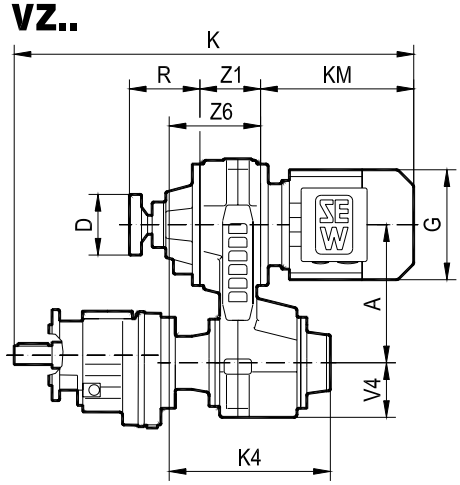
RF37..

VU..

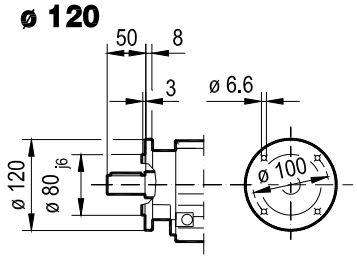




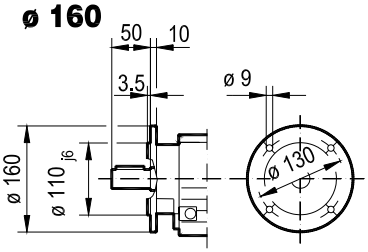
VZ..



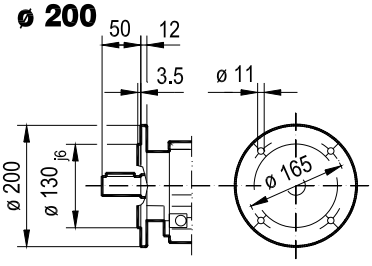
ø 120



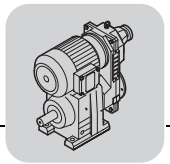
ø 160



ø 200



(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
RF37	VU01 VZ01	DR63..	182	80	132	105	499	515	187	213	176	259	98	72	80	114	121
		DT71D	182	80	145	122	499	530	202	213	176	259	98	72	80	114	121
		DT80..	182	80	145	122	499	580	252	213	176	259	98	72	80	114	121
	VU11 VZ11	DT80..	232	100	145	122	544	609	252	238	183	312	117	88	98	122	150
		DT90..	232	100	197	154	544	630	273	238	183	312	117	88	98	122	150

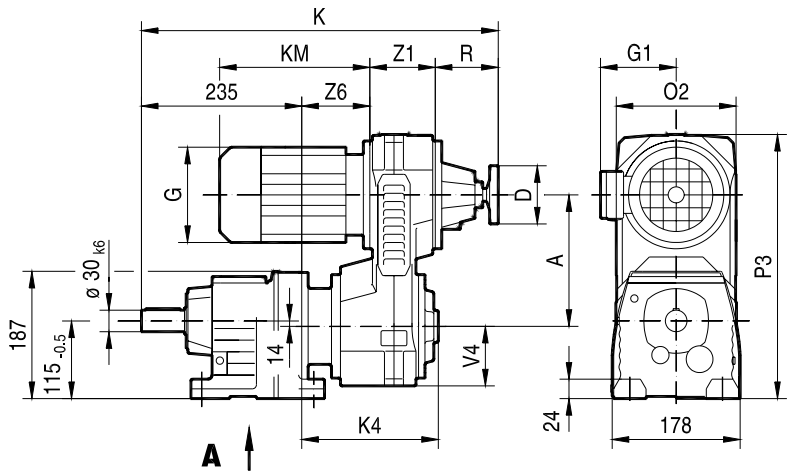


R..VU/VZ..DR/DT/DV.. [mm]

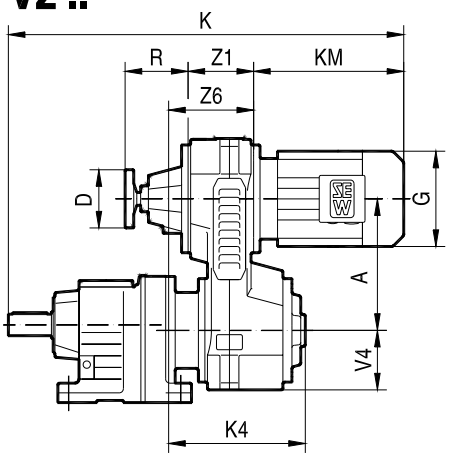
14 035 001

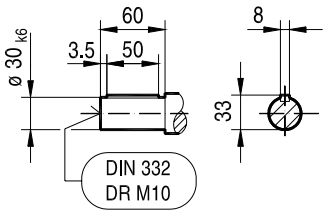
R47..

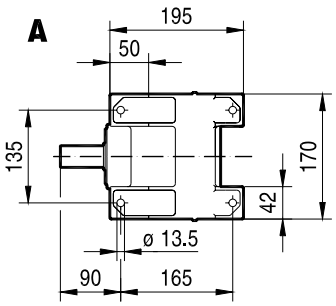
VU..

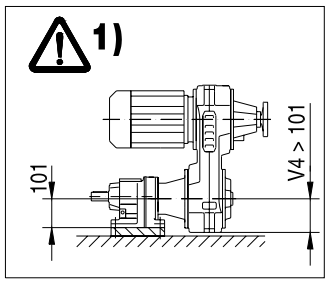


VZ ..

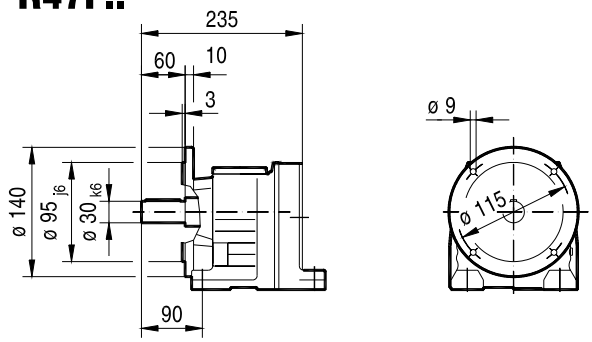








R47F..

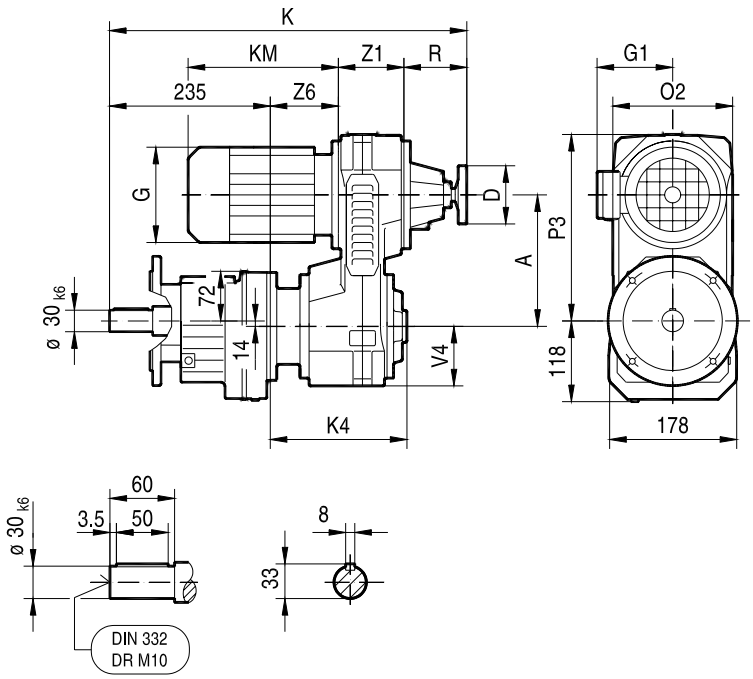


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
R47 R47F	VU01 VZ01	DR63..	182	80	132	105	520	536	187	206	176	370	98	72	80	107	114		
		DT71D	182	80	145	122	520	551	202	206	176	370	98	72	80	107	114		
		DT80..	182	80	145	122	520	601	252	206	176	370	98	72	80	107	114		
	VU11 VZ11	DT80..	232	100	145	122	565	630	252	232	183	423	117	88	98	115	143		
		DT90..	232	100	197	154	565	651	273	232	183	423	117	88	98	115	143		
	VU21 VZ21	DT90..	245	100	197	154	632	685	273	279	227	458	130	110	120	147	177	1)	1)
		DV100M	245	100	197	166	632	723	311	279	227	458	130	110	120	147	177	1)	1)
		DV100L	245	100	197	166	632	753	341	279	227	458	130	110	120	147	177	1)	1)

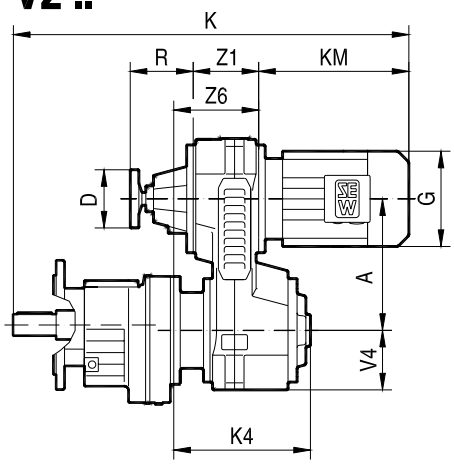
14 036 001

RF47..

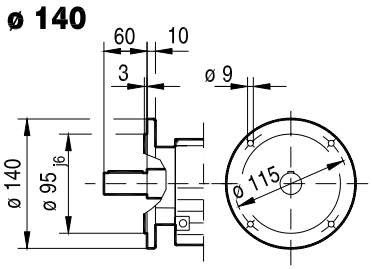
VU..



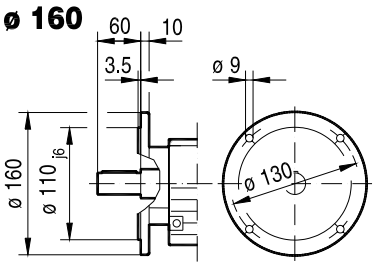
VZ ..



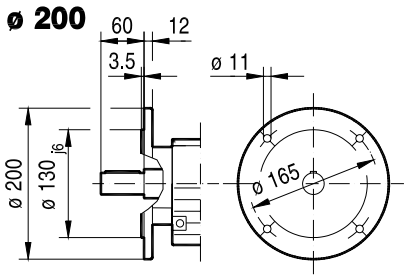
ø 140



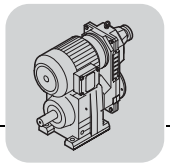
ø 160



ø 200



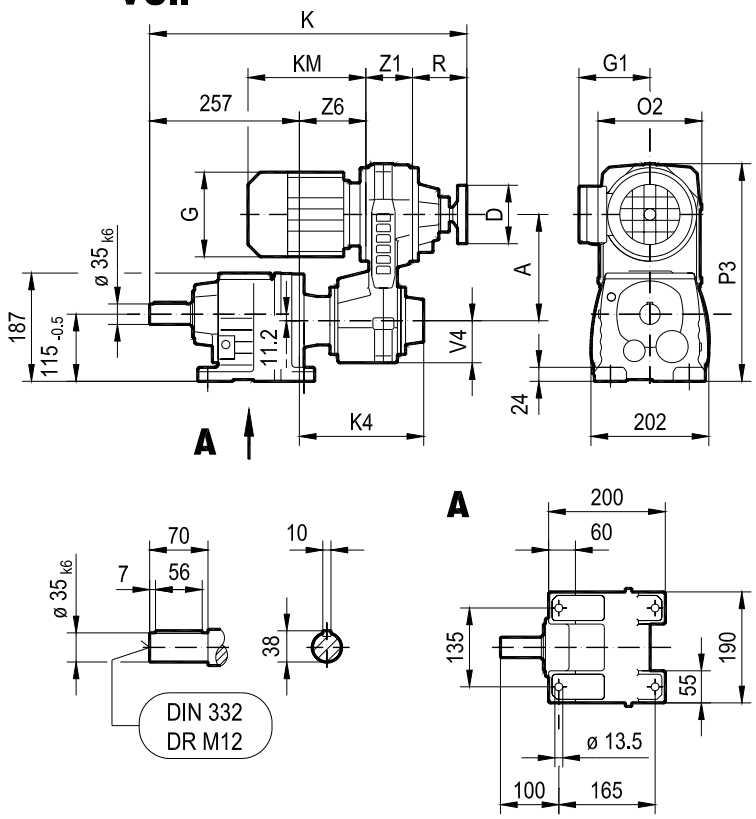
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
RF47	VU01 VZ01	DR63..	182	80	132	105	520	536	187	206	176	255	98	72	80	107	114
		DT71D	182	80	145	122	520	551	202	206	176	255	98	72	80	107	114
		DT80..	182	80	145	122	520	601	252	206	176	255	98	72	80	107	114
	VU11 VZ11	DT80..	232	100	145	122	565	630	252	232	183	308	117	88	98	115	143
		DT90..	232	100	197	154	565	651	273	232	183	308	117	88	98	115	143
	VU21 VZ21	DT90..	245	100	197	154	632	685	273	279	227	343	130	110	120	147	177
		DV100M	245	100	197	166	632	723	311	279	227	343	130	110	120	147	177
		DV100L	245	100	197	166	632	753	341	279	227	343	130	110	120	147	177



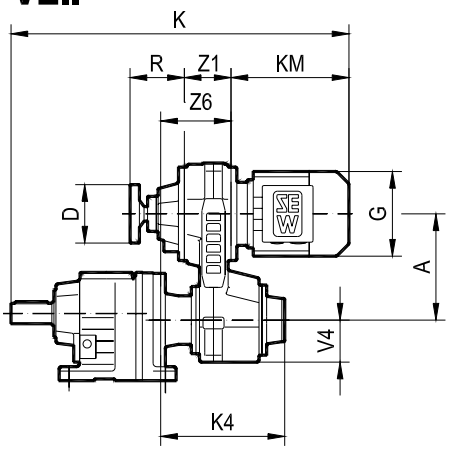
R..VU/VZ..DR/DT/DV.. [mm]

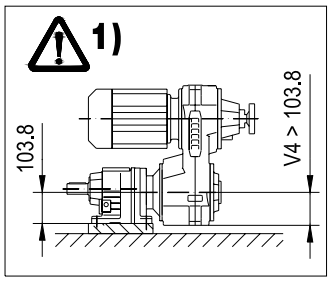
14 037 001

R57.. VU..

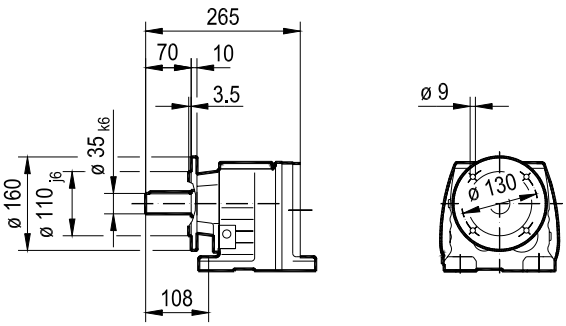


VZ..





R57F..

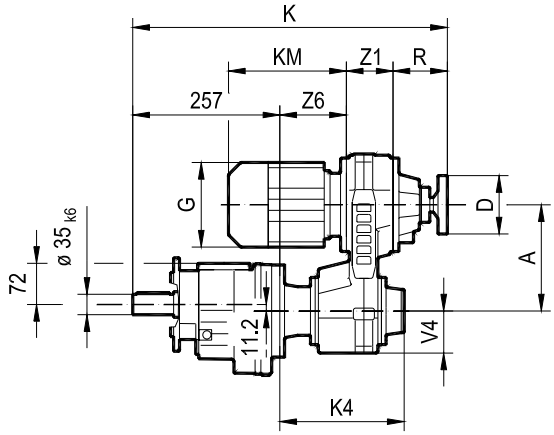


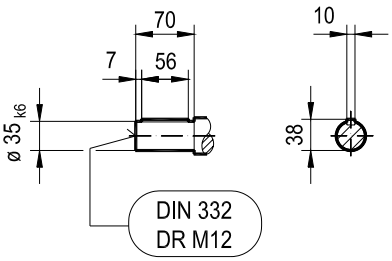
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
R57 R57F	VU01 VZ01	DR63..	182	80	132	105	542	558	187	206	176	373	98	72	80	107	114		
		DT71D	182	80	145	122	542	573	202	206	176	373	98	72	80	107	114		
		DT80..	182	80	145	122	542	623	252	206	176	373	98	72	80	107	114		
	VU11 VZ11	DT80..	232	100	145	122	587	652	252	232	183	426	117	88	98	115	143		
		DT90..	232	100	197	154	587	673	273	232	183	426	117	88	98	115	143		
	VU21 VZ21	DT90..	245	100	197	154	654	707	273	279	227	461	130	110	120	147	177	1)	1)
		DV100M	245	100	197	166	654	745	311	279	227	461	130	110	120	147	177	1)	1)
		DV100L	245	100	197	166	654	775	341	279	227	461	130	110	120	147	177	1)	1)
	VU31 VZ31	DV112M	305	125	221	179	731	817	349	331	283	549	150	138	152	172	211	1)	1)
		DV132S	305	125	221	179	731	862	394	331	283	549	150	138	152	172	211	1)	1)

14 038 001

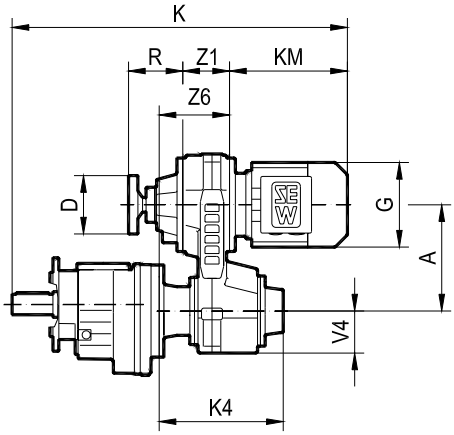
RF57..

VU..

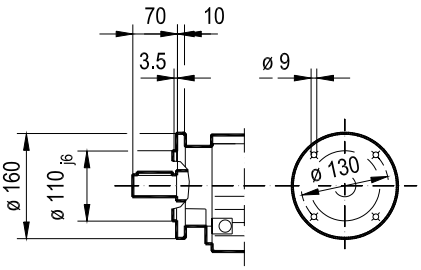




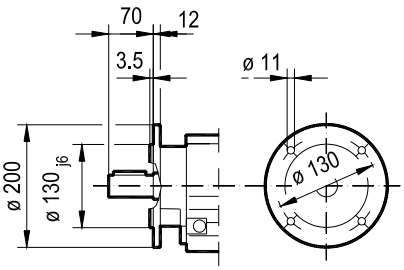
VZ..



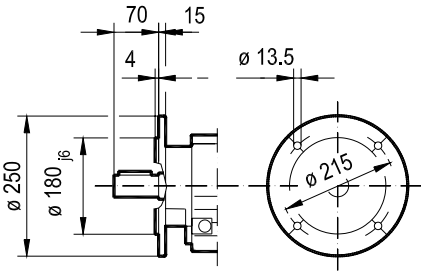
ø 160



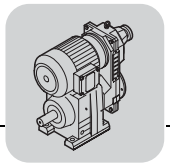
ø 200



ø 250



(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
RF57	VU01 VZ01	DR63..	182	80	132	105	542	558	187	206	176	257	98	72	80	107	114
		DT71D	182	80	145	122	542	573	202	206	176	257	98	72	80	107	114
		DT80..	182	80	145	122	542	623	252	206	176	257	98	72	80	107	114
	VU11 VZ11	DT80..	232	100	145	122	587	652	252	232	183	310	117	88	98	115	143
		DT90..	232	100	197	154	587	673	273	232	183	310	117	88	98	115	143
	VU21 VZ21	DT90..	245	100	197	154	654	707	273	279	227	345	130	110	120	147	177
		DV100M	245	100	197	166	654	745	311	279	227	345	130	110	120	147	177
		DV100L	245	100	197	166	654	775	341	279	227	345	130	110	120	147	177
	VU31 VZ31	DV112M	305	125	221	179	731	817	349	331	283	433	150	138	152	172	211
		DV132S	305	125	221	179	731	862	394	331	283	433	150	138	152	172	211

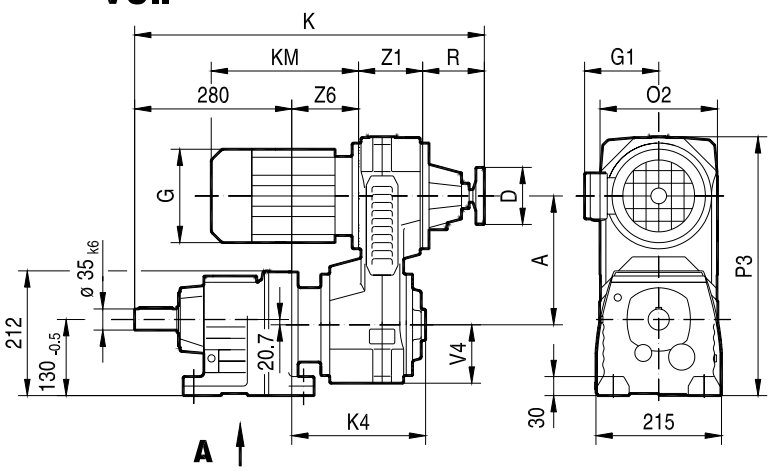


R..VU/VZ..DR/DT/DV.. [mm]

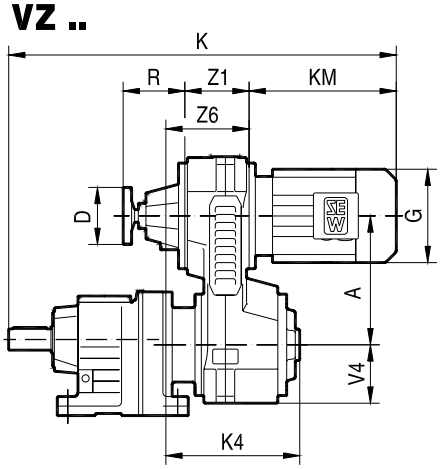
14 039 001

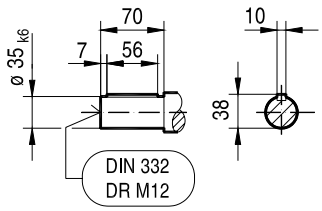
R67..

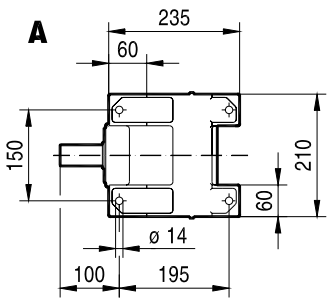
VU..

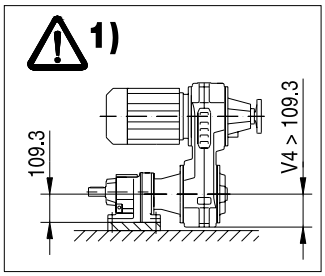


VZ ..

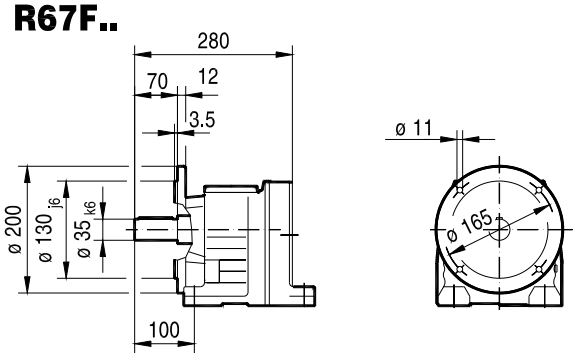








R67F..

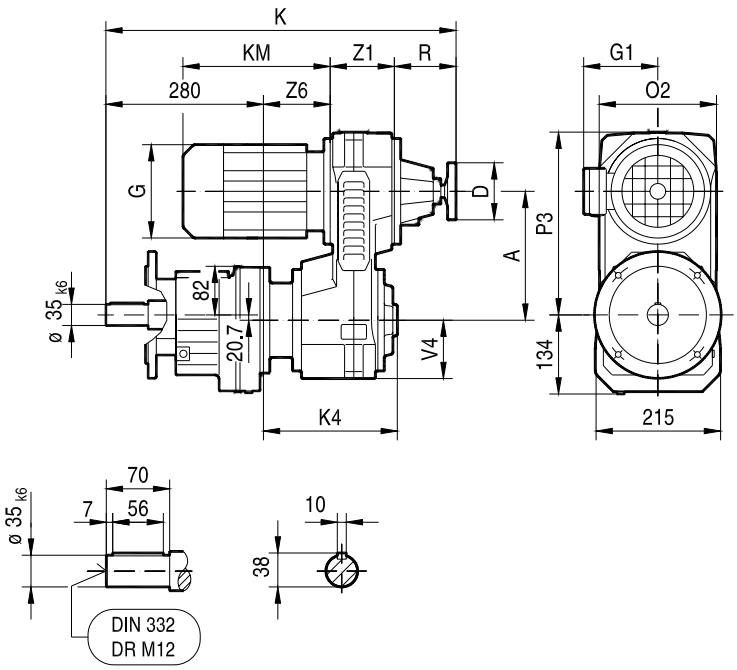


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
R67 R67F	VU01 VZ01	DR63..	182	80	132	105	565	581	187	206	176	379	98	72	80	107	114		
		DT71D	182	80	145	122	565	596	202	206	176	379	98	72	80	107	114		
		DT80..	182	80	145	122	565	646	252	206	176	379	98	72	80	107	114		
	VU11 VZ11	DT80..	232	100	145	122	610	675	252	232	183	432	117	88	98	115	143		
		DT90..	232	100	197	154	610	696	273	232	183	432	117	88	98	115	143		
	VU21 VZ21	DT90..	245	100	197	154	677	730	273	279	227	467	130	110	120	147	177	1)	1)
		DV100M	245	100	197	166	677	768	311	279	227	467	130	110	120	147	177	1)	1)
		DV100L	245	100	197	166	677	798	341	279	227	467	130	110	120	147	177	1)	1)
	VU31 VZ31	DV112M	305	125	221	179	754	840	349	331	283	555	150	138	152	172	211	1)	1)
		DV132S	305	125	221	179	754	885	394	331	283	555	150	138	152	172	211	1)	1)

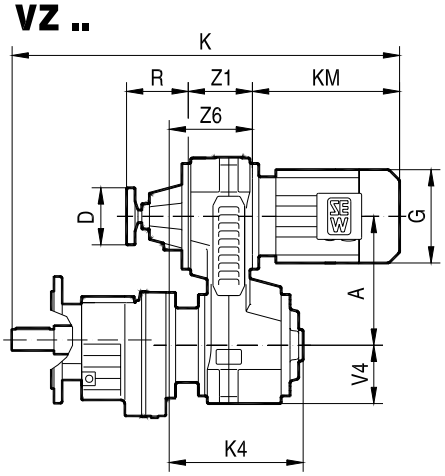
14 040 001

RF67..

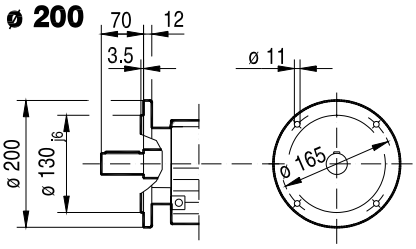
VU..



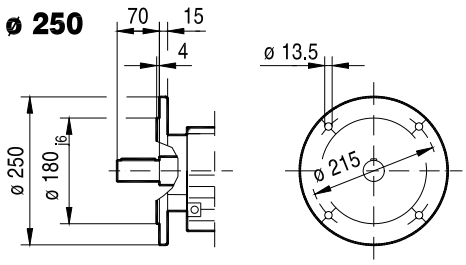
VZ ..



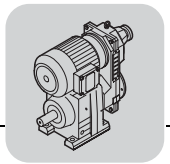
ø 200



ø 250



(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
RF67	VU01 VZ01	DR63..	182	80	132	105	565	581	187	206	176	249	98	72	80	107	114
		DT71D	182	80	145	122	565	596	202	206	176	249	98	72	80	107	114
		DT80..	182	80	145	122	565	646	252	206	176	249	98	72	80	107	114
	VU11 VZ11	DT80..	232	100	145	122	610	675	252	232	183	302	117	88	98	115	143
		DT90..	232	100	197	154	610	696	273	232	183	302	117	88	98	115	143
	VU21 VZ21	DT90..	245	100	197	154	677	730	273	279	227	337	130	110	120	147	177
		DV100M	245	100	197	166	677	768	311	279	227	337	130	110	120	147	177
		DV100L	245	100	197	166	677	798	341	279	227	337	130	110	120	147	177
	VU31 VZ31	DV112M	305	125	221	179	754	840	349	331	283	425	150	138	152	172	211
		DV132S	305	125	221	179	754	885	394	331	283	425	150	138	152	172	211

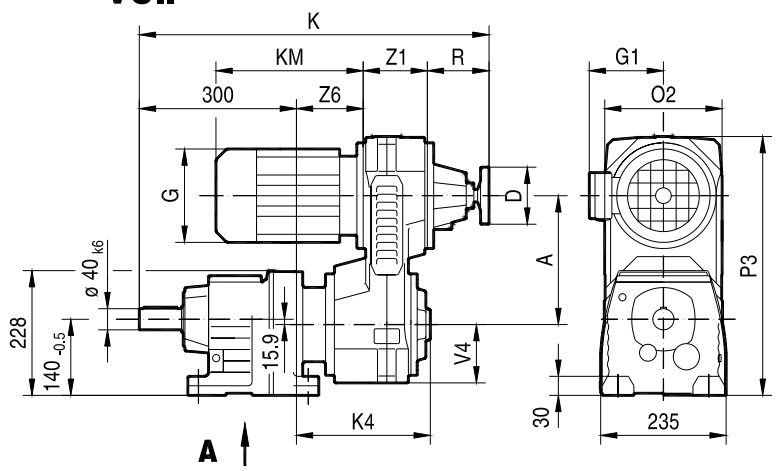


R..VU/VZ..DR/DT/DV.. [mm]

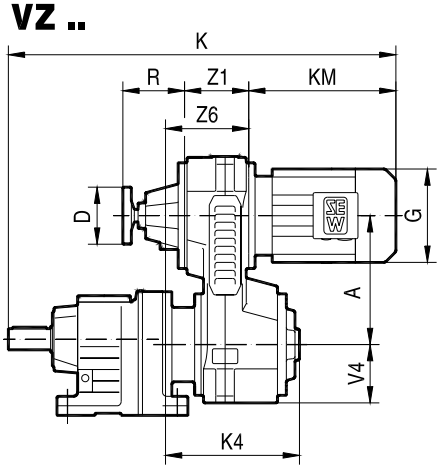
14 041 001

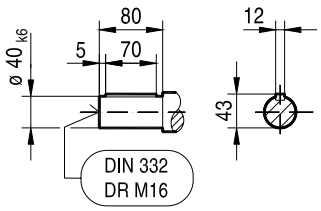
R77..

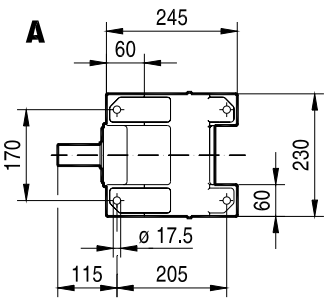
VU..

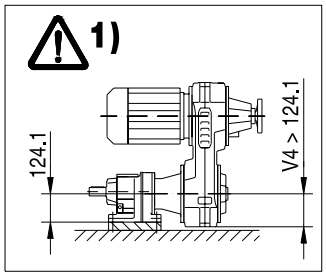


VZ ..

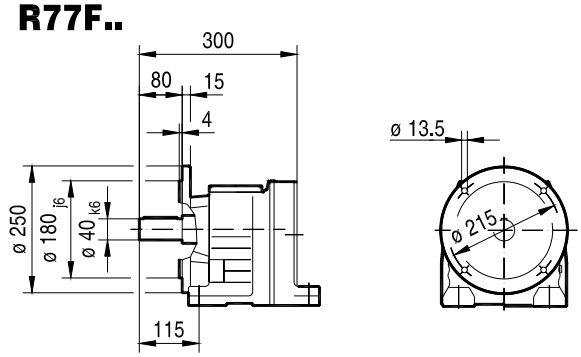








R77F..

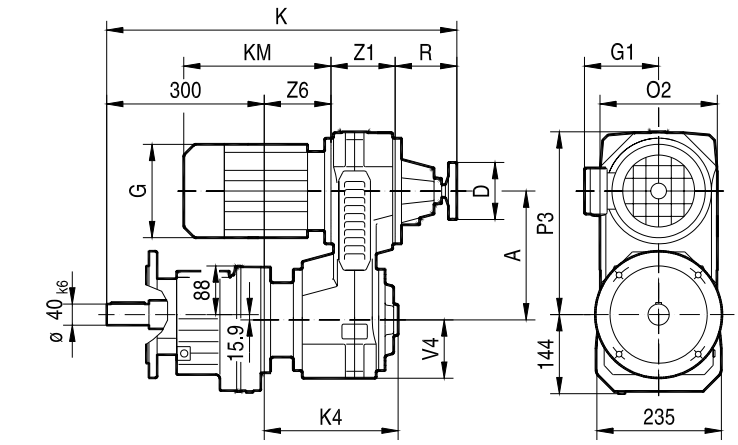


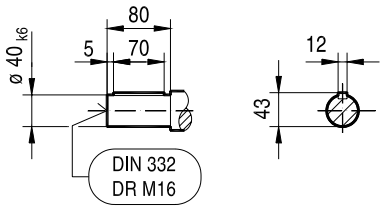
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
R77 R77F	VU11 VZ11	DT80..	232	100	145	122	624	689	252	226	183	447	117	88	98	109	137		
		DT90..	232	100	197	154	624	710	273	226	183	447	117	88	98	109	137		
	VU21 VZ21	DT90..	245	100	197	154	689	742	273	271	227	482	130	110	120	139	169		
		DV100M	245	100	197	166	689	780	311	271	227	482	130	110	120	139	169		
		DV100L	245	100	197	166	689	810	341	271	227	482	130	110	120	139	169		
	VU31 VZ31	DV112M	305	125	221	179	765	851	349	322	283	570	150	138	152	163	202	1)	1)
		DV132S	305	125	221	179	765	896	394	322	283	570	150	138	152	163	202	1)	1)
	VU41 VZ41	DV132M	380	200	275	230	878	941	402	397	348	678	189	170	180	209	239	1)	1)
		DV132ML	380	200	275	230	878	1001	462	397	348	678	189	170	180	209	239	1)	1)
		DV160M	380	200	275	230	878	1001	462	397	348	678	189	170	180	209	239	1)	1)

14 042 001

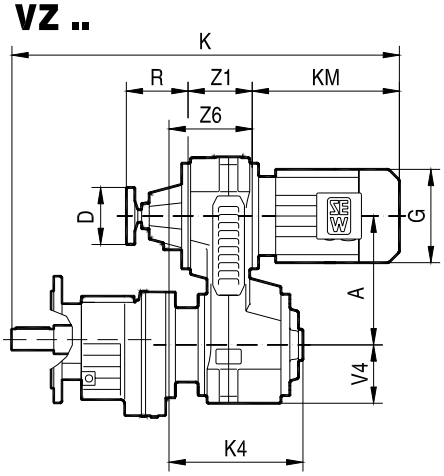
RF77..

VU..

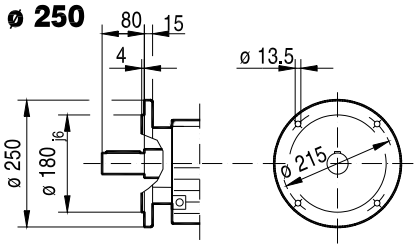




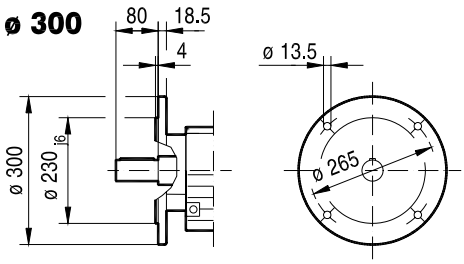
VZ ..



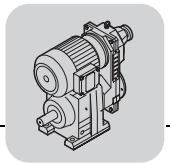
ø 250



ø 300



(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
RF77	VU11 VZ11	DT80..	232	100	145	122	624	689	252	226	183	306	117	88	98	109	137
		DT90..	232	100	197	154	624	710	273	226	183	306	117	88	98	109	137
	VU21 VZ21	DT90..	245	100	197	154	689	742	273	271	227	341	130	110	120	139	169
		DV100M	245	100	197	166	689	780	311	271	227	341	130	110	120	139	169
		DV100L	245	100	197	166	689	810	341	271	227	341	130	110	120	139	169
	VU31 VZ31	DV112M	305	125	221	179	765	851	349	322	283	429	150	138	152	163	202
		DV132S	305	125	221	179	765	896	394	322	283	429	150	138	152	163	202
	VU41 VZ41	DV132M	380	200	275	230	878	941	402	397	348	537	189	170	180	209	239
		DV132ML	380	200	275	230	878	1001	462	397	348	537	189	170	180	209	239
		DV160M	380	200	275	230	878	1001	462	397	348	537	189	170	180	209	239

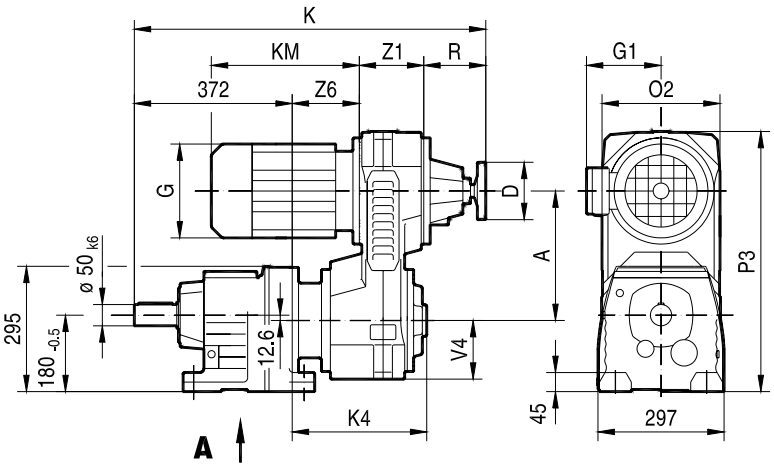


R..VU/VZ..DR/DT/DV.. [mm]

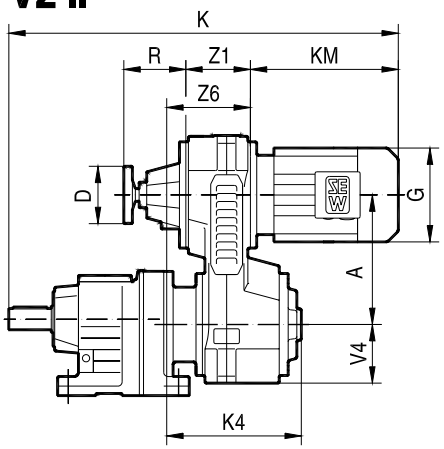
14 043 001

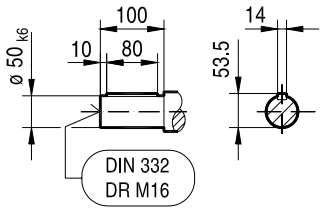
R87..

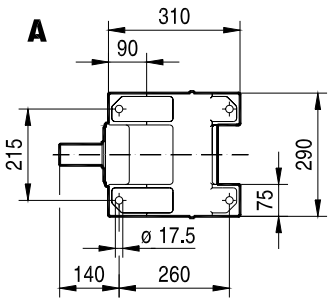
VU..

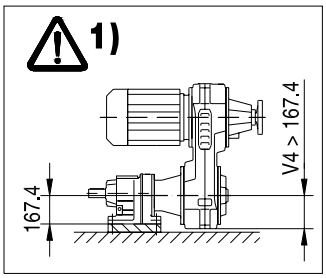


VZ ..

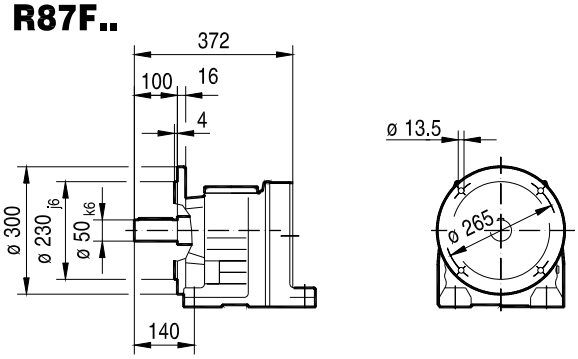








R87F..

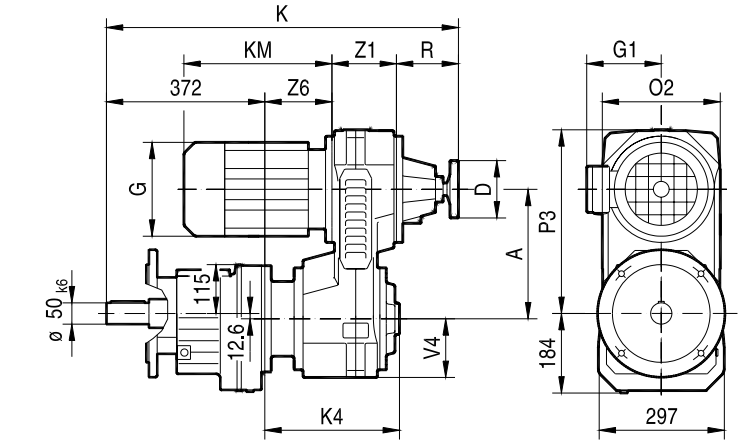


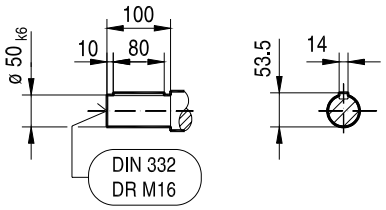
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
R87 R87F	VU21 VZ21	DT90..	245	100	197	154	757	810	273	267	227	525	130	110	120	135	165		
		DV100M	245	100	197	166	757	848	311	267	227	525	130	110	120	135	165		
		DV100L	245	100	197	166	757	878	341	267	227	525	130	110	120	135	165		
	VU31 VZ31	DV112M	305	125	221	179	832	918	349	317	283	613	150	138	152	158	197		
		DV132S	305	125	221	179	832	963	394	317	283	613	150	138	152	158	197		
	VU41 VZ41	DV132M	380	200	275	230	945	1008	402	392	348	721	189	170	180	204	234	1)	1)
		DV132ML	380	200	275	230	945	1068	462	392	348	721	189	170	180	204	234	1)	1)
		DV160M	380	200	275	230	945	1068	462	392	348	721	189	170	180	204	234	1)	1)
	VU51	DV160L	460	200	331	259	1029	-	503	449	398	826	220	195	200	237	-	1)	
		DV180..	460	200	331	253	1029	-	575	449	398	826	220	195	200	237	-	1)	

14 044 001

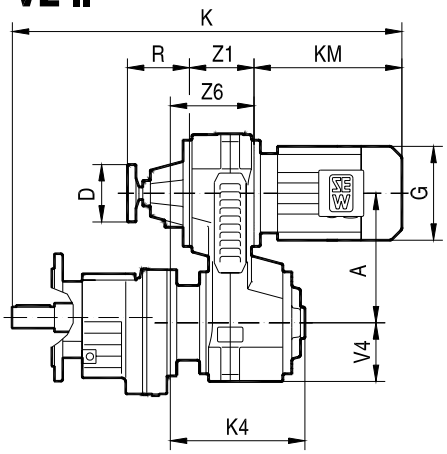
RF87..

VU..

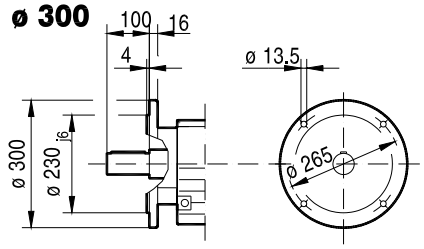




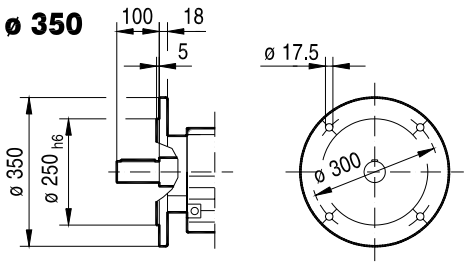
VZ ..



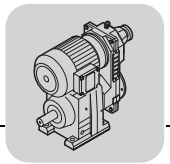
ø 300



ø 350



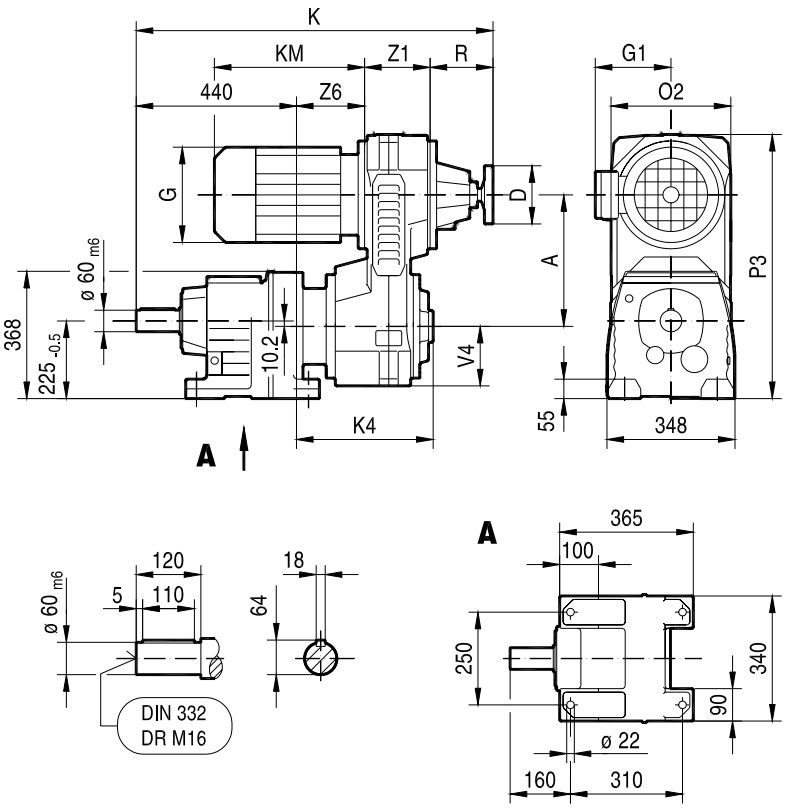
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
RF87	VU21 VZ21	DT90..	245	100	197	154	757	810	273	267	227	345	130	110	120	135	165
		DV100M	245	100	197	166	757	848	311	267	227	345	130	110	120	135	165
		DV100L	245	100	197	166	757	878	341	267	227	345	130	110	120	135	165
	VU31 VZ31	DV112M	305	125	221	179	832	918	349	317	283	433	150	138	152	158	197
		DV132S	305	125	221	179	832	963	394	317	283	433	150	138	152	158	197
	VU41 VZ41	DV132M	380	200	275	230	945	1008	402	392	348	541	189	170	180	204	234
		DV132ML	380	200	275	230	945	1068	462	392	348	541	189	170	180	204	234
		DV160M	380	200	275	230	945	1068	462	392	348	541	189	170	180	204	234
	VU51	DV160L	460	200	331	259	1029	-	503	449	398	646	220	195	200	237	-
		DV180..	460	200	331	253	1029	-	575	449	398	646	220	195	200	237	-



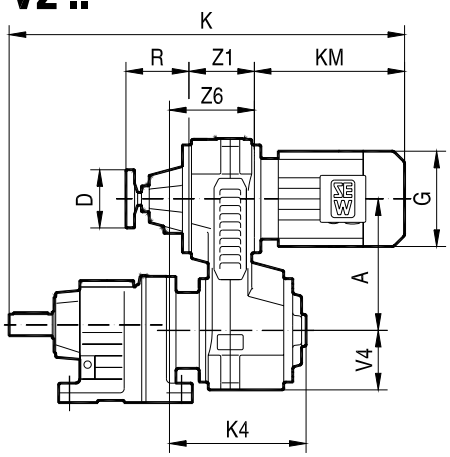
14 045 001

R97..

VU..



VZ ..

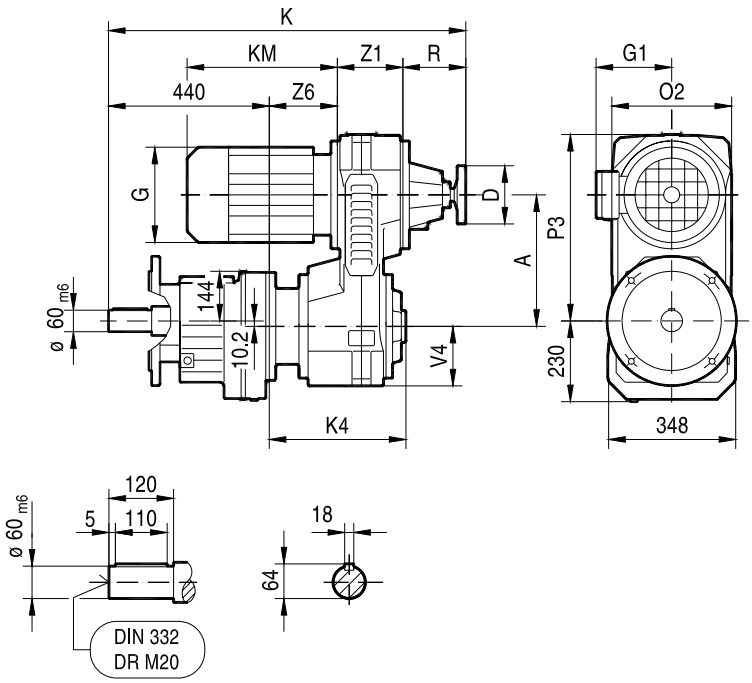


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
R97	VU31 VZ31	DV112M	305	125	221	179	895	981	349	312	283	660	150	138	152	153	192
		DV132S	305	125	221	179	895	1026	394	312	283	660	150	138	152	153	192
	VU41 VZ41	DV132M	380	200	275	230	1008	1071	402	387	348	768	189	170	180	199	229
		DV132ML	380	200	275	230	1008	1131	462	387	348	768	189	170	180	199	229
		DV160M	380	200	275	230	1008	1131	462	387	348	768	189	170	180	199	229
	VU51	DV160L	460	200	331	259	1092	-	503	444	398	873	220	195	200	232	-
		DV180..	460	200	331	253	1092	-	575	444	398	873	220	195	200	232	-

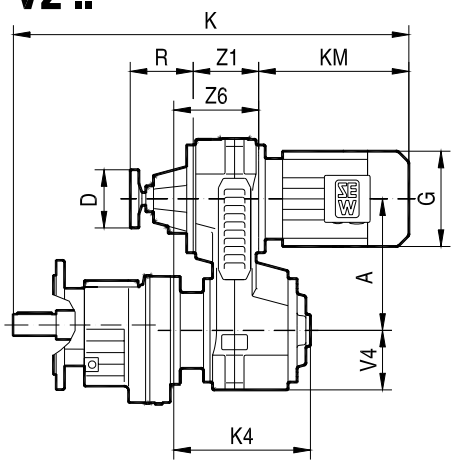
14 046 001

RF97..

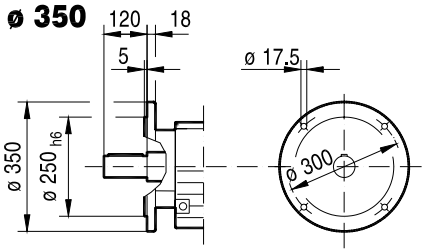
VU..



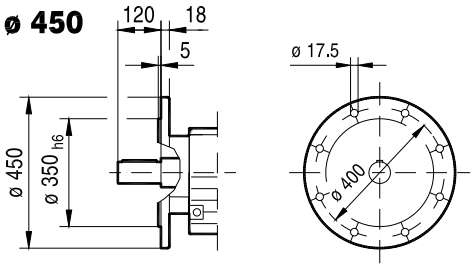
VZ ..



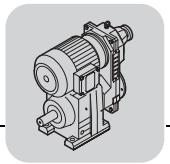
ø 350



ø 450



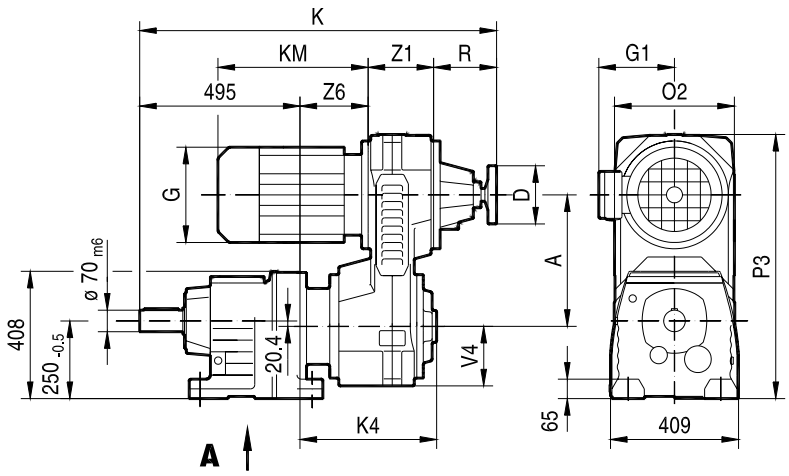
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
RF97	VU31 VZ31	DV112M	305	125	221	179	895	981	349	312	283	435	150	138	152	153	192
		DV132S	305	125	221	179	895	1026	394	312	283	435	150	138	152	153	192
	VU41 VZ41	DV132M	380	200	275	230	1008	1071	402	387	348	543	189	170	180	199	229
		DV132ML	380	200	275	230	1008	1131	462	387	348	543	189	170	180	199	229
		DV160M	380	200	275	230	1008	1131	462	387	348	543	189	170	180	199	229
	VU51	DV160L	460	200	331	259	1092	-	503	444	398	648	220	195	200	232	-
		DV180..	460	200	331	253	1092	-	575	444	398	648	220	195	200	232	-



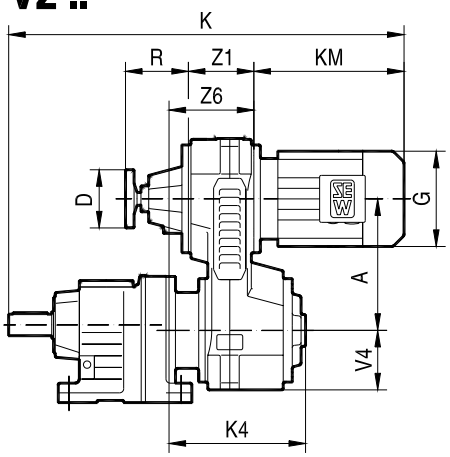
14 047 001

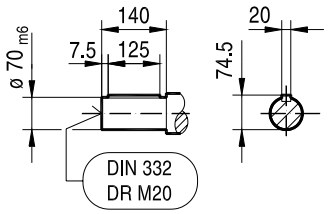
R107..

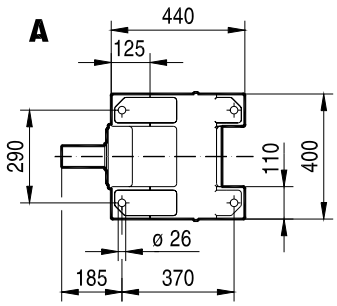
VU..

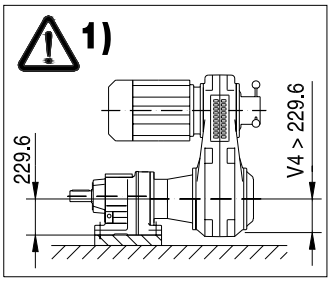


VZ ..







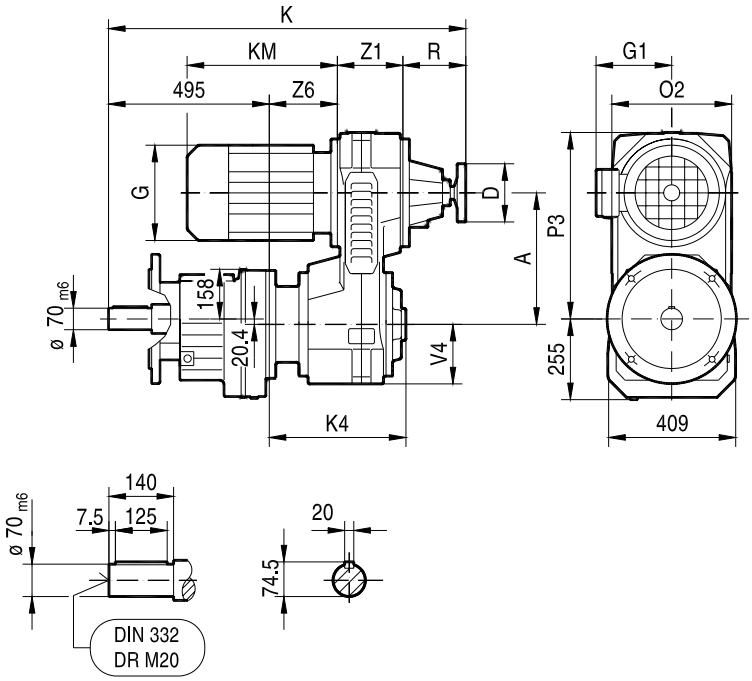


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
R107	VU41 VZ41	DV132M	380	200	275	230	1057	1120	402	381	348	783	189	170	180	193	223		
		DV132ML	380	200	275	230	1057	1180	462	381	348	783	189	170	180	193	223		
		DV160M	380	200	275	230	1057	1180	462	381	348	783	189	170	180	193	223		
	VU51	DV160L	460	200	331	259	1141	-	503	438	398	888	220	195	200	226	-		
		DV180..	460	200	331	253	1141	-	575	438	398	888	220	195	200	226	-		
	VU6	DV200..	574	385	394	285	1200	-	623	662	490	1035	155	245	214	336	-	1)	
		DV225..	574	385	394	289	1200	-	690	662	490	1035	155	245	249	301	-	1)	

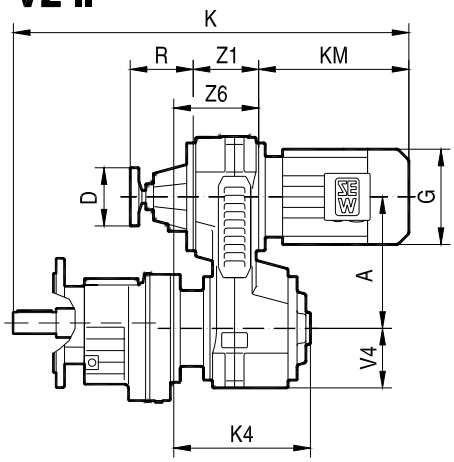
14 048 001

RF107..

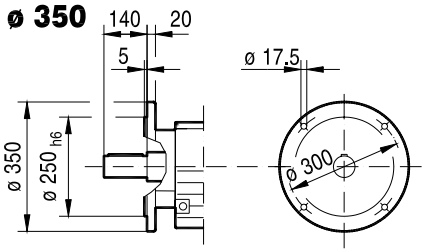
VU..



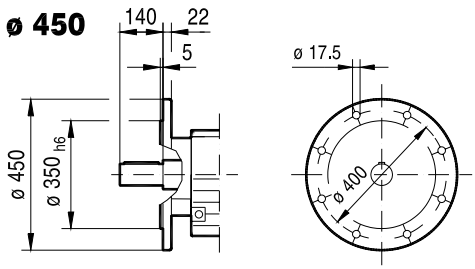
VZ ..



ø 350



ø 450

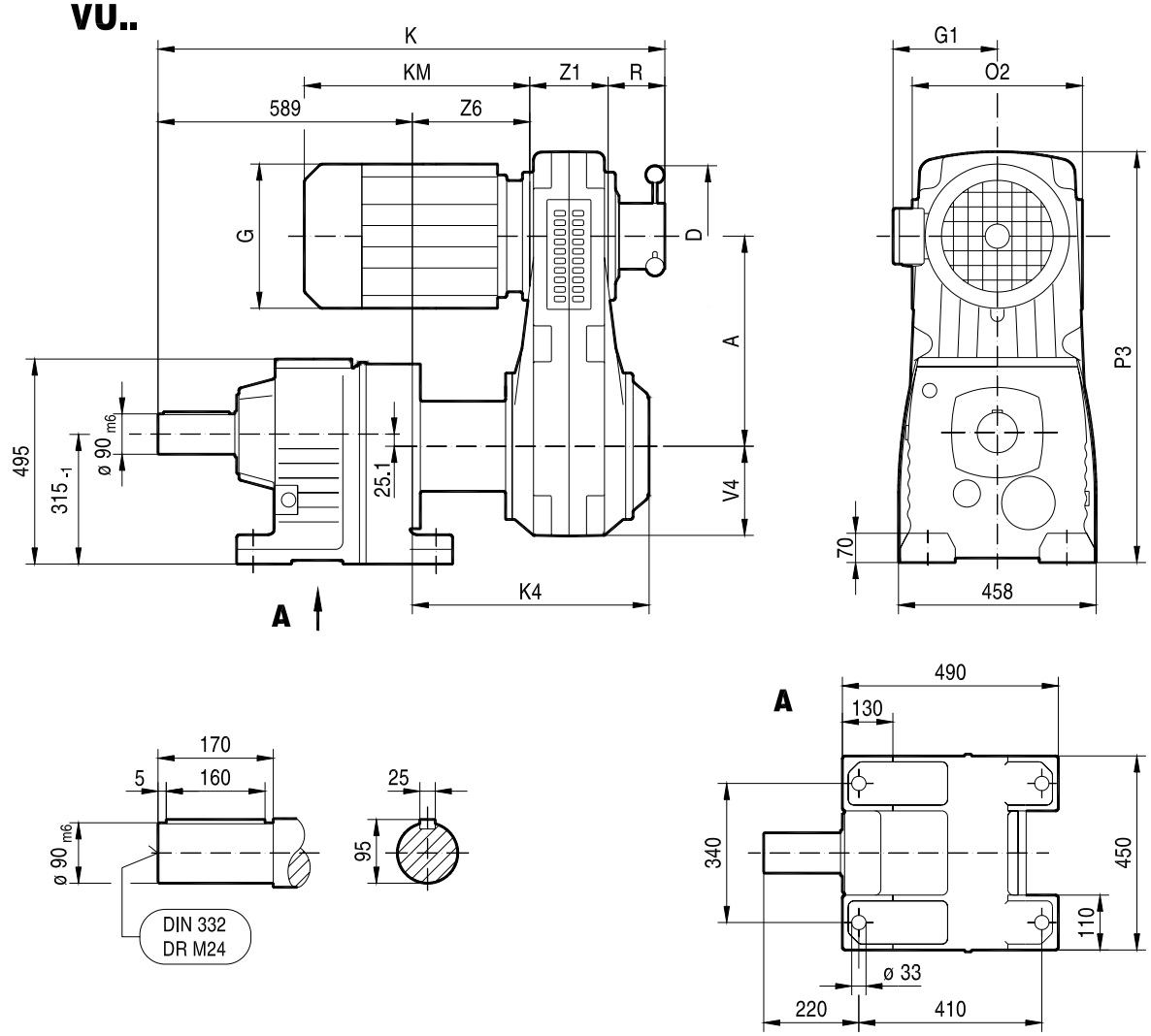


(→ 📖 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
RF107	VU41 VZ41	DV132M	380	200	275	230	1057	1120	402	381	348	533	189	170	180	193	223
		DV132ML	380	200	275	230	1057	1180	462	381	348	533	189	170	180	193	223
		DV160M	380	200	275	230	1057	1180	462	381	348	533	189	170	180	193	223
	VU51	DV160L	460	200	331	259	1141	-	503	438	398	638	220	195	200	226	-
		DV180..	460	200	331	253	1141	-	575	438	398	638	220	195	200	226	-
	VU6	DV200..	574	385	394	285	1200	-	623	662	490	785	155	245	214	336	-
		DV225..	574	385	394	289	1200	-	690	662	490	785	155	245	249	301	-

14 049 001

R137..

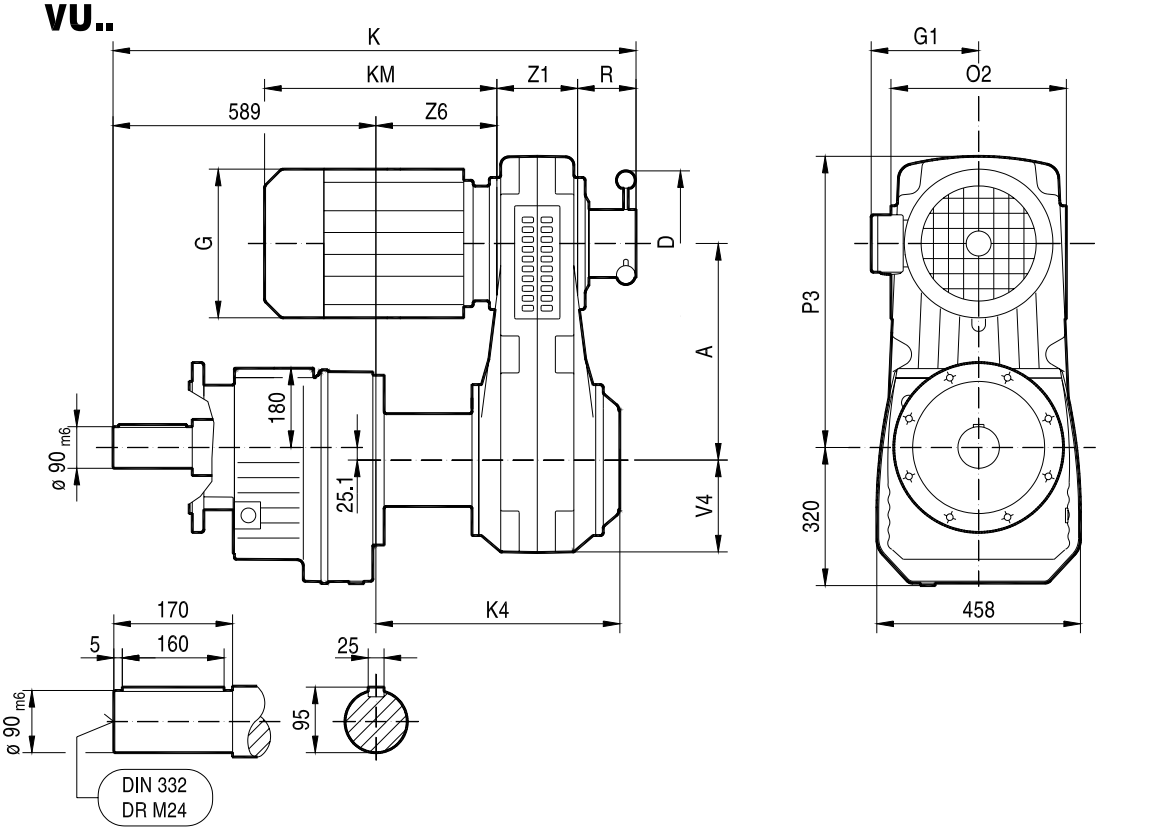
VU..



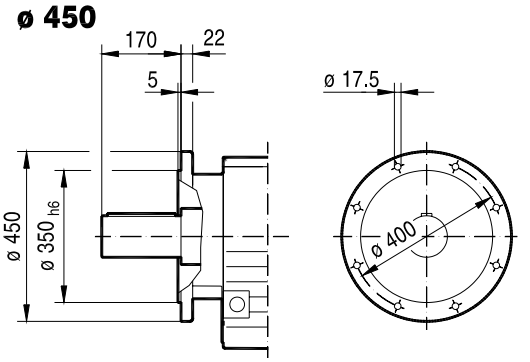
(→ 151)			A	D	G	G1	K	KM	K4	O2	P3	R	V4	Z1	Z6
R137	VU51	DV160L	460	200	331	259	1228	503	431	398	948	220	195	200	219
		DV180..	460	200	331	253	1228	575	431	398	948	220	195	200	219
	VU6	DV200..	574	385	394	285	1287	623	655	490	1095	155	245	214	329
		DV225..	574	385	394	289	1287	690	655	490	1095	155	245	249	294

14 050 001

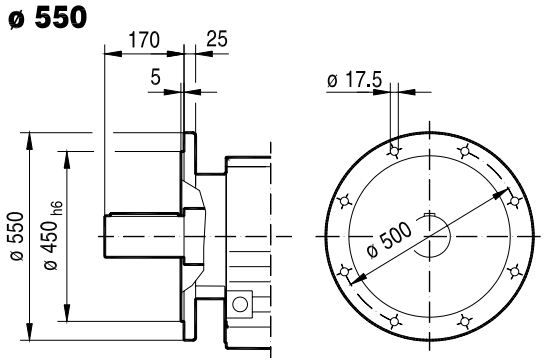
RF137..
VU..



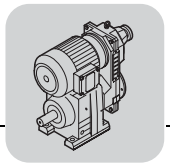
ø 450



ø 550



(→ 151)			A	D	G	G1	K	KM	K4	O2	P3	R	V4	Z1	Z6
RF137	VU51	DV160L	460	200	331	259	1228	503	431	398	633	220	195	200	219
		DV180..	460	200	331	253	1228	575	431	398	633	220	195	200	219
	VU6	DV200..	574	385	394	285	1287	623	655	490	780	155	245	214	329
		DV225..	574	385	394	289	1287	690	655	490	780	155	245	249	294

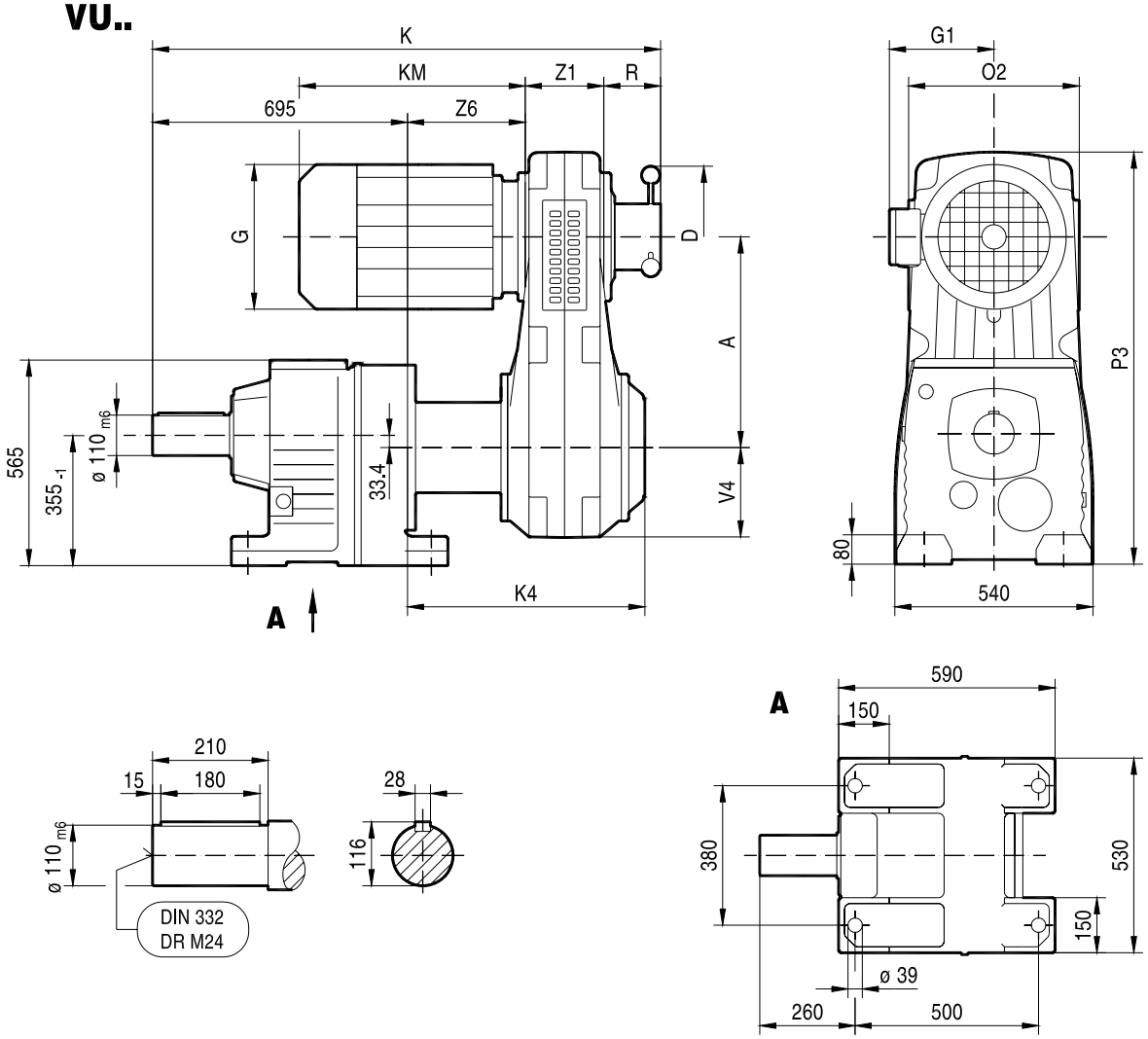


R..VU/VZ..DR/DT/DV.. [mm]

14 051 001

R147..

VU..

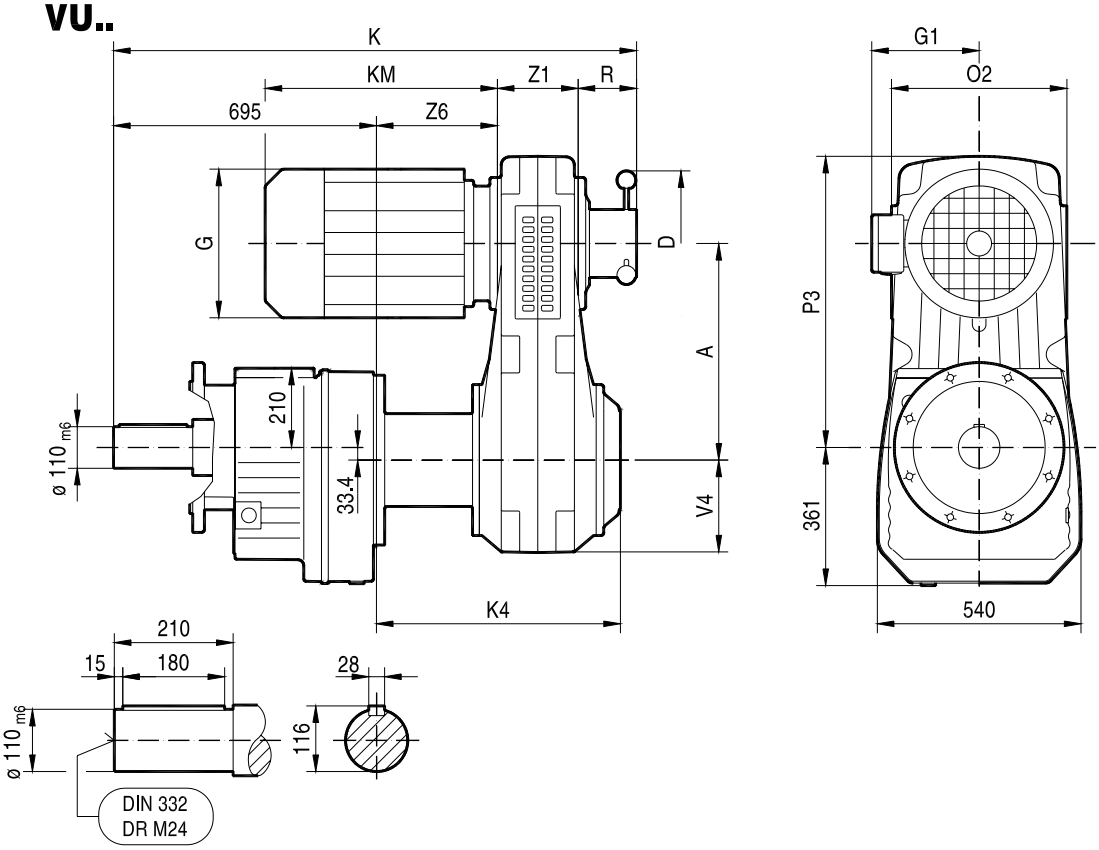


(→ 151)			A	D	G	G1	K	KM	K4	O2	P3	R	V4	Z1	Z6
R147	VU51	DV160L	460	200	331	259	1326	503	423	398	980	220	195	200	211
		DV180..	460	200	331	253	1326	575	423	398	980	220	195	200	211
	VU6	DV200..	574	385	394	285	1385	623	647	490	1127	155	245	214	321
		DV225..	574	385	394	289	1385	690	647	490	1127	155	245	249	286

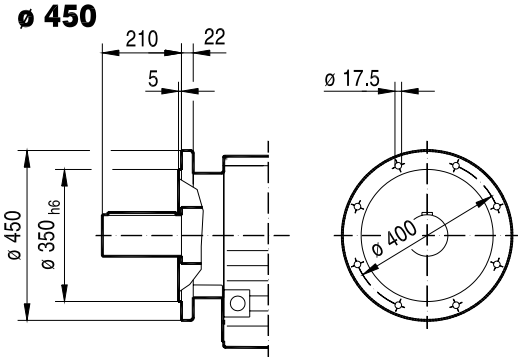
14 052 001

RF147..

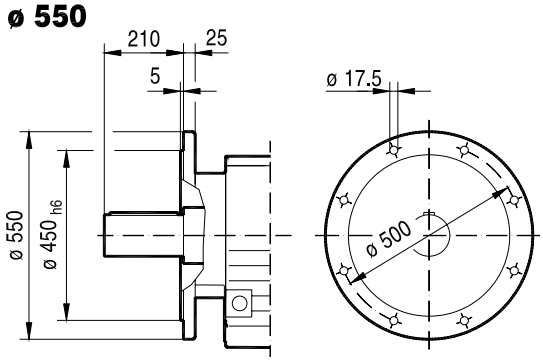
VU..



ø 450



ø 550

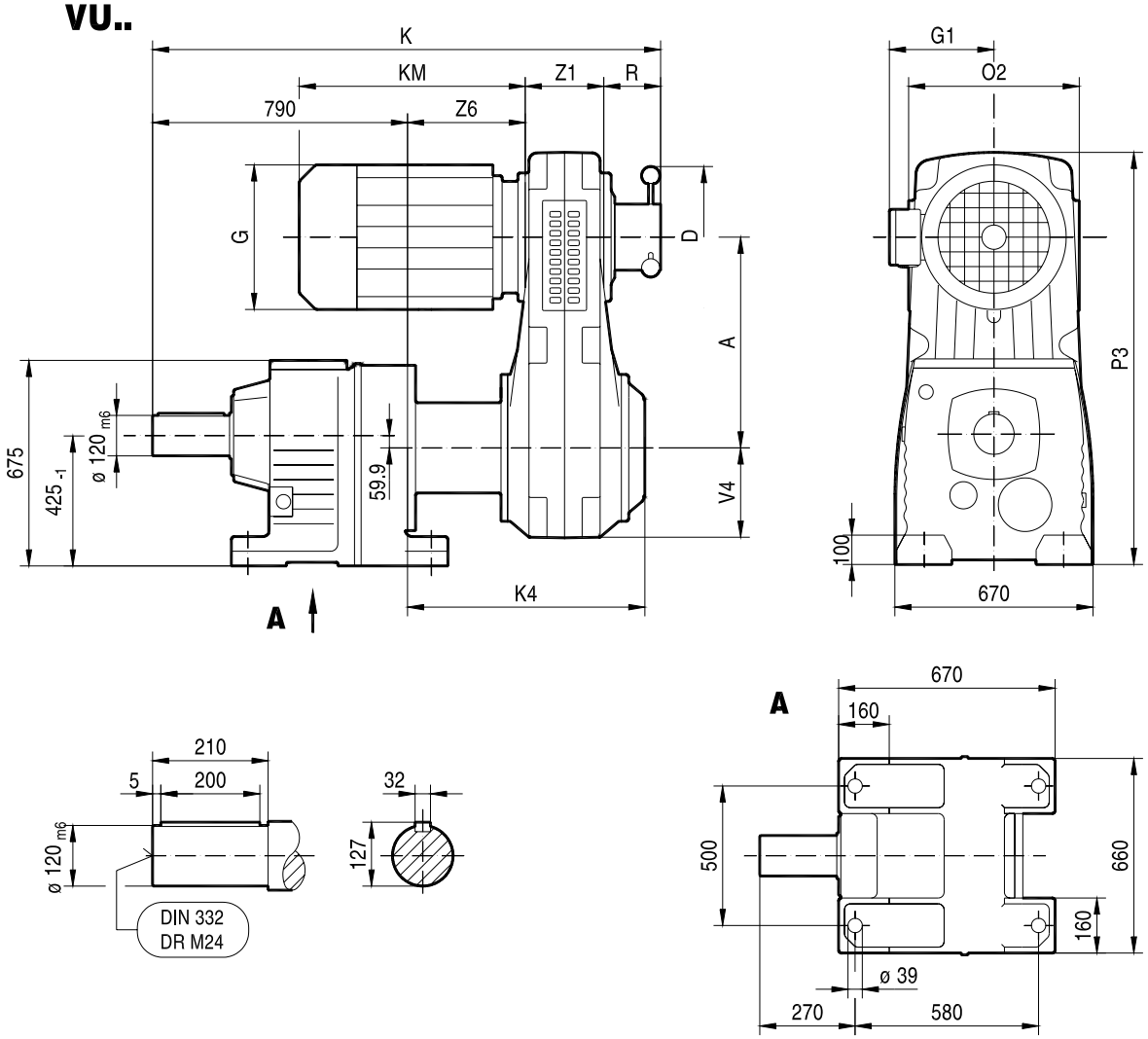


(→ 151)			A	D	G	G1	K	KM	K4	O2	P3	R	V4	Z1	Z6
RF147	VU51	DV160L	460	200	331	259	1326	503	423	398	625	220	195	200	211
		DV180..	460	200	331	253	1326	575	423	398	625	220	195	200	211
	VU6	DV200..	574	385	394	285	1385	623	647	490	772	155	245	214	321
		DV225..	574	385	394	289	1385	690	647	490	772	155	245	249	286

14 053 001

R167..

VU..

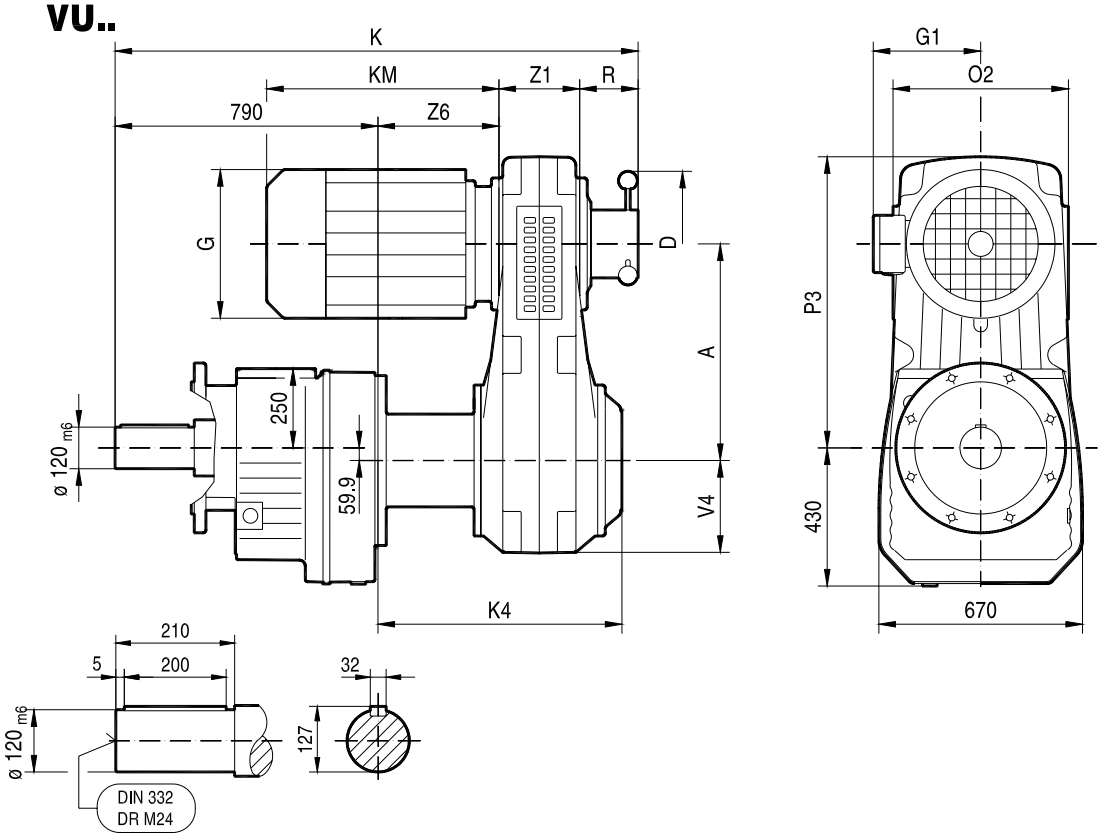


(→ 151)			A	D	G	G1	K	KM	K4	O2	P3	R	V4	Z1	Z6
R167	VU6	DV200..	574	385	394	285	1505	623	672	490	1171	155	245	214	346
		DV225..	574	385	394	289	1505	690	672	490	1171	155	245	249	311

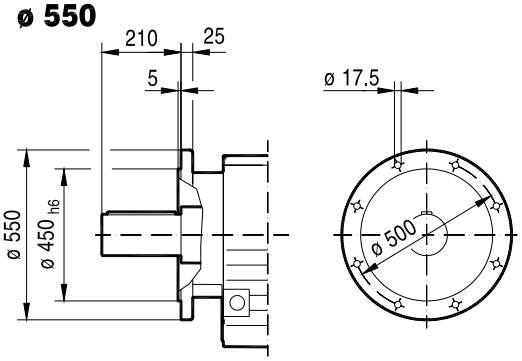
14 054 001

RF167..

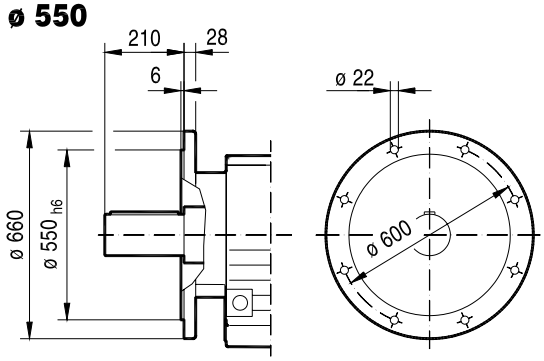
VU..



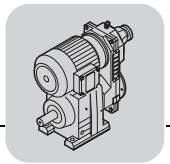
ø 550



ø 550

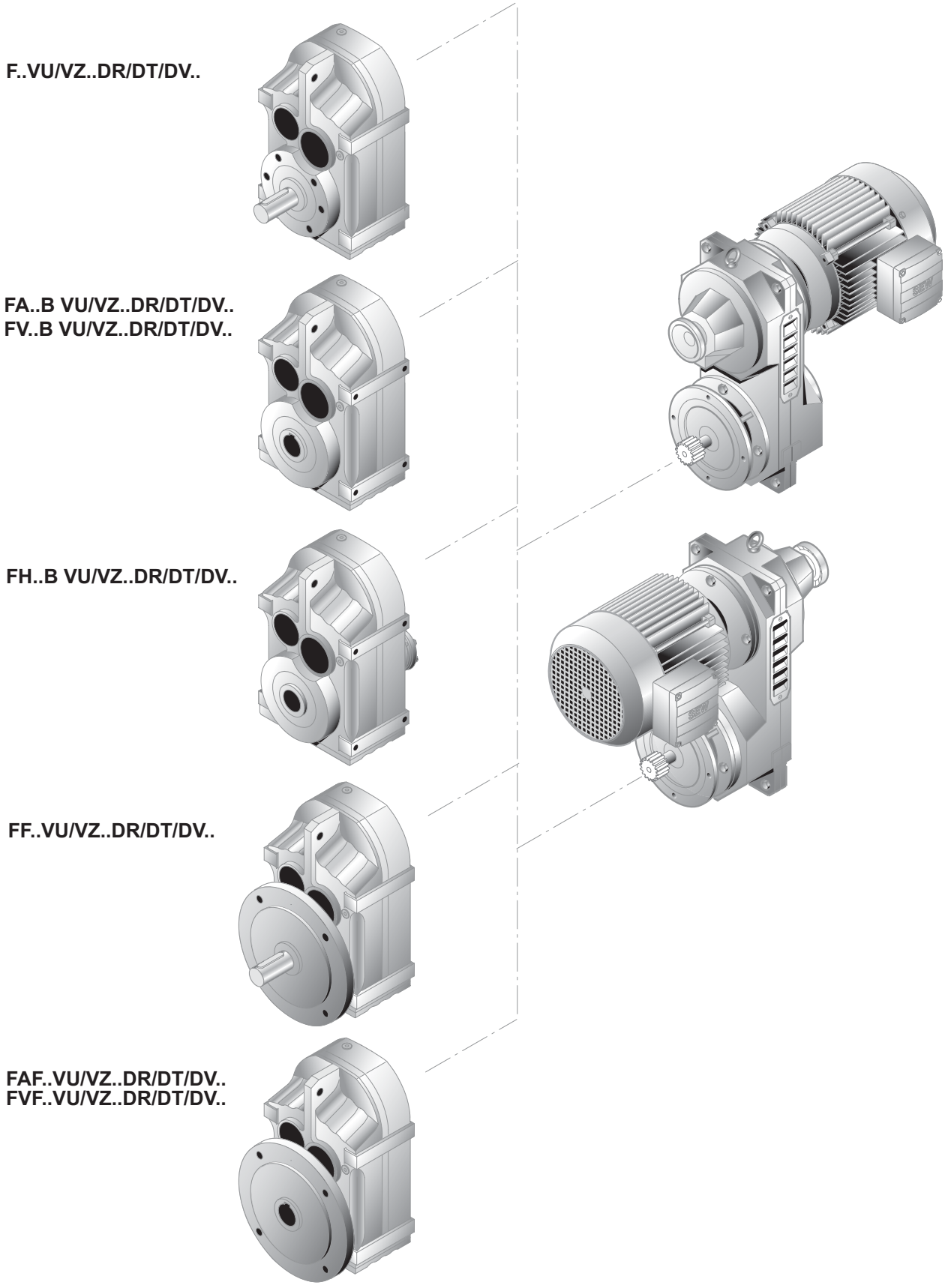


(→ 151)			A	D	G	G1	K	KM	K4	O2	P3	R	V4	Z1	Z6
RF167	**VU6**	**DV200..**	574	385	394	285	1505	623	672	490	746	155	245	214	346
		DV225..	574	385	394	289	1505	690	672	490	746	155	245	249	311



10 F..

10.1 F..VU/VZ..DR/DT/DV..



50591AXX

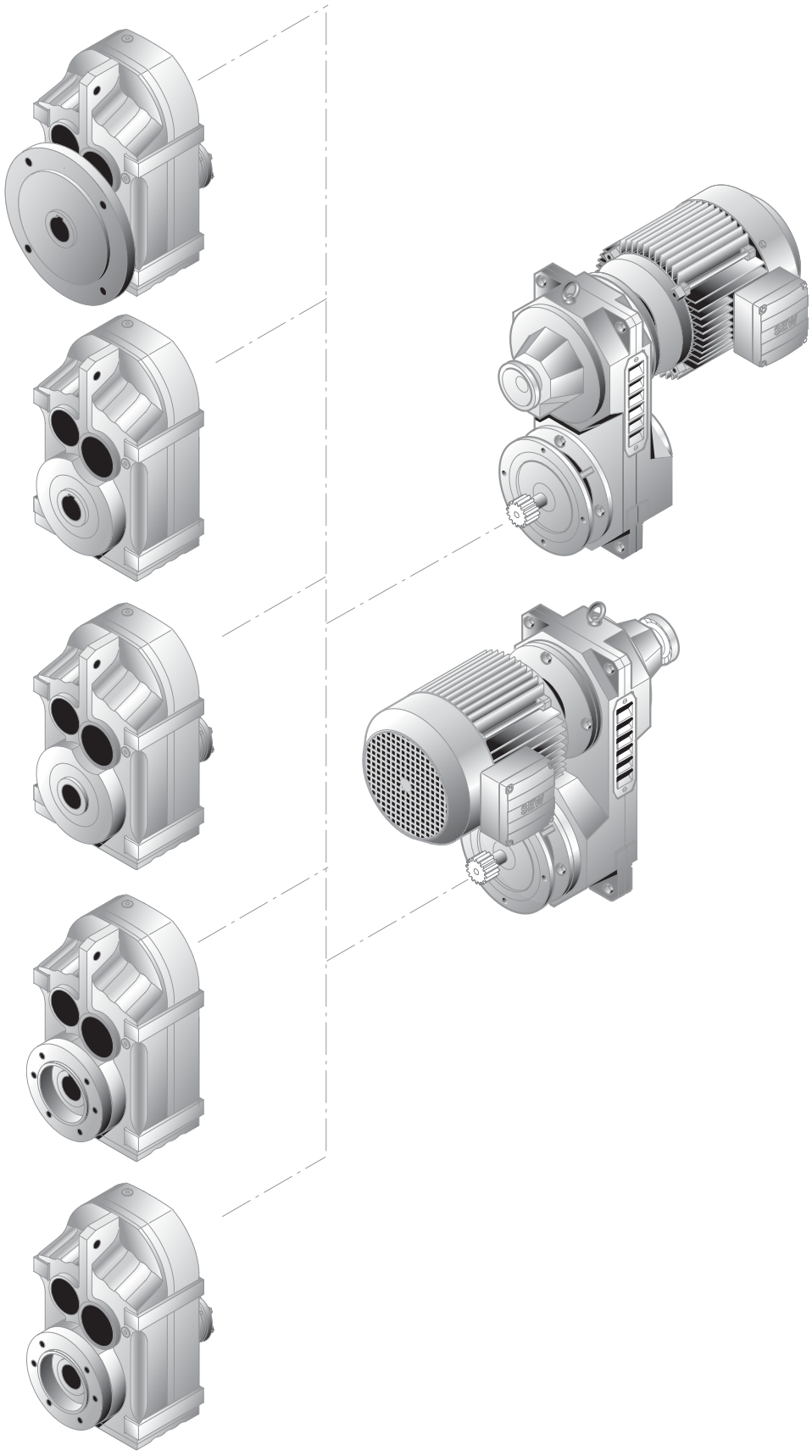
FHF..VU/VZ..DR/DT/DV..

FA..VU/VZ..DR/DT/DV..
FV..VU/VZ..DR/DT/DV..

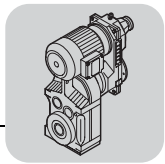
FH..VU/VZ..DR/DT/DV..

FAZ..VU/VZ..DR/DT/DV..
FVZ ..VU/VZ..DR/DT/DV..

FHZ..VU/VZ..DR/DT/DV..

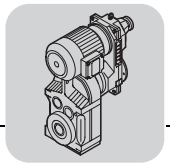


50512AXX



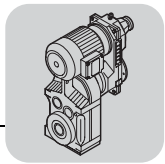
10.2 F..VU/VZ..DR/DT/DV.. [kW]

R = 1:5 ... R = 1:6																
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
0.25 / 0.18	1.8	-	8.7	228.99	375	220	-	FA	67	VU/VZ	01	DT	71D6		56	281
	2.1	-	10	195.39	320	187	-	FAF	67	VU/VZ	01	DT	71D6		62	280
	2.4	-	12	170.85	280	163	-	F	67	VU/VZ	01	DT	71D6		53	-
	2.5	-	12	162.31	265	155	-	FF	67	VU/VZ	01	DT	71D6		59	280
	2.0	-	10	199.70	325	191	-	FA	57	VU/VZ	01	DT	71D6		49	279
	2.2	-	11	183.60	300	176	-	FAF	57	VU/VZ	01	DT	71D6		55	278
	2.6	-	13	157.09	255	150	-	F	57	VU/VZ	01	DT	71D6		49	-
	3.0	-	15	136.16	225	130	-	FF	57	VU/VZ	01	DT	71D6		54	278
	2.1	-	10	190.76	310	182	-									
	2.3	-	11	175.38	285	168	-	FA	47	VU/VZ	01	DT	71D6		42	277
	2.7	-	13	150.06	245	144	-	FAF	47	VU/VZ	01	DT	71D6		45	276
	3.1	-	15	130.07	215	124	-	F	47	VU/VZ	01	DT	71D6		41	-
	3.4	-	16	121.57	199	116	-	FF	47	VU/VZ	01	DT	71D6		44	276
	3.2	-	15	190.76	300	124	-									
	3.4	-	17	175.38	275	114	-									
	4.0	-	20	150.06	235	97	-	FA	47	VU/VZ	01	DR	63L4		41	277
	4.6	-	23	130.07	205	84	-	FAF	47	VU/VZ	01	DR	63L4		44	276
	5.0	-	24	121.57	192	79	-	F	47	VU/VZ	01	DR	63L4		40	-
	5.8	-	28	105.09	166	68	-	FF	47	VU/VZ	01	DR	63L4		42	276
	6.8	-	33	89.29	141	58	-									
	7.6	-	37	79.72	126	52	-									
	4.7	-	23	128.51	200	83	-									
	5.1	-	25	117.88	186	76	-									
	6.0	-	29	100.36	159	65	-									
	7.0	-	34	86.53	137	56	-									
	7.5	-	37	80.65	128	52	-									
	8.6	-	42	70.50	111	46	-									
	9.1	-	45	66.09	105	43	-									
	10	-	51	58.32	92	38	-	FA	37	VU/VZ	01	DR	63L4		35	275
	11	-	54	54.54	86	35	-	FAF	37	VU/VZ	01	DR	63L4		37	274
	12	-	57	51.70	82	34	-	F	37	VU/VZ	01	DR	63L4		35	-
	13	-	63	47.02	74	30	-	FF	37	VU/VZ	01	DR	63L4		36	274
	14	-	67	43.83	69	28	-									
	16	-	77	38.31	61	25	-									
	17	-	82	35.91	57	23	-									
	19	-	93	31.69	50	21	-									
	22	-	105	28.09	44	18	-									
	25	-	124	23.88	38	16	-									
	26	-	125	23.63	37	15	-									
	29	-	143	20.57	33	13	-									
	31	-	153	19.27	31	13	-									
	35	-	173	17.03	27	11	-									
	42	-	206	14.33	23	9.3	-									
	47	-	229	12.87	20	8.3	-	FA	37	VU/VZ	01	DR	63L4		35	275
	55	-	266	11.08	18	7.2	-	FAF	37	VU/VZ	01	DR	63L4		37	274
	58	-	283	10.42	17	6.7	-	F	37	VU/VZ	01	DR	63L4		35	-
	67	-	329	8.97	14	5.8	-	FF	37	VU/VZ	01	DR	63L4		36	274
	90	-	438	6.74	11	4.4	-									
	100	-	488	6.05	9.6	3.9	-									
	116	-	566	5.21	8.2	3.4	-									
	123	-	602	4.90	7.7	3.2	-									
	143	-	700	4.22	6.7	2.7	-									
0.37 / 0.30	1.6	-	9.2	225.79	1390	315	-	FA	77	VU/VZ	11	DT	80K6		89	283
	1.8	-	10	198.31	1220	275	-	FAF	77	VU/VZ	11	DT	80K6		100	282
	1.9	-	11	188.40	1160	260	-	F	77	VU/VZ	11	DT	80K6		86	-
	2.1	-	12	166.47	1020	230	-	FF	77	VU/VZ	11	DT	80K6		92	282
	2.5	-	15	142.27	870	197	-									
	1.8	-	11	195.39	820	270	-	FA	67	VU/VZ	11	DT	80K6		63	281
	2.1	-	12	170.85	820	235	-	FAF	67	VU/VZ	11	DT	80K6		70	280
	2.2	-	13	162.31	820	225	-	F	67	VU/VZ	11	DT	80K6		61	-
	2.5	-	15	142.40	820	197	-	FF	67	VU/VZ	11	DT	80K6		67	280



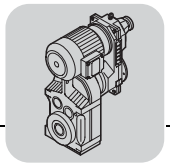
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
0.37 / 0.30	**2.7 - 14**	228.99	535	210	-	**FA**	**67**	**VU/VZ**	**01**	**DT**	**71D4**	56	281
	3.1 - 16	195.39	455	179	-	**FAF**	**67**	**VU/VZ**	**01**	**DT**	**71D4**	62	280
	3.6 - 18	170.85	400	156	-	**F**	**67**	**VU/VZ**	**01**	**DT**	**71D4**	53	-
	3.8 - 19	162.31	380	148	-	**FF**	**67**	**VU/VZ**	**01**	**DT**	**71D4**	59	280
	4.3 - 22	142.40	335	130	-								
	3.1 - 16	199.70	465	183	-								
	3.3 - 17	183.60	430	168	-	**FA**	**57**	**VU/VZ**	**01**	**DT**	**71D4**	49	279
	3.9 - 20	157.09	365	144	-	**FAF**	**57**	**VU/VZ**	**01**	**DT**	**71D4**	55	278
	4.5 - 23	136.16	320	125	-	**F**	**57**	**VU/VZ**	**01**	**DT**	**71D4**	49	-
	4.8 - 25	127.27	300	116	-	**FF**	**57**	**VU/VZ**	**01**	**DT**	**71D4**	54	278
	3.2 - 16	190.76	400	175	-								
	3.5 - 18	175.38	400	160	-								
	4.1 - 21	150.06	350	137	-								
	4.7 - 24	130.07	305	119	-	**FA**	**47**	**VU/VZ**	**01**	**DT**	**71D4**	42	277
	5.0 - 26	121.57	285	111	-	**FAF**	**47**	**VU/VZ**	**01**	**DT**	**71D4**	45	276
	5.8 - 30	105.09	245	96	-	**F**	**47**	**VU/VZ**	**01**	**DT**	**71D4**	41	-
	6.9 - 35	89.29	210	82	-	**FF**	**47**	**VU/VZ**	**01**	**DT**	**71D4**	44	276
	7.7 - 39	79.72	186	73	-								
	9.0 - 46	68.09	159	62	-								
	4.8 - 24	128.51	200	118	-								
	5.2 - 27	117.88	200	108	-								
	6.1 - 31	100.36	200	92	-								
	7.1 - 36	86.53	200	79	-								
	7.6 - 39	80.65	189	74	-								
	8.7 - 44	70.50	165	65	-								
	9.3 - 47	66.09	155	60	-								
	11 - 54	58.32	136	53	-	**FA**	**37**	**VU/VZ**	**01**	**DT**	**71D4**	37	275
	11 - 57	54.54	128	50	-	**FAF**	**37**	**VU/VZ**	**01**	**DT**	**71D4**	39	274
	12 - 61	51.70	121	47	-	**F**	**37**	**VU/VZ**	**01**	**DT**	**71D4**	36	-
	13 - 67	47.02	110	43	-	**FF**	**37**	**VU/VZ**	**01**	**DT**	**71D4**	38	274
	14 - 71	43.83	103	40	-								
	16 - 82	38.31	90	35	-								
	17 - 87	35.91	84	33	-								
	19 - 99	31.69	74	29	-								
	22 - 112	28.09	66	26	-								
	26 - 131	23.88	56	22	-								
	26 - 133	23.63	55	22	-								
	30 - 152	20.57	48	19	-								
	32 - 163	19.27	45	18	-								
	36 - 184	17.03	40	16	-								
	43 - 219	14.33	34	13	-								
	48 - 243	12.87	30	12	-	**FA**	**37**	**VU/VZ**	**01**	**DT**	**71D4**	37	275
	55 - 283	11.08	26	10	-	**FAF**	**37**	**VU/VZ**	**01**	**DT**	**71D4**	39	274
	59 - 301	10.42	24	9.5	-	**F**	**37**	**VU/VZ**	**01**	**DT**	**71D4**	36	-
	68 - 349	8.97	21	8.2	-	**FF**	**37**	**VU/VZ**	**01**	**DT**	**71D4**	38	274
	91 - 465	6.74	16	6.2	-								
	101 - 518	6.05	14	5.5	-								
	118 - 601	5.21	12	4.8	-								
	125 - 639	4.90	12	4.5	-								
	145 - 743	4.22	9.9	3.9	-								
0.55 / 0.45	**1.6 - 9.2**	225.79	1390	470	-								
	1.8 - 10	198.31	1220	410	-	**FA**	**77**	**VU/VZ**	**11**	**DT**	**80N6**	90	283
	1.9 - 11	188.40	1160	390	-	**FAF**	**77**	**VU/VZ**	**11**	**DT**	**80N6**	100	282
	2.1 - 12	166.47	1020	345	-	**F**	**77**	**VU/VZ**	**11**	**DT**	**80N6**	87	-
	2.5 - 15	142.27	870	295	-	**FF**	**77**	**VU/VZ**	**11**	**DT**	**80N6**	93	282
	1.8 - 8.9	228.99	745	480	-	**FA**	**67**	**VU/VZ**	**01**	**DT**	**80N6**	59	281
	2.1 - 10	195.39	640	410	-	**FAF**	**67**	**VU/VZ**	**01**	**DT**	**80N6**	65	280
	2.4 - 12	170.85	560	360	-	**F**	**67**	**VU/VZ**	**01**	**DT**	**80N6**	56	-
	2.5 - 13	162.31	530	340	-	**FF**	**67**	**VU/VZ**	**01**	**DT**	**80N6**	62	280
	2.0 - 10	199.70	600	420	-								
	2.2 - 11	183.60	600	385	-	**FA**	**57**	**VU/VZ**	**01**	**DT**	**80N6**	52	279
	2.6 - 13	157.09	515	330	-	**FAF**	**57**	**VU/VZ**	**01**	**DT**	**80N6**	58	278
	3.0 - 15	136.16	445	285	-	**F**	**57**	**VU/VZ**	**01**	**DT**	**80N6**	52	-
	3.2 - 16	127.27	415	270	-	**FF**	**57**	**VU/VZ**	**01**	**DT**	**80N6**	57	278



R = 1:5 ... R = 1:6

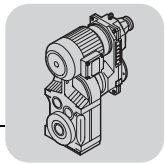
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
0.55 / 0.45	**2.3 - 12**	175.38	400	370	-	**FA**	**47**	**VU/VZ**	**01**	**DT**	**80N6**	45	277
	2.7 - 14	150.06	400	315	-	**FAF**	**47**	**VU/VZ**	**01**	**DT**	**80N6**	48	276
	3.1 - 16	130.07	400	275	-	**F**	**47**	**VU/VZ**	**01**	**DT**	**80N6**	44	-
	3.4 - 17	121.57	395	255	-	**FF**	**47**	**VU/VZ**	**01**	**DT**	**80N6**	47	276
	3.9 - 19	105.09	345	220	-								
	3.2 - 16	190.76	400	265	-								
	3.5 - 18	175.38	400	245	-								
	4.1 - 21	150.06	400	210	-								
	4.7 - 24	130.07	400	181	-								
	5.0 - 25	121.57	380	169	-	**FA**	**47**	**VU/VZ**	**01**	**DT**	**80K4**	44	277
	5.8 - 29	105.09	330	146	-	**FAF**	**47**	**VU/VZ**	**01**	**DT**	**80K4**	47	276
	6.8 - 35	89.29	280	124	-	**F**	**47**	**VU/VZ**	**01**	**DT**	**80K4**	43	-
	7.7 - 39	79.72	250	111	-	**FF**	**47**	**VU/VZ**	**01**	**DT**	**80K4**	46	276
	9.0 - 45	68.09	215	95	-								
	9.3 - 47	65.36	205	91	-								
	11 - 55	56.49	177	79	-								
	4.8 - 24	128.51	200	179	-								
	5.2 - 26	117.88	200	164	-								
	6.1 - 31	100.36	200	140	-								
	7.0 - 36	86.53	200	121	-								
	7.6 - 38	80.65	200	112	-								
	8.7 - 44	70.50	200	98	-								
	9.2 - 47	66.09	200	92	-								
	10 - 53	58.32	183	81	-	**FA**	**37**	**VU/VZ**	**01**	**DT**	**80K4**	39	275
	11 - 57	54.54	171	76	-	**FAF**	**37**	**VU/VZ**	**01**	**DT**	**80K4**	41	274
	12 - 60	51.70	162	72	-	**F**	**37**	**VU/VZ**	**01**	**DT**	**80K4**	38	-
	13 - 66	47.02	147	66	-	**FF**	**37**	**VU/VZ**	**01**	**DT**	**80K4**	40	274
	14 - 70	43.83	137	61	-								
	16 - 81	38.31	120	53	-								
	17 - 86	35.91	112	50	-								
	19 - 97	31.69	99	44	-								
	22 - 110	28.09	88	39	-								
	26 - 129	23.88	75	33	-								
	26 - 131	23.63	74	33	-								
	30 - 150	20.57	64	29	-								
	32 - 160	19.27	60	27	-								
	36 - 181	17.03	53	24	-								
	43 - 215	14.33	45	20	-								
	47 - 240	12.87	40	18	-	**FA**	**37**	**VU/VZ**	**01**	**DT**	**80K4**	39	275
	55 - 279	11.08	35	15	-	**FAF**	**37**	**VU/VZ**	**01**	**DT**	**80K4**	41	274
	59 - 296	10.42	33	15	-	**F**	**37**	**VU/VZ**	**01**	**DT**	**80K4**	38	-
	68 - 344	8.97	28	13	-	**FF**	**37**	**VU/VZ**	**01**	**DT**	**80K4**	40	274
	91 - 458	6.74	21	9.4	-								
	101 - 510	6.05	19	8.4	-								
	117 - 592	5.21	16	7.3	-								
	125 - 630	4.90	15	6.8	-								
	145 - 732	4.22	13	5.9	-								
0.75 / 0.62	**2.4 - 14**	225.79	1090	420	-	**FA**	**77**	**VU/VZ**	**11**	**DT**	**80N4**	90	283
	2.7 - 16	198.31	960	370	-	**FAF**	**77**	**VU/VZ**	**11**	**DT**	**80N4**	100	282
	2.8 - 17	188.40	910	350	-	**F**	**77**	**VU/VZ**	**11**	**DT**	**80N4**	87	-
	3.2 - 19	166.47	800	310	-	**FF**	**77**	**VU/VZ**	**11**	**DT**	**80N4**	93	282
	3.8 - 22	142.27	685	265	-								
	2.7 - 14	228.99	715	435	-	**FA**	**67**	**VU/VZ**	**01**	**DT**	**80N4**	59	281
	3.1 - 16	195.39	610	370	-	**FAF**	**67**	**VU/VZ**	**01**	**DT**	**80N4**	65	280
	3.6 - 18	170.85	535	325	-	**F**	**67**	**VU/VZ**	**01**	**DT**	**80N4**	56	-
	3.8 - 19	162.31	505	305	-	**FF**	**67**	**VU/VZ**	**01**	**DT**	**80N4**	62	280
	3.1 - 16	199.70	600	380	-	**FA**	**57**	**VU/VZ**	**01**	**DT**	**80N4**	52	279
	3.3 - 17	183.60	575	345	-	**FAF**	**57**	**VU/VZ**	**01**	**DT**	**80N4**	58	278
	3.9 - 20	157.09	490	295	-	**F**	**57**	**VU/VZ**	**01**	**DT**	**80N4**	52	-
	4.5 - 23	136.16	425	255	-	**FF**	**57**	**VU/VZ**	**01**	**DT**	**80N4**	57	278
	4.8 - 25	127.27	395	240	-								



F..VU/VZ..DR/DT/DV.. [kW]

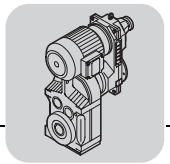
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
0.75 / 0.62	3.2 - 16	190.76	400	360	-								
	3.5 - 18	175.38	400	330	-								
	4.1 - 21	150.06	400	285	-								
	4.7 - 24	130.07	400	245	-	FA	47	VU/VZ	01	DT	80N4	45	277
	5.0 - 26	121.57	380	230	-	FAF	47	VU/VZ	01	DT	80N4	48	276
	5.8 - 30	105.09	330	199	-	F	47	VU/VZ	01	DT	80N4	44	-
	6.9 - 35	89.29	280	169	-	FF	47	VU/VZ	01	DT	80N4	47	276
	7.7 - 39	79.72	250	151	-								
	9.0 - 46	68.09	210	129	-								
	9.4 - 48	65.36	205	124	-								
	6.1 - 31	100.36	200	190	-								
	7.1 - 36	86.53	200	164	-								
	7.6 - 39	80.65	200	152	-								
	8.7 - 44	70.50	200	133	-								
	9.3 - 47	66.09	200	125	-								
	11 - 54	58.32	182	110	-								
	11 - 57	54.54	170	103	-	FA	37	VU/VZ	01	DT	80N4	40	275
	12 - 61	51.70	161	98	-	FAF	37	VU/VZ	01	DT	80N4	42	274
	13 - 67	47.02	147	89	-	F	37	VU/VZ	01	DT	80N4	39	-
	14 - 71	43.83	137	83	-	FF	37	VU/VZ	01	DT	80N4	41	274
	16 - 82	38.31	120	72	-								
	17 - 87	35.91	112	68	-								
	19 - 99	31.69	99	60	-								
	22 - 112	28.09	88	53	-								
	26 - 131	23.88	75	45	-								
	26 - 133	23.63	74	45	-								
	30 - 152	20.57	64	39	-								
	32 - 163	19.27	60	36	-								
	36 - 184	17.03	53	32	-								
	43 - 219	14.33	45	27	-								
	48 - 243	12.87	40	24	-	FA	37	VU/VZ	01	DT	80N4	40	275
	55 - 283	11.08	35	21	-	FAF	37	VU/VZ	01	DT	80N4	42	274
	59 - 301	10.42	33	20	-	F	37	VU/VZ	01	DT	80N4	39	-
	68 - 349	8.97	28	17	-	FF	37	VU/VZ	01	DT	80N4	41	274
	91 - 465	6.74	21	13	-								
	101 - 518	6.05	19	11	-								
	118 - 601	5.21	16	9.9	-								
	125 - 639	4.90	15	9.3	-								
	145 - 743	4.22	13	8.0	-								
1.1 / 0.90	1.3 - 7.5	270.68	2660	1140	-	FA	87	VU/VZ	21	DT	90L6	160	285
	1.3 - 8.0	255.37	2510	1080	-	FAF	87	VU/VZ	21	DT	90L6	175	284
	1.5 - 8.9	228.93	2250	970	-	F	87	VU/VZ	21	DT	90L6	155	-
	1.7 - 10	197.20	1940	830	-	FF	87	VU/VZ	21	DT	90L6	165	284
	1.9 - 11	179.97	1770	760	-								
	1.6 - 9.4	225.79	1380	920	-	FA	77	VU/VZ	11	DT	90L6	97	283
	1.8 - 11	198.31	1210	810	-	FAF	77	VU/VZ	11	DT	90L6	110	282
	1.9 - 11	188.40	1150	765	-	F	77	VU/VZ	11	DT	90L6	94	-
	2.2 - 13	166.47	1020	675	-	FF	77	VU/VZ	11	DT	90L6	100	282
	1.8 - 11	195.39	820	795	-	FA	67	VU/VZ	11	DT	90L6	72	281
	2.1 - 12	170.85	820	695	-	FAF	67	VU/VZ	11	DT	90L6	78	280
	2.2 - 13	162.31	820	660	-	F	67	VU/VZ	11	DT	90L6	69	-
	2.5 - 15	142.40	820	580	-	FF	67	VU/VZ	11	DT	90L6	75	280
	2.8 - 16	195.39	820	520	-	FA	67	VU/VZ	11	DT	90S4	70	281
	3.1 - 19	170.85	820	455	-	FAF	67	VU/VZ	11	DT	90S4	76	280
	3.3 - 20	162.31	820	435	-	F	67	VU/VZ	11	DT	90S4	67	-
	3.8 - 23	142.40	820	380	-	FF	67	VU/VZ	11	DT	90S4	73	280
	3.4 - 21	157.09	600	420	-								
	3.9 - 24	136.16	600	365	-								
	4.2 - 25	127.27	600	340	-	FA	57	VU/VZ	11	DT	90S4	63	279
	4.9 - 29	110.01	600	295	-	FAF	57	VU/VZ	11	DT	90S4	69	278
	5.7 - 34	93.47	585	250	-	F	57	VU/VZ	11	DT	90S4	63	-
	6.4 - 39	83.46	520	225	-	FF	57	VU/VZ	11	DT	90S4	68	278
	7.4 - 44	72.98	455	195	-								
	7.9 - 47	68.22	425	182	-								



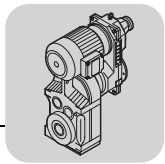
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠						m [kg]	
1.1 / 0.90	4.1 - 25	130.07	400	345	-							
	4.4 - 26	121.57	400	325	-							
	5.1 - 31	105.09	400	280	-							
	6.0 - 36	89.29	400	240	-	FA	47	VU/VZ	11	DT	90S4	58	277
	6.7 - 40	79.72	400	215	-	FAF	47	VU/VZ	11	DT	90S4	61	276
	7.9 - 47	68.09	400	182	-	F	47	VU/VZ	11	DT	90S4	57	-
	8.2 - 49	65.36	400	175	-	FF	47	VU/VZ	11	DT	90S4	60	276
	9.5 - 57	56.49	350	151	-								
	11 - 67	48.00*	300	128	-								
	7.6 - 46	70.50	200	188	-								
	8.1 - 49	66.09	200	176	-								
	9.2 - 55	58.32	200	156	-								
	9.8 - 59	54.54	200	146	-								
	10 - 62	51.70	200	138	-	FA	37	VU/VZ	11	DT	90S4	53	275
	11 - 68	47.02	200	126	-	FAF	37	VU/VZ	11	DT	90S4	55	274
	12 - 73	43.83	200	117	-	F	37	VU/VZ	11	DT	90S4	53	-
	14 - 84	38.31	200	102	-	FF	37	VU/VZ	11	DT	90S4	54	274
	15 - 90	35.91	200	96	-								
	17 - 102	31.69	198	85	-								
	19 - 115	28.09	175	75	-								
	22 - 135	23.88	149	64	-								
	23 - 136	23.63	147	63	-								
	26 - 157	20.57	128	55	-								
	28 - 167	19.27	120	51	-								
	32 - 189	17.03	106	45	-								
	37 - 225	14.33	89	38	-								
	42 - 250	12.87	80	34	-								
	48 - 291	11.08	69	30	-	FA	37	VU/VZ	11	DT	90S4	53	275
	51 - 309	10.42	65	28	-	FAF	37	VU/VZ	11	DT	90S4	55	274
	60 - 359	8.97	56	24	-	F	37	VU/VZ	11	DT	90S4	52	-
	67 - 402	8.01	50	21	-	FF	37	VU/VZ	11	DT	90S4	54	274
	80 - 478	6.74	42	18	-								
	89 - 532	6.05	38	16	-								
	103 - 618	5.21	33	14	-								
	109 - 657	4.90	31	13	-								
	127 - 764	4.22	26	11	-								
	142 - 855	3.77	24	10	-								
1.5 / 1.2	1.9 - 12	270.68	2740	1020	-								
	2.0 - 12	255.37	2580	960	-	FA	87	VU/VZ	21	DT	90L4	160	285
	2.2 - 14	228.93	2320	860	-	FAF	87	VU/VZ	21	DT	90L4	175	284
	2.6 - 16	197.20	2000	745	-	F	87	VU/VZ	21	DT	90L4	155	-
	2.8 - 17	179.97	1820	680	-	FF	87	VU/VZ	21	DT	90L4	165	284
	2.4 - 14	225.79	1400	820	-								
	2.7 - 16	198.31	1230	720	-	FA	77	VU/VZ	11	DT	90L4	97	283
	2.9 - 17	188.40	1170	680	-	FAF	77	VU/VZ	11	DT	90L4	110	282
	3.2 - 19	166.47	1040	605	-	F	77	VU/VZ	11	DT	90L4	94	-
	3.8 - 23	142.27	890	515	-	FF	77	VU/VZ	11	DT	90L4	100	282
	2.8 - 17	195.39	820	710	-								
	3.1 - 19	170.85	820	620	-								
	3.3 - 20	162.31	820	590	-	FA	67	VU/VZ	11	DT	90L4	72	281
	3.8 - 23	142.40	820	515	-	FAF	67	VU/VZ	11	DT	90L4	78	280
	4.5 - 27	120.79	750	440	-	F	67	VU/VZ	11	DT	90L4	69	-
	4.9 - 30	109.04	680	395	-	FF	67	VU/VZ	11	DT	90L4	75	280
	5.6 - 34	95.94	595	350	-								
	3.4 - 21	157.09	600	570	-								
	4.0 - 24	136.16	600	495	-								
	4.2 - 25	127.27	600	460	-	FA	57	VU/VZ	11	DT	90L4	65	279
	4.9 - 29	110.01	600	400	-	FAF	57	VU/VZ	11	DT	90L4	71	278
	5.8 - 35	93.47	580	340	-	F	57	VU/VZ	11	DT	90L4	65	-
	6.4 - 39	83.46	520	300	-	FF	57	VU/VZ	11	DT	90L4	70	278
	7.4 - 44	72.98	455	265	-								
	7.9 - 48	68.22	425	245	-								



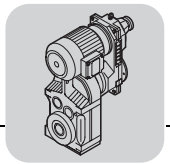
F..VU/VZ..DR/DT/DV.. [kW]

R = 1:5 ... R = 1:6																
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
1.5 / 1.2	5.1	-	31	105.09	400	380	-									
	6.0	-	36	89.29	400	325	-									
	6.7	-	41	79.72	400	290	-									
	7.9	-	48	68.09	400	245	-									
	8.2	-	50	65.36	400	235	-	FA	47	VU/VZ	11	DT	90L4		60	277
	9.5	-	57	56.49	350	205	-	FAF	47	VU/VZ	11	DT	90L4		63	276
	11	-	68	48.00*	300	174	-	F	47	VU/VZ	11	DT	90L4		59	-
	13	-	76	42.86	265	155	-	FF	47	VU/VZ	11	DT	90L4		62	276
	15	-	89	36.61	230	133	-									
	16	-	95	34.29	215	124	-									
	19	-	112	28.88	180	105	-									
	9.8	-	59	54.54	200	198	-									
	10	-	63	51.70	200	187	-									
	11	-	69	47.02	200	170	-									
	12	-	74	43.83	200	159	-	FA	37	VU/VZ	11	DT	90L4		55	275
	14	-	85	38.31	200	139	-	FAF	37	VU/VZ	11	DT	90L4		57	274
	15	-	90	35.91	200	130	-	F	37	VU/VZ	11	DT	90L4		55	-
	17	-	102	31.69	197	115	-	FF	37	VU/VZ	11	DT	90L4		56	274
	19	-	115	28.09	175	102	-									
	23	-	136	23.88	149	87	-									
	23	-	137	23.63	147	86	-									
	26	-	158	20.57	128	75	-									
	28	-	168	19.27	120	70	-									
	32	-	190	17.03	106	62	-									
	37	-	226	14.33	89	52	-									
	42	-	252	12.87	80	47	-									
	48	-	293	11.08	69	40	-	FA	37	VU/VZ	11	DT	90L4		55	275
	52	-	311	10.42	65	38	-	FAF	37	VU/VZ	11	DT	90L4		57	274
	60	-	362	8.97	56	33	-	F	37	VU/VZ	11	DT	90L4		54	-
	67	-	405	8.01	50	29	-	FF	37	VU/VZ	11	DT	90L4		56	274
	80	-	481	6.74	42	24	-									
	89	-	536	6.05	38	22	-									
	103	-	622	5.21	32	19	-									
	110	-	662	4.90	31	18	-									
	127	-	769	4.22	26	15	-									
	143	-	861	3.77	23	14	-									
2.2 / 1.8	1.2	-	7.3	276.77	4300	2340	-									
	1.4	-	8.0	253.41	4300	2150	-	FA	97	VU/VZ	31	DV	112M6		270	287
	1.5	-	9.1	223.88	4300	1900	-	FAF	97	VU/VZ	31	DV	112M6		305	286
	1.8	-	11	189.92	4300	1610	-	F	97	VU/VZ	31	DV	112M6		265	-
	1.9	-	12	174.87	4060	1480	-	FF	97	VU/VZ	31	DV	112M6		285	286
	1.9	-	12	270.68	3000	1490	-	FA	87	VU/VZ	21	DV	100M4		165	285
	2.0	-	12	255.37	3000	1410	-	FAF	87	VU/VZ	21	DV	100M4		180	284
	2.2	-	14	228.93	3000	1260	-	F	87	VU/VZ	21	DV	100M4		160	-
	2.6	-	16	197.20	2590	1090	-	FF	87	VU/VZ	21	DV	100M4		175	284
	2.6	-	16	198.31	1500	1090	-									
	2.7	-	17	188.40	1500	1040	-	FA	77	VU/VZ	21	DV	100M4		125	283
	3.1	-	19	166.47	1500	920	-	FAF	77	VU/VZ	21	DV	100M4		135	282
	3.6	-	22	142.27	1500	785	-	F	77	VU/VZ	21	DV	100M4		120	-
	3.9	-	24	130.42	1500	720	-	FF	77	VU/VZ	21	DV	100M4		125	282
	3.6	-	22	142.40	820	785	-									
	4.2	-	26	120.79	820	665	-									
	4.7	-	29	109.04	820	600	-									
	5.3	-	32	95.94	820	530	-	FA	67	VU/VZ	21	DV	100M4		99	281
	5.6	-	34	90.59	820	500	-	FAF	67	VU/VZ	21	DV	100M4		105	280
	6.4	-	39	79.76	820	440	-	F	67	VU/VZ	21	DV	100M4		97	-
	7.5	-	46	67.65	820	375	-	FF	67	VU/VZ	21	DV	100M4		105	280
	8.3	-	51	61.07	800	335	-									
	9.5	-	58	53.73	705	295	-									
	10	-	61	50.74	665	280	-									



R = 1:5 ... R = 1:6

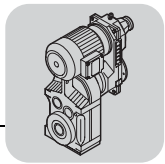
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
2.2 / 1.8	**5.5 - 33**	93.47	600	515	-								
	6.1 - 37	83.46	600	460	-								
	7.0 - 43	72.98	600	405	-								
	7.5 - 46	68.22	600	375	-	**FA**	**57**	**VU/VZ**	**21**	**DV**	**100M4**	93	279
	8.6 - 53	58.97	600	325	-	**FAF**	**57**	**VU/VZ**	**21**	**DV**	**100M4**	99	278
	10 - 62	50.10	600	275	-	**F**	**57**	**VU/VZ**	**21**	**DV**	**100M4**	93	-
	11 - 70	44.73	585	245	-	**FF**	**57**	**VU/VZ**	**21**	**DV**	**100M4**	98	278
	13 - 82	38.21	500	210	-								
	14 - 87	35.79	470	197	-								
	17 - 103	30.15	395	166	-								
	17 - 104	29.94	395	165	-								
	18 - 110	28.45	375	157	-								
	20 - 125	24.96	330	138	-								
	24 - 147	21.17	280	117	-								
	27 - 163	19.11	250	105	-								
	30 - 185	16.81	220	93	-								
	32 - 196	15.88	210	88	-	**FA**	**57**	**VU/VZ**	**21**	**DV**	**100M4**	92	279
	38 - 230	13.52	177	75	-	**FAF**	**57**	**VU/VZ**	**21**	**DV**	**100M4**	99	278
	41 - 254	12.29	161	68	-	**F**	**57**	**VU/VZ**	**21**	**DV**	**100M4**	92	-
	48 - 293	10.64	140	59	-	**FF**	**57**	**VU/VZ**	**21**	**DV**	**100M4**	98	278
	55 - 335	9.31	122	51	-								
	62 - 380	8.19	108	45	-								
	66 - 403	7.73	101	43	-								
	77 - 474	6.58	86	36	-								
	85 - 521	5.98	79	33	-								
	98 - 602	5.18	68	29	-								
3.0 / 2.5	**1.2 - 7.3**	276.77	4300	3190	-	**FA**	**97**	**VU/VZ**	**31**	**DV**	**132S6**	275	287
	1.4 - 8.0	253.41	4300	2920	-	**FAF**	**97**	**VU/VZ**	**31**	**DV**	**132S6**	310	286
	1.5 - 9.1	223.88	4300	2580	-	**F**	**97**	**VU/VZ**	**31**	**DV**	**132S6**	270	-
	1.8 - 11	189.92	4300	2190	-	**FF**	**97**	**VU/VZ**	**31**	**DV**	**132S6**	290	286
	1.9 - 12	174.87	4060	2020	-								
	1.7 - 10	197.20	3000	2270	-	**FA**	**87**	**VU/VZ**	**31**	**DV**	**132S6**	210	285
	1.9 - 11	179.97	3000	2070	-	**FAF**	**87**	**VU/VZ**	**31**	**DV**	**132S6**	225	284
	2.1 - 13	159.61	3000	1840	-	**F**	**87**	**VU/VZ**	**31**	**DV**	**132S6**	205	-
	2.5 - 15	134.16	3000	1550	-	**FF**	**87**	**VU/VZ**	**31**	**DV**	**132S6**	215	284
	1.9 - 11	270.68	3000	2050	-								
	2.0 - 12	255.37	3000	1930	-	**FA**	**87**	**VU/VZ**	**21**	**DV**	**100L4**	170	285
	2.2 - 14	228.93	3000	1730	-	**FAF**	**87**	**VU/VZ**	**21**	**DV**	**100L4**	185	284
	2.6 - 16	197.20	2590	1490	-	**F**	**87**	**VU/VZ**	**21**	**DV**	**100L4**	165	-
	2.8 - 17	179.97	2370	1360	-	**FF**	**87**	**VU/VZ**	**21**	**DV**	**100L4**	175	284
	2.6 - 16	198.31	1500	1500	-								
	2.7 - 16	188.40	1500	1420	-								
	3.1 - 19	166.47	1500	1260	-								
	3.6 - 22	142.27	1500	1080	-	**FA**	**77**	**VU/VZ**	**21**	**DV**	**100L4**	130	283
	3.9 - 24	130.42	1500	990	-	**FAF**	**77**	**VU/VZ**	**21**	**DV**	**100L4**	140	282
	4.4 - 27	114.45	1500	870	-	**F**	**77**	**VU/VZ**	**21**	**DV**	**100L4**	125	-
	4.7 - 29	108.46*	1430	820	-	**FF**	**77**	**VU/VZ**	**21**	**DV**	**100L4**	130	282
	5.4 - 33	94.93	1250	720	-								
	6.0 - 36	85.52	1120	645	-								
	5.3 - 32	95.94	820	725	-								
	5.6 - 34	90.59	820	685	-								
	6.4 - 39	79.76	820	605	-	**FA**	**67**	**VU/VZ**	**21**	**DV**	**100L4**	105	281
	7.5 - 46	67.65	820	510	-	**FAF**	**67**	**VU/VZ**	**21**	**DV**	**100L4**	110	280
	8.3 - 51	61.07	800	460	-	**F**	**67**	**VU/VZ**	**21**	**DV**	**100L4**	100	-
	9.5 - 58	53.73	705	405	-	**FF**	**67**	**VU/VZ**	**21**	**DV**	**100L4**	105	280
	10 - 61	50.74	665	385	-								
	7.0 - 42	72.98	600	550	-								
	7.5 - 45	68.22	600	515	-								
	8.6 - 52	58.97	600	445	-	**FA**	**57**	**VU/VZ**	**21**	**DV**	**100L4**	97	279
	10 - 62	50.10	600	380	-	**FAF**	**57**	**VU/VZ**	**21**	**DV**	**100L4**	105	278
	11 - 69	44.73	590	340	-	**F**	**57**	**VU/VZ**	**21**	**DV**	**100L4**	97	-
	13 - 81	38.21	500	290	-	**FF**	**57**	**VU/VZ**	**21**	**DV**	**100L4**	100	278
	14 - 86	35.79	470	270	-								
	17 - 103	30.15	395	230	-								



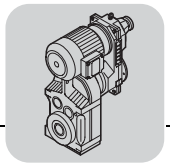
F..VU/VZ..DR/DT/DV.. [kW]

R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
3.0 / 2.5	17 - 103	29.94	395	225	-								
	18 - 109	28.45	375	215	-								
	20 - 124	24.96	330	189	-								
	24 - 146	21.17	280	160	-								
	27 - 162	19.11	250	145	-								
	30 - 184	16.81	220	127	-								
	32 - 195	15.88	210	120	-	FA	57	VU/VZ	21	DV	100L4	96	279
	38 - 229	13.52	178	102	-	FAF	57	VU/VZ	21	DV	100L4	105	278
	41 - 252	12.29	162	93	-	F	57	VU/VZ	21	DV	100L4	96	-
	48 - 291	10.64	140	81	-	FF	57	VU/VZ	21	DV	100L4	100	278
	55 - 332	9.31	122	70	-								
	62 - 378	8.19	108	62	-								
	66 - 400	7.73	102	59	-								
	77 - 470	6.58	87	50	-								
	85 - 517	5.98	79	45	-								
	98 - 597	5.18	68	39	-								
4.0 / 3.3	1.3 - 8.0	254.40*	7680	3940	-	FA	107	VU/VZ	41	DV	132M6	425	289
	1.6 - 9.5	215.37	7680	3340	-	FAF	107	VU/VZ	41	DV	132M6	455	288
	1.7 - 10	199.31	7680	3090	-	F	107	VU/VZ	41	DV	132M6	410	-
	1.9 - 11	178.64	7680	2770	-	FF	107	VU/VZ	41	DV	132M6	430	288
	1.8 - 11	276.77	4300	2840	-								
	2.0 - 12	253.41	4300	2600	-	FA	97	VU/VZ	31	DV	112M4	270	287
	2.3 - 14	223.88	4300	2300	-	FAF	97	VU/VZ	31	DV	112M4	305	286
	2.7 - 16	189.92	4300	1950	-	F	97	VU/VZ	31	DV	112M4	265	-
	2.9 - 18	174.87	4090	1800	-	FF	97	VU/VZ	31	DV	112M4	285	286
	2.6 - 16	197.20	3000	2030	-								
	2.8 - 17	179.97	3000	1850	-	FA	87	VU/VZ	31	DV	112M4	205	285
	3.2 - 19	159.61	3000	1640	-	FAF	87	VU/VZ	31	DV	112M4	220	284
	3.8 - 23	134.16	3000	1380	-	F	87	VU/VZ	31	DV	112M4	200	-
	4.1 - 25	123.29	2880	1270	-	FF	87	VU/VZ	31	DV	112M4	210	284
	3.6 - 22	142.27	1500	1460	-								
	3.9 - 24	130.42	1500	1340	-								
	4.5 - 27	114.45	1500	1180	-								
	4.7 - 28	108.46*	1500	1110	-	FA	77	VU/VZ	31	DV	112M4	160	283
	5.4 - 32	94.93	1500	980	-	FAF	77	VU/VZ	31	DV	112M4	170	282
	6.0 - 36	85.52	1500	880	-	F	77	VU/VZ	31	DV	112M4	160	-
	6.8 - 41	75.02	1500	770	-	FF	77	VU/VZ	31	DV	112M4	165	282
	7.0 - 42	72.50	1500	745	-								
	7.7 - 46	66.46	1500	685	-								
	7.5 - 45	67.65	820	695	-								
	8.4 - 50	61.07	820	630	-								
	9.5 - 57	53.73	820	550	-	FA	67	VU/VZ	31	DV	112M4	140	281
	10 - 60	50.74	820	520	-	FAF	67	VU/VZ	31	DV	112M4	145	280
	12 - 71	43.20	820	445	-	F	67	VU/VZ	31	DV	112M4	135	-
	13 - 78	39.26	780	405	-	FF	67	VU/VZ	31	DV	112M4	140	280
	15 - 90	34.01	740	350	-								
	10 - 61	50.10	600	515	-								
	11 - 69	44.73	600	460	-	FA	57	VU/VZ	31	DV	112M4	130	279
	13 - 80	38.21	600	395	-	FAF	57	VU/VZ	31	DV	112M4	140	278
	14 - 86	35.79	600	370	-	F	57	VU/VZ	31	DV	112M4	130	-
	17 - 102	30.15	590	310	-	FF	57	VU/VZ	31	DV	112M4	135	278
	24 - 145	21.17	495	220	-								
	27 - 161	19.11	445	196	-								
	30 - 182	16.81	395	173	-								
	32 - 193	15.88	370	163	-								
	38 - 227	13.52	315	139	-								
	42 - 250	12.29	290	126	-	FA	57	VU/VZ	31	DV	112M4	130	279
	48 - 288	10.64	250	109	-	FAF	57	VU/VZ	31	DV	112M4	140	278
	55 - 329	9.31	220	96	-	F	57	VU/VZ	31	DV	112M4	130	-
	62 - 375	8.19	192	84	-	FF	57	VU/VZ	31	DV	112M4	135	278
	66 - 397	7.73	181	79	-								
	78 - 466	6.58	154	68	-								
	85 - 513	5.98	140	61	-								
	99 - 592	5.18	121	53	-								

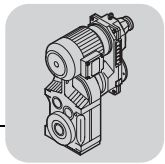


R = 1:5 ... R = 1:6																
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2}	⚠								m [kg]	
5.5 / 4.5	1.3	-	8.0	254.40*	7680	5370	-	FA	107	VU/VZ	41	DV	132ML6		435	289
	1.6	-	9.5	215.37	7680	4550	-	FAF	107	VU/VZ	41	DV	132ML6		465	288
	1.7	-	10	199.31	7680	4210	-	F	107	VU/VZ	41	DV	132ML6		420	-
	1.9	-	11	178.64	7680	3770	-	FF	107	VU/VZ	41	DV	132ML6		440	288
	2.1	-	13	161.28*	7640	3410	-									
	1.9	-	11	276.77	4300	3850	-									
	2.0	-	12	253.41	4300	3530	-									
	2.3	-	14	223.88	4300	3110	-	FA	97	VU/VZ	31	DV	132S4		275	287
	2.7	-	16	189.92	4300	2640	-	FAF	97	VU/VZ	31	DV	132S4		310	286
	2.9	-	18	174.87	4080	2430	-	F	97	VU/VZ	31	DV	132S4		270	-
	3.3	-	20	156.30	3650	2170	-	FF	97	VU/VZ	31	DV	132S4		290	286
	3.6	-	22	140.71	3290	1960	-									
	2.6	-	16	197.20	3000	2740	-									
	2.8	-	17	179.97	3000	2500	-									
	3.2	-	19	159.61	3000	2220	-	FA	87	VU/VZ	31	DV	132S4		210	285
	3.8	-	23	134.16	3000	1870	-	FAF	87	VU/VZ	31	DV	132S4		225	284
	4.2	-	25	123.29	2880	1720	-	F	87	VU/VZ	31	DV	132S4		205	-
	4.7	-	28	109.49	2560	1520	-	FF	87	VU/VZ	31	DV	132S4		215	284
	5.2	-	32	97.89	2290	1360	-									
	5.4	-	33	94.93	1500	1320	-									
	6.0	-	36	85.52	1500	1190	-									
	6.8	-	41	75.02	1500	1040	-	FA	77	VU/VZ	31	DV	132S4		170	283
	7.0	-	43	72.50	1500	1010	-	FAF	77	VU/VZ	31	DV	132S4		180	282
	7.7	-	46	66.46	1500	920	-	F	77	VU/VZ	31	DV	132S4		165	-
	8.8	-	53	58.32	1360	810	-	FF	77	VU/VZ	31	DV	132S4		170	282
	9.2	-	56	55.27	1290	770	-									
	11	-	64	48.37	1130	675	-									
	9.5	-	57	53.73	820	750	-									
	10	-	61	50.74	820	705	-	FA	67	VU/VZ	31	DV	132S4		145	281
	12	-	72	43.20	820	600	-	FAF	67	VU/VZ	31	DV	132S4		150	280
	13	-	79	39.26	780	545	-	F	67	VU/VZ	31	DV	132S4		140	-
	15	-	91	34.01	740	475	-	FF	67	VU/VZ	31	DV	132S4		150	280
	19	-	113	27.41	640	380	-	FA	67	VU/VZ	31	DV	132S4		145	281
	20	-	123	25.13	585	350	-	FAF	67	VU/VZ	31	DV	132S4		150	280
	23	-	140	22.05	515	305	-	F	67	VU/VZ	31	DV	132S4		140	-
	24	-	148	20.90*	490	290	-	FF	67	VU/VZ	31	DV	132S4		145	280
	24	-	146	21.17	495	295	-									
	27	-	162	19.11	445	265	-									
	30	-	184	16.81	395	235	-									
	32	-	195	15.88	370	220	-									
	38	-	228	13.52	315	188	-									
	42	-	251	12.29	285	171	-	FA	57	VU/VZ	31	DV	132S4		135	279
	48	-	290	10.64	250	148	-	FAF	57	VU/VZ	31	DV	132S4		145	278
	55	-	332	9.31	215	130	-	F	57	VU/VZ	31	DV	132S4		135	-
	62	-	377	8.19	191	114	-	FF	57	VU/VZ	31	DV	132S4		145	278
	66	-	400	7.73	181	108	-									
	78	-	469	6.58	154	92	-									
	85	-	517	5.98	140	83	-									
	99	-	596	5.18	121	72	-									
7.5 / 6.2	1.3	-	8.0	254.40*	7680	7400	-	FA	107	VU/VZ	41	DV	160M6		440	289
	1.6	-	9.5	215.37	7680	6270	-	FAF	107	VU/VZ	41	DV	160M6		465	288
	1.7	-	10	199.31	7680	5800	-	F	107	VU/VZ	41	DV	160M6		425	-
	1.9	-	11	178.64	7680	5200	-	FF	107	VU/VZ	41	DV	160M6		445	288
	2.0	-	12	254.40*	7680	4970	-	FA	107	VU/VZ	41	DV	132M4		425	289
	2.3	-	14	215.37	7680	4210	-	FAF	107	VU/VZ	41	DV	132M4		455	288
	2.5	-	15	199.31	7680	3890	-	F	107	VU/VZ	41	DV	132M4		410	-
	2.8	-	17	178.64	7680	3490	-	FF	107	VU/VZ	41	DV	132M4		430	288



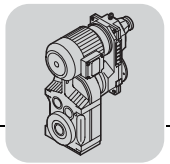
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
7.5 / 6.2	2.6 - 16	189.92	4300	3710	-								
	2.9 - 17	174.87	4300	3420	-								
	3.2 - 19	156.30	4300	3050	-	FA	97	VU/VZ	41	DV	132M4	345	287
	3.6 - 22	140.71	4300	2750	-	FAF	97	VU/VZ	41	DV	132M4	375	286
	3.9 - 24	127.42	4300	2490	-	F	97	VU/VZ	41	DV	132M4	335	-
	4.5 - 27	112.99	4300	2210	-	FF	97	VU/VZ	41	DV	132M4	355	286
	4.9 - 30	102.16	4300	2000	-								
	3.8 - 23	134.16	3000	2620	-								
	4.1 - 25	123.29	3000	2410	-								
	4.6 - 28	109.49	3000	2140	-								
	5.1 - 31	97.89	3000	1910	-	FA	87	VU/VZ	41	DV	132M4	280	285
	5.7 - 34	88.01	3000	1720	-	FAF	87	VU/VZ	41	DV	132M4	295	284
	6.6 - 40	76.39	3000	1490	-	F	87	VU/VZ	41	DV	132M4	270	-
	7.4 - 44	68.40	3000	1340	-	FF	87	VU/VZ	41	DV	132M4	285	284
	8.9 - 53	56.75	2700	1110	-								
	10 - 60	50.36	2390	980	-								
	11 - 67	45.28	2150	880	-								
	15 - 89	33.92	1610	665	-	FA	87	VU/VZ	41	DV	132M4	275	285
	17 - 105	28.78	1370	560	-	FAF	87	VU/VZ	41	DV	132M4	290	284
	19 - 114	26.50	1260	520	-	F	87	VU/VZ	41	DV	132M4	270	-
	21 - 128	23.68	1130	465	-	FF	87	VU/VZ	41	DV	132M4	280	284
	6.7 - 40	75.02	1500	1470	-								
	8.6 - 52	58.32	1500	1140	-								
	9.1 - 55	55.27	1500	1080	-								
	10 - 63	48.37	1500	940	-	FA	77	VU/VZ	41	DV	132M4	235	283
	12 - 70	43.58	1500	850	-	FAF	77	VU/VZ	41	DV	132M4	245	282
	13 - 79	38.23	1500	745	-	F	77	VU/VZ	41	DV	132M4	230	-
	15 - 90	33.74	1500	660	-	FF	77	VU/VZ	41	DV	132M4	240	282
	17 - 101	29.91	1420	585	-								
	20 - 119	25.54	1210	500	-								
	20 - 119	25.50*	1210	500	-								
	23 - 141	21.43	1020	420	-								
	26 - 154	19.70	940	385	-								
	29 - 173	17.49	830	340	-								
	32 - 194	15.64*	745	305	-								
	36 - 216	14.06	670	275	-								
	41 - 248	12.20	580	240	-	FA	77	VU/VZ	41	DV	132M4	235	283
	46 - 277	10.93	520	215	-	FAF	77	VU/VZ	41	DV	132M4	245	282
	54 - 326	9.30	440	182	-	F	77	VU/VZ	41	DV	132M4	230	-
	61 - 367	8.26	390	161	-	FF	77	VU/VZ	41	DV	132M4	240	282
	68 - 410	7.39	350	144	-								
	76 - 457	6.64	315	130	-								
	87 - 526	5.76	275	113	-								
	97 - 588	5.16	245	101	-								
	117 - 708	4.28	205	84	-								
9.2 / 7.5	2.0 - 12	254.40*	7680	5970	-								
	2.3 - 14	215.37	7680	5050	-								
	2.5 - 15	199.31	7680	4680	-	FA	107	VU/VZ	41	DV	132ML4	435	289
	2.8 - 17	178.64	7680	4190	-	FAF	107	VU/VZ	41	DV	132ML4	465	288
	3.1 - 19	161.28*	7650	3780	-	F	107	VU/VZ	41	DV	132ML4	420	-
	3.4 - 21	146.49	6950	3440	-	FF	107	VU/VZ	41	DV	132ML4	440	288
	3.9 - 23	129.97	6160	3050	-								
	2.9 - 17	174.87	4300	4100	-								
	3.2 - 20	156.30	4300	3670	-								
	3.6 - 22	140.71	4300	3300	-								
	4.0 - 24	127.42	4300	2990	-								
	4.5 - 27	112.99	4300	2650	-								
	4.9 - 30	102.16	4300	2400	-	FA	97	VU/VZ	41	DV	132ML4	355	287
	5.2 - 31	97.58	4300	2290	-	FAF	97	VU/VZ	41	DV	132ML4	385	286
	5.6 - 34	89.85	4260	2110	-	F	97	VU/VZ	41	DV	132ML4	345	-
	5.8 - 35	86.59	4110	2030	-	FF	97	VU/VZ	41	DV	132ML4	365	286
	6.3 - 38	80.31	3810	1880	-								
	6.7 - 40	75.63	3590	1770	-								
	7.0 - 42	72.29	3430	1700	-								
	7.7 - 47	65.47	3110	1540	-								



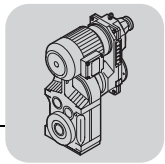
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠						m [kg]	
9.2 / 7.5	**4.1 - 25**	123.29	3000	2890	-							
	4.6 - 28	109.49	3000	2570	-							
	5.1 - 31	97.89	3000	2300	-	**FA**	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	290	285
	5.7 - 35	88.01	3000	2070	-	**FAF**	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	305	284
	6.6 - 40	76.39	3000	1790	-	**F**	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	280	-
	7.4 - 45	68.40	3000	1600	-	**FF**	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	295	284
	8.9 - 54	56.75	2690	1330	-								
	10 - 61	50.36	2390	1180	-								
	11 - 67	45.28	2150	1060	-								
	15 - 90	33.92	1610	795	-	**FA**	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	285	285
	17 - 106	28.78	1360	675	-	**FAF**	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	300	284
	19 - 115	26.50	1260	620	-	**F**	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	280	-
	21 - 129	23.68	1120	555	-	**FF**	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	290	284
	24 - 143	21.32*	1010	500	-								
	8.6 - 52	58.32	1500	1370	-								
	9.1 - 55	55.27	1500	1300	-								
	10 - 63	48.37	1500	1130	-	**FA**	**77**	**VU/VZ**	**41**	**DV**	**132ML4**	245	283
	12 - 70	43.58	1500	1020	-	**FAF**	**77**	**VU/VZ**	**41**	**DV**	**132ML4**	255	282
	13 - 80	38.23	1500	900	-	**F**	**77**	**VU/VZ**	**41**	**DV**	**132ML4**	240	-
	15 - 90	33.74	1500	790	-	**FF**	**77**	**VU/VZ**	**41**	**DV**	**132ML4**	250	282
	17 - 102	29.91	1420	700	-								
	20 - 120	25.54	1210	600	-								
	20 - 120	25.50*	1210	600	-								
	23 - 142	21.43	1020	505	-								
	26 - 155	19.70	930	460	-								
	29 - 175	17.49	830	410	-								
	32 - 195	15.64*	740	365	-								
	36 - 217	14.06	665	330	-								
	41 - 250	12.20	580	285	-	**FA**	**77**	**VU/VZ**	**41**	**DV**	**132ML4**	245	283
	46 - 279	10.93	520	255	-	**FAF**	**77**	**VU/VZ**	**41**	**DV**	**132ML4**	255	282
	54 - 328	9.30	440	220	-	**F**	**77**	**VU/VZ**	**41**	**DV**	**132ML4**	240	-
	61 - 370	8.26	390	194	-	**FF**	**77**	**VU/VZ**	**41**	**DV**	**132ML4**	250	282
	68 - 413	7.39	350	173	-								
	76 - 460	6.64	315	156	-								
	87 - 530	5.76	275	135	-								
	98 - 592	5.16	245	121	-								
	118 - 713	4.28	205	100	-								
11.0 / 9.0	**2.0 - 12**	254.40*	7680	7160	-								
	2.3 - 14	215.37	7680	6060	-								
	2.5 - 15	199.31	7680	5610	-	**FA**	**107**	**VU/VZ**	**41**	**DV**	**160M4**	440	289
	2.8 - 17	178.64	7680	5030	-	**FAF**	**107**	**VU/VZ**	**41**	**DV**	**160M4**	465	288
	3.1 - 19	161.28*	7650	4540	-	**F**	**107**	**VU/VZ**	**41**	**DV**	**160M4**	425	-
	3.4 - 21	146.49	6950	4120	-	**FF**	**107**	**VU/VZ**	**41**	**DV**	**160M4**	445	288
	3.9 - 23	129.97	6160	3660	-								
	4.3 - 26	117.94	5590	3320	-								
	3.6 - 22	140.71	4300	3960	-								
	4.0 - 24	127.42	4300	3590	-								
	4.5 - 27	112.99	4300	3180	-								
	4.9 - 30	102.16	4300	2880	-								
	5.2 - 31	97.58	4300	2750	-	**FA**	**97**	**VU/VZ**	**41**	**DV**	**160M4**	355	287
	5.6 - 34	89.85	4260	2530	-	**FAF**	**97**	**VU/VZ**	**41**	**DV**	**160M4**	390	286
	5.8 - 35	86.59	4110	2440	-	**F**	**97**	**VU/VZ**	**41**	**DV**	**160M4**	350	-
	6.3 - 38	80.31	3810	2260	-	**FF**	**97**	**VU/VZ**	**41**	**DV**	**160M4**	370	286
	6.7 - 40	75.63	3590	2130	-								
	7.0 - 42	72.29	3430	2040	-								
	7.7 - 47	65.47	3110	1840	-								
	5.1 - 31	97.89	3000	2760	-								
	5.7 - 35	88.01	3000	2480	-								
	6.6 - 40	76.39	3000	2150	-	**FA**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	290	285
	7.4 - 45	68.40	3000	1930	-	**FAF**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	305	284
	8.9 - 54	56.75	2690	1600	-	**F**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	285	-
	10 - 61	50.36	2390	1420	-	**FF**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	300	284
	11 - 67	45.28	2150	1270	-								



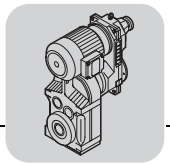
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
11.0 / 9.0	**15 - 90**	33.92	1610	960	-								
	17 - 106	28.78	1360	810	-								
	19 - 115	26.50	1260	745	-								
	21 - 129	23.68	1120	665	-								
	24 - 143	21.32*	1010	600	-								
	26 - 158	19.31	920	545	-								
	29 - 178	17.12	810	480	-								
	33 - 197	15.48	735	435	-	**FA**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	290	285
	38 - 233	13.12*	620	370	-	**FAF**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	305	284
	44 - 266	11.46	545	325	-	**F**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	285	-
	53 - 319	9.58	455	270	M2	**FF**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	295	284
	61 - 368	8.29	395	235	-								
	68 - 415	7.35	350	205	-								
	76 - 459	6.65	315	187	-								
	89 - 542	5.63	265	159	-								
	102 - 620	4.92	235	139	-								
	122 - 742	4.12	195	116	M2								
	10 - 63	48.37	1500	1360	-								
	12 - 70	43.58	1500	1230	-	**FA**	**77**	**VU/VZ**	**41**	**DV**	**160M4**	250	283
	13 - 80	38.23	1500	1080	-	**FAF**	**77**	**VU/VZ**	**41**	**DV**	**160M4**	260	282
	15 - 90	33.74	1500	950	-	**F**	**77**	**VU/VZ**	**41**	**DV**	**160M4**	245	-
	17 - 102	29.91	1420	840	-	**FF**	**77**	**VU/VZ**	**41**	**DV**	**160M4**	255	282
	20 - 120	25.54	1210	720	-								
	20 - 120	25.50*	1210	720	-								
	23 - 142	21.43	1020	605	-								
	26 - 155	19.70	930	555	-								
	29 - 175	17.49	830	495	-								
	32 - 195	15.64*	740	440	-								
	36 - 217	14.06	665	395	-								
	41 - 250	12.20	580	345	-	**FA**	**77**	**VU/VZ**	**41**	**DV**	**160M4**	250	283
	46 - 279	10.93	520	310	-	**FAF**	**77**	**VU/VZ**	**41**	**DV**	**160M4**	260	282
	54 - 328	9.30	440	260	-	**F**	**77**	**VU/VZ**	**41**	**DV**	**160M4**	245	-
	61 - 370	8.26	390	235	-	**FF**	**77**	**VU/VZ**	**41**	**DV**	**160M4**	250	282
	68 - 413	7.39	350	210	-								
	76 - 460	6.64	315	187	-								
	87 - 530	5.76	275	162	-								
	98 - 592	5.16	245	145	-								
	118 - 713	4.28	205	121	-								
15.0 / 12.3	**3.0 - 18**	170.83	12000	6480	-	**FA**	**127**	**VU**	**51**	**DV**	**160L4**	720	291
	3.3 - 20	153.67*	12000	5830	-	**FAF**	**127**	**VU**	**51**	**DV**	**160L4**	770	290
	4.1 - 25	125.37	10500	4760	-	**F**	**127**	**VU**	**51**	**DV**	**160L4**	690	-
	4.5 - 27	114.34	9560	4340	-	**FF**	**127**	**VU**	**51**	**DV**	**160L4**	730	290
	2.6 - 16	199.31	7680	7560	-								
	2.9 - 17	178.64	7680	6780	-								
	3.2 - 19	161.28*	7680	6120	-								
	3.5 - 21	146.49	7680	5560	-	**FA**	**107**	**VU**	**51**	**DV**	**160L4**	550	289
	4.0 - 24	129.97	7680	4930	-	**FAF**	**107**	**VU**	**51**	**DV**	**160L4**	580	288
	4.4 - 26	117.94	7680	4480	-	**F**	**107**	**VU**	**51**	**DV**	**160L4**	540	-
	5.1 - 31	101.38*	7680	3850	-	**FF**	**107**	**VU**	**51**	**DV**	**160L4**	560	288
	5.6 - 33	92.47*	7680	3510	-								
	5.8 - 35	88.49	7400	3360	M2								
	6.1 - 37	83.99	7020	3190	-								
	4.5 - 27	112.99	4300	4290	-								
	5.0 - 30	102.16	4300	3880	-								
	5.7 - 34	89.85	4300	3410	-								
	5.9 - 36	86.59	4300	3290	-								
	6.4 - 39	80.31	4300	3050	-								
	6.8 - 41	75.63	4300	2870	M2	**FA**	**97**	**VU**	**51**	**DV**	**160L4**	470	287
	7.1 - 43	72.29	4300	2740	-	**FAF**	**97**	**VU**	**51**	**DV**	**160L4**	500	286
	7.9 - 47	65.47	4300	2480	-	**F**	**97**	**VU**	**51**	**DV**	**160L4**	460	-
	8.8 - 53	58.06	4300	2200	-	**FF**	**97**	**VU**	**51**	**DV**	**160L4**	480	286
	9.8 - 59	52.49	4300	1990	-								
	12 - 70	44.49	3720	1690	-								
	13 - 80	38.86	3250	1470	M2								
	16 - 95	32.50	2720	1230	M2								



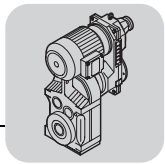
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
15.0 / 12.3	**15 - 91**	33.91	2840	1290	-								
	17 - 102	30.39	2540	1150	-	**FA**	**97**	**VU**	**51**	**DV**	**160L4**	460	287
	19 - 113	27.44*	2300	1040	-	**FAF**	**97**	**VU**	**51**	**DV**	**160L4**	495	286
	21 - 124	24.92	2080	950	-	**F**	**97**	**VU**	**51**	**DV**	**160L4**	455	-
	23 - 140	22.11	1850	840	-	**FF**	**97**	**VU**	**51**	**DV**	**160L4**	475	286
	26 - 154	20.07	1680	760	-								
	6.7 - 41	76.39	3000	2900	-								
	7.5 - 45	68.40	3000	2600	-								
	9.1 - 55	56.75	3000	2150	-	**FA**	**87**	**VU**	**51**	**DV**	**160L4**	400	285
	10 - 61	50.36	2940	1910	-	**FAF**	**87**	**VU**	**51**	**DV**	**160L4**	415	284
	11 - 68	45.28	2820	1720	-	**F**	**87**	**VU**	**51**	**DV**	**160L4**	395	-
	13 - 79	39.30	2720	1490	-	**FF**	**87**	**VU**	**51**	**DV**	**160L4**	410	284
	15 - 88	35.19	2610	1340	-								
	18 - 106	29.20	2440	1110	-								
	19 - 117	26.50	2220	1010	-								
	22 - 131	23.68	1980	900	-								
	24 - 145	21.32*	1780	810	-								
	27 - 160	19.31	1610	735	-								
	30 - 181	17.12	1430	650	-								
	33 - 200	15.48	1290	590	-								
	39 - 236	13.12*	1100	500	-	**FA**	**87**	**VU**	**51**	**DV**	**160L4**	400	285
	45 - 270	11.46	960	435	M2	**FAF**	**87**	**VU**	**51**	**DV**	**160L4**	415	284
	54 - 323	9.58	800	365	M2	**F**	**87**	**VU**	**51**	**DV**	**160L4**	395	-
	62 - 373	8.29	695	315	-	**FF**	**87**	**VU**	**51**	**DV**	**160L4**	405	284
	70 - 421	7.35	615	280	-								
	77 - 466	6.65	555	250	-								
	91 - 549	5.63	470	215	-								
	104 - 629	4.92	410	187	M2								
	125 - 752	4.12	345	156	M2								
18.5 / 15.2	**3.0 - 18**	170.83	12000	7980	-	**FA**	**127**	**VU**	**51**	**DV**	**180M4**	770	291
	3.4 - 20	153.67*	12000	7180	-	**FAF**	**127**	**VU**	**51**	**DV**	**180M4**	820	290
	4.1 - 25	125.37	10500	5860	-	**F**	**127**	**VU**	**51**	**DV**	**180M4**	740	-
	4.5 - 27	114.34	9560	5340	-	**FF**	**127**	**VU**	**51**	**DV**	**180M4**	780	290
	3.2 - 19	161.28*	7680	7540	-								
	3.5 - 21	146.49	7680	6850	-								
	4.0 - 24	129.97	7680	6070	-								
	4.4 - 26	117.94	7680	5510	-	**FA**	**107**	**VU**	**51**	**DV**	**180M4**	600	289
	5.1 - 31	101.38*	7680	4740	-	**FAF**	**107**	**VU**	**51**	**DV**	**180M4**	630	288
	5.6 - 34	92.47*	7680	4320	-	**F**	**107**	**VU**	**51**	**DV**	**180M4**	590	-
	5.8 - 35	88.49	7400	4140	M2	**FF**	**107**	**VU**	**51**	**DV**	**180M4**	610	288
	6.1 - 37	83.99	7020	3930	-								
	6.9 - 42	74.52	6230	3480	-								
	7.6 - 46	67.62	5650	3160	-								
	5.7 - 35	89.85	4300	4200	-								
	5.9 - 36	86.59	4300	4050	-	**FA**	**97**	**VU**	**51**	**DV**	**180M4**	520	287
	6.4 - 39	80.31	4300	3750	-	**FAF**	**97**	**VU**	**51**	**DV**	**180M4**	550	286
	6.8 - 41	75.63	4300	3530	M2	**F**	**97**	**VU**	**51**	**DV**	**180M4**	510	-
	7.1 - 43	72.29	4300	3380	-	**FF**	**97**	**VU**	**51**	**DV**	**180M4**	530	286
	15 - 92	33.91	2830	1580	-	**FA**	**97**	**VU**	**51**	**DV**	**180M4**	510	287
	17 - 102	30.39	2540	1420	-	**FAF**	**97**	**VU**	**51**	**DV**	**180M4**	550	286
	19 - 113	27.44*	2290	1280	-	**F**	**97**	**VU**	**51**	**DV**	**180M4**	500	-
	21 - 125	24.92	2080	1160	-	**FF**	**97**	**VU**	**51**	**DV**	**180M4**	530	286
	9.1 - 55	56.75	3000	2650	M2								
	10 - 62	50.36	2940	2350	-	**FA**	**87**	**VU**	**51**	**DV**	**180M4**	450	285
	11 - 69	45.28	2820	2120	-	**FAF**	**87**	**VU**	**51**	**DV**	**180M4**	465	284
	13 - 79	39.30	2720	1840	-	**F**	**87**	**VU**	**51**	**DV**	**180M4**	445	-
	15 - 88	35.19	2610	1640	-	**FF**	**87**	**VU**	**51**	**DV**	**180M4**	460	284
	18 - 106	29.20	2440	1360	M2								



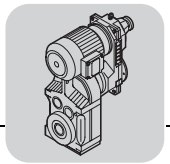
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
18.5 / 15.2	**19 - 117**	26.50	2210	1240	-								
	22 - 131	23.68	1980	1110	-								
	24 - 146	21.32*	1780	1000	-								
	27 - 161	19.31	1610	900	-								
	30 - 181	17.12	1430	800	-								
	33 - 201	15.48	1290	725	-								
	39 - 237	13.12*	1100	615	-	**FA**	**87**	**VU**	**51**	**DV**	**180M4**	450	285
	45 - 271	11.46	960	535	M2	**FAF**	**87**	**VU**	**51**	**DV**	**180M4**	465	284
	54 - 324	9.58	800	450	M2	**F**	**87**	**VU**	**51**	**DV**	**180M4**	445	-
	62 - 375	8.29	695	390	-	**FF**	**87**	**VU**	**51**	**DV**	**180M4**	455	284
	70 - 422	7.35	615	345	-								
	77 - 467	6.65	555	310	-								
	91 - 551	5.63	470	265	-								
	105 - 631	4.92	410	230	M2								
	125 - 755	4.12	345	192	M2								
22 / 18.0	**3.0 - 18**	170.83	12000	9460	-	**FA**	**127**	**VU**	**51**	**DV**	**180L4**	790	291
	3.4 - 20	153.67*	12000	8510	-	**FAF**	**127**	**VU**	**51**	**DV**	**180L4**	830	290
	4.1 - 25	125.37	10500	6940	-	**F**	**127**	**VU**	**51**	**DV**	**180L4**	750	-
	4.5 - 27	114.34	9560	6330	-	**FF**	**127**	**VU**	**51**	**DV**	**180L4**	790	290
	4.0 - 24	129.97	7680	7190	-								
	4.4 - 26	117.94	7680	6530	-	**FA**	**107**	**VU**	**51**	**DV**	**180L4**	620	289
	5.1 - 31	101.38*	7680	5610	M2	**FAF**	**107**	**VU**	**51**	**DV**	**180L4**	650	288
	5.6 - 34	92.47*	7680	5120	-	**F**	**107**	**VU**	**51**	**DV**	**180L4**	600	-
	5.8 - 35	88.49	7400	4900	M2	**FF**	**107**	**VU**	**51**	**DV**	**180L4**	620	288
	6.1 - 37	83.99	7020	4650	-								
	6.8 - 41	75.63	4300	4190	M2	**FA**	**97**	**VU**	**51**	**DV**	**180L4**	530	287
	7.1 - 43	72.29	4300	4000	-	**FAF**	**97**	**VU**	**51**	**DV**	**180L4**	560	286
	7.9 - 47	65.47	4300	3620	-	**F**	**97**	**VU**	**51**	**DV**	**180L4**	520	-
	8.9 - 54	58.06	4300	3210	-	**FF**	**97**	**VU**	**51**	**DV**	**180L4**	550	286
	15 - 92	33.91	2830	1880	-								
	17 - 102	30.39	2540	1680	-	**FA**	**97**	**VU**	**51**	**DV**	**180L4**	530	287
	19 - 113	27.44*	2290	1520	-	**FAF**	**97**	**VU**	**51**	**DV**	**180L4**	560	286
	21 - 125	24.92	2080	1380	-	**F**	**97**	**VU**	**51**	**DV**	**180L4**	520	-
	23 - 140	22.11	1850	1220	-	**FF**	**97**	**VU**	**51**	**DV**	**180L4**	540	286
	10 - 62	50.36	2940	2790	-								
	11 - 69	45.28	2820	2510	-	**FA**	**87**	**VU**	**51**	**DV**	**180L4**	465	285
	13 - 79	39.30	2720	2180	-	**FAF**	**87**	**VU**	**51**	**DV**	**180L4**	480	284
	15 - 88	35.19	2610	1950	-	**F**	**87**	**VU**	**51**	**DV**	**180L4**	460	-
	18 - 106	29.20	2440	1620	M2	**FF**	**87**	**VU**	**51**	**DV**	**180L4**	470	284
	19 - 117	26.50	2210	1470	-								
	22 - 131	23.68	1980	1310	-								
	24 - 146	21.32*	1780	1180	-								
	27 - 161	19.31	1610	1070	-								
	30 - 181	17.12	1430	950	-								
	33 - 201	15.48	1290	860	-								
	39 - 237	13.12*	1100	725	-	**FA**	**87**	**VU**	**51**	**DV**	**180L4**	460	285
	45 - 271	11.46	960	635	M2	**FAF**	**87**	**VU**	**51**	**DV**	**180L4**	480	284
	54 - 324	9.58	800	530	M2	**F**	**87**	**VU**	**51**	**DV**	**180L4**	455	-
	62 - 375	8.29	695	460	-	**FF**	**87**	**VU**	**51**	**DV**	**180L4**	470	284
	70 - 422	7.35	615	405	-								
	77 - 467	6.65	555	370	-								
	91 - 551	5.63	470	310	-								
	105 - 631	4.92	410	270	M2								
	125 - 755	4.12	345	230	M2								



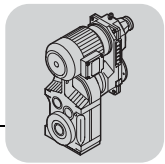
R = 1:4

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
30 / 25	**3.1 - 14**	178.20*	18000	16800	-	**FA**	**157**	**VU**	**6**	**DV**	**200L4**	1170	293
	3.4 - 16	162.96	18000	15400	-	**FAF**	**157**	**VU**	**6**	**DV**	**200L4**	1280	292
	3.9 - 18	141.80*	18000	13400	-	**F**	**157**	**VU**	**6**	**DV**	**200L4**	1150	-
	4.4 - 20	125.14	18000	11800	-	**FF**	**157**	**VU**	**6**	**DV**	**200L4**	1210	292
	4.4 - 20	125.37	12000	11800	-								
	4.8 - 22	114.34	12000	10800	-	**FA**	**127**	**VU**	**6**	**DV**	**200L4**	910	291
	5.5 - 26	98.95	12000	9340	-	**FAF**	**127**	**VU**	**6**	**DV**	**200L4**	960	290
	6.3 - 29	87.31*	12000	8240	-	**F**	**127**	**VU**	**6**	**DV**	**200L4**	870	-
	7.3 - 34	75.41*	12000	7120	-	**FF**	**127**	**VU**	**6**	**DV**	**200L4**	910	290
	7.4 - 34	74.52	7680	7040	-								
	8.1 - 37	67.62	7680	6390	-								
	9.4 - 44	58.12*	7680	5490	-	**FA**	**107**	**VU**	**6**	**DV**	**200L4**	750	289
	11 - 50	50.73	7680	4790	-	**FAF**	**107**	**VU**	**6**	**DV**	**200L4**	780	288
	13 - 59	43.03	7490	4060	M2	**F**	**107**	**VU**	**6**	**DV**	**200L4**	730	-
	15 - 67	37.61	6550	3550	M2,5-6	**FF**	**107**	**VU**	**6**	**DV**	**200L4**	750	288
	17 - 80	31.80	5530	3000	M2,4-6								
	16 - 75	33.79*	5880	3190	-								
	20 - 92	27.57	4800	2600	-								
	22 - 101	25.14	4380	2370	-								
	25 - 116	21.76*	3790	2050	-								
	29 - 132	19.20*	3340	1810	-								
	33 - 152	16.58	2890	1570	-	**FA**	**107**	**VU**	**6**	**DV**	**200L4**	740	289
	37 - 172	14.67	2550	1390	M2	**FAF**	**107**	**VU**	**6**	**DV**	**200L4**	770	288
	45 - 205	12.33	2150	1160	M2,5-6	**F**	**107**	**VU**	**6**	**DV**	**200L4**	720	-
	55 - 254	9.96	1730	940	M2,4-6	**FF**	**107**	**VU**	**6**	**DV**	**200L4**	740	288
	57 - 261	9.69	1690	920	-								
	66 - 302	8.37	1460	790	-								
	74 - 341	7.40	1290	700	M2								
	88 - 406	6.22	1080	590	M2,5-6								

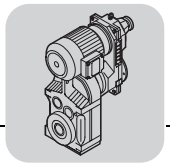


F..VU/VZ..DR/DT/DV.. [kW]

R = 1:3															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
37 / 30	**5.5**	**-**	**17**	125.14	18000	17200	-	**FA**	**157**	**VU**	**6**	**DV**	**225S4**	1250	293
	6.3	**-**	**19**	108.49	18000	14900	-	**FAF**	**157**	**VU**	**6**	**DV**	**225S4**	1360	292
								F	**157**	**VU**	**6**	**DV**	**225S4**	1230	-
								FF	**157**	**VU**	**6**	**DV**	**225S4**	1290	292
	7.9	**-**	**24**	87.31*	12000	12000	-	**FA**	**127**	**VU**	**6**	**DV**	**225S4**	1000	291
	9.1	**-**	**28**	75.41*	12000	10300	-	**FAF**	**127**	**VU**	**6**	**DV**	**225S4**	1040	290
	9.8	**-**	**30**	70.07	12000	9620	-	**F**	**127**	**VU**	**6**	**DV**	**225S4**	960	-
	11	**-**	**33**	63.91	12000	8770	-	**FF**	**127**	**VU**	**6**	**DV**	**225S4**	1000	290
	14	**-**	**41**	50.73	7680	6960	-	**FA**	**107**	**VU**	**6**	**DV**	**225S4**	830	289
	16	**-**	**49**	43.03	7680	5910	-	**FAF**	**107**	**VU**	**6**	**DV**	**225S4**	860	288
	18	**-**	**56**	37.61	7680	5160	M2	**F**	**107**	**VU**	**6**	**DV**	**225S4**	820	-
	22	**-**	**66**	31.80	6620	4360	M2,5-6	**FF**	**107**	**VU**	**6**	**DV**	**225S4**	840	288
	20	**-**	**62**	33.79*	7040	4640	-								
	25	**-**	**76**	27.57	5740	3780	-								
	27	**-**	**83**	25.14	5240	3450	-								
	32	**-**	**96**	21.76*	4530	2990	-								
	36	**-**	**109**	19.20*	4000	2640	-								
	41	**-**	**126**	16.58	3450	2280	-	**FA**	**107**	**VU**	**6**	**DV**	**225S4**	820	289
	47	**-**	**142**	14.67	3050	2010	-	**FAF**	**107**	**VU**	**6**	**DV**	**225S4**	850	288
	56	**-**	**169**	12.33	2570	1690	M2	**F**	**107**	**VU**	**6**	**DV**	**225S4**	810	-
	69	**-**	**210**	9.96	2070	1370	M2,5-6	**FF**	**107**	**VU**	**6**	**DV**	**225S4**	830	288
	71	**-**	**215**	9.69	2020	1330	-								
	82	**-**	**249**	8.37	1740	1150	-								
	93	**-**	**282**	7.40	1540	1020	-								
	111	**-**	**335**	6.22	1300	850	M2								
45 / 37	**7.1**	**-**	**22**	96.53*	18000	16300	-	**FA**	**157**	**VU**	**6**	**DV**	**225M4**	1280	293
	8.0	**-**	**24**	85.80*	17900	14500	-	**FAF**	**157**	**VU**	**6**	**DV**	**225M4**	1390	292
	8.8	**-**	**27**	78.46	16300	13300	-	**F**	**157**	**VU**	**6**	**DV**	**225M4**	1260	-
								FF	**157**	**VU**	**6**	**DV**	**225M4**	1320	292
	9.8	**-**	**30**	70.07	12000	11900	-	**FA**	**127**	**VU**	**6**	**DV**	**225M4**	1030	291
	11	**-**	**33**	63.91	12000	10800	-	**FAF**	**127**	**VU**	**6**	**DV**	**225M4**	1070	290
	12	**-**	**38**	55.31	11500	9360	-	**F**	**127**	**VU**	**6**	**DV**	**225M4**	990	-
	14	**-**	**43**	48.80	10200	8260	-	**FF**	**127**	**VU**	**6**	**DV**	**225M4**	1030	290
	16	**-**	**50**	42.15	8780	7130	-								
	16	**-**	**49**	43.03	7680	7280	M2	**FA**	**107**	**VU**	**6**	**DV**	**225M4**	860	289
	18	**-**	**56**	37.61	7680	6370	M2,5-6	**FAF**	**107**	**VU**	**6**	**DV**	**225M4**	890	288
	22	**-**	**66**	31.80	6620	5380	M2,5-6	**F**	**107**	**VU**	**6**	**DV**	**225M4**	850	-
								FF	**107**	**VU**	**6**	**DV**	**225M4**	870	288
	20	**-**	**62**	33.79*	7040	5720	-								
	25	**-**	**76**	27.57	5740	4670	-								
	27	**-**	**83**	25.14	5240	4260	-								
	32	**-**	**96**	21.76*	4530	3680	-								
	36	**-**	**109**	19.20*	4000	3250	-								
	41	**-**	**126**	16.58	3450	2810	-	**FA**	**107**	**VU**	**6**	**DV**	**225M4**	850	289
	47	**-**	**142**	14.67	3050	2480	-	**FAF**	**107**	**VU**	**6**	**DV**	**225M4**	880	288
	56	**-**	**169**	12.33	2570	2090	M2	**F**	**107**	**VU**	**6**	**DV**	**225M4**	840	-
	69	**-**	**210**	9.96	2070	1690	M2,5-6	**FF**	**107**	**VU**	**6**	**DV**	**225M4**	860	288
	71	**-**	**215**	9.69	2020	1640	-								
	82	**-**	**249**	8.37	1740	1420	-								
	93	**-**	**282**	7.40	1540	1250	-								
	111	**-**	**335**	6.22	1300	1050	M2								

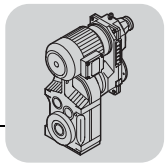


R = 1:7... R = 1:8																
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
0.37 / 0.30	**1.6**	-	**11**	225.79	1390	260	-	**FA**	**77**	**VU/VZ**	**11**	**DT**	**80K6**		89	283
	1.8	-	**12**	198.31	1220	230	-	**FAF**	**77**	**VU/VZ**	**11**	**DT**	**80K6**		100	282
	1.9	-	**13**	188.40	1160	220	-	**F**	**77**	**VU/VZ**	**11**	**DT**	**80K6**		86	-
	2.1	-	**15**	166.47	1020	193	-	**FF**	**77**	**VU/VZ**	**11**	**DT**	**80K6**		92	282
	2.5	-	**17**	142.27	870	165	-									
	1.8	-	**13**	195.39	820	225	-									
	2.1	-	**14**	170.85	820	198	-	**FA**	**67**	**VU/VZ**	**11**	**DT**	**80K6**		63	281
	2.2	-	**15**	162.31	820	188	-	**FAF**	**67**	**VU/VZ**	**11**	**DT**	**80K6**		70	280
	2.5	-	**17**	142.40	820	165	-	**F**	**67**	**VU/VZ**	**11**	**DT**	**80K6**		61	-
	3.0	-	**20**	120.79	740	140	-	**FF**	**67**	**VU/VZ**	**11**	**DT**	**80K6**		67	280
	2.3	-	**16**	157.09	600	182	-									
	2.6	-	**18**	136.16	600	158	-									
	2.8	-	**19**	127.27	600	147	-	**FA**	**57**	**VU/VZ**	**11**	**DT**	**80K6**		57	279
	3.2	-	**23**	110.01	600	127	-	**FAF**	**57**	**VU/VZ**	**11**	**DT**	**80K6**		63	278
	3.8	-	**26**	93.47	575	108	-	**F**	**57**	**VU/VZ**	**11**	**DT**	**80K6**		57	-
	4.3	-	**30**	83.46	515	97	-	**FF**	**57**	**VU/VZ**	**11**	**DT**	**80K6**		62	278
	4.9	-	**34**	72.98	450	85	-									
	5.2	-	**36**	68.22	420	79	-									
	2.4	-	**16**	150.06	400	174	-									
	2.8	-	**19**	130.07	400	151	-									
	2.9	-	**20**	121.57	400	141	-	**FA**	**47**	**VU/VZ**	**11**	**DT**	**80K6**		52	277
	3.4	-	**24**	105.09	400	122	-	**FAF**	**47**	**VU/VZ**	**11**	**DT**	**80K6**		55	276
	4.0	-	**28**	89.29	400	103	-	**F**	**47**	**VU/VZ**	**11**	**DT**	**80K6**		51	-
	4.5	-	**31**	79.72	400	92	-	**FF**	**47**	**VU/VZ**	**11**	**DT**	**80K6**		54	276
	5.2	-	**36**	68.09	400	79	-									
	5.5	-	**38**	65.36	400	76	-									
	3.6	-	**25**	100.36	200	116	-									
	4.1	-	**29**	86.53	200	100	-									
	4.4	-	**31**	80.65	200	93	-									
	5.1	-	**35**	70.50	200	82	-									
	5.4	-	**37**	66.09	200	77	-									
	6.1	-	**42**	58.32	200	68	-									
	6.6	-	**45**	54.54	200	63	-	**FA**	**37**	**VU/VZ**	**11**	**DT**	**80K6**		47	275
	6.9	-	**48**	51.70	200	60	-	**FAF**	**37**	**VU/VZ**	**11**	**DT**	**80K6**		49	274
	7.6	-	**53**	47.02	200	54	-	**F**	**37**	**VU/VZ**	**11**	**DT**	**80K6**		46	-
	8.2	-	**56**	43.83	200	51	-	**FF**	**37**	**VU/VZ**	**11**	**DT**	**80K6**		48	274
	9.3	-	**65**	38.31	200	44	-									
	10	-	**69**	35.91	200	42	-									
	11	-	**78**	31.69	195	37	-									
	13	-	**88**	28.09	173	33	-									
	15	-	**104**	23.88	147	28	-									
	15	-	**105**	23.63	145	27	-									
	17	-	**120**	20.57	126	24	-									
	19	-	**128**	19.27	118	22	-									
	21	-	**145**	17.03	105	20	-									
	25	-	**173**	14.33	88	17	-									
	28	-	**192**	12.87	79	15	-									
	32	-	**223**	11.08	68	13	-	**FA**	**37**	**VU/VZ**	**11**	**DT**	**80K6**		47	275
	34	-	**237**	10.42	64	12	-	**FAF**	**37**	**VU/VZ**	**11**	**DT**	**80K6**		49	274
	40	-	**276**	8.97	55	10	-	**F**	**37**	**VU/VZ**	**11**	**DT**	**80K6**		46	-
	45	-	**309**	8.01	49	9.3	-	**FF**	**37**	**VU/VZ**	**11**	**DT**	**80K6**		48	274
	53	-	**367**	6.74	41	7.8	-									
	59	-	**409**	6.05	37	7.0	-									
	69	-	**475**	5.21	32	6.0	-									
	73	-	**505**	4.90	30	5.7	-									
	85	-	**587**	4.22	26	4.9	-									
	95	-	**657**	3.77	23	4.4	-									
0.55 / 0.45	**1.6**	-	**11**	225.79	1390	390	-	**FA**	**77**	**VU/VZ**	**11**	**DT**	**80N6**		90	283
	1.8	-	**12**	198.31	1220	345	-	**FAF**	**77**	**VU/VZ**	**11**	**DT**	**80N6**		100	282
	1.9	-	**13**	188.40	1160	325	-	**F**	**77**	**VU/VZ**	**11**	**DT**	**80N6**		87	-
	2.1	-	**15**	166.47	1020	290	-	**FF**	**77**	**VU/VZ**	**11**	**DT**	**80N6**		93	282

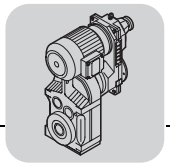


F..VU/VZ..DR/DT/DV.. [kW]

R = 1:7... R = 1:8															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠									m [kg]	
0.55 / 0.45	1.8 - 13	195.39	820	340	-	FA	67	VU/VZ	11	DT	80N6	64	281
	2.1 - 14	170.85	820	295	-	FAF	67	VU/VZ	11	DT	80N6	71	280
	2.2 - 15	162.31	820	280	-	F	67	VU/VZ	11	DT	80N6	62	-
	2.5 - 17	142.40	820	245	-	FF	67	VU/VZ	11	DT	80N6	68	280
	3.0 - 20	120.79	740	210	-								
	2.3 - 16	157.09	600	275	-								
	2.6 - 18	136.16	600	235	-								
	2.8 - 19	127.27	600	220	-	FA	57	VU/VZ	11	DT	80N6	58	279
	3.2 - 23	110.01	600	191	-	FAF	57	VU/VZ	11	DT	80N6	64	278
	3.8 - 26	93.47	575	162	-	F	57	VU/VZ	11	DT	80N6	58	-
	4.3 - 30	83.46	515	145	-	FF	57	VU/VZ	11	DT	80N6	63	278
	4.9 - 34	72.98	450	127	-								
	5.2 - 36	68.22	420	119	-								
	2.4 - 16	150.06	400	260	-								
	2.8 - 19	130.07	400	225	-								
	2.9 - 20	121.57	400	210	-								
	3.4 - 24	105.09	400	183	-	FA	47	VU/VZ	11	DT	80N6	53	277
	4.0 - 28	89.29	400	155	-	FAF	47	VU/VZ	11	DT	80N6	56	276
	4.5 - 31	79.72	400	138	-	F	47	VU/VZ	11	DT	80N6	52	-
	5.2 - 36	68.09	400	118	-	FF	47	VU/VZ	11	DT	80N6	55	276
	5.5 - 38	65.36	400	114	-								
	6.3 - 44	56.49	345	98	-								
	3.6 - 25	100.36	200	174	-								
	4.1 - 29	86.53	200	150	-								
	4.4 - 31	80.65	200	140	-								
	5.1 - 35	70.50	200	122	-								
	5.4 - 37	66.09	200	115	-								
	6.1 - 42	58.32	200	101	-								
	6.6 - 45	54.54	200	95	-	FA	37	VU/VZ	11	DT	80N6	48	275
	6.9 - 48	51.70	200	90	-	FAF	37	VU/VZ	11	DT	80N6	50	274
	7.6 - 53	47.02	200	82	-	F	37	VU/VZ	11	DT	80N6	47	-
	8.2 - 56	43.83	200	76	-	FF	37	VU/VZ	11	DT	80N6	49	274
	9.3 - 65	38.31	200	67	-								
	10 - 69	35.91	200	62	-								
	11 - 78	31.69	195	55	-								
	13 - 88	28.09	173	49	-								
	15 - 104	23.88	147	42	-								
	15 - 105	23.63	145	41	-								
	17 - 120	20.57	126	36	-								
	19 - 128	19.27	118	34	-								
	21 - 145	17.03	105	30	-								
	25 - 173	14.33	88	25	-								
	28 - 192	12.87	79	22	-								
	32 - 223	11.08	68	19	-	FA	37	VU/VZ	11	DT	80N6	48	275
	34 - 237	10.42	64	18	-	FAF	37	VU/VZ	11	DT	80N6	50	274
	40 - 276	8.97	55	16	-	F	37	VU/VZ	11	DT	80N6	47	-
	45 - 309	8.01	49	14	-	FF	37	VU/VZ	11	DT	80N6	49	274
	53 - 367	6.74	41	12	-								
	59 - 409	6.05	37	11	-								
	69 - 475	5.21	32	9.0	-								
	73 - 505	4.90	30	8.5	-								
	85 - 587	4.22	26	7.3	-								
	95 - 657	3.77	23	6.5	-								
0.75 / 0.62	1.2 - 9.5	270.68	2670	625	-	FA	87	VU/VZ	21	DT	90S6	160	285
	1.3 - 10	255.37	2520	585	-	FAF	87	VU/VZ	21	DT	90S6	175	284
	1.5 - 11	228.93	2260	525	-	F	87	VU/VZ	21	DT	90S6	150	-
	1.7 - 13	197.20	1940	455	-	FF	87	VU/VZ	21	DT	90S6	165	284
	1.9 - 14	179.97	1770	415	-								
	1.6 - 11	225.79	1390	540	-	FA	77	VU/VZ	11	DT	90S6	95	283
	1.8 - 12	198.31	1220	475	-	FAF	77	VU/VZ	11	DT	90S6	105	282
	1.9 - 13	188.40	1160	450	-	F	77	VU/VZ	11	DT	90S6	92	-
	2.1 - 15	166.47	1020	400	-	FF	77	VU/VZ	11	DT	90S6	98	282

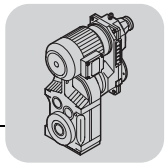


R = 1:7... R = 1:8															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
0.75 / 0.62	1.8	-	13	195.39	820	465	-	FA	67	VU/VZ	11	DT	90S6	70	281
	2.1	-	14	170.85	820	410	-	FAF	67	VU/VZ	11	DT	90S6	76	280
	2.2	-	15	162.31	820	390	-	F	67	VU/VZ	11	DT	90S6	67	-
	2.5	-	17	142.40	820	340	-	FF	67	VU/VZ	11	DT	90S6	73	280
	3.0	-	20	120.79	740	290	-								
	2.3	-	16	157.09	600	375	-								
	2.6	-	18	136.16	600	325	-								
	2.8	-	19	127.27	600	305	-	FA	57	VU/VZ	11	DT	90S6	63	279
	3.2	-	23	110.01	600	265	-	FAF	57	VU/VZ	11	DT	90S6	69	278
	3.8	-	26	93.47	575	225	-	F	57	VU/VZ	11	DT	90S6	63	-
	4.3	-	30	83.46	515	200	-	FF	57	VU/VZ	11	DT	90S6	68	278
	4.9	-	34	72.98	450	175	-								
	5.2	-	36	68.22	420	163	-								
	2.4	-	16	150.06	400	360	-								
	2.8	-	19	130.07	400	310	-								
	2.9	-	20	121.57	400	290	-								
	3.4	-	24	105.09	400	250	-								
	4.0	-	28	89.29	400	215	-								
	4.5	-	31	79.72	400	191	-	FA	47	VU/VZ	11	DT	90S6	58	277
	5.2	-	36	68.09	400	163	-	FAF	47	VU/VZ	11	DT	90S6	61	276
	5.5	-	38	65.36	400	156	-	F	47	VU/VZ	11	DT	90S6	57	-
	6.3	-	44	56.49	345	135	-	FF	47	VU/VZ	11	DT	90S6	60	276
	7.5	-	52	48.00*	295	115	-								
	8.3	-	58	42.86	265	103	-								
	9.8	-	68	36.61	225	88	-								
	10	-	72	34.29	210	82	-								
	12	-	86	28.88	177	69	-								
	4.4	-	31	80.65	200	193	-								
	5.1	-	35	70.50	200	169	-								
	5.4	-	37	66.09	200	158	-								
	6.1	-	42	58.32	200	140	-								
	6.6	-	45	54.54	200	131	-								
	6.9	-	48	51.70	200	124	-	FA	37	VU/VZ	11	DT	90S6	53	275
	7.6	-	53	47.02	200	113	-	FAF	37	VU/VZ	11	DT	90S6	55	274
	8.2	-	56	43.83	200	105	-	F	37	VU/VZ	11	DT	90S6	53	-
	9.3	-	65	38.31	200	92	-	FF	37	VU/VZ	11	DT	90S6	54	274
	10	-	69	35.91	200	86	-								
	11	-	78	31.69	195	76	-								
	13	-	88	28.09	173	67	-								
	15	-	104	23.88	147	57	-								
	15	-	105	23.63	145	57	-								
	17	-	120	20.57	126	49	-								
	19	-	128	19.27	118	46	-								
	21	-	145	17.03	105	41	-								
	25	-	173	14.33	88	34	-								
	28	-	192	12.87	79	31	-								
	32	-	223	11.08	68	27	-	FA	37	VU/VZ	11	DT	90S6	53	275
	34	-	237	10.42	64	25	-	FAF	37	VU/VZ	11	DT	90S6	55	274
	40	-	276	8.97	55	22	-	F	37	VU/VZ	11	DT	90S6	52	-
	45	-	309	8.01	49	19	-	FF	37	VU/VZ	11	DT	90S6	54	274
	53	-	367	6.74	41	16	-								
	59	-	409	6.05	37	15	-								
	69	-	475	5.21	32	13	-								
	73	-	505	4.90	30	12	-								
	85	-	587	4.22	26	10	-								
	95	-	657	3.77	23	9.0	-								
1.1 / 0.90	1.3	-	9.7	270.68	2660	880	-	FA	87	VU/VZ	21	DT	90L6	160	285
	1.3	-	10	255.37	2510	830	-	FAF	87	VU/VZ	21	DT	90L6	175	284
	1.5	-	11	228.93	2250	750	-	F	87	VU/VZ	21	DT	90L6	155	-
	1.7	-	13	197.20	1940	645	-	FF	87	VU/VZ	21	DT	90L6	165	284
	1.9	-	15	179.97	1770	590	-								
	1.6	-	11	225.79	1380	765	-	FA	77	VU/VZ	11	DT	90L6	97	283
	1.8	-	13	198.31	1210	675	-	FAF	77	VU/VZ	11	DT	90L6	110	282
	1.9	-	13	188.40	1150	640	-	F	77	VU/VZ	11	DT	90L6	94	-
	2.2	-	15	166.47	1020	565	-	FF	77	VU/VZ	11	DT	90L6	100	282



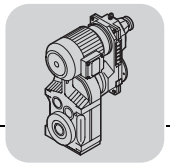
F..VU/VZ..DR/DT/DV.. [kW]

R = 1:7... R = 1:8														
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠						m [kg]	
1.1 / 0.90	1.8	-	13	195.39	820	665	-	FA	67	VU/VZ	11	DT	90L6	72	281
	2.1	-	15	170.85	820	580	-	FAF	67	VU/VZ	11	DT	90L6	78	280
	2.2	-	16	162.31	820	550	-	F	67	VU/VZ	11	DT	90L6	69	-
	2.5	-	18	142.40	820	485	-	FF	67	VU/VZ	11	DT	90L6	75	280
	3.0	-	21	120.79	740	410	-								
	2.3	-	16	157.09	600	535	-								
	2.6	-	19	136.16	600	465	-								
	2.8	-	20	127.27	600	430	-	FA	57	VU/VZ	11	DT	90L6	65	279
	3.3	-	23	110.01	600	375	-	FAF	57	VU/VZ	11	DT	90L6	71	278
	3.8	-	27	93.47	570	320	-	F	57	VU/VZ	11	DT	90L6	65	-
	4.3	-	30	83.46	510	285	-	FF	57	VU/VZ	11	DT	90L6	70	278
	4.9	-	35	72.98	445	250	-								
	5.3	-	37	68.22	420	230	-								
	3.4	-	24	105.09	400	355	-								
	4.0	-	28	89.29	400	305	-								
	4.5	-	32	79.72	400	270	-	FA	47	VU/VZ	11	DT	90L6	60	277
	5.3	-	37	68.09	400	230	-	FAF	47	VU/VZ	11	DT	90L6	63	276
	5.5	-	39	65.36	400	220	-	F	47	VU/VZ	11	DT	90L6	59	-
	6.4	-	45	56.49	345	192	-	FF	47	VU/VZ	11	DT	90L6	62	276
	7.5	-	53	48.00*	295	163	-								
	6.2	-	43	58.32	200	198	-								
	6.6	-	46	54.54	200	185	-								
	6.9	-	49	51.70	200	176	-								
	7.6	-	54	47.02	200	160	-	FA	37	VU/VZ	11	DT	90L6	55	275
	8.2	-	58	43.83	200	149	-	FAF	37	VU/VZ	11	DT	90L6	57	274
	9.4	-	66	38.31	200	130	-	F	37	VU/VZ	11	DT	90L6	55	-
	10	-	70	35.91	200	122	-	FF	37	VU/VZ	11	DT	90L6	56	274
	11	-	80	31.69	194	108	-								
	13	-	90	28.09	172	95	-								
	15	-	106	23.88	146	81	-								
	15	-	107	23.63	145	80	-								
	17	-	123	20.57	126	70	-								
	19	-	131	19.27	118	66	-								
	21	-	149	17.03	104	58	-								
	25	-	177	14.33	88	49	-								
	28	-	197	12.87	79	44	-								
	32	-	228	11.08	68	38	-	FA	37	VU/VZ	11	DT	90L6	55	275
	34	-	243	10.42	64	35	-	FAF	37	VU/VZ	11	DT	90L6	57	274
	40	-	282	8.97	55	31	-	F	37	VU/VZ	11	DT	90L6	54	-
	45	-	316	8.01	49	27	-	FF	37	VU/VZ	11	DT	90L6	56	274
	53	-	375	6.74	41	23	-								
	59	-	418	6.05	37	21	-								
	69	-	485	5.21	32	18	-								
	73	-	516	4.90	30	17	-								
	85	-	600	4.22	26	14	-								
	95	-	671	3.77	23	13	-								
1.5 / 1.2	1.3	-	9.7	270.68	3000	1210	-	FA	87	VU/VZ	21	DV	100M6	165	285
	1.3	-	10	255.37	3000	1140	-	FAF	87	VU/VZ	21	DV	100M6	180	284
	1.5	-	11	228.93	2960	1020	-	F	87	VU/VZ	21	DV	100M6	160	-
	1.7	-	13	197.20	2550	880	-	FF	87	VU/VZ	21	DV	100M6	175	284
	1.7	-	13	198.31	1500	890	-	FA	77	VU/VZ	21	DV	100M6	125	283
	1.8	-	14	188.40	1500	840	-	FAF	77	VU/VZ	21	DV	100M6	135	282
	2.0	-	16	166.47	1500	745	-	F	77	VU/VZ	21	DV	100M6	120	-
	2.4	-	18	142.27	1500	635	-	FF	77	VU/VZ	21	DV	100M6	125	282



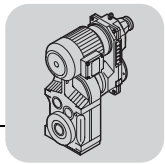
R = 1:7... R = 1:8

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	📖
1.5 / 1.2	**2.0 - 15**	170.85	820	765	-								
	2.1 - 16	162.31	820	725	-								
	2.4 - 18	142.40	820	635	-								
	2.8 - 22	120.79	820	540	-								
	3.1 - 24	109.04	820	485	-	**FA**	**67**	**VU/VZ**	**21**	**DV**	**100M6**	99	281
	3.6 - 27	95.94	820	430	-	**FAF**	**67**	**VU/VZ**	**21**	**DV**	**100M6**	105	280
	3.8 - 29	90.59	820	405	-	**F**	**67**	**VU/VZ**	**21**	**DV**	**100M6**	97	-
	4.3 - 33	79.76	820	355	-	**FF**	**67**	**VU/VZ**	**21**	**DV**	**100M6**	105	280
	5.0 - 39	67.65	820	300	-								
	5.6 - 43	61.07	790	275	-								
	6.3 - 49	53.73	695	240	-								
	6.7 - 52	50.74	655	225	-								
	2.7 - 21	127.27	600	570	-								
	3.1 - 24	110.01	600	490	-								
	3.6 - 28	93.47	600	415	-								
	4.1 - 32	83.46	600	375	-								
	4.7 - 36	72.98	600	325	-	**FA**	**57**	**VU/VZ**	**21**	**DV**	**100M6**	93	279
	5.0 - 39	68.22	600	305	-	**FAF**	**57**	**VU/VZ**	**21**	**DV**	**100M6**	99	278
	5.8 - 45	58.97	600	265	-	**F**	**57**	**VU/VZ**	**21**	**DV**	**100M6**	93	-
	6.8 - 53	50.10	600	225	-	**FF**	**57**	**VU/VZ**	**21**	**DV**	**100M6**	98	278
	7.6 - 59	44.73	580	200	-								
	8.9 - 69	38.21	495	171	-								
	9.5 - 74	35.79	460	160	-								
	11 - 87	30.15	390	135	-								
	11 - 88	29.94	385	134	-								
	12 - 92	28.45	365	127	-								
	14 - 105	24.96	320	111	-								
	16 - 124	21.17	275	95	-								
	18 - 138	19.11	245	85	-								
	20 - 157	16.81	215	75	-								
	21 - 166	15.88	205	71	-	**FA**	**57**	**VU/VZ**	**21**	**DV**	**100M6**	92	279
	25 - 195	13.52	175	60	-	**FAF**	**57**	**VU/VZ**	**21**	**DV**	**100M6**	99	278
	28 - 214	12.29	159	55	-	**F**	**57**	**VU/VZ**	**21**	**DV**	**100M6**	92	-
	32 - 247	10.64	137	48	-	**FF**	**57**	**VU/VZ**	**21**	**DV**	**100M6**	98	278
	37 - 283	9.31	120	42	-								
	42 - 321	8.19	106	37	-								
	44 - 340	7.73	100	35	-								
	52 - 400	6.58	85	29	-								
	57 - 440	5.98	77	27	-								
	66 - 508	5.18	67	23	-								
2.2 / 1.8	**1.2 - 9.7**	276.77	4300	1770	-								
	1.4 - 11	253.41	4300	1620	-	**FA**	**97**	**VU/VZ**	**31**	**DV**	**112M6**	270	287
	1.5 - 12	223.88	4300	1430	-	**FAF**	**97**	**VU/VZ**	**31**	**DV**	**112M6**	305	286
	1.8 - 14	189.92	4300	1210	-	**F**	**97**	**VU/VZ**	**31**	**DV**	**112M6**	265	-
	1.9 - 15	174.87	4060	1120	-	**FF**	**97**	**VU/VZ**	**31**	**DV**	**112M6**	285	286
	2.2 - 17	156.30	3630	1000	-								
	1.7 - 14	197.20	3000	1260	-	**FA**	**87**	**VU/VZ**	**31**	**DV**	**112M6**	205	285
	1.9 - 15	179.97	3000	1150	-	**FAF**	**87**	**VU/VZ**	**31**	**DV**	**112M6**	220	284
	2.1 - 17	159.61	3000	1020	-	**F**	**87**	**VU/VZ**	**31**	**DV**	**112M6**	200	-
	2.5 - 20	134.16	3000	860	-	**FF**	**87**	**VU/VZ**	**31**	**DV**	**112M6**	210	284
	2.4 - 19	142.27	1500	910	-								
	2.6 - 21	130.42	1500	830	-								
	3.0 - 23	114.45	1500	730	-								
	3.1 - 25	108.46*	1500	695	-	**FA**	**77**	**VU/VZ**	**31**	**DV**	**112M6**	160	283
	3.6 - 28	94.93	1500	605	-	**FAF**	**77**	**VU/VZ**	**31**	**DV**	**112M6**	170	282
	4.0 - 31	85.52	1500	545	-	**F**	**77**	**VU/VZ**	**31**	**DV**	**112M6**	160	-
	4.5 - 36	75.02	1500	480	-	**FF**	**77**	**VU/VZ**	**31**	**DV**	**112M6**	165	282
	4.7 - 37	72.50	1500	465	-								
	5.1 - 40	66.46	1500	425	-								
	5.9 - 46	58.32	1350	375	-								



F..VU/VZ..DR/DT/DV.. [kW]

R = 1:7... R = 1:8															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
2.2 / 1.8	2.8	-	22	120.79	820	770	-								
	3.1	-	25	109.04	820	695	-								
	3.6	-	28	95.94	820	615	-								
	3.8	-	30	90.59	820	580	-								
	5.0	-	40	67.65	820	435	-	FA	67	VU/VZ	31	DV	112M6	140	281
	5.6	-	44	61.07	820	390	-	FAF	67	VU/VZ	31	DV	112M6	145	280
	6.4	-	50	53.73	820	345	-	F	67	VU/VZ	31	DV	112M6	135	-
	6.7	-	53	50.74	820	325	-	FF	67	VU/VZ	31	DV	112M6	140	280
	7.9	-	62	43.20	820	275	-								
	8.7	-	68	39.26	780	250	-								
	10	-	79	34.01	740	220	-								
	12	-	98	27.41	635	175	-	FA	67	VU/VZ	31	DV	112M6	135	281
	14	-	107	25.13	585	161	-	FAF	67	VU/VZ	31	DV	112M6	145	280
	15	-	122	22.05	510	141	-	F	67	VU/VZ	31	DV	112M6	135	-
	16	-	129	20.90*	485	134	-	FF	67	VU/VZ	31	DV	112M6	140	280
	3.6	-	29	93.47	600	600	-								
	4.1	-	32	83.46	600	535	-								
	6.8	-	54	50.10	600	320	-	FA	57	VU/VZ	31	DV	112M6	130	279
	7.6	-	60	44.73	600	285	-	FAF	57	VU/VZ	31	DV	112M6	140	278
	8.9	-	70	38.21	600	245	-	F	57	VU/VZ	31	DV	112M6	130	-
	9.5	-	75	35.79	600	230	-	FF	57	VU/VZ	31	DV	112M6	135	278
	11	-	89	30.15	590	193	-								
	16	-	127	21.17	490	135	-								
	18	-	141	19.11	445	122	-								
	20	-	160	16.81	390	108	-								
	22	-	169	15.88	370	102	-								
	25	-	199	13.52	315	86	-	FA	57	VU/VZ	31	DV	112M6	130	279
	28	-	219	12.29	285	79	-	FAF	57	VU/VZ	31	DV	112M6	140	278
	32	-	253	10.64	245	68	-	F	57	VU/VZ	31	DV	112M6	130	-
	37	-	289	9.31	215	60	-	FF	57	VU/VZ	31	DV	112M6	135	278
	42	-	328	8.19	190	52	-								
	44	-	348	7.73	180	49	-								
	52	-	409	6.58	153	42	-								
	57	-	450	5.98	139	38	-								
	66	-	519	5.18	120	33	-								
3.0 / 2.5	1.2	-	9.7	276.77	4300	2410	-								
	1.4	-	11	253.41	4300	2210	-	FA	97	VU/VZ	31	DV	132S6	275	287
	1.5	-	12	223.88	4300	1950	-	FAF	97	VU/VZ	31	DV	132S6	310	286
	1.8	-	14	189.92	4300	1650	-	F	97	VU/VZ	31	DV	132S6	270	-
	1.9	-	15	174.87	4060	1520	-	FF	97	VU/VZ	31	DV	132S6	290	286
	1.7	-	14	197.20	3000	1720	-	FA	87	VU/VZ	31	DV	132S6	210	285
	1.9	-	15	179.97	3000	1570	-	FAF	87	VU/VZ	31	DV	132S6	225	284
	2.1	-	17	159.61	3000	1390	-	F	87	VU/VZ	31	DV	132S6	205	-
	2.5	-	20	134.16	3000	1170	-	FF	87	VU/VZ	31	DV	132S6	215	284
	2.4	-	19	142.27	1500	1240	-								
	2.6	-	21	130.42	1500	1140	-								
	3.0	-	23	114.45	1500	1000	-								
	3.1	-	25	108.46*	1500	940	-	FA	77	VU/VZ	31	DV	132S6	170	283
	3.6	-	28	94.93	1500	830	-	FAF	77	VU/VZ	31	DV	132S6	180	282
	4.0	-	31	85.52	1500	745	-	F	77	VU/VZ	31	DV	132S6	165	-
	4.5	-	36	75.02	1500	655	-	FF	77	VU/VZ	31	DV	132S6	170	282
	4.7	-	37	72.50	1500	630	-								
	5.1	-	40	66.46	1500	580	-								
	5.9	-	46	58.32	1350	510	-								
	3.8	-	30	90.59	820	790	-								
	5.0	-	40	67.65	820	590	-								
	5.6	-	44	61.07	820	530	-	FA	67	VU/VZ	31	DV	132S6	145	281
	6.4	-	50	53.73	820	470	-	FAF	67	VU/VZ	31	DV	132S6	150	280
	6.7	-	53	50.74	820	440	-	F	67	VU/VZ	31	DV	132S6	140	-
	7.9	-	62	43.20	820	375	-	FF	67	VU/VZ	31	DV	132S6	150	280
	8.7	-	68	39.26	780	340	-								
	10	-	79	34.01	740	295	-								



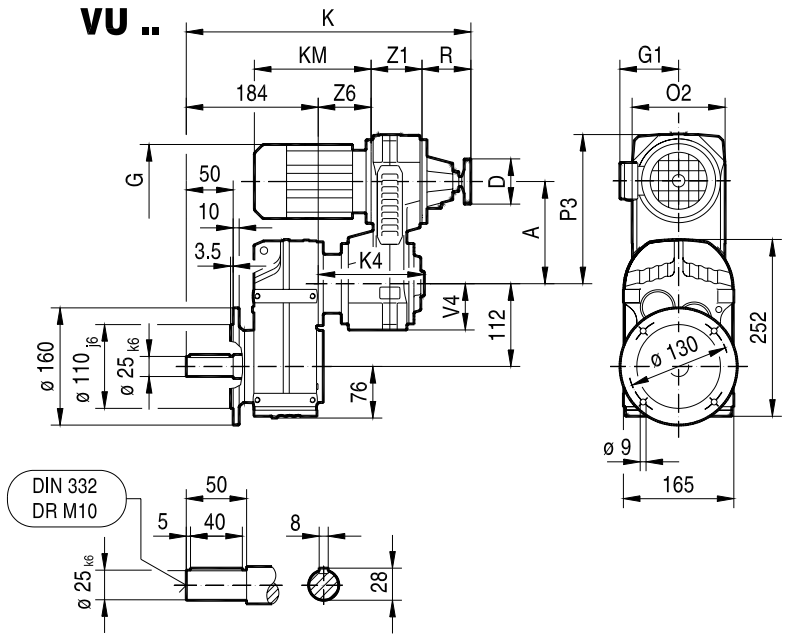
R = 1:7... R = 1:8															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
3.0 / 2.5	12	-	98	27.41	635	240	-	FA	67	VU/VZ	31	DV	132S6	145	281
	14	-	107	25.13	585	220	-	FAF	67	VU/VZ	31	DV	132S6	150	280
	15	-	122	22.05	510	192	-	F	67	VU/VZ	31	DV	132S6	140	-
	16	-	129	20.90*	485	182	-	FF	67	VU/VZ	31	DV	132S6	145	280
	6.8	-	54	50.10	600	435	-	FA	57	VU/VZ	31	DV	132S6	140	279
	7.6	-	60	44.73	600	390	-	FAF	57	VU/VZ	31	DV	132S6	145	278
	8.9	-	70	38.21	600	335	-	F	57	VU/VZ	31	DV	132S6	140	-
	9.5	-	75	35.79	600	310	-	FF	57	VU/VZ	31	DV	132S6	145	278
	11	-	89	30.15	590	260	-								
	16	-	127	21.17	490	184	-								
	18	-	141	19.11	445	166	-								
	20	-	160	16.81	390	146	-								
	22	-	169	15.88	370	138	-								
	25	-	199	13.52	315	118	-								
	28	-	219	12.29	285	107	-	FA	57	VU/VZ	31	DV	132S6	135	279
	32	-	253	10.64	245	93	-	FAF	57	VU/VZ	31	DV	132S6	145	278
	37	-	289	9.31	215	81	-	F	57	VU/VZ	31	DV	132S6	135	-
	42	-	328	8.19	190	71	-	FF	57	VU/VZ	31	DV	132S6	145	278
	44	-	348	7.73	180	67	-								
	52	-	409	6.58	153	57	-								
	57	-	450	5.98	139	52	-								
	66	-	519	5.18	120	45	-								

10.3 F..VU/VZ..DR/DT/DV.. [mm]

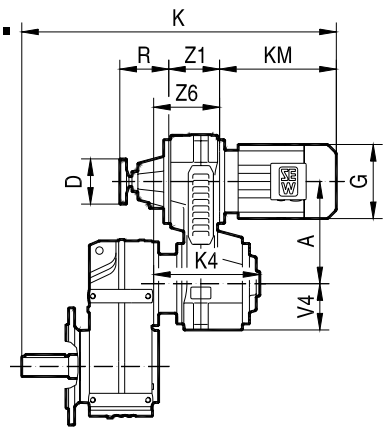
FF37..

14 055 001

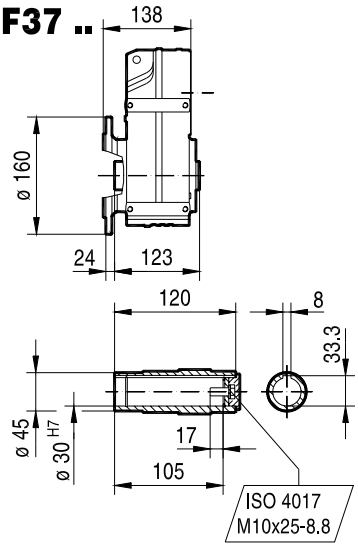
VU ..



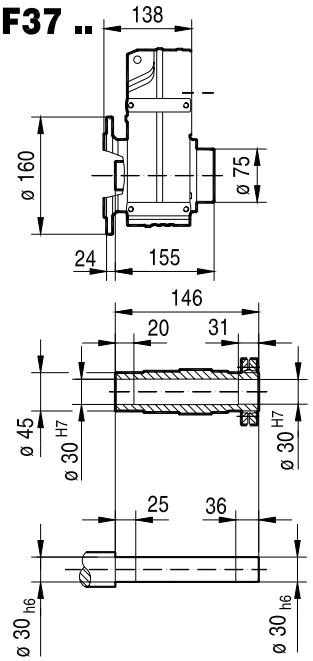
VZ ..



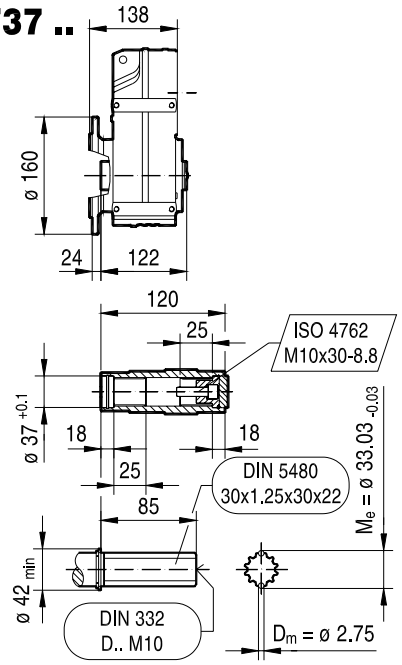
FAF37 ..



FHF37 ..



FVF37 ..

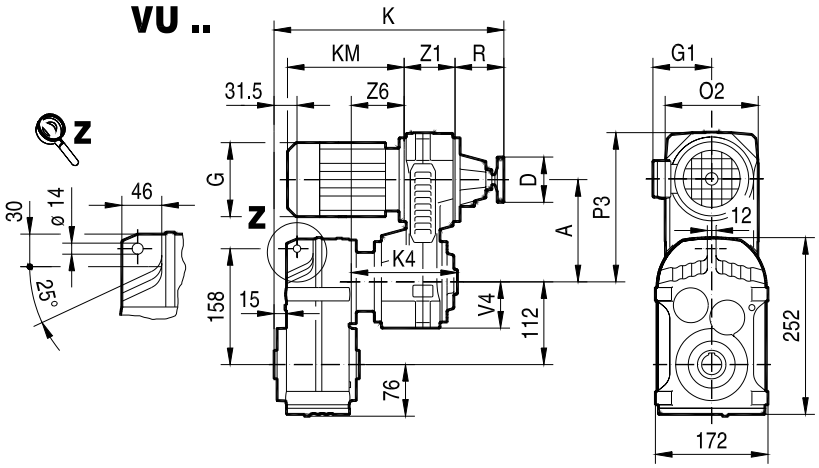


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
FF37 FAF37 FHF37 FVF37	VU01 VZ01	DR63..	182	80	132	105	476	492	187	213	176	269	98	72	80	114	121
		DT71D	182	80	145	122	476	507	202	213	176	269	98	72	80	114	121
		DT80..	182	80	145	122	476	557	252	213	176	269	98	72	80	114	121
	VU11 VZ11	DT80..	232	100	145	122	521	586	252	238	183	322	117	88	98	122	150
		DT90..	232	100	197	154	521	607	273	238	183	322	117	88	98	122	150

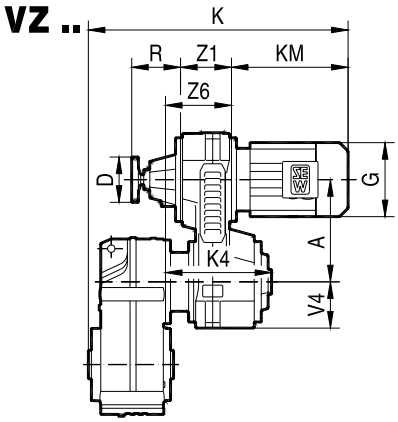
14 056 001

FA37 ..

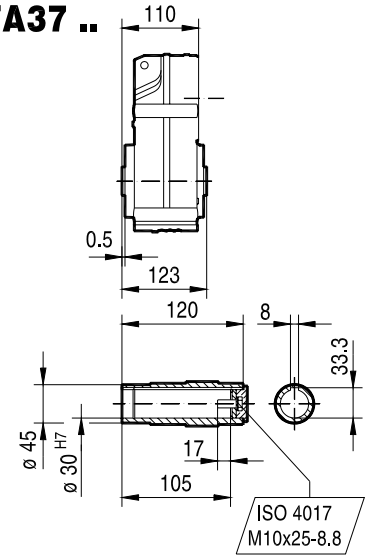
VU ..



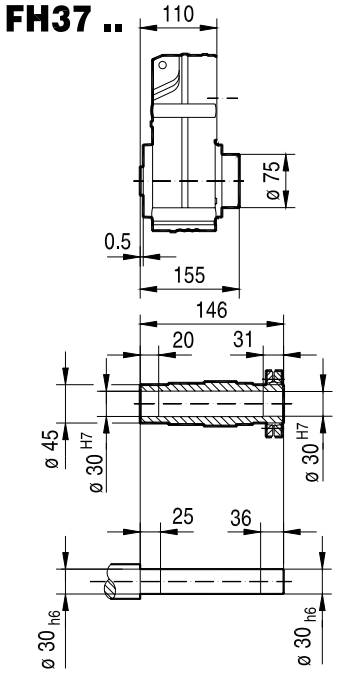
VZ ..



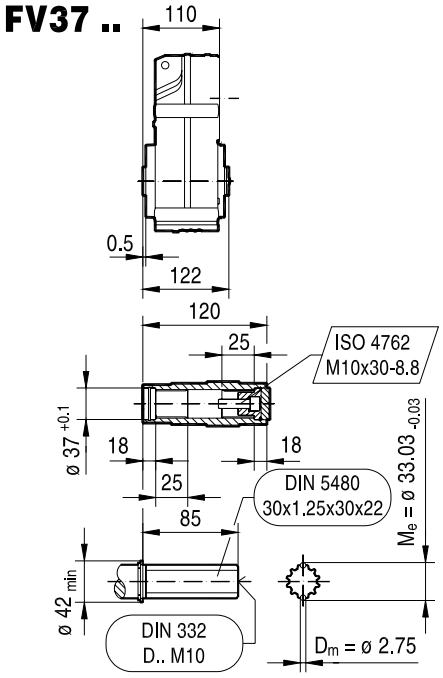
FA37 ..



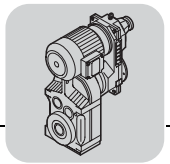
FH37 ..



FV37 ..



(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
FA37 FH37 FV37	VU01 VZ01	DR63..	182	80	132	105	402	418	187	213	176	269	98	72	80	114	121
		DT71D	182	80	145	122	402	433	202	213	176	269	98	72	80	114	121
		DT80..	182	80	145	122	402	483	252	213	176	269	98	72	80	114	121
	VU11 VZ11	DT80..	232	100	145	122	447	512	252	238	183	322	117	88	98	122	150
		DT90..	232	100	197	154	447	533	273	238	183	322	117	88	98	122	150

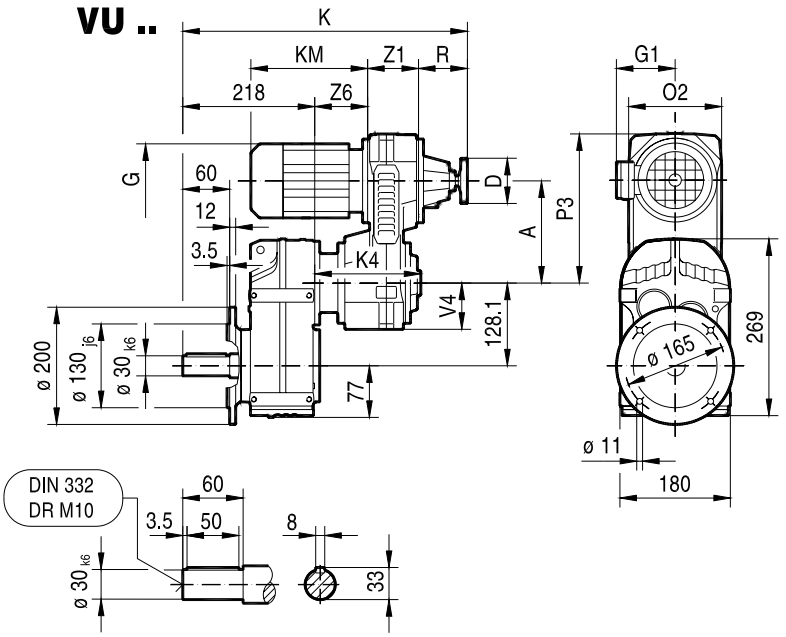


F..VU/VZ..DR/DT/DV.. [mm]

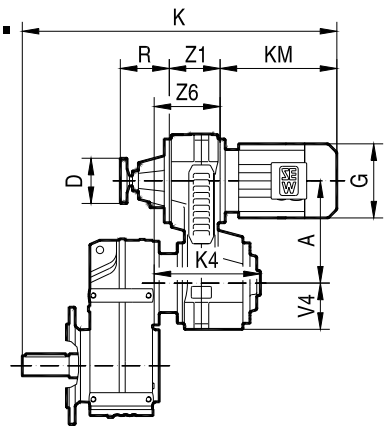
FF47..

14 057 001

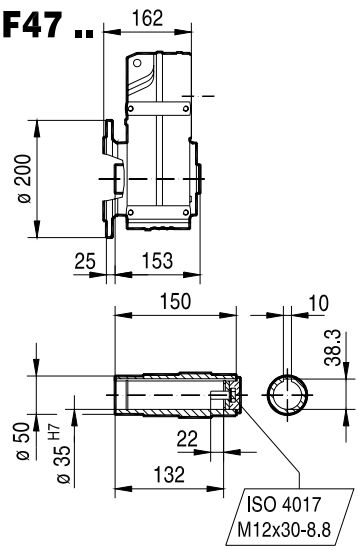
VU ..



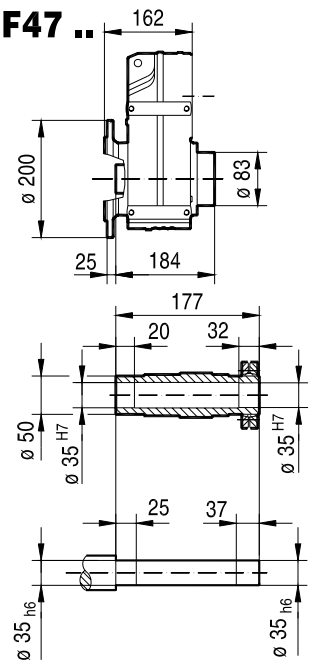
VZ ..



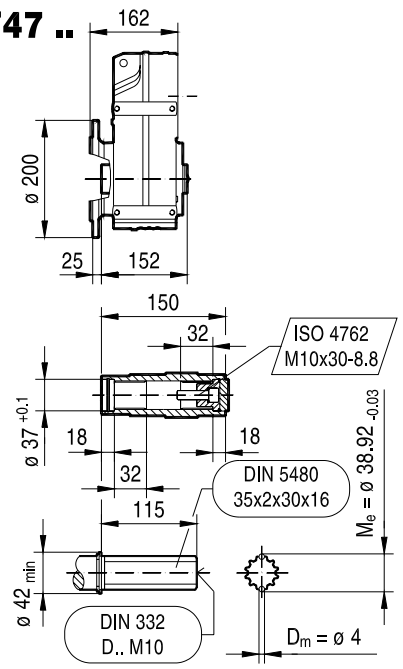
FAF47 ..



FHF47 ..



FVF47 ..

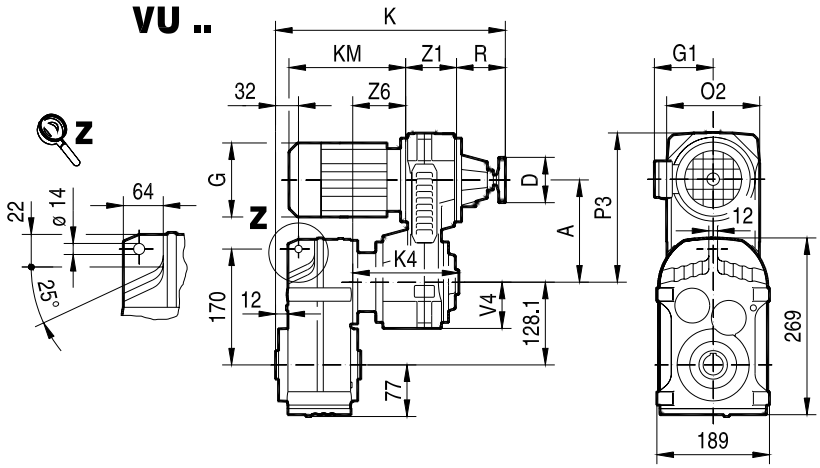


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
FF47 FAF47 FHF47 FVF47	VU01 VZ01	DR63..	182	80	132	105	510	526	187	213	176	269	98	72	80	114	121
		DT71D	182	80	145	122	510	541	202	213	176	269	98	72	80	114	121
		DT80..	182	80	145	122	510	591	252	213	176	269	98	72	80	114	121
	VU11 VZ11	DT80..	232	100	145	122	555	620	252	238	183	322	117	88	98	122	150
		DT90..	232	100	197	154	555	641	273	238	183	322	117	88	98	122	150

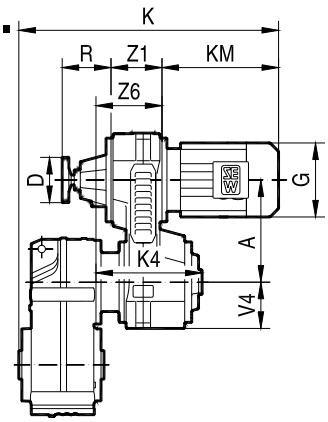
14 058 001

FA47 ..

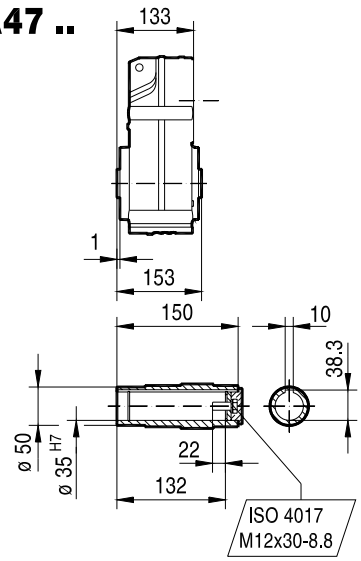
VU ..



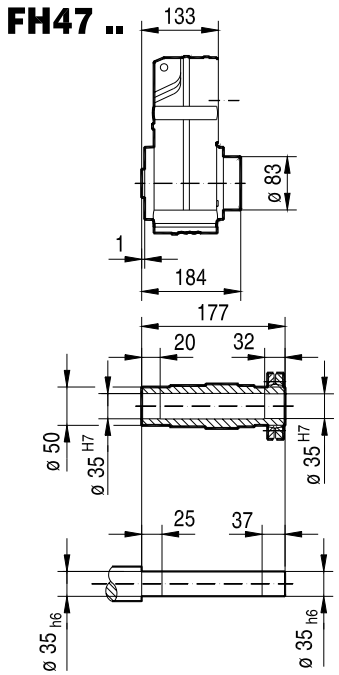
VZ ..



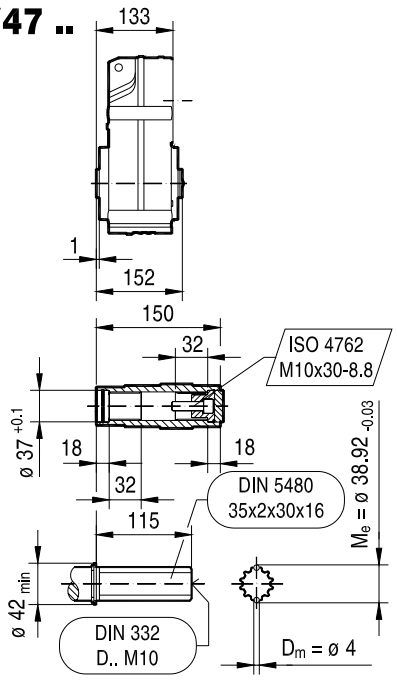
FA47 ..



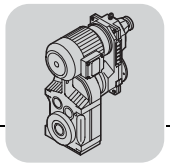
FH47 ..



FV47 ..



(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
FA47 FH47 FV47	VU01 VZ01	DR63..	182	80	132	105	425	441	187	213	176	269	98	72	80	114	121
		DT71D	182	80	145	122	425	456	202	213	176	269	98	72	80	114	121
		DT80..	182	80	145	122	425	506	252	213	176	269	98	72	80	114	121
	VU11 VZ11	DT80..	232	100	145	122	470	535	252	238	183	322	117	88	98	122	150
		DT90..	232	100	197	154	470	556	273	238	183	322	117	88	98	122	150

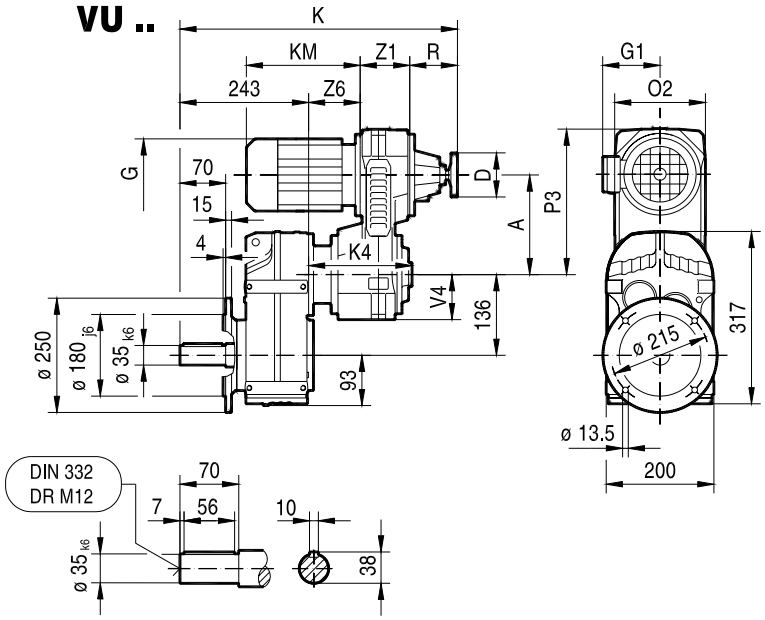


F..VU/VZ..DR/DT/DV.. [mm]

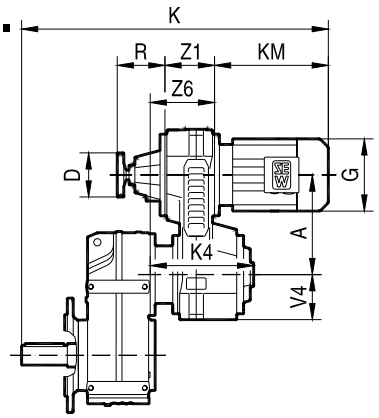
FF57..

14 059 001

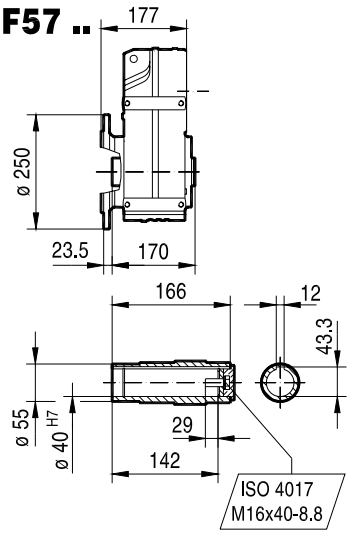
VU ..



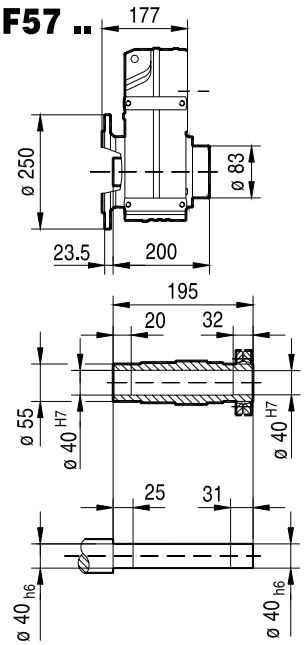
VZ ..



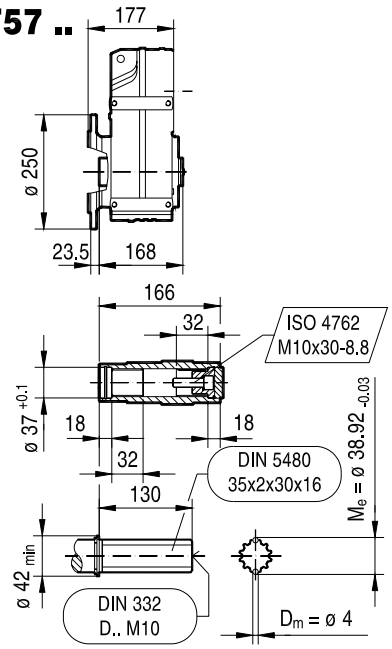
FAF57 ..



FHF57 ..



FVF57 ..

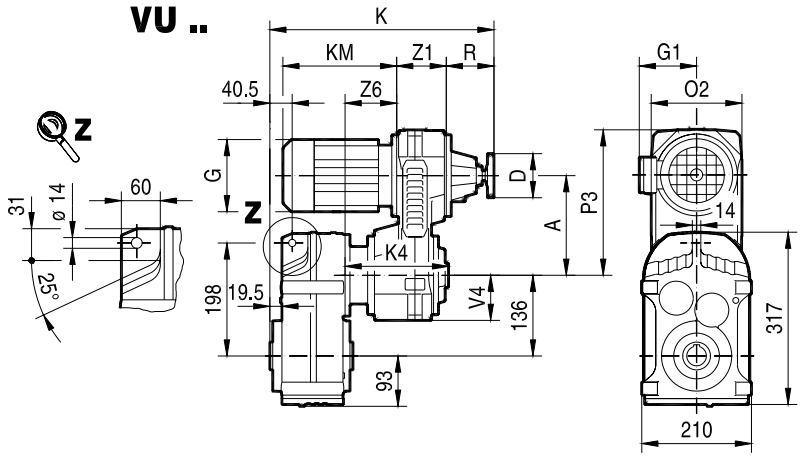


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
FF57 FAF57 FHF57 FVF57	VU01 VZ01	DR63..	182	80	132	105	528	544	187	206	176	269	98	72	80	107	114
		DT71D	182	80	145	122	528	559	202	206	176	269	98	72	80	107	114
		DT80..	182	80	145	122	528	609	252	206	176	269	98	72	80	107	114
	VU11 VZ11	DT80..	232	100	145	122	573	638	252	232	183	322	117	88	98	115	143
		DT90..	232	100	197	154	573	659	273	232	183	322	117	88	98	115	143
	VU21 VZ21	DT90..	245	100	197	154	640	693	273	279	227	357	130	110	120	147	177
		DV100M	245	100	197	166	640	731	311	279	227	357	130	110	120	147	177
		DV100L	245	100	197	166	640	761	341	279	227	357	130	110	120	147	177
	VU31 VZ31	DV112M	305	125	221	179	717	803	349	331	283	445	150	138	152	172	211
		DV132S	305	125	221	179	717	848	394	331	283	445	150	138	152	172	211

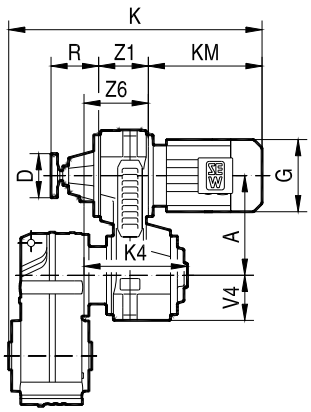
14 060 001

FA57 ..

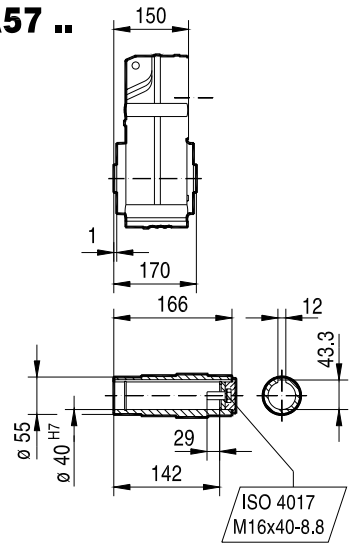
VU ..



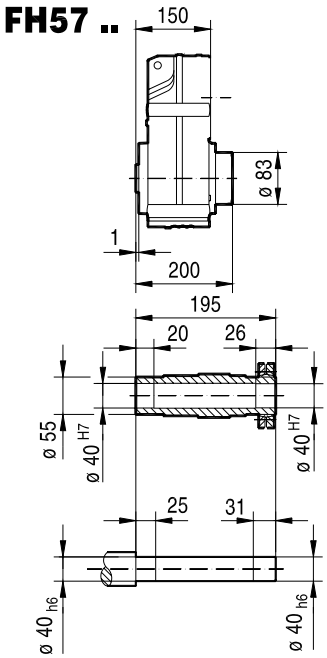
VZ ..



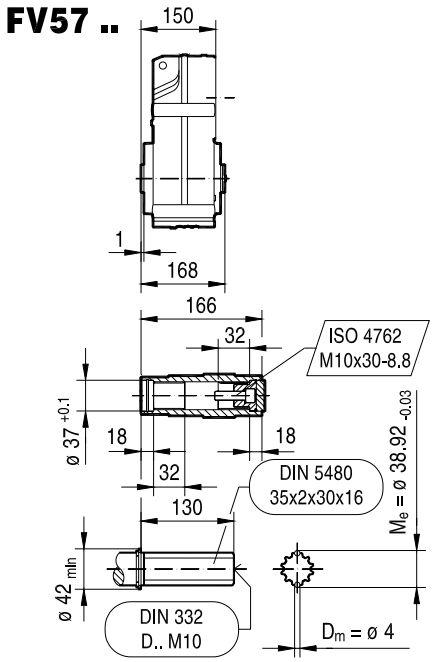
FA57 ..



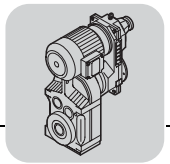
FH57 ..



FV57 ..



(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
FA57 FH57 FV57	VU01 VZ01	DR63..	182	80	132	105	435	451	187	206	176	269	98	72	80	107	114
		DT71D	182	80	145	122	435	466	202	206	176	269	98	72	80	107	114
		DT80..	182	80	145	122	435	516	252	206	176	269	98	72	80	107	114
	VU11 VZ11	DT80..	232	100	145	122	480	545	252	232	183	322	117	88	98	115	143
		DT90..	232	100	197	154	480	566	273	232	183	322	117	88	98	115	143
	VU21 VZ21	DT90..	245	100	197	154	547	600	273	279	227	357	130	110	120	147	177
		DV100M	245	100	197	166	547	638	311	279	227	357	130	110	120	147	177
		DV100L	245	100	197	166	547	668	341	279	227	357	130	110	120	147	177
	VU31 VZ31	DV112M	305	125	221	179	624	710	349	331	283	445	150	138	152	172	211
		DV132S	305	125	221	179	624	755	394	331	283	445	150	138	152	172	211

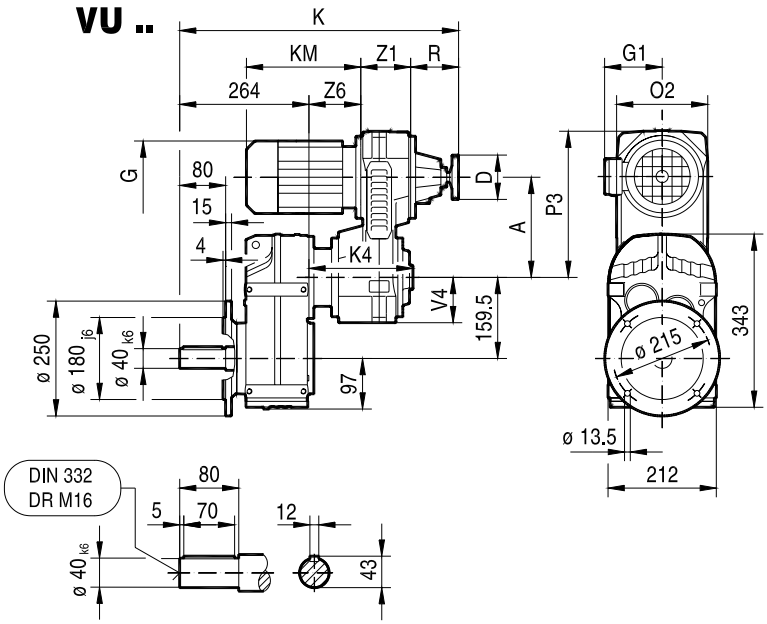


F..VU/VZ..DR/DT/DV.. [mm]

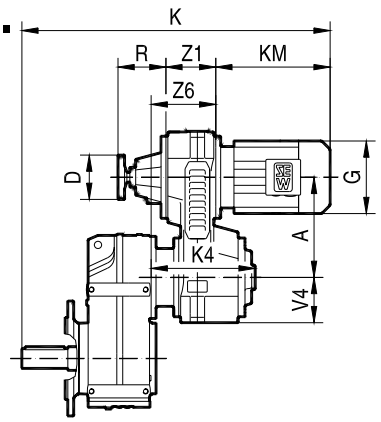
FF67..

14 061 001

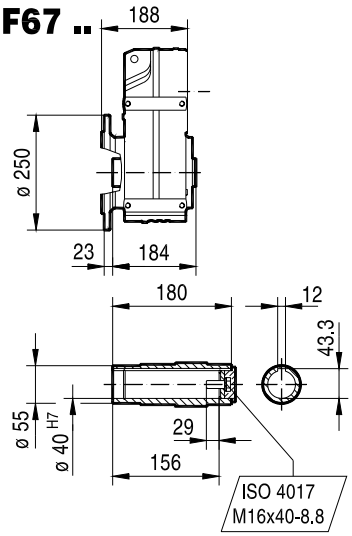
VU ..



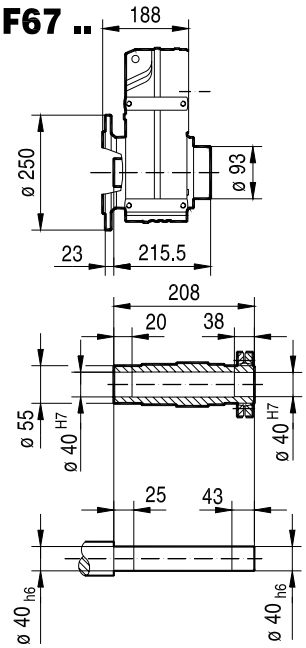
VZ ..



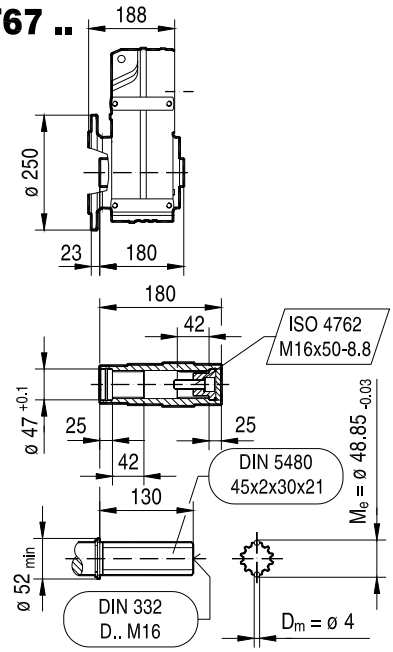
FAF67 ..



FHF67 ..



FVF67 ..

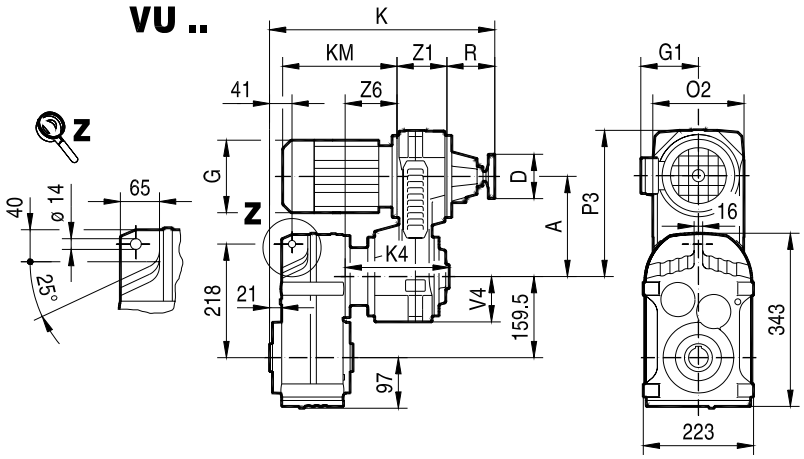


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
FF67 FAF67 FHF67 FVF67	VU01 VZ01	DR63..	182	80	132	105	549	565	187	206	176	269	98	72	80	107	114
		DT71D	182	80	145	122	549	580	202	206	176	269	98	72	80	107	114
		DT80..	182	80	145	122	549	630	252	206	176	269	98	72	80	107	114
	VU11 VZ11	DT80..	232	100	145	122	594	659	252	232	183	322	117	88	98	115	143
		DT90..	232	100	197	154	594	680	273	232	183	322	117	88	98	115	143
	VU21 VZ21	DT90..	245	100	197	154	661	714	273	279	227	357	130	110	120	147	177
		DV100M	245	100	197	166	661	752	311	279	227	357	130	110	120	147	177
		DV100L	245	100	197	166	661	782	341	279	227	357	130	110	120	147	177
	VU31 VZ31	DV112M	305	125	221	179	738	824	349	331	283	445	150	138	152	172	211
		DV132S	305	125	221	179	738	869	394	331	283	445	150	138	152	172	211

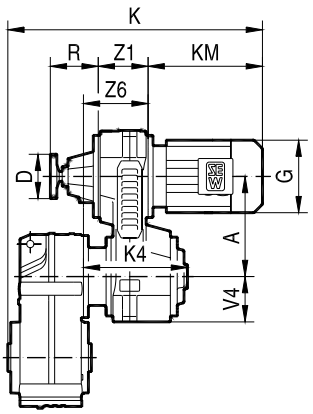
14 062 001

FA67 ..

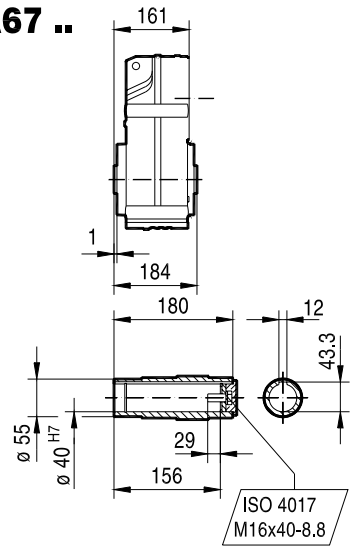
VU ..



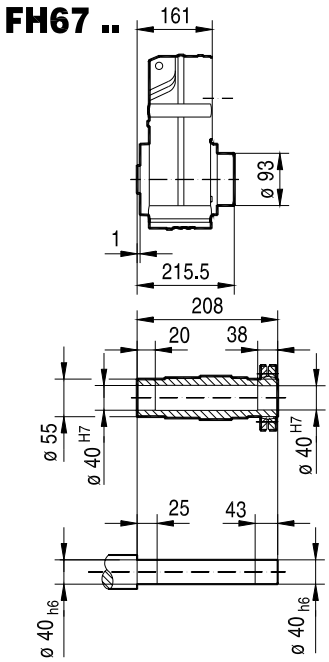
VZ ..



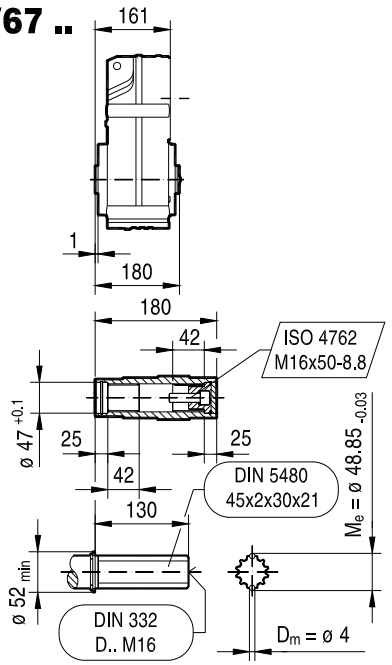
FA67 ..



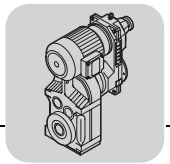
FH67 ..



FV67 ..



(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
FA67 FH67 FV67	VU01 VZ01	DR63..	182	80	132	105	446	462	187	206	176	269	98	72	80	107	114
		DT71D	182	80	145	122	446	477	202	206	176	269	98	72	80	107	114
		DT80..	182	80	145	122	446	527	252	206	176	269	98	72	80	107	114
	VU11 VZ11	DT80..	232	100	145	122	491	556	252	232	183	322	117	88	98	115	143
		DT90..	232	100	197	154	491	577	273	232	183	322	117	88	98	115	143
	VU21 VZ21	DT90..	245	100	197	154	558	603	273	279	227	357	130	110	120	147	177
		DV100M	245	100	197	166	558	649	311	279	227	357	130	110	120	147	177
		DV100L	245	100	197	166	558	679	341	279	227	357	130	110	120	147	177
	VU31 VZ31	DV112M	305	125	221	179	635	721	349	331	283	445	150	138	152	172	211
		DV132S	305	125	221	179	635	766	394	331	283	445	150	138	152	172	211

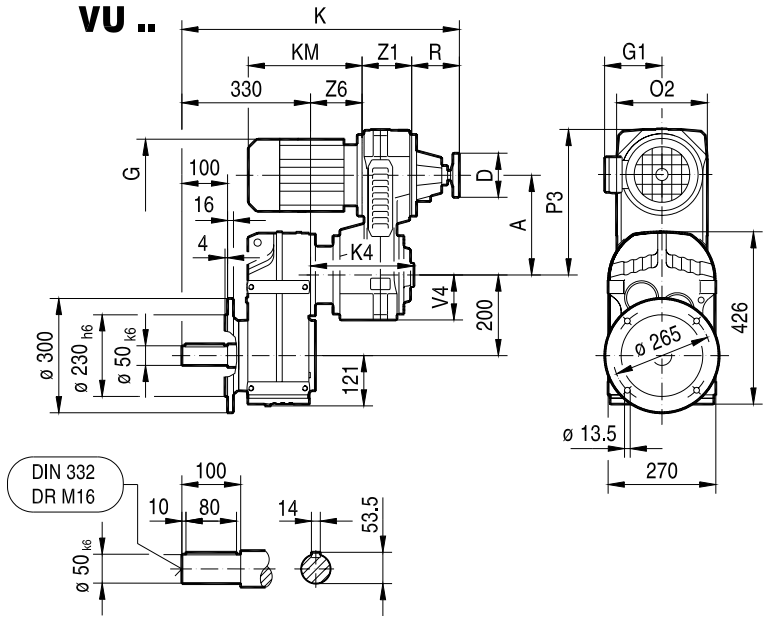


F..VU/VZ..DR/DT/DV.. [mm]

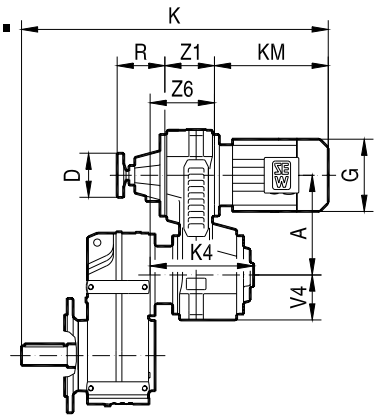
14 063 001

FF77..

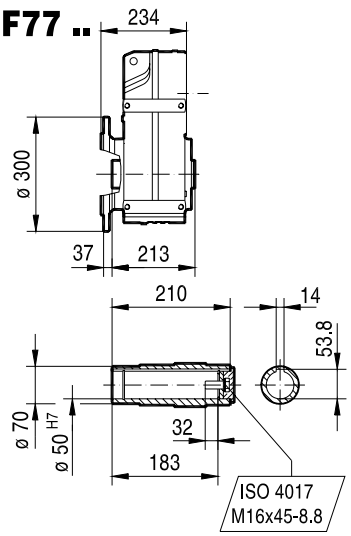
VU ..



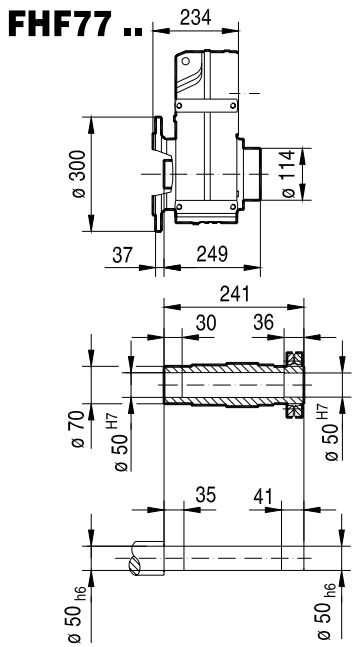
VZ ..



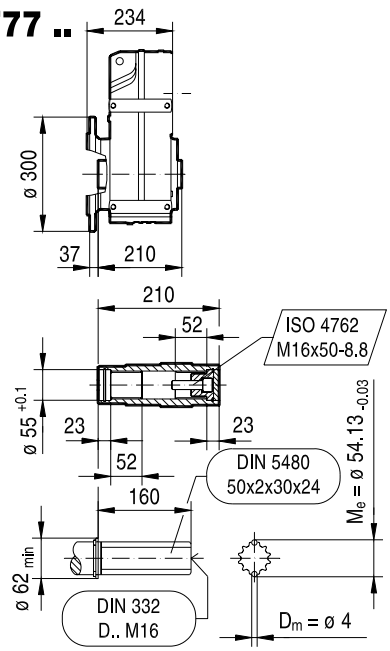
FAF77 ..



FHF77 ..



FVF77 ..

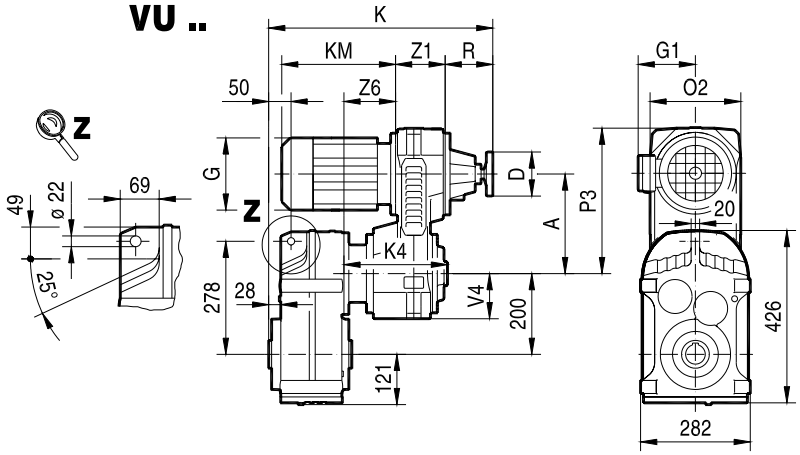


(→ 📖151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
FF77 FAF77 FHF77 FVF77	VU11 VZ11	DT80..	232	100	145	122	654	719	252	226	183	322	117	88	98	109	137
		DT90..	232	100	197	154	654	740	273	226	183	322	117	88	98	109	137
	VU21 VZ21	DT90..	245	100	197	154	719	772	273	271	227	357	130	110	120	139	169
		DV100M	245	100	197	166	719	810	311	271	227	357	130	110	120	139	169
		DV100L	245	100	197	166	719	840	341	271	227	357	130	110	120	139	169
	VU31 VZ31	DV112M	305	125	221	179	795	881	349	322	283	445	150	138	152	163	202
		DV132S	305	125	221	179	795	926	394	322	283	445	150	138	152	163	202
	VU41 VZ41	DV132M	380	200	275	230	908	971	402	397	348	553	189	170	180	209	239
		DV132ML	380	200	275	230	908	1031	462	397	348	553	189	170	180	209	239
		DV160M	380	200	275	230	908	1031	462	397	348	553	189	170	180	209	239

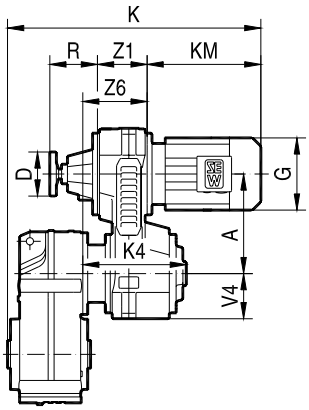
14 064 001

FA77 ..

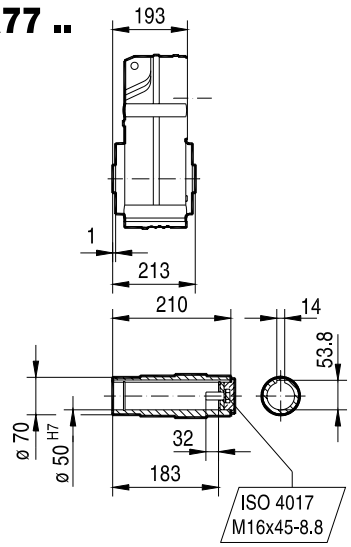
VU ..



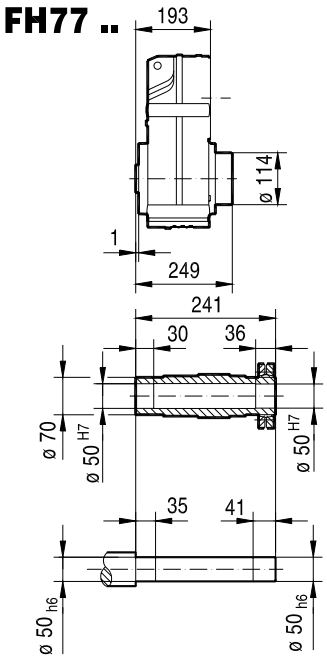
VZ ..



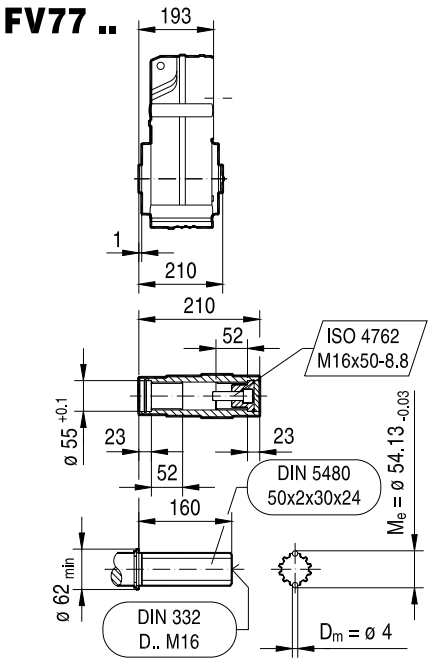
FA77 ..



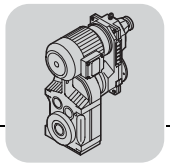
FH77 ..



FV77 ..



(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
FA77 FH77 FV77	VU11 VZ11	DT80..	232	100	145	122	517	582	252	226	183	322	117	88	98	109	137
		DT90..	232	100	197	154	517	603	273	226	183	322	117	88	98	109	137
	VU21 VZ21	DT90..	245	100	197	154	582	635	273	271	227	357	130	110	120	139	169
		DV100M	245	100	197	166	582	673	311	271	227	357	130	110	120	139	169
		DV100L	245	100	197	166	582	703	341	271	227	357	130	110	120	139	169
	VU31 VZ31	DV112M	305	125	221	179	658	744	349	322	283	445	150	138	152	163	202
		DV132S	305	125	221	179	658	789	394	322	283	445	150	138	152	163	202
	VU41 VZ41	DV132M	380	200	275	230	771	834	402	397	348	553	189	170	180	209	239
		DV132ML	380	200	275	230	771	894	462	397	348	553	189	170	180	209	239
		DV160M	380	200	275	230	771	894	462	397	348	553	189	170	180	209	239

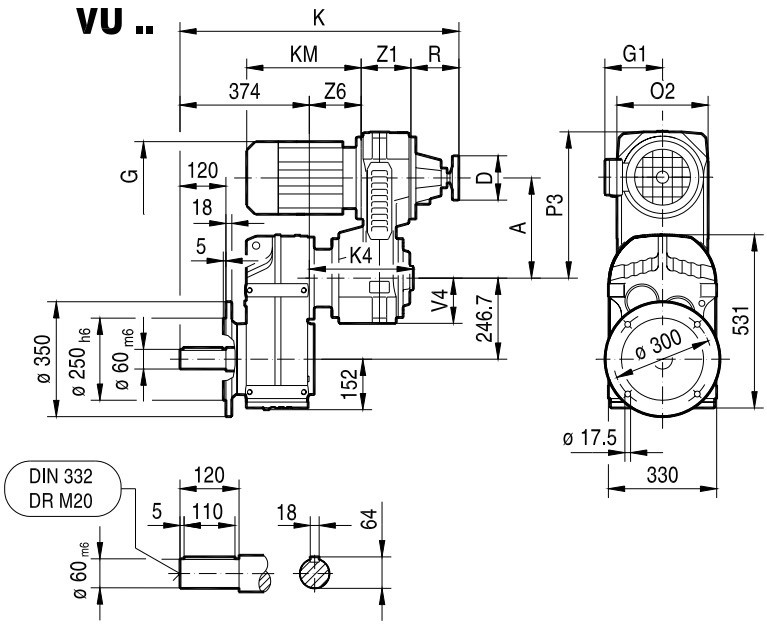


F..VU/VZ..DR/DT/DV.. [mm]

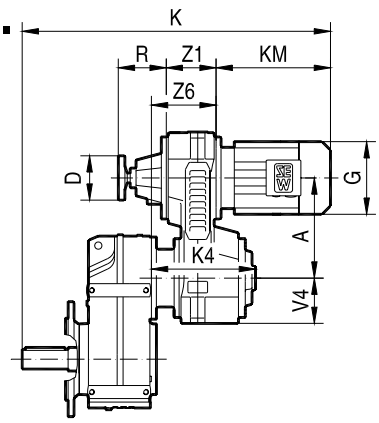
FF87..

14 065 001

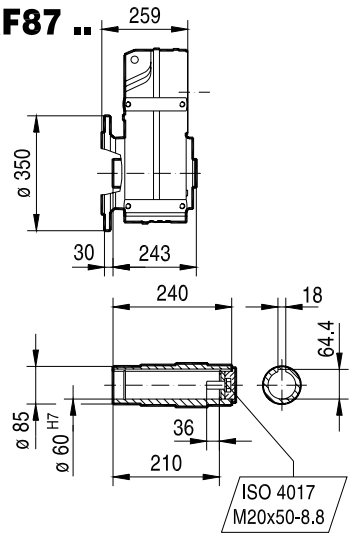
VU ..



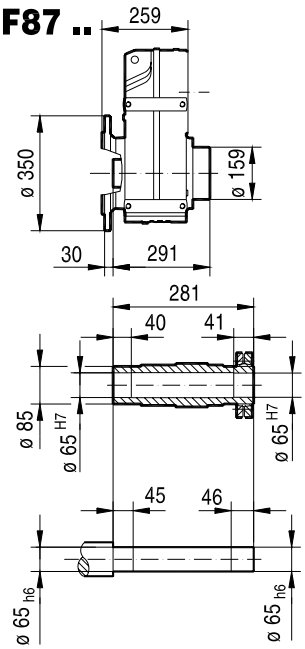
VZ ..



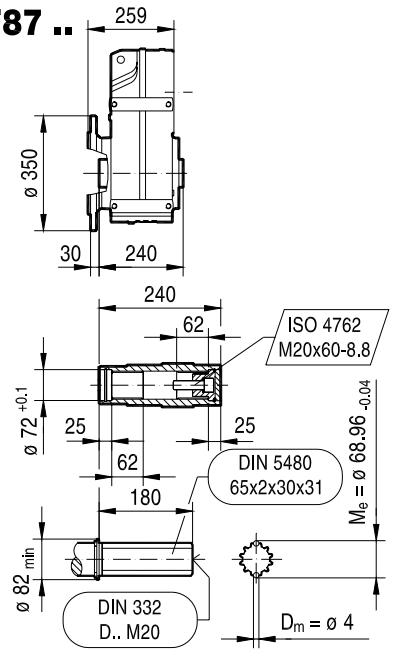
FAF87 ..



FHF87 ..



FVF87 ..

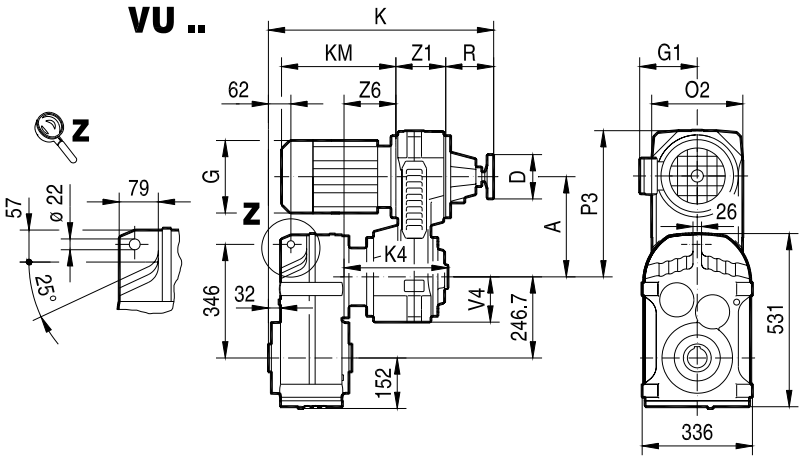


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
FF87 FAF87 FHF87 FVF87	VU21 VZ21	DT90..	245	100	197	154	759	812	273	267	227	357	130	110	120	135	165
		DV100M	245	100	197	166	759	850	311	267	227	357	130	110	120	135	165
		DV100L	245	100	197	166	759	880	341	267	227	357	130	110	120	135	165
	VU31 VZ31	DV112M	305	125	221	179	834	920	349	317	283	445	150	138	152	158	197
		DV132S	305	125	221	179	834	965	394	317	283	445	150	138	152	158	197
	VU41 VZ41	DV132M	380	200	275	230	947	1010	402	392	348	553	189	170	180	204	234
		DV132ML	380	200	275	230	947	1070	462	392	348	553	189	170	180	204	234
		DV160M	380	200	275	230	947	1070	462	392	348	553	189	170	180	204	234
	VU51	DV160L	460	200	331	259	1031	-	503	449	398	658	220	195	200	237	-
		DV180..	460	200	331	253	1031	-	575	449	398	658	220	195	200	237	-

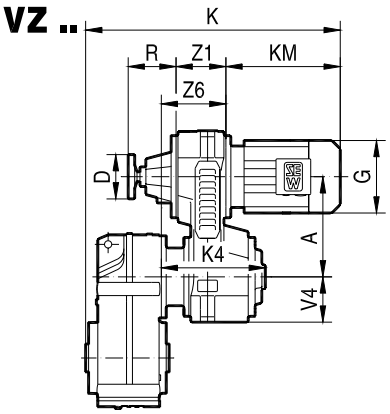
14 066 001

FA87 ..

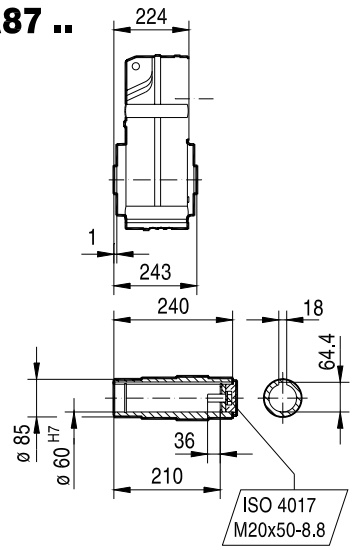
VU ..



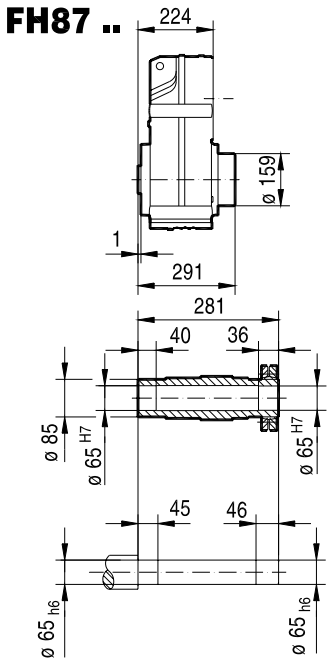
VZ ..



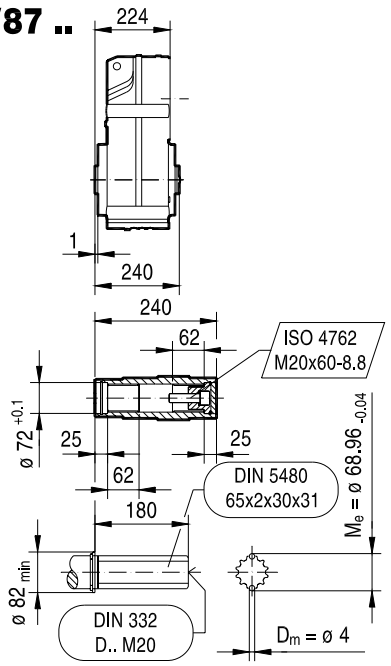
FA87 ..



FH87 ..



FV87 ..

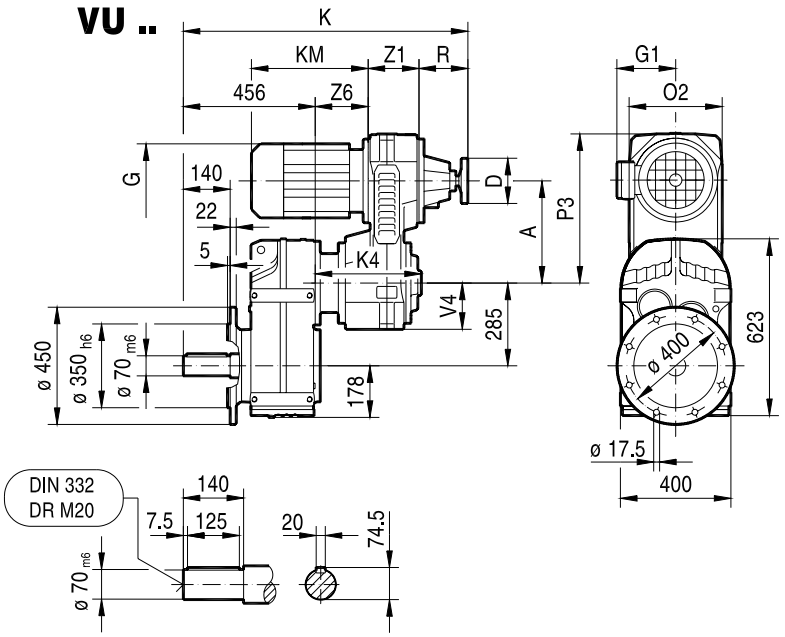


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
FA87 FH87 FV87	VU21 VZ21	DT90..	245	100	197	154	609	662	273	267	227	357	130	110	120	135	165
		DV100M	245	100	197	166	609	700	311	267	227	357	130	110	120	135	165
		DV100L	245	100	197	166	609	730	341	267	227	357	130	110	120	135	165
	VU31 VZ31	DV112M	305	125	221	179	684	770	349	317	283	445	150	138	152	158	197
		DV132S	305	125	221	179	684	815	394	317	283	445	150	138	152	158	197
	VU41 VZ41	DV132M	380	200	275	230	797	860	402	392	348	553	189	170	180	204	234
		DV132ML	380	200	275	230	797	920	462	392	348	553	189	170	180	204	234
		DV160M	380	200	275	230	797	920	462	392	348	553	189	170	180	204	234
	VU51	DV160L	460	200	331	259	881	-	503	449	398	658	220	195	200	237	-
		DV180..	460	200	331	253	881	-	575	449	398	658	220	195	200	237	-

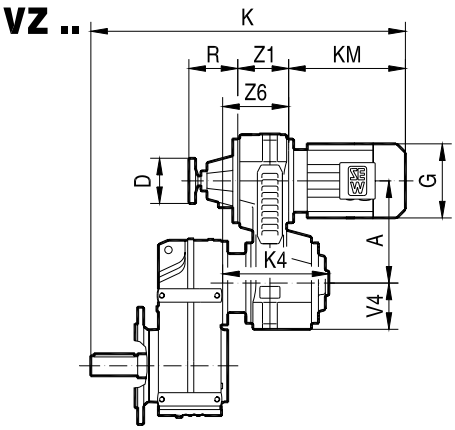
FF97..

14 067 001

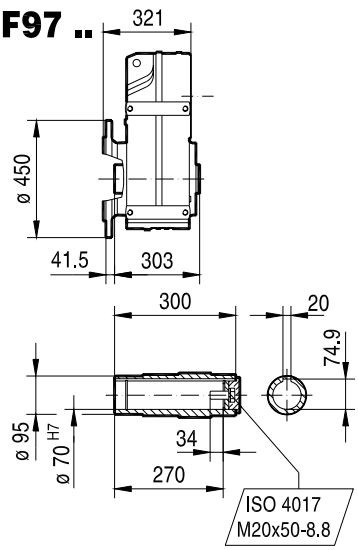
VU ..



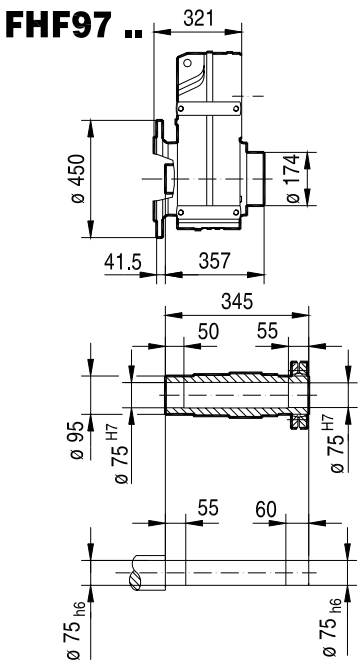
VZ ..



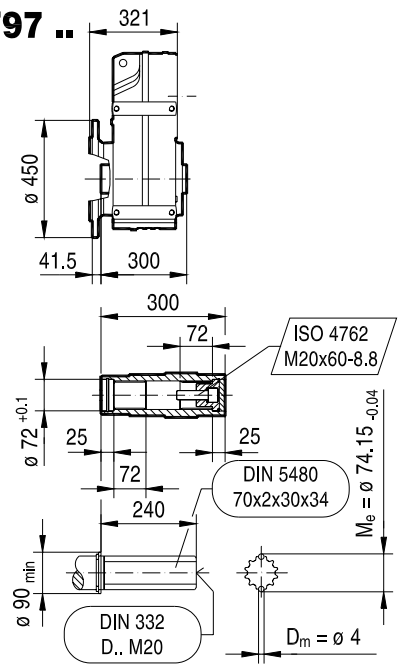
FAF97 ..



FHF97 ..



FVF97 ..

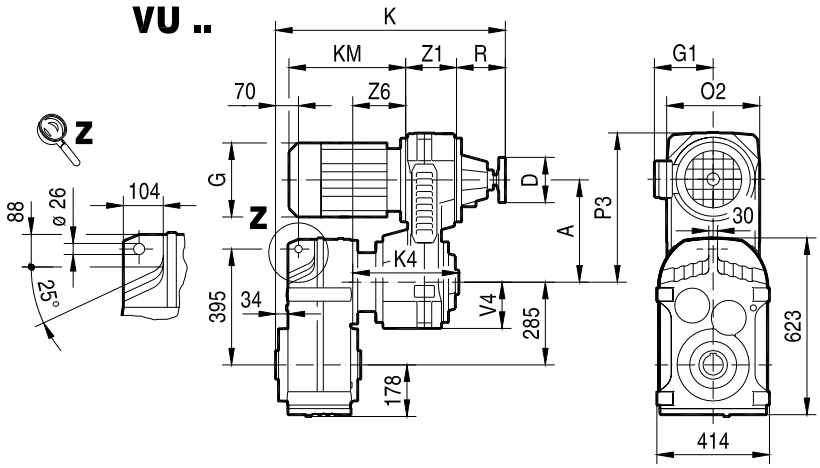


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
FF97 FAF97 FHF97 FVF97	VU31 VZ31	DV112M	305	125	221	179	911	997	349	312	283	445	150	138	152	153	192
		DV132S	305	125	221	179	911	1042	394	312	283	445	150	138	152	153	192
	VU41 VZ41	DV132M	380	200	275	230	1024	1087	402	387	348	553	189	170	180	199	229
		DV132ML	380	200	275	230	1024	1147	462	387	348	553	189	170	180	199	229
		DV160M	380	200	275	230	1024	1147	462	387	348	553	189	170	180	199	229
	VU51	DV160L	460	200	331	259	1108	-	503	444	398	658	220	195	200	232	-
		DV180..	460	200	331	253	1108	-	575	444	398	658	220	195	200	232	-

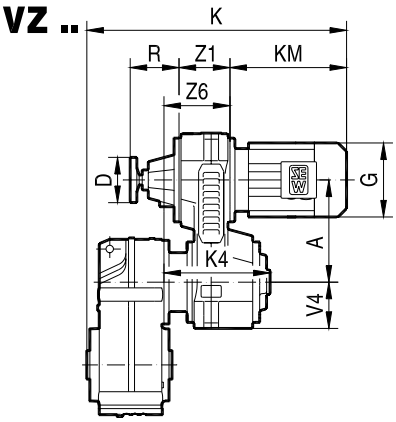
14 068 001

FA97 ..

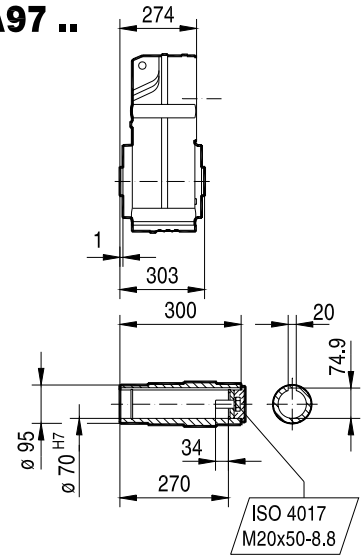
VU ..



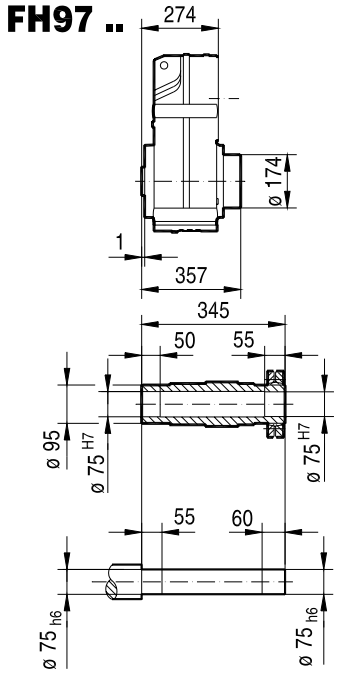
VZ ..



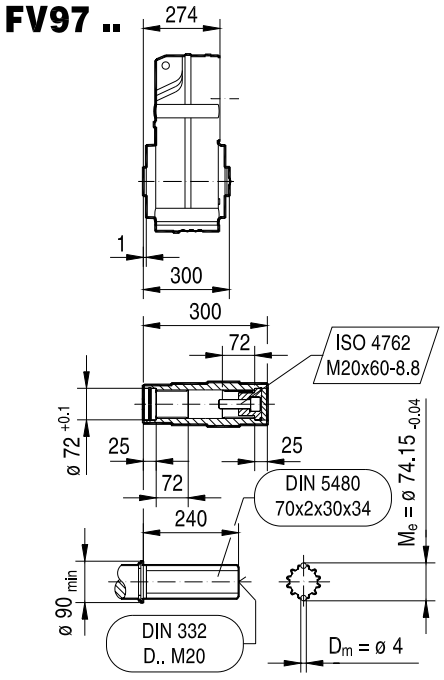
FA97 ..



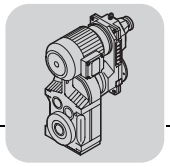
FH97 ..



FV97 ..



(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
FA97 FH97 FV97	VU31 VZ31	DV112M	305	125	221	179	729	815	349	312	283	445	150	138	152	153	192
		DV132S	305	125	221	179	729	860	394	312	283	445	150	138	152	153	192
	VU41 VZ41	DV132M	380	200	275	230	842	905	402	387	348	553	189	170	180	199	229
		DV132ML	380	200	275	230	842	965	462	387	348	553	189	170	180	199	229
		DV160M	380	200	275	230	842	965	462	387	348	553	189	170	180	199	229
	VU51	DV160L	460	200	331	259	926	-	503	444	398	658	220	195	200	232	-
		DV180..	460	200	331	253	926	-	575	444	398	658	220	195	200	232	-

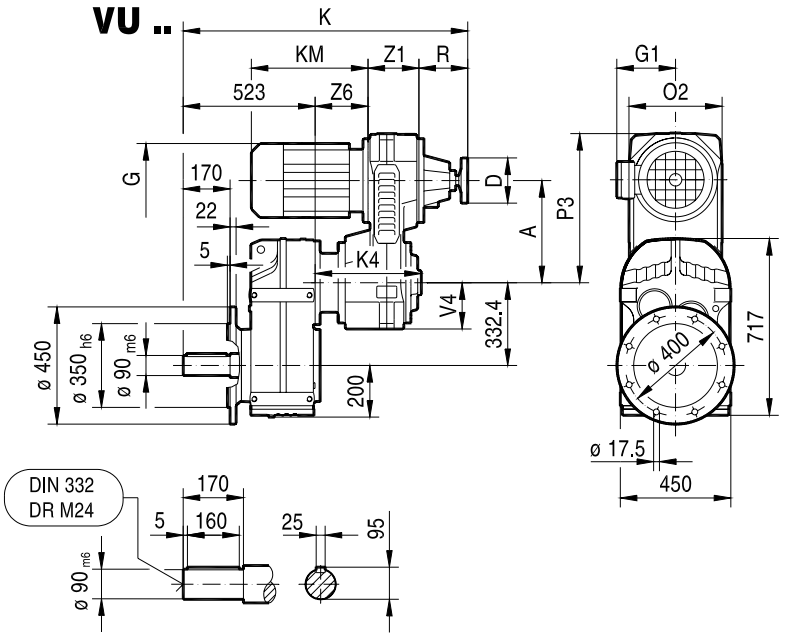


F..VU/VZ..DR/DT/DV.. [mm]

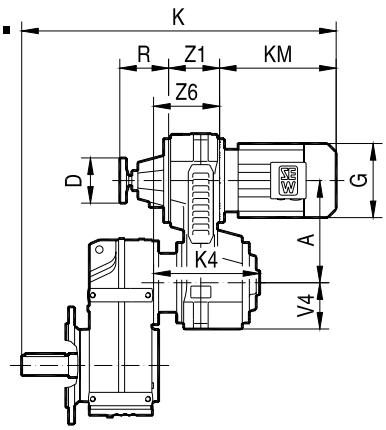
FF107..

14 069 001

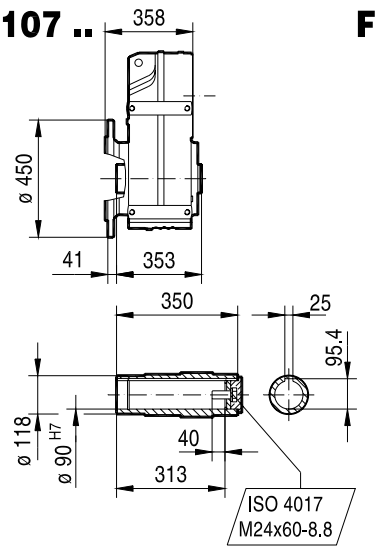
VU ..



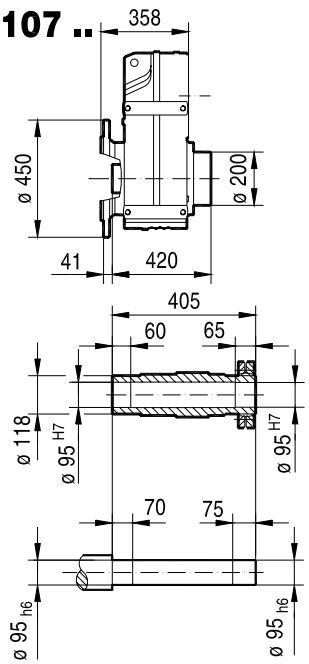
VZ ..



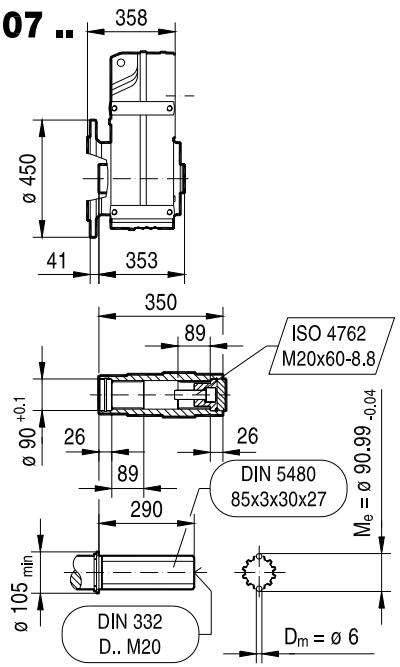
FAF107 ..



FHF107 ..



FVF107 ..

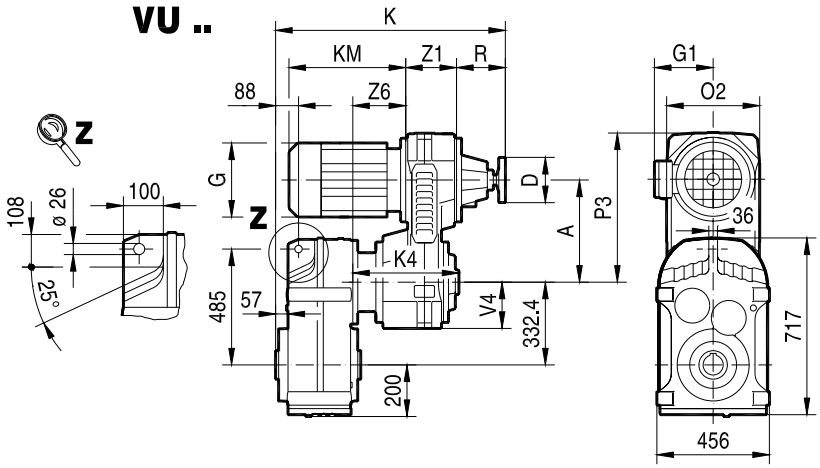


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
FF107 FAF107 FHF107 FVF107	VU41 VZ41	DV132M	380	200	275	230	1085	1148	402	381	348	553	189	170	180	193	223
		DV132ML	380	200	275	230	1085	1208	462	381	348	553	189	170	180	193	223
		DV160M	380	200	275	230	1085	1208	462	381	348	553	189	170	180	193	223
	VU51	DV160L	460	200	331	259	1169	-	503	438	398	658	220	195	200	226	-
		DV180..	460	200	331	253	1169	-	575	438	398	658	220	195	200	226	-
	VU6	DV200..	574	385	394	285	1228	-	623	662	490	805	155	245	214	336	-
		DV225..	574	385	394	289	1228	-	690	662	490	805	155	245	249	301	-

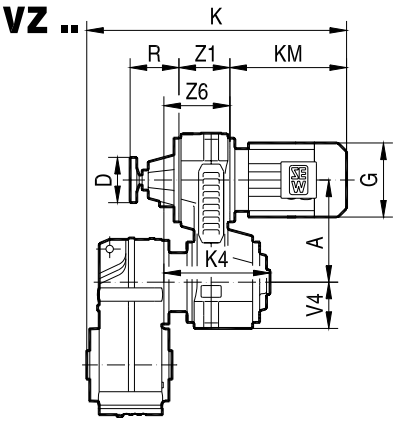
14 070 001

FA107 ..

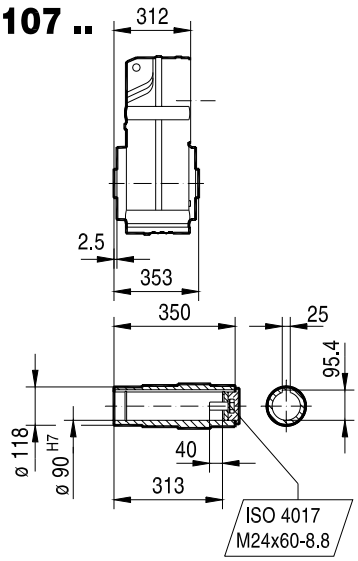
VU ..



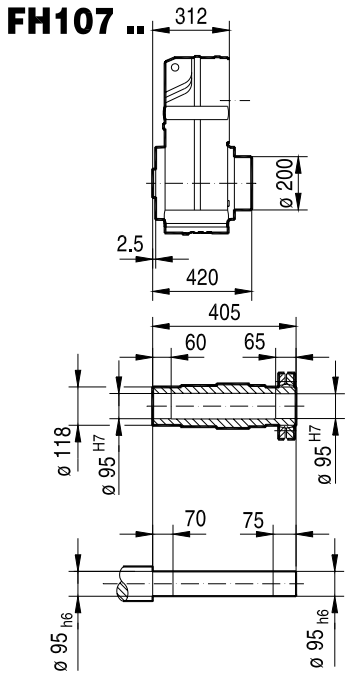
VZ ..



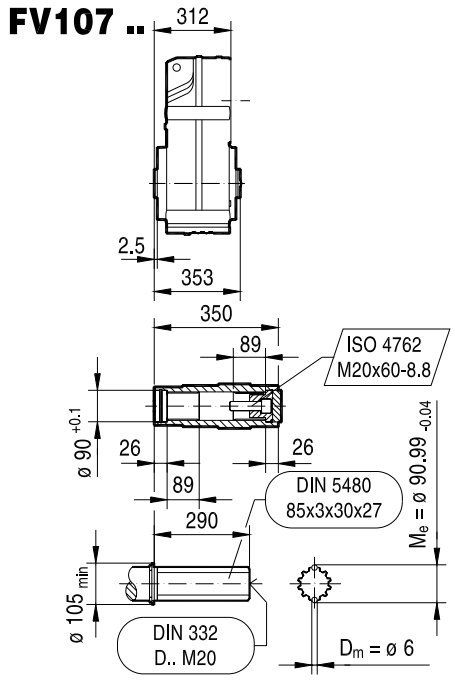
FA107 ..



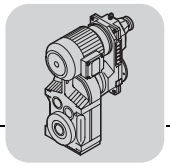
FH107 ..



FV107 ..



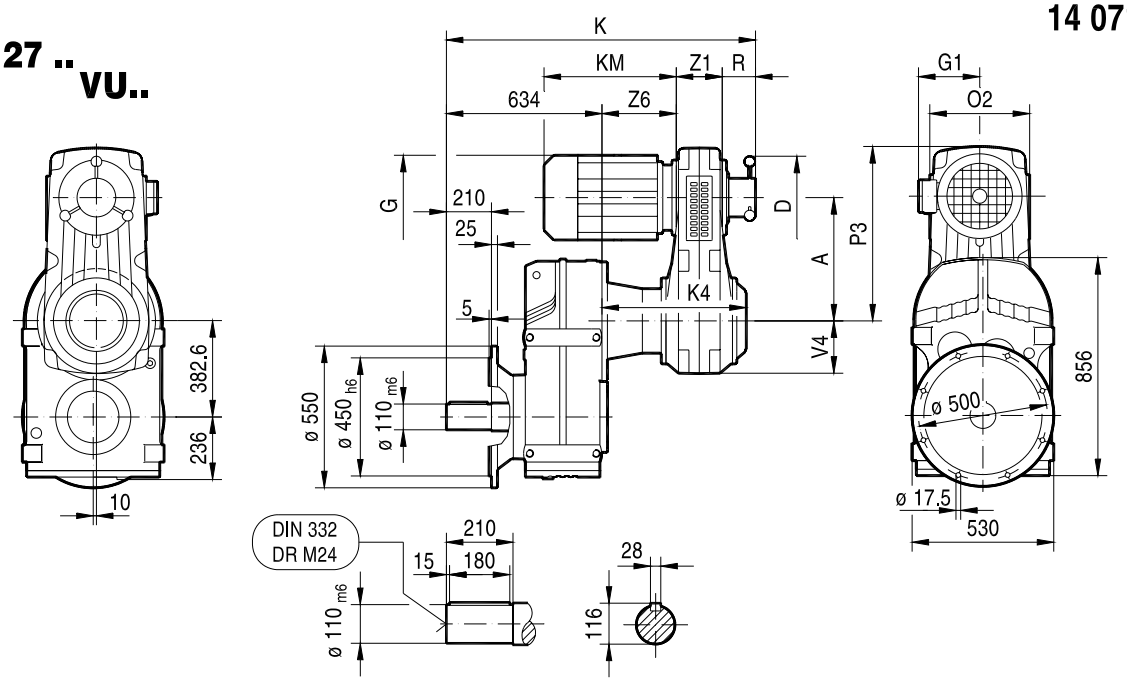
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
FA107 FH107 FV107	VU41 VZ41	DV132M	380	200	275	230	874	937	402	381	348	553	189	170	180	193	223
		DV132ML	380	200	275	230	874	997	462	381	348	553	189	170	180	193	223
		DV160M	380	200	275	230	874	997	462	381	348	553	189	170	180	193	223
	VU51	DV160L	460	200	331	259	958	-	503	438	398	658	220	195	200	226	-
		DV180..	460	200	331	253	958	-	575	438	398	658	220	195	200	226	-
	VU6	DV200..	574	385	394	285	1017	-	623	662	490	805	155	245	214	336	-
		DV225..	574	385	394	289	1017	-	690	662	490	805	155	245	249	301	-



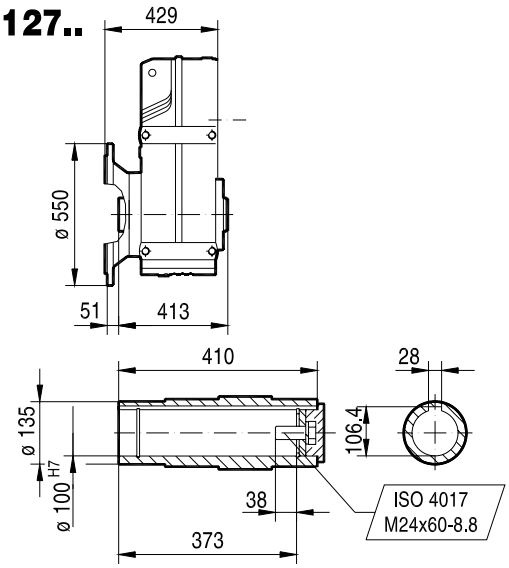
F..VU/VZ..DR/DT/DV.. [mm]

14 071 001

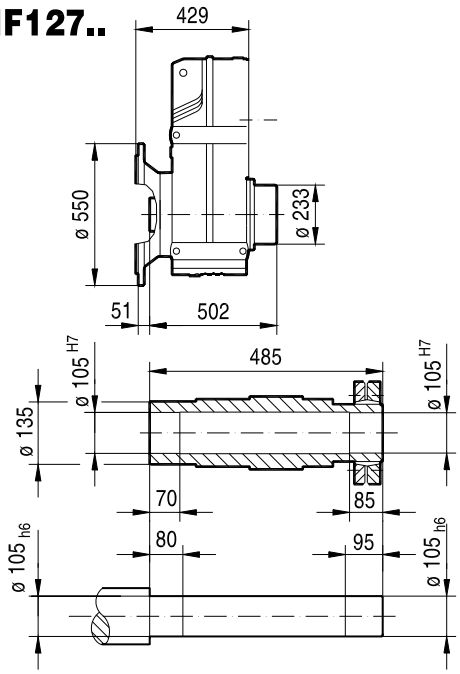
FF127 .. VU..



FAF127..



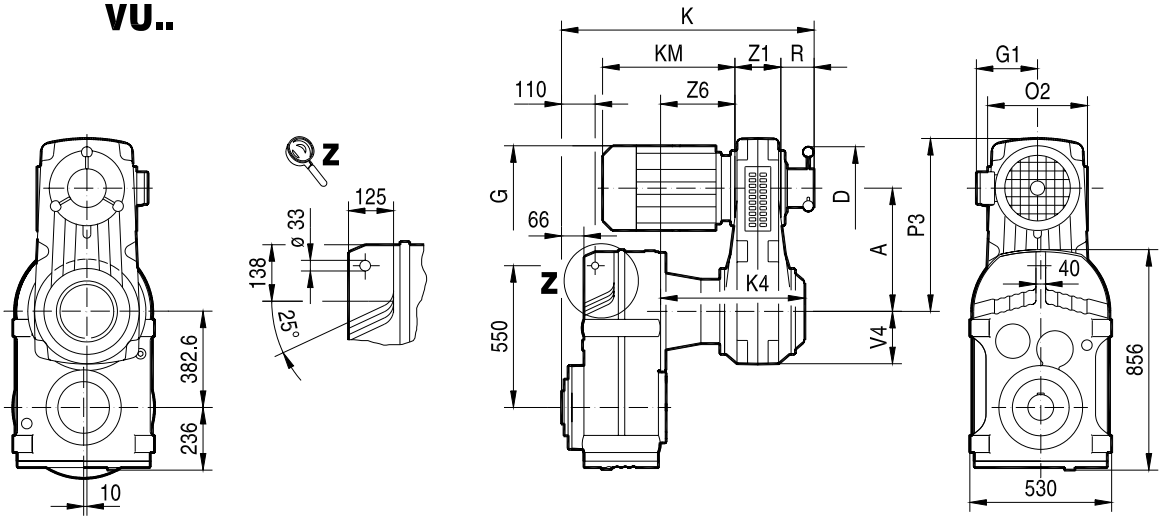
FHF127..



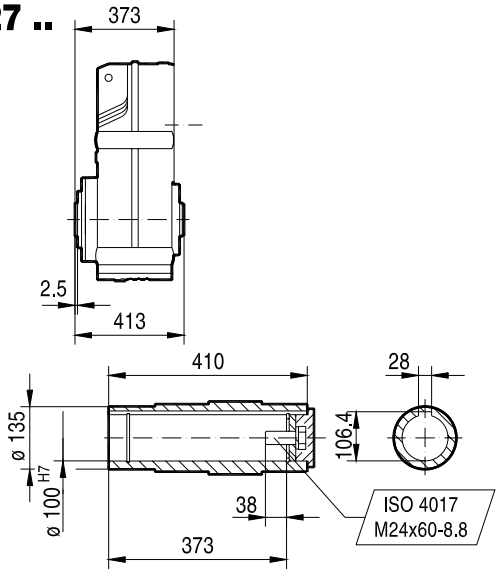
(→ 151)			A	D	G	G1	K VU	KM	K4	O2	P3	R	V4	Z1	Z6 VU
FF127 FAF127 FHF127	VU51	DV160L	460	200	331	259	1265	503	423	398	658	220	195	200	211
		DV180..	460	200	331	253	1265	575	423	398	658	220	195	200	211
	VU6	DV200..	574	385	394	285	1324	623	647	490	805	155	245	214	321
		DV225..	574	385	394	289	1324	690	647	490	805	155	245	249	286

14 072 001

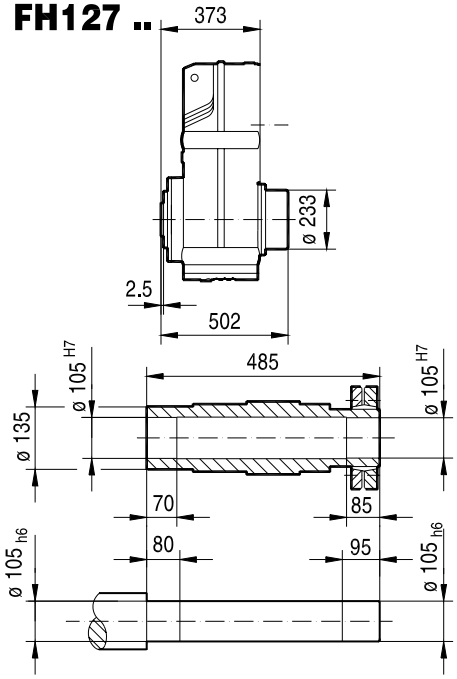
FA127 .. VU..



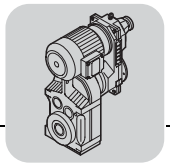
FA127 ..



FH127 ..



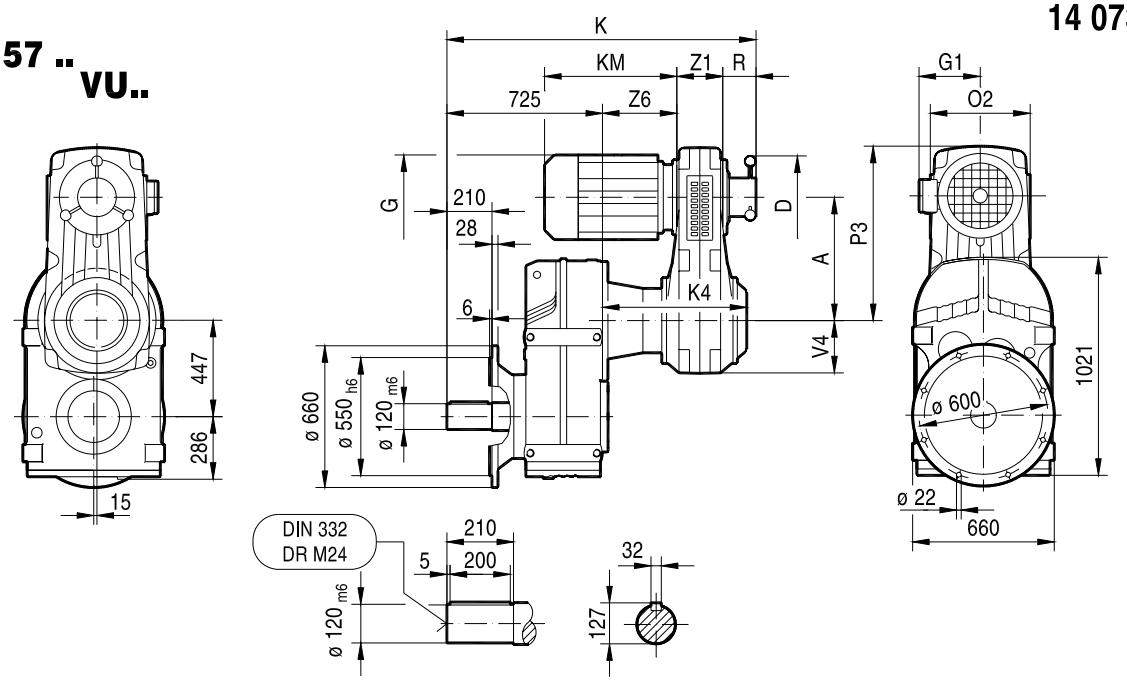
(→ 151)			A	D	G	G1	K VU	KM	K4	O2	P3	R	V4	Z1	Z6 VU
FA127 FH127	VU51	DV160L	460	200	331	259	1004	503	423	398	658	220	195	200	211
		DV180..	460	200	331	253	1004	575	423	398	658	220	195	200	211
	VU6	DV200..	574	385	394	285	1063	623	647	490	805	155	245	214	321
		DV225..	574	385	394	289	1063	690	647	490	805	155	245	249	286



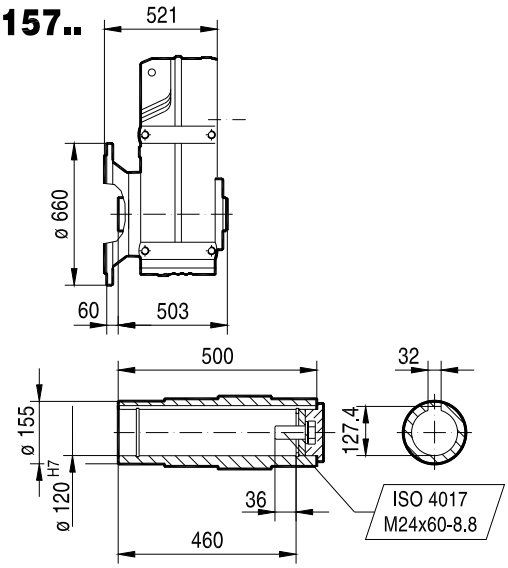
F..VU/VZ..DR/DT/DV.. [mm]

14 073 001

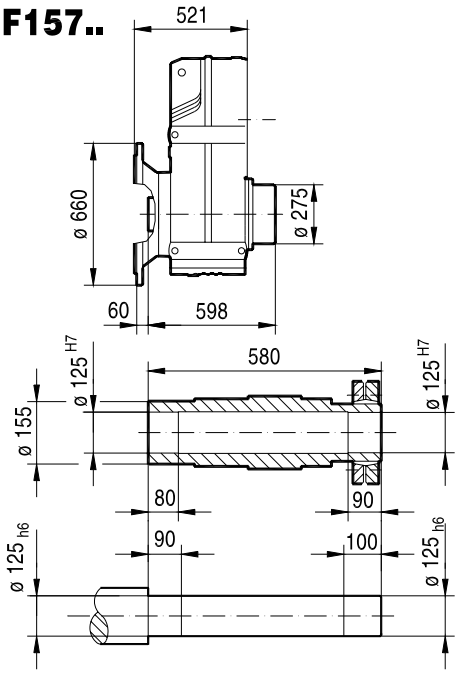
FF157 .. VU..



FAF157..



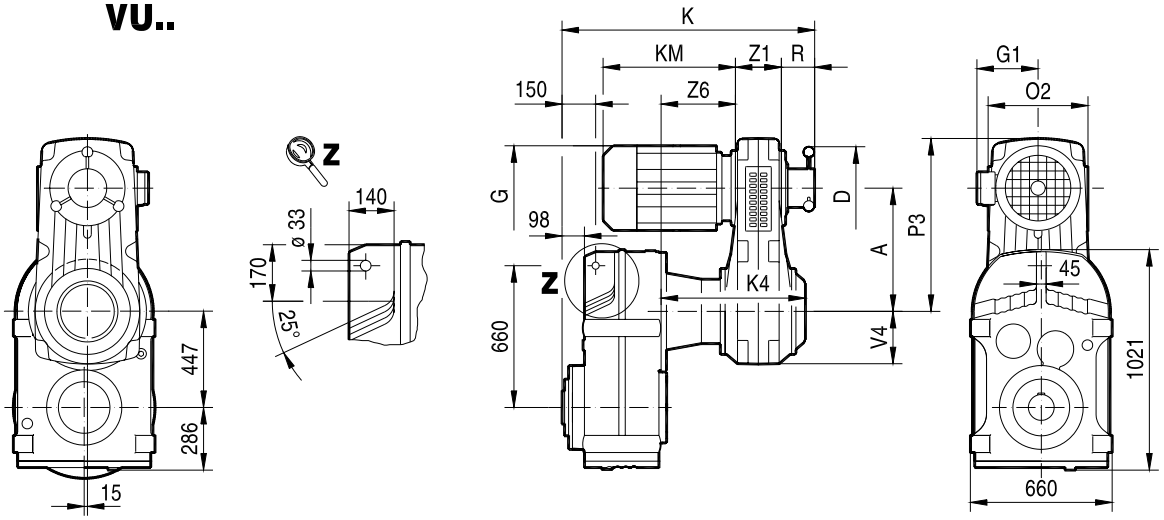
FHF157..



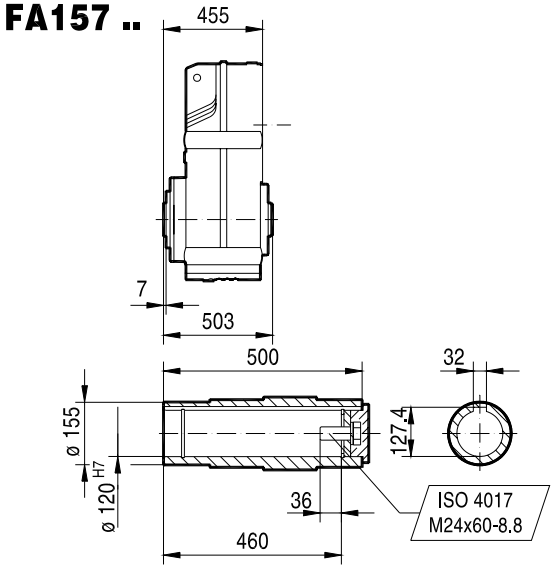
(→ 151)			A	D	G	G1	K	KM	K4	O2	P3	R	V4	Z1	Z6
FF157 **FAF157** **FHF157**	**VU6**	**DV200..**	574	385	394	285	1440	623	672	490	805	155	245	214	346
		DV225..	574	385	394	289	1440	690	672	490	805	155	245	249	311

14 074 001

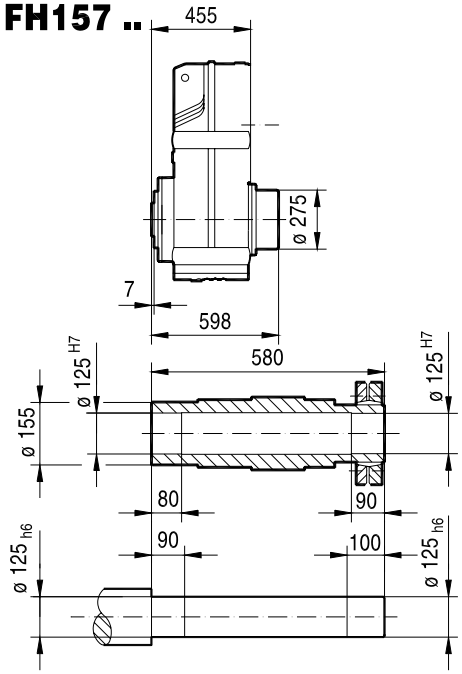
FA157 .. VU..



FA157 ..



FH157 ..

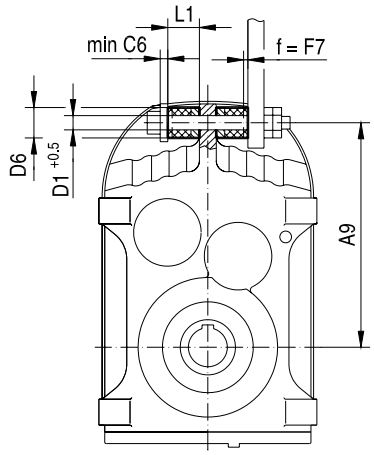


(→ 151)			A	D	G	G1	K	KM	K4	O2	P3	R	V4	Z1	Z6
FA157 FH157	**VU6**	**DV200..**	574	385	394	285	1170	623	672	490	805	155	245	214	346
		DV225..	574	385	394	289	1170	690	672	490	805	155	245	249	311

10.4 Drehmomentstütze F../G..

14 075 001

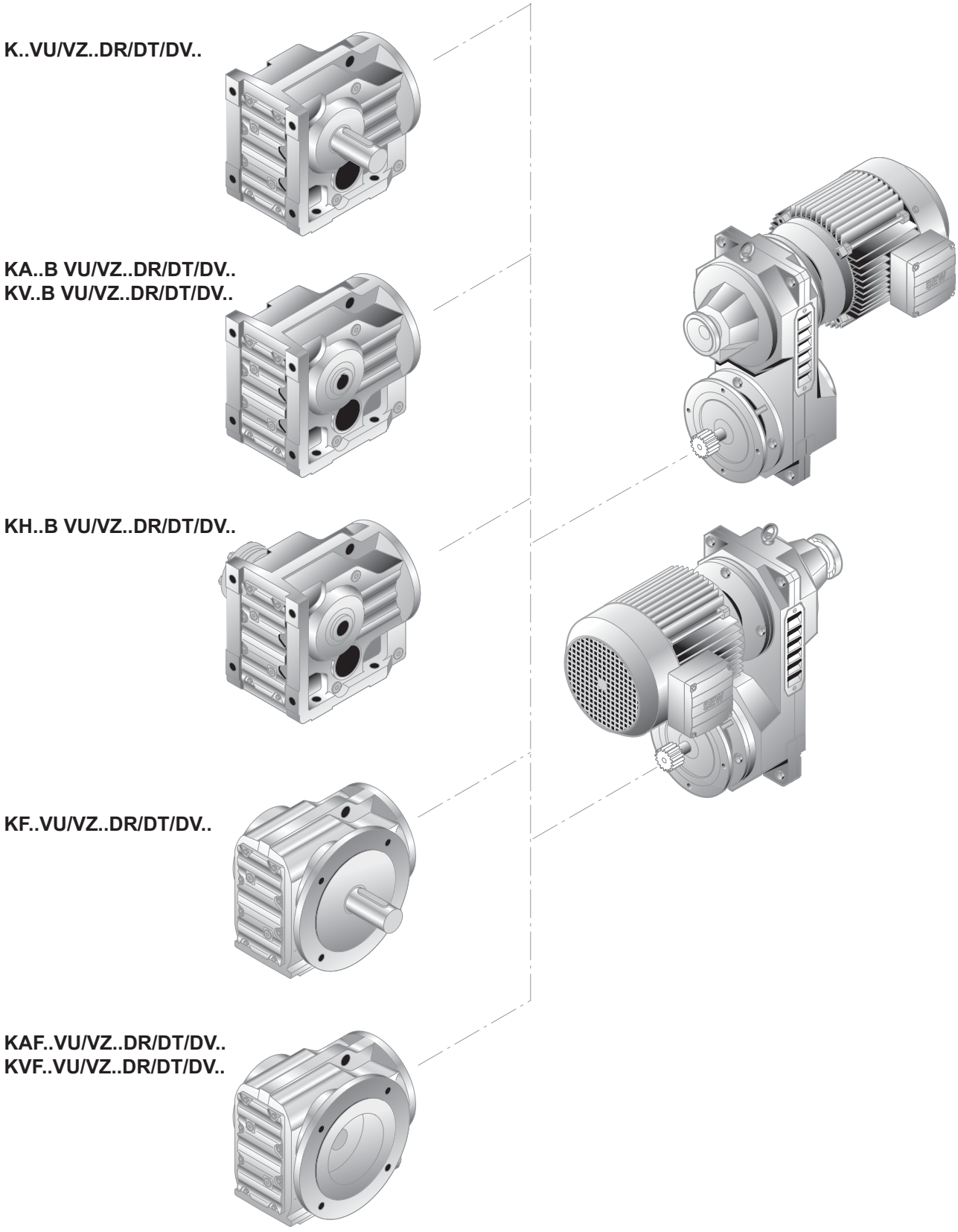
F../G ..



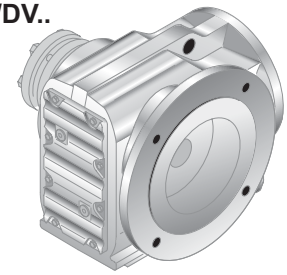
	A9	C6	D1	D6	F7	L1
FA37/G V..	158	5	12.5	40	1	20
FA47/G V..	170	5	12.5	40	1.8	20
FA57/G V..	198	5	12.5	40	2.4	20
FA67/G V..	218	5	12.5	40	3	20
FA77/G V..	278	10	21	60	3.2	30
FA87/G V..	346	10	21	60	4.5	30
FA97/G V..	395	12	25	80	5	40
FA107/G V..	485	12	25	80	6	40
FA127/G V..	550	15	32	100	9	60
FA157/G V..	660	15	32	100	9	60

11 K..

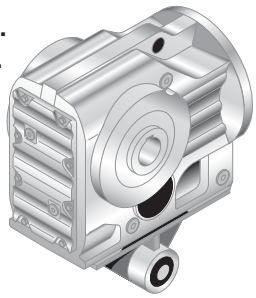
11.1 K..VU/VZ..DR/DT/DV..

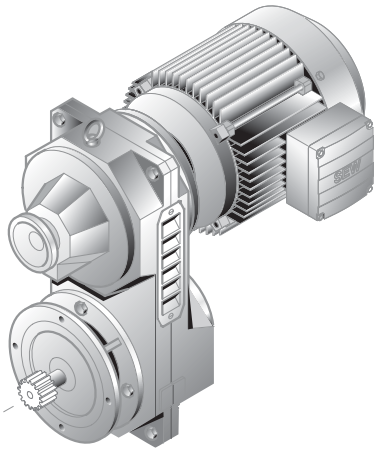


KHF..VU../VZ../DR/DT/DV..

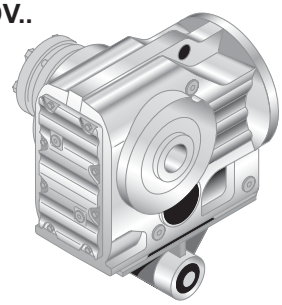


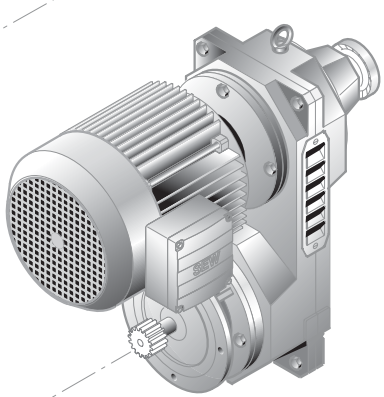
KA..VU../VZ../DR/DT/DV..
KV..VU../VZ../DR/DT/DV..



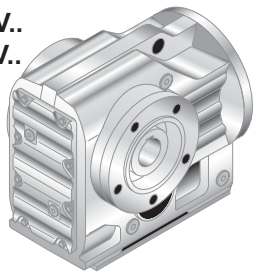


KH..VU../VZ../DR/DT/DV..

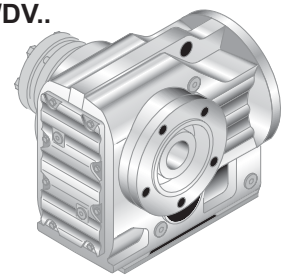




KAZ..VU../VZ../DR/DT/DV..
KVZ..VU../VZ../DR/DT/DV..



KHZ..VU../VZ../DR/DT/DV..

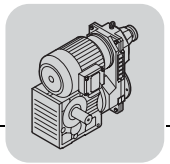


50516AXX

11.2 K..VU/VZ..DR/DT/DV.. [kW]

R = 1:5 ... R = 1:6

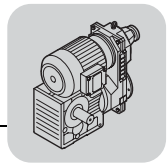
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	📖
0.25 / 0.18	**2.8 - 14**	145.14*	240	139	-	**K**	**57**	**VU/VZ**	**01**	**DT**	**71D6**	49	324
	3.3 - 16	123.85	205	118	-	**KF**	**57**	**VU/VZ**	**01**	**DT**	**71D6**	54	325
	3.8 - 18	108.29	177	104	-	**KA**	**57**	**VU/VZ**	**01**	**DT**	**71D6**	47	326
	4.0 - 19	102.88*	168	98	-	**KAF**	**57**	**VU/VZ**	**01**	**DT**	**71D6**	52	325
	4.2 - 20	145.14*	230	94	-	**K**	**57**	**VU/VZ**	**01**	**DR**	**63L4**	47	324
	4.9 - 24	123.85	196	80	-	**KF**	**57**	**VU/VZ**	**01**	**DR**	**63L4**	52	325
	5.6 - 27	108.29	171	70	-	**KA**	**57**	**VU/VZ**	**01**	**DR**	**63L4**	45	326
	5.9 - 29	102.88*	163	67	-	**KAF**	**57**	**VU/VZ**	**01**	**DR**	**63L4**	51	325
	4.6 - 22	131.87*	210	85	-								
	5.0 - 24	121.48*	192	79	-								
	5.8 - 28	104.37	165	68	-	**K**	**47**	**VU/VZ**	**01**	**DR**	**63L4**	42	321
	6.7 - 32	90.86	144	59	-	**KF**	**47**	**VU/VZ**	**01**	**DR**	**63L4**	45	322
	7.1 - 35	85.12*	135	55	-	**KA**	**47**	**VU/VZ**	**01**	**DR**	**63L4**	41	323
	8.0 - 39	75.20*	119	49	-	**KAF**	**47**	**VU/VZ**	**01**	**DR**	**63L4**	44	322
	9.5 - 47	63.30*	100	41	-								
	11 - 52	56.83	90	37	-								
	5.7 - 28	106.38	168	69	-								
	6.2 - 30	97.81	155	63	-								
	7.2 - 35	83.69	132	54	-								
	8.3 - 41	72.54	115	47	-								
	8.9 - 44	67.80	107	44	-								
	10 - 50	58.60	93	38	-								
	12 - 59	49.79	79	32	-								
	14 - 66	44.46	70	29	-								
	16 - 78	37.97	60	25	-								
	17 - 83	35.57	56	23	-								
	20 - 98	29.96	47	19	-								
	21 - 102	28.83	46	19	-	**K**	**37**	**VU/VZ**	**01**	**DR**	**63L4**	35	318
	24 - 118	24.99	40	16	-	**KF**	**37**	**VU/VZ**	**01**	**DR**	**63L4**	37	319
	26 - 126	23.36	37	15	-	**KA**	**37**	**VU/VZ**	**01**	**DR**	**63L4**	35	320
	30 - 146	20.19	32	13	-	**KAF**	**37**	**VU/VZ**	**01**	**DR**	**63L4**	36	319
	35 - 172	17.15	27	11	-								
	39 - 193	15.31	24	9.9	-								
	46 - 226	13.08	21	8.5	-								
	50 - 243	12.14	19	7.9	-								
	58 - 281	10.49	17	6.8	-								
	68 - 331	8.91	14	5.8	-								
	76 - 371	7.96	13	5.2	-								
	89 - 434	6.80	11	4.4	-								
	95 - 464	6.37	10	4.1	-								
	113 - 550	5.36	8.5	3.5	-								
0.37 / 0.30	**2.3 - 13**	154.02	950	215	-								
	2.6 - 15	135.28	830	187	-								
	2.8 - 16	128.52	790	178	-	**K**	**77**	**VU/VZ**	**11**	**DT**	**80K6**	90	330
	3.1 - 18	113.56	700	157	-	**KF**	**77**	**VU/VZ**	**11**	**DT**	**80K6**	98	331
	3.7 - 21	97.05	595	134	-	**KA**	**77**	**VU/VZ**	**11**	**DT**	**80K6**	82	332
	4.0 - 23	88.97	545	123	-	**KAF**	**77**	**VU/VZ**	**11**	**DT**	**80K6**	90	331
	4.6 - 27	78.07	480	108	-								
	4.2 - 22	145.14*	340	133	-	**K**	**57**	**VU/VZ**	**01**	**DT**	**71D4**	49	324
	5.0 - 25	123.85	290	113	-	**KF**	**57**	**VU/VZ**	**01**	**DT**	**71D4**	54	325
	5.7 - 29	108.29	255	99	-	**KA**	**57**	**VU/VZ**	**01**	**DT**	**71D4**	47	326
	6.0 - 30	102.88*	240	94	-	**KAF**	**57**	**VU/VZ**	**01**	**DT**	**71D4**	52	325
	4.6 - 24	131.87*	310	121	-								
	5.0 - 26	121.48*	285	111	-								
	5.9 - 30	104.37	245	96	-	**K**	**47**	**VU/VZ**	**01**	**DT**	**71D4**	43	321
	6.7 - 34	90.86	215	83	-	**KF**	**47**	**VU/VZ**	**01**	**DT**	**71D4**	46	322
	7.2 - 37	85.12*	199	78	-	**KA**	**47**	**VU/VZ**	**01**	**DT**	**71D4**	42	323
	8.2 - 42	75.20*	176	69	-	**KAF**	**47**	**VU/VZ**	**01**	**DT**	**71D4**	45	322
	9.7 - 49	63.30*	148	58	-								



K..VU/VZ..DR/DT/DV.. [kW]

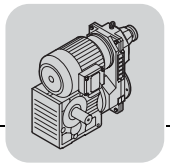
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠						m [kg]	
0.37 / 0.30	**5.8 - 29**	106.38	200	97	-							
	6.3 - 32	97.81	200	90	-							
	7.3 - 37	83.69	196	77	-							
	8.4 - 43	72.54	170	66	-							
	9.0 - 46	67.80	159	62	-							
	10 - 53	58.60	137	54	-							
	12 - 63	49.79	117	46	-							
	14 - 70	44.46	104	41	-							
	16 - 83	37.97	89	35	-							
	17 - 88	35.57	83	33	-							
	20 - 105	29.96	70	27	-							
	21 - 109	28.83	67	26	-	**K**	**37**	**VU/VZ**	**01**	**DT**	**71D4**	36	318
	25 - 125	24.99	58	23	-	**KF**	**37**	**VU/VZ**	**01**	**DT**	**71D4**	39	319
	26 - 134	23.36	55	21	-	**KA**	**37**	**VU/VZ**	**01**	**DT**	**71D4**	36	320
	30 - 155	20.19	47	19	-	**KAF**	**37**	**VU/VZ**	**01**	**DT**	**71D4**	38	319
	36 - 183	17.15	40	16	-								
	40 - 205	15.31	36	14	-								
	47 - 239	13.08	31	12	-								
	50 - 258	12.14	28	11	-								
	58 - 299	10.49	25	9.6	-								
	69 - 351	8.91	21	8.2	-								
	77 - 394	7.96	19	7.3	-								
	90 - 461	6.80	16	6.2	-								
	96 - 492	6.37	15	5.8	-								
	114 - 584	5.36	13	4.9	-								
0.55 / 0.45	**3.5 - 20**	154.02	745	210	-							
	3.9 - 23	135.28	655	186	-	**K**	**77**	**VU/VZ**	**11**	**DT**	**80K4**	90	330
	4.2 - 24	128.52	620	177	-	**KF**	**77**	**VU/VZ**	**11**	**DT**	**80K4**	98	331
	4.7 - 28	113.56	550	156	-	**KA**	**77**	**VU/VZ**	**11**	**DT**	**80K4**	82	332
	5.5 - 32	97.05	470	133	-	**KAF**	**77**	**VU/VZ**	**11**	**DT**	**80K4**	90	331
	6.0 - 35	88.97	430	122	-								
	4.2 - 21	144.79*	455	200	-								
	4.9 - 25	123.54	385	172	-	**K**	**67**	**VU/VZ**	**01**	**DT**	**80K4**	57	327
	5.7 - 29	108.03	340	150	-	**KF**	**67**	**VU/VZ**	**01**	**DT**	**80K4**	62	328
	6.0 - 30	102.62	320	143	-	**KA**	**67**	**VU/VZ**	**01**	**DT**	**80K4**	54	329
	6.8 - 34	90.04	280	125	-	**KAF**	**67**	**VU/VZ**	**01**	**DT**	**80K4**	60	328
	4.2 - 21	145.14*	455	200	-								
	4.9 - 25	123.85	390	172	-	**K**	**57**	**VU/VZ**	**01**	**DT**	**80K4**	51	324
	5.6 - 29	108.29	340	151	-	**KF**	**57**	**VU/VZ**	**01**	**DT**	**80K4**	56	325
	5.9 - 30	102.88*	320	143	-	**KA**	**57**	**VU/VZ**	**01**	**DT**	**80K4**	49	326
	6.8 - 34	90.26*	280	126	-	**KAF**	**57**	**VU/VZ**	**01**	**DT**	**80K4**	54	325
	4.6 - 23	131.87*	400	184	-								
	5.0 - 25	121.48*	380	169	-								
	5.9 - 30	104.37	325	145	-								
	6.7 - 34	90.86	285	127	-								
	7.2 - 36	85.12*	265	119	-	**K**	**47**	**VU/VZ**	**01**	**DT**	**80K4**	45	321
	8.1 - 41	75.20*	235	105	-	**KF**	**47**	**VU/VZ**	**01**	**DT**	**80K4**	48	322
	9.6 - 49	63.30*	198	88	-	**KA**	**47**	**VU/VZ**	**01**	**DT**	**80K4**	44	323
	11 - 54	56.83	178	79	-	**KAF**	**47**	**VU/VZ**	**01**	**DT**	**80K4**	47	322
	12 - 63	48.95*	153	68	-								
	13 - 67	46.03*	144	64	-								
	15 - 78	39.61	124	55	-								



R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠						m [kg]	
0.55 / 0.45	**5.7 - 29**	106.38	200	148	-							
	6.2 - 32	97.81	200	136	-							
	7.3 - 37	83.69	200	117	-							
	8.4 - 43	72.54	200	101	-							
	9.0 - 46	67.80	200	94	-							
	10 - 53	58.60	183	82	-							
	12 - 62	49.79	156	69	-							
	14 - 69	44.46	139	62	-							
	16 - 81	37.97	119	53	-							
	17 - 87	35.57	111	50	-							
	20 - 103	29.96	94	42	-							
	21 - 107	28.83	90	40	-	**K**	**37**	**VU/VZ**	**01**	**DT**	**80K4**	38	318
	24 - 124	24.99	78	35	-	**KF**	**37**	**VU/VZ**	**01**	**DT**	**80K4**	41	319
	26 - 132	23.36	73	33	-	**KA**	**37**	**VU/VZ**	**01**	**DT**	**80K4**	38	320
	30 - 153	20.19	63	28	-	**KAF**	**37**	**VU/VZ**	**01**	**DT**	**80K4**	40	319
	36 - 180	17.15	54	24	-								
	40 - 202	15.31	48	21	-								
	47 - 236	13.08	41	18	-								
	50 - 254	12.14	38	17	-								
	58 - 294	10.49	33	15	-								
	68 - 346	8.91	28	12	-								
	77 - 388	7.96	25	11	-								
	90 - 454	6.80	21	9.5	-								
	96 - 485	6.37	20	8.9	-								
	114 - 576	5.36	17	7.5	-								
0.75 / 0.62	**3.5 - 21**	154.02	745	285	-	**K**	**77**	**VU/VZ**	**11**	**DT**	**80N4**	91	330
	4.0 - 23	135.28	655	250	-	**KF**	**77**	**VU/VZ**	**11**	**DT**	**80N4**	99	331
	4.2 - 25	128.52	620	240	-	**KA**	**77**	**VU/VZ**	**11**	**DT**	**80N4**	83	332
	4.7 - 28	113.56	550	210	-	**KAF**	**77**	**VU/VZ**	**11**	**DT**	**80N4**	91	331
	5.5 - 33	97.05	470	181	-								
	4.2 - 22	144.79*	450	275	-								
	5.0 - 25	123.54	385	235	-	**K**	**67**	**VU/VZ**	**01**	**DT**	**80N4**	58	327
	5.7 - 29	108.03	335	205	-	**KF**	**67**	**VU/VZ**	**01**	**DT**	**80N4**	63	328
	6.0 - 31	102.62	320	194	-	**KA**	**67**	**VU/VZ**	**01**	**DT**	**80N4**	55	329
	6.8 - 35	90.04	280	170	-	**KAF**	**67**	**VU/VZ**	**01**	**DT**	**80N4**	61	328
	8.0 - 41	76.37	240	144	-								
	4.2 - 22	145.14*	455	275	-								
	5.0 - 25	123.85	385	235	-	**K**	**57**	**VU/VZ**	**01**	**DT**	**80N4**	52	324
	5.7 - 29	108.29	340	205	-	**KF**	**57**	**VU/VZ**	**01**	**DT**	**80N4**	57	325
	6.0 - 30	102.88*	320	195	-	**KA**	**57**	**VU/VZ**	**01**	**DT**	**80N4**	50	326
	6.8 - 35	90.26*	280	171	-	**KAF**	**57**	**VU/VZ**	**01**	**DT**	**80N4**	55	325
	8.0 - 41	76.56*	240	145	-								
	4.6 - 24	131.87*	400	250	-								
	5.0 - 26	121.48*	380	230	-								
	5.9 - 30	104.37	325	197	-								
	6.7 - 34	90.86	285	172	-								
	7.2 - 37	85.12*	265	161	-	**K**	**47**	**VU/VZ**	**01**	**DT**	**80N4**	46	321
	8.2 - 42	75.20*	235	142	-	**KF**	**47**	**VU/VZ**	**01**	**DT**	**80N4**	49	322
	9.7 - 49	63.30*	197	120	-	**KA**	**47**	**VU/VZ**	**01**	**DT**	**80N4**	45	323
	11 - 55	56.83	177	107	-	**KAF**	**47**	**VU/VZ**	**01**	**DT**	**80N4**	48	322
	13 - 64	48.95*	153	93	-								
	13 - 68	46.03*	144	87	-								
	15 - 79	39.61	124	75	-								

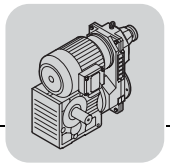


K..VU/VZ..DR/DT/DV.. [kW]

R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠						m [kg]	
0.75 / 0.62	**6.3 - 32**	97.81	200	185	-							
	7.3 - 37	83.69	200	158	-							
	8.4 - 43	72.54	200	137	-							
	9.0 - 46	67.80	200	128	-							
	10 - 53	58.60	183	111	-							
	12 - 63	49.79	155	94	-							
	14 - 70	44.46	139	84	-							
	16 - 83	37.97	118	72	-							
	17 - 88	35.57	111	67	-							
	20 - 105	29.96	93	57	-							
	21 - 109	28.83	90	55	-	**K**	**37**	**VU/VZ**	**01**	**DT**	**80N4**	39	318
	25 - 125	24.99	78	47	-	**KF**	**37**	**VU/VZ**	**01**	**DT**	**80N4**	42	319
	26 - 134	23.36	73	44	-	**KA**	**37**	**VU/VZ**	**01**	**DT**	**80N4**	39	320
	30 - 155	20.19	63	38	-	**KAF**	**37**	**VU/VZ**	**01**	**DT**	**80N4**	41	319
	36 - 183	17.15	54	32	-								
	40 - 205	15.31	48	29	-								
	47 - 239	13.08	41	25	-								
	50 - 258	12.14	38	23	-								
	58 - 299	10.49	33	20	-								
	69 - 351	8.91	28	17	-								
	77 - 394	7.96	25	15	-								
	90 - 461	6.80	21	13	-								
	96 - 492	6.37	20	12	-								
	114 - 584	5.36	17	10	-								
1.1 / 0.90	**2.9 - 18**	174.19	1770	485	-								
	3.1 - 19	164.34*	1670	455	-								
	3.5 - 21	147.32*	1490	410	-								
	4.0 - 24	126.91*	1290	355	-								
	4.4 - 27	115.82	1170	320	-	**K**	**87**	**VU/VZ**	**21**	**DT**	**90S4**	155	333
						KF	**87**	**VU/VZ**	**21**	**DT**	**90S4**	160	334
						KA	**87**	**VU/VZ**	**21**	**DT**	**90S4**	140	335
						KAF	**87**	**VU/VZ**	**21**	**DT**	**90S4**	155	334
	3.5 - 21	154.02	960	410	-								
	4.0 - 24	135.28	840	360	-								
	4.2 - 25	128.52	800	345	-								
	4.7 - 28	113.56	710	305	-	**K**	**77**	**VU/VZ**	**11**	**DT**	**90S4**	96	330
						KF	**77**	**VU/VZ**	**11**	**DT**	**90S4**	105	331
						KA	**77**	**VU/VZ**	**11**	**DT**	**90S4**	88	332
						KAF	**77**	**VU/VZ**	**11**	**DT**	**90S4**	96	331
	4.3 - 26	123.54	770	330	-								
	5.0 - 30	108.03	675	290	-								
	5.2 - 31	102.62	640	275	-								
	6.0 - 36	90.04	560	240	-								
	7.0 - 42	76.37	475	205	-	**K**	**67**	**VU/VZ**	**11**	**DT**	**90S4**	69	327
						KF	**67**	**VU/VZ**	**11**	**DT**	**90S4**	74	328
						KA	**67**	**VU/VZ**	**11**	**DT**	**90S4**	66	329
						KAF	**67**	**VU/VZ**	**11**	**DT**	**90S4**	72	328
	4.3 - 26	123.85	600	330	-								
	5.0 - 30	108.29	600	290	-								
	5.2 - 31	102.88*	600	275	-								
	5.9 - 36	90.26*	565	240	-								
	7.0 - 42	76.56*	475	205	-								
	7.8 - 47	69.12	430	185	-								
	8.8 - 53	60.81*	380	162	-	**K**	**57**	**VU/VZ**	**11**	**DT**	**90S4**	63	324
						KF	**57**	**VU/VZ**	**11**	**DT**	**90S4**	68	325
						KA	**57**	**VU/VZ**	**11**	**DT**	**90S4**	61	326
						KAF	**57**	**VU/VZ**	**11**	**DT**	**90S4**	67	325
	5.1 - 31	104.37	400	280	-								
	5.9 - 35	90.86	400	245	-								
	6.3 - 38	85.12*	400	225	-								
	7.1 - 43	75.20*	400	200	-								
	8.5 - 51	63.30*	395	169	-								
	9.4 - 57	56.83	355	152	-								
	11 - 66	48.95*	305	131	-								
	12 - 70	46.03*	285	123	-	**K**	**47**	**VU/VZ**	**11**	**DT**	**90S4**	57	321
						KF	**47**	**VU/VZ**	**11**	**DT**	**90S4**	60	322
						KA	**47**	**VU/VZ**	**11**	**DT**	**90S4**	56	323
						KAF	**47**	**VU/VZ**	**11**	**DT**	**90S4**	59	322
	14 - 81	39.61	245	106	-								
	15 - 91	35.39	220	95	-								
	17 - 103	31.30	195	84	-								

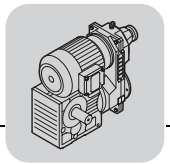
R = 1:5 ... R = 1:6														
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠						m [kg]	
1.1 / 0.90	**7.4**	-	**44**	72.54	200	194	-							
	7.9	-	**47**	67.80	200	181	-							
	9.2	-	**55**	58.60	200	156	-							
	11	-	**65**	49.79	200	133	-							
	12	-	**72**	44.46	200	119	-							
	14	-	**85**	37.97	200	101	-							
	15	-	**91**	35.57	200	95	-							
	18	-	**107**	29.96	187	80	-							
	19	-	**112**	28.83	180	77	-							
	21	-	**129**	24.99	156	67	-	**K**	**37**	**VU/VZ**	**11**	**DT**	**90S4**	53	318
	23	-	**138**	23.36	146	62	-	**KF**	**37**	**VU/VZ**	**11**	**DT**	**90S4**	55	319
	27	-	**160**	20.19	126	54	-	**KA**	**37**	**VU/VZ**	**11**	**DT**	**90S4**	52	320
	31	-	**188**	17.15	107	46	-	**KAF**	**37**	**VU/VZ**	**11**	**DT**	**90S4**	54	319
	35	-	**210**	15.31	95	41	-								
	41	-	**246**	13.08	82	35	-								
	44	-	**265**	12.14	76	32	-								
	51	-	**307**	10.49	65	28	-								
	60	-	**361**	8.91	56	24	-								
	67	-	**405**	7.96	50	21	-								
	79	-	**474**	6.80	42	18	-								
	84	-	**506**	6.37	40	17	-								
	100	-	**600**	5.36	33	14	-								
1.5 / 1.2	**2.9**	-	**18**	174.19	1760	655	-	**K**	**87**	**VU/VZ**	**21**	**DT**	**90L4**	155	333
	3.1	-	**19**	164.34*	1660	620	-	**KF**	**87**	**VU/VZ**	**21**	**DT**	**90L4**	165	334
	3.5	-	**21**	147.32*	1490	555	-	**KA**	**87**	**VU/VZ**	**21**	**DT**	**90L4**	140	335
	4.0	-	**25**	126.91*	1280	480	-	**KAF**	**87**	**VU/VZ**	**21**	**DT**	**90L4**	155	334
	3.5	-	**21**	154.02	960	560	-	**K**	**77**	**VU/VZ**	**11**	**DT**	**90L4**	98	330
	4.0	-	**24**	135.28	840	490	-	**KF**	**77**	**VU/VZ**	**11**	**DT**	**90L4**	105	331
	4.2	-	**25**	128.52	800	465	-	**KA**	**77**	**VU/VZ**	**11**	**DT**	**90L4**	90	332
	4.7	-	**29**	113.56	705	410	-	**KAF**	**77**	**VU/VZ**	**11**	**DT**	**90L4**	98	331
	4.4	-	**26**	123.54	770	450	-	**K**	**67**	**VU/VZ**	**11**	**DT**	**90L4**	71	327
	5.0	-	**30**	108.03	670	390	-	**KF**	**67**	**VU/VZ**	**11**	**DT**	**90L4**	76	328
	5.2	-	**32**	102.62	640	370	-	**KA**	**67**	**VU/VZ**	**11**	**DT**	**90L4**	68	329
	6.0	-	**36**	90.04	560	325	-	**KAF**	**67**	**VU/VZ**	**11**	**DT**	**90L4**	74	328
	4.3	-	**26**	123.85	600	450	-								
	5.0	-	**30**	108.29	600	390	-								
	5.2	-	**32**	102.88*	600	375	-	**K**	**57**	**VU/VZ**	**11**	**DT**	**90L4**	65	324
	6.0	-	**36**	90.26*	560	325	-	**KF**	**57**	**VU/VZ**	**11**	**DT**	**90L4**	70	325
	7.0	-	**42**	76.56*	475	275	-	**KA**	**57**	**VU/VZ**	**11**	**DT**	**90L4**	63	326
	7.8	-	**47**	69.12	430	250	-	**KAF**	**57**	**VU/VZ**	**11**	**DT**	**90L4**	69	325
	8.8	-	**53**	60.81*	380	220	-								
	5.2	-	**31**	104.37	400	380	-								
	5.9	-	**36**	90.86	400	330	-								
	6.3	-	**38**	85.12*	400	310	-								
	7.1	-	**43**	75.20*	400	270	-								
	7.7	-	**46**	69.84	400	255	-	**K**	**47**	**VU/VZ**	**11**	**DT**	**90L4**	59	321
	8.5	-	**51**	63.30*	395	230	-	**KF**	**47**	**VU/VZ**	**11**	**DT**	**90L4**	62	322
	9.5	-	**57**	56.83	355	205	-	**KA**	**47**	**VU/VZ**	**11**	**DT**	**90L4**	58	323
	11	-	**66**	48.95*	305	177	-	**KAF**	**47**	**VU/VZ**	**11**	**DT**	**90L4**	61	322
	12	-	**70**	46.03*	285	167	-								
	14	-	**82**	39.61	245	144	-								
	15	-	**92**	35.39	220	128	-								
	17	-	**104**	31.30	195	113	-								



R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠			m [kg]	
1.5 / 1.2	11 - 65	49.79	200	180	-				
	12 - 73	44.46	200	161	-				
	14 - 85	37.97	200	138	-				
	15 - 91	35.57	200	129	-				
	18 - 108	29.96	186	109	-				
	19 - 112	28.83	179	104	-				
	22 - 130	24.99	156	91	-				
	23 - 139	23.36	145	85	-				
	27 - 161	20.19	126	73	-	K 37	VU/VZ 11 DT 90L4	55	318
	31 - 189	17.15	107	62	-	KF 37	VU/VZ 11 DT 90L4	57	319
	35 - 212	15.31	95	56	-	KA 37	VU/VZ 11 DT 90L4	54	320
	41 - 248	13.08	81	47	-	KAF 37	VU/VZ 11 DT 90L4	56	319
	44 - 267	12.14	76	44	-				
	51 - 309	10.49	65	38	-				
	60 - 364	8.91	55	32	-				
	68 - 408	7.96	50	29	-				
	79 - 477	6.80	42	25	-				
	84 - 509	6.37	40	23	-				
	100 - 605	5.36	33	19	-				
2.2 / 1.8	2.9 - 18	174.19	2290	960	-	K 87	VU/VZ 21 DV 100M4	160	333
	3.1 - 19	164.34*	2160	910	-	KF 87	VU/VZ 21 DV 100M4	170	334
	3.5 - 21	147.32*	1930	810	-	KA 87	VU/VZ 21 DV 100M4	150	335
						KAF 87	VU/VZ 21 DV 100M4	160	334
	3.8 - 23	135.28	1550	745	-				
	4.0 - 24	128.52	1550	710	-				
	4.5 - 27	113.56	1490	625	-	K 77	VU/VZ 21 DV 100M4	125	330
	5.2 - 32	97.05	1270	535	-	KF 77	VU/VZ 21 DV 100M4	135	331
	5.7 - 35	88.97	1170	490	-	KA 77	VU/VZ 21 DV 100M4	115	332
	6.5 - 40	78.07	1020	430	-	KAF 77	VU/VZ 21 DV 100M4	125	331
	6.9 - 42	73.99	970	410	-				
	4.7 - 29	108.03	820	595	-				
	5.0 - 30	102.62	820	565	-				
	5.7 - 35	90.04	820	495	-				
	6.7 - 41	76.37	820	420	-	K 67	VU/VZ 21 DV 100M4	99	327
	7.4 - 45	68.95	820	380	-	KF 67	VU/VZ 21 DV 100M4	105	328
	8.4 - 51	60.66	795	335	-	KA 67	VU/VZ 21 DV 100M4	96	329
	8.9 - 54	57.28	750	315	-	KAF 67	VU/VZ 21 DV 100M4	100	328
	10 - 64	48.77	640	270	-				
	11 - 70	44.32	580	245	-				
	4.7 - 29	108.29	600	595	-				
	5.0 - 30	102.88*	600	570	-				
	5.6 - 35	90.26*	600	500	-				
	6.7 - 41	76.56*	600	420	-				
	7.4 - 45	69.12	600	380	-	K 57	VU/VZ 21 DV 100M4	93	324
	8.4 - 51	60.81*	600	335	-	KF 57	VU/VZ 21 DV 100M4	97	325
	8.9 - 54	57.42*	600	315	-	KA 57	VU/VZ 21 DV 100M4	91	326
	10 - 64	48.89	600	270	-	KAF 57	VU/VZ 21 DV 100M4	96	325
	11 - 70	44.43	585	245	-				
	13 - 81	38.49	505	210	-				
	14 - 87	35.70	470	197	-				
	17 - 103	30.28	395	167	-				

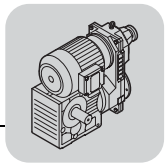
R = 1:5 ... R = 1:6															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
2.2 / 1.8	**8.1**	-	**49**	63.30*	400	350	-								
	9.0	-	**55**	56.83	400	315	-								
	10	-	**64**	48.95*	400	270	-								
	11	-	**68**	46.03*	400	255	-								
	13	-	**79**	39.61	400	220	-								
	14	-	**88**	35.39	400	195	-								
	16	-	**100**	31.30	400	173	-								
	17	-	**106**	29.32	385	162	-								
	20	-	**120**	25.91	340	143	-								
	23	-	**143**	21.81	285	120	-	**K**	**47**	**VU/VZ**	**21**	**DV**	**100M4**	87	321
	26	-	**159**	19.58	255	108	-	**KF**	**47**	**VU/VZ**	**21**	**DV**	**100M4**	90	322
	30	-	**185**	16.86	220	93	-	**KA**	**47**	**VU/VZ**	**21**	**DV**	**100M4**	86	323
	32	-	**197**	15.86	210	88	-	**KAF**	**47**	**VU/VZ**	**21**	**DV**	**100M4**	89	322
	37	-	**228**	13.65	179	75	-								
	42	-	**256**	12.19	160	67	-								
	43	-	**265**	11.77	154	65	-								
	48	-	**295**	10.56	139	58	-								
	56	-	**342**	9.10	119	50	-								
	60	-	**364**	8.56	112	47	-								
	69	-	**423**	7.36	97	41	-								
	77	-	**474**	6.58	86	36	-								
	88	-	**536**	5.81	76	32	-								
3.0 / 2.5	**2.2**	-	**13**	153.21*	3560	1770	-	**K**	**97**	**VU/VZ**	**31**	**DV**	**132S6**	265	336
	2.4	-	**14**	140.28	3260	1620	-	**KF**	**97**	**VU/VZ**	**31**	**DV**	**132S6**	285	337
	2.8	-	**16**	123.93*	2880	1430	-	**KA**	**97**	**VU/VZ**	**31**	**DV**	**132S6**	245	338
	3.2	-	**19**	105.13	2440	1210	-	**KAF**	**97**	**VU/VZ**	**31**	**DV**	**132S6**	270	337
	2.9	-	**18**	174.19	2290	1320	-	**K**	**87**	**VU/VZ**	**21**	**DV**	**100L4**	165	333
	3.1	-	**19**	164.34*	2160	1240	-	**KF**	**87**	**VU/VZ**	**21**	**DV**	**100L4**	175	334
	3.5	-	**21**	147.32*	1940	1110	-	**KA**	**87**	**VU/VZ**	**21**	**DV**	**100L4**	155	335
	4.0	-	**24**	126.91*	1670	960	-	**KAF**	**87**	**VU/VZ**	**21**	**DV**	**100L4**	165	334
	3.8	-	**23**	135.28	1550	1020	-								
	4.0	-	**24**	128.52	1550	970	-								
	4.5	-	**27**	113.56	1490	860	-	**K**	**77**	**VU/VZ**	**21**	**DV**	**100L4**	130	330
	5.2	-	**32**	97.05	1280	735	-	**KF**	**77**	**VU/VZ**	**21**	**DV**	**100L4**	135	331
	5.7	-	**35**	88.97	1170	675	-	**KA**	**77**	**VU/VZ**	**21**	**DV**	**100L4**	120	332
	6.5	-	**40**	78.07	1030	590	-	**KAF**	**77**	**VU/VZ**	**21**	**DV**	**100L4**	130	331
	6.9	-	**42**	73.99	970	560	-								
	7.9	-	**48**	64.75	850	490	-								
	4.7	-	**29**	108.03	820	820	-								
	5.0	-	**30**	102.62	820	775	-								
	5.7	-	**34**	90.04	820	680	-	**K**	**67**	**VU/VZ**	**21**	**DV**	**100L4**	105	327
	6.7	-	**41**	76.37	820	580	-	**KF**	**67**	**VU/VZ**	**21**	**DV**	**100L4**	110	328
	7.4	-	**45**	68.95	820	520	-	**KA**	**67**	**VU/VZ**	**21**	**DV**	**100L4**	100	329
	8.4	-	**51**	60.66	795	460	-	**KAF**	**67**	**VU/VZ**	**21**	**DV**	**100L4**	105	328
	8.9	-	**54**	57.28	755	435	-								
	10	-	**63**	48.77	640	370	-								
	6.6	-	**40**	76.56*	600	580	-								
	7.4	-	**45**	69.12	600	525	-								
	8.4	-	**51**	60.81*	600	460	-								
	8.9	-	**54**	57.42*	600	435	-	**K**	**57**	**VU/VZ**	**21**	**DV**	**100L4**	97	324
	10	-	**63**	48.89	600	370	-	**KF**	**57**	**VU/VZ**	**21**	**DV**	**100L4**	100	325
	11	-	**70**	44.43	585	335	-	**KA**	**57**	**VU/VZ**	**21**	**DV**	**100L4**	95	326
	13	-	**80**	38.49	505	290	-	**KAF**	**57**	**VU/VZ**	**21**	**DV**	**100L4**	100	325
	14	-	**87**	35.70	470	270	-								
	17	-	**102**	30.28	400	230	-								



K..VU/VZ..DR/DT/DV.. [kW]

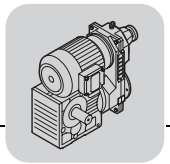
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠						m [kg]	
3.0 / 2.5	**10 - 63**	48.95*	400	370	-							
	11 - 67	46.03*	400	350	-							
	13 - 78	39.61	400	300	-							
	14 - 87	35.39	400	270	-							
	16 - 99	31.30	400	235	-							
	17 - 106	29.32	385	220	-							
	20 - 119	25.91	340	196	-							
	23 - 142	21.81	285	165	-							
	26 - 158	19.58	255	148	-	**K**	**47**	**VU/VZ**	**21**	**DV**	**100L4**	91	321
	30 - 183	16.86	220	128	-	**KF**	**47**	**VU/VZ**	**21**	**DV**	**100L4**	94	322
	32 - 195	15.86	210	120	-	**KA**	**47**	**VU/VZ**	**21**	**DV**	**100L4**	90	323
	37 - 227	13.65	179	103	-	**KAF**	**47**	**VU/VZ**	**21**	**DV**	**100L4**	93	322
	42 - 254	12.19	160	92	-								
	43 - 263	11.77	155	89	-								
	48 - 293	10.56	139	80	-								
	56 - 340	9.10	120	69	-								
	59 - 362	8.56	113	65	-								
	69 - 420	7.36	97	56	-								
	77 - 470	6.58	87	50	-								
	88 - 533	5.81	76	44	-								
4.0 / 3.3	**2.4 - 14**	143.47*	6800	2220	-								
	2.8 - 17	121.46	5750	1880	-	**K**	**107**	**VU/VZ**	**41**	**DV**	**132M6**	445	339
	3.0 - 18	112.41*	5320	1740	-	**KF**	**107**	**VU/VZ**	**41**	**DV**	**132M6**	455	340
	3.3 - 20	100.75	4770	1560	-	**KA**	**107**	**VU/VZ**	**41**	**DV**	**132M6**	415	341
	3.7 - 22	90.96*	4310	1410	-	**KAF**	**107**	**VU/VZ**	**41**	**DV**	**132M6**	440	340
	3.3 - 20	153.21*	3580	1570	-	**K**	**97**	**VU/VZ**	**31**	**DV**	**112M4**	260	336
	3.6 - 22	140.28	3280	1440	-	**KF**	**97**	**VU/VZ**	**31**	**DV**	**112M4**	280	337
	4.1 - 25	123.93*	2900	1270	-	**KA**	**97**	**VU/VZ**	**31**	**DV**	**112M4**	240	338
	4.9 - 29	105.13	2460	1080	-	**KAF**	**97**	**VU/VZ**	**31**	**DV**	**112M4**	265	337
	4.0 - 24	126.91*	2700	1300	-								
	4.4 - 26	115.82	2700	1190	-	**K**	**87**	**VU/VZ**	**31**	**DV**	**112M4**	200	333
	5.0 - 30	102.71*	2400	1060	-	**KF**	**87**	**VU/VZ**	**31**	**DV**	**112M4**	210	334
	5.9 - 36	86.34	2020	890	-	**KA**	**87**	**VU/VZ**	**31**	**DV**	**112M4**	185	335
	6.4 - 39	79.34	1860	820	-	**KAF**	**87**	**VU/VZ**	**31**	**DV**	**112M4**	200	334
	5.3 - 32	97.05	1550	1000	-								
	5.7 - 34	88.97	1550	910	-								
	6.5 - 39	78.07	1550	800	-	**K**	**77**	**VU/VZ**	**31**	**DV**	**112M4**	160	330
	6.9 - 41	73.99	1550	760	-	**KF**	**77**	**VU/VZ**	**31**	**DV**	**112M4**	170	331
	7.9 - 47	64.75	1510	665	-	**KA**	**77**	**VU/VZ**	**31**	**DV**	**112M4**	155	332
	8.8 - 53	58.34	1360	600	-	**KAF**	**77**	**VU/VZ**	**31**	**DV**	**112M4**	160	331
	10 - 60	51.18	1200	525	-								
	6.7 - 40	76.37	820	785	-								
	7.4 - 44	68.95	820	710	-								
	8.4 - 51	60.66	820	625	-								
	8.9 - 54	57.28	820	590	-	**K**	**67**	**VU/VZ**	**31**	**DV**	**112M4**	140	327
	10 - 63	48.77	820	500	-	**KF**	**67**	**VU/VZ**	**31**	**DV**	**112M4**	145	328
	12 - 69	44.32	820	455	-	**KA**	**67**	**VU/VZ**	**31**	**DV**	**112M4**	135	329
	13 - 80	38.39	800	395	-	**KAF**	**67**	**VU/VZ**	**31**	**DV**	**112M4**	140	328
	17 - 102	30.22	705	310	-								
	19 - 112	27.28	640	280	-								



R = 1:5 ... R = 1:6

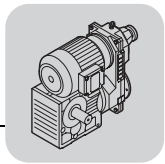
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
4.0 / 3.3	**8.9 - 53**	57.42*	600	590	-								
	10 - 63	48.89	600	500	-								
	11 - 69	44.43	600	455	-								
	13 - 80	38.49	600	395	-								
	17 - 101	30.28	600	310	-								
	19 - 112	27.34	600	280	-								
	21 - 128	24.05	565	245	-								
	22 - 135	22.71	530	235	-	**K**	**57**	**VU/VZ**	**31**	**DV**	**112M4**	130	324
	26 - 159	19.34	450	199	-	**KF**	**57**	**VU/VZ**	**31**	**DV**	**112M4**	135	325
	29 - 175	17.57	410	181	-	**KA**	**57**	**VU/VZ**	**31**	**DV**	**112M4**	130	326
	34 - 202	15.22	355	156	-	**KAF**	**57**	**VU/VZ**	**31**	**DV**	**112M4**	135	325
	39 - 231	13.25	310	136	-								
	43 - 257	11.92	280	123	-								
	45 - 272	11.26	265	116	-								
	53 - 320	9.59	225	99	-								
	59 - 352	8.71	205	90	-								
	68 - 406	7.55	177	78	-								
	78 - 467	6.57	154	68	-								
5.5 / 4.5	**2.4 - 14**	143.47*	6800	3030	-	**K**	**107**	**VU/VZ**	**41**	**DV**	**132ML6**	455	339
	2.8 - 17	121.46	5750	2560	-	**KF**	**107**	**VU/VZ**	**41**	**DV**	**132ML6**	465	340
	3.0 - 18	112.41*	5320	2370	-	**KA**	**107**	**VU/VZ**	**41**	**DV**	**132ML6**	425	341
	3.3 - 20	100.75	4770	2130	-	**KAF**	**107**	**VU/VZ**	**41**	**DV**	**132ML6**	450	340
	3.3 - 20	153.21*	3580	2130	-	**K**	**97**	**VU/VZ**	**31**	**DV**	**132S4**	265	336
	3.6 - 22	140.28	3280	1950	-	**KF**	**97**	**VU/VZ**	**31**	**DV**	**132S4**	285	337
	4.1 - 25	123.93*	2890	1720	-	**KA**	**97**	**VU/VZ**	**31**	**DV**	**132S4**	245	338
	4.9 - 29	105.13	2460	1460	-	**KAF**	**97**	**VU/VZ**	**31**	**DV**	**132S4**	270	337
	4.0 - 24	126.91*	2700	1770	-								
	4.4 - 27	115.82	2700	1610	-								
	5.0 - 30	102.71*	2400	1430	-	**K**	**87**	**VU/VZ**	**31**	**DV**	**132S4**	205	333
	5.9 - 36	86.34	2020	1200	-	**KF**	**87**	**VU/VZ**	**31**	**DV**	**132S4**	215	334
	6.4 - 39	79.34	1850	1100	-	**KA**	**87**	**VU/VZ**	**31**	**DV**	**132S4**	190	335
	7.3 - 44	70.46	1650	980	-	**KAF**	**87**	**VU/VZ**	**31**	**DV**	**132S4**	205	334
	8.1 - 49	63.00*	1470	880	-								
	5.3 - 32	97.05	1550	1350	-								
	5.8 - 35	88.97	1550	1240	-								
	6.5 - 40	78.07	1550	1090	-								
	6.9 - 42	73.99	1550	1030	-	**K**	**77**	**VU/VZ**	**31**	**DV**	**132S4**	170	330
	7.9 - 48	64.75	1510	900	-	**KF**	**77**	**VU/VZ**	**31**	**DV**	**132S4**	175	331
	8.8 - 53	58.34	1360	810	-	**KA**	**77**	**VU/VZ**	**31**	**DV**	**132S4**	160	332
	10 - 60	51.18	1200	710	-	**KAF**	**77**	**VU/VZ**	**31**	**DV**	**132S4**	170	331
	11 - 68	45.16	1050	630	-								
	13 - 77	40.04	930	555	-								
	15 - 88	35.20	820	490	-								
	8.9 - 54	57.28	820	795	-								
	10 - 63	48.77	820	680	-	**K**	**67**	**VU/VZ**	**31**	**DV**	**132S4**	145	327
	12 - 70	44.32	820	615	-	**KF**	**67**	**VU/VZ**	**31**	**DV**	**132S4**	150	328
	13 - 80	38.39	800	535	-	**KA**	**67**	**VU/VZ**	**31**	**DV**	**132S4**	140	329
	17 - 102	30.22	705	420	-	**KAF**	**67**	**VU/VZ**	**31**	**DV**	**132S4**	145	328
	19 - 113	27.28	635	380	-								
	13 - 80	38.49	600	535	-								
	17 - 102	30.28	600	420	-								
	19 - 113	27.34	600	380	-								
	21 - 128	24.05	560	335	-								
	23 - 136	22.71	530	315	-								
	26 - 160	19.34	450	270	-								
	29 - 176	17.57	410	245	-	**K**	**57**	**VU/VZ**	**31**	**DV**	**132S4**	140	324
	34 - 203	15.22	355	210	-	**KF**	**57**	**VU/VZ**	**31**	**DV**	**132S4**	145	325
	39 - 233	13.25	310	184	-	**KA**	**57**	**VU/VZ**	**31**	**DV**	**132S4**	135	326
	43 - 259	11.92	280	166	-	**KAF**	**57**	**VU/VZ**	**31**	**DV**	**132S4**	140	325
	45 - 274	11.26	265	157	-								
	53 - 322	9.59	225	133	-								
	59 - 355	8.71	205	121	-								
	68 - 409	7.55	176	105	-								
	78 - 470	6.57	153	91	-								



K..VU/VZ..DR/DT/DV.. [kW]

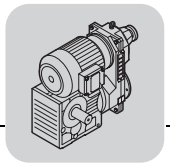
R = 1:5 ... R = 1:6

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
7.5 / 6.2	**2.4 - 14**	143.47*	6800	4170	-	**K**	**107**	**VU/VZ**	**41**	**DV**	**160M6**	460	339
	2.8 - 17	121.46	5750	3530	-	**KF**	**107**	**VU/VZ**	**41**	**DV**	**160M6**	470	340
	3.0 - 18	112.41*	5320	3270	-	**KA**	**107**	**VU/VZ**	**41**	**DV**	**160M6**	430	341
	3.3 - 20	100.75	4770	2930	-	**KAF**	**107**	**VU/VZ**	**41**	**DV**	**160M6**	455	340
	3.5 - 21	143.47*	6820	2800	-	**K**	**107**	**VU/VZ**	**41**	**DV**	**132M4**	445	339
	4.1 - 25	121.46	5770	2370	-	**KF**	**107**	**VU/VZ**	**41**	**DV**	**132M4**	455	340
	4.5 - 27	112.41*	5340	2200	-	**KA**	**107**	**VU/VZ**	**41**	**DV**	**132M4**	415	341
	5.0 - 30	100.75	4790	1970	-	**KAF**	**107**	**VU/VZ**	**41**	**DV**	**132M4**	440	340
	4.0 - 24	123.93*	4300	2420	-								
	4.8 - 29	105.13	4300	2050	-	**K**	**97**	**VU/VZ**	**41**	**DV**	**132M4**	330	336
	5.2 - 31	96.80	4300	1890	-	**KF**	**97**	**VU/VZ**	**41**	**DV**	**132M4**	350	337
	5.8 - 35	86.52	4110	1690	-	**KA**	**97**	**VU/VZ**	**41**	**DV**	**132M4**	315	338
	6.5 - 39	77.89*	3700	1520	-	**KAF**	**97**	**VU/VZ**	**41**	**DV**	**132M4**	340	337
	4.9 - 30	102.71*	2700	2010	-								
	5.8 - 35	86.34	2700	1690	-								
	6.3 - 38	79.34	2700	1550	-	**K**	**87**	**VU/VZ**	**41**	**DV**	**132M4**	270	333
	7.1 - 43	70.46	2700	1380	-	**KF**	**87**	**VU/VZ**	**41**	**DV**	**132M4**	280	334
	8.0 - 48	63.00*	2700	1230	-	**KA**	**87**	**VU/VZ**	**41**	**DV**	**132M4**	260	335
	8.9 - 54	56.64	2690	1110	-	**KAF**	**87**	**VU/VZ**	**41**	**DV**	**132M4**	275	334
	10 - 62	49.16	2340	960	-								
	11 - 69	44.02	2090	860	-								
	6.4 - 39	78.07	1550	1520	-								
	6.8 - 41	73.99	1550	1450	-								
	7.8 - 47	64.75	1550	1260	-								
	8.6 - 52	58.34	1550	1140	-								
	9.8 - 59	51.18	1550	1000	-								
	11 - 67	45.16	1550	880	-								
	13 - 76	40.04	1550	780	-								
	16 - 98	30.89	1470	605	-								
	17 - 104	29.27	1390	570	-	**K**	**77**	**VU/VZ**	**41**	**DV**	**132M4**	235	330
	20 - 118	25.62	1220	500	-	**KF**	**77**	**VU/VZ**	**41**	**DV**	**132M4**	245	331
	22 - 131	23.08	1100	450	-	**KA**	**77**	**VU/VZ**	**41**	**DV**	**132M4**	230	332
	25 - 150	20.25	960	395	-	**KAF**	**77**	**VU/VZ**	**41**	**DV**	**132M4**	235	331
	28 - 170	17.87	850	350	-								
	32 - 191	15.84	755	310	-								
	37 - 224	13.52	640	265	-								
	41 - 245	12.36	585	240	-								
	46 - 280	10.84	515	210	-								
	53 - 317	9.56	455	187	-								
	59 - 358	8.48	405	166	-								
	69 - 419	7.24	345	141	-								
9.2 / 7.5	**3.5 - 21**	143.47*	6800	3370	-	**K**	**107**	**VU/VZ**	**41**	**DV**	**132ML4**	455	339
	4.1 - 25	121.46	5760	2850	-	**KF**	**107**	**VU/VZ**	**41**	**DV**	**132ML4**	465	340
	4.5 - 27	112.41*	5330	2640	-	**KA**	**107**	**VU/VZ**	**41**	**DV**	**132ML4**	425	341
	5.0 - 30	100.75	4780	2360	-	**KAF**	**107**	**VU/VZ**	**41**	**DV**	**132ML4**	450	340
	4.1 - 25	123.93*	4300	2910	-								
	4.8 - 29	105.13	4300	2470	-	**K**	**97**	**VU/VZ**	**41**	**DV**	**132ML4**	340	336
	5.2 - 32	96.80	4300	2270	-	**KF**	**97**	**VU/VZ**	**41**	**DV**	**132ML4**	360	337
	5.8 - 35	86.52	4100	2030	-	**KA**	**97**	**VU/VZ**	**41**	**DV**	**132ML4**	325	338
	6.5 - 39	77.89*	3690	1830	-	**KAF**	**97**	**VU/VZ**	**41**	**DV**	**132ML4**	350	337
	7.1 - 43	70.54	3350	1650	-								
	4.9 - 30	102.71*	2700	2410	-								
	5.8 - 35	86.34	2700	2030	-								
	6.3 - 38	79.34	2700	1860	-								
	7.1 - 43	70.46	2700	1650	-								
	8.0 - 48	63.00*	2700	1480	-	**K**	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	280	333
	8.9 - 54	56.64	2690	1330	-	**KF**	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	290	334
	10 - 62	49.16	2330	1150	-	**KA**	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	270	335
	11 - 69	44.02	2090	1030	-	**KAF**	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	285	334
	14 - 84	36.52*	1730	860	-								
	16 - 97	31.39	1490	735	-								
	18 - 110	27.88	1320	655	-								



R = 1:5 ... R = 1:6

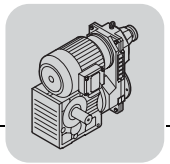
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
9.2 / 7.5	**7.8 - 47**	64.75	1550	1520	-								
	8.6 - 52	58.34	1550	1370	-								
	9.8 - 60	51.18	1550	1200	-								
	11 - 68	45.16	1550	1060	-								
	13 - 76	40.04	1550	940	-								
	16 - 99	30.89	1470	725	-								
	17 - 104	29.27	1390	685	-								
	20 - 119	25.62	1220	600	-	**K**	**77**	**VU/VZ**	**41**	**DV**	**132ML4**	245	330
	22 - 132	23.08	1090	540	-	**KF**	**77**	**VU/VZ**	**41**	**DV**	**132ML4**	255	331
	25 - 151	20.25	960	475	-	**KA**	**77**	**VU/VZ**	**41**	**DV**	**132ML4**	240	332
	28 - 171	17.87	850	420	-	**KAF**	**77**	**VU/VZ**	**41**	**DV**	**132ML4**	245	331
	32 - 193	15.84	750	370	-								
	37 - 226	13.52	640	315	-								
	41 - 247	12.36	585	290	-								
	46 - 282	10.84	515	255	-								
	53 - 319	9.56	455	225	-								
	59 - 360	8.48	400	199	-								
	70 - 422	7.24	345	170	-								
11.0 / 9.0	**2.5 - 15**	136.14	11400	5750	-	**K**	**127**	**VU**	**51**	**DV**	**160L6**	730	342
	2.8 - 17	122.48	10200	5170	-	**KF**	**127**	**VU**	**51**	**DV**	**160L6**	770	343
	3.1 - 18	110.18	9220	4650	-	**KA**	**127**	**VU**	**51**	**DV**	**160L6**	700	344
						KAF	**127**	**VU**	**51**	**DV**	**160L6**	740	343
	3.5 - 21	143.47*	6800	4040	-	**K**	**107**	**VU/VZ**	**41**	**DV**	**160M4**	460	339
	4.1 - 25	121.46	5760	3420	-	**KF**	**107**	**VU/VZ**	**41**	**DV**	**160M4**	470	340
	4.5 - 27	112.41*	5330	3160	-	**KA**	**107**	**VU/VZ**	**41**	**DV**	**160M4**	430	341
	5.0 - 30	100.75	4780	2840	-	**KAF**	**107**	**VU/VZ**	**41**	**DV**	**160M4**	455	340
	4.1 - 25	123.93*	4300	3490	-								
	4.8 - 29	105.13	4300	2960	-								
	5.2 - 32	96.80	4300	2730	-	**K**	**97**	**VU/VZ**	**41**	**DV**	**160M4**	345	336
	5.8 - 35	86.52	4100	2440	-	**KF**	**97**	**VU/VZ**	**41**	**DV**	**160M4**	365	337
	6.5 - 39	77.89*	3690	2190	-	**KA**	**97**	**VU/VZ**	**41**	**DV**	**160M4**	325	338
	7.1 - 43	70.54	3350	1990	-	**KAF**	**97**	**VU/VZ**	**41**	**DV**	**160M4**	350	337
	8.1 - 49	62.55	2970	1760	-								
	5.8 - 35	86.34	2700	2430	-								
	6.3 - 38	79.34	2700	2230	-								
	7.1 - 43	70.46	2700	1980	-								
	8.0 - 48	63.00*	2700	1770	-	**K**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	285	333
	8.9 - 54	56.64	2690	1590	-	**KF**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	295	334
	10 - 62	49.16	2330	1380	-	**KA**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	275	335
	11 - 69	44.02	2090	1240	-	**KAF**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	285	334
	14 - 84	36.52*	1730	1030	M2,4,6								
	16 - 97	31.39	1490	880	-								
	18 - 110	27.88	1320	785	-								
	9.8 - 60	51.18	1550	1440	-								
	11 - 68	45.16	1550	1270	-								
	13 - 76	40.04	1550	1130	-								
	16 - 99	30.89	1470	870	-								
	17 - 104	29.27	1390	820	-								
	20 - 119	25.62	1220	720	-								
	22 - 132	23.08	1090	650	-	**K**	**77**	**VU/VZ**	**41**	**DV**	**160M4**	250	330
	25 - 151	20.25	960	570	-	**KF**	**77**	**VU/VZ**	**41**	**DV**	**160M4**	260	331
	28 - 171	17.87	850	505	-	**KA**	**77**	**VU/VZ**	**41**	**DV**	**160M4**	245	332
	32 - 193	15.84	750	445	-	**KAF**	**77**	**VU/VZ**	**41**	**DV**	**160M4**	250	331
	37 - 226	13.52	640	380	-								
	41 - 247	12.36	585	350	-								
	46 - 282	10.84	515	305	-								
	53 - 319	9.56	455	270	-								
	59 - 360	8.48	400	240	-								
	70 - 422	7.24	345	205	-								
15.0 / 12.3	**3.8 - 23**	136.14	11400	5170	-	**K**	**127**	**VU**	**51**	**DV**	**160L4**	730	342
	4.2 - 25	122.48	10200	4650	-	**KF**	**127**	**VU**	**51**	**DV**	**160L4**	770	343
	4.7 - 28	110.18	9220	4180	-	**KA**	**127**	**VU**	**51**	**DV**	**160L4**	700	344
						KAF	**127**	**VU**	**51**	**DV**	**160L4**	740	343



K..VU/VZ..DR/DT/DV.. [kW]

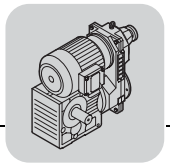
R = 1:5 ... R = 1:6															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
15.0 / 12.3	**4.6 - 28**	112.41*	8000	4270	-	**K**	**107**	**VU**	**51**	**DV**	**160L4**		570	339
	5.1 - 31	100.75	8000	3820	-	**KF**	**107**	**VU**	**51**	**DV**	**160L4**		590	340
	5.7 - 34	90.96*	7610	3450	-	**KA**	**107**	**VU**	**51**	**DV**	**160L4**		550	341
	6.2 - 37	82.61	6910	3140	-	**KAF**	**107**	**VU**	**51**	**DV**	**160L4**		570	340
	7.0 - 42	73.30	6130	2780	-									
	5.3 - 32	96.80	4300	3670	-									
	5.9 - 36	86.52	4300	3280	-	**K**	**97**	**VU**	**51**	**DV**	**160L4**		455	336
	6.6 - 40	77.89*	4300	2960	-	**KF**	**97**	**VU**	**51**	**DV**	**160L4**		475	337
	7.3 - 44	70.54	4300	2680	-	**KA**	**97**	**VU**	**51**	**DV**	**160L4**		440	338
	8.2 - 49	62.55	4300	2370	-	**KAF**	**97**	**VU**	**51**	**DV**	**160L4**		465	337
	9.1 - 55	56.55	4300	2150	M2,4,6									
	7.3 - 44	70.46	2700	2670	-									
	8.2 - 49	63.00*	2700	2390	-									
	9.1 - 55	56.64	2700	2150	-									
	10 - 63	49.16	2700	1870	-									
	12 - 70	44.02	2600	1670	M2,4,6									
	14 - 85	36.52*	2500	1390	M2,4,6									
	16 - 99	31.39	2630	1190	-									
	18 - 111	27.88	2330	1060	-	**K**	**87**	**VU**	**51**	**DV**	**160L4**		395	333
	21 - 124	24.92	2080	950	-	**KF**	**87**	**VU**	**51**	**DV**	**160L4**		405	334
	23 - 138	22.41	1870	850	-	**KA**	**87**	**VU**	**51**	**DV**	**160L4**		385	335
	26 - 159	19.45	1630	740	-	**KAF**	**87**	**VU**	**51**	**DV**	**160L4**		395	334
	30 - 178	17.42	1460	660	-									
	32 - 193	16.00	1340	605	-									
	36 - 214	14.45	1210	550	M2,4,6									
	41 - 246	12.56	1050	475	M2,4,6									
	46 - 277	11.17	930	425	-									
	51 - 310	10.00	840	380	-									
	62 - 373	8.29	695	315	M2,4,6									
	71 - 429	7.21	605	275	M2,4,6									
18.5 / 15.2	**3.8 - 23**	136.14	11400	6360	-	**K**	**127**	**VU**	**51**	**DV**	**180M4**		780	342
	4.2 - 25	122.48	10200	5720	-	**KF**	**127**	**VU**	**51**	**DV**	**180M4**		820	343
	4.7 - 28	110.18	9210	5150	-	**KA**	**127**	**VU**	**51**	**DV**	**180M4**		750	344
						KAF	**127**	**VU**	**51**	**DV**	**180M4**		790	343
	4.6 - 28	112.41*	8000	5250	-	**K**	**107**	**VU**	**51**	**DV**	**180M4**		620	339
	5.1 - 31	100.75	8000	4710	-	**KF**	**107**	**VU**	**51**	**DV**	**180M4**		640	340
	5.7 - 34	90.96*	7600	4250	-	**KA**	**107**	**VU**	**51**	**DV**	**180M4**		600	341
	6.2 - 38	82.61	6900	3860	-	**KAF**	**107**	**VU**	**51**	**DV**	**180M4**		620	340
	5.9 - 36	86.52	4300	4040	-	**K**	**97**	**VU**	**51**	**DV**	**180M4**		510	336
	6.6 - 40	77.89*	4300	3640	-	**KF**	**97**	**VU**	**51**	**DV**	**180M4**		530	337
	7.3 - 44	70.54	4300	3300	-	**KA**	**97**	**VU**	**51**	**DV**	**180M4**		490	338
	8.2 - 50	62.55	4300	2920	M2	**KAF**	**97**	**VU**	**51**	**DV**	**180M4**		510	337
	9.1 - 55	56.64	2700	2650	-									
	10 - 63	49.16	2700	2300	M2,4,6									
	12 - 71	44.02	2600	2060	M2,4,6									
	14 - 85	36.52*	2500	1710	M2-6									
	16 - 99	31.39	2620	1470	-									
	18 - 111	27.88	2330	1300	-									
	21 - 125	24.92	2080	1160	-									
	23 - 139	22.41	1870	1050	-	**K**	**87**	**VU**	**51**	**DV**	**180M4**		445	333
	26 - 160	19.45	1630	910	-	**KF**	**87**	**VU**	**51**	**DV**	**180M4**		455	334
	30 - 178	17.42	1460	810	M2	**KA**	**87**	**VU**	**51**	**DV**	**180M4**		435	335
	32 - 194	16.00	1340	750	-	**KAF**	**87**	**VU**	**51**	**DV**	**180M4**		445	334
	36 - 215	14.45	1210	675	M2,4,6									
	41 - 247	12.56	1050	585	M2-6									
	46 - 278	11.17	930	520	-									
	51 - 311	10.00	840	465	M2									
	62 - 374	8.29	695	390	M2,4,6									
	71 - 431	7.21	605	335	M2-6									
22 / 18.0	**3.8 - 23**	136.14	11400	7530	-	**K**	**127**	**VU**	**51**	**DV**	**180L4**		800	342
	4.2 - 25	122.48	10200	6780	-	**KF**	**127**	**VU**	**51**	**DV**	**180L4**		840	343
	4.7 - 28	110.18	9210	6100	-	**KA**	**127**	**VU**	**51**	**DV**	**180L4**		770	344
						KAF	**127**	**VU**	**51**	**DV**	**180L4**		810	343

R = 1:5 ... R = 1:6																
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
22 / 18.0	**4.6**	-	**28**	112.41*	8000	6220	-									
	5.1	-	**31**	100.75	8000	5580	-									
	5.7	-	**34**	90.96*	7600	5030	-	**K**	**107**	**VU**	**51**	**DV**	**180L4**		640	339
	6.2	-	**38**	82.61	6900	4570	-	**KF**	**107**	**VU**	**51**	**DV**	**180L4**		650	340
	7.0	-	**42**	73.30	6130	4060	-	**KA**	**107**	**VU**	**51**	**DV**	**180L4**		610	341
	7.7	-	**47**	66.52*	5560	3680	-	**KAF**	**107**	**VU**	**51**	**DV**	**180L4**		630	340
	9.0	-	**54**	57.17*	4780	3160	M2,4,6									
	10	-	**62**	49.90	4170	2760	M2-6									
	12	-	**73**	42.33*	3540	2340	M2-6									
	9.1	-	**55**	56.55	4300	3130	M2-6									
	11	-	**65**	47.93*	4010	2650	M1-6									
	12	-	**74**	41.87	3500	2320	M1-6	**K**	**97**	**VU**	**51**	**DV**	**180L4**		520	336
	13	-	**81**	38.30	3200	2120	-	**KF**	**97**	**VU**	**51**	**DV**	**180L4**		540	337
	15	-	**91**	34.23	2860	1890	-	**KA**	**97**	**VU**	**51**	**DV**	**180L4**		500	338
	17	-	**101**	30.82	2580	1710	-	**KAF**	**97**	**VU**	**51**	**DV**	**180L4**		530	337
	18	-	**111**	27.91	2330	1540	-									
	18	-	**111**	27.88	2330	1540	-									
	21	-	**125**	24.92	2080	1380	-									
	23	-	**139**	22.41	1870	1240	-									
	26	-	**160**	19.45	1630	1080	M2									
	30	-	**178**	17.42	1460	960	M2,4,6	**K**	**87**	**VU**	**51**	**DV**	**180L4**		460	333
	32	-	**194**	16.00	1340	890	-	**KF**	**87**	**VU**	**51**	**DV**	**180L4**		470	334
	36	-	**215**	14.45	1210	800	M2-6	**KA**	**87**	**VU**	**51**	**DV**	**180L4**		450	335
	41	-	**247**	12.56	1050	695	M2-6	**KAF**	**87**	**VU**	**51**	**DV**	**180L4**		460	334
	46	-	**278**	11.17	930	620	M2									
	51	-	**311**	10.00	840	555	M2,4,6									
	62	-	**374**	8.29	695	460	M2-6									
	71	-	**431**	7.21	605	400	M2-6									



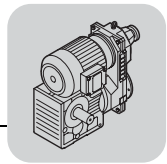
R = 1:4															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2}	⚠								m [kg]	
30 / 25	**4.5 - 21**	122.39	18000	11600	-	**K**	**157**	**VU**	**6**	**DV**	**200L4**		1170	345
	5.5 - 25	100.22	17400	9460	-	**KF**	**157**	**VU**	**6**	**DV**	**200L4**		1250	346
	6.0 - 28	91.65	16000	8650	-	**KA**	**157**	**VU**	**6**	**DV**	**200L4**		1130	347
	6.9 - 32	79.75	13900	7530	-	**KAF**	**157**	**VU**	**6**	**DV**	**200L4**		1190	346
	5.0 - 23	110.18	13000	10400	-									
	6.1 - 28	89.89	13000	8490	-									
	6.7 - 31	81.98	13000	7740	-	**K**	**127**	**VU**	**6**	**DV**	**200L4**		920	342
	7.7 - 36	70.95*	12300	6700	-	**KF**	**127**	**VU**	**6**	**DV**	**200L4**		960	343
	8.8 - 40	62.60	10900	5910	-	**KA**	**127**	**VU**	**6**	**DV**	**200L4**		890	344
	10 - 47	54.07	9410	5110	M2,4,6	**KAF**	**127**	**VU**	**6**	**DV**	**200L4**		930	343
	11 - 53	47.82	8320	4520	M2-6									
	6.6 - 31	82.61	8000	7800	-									
	7.5 - 34	73.30	8000	6920	-									
	8.2 - 38	66.52*	8000	6280	-									
	9.6 - 44	57.17*	8000	5400	-									
	11 - 51	49.90	7840	4710	M2,4,6									
	13 - 60	42.33*	7360	4000	M2-6									
	15 - 68	37.00*	6440	3490	M2-6									
	17 - 77	32.69	5690	3090	-									
	18 - 81	31.28*	5440	2950	M1-6	**K**	**107**	**VU**	**6**	**DV**	**200L4**		770	339
	19 - 87	29.00	5050	2740	-	**KF**	**107**	**VU**	**6**	**DV**	**200L4**		780	340
	21 - 96	26.32	4580	2480	-	**KA**	**107**	**VU**	**6**	**DV**	**200L4**		740	341
	24 - 112	22.62	3940	2140	-	**KAF**	**107**	**VU**	**6**	**DV**	**200L4**		760	340
	28 - 128	19.74	3440	1860	-									
	33 - 151	16.75	2910	1580	M2,4,6									
	37 - 173	14.64	2550	1380	M2-6									
	41 - 188	13.43	2340	1270	-									
	47 - 216	11.73	2040	1110	-									
	55 - 254	9.94	1730	940	M2,4,6									
	63 - 291	8.69	1510	820	M2-6									

R = 1:3															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
37 / 30	**5.6**	-	**17**	122.39	18000	16800	-	**K**	**157**	**VU**	**6**	**DV**	**225S4**	1260	345
	6.9	-	**21**	100.22	18000	13800	-	**KF**	**157**	**VU**	**6**	**DV**	**225S4**	1330	346
	7.5	-	**23**	91.65	18000	12600	-	**KA**	**157**	**VU**	**6**	**DV**	**225S4**	1220	347
	8.6	-	**26**	79.75	16600	10900	-	**KAF**	**157**	**VU**	**6**	**DV**	**225S4**	1280	346
	9.8	-	**30**	70.38	14700	9660	-								
	7.7	-	**23**	89.89	13000	12300	-								
	8.4	-	**25**	81.98	13000	11300	-								
	9.7	-	**29**	70.95*	13000	9740	-	**K**	**127**	**VU**	**6**	**DV**	**225S4**	1000	342
	11	-	**33**	62.60	13000	8590	-	**KF**	**127**	**VU**	**6**	**DV**	**225S4**	1050	343
	13	-	**39**	54.07	11300	7420	-	**KA**	**127**	**VU**	**6**	**DV**	**225S4**	980	344
	14	-	**44**	47.82	9960	6560	M2,4,6	**KAF**	**127**	**VU**	**6**	**DV**	**225S4**	1010	343
	17	-	**52**	40.19	8370	5520	M2-6								
	12	-	**37**	57.17*	8000	7850	-								
	14	-	**42**	49.90	7840	6850	-								
	16	-	**49**	42.33*	7360	5810	M2,4,6								
	19	-	**56**	37.00*	7200	5080	M2-6								
	21	-	**64**	32.69	6810	4490	-								
	22	-	**67**	31.28*	6520	4290	M1-6								
	24	-	**72**	29.00	6040	3980	-	**K**	**107**	**VU**	**6**	**DV**	**225S4**	850	339
	26	-	**79**	26.32	5480	3610	-	**KF**	**107**	**VU**	**6**	**DV**	**225S4**	860	340
	30	-	**92**	22.62	4710	3100	-	**KA**	**107**	**VU**	**6**	**DV**	**225S4**	820	341
	35	-	**106**	19.74	4110	2710	-	**KAF**	**107**	**VU**	**6**	**DV**	**225S4**	850	340
	41	-	**125**	16.75	3490	2300	-								
	47	-	**143**	14.64	3050	2010	M2,4,6								
	51	-	**155**	13.43	2800	1840	-								
	59	-	**178**	11.73	2440	1610	-								
	69	-	**210**	9.94	2070	1360	-								
	79	-	**240**	8.69	1810	1190	M2,4,6								
45 / 37	**6.9**	-	**21**	100.22	18000	17000	-	**K**	**157**	**VU**	**6**	**DV**	**225M4**	1290	345
	7.5	-	**23**	91.65	18000	15500	-	**KF**	**157**	**VU**	**6**	**DV**	**225M4**	1360	346
	8.6	-	**26**	79.75	16600	13500	-	**KA**	**157**	**VU**	**6**	**DV**	**225M4**	1250	347
	9.8	-	**30**	70.38	14700	11900	-	**KAF**	**157**	**VU**	**6**	**DV**	**225M4**	1310	346
	11	-	**34**	61.02	12700	10300	-								
	9.7	-	**29**	70.95*	13000	12000	-	**K**	**127**	**VU**	**6**	**DV**	**225M4**	1030	342
	11	-	**33**	62.60	13000	10600	-	**KF**	**127**	**VU**	**6**	**DV**	**225M4**	1080	343
	13	-	**39**	54.07	11300	9150	M2,4,6	**KA**	**127**	**VU**	**6**	**DV**	**225M4**	1000	344
	14	-	**44**	47.82	9960	8100	M2-6	**KAF**	**127**	**VU**	**6**	**DV**	**225M4**	1040	343
	16	-	**49**	42.33*	7360	7170	M1-6								
	19	-	**56**	37.00*	7200	6260	M1-6								
	21	-	**64**	32.69	6810	5530	-								
	22	-	**67**	31.28*	6520	5300	M1-6								
	24	-	**72**	29.00	6040	4910	-								
	26	-	**79**	26.32	5480	4450	-	**K**	**107**	**VU**	**6**	**DV**	**225M4**	880	339
	30	-	**92**	22.62	4710	3830	-	**KF**	**107**	**VU**	**6**	**DV**	**225M4**	890	340
	35	-	**106**	19.74	4110	3340	-	**KA**	**107**	**VU**	**6**	**DV**	**225M4**	850	341
	41	-	**125**	16.75	3490	2830	M2,4,6	**KAF**	**107**	**VU**	**6**	**DV**	**225M4**	880	340
	47	-	**143**	14.64	3050	2480	M2-6								
	51	-	**155**	13.43	2800	2270	-								
	59	-	**178**	11.73	2440	1990	-								
	69	-	**210**	9.94	2070	1680	M2,4,6								
	79	-	**240**	8.69	1810	1470	M2-6								



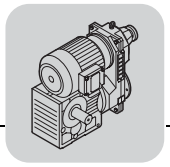
K..VU/VZ..DR/DT/DV.. [kW]

R = 1:7... R = 1:8														
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
0.37 / 0.30	2.3 - 16	154.02	950	178	-	K	77	VU/VZ	11	DT	80K6	90	330
	2.6 - 18	135.28	830	157	-	KF	77	VU/VZ	11	DT	80K6	98	331
	2.8 - 19	128.52	790	149	-	KA	77	VU/VZ	11	DT	80K6	82	332
	3.1 - 22	113.56	700	132	-	KAF	77	VU/VZ	11	DT	80K6	90	331
	2.9 - 20	123.54	760	143	-	K	67	VU/VZ	11	DT	80K6	63	327
	3.3 - 23	108.03	665	125	-	KF	67	VU/VZ	11	DT	80K6	68	328
	3.5 - 24	102.62	630	119	-	KA	67	VU/VZ	11	DT	80K6	60	329
	4.0 - 27	90.04	555	104	-	KAF	67	VU/VZ	11	DT	80K6	66	328
	2.9 - 20	123.85	600	143	-								
	3.3 - 23	108.29	600	125	-	K	57	VU/VZ	11	DT	80K6	57	324
	3.5 - 24	102.88*	600	119	-	KF	57	VU/VZ	11	DT	80K6	62	325
	4.0 - 27	90.26*	555	105	-	KA	57	VU/VZ	11	DT	80K6	55	326
	4.7 - 32	76.56*	470	89	-	KAF	57	VU/VZ	11	DT	80K6	60	325
	5.2 - 36	69.12	425	80	-								
	3.4 - 24	104.37	400	121	-								
	3.9 - 27	90.86	400	105	-								
	4.2 - 29	85.12*	400	99	-								
	4.8 - 33	75.20*	400	87	-								
	5.7 - 39	63.30*	390	73	-	K	47	VU/VZ	11	DT	80K6	51	321
	6.3 - 44	56.83	350	66	-	KF	47	VU/VZ	11	DT	80K6	54	322
	7.3 - 51	48.95*	300	57	-	KA	47	VU/VZ	11	DT	80K6	50	323
	7.8 - 54	46.03*	285	53	-	KAF	47	VU/VZ	11	DT	80K6	53	322
	9.0 - 62	39.61	245	46	-								
	10 - 70	35.39	215	41	-								
	11 - 79	31.30	192	36	-								
	4.3 - 30	83.69	200	97	-								
	4.9 - 34	72.54	200	84	-								
	5.3 - 37	67.80	200	79	-								
	6.1 - 42	58.60	200	68	-								
	7.2 - 50	49.79	200	58	-								
	8.0 - 56	44.46	200	52	-								
	9.4 - 65	37.97	200	44	-								
	10 - 70	35.57	200	41	-								
	12 - 83	29.96	184	35	-								
	12 - 86	28.83	177	33	-								
	14 - 99	24.99	154	29	-	K	37	VU/VZ	11	DT	80K6	46	318
	15 - 106	23.36	144	27	-	KF	37	VU/VZ	11	DT	80K6	49	319
	18 - 123	20.19	124	23	-	KA	37	VU/VZ	11	DT	80K6	46	320
	21 - 144	17.15	105	20	-	KAF	37	VU/VZ	11	DT	80K6	48	319
	23 - 162	15.31	94	18	-								
	27 - 189	13.08	80	15	-								
	29 - 204	12.14	75	14	-								
	34 - 236	10.49	64	12	-								
	40 - 278	8.91	55	10	-								
	45 - 311	7.96	49	9.2	-								
	53 - 364	6.80	42	7.9	-								
	56 - 389	6.37	39	7.4	-								
	67 - 462	5.36	33	6.2	-								
0.55 / 0.45	2.3 - 16	154.02	950	265	-	K	77	VU/VZ	11	DT	80N6	91	330
	2.6 - 18	135.28	830	235	-	KF	77	VU/VZ	11	DT	80N6	99	331
	2.8 - 19	128.52	790	225	-	KA	77	VU/VZ	11	DT	80N6	83	332
	3.1 - 22	113.56	700	197	-	KAF	77	VU/VZ	11	DT	80N6	91	331
	2.9 - 20	123.54	760	215	-	K	67	VU/VZ	11	DT	80N6	64	327
	3.3 - 23	108.03	665	188	-	KF	67	VU/VZ	11	DT	80N6	69	328
	3.5 - 24	102.62	630	178	-	KA	67	VU/VZ	11	DT	80N6	61	329
	4.0 - 27	90.04	555	156	-	KAF	67	VU/VZ	11	DT	80N6	67	328
	2.9 - 20	123.85	600	215	-								
	3.3 - 23	108.29	600	188	-								
	3.5 - 24	102.88*	600	179	-	K	57	VU/VZ	11	DT	80N6	58	324
	4.0 - 27	90.26*	555	157	-	KF	57	VU/VZ	11	DT	80N6	63	325
	4.7 - 32	76.56*	470	133	-	KA	57	VU/VZ	11	DT	80N6	56	326
	5.2 - 36	69.12	425	120	-	KAF	57	VU/VZ	11	DT	80N6	61	325
	5.9 - 41	60.81*	375	106	-								



R = 1:7... R = 1:8

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
0.55 / 0.45	3.4 - 24	104.37	400	181	-								
	3.9 - 27	90.86	400	158	-								
	4.2 - 29	85.12*	400	148	-								
	4.8 - 33	75.20*	400	131	-	K	47	VU/VZ	11	DT	80N6	52	321
	5.7 - 39	63.30*	390	110	-	KF	47	VU/VZ	11	DT	80N6	55	322
	6.3 - 44	56.83	350	99	-	KA	47	VU/VZ	11	DT	80N6	51	323
	7.3 - 51	48.95*	300	85	-	KAF	47	VU/VZ	11	DT	80N6	54	322
	7.8 - 54	46.03*	285	80	-								
	9.0 - 62	39.61	245	69	-								
	4.3 - 30	83.69	200	145	-								
	4.9 - 34	72.54	200	126	-								
	5.3 - 37	67.80	200	118	-								
	6.1 - 42	58.60	200	102	-								
	7.2 - 50	49.79	200	87	-								
	8.0 - 56	44.46	200	77	-								
	9.4 - 65	37.97	200	66	-								
	10 - 70	35.57	200	62	-								
	12 - 83	29.96	184	52	-								
	12 - 86	28.83	177	50	-								
	14 - 99	24.99	154	43	-	K	37	VU/VZ	11	DT	80N6	47	318
	15 - 106	23.36	144	41	-	KF	37	VU/VZ	11	DT	80N6	50	319
	18 - 123	20.19	124	35	-	KA	37	VU/VZ	11	DT	80N6	47	320
	21 - 144	17.15	105	30	-	KAF	37	VU/VZ	11	DT	80N6	49	319
	23 - 162	15.31	94	27	-								
	27 - 189	13.08	80	23	-								
	29 - 204	12.14	75	21	-								
	34 - 236	10.49	64	18	-								
	40 - 278	8.91	55	16	-								
	45 - 311	7.96	49	14	-								
	53 - 364	6.80	42	12	-								
	56 - 389	6.37	39	11	-								
	67 - 462	5.36	33	9.3	-								
0.75 / 0.62	1.9 - 15	174.19	1720	400	-								
	2.1 - 16	164.34*	1620	380	-	K	87	VU/VZ	21	DT	90S6	155	333
	2.3 - 17	147.32*	1450	340	-	KF	87	VU/VZ	21	DT	90S6	160	334
	2.7 - 20	126.91*	1250	290	-	KA	87	VU/VZ	21	DT	90S6	140	335
	2.9 - 22	115.82	1140	265	-	KAF	87	VU/VZ	21	DT	90S6	155	334
	3.3 - 25	102.71*	1010	235	-								
	2.3 - 16	154.02	950	370	-	K	77	VU/VZ	11	DT	90S6	96	330
	2.6 - 18	135.28	830	325	-	KF	77	VU/VZ	11	DT	90S6	105	331
	2.8 - 19	128.52	790	310	-	KA	77	VU/VZ	11	DT	90S6	88	332
	3.1 - 22	113.56	700	270	-	KAF	77	VU/VZ	11	DT	90S6	96	331
	2.9 - 20	123.54	760	295	-	K	67	VU/VZ	11	DT	90S6	69	327
	3.3 - 23	108.03	665	260	-	KF	67	VU/VZ	11	DT	90S6	74	328
	3.5 - 24	102.62	630	245	-	KA	67	VU/VZ	11	DT	90S6	66	329
	4.0 - 27	90.04	555	215	-	KAF	67	VU/VZ	11	DT	90S6	72	328
	2.9 - 20	123.85	600	295	-								
	3.3 - 23	108.29	600	260	-								
	3.5 - 24	102.88*	600	245	-	K	57	VU/VZ	11	DT	90S6	63	324
	4.0 - 27	90.26*	555	215	-	KF	57	VU/VZ	11	DT	90S6	68	325
	4.7 - 32	76.56*	470	183	-	KA	57	VU/VZ	11	DT	90S6	61	326
	5.2 - 36	69.12	425	165	-	KAF	57	VU/VZ	11	DT	90S6	67	325
	5.9 - 41	60.81*	375	146	-								
	3.4 - 24	104.37	400	250	-								
	3.9 - 27	90.86	400	215	-								
	4.2 - 29	85.12*	400	205	-								
	4.8 - 33	75.20*	400	180	-	K	47	VU/VZ	11	DT	90S6	57	321
	5.7 - 39	63.30*	390	151	-	KF	47	VU/VZ	11	DT	90S6	60	322
	6.3 - 44	56.83	350	136	-	KA	47	VU/VZ	11	DT	90S6	56	323
	7.3 - 51	48.95*	300	117	-	KAF	47	VU/VZ	11	DT	90S6	59	322
	7.8 - 54	46.03*	285	110	-								
	9.0 - 62	39.61	245	95	-								
	10 - 70	35.39	215	85	-								

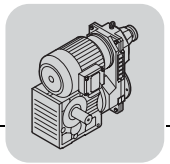


K..VU/VZ..DR/DT/DV.. [kW]

R = 1:7... R = 1:8

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠						m [kg]	
0.75 / 0.62	**4.9 - 34**	72.54	200	174	-							
	5.3 - 37	67.80	200	162	-							
	6.1 - 42	58.60	200	140	-							
	7.2 - 50	49.79	200	119	-							
	8.0 - 56	44.46	200	106	-							
	9.4 - 65	37.97	200	91	-							
	10 - 70	35.57	200	85	-							
	12 - 83	29.96	184	72	-							
	12 - 86	28.83	177	69	-							
	14 - 99	24.99	154	60	-	**K**	**37**	**VU/VZ**	**11**	**DT**	**90S6**	53	318
	15 - 106	23.36	144	56	-	**KF**	**37**	**VU/VZ**	**11**	**DT**	**90S6**	55	319
	18 - 123	20.19	124	48	-	**KA**	**37**	**VU/VZ**	**11**	**DT**	**90S6**	52	320
	21 - 144	17.15	105	41	-	**KAF**	**37**	**VU/VZ**	**11**	**DT**	**90S6**	54	319
	23 - 162	15.31	94	37	-								
	27 - 189	13.08	80	31	-								
	29 - 204	12.14	75	29	-								
	34 - 236	10.49	64	25	-								
	40 - 278	8.91	55	21	-								
	45 - 311	7.96	49	19	-								
	53 - 364	6.80	42	16	-								
	56 - 389	6.37	39	15	-								
	67 - 462	5.36	33	13	-								
1.1 / 0.90	**1.9 - 15**	174.19	1710	570	-								
	2.1 - 16	164.34*	1610	535	-	**K**	**87**	**VU/VZ**	**21**	**DT**	**90L6**	155	333
	2.3 - 18	147.32*	1450	480	-	**KF**	**87**	**VU/VZ**	**21**	**DT**	**90L6**	165	334
	2.7 - 21	126.91*	1250	415	-	**KA**	**87**	**VU/VZ**	**21**	**DT**	**90L6**	140	335
	2.9 - 23	115.82	1140	380	-	**KAF**	**87**	**VU/VZ**	**21**	**DT**	**90L6**	155	334
	3.3 - 26	102.71*	1010	335	-								
	2.3 - 16	154.02	940	525	-								
	2.6 - 19	135.28	830	460	-								
	2.8 - 20	128.52	785	435	-	**K**	**77**	**VU/VZ**	**11**	**DT**	**90L6**	98	330
	3.2 - 22	113.56	695	385	-	**KF**	**77**	**VU/VZ**	**11**	**DT**	**90L6**	105	331
	3.7 - 26	97.05	595	330	-	**KA**	**77**	**VU/VZ**	**11**	**DT**	**90L6**	90	332
	4.0 - 28	88.97	545	300	-	**KAF**	**77**	**VU/VZ**	**11**	**DT**	**90L6**	98	331
	4.6 - 32	78.07	480	265	-								
	2.9 - 20	123.54	755	420	-	**K**	**67**	**VU/VZ**	**11**	**DT**	**90L6**	71	327
	3.3 - 23	108.03	660	365	-	**KF**	**67**	**VU/VZ**	**11**	**DT**	**90L6**	76	328
	3.5 - 25	102.62	630	350	-	**KA**	**67**	**VU/VZ**	**11**	**DT**	**90L6**	68	329
	4.0 - 28	90.04	550	305	-	**KAF**	**67**	**VU/VZ**	**11**	**DT**	**90L6**	74	328
	2.9 - 20	123.85	600	420	-								
	3.3 - 23	108.29	600	370	-								
	3.5 - 25	102.88*	600	350	-	**K**	**57**	**VU/VZ**	**11**	**DT**	**90L6**	65	324
	4.0 - 28	90.26*	555	305	-	**KF**	**57**	**VU/VZ**	**11**	**DT**	**90L6**	70	325
	4.7 - 33	76.56*	470	260	-	**KA**	**57**	**VU/VZ**	**11**	**DT**	**90L6**	63	326
	5.2 - 37	69.12	425	235	-	**KAF**	**57**	**VU/VZ**	**11**	**DT**	**90L6**	69	325
	5.9 - 42	60.81*	370	205	-								
	3.4 - 24	104.37	400	355	-								
	4.0 - 28	90.86	400	310	-								
	4.2 - 30	85.12*	400	290	-								
	4.8 - 34	75.20*	400	255	-								
	5.1 - 36	69.84	400	235	-								
	5.7 - 40	63.30*	390	215	-	**K**	**47**	**VU/VZ**	**11**	**DT**	**90L6**	59	321
	6.3 - 45	56.83	350	193	-	**KF**	**47**	**VU/VZ**	**11**	**DT**	**90L6**	62	322
	7.3 - 52	48.95*	300	166	-	**KA**	**47**	**VU/VZ**	**11**	**DT**	**90L6**	58	323
	7.8 - 55	46.03*	280	156	-	**KAF**	**47**	**VU/VZ**	**11**	**DT**	**90L6**	61	322
	9.1 - 64	39.61	245	135	-								
	10 - 71	35.39	215	120	-								
	11 - 81	31.30	192	106	-								
	12 - 86	29.32	180	100	-								
	14 - 98	25.91	159	88	-								

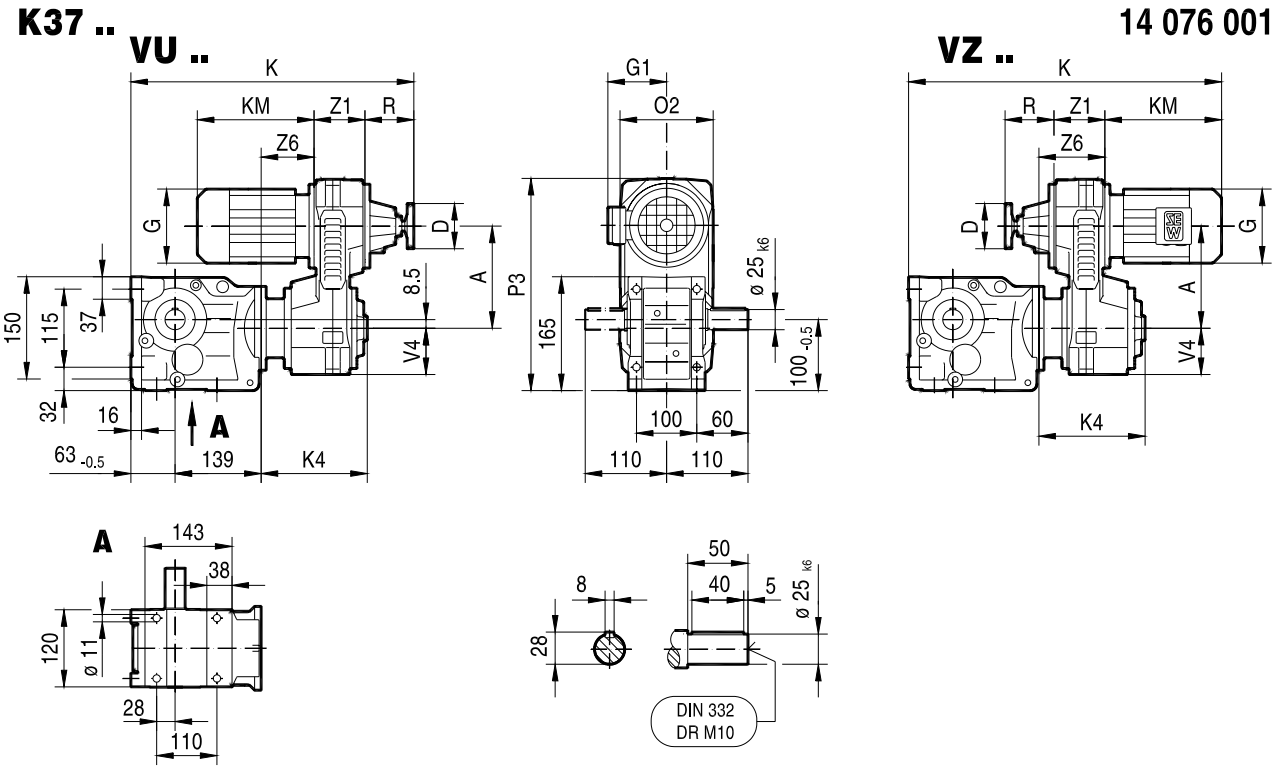
R = 1:7... R = 1:8														
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠						m [kg]	
1.1 / 0.90	6.1	-	43	58.60	200	199	-							
	7.2	-	51	49.79	200	169	-							
	8.1	-	57	44.46	200	151	-							
	9.5	-	67	37.97	200	129	-							
	10	-	71	35.57	200	121	-							
	12	-	84	29.96	183	102	-							
	12	-	88	28.83	177	98	-							
	14	-	101	24.99	153	85	-							
	15	-	108	23.36	143	79	-	K	37	VU/VZ	11	DT	90L6	55	318
	18	-	125	20.19	124	69	-	KF	37	VU/VZ	11	DT	90L6	57	319
	21	-	148	17.15	105	58	-	KA	37	VU/VZ	11	DT	90L6	54	320
	23	-	165	15.31	94	52	-	KAF	37	VU/VZ	11	DT	90L6	56	319
	27	-	193	13.08	80	44	-								
	30	-	208	12.14	74	41	-								
	34	-	241	10.49	64	36	-								
	40	-	284	8.91	55	30	-								
	45	-	318	7.96	49	27	-								
	53	-	372	6.80	42	23	-								
	56	-	397	6.37	39	22	-								
	67	-	472	5.36	33	18	-								
1.5 / 1.2	1.9	-	15	174.19	2250	780	-	K	87	VU/VZ	21	DV	100M6	160	333
	2.1	-	16	164.34*	2120	735	-	KF	87	VU/VZ	21	DV	100M6	170	334
	2.3	-	18	147.32*	1900	660	-	KA	87	VU/VZ	21	DV	100M6	150	335
	2.7	-	21	126.91*	1640	565	-	KAF	87	VU/VZ	21	DV	100M6	160	334
	2.5	-	19	135.28	1550	605	-	K	77	VU/VZ	21	DV	100M6	125	330
	2.6	-	20	128.52	1550	575	-	KF	77	VU/VZ	21	DV	100M6	135	331
	3.0	-	23	113.56	1470	505	-	KA	77	VU/VZ	21	DV	100M6	115	332
	3.5	-	27	97.05	1250	435	-	KAF	77	VU/VZ	21	DV	100M6	125	331
	3.8	-	30	88.97	1150	395	-								
	3.1	-	24	108.03	820	480	-								
	3.3	-	26	102.62	820	460	-								
	3.8	-	29	90.04	820	400	-	K	67	VU/VZ	21	DV	100M6	99	327
	4.5	-	34	76.37	820	340	-	KF	67	VU/VZ	21	DV	100M6	105	328
	4.9	-	38	68.95	820	310	-	KA	67	VU/VZ	21	DV	100M6	96	329
	5.6	-	43	60.66	785	270	-	KAF	67	VU/VZ	21	DV	100M6	100	328
	5.9	-	46	57.28	740	255	-								
	7.0	-	54	48.77	630	220	-								
	3.1	-	24	108.29	600	485	-								
	3.3	-	26	102.88*	600	460	-								
	3.8	-	29	90.26*	600	405	-								
	4.4	-	34	76.56*	600	340	-								
	4.9	-	38	69.12	600	310	-	K	57	VU/VZ	21	DV	100M6	93	324
	5.6	-	43	60.81*	600	270	-	KF	57	VU/VZ	21	DV	100M6	97	325
	5.9	-	46	57.42*	600	255	-	KA	57	VU/VZ	21	DV	100M6	91	326
	7.0	-	54	48.89	600	220	-	KAF	57	VU/VZ	21	DV	100M6	96	325
	7.7	-	59	44.43	575	198	-								
	8.8	-	68	38.49	495	172	-								
	9.5	-	74	35.70	460	159	-								



R = 1:7... R = 1:8														
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
1.5 / 1.2	4.0 - 31	85.12*	400	380	-								
	4.5 - 35	75.20*	400	335	-								
	5.4 - 42	63.30*	400	285	-								
	6.0 - 46	56.83	400	255	-								
	7.0 - 54	48.95*	400	220	-								
	7.4 - 57	46.03*	400	205	-								
	8.6 - 66	39.61	400	177	-								
	9.6 - 74	35.39	400	158	-								
	11 - 84	31.30	400	140	-								
	12 - 90	29.32	380	131	-								
	13 - 102	25.91	335	116	-	**K**	**47**	**VU/VZ**	**21**	**DV**	**100M6**	87	321
	16 - 121	21.81	280	97	-	**KF**	**47**	**VU/VZ**	**21**	**DV**	**100M6**	90	322
	17 - 134	19.58	255	87	-	**KA**	**47**	**VU/VZ**	**21**	**DV**	**100M6**	86	323
	20 - 156	16.86	220	75	-	**KAF**	**47**	**VU/VZ**	**21**	**DV**	**100M6**	89	322
	21 - 166	15.86	205	71	-								
	25 - 193	13.65	176	61	-								
	28 - 216	12.19	157	54	-								
	29 - 224	11.77	152	53	-								
	32 - 249	10.56	136	47	-								
	37 - 289	9.10	118	41	-								
	40 - 307	8.56	111	38	-								
	46 - 357	7.36	95	33	-								
	52 - 400	6.58	85	29	-								
	59 - 453	5.81	75	26	-								
2.2 / 1.8	2.2 - 18	153.21*	3560	980	-	**K**	**97**	**VU/VZ**	**31**	**DV**	**112M6**	260	336
	2.4 - 19	140.28	3260	900	-	**KF**	**97**	**VU/VZ**	**31**	**DV**	**112M6**	280	337
	2.8 - 22	123.93*	2880	790	-	**KA**	**97**	**VU/VZ**	**31**	**DV**	**112M6**	240	338
	3.2 - 26	105.13	2440	670	-	**KAF**	**97**	**VU/VZ**	**31**	**DV**	**112M6**	265	337
	2.7 - 21	126.91*	2700	810	-	**K**	**87**	**VU/VZ**	**31**	**DV**	**112M6**	200	333
	3.0 - 23	115.82	2690	740	-	**KF**	**87**	**VU/VZ**	**31**	**DV**	**112M6**	210	334
	3.3 - 26	102.71*	2380	655	-	**KA**	**87**	**VU/VZ**	**31**	**DV**	**112M6**	185	335
	4.0 - 31	86.34	2000	550	-	**KAF**	**87**	**VU/VZ**	**31**	**DV**	**112M6**	200	334
	3.5 - 28	97.05	1550	620	-								
	3.8 - 30	88.97	1550	570	-	**K**	**77**	**VU/VZ**	**31**	**DV**	**112M6**	160	330
	4.4 - 34	78.07	1550	500	-	**KF**	**77**	**VU/VZ**	**31**	**DV**	**112M6**	170	331
	4.6 - 36	73.99	1550	475	-	**KA**	**77**	**VU/VZ**	**31**	**DV**	**112M6**	155	332
	5.3 - 42	64.75	1500	415	-	**KAF**	**77**	**VU/VZ**	**31**	**DV**	**112M6**	160	331
	5.9 - 46	58.34	1350	375	-								
	4.5 - 35	76.37	820	490	-								
	5.0 - 39	68.95	820	440	-								
	5.6 - 44	60.66	820	390	-								
	6.0 - 47	57.28	820	365	-	**K**	**67**	**VU/VZ**	**31**	**DV**	**112M6**	140	327
	7.0 - 55	48.77	820	310	-	**KF**	**67**	**VU/VZ**	**31**	**DV**	**112M6**	145	328
	7.7 - 61	44.32	820	285	-	**KA**	**67**	**VU/VZ**	**31**	**DV**	**112M6**	135	329
	8.9 - 70	38.39	800	245	-	**KAF**	**67**	**VU/VZ**	**31**	**DV**	**112M6**	140	328
	11 - 89	30.22	700	193	-								
	13 - 99	27.28	635	174	-								

R = 1:7... R = 1:8																
P_m/P_{a2} [kW]	n_{a1} [1/min]	-	n_{a2}	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
2.2 / 1.8	**4.5**	-	**35**	76.56*	600	490	-									
	4.9	-	**39**	69.12	600	440	-									
	5.6	-	**44**	60.81*	600	390	-									
	6.0	-	**47**	57.42*	600	365	-									
	7.0	-	**55**	48.89	600	315	-									
	7.7	-	**61**	44.43	600	285	-									
	8.9	-	**70**	38.49	600	245	-									
	11	-	**89**	30.28	600	194	-									
	12	-	**98**	27.34	600	175	-									
	14	-	**112**	24.05	560	154	-	**K**	**57**		**VU/VZ**	**31**	**DV**	**112M6**	130	324
	15	-	**118**	22.71	525	145	-	**KF**	**57**		**VU/VZ**	**31**	**DV**	**112M6**	135	325
	18	-	**139**	19.34	450	124	-	**KA**	**57**		**VU/VZ**	**31**	**DV**	**112M6**	130	326
	19	-	**153**	17.57	410	112	-	**KAF**	**57**		**VU/VZ**	**31**	**DV**	**112M6**	135	325
	22	-	**177**	15.22	355	97	-									
	26	-	**203**	13.25	310	85	-									
	29	-	**226**	11.92	275	76	-									
	30	-	**239**	11.26	260	72	-									
	36	-	**280**	9.59	225	61	-									
	39	-	**309**	8.71	200	56	-									
	45	-	**356**	7.55	175	48	-									
	52	-	**409**	6.57	153	42	-									
3.0 / 2.5	**2.2**	-	**18**	153.21*	3560	1330	-	**K**	**97**		**VU/VZ**	**31**	**DV**	**132S6**	265	336
	2.4	-	**19**	140.28	3260	1220	-	**KF**	**97**		**VU/VZ**	**31**	**DV**	**132S6**	285	337
	2.8	-	**22**	123.93*	2880	1080	-	**KA**	**97**		**VU/VZ**	**31**	**DV**	**132S6**	245	338
	3.2	-	**26**	105.13	2440	920	-	**KAF**	**97**		**VU/VZ**	**31**	**DV**	**132S6**	270	337
	2.7	-	**21**	126.91*	2700	1100	-	**K**	**87**		**VU/VZ**	**31**	**DV**	**132S6**	205	333
	3.0	-	**23**	115.82	2690	1010	-	**KF**	**87**		**VU/VZ**	**31**	**DV**	**132S6**	215	334
	3.3	-	**26**	102.71*	2380	890	-	**KA**	**87**		**VU/VZ**	**31**	**DV**	**132S6**	190	335
	4.0	-	**31**	86.34	2000	750	-	**KAF**	**87**		**VU/VZ**	**31**	**DV**	**132S6**	205	334
	3.5	-	**28**	97.05	1550	840	-									
	3.8	-	**30**	88.97	1550	775	-	**K**	**77**		**VU/VZ**	**31**	**DV**	**132S6**	170	330
	4.4	-	**34**	78.07	1550	680	-	**KF**	**77**		**VU/VZ**	**31**	**DV**	**132S6**	175	331
	4.6	-	**36**	73.99	1550	645	-	**KA**	**77**		**VU/VZ**	**31**	**DV**	**132S6**	160	332
	5.3	-	**42**	64.75	1500	565	-	**KAF**	**77**		**VU/VZ**	**31**	**DV**	**132S6**	170	331
	5.9	-	**46**	58.34	1350	510	-									
	4.5	-	**35**	76.37	820	665	-									
	5.0	-	**39**	68.95	820	600	-									
	5.6	-	**44**	60.66	820	530	-									
	6.0	-	**47**	57.28	820	500	-	**K**	**67**		**VU/VZ**	**31**	**DV**	**132S6**	145	327
	7.0	-	**55**	48.77	820	425	-	**KF**	**67**		**VU/VZ**	**31**	**DV**	**132S6**	150	328
	7.7	-	**61**	44.32	820	385	-	**KA**	**67**		**VU/VZ**	**31**	**DV**	**132S6**	140	329
	8.9	-	**70**	38.39	800	335	-	**KAF**	**67**		**VU/VZ**	**31**	**DV**	**132S6**	145	328
	11	-	**89**	30.22	700	265	-									
	13	-	**99**	27.28	635	235	-									
	5.6	-	**44**	60.81*	600	530	-									
	6.0	-	**47**	57.42*	600	500	-									
	7.0	-	**55**	48.89	600	425	-									
	7.7	-	**61**	44.43	600	385	-									
	8.9	-	**70**	38.49	600	335	-									
	11	-	**89**	30.28	600	265	-									
	12	-	**98**	27.34	600	240	-									
	14	-	**112**	24.05	560	210	-									
	15	-	**118**	22.71	525	198	-	**K**	**57**		**VU/VZ**	**31**	**DV**	**132S6**	140	324
	18	-	**139**	19.34	450	168	-	**KF**	**57**		**VU/VZ**	**31**	**DV**	**132S6**	145	325
	19	-	**153**	17.57	410	153	-	**KA**	**57**		**VU/VZ**	**31**	**DV**	**132S6**	135	326
	22	-	**177**	15.22	355	133	-	**KAF**	**57**		**VU/VZ**	**31**	**DV**	**132S6**	140	325
	26	-	**203**	13.25	310	115	-									
	29	-	**226**	11.92	275	104	-									
	30	-	**239**	11.26	260	98	-									
	36	-	**280**	9.59	225	84	-									
	39	-	**309**	8.71	200	76	-									
	45	-	**356**	7.55	175	66	-									
	52	-	**409**	6.57	153	57	-									

11.3 K..VU/VZ..DR/DT/DV.. [mm]

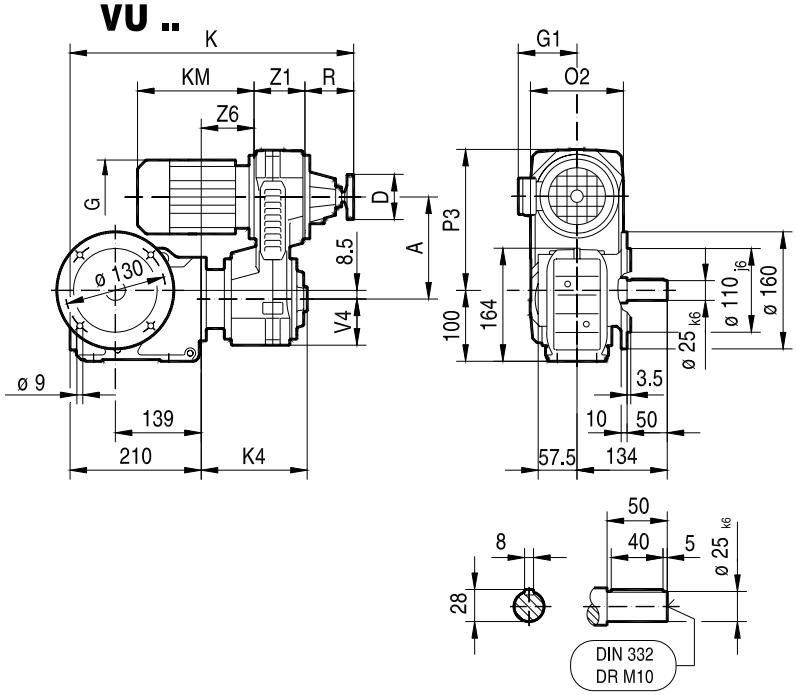


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
K37	VU01 VZ01	DR63..	182	80	132	105	494	510	187	213	176	361	98	72	80	114	121
		DT71D	182	80	145	122	494	525	202	213	176	361	98	72	80	114	121
		DT80..	182	80	145	122	494	575	252	213	176	361	98	72	80	114	121
	VU11 VZ11	DT80..	232	100	145	122	539	604	252	238	183	414	117	88	98	122	150
		DT90..	232	100	197	154	539	625	273	238	183	414	117	88	98	122	150

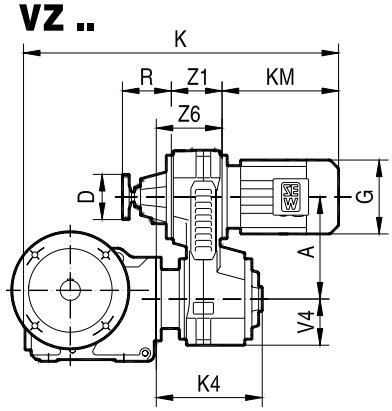
KF37 ..

14 077 001

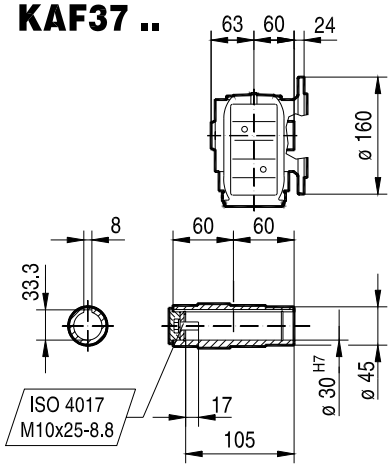
VU ..



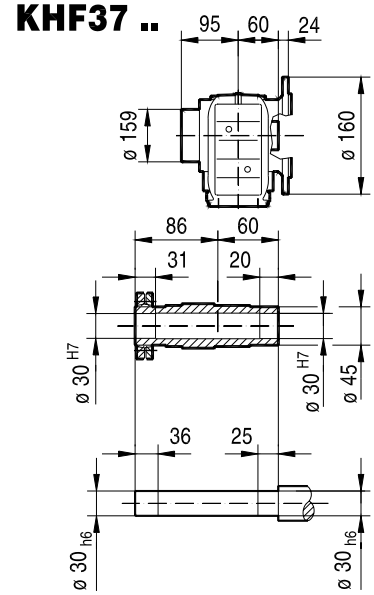
VZ ..



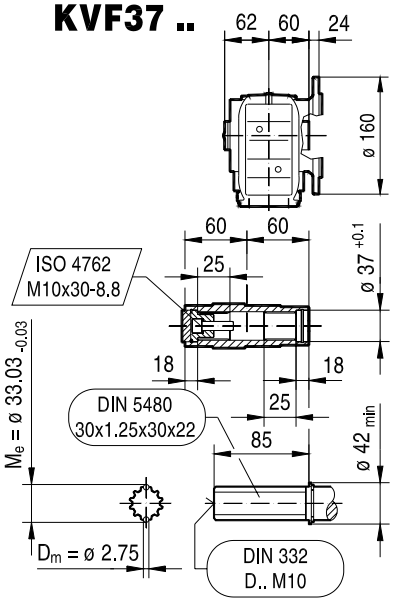
KAF37 ..



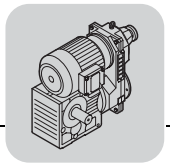
KHF37 ..



KVF37 ..



(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
KF37 KAF37 KHF37 KVF37	VU01 VZ01	DR63..	182	80	132	105	502	518	187	213	176	261	98	72	80	114	121
		DT71D	182	80	145	122	502	533	202	213	176	261	98	72	80	114	121
		DT80..	182	80	145	122	502	583	252	213	176	261	98	72	80	114	121
	VU11 VZ11	DT80..	232	100	145	122	547	612	252	238	183	314	117	88	98	122	150
		DT90..	232	100	197	154	547	633	273	238	183	314	117	88	98	122	150

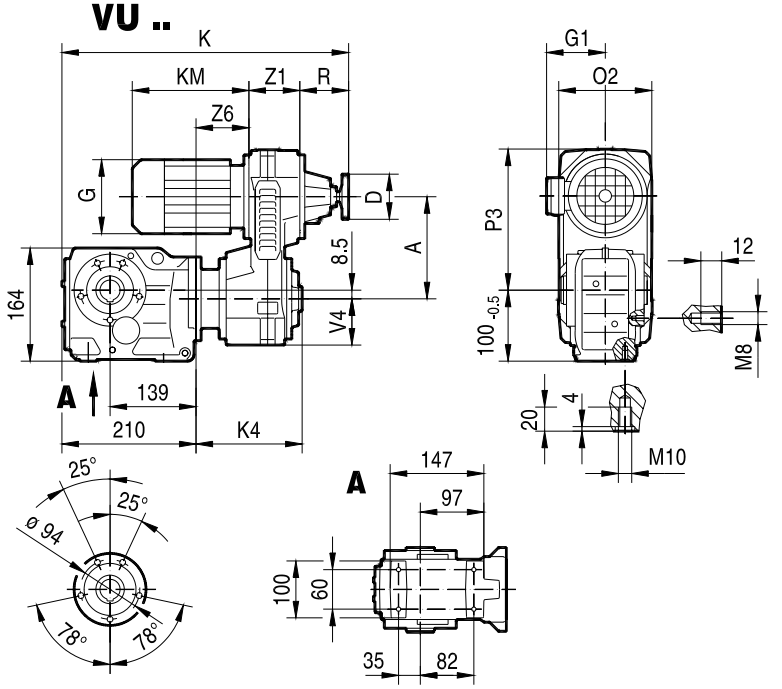


K..VU/VZ..DR/DT/DV.. [mm]

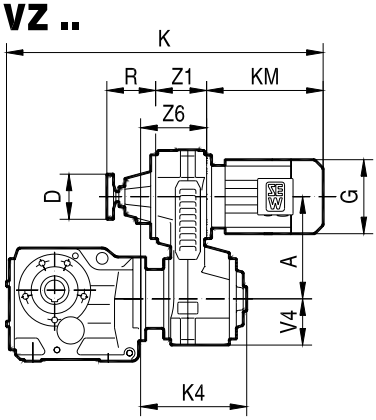
14 078 001

KA37 ..

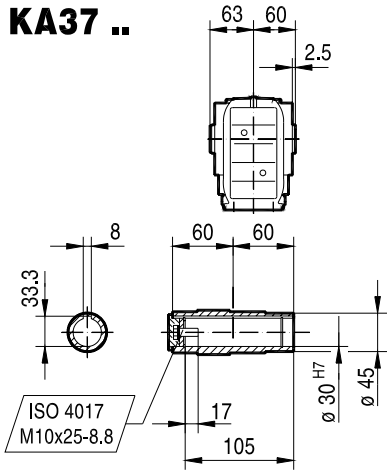
VU ..



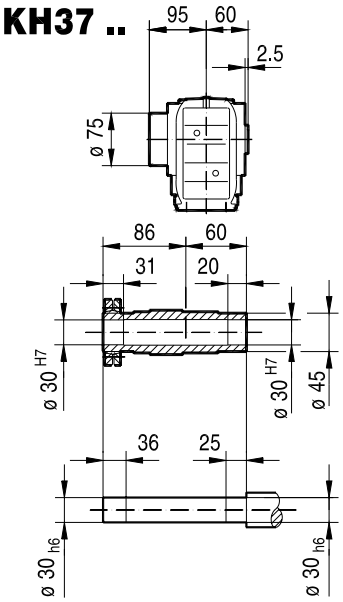
VZ ..



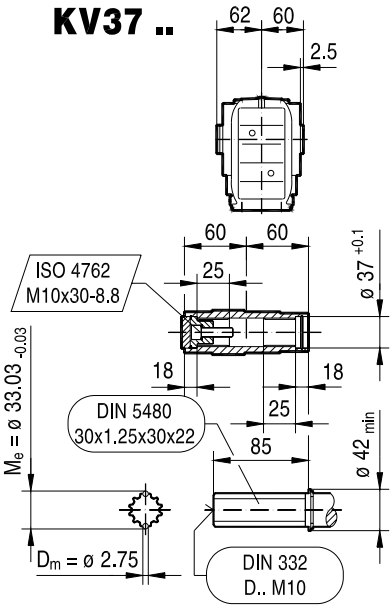
KA37 ..



KH37 ..



KV37 ..

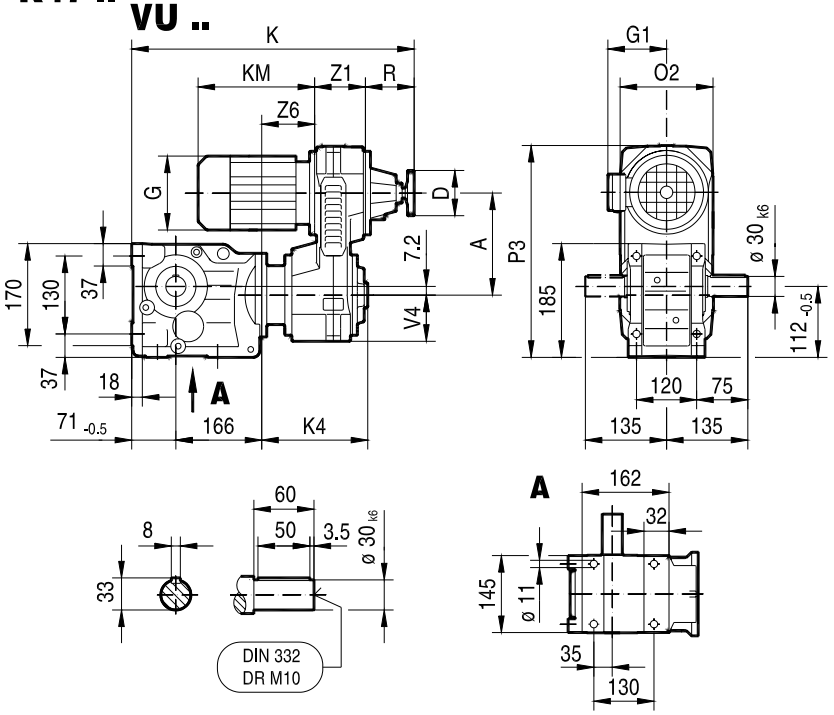


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
KA37 KH37 KV37	VU01 VZ01	DR63..	182	80	132	105	502	518	187	213	176	261	98	72	80	114	121
		DT71D	182	80	145	122	502	533	202	213	176	261	98	72	80	114	121
		DT80..	182	80	145	122	502	583	252	213	176	261	98	72	80	114	121
	VU11 VZ11	DT80..	232	100	145	122	547	612	252	238	183	314	117	88	98	122	150
		DT90..	232	100	197	154	547	633	273	238	183	314	117	88	98	122	150

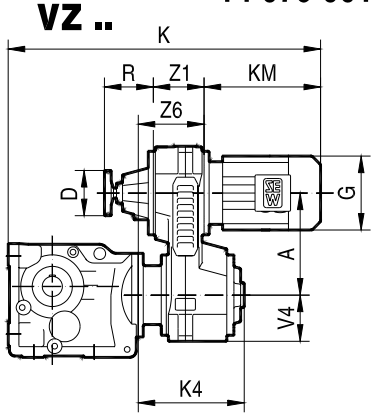
K47 ..

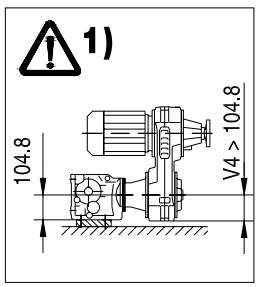
14 079 001

VU ..

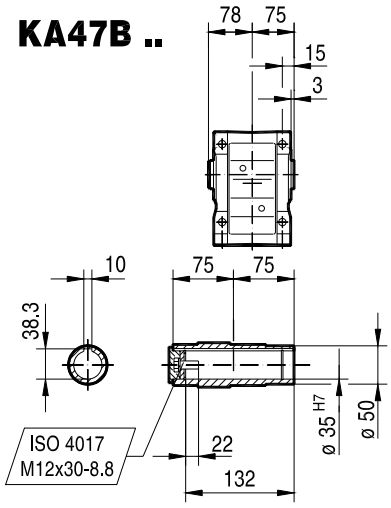


VZ ..

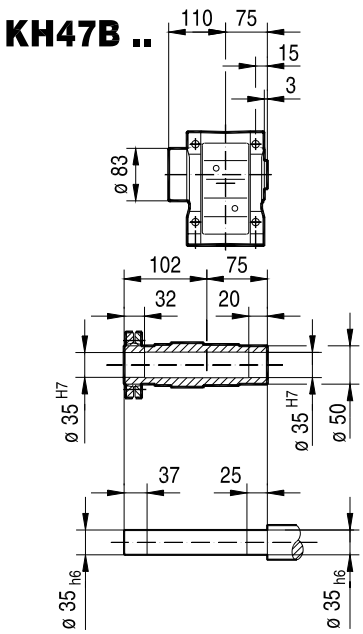




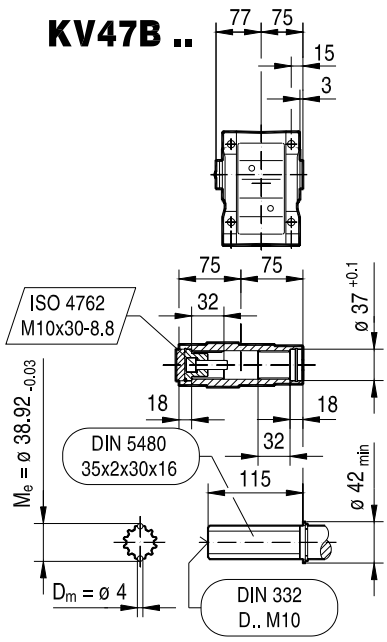
KA47B ..



KH47B ..



KV47B ..

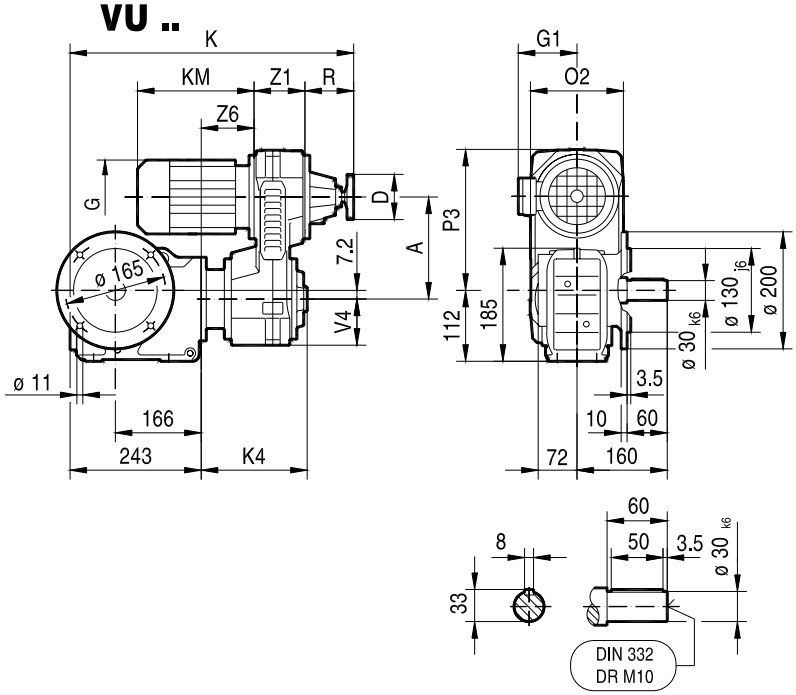


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
K47 KA47B KH47B KV47B	VU01 VZ01	DR63..	182	80	132	105	522	538	187	206	176	374	98	72	80	107	114		
		DT71D	182	80	145	122	522	553	202	206	176	374	98	72	80	107	114		
		DT80..	182	80	145	122	522	603	252	206	176	374	98	72	80	107	114		
	VU11 VZ11	DT80..	232	100	145	122	567	632	252	232	183	427	117	88	98	115	143		
		DT90..	232	100	197	154	567	653	273	232	183	427	117	88	98	115	143		
	VU21 VZ21	DV100M	245	100	197	166	634	725	311	279	227	462	130	110	120	147	177	1)	1)
		DV100L	245	100	197	166	634	755	341	279	227	462	130	110	120	147	177	1)	1)

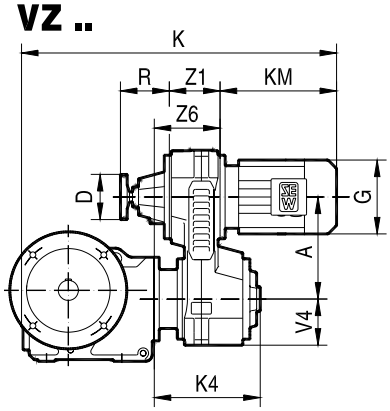
KF47 ..

14 080 001

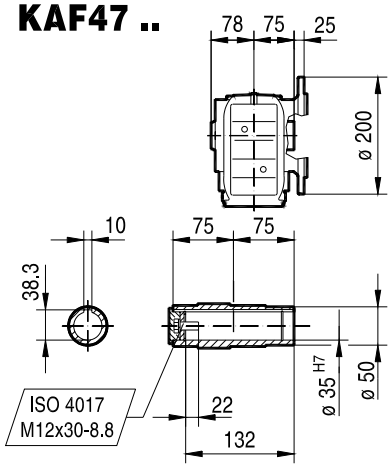
VU ..



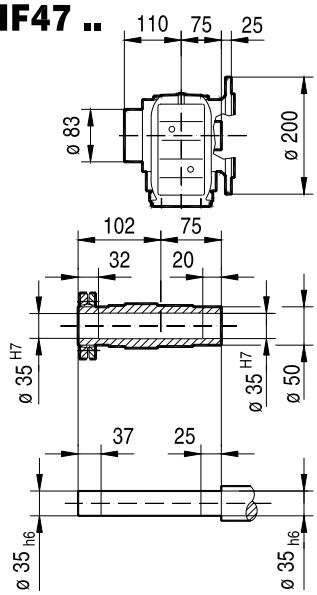
VZ ..



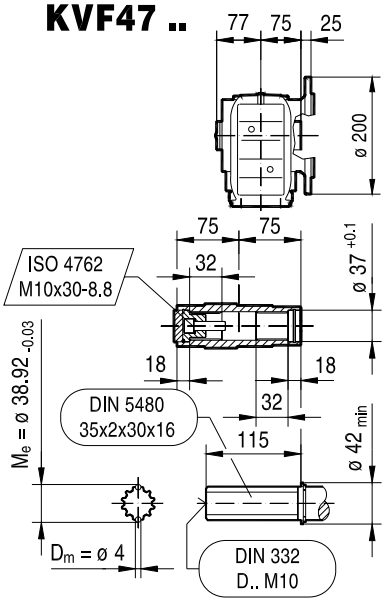
KAF47 ..



KHF47 ..



KVF47 ..

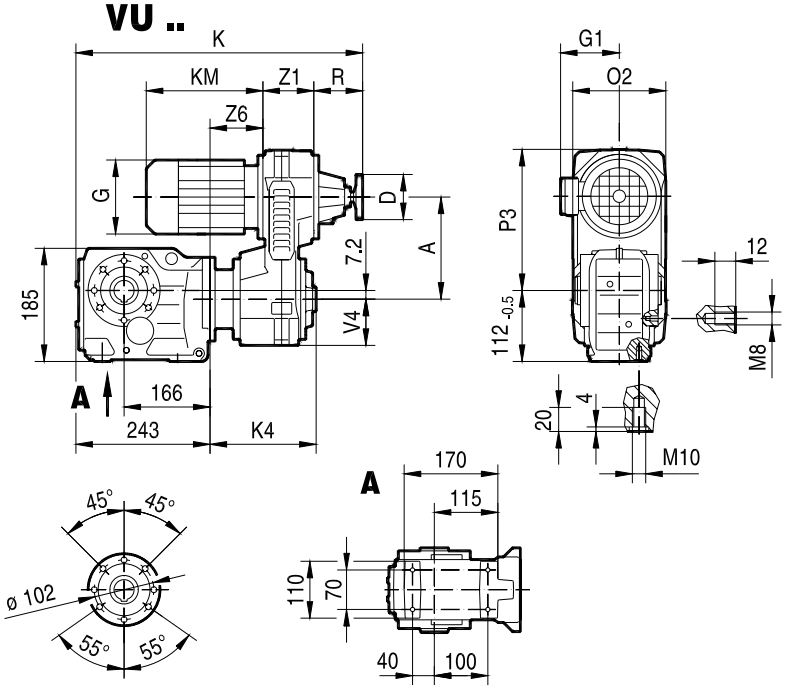


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
KF47 KAF47 KHF47 KVF47	VU01 VZ01	DR63..	182	80	132	105	528	544	187	206	176	262	98	72	80	107	114
		DT71D	182	80	145	122	528	559	202	206	176	262	98	72	80	107	114
		DT80..	182	80	145	122	528	609	252	206	176	262	98	72	80	107	114
	VU11 VZ11	DT80..	232	100	145	122	573	638	252	232	183	315	117	88	98	115	143
		DT90..	232	100	197	154	573	659	273	232	183	315	117	88	98	115	143
	VU21 VZ21	DV100M	245	100	197	166	640	731	311	279	227	350	130	110	120	147	177
		DV100L	245	100	197	166	640	761	341	279	227	350	130	110	120	147	177

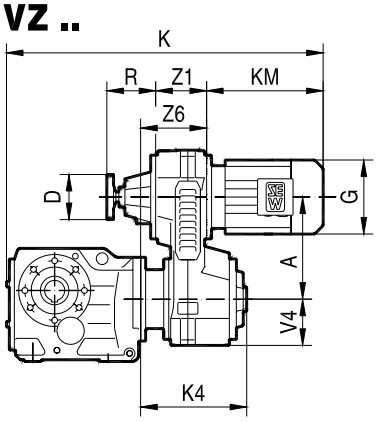
14 081 001

KA47 ..

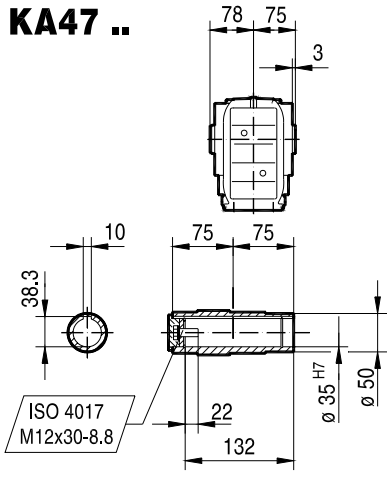
VU ..



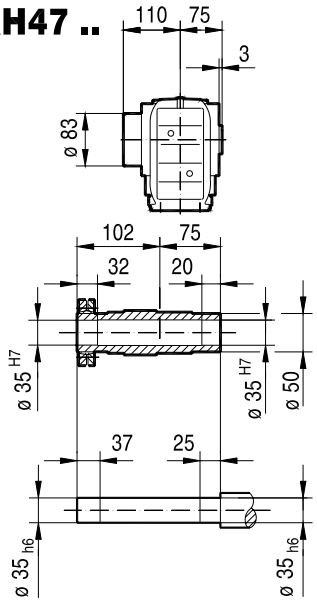
VZ ..



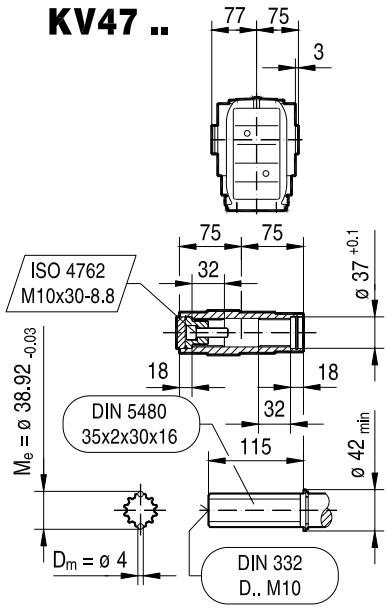
KA47 ..



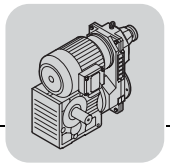
KH47 ..



KV47 ..



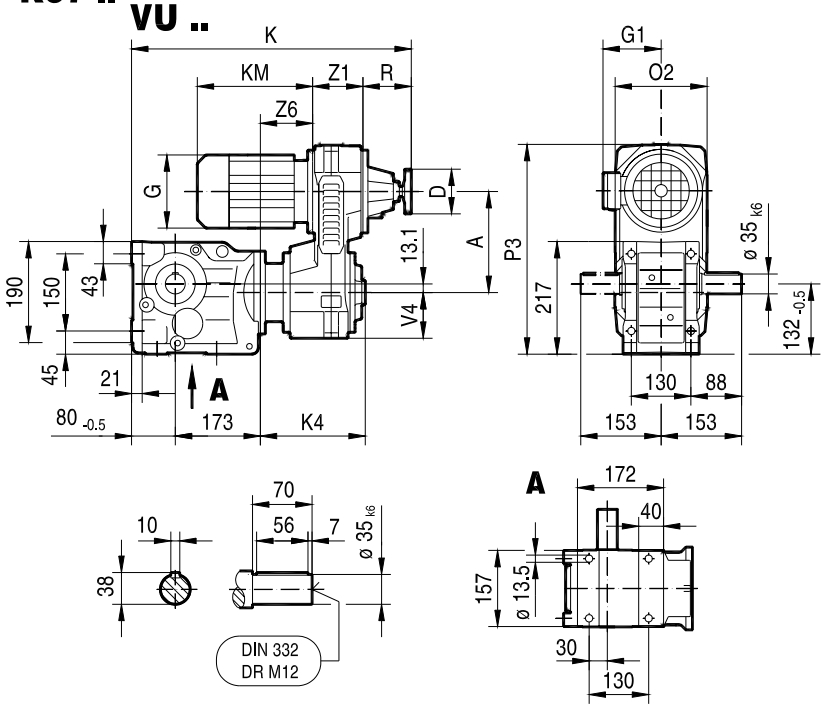
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
KA47 KH47 KV47	VU01 VZ01	DR63..	182	80	132	105	528	544	187	206	176	262	98	72	80	107	114
		DT71D	182	80	145	122	528	559	202	206	176	262	98	72	80	107	114
		DT80..	182	80	145	122	528	609	252	206	176	262	98	72	80	107	114
	VU11 VZ11	DT80..	232	100	145	122	573	638	252	232	183	315	117	88	98	115	143
		DT90..	232	100	197	154	573	659	273	232	183	315	117	88	98	115	143
	VU21 VZ21	DV100M	245	100	197	166	640	731	311	279	227	350	130	110	120	147	177
		DV100L	245	100	197	166	640	761	341	279	227	350	130	110	120	147	177



K..VU/VZ..DR/DT/DV.. [mm]

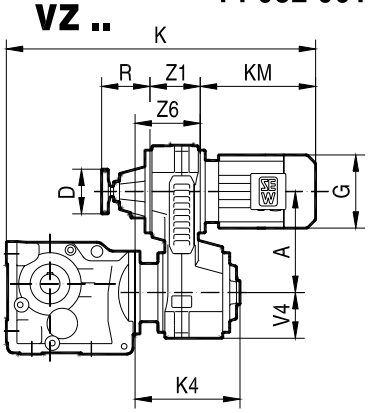
K57 ..

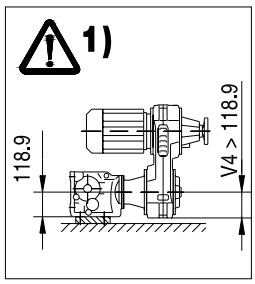
VU ..



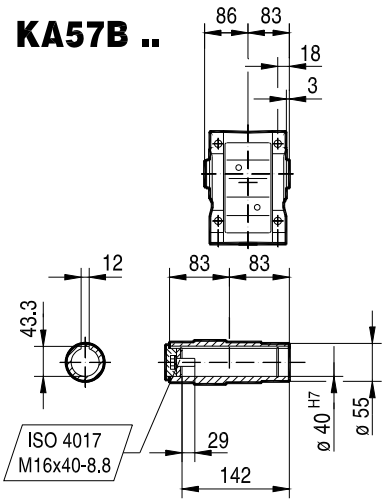
14 082 001

VZ ..

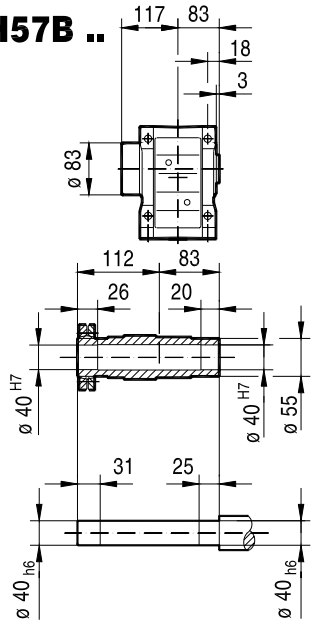




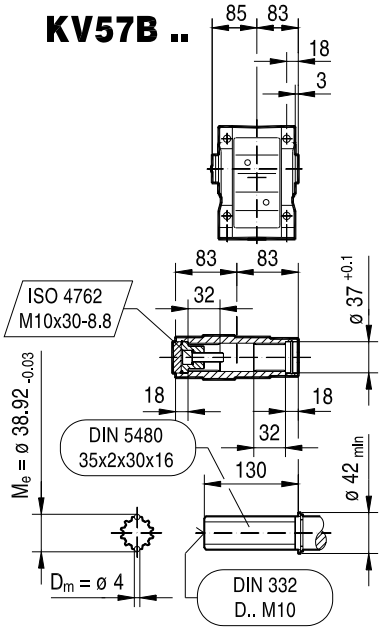
KA57B ..



KH57B ..



KV57B ..

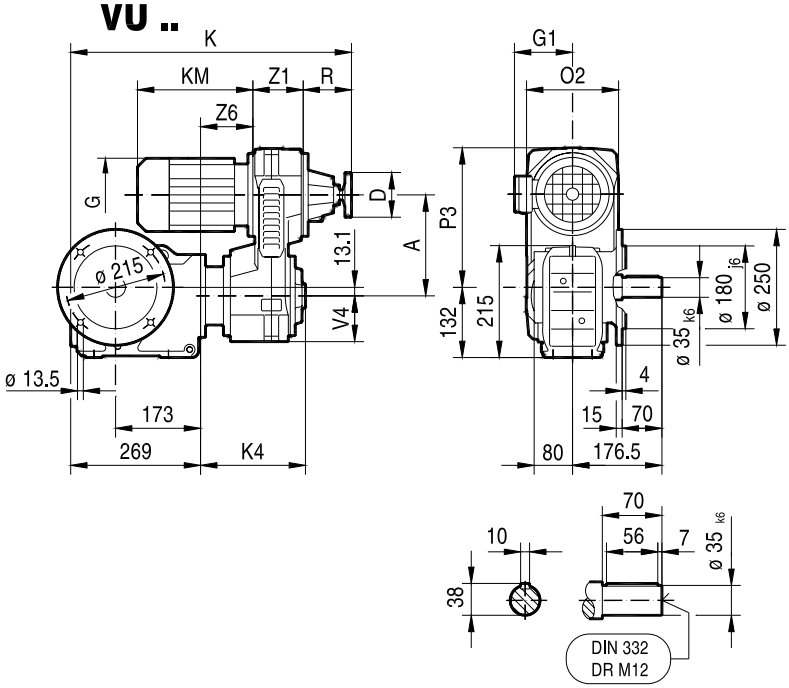


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
K57 KA57B KH57B KV57B	VU01 VZ01	DR63..	182	80	132	105	538	554	187	206	176	388	98	72	80	107	114		
		DT71D	182	80	145	122	538	569	202	206	176	388	98	72	80	107	114		
		DT80..	182	80	145	122	538	619	252	206	176	388	98	72	80	107	114		
	VU11 VZ11	DT80..	232	100	145	122	583	648	252	232	183	441	117	88	98	115	143		
		DT90..	232	100	197	154	583	669	273	232	183	441	117	88	98	115	143		
	VU21 VZ21	DV100M	245	100	197	166	650	741	311	279	227	476	130	110	120	147	177		
		DV100L	245	100	197	166	650	771	341	279	227	476	130	110	120	147	177		
	VU31 VZ31	DV112M	305	125	221	179	727	813	349	331	283	564	150	138	152	172	211	1)	1)
		DV132S	305	125	221	179	727	858	394	331	283	564	150	138	152	172	211	1)	1)

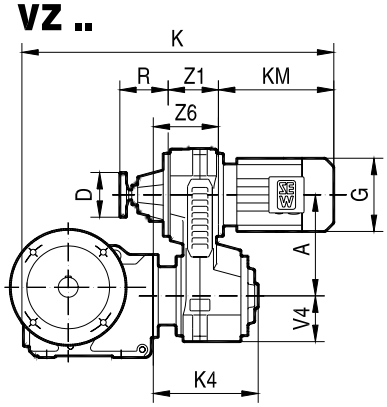
KF57 ..

14 083 001

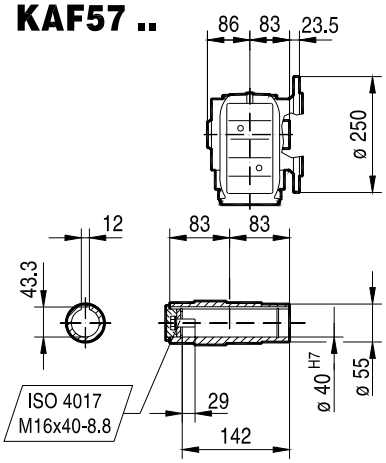
VU ..



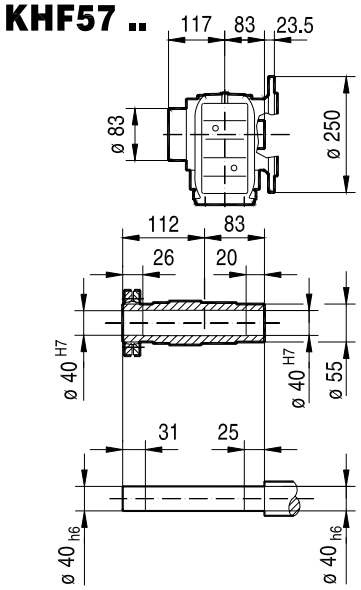
VZ ..



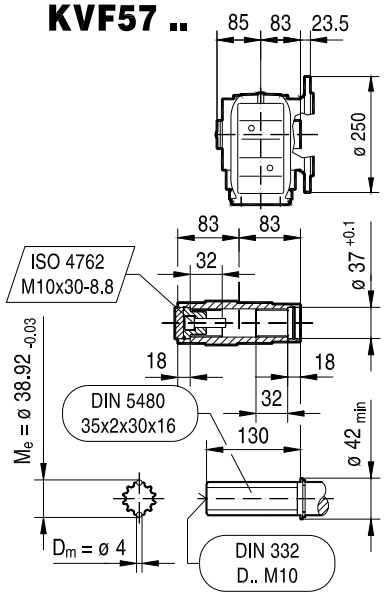
KAF57 ..



KHF57 ..



KVF57 ..

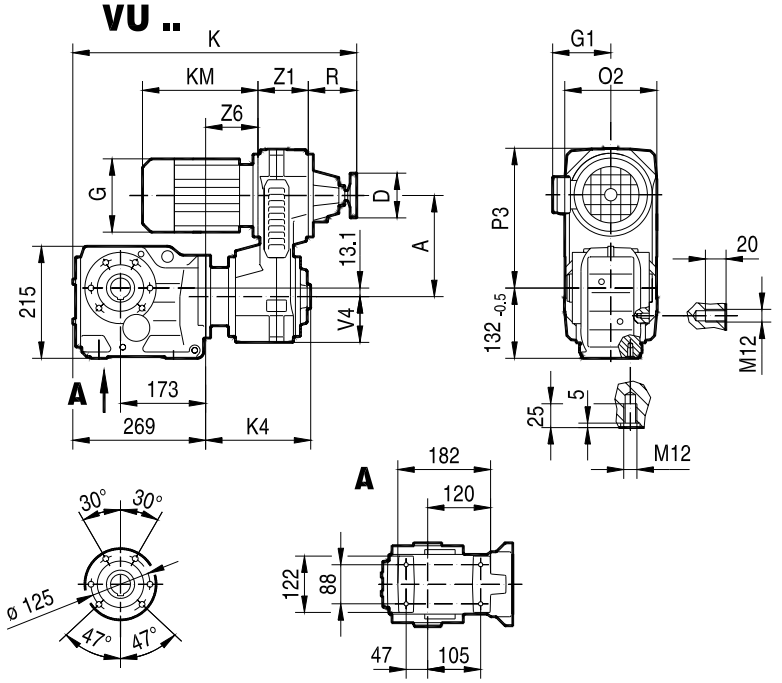


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
KF57 KAF57 KHF57 KVF57	VU01 VZ01	DR63..	182	80	132	105	554	570	187	206	176	256	98	72	80	107	114
		DT71D	182	80	145	122	554	585	202	206	176	256	98	72	80	107	114
		DT80..	182	80	145	122	554	635	252	206	176	256	98	72	80	107	114
	VU11 VZ11	DT80..	232	100	145	122	599	664	252	232	183	309	117	88	98	115	143
		DT90..	232	100	197	154	599	685	273	232	183	309	117	88	98	115	143
	VU21 VZ21	DV100M	245	100	197	166	666	757	311	279	227	344	130	110	120	147	177
		DV100L	245	100	197	166	666	787	341	279	227	344	130	110	120	147	177
	VU31 VZ31	DV112M	305	125	221	179	743	829	349	331	283	432	150	138	152	172	211
		DV132S	305	125	221	179	743	874	394	331	283	432	150	138	152	172	211

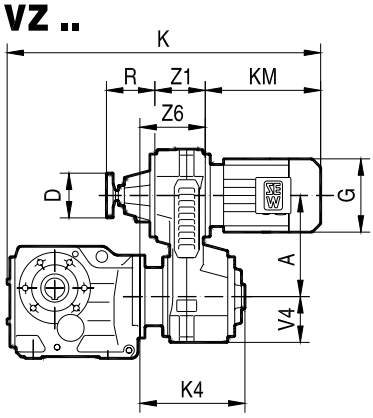
14 084 001

KA57 ..

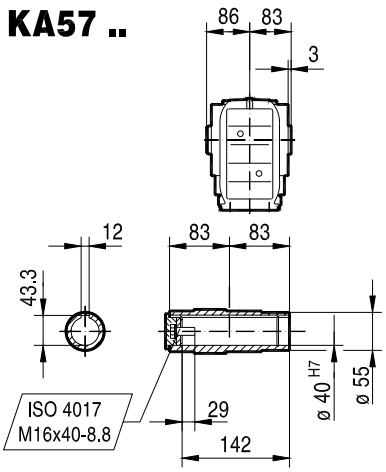
VU ..



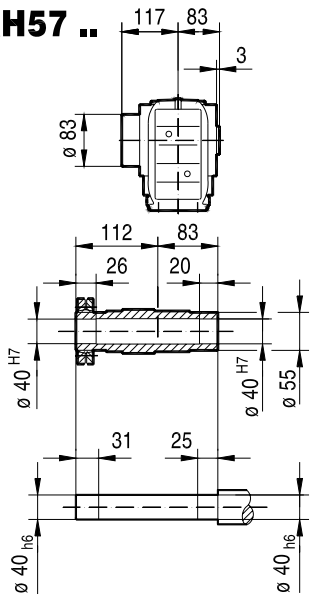
VZ ..



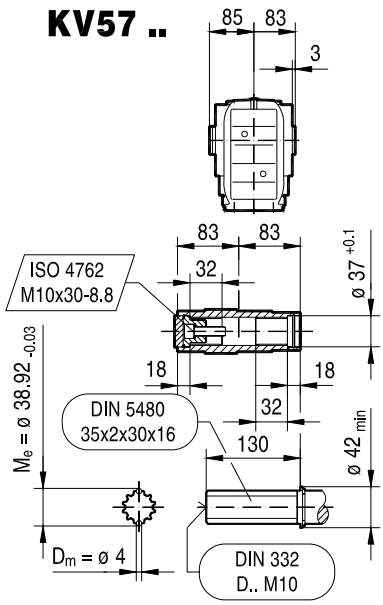
KA57 ..



KH57 ..



KV57 ..

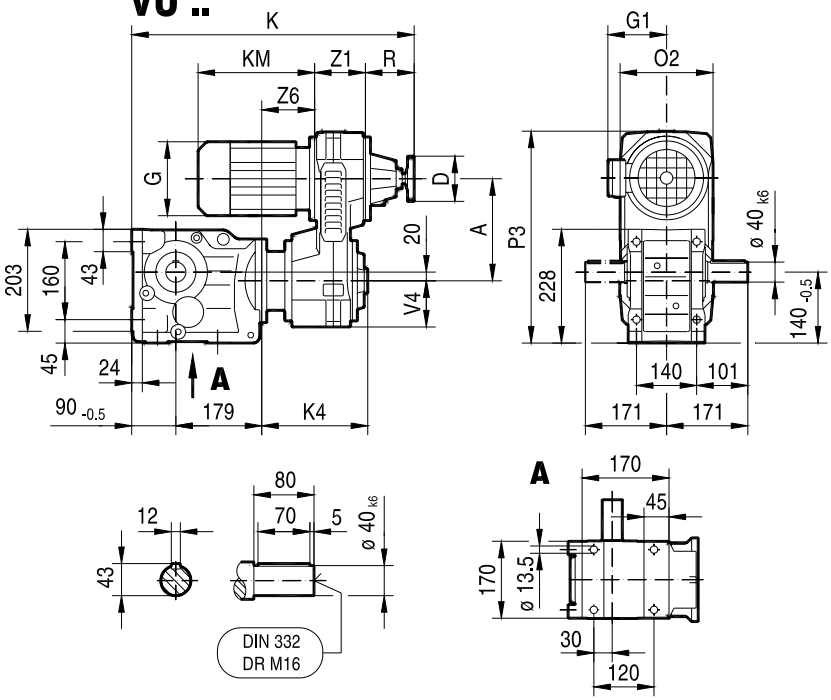


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
KA57 KH57 KV57	VU01 VZ01	DR63..	182	80	132	105	554	570	187	206	176	256	98	72	80	107	114
		DT71D	182	80	145	122	554	585	202	206	176	256	98	72	80	107	114
		DT80..	182	80	145	122	554	635	252	206	176	256	98	72	80	107	114
	VU11 VZ11	DT80..	232	100	145	122	599	664	252	232	183	309	117	88	98	115	143
		DT90..	232	100	197	154	599	685	273	232	183	309	117	88	98	115	143
	VU21 VZ21	DV100M	245	100	197	166	666	757	311	279	227	344	130	110	120	147	177
		DV100L	245	100	197	166	666	787	341	279	227	344	130	110	120	147	177
	VU31 VZ31	DV112M	305	125	221	179	743	829	349	331	283	432	150	138	152	172	211
		DV132S	305	125	221	179	743	874	394	331	283	432	150	138	152	172	211

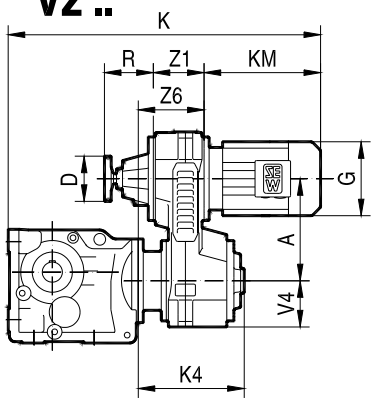
K67 ..

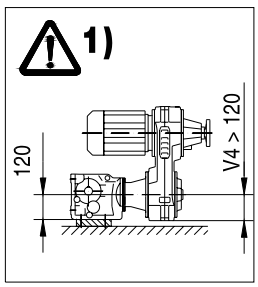
14 085 001

VU ..

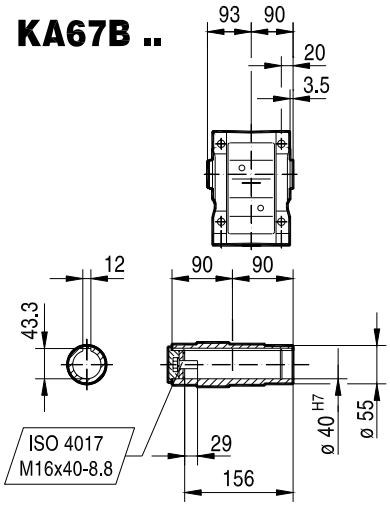


VZ ..

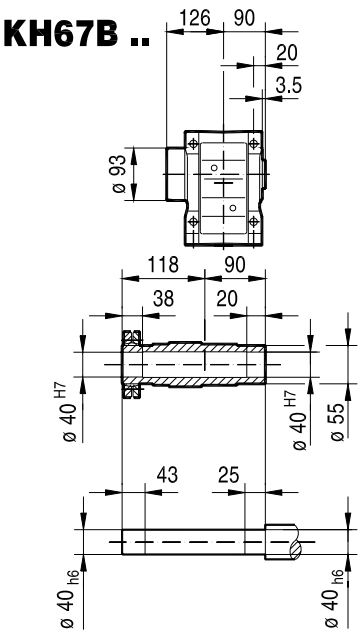




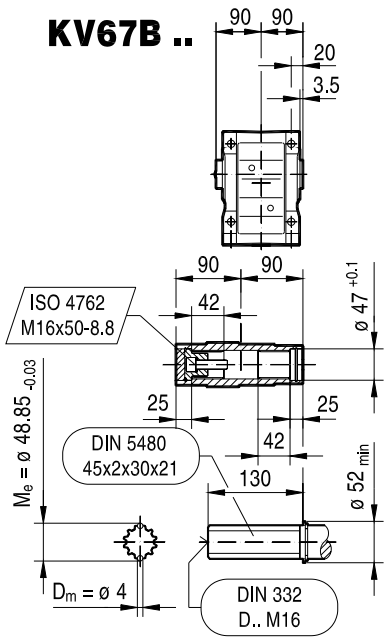
KA67B ..



KH67B ..



KV67B ..

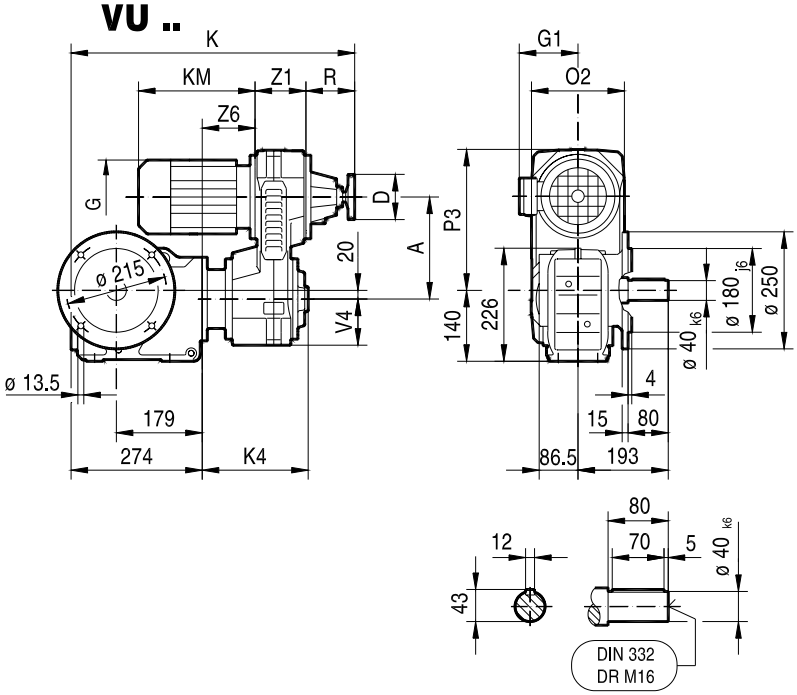


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
K67 KA67B KH67B KV67B	VU01 VZ01	DT80..	182	80	145	122	554	635	252	206	176	389	98	72	80	107	114		
	VU11 VZ11	DT80..	232	100	145	122	599	664	252	232	183	442	117	88	98	115	143		
		DT90..	232	100	197	154	599	685	273	232	183	442	117	88	98	115	143		
	VU21 VZ21	DV100M	245	100	197	166	666	757	311	279	227	477	130	110	120	147	177		
		DV100L	245	100	197	166	666	787	341	279	227	477	130	110	120	147	177		
	VU31 VZ31	DV112M	305	125	221	179	743	829	349	331	283	565	150	138	152	172	211	1)	1)
		DV132S	305	125	221	179	743	874	394	331	283	565	150	138	152	172	211	1)	1)

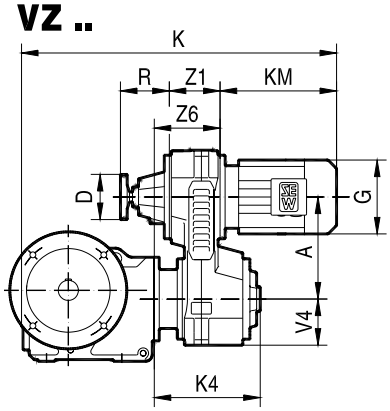
KF67 ..

14 086 001

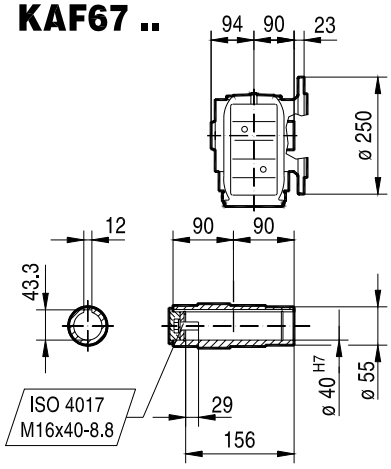
VU ..



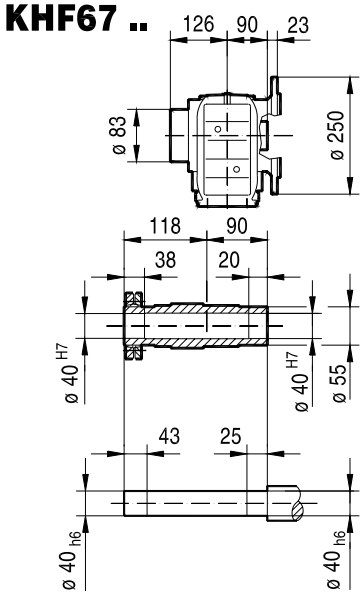
VZ ..



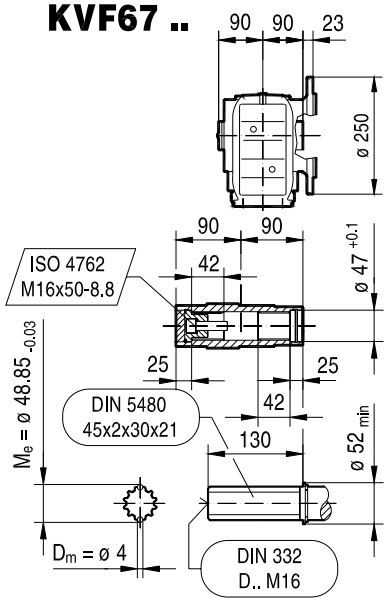
KAF67 ..



KHF67 ..



KVF67 ..

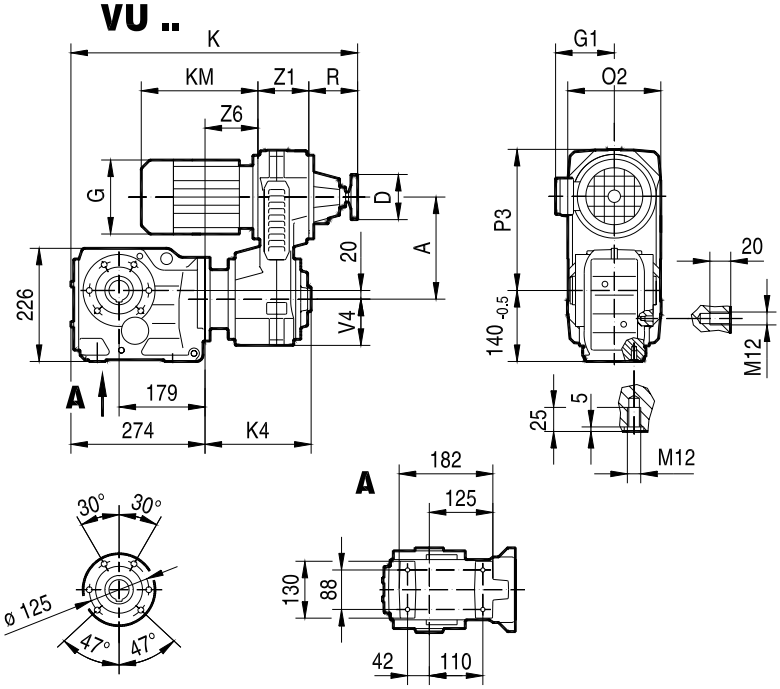


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
KF67 KAF67 KHF67 KVF67	VU01 VZ01	DT80..	182	80	145	122	559	640	252	206	176	249	98	72	80	107	114
	VU11 VZ11	DT80..	232	100	145	122	604	669	252	232	183	302	117	88	98	115	143
		DT90..	232	100	197	154	604	690	273	232	183	302	117	88	98	115	143
	VU21 VZ21	DV100M	245	100	197	166	671	762	311	279	227	337	130	110	120	147	177
		DV100L	245	100	197	166	671	792	341	279	227	337	130	110	120	147	177
	VU31 VZ31	DV112M	305	125	221	179	748	834	349	331	283	425	150	138	152	172	211
		DV132S	305	125	221	179	748	879	394	331	283	425	150	138	152	172	211

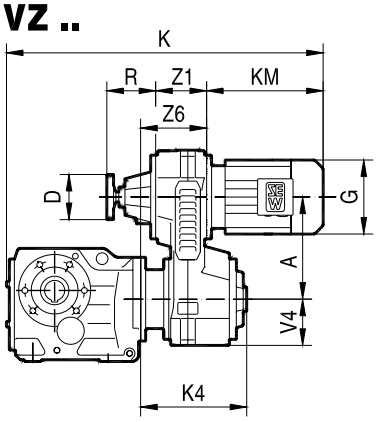
14 087 001

KA67 ..

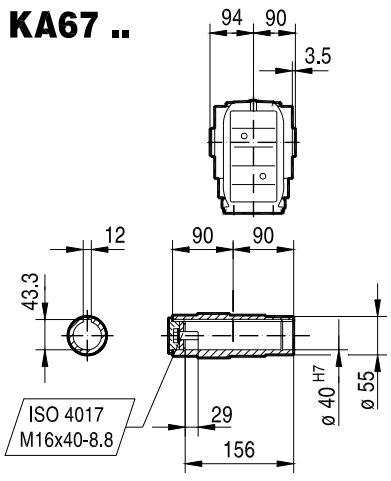
VU ..



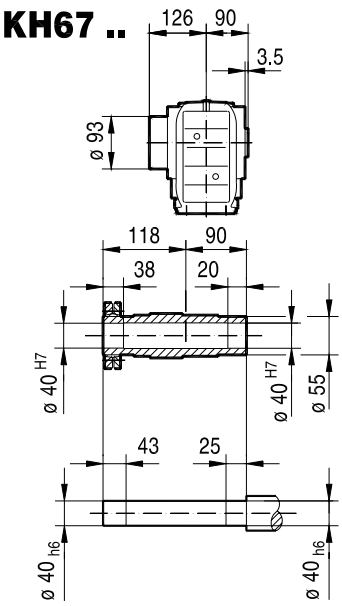
VZ ..



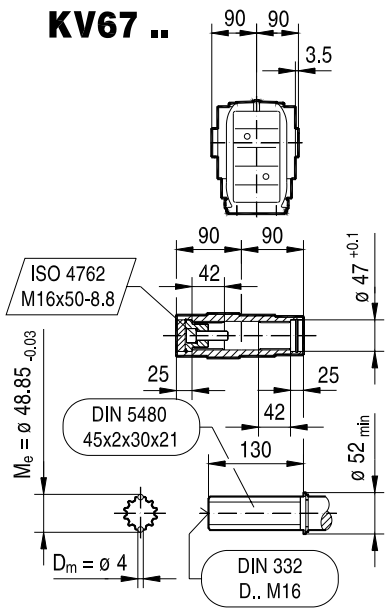
KA67 ..



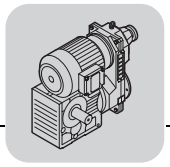
KH67 ..



KV67 ..



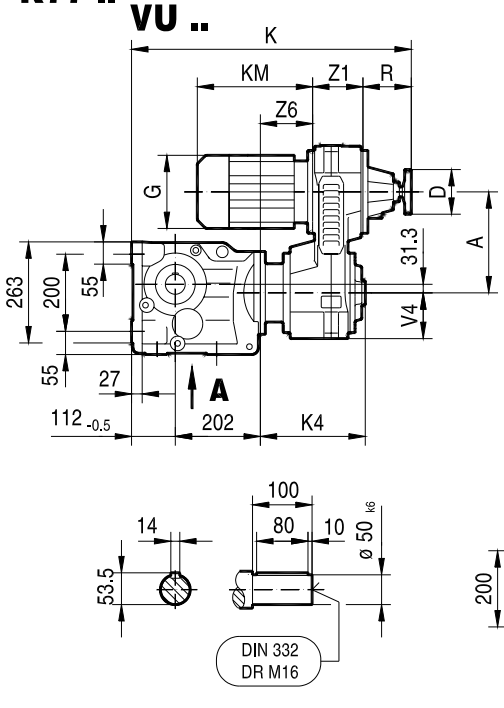
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
KA67 KH67 KV67	VU01 VZ01	DT80..	182	80	145	122	559	640	252	206	176	249	98	72	80	107	114
	VU11 VZ11	DT80..	232	100	145	122	604	669	252	232	183	302	117	88	98	115	143
		DT90..	232	100	197	154	604	690	273	232	183	302	117	88	98	115	143
	VU21 VZ21	DV100M	245	100	197	166	671	762	311	279	227	337	130	110	120	147	177
		DV100L	245	100	197	166	671	792	341	279	227	337	130	110	120	147	177
	VU31 VZ31	DV112M	305	125	221	179	748	834	349	331	283	425	150	138	152	172	211
		DV132S	305	125	221	179	748	879	394	331	283	425	150	138	152	172	211



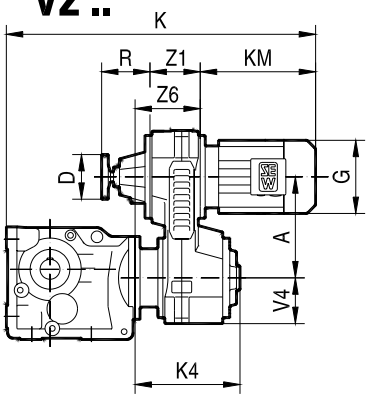
K..VU/VZ..DR/DT/DV.. [mm]

K77 ..

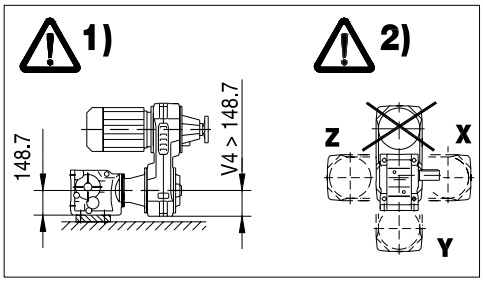
VU ..



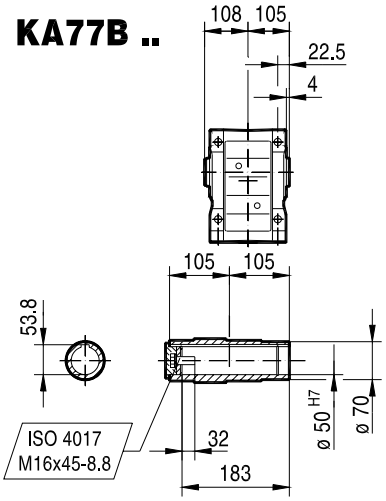
VZ ..



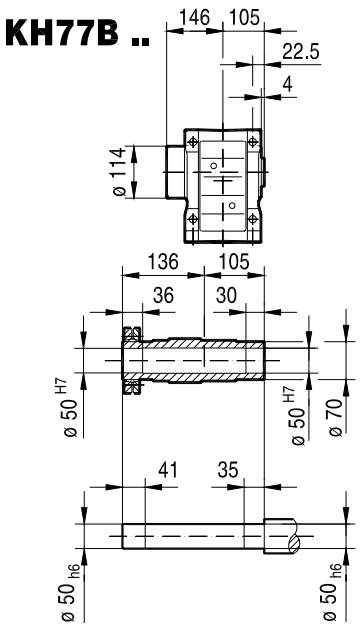
14 088 001



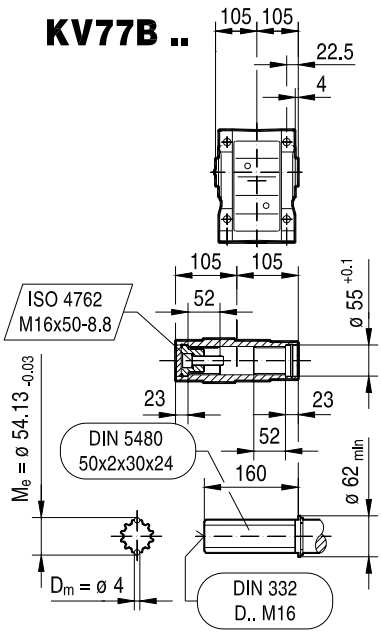
KA77B ..



KH77B ..



KV77B ..

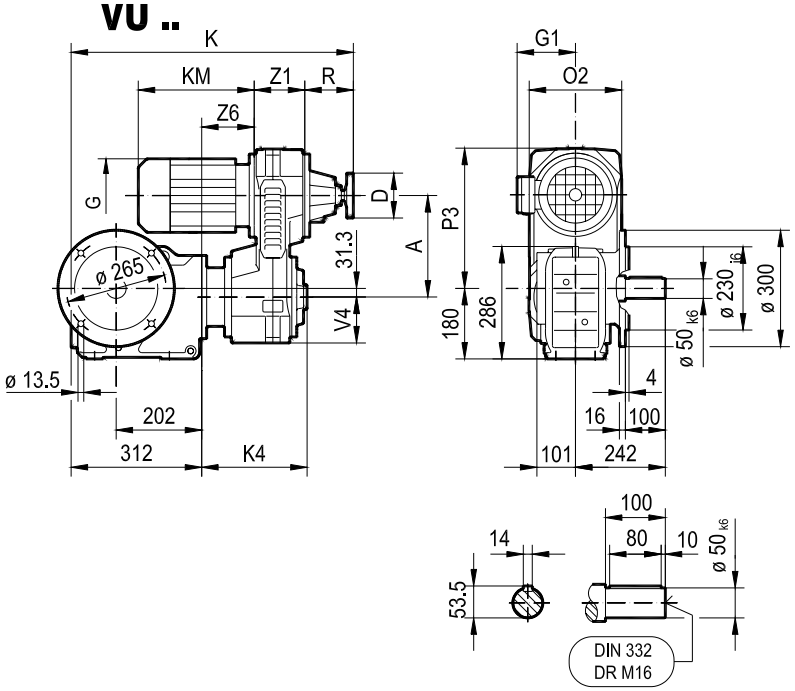


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
K77 KA77B KH77B KV77B	VU11 VZ11	DT80..	232	100	145	122	638	703	252	226	183	471	117	88	98	109	137		
		DT90..	232	100	197	154	638	724	273	226	183	471	117	88	98	109	137	2)	
	VU21 VZ21	DV100M	245	100	197	166	703	794	311	271	227	507	130	110	120	139	169		
		DV100L	245	100	197	166	703	824	341	271	227	507	130	110	120	139	169		
	VU31 VZ31	DV112M	305	125	221	179	779	865	349	322	283	594	150	138	152	163	202		
		DV132S	305	125	221	179	779	910	394	322	283	594	150	138	152	163	202		
	VU41 VZ41	DV132M	380	200	275	230	892	955	402	397	348	702	189	170	180	209	239		
		DV132ML	380	200	275	230	892	1015	462	397	348	702	189	170	180	209	239	1)	1)
		DV160M	380	200	275	230	892	1015	462	397	348	702	189	170	180	209	239	1)	1)

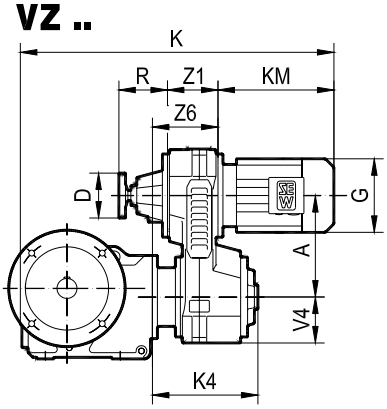
KF77 ..

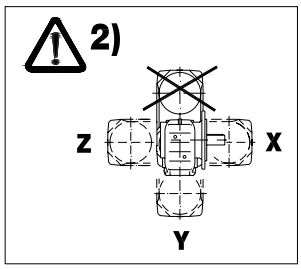
14 089 001

VU ..

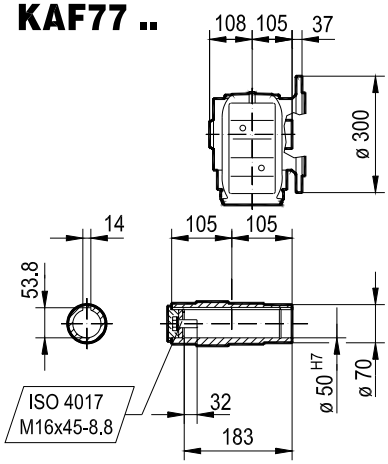


VZ ..

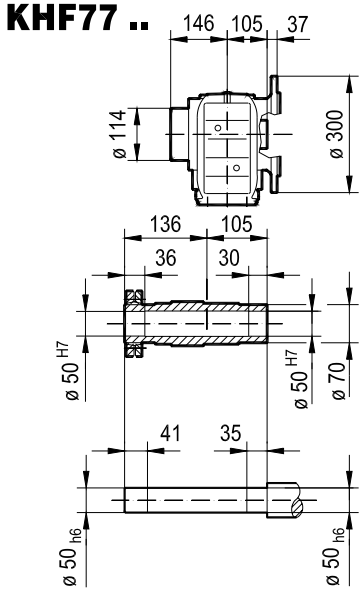




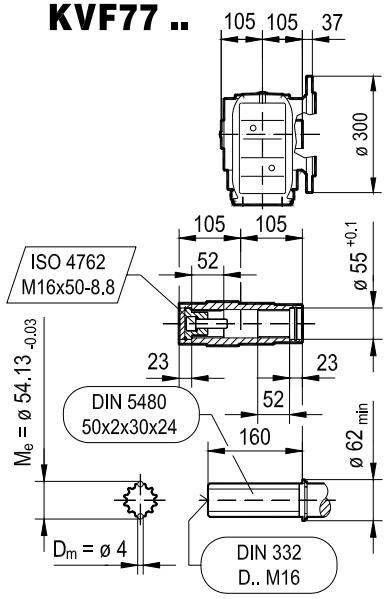
KAF77 ..



KHF77 ..



KVF77 ..

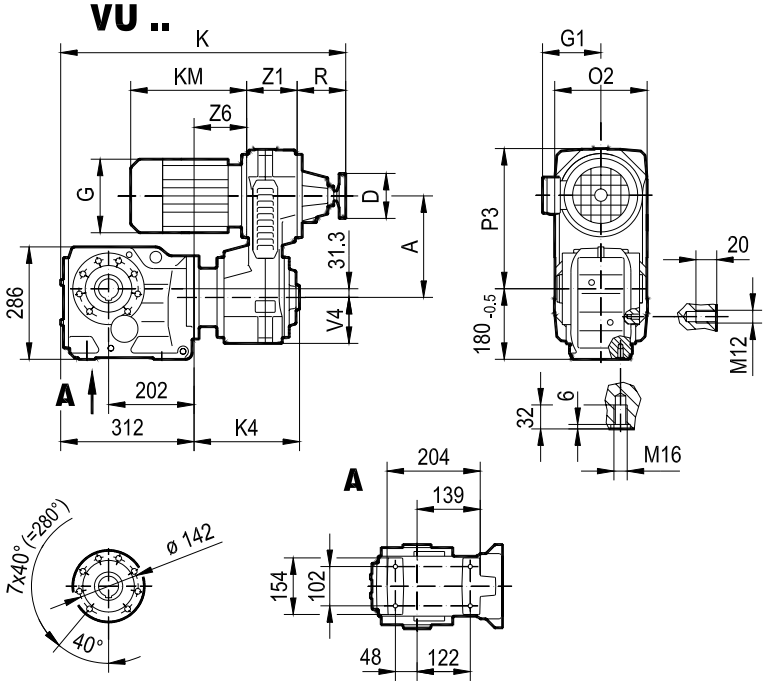


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
KF77 KAF77 KHF77 KVF77	VU11 VZ11	DT80..	232	100	145	122	636	700	252	226	183	291	117	88	98	109	137		
		DT90..	232	100	197	154	636	722	273	226	183	291	117	88	98	109	137	2)	
	VU21 VZ21	DV100M	245	100	197	166	701	792	311	271	227	326	130	110	120	139	169		
		DV100L	245	100	197	166	701	822	341	271	227	326	130	110	120	139	169		
	VU31 VZ31	DV112M	305	125	221	179	777	863	349	322	283	414	150	138	152	163	202		
		DV132S	305	125	221	179	777	908	394	322	283	414	150	138	152	163	202		
	VU41 VZ41	DV132M	380	200	275	230	890	953	402	397	348	522	189	170	180	209	239		
		DV132ML	380	200	275	230	890	1013	462	397	348	522	189	170	180	209	239		
		DV160M	380	200	275	230	890	1013	462	397	348	522	189	170	180	209	239		

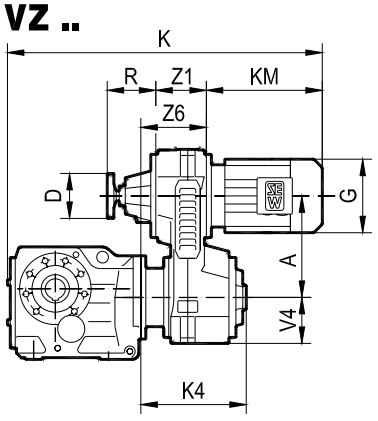
14 090 001

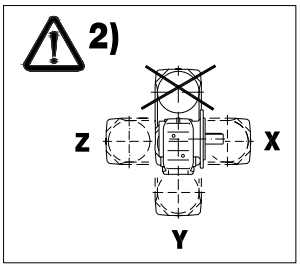
KA77 ..

VU ..

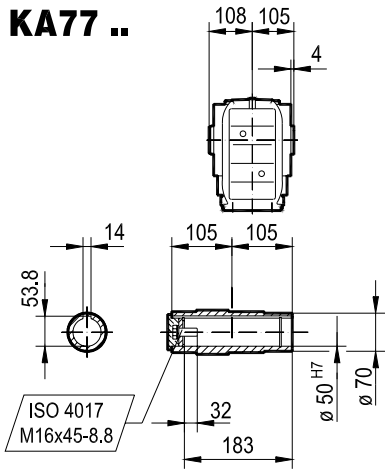


VZ ..

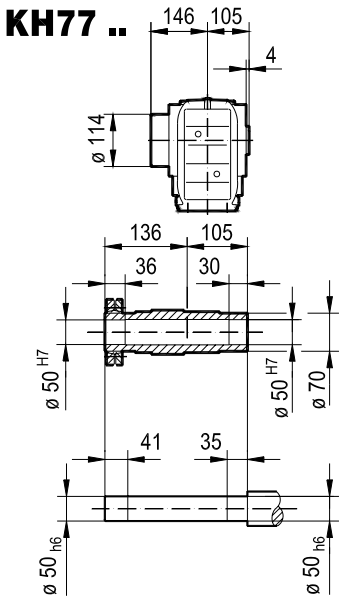




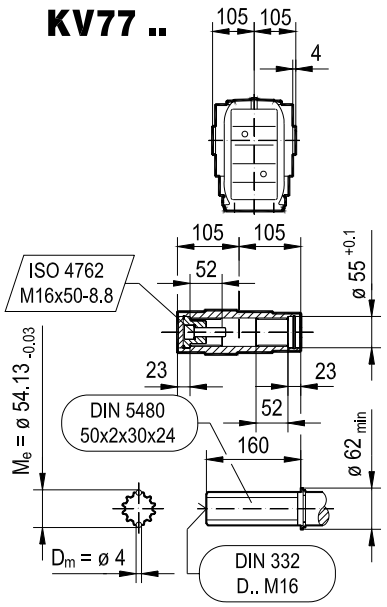
KA77 ..



KH77 ..



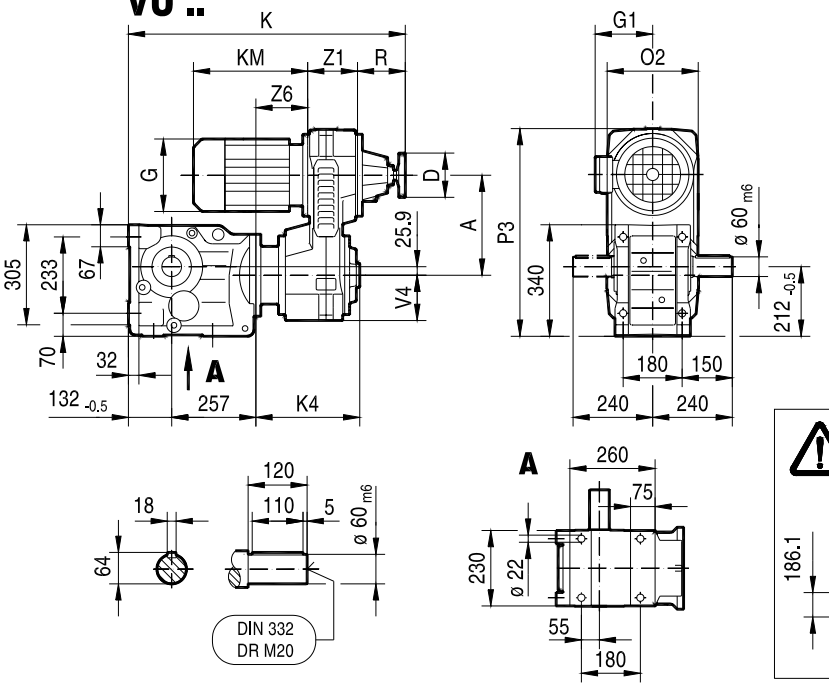
KV77 ..



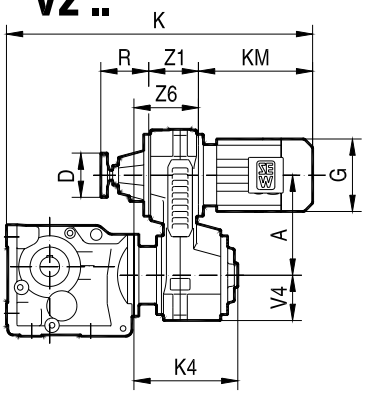
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
KA77 KH77 KV77	VU11 VZ11	DT80..	232	100	145	122	636	700	252	226	183	291	117	88	98	109	137		
		DT90..	232	100	197	154	636	722	273	226	183	291	117	88	98	109	137	2)	
	VU21 VZ21	DV100M	245	100	197	166	701	792	311	271	227	326	130	110	120	139	169		
		DV100L	245	100	197	166	701	822	341	271	227	326	130	110	120	139	169		
	VU31 VZ31	DV112M	305	125	221	179	777	863	349	322	283	414	150	138	152	163	202		
		DV132S	305	125	221	179	777	908	394	322	283	414	150	138	152	163	202		
	VU41 VZ41	DV132M	380	200	275	230	890	953	402	397	348	522	189	170	180	209	239		
		DV132ML	380	200	275	230	890	1013	462	397	348	522	189	170	180	209	239		
		DV160M	380	200	275	230	890	1013	462	397	348	522	189	170	180	209	239		

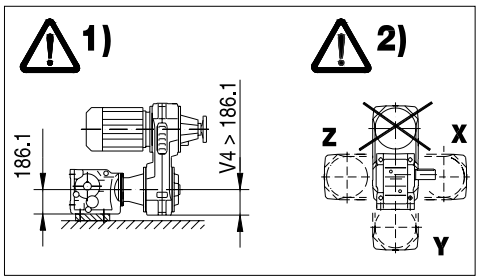
K87 .. VU ..

14 091 001

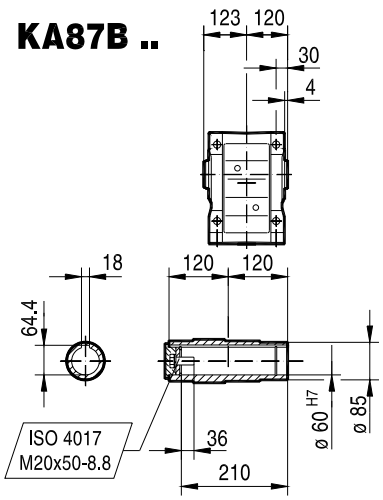


VZ ..

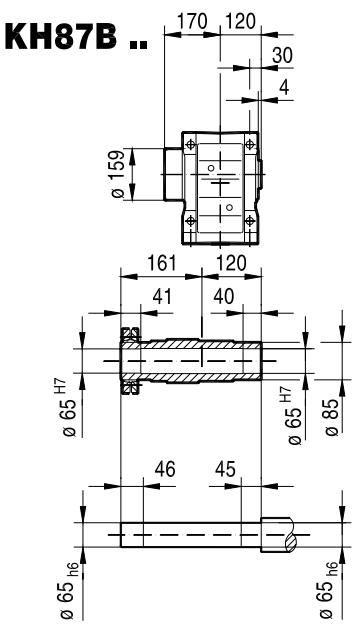




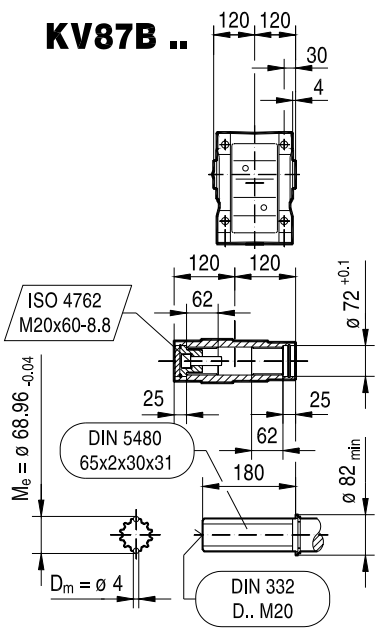
KA87B ..



KH87B ..



KV87B ..

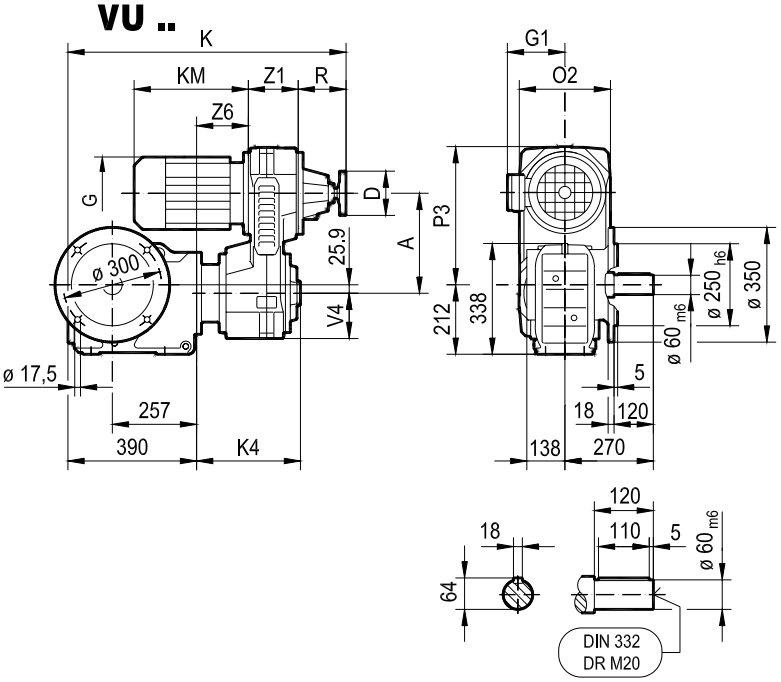


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
K87 KA87B KH87B KV87B	VU21 VZ21	DT90..	245	100	197	154	774	827	273	267	227	543	130	110	120	135	165	2)	
		DV100M	245	100	197	166	774	865	311	267	227	543	130	110	120	135	165	2)	
		DV100L	245	100	197	166	774	895	341	267	227	543	130	110	120	135	165	2)	
	VU31 VZ31	DV112M	305	125	221	179	849	935	349	317	283	631	150	138	152	158	197		
		DV132S	305	125	221	179	849	980	394	317	283	631	150	138	152	158	197		
	VU41 VZ41	DV132M	380	200	275	230	962	1025	402	392	348	739	189	170	180	204	234		
		DV132ML	380	200	275	230	962	1085	462	392	348	739	189	170	180	204	234		
		DV160M	380	200	275	230	962	1085	462	392	348	739	189	170	180	204	234		
	VU51	DV160L	460	200	331	259	1046	-	503	449	398	844	220	195	200	237	-	1)	1)
		DV180..	460	200	331	253	1046	-	575	449	398	844	220	195	200	237	-	1)	1)

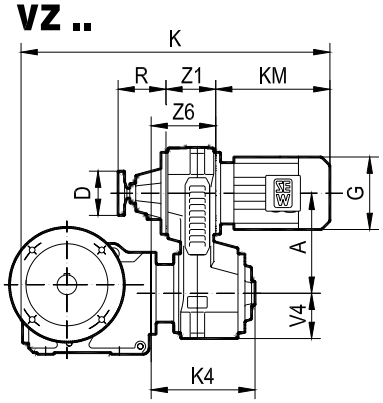
KF87 ..

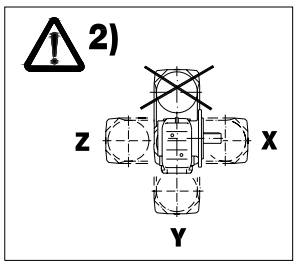
14 092 001

VU ..

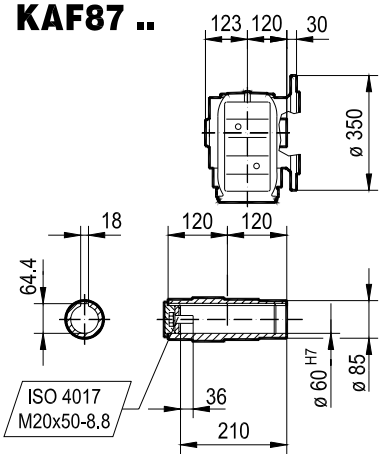


VZ ..

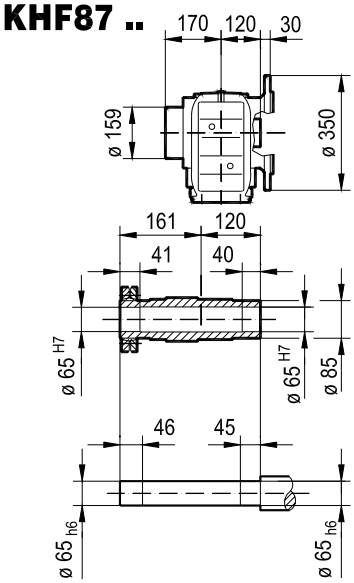




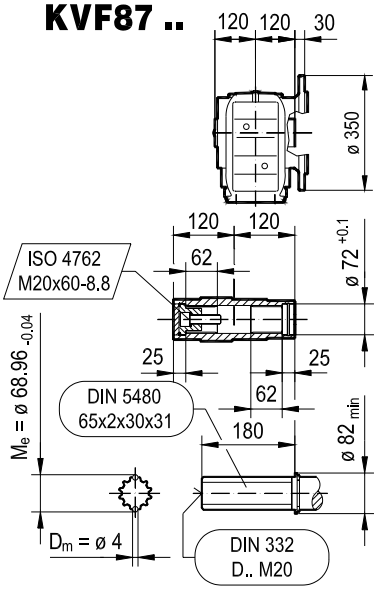
KAF87 ..



KHF87 ..



KVF87 ..

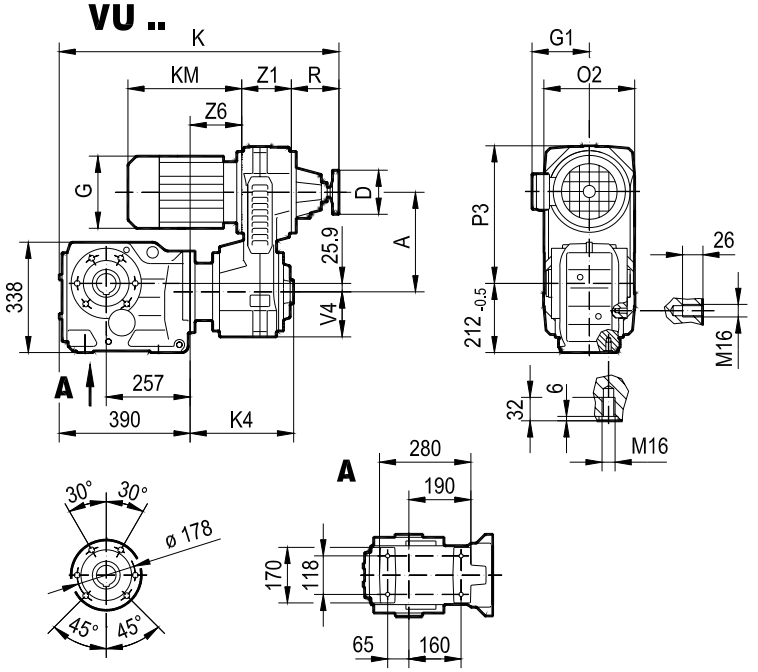


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
KF87 KAF87 KHF87 KVF87	VU21 VZ21	DT90..	245	100	197	154	775	828	273	267	227	331	130	110	120	135	165	2)	
		DV100M	245	100	197	166	775	866	311	267	227	331	130	110	120	135	165	2)	
		DV100L	245	100	197	166	775	896	341	267	227	331	130	110	120	135	165	2)	
	VU31 VZ31	DV112M	305	125	221	179	850	936	349	317	283	419	150	138	152	158	197		
		DV132S	305	125	221	179	850	981	394	317	283	419	150	138	152	158	197		
	VU41 VZ41	DV132M	380	200	275	230	963	1026	402	392	348	527	189	170	180	204	234		
		DV132ML	380	200	275	230	963	1086	462	392	348	527	189	170	180	204	234		
		DV160M	380	200	275	230	963	1086	462	392	348	527	189	170	180	204	234		
	VU51	DV160L	460	200	331	259	1047	-	503	449	398	632	220	195	200	237	-		
		DV180..	460	200	331	253	1047	-	575	449	398	632	220	195	200	237	-		

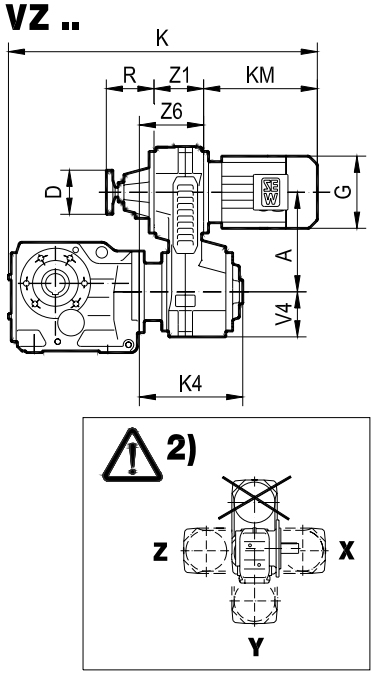
14 093 001

KA87 ..

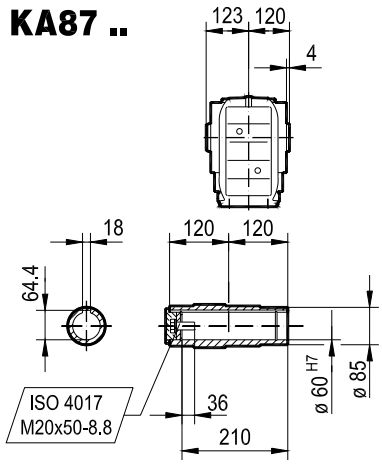
VU ..



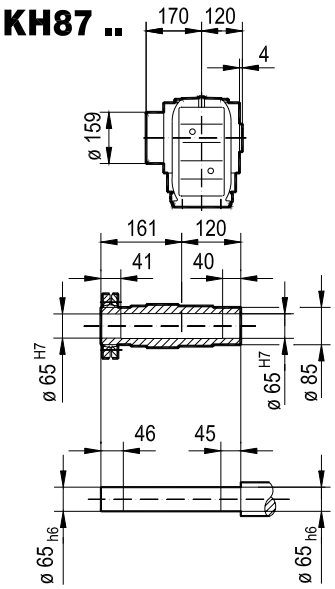
VZ ..



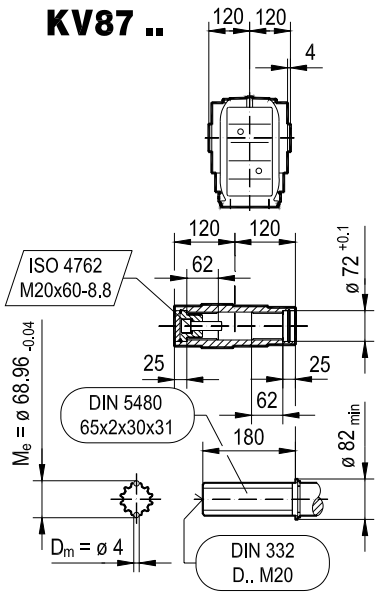
KA87 ..



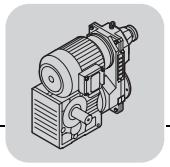
KH87 ..



KV87 ..



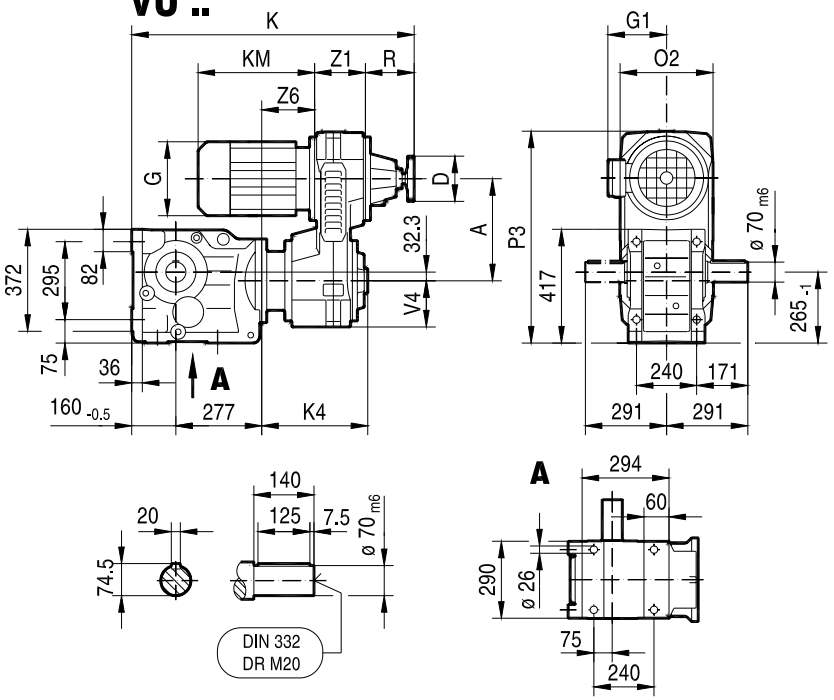
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
KA87 KH87 KV87	VU21 VZ21	DT90..	245	100	197	154	775	828	273	267	227	331	130	110	120	135	165	2)	
		DV100M	245	100	197	166	775	866	311	267	227	331	130	110	120	135	165	2)	
		DV100L	245	100	197	166	775	896	341	267	227	331	130	110	120	135	165	2)	
	VU31 VZ31	DV112M	305	125	221	179	850	936	349	317	283	419	150	138	152	158	197		
		DV132S	305	125	221	179	850	981	394	317	283	419	150	138	152	158	197		
	VU41 VZ41	DV132M	380	200	275	230	963	1026	402	392	348	527	189	170	180	204	234		
		DV132ML	380	200	275	230	963	1086	462	392	348	527	189	170	180	204	234		
		DV160M	380	200	275	230	963	1086	462	392	348	527	189	170	180	204	234		
	VU51	DV160L	460	200	331	259	1047	-	503	449	398	632	220	195	200	237	-		
		DV180..	460	200	331	253	1047	-	575	449	398	632	220	195	200	237	-		



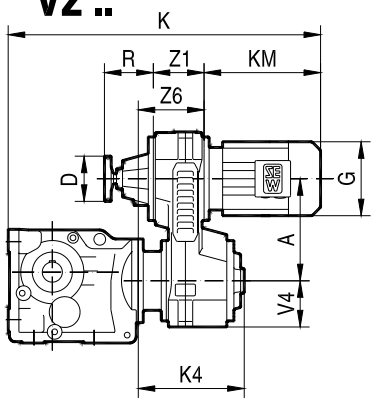
K..VU/VZ..DR/DT/DV.. [mm]

K97 .. **VU ..**

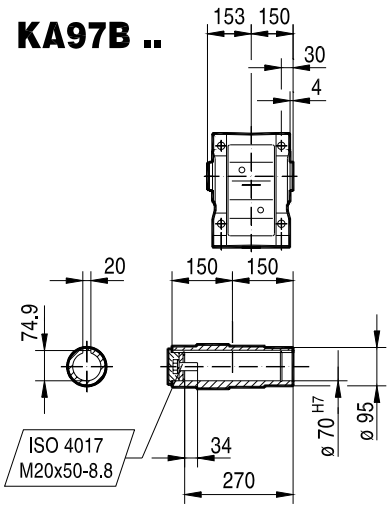
14 094 001



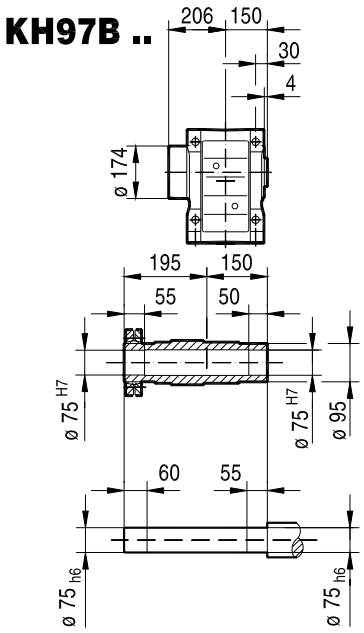
VZ ..



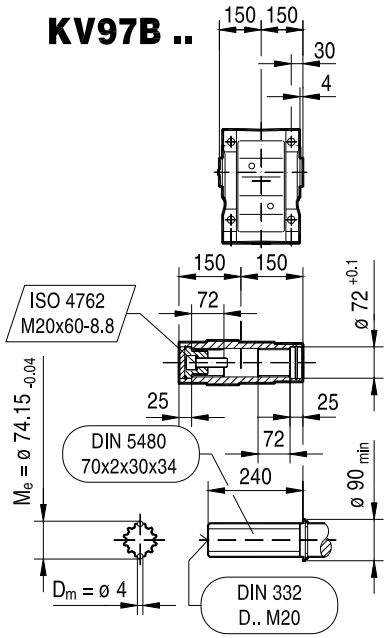
KA97B ..



KH97B ..



KV97B ..

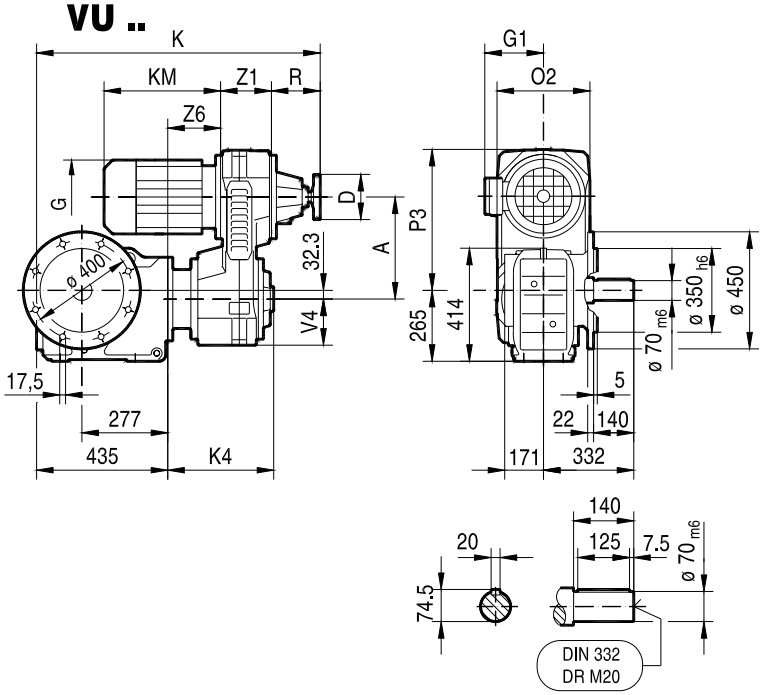


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
K97 KA97B KH97B KV97B	VU31 VZ31	DV112M	305	125	221	179	892	978	349	312	283	678	150	138	152	153	192
		DV132S	305	125	221	179	892	1023	394	312	283	678	150	138	152	153	192
	VU41 VZ41	DV132M	380	200	275	230	1005	1068	402	387	348	786	189	170	180	199	229
		DV132ML	380	200	275	230	1005	1128	462	387	348	786	189	170	180	199	229
		DV160M	380	200	275	230	1005	1128	462	387	348	786	189	170	180	199	229
	VU51	DV160L	460	200	331	259	1089	-	503	444	398	891	220	195	200	232	-
		DV180..	460	200	331	253	1089	-	575	444	398	891	220	195	200	232	-

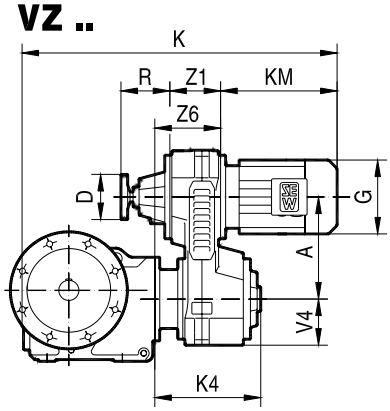
KF97 ..

14 095 001

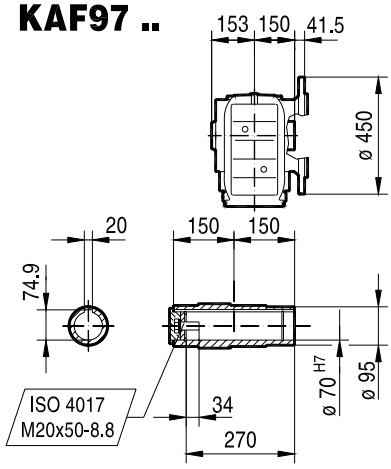
VU ..



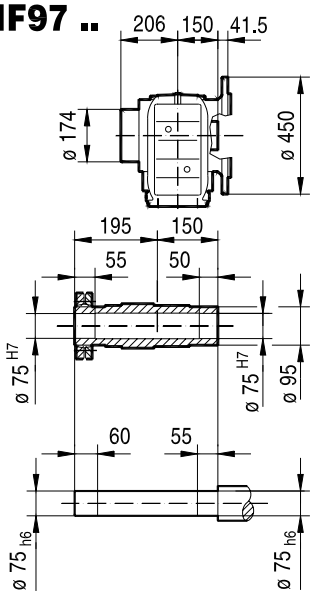
VZ ..



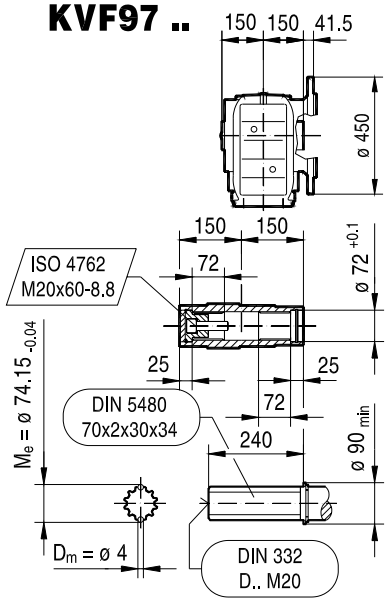
KAF97 ..



KHF97 ..



KVF97 ..

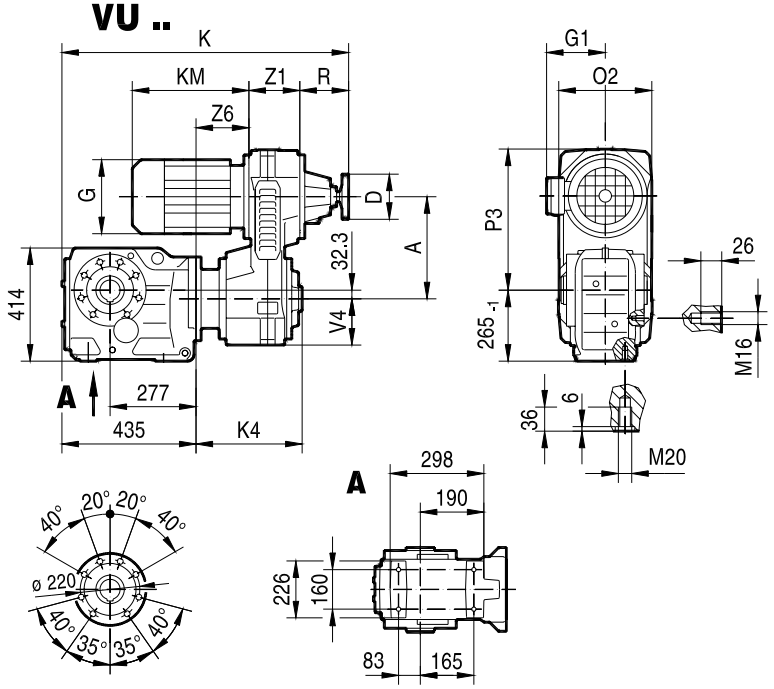


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
KF97 KAF97 KHF97 KVF97	VU31 VZ31	DV112M	305	125	221	179	890	976	349	312	283	413	150	138	152	153	192
		DV132S	305	125	221	179	890	1021	394	312	283	413	150	138	152	153	192
	VU41 VZ41	DV132M	380	200	275	230	1003	1066	402	387	348	521	189	170	180	199	229
		DV132ML	380	200	275	230	1003	1126	462	387	348	521	189	170	180	199	229
		DV160M	380	200	275	230	1003	1126	462	387	348	521	189	170	180	199	229
	VU51	DV160L	460	200	331	259	1087	-	503	444	398	626	220	195	200	232	-
		DV180..	460	200	331	253	1087	-	575	444	398	626	220	195	200	232	-

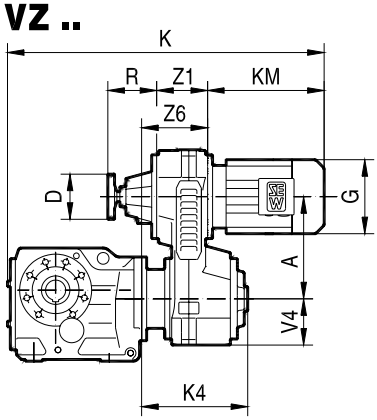
14 096 001

KA97 ..

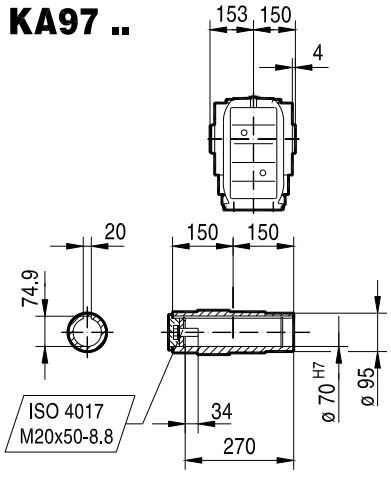
VU ..



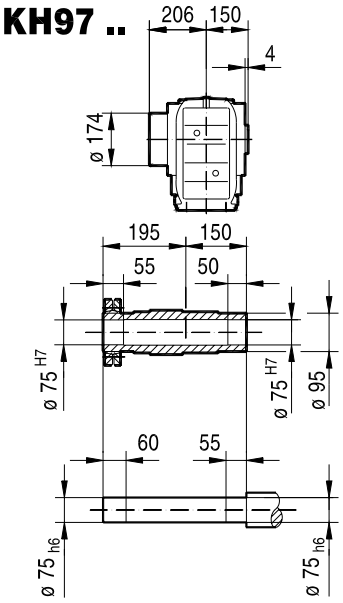
VZ ..



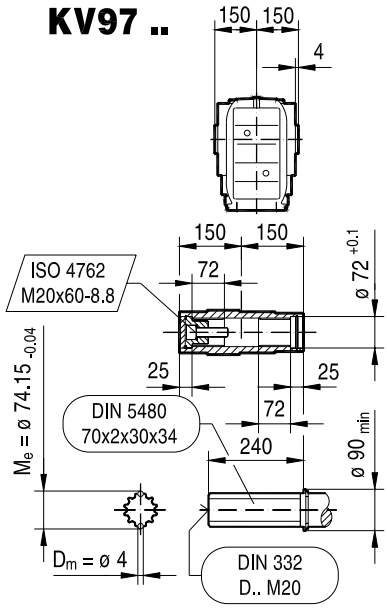
KA97 ..



KH97 ..



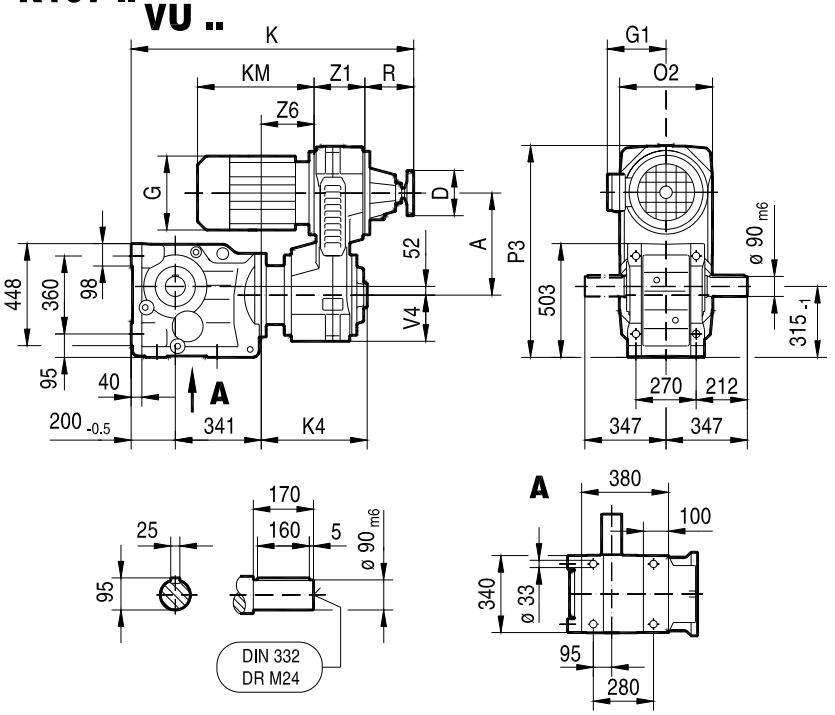
KV97 ..



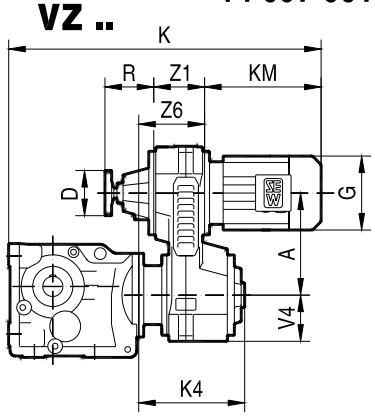
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
KA97 KH97 KV97	VU31 VZ31	DV112M	305	125	221	179	890	976	349	312	283	413	150	138	152	153	192
		DV132S	305	125	221	179	890	1021	394	312	283	413	150	138	152	153	192
	VU41 VZ41	DV132M	380	200	275	230	1003	1066	402	387	348	521	189	170	180	199	229
		DV132ML	380	200	275	230	1003	1126	462	387	348	521	189	170	180	199	229
		DV160M	380	200	275	230	1003	1126	462	387	348	521	189	170	180	199	229
	VU51	DV160L	460	200	331	259	1087	-	503	444	398	626	220	195	200	232	-
		DV180..	460	200	331	253	1087	-	575	444	398	626	220	195	200	232	-

K107 .. VU ..

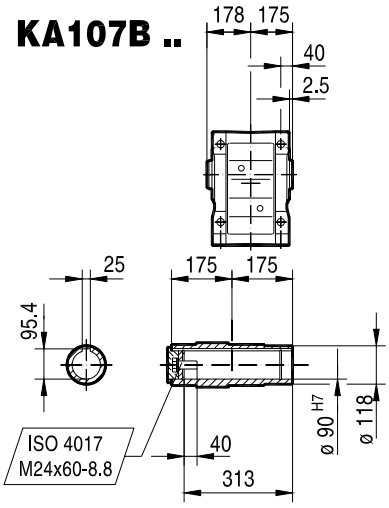
14 097 001



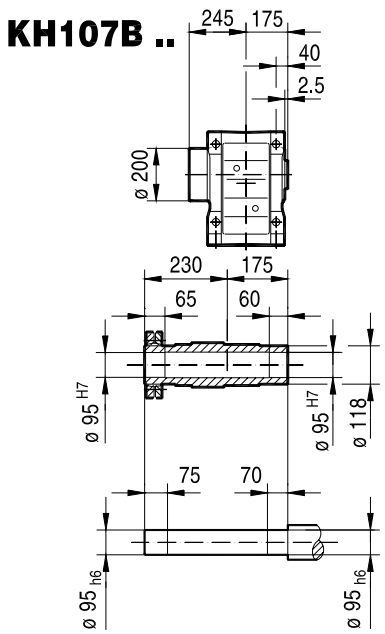
VZ ..



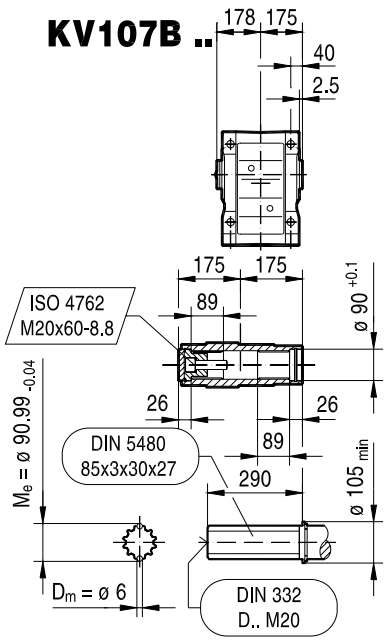
KA107B ..



KH107B ..



KV107B ..

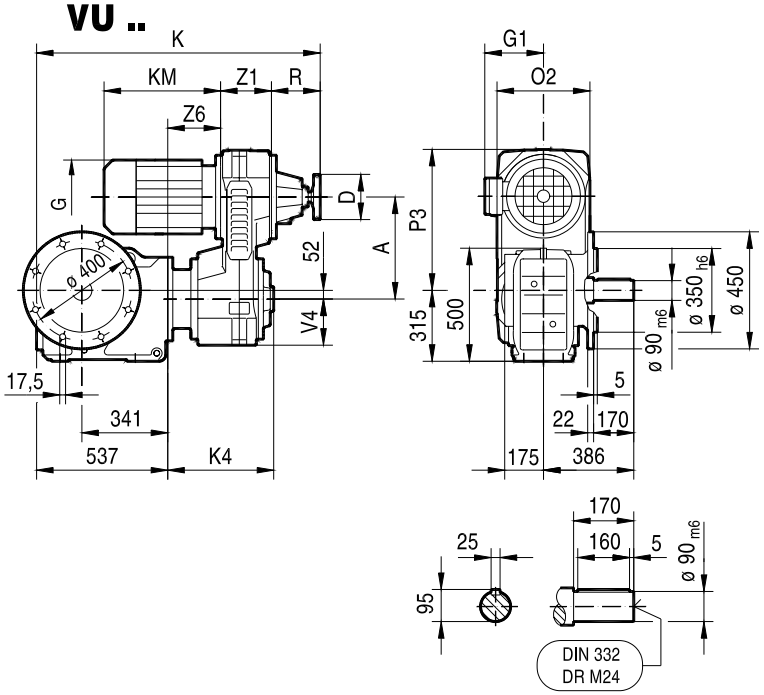


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
K107 KA107B KH107B KV107B	VU41 VZ41	DV132M	380	200	275	230	1103	1166	402	381	348	816	189	170	180	193	223
		DV132ML	380	200	275	230	1103	1226	462	381	348	816	189	170	180	193	223
		DV160M	380	200	275	230	1103	1226	462	381	348	816	189	170	180	193	223
	VU51	DV160L	460	200	331	259	1187	-	503	438	398	921	220	195	200	226	-
		DV180..	460	200	331	253	1187	-	575	438	398	921	220	195	200	226	-
	VU6	DV200..	574	385	394	285	1246	-	623	662	490	1068	155	245	214	336	-
		DV225..	574	385	394	289	1246	-	690	662	490	1068	155	245	249	301	-

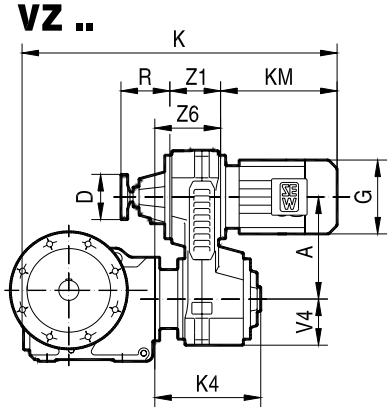
KF107 ..

14 098 001

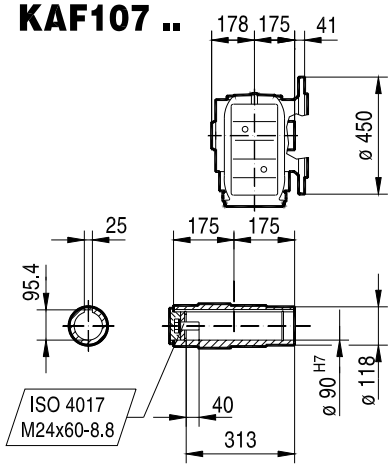
VU ..



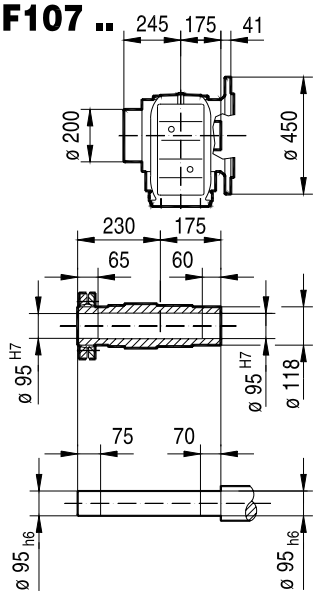
VZ ..



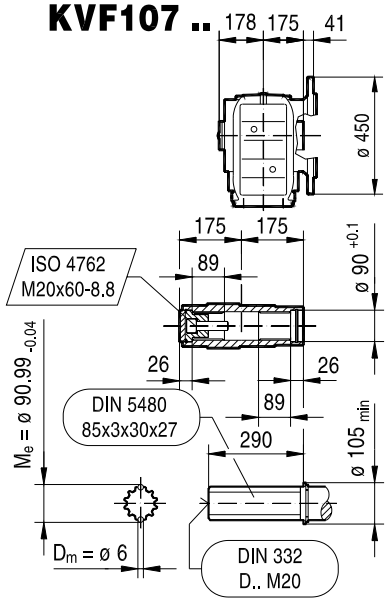
KAF107 ..



KHF107 ..



KVF107 ..

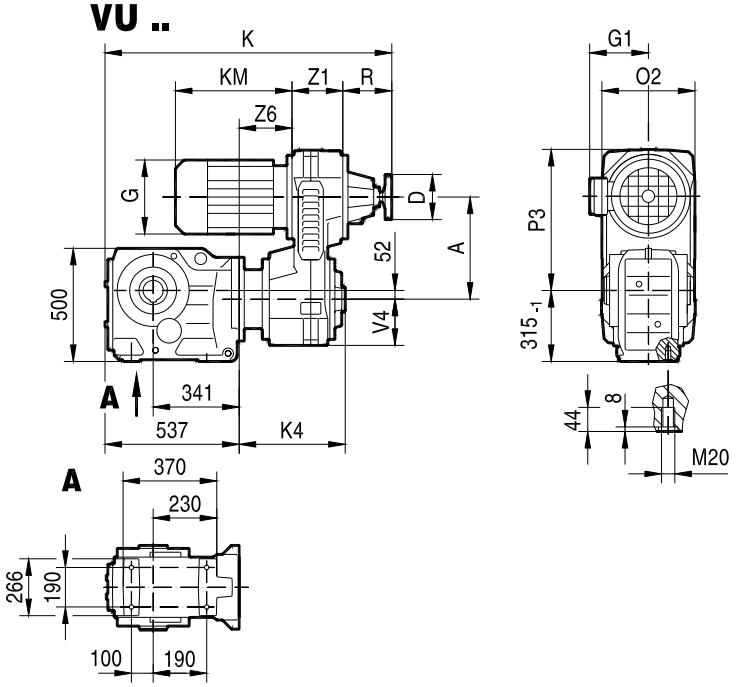


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
KF107 KAF107 KHF107 KVF107	VU41 VZ41	DV132M	380	200	275	230	1099	1162	402	381	348	501	189	170	180	193	223
		DV132ML	380	200	275	230	1099	1222	462	381	348	501	189	170	180	193	223
		DV160M	380	200	275	230	1099	1222	462	381	348	501	189	170	180	193	223
	VU51	DV160L	460	200	331	259	1183	-	503	438	398	606	220	195	200	226	-
		DV180..	460	200	331	253	1183	-	575	438	398	606	220	195	200	226	-
	VU6	DV200..	574	385	394	285	1242	-	623	662	490	753	155	245	214	336	-
		DV225..	574	385	394	289	1242	-	690	662	490	753	155	245	249	301	-

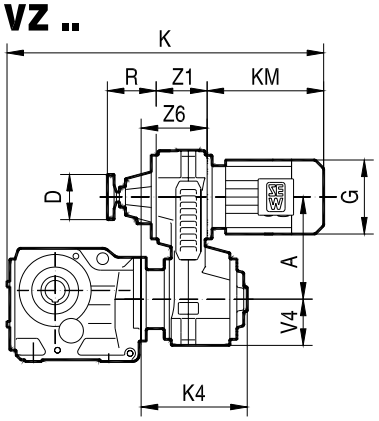
14 099 001

KA107 ..

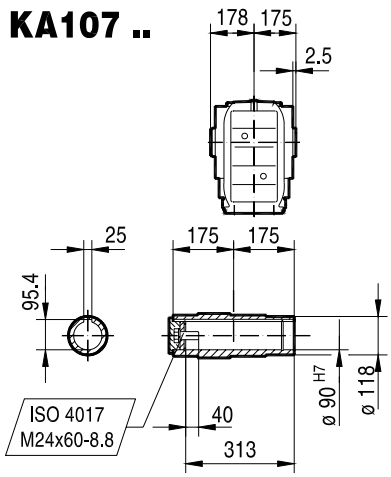
VU ..



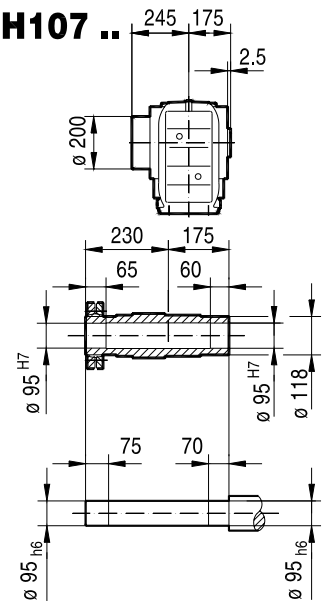
VZ ..



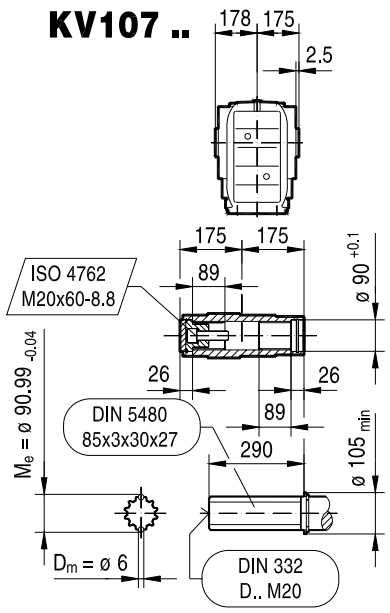
KA107 ..



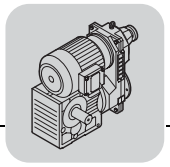
KH107 ..



KV107 ..



(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
KA107 KH107 KV107	VU41 VZ41	DV132M	380	200	275	230	1099	1162	402	381	348	501	189	170	180	193	223
		DV132ML	380	200	275	230	1099	1222	462	381	348	501	189	170	180	193	223
		DV160M	380	200	275	230	1099	1222	462	381	348	501	189	170	180	193	223
	VU51	DV160L	460	200	331	259	1183	-	503	438	398	606	220	195	200	226	-
		DV180..	460	200	331	253	1183	-	575	438	398	606	220	195	200	226	-
	VU6	DV200..	574	385	394	285	1242	-	623	662	490	753	155	245	214	336	-
		DV225..	574	385	394	289	1242	-	690	662	490	753	155	245	249	301	-

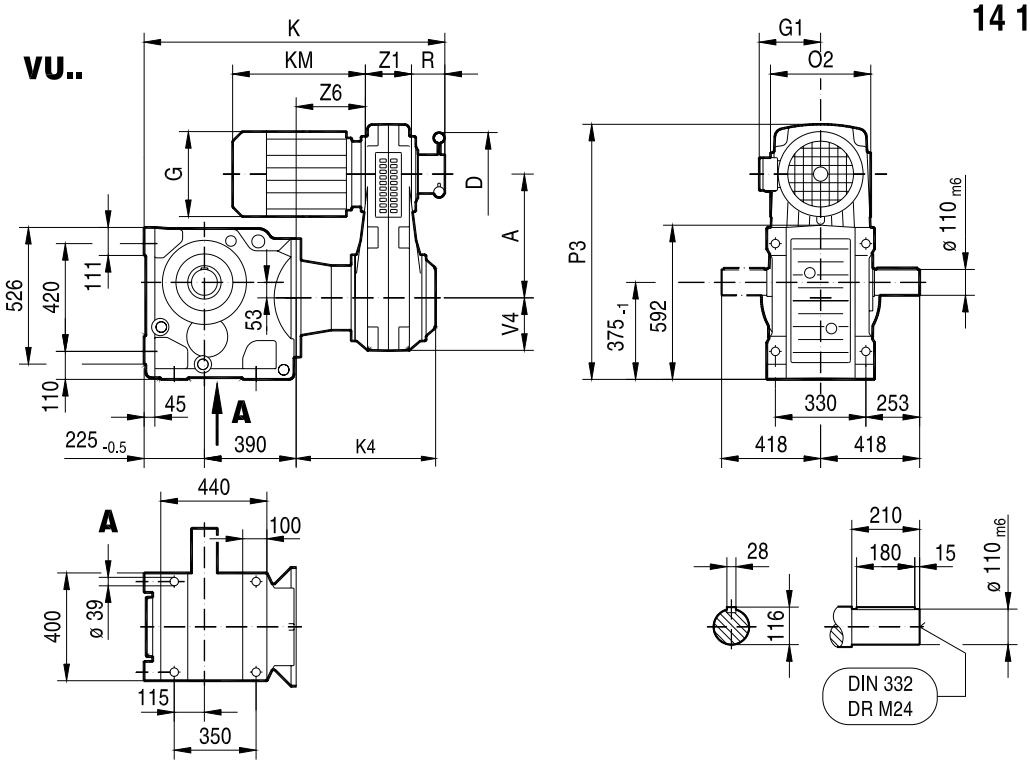


K..VU/VZ..DR/DT/DV.. [mm]

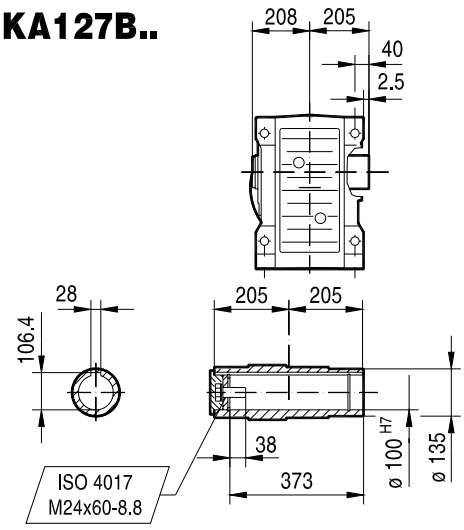
14 100 001

K127..

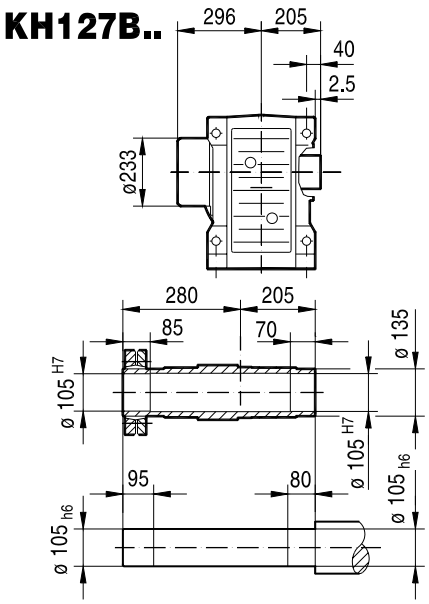
VU..



KA127B..



KH127B..

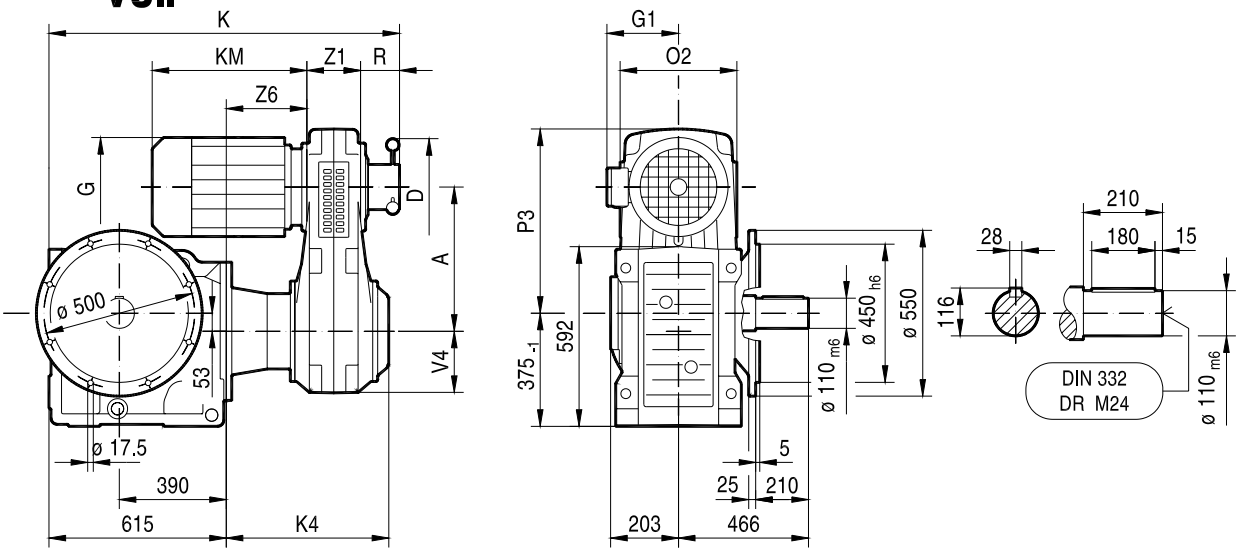


(→ 151)			A	D	G	G1	K	KM	K4	O2	P3	R	V4	Z1	Z6
K127 KA127B KH127B	**VU51**	**DV160L**	460	200	331	259	1246	503	423	398	980	220	195	200	211
		DV180..	460	200	331	253	1246	575	423	398	980	220	195	200	211
	VU6	**DV200..**	574	385	394	285	1305	623	647	490	1127	155	245	214	321
		DV225..	574	385	394	289	1305	690	647	490	1127	155	245	249	286

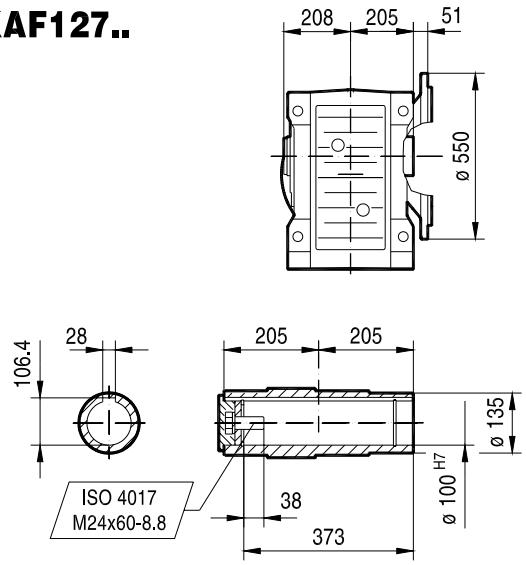
14 101 001

KF127..

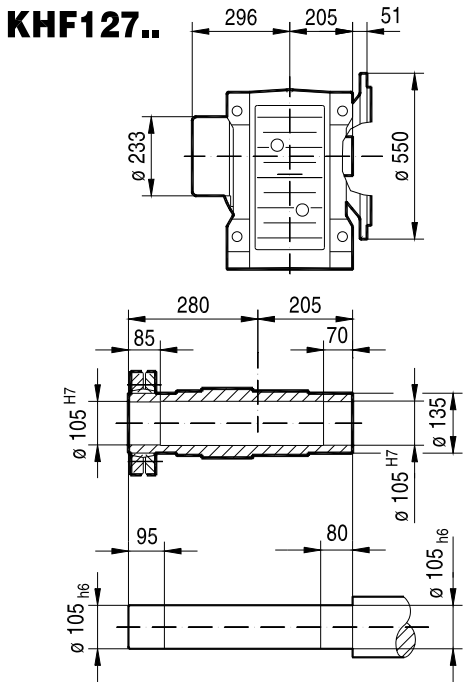
VU..



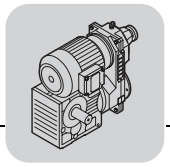
KAF127..



KHF127..



(→ 151)			A	D	G	G1	K	KM	K4	O2	P3	R	V4	Z1	Z6
KF127 KAF127 KHF127	VU51	DV160L	460	200	331	259	1246	503	423	398	605	220	195	200	211
		DV180..	460	200	331	253	1246	575	423	398	605	220	195	200	211
	VU6	DV200..	574	385	394	285	1305	623	647	490	752	155	245	214	321
		DV225..	574	385	394	289	1305	690	647	490	752	155	245	249	286

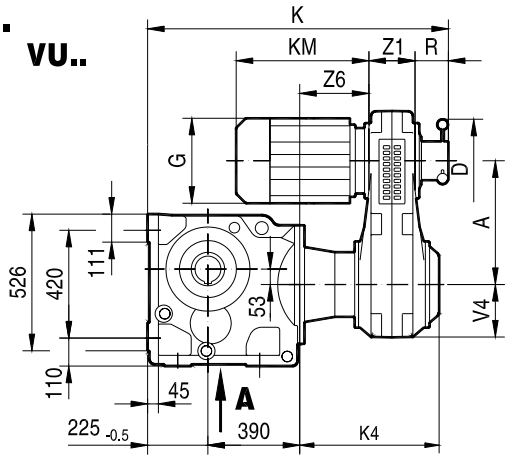


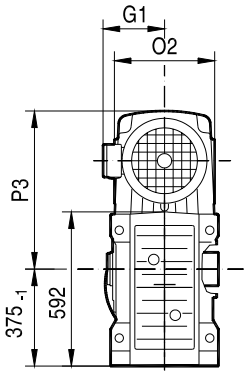
K..VU/VZ..DR/DT/DV.. [mm]

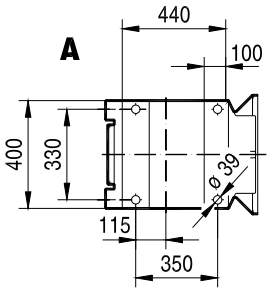
14 102 001

KA127..

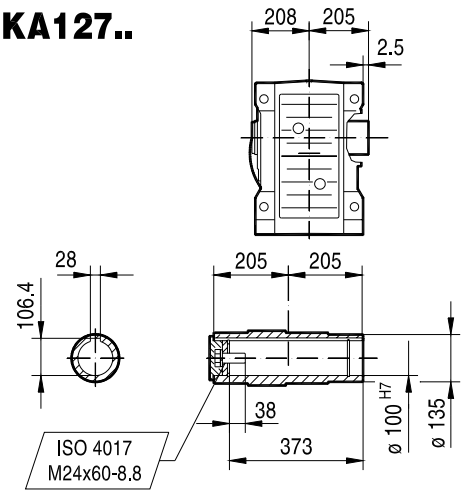
VU..



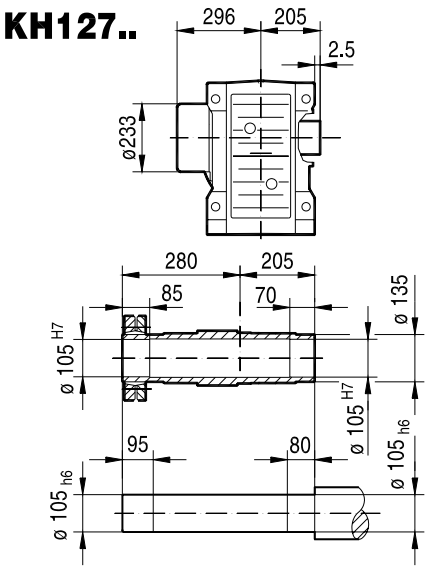




KA127..



KH127..

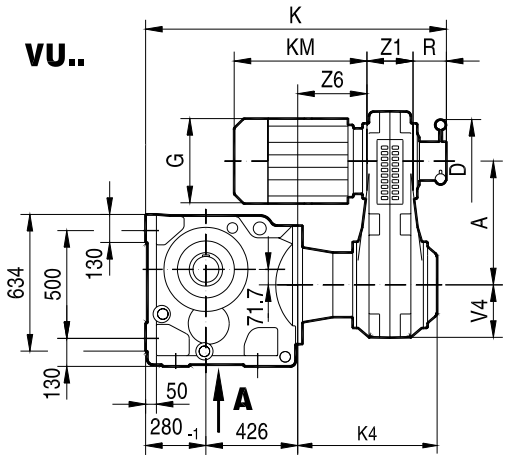


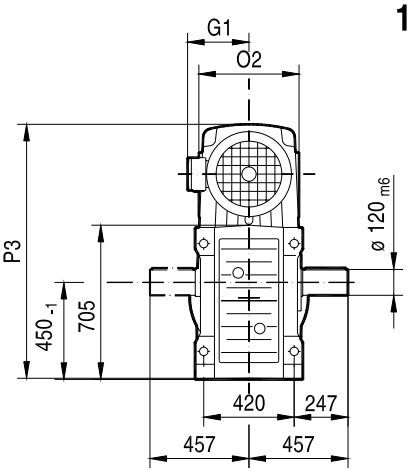
(→ 151)			A	D	G	G1	K	KM	K4	O2	P3	R	V4	Z1	Z6
KA127 KH127	VU51	DV160L	460	200	331	259	1246	503	423	398	605	220	195	200	211
		DV180..	460	200	331	253	1246	575	423	398	605	220	195	200	211
	VU6	DV200..	574	385	394	285	1305	623	647	490	752	155	245	214	321
		DV225..	574	385	394	289	1305	690	647	490	752	155	245	249	286

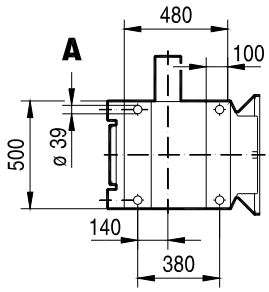
14 103 001

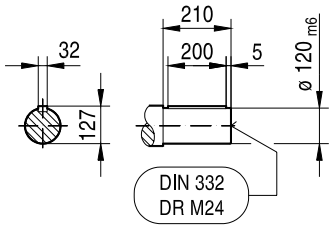
K157..

VU..

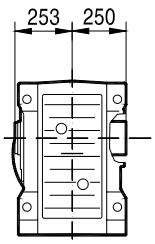


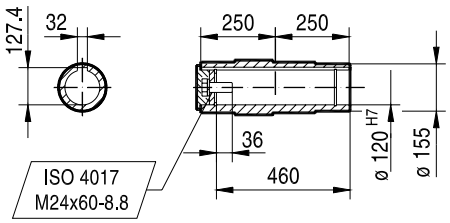




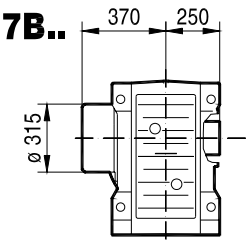


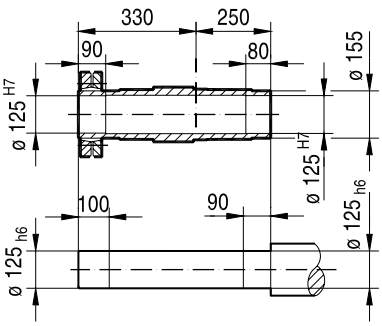
KA157B..





KH157B..

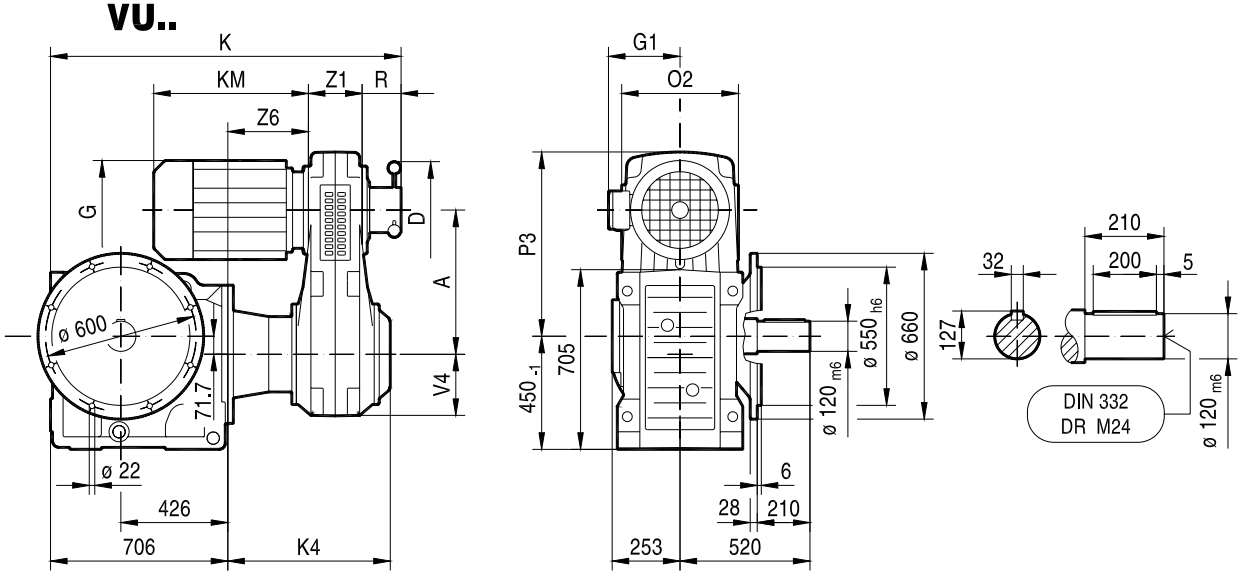




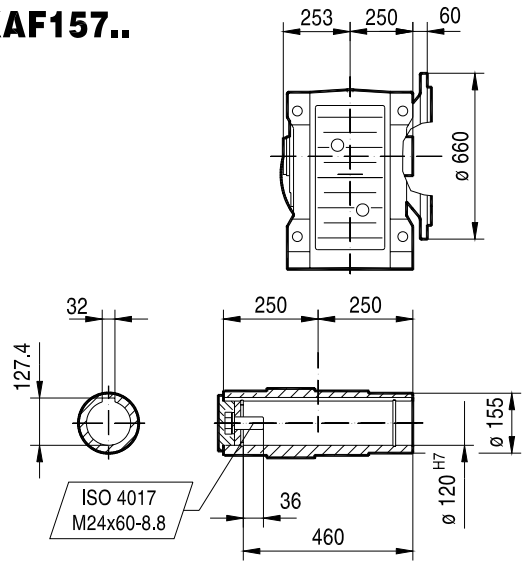
(→ 151)			A	D	G	G1	K	KM	K4	O2	P3	R	V4	Z1	Z6
K157 **KA157B** **KH157B**	**VU6**	**DV200..**	574	385	394	285	1421	623	672	490	1184	155	245	214	346
		DV225..	574	385	394	289	1421	690	672	490	1184	155	245	249	311

14 104 001

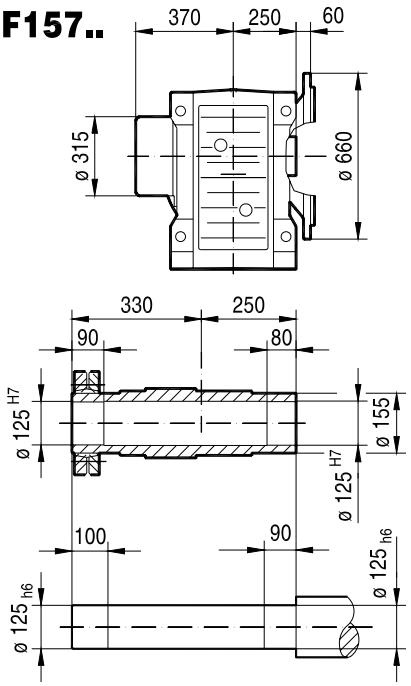
KF157..VU..



KAF157..



KHF157..

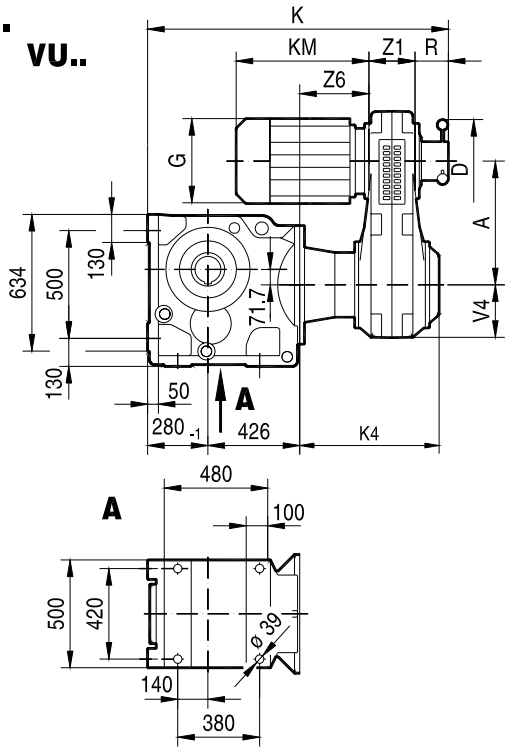


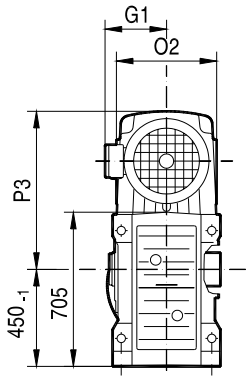
(→ 151)			A	D	G	G1	K	KM	K4	O2	P3	R	V4	Z1	Z6
KF157 **KAF157** **KHF157**	**VU6**	**DV200..**	574	385	394	285	1421	623	672	490	734	155	245	214	346
		DV225..	574	385	394	289	1421	690	672	490	734	155	245	249	311

14 105 001

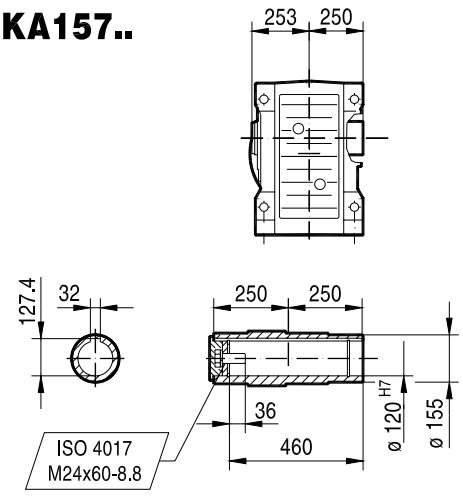
KA157..

VU..

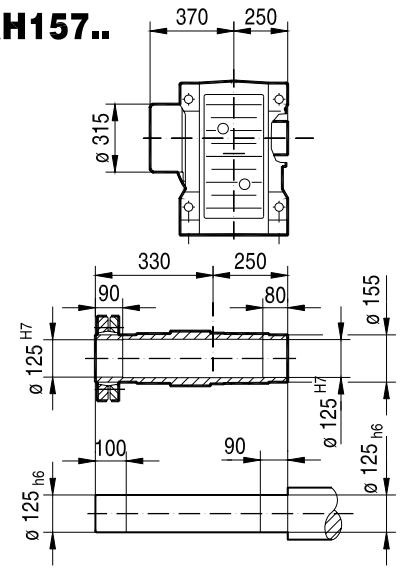




KA157..



KH157..

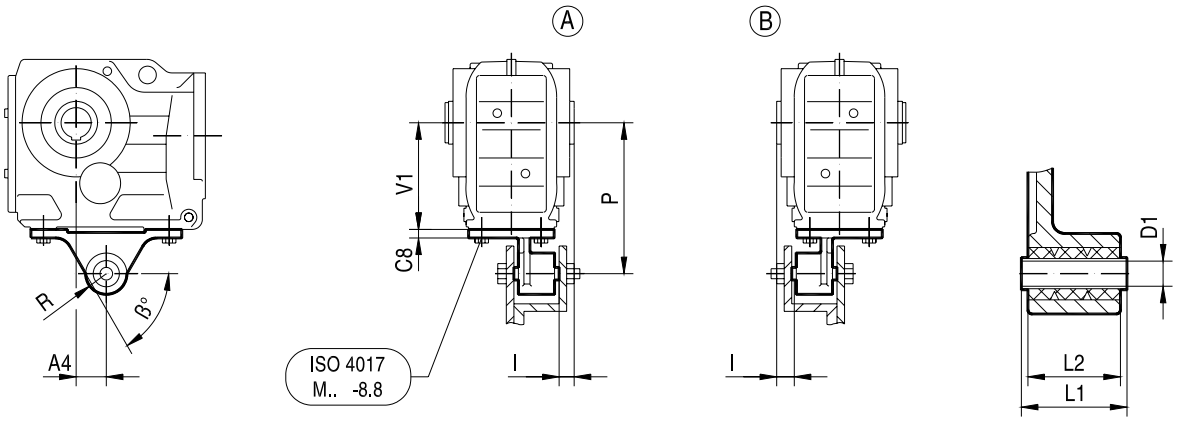


(→ 151)			A	D	G	G1	K	KM	K4	O2	P3	R	V4	Z1	Z6
KA157 KH157	**VU6**	**DV200..**	574	385	394	285	1421	623	672	490	734	155	245	214	346
		DV225..	574	385	394	289	1421	690	672	490	734	155	245	249	311

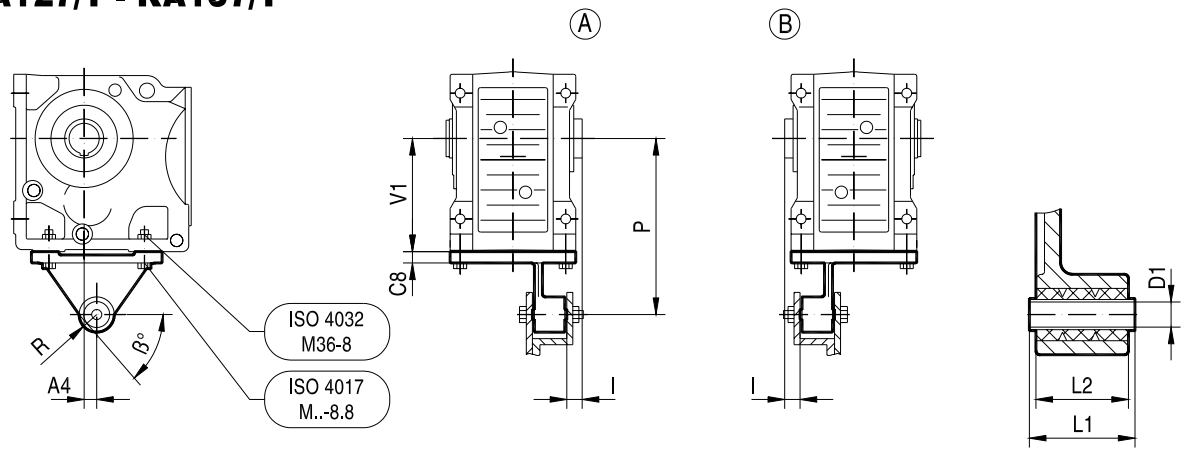
11.4 Drehmomentstütze KA../T

14 106 001

KA37/T - KA107/T



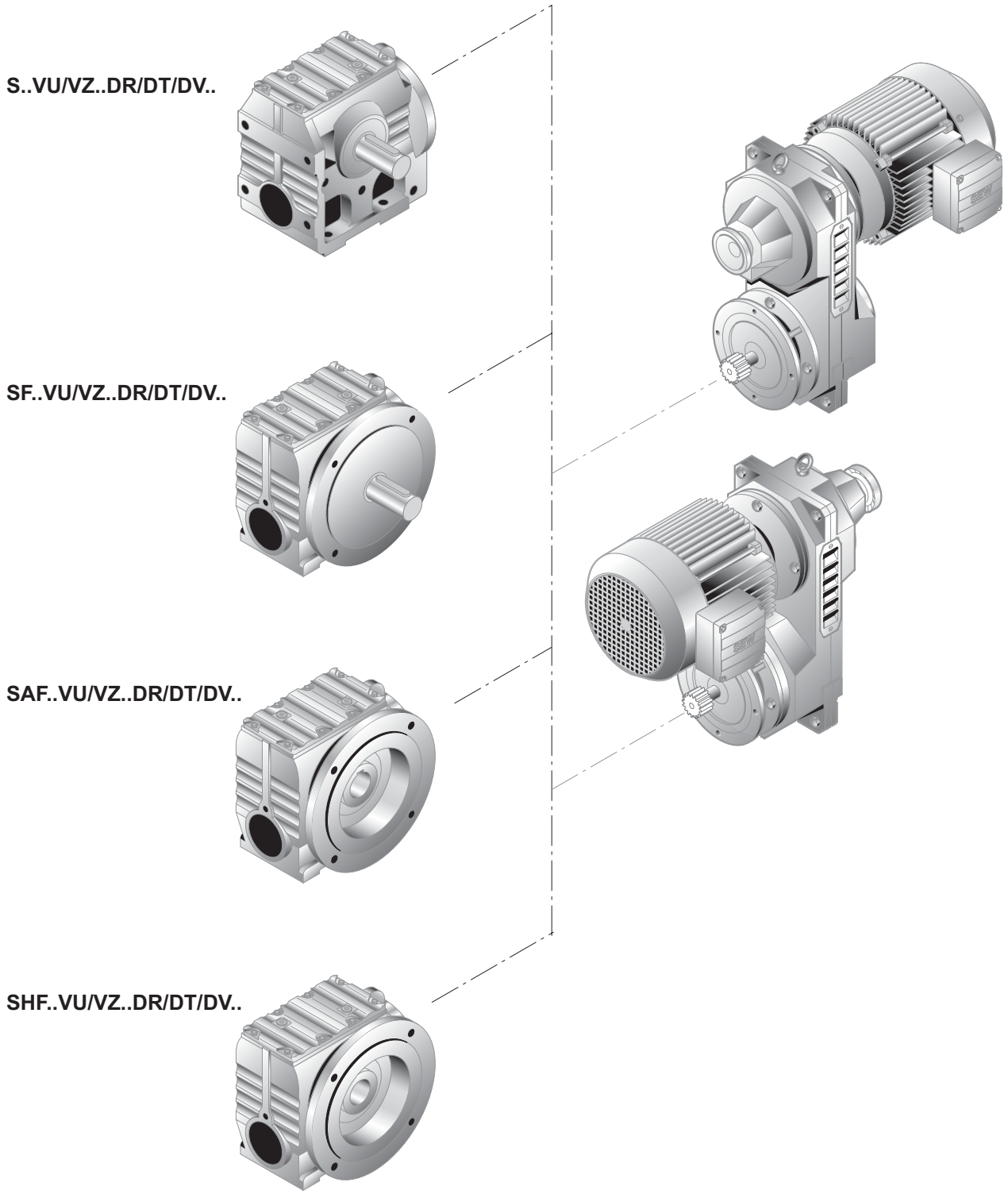
KA127/T - KA157/T



	A4	ß	C8	D1	I	L1	L2	M	P	R	V1
KA37/T V..	23.5	60	10	10.4	20	36	31	M10x25	140	22.5	100
KA47/T V..	30	55	12	10.4	20	36	31	M10x30	160	22.5	112
KA57/T V..	40	55	13	16.4	18	60	54	M12x35	192	29	132
KA67/T V..	45	55	13	16.4	25	60	54	M12x35	200	29	140
KA77/T V..	52.5	60	14	16.4	25	60	54	M16x40	250	29	180
KA87/T V..	60	60	16	25	30	80	72	M16x45	300	41	212
KA97/T V..	70	50	17	25	40	100	92	M20x50	350	41	265
KA107/T V..	74	55	20	25	45	100	92	M24x60	450	41	315
KA127/T V..	60	65	45	40	7	126	110	M36x130	550	70	375
KA157/T V..	50	70	45	40	2	126	110	M36x130	700	70	450

12 S..

12.1 S..VU/VZ..DR/DT/DV..

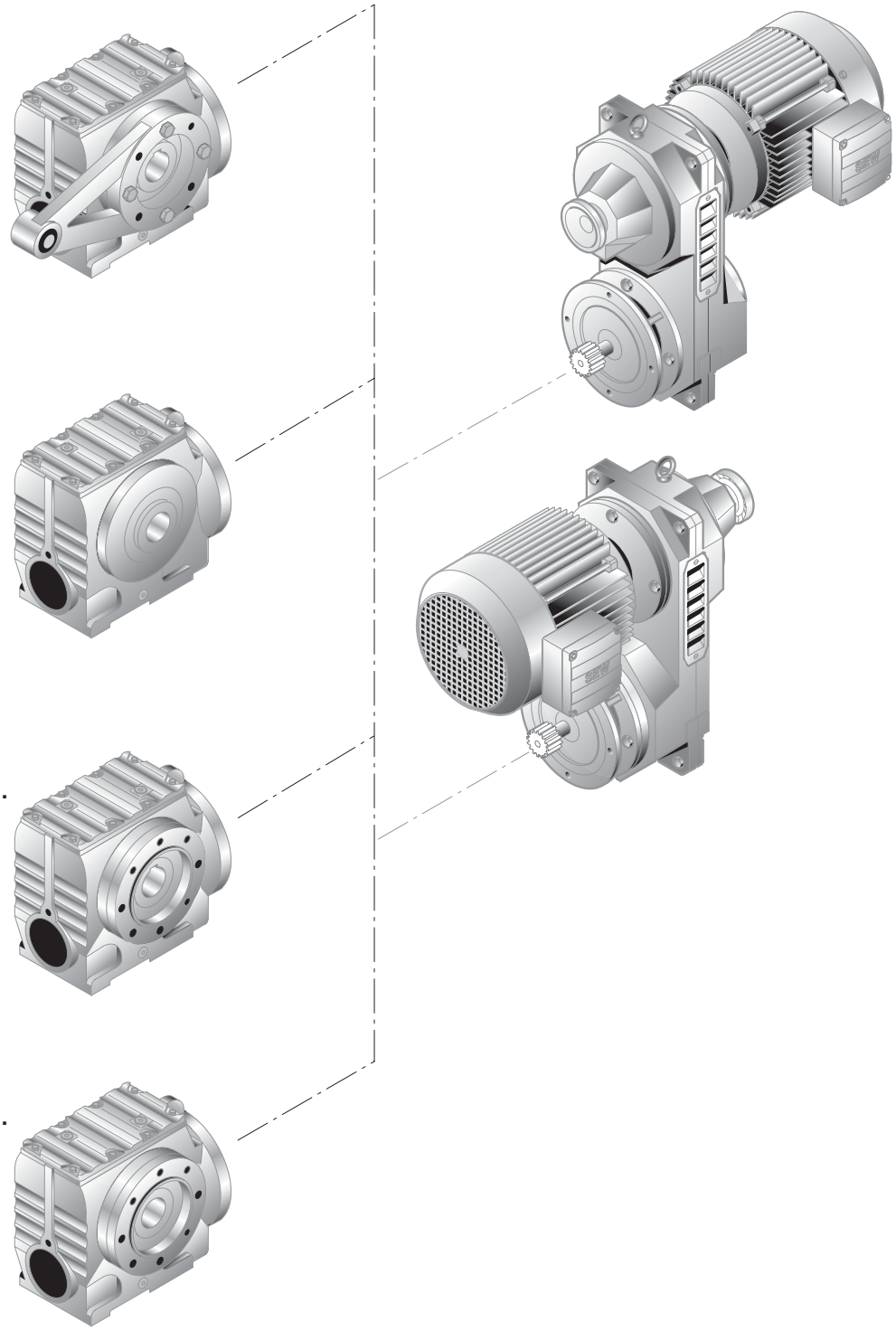


SA..VU/VZ..DR/DT/DV..

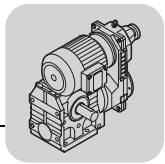
SH..VU/VZ..DR/DT/DV..

SAZ..VU/VZ..DR/DT/DV..

SHZ..VU/VZ..DR/DT/DV..



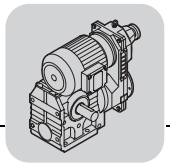
50518AXX



12.2 S..VU/VZ..DR/DT/DV.. [kW]

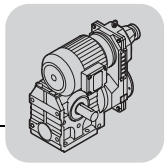
R = 1:5 ... R = 1:6

P_m [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
0.25	**1.9 - 9.2**	217.41	197	137	-	**S**	**67**	**VU/VZ**	**01**	**DT**	**71D6**	49	372
	2.1 - 11	190.11	174	121	-	**SF**	**67**	**VU/VZ**	**01**	**DT**	**71D6**	55	-
						SA	**67**	**VU/VZ**	**01**	**DT**	**71D6**	50	373
						SAF	**67**	**VU/VZ**	**01**	**DT**	**71D6**	54	-
	2.8 - 14	217.41	197	95	-	**S**	**67**	**VU/VZ**	**01**	**DR**	**63L4**	47	372
	3.2 - 16	190.11	175	84	-	**SF**	**67**	**VU/VZ**	**01**	**DR**	**63L4**	54	-
						SA	**67**	**VU/VZ**	**01**	**DR**	**63L4**	48	373
						SAF	**67**	**VU/VZ**	**01**	**DR**	**63L4**	53	-
	2.0 - 9.9	201.00*	172	121	-	**S**	**57**	**VU/VZ**	**01**	**DT**	**71D6**	38	370
	2.2 - 11	184.80*	159	112	-	**SF**	**57**	**VU/VZ**	**01**	**DT**	**71D6**	42	-
						SA	**57**	**VU/VZ**	**01**	**DT**	**71D6**	37	371
						SAF	**57**	**VU/VZ**	**01**	**DT**	**71D6**	40	-
	3.0 - 15	201.00*	173	84	-								
	3.3 - 16	184.80*	160	78	-	**S**	**57**	**VU/VZ**	**01**	**DR**	**63L4**	36	370
	3.8 - 19	158.12	140	68	-	**SF**	**57**	**VU/VZ**	**01**	**DR**	**63L4**	40	-
	4.4 - 22	137.05	123	59	-	**SA**	**57**	**VU/VZ**	**01**	**DR**	**63L4**	36	371
	4.7 - 23	128.10*	116	56	-	**SAF**	**57**	**VU/VZ**	**01**	**DR**	**63L4**	39	-
	2.0 - 9.9	201.00*	166	117	-	**S**	**47**	**VU/VZ**	**01**	**DT**	**71D6**	34	368
	2.2 - 11	184.80*	154	108	-	**SF**	**47**	**VU/VZ**	**01**	**DT**	**71D6**	38	-
						SA	**47**	**VU/VZ**	**01**	**DT**	**71D6**	35	369
						SAF	**47**	**VU/VZ**	**01**	**DT**	**71D6**	37	-
	3.0 - 15	201.00*	167	81	-								
	3.3 - 16	184.80*	155	76	-	**S**	**47**	**VU/VZ**	**01**	**DR**	**63L4**	32	368
	3.8 - 19	158.12	135	66	-	**SF**	**47**	**VU/VZ**	**01**	**DR**	**63L4**	36	-
	4.4 - 22	137.05	119	58	-	**SA**	**47**	**VU/VZ**	**01**	**DR**	**63L4**	34	369
	4.7 - 23	128.10*	112	55	-	**SAF**	**47**	**VU/VZ**	**01**	**DR**	**63L4**	35	-
	3.8 - 19	157.43	92	63	-								
	4.2 - 20	144.40*	92	58	-								
	4.9 - 24	122.94	92	51	-								
	5.7 - 28	106.00*	91	44	-								
	6.1 - 30	98.80*	86	42	-								
	7.0 - 34	86.36	76	37	-								
	7.5 - 36	80.96	72	35	-								
	8.5 - 41	71.44*	65	31	-								
	9.5 - 47	63.33	58	28	-								
	11 - 53	55.93	64	29	-								
	12 - 58	51.30*	59	27	-								
	14 - 68	43.68	51	23	-								
	16 - 78	37.66	44	20	-	**S**	**37**	**VU/VZ**	**01**	**DR**	**63L4**	29	366
	17 - 84	35.10*	42	19	-	**SF**	**37**	**VU/VZ**	**01**	**DR**	**63L4**	31	-
	20 - 96	30.68	37	16	-	**SA**	**37**	**VU/VZ**	**01**	**DR**	**63L4**	29	367
	21 - 103	28.76	35	16	-	**SAF**	**37**	**VU/VZ**	**01**	**DR**	**63L4**	31	-
	24 - 116	25.38*	31	14	-								
	27 - 131	22.50*	28	12	-								
	30 - 148	19.89	26	12	-								
	33 - 162	18.24*	24	11	-								
	39 - 190	15.53	21	9.0	-								
	45 - 220	13.39	18	7.8	-								
	48 - 236	12.48*	17	7.3	-								
	55 - 270	10.91	15	6.4	-								
	59 - 288	10.23	14	6.0	-								
	67 - 327	9.02*	12	5.3	-								
	76 - 369	8.00*	11	4.7	-								
	89 - 434	6.80*	9.5	4.0	-								
0.37	**1.4 - 8.1**	256.47	900	250	-	**S**	**77**	**VU/VZ**	**11**	**DT**	**80K6**	79	374
	1.6 - 9.2	225.26	785	220	-	**SF**	**77**	**VU/VZ**	**11**	**DT**	**80K6**	88	-
	1.7 - 9.7	214.00*	750	210	-	**SA**	**77**	**VU/VZ**	**11**	**DT**	**80K6**	78	375
						SAF	**77**	**VU/VZ**	**11**	**DT**	**80K6**	85	-
	1.6 - 9.5	217.41	570	198	-	**S**	**67**	**VU/VZ**	**11**	**DT**	**80K6**	57	372
	1.9 - 11	190.11	570	175	-	**SF**	**67**	**VU/VZ**	**11**	**DT**	**80K6**	63	-
	2.0 - 11	180.60*	570	168	-	**SA**	**67**	**VU/VZ**	**11**	**DT**	**80K6**	58	373
	2.3 - 13	158.45	515	149	-	**SAF**	**67**	**VU/VZ**	**11**	**DT**	**80K6**	62	-
	2.7 - 15	134.40*	445	128	-								



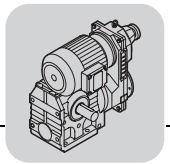
S..VU/VZ..DR/DT/DV.. [kW]

R = 1:5 ... R = 1:6														
P_m [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠						m [kg]	
0.37	2.3	-	13	158.12	185	137	-	S	47	VU/VZ	11	DT	80K6	44	368
	2.6	-	15	137.05	185	121	-	SF	47	VU/VZ	11	DT	80K6	48	-
	2.8	-	16	128.10*	185	114	-	SA	47	VU/VZ	11	DT	80K6	45	369
	3.2	-	19	110.73	185	100	-	SAF	47	VU/VZ	11	DT	80K6	47	-
	1.9	-	9.4	217.41	390	200	-	S	67	VU/VZ	01	DT	80K6	51	372
	2.2	-	11	190.11	345	178	-	SF	67	VU/VZ	01	DT	80K6	57	-
								SA	67	VU/VZ	01	DT	80K6	52	373
								SAF	67	VU/VZ	01	DT	80K6	56	-
	2.8	-	14	217.41	290	136	-	S	67	VU/VZ	01	DT	71D4	49	372
	3.2	-	16	190.11	260	120	-	SF	67	VU/VZ	01	DT	71D4	55	-
								SA	67	VU/VZ	01	DT	71D4	50	373
								SAF	67	VU/VZ	01	DT	71D4	54	-
	2.0	-	10	201.00*	330	177	-	S	57	VU/VZ	01	DT	80K6	40	370
	2.2	-	11	184.80*	320	164	-	SF	57	VU/VZ	01	DT	80K6	44	-
	2.6	-	13	158.12	275	143	-	SA	57	VU/VZ	01	DT	80K6	39	371
	3.0	-	15	137.05	245	126	-	SAF	57	VU/VZ	01	DT	80K6	42	-
	3.1	-	16	201.00*	255	120	-	S	57	VU/VZ	01	DT	71D4	38	370
	3.3	-	17	184.80*	235	111	-	SF	57	VU/VZ	01	DT	71D4	42	-
	3.9	-	20	158.12	205	97	-	SA	57	VU/VZ	01	DT	71D4	37	371
	4.5	-	23	137.05	182	85	-	SAF	57	VU/VZ	01	DT	71D4	40	-
	2.2	-	11	184.80*	185	159	-	S	47	VU/VZ	01	DT	80K6	36	368
	2.6	-	13	158.12	185	139	-	SF	47	VU/VZ	01	DT	80K6	40	-
	3.0	-	15	137.05	185	122	-	SA	47	VU/VZ	01	DT	80K6	37	369
								SAF	47	VU/VZ	01	DT	80K6	39	-
	3.1	-	16	201.00*	185	117	-	S	47	VU/VZ	01	DT	71D4	34	368
	3.3	-	17	184.80*	183	108	-	SF	47	VU/VZ	01	DT	71D4	38	-
	3.9	-	20	158.12	180	94	-	SA	47	VU/VZ	01	DT	71D4	35	369
	4.5	-	23	137.05	176	83	-	SAF	47	VU/VZ	01	DT	71D4	37	-
	5.0	-	25	122.94	92	73	-								
	5.8	-	30	106.00*	92	64	-								
	6.2	-	32	98.80*	92	60	-								
	7.1	-	36	86.36	92	53	-								
	7.6	-	39	80.96	92	50	-								
	8.6	-	44	71.44*	92	44	-								
	9.7	-	49	63.33	86	40	-								
	11	-	56	55.93	92	41	-								
	12	-	61	51.30*	88	38	-								
	14	-	72	43.68	75	33	-								
	16	-	83	37.66	66	28	-								
	17	-	89	35.10*	62	27	-	S	37	VU/VZ	01	DT	71D4	31	366
	20	-	102	30.68	54	23	-	SF	37	VU/VZ	01	DT	71D4	32	-
	21	-	109	28.76	51	22	-	SA	37	VU/VZ	01	DT	71D4	31	367
	24	-	123	25.38*	46	20	-	SAF	37	VU/VZ	01	DT	71D4	32	-
	27	-	139	22.50*	41	17	-								
	31	-	158	19.89	39	16	-								
	34	-	172	18.24*	36	15	-								
	39	-	202	15.53	31	13	-								
	46	-	234	13.39	27	11	-								
	49	-	251	12.48*	25	10	-								
	56	-	287	10.91	22	9.1	-								
	60	-	306	10.23	21	8.5	-								
	68	-	347	9.02*	18	7.5	-								
	77	-	392	8.00*	16	6.7	-								
	90	-	461	6.80*	14	5.7	-								
0.55	1.4	-	8.1	256.47	900	375	-	S	77	VU/VZ	11	DT	80N6	80	374
	1.6	-	9.2	225.26	785	330	-	SF	77	VU/VZ	11	DT	80N6	89	-
	1.7	-	9.7	214.00*	750	315	-	SA	77	VU/VZ	11	DT	80N6	79	375
								SAF	77	VU/VZ	11	DT	80N6	86	-
	1.6	-	9.5	217.41	570	295	-								
	1.9	-	11	190.11	570	265	-	S	67	VU/VZ	11	DT	80N6	58	372
	2.0	-	11	180.60*	570	250	-	SF	67	VU/VZ	11	DT	80N6	64	-
	2.3	-	13	158.45	515	225	-	SA	67	VU/VZ	11	DT	80N6	59	373
	2.7	-	15	134.40*	445	192	-	SAF	67	VU/VZ	11	DT	80N6	63	-



R = 1:5 ... R = 1:6

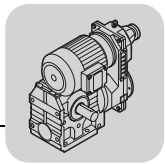
P_m [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠						m [kg]	
0.55	1.9 - 9.4	217.41	390	300	-	S	67	VU/VZ	01	DT	80N6	52	372
	2.2 - 11	190.11	345	265	-	SF	67	VU/VZ	01	DT	80N6	58	-
						SA	67	VU/VZ	01	DT	80N6	53	373
						SAF	67	VU/VZ	01	DT	80N6	57	-
	2.8 - 14	217.41	390	205	-	S	67	VU/VZ	01	DT	80K4	51	372
	3.2 - 16	190.11	345	183	-	SF	67	VU/VZ	01	DT	80K4	57	-
						SA	67	VU/VZ	01	DT	80K4	52	373
						SAF	67	VU/VZ	01	DT	80K4	56	-
	2.0 - 10	201.00*	330	265	-	S	57	VU/VZ	01	DT	80N6	41	370
	2.2 - 11	184.80*	320	245	-	SF	57	VU/VZ	01	DT	80N6	45	-
	2.6 - 13	158.12	275	215	-	SA	57	VU/VZ	01	DT	80N6	40	371
						SAF	57	VU/VZ	01	DT	80N6	43	-
	3.0 - 15	201.00*	310	183	-	S	57	VU/VZ	01	DT	80K4	40	370
	3.3 - 17	184.80*	305	170	-	SF	57	VU/VZ	01	DT	80K4	44	-
						SA	57	VU/VZ	01	DT	80K4	39	371
						SAF	57	VU/VZ	01	DT	80K4	42	-
	3.9 - 20	158.12	180	143	-								
	4.5 - 23	137.05	178	126	-								
	4.8 - 24	128.10*	176	119	-								
	5.5 - 28	110.73	174	104	-	S	47	VU/VZ	01	DT	80K4	36	368
	6.5 - 33	94.08*	170	90	-	SF	47	VU/VZ	01	DT	80K4	40	-
	7.3 - 37	84.00*	154	81	-	SA	47	VU/VZ	01	DT	80K4	37	369
	8.5 - 43	71.75*	134	70	-	SAF	47	VU/VZ	01	DT	80K4	39	-
	8.8 - 44	69.39	159	78	-								
	9.1 - 46	67.20*	127	66	-								
	9.6 - 48	63.80*	147	73	-								
	11 - 55	55.93	92	63	-								
	12 - 60	51.30*	92	58	-								
	14 - 71	43.68	92	50	-								
	16 - 82	37.66	88	43	-								
	17 - 88	35.10*	82	40	-								
	20 - 101	30.68	73	36	-								
	21 - 107	28.76	69	33	-								
	24 - 122	25.38*	61	30	-								
	27 - 137	22.50*	55	26	-	S	37	VU/VZ	01	DT	80K4	33	366
	31 - 155	19.89	52	25	-	SF	37	VU/VZ	01	DT	80K4	34	-
	33 - 169	18.24*	48	23	-	SA	37	VU/VZ	01	DT	80K4	33	367
	39 - 199	15.53	41	20	-	SAF	37	VU/VZ	01	DT	80K4	34	-
	46 - 231	13.39	36	17	-								
	49 - 247	12.48*	34	16	-								
	56 - 283	10.91	30	14	-								
	60 - 302	10.23	28	13	-								
	68 - 342	9.02*	25	12	-								
	76 - 386	8.00*	22	10	-								
	90 - 454	6.80*	19	8.7	-								
0.75	2.1 - 12	256.47	740	345	-	S	77	VU/VZ	11	DT	80N4	80	374
	2.4 - 14	225.26	660	305	-	SF	77	VU/VZ	11	DT	80N4	89	-
	2.5 - 15	214.00*	630	295	-	SA	77	VU/VZ	11	DT	80N4	79	375
						SAF	77	VU/VZ	11	DT	80N4	86	-
	2.8 - 14	217.41	390	280	-	S	67	VU/VZ	01	DT	80N4	52	372
	3.2 - 16	190.11	345	250	-	SF	67	VU/VZ	01	DT	80N4	58	-
						SA	67	VU/VZ	01	DT	80N4	53	373
						SAF	67	VU/VZ	01	DT	80N4	57	-
	3.1 - 16	201.00*	310	250	-	S	57	VU/VZ	01	DT	80N4	41	370
	3.3 - 17	184.80*	305	230	-	SF	57	VU/VZ	01	DT	80N4	45	-
	3.9 - 20	158.12	275	200	-	SA	57	VU/VZ	01	DT	80N4	40	371
	4.5 - 23	137.05	245	176	-	SAF	57	VU/VZ	01	DT	80N4	43	-



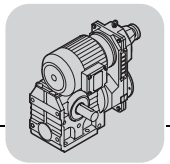
S..VU/VZ..DR/DT/DV.. [kW]

R = 1:5 ... R = 1:6

P_m [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
0.75	5.5 - 28	110.73	174	141	-								
	6.5 - 33	94.08*	169	122	-	S	47	VU/VZ	01	DT	80N4	37	368
	8.8 - 45	69.39	158	107	-	SF	47	VU/VZ	01	DT	80N4	41	-
	9.6 - 49	63.80*	146	98	-	SA	47	VU/VZ	01	DT	80N4	38	369
	11 - 57	54.59	127	85	-	SAF	47	VU/VZ	01	DT	80N4	40	-
	13 - 66	47.32	111	74	-								
	14 - 71	44.22*	104	70	-								
	16 - 83	37.66	88	59	-								
	17 - 89	35.10*	82	55	-								
	20 - 102	30.68	73	48	-								
	21 - 109	28.76	68	45	-								
	24 - 123	25.38*	61	40	-								
	27 - 139	22.50*	54	36	-								
	31 - 158	19.89	52	34	-	S	37	VU/VZ	01	DT	80N4	34	366
	34 - 172	18.24*	48	31	-	SF	37	VU/VZ	01	DT	80N4	35	-
	39 - 202	15.53	41	27	-	SA	37	VU/VZ	01	DT	80N4	34	367
	46 - 234	13.39	36	23	-	SAF	37	VU/VZ	01	DT	80N4	35	-
	49 - 251	12.48*	33	21	-								
	56 - 287	10.91	29	19	-								
	60 - 306	10.23	28	18	-								
	68 - 347	9.02*	25	16	-								
	77 - 392	8.00*	22	14	-								
	90 - 461	6.80*	19	12	-								
1.1	1.2 - 7.1	288.00*	1700	890	-	S	87	VU/VZ	21	DT	90L6	145	376
	1.3 - 7.9	258.18	1530	810	-	SF	87	VU/VZ	21	DT	90L6	165	-
	1.5 - 9.1	222.40*	1330	700	-	SA	87	VU/VZ	21	DT	90L6	140	377
	1.7 - 10	202.96	1230	645	-	SAF	87	VU/VZ	21	DT	90L6	155	-
	1.5 - 9.0	225.26	1260	675	-	S	77	VU/VZ	21	DT	90L6	105	374
	1.6 - 9.5	214.00*	1200	645	-	SF	77	VU/VZ	21	DT	90L6	115	-
	1.8 - 11	189.09	1070	575	-	SA	77	VU/VZ	21	DT	90L6	105	375
						SAF	77	VU/VZ	21	DT	90L6	115	-
	1.4 - 8.2	256.47	890	730	-	S	77	VU/VZ	11	DT	90L6	87	374
	1.6 - 9.4	225.26	785	650	-	SF	77	VU/VZ	11	DT	90L6	97	-
	1.7 - 9.9	214.00*	750	620	-	SA	77	VU/VZ	11	DT	90L6	86	375
	1.9 - 11	189.09	670	550	-	SAF	77	VU/VZ	11	DT	90L6	93	-
	2.1 - 13	256.47	960	495	-	S	77	VU/VZ	11	DT	90S4	85	374
	2.4 - 14	225.26	850	440	-	SF	77	VU/VZ	11	DT	90S4	95	-
	2.5 - 15	214.00*	810	420	-	SA	77	VU/VZ	11	DT	90S4	84	375
	2.8 - 17	189.09	730	375	-	SAF	77	VU/VZ	11	DT	90S4	91	-
	1.9 - 11	190.11	570	515	-	S	67	VU/VZ	11	DT	90L6	65	372
	2.0 - 12	180.60*	570	490	-	SF	67	VU/VZ	11	DT	90L6	71	-
	2.3 - 13	158.45	515	435	-	SA	67	VU/VZ	11	DT	90L6	66	373
	2.7 - 16	134.40*	445	375	-	SAF	67	VU/VZ	11	DT	90L6	70	-
	2.5 - 15	217.41	570	395	-								
	2.8 - 17	190.11	570	350	-	S	67	VU/VZ	11	DT	90S4	63	372
	3.0 - 18	180.60*	570	335	-	SF	67	VU/VZ	11	DT	90S4	69	-
	3.4 - 20	158.45	565	295	-	SA	67	VU/VZ	11	DT	90S4	64	373
	4.0 - 24	134.40*	490	255	-	SAF	67	VU/VZ	11	DT	90S4	68	-
	3.9 - 24	137.05	310	250	M1-6								
	4.2 - 25	128.10*	305	235	M1-6								
	4.8 - 29	110.73	300	205	-	S	57	VU/VZ	11	DT	90S4	54	370
	5.7 - 34	94.08*	300	176	-	SF	57	VU/VZ	11	DT	90S4	58	-
	6.4 - 38	84.00*	295	158	-	SA	57	VU/VZ	11	DT	90S4	54	371
	7.5 - 45	71.75*	265	137	-	SAF	57	VU/VZ	11	DT	90S4	56	-
	8.0 - 48	67.20*	250	128	-								



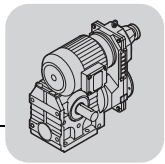
R = 1:5 ... R = 1:6																
P_m [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2}	⚠								m [kg]	
1.1	9.8	-	59	54.59	185	120	-									
	11	-	68	47.32	181	105	-									
	12	-	73	44.22*	180	98	-									
	14	-	84	38.23	177	85	-									
	17	-	99	32.48*	152	73	-									
	19	-	111	29.00*	137	66	-									
	22	-	130	24.77	119	56	M2									
	23	-	139	23.20*	112	53	M2,4-6	**S**	**47**	**VU/VZ**	**11**	**DT**	**90S4**		50	368
	26	-	158	20.33	106	49	-	**SF**	**47**	**VU/VZ**	**11**	**DT**	**90S4**		54	-
	30	-	183	17.62	93	43	-	**SA**	**47**	**VU/VZ**	**11**	**DT**	**90S4**		51	369
	33	-	196	16.47*	87	40	-	**SAF**	**47**	**VU/VZ**	**11**	**DT**	**90S4**		53	-
	38	-	226	14.24	76	35	-									
	44	-	266	12.10*	65	30	-									
	50	-	298	10.80*	58	26	-									
	58	-	349	9.23*	50	23	-									
	62	-	373	8.64*	47	21	-									
	74	-	442	7.28	40	18	-									
1.5	1.8	-	11	288.00*	1850	820	-	**S**	**87**	**VU/VZ**	**21**	**DT**	**90L4**		145	376
	2.0	-	12	258.18	1680	740	-	**SF**	**87**	**VU/VZ**	**21**	**DT**	**90L4**		165	-
	2.3	-	14	222.40*	1470	640	-	**SA**	**87**	**VU/VZ**	**21**	**DT**	**90L4**		140	377
	2.5	-	15	202.96	1350	590	-	**SAF**	**87**	**VU/VZ**	**21**	**DT**	**90L4**		155	-
	2.3	-	14	225.26	1270	620	-	**S**	**77**	**VU/VZ**	**21**	**DT**	**90L4**		105	374
	2.4	-	15	214.00*	1270	590	-	**SF**	**77**	**VU/VZ**	**21**	**DT**	**90L4**		115	-
	2.7	-	16	189.09	1180	530	-	**SA**	**77**	**VU/VZ**	**21**	**DT**	**90L4**		105	375
	3.1	-	19	161.60*	1030	455	-	**SAF**	**77**	**VU/VZ**	**21**	**DT**	**90L4**		115	-
	2.1	-	13	256.47	960	675	-	**S**	**77**	**VU/VZ**	**11**	**DT**	**90L4**		87	374
	2.4	-	14	225.26	850	595	-	**SF**	**77**	**VU/VZ**	**11**	**DT**	**90L4**		97	-
	2.5	-	15	214.00*	810	570	-	**SA**	**77**	**VU/VZ**	**11**	**DT**	**90L4**		86	375
	2.8	-	17	189.09	730	505	-	**SAF**	**77**	**VU/VZ**	**11**	**DT**	**90L4**		93	-
	3.0	-	18	180.60*	570	455	M2-6	**S**	**67**	**VU/VZ**	**11**	**DT**	**90L4**		65	372
	3.4	-	20	158.45	565	405	M1-6	**SF**	**67**	**VU/VZ**	**11**	**DT**	**90L4**		71	-
	4.0	-	24	134.40*	490	345	M1-6	**SA**	**67**	**VU/VZ**	**11**	**DT**	**90L4**		66	373
								SAF	**67**	**VU/VZ**	**11**	**DT**	**90L4**		70	-
	9.8	-	59	54.59	250	165	-									
	11	-	69	47.32	220	144	-									
	12	-	73	44.22*	205	134	-	**S**	**57**	**VU/VZ**	**11**	**DT**	**90L4**		56	370
	14	-	85	38.23	180	117	-	**SF**	**57**	**VU/VZ**	**11**	**DT**	**90L4**		60	-
	17	-	100	32.48*	155	100	-	**SA**	**57**	**VU/VZ**	**11**	**DT**	**90L4**		56	371
	19	-	112	29.00*	139	90	-	**SAF**	**57**	**VU/VZ**	**11**	**DT**	**90L4**		58	-
	22	-	131	24.77	120	77	-									
	23	-	140	23.20*	113	72	-									
	12	-	73	44.22*	180	133	M1-6									
	14	-	85	38.23	177	116	M1-6									
	17	-	100	32.48*	152	99	M1-6									
	26	-	160	20.33	106	67	-									
	30	-	184	17.62	93	58	-	**S**	**47**	**VU/VZ**	**11**	**DT**	**90L4**		52	368
	33	-	197	16.47*	87	54	-	**SF**	**47**	**VU/VZ**	**11**	**DT**	**90L4**		56	-
	38	-	228	14.24	76	47	-	**SA**	**47**	**VU/VZ**	**11**	**DT**	**90L4**		53	369
	44	-	268	12.10*	65	40	-	**SAF**	**47**	**VU/VZ**	**11**	**DT**	**90L4**		55	-
	50	-	300	10.80*	58	36	-									
	58	-	351	9.23*	50	31	-									
	62	-	375	8.64*	47	29	-									
	74	-	445	7.28	40	24	-									
2.2	1.2	-	7.1	286.40*	4160	1840	-	**S**	**97**	**VU/VZ**	**31**	**DV**	**112M6**		250	378
	1.3	-	7.7	262.22	3840	1690	-	**SF**	**97**	**VU/VZ**	**31**	**DV**	**112M6**		280	-
	1.5	-	8.8	231.67	3430	1510	-	**SA**	**97**	**VU/VZ**	**31**	**DV**	**112M6**		245	379
	1.7	-	10	196.52	2950	1290	-	**SAF**	**97**	**VU/VZ**	**31**	**DV**	**112M6**		270	-
	1.5	-	9.1	222.40*	2500	1400	-	**S**	**87**	**VU/VZ**	**31**	**DV**	**112M6**		190	376
	1.7	-	10	202.96	2500	1290	-	**SF**	**87**	**VU/VZ**	**31**	**DV**	**112M6**		210	-
	1.9	-	11	180.00*	2500	1160	-	**SA**	**87**	**VU/VZ**	**31**	**DV**	**112M6**		185	377
	2.3	-	13	151.30	2220	980	-	**SAF**	**87**	**VU/VZ**	**31**	**DV**	**112M6**		200	-



S..VU/VZ..DR/DT/DV.. [kW]

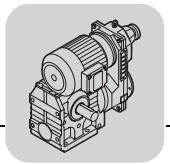
R = 1:5 ... R = 1:6

P_m [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
2.2	**1.8 - 11**	288.00*	2400	1200	-	**S**	**87**	**VU/VZ**	**21**	**DV**	**100M4**	150	376
	2.0 - 12	258.18	2170	1080	-	**SF**	**87**	**VU/VZ**	**21**	**DV**	**100M4**	170	-
	2.3 - 14	222.40*	1900	940	-	**SA**	**87**	**VU/VZ**	**21**	**DV**	**100M4**	150	377
	2.5 - 15	202.96	1750	860	-	**SAF**	**87**	**VU/VZ**	**21**	**DV**	**100M4**	165	-
	2.3 - 14	225.26	1270	910	-								
	2.4 - 15	214.00*	1270	870	-								
	2.7 - 16	189.09	1270	770	-								
	3.1 - 19	161.60*	1270	665	-	**S**	**77**	**VU/VZ**	**21**	**DV**	**100M4**	115	374
	3.4 - 21	148.15	1240	615	-	**SF**	**77**	**VU/VZ**	**21**	**DV**	**100M4**	125	-
	3.9 - 24	130.00*	1100	545	-	**SA**	**77**	**VU/VZ**	**21**	**DV**	**100M4**	115	375
	4.1 - 25	123.20*	1050	515	-	**SAF**	**77**	**VU/VZ**	**21**	**DV**	**100M4**	120	-
	4.7 - 29	107.83	930	455	-								
	5.2 - 32	97.14	850	415	-								
	6.0 - 37	85.22	755	365	-								
	4.8 - 29	106.75*	560	425	M1-6								
	5.0 - 31	100.80*	560	405	M1-6								
	7.8 - 47	65.63	570	305	-								
	8.2 - 50	62.35*	570	290	-								
	9.3 - 57	54.70	550	255	-								
	11 - 67	46.40*	470	220	-								
	12 - 74	41.89	425	198	-								
	14 - 85	36.85	380	175	-								
	15 - 90	34.80*	360	166	-								
	17 - 105	29.63	310	142	-	**S**	**67**	**VU/VZ**	**21**	**DV**	**100M4**	93	372
	19 - 116	26.93	285	129	M2	**SF**	**67**	**VU/VZ**	**21**	**DV**	**100M4**	99	-
	21 - 128	24.44	275	124	-	**SA**	**67**	**VU/VZ**	**21**	**DV**	**100M4**	94	373
	22 - 134	23.22*	260	118	-	**SAF**	**67**	**VU/VZ**	**21**	**DV**	**100M4**	98	-
	25 - 153	20.37	230	103	-								
	29 - 180	17.28*	198	88	-								
	33 - 200	15.60*	179	80	-								
	37 - 227	13.73*	159	70	-								
	39 - 240	12.96*	150	66	-								
	46 - 283	11.03	128	57	-								
	51 - 311	10.03	117	52	-								
	59 - 359	8.69	102	45	-								
	67 - 412	7.56*	89	39	-								
3.0	**1.2 - 7.1**	286.40*	4160	2510	-	**S**	**97**	**VU/VZ**	**31**	**DV**	**132S6**	255	378
	1.3 - 7.7	262.22	3840	2310	-	**SF**	**97**	**VU/VZ**	**31**	**DV**	**132S6**	285	-
	1.5 - 8.8	231.67	3430	2060	-	**SA**	**97**	**VU/VZ**	**31**	**DV**	**132S6**	250	379
	1.7 - 10	196.52	2950	1760	-	**SAF**	**97**	**VU/VZ**	**31**	**DV**	**132S6**	275	-
	1.5 - 9.1	222.40*	2500	1910	-	**S**	**87**	**VU/VZ**	**31**	**DV**	**132S6**	195	376
	1.7 - 10	202.96	2500	1760	-	**SF**	**87**	**VU/VZ**	**31**	**DV**	**132S6**	215	-
	1.9 - 11	180.00*	2500	1570	-	**SA**	**87**	**VU/VZ**	**31**	**DV**	**132S6**	190	377
	2.3 - 13	151.30	2220	1340	-	**SAF**	**87**	**VU/VZ**	**31**	**DV**	**132S6**	210	-
	1.8 - 11	288.00*	2400	1640	-	**S**	**87**	**VU/VZ**	**21**	**DV**	**100L4**	155	376
	2.0 - 12	258.18	2180	1480	-	**SF**	**87**	**VU/VZ**	**21**	**DV**	**100L4**	175	-
	2.3 - 14	222.40*	1900	1290	-	**SA**	**87**	**VU/VZ**	**21**	**DV**	**100L4**	150	377
	2.5 - 15	202.96	1750	1180	-	**SAF**	**87**	**VU/VZ**	**21**	**DV**	**100L4**	170	-
	2.7 - 16	189.09	1270	1060	M1-6								
	3.1 - 19	161.60*	1270	910	M1-6								
	3.4 - 21	148.15	1240	840	-	**S**	**77**	**VU/VZ**	**21**	**DV**	**100L4**	120	374
	3.9 - 24	130.00*	1100	745	-	**SF**	**77**	**VU/VZ**	**21**	**DV**	**100L4**	125	-
	4.1 - 25	123.20*	1050	710	-	**SA**	**77**	**VU/VZ**	**21**	**DV**	**100L4**	115	375
	4.7 - 29	107.83	930	625	-	**SAF**	**77**	**VU/VZ**	**21**	**DV**	**100L4**	125	-
	5.2 - 32	97.14	850	565	-								
	6.0 - 36	85.22	755	500	-								



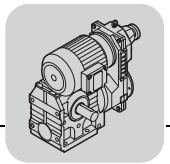
R = 1:5 ... R = 1:6

P_m [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
3.0	7.8 - 47	65.63	570	420	M1-6								
	8.2 - 50	62.35*	570	400	M1-6								
	9.3 - 57	54.70	550	350	M1-6								
	11 - 67	46.40*	470	300	M1-6								
	12 - 74	41.89	430	270	M1-6								
	14 - 84	36.85	380	240	M1-6								
	15 - 89	34.80*	360	225	M1-6								
	17 - 104	29.63	310	194	M1-6								
	19 - 115	26.93	285	177	M1-6	S	67	VU/VZ	21	DV	100L4	97	372
	21 - 127	24.44	275	169	-	SF	67	VU/VZ	21	DV	100L4	105	-
	22 - 133	23.22*	265	161	-	SA	67	VU/VZ	21	DV	100L4	98	373
	25 - 152	20.37	230	142	-	SAF	67	VU/VZ	21	DV	100L4	100	-
	29 - 179	17.28*	198	121	-								
	33 - 198	15.60*	179	109	-								
	37 - 225	13.73*	159	96	-								
	39 - 239	12.96*	150	91	-								
	46 - 281	11.03	129	78	-								
	51 - 308	10.03	117	71	-								
	59 - 356	8.69	102	61	-								
	67 - 409	7.56*	89	53	-								
4.0	1.4 - 8.8	231.67	4200	2760	-	S	97	VU/VZ	41	DV	132M6	320	378
	1.7 - 10	196.52	4200	2370	-	SF	97	VU/VZ	41	DV	132M6	355	-
	1.9 - 11	180.95	4200	2190	-	SA	97	VU/VZ	41	DV	132M6	315	379
	2.1 - 13	161.74	4200	1970	-	SAF	97	VU/VZ	41	DV	132M6	340	-
	1.8 - 11	286.40*	4200	2290	-	S	97	VU/VZ	31	DV	112M4	250	378
	1.9 - 12	262.22	4120	2100	-	SF	97	VU/VZ	31	DV	112M4	280	-
	2.2 - 13	231.67	3680	1870	-	SA	97	VU/VZ	31	DV	112M4	245	379
	2.6 - 16	196.52	3170	1600	-	SAF	97	VU/VZ	31	DV	112M4	270	-
	2.3 - 14	222.40*	2500	1750	M2								
	2.5 - 15	202.96	2480	1610	M2	S	87	VU/VZ	31	DV	112M4	190	376
	2.8 - 17	180.00*	2480	1440	M2,4-6	SF	87	VU/VZ	31	DV	112M4	210	-
	3.4 - 20	151.30	2390	1220	M2,4-6	SA	87	VU/VZ	31	DV	112M4	185	377
	3.7 - 22	139.05	2220	1120	-	SAF	87	VU/VZ	31	DV	112M4	200	-
	4.1 - 25	123.20*	1270	960	M1-6								
	4.7 - 28	107.83	1270	850	-								
	5.2 - 32	97.14	1270	770	-								
	6.0 - 36	85.22	1270	680	-								
	6.8 - 41	75.20*	1200	600	-								
	7.7 - 46	66.67	1080	535	-								
	9.0 - 54	56.92	930	460	-								
	9.5 - 57	53.87	1030	490	-	S	77	VU/VZ	31	DV	112M4	150	374
	10 - 62	49.38	950	450	-	SF	77	VU/VZ	31	DV	112M4	160	-
	12 - 71	43.33	840	400	-	SA	77	VU/VZ	31	DV	112M4	150	375
	12 - 75	41.07	800	380	-	SAF	77	VU/VZ	31	DV	112M4	155	-
	14 - 85	35.94	705	330	-								
	16 - 95	32.38	640	300	-								
	18 - 108	28.41	565	265	-								
	20 - 122	25.07	500	235	-								
	22 - 134	22.89	475	220	-								
	24 - 146	20.99	435	200	-								
	11 - 66	46.40*	570	410	M1-6								
	12 - 73	41.89	570	370	M1-6								
	14 - 83	36.85	570	325	M1-6								
	15 - 88	34.80*	570	310	M1-6								
	17 - 104	29.63	550	265	M1-6								
	30 - 178	17.28*	355	164	-	S	67	VU/VZ	31	DV	112M4	130	372
	33 - 197	15.60*	320	148	-	SF	67	VU/VZ	31	DV	112M4	140	-
	37 - 223	13.73*	285	131	-	SA	67	VU/VZ	31	DV	112M4	135	373
	39 - 237	12.96*	265	123	-	SAF	67	VU/VZ	31	DV	112M4	135	-
	46 - 278	11.03	230	105	-								
	51 - 306	10.03	210	96	M2								
	59 - 353	8.69	182	83	M2								
	68 - 406	7.56*	159	73	M2,4-6								



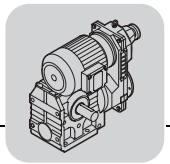
S..VU/VZ..DR/DT/DV.. [kW]

P_m [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
R = 1:5 ... R = 1:6													
5.5	**1.4 - 8.8**	231.67	4200	3770	-	**S**	**97**	**VU/VZ**	**41**	**DV**	**132ML6**	330	378
	1.7 - 10	196.52	4200	3230	-	**SF**	**97**	**VU/VZ**	**41**	**DV**	**132ML6**	365	-
	1.9 - 11	180.95	4200	2980	-	**SA**	**97**	**VU/VZ**	**41**	**DV**	**132ML6**	325	379
	2.1 - 13	161.74	4200	2680	-	**SAF**	**97**	**VU/VZ**	**41**	**DV**	**132ML6**	350	-
	1.8 - 11	286.40*	4200	3100	-								
	1.9 - 12	262.22	4110	2850	-	**S**	**97**	**VU/VZ**	**31**	**DV**	**132S4**	255	378
	2.2 - 13	231.67	3680	2540	-	**SF**	**97**	**VU/VZ**	**31**	**DV**	**132S4**	285	-
	2.6 - 16	196.52	3170	2170	M2	**SA**	**97**	**VU/VZ**	**31**	**DV**	**132S4**	250	379
	2.8 - 17	180.95	2940	2000	-	**SAF**	**97**	**VU/VZ**	**31**	**DV**	**132S4**	275	-
	3.4 - 20	151.30	2390	1650	M1-6	**S**	**87**	**VU/VZ**	**31**	**DV**	**132S4**	195	376
	3.7 - 22	139.05	2210	1520	-	**SF**	**87**	**VU/VZ**	**31**	**DV**	**132S4**	215	-
	4.1 - 25	123.48	1990	1360	-	**SA**	**87**	**VU/VZ**	**31**	**DV**	**132S4**	190	377
						SAF	**87**	**VU/VZ**	**31**	**DV**	**132S4**	210	-
	9.5 - 57	53.87	1030	665	-								
	10 - 63	49.38	950	610	-								
	12 - 71	43.33	840	540	-								
	12 - 75	41.07	800	510	-	**S**	**77**	**VU/VZ**	**31**	**DV**	**132S4**	155	374
	14 - 86	35.94	705	450	-	**SF**	**77**	**VU/VZ**	**31**	**DV**	**132S4**	165	-
	16 - 95	32.38	635	405	-	**SA**	**77**	**VU/VZ**	**31**	**DV**	**132S4**	155	375
	18 - 109	28.41	560	355	-	**SAF**	**77**	**VU/VZ**	**31**	**DV**	**132S4**	165	-
	20 - 123	25.07	500	315	-								
	22 - 135	22.89	475	295	-								
	24 - 147	20.99	435	275	-								
	30 - 179	17.28*	350	220	M1-6								
	33 - 198	15.60*	320	200	M1-6								
	37 - 225	13.73*	280	177	M1-6	**S**	**67**	**VU/VZ**	**31**	**DV**	**132S4**	140	372
	39 - 238	12.96*	265	167	M1-6	**SF**	**67**	**VU/VZ**	**31**	**DV**	**132S4**	145	-
	46 - 280	11.03	230	143	M1-6	**SA**	**67**	**VU/VZ**	**31**	**DV**	**132S4**	140	373
	51 - 308	10.03	210	130	M1-6	**SAF**	**67**	**VU/VZ**	**31**	**DV**	**132S4**	145	-
	59 - 355	8.69	182	113	M1-6								
	68 - 409	7.56*	159	98	M1-6								
7.5	**2.6 - 15**	196.52	4200	3040	M1-6								
	2.8 - 17	180.95	4200	2810	M1-6	**S**	**97**	**VU/VZ**	**41**	**DV**	**132M4**	320	378
	3.1 - 19	161.74	4200	2530	M1-6	**SF**	**97**	**VU/VZ**	**41**	**DV**	**132M4**	355	-
	3.5 - 21	145.60*	4200	2290	-	**SA**	**97**	**VU/VZ**	**41**	**DV**	**132M4**	315	379
	3.8 - 23	131.85	4200	2080	-	**SAF**	**97**	**VU/VZ**	**41**	**DV**	**132M4**	340	-
	8.8 - 53	57.00*	1980	1010	-	**S**	**87**	**VU/VZ**	**41**	**DV**	**132M4**	260	376
						SF	**87**	**VU/VZ**	**41**	**DV**	**132M4**	285	-
						SA	**87**	**VU/VZ**	**41**	**DV**	**132M4**	260	377
						SAF	**87**	**VU/VZ**	**41**	**DV**	**132M4**	275	-
	12 - 70	43.33	1120	755	M1-6								
	12 - 74	41.07	1120	720	M1-6								
	14 - 84	35.94	1120	630	M1-6								
	16 - 94	32.38	1120	570	M1-6								
	18 - 107	28.41	1120	500	M1-6								
	20 - 121	25.07	1020	445	M1-6								
	23 - 136	22.22	900	395	M1-6	**S**	**77**	**VU/VZ**	**41**	**DV**	**132M4**	225	374
	26 - 160	18.97	780	335	M1-6	**SF**	**77**	**VU/VZ**	**41**	**DV**	**132M4**	235	-
	27 - 165	18.42	705	335	M2	**SA**	**77**	**VU/VZ**	**41**	**DV**	**132M4**	225	375
	29 - 174	17.45	705	320	M2	**SAF**	**77**	**VU/VZ**	**41**	**DV**	**132M4**	230	-
	33 - 198	15.28	650	280	M2								
	37 - 220	13.76	590	250	M2								
	42 - 251	12.07	520	220	M1-6								
	47 - 285	10.65	460	196	M1-6								
	53 - 321	9.44	410	174	M1-6								
	62 - 376	8.06	350	148	M1-6								
9.2	**3.5 - 21**	145.60*	4200	2750	-	**S**	**97**	**VU/VZ**	**41**	**DV**	**132ML4**	330	378
	3.8 - 23	131.85	4200	2500	-	**SF**	**97**	**VU/VZ**	**41**	**DV**	**132ML4**	365	-
						SA	**97**	**VU/VZ**	**41**	**DV**	**132ML4**	325	379
						SAF	**97**	**VU/VZ**	**41**	**DV**	**132ML4**	350	-
	8.8 - 54	57.00*	1980	1210	-	**S**	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	270	376
						SF	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	295	-
						SA	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	270	377
						SAF	**87**	**VU/VZ**	**41**	**DV**	**132ML4**	285	-



R = 1:5 ... R = 1:6

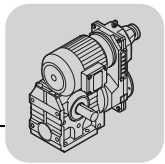
P_m [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
9.2	**12 - 70**	43.33	1120	910	M1-6								
	12 - 74	41.07	1120	860	M1-6								
	14 - 85	35.94	1120	755	M1-6								
	16 - 94	32.38	1120	685	M1-6								
	18 - 107	28.41	1120	600	M1-6								
	20 - 122	25.07	1010	530	M1-6								
	23 - 137	22.22	900	470	M1-6	**S**	**77**	**VU/VZ**	**41**	**DV**	**132ML4**	235	374
	27 - 161	18.97	775	405	M1-6	**SF**	**77**	**VU/VZ**	**41**	**DV**	**132ML4**	245	-
	27 - 166	18.42	705	405	M1-6	**SA**	**77**	**VU/VZ**	**41**	**DV**	**132ML4**	235	375
	29 - 175	17.45	705	385	M1-6	**SAF**	**77**	**VU/VZ**	**41**	**DV**	**132ML4**	240	-
	33 - 200	15.28	650	335	M1-6								
	37 - 222	13.76	590	305	M1-6								
	42 - 253	12.07	520	265	M1-6								
	47 - 287	10.65	460	235	M1-6								
	53 - 323	9.44	410	210	M1-6								
	62 - 379	8.06	350	178	M1-6								
11.0	**8.8 - 54**	57.00*	1980	1450	-								
	11 - 64	47.91	1940	1220	-								
	11 - 69	44.03	1790	1130	-								
	13 - 78	39.10	1590	1000	-	**S**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	275	376
	14 - 87	34.96*	1430	900	-	**SF**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	295	-
	16 - 97	31.43	1290	810	-	**SA**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	275	377
	18 - 112	27.28	1130	705	-	**SAF**	**87**	**VU/VZ**	**41**	**DV**	**160M4**	290	-
	20 - 120	25.50*	1090	675	-								
	23 - 142	21.43	920	570	-								
	26 - 155	19.70	850	525	-								
	27 - 166	18.42	705	485	M1-6								
	29 - 175	17.45	705	460	M1-6								
	33 - 200	15.28	650	405	M1-6	**S**	**77**	**VU/VZ**	**41**	**DV**	**160M4**	240	374
	37 - 222	13.76	590	365	M1-6	**SF**	**77**	**VU/VZ**	**41**	**DV**	**160M4**	250	-
	42 - 253	12.07	520	320	M1-6	**SA**	**77**	**VU/VZ**	**41**	**DV**	**160M4**	240	375
	47 - 287	10.65	460	280	M1-6	**SAF**	**77**	**VU/VZ**	**41**	**DV**	**160M4**	245	-
	53 - 323	9.44	410	250	M1-6								
	62 - 379	8.06	350	215	M1-6								
15.0	**9.2 - 55**	55.79	4050	1950	-								
	10 - 62	49.87	3640	1740	-								
	11 - 69	44.89	3290	1570	-								
	13 - 76	40.65	2990	1420	-								
	14 - 86	36.05	2670	1270	-								
	16 - 95	32.60	2420	1150	-								
	19 - 117	26.39	2030	950	-	**S**	**97**	**VU**	**51**	**DV**	**160L4**	445	378
	22 - 131	23.59	1820	850	-	**SF**	**97**	**VU**	**51**	**DV**	**160L4**	480	-
	24 - 146	21.23	1640	765	-	**SA**	**97**	**VU**	**51**	**DV**	**160L4**	440	379
	27 - 161	19.23	1490	695	-	**SAF**	**97**	**VU**	**51**	**DV**	**160L4**	465	-
	30 - 182	17.05	1320	615	-								
	33 - 201	15.42	1200	560	-								
	39 - 237	13.07	1020	475	-								
	45 - 271	11.41	890	415	-								
	54 - 324	9.55	750	345	-								
	62 - 375	8.26	650	300	-								
	13 - 79	39.10	1980	1350	M1-6								
	15 - 89	34.96*	1980	1210	M1-6								
	26 - 157	19.70	1410	705	M1-6	**S**	**87**	**VU**	**51**	**DV**	**160L4**	385	376
	29 - 177	17.49	1330	625	M1-6	**SF**	**87**	**VU**	**51**	**DV**	**160L4**	405	-
	33 - 198	15.64*	1190	560	M1-6	**SA**	**87**	**VU**	**51**	**DV**	**160L4**	385	377
	37 - 220	14.06	1080	505	M1-6	**SAF**	**87**	**VU**	**51**	**DV**	**160L4**	400	-
	42 - 254	12.21	940	440	M1-6								
	47 - 283	10.93	840	395	M1-6								



S..VU/VZ..DR/DT/DV.. [kW]

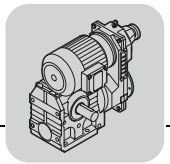
R = 1:5 ... R = 1:6

P_m [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
18.5	**9.2 - 56**	55.79	4050	2400	-								
	10 - 62	49.87	3630	2140	-								
	11 - 69	44.89	3290	1930	-								
	13 - 76	40.65	2990	1750	-								
	14 - 86	36.05	2660	1560	-								
	16 - 95	32.60	2420	1410	-								
	19 - 118	26.39	2020	1170	-	**S**	**97**	**VU**	**51**	**DV**	**180M4**	495	378
	22 - 132	23.59	1820	1050	-	**SF**	**97**	**VU**	**51**	**DV**	**180M4**	530	-
	24 - 146	21.23	1640	940	-	**SA**	**97**	**VU**	**51**	**DV**	**180M4**	490	379
	27 - 162	19.23	1490	860	-	**SAF**	**97**	**VU**	**51**	**DV**	**180M4**	520	-
	30 - 182	17.05	1320	760	-								
	33 - 201	15.42	1200	690	-								
	39 - 238	13.07	1020	585	-								
	45 - 272	11.41	890	510	-								
	54 - 325	9.55	750	430	-								
	26 - 158	19.70	1410	870	M1-6								
	29 - 178	17.49	1330	770	M1-6	**S**	**87**	**VU**	**51**	**DV**	**180M4**	435	376
	33 - 199	15.64*	1190	690	M1-6	**SF**	**87**	**VU**	**51**	**DV**	**180M4**	455	-
	37 - 221	14.06	1080	620	M1-6	**SA**	**87**	**VU**	**51**	**DV**	**180M4**	435	377
	42 - 254	12.21	940	540	M1-6	**SAF**	**87**	**VU**	**51**	**DV**	**180M4**	450	-
	47 - 284	10.93	840	485	M1-6								
22	**9.2 - 56**	55.79	4050	2840	-								
	10 - 62	49.87	3630	2540	-								
	11 - 69	44.89	3290	2290	-								
	13 - 76	40.65	2990	2080	-								
	14 - 86	36.05	2660	1850	-								
	16 - 95	32.60	2420	1670	-	**S**	**97**	**VU**	**51**	**DV**	**180L4**	510	378
	19 - 118	26.39	2020	1390	-	**SF**	**97**	**VU**	**51**	**DV**	**180L4**	540	-
	22 - 132	23.59	1820	1240	-	**SA**	**97**	**VU**	**51**	**DV**	**180L4**	500	379
	24 - 146	21.23	1640	1120	-	**SAF**	**97**	**VU**	**51**	**DV**	**180L4**	530	-
	27 - 162	19.23	1490	1010	-								
	30 - 182	17.05	1320	900	-								
	33 - 201	15.42	1200	820	-								
	39 - 238	13.07	1020	690	-								
	29 - 178	17.49	1330	910	M1-6	**S**	**87**	**VU**	**51**	**DV**	**180L4**	450	376
	33 - 199	15.64*	1190	820	M1-6	**SF**	**87**	**VU**	**51**	**DV**	**180L4**	470	-
						SA	**87**	**VU**	**51**	**DV**	**180L4**	445	377
						SAF	**87**	**VU**	**51**	**DV**	**180L4**	465	-



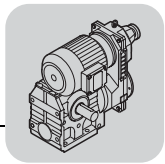
R = 1:7... R = 1:8

P_m [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
0.37	1.4 - 9.7	256.47	900	210	-	S	77	VU/VZ	11	DT	80K6	79	374
	1.6 - 11	225.26	785	185	-	SF	77	VU/VZ	11	DT	80K6	88	-
	1.7 - 12	214.00*	750	176	-	SA	77	VU/VZ	11	DT	80K6	78	375
	1.9 - 13	189.09	670	157	-	SAF	77	VU/VZ	11	DT	80K6	85	-
	1.6 - 11	217.41	570	165	-								
	1.9 - 13	190.11	570	147	-	S	67	VU/VZ	11	DT	80K6	57	372
	2.0 - 14	180.60*	570	140	-	SF	67	VU/VZ	11	DT	80K6	63	-
	2.3 - 16	158.45	515	124	-	SA	67	VU/VZ	11	DT	80K6	58	373
	2.7 - 18	134.40*	445	107	-	SAF	67	VU/VZ	11	DT	80K6	62	-
	2.3 - 16	158.12	330	118	-	S	57	VU/VZ	11	DT	80K6	48	370
	2.6 - 18	137.05	330	104	-	SF	57	VU/VZ	11	DT	80K6	52	-
	2.8 - 19	128.10*	330	98	-	SA	57	VU/VZ	11	DT	80K6	48	371
						SAF	57	VU/VZ	11	DT	80K6	50	-
	2.3 - 16	158.12	185	114	-								
	2.6 - 18	137.05	185	101	-								
	2.8 - 19	128.10*	185	95	-								
	3.2 - 22	110.73	185	83	-								
	3.8 - 26	94.08*	185	72	-								
	4.3 - 29	84.00*	185	65	-								
	5.0 - 34	71.75*	185	56	-								
	5.3 - 37	67.20*	185	53	-								
	6.5 - 45	54.59	185	51	-								
	7.6 - 52	47.32	185	45	-								
	8.1 - 56	44.22*	185	42	-								
	9.3 - 65	38.23	166	36	-	S	47	VU/VZ	11	DT	80K6	44	368
	11 - 76	32.48*	143	31	-	SF	47	VU/VZ	11	DT	80K6	48	-
	12 - 85	29.00*	129	28	-	SA	47	VU/VZ	11	DT	80K6	45	369
	14 - 100	24.77	111	24	-	SAF	47	VU/VZ	11	DT	80K6	47	-
	15 - 107	23.20*	105	23	-								
	18 - 122	20.33	102	21	-								
	20 - 140	17.62	89	18	-								
	22 - 150	16.47*	83	17	-								
	25 - 174	14.24	72	15	-								
	30 - 205	12.10*	62	13	-								
	33 - 229	10.80*	56	11	-								
	39 - 268	9.23*	48	9.8	-								
	41 - 286	8.64*	45	9.1	-								
	49 - 340	7.28	38	7.7	-								
0.55	1.4 - 9.7	256.47	900	310	-	S	77	VU/VZ	11	DT	80N6	80	374
	1.6 - 11	225.26	785	275	-	SF	77	VU/VZ	11	DT	80N6	89	-
	1.7 - 12	214.00*	750	265	-	SA	77	VU/VZ	11	DT	80N6	79	375
	1.9 - 13	189.09	670	235	-	SAF	77	VU/VZ	11	DT	80N6	86	-
	1.6 - 11	217.41	570	250	-								
	1.9 - 13	190.11	570	220	-	S	67	VU/VZ	11	DT	80N6	58	372
	2.0 - 14	180.60*	570	210	-	SF	67	VU/VZ	11	DT	80N6	64	-
	2.3 - 16	158.45	515	187	-	SA	67	VU/VZ	11	DT	80N6	59	373
	2.7 - 18	134.40*	445	161	-	SAF	67	VU/VZ	11	DT	80N6	63	-
	2.3 - 16	158.12	330	177	-	S	57	VU/VZ	11	DT	80N6	49	370
	2.6 - 18	137.05	330	156	-	SF	57	VU/VZ	11	DT	80N6	53	-
	2.8 - 19	128.10*	330	147	-	SA	57	VU/VZ	11	DT	80N6	49	371
						SAF	57	VU/VZ	11	DT	80N6	51	-

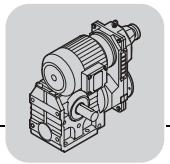


S..VU/VZ..DR/DT/DV.. [kW]

R = 1:7... R = 1:8																
P_m [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
0.55	2.6	-	18	137.05	185	151	-									
	2.8	-	19	128.10*	185	142	-									
	3.2	-	22	110.73	185	125	-									
	3.8	-	26	94.08*	185	108	-									
	4.3	-	29	84.00*	185	97	-									
	5.0	-	34	71.75*	185	85	-									
	5.3	-	37	67.20*	185	80	-									
	6.5	-	45	54.59	185	76	-									
	7.6	-	52	47.32	185	67	-									
	8.1	-	56	44.22*	185	63	-									
	9.3	-	65	38.23	166	55	-	S	47	VU/VZ	11	DT	80N6		45	368
	11	-	76	32.48*	143	47	-	SF	47	VU/VZ	11	DT	80N6		49	-
	12	-	85	29.00*	129	42	-	SA	47	VU/VZ	11	DT	80N6		46	369
	14	-	100	24.77	111	36	-	SAF	47	VU/VZ	11	DT	80N6		48	-
	15	-	107	23.20*	105	34	-									
	18	-	122	20.33	102	32	-									
	20	-	140	17.62	89	27	-									
	22	-	150	16.47*	83	26	-									
	25	-	174	14.24	72	22	-									
	30	-	205	12.10*	62	19	-									
	33	-	229	10.80*	56	17	-									
	39	-	268	9.23*	48	15	-									
	41	-	286	8.64*	45	14	-									
	49	-	340	7.28	38	12	-									
0.75	1.2	-	8.9	288.00*	1710	495	-	S	87	VU/VZ	21	DT	90S6		140	376
	1.3	-	10	258.18	1530	445	-	SF	87	VU/VZ	21	DT	90S6		165	-
	1.5	-	12	222.40*	1340	390	-	SA	87	VU/VZ	21	DT	90S6		140	377
	1.7	-	13	202.96	1230	355	-	SAF	87	VU/VZ	21	DT	90S6		155	-
	1.4	-	9.7	256.47	900	430	-	S	77	VU/VZ	11	DT	90S6		85	374
	1.6	-	11	225.26	785	380	-	SF	77	VU/VZ	11	DT	90S6		95	-
	1.7	-	12	214.00*	750	365	-	SA	77	VU/VZ	11	DT	90S6		84	375
								SAF	77	VU/VZ	11	DT	90S6		91	-
	1.6	-	11	217.41	570	340	-	S	67	VU/VZ	11	DT	90S6		63	372
	1.9	-	13	190.11	570	305	-	SF	67	VU/VZ	11	DT	90S6		69	-
	2.0	-	14	180.60*	570	290	-	SA	67	VU/VZ	11	DT	90S6		64	373
	2.3	-	16	158.45	515	255	-	SAF	67	VU/VZ	11	DT	90S6		68	-
	2.7	-	18	134.40*	445	220	-									
	2.3	-	16	158.12	330	245	-	S	57	VU/VZ	11	DT	90S6		54	370
	2.6	-	18	137.05	330	215	-	SF	57	VU/VZ	11	DT	90S6		58	-
	2.8	-	19	128.10*	330	200	-	SA	57	VU/VZ	11	DT	90S6		54	371
	3.2	-	22	110.73	330	177	-	SAF	57	VU/VZ	11	DT	90S6		56	-
	3.8	-	26	94.08*	185	149	M1-6									
	4.3	-	29	84.00*	185	134	M1-6									
	5.0	-	34	71.75*	185	116	M1-6									
	5.3	-	37	67.20*	185	110	M1-6									
	6.5	-	45	54.59	185	105	-									
	7.6	-	52	47.32	185	92	-									
	8.1	-	56	44.22*	185	86	-									
	9.3	-	65	38.23	166	75	-									
	11	-	76	32.48*	143	64	-	S	47	VU/VZ	11	DT	90S6		50	368
	12	-	85	29.00*	129	58	-	SF	47	VU/VZ	11	DT	90S6		54	-
	14	-	100	24.77	111	50	-	SA	47	VU/VZ	11	DT	90S6		51	369
	15	-	107	23.20*	105	47	-	SAF	47	VU/VZ	11	DT	90S6		53	-
	18	-	122	20.33	102	43	-									
	20	-	140	17.62	89	38	-									
	22	-	150	16.47*	83	35	-									
	25	-	174	14.24	72	31	-									
	30	-	205	12.10*	62	26	-									
	33	-	229	10.80*	56	24	-									
	39	-	268	9.23*	48	20	-									
	41	-	286	8.64*	45	19	-									
	49	-	340	7.28	38	16	-									

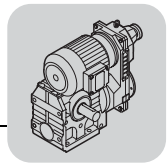


R = 1:7... R = 1:8															
P_m [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
1.1	1.2	-	9.1	288.00*	1700	700	-	S	87	VU/VZ	21	DT	90L6	145	376
	1.3	-	10	258.18	1530	635	-	SF	87	VU/VZ	21	DT	90L6	165	-
	1.5	-	12	222.40*	1330	550	-	SA	87	VU/VZ	21	DT	90L6	140	377
	1.7	-	13	202.96	1230	505	-	SAF	87	VU/VZ	21	DT	90L6	155	-
	1.4	-	9.9	256.47	890	625	-	S	77	VU/VZ	11	DT	90L6	87	374
	1.6	-	11	225.26	785	555	-	SF	77	VU/VZ	11	DT	90L6	97	-
	1.7	-	12	214.00*	750	530	-	SA	77	VU/VZ	11	DT	90L6	86	375
	1.9	-	13	189.09	670	470	-	SAF	77	VU/VZ	11	DT	90L6	93	-
	1.9	-	13	190.11	570	440	-	S	67	VU/VZ	11	DT	90L6	65	372
	2.0	-	14	180.60*	570	420	-	SF	67	VU/VZ	11	DT	90L6	71	-
	2.3	-	16	158.45	515	375	-	SA	67	VU/VZ	11	DT	90L6	66	373
	2.7	-	19	134.40*	445	320	-	SAF	67	VU/VZ	11	DT	90L6	70	-
	3.8	-	27	94.08*	305	220	-								
	4.3	-	30	84.00*	275	200	-	S	57	VU/VZ	11	DT	90L6	56	370
	5.0	-	35	71.75*	240	172	-	SF	57	VU/VZ	11	DT	90L6	60	-
	5.3	-	38	67.20*	225	162	-	SA	57	VU/VZ	11	DT	90L6	56	371
	6.6	-	46	54.59	235	153	-	SAF	57	VU/VZ	11	DT	90L6	58	-
	7.6	-	53	47.32	185	132	-								
	8.1	-	57	44.22*	185	124	-								
	9.4	-	66	38.23	166	108	-								
	11	-	78	32.48*	142	93	-								
	12	-	87	29.00*	128	83	-								
	14	-	102	24.77	111	71	-								
	15	-	109	23.20*	104	67	-	S	47	VU/VZ	11	DT	90L6	52	368
	18	-	124	20.33	101	62	-	SF	47	VU/VZ	11	DT	90L6	56	-
	20	-	144	17.62	88	54	-	SA	47	VU/VZ	11	DT	90L6	53	369
	22	-	154	16.47*	83	51	-	SAF	47	VU/VZ	11	DT	90L6	55	-
	25	-	178	14.24	72	44	-								
	30	-	209	12.10*	62	38	-								
	33	-	234	10.80*	55	34	-								
	39	-	274	9.23*	48	29	-								
	42	-	293	8.64*	45	27	-								
	49	-	348	7.28	38	23	-								
1.5	1.2	-	9.1	288.00*	2230	960	-	S	87	VU/VZ	21	DV	100M6	150	376
	1.3	-	10	258.18	2010	870	-	SF	87	VU/VZ	21	DV	100M6	170	-
	1.5	-	12	222.40*	1750	755	-	SA	87	VU/VZ	21	DV	100M6	150	377
	1.7	-	13	202.96	1610	690	-	SAF	87	VU/VZ	21	DV	100M6	165	-
	1.5	-	12	225.26	1270	725	-	S	77	VU/VZ	21	DV	100M6	115	374
	1.6	-	12	214.00*	1270	695	-	SF	77	VU/VZ	21	DV	100M6	125	-
	1.8	-	14	189.09	1270	620	-	SA	77	VU/VZ	21	DV	100M6	115	375
	2.1	-	16	161.60*	1220	535	-	SAF	77	VU/VZ	21	DV	100M6	120	-



S..VU/VZ..DR/DT/DV.. [kW]

R = 1:7... R = 1:8															
P_m [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
1.5	2.5	-	20	134.40*	570	420	M2								
	2.8	-	22	121.33	570	385	M2								
	3.2	-	25	106.75*	570	340	M1-6								
	3.4	-	26	100.80*	570	325	M1-6								
	4.0	-	31	85.83	570	280	M1-6								
	4.4	-	34	78.00*	570	255	M1-6								
	5.2	-	40	65.63	570	245	-								
	5.5	-	42	62.35*	570	235	-								
	6.2	-	48	54.70	515	205	-								
	7.3	-	57	46.40*	440	176	-								
	8.1	-	63	41.89	400	160	-								
	9.2	-	71	36.85	355	141	-	S	67	VU/VZ	21	DV	100M6	93	372
	9.8	-	76	34.80*	335	134	-	SF	67	VU/VZ	21	DV	100M6	99	-
	11	-	89	29.63	290	114	-	SA	67	VU/VZ	21	DV	100M6	94	373
	13	-	98	26.93	265	104	-	SAF	67	VU/VZ	21	DV	100M6	98	-
	14	-	108	24.44	265	100	-								
	15	-	113	23.22*	250	95	-								
	17	-	129	20.37	220	83	-								
	20	-	152	17.28*	189	71	-								
	22	-	169	15.60*	171	64	-								
	25	-	192	13.73*	152	57	-								
	26	-	203	12.96*	143	54	-								
	31	-	239	11.03	123	46	-								
	34	-	262	10.03	112	42	-								
	39	-	303	8.69	98	36	-								
	45	-	348	7.56*	86	32	-								
2.2	1.2	-	9.4	286.40*	4160	1410	-	S	97	VU/VZ	31	DV	112M6	250	378
	1.3	-	10	262.22	3840	1300	-	SF	97	VU/VZ	31	DV	112M6	280	-
	1.5	-	12	231.67	3430	1160	-	SA	97	VU/VZ	31	DV	112M6	245	379
	1.7	-	14	196.52	2950	990	-	SAF	97	VU/VZ	31	DV	112M6	270	-
	1.5	-	12	222.40*	2500	1080	-	S	87	VU/VZ	31	DV	112M6	190	376
	1.7	-	13	202.96	2500	990	-	SF	87	VU/VZ	31	DV	112M6	210	-
	1.9	-	15	180.00*	2500	890	-	SA	87	VU/VZ	31	DV	112M6	185	377
	2.3	-	18	151.30	2220	750	-	SAF	87	VU/VZ	31	DV	112M6	200	-
	2.1	-	17	161.60*	1270	765	-								
	2.3	-	18	148.15	1270	705	-								
	2.6	-	21	130.00*	1270	625	-								
	2.8	-	22	123.20*	1270	595	-	S	77	VU/VZ	31	DV	112M6	150	374
	3.2	-	25	107.83	1270	525	-	SF	77	VU/VZ	31	DV	112M6	160	-
	3.5	-	28	97.14	1270	475	-	SA	77	VU/VZ	31	DV	112M6	150	375
	4.0	-	32	85.22	1240	420	-	SAF	77	VU/VZ	31	DV	112M6	155	-
	4.5	-	36	75.20*	1110	375	-								
	5.1	-	40	66.67	1000	330	-								
	3.4	-	27	100.80*	570	465	M1-6								
	4.0	-	31	85.83	570	400	M1-6								
	4.4	-	34	78.00*	570	365	M1-6								
	7.4	-	58	46.40*	570	250	-								
	8.2	-	64	41.89	570	230	-								
	9.3	-	73	36.85	570	200	-								
	9.8	-	77	34.80*	570	191	-								
	12	-	91	29.63	520	164	-								
	13	-	100	26.93	475	149	-	S	67	VU/VZ	31	DV	112M6	130	372
	15	-	115	23.33	420	130	-	SF	67	VU/VZ	31	DV	112M6	140	-
	17	-	132	20.30*	365	113	M2	SA	67	VU/VZ	31	DV	112M6	135	373
	20	-	156	17.28*	340	102	-	SAF	67	VU/VZ	31	DV	112M6	135	-
	22	-	172	15.60*	310	92	-								
	25	-	196	13.73*	275	81	-								
	26	-	207	12.96*	260	77	-								
	31	-	244	11.03	220	65	-								
	34	-	268	10.03	200	60	-								
	39	-	309	8.69	176	52	-								
	45	-	356	7.56*	154	45	-								



R = 1:7... R = 1:8

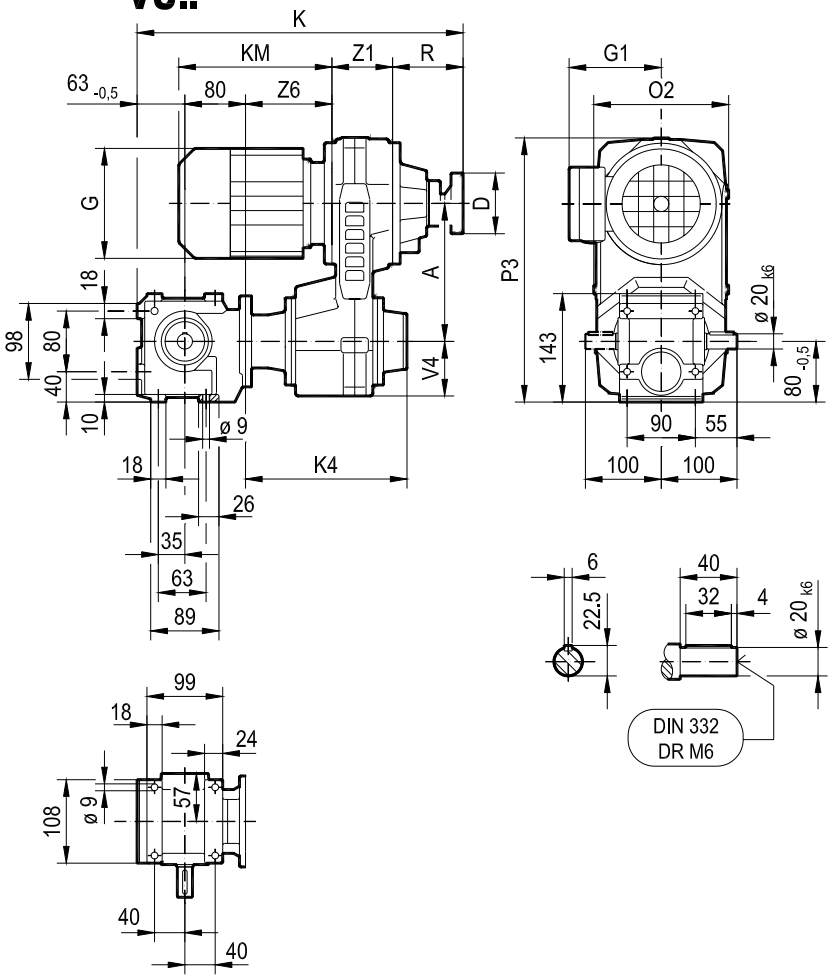
P_m [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
3.0	1.2 - 9.4	286.40*	4160	1920	-	S	97	VU/VZ	31	DV	132S6	255	378
	1.3 - 10	262.22	3840	1770	-	SF	97	VU/VZ	31	DV	132S6	285	-
	1.5 - 12	231.67	3430	1570	-	SA	97	VU/VZ	31	DV	132S6	250	379
	1.7 - 14	196.52	2950	1350	-	SAF	97	VU/VZ	31	DV	132S6	275	-
	1.5 - 12	222.40*	2500	1470	-	S	87	VU/VZ	31	DV	132S6	195	376
	1.7 - 13	202.96	2500	1350	-	SF	87	VU/VZ	31	DV	132S6	215	-
	1.9 - 15	180.00*	2500	1210	-	SA	87	VU/VZ	31	DV	132S6	190	377
	2.3 - 18	151.30	2220	1020	-	SAF	87	VU/VZ	31	DV	132S6	210	-
	2.1 - 17	161.60*	1270	1040	M1-6								
	2.3 - 18	148.15	1270	960	M1-6								
	2.6 - 21	130.00*	1270	850	M1-6								
	2.8 - 22	123.20*	1270	810	M1-6	S	77	VU/VZ	31	DV	132S6	155	374
	3.2 - 25	107.83	1270	715	-	SF	77	VU/VZ	31	DV	132S6	165	-
	3.5 - 28	97.14	1270	645	-	SA	77	VU/VZ	31	DV	132S6	155	375
	4.0 - 32	85.22	1240	570	-	SAF	77	VU/VZ	31	DV	132S6	165	-
	4.5 - 36	75.20*	1110	505	-								
	5.1 - 40	66.67	1000	450	-								
	7.4 - 58	46.40*	570	345	M1-6								
	8.2 - 64	41.89	570	310	M1-6								
	9.3 - 73	36.85	570	275	M1-6								
	9.8 - 77	34.80*	570	260	M1-6								
	12 - 91	29.63	520	225	M1-6								
	13 - 100	26.93	475	205	M1-6								
	15 - 115	23.33	420	176	M1-6	S	67	VU/VZ	31	DV	132S6	140	372
	17 - 132	20.30*	365	154	M1-6	SF	67	VU/VZ	31	DV	132S6	145	-
	20 - 156	17.28*	340	138	-	SA	67	VU/VZ	31	DV	132S6	140	373
	22 - 172	15.60*	310	125	-	SAF	67	VU/VZ	31	DV	132S6	145	-
	25 - 196	13.73*	275	110	-								
	26 - 207	12.96*	260	104	-								
	31 - 244	11.03	220	89	-								
	34 - 268	10.03	200	81	-								
	39 - 309	8.69	176	70	-								
	45 - 356	7.56*	154	61	-								

12.3 S..VU/VZ..DR/DT/DV.. [mm]

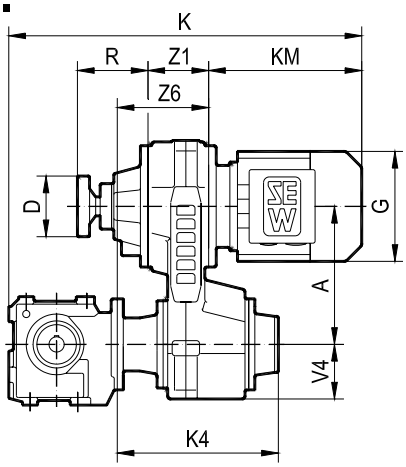
14 107 001

S37..

VU..



VZ..

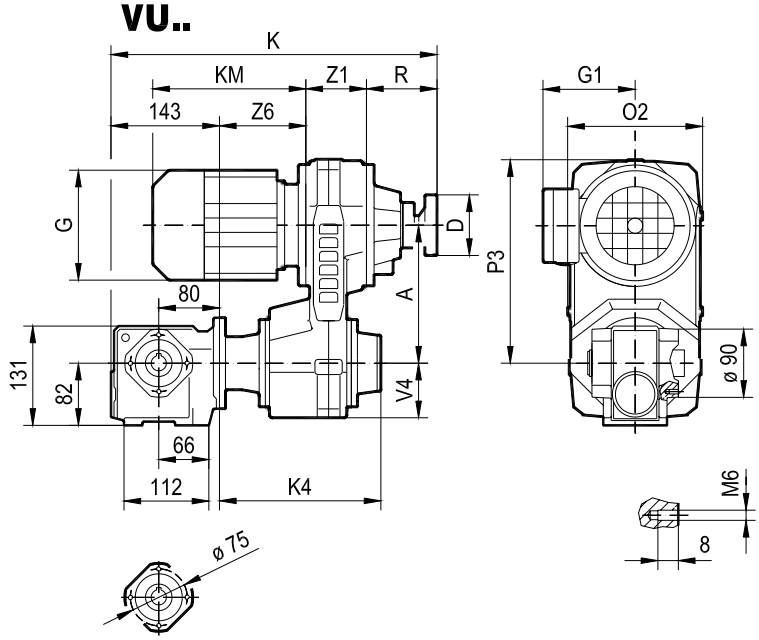


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
S37	VU01 VZ01	DR63..	182	80	132	105	435	451	187	213	176	349	98	72	80	114	121
		DT71D	182	80	145	122	435	466	202	213	176	349	98	72	80	114	121
		DT80..	182	80	145	122	435	516	252	213	176	349	98	72	80	114	121

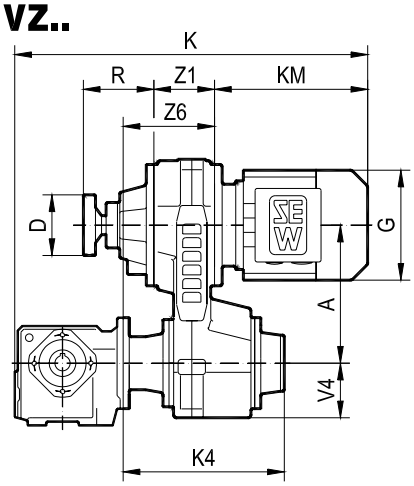
14 108 001

SA37..

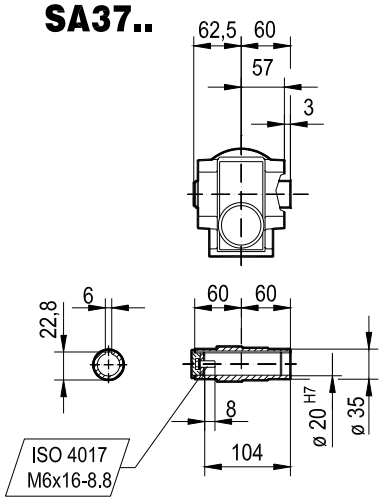
VU..



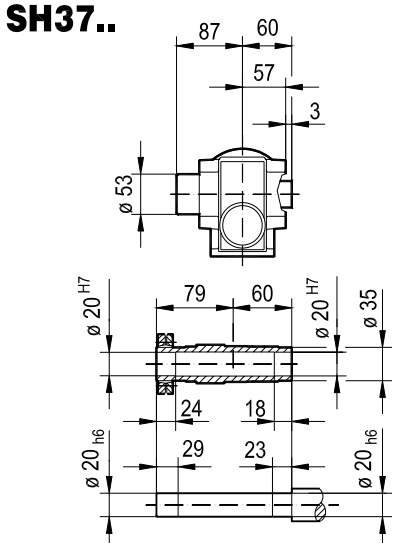
VZ..



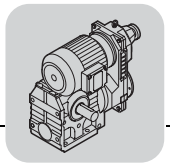
SA37..



SH37..



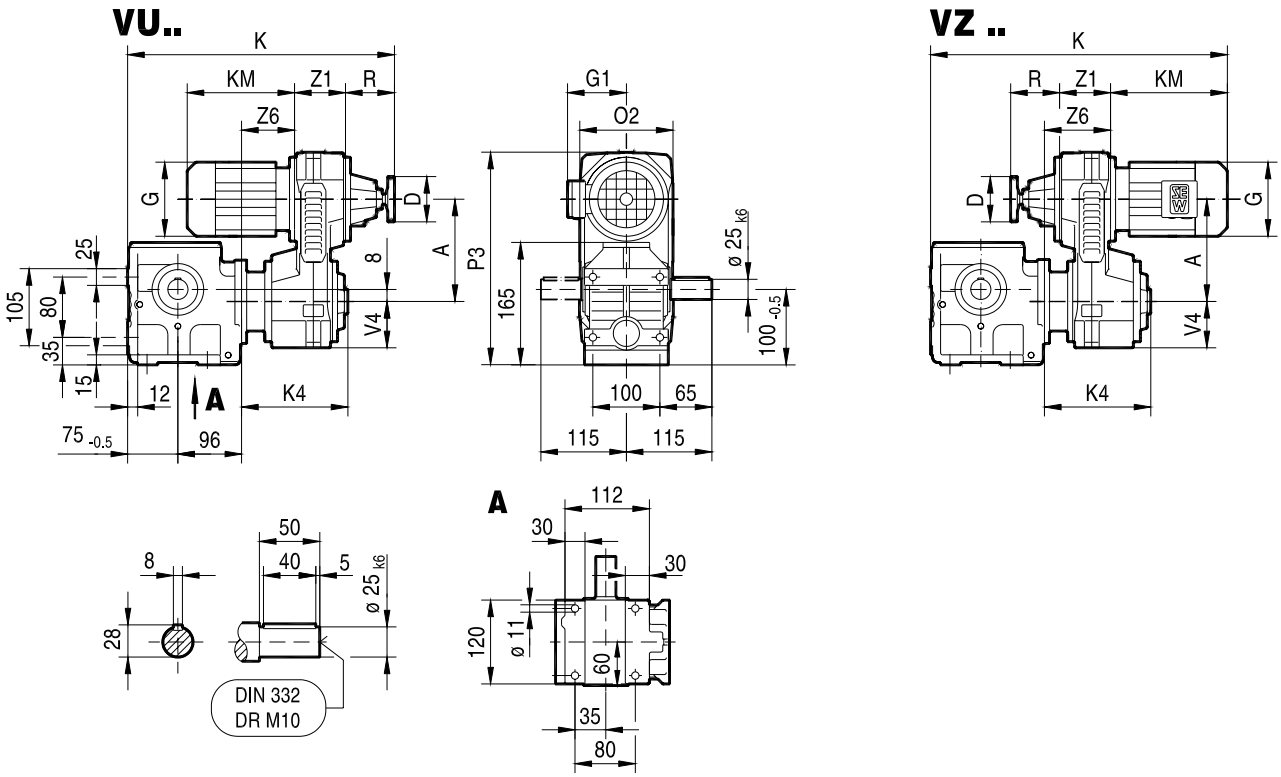
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
SA37 SH37	**VU01 VZ01**	**DR63..**	182	80	132	105	435	451	187	213	176	269	98	72	80	114	121
		DT71D	182	80	145	122	435	466	202	213	176	269	98	72	80	114	121
		DT80..	182	80	145	122	435	516	252	213	176	269	98	72	80	114	121



S..VU/VZ..DR/DT/DV.. [mm]

14 109 001

S47..

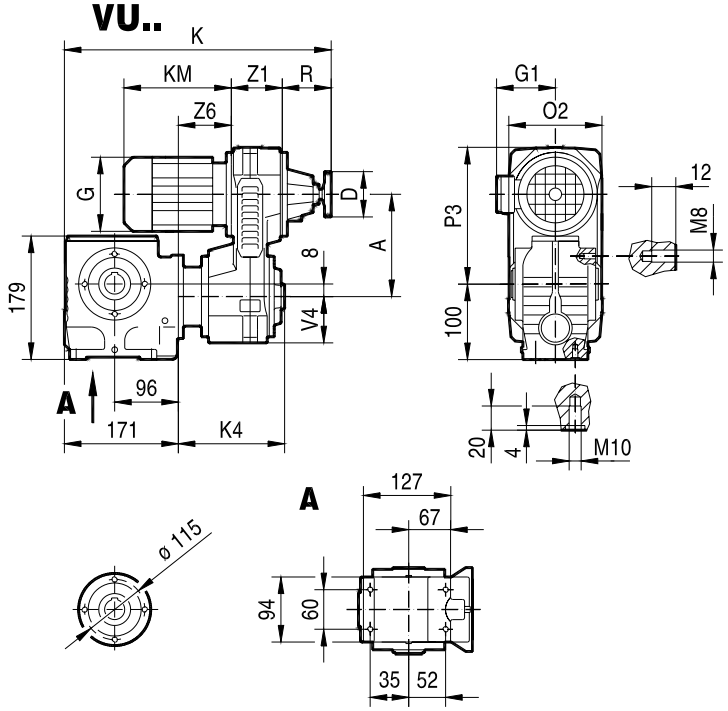


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
S47	VU01 VZ01	DR63..	182	80	132	105	463	479	187	213	176	361	98	72	80	114	121
		DT71D	182	80	145	122	463	494	202	213	176	361	98	72	80	114	121
		DT80..	182	80	145	122	463	544	252	213	176	361	98	72	80	114	121
	VU11 VZ11	DT80..	232	100	145	122	508	573	252	238	183	414	117	88	98	122	150
		DT90..	232	100	197	154	508	594	273	238	183	414	117	88	98	122	150

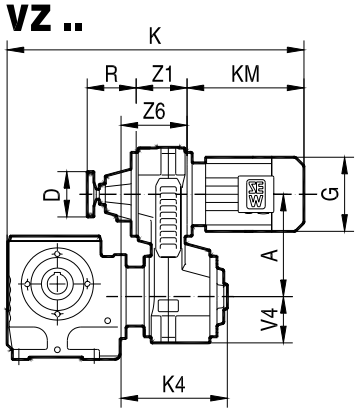
14 110 001

SA47..

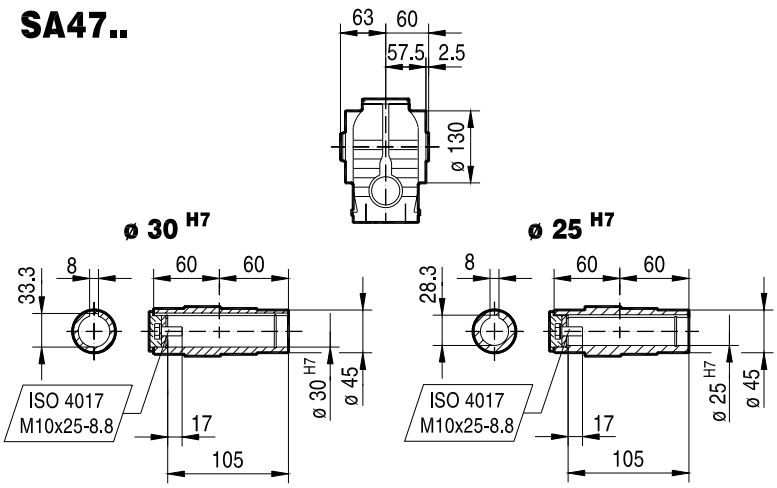
VU..



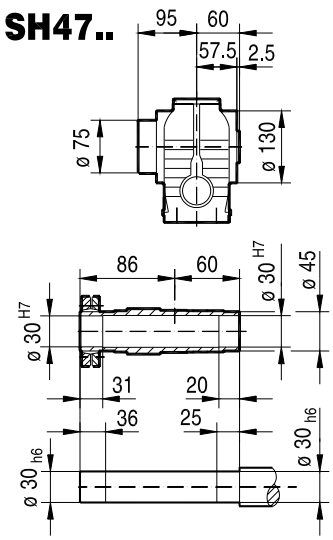
VZ ..



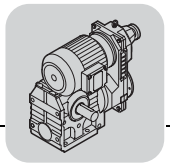
SA47..



SH47..



(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
SA47 SH47	VU01 VZ01	DR63..	182	80	132	105	463	479	187	213	176	261	98	72	80	114	121
		DT71D	182	80	145	122	463	494	202	213	176	261	98	72	80	114	121
		DT80..	182	80	145	122	463	544	252	213	176	261	98	72	80	114	121
	VU11 VZ11	DT80..	232	100	145	122	508	573	252	238	183	314	117	88	98	122	150
		DT90..	232	100	197	154	508	594	273	238	183	314	117	88	98	122	150

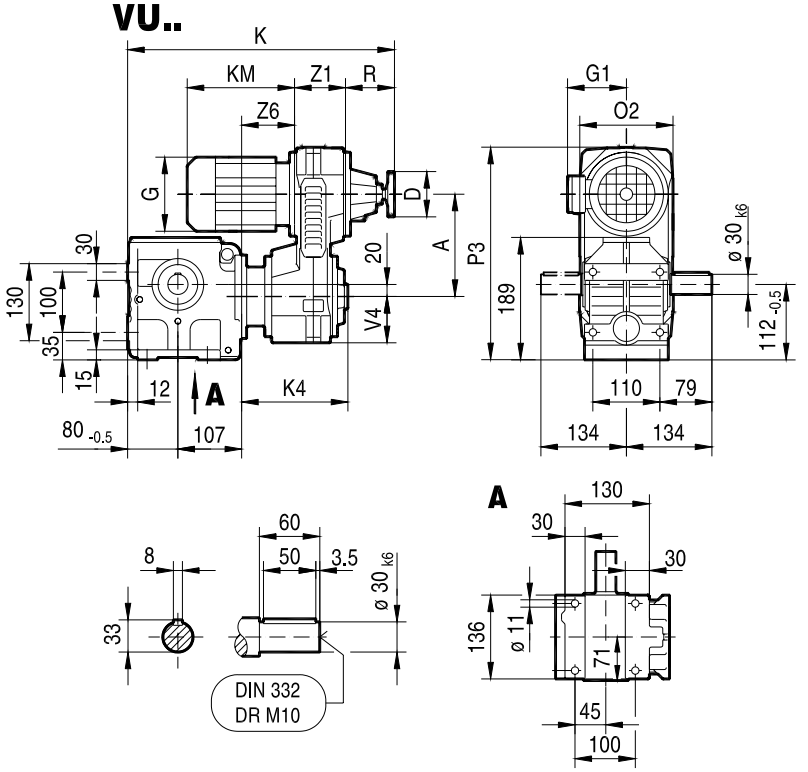


S..VU/VZ..DR/DT/DV.. [mm]

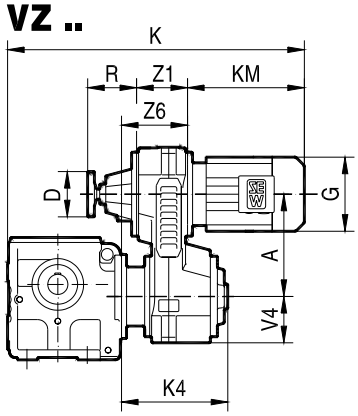
14 111 001

S57..

VU..



VZ ..

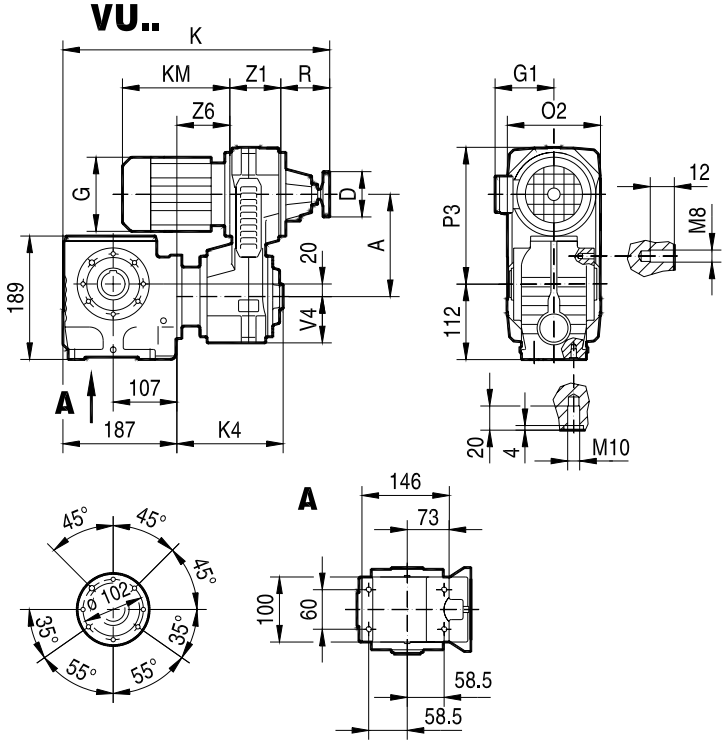


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
S57	VU01 VZ01	DR63..	182	80	132	105	479	495	187	213	176	361	98	72	80	114	121
		DT71D	182	80	145	122	479	510	202	213	176	361	98	72	80	114	121
		DT80..	182	80	145	122	479	560	252	213	176	361	98	72	80	114	121
	VU11 VZ11	DT80..	232	100	145	122	524	589	252	238	183	414	117	88	98	122	150
		DT90..	232	100	197	154	524	610	273	238	183	414	117	88	98	122	150

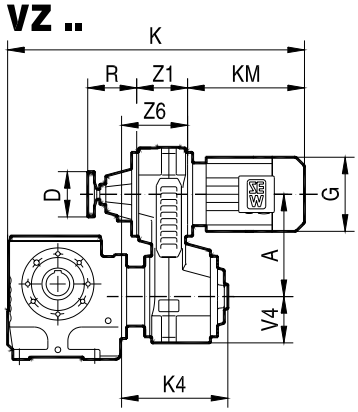
14 112 001

SA57..

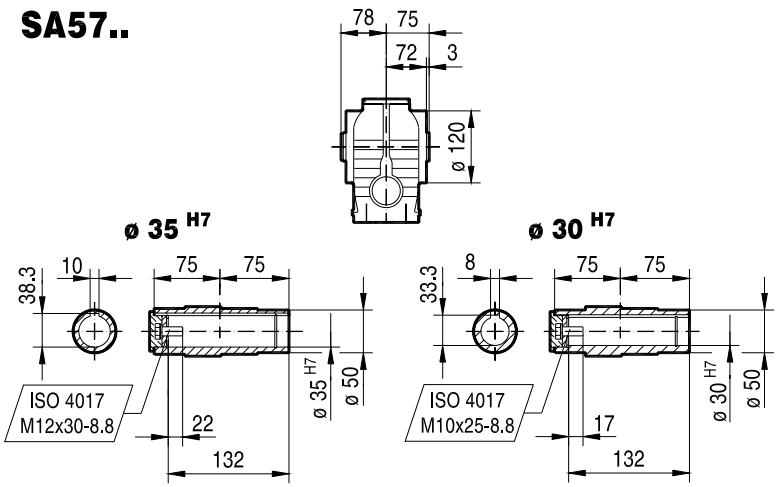
VU..



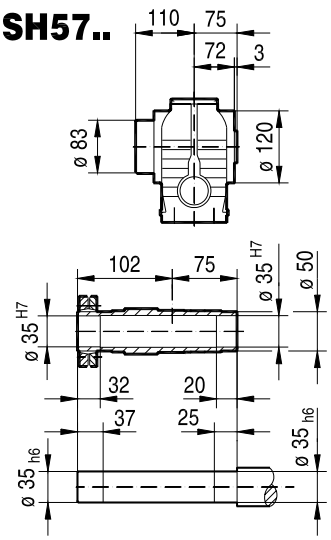
VZ ..



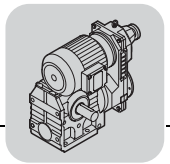
SA57..



SH57..



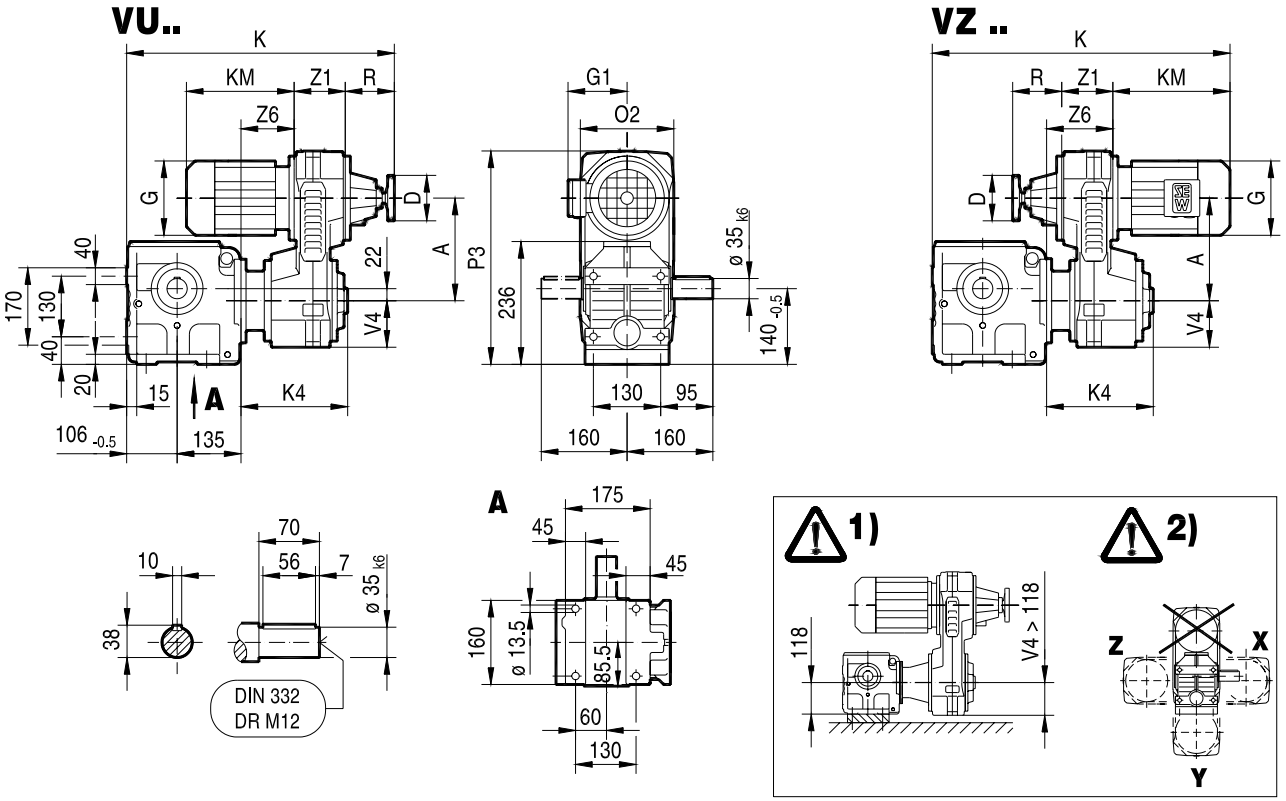
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6	
							VU	VZ								VU	VZ
SA57 SH57	VU01 VZ01	DR63..	182	80	132	105	479	495	187	213	176	249	98	72	80	114	121
		DT71D	182	80	145	122	479	510	202	213	176	249	98	72	80	114	121
		DT80..	182	80	145	122	479	560	252	213	176	249	98	72	80	114	121
	VU11 VZ11	DT80..	232	100	145	122	524	589	252	238	183	302	117	88	98	122	150
		DT90..	232	100	197	154	524	610	273	238	183	302	117	88	98	122	150



S..VU/VZ..DR/DT/DV.. [mm]

14 113 001

S67..

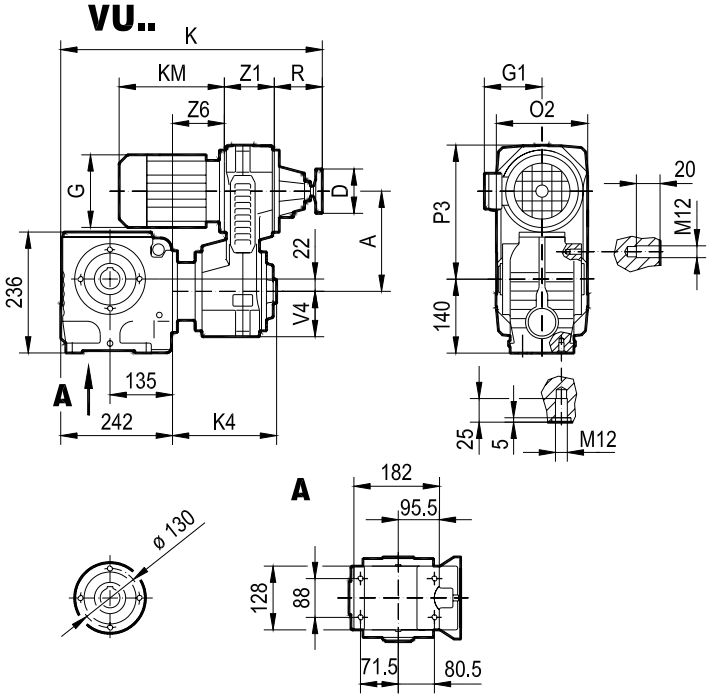


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
S67	VU01 VZ01	DR63..	182	80	132	105	526	542	187	206	176	387	98	72	80	107	114	2)	2)
		DT71D	182	80	145	122	526	557	202	206	176	387	98	72	80	107	114	2)	2)
		DT80..	182	80	145	122	526	607	252	206	176	387	98	72	80	107	114	2)	2)
	VU11 VZ11	DT80..	232	100	145	122	571	636	252	232	183	440	117	88	98	115	143		
		DT90..	232	100	197	154	571	657	273	232	183	440	117	88	98	115	143		
	VU21 VZ21	DT90..	245	100	197	154	638	691	273	279	227	475	130	110	120	147	177		
		DV100M	245	100	197	166	638	729	311	279	227	475	130	110	120	147	177		
		DV100L	245	100	197	166	638	759	341	279	227	475	130	110	120	147	177		
	VU31 VZ31	DV112M	305	125	221	179	715	801	349	331	283	563	150	138	152	172	211	1)	1)
		DV132S	305	125	221	179	715	846	394	331	283	563	150	138	152	172	211	1)	1)

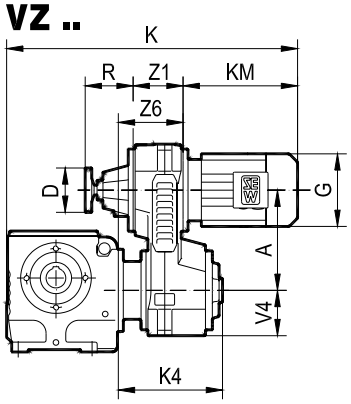
14 114 001

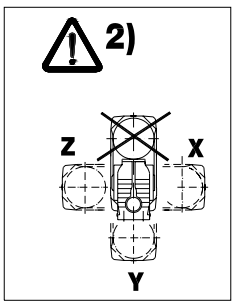
SA67..

VU..

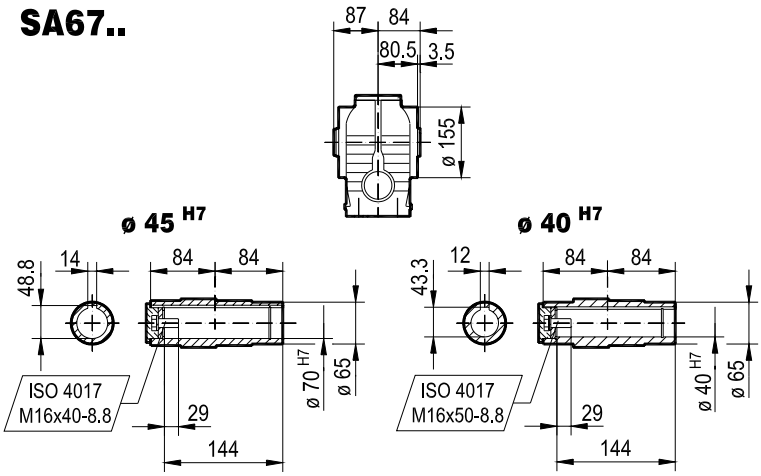


VZ ..

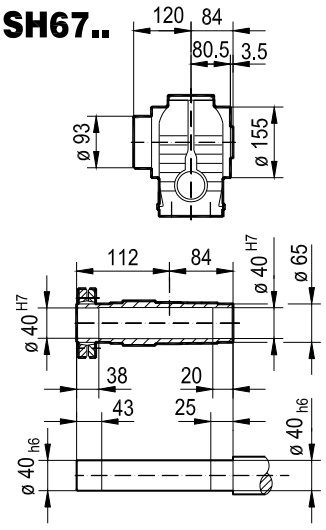




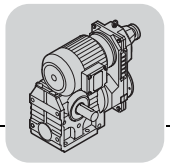
SA67..



SH67..



(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
SA67 SH67	VU01 VZ01	DR63..	182	80	132	105	527	543	187	206	176	247	98	72	80	107	114	2)	2)
		DT71D	182	80	145	122	527	558	202	206	176	247	98	72	80	107	114	2)	2)
		DT80..	182	80	145	122	527	608	252	206	176	247	98	72	80	107	114	2)	2)
	VU11 VZ11	DT80..	232	100	145	122	572	637	252	232	183	300	117	88	98	115	143		
		DT90..	232	100	197	154	572	658	273	232	183	300	117	88	98	115	143		
	VU21 VZ21	DT90..	245	100	197	154	639	692	273	279	227	335	130	110	120	147	177		
		DV100M	245	100	197	166	639	730	311	279	227	335	130	110	120	147	177		
		DV100L	245	100	197	166	639	760	341	279	227	335	130	110	120	147	177		
	VU31 VZ31	DV112M	305	125	221	179	716	802	349	331	283	423	150	138	152	172	211		
		DV132S	305	125	221	179	716	847	394	331	283	423	150	138	152	172	211		

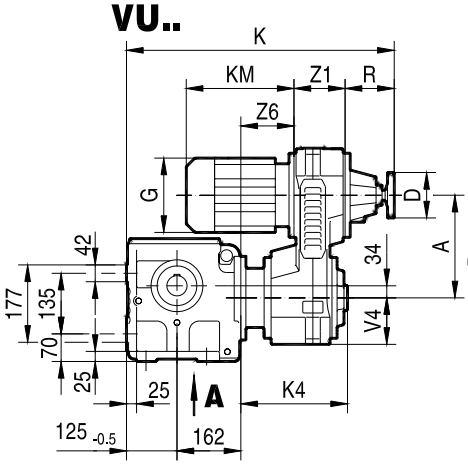


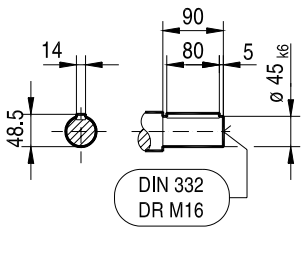
S..VU/VZ..DR/DT/DV.. [mm]

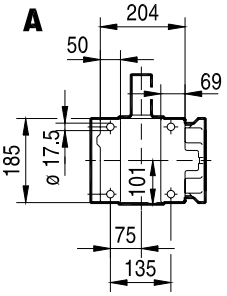
14 115 001

S77..

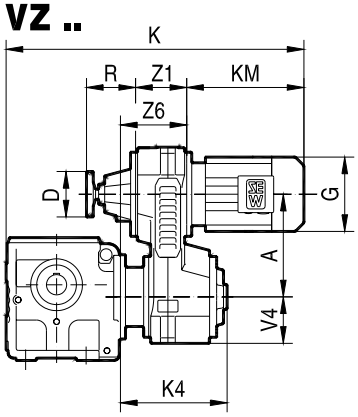
VU..

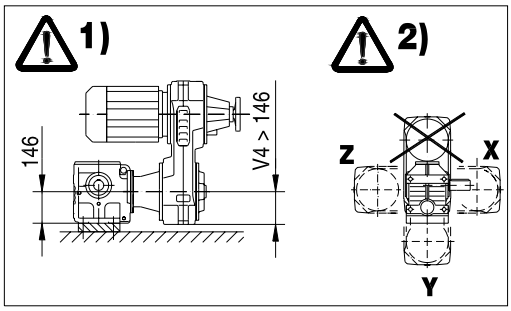






VZ ..



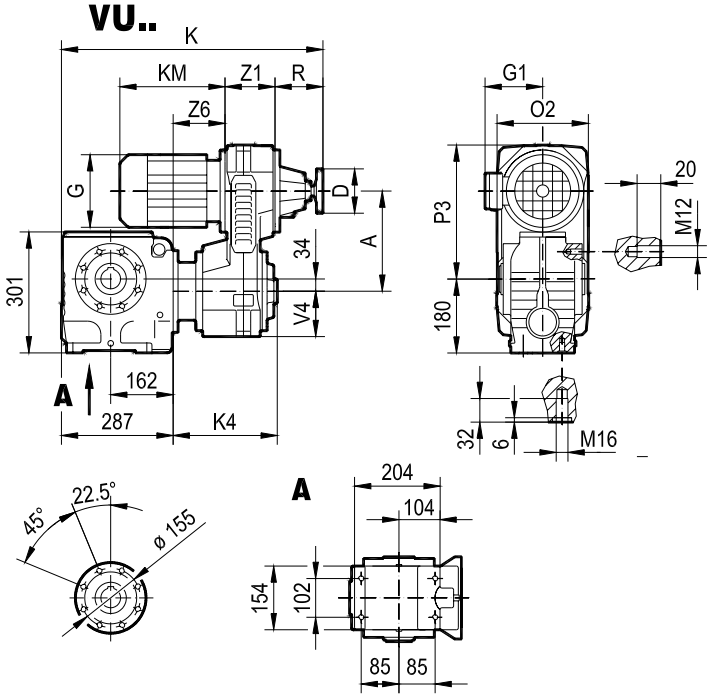


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
S77	VU11 VZ11	DT80..	232	100	145	122	611	676	252	226	183	468	117	88	98	109	137		
		DT90..	232	100	197	154	611	697	273	226	183	468	117	88	98	109	137	2)	
	VU21 VZ21	DT90..	245	100	197	154	676	729	273	271	227	503	130	110	120	139	169	2)	
		DV100M	245	100	197	166	676	767	311	271	227	503	130	110	120	139	169	2)	
		DV100L	245	100	197	166	676	797	341	271	227	503	130	110	120	139	169	2)	
	VU31 VZ31	DV112M	305	125	221	179	752	838	349	322	283	591	150	138	152	163	202		
		DV132S	305	125	221	179	752	883	394	322	283	591	150	138	152	163	202		
	VU41 VZ41	DV132M	380	200	275	230	865	928	402	397	348	699	189	170	180	209	239	1)	1)
		DV132ML	380	200	275	230	865	988	462	397	348	699	189	170	180	209	239	1)	1)
		DV160M	380	200	275	230	865	988	462	397	348	699	189	170	180	209	239	1)	1)

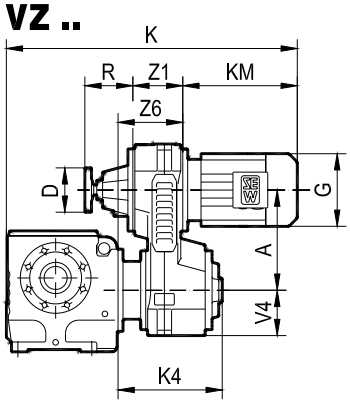
14 116 001

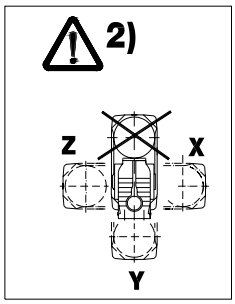
SA77..

VU..

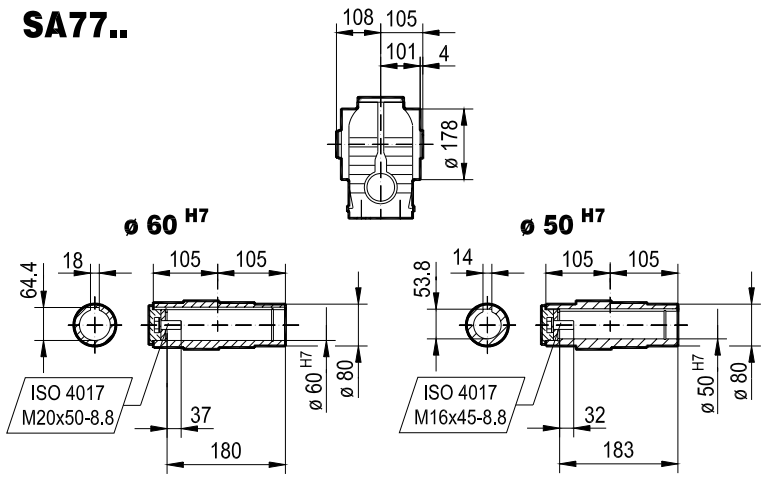


VZ ..

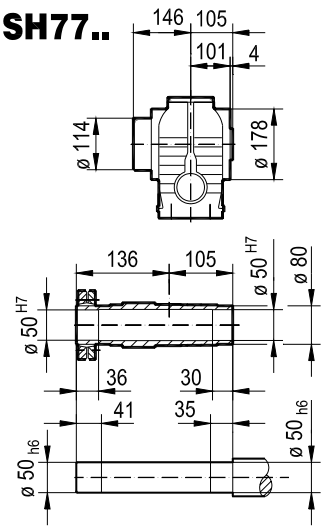




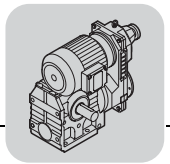
SA77..



SH77..



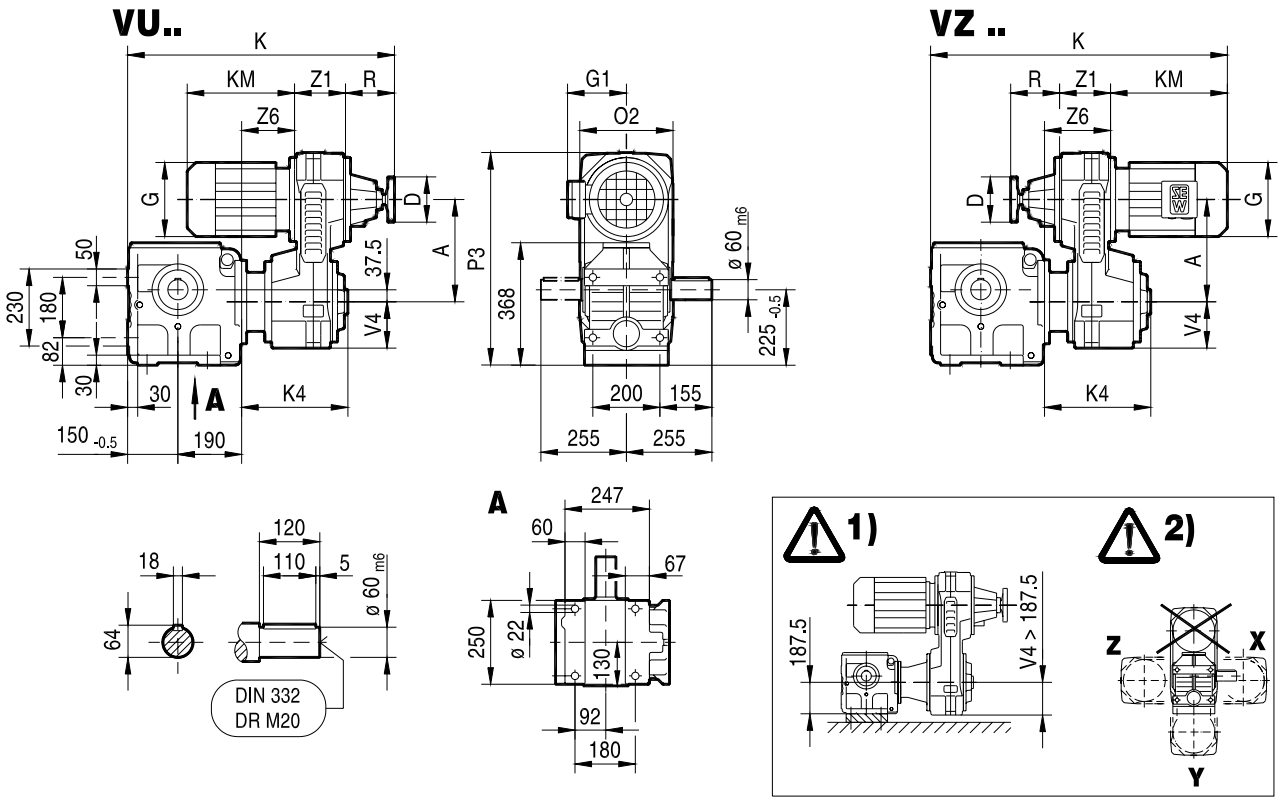
(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
SA77 SH77	VU11 VZ11	DT80..	232	100	145	122	611	676	252	226	183	288	117	88	98	109	137		
		DT90..	232	100	197	154	611	697	273	226	183	288	117	88	98	109	137	2)	
	VU21 VZ21	DT90..	245	100	197	154	676	729	273	271	227	323	130	110	120	139	169	2)	
		DV100M	245	100	197	166	676	767	311	271	227	323	130	110	120	139	169	2)	
		DV100L	245	100	197	166	676	797	341	271	227	323	130	110	120	139	169	2)	
	VU31 VZ31	DV112M	305	125	221	179	752	838	349	322	283	411	150	138	152	163	202		
		DV132S	305	125	221	179	752	883	394	322	283	411	150	138	152	163	202		
	VU41 VZ41	DV132M	380	200	275	230	865	928	402	397	348	519	189	170	180	209	239		
		DV132ML	380	200	275	230	865	988	462	397	348	519	189	170	180	209	239		
		DV160M	380	200	275	230	865	988	462	397	348	519	189	170	180	209	239		



S..VU/VZ..DR/DT/DV.. [mm]

14 117 001

S87..

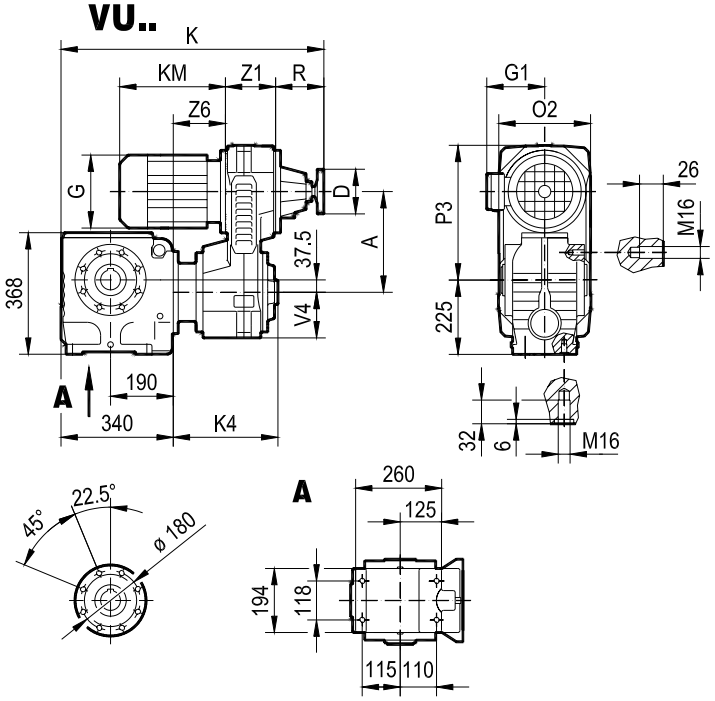


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
S87	VU21 VZ21	DT90..	245	100	197	154	725	778	273	267	227	545	130	110	120	135	165	2)	
		DV100M	245	100	197	166	725	816	311	267	227	545	130	110	120	135	165	2)	
		DV100L	245	100	197	166	725	846	341	267	227	545	130	110	120	135	165	2)	
	VU31 VZ31	DV112M	305	125	221	179	800	866	349	317	283	633	150	138	152	158	197		
		DV132S	305	125	221	179	800	931	394	317	283	633	150	138	152	158	197		
	VU41 VZ41	DV132M	380	200	275	230	913	976	402	392	348	741	189	170	180	204	234		
		DV132ML	380	200	275	230	913	1036	462	392	348	741	189	170	180	204	234		
		DV160M	380	200	275	230	913	1036	462	392	348	741	189	170	180	204	234		
	VU51	DV160L	460	200	331	259	997	-	503	449	398	846	220	195	200	237	-	1)	
		DV180..	460	200	331	253	997	-	575	449	398	846	220	195	200	237	-	1)	

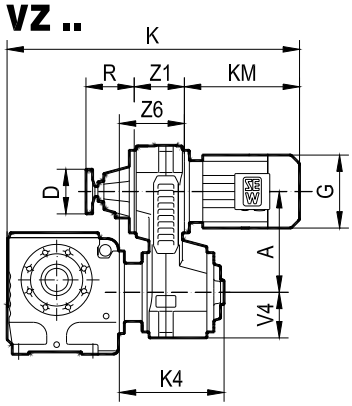
14 118 001

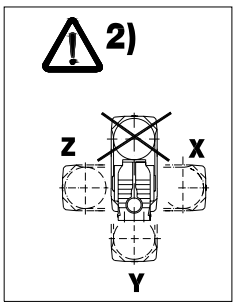
SA87..

VU..

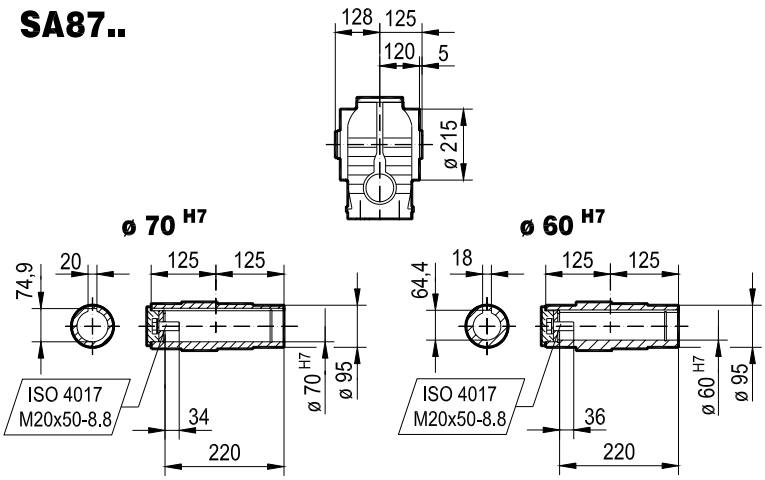


VZ ..

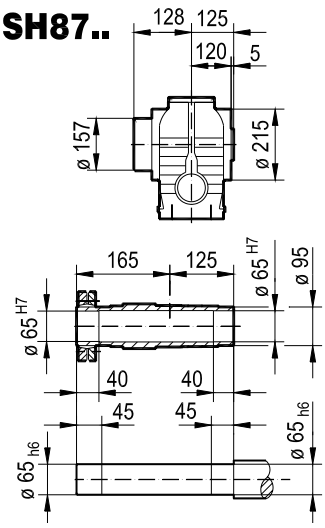




SA87..



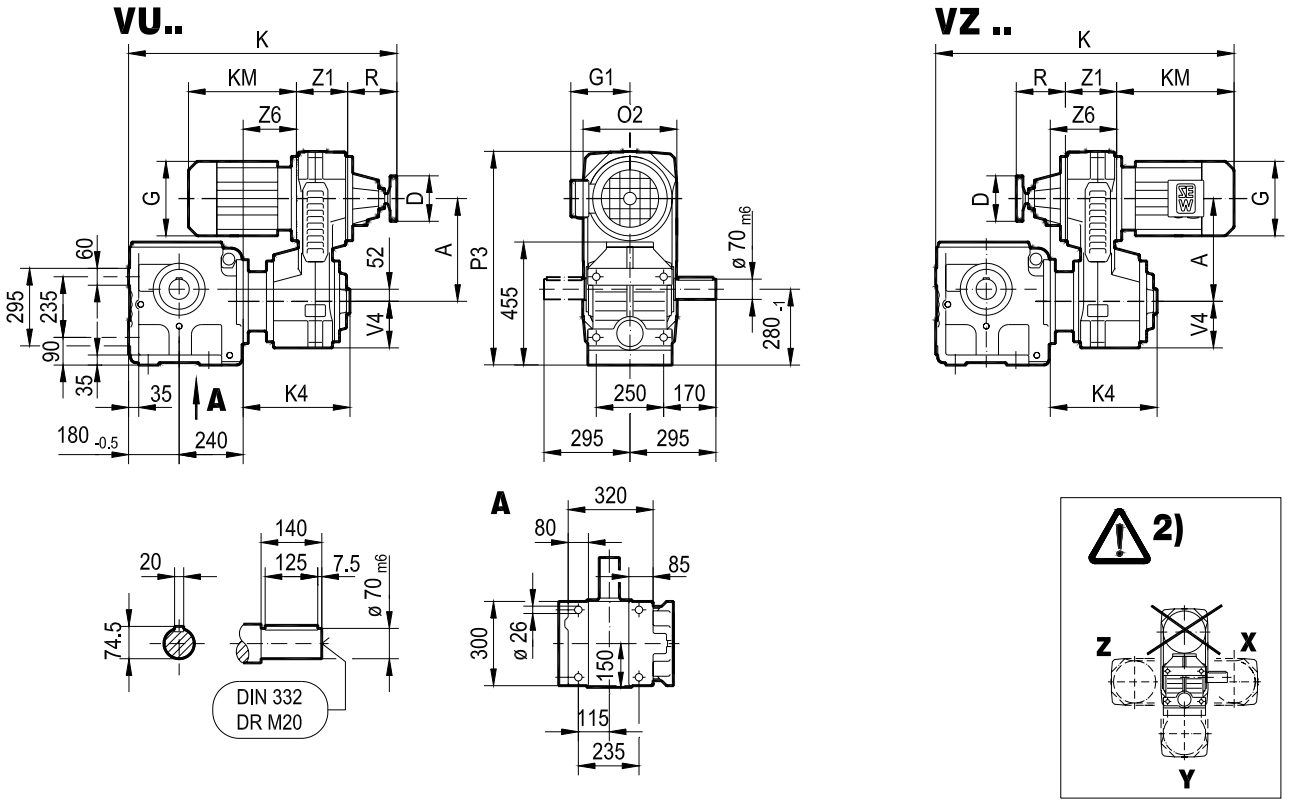
SH87..



(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
SA87 SH87	VU21 VZ21	DT90..	245	100	197	154	725	778	273	267	227	320	130	110	120	135	165	2)	
		DV100M	245	100	197	166	725	816	311	267	227	320	130	110	120	135	165	2)	
		DV100L	245	100	197	166	725	846	341	267	227	320	130	110	120	135	165	2)	
	VU31 VZ31	DV112M	305	125	221	179	800	866	349	317	283	408	150	138	152	158	197		
		DV132S	305	125	221	179	800	931	394	317	283	408	150	138	152	158	197		
	VU41 VZ41	DV132M	380	200	275	230	913	976	402	392	348	516	189	170	180	204	234		
		DV132ML	380	200	275	230	913	1036	462	392	348	516	189	170	180	204	234		
		DV160M	380	200	275	230	913	1036	462	392	348	516	189	170	180	204	234		
	VU51	DV160L	460	200	331	259	997	-	503	449	398	621	220	195	200	237	-		
		DV180..	460	200	331	253	997	-	575	449	398	621	220	195	200	237	-		

14 119 001

S97..

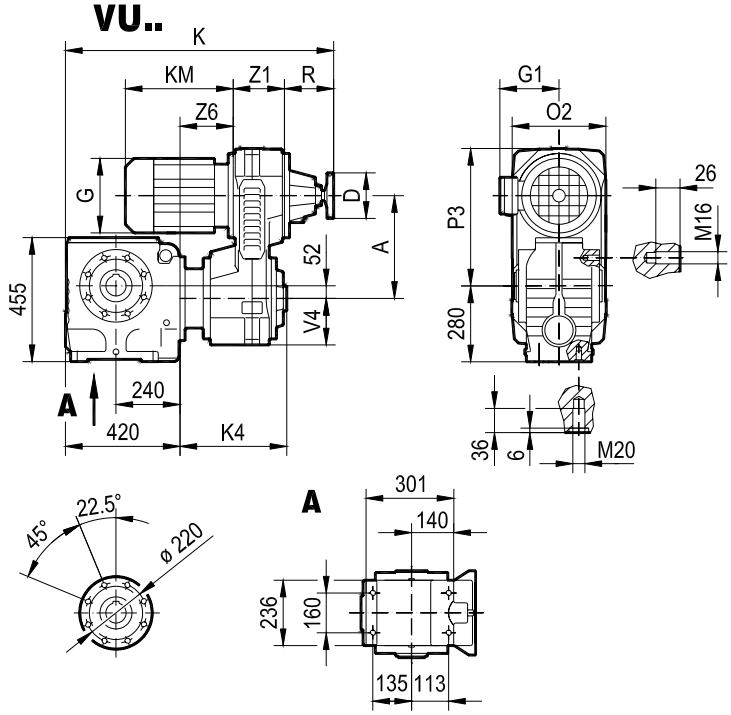


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
S97	VU31 VZ31	DV112M	305	125	221	179	875	961	349	312	283	673	150	138	152	153	192	2)	
		DV132S	305	125	221	179	875	1006	394	312	283	673	150	138	152	153	192	2)	
	VU41 VZ41	DV132M	380	200	275	230	988	1051	402	387	348	781	189	170	180	199	229		
		DV132ML	380	200	275	230	988	1111	462	387	348	781	189	170	180	199	229		
		DV160M	380	200	275	230	988	1111	462	387	348	781	189	170	180	199	229		
	VU51	DV160L	460	200	331	259	1072	-	503	444	398	886	220	195	200	232	-		
		DV180..	460	200	331	253	1072	-	575	444	398	886	220	195	200	232	-		

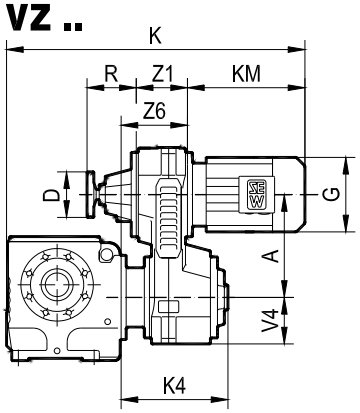
14 120 001

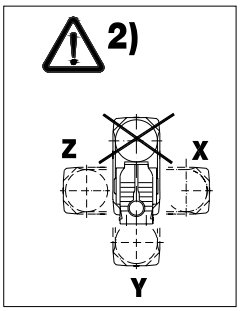
SA97..

VU..

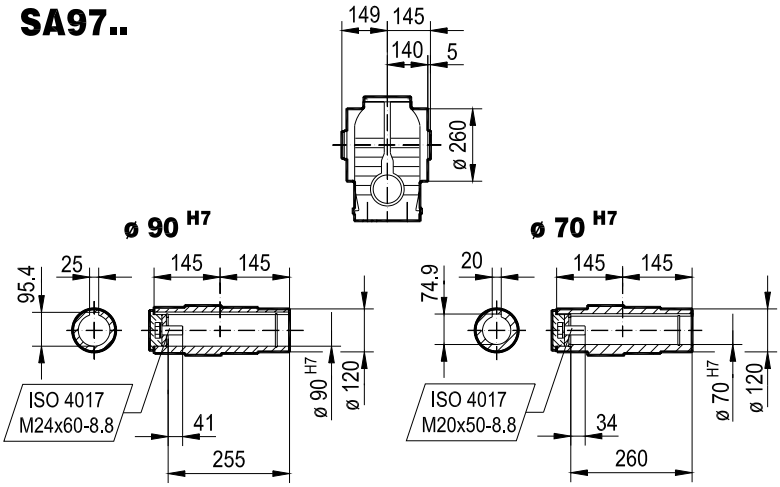


VZ ..

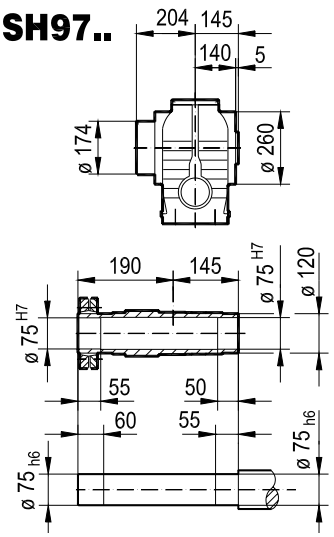




SA97..



SH97..

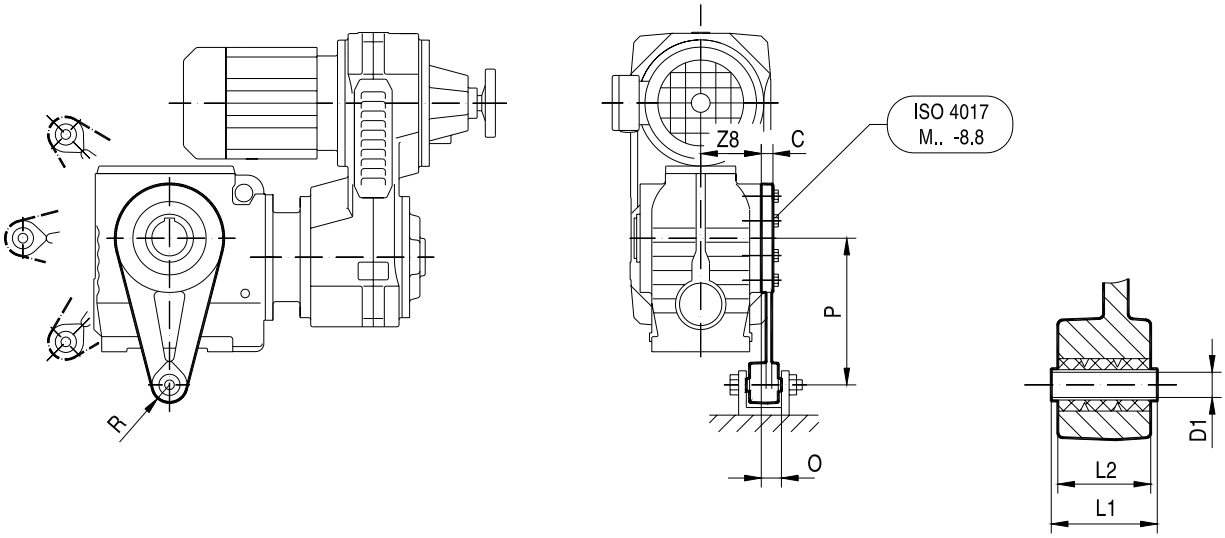


(→ 151)			A	D	G	G1	K		KM	K4	O2	P3	R	V4	Z1	Z6		(→ 153)	
							VU	VZ								VU	VZ	VU	VZ
SA97 SH97	VU31 VZ31	DV112M	305	125	221	179	875	961	349	312	283	393	150	138	152	153	192	2)	
		DV132S	305	125	221	179	875	1006	394	312	283	393	150	138	152	153	192	2)	
	VU41 VZ41	DV132M	380	200	275	230	988	1051	402	387	348	501	189	170	180	199	229		
		DV132ML	380	200	275	230	988	1111	462	387	348	501	189	170	180	199	229		
		DV160M	380	200	275	230	988	1111	462	387	348	501	189	170	180	199	229		
	VU51	DV160L	460	200	331	259	1072	-	503	444	398	606	220	195	200	232	-		
		DV180..	460	200	331	253	1072	-	575	444	398	606	220	195	200	232	-		

12.4 Drehmomentstütze S../T..

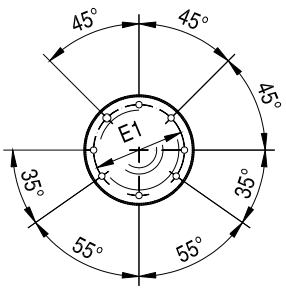
14 121 001

S../T..

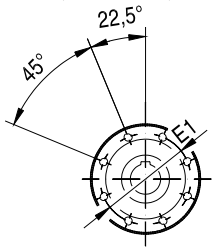


S..37, S..47, S..67

S..57



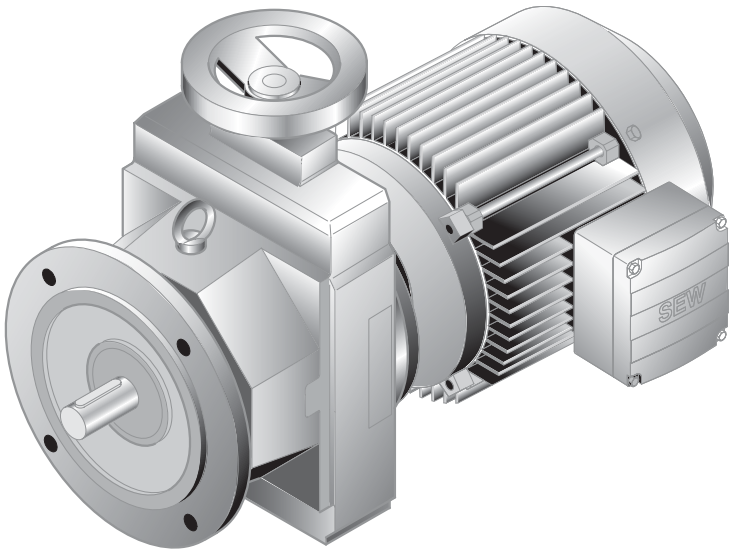
S..77, S..87, S..97

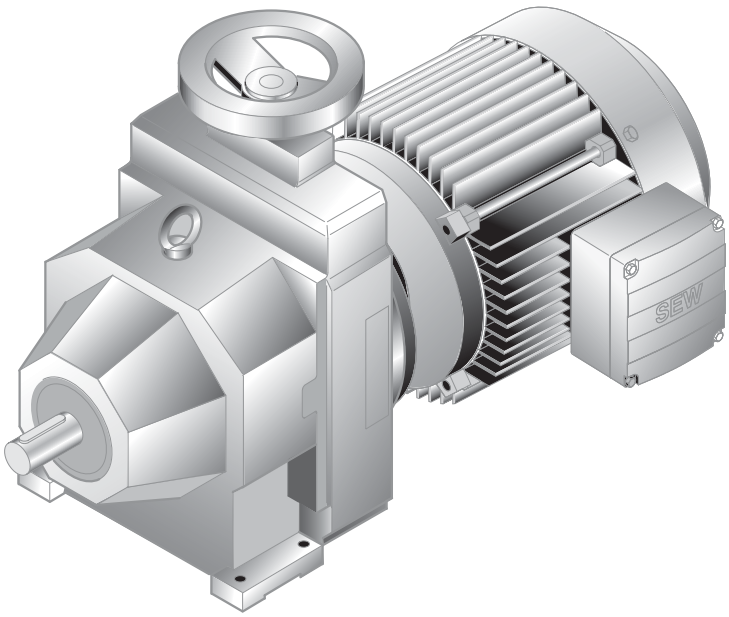


	C	D1	E1	L1	L2	M	O	P	R	Z8
SA37/T V..	10	10.4	75	36	31	M6x16	26	110	21	57
SA47/T V..	15	10.4	115	36	31	M8x25	20.5	130	21	57.5
SA57/T V..	15	10.4	102	36	31	M8x25	18.5	160	21	72
SA67/T V..	18	10.4	130	36	31	M12x35	19.5	200	21	80.5
SA77/T V..	18	16.4	155	60	54	M12x35	32.5	250	30	101
SA87/T V..	24	16.4	180	60	54	M16x45	25.5	310	30	120
SA97/T V..	26	25	220	80	72	M16x45	33	380	40	140

13 D/DF..

13.1 D/DF..DT/DV..

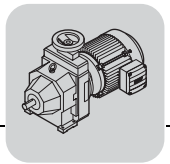




50603AXX

13.2 D/DF..DT/DV.. [kW]

R = 1:5													
P_m [kW]	n_{a1}	-	n_{a2}	P_{a1}	-	P_{a2}					d_{RZ} [mm]	m [kg]	
	[1/min]			[kW]									
0.25	**167**	**-**	**830**	0.13	**-**	0.22	**D**	**16**	**DT**	**80N8**	10/12	24	384
							DF	**16**					
	216	**-**	**1075**	0.16	**-**	0.22	**D**	**16**	**DT**	**71D6**	10/12	21	384
							DF	**16**					
0.37	**177**	**-**	**884**	0.23	**-**	0.33	**D**	**26**	**DT**	**90S8**	14/16	41	385
							DF	**26**					
	221	**-**	**1100**	0.17	**-**	0.33	**D**	**16**	**DT**	**80K6**	10/12	23	384
							DF	**16**					
	338	**-**	**1685**	0.20	**-**	0.29	**D**	**16**	**DT**	**71D4**	10/12	21	384
							DF	**16**					
0.55	**177**	**-**	**884**	0.28	**-**	0.49	**D**	**26**	**DT**	**90L8**	14/16	44	385
							DF	**26**					
	221	**-**	**1100**	0.17	**-**	0.49	**D**	**16**	**DT**	**80N6**	10/12	24	384
							DF	**16**					
	333	**-**	**1660**	0.26	**-**	0.45	**D**	**16**	**DT**	**80K4**	10/12	23	384
							DF	**16**					
	662	**-**	**3295**	0.31	**-**	0.35	**D**	**16**	**DT**	**71D2**	10/12	21	384
							DF	**16**					
0.75	**180**	**-**	**897**	0.28	**-**	0.67	**D**	**26**	**DV**	**100M8**	14/16	48	385
							DF	**26**					
	234	**-**	**1170**	0.38	**-**	0.67	**D**	**26**	**DT**	**90S6**	14/16	41	385
							DF	**26**					
	338	**-**	**1685**	0.26	**-**	0.63	**D**	**16**	**DT**	**80N4**	10/12	24	384
							DF	**16**					
	662	**-**	**3295**	0.35	**-**	0.53	**D**	**16**	**DT**	**80K2**	10/12	23	384
							DF	**16**					
1.1	**160**	**-**	**802**	0.67	**-**	0.98	**D**	**36**	**DV**	**100L8**	18/22	77	386
							DF	**36**					
	240	**-**	**1195**	0.38	**-**	0.98	**D**	**26**	**DT**	**90L6**	14/16	44	385
							DF	**26**					
	365	**-**	**1820**	0.57	**-**	0.93	**D**	**26**	**DT**	**90S4**	14/16	41	385
							DF	**26**					
	662	**-**	**3295**	0.35	**-**	0.85	**D**	**16**	**DT**	**80N2**	10/12	24	384
							DF	**16**					
1.5	**165**	**-**	**826**	0.69	**-**	1.4	**D**	**36**	**DV**	**112M8**	18/22	85	386
							DF	**36**					
	216	**-**	**1085**	0.92	**-**	1.4	**D**	**36**	**DV**	**100M6**	18/22	75	386
							DF	**36**					
	367	**-**	**1835**	0.57	**-**	1.3	**D**	**26**	**DT**	**90L4**	14/16	44	385
							DF	**26**					
	703	**-**	**3510**	0.81	**-**	1.2	**D**	**26**	**DT**	**90S2**	14/16	41	385
							DF	**26**					
2.2	**165**	**-**	**826**	0.69	**-**	2.0	**D**	**36**	**DV**	**132S8**	18/22	93	386
							DF	**36**					
	221	**-**	**1110**	0.92	**-**	2.0	**D**	**36**	**DV**	**112M6**	18/22	85	386
							DF	**36**					
	367	**-**	**1835**	0.57	**-**	1.9	**D**	**26**	**DV**	**100M4**	14/16	48	385
							DF	**26**					
	711	**-**	**3550**	0.84	**-**	1.8	**D**	**26**	**DT**	**90L2**	14/16	44	385
							DF	**26**					
3.0	**221**	**-**	**1110**	0.92	**-**	2.8	**D**	**36**	**DV**	**132S6**	18/22	93	386
							DF	**36**					
	329	**-**	**1650**	1.4	**-**	2.6	**D**	**36**	**DV**	**100L4**	18/22	77	386
							DF	**36**					
	659	**-**	**3305**	1.6	**-**	2.5	**D**	**36**	**DV**	**100M2**	18/22	75	386
							DF	**36**					
4.0	**334**	**-**	**1675**	1.4	**-**	3.6	**D**	**36**	**DV**	**112M4**	18/22	85	386
							DF	**36**					
	673	**-**	**3375**	1.6	**-**	3.4	**D**	**36**	**DV**	**112M2**	18/22	85	386
							DF	**36**					

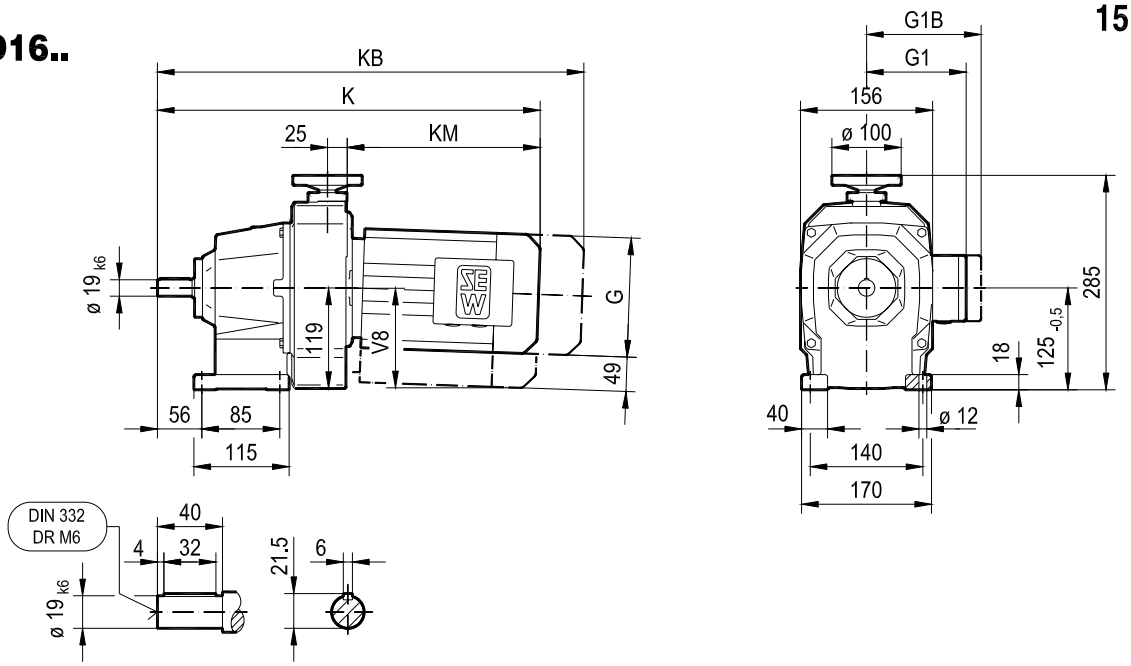


P_m [kW]	n_{a1}	-	n_{a2}	P_{a1}	-	P_{a2}					d_{RZ} [mm]	m [kg]	
R = 1:5													
5.5	**336**	**-**	**1685**	1.4	**-**	5.0	**D** **DF**	**36** **36**	**DV**	**132S4**	18/22	93	386
	678	**-**	**3400**	1.6	**-**	4.8	**D** **DF**	**36** **36**	**DV**	**132S2**	18/22	93	386
R = 1:4													
3.0	**203**	**-**	**806**	1.2	**-**	2.7	**D** **DF**	**46** **46**	**DV**	**132M8**	22/28	145	387
4.0	**203**	**-**	**806**	1.2	**-**	3.6	**D** **DF**	**46** **46**	**DV**	**132ML8**	22/28	155	387
	270	**-**	**1075**	1.7	**-**	3.6	**D** **DF**	**46** **46**	**DV**	**132M6**	22/28	145	387
5.5	**200**	**-**	**795**	1.4	**-**	5.0	**D** **DF**	**46** **46**	**DV**	**160M8**	22/28	160	387
	270	**-**	**1075**	1.7	**-**	5.0	**D** **DF**	**46** **46**	**DV**	**132ML6**	22/28	155	387
7.5	**270**	**-**	**1075**	1.8	**-**	6.8	**D** **DF**	**46** **46**	**DV**	**160M6**	22/28	160	387
	403	**-**	**1600**	2.8	**-**	6.8	**D** **DF**	**46** **46**	**DV**	**132M4**	22/28	145	387
	817	**-**	**3250**	3.8	**-**	6.7	**D** **DF**	**46** **46**	**DV**	**132M2**	22/28	145	387
9.2	**406**	**-**	**1615**	2.8	**-**	8.3	**D** **DF**	**46** **46**	**DV**	**132ML4**	22/28	155	387
	814	**-**	**3235**	3.8	**-**	8.2	**D** **DF**	**46** **46**	**DV**	**132ML2**	22/28	155	387
11.0	**406**	**-**	**1615**	2.8	**-**	10.0	**D** **DF**	**46** **46**	**DV**	**160M4**	22/28	160	387
	817	**-**	**3250**	3.8	**-**	9.8	**D** **DF**	**46** **46**	**DV**	**160M2**	22/28	160	387

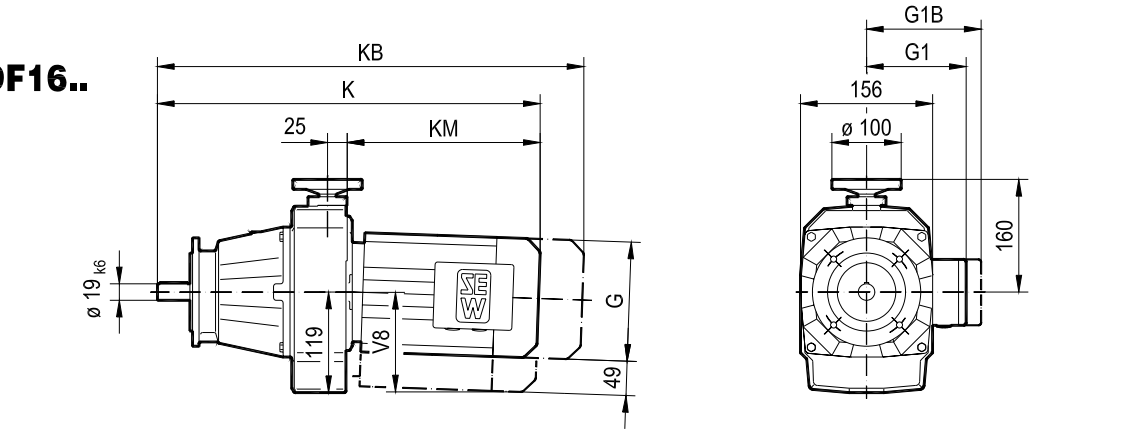
13.3 D/DF..DT/DV.. [mm]

15 089 001

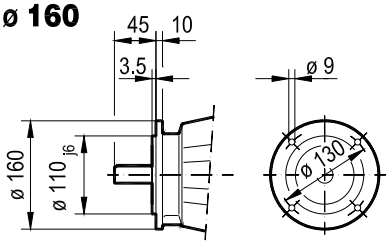
D16..



DF16..



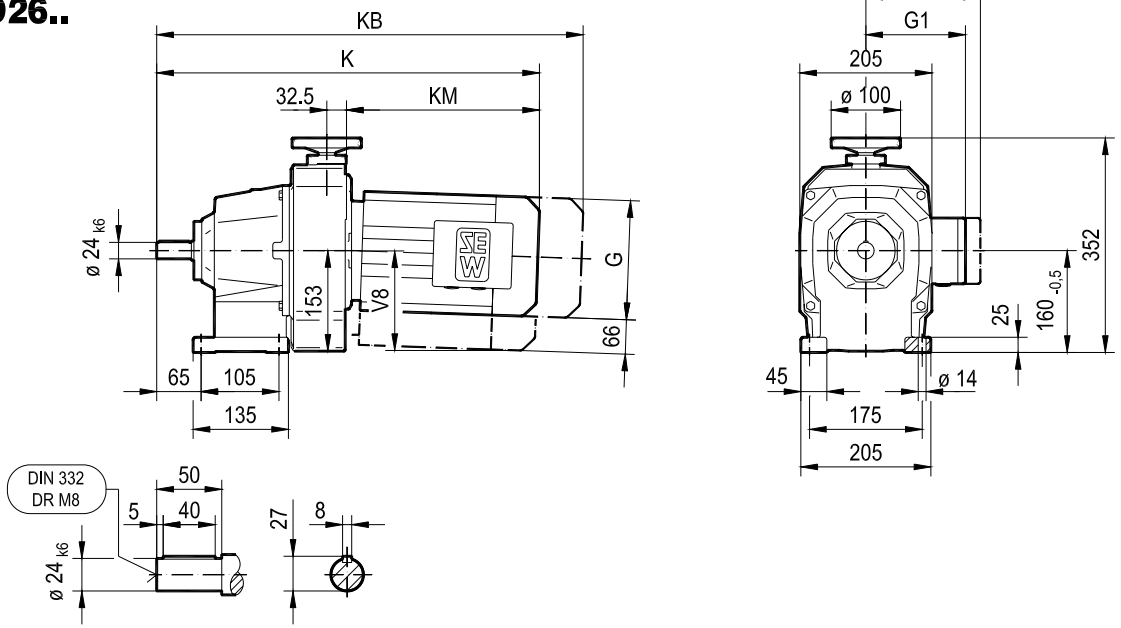
ø 160



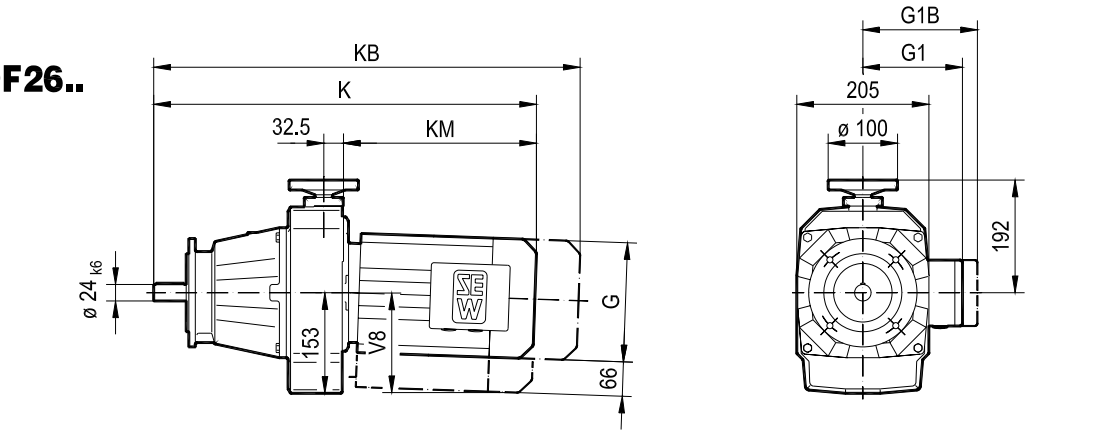
(→ 151)		G	G1	G1B	K	KB	KM	V8
D16 DF16	**DT71D**	145	122	127	431	495	198	116
	DT80..	145	122	127	481	545	248	118

15 090 001

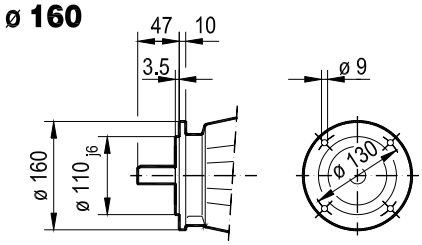
D26..



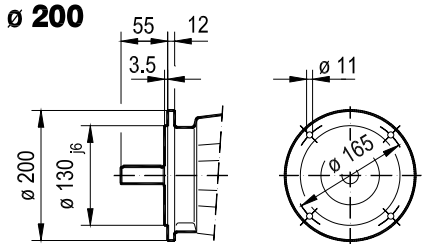
DF26..



ø 160



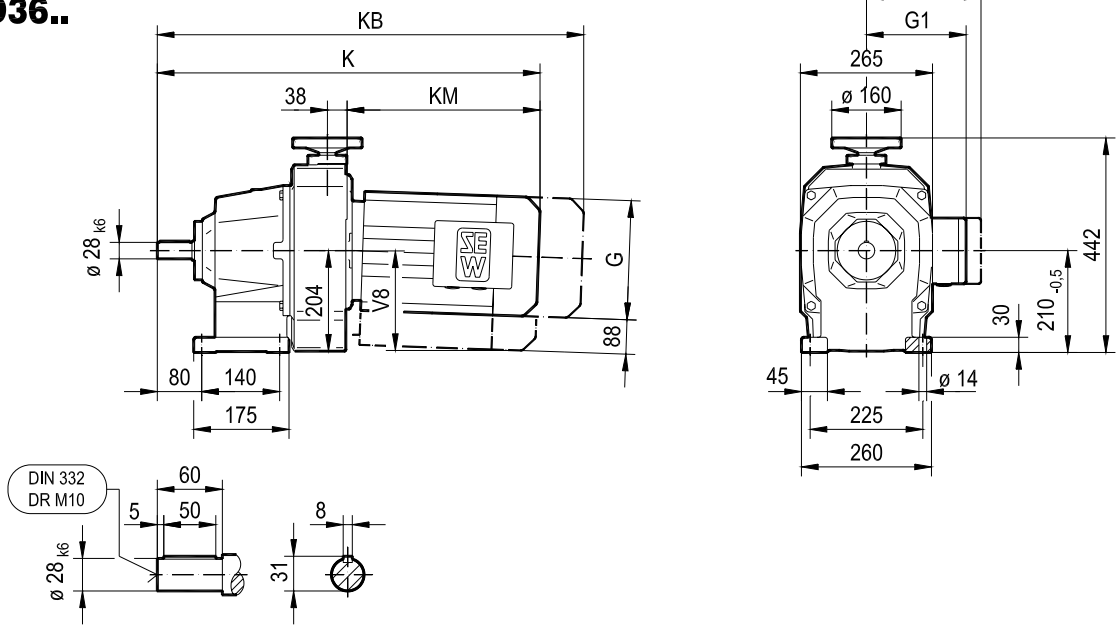
ø 200



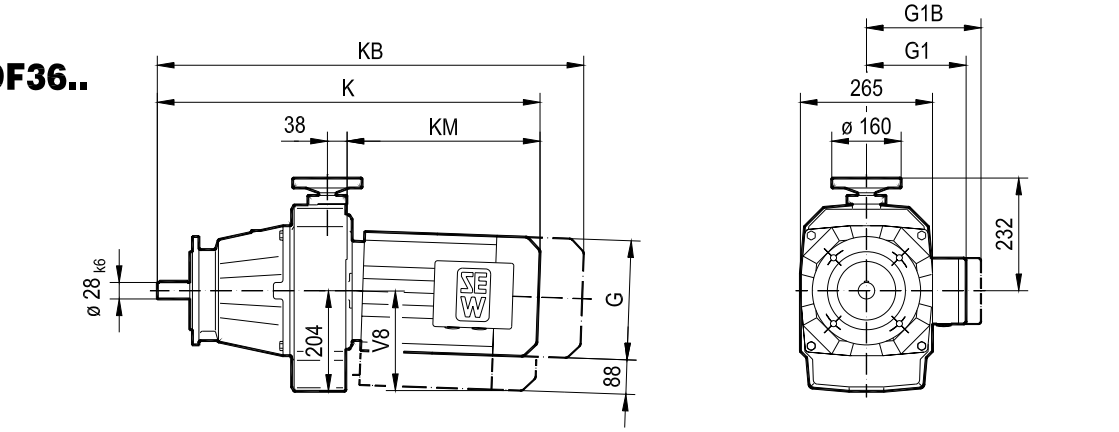
(→ 151)		G	G1	G1B	K	KB	KM	V8
D26 DF26	DT90..	197	154	161	523	608	248	154
	DV100M	197	166	166	573	658	298	156
	DV100L	197	166	166	603	688	328	158

15 091 001

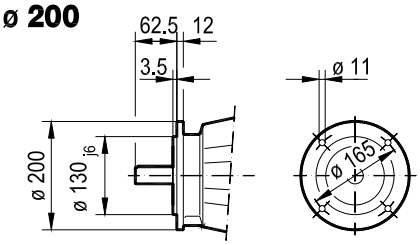
D36..



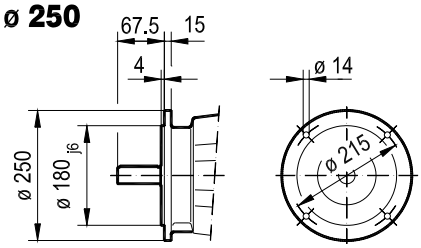
DF36..



ø 200



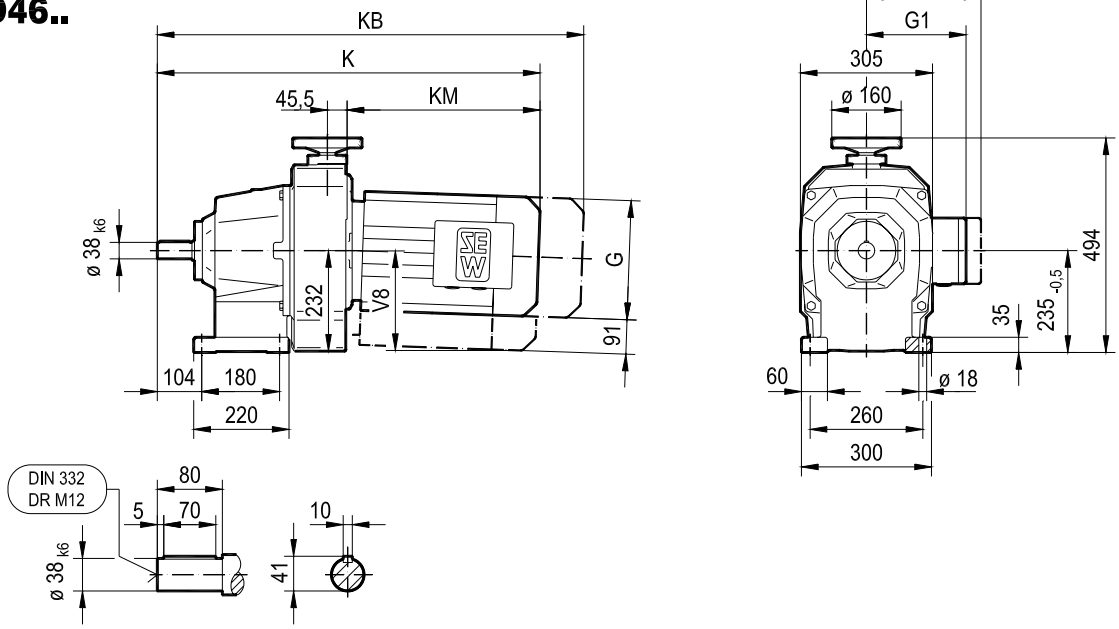
ø 250



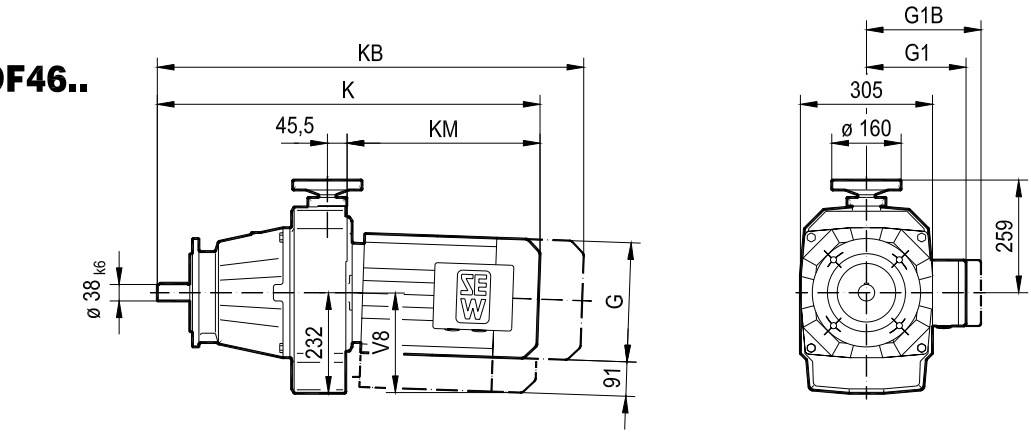
(→ 151)		G	G1	G1B	K	KB	KM	V8
D36 DF36	DV100M	197	166	166	655	740	309	184
	DV100L	197	166	166	685	770	339	186
	DV112M	221	179	182	678	758	332	196
	DV132S	221	179	182	723	803	377	198

15 092 001

D46..

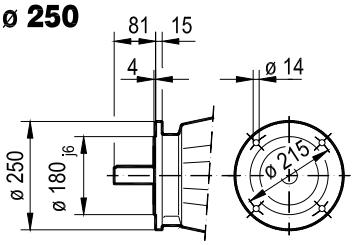


DF46..

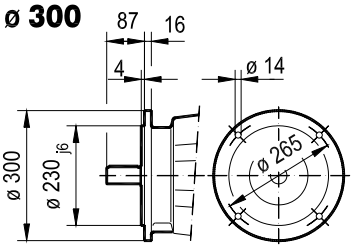


13

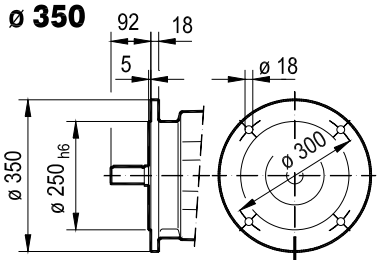
ø 250



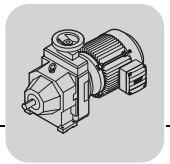
ø 300



ø 350

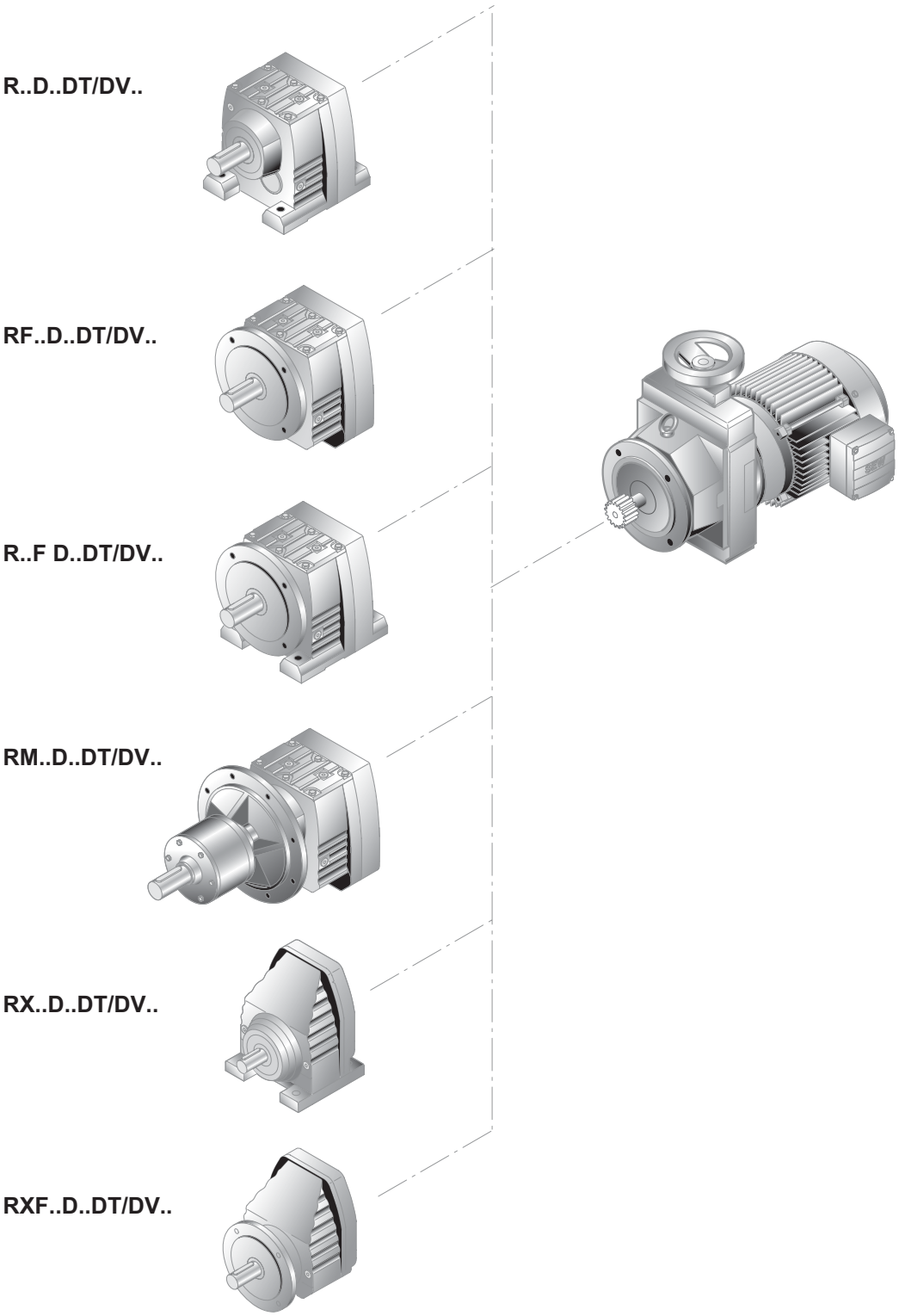


(→ 151)		G	G1	G1B	K	KB	KM	V8
D46 DF46	DV132M	275	230	230	824	936	388	235
	DV132ML	275	230	230	884	996	448	237
	DV160M	275	230	230	884	996	448	237



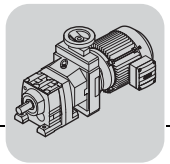
14 R..

14.1 R..D..DT/DV..

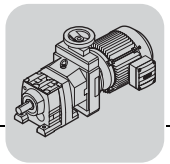


14.2 R..D..DT/DV.. [kW]

R = 1:5																
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	📖
0.37 / 0.24	0.19	-	0.92	1823	3000	2780	-									
	0.21	-	1.1	1583	3000	2410	-									
	0.24	-	1.2	1396	3000	2130	-									
	0.28	-	1.4	1228	3000	1870	-									
	0.32	-	1.6	1069	3000	1630	-	R	97 R57	D	16	DT	71D4		135	-
	0.36	-	1.8	938	3000	1430	-	RF	97 R57	D	16	DT	71D4		155	-
	0.41	-	2.0	824	3000	1260	-									
	0.46	-	2.3	737	3000	1120	-									
	0.54	-	2.7	632	3000	960	-									
	0.54	-	2.7	625	3000	970	-									
	0.62	-	3.1	549	2920	850	-									
	0.73	-	3.6	466	2480	720	-									
	0.81	-	4.0	420	2230	650	-									
	0.91	-	4.5	370	1970	575	-	R	97 R57	D	16	DT	71D4		135	-
	0.97	-	4.8	349	1860	540	-	RF	97 R57	D	16	DT	71D4		150	-
	1.1	-	5.7	297	1580	460	-									
	1.2	-	6.2	270	1440	420	-									
	1.5	-	7.4	227	1210	350	-									
	0.34	-	1.7	1008	1550	1540	-									
	0.38	-	1.9	885	1550	1350	-									
	0.44	-	2.2	776	1550	1180	-	R	87 R57	D	16	DT	71D4		97	-
	0.49	-	2.5	685	1550	1040	-	RF	87 R57	D	16	DT	71D4		105	-
	0.56	-	2.8	599	1550	910	-									
	0.63	-	3.1	538	1550	830	-									
	0.72	-	3.6	472	1550	730	-									
	0.85	-	4.2	400	1550	620	-									
	0.94	-	4.7	361	1550	560	-	R	87 R57	D	16	DT	71D4		96	-
	1.1	-	5.6	300	1550	465	-	RF	87 R57	D	16	DT	71D4		105	-
	1.3	-	6.6	256	1360	395	-									
	1.5	-	7.3	232	1230	360	-									
	1.7	-	8.6	195	1040	300	-									
	0.65	-	3.2	520	820	810	-									
	0.75	-	3.7	451	820	700	-									
	0.80	-	4.0	422	820	655	-									
	0.93	-	4.6	365	820	565	-	R	77 R37	D	16	DT	71D4		60	-
	1.1	-	5.4	310	820	480	-	RF	77 R37	D	16	DT	71D4		66	-
	1.2	-	6.1	276	820	425	-									
	1.4	-	7.1	236	820	365	-									
	1.5	-	7.6	221	820	340	-									
	0.88	-	4.4	384	600	595	-									
	0.94	-	4.7	359	600	555	-									
	1.1	-	5.4	310	600	480	-	R	67 R37	D	16	DT	71D4		55	-
	1.3	-	6.4	264	600	410	-	RF	67 R37	D	16	DT	71D4		58	-
	1.4	-	7.2	235	600	365	-									
	1.7	-	8.4	201	600	310	-									
	1.2	-	5.8	290	450	450	-									
	1.3	-	6.4	262	450	405	-	R	57 R37	D	16	DT	71D4		49	-
	1.4	-	6.8	246	450	380	-	RF	57 R37	D	16	DT	71D4		52	-
	1.5	-	7.7	220	450	340	-									
	1.9	-	9.2	182	300	280	-	R	47 R37	D	16	DT	71D4		44	-
								RF	47 R37	D	16	DT	71D4		44	-
0.37 / 0.30	1.1	-	5.6	195.24*	820	560	-	R	77	D	16	DT	80K6		53	431
	1.3	-	6.6	166.59	820	480	-	RF	77	D	16	DT	80K6		58	432
	1.5	-	7.5	145.67	820	420	-									
	1.1	-	5.5	199.81	600	575	-									
	1.2	-	6.0	184.07	600	530	-									
	1.4	-	6.9	158.14	600	455	-	R	67	D	16	DT	80K6		48	429
	1.6	-	8.0	137.67	600	395	-	RF	67	D	16	DT	80K6		51	430
	1.7	-	8.5	128.97	600	370	-									

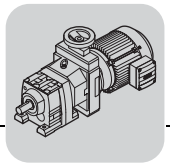


R = 1:5																
P_m/P_{a2} [kW]	n_{a1} [1/min]	-	n_{a2}	i	M_{a1} [Nm]	M_{a2}	⚠								m [kg]	
0.37 / 0.30	1.8	-	9.0	186.89	450	305	-									
	2.0	-	9.8	172.17	450	285	-									
	2.3	-	11	147.92	450	245	-									
	2.6	-	13	128.77	450	210	-									
	2.8	-	14	120.63	450	198	-									
	3.2	-	16	106.58	450	175	-	R	57	D	16	DT	71D4		40	427
	3.4	-	17	98.99	450	163	-	RF	57	D	16	DT	71D4		43	428
	3.8	-	19	89.71	450	148	-									
	4.2	-	21	80.55	450	133	-									
	4.9	-	24	69.23	390	114	-									
	5.2	-	26	64.85	365	107	-									
	5.9	-	29	57.29	325	94	-									
	1.9	-	9.5	176.88	300	290	-									
	2.1	-	10	162.94	300	270	-									
	2.4	-	12	139.99	300	230	-									
	2.8	-	14	121.87	300	200	-									
	3.0	-	15	114.17	300	188	-									
	3.4	-	17	100.86	300	166	-									
	3.6	-	18	93.68	300	154	-									
	4.0	-	20	84.90	300	140	-	R	47	D	16	DT	71D4		34	425
	4.4	-	22	76.23	300	125	-	RF	47	D	16	DT	71D4		34	426
	4.9	-	25	68.54	300	113	-									
	5.3	-	26	64.21	300	106	-									
	6.0	-	30	56.73	300	93	-									
	6.4	-	32	52.69	300	87	-									
	7.1	-	35	47.75	270	79	-									
	7.9	-	39	42.87	240	71	-									
	9.2	-	46	36.93	210	61	-									
	3.2	-	16	105.28	200	173	-									
	3.7	-	19	90.77	200	149	-									
	4.0	-	20	84.61	200	139	-									
	4.6	-	23	73.96	200	122	-									
	4.9	-	24	69.33	200	114	-									
	5.5	-	28	61.18	200	101	-									
	6.1	-	30	55.76	200	92	-	R	37	D	16	DT	71D4		30	423
	7.0	-	35	48.08	200	79	-	RF	37	D	16	DT	71D4		31	424
	7.5	-	38	44.81	200	74	-									
	8.6	-	43	39.17	200	64	-									
	9.2	-	46	36.72	200	60	-									
	10	-	52	32.40	183	53	-									
	12	-	59	28.73	162	47	-									
	4.6	-	23	74.11	130	122	-									
	4.9	-	24	69.47	130	114	-									
	5.5	-	27	61.30	130	101	-									
	6.0	-	30	55.87	130	92	-									
	7.0	-	35	48.17	130	79	-									
	7.5	-	38	44.90	130	74	-	R	27	D	16	DT	71D4		25	421
	8.6	-	43	39.25	130	65	-	RF	27	D	16	DT	71D4		25	422
	9.2	-	46	36.79	130	61	-									
	10	-	52	32.47	130	53	-									
	12	-	59	28.78	130	47	-									
	14	-	69	24.47	130	40	-									
	12	-	59	28.37	130	47	-									
	13	-	65	26.09	130	43	-									
	15	-	75	22.32	126	37	-									
	17	-	87	19.35	109	32	-									
	19	-	93	18.08	102	30	-									
	22	-	108	15.63	88	26	-									
	25	-	127	13.28*	75	22	-	R	27	D	16	DT	71D4		25	421
	29	-	142	11.86	67	20	-	RF	27	D	16	DT	71D4		25	422
	33	-	166	10.13	57	17	-									
	36	-	179	9.41	53	16	-									
	41	-	206	8.16	46	13	-									
	44	-	221	7.63*	43	13	-									
	51	-	255	6.59	37	11	-									

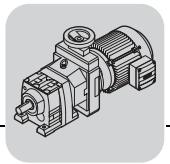


R..D..DT/DV.. [kW]

R = 1:5																
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
0.37 / 0.30	**56**	-	**277**	6.07	34	10	-	**RX**	**67**		**D**	**16**	**DT**	**71D4**	33	411
	65	-	**325**	5.18	29	8.5	-	**RXF**	**67**		**D**	**16**	**DT**	**71D4**	37	412
	75	-	**372**	4.53	26	7.5	-									
	62	-	**306**	5.50*	31	9.0	-									
	67	-	**332**	5.07	29	8.3	-									
	78	-	**387**	4.35	25	7.2	-									
	89	-	**444**	3.79	21	6.2	-									
	95	-	**474**	3.55*	20	5.8	-									
	108	-	**536**	3.14	18	5.2	-									
	116	-	**579**	2.91	16	4.8	-	**RX**	**57**		**D**	**16**	**DT**	**71D4**	30	409
	128	-	**638**	2.64*	15	4.3	-	**RXF**	**57**		**D**	**16**	**DT**	**71D4**	32	410
	143	-	**710**	2.37	13	3.9	-									
	166	-	**825**	2.04	12	3.4	-									
	176	-	**877**	1.92*	11	3.2	-									
	205	-	**1020**	1.65	9.3	2.7	-									
	229	-	**1140**	1.48	8.4	2.4	-									
	260	-	**1295**	1.30	7.3	2.1	-									
0.55 / 0.39	**0.27**	-	**1.4**	1228	3000	2950	-									
	0.31	-	**1.6**	1069	3000	2570	-									
	0.36	-	**1.8**	938	3000	2250	-	**R**	**97**	**R57**	**D**	**16**	**DT**	**80K4**	140	-
	0.40	-	**2.0**	824	3000	1980	-	**RF**	**97**	**R57**	**D**	**16**	**DT**	**80K4**	155	-
	0.45	-	**2.2**	737	3000	1770	-									
	0.53	-	**2.6**	632	3000	1520	-									
	0.53	-	**2.6**	625	3000	1520	-									
	0.61	-	**3.0**	549	3000	1340	-									
	0.72	-	**3.6**	466	3000	1140	-									
	0.79	-	**4.0**	420	2950	1020	-									
	0.90	-	**4.5**	370	2590	900	-	**R**	**97**	**R57**	**D**	**16**	**DT**	**80K4**	135	-
	0.96	-	**4.8**	349	2450	850	-	**RF**	**97**	**R57**	**D**	**16**	**DT**	**80K4**	155	-
	1.1	-	**5.6**	297	2080	725	-									
	1.2	-	**6.2**	270	1890	660	-									
	1.5	-	**7.3**	227	1590	555	-									
	0.56	-	**2.8**	599	1550	1440	-	**R**	**87**	**R57**	**D**	**16**	**DT**	**80K4**	99	-
								RF	**87**	**R57**	**D**	**16**	**DT**	**80K4**	105	-
	0.62	-	**3.1**	538	1550	1310	-									
	0.71	-	**3.5**	472	1550	1150	-									
	0.83	-	**4.2**	400	1550	980	-									
	0.92	-	**4.6**	361	1550	880	-	**R**	**87**	**R57**	**D**	**16**	**DT**	**80K4**	98	-
	1.1	-	**5.5**	300	1550	730	-	**RF**	**87**	**R57**	**D**	**16**	**DT**	**80K4**	105	-
	1.3	-	**6.5**	256	1550	625	-									
	1.4	-	**7.2**	232	1550	565	-									
	1.7	-	**8.5**	195	1370	475	-									
	1.1	-	**5.4**	310	820	755	-									
	1.2	-	**6.0**	276	820	675	-	**R**	**77**	**R37**	**D**	**16**	**DT**	**80K4**	62	-
	1.4	-	**7.0**	236	820	575	-	**RF**	**77**	**R37**	**D**	**16**	**DT**	**80K4**	67	-
	1.5	-	**7.5**	221	820	540	-									
	1.4	-	**7.1**	235	600	575	-	**R**	**67**	**R37**	**D**	**16**	**DT**	**80K4**	57	-
								RF	**67**	**R37**	**D**	**16**	**DT**	**80K4**	60	-
0.55 / 0.45	**1.3**	-	**6.6**	166.59	820	710	-									
	1.5	-	**7.5**	145.67	820	620	-	**R**	**77**		**D**	**16**	**DT**	**80N6**	54	431
	1.6	-	**7.9**	138.39	820	590	-	**RF**	**77**		**D**	**16**	**DT**	**80N6**	60	432
	1.8	-	**9.0**	121.42	820	520	-									
	1.6	-	**8.0**	137.67	600	585	-									
	1.7	-	**8.5**	128.97	600	550	-	**R**	**67**		**D**	**16**	**DT**	**80N6**	49	429
	1.9	-	**9.6**	113.94	600	485	-	**RF**	**67**		**D**	**16**	**DT**	**80N6**	52	430
	1.7	-	**8.3**	199.81	600	520	-									
	1.8	-	**9.0**	184.07	600	475	-									
	2.1	-	**10**	158.14	600	410	-									
	2.4	-	**12**	137.67	600	355	-	**R**	**67**		**D**	**16**	**DT**	**80K4**	48	429
	2.6	-	**13**	128.97	600	335	-	**RF**	**67**		**D**	**16**	**DT**	**80K4**	51	430
	2.9	-	**15**	113.94	600	295	-									
	3.1	-	**16**	105.83	600	275	-									
	3.5	-	**17**	95.91	600	250	-									

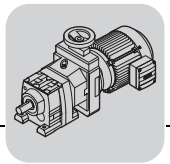


R = 1:5															
P_m/P_{a2} [kW]	n_{a1} [1/min]	-	n_{a2}	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
0.55 / 0.45	1.9	-	9.6	172.17	450	445	-								
	2.2	-	11	147.92	450	385	-								
	2.6	-	13	128.77	450	335	-								
	2.8	-	14	120.63	450	310	-								
	3.1	-	16	106.58	450	275	-								
	3.4	-	17	98.99	450	255	-								
	3.7	-	19	89.71	450	230	-	R	57	D	16	DT	80K4	41	427
	4.1	-	21	80.55	450	210	-	RF	57	D	16	DT	80K4	45	428
	4.8	-	24	69.23	450	179	-								
	5.1	-	26	64.85	450	168	-								
	5.8	-	29	57.29	425	148	-								
	6.3	-	31	53.22	395	138	-								
	6.9	-	34	48.23	360	125	-								
	7.7	-	38	43.30	325	112	-								
	2.9	-	15	114.17	300	295	-								
	3.3	-	16	100.86	300	260	-								
	3.6	-	18	93.68	300	245	-								
	3.9	-	20	84.90	300	220	-								
	4.4	-	22	76.23	300	197	-								
	4.9	-	24	68.54	300	178	-								
	5.2	-	26	64.21	300	166	-	R	47	D	16	DT	80K4	36	425
	5.9	-	29	56.73	300	147	-	RF	47	D	16	DT	80K4	36	426
	6.3	-	31	52.69	300	137	-								
	7.0	-	35	47.75	300	124	-								
	7.8	-	39	42.87	300	111	-								
	9.0	-	45	36.93	275	96	-								
	9.6	-	48	34.73	260	90	-								
	4.5	-	22	73.96	200	192	-								
	4.8	-	24	69.33	200	180	-								
	5.5	-	27	61.18	200	159	-								
	6.0	-	30	55.76	200	144	-								
	6.9	-	35	48.08	200	125	-	R	37	D	16	DT	80K4	31	423
	7.4	-	37	44.81	200	116	-	RF	37	D	16	DT	80K4	33	424
	8.5	-	42	39.17	200	102	-								
	9.1	-	45	36.72	200	95	-								
	10	-	51	32.40	200	84	-								
	12	-	59	28.32	200	73	-								
	13	-	64	26.03	185	67	-								
	15	-	75	22.27	166	58	-	R	37	D	16	DT	80K4	31	423
	17	-	86	19.31	144	50	-	RF	37	D	16	DT	80K4	33	424
	18	-	92	18.05	135	47	-								
	6.9	-	34	48.17	130	125	-								
	7.4	-	37	44.90	130	116	-								
	8.5	-	42	39.25	130	102	-	R	27	D	16	DT	80K4	27	421
	9.1	-	45	36.79	130	95	-	RF	27	D	16	DT	80K4	27	422
	10	-	51	32.47	130	84	-								
	12	-	58	28.37	130	74	-								
	13	-	64	26.09	130	68	-								
	15	-	74	22.32	130	58	-								
	17	-	86	19.35	130	50	-								
	18	-	92	18.08	130	47	-								
	21	-	106	15.63	116	41	-								
	25	-	125	13.28*	99	34	-	R	27	D	16	DT	80K4	26	421
	28	-	140	11.86	88	31	-	RF	27	D	16	DT	80K4	27	422
	33	-	164	10.13	76	26	-								
	35	-	176	9.41	70	24	-								
	41	-	203	8.16	61	21	-								
	44	-	217	7.63*	57	20	-								
	51	-	252	6.59	49	17	-								
	55	-	273	6.07	43	16	-	RX	67	D	16	DT	80K4	34	411
	64	-	320	5.18	39	13	-	RXF	67	D	16	DT	80K4	38	412



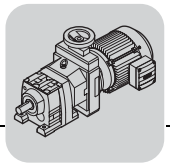
R..D..DT/DV.. [kW]

R = 1:5																
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
0.55 / 0.45	61	-	302	5.50*	39	14	-									
	66	-	327	5.07	36	13	-									
	77	-	381	4.35	32	11	-									
	88	-	438	3.79	28	9.8	-									
	94	-	467	3.55*	26	9.2	-									
	106	-	528	3.14	23	8.1	-									
	115	-	570	2.91	22	7.5	-	RX	57		D	16	DT	80K4	32	409
	126	-	628	2.64*	20	6.8	-	RXF	57		D	16	DT	80K4	34	410
	141	-	700	2.37	18	6.1	-									
	163	-	813	2.04	15	5.3	-									
	174	-	864	1.92*	14	5.0	-									
	202	-	1005	1.65	12	4.3	-									
	225	-	1120	1.48	11	3.8	-									
	256	-	1275	1.30	9.7	3.4	-									
	279	-	1390	2.37	11	2.4	-									
	324	-	1615	2.04	9.1	2.1	-									
	345	-	1715	1.92*	8.6	1.9	-	RX	57		D	16	DT	71D2	30	409
	401	-	1995	1.65	7.4	1.7	-	RXF	57		D	16	DT	71D2	32	410
	447	-	2225	1.48	6.6	1.5	-									
	509	-	2535	1.30	5.8	1.3	-									
0.75 / 0.54	0.41	-	2.0	824	3000	2730	-	R	97	R57	D	16	DT	80N4	140	-
	0.46	-	2.3	737	3000	2440	-	RF	97	R57	D	16	DT	80N4	155	-
	0.54	-	2.7	632	3000	2090	-									
	0.54	-	2.7	625	3000	2100	-									
	0.62	-	3.1	549	3000	1850	-									
	0.73	-	3.6	466	3000	1570	-									
	0.81	-	4.0	420	2900	1410	-									
	0.91	-	4.5	370	2560	1240	-	R	97	R57	D	16	DT	80N4	135	-
	0.97	-	4.8	349	2410	1170	-	RF	97	R57	D	16	DT	80N4	155	-
	1.1	-	5.7	297	2050	1000	-									
	1.2	-	6.2	270	1870	910	-									
	1.5	-	7.4	227	1570	765	-									
	0.85	-	4.2	400	1550	1350	-									
	0.94	-	4.7	361	1550	1210	-									
	1.1	-	5.6	300	1550	1010	-	R	87	R57	D	16	DT	80N4	99	-
	1.3	-	6.6	256	1550	860	-	RF	87	R57	D	16	DT	80N4	105	-
	1.5	-	7.3	232	1550	780	-									
	1.7	-	8.6	195	1350	655	-									
	1.4	-	7.1	236	820	795	-	R	77	R37	D	16	DT	80N4	63	-
	1.5	-	7.6	221	820	745	-	RF	77	R37	D	16	DT	80N4	69	-
0.75 / 0.60	1.1	-	5.4	216.54	1550	1180	-									
	1.1	-	5.7	205.71	1550	1130	-									
	1.3	-	6.4	181.77	1550	990	-									
	1.5	-	7.5	155.34	1550	850	-	R	87		D	26	DT	90S6	99	433
	1.7	-	8.2	142.41	1550	780	-	RF	87		D	26	DT	90S6	105	434
	1.9	-	9.4	124.97	1550	685	-									
	2.0	-	9.9	118.43*	1550	650	-									
	1.6	-	8.0	145.67	820	795	-									
	1.7	-	8.4	138.39	820	755	-	R	77		D	26	DT	90S6	71	431
	1.9	-	9.6	121.42	820	665	-	RF	77		D	26	DT	90S6	76	432
	2.3	-	11	102.99	820	565	-									
	1.7	-	8.6	195.24*	820	700	-									
	2.0	-	10	166.59	820	595	-									
	2.3	-	12	145.67	820	520	-	R	77		D	16	DT	80N4	54	431
	2.4	-	12	138.39	820	495	-	RF	77		D	16	DT	80N4	60	432
	2.8	-	14	121.42	820	435	-									
	3.3	-	16	102.99	755	370	-									
	2.1	-	11	158.14	600	565	-									
	2.5	-	12	137.67	600	490	-									
	2.6	-	13	128.97	600	460	-	R	67		D	16	DT	80N4	49	429
	3.0	-	15	113.94	600	405	-	RF	67		D	16	DT	80N4	52	430
	3.2	-	16	105.83	600	380	-									
	3.5	-	18	95.91	600	345	-									

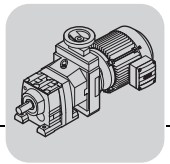


R = 1:5

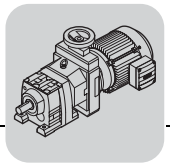
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
0.75 / 0.60	**2.8 - 14**	120.63	450	430	-								
	3.2 - 16	106.58	450	380	-								
	3.4 - 17	98.99	450	355	-								
	3.8 - 19	89.71	450	320	-								
	4.2 - 21	80.55	450	290	-								
	4.9 - 24	69.23	450	245	-	**R**	**57**	**D**	**16**	**DT**	**80N4**	43	427
	5.2 - 26	64.85	450	230	-	**RF**	**57**	**D**	**16**	**DT**	**80N4**	46	428
	5.9 - 29	57.29	420	205	-								
	6.4 - 32	53.22	390	190	-								
	7.0 - 35	48.23	355	172	-								
	7.8 - 39	43.30	320	155	-								
	4.4 - 22	76.23	300	270	-								
	4.9 - 25	68.54	300	245	-								
	5.3 - 26	64.21	300	230	-								
	6.0 - 30	56.73	300	205	-								
	6.4 - 32	52.69	300	188	-	**R**	**47**	**D**	**16**	**DT**	**80N4**	37	425
	7.1 - 35	47.75	300	171	-	**RF**	**47**	**D**	**16**	**DT**	**80N4**	38	426
	7.9 - 39	42.87	300	153	-								
	9.2 - 46	36.93	270	132	-								
	9.7 - 48	34.73	255	124	-								
	6.1 - 30	55.76	200	199	-								
	7.0 - 35	48.08	200	172	-								
	7.5 - 38	44.81	200	160	-	**R**	**37**	**D**	**16**	**DT**	**80N4**	33	423
	8.6 - 43	39.17	200	140	-	**RF**	**37**	**D**	**16**	**DT**	**80N4**	34	424
	9.2 - 46	36.72	200	131	-								
	10 - 52	32.40	200	116	-								
	12 - 59	28.32	200	101	-								
	13 - 65	26.03	185	93	-								
	15 - 76	22.27	164	80	-	**R**	**37**	**D**	**16**	**DT**	**80N4**	33	423
	18 - 87	19.31	142	69	-	**RF**	**37**	**D**	**16**	**DT**	**80N4**	34	424
	19 - 93	18.05	133	65	-								
	10 - 52	32.47	130	116	-	**R**	**27**	**D**	**16**	**DT**	**80N4**	28	421
						RF	**27**	**D**	**16**	**DT**	**80N4**	29	422
	12 - 59	28.37	130	101	-								
	13 - 65	26.09	130	93	-								
	15 - 75	22.32	130	80	-								
	17 - 87	19.35	130	69	-								
	19 - 93	18.08	130	65	-								
	22 - 108	15.63	115	56	-								
	25 - 127	13.28*	98	48	-	**R**	**27**	**D**	**16**	**DT**	**80N4**	28	421
	29 - 142	11.86	87	42	-	**RF**	**27**	**D**	**16**	**DT**	**80N4**	28	422
	33 - 166	10.13	74	36	-								
	36 - 179	9.41	69	34	-								
	41 - 206	8.16	60	29	-								
	44 - 221	7.63*	56	27	-								
	51 - 255	6.59	48	24	-								
	56 - 277	6.07	43	22	-	**RX**	**67**	**D**	**16**	**DT**	**80N4**	36	411
	65 - 325	5.18	38	19	-	**RXF**	**67**	**D**	**16**	**DT**	**80N4**	40	412
	62 - 306	5.50*	39	20	-								
	67 - 332	5.07	36	18	-								
	78 - 387	4.35	32	16	-								
	89 - 444	3.79	28	14	-								
	95 - 474	3.55*	26	13	-								
	108 - 536	3.14	23	11	-								
	116 - 579	2.91	21	10	-	**RX**	**57**	**D**	**16**	**DT**	**80N4**	33	409
	128 - 638	2.64*	19	9.4	-	**RXF**	**57**	**D**	**16**	**DT**	**80N4**	35	410
	143 - 710	2.37	17	8.5	-								
	166 - 825	2.04	15	7.3	-								
	176 - 877	1.92*	14	6.9	-								
	205 - 1020	1.65	12	5.9	-								
	229 - 1140	1.48	11	5.3	-								
	260 - 1295	1.30	9.5	4.6	-								



R = 1:5															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2}	⚠							m [kg]	
0.75 / 0.60	279	-	1390	2.37	12	3.6	-								
	324	-	1615	2.04	10	3.1	-								
	345	-	1715	1.92*	9.7	3.0	-	RX	57	D	16	DT	80K2	32	409
	401	-	1995	1.65	8.3	2.5	-	RXF	57	D	16	DT	80K2	34	410
	447	-	2225	1.48	7.5	2.3	-								
	509	-	2535	1.30	6.6	2.0	-								
1.1 / 0.84	0.19	-	0.93	1951	13000	8830	-	R	147 R77	D	26	DT	90S4	430	-
								RF	147 R77	D	26	DT	90S4	440	-
	0.23	-	1.1	1598	8000	7230	-								
	0.26	-	1.3	1397	8000	6320	-								
	0.30	-	1.5	1226	8000	5550	-								
	0.33	-	1.7	1090	8000	4930	-								
	0.38	-	1.9	951	8000	4300	-								
	0.44	-	2.2	831	8000	3760	-								
	0.50	-	2.5	730	8000	3300	-								
	0.58	-	2.9	629	8000	2850	-								
	0.65	-	3.2	560	7750	2530	-	R	137 R77	D	26	DT	90S4	305	-
	0.74	-	3.7	490	6780	2220	-	RF	137 R77	D	26	DT	90S4	330	-
	0.85	-	4.2	428	5930	1940	-								
	0.96	-	4.8	381	5270	1720	-								
	1.1	-	5.6	323	4470	1460	-								
	1.2	-	6.2	291	4030	1320	-								
	1.4	-	7.1	255	3530	1150	-								
	1.6	-	8.2	223	3090	1010	-								
	1.9	-	9.2	197	2730	890	-								
	2.1	-	10	175	2420	790	-								
	0.39	-	1.9	939	4300	4250	-								
	0.44	-	2.2	822	4300	3720	-								
	0.59	-	3.0	614	4300	2780	-	R	107 R77	D	26	DT	90S4	225	-
	0.67	-	3.4	544	4300	2460	-	RF	107 R77	D	26	DT	90S4	230	-
	0.74	-	3.7	492	4300	2230	-								
	0.78	-	3.9	469	4300	2150	-								
	0.86	-	4.3	426	4300	1960	-								
	0.97	-	4.8	377	4300	1730	-								
	1.1	-	5.6	325	4300	1490	-								
	1.3	-	6.4	284	3990	1300	-	R	107 R77	D	26	DT	90S4	220	-
	1.4	-	7.1	256	3600	1180	-	RF	107 R77	D	26	DT	90S4	225	-
	1.7	-	8.3	220	3090	1010	-								
	1.9	-	9.4	193	2710	890	-								
	2.1	-	11	172	2420	790	-								
	0.58	-	2.9	632	3000	2860	-	R	97 R57	D	26	DT	90S4	155	-
								RF	97 R57	D	26	DT	90S4	170	-
	0.58	-	2.9	625	3000	2870	-								
	0.66	-	3.3	549	3000	2520	-								
	0.78	-	3.9	466	3000	2140	-								
	0.87	-	4.3	420	3000	1930	-								
	0.99	-	4.9	370	3000	1700	-	R	97 R57	D	26	DT	90S4	150	-
	1.0	-	5.2	349	3000	1600	-	RF	97 R57	D	26	DT	90S4	170	-
	1.2	-	6.1	297	3000	1360	-								
	1.4	-	6.7	270	3000	1240	-								
	1.6	-	8.0	227	3000	1040	-								
	1.2	-	6.1	300	1550	1380	-								
	1.4	-	7.1	256	1550	1180	-	R	87 R57	D	26	DT	90S4	115	-
	1.6	-	7.8	232	1550	1070	-	RF	87 R57	D	26	DT	90S4	120	-
1.1 / 0.90	1.3	-	6.6	181.77	1550	1420	-								
	1.5	-	7.7	155.34	1550	1220	-	R	87	D	26	DT	90L6	100	433
	1.7	-	8.4	142.41	1550	1110	-	RF	87	D	26	DT	90L6	110	434

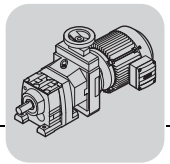


R = 1:5																
P_m/P_{a2} [kW]	n_{a1} [1/min]	-	n_{a2}	i	M_{a1} [Nm]	M_{a2}	⚠								m [kg]	
1.1 / 0.90	1.7	-	8.4	216.54	1550	1060	-									
	1.8	-	8.8	205.71	1550	1000	-									
	2.0	-	10	181.77	1550	890	-	R	87	D	26	DT	90S4		99	433
	2.4	-	12	155.34	1550	760	-	RF	87	D	26	DT	90S4		105	434
	2.6	-	13	142.41	1550	695	-									
	2.9	-	15	124.97	1550	610	-									
	3.1	-	15	118.43*	1550	580	-									
	2.5	-	12	145.67	820	710	-									
	2.6	-	13	138.39	820	675	-									
	3.0	-	15	121.42	820	595	-	R	77	D	26	DT	90S4		71	431
	3.5	-	18	102.99	820	505	-	RF	77	D	26	DT	90S4		76	432
	3.9	-	20	92.97	820	455	-									
	4.5	-	22	81.80	820	400	-									
	3.2	-	16	113.94	600	555	-									
	3.4	-	17	105.83	600	515	-									
	3.8	-	19	95.91	600	470	-	R	67	D	26	DT	90S4		65	429
	4.2	-	21	86.11	600	420	-	RF	67	D	26	DT	90S4		68	430
	4.9	-	25	74.17	600	360	-									
	5.2	-	26	69.75	600	340	-									
	3.8	-	19	172.17	450	425	-									
	4.5	-	22	147.92	450	365	-									
	5.1	-	26	128.77	450	315	-									
	5.5	-	27	120.63	450	295	-									
	6.2	-	31	106.58	450	265	-	R	57	D	16	DT	80N2		43	427
	6.7	-	33	98.99	450	245	-	RF	57	D	16	DT	80N2		46	428
	7.4	-	37	89.71	450	220	-									
	8.2	-	41	80.55	405	199	-									
	9.6	-	48	69.23	350	171	-									
	10	-	51	64.85	330	160	-									
	5.8	-	29	114.17	300	280	-									
	6.6	-	33	100.86	300	250	-									
	7.1	-	35	93.68	300	230	-									
	7.8	-	39	84.90	300	210	-									
	8.7	-	43	76.23	300	188	-									
	9.7	-	48	68.54	300	169	-	R	47	D	16	DT	80N2		37	425
	10	-	51	64.21	300	158	-	RF	47	D	16	DT	80N2		38	426
	12	-	58	56.73	285	140	-									
	13	-	63	52.69	265	130	-									
	14	-	69	47.75	240	118	-									
	15	-	77	42.87	215	106	-									
	9.0	-	45	73.96	200	182	-									
	9.6	-	48	69.33	200	171	-									
	11	-	54	61.18	200	151	-									
	12	-	59	55.76	200	137	-									
	14	-	69	48.08	200	119	-	R	37	D	16	DT	80N2		33	423
	15	-	74	44.81	200	110	-	RF	37	D	16	DT	80N2		34	424
	17	-	84	39.17	198	97	-									
	18	-	90	36.72	186	91	-									
	20	-	102	32.40	164	80	-									
	23	-	115	28.73	145	71	-									
	14	-	68	48.17	130	119	-									
	15	-	73	44.90	130	111	-									
	17	-	84	39.25	130	97	-	R	27	D	16	DT	80N2		28	421
	18	-	90	36.79	130	91	-	RF	27	D	16	DT	80N2		29	422
	20	-	101	32.47	130	80	-									

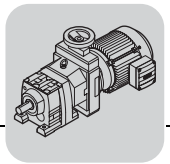


R..D..DT/DV.. [kW]

R = 1:5															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
1.1 / 0.90	23 - 116	28.37	130	70	-									
	25 - 126	26.09	130	64	-									
	30 - 148	22.32	113	55	-									
	34 - 170	19.35	98	48	-									
	37 - 182	18.08	91	45	-									
	42 - 211	15.63	79	39	-									
	50 - 248	13.28*	67	33	-	R	27	D	16	DT	80N2		28	421
	56 - 278	11.86	60	29	-	RF	27	D	16	DT	80N2		28	422
	65 - 325	10.13	51	25	-									
	70 - 350	9.41	48	23	-									
	81 - 404	8.16	41	20	-									
	87 - 432	7.63*	39	19	-									
	100 - 500	6.59	33	16	-									
	109 - 543	6.07	31	15	-	RX	67	D	16	DT	80N2		36	411
	128 - 636	5.18	26	13	-	RXF	67	D	16	DT	80N2		40	412
	120 - 599	5.50*	28	14	-									
	131 - 650	5.07	26	13	-									
	152 - 757	4.35	22	11	-									
	175 - 869	3.79	19	9.3	-									
	186 - 928	3.55*	18	8.7	-									
	211 - 1050	3.14	16	7.7	-									
	227 - 1130	2.91	15	7.2	-	RX	57	D	16	DT	80N2		33	409
	251 - 1250	2.64*	13	6.5	-	RXF	57	D	16	DT	80N2		35	410
	279 - 1390	2.37	12	5.8	-									
	324 - 1615	2.04	10	5.0	-									
	345 - 1715	1.92*	9.7	4.7	-									
	401 - 1995	1.65	8.3	4.1	-									
	447 - 2225	1.48	7.5	3.6	-									
	509 - 2535	1.30	6.6	3.2	-									
1.5 / 1.1	0.24 - 1.2	1536	13000	9720	-	R	147 R77	D	26	DT	90L4		435	-
						RF	147 R77	D	26	DT	90L4		440	-
	0.30 - 1.5	1226	8000	7760	-									
	0.34 - 1.7	1090	8000	6900	-									
	0.39 - 1.9	951	8000	6020	-									
	0.44 - 2.2	831	8000	5260	-									
	0.50 - 2.5	730	8000	4620	-									
	0.58 - 2.9	629	8000	3980	-									
	0.66 - 3.3	560	7700	3540	-									
	0.75 - 3.7	490	6740	3100	-	R	137 R77	D	26	DT	90L4		310	-
	0.86 - 4.3	428	5880	2710	-	RF	137 R77	D	26	DT	90L4		330	-
	0.96 - 4.8	381	5240	2410	-									
	1.1 - 5.7	323	4440	2040	-									
	1.3 - 6.3	291	4000	1840	-									
	1.4 - 7.2	255	3510	1610	-									
	1.7 - 8.2	223	3070	1410	-									
	1.9 - 9.3	197	2710	1250	-									
	2.1 - 10	175	2410	1110	-									
	0.60 - 3.0	614	4300	3890	-	R	107 R77	D	26	DT	90L4		225	-
	0.67 - 3.4	544	4300	3440	-	RF	107 R77	D	26	DT	90L4		235	-
	0.75 - 3.7	492	4300	3110	-									
	0.78 - 3.9	469	4300	3010	-									
	0.86 - 4.3	426	4300	2740	-									
	0.97 - 4.9	377	4300	2420	-									
	1.1 - 5.6	325	4300	2090	-	R	107 R77	D	26	DT	90L4		220	-
	1.3 - 6.5	284	3960	1820	-	RF	107 R77	D	26	DT	90L4		225	-
	1.4 - 7.2	256	3570	1640	-									
	1.7 - 8.3	220	3070	1410	-									
	1.9 - 9.5	193	2690	1240	-									
	2.1 - 11	172	2400	1110	-									

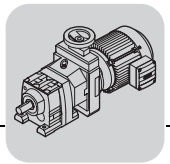


R = 1:5															
P_m/P_{a2} [kW]	n_{a1} [1/min]	-	n_{a2}	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
1.5 / 1.1	0.79	-	3.9	466	3000	2990	-								
	0.87	-	4.4	420	3000	2700	-								
	0.99	-	5.0	370	3000	2380	-								
	1.1	-	5.2	349	3000	2240	-	R	97 R57	D	26	DT	90L4	155	-
	1.2	-	6.2	297	3000	1910	-	RF	97 R57	D	26	DT	90L4	170	-
	1.4	-	6.8	270	3000	1730	-								
	1.6	-	8.1	227	3000	1460	-								
	1.6	-	7.9	232	1550	1490	-	R	87 R57	D	26	DT	90L4	115	-
								RF	87 R57	D	26	DT	90L4	125	-
1.5 / 1.2	1.4	-	7.2	150.78	3000	1790	-	R	97	D	36	DV	100M6	170	435
								RF	97	D	36	DV	100M6	185	436
	1.7	-	8.7	124.97	1550	1480	-	R	87	D	36	DV	100M6	125	433
	1.8	-	9.2	118.43*	1550	1410	-	RF	87	D	36	DV	100M6	130	434
	1.7	-	8.5	216.54	1550	1480	-								
	1.8	-	8.9	205.71	1550	1400	-								
	2.0	-	10	181.77	1550	1240	-								
	2.4	-	12	155.34	1550	1060	-	R	87	D	26	DT	90L4	100	433
	2.6	-	13	142.41	1550	970	-	RF	87	D	26	DT	90L4	110	434
	2.9	-	15	124.97	1550	850	-								
	3.1	-	15	118.43*	1550	810	-								
	3.6	-	18	102.99	820	705	-	R	77	D	26	DT	90L4	73	431
	4.0	-	20	92.97	820	635	-	RF	77	D	26	DT	90L4	78	432
	4.3	-	21	86.11	600	590	-								
	5.0	-	25	74.17	600	505	-								
	5.3	-	26	69.75	600	475	-	R	67	D	26	DT	90L4	67	429
	6.0	-	30	61.26	600	420	-	RF	67	D	26	DT	90L4	70	430
	6.5	-	32	56.89	600	390	-								
	5.7	-	28	64.85	450	445	-								
	6.4	-	32	57.29	450	390	-								
	6.9	-	34	53.22	450	365	-								
	7.6	-	38	48.23	450	330	-	R	57	D	26	DT	90L4	60	427
	8.5	-	42	43.30	450	295	-	RF	57	D	26	DT	90L4	64	428
	9.8	-	49	37.30*	450	255	-								
	10	-	52	35.07	450	240	-								
	12	-	61	30.18	445	205	-								
	14	-	70	26.31	390	180	-	R	57	D	26	DT	90L4	59	427
	15	-	73	24.99*	370	171	-	RF	57	D	26	DT	90L4	63	428
	17	-	84	21.93	325	150	-								
	8.6	-	43	42.87	300	295	-								
	9.9	-	50	36.93	300	250	-								
	11	-	53	34.73	300	235	-	R	47	D	26	DT	90L4	55	425
	12	-	61	29.88	300	205	-	RF	47	D	26	DT	90L4	55	426
	14	-	69	26.70	300	182	-								
	16	-	79	23.28	300	159	-								
	17	-	84	21.81	300	149	-								
	19	-	95	19.27	285	132	-								
	21	-	102	17.89	265	122	-								
	23	-	113	16.22	240	111	-								
	25	-	126	14.56	215	99	-								
	29	-	146	12.54	186	86	-								
	31	-	155	11.79	175	81	-	R	47	D	26	DT	90L4	54	425
	36	-	181	10.15	151	69	-	RF	47	D	26	DT	90L4	54	426
	40	-	202	9.07	135	62	-								
	46	-	229	8.01	119	55	-								
	47	-	236	7.76*	115	53	-								
	53	-	263	6.96	103	48	-								
	61	-	306	6.00	89	41	-								
	65	-	325	5.64*	84	39	-								
	65	-	326	5.63	84	38	-	RX	77	D	26	DT	90L4	63	413
	69	-	343	5.35*	79	37	-	RXF	77	D	26	DT	90L4	65	414
	78	-	388	4.73	70	32	-								



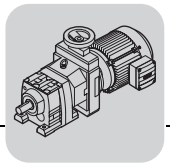
R..D..DT/DV.. [kW]

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
R = 1:5													
1.5 / 1.2	**81 - 405**	4.53	67	31	-	**RX**	**67**	**D**	**26**	**DT**	**90L4**	53	411
	85 - 426	4.30*	64	29	-	**RXF**	**67**	**D**	**26**	**DT**	**90L4**	57	412
	97 - 484	3.79	56	26	-								
	103 - 516	3.55*	53	24	-								
	117 - 584	3.14	47	21	-								
	126 - 630	2.91	43	20	-								
	139 - 694	2.64*	39	18	-								
	155 - 773	2.37	35	16	-	**RX**	**57**	**D**	**26**	**DT**	**90L4**	51	409
	180 - 899	2.04	30	14	-	**RXF**	**57**	**D**	**26**	**DT**	**90L4**	53	410
	191 - 955	1.92*	29	13	-								
	223 - 1110	1.65	25	11	-								
	248 - 1240	1.48	22	10	-								
	282 - 1410	1.30	19	8.9	-								
	297 - 1480	2.37	26	7.6	-								
	345 - 1720	2.04	22	6.5	-								
	366 - 1830	1.92*	21	6.2	-	**RX**	**57**	**D**	**26**	**DT**	**90S2**	48	409
	426 - 2125	1.65	18	5.3	-	**RXF**	**57**	**D**	**26**	**DT**	**90S2**	50	410
	475 - 2370	1.48	16	4.8	-								
	541 - 2700	1.30	14	4.2	-								
2.2 / 1.6	**0.36 - 1.8**	1029	13000	9440	-	**R**	**147 R77**	**D**	**26**	**DV**	**100M4**	435	-
						RF	**147 R77**	**D**	**26**	**DV**	**100M4**	445	-
	0.44 - 2.2	831	8000	7630	-								
	0.50 - 2.5	730	8000	6700	-								
	0.58 - 2.9	629	8000	5770	-								
	0.66 - 3.3	560	7700	5140	-								
	0.75 - 3.7	490	6740	4500	-								
	0.86 - 4.3	428	5880	3930	-								
	0.96 - 4.8	381	5240	3500	-	**R**	**137 R77**	**D**	**26**	**DV**	**100M4**	310	-
	1.1 - 5.7	323	4440	2960	-	**RF**	**137 R77**	**D**	**26**	**DV**	**100M4**	335	-
	1.3 - 6.3	291	4000	2670	-								
	1.4 - 7.2	255	3510	2340	-								
	1.7 - 8.2	223	3070	2050	-								
	1.9 - 9.3	197	2710	1810	-								
	2.1 - 10	175	2410	1610	-								
	0.86 - 4.3	426	4300	3970	-								
	0.97 - 4.9	377	4300	3510	-								
	1.1 - 5.6	325	4300	3030	-								
	1.3 - 6.5	284	3960	2650	-	**R**	**107 R77**	**D**	**26**	**DV**	**100M4**	225	-
	1.4 - 7.2	256	3570	2390	-	**RF**	**107 R77**	**D**	**26**	**DV**	**100M4**	230	-
	1.7 - 8.3	220	3070	2050	-								
	1.9 - 9.5	193	2690	1800	-								
	2.1 - 11	172	2400	1600	-								
	1.2 - 6.2	297	3000	2770	-								
	1.4 - 6.8	270	3000	2520	-	**R**	**97 R57**	**D**	**26**	**DV**	**100M4**	160	-
	1.6 - 8.1	227	3000	2120	-	**RF**	**97 R57**	**D**	**26**	**DV**	**100M4**	175	-
2.2 / 1.8	**1.3 - 6.5**	170.02	3000	2930	-								
	1.5 - 7.4	150.78	3000	2600	-	**R**	**97**	**D**	**36**	**DV**	**112M6**	180	435
	1.7 - 8.8	126.75	3000	2180	-	**RF**	**97**	**D**	**36**	**DV**	**112M6**	200	436
	1.9 - 9.5	116.48	3000	2010	-								
	2.4 - 12	155.34	1550	1540	-								
	2.6 - 13	142.41	1550	1410	-								
	2.9 - 15	124.97	1550	1240	-	**R**	**87**	**D**	**26**	**DV**	**100M4**	105	433
	3.1 - 15	118.43*	1550	1170	-	**RF**	**87**	**D**	**26**	**DV**	**100M4**	110	434
	3.5 - 18	103.65	1540	1030	-								
	4.5 - 22	81.80	820	810	-								
	4.8 - 24	77.24	820	765	-	**R**	**77**	**D**	**26**	**DV**	**100M4**	77	431
	5.6 - 28	65.77	820	650	-	**RF**	**77**	**D**	**26**	**DV**	**100M4**	82	432
	6.5 - 32	56.89	600	565	-								
	7.1 - 36	51.56	600	510	-								
	7.9 - 40	46.29	600	460	-	**R**	**67**	**D**	**26**	**DV**	**100M4**	71	429
	9.2 - 46	39.88*	580	395	-	**RF**	**67**	**D**	**26**	**DV**	**100M4**	74	430
	9.8 - 49	37.50	555	370	-								
	11 - 57	32.27	480	320	-								



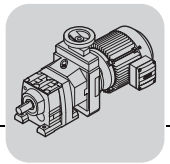
R = 1:5

P_m/P_{a2} [kW]	n_{a1} [1/min]	n_{a2}	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
2.2 / 1.8	**8.5**	**42**	43.30	450	430	-									
	9.8	**49**	37.30*	450	370	-	**R**	**57**	**D**	**26**	**DV**	**100M4**		64	427
	10	**52**	35.07	450	345	-	**RF**	**57**	**D**	**26**	**DV**	**100M4**		68	428
	12	**61**	30.18	445	300	-									
	14	**70**	26.31	390	260	-									
	15	**73**	24.99*	370	245	-	**R**	**57**	**D**	**26**	**DV**	**100M4**		63	427
	17	**84**	21.93	325	215	-	**RF**	**57**	**D**	**26**	**DV**	**100M4**		67	428
	16	**79**	23.28	300	230	-									
	17	**84**	21.81	300	215	-									
	19	**95**	19.27	285	191	-									
	21	**102**	17.89	265	177	-									
	23	**113**	16.22	240	161	-									
	25	**126**	14.56	215	144	-									
	29	**146**	12.54	186	124	-									
	31	**155**	11.79	175	117	-	**R**	**47**	**D**	**26**	**DV**	**100M4**		58	425
	36	**181**	10.15	151	101	-	**RF**	**47**	**D**	**26**	**DV**	**100M4**		58	426
	40	**202**	9.07	135	90	-									
	46	**229**	8.01	119	79	-									
	47	**236**	7.76*	115	77	-									
	53	**263**	6.96	103	69	-									
	61	**306**	6.00	89	59	-									
	65	**325**	5.64*	84	56	-									
	65	**326**	5.63	84	56	-									
	69	**343**	5.35*	79	53	-	**RX**	**77**	**D**	**26**	**DV**	**100M4**		67	413
	78	**388**	4.73	70	47	-	**RXF**	**77**	**D**	**26**	**DV**	**100M4**		69	414
	81	**405**	4.53	67	45	-	**RX**	**67**	**D**	**26**	**DV**	**100M4**		57	411
	85	**426**	4.30*	64	43	-	**RXF**	**67**	**D**	**26**	**DV**	**100M4**		61	412
	97	**484**	3.79	56	38	-									
	103	**516**	3.55*	53	35	-									
	117	**584**	3.14	47	31	-									
	126	**630**	2.91	43	29	-									
	139	**694**	2.64*	39	26	-									
	155	**773**	2.37	35	24	-	**RX**	**57**	**D**	**26**	**DV**	**100M4**		55	409
	180	**899**	2.04	30	20	-	**RXF**	**57**	**D**	**26**	**DV**	**100M4**		57	410
	191	**955**	1.92*	29	19	-									
	223	**1110**	1.65	25	16	-									
	248	**1240**	1.48	22	15	-									
	282	**1410**	1.30	19	13	-									
	300	**1495**	2.37	27	12	-									
	349	**1740**	2.04	23	9.9	-									
	370	**1850**	1.92*	22	9.4	-	**RX**	**57**	**D**	**26**	**DT**	**90L2**		51	409
	431	**2150**	1.65	19	8.0	-	**RXF**	**57**	**D**	**26**	**DT**	**90L2**		53	410
	480	**2400**	1.48	17	7.2	-									
	547	**2730**	1.30	15	6.3	-									
3.0 / 2.3	**0.29**	**1.5**	1123	18000	15900	-	**R**	**167**	**R97**	**D**	**36**	**DV**	**100L4**	780	-
							RF	**167**	**R97**	**D**	**36**	**DV**	**100L4**	790	-
	0.37	**1.9**	889	13000	12600	-									
	0.42	**2.1**	784	13000	11100	-									
	0.47	**2.4**	695	13000	9830	-									
	0.53	**2.7**	619	13000	8760	-	**R**	**147**	**R77**	**D**	**36**	**DV**	**100L4**	465	-
	0.59	**3.0**	558	13000	7900	-	**RF**	**147**	**R77**	**D**	**36**	**DV**	**100L4**	470	-
	0.67	**3.4**	489	13000	6920	-									
	0.79	**4.0**	415	13000	5870	-									
	0.59	**3.0**	560	8000	7920	-									
	0.67	**3.4**	490	8000	6930	-									
	0.77	**3.9**	428	8000	6060	-									
	0.86	**4.3**	381	8000	5390	-									
	1.0	**5.1**	323	8000	4570	-	**R**	**137**	**R77**	**D**	**36**	**DV**	**100L4**	340	-
	1.1	**5.7**	291	8000	4120	-	**RF**	**137**	**R77**	**D**	**36**	**DV**	**100L4**	360	-
	1.3	**6.5**	255	8000	3610	-									
	1.5	**7.4**	223	8000	3160	-									
	1.7	**8.4**	197	7410	2790	-									
	1.9	**9.4**	175	6590	2480	-									

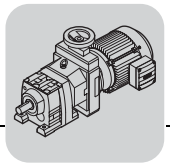


R..D..DT/DV.. [kW]

R = 1:5															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠									m [kg]	
3.0 / 2.3	0.88 - 4.4	376	8000	5400	-	R	137	R77	D	36	DV	100L4	330	-
	0.97 - 4.9	339	8000	4870	-	RF	137	R77	D	36	DV	100L4	350	-
	1.2 - 5.8	284	4300	4080	-									
	1.3 - 6.5	256	4300	3680	-									
	1.5 - 7.5	220	4300	3160	-	R	107	R77	D	36	DV	100L4	250	-
	1.7 - 8.6	193	4300	2770	-	RF	107	R77	D	36	DV	100L4	255	-
	1.9 - 9.6	172	4300	2470	-									
3.0 / 2.5	1.8 - 8.9	186.30	3000	2840	-									
	1.9 - 9.7	170.02	3000	2590	-									
	2.2 - 11	150.78	3000	2300	-	R	97		D	36	DV	100L4	170	435
	2.6 - 13	126.75	3000	1930	-	RF	97		D	36	DV	100L4	190	436
	2.8 - 14	116.48	3000	1780	-									
	3.2 - 16	103.44	3000	1580	-									
	3.5 - 18	93.38	1550	1430	-									
	4.0 - 20	81.92	1550	1250	-									
	4.5 - 23	72.57	1550	1110	-	R	87		D	36	DV	100L4	125	433
	5.2 - 26	63.68*	1550	970	-	RF	87		D	36	DV	100L4	135	434
	5.5 - 27	60.35*	1550	920	-									
	6.3 - 32	52.07	820	795	-									
	7.2 - 36	45.81	820	700	-									
	7.6 - 38	43.26	820	660	-									
	8.9 - 45	36.83	820	560	-	R	77		D	36	DV	100L4	100	431
	9.8 - 49	33.47	820	510	-	RF	77		D	36	DV	100L4	110	432
	11 - 57	29.00	820	445	-									
	13 - 65	25.23	780	385	-									
	14 - 71	23.37	820	355	-									
	15 - 77	21.43	820	325	-									
	18 - 88	18.80	765	285	-									
	18 - 93	17.82*	725	270	-									
	21 - 106	15.60	635	240	-									
	23 - 118	14.05	570	215	-									
	27 - 134	12.33	500	188	-	R	77		D	36	DV	100L4	100	431
	30 - 152	10.88	440	166	-	RF	77		D	36	DV	100L4	105	432
	34 - 171	9.64	390	147	-									
	38 - 192	8.59	350	131	-									
	43 - 213	7.74	315	118	-									
	49 - 243	6.79	275	104	-									
	55 - 276	5.99*	245	91	-									
	62 - 311	5.31*	215	81	-									
	59 - 297	5.56*	225	85	-	RX	87		D	36	DV	100L4	105	415
	65 - 326	5.07	205	77	-	RXF	87		D	36	DV	100L4	110	416
	73 - 367	4.50*	183	69	-									
	82 - 409	4.04*	143	62	-									
	89 - 446	3.70	150	57	-									
	101 - 508	3.25*	132	50	-									
	107 - 536	3.08*	125	47	-									
	122 - 612	2.70	110	41	-	RX	77		D	36	DV	100L4	92	413
	136 - 680	2.43	99	37	-	RXF	77		D	36	DV	100L4	95	414
	155 - 776	2.13	87	33	-									
	175 - 879	1.88*	76	29	-									
	197 - 989	1.67	68	26	-									
	232 - 1165	1.42	58	22	-									
	244 - 1225	2.70	63	19	-									
	271 - 1360	2.43	56	17	-									
	309 - 1550	2.13	49	15	-	RX	77		D	36	DV	100M2	90	413
	350 - 1755	1.88*	44	14	-	RXF	77		D	36	DV	100M2	93	414
	395 - 1980	1.67	39	12	-									
	464 - 2325	1.42	33	10	-									
4.0 / 3.1	0.39 - 1.9	861	18000	16300	-	R	167	R97	D	36	DV	112M4	790	-
	0.44 - 2.2	760	18000	14400	-	RF	167	R97	D	36	DV	112M4	800	-

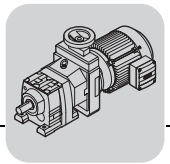


R = 1:5																
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2}	⚠								m [kg]	
4.0 / 3.1	0.54	-	2.7	619	13000	11700	-									
	0.60	-	3.0	558	13000	10600	-	R	147 R77	D	36	DV	112M4		470	-
	0.68	-	3.4	489	13000	9250	-	RF	147 R77	D	36	DV	112M4		480	-
	0.81	-	4.0	415	13000	7850	-									
	0.88	-	4.4	381	8000	7210	-									
	1.0	-	5.2	323	8000	6110	-									
	1.2	-	5.8	291	8000	5510	-									
	1.3	-	6.6	255	8000	4820	-	R	137 R77	D	36	DV	112M4		345	-
	1.5	-	7.5	223	8000	4220	-	RF	137 R77	D	36	DV	112M4		370	-
	1.7	-	8.5	197	7310	3730	-									
	1.9	-	9.6	175	6490	3310	-									
	1.1	-	5.6	297	8000	5700	-	R	137 R77	D	36	DV	112M4		335	-
								RF	137 R77	D	36	DV	112M4		360	-
	1.5	-	7.6	220	4300	4230	-									
	1.7	-	8.7	193	4300	3710	-	R	107 R77	D	36	DV	112M4		260	-
	1.9	-	9.7	172	4300	3300	-	RF	107 R77	D	36	DV	112M4		265	-
4.0 / 3.4	2.6	-	13	126.75	3000	2590	-									
	2.9	-	14	116.48	3000	2380	-									
	3.2	-	16	103.44	3000	2110	-	R	97	D	36	DV	112M4		180	435
	3.6	-	18	92.48	3000	1890	-	RF	97	D	36	DV	112M4		200	436
	4.0	-	20	83.15	3000	1700	-									
	4.6	-	23	72.17	2890	1470	-									
	4.6	-	23	72.57	1550	1480	-									
	5.2	-	26	63.68*	1550	1300	-									
	5.5	-	28	60.35*	1550	1230	-									
	6.3	-	32	52.82	1550	1080	-	R	87	D	36	DV	112M4		135	433
	7.0	-	35	47.58	1550	970	-	RF	87	D	36	DV	112M4		140	434
	8.0	-	40	41.74	1550	850	-									
	9.1	-	45	36.84*	1470	750	-									
	9.7	-	49	34.40*	1380	700	-									
	11	-	53	31.40	1260	640	-									
	12	-	60	27.84*	1110	570	-	R	87	D	36	DV	112M4		135	433
	14	-	72	23.40	940	480	-	RF	87	D	36	DV	112M4		140	434
	16	-	78	21.51	860	440	-									
	17	-	88	19.10	765	390	-									
	9.1	-	46	36.83	820	750	-									
	10	-	50	33.47	820	685	-	R	77	D	36	DV	112M4		110	431
	12	-	58	29.00	820	590	-	RF	77	D	36	DV	112M4		115	432
	13	-	66	25.23	780	515	-									
	14	-	72	23.37	820	475	-									
	16	-	78	21.43	820	435	-									
	18	-	89	18.80	750	385	-									
	19	-	94	17.82*	715	365	-									
	21	-	107	15.60	625	320	-									
	24	-	119	14.05	560	285	-									
	27	-	136	12.33	495	250	-	R	77	D	36	DV	112M4		110	431
	31	-	154	10.88	435	220	-	RF	77	D	36	DV	112M4		115	432
	35	-	174	9.64	385	197	-									
	39	-	195	8.59	345	175	-									
	43	-	216	7.74	310	158	-									
	49	-	247	6.79	270	139	-									
	56	-	280	5.99*	240	122	-									
	60	-	301	5.56*	225	113	-	RX	87	D	36	DV	112M4		115	415
	66	-	330	5.07	205	103	-	RXF	87	D	36	DV	112M4		120	416
	74	-	372	4.50*	180	92	-									

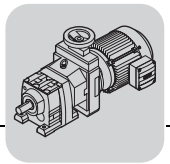


R..D..DT/DV.. [kW]

R = 1:5																
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
4.0 / 3.4	83	-	415	4.04*	143	82	-									
	90	-	453	3.70	148	76	-									
	103	-	516	3.25*	130	66	-									
	108	-	544	3.08*	123	63	-									
	124	-	621	2.70	108	55	-	RX	77		D	36	DV	112M4	100	413
	138	-	690	2.43	97	50	-	RXF	77		D	36	DV	112M4	105	414
	157	-	787	2.13	85	44	-									
	178	-	891	1.88*	75	38	-									
	200	-	1005	1.67	67	34	-									
	235	-	1180	1.42	57	29	-									
	249	-	1250	2.70	61	26	-									
	277	-	1390	2.43	55	24	-									
	316	-	1585	2.13	48	21	-	RX	77		D	36	DV	112M2	100	413
	358	-	1795	1.88*	43	18	-	RXF	77		D	36	DV	112M2	105	414
	403	-	2020	1.67	38	16	-									
	474	-	2375	1.42	32	14	-									
5.5 / 4.2	0.51	-	2.6	656	18000	17200	-	R	167	R97	D	36	DV	132S4	800	-
	0.58	-	2.9	579	18000	15200	-	RF	167	R97	D	36	DV	132S4	800	-
	0.91	-	4.6	368	13000	9660	-									
	1.0	-	5.2	326	12000	8550	-									
	1.2	-	6.0	280	10300	7350	-									
	1.4	-	6.8	247	9100	6480	-	R	147	R87	D	36	DV	132S4	500	-
	1.6	-	7.9	214	7880	5620	-	RF	147	R87	D	36	DV	132S4	510	-
	1.8	-	8.9	189	6960	4960	-									
	2.1	-	11	159	5860	4170	-									
	0.69	-	3.5	489	13000	12800	-	R	147	R77	D	36	DV	132S4	480	-
	0.81	-	4.1	415	13000	10900	-	RF	147	R77	D	36	DV	132S4	485	-
	1.2	-	5.8	291	8000	7640	-									
	1.3	-	6.6	255	8000	6690	-									
	1.5	-	7.6	223	8000	5850	-	R	137	R77	D	36	DV	132S4	355	-
	1.7	-	8.6	197	7260	5170	-	RF	137	R77	D	36	DV	132S4	375	-
	1.9	-	9.6	175	6450	4590	-									
5.5 / 4.6	3.2	-	16	103.44	3000	2930	-									
	3.6	-	18	92.48	3000	2620	-									
	4.0	-	20	83.15	3000	2350	-									
	4.7	-	23	72.17	2870	2040	-	R	97		D	36	DV	132S4	190	435
	5.2	-	26	65.21	2590	1850	-	RF	97		D	36	DV	132S4	205	436
	5.6	-	28	59.92	2380	1700	-									
	6.3	-	32	53.21	2110	1510	-									
	7.1	-	35	47.58	1890	1350	-									
	6.4	-	32	52.82	1550	1490	-									
	7.1	-	35	47.58	1550	1350	-	R	87		D	36	DV	132S4	145	433
	8.1	-	40	41.74	1550	1180	-	RF	87		D	36	DV	132S4	150	434
	9.1	-	46	36.84*	1460	1040	-									
	9.8	-	49	34.40*	1370	970	-									
	11	-	54	31.40	1250	890	-									
	12	-	61	27.84*	1110	790	-	R	87		D	36	DV	132S4	140	433
	14	-	72	23.40	930	660	-	RF	87		D	36	DV	132S4	150	434
	16	-	78	21.51	850	610	-									
	18	-	88	19.10	760	540	-									

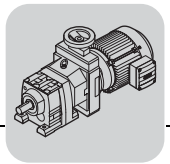


R = 1:5															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
5.5 / 4.6	**14**	-	**72**	23.37	820	660	-								
	16	-	**79**	21.43	820	605	-								
	18	-	**90**	18.80	745	530	-								
	19	-	**95**	17.82*	710	505	-								
	22	-	**108**	15.60	620	440	-								
	24	-	**120**	14.05	560	400	-								
	27	-	**137**	12.33	490	350	-	**R**	**77**		**D**	**36**	**DV**	**132S4**	115	431
	31	-	**155**	10.88	430	310	-	**RF**	**77**		**D**	**36**	**DV**	**132S4**	125	432
	35	-	**175**	9.64	385	275	-								
	39	-	**196**	8.59	340	245	-								
	43	-	**218**	7.74	310	220	-								
	50	-	**249**	6.79	270	192	-								
	56	-	**282**	5.99*	240	170	-								
	63	-	**318**	5.31*	210	150	-								
	61	-	**303**	5.56*	220	157	-								
	66	-	**333**	5.07	200	144	-	**RX**	**87**		**D**	**36**	**DV**	**132S4**	125	415
	75	-	**375**	4.50*	179	127	-	**RXF**	**87**		**D**	**36**	**DV**	**132S4**	130	416
	83	-	**418**	4.04*	143	114	-								
	91	-	**456**	3.70	147	105	-								
	104	-	**519**	3.25*	129	92	-								
	109	-	**548**	3.08*	122	87	-								
	125	-	**625**	2.70	107	76	-	**RX**	**77**		**D**	**36**	**DV**	**132S4**	110	413
	138	-	**694**	2.43	97	69	-	**RXF**	**77**		**D**	**36**	**DV**	**132S4**	110	414
	158	-	**792**	2.13	85	60	-								
	179	-	**898**	1.88*	75	53	-								
	201	-	**1010**	1.67	66	47	-								
	237	-	**1190**	1.42	56	40	-								
	251	-	**1260**	2.70	61	37	-								
	279	-	**1400**	2.43	55	33	-								
	318	-	**1595**	2.13	48	29	-	**RX**	**77**		**D**	**36**	**DV**	**132S2**	110	413
	360	-	**1810**	1.88*	42	26	-	**RXF**	**77**		**D**	**36**	**DV**	**132S2**	110	414
	406	-	**2035**	1.67	38	23	-								
	477	-	**2395**	1.42	32	19	M2								

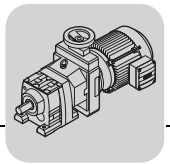


R..D..DT/DV.. [kW]

R = 1:4																
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠									m [kg]	📖
7.5 / 5.8	0.93 - 3.7	432	18000	16200	-										
	1.1 - 4.3	376	18000	14100	-										
	1.2 - 4.8	335	18000	12600	-	R	167	R97	D	46	DV	132M4		840	-
	1.3 - 5.3	303	18000	11400	-	RF	167	R97	D	46	DV	132M4		850	-
	1.4 - 5.7	279	16900	10500	-										
	1.2 - 4.9	326	13000	12300	-										
	1.4 - 5.7	280	13000	10500	-										
	1.6 - 6.5	247	13000	9290	-	R	147	R87	D	46	DV	132M4		550	-
	1.9 - 7.5	214	12900	8050	-	RF	147	R87	D	46	DV	132M4		560	-
	2.1 - 8.5	189	11400	7110	-										
	2.5 - 10	159	9610	5980	-										
7.5 / 6.4	3.9 - 16	102.53	4300	4160	-										
	4.4 - 17	92.70	4300	3760	-										
	5.1 - 20	78.57	4300	3190	-	R	107		D	46	DV	132M4		285	437
	5.5 - 22	72.88	4300	2960	-	RF	107		D	46	DV	132M4		290	438
	6.1 - 24	65.60*	4280	2660	-										
	6.8 - 27	59.41	3870	2410	-										
	5.6 - 22	72.17	3000	2930	-										
	6.2 - 25	65.21	3000	2640	-										
	6.7 - 27	59.92	3000	2430	-										
	7.6 - 30	53.21	3000	2160	-	R	97		D	46	DV	132M4		235	435
	8.5 - 34	47.58	3000	1930	-	RF	97		D	46	DV	132M4		250	436
	9.4 - 37	42.78	2790	1730	-										
	11 - 43	37.13	2420	1510	-										
	12 - 48	33.25	2170	1350	-										
	11 - 43	36.84*	1550	1490	-	R	87		D	46	DV	132M4		190	433
	12 - 49	32.66*	1550	1320	-	RF	87		D	46	DV	132M4		200	434
	14 - 58	27.84*	1550	1130	-										
	17 - 68	23.40	1530	950	-										
	19 - 74	21.51	1400	870	-										
	21 - 84	19.10	1250	775	-										
	24 - 94	17.08*	1110	695	-										
	26 - 104	15.35	1000	620	-	R	87		D	46	DV	132M4		190	433
	30 - 120	13.33	870	540	-	RF	87		D	46	DV	132M4		195	434
	34 - 134	11.93	780	485	-										
	41 - 162	9.90*	645	400	-										
	44 - 175	9.14*	595	370	-										
	49 - 195	8.22	535	335	-										
	57 - 225	7.13	465	290	-										
	61 - 242	6.63*	430	270	-	RX	107		D	46	DV	132M4		225	419
	72 - 285	5.61	365	230	-	RXF	107		D	46	DV	132M4		240	420
	70 - 277	5.79	380	235	-										
	82 - 326	4.91	320	199	-	RX	97		D	46	DV	132M4		195	417
	89 - 354	4.52	295	183	-	RXF	97		D	46	DV	132M4		205	418
	90 - 356	4.50*	290	183	-										
	107 - 424	3.78	245	153	-										
	116 - 460	3.48	225	141	-										
	130 - 518	3.09	200	125	-										
	146 - 580	2.76*	180	112	-	RX	87		D	46	DV	132M4		170	415
	162 - 646	2.48	162	101	-	RXF	87		D	46	DV	132M4		175	416
	187 - 745	2.15	140	87	-										
	209 - 830	1.93	126	78	-										
	252 - 1000	1.60*	104	65	-										
	290 - 1150	1.39	91	56	-										
	329 - 1310	2.48	110	49	-										
	380 - 1510	2.15	96	42	-	RX	87		D	46	DV	132M2		170	415
	423 - 1685	1.93	86	38	M2	RXF	87		D	46	DV	132M2		175	416
	511 - 2030	1.60*	71	32	M2										
	588 - 2335	1.39	62	27	M2,4										
9.2 / 7.2	1.1 - 4.3	376	18000	17200	-										
	1.2 - 4.8	335	18000	15400	-	R	167	R97	D	46	DV	132ML4		850	-
	1.3 - 5.3	303	18000	13900	-	RF	167	R97	D	46	DV	132ML4		860	-
	1.4 - 5.8	279	16700	12800	-										



R = 1:4																
P_m/P_{a2} [kW]	n_{a1} [1/min]	-	n_{a2}	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
9.2 / 7.2	**1.4**	-	**5.8**	280	13000	12800	-									
	1.6	-	**6.5**	247	13000	11300	-									
	1.9	-	**7.5**	214	12800	9810	-	**R**	**147 R87**	**D**	**46**	**DV**	**132ML4**	560	-	
	2.1	-	**8.5**	189	11300	8660	-	**RF**	**147 R87**	**D**	**46**	**DV**	**132ML4**	570	-	
	2.6	-	**10**	159	9550	7290	-									
9.2 / 7.7	**5.2**	-	**21**	78.57	4300	3880	-									
	5.6	-	**22**	72.88	4300	3600	-									
	6.2	-	**25**	65.60*	4250	3240	-	**R**	**107**	**D**	**46**	**DV**	**132ML4**	295	437	
	6.8	-	**27**	59.41	3850	2940	-	**RF**	**107**	**D**	**46**	**DV**	**132ML4**	305	438	
	7.7	-	**31**	52.68	3410	2600	-									
	6.8	-	**27**	59.92	3000	2960	-									
	7.6	-	**30**	53.21	3000	2630	-									
	8.5	-	**34**	47.58	3000	2350	-									
	9.5	-	**38**	42.78	2770	2120	-	**R**	**97**	**D**	**46**	**DV**	**132ML4**	245	435	
	11	-	**43**	37.13	2400	1840	-	**RF**	**97**	**D**	**46**	**DV**	**132ML4**	260	436	
	12	-	**49**	33.25	2150	1640	-									
	15	-	**58**	27.58	1790	1360	-									
	13	-	**50**	32.05	2080	1580	-									
	15	-	**59**	27.19	1760	1340	-	**R**	**97**	**D**	**46**	**DV**	**132ML4**	240	435	
	16	-	**64**	25.03	1620	1240	-	**RF**	**97**	**D**	**46**	**DV**	**132ML4**	260	436	
	18	-	**72**	22.37	1450	1110	-									
	15	-	**58**	27.88	1500	1380	-	**R**	**87**	**D**	**46**	**DV**	**132ML4**	200	433	
								RF	**87**	**D**	**46**	**DV**	**132ML4**	210	434	
	15	-	**58**	27.84*	1550	1380	-									
	17	-	**69**	23.40	1520	1160	-									
	19	-	**75**	21.51	1390	1060	-									
	21	-	**84**	19.10	1240	940	-									
	24	-	**94**	17.08*	1110	840	-									
	26	-	**105**	15.35	990	760	-									
	30	-	**121**	13.33	860	660	-	**R**	**87**	**D**	**46**	**DV**	**132ML4**	200	433	
	34	-	**135**	11.93	770	590	-	**RF**	**87**	**D**	**46**	**DV**	**132ML4**	205	434	
	41	-	**163**	9.90*	640	490	-									
	44	-	**176**	9.14*	590	450	-									
	49	-	**196**	8.22	530	405	-									
	57	-	**226**	7.13	460	355	-									
	63	-	**252**	6.39	415	315	-									
	77	-	**304**	5.30*	345	260	-									
	61	-	**243**	6.63*	430	330	-	**RX**	**107**	**D**	**46**	**DV**	**132ML4**	235	419	
	72	-	**287**	5.61	365	275	-	**RXF**	**107**	**D**	**46**	**DV**	**132ML4**	250	420	
	70	-	**279**	5.79	375	285	-									
	83	-	**328**	4.91	320	245	-	**RX**	**97**	**D**	**46**	**DV**	**132ML4**	205	417	
	90	-	**357**	4.52	295	225	-	**RXF**	**97**	**D**	**46**	**DV**	**132ML4**	215	418	
	147	-	**584**	2.76*	179	137	-									
	164	-	**650**	2.48	161	123	-									
	189	-	**750**	2.15	139	106	-	**RX**	**87**	**D**	**46**	**DV**	**132ML4**	180	415	
	210	-	**836**	1.93	125	95	-	**RXF**	**87**	**D**	**46**	**DV**	**132ML4**	185	416	
	254	-	**1010**	1.60*	104	79	-									
	292	-	**1160**	1.39	90	69	-									
	181	-	**719**	4.50*	200	109	-									
	215	-	**856**	3.78	169	92	-									
	234	-	**930**	3.48	155	84	-									
	263	-	**1050**	3.09	138	75	-									
	295	-	**1175**	2.76*	123	67	-	**RX**	**87**	**D**	**46**	**DV**	**132ML2**	180	415	
	328	-	**1305**	2.48	111	60	-	**RXF**	**87**	**D**	**46**	**DV**	**132ML2**	185	416	
	379	-	**1505**	2.15	96	52	M2									
	422	-	**1675**	1.93	86	47	M2									
	509	-	**2025**	1.60*	71	39	M2									
	586	-	**2330**	1.39	62	34	M2,4									
11.0 / 8.4	**1.3**	-	**5.3**	303	18000	16600	-	**R**	**167 R97**	**D**	**46**	**DV**	**160M4**	860	-	
	1.4	-	**5.8**	279	16700	15300	-	**RF**	**167 R97**	**D**	**46**	**DV**	**160M4**	870	-	



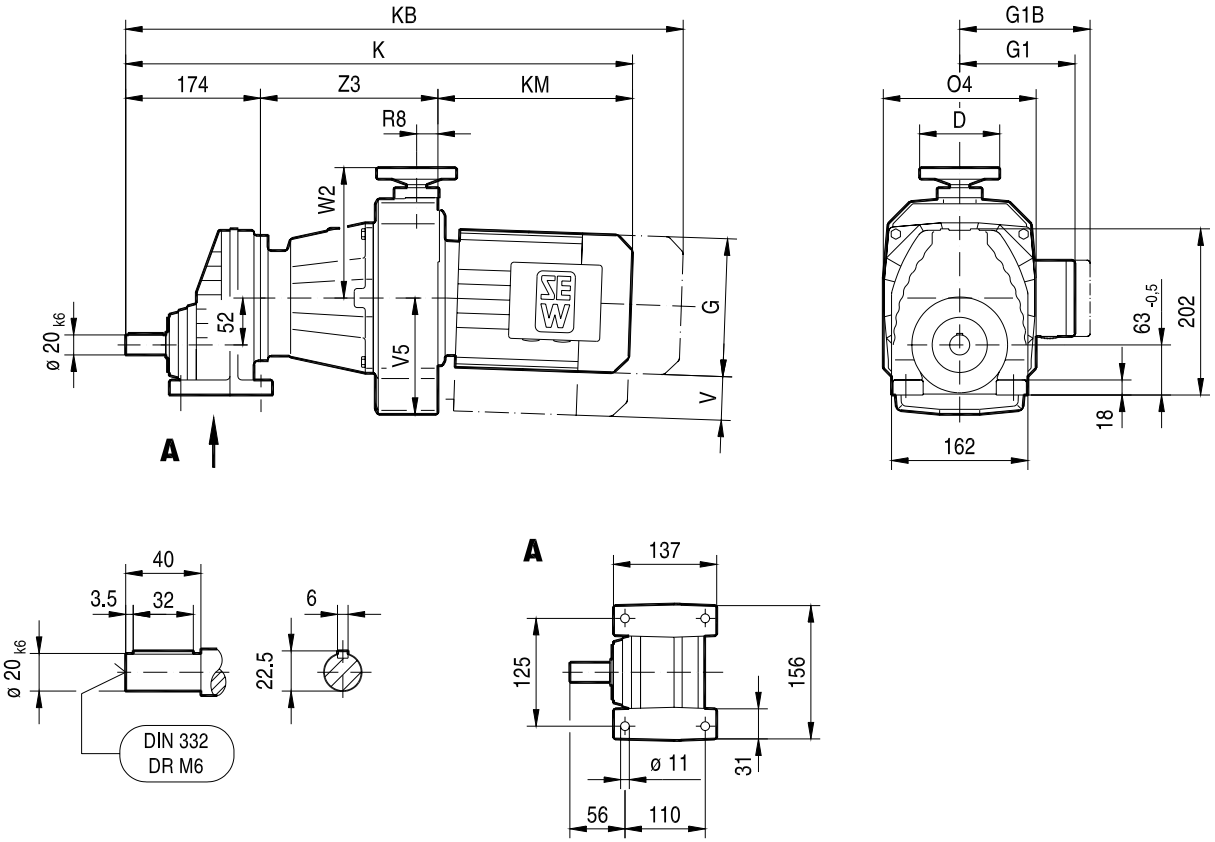
R..D..DT/DV.. [kW]

R = 1:4														
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
11.0 / 8.4	1.9 - 7.5	214	12800	11700	-	R	147 R87	D	46	DV	160M4	570	-
	2.1 - 8.5	189	11300	10400	-	RF	147 R87	D	46	DV	160M4	580	-
	2.6 - 10	159	9550	8730	-								
11.0 / 9.2	6.2 - 25	65.60*	4250	3880	-								
	6.8 - 27	59.41	3850	3520	-								
	7.7 - 31	52.68	3410	3120	-	R	107	D	46	DV	160M4	305	437
	8.5 - 34	47.63	3080	2820	-	RF	107	D	46	DV	160M4	310	438
	10 - 40	40.37*	2610	2390	-								
	12 - 46	35.26	2280	2090	-								
	8.5 - 34	47.58	3000	2820	-								
	9.5 - 38	42.78	2770	2530	-								
	11 - 43	37.13	2400	2200	-	R	97	D	46	DV	160M4	250	435
	12 - 49	33.25	2150	1970	-	RF	97	D	46	DV	160M4	270	436
	15 - 58	27.58	1790	1630	-								
	13 - 50	32.05	2080	1900	-								
	15 - 59	27.19	1760	1610	-								
	16 - 64	25.03	1620	1480	-	R	97	D	46	DV	160M4	250	435
	18 - 72	22.37	1450	1320	-	RF	97	D	46	DV	160M4	265	436
	20 - 80	20.14	1300	1190	-								
	22 - 88	18.24	1180	1080	-								
	21 - 84	19.10	1240	1130	-								
	24 - 94	17.08*	1110	1010	-								
	26 - 105	15.35	990	910	-								
	30 - 121	13.33	860	790	-								
	34 - 135	11.93	770	705	-								
	41 - 163	9.90*	640	585	-	R	87	D	46	DV	160M4	205	433
	44 - 176	9.14*	590	540	-	RF	87	D	46	DV	160M4	215	434
	49 - 196	8.22	530	485	-								
	57 - 226	7.13	460	420	-								
	63 - 252	6.39	415	380	-								
	77 - 304	5.30*	345	315	-								
	61 - 243	6.63*	430	395	-	RX	107	D	46	DV	160M4	240	419
	72 - 287	5.61	365	330	-	RXF	107	D	46	DV	160M4	260	420
	70 - 279	5.79	375	345	-								
	83 - 328	4.91	320	290	-								
	90 - 357	4.52	295	270	-								
	100 - 399	4.04	260	240	-	RX	97	D	46	DV	160M4	215	417
	111 - 443	3.64*	235	215	-	RXF	97	D	46	DV	160M4	220	418
	123 - 489	3.30	215	195	-								
	139 - 552	2.92	189	173	-								
	147 - 584	2.76*	179	163	-								
	164 - 650	2.48	161	147	-								
	189 - 750	2.15	139	127	-	RX	87	D	46	DV	160M4	190	415
	210 - 836	1.93	125	114	-	RXF	87	D	46	DV	160M4	195	416
	254 - 1010	1.60*	104	95	-								
	292 - 1160	1.39	90	82	-								
	329 - 1310	2.48	110	72	-								
	380 - 1510	2.15	96	62	M2	RX	87	D	46	DV	160M2	190	415
	423 - 1685	1.93	86	56	M2	RXF	87	D	46	DV	160M2	195	416
	511 - 2030	1.60*	71	46	M2								
	588 - 2335	1.39	62	40	M2,4								

14.3 R..D..DT/DV.. [mm]

15 004 001

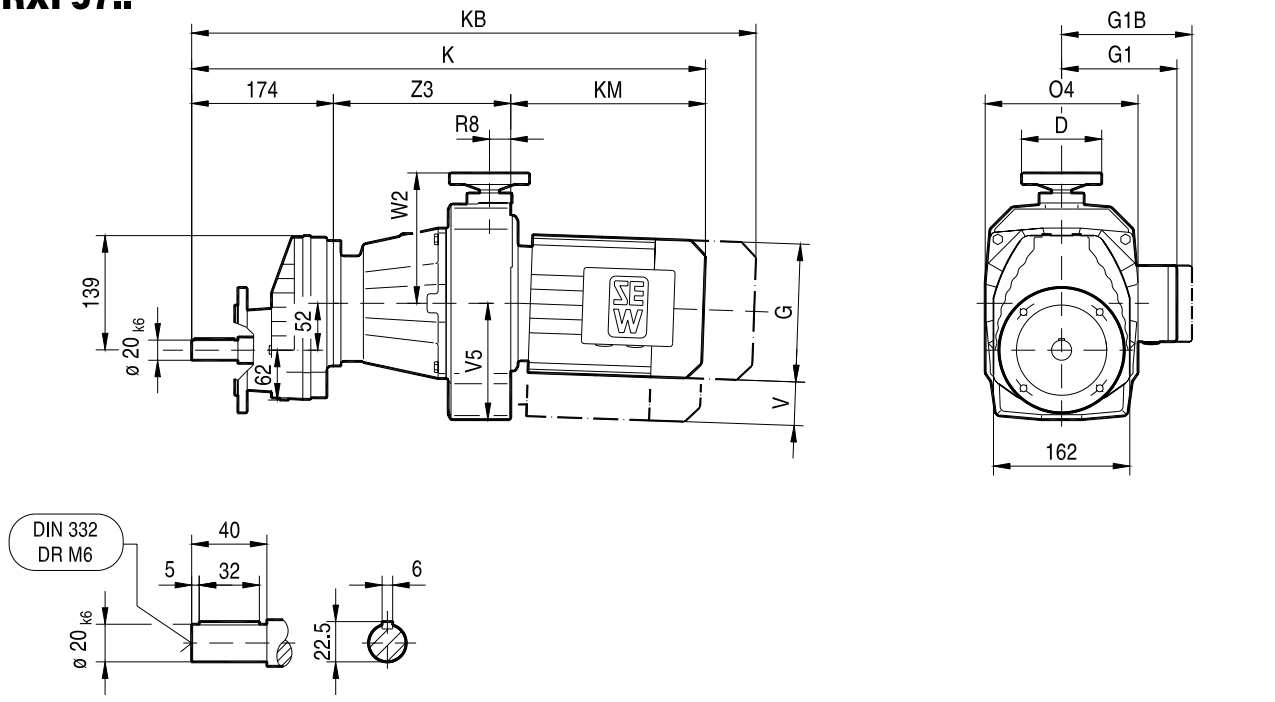
RX57..



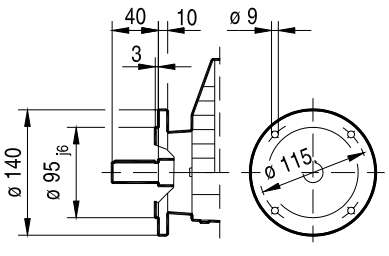
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
RX57	D16	DT71D	100	145	122	127	560	624	198	156	25	49	119	160	188
		DT80..	100	145	122	127	610	674	248	156	25	49	119	160	188
	D26	DT90..	100	197	154	161	650	735	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	700	785	298	205	32.5	66	153	192	228

15 005 001

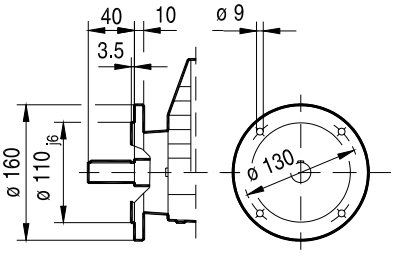
RXF57..



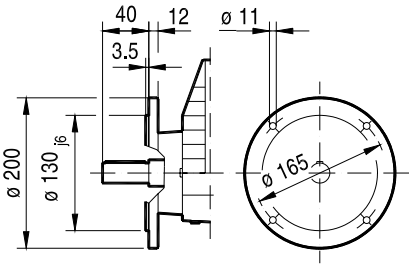
ø 140



ø 160



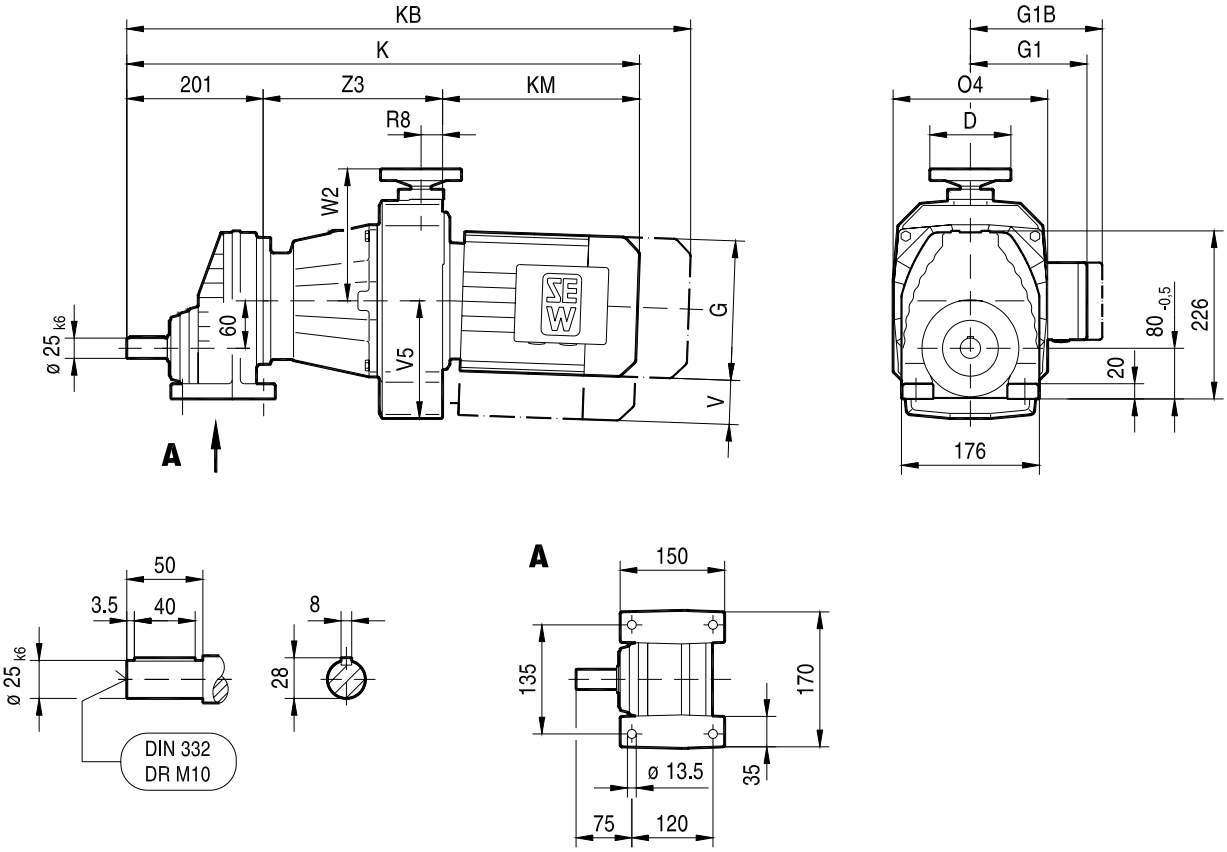
ø 200



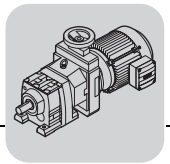
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
RXF57	D16	DT71D	100	145	122	127	560	624	198	156	25	49	119	160	188
		DT80..	100	145	122	127	610	674	248	156	25	49	119	160	188
	D26	DT90..	100	197	154	161	650	735	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	700	785	298	205	32.5	66	153	192	228

15 006 001

RX67..



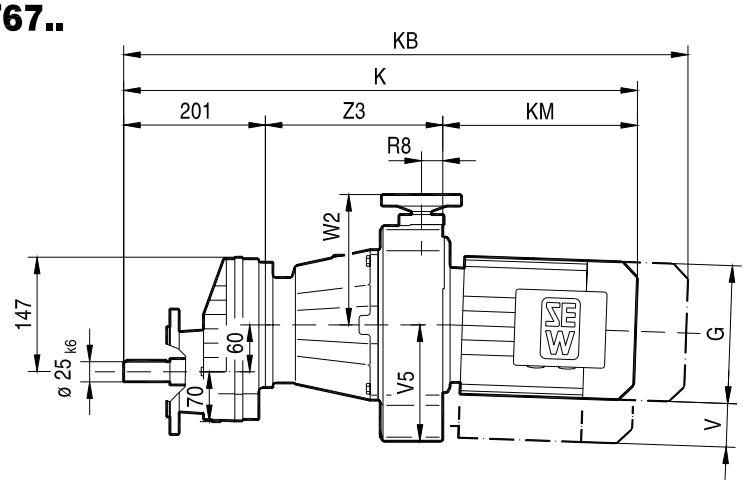
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
RX67	D16	DT71D	100	145	122	127	587	651	198	156	25	49	119	160	188
		DT80..	100	145	122	127	637	701	248	156	25	49	119	160	188
	D26	DT90..	100	197	154	161	677	762	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	727	812	298	205	32.5	66	153	192	228

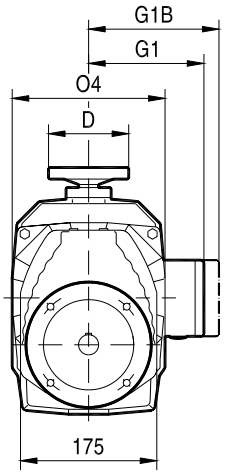


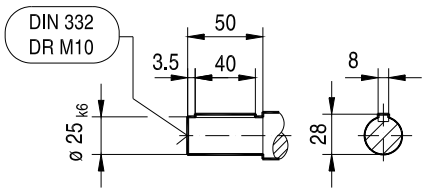
R..D..DT/DV.. [mm]

15 007 001

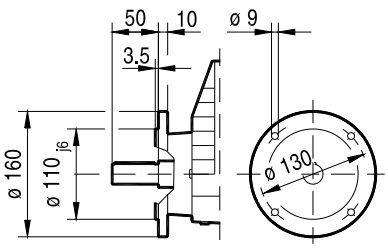
RXF67..



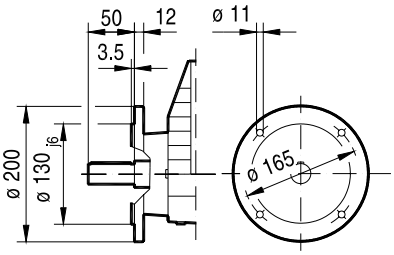




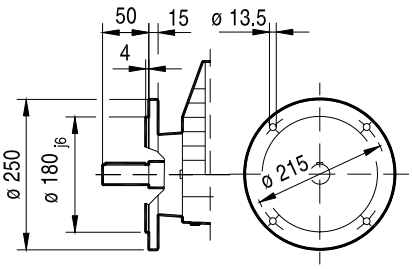
ø 160



ø 200



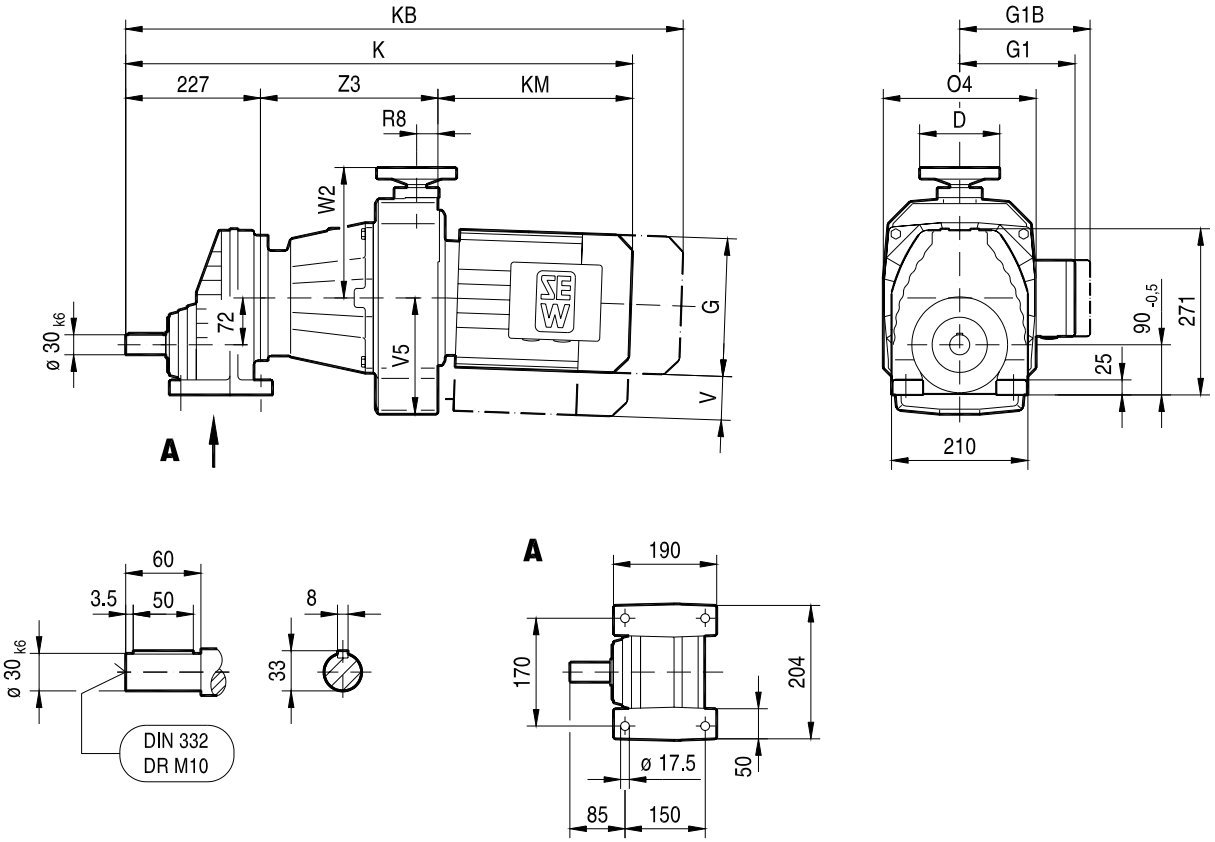
ø 250



(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
RXF67	D16	DT71D	100	145	122	127	587	651	198	156	25	49	119	160	188
		DT80..	100	145	122	127	637	701	248	156	25	49	119	160	188
	D26	DT90..	100	197	154	161	677	762	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	727	812	298	205	32.5	66	153	192	228

15 008 001

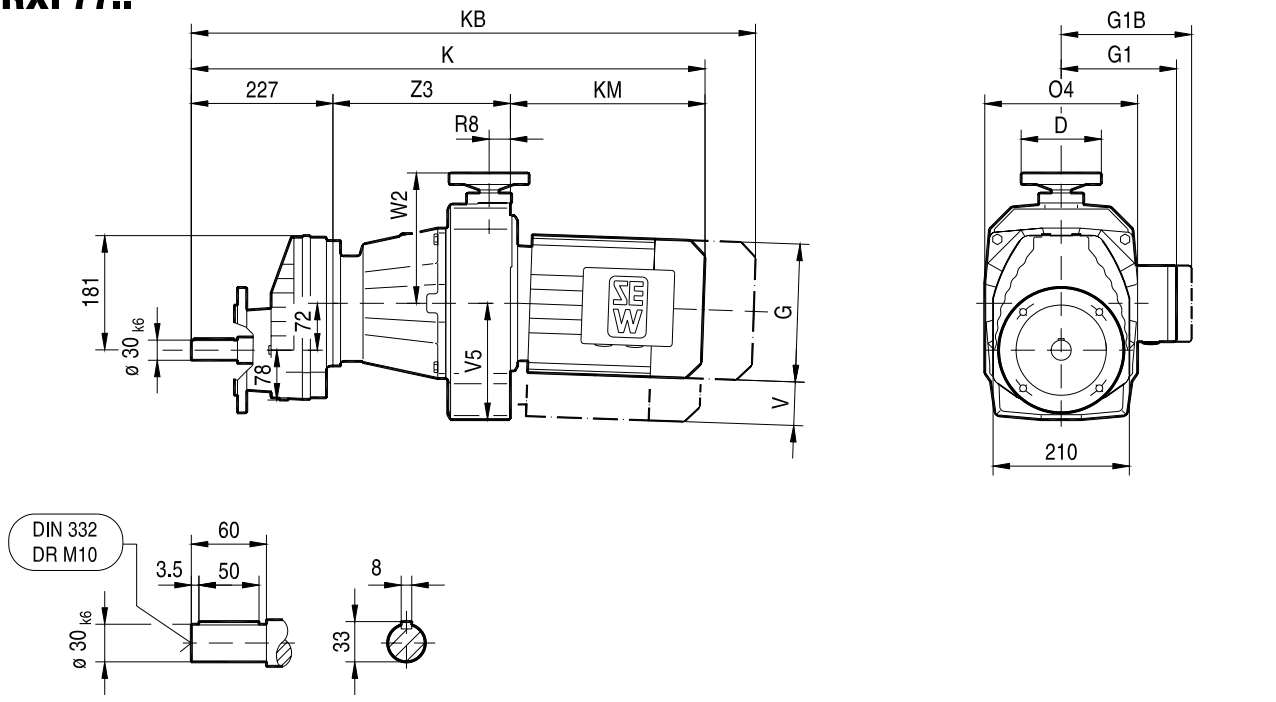
RX77..



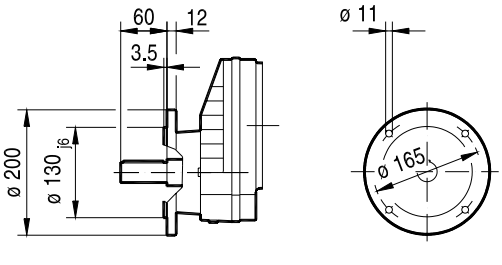
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
RX77	D26	DT90..	100	197	154	161	695	780	248	205	32.5	66	153	192	220
		DV100M	100	197	166	166	745	830	298	205	32.5	66	153	192	220
	D36	DV100M	160	197	166	166	820	905	309	265	38	88	204	232	284
		DV100L	160	197	166	166	850	935	339	265	38	88	204	232	284
		DV112M	160	221	179	182	843	923	332	265	38	88	204	232	284
		DV132S	160	221	179	182	888	968	377	265	38	88	204	232	284

15 009 001

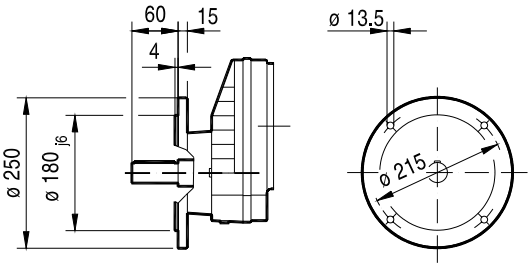
RXF77..



ø 200



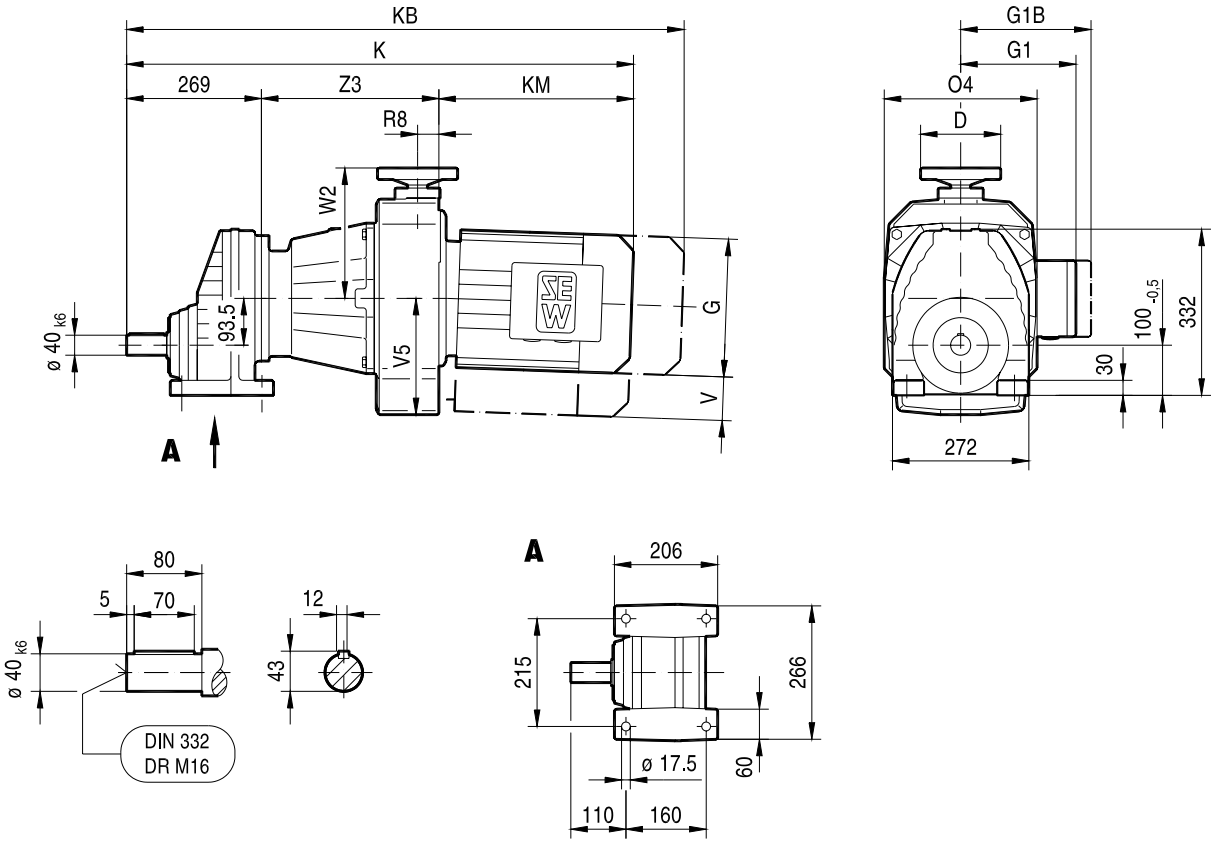
ø 250



(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
RXF77	D26	DT90..	100	197	154	161	695	780	248	205	32.5	66	153	192	220
		DV100M	100	197	166	166	745	830	298	205	32.5	66	153	192	220
	D36	DV100M	160	197	166	166	820	905	309	265	38	88	204	232	284
		DV100L	160	197	166	166	850	935	339	265	38	88	204	232	284
		DV112M	160	221	179	182	843	923	332	265	38	88	204	232	284
		DV132S	160	221	179	182	888	968	377	265	38	88	204	232	284

15 010 001

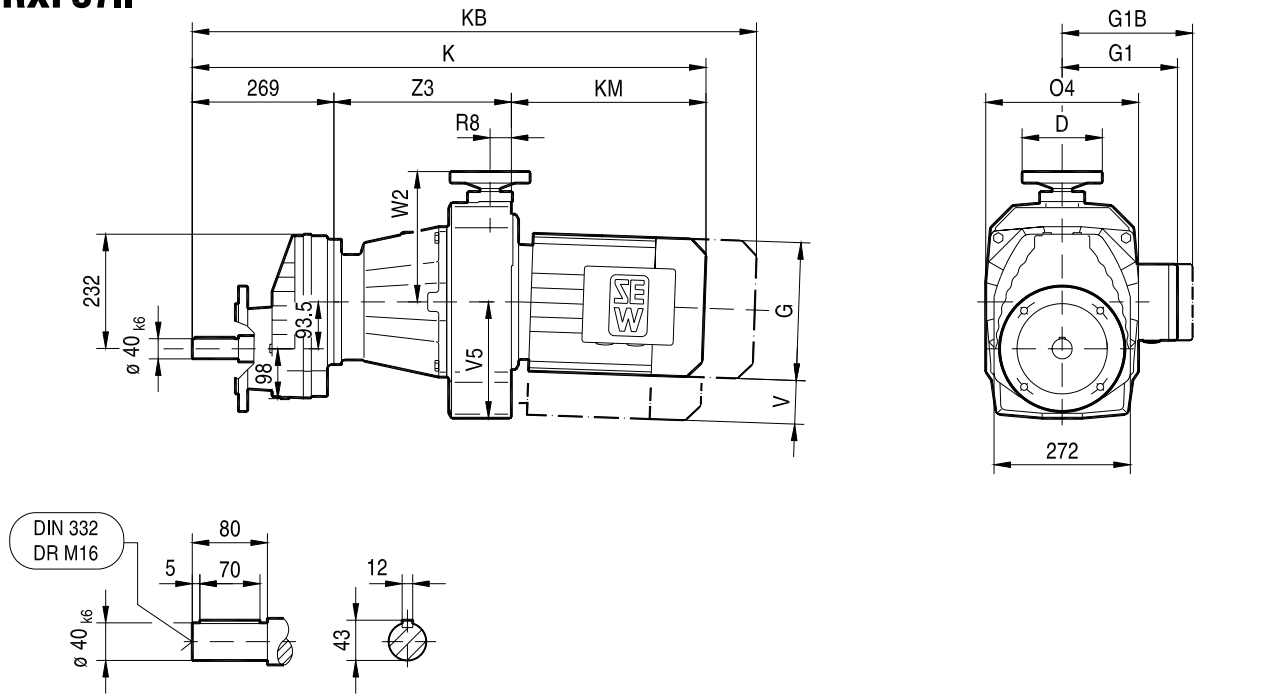
RX87..



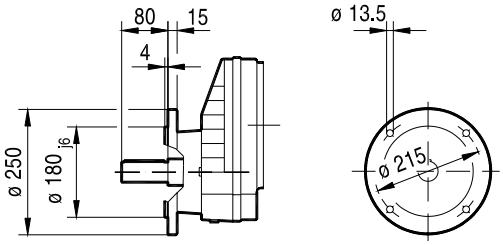
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
RX87	D36	DV100L	160	197	166	166	887	972	339	265	38	88	204	232	279
		DV112M	160	221	179	182	880	960	332	265	38	88	204	232	279
		DV132S	160	221	179	182	925	1005	377	265	38	88	204	232	279
	D46	DV132M	160	275	230	230	1012	1124	388	305	45.5	91	232	259	355
		DV132ML	160	275	230	230	1072	1184	448	305	45.5	91	232	259	355
		DV160M	160	275	230	230	1072	1184	448	305	45.5	91	232	259	355

15 011 001

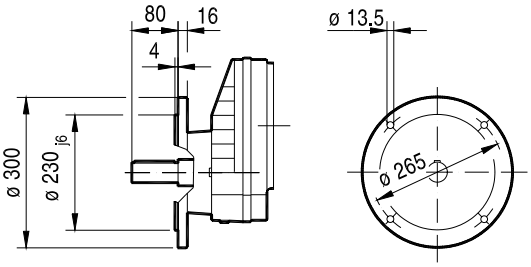
RXF87..



ø 250



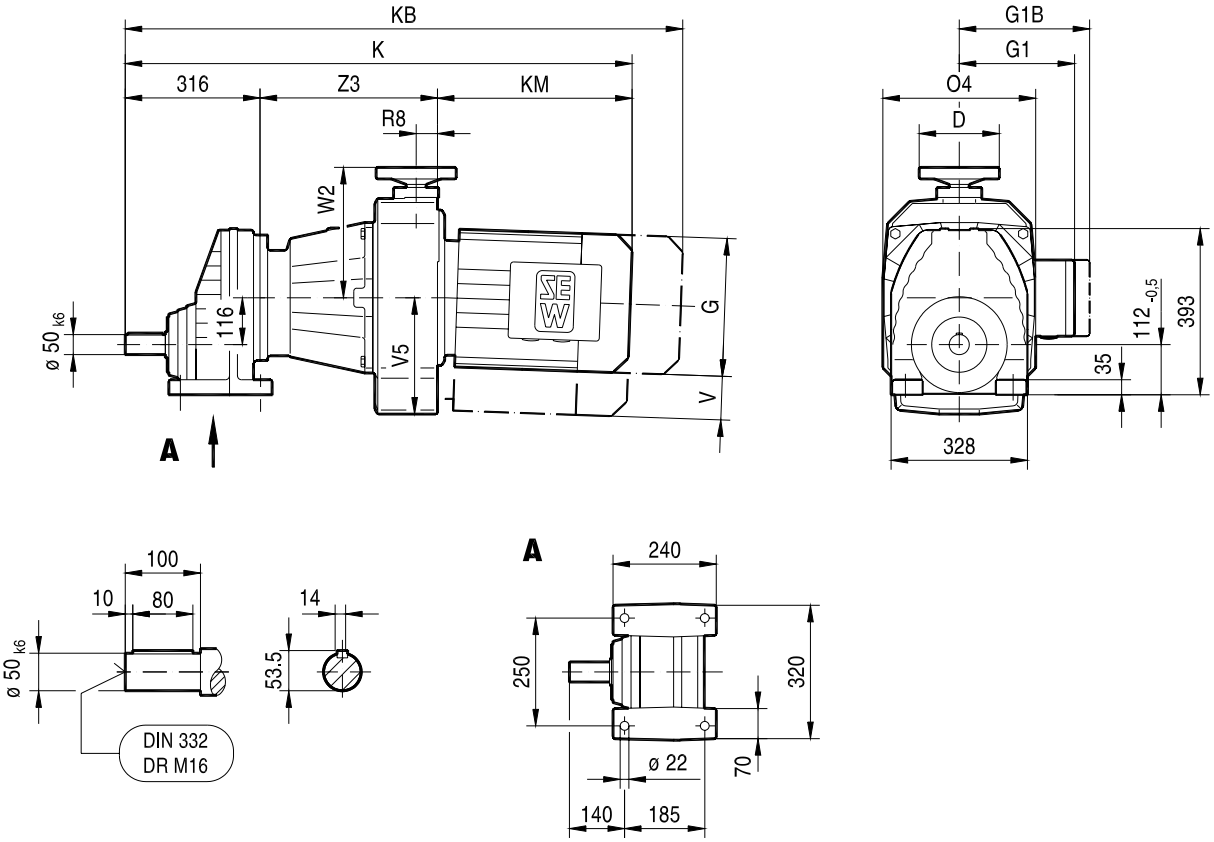
ø 300



(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
RXF87	D36	DV100L	160	197	166	166	887	972	339	265	38	88	204	232	279
		DV112M	160	221	179	182	880	960	332	265	38	88	204	232	279
		DV132S	160	221	179	182	925	1005	377	265	38	88	204	232	279
	D46	DV132M	160	275	230	230	1012	1124	388	305	45.5	91	232	259	355
		DV132ML	160	275	230	230	1072	1184	448	305	45.5	91	232	259	355
		DV160M	160	275	230	230	1072	1184	448	305	45.5	91	232	259	355

15 012 001

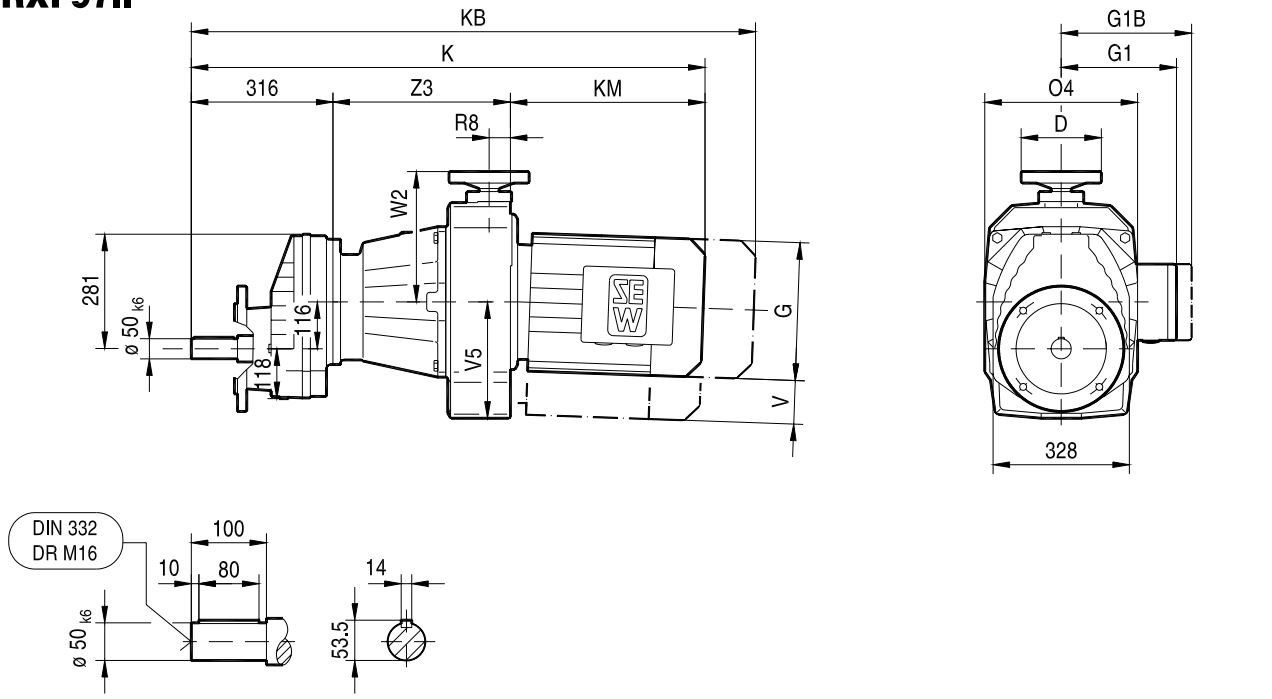
RX97..



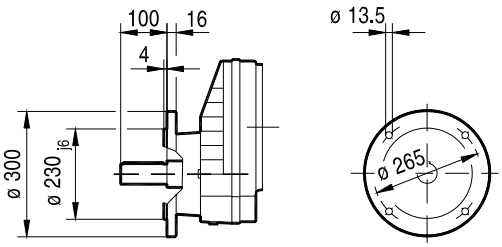
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
RX97	D46	DV132M	160	275	230	230	1053	1165	388	305	45.5	91	232	259	349
		DV132ML	160	275	230	230	1113	1225	448	305	45.5	91	232	259	349
		DV160M	160	275	230	230	1113	1225	448	305	45.5	91	232	259	349

15 013 001

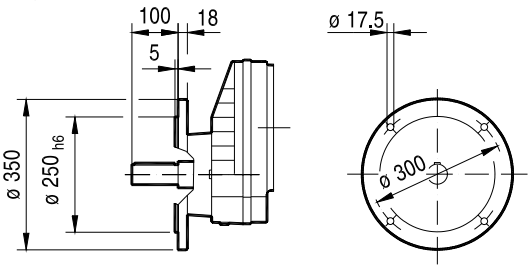
RXF97..



ø 300



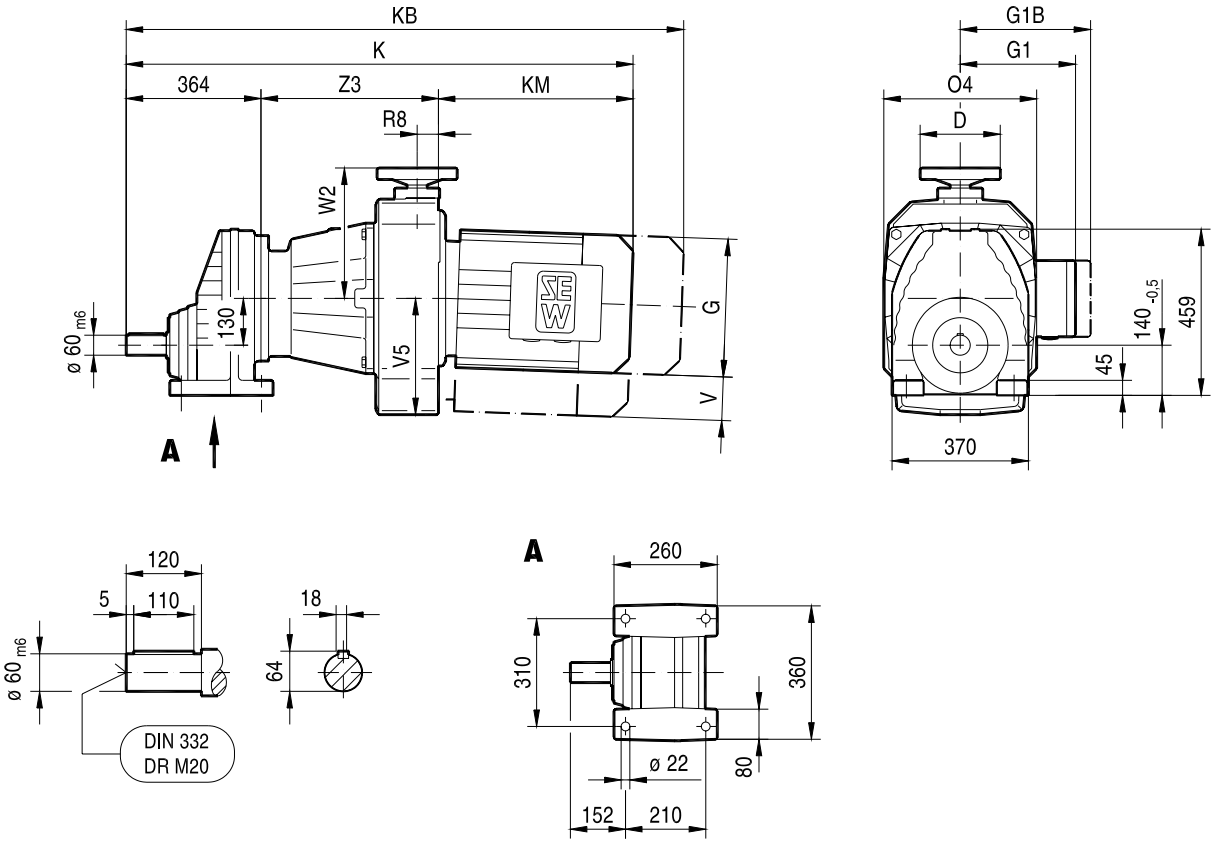
ø 350



(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
RXF97	D46	DV132M	160	275	230	230	1053	1165	388	305	45.5	91	232	259	349
		DV132ML	160	275	230	230	1113	1225	448	305	45.5	91	232	259	349
		DV160M	160	275	230	230	1113	1225	448	305	45.5	91	232	259	349

15 014 001

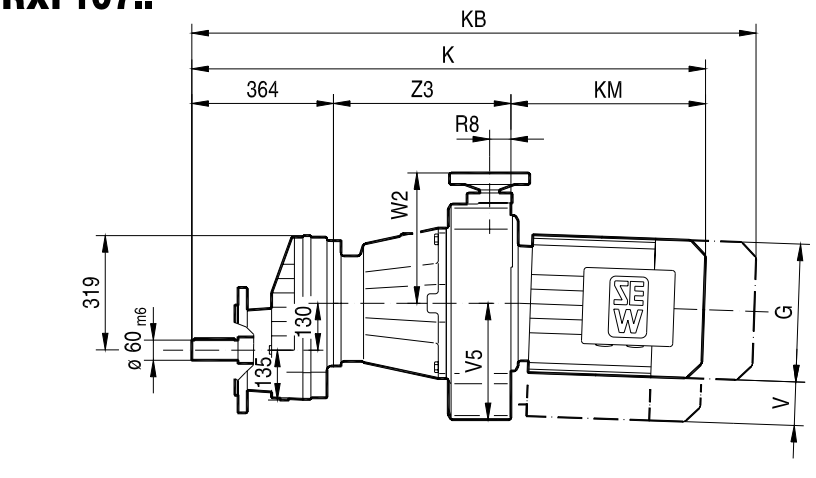
RX107..

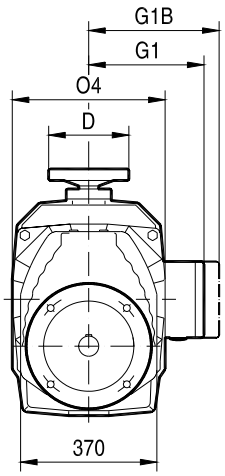


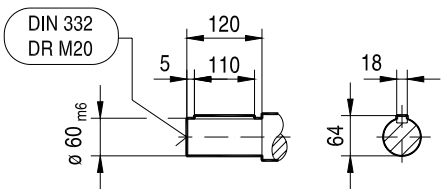
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
RX107	D46	DV132M	160	275	230	230	1096	1208	388	305	45.5	91	232	259	344
		DV132ML	160	275	230	230	1156	1268	448	305	45.5	91	232	259	344
		DV160M	160	275	230	230	1156	1268	448	305	45.5	91	232	259	344

15 015 001

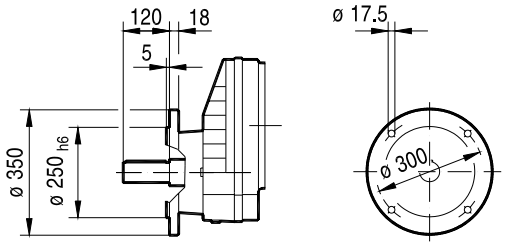
RXF107..



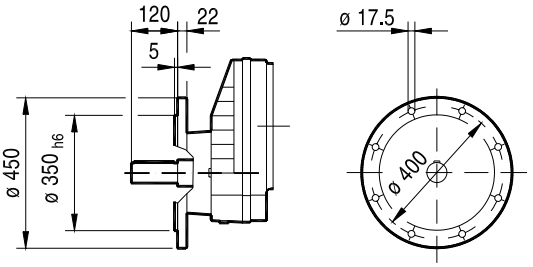




ø 350



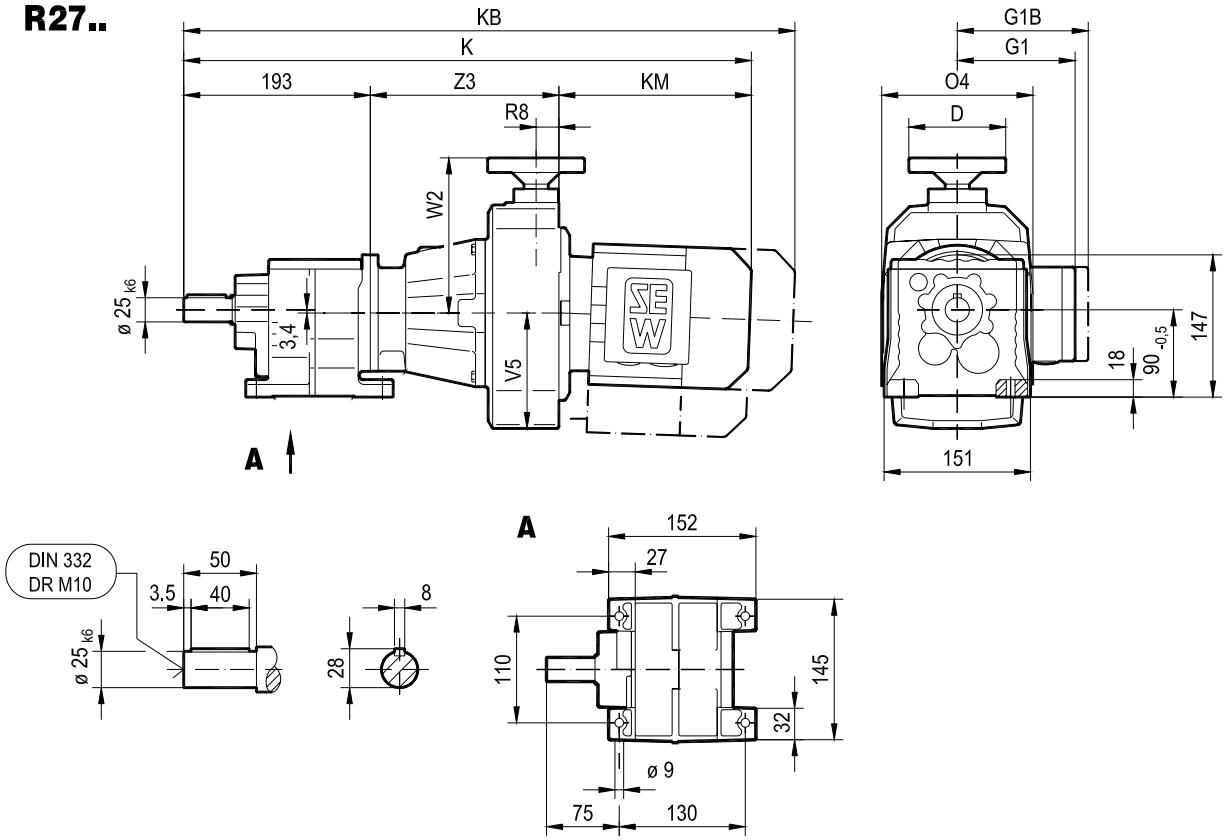
ø 450



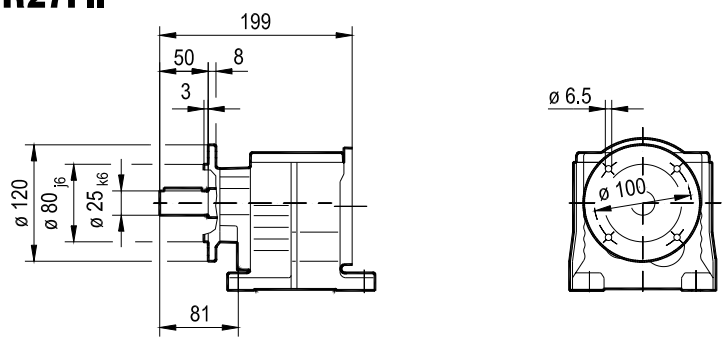
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
RXF107	D46	DV132M	160	275	230	230	1096	1208	388	305	45.5	91	232	259	344
		DV132ML	160	275	230	230	1156	1268	448	305	45.5	91	232	259	344
		DV160M	160	275	230	230	1156	1268	448	305	45.5	91	232	259	344

15 093 001

R27..



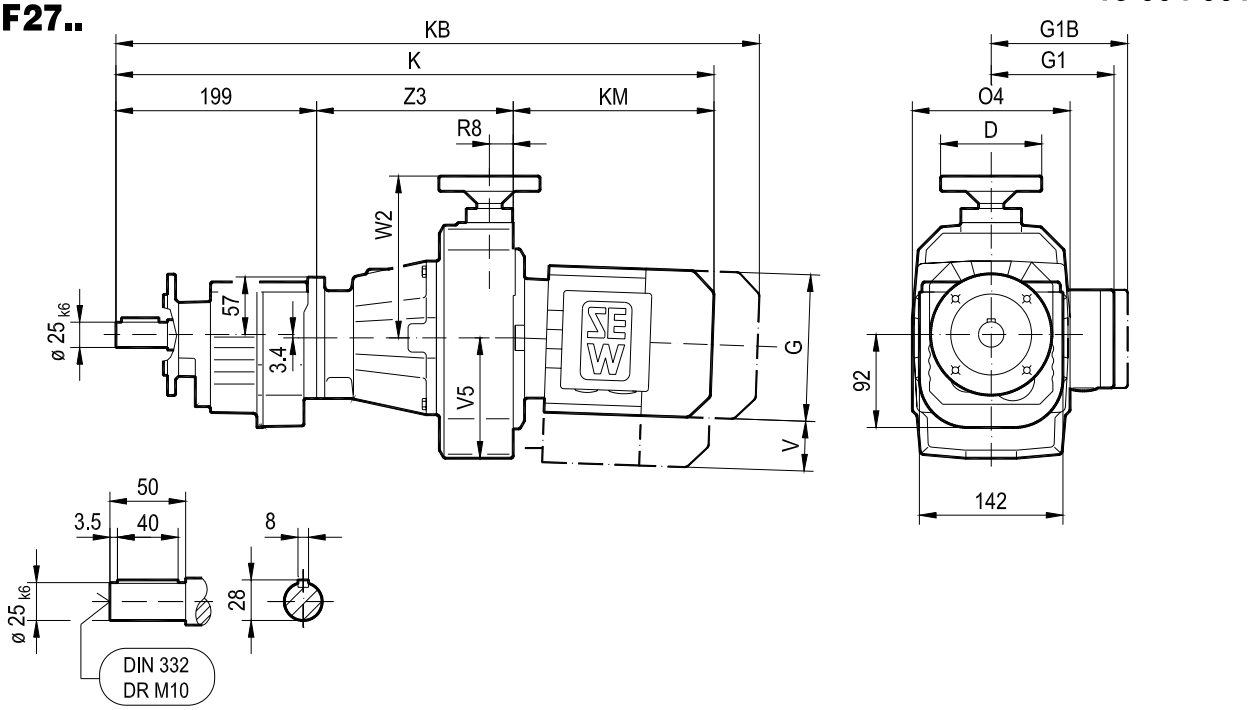
R27F..



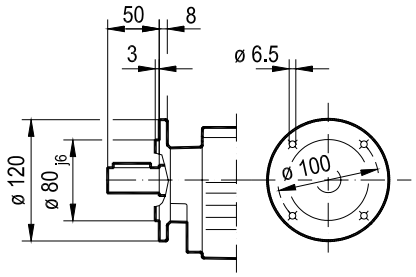
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
R27 R27F	D16	DT71D	100	145	122	127	586	650	198	156	25	49	119	160	195
		DT80..	100	145	122	127	636	700	248	156	25	49	119	160	195

15 094 001

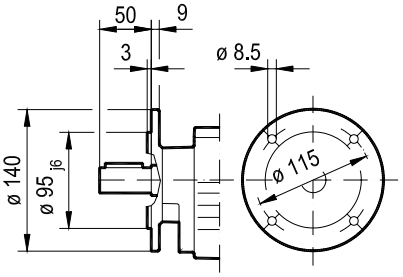
RF27..



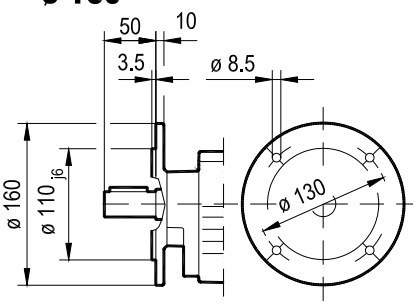
ø 120



ø 140



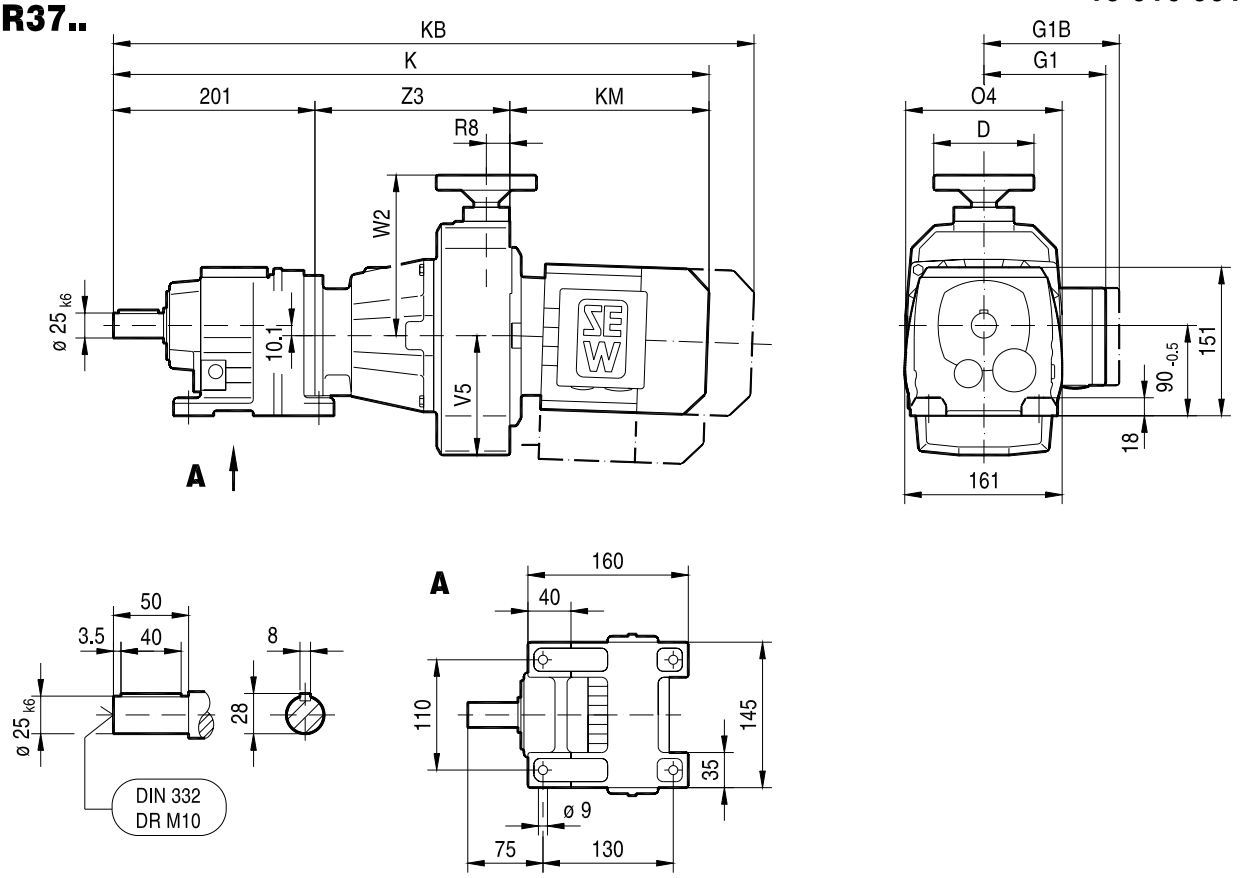
ø 160



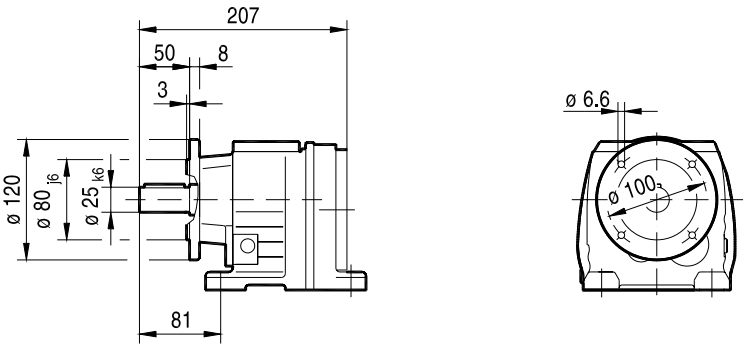
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
RF27	D16	DT71D	100	145	122	127	592	656	198	156	25	49	119	160	195
		DT80..	100	145	122	127	642	706	248	156	25	49	119	160	195

15 016 001

R37..



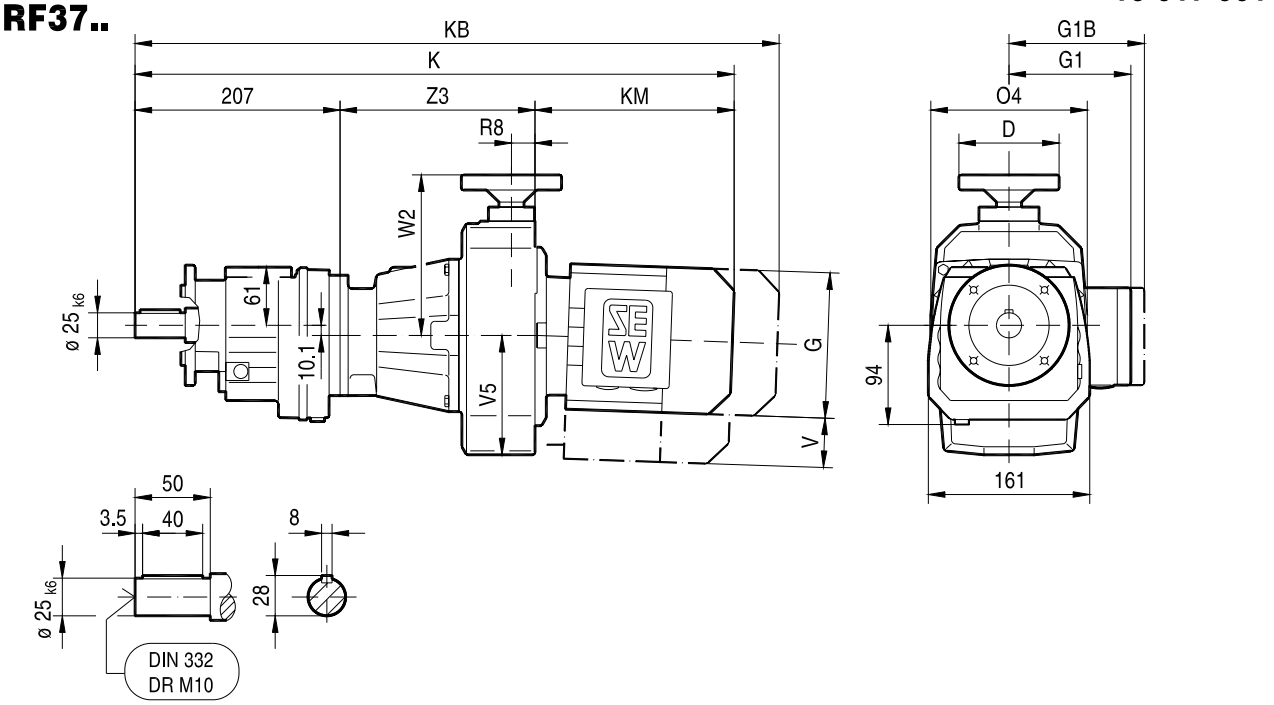
R37F..



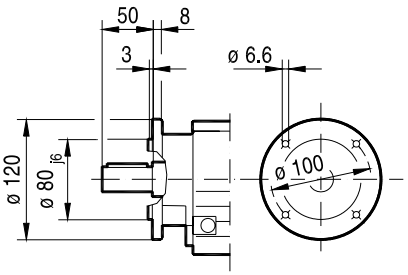
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
R37 R37F	D16	DT71D	100	145	122	127	594	658	198	156	25	49	119	160	195
		DT80..	100	145	122	127	644	708	248	156	25	49	119	160	195

15 017 001

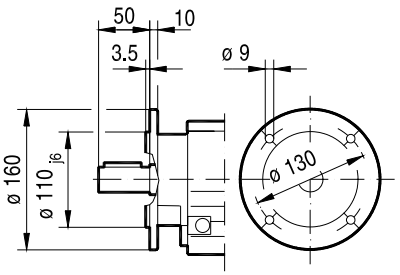
RF37..



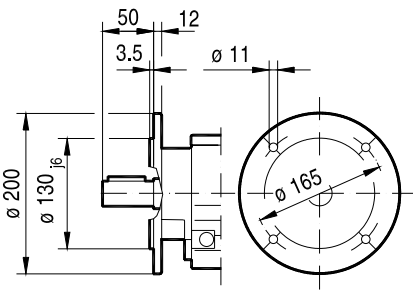
ø 120



ø 160



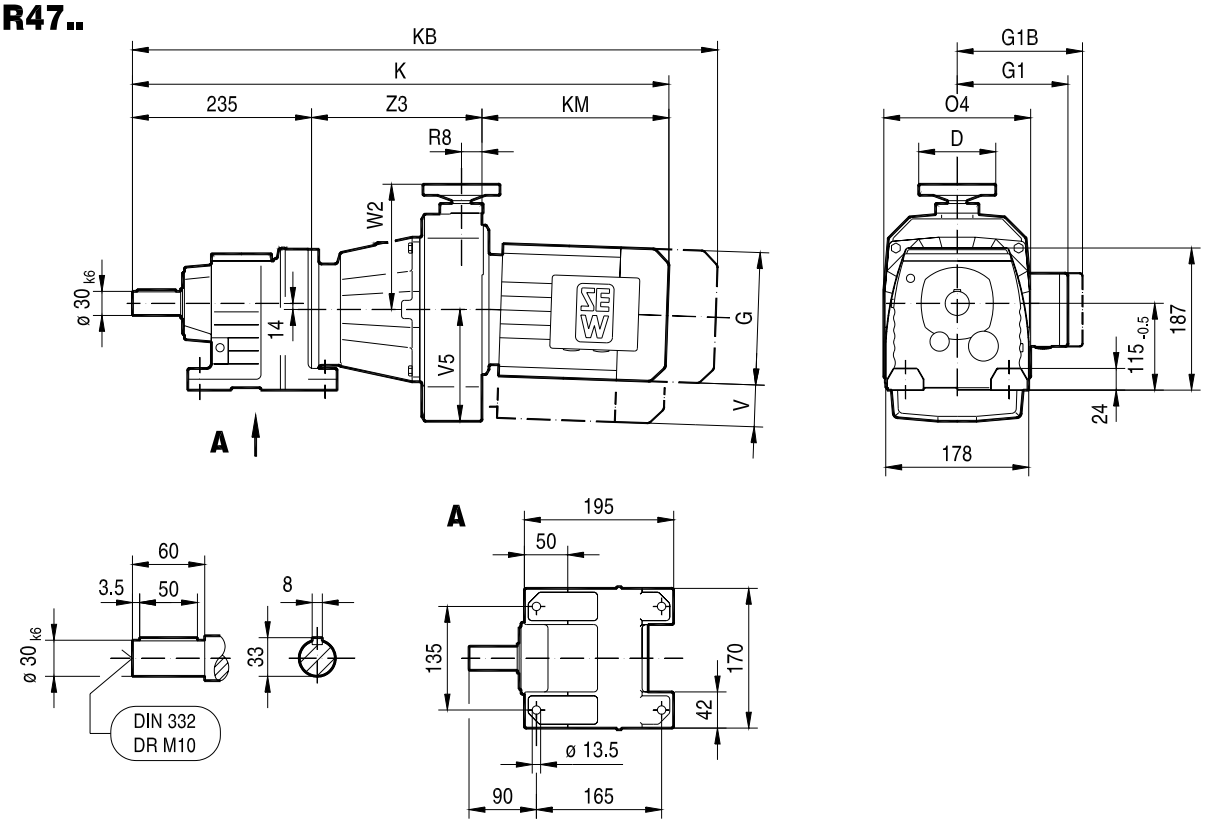
ø 200



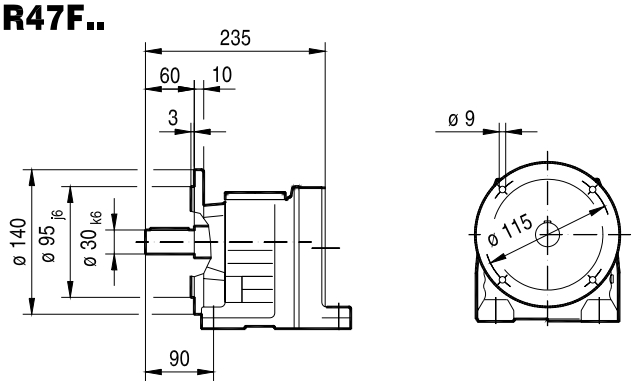
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
RF37	D16	DT71D	100	145	122	127	600	664	198	156	25	49	119	160	195
		DT80..	100	145	122	127	650	714	248	156	25	49	119	160	195

15 018 001

R47..



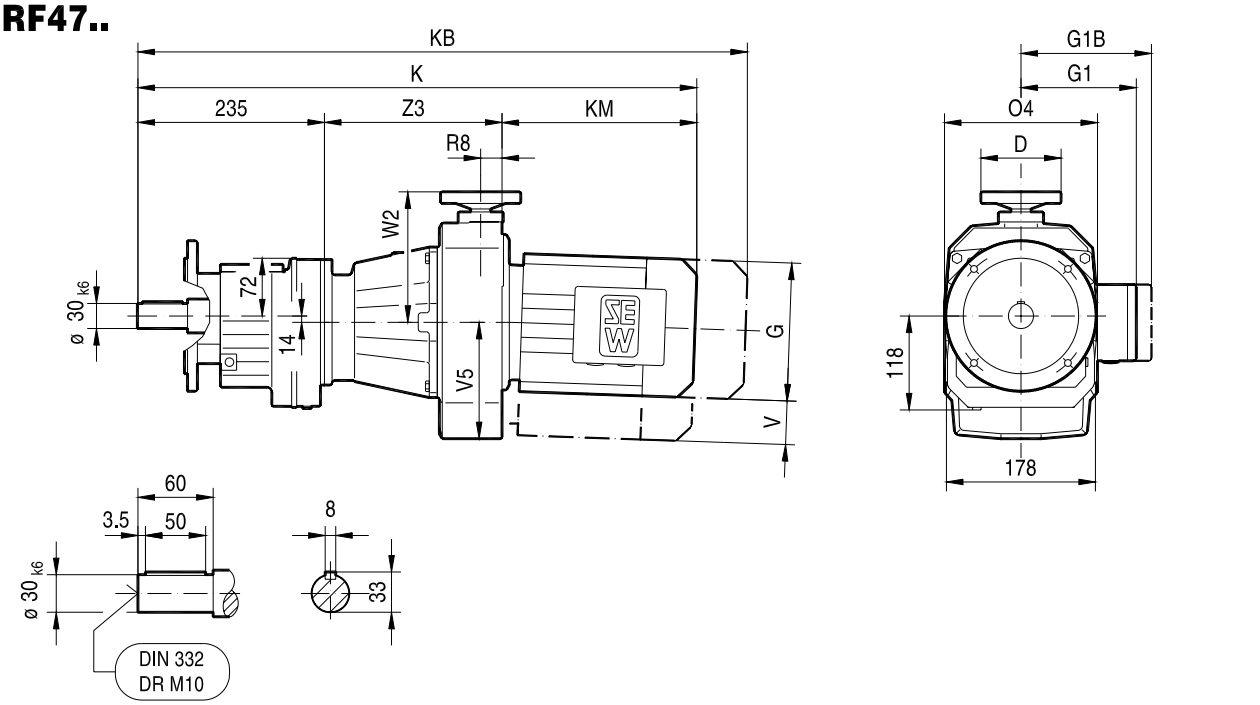
R47F..



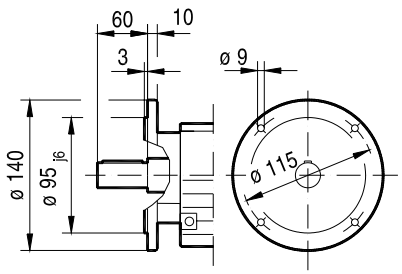
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
R47 R47F	D16	DT71D	100	145	122	127	621	685	198	156	25	49	119	160	188
		DT80..	100	145	122	127	671	735	248	156	25	49	119	160	188
	D26	DT90..	100	197	154	161	711	796	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	761	846	298	205	32.5	66	153	192	228

15 019 001

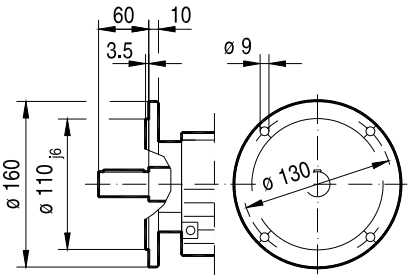
RF47..



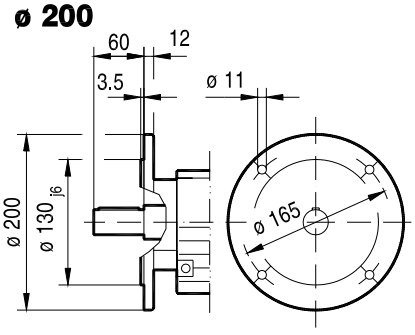
ø 140



ø 160



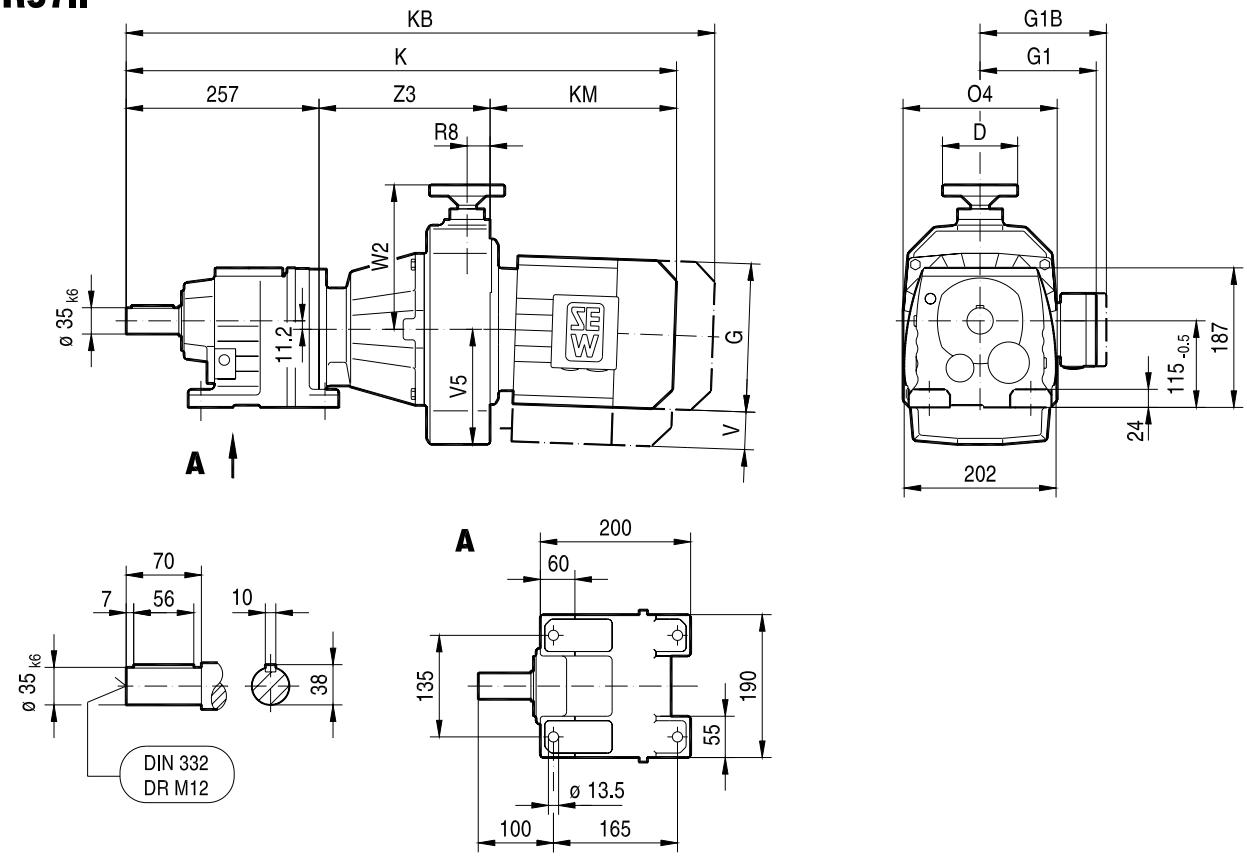
ø 200



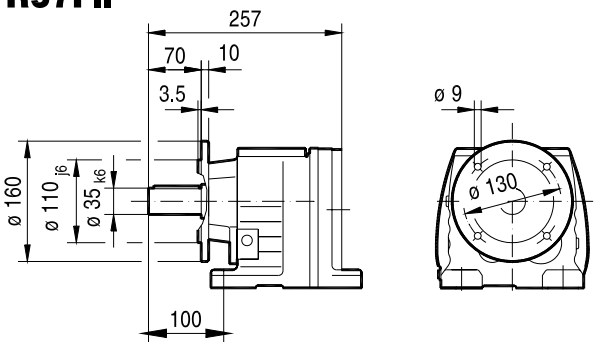
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
RF47	D16	DT71D	100	145	122	127	621	685	198	156	25	49	119	160	188
		DT80..	100	145	122	127	671	735	248	156	25	49	119	160	188
	D26	DT90..	100	197	154	161	711	796	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	761	846	298	205	32.5	66	153	192	228

15 020 001

R57..



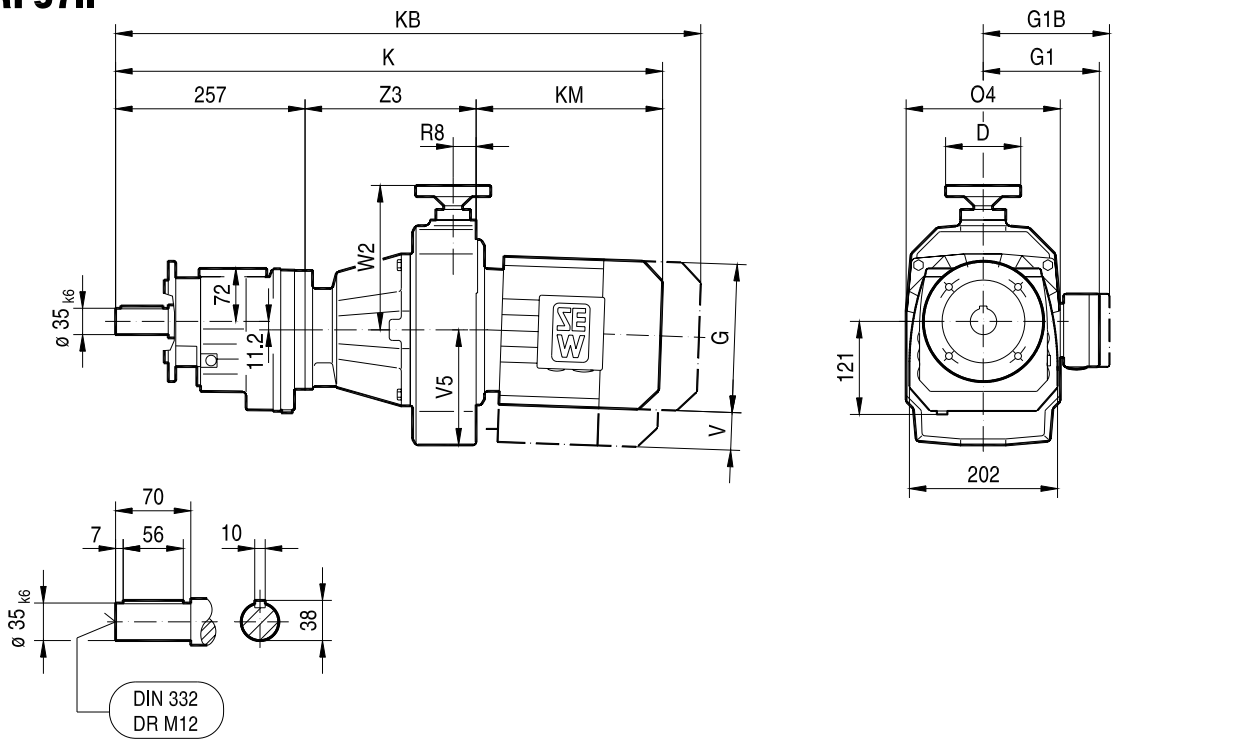
R57F..



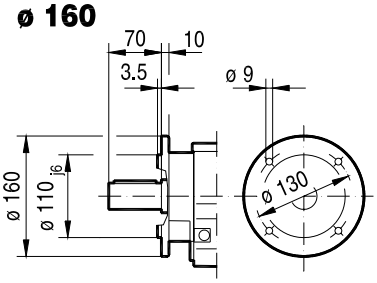
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
R57 R57F	D16	DT71D	100	145	122	127	643	707	198	156	25	49	119	160	188
		DT80..	100	145	122	127	693	757	248	156	25	49	119	160	188
	D26	DT90..	100	197	154	161	733	818	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	783	868	298	205	32.5	66	153	192	228

15 021 001

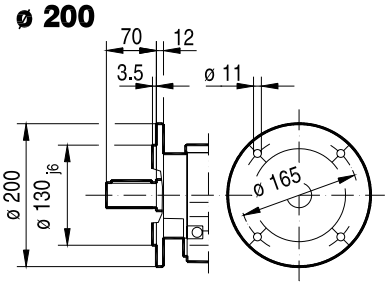
RF57..



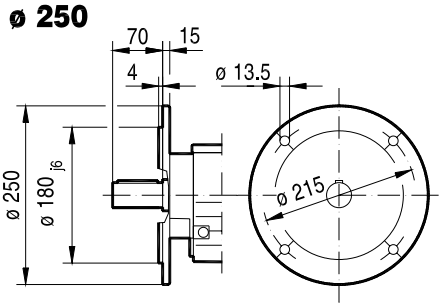
ø 160



ø 200



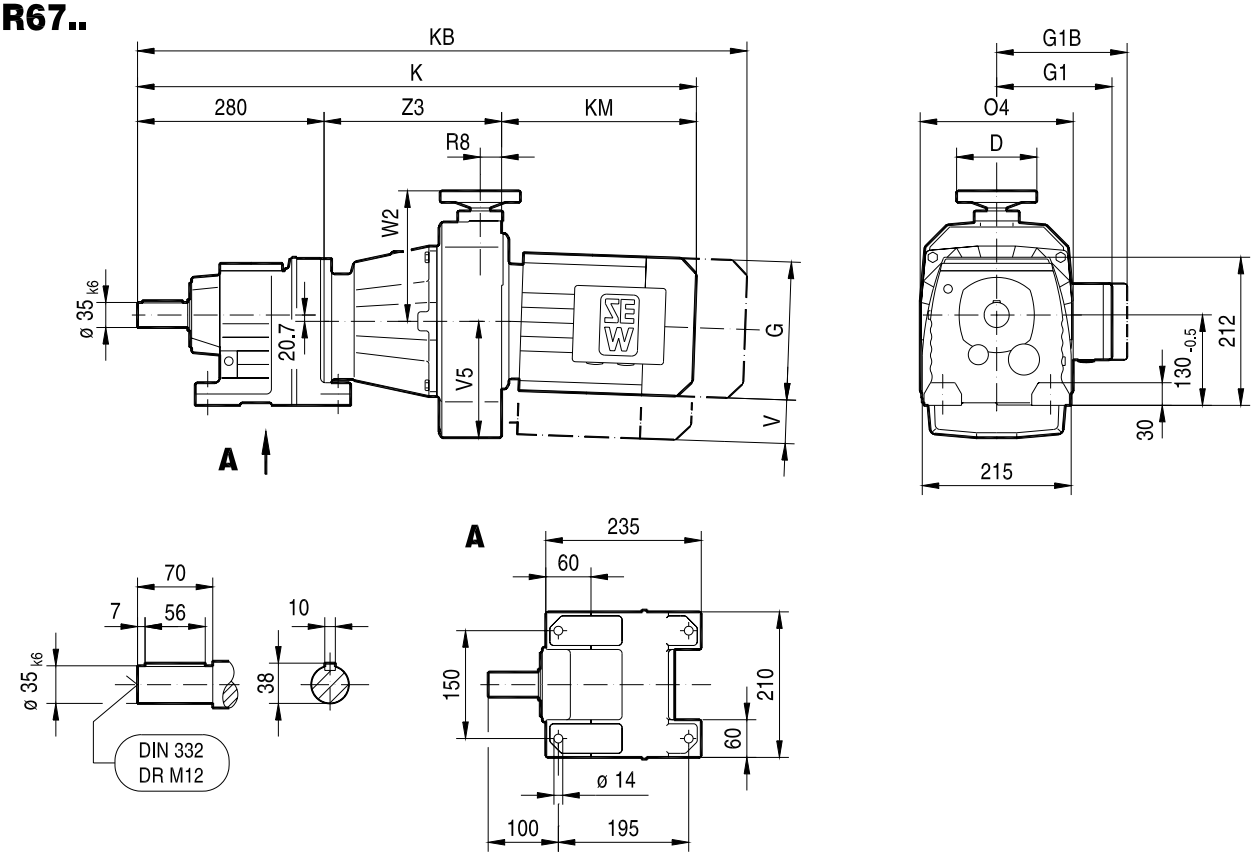
ø 250



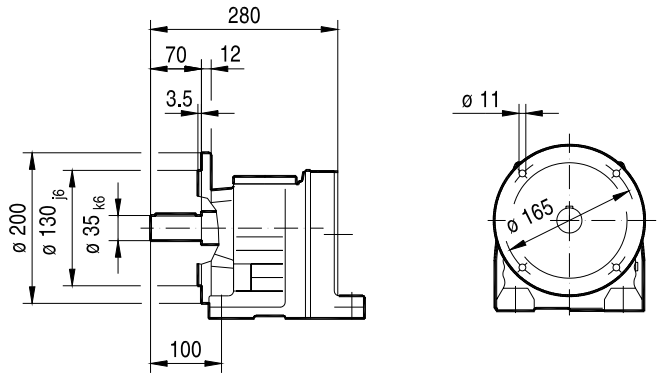
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
RF57	D16	DT71D	100	145	122	127	643	707	198	156	25	49	119	160	188
		DT80..	100	145	122	127	693	757	248	156	25	49	119	160	188
	D26	DT90..	100	197	154	161	733	818	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	783	868	298	205	32.5	66	153	192	228

15 022 001

R67..



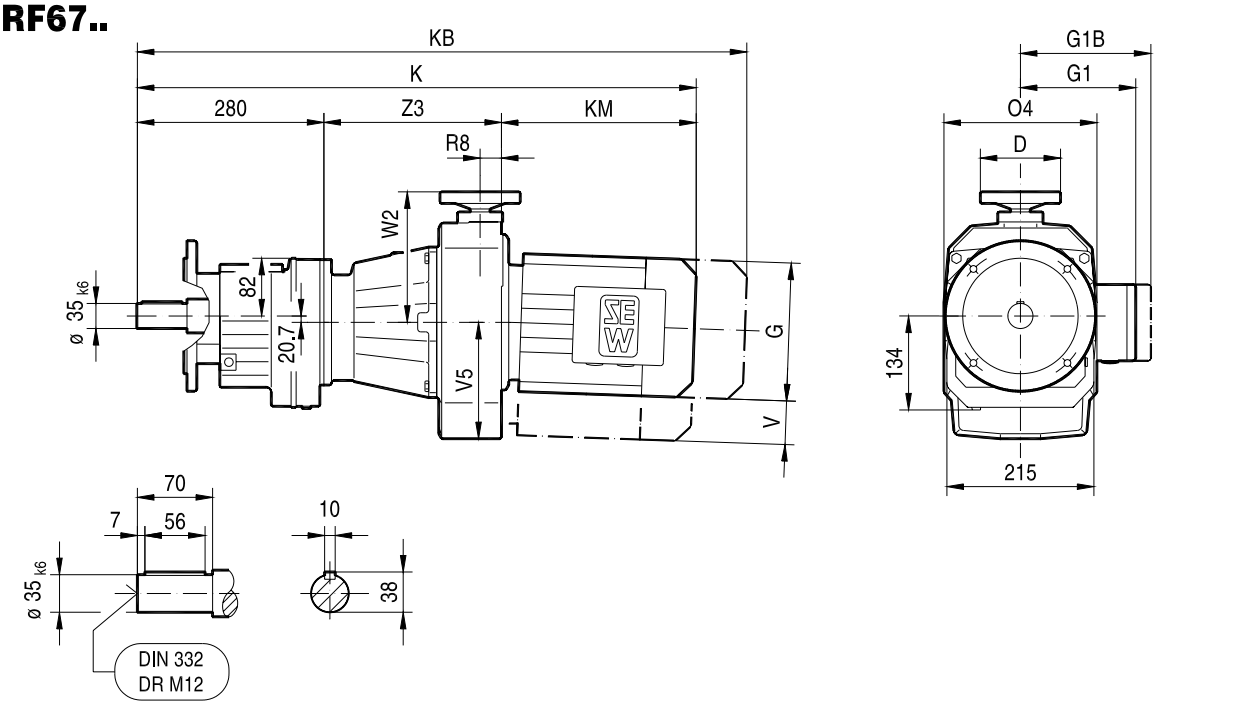
R67F..



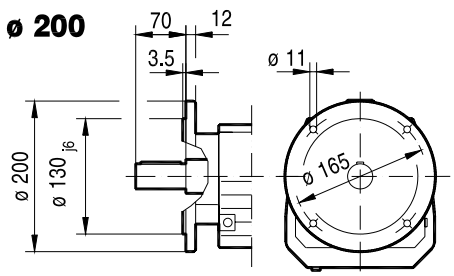
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
R67 R67F	D16	DT80..	100	145	122	127	716	780	248	156	25	49	119	160	188
	D26	DT90..	100	197	154	161	756	841	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	806	891	298	205	32.5	66	153	192	228

15 023 001

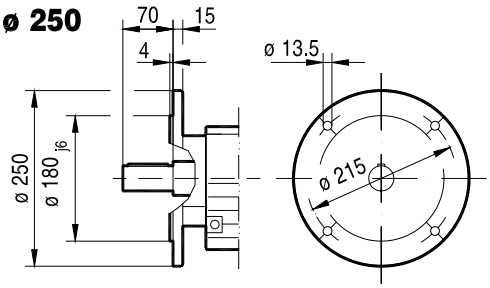
RF67..



ø 200



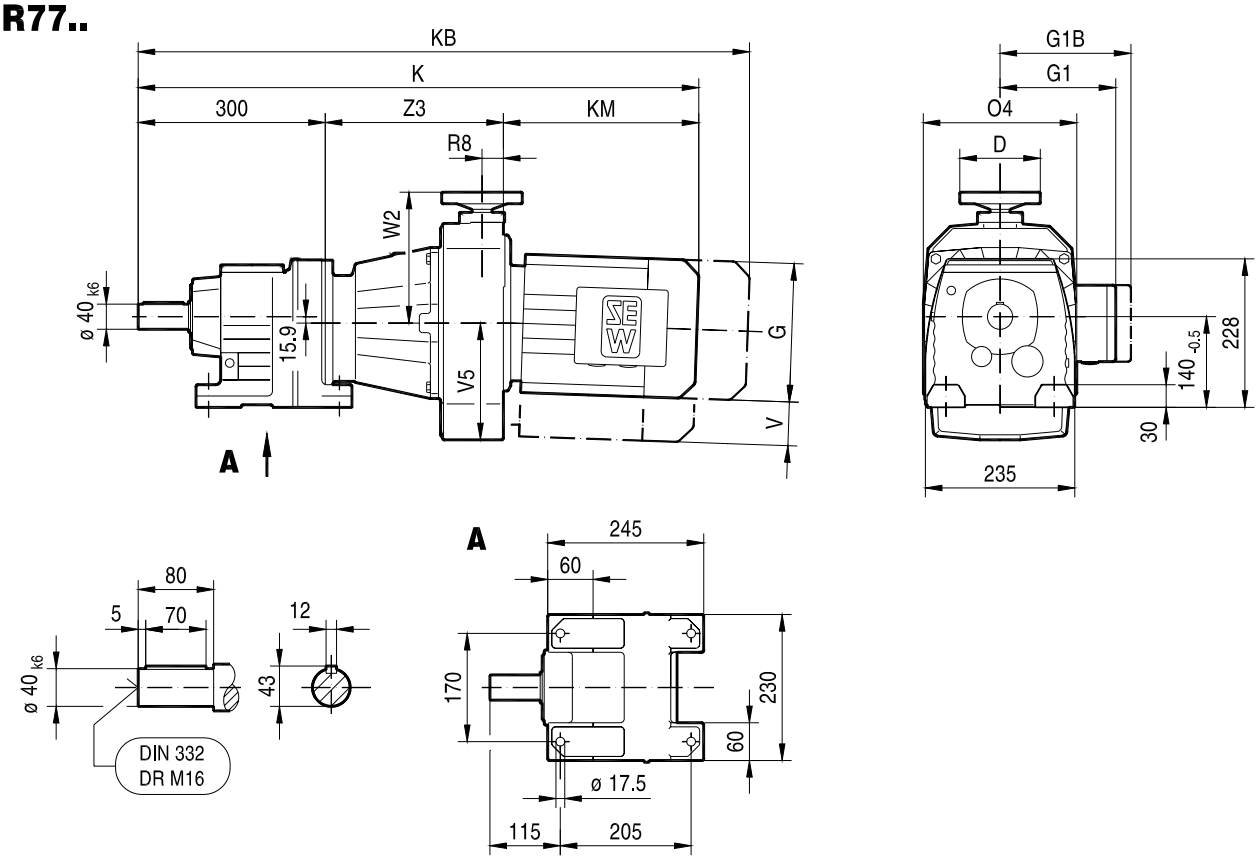
ø 250



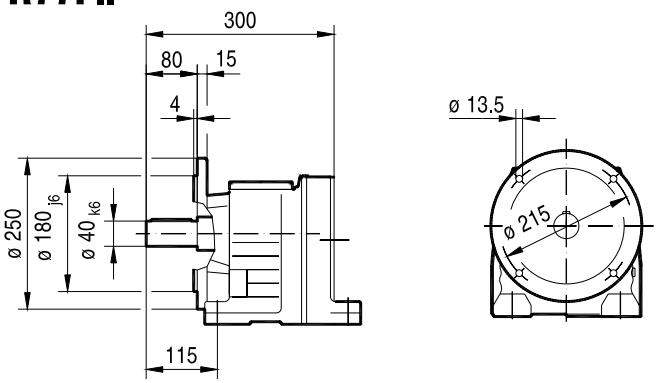
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
RF67	D16	DT80..	100	145	122	127	716	780	248	156	25	49	119	160	188
	D26	DT90..	100	197	154	161	756	841	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	806	891	298	205	32.5	66	153	192	228

15 024 001

R77..



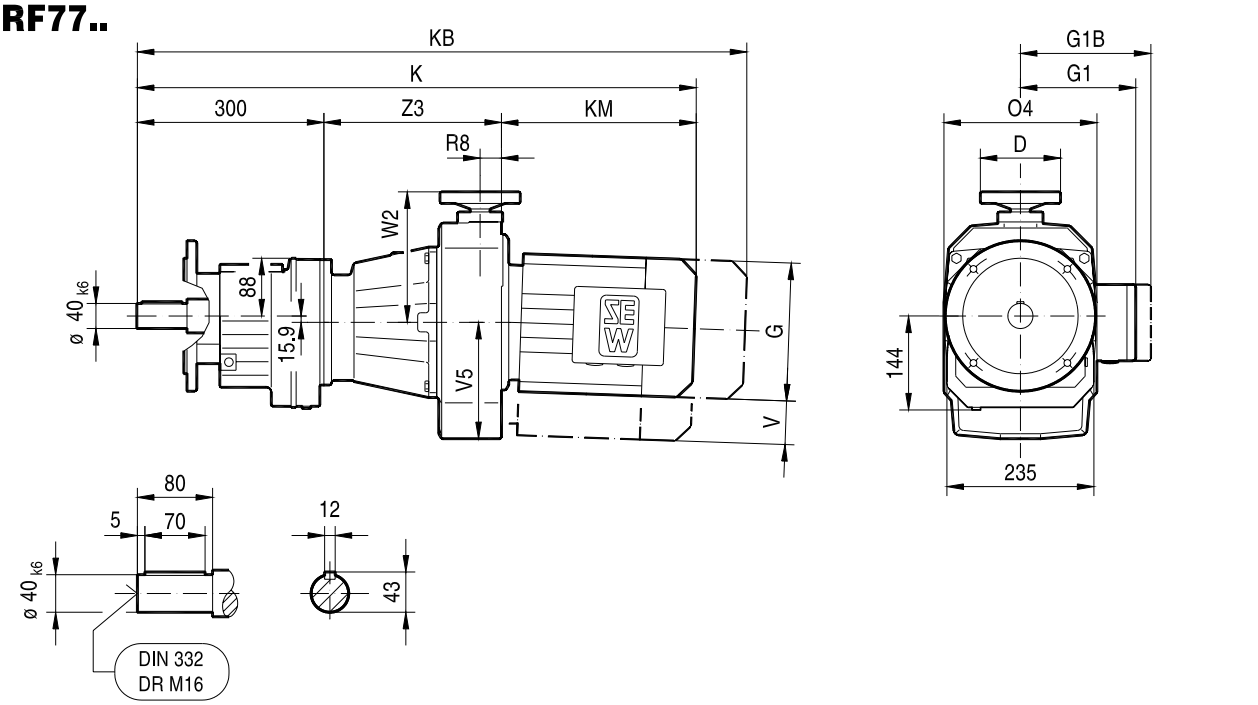
R77F..



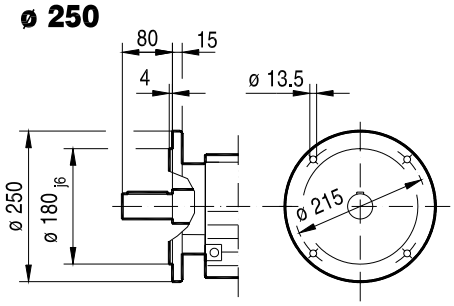
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
R77 R77F	D16	DT80..	100	145	122	127	730	794	248	156	25	49	119	160	182
	D26	DT90..	100	197	154	161	768	853	248	205	32.5	66	153	192	220
		DV100M	100	197	166	166	818	903	298	205	32.5	66	153	192	220
	D36	DV100L	160	197	166	166	923	1008	339	265	38	88	204	232	284
		DV112M	160	221	179	182	916	996	332	265	38	88	204	232	284
		DV132S	160	221	179	182	961	1041	377	265	38	88	204	232	284

15 025 001

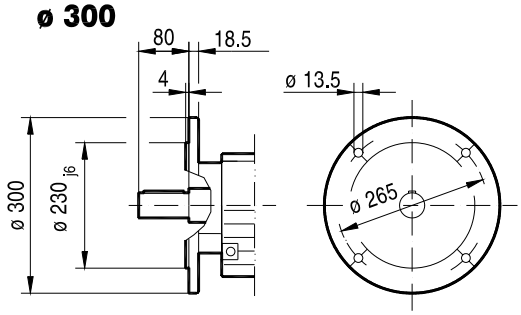
RF77..



ø 250



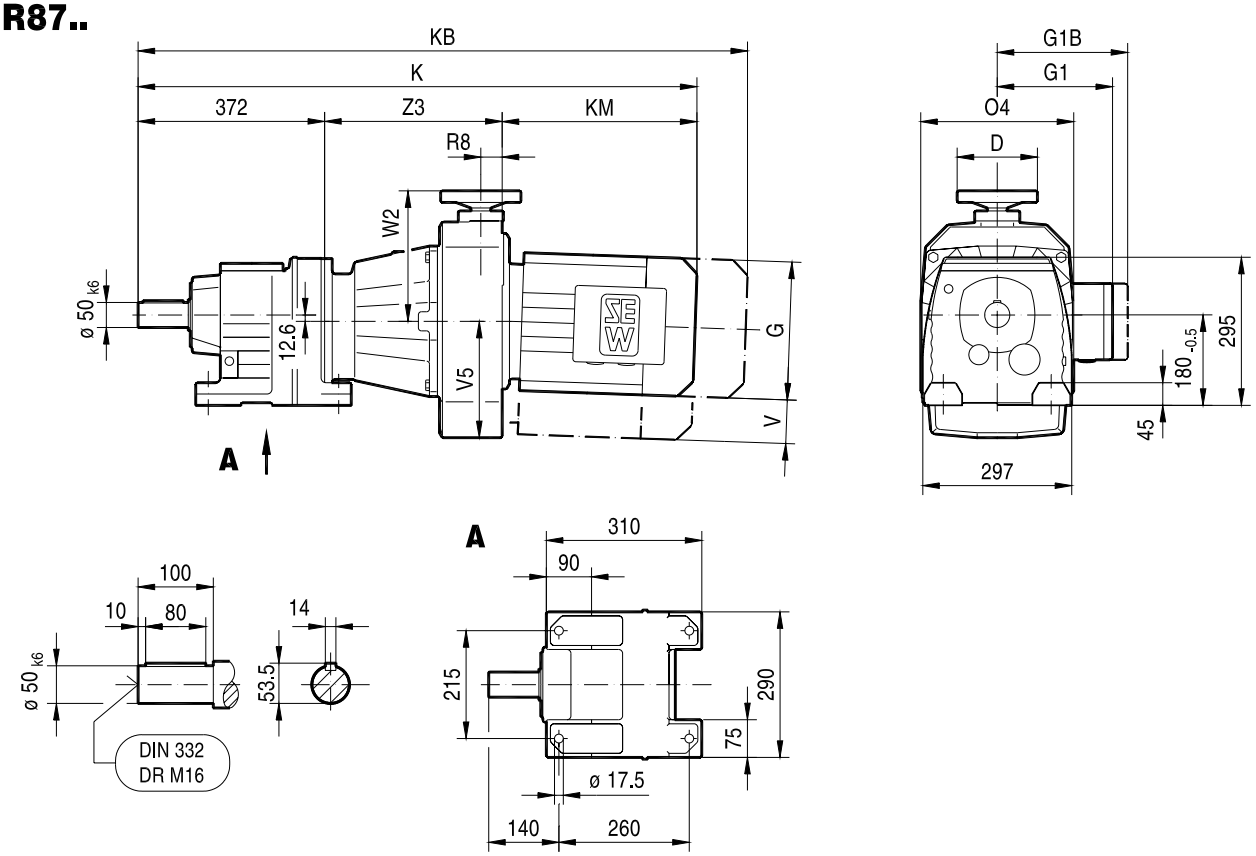
ø 300



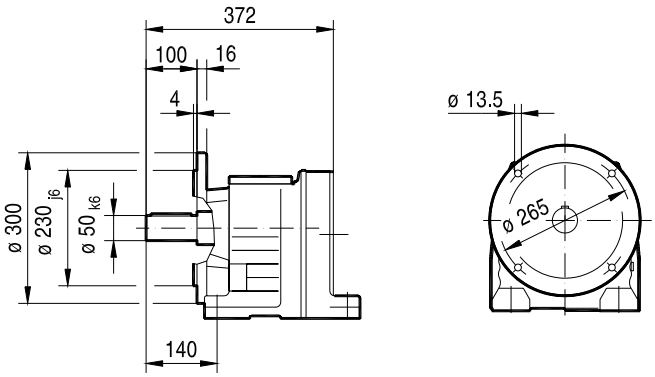
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
RF77	D16	DT80..	100	145	122	127	730	794	248	156	25	49	119	160	182
	D26	DT90..	100	197	154	161	768	853	248	205	32.5	66	153	192	220
		DV100M	100	197	166	166	818	903	298	205	32.5	66	153	192	220
	D36	DV100L	160	197	166	166	923	1008	339	265	38	88	204	232	284
		DV112M	160	221	179	182	916	996	332	265	38	88	204	232	284
		DV132S	160	221	179	182	961	1041	377	265	38	88	204	232	284

15 026 001

R87..



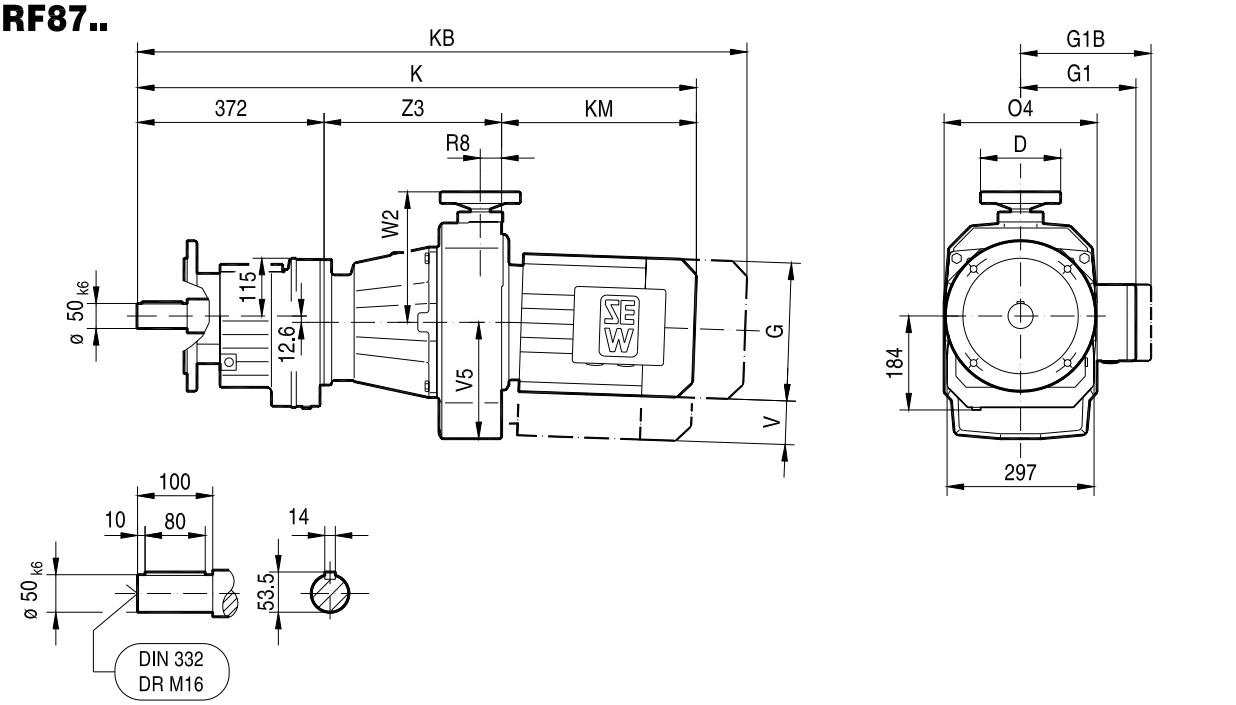
R87F..



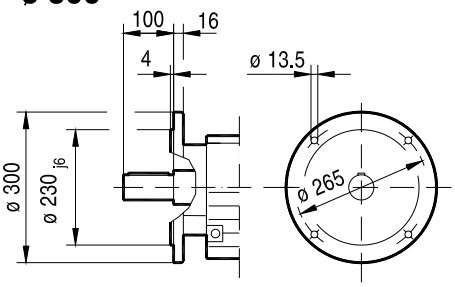
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
R87 R87F	D26	DT90..	100	197	154	161	836	921	248	205	32.5	66	153	192	216
		DV100M	100	197	166	166	886	971	298	205	32.5	66	153	192	216
	D36	DV100M	160	197	166	166	960	1045	309	265	38	88	204	232	279
		DV100L	160	197	166	166	990	1075	339	265	38	88	204	232	279
		DV112M	160	221	179	182	983	1063	332	265	38	88	204	232	279
		DV132S	160	221	179	182	1028	1108	377	265	38	88	204	232	279
	D46	DV132M	160	275	230	230	1115	1227	388	305	45.5	91	232	259	355
		DV132ML	160	275	230	230	1175	1287	448	305	45.5	91	232	259	355
		DV160M	160	275	230	230	1175	1287	448	305	45.5	91	232	259	355

15 027 001

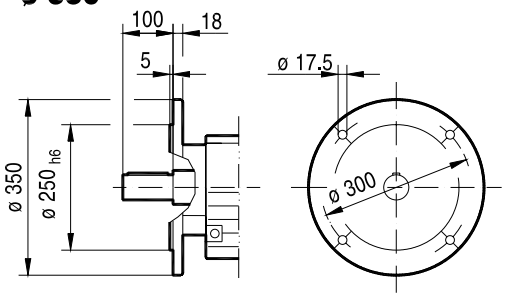
RF87..



ø 300



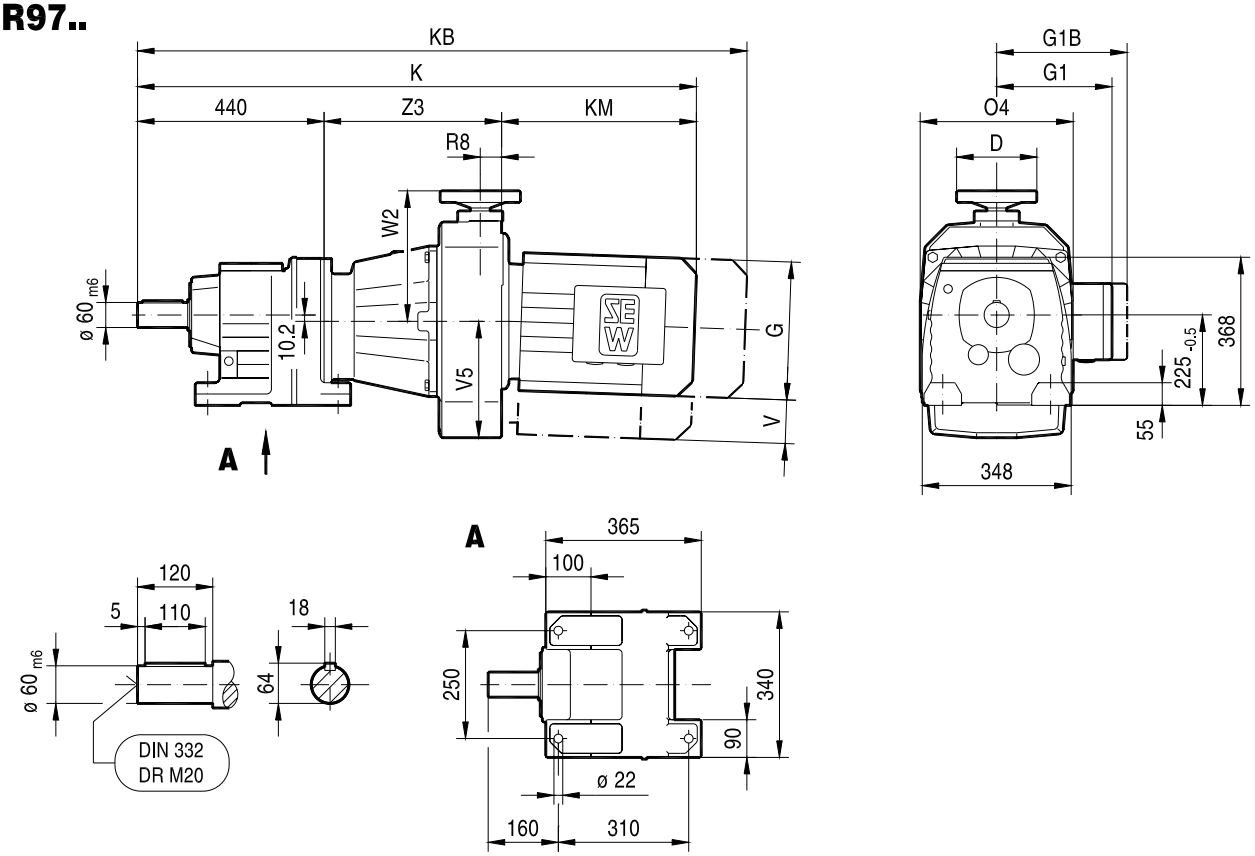
ø 350



(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
RF87	D26	DT90..	100	197	154	161	836	921	248	205	32.5	66	153	192	216
		DV100M	100	197	166	166	886	971	298	205	32.5	66	153	192	216
	D36	DV100M	160	197	166	166	960	1045	309	265	38	88	204	232	279
		DV100L	160	197	166	166	990	1075	339	265	38	88	204	232	279
		DV112M	160	221	179	182	983	1063	332	265	38	88	204	232	279
		DV132S	160	221	179	182	1028	1108	377	265	38	88	204	232	279
	D46	DV132M	160	275	230	230	1115	1227	388	305	45.5	91	232	259	355
		DV132ML	160	275	230	230	1175	1287	448	305	45.5	91	232	259	355
		DV160M	160	275	230	230	1175	1287	448	305	45.5	91	232	259	355

15 028 001

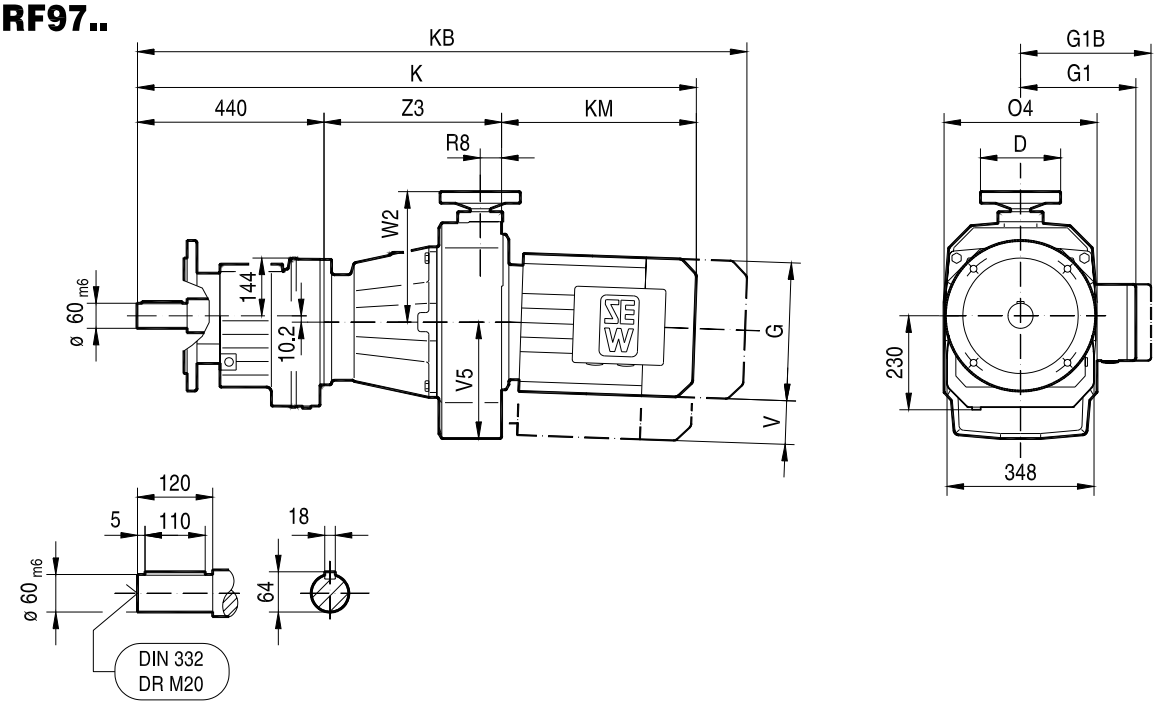
R97..



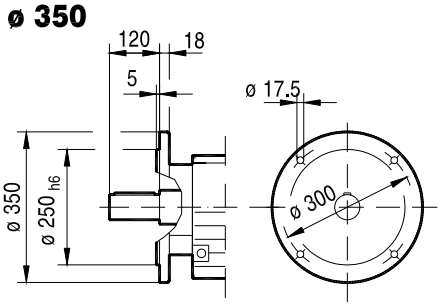
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
R97	D36	DV100M	160	197	166	166	1023	1108	309	265	38	88	204	232	274
		DV100L	160	197	166	166	1053	1138	339	265	38	88	204	232	274
		DV112M	160	221	179	182	1046	1126	332	265	38	88	204	232	274
		DV132S	160	221	179	182	1091	1171	377	265	38	88	204	232	274
	D46	DV132M	160	275	230	230	1177	1289	388	305	45.5	91	232	259	349
		DV132ML	160	275	230	230	1237	1349	448	305	45.5	91	232	259	349
		DV160M	160	275	230	230	1237	1349	448	305	45.5	91	232	259	349

15 029 001

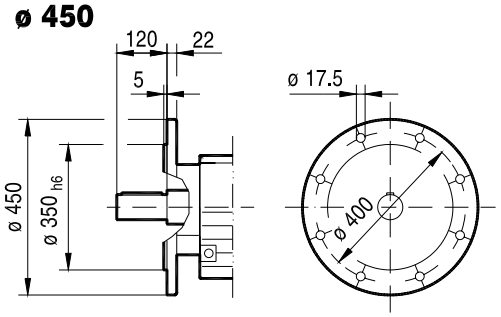
RF97..



ø 350



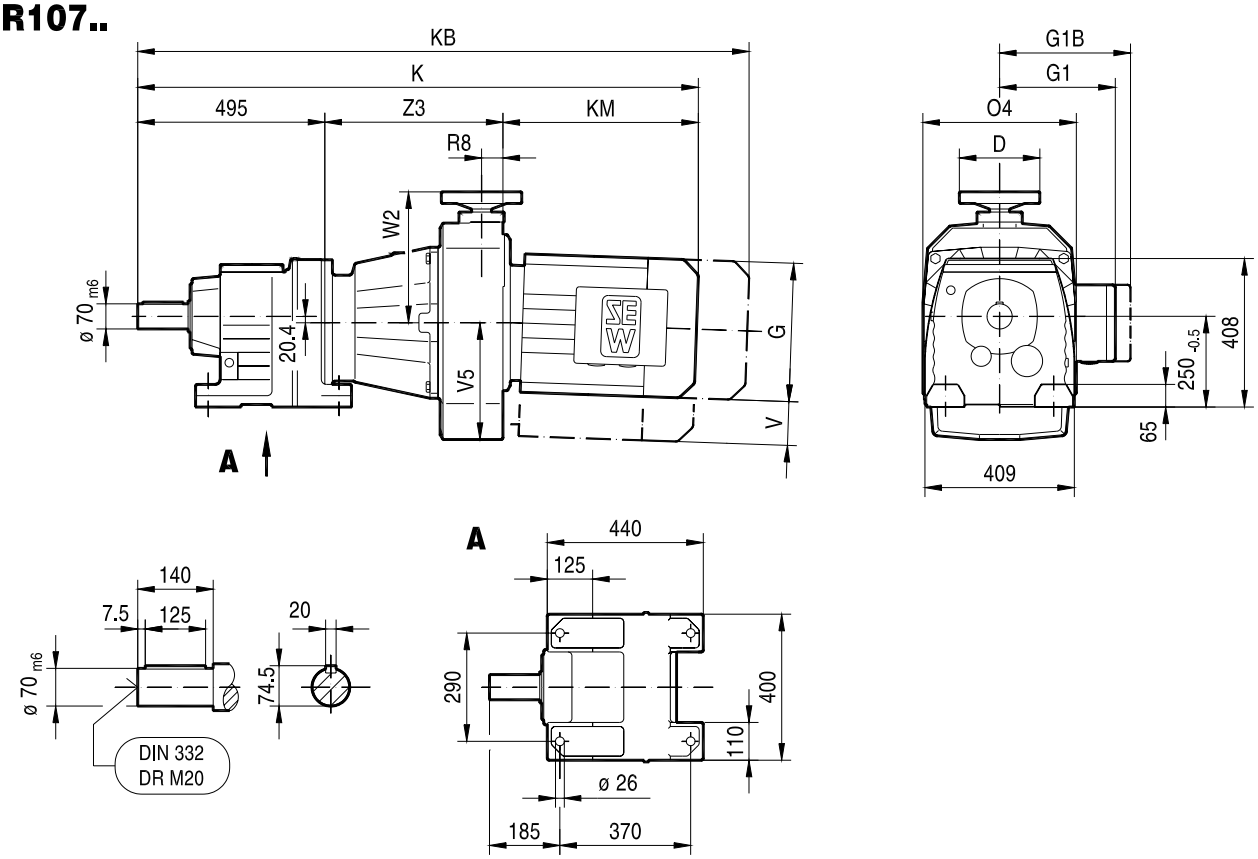
ø 450



(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
RF97	D36	DV100M	160	197	166	166	1023	1108	309	265	38	88	204	232	274
		DV100L	160	197	166	166	1053	1138	339	265	38	88	204	232	274
		DV112M	160	221	179	182	1046	1126	332	265	38	88	204	232	274
		DV132S	160	221	179	182	1091	1171	377	265	38	88	204	232	274
	D46	DV132M	160	275	230	230	1177	1289	388	305	45.5	91	232	259	349
		DV132ML	160	275	230	230	1237	1349	448	305	45.5	91	232	259	349
		DV160M	160	275	230	230	1237	1349	448	305	45.5	91	232	259	349

15 030 001

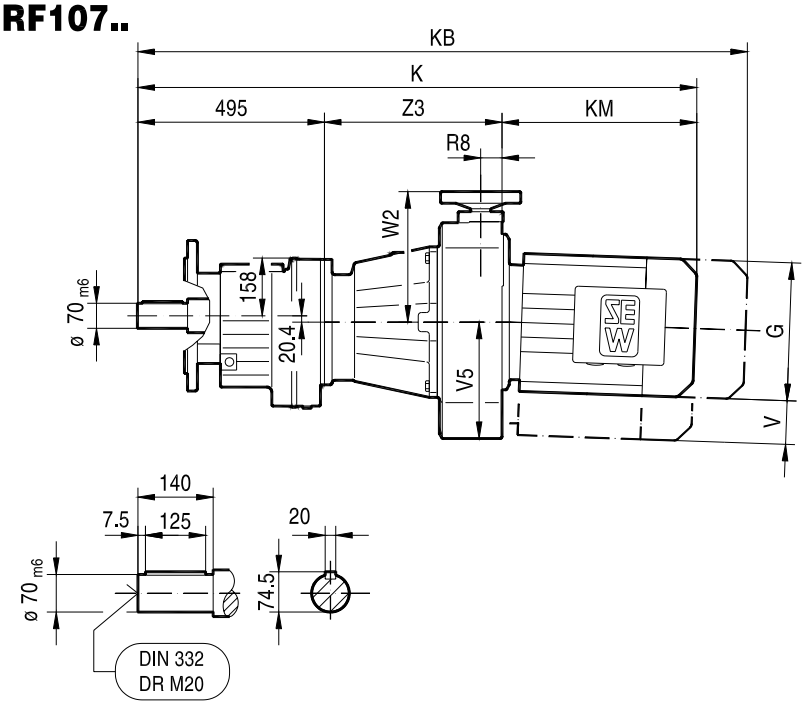
R107..



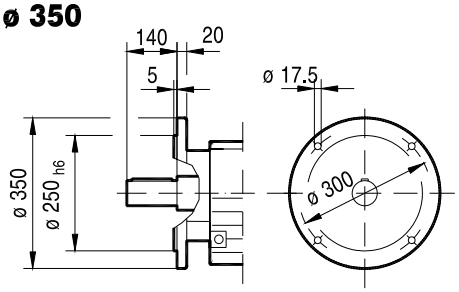
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
R107	D46	DV132M	160	275	230	230	1227	1339	388	305	45.5	91	232	259	344
		DV132ML	160	275	230	230	1287	1399	448	305	45.5	91	232	259	344
		DV160M	160	275	230	230	1287	1399	448	305	45.5	91	232	259	344

15 031 001

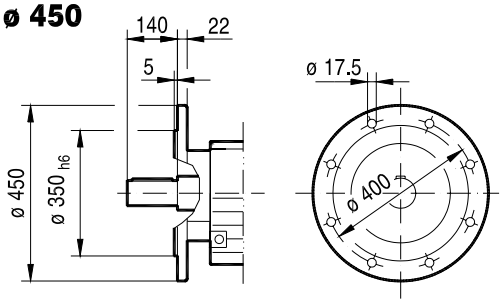
RF107..



ø 350



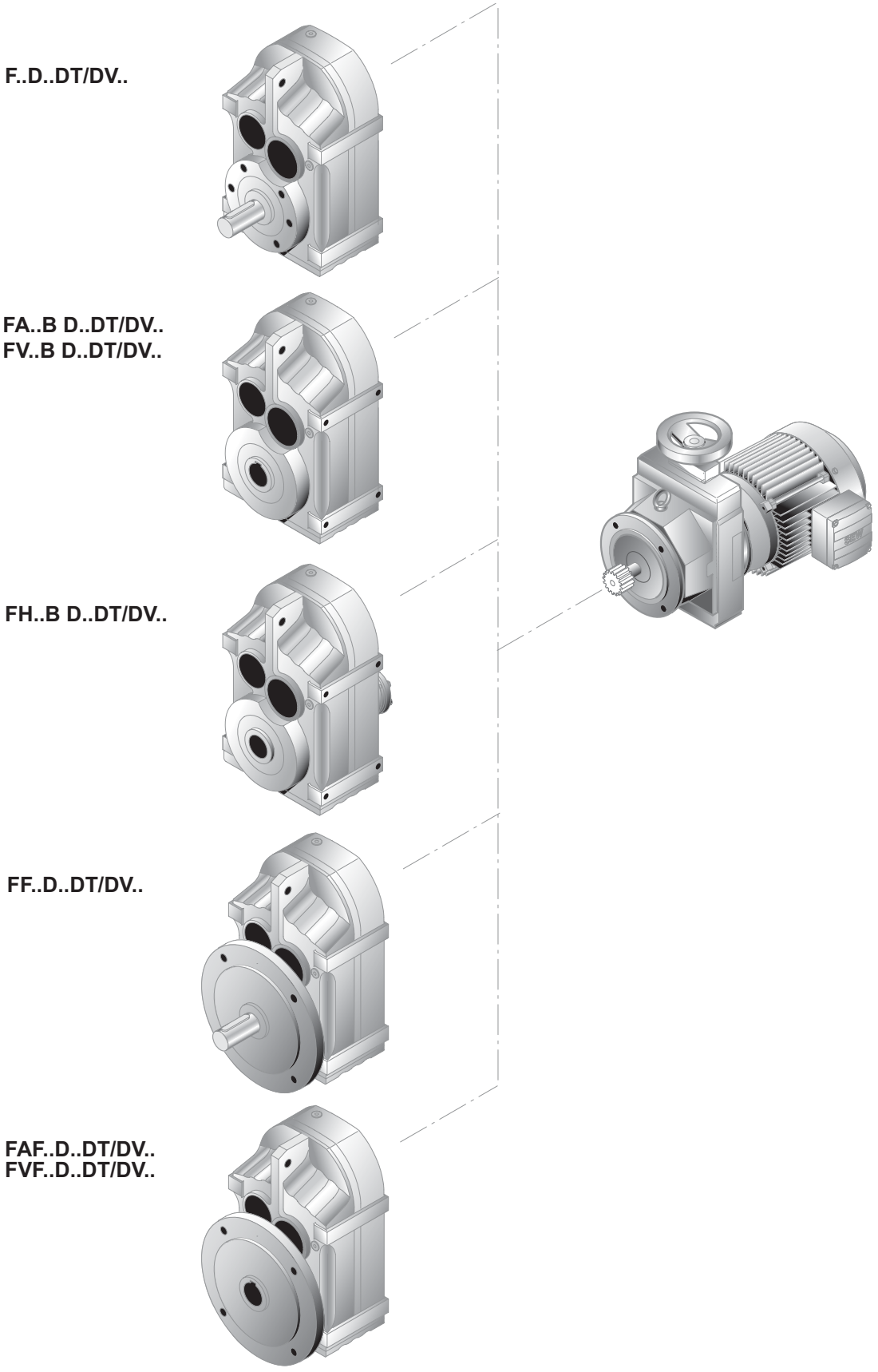
ø 450



(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
RF107	D46	DV132M	160	275	230	230	1227	1339	388	305	45.5	91	232	259	344
		DV132ML	160	275	230	230	1287	1399	448	305	45.5	91	232	259	344
		DV160M	160	275	230	230	1287	1399	448	305	45.5	91	232	259	344

15 F..

15.1 F..D..DT/DV..



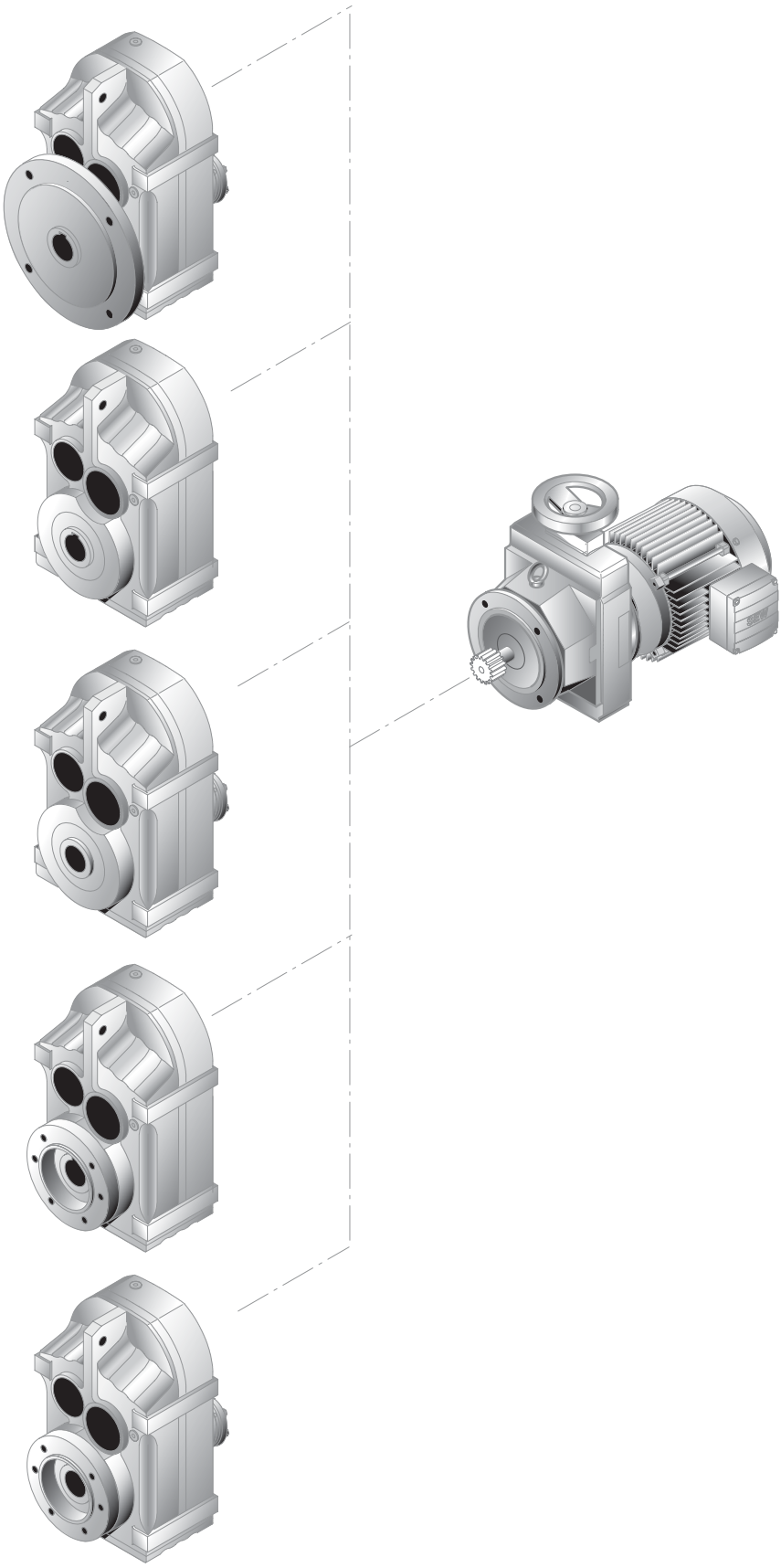
FHF..D..DT/DV..

FA..D..DT/DV..
FV..D..DT/DV..

FH..D..DT/DV..

FAZ..D..DT/DV..
FVZ..D..DT/DV..

FHZ..D..DT/DV..



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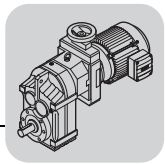
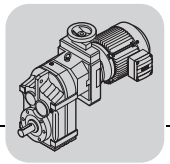


15.2 F..D..DT/DV.. [kW]

R = 1:5

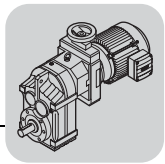
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1}	M_{a2} [Nm]	⚠							m [kg]	
0.37 / 0.30	**0.78 - 3.9**	281.71	1500	810	-								
	0.84 - 4.2	262.93	1500	755	-								
	0.98 - 4.9	225.79	1500	650	-	**FA**	**77**	**D**	**16**	**DT**	**80K6**	76	463
	1.1 - 5.5	198.31	1460	570	-	**FAF**	**77**	**D**	**16**	**DT**	**80K6**	86	462
	1.2 - 5.8	188.40	1390	540	-	**F**	**77**	**D**	**16**	**DT**	**80K6**	72	-
	1.3 - 6.6	166.47	1230	480	-	**FF**	**77**	**D**	**16**	**DT**	**80K6**	78	462
	1.6 - 7.7	142.27	1050	410	-								
	1.2 - 6.0	281.71	1500	465	-								
	1.3 - 6.4	262.93	1480	435	-	**FA**	**77**	**D**	**16**	**DT**	**71D4**	74	463
	1.5 - 7.5	225.79	1280	370	-	**FAF**	**77**	**D**	**16**	**DT**	**71D4**	84	462
	1.7 - 8.5	198.31	1120	325	-	**F**	**77**	**D**	**16**	**DT**	**71D4**	70	-
	1.8 - 8.9	188.40	1060	310	-	**FF**	**77**	**D**	**16**	**DT**	**71D4**	77	462
	0.96 - 4.8	228.99	820	655	-								
	1.1 - 5.6	195.39	820	560	-	**FA**	**67**	**D**	**16**	**DT**	**80K6**	53	461
	1.3 - 6.4	170.85	820	490	-	**FAF**	**67**	**D**	**16**	**DT**	**80K6**	59	460
	1.4 - 6.8	162.31	820	465	-	**F**	**67**	**D**	**16**	**DT**	**80K6**	50	-
	1.6 - 7.7	142.40	820	410	-	**FF**	**67**	**D**	**16**	**DT**	**80K6**	56	460
	1.5 - 7.4	228.99	820	375	-	**FA**	**67**	**D**	**16**	**DT**	**71D4**	51	461
	1.7 - 8.6	195.39	820	320	-	**FAF**	**67**	**D**	**16**	**DT**	**71D4**	57	460
	2.0 - 9.8	170.85	820	280	-	**F**	**67**	**D**	**16**	**DT**	**71D4**	48	-
	2.1 - 10	162.31	820	265	-	**FF**	**67**	**D**	**16**	**DT**	**71D4**	55	460
	1.7 - 8.4	199.70	600	330	-								
	1.8 - 9.2	183.60	600	300	-								
	2.1 - 11	157.09	600	260	-								
	2.5 - 12	136.16	600	225	-	**FA**	**57**	**D**	**16**	**DT**	**71D4**	45	459
	2.7 - 13	127.27	600	210	-	**FAF**	**57**	**D**	**16**	**DT**	**71D4**	51	458
	3.1 - 15	110.01	600	181	-	**F**	**57**	**D**	**16**	**DT**	**71D4**	45	-
	3.6 - 18	93.47	530	154	-	**FF**	**57**	**D**	**16**	**DT**	**71D4**	50	458
	4.0 - 20	83.46	470	137	-								
	4.6 - 23	72.98	410	120	-								
	1.8 - 8.8	190.76	400	315	-								
	1.9 - 9.6	175.38	400	290	-								
	2.2 - 11	150.06	400	245	-								
	2.6 - 13	130.07	400	215	-								
	2.8 - 14	121.57	400	200	-								
	3.2 - 16	105.09	400	173	-								
	3.8 - 19	89.29	400	147	-	**FA**	**47**	**D**	**16**	**DT**	**71D4**	37	457
	4.2 - 21	79.72	400	131	-	**FAF**	**47**	**D**	**16**	**DT**	**71D4**	40	456
	5.0 - 25	68.09	385	112	-	**F**	**47**	**D**	**16**	**DT**	**71D4**	36	-
	5.2 - 26	65.36	370	108	-	**FF**	**47**	**D**	**16**	**DT**	**71D4**	39	456
	6.0 - 30	56.49	320	93	-								
	7.0 - 35	48.00*	270	79	-								
	7.9 - 39	42.86	240	71	-								
	9.2 - 46	36.61	205	60	-								
	9.9 - 49	34.29	194	56	-								
	12 - 58	28.88	163	48	-								
	2.9 - 14	117.88	200	194	-								
	3.4 - 17	100.36	200	165	-								
	3.9 - 19	86.53	200	142	-								
	4.2 - 21	80.65	200	133	-								
	4.8 - 24	70.50	200	116	-								
	5.1 - 25	66.09	200	109	-								
	5.8 - 29	58.32	200	96	-	**FA**	**37**	**D**	**16**	**DT**	**71D4**	32	455
	6.2 - 31	54.54	200	90	-	**FAF**	**37**	**D**	**16**	**DT**	**71D4**	34	454
	6.5 - 33	51.70	200	85	-	**F**	**37**	**D**	**16**	**DT**	**71D4**	32	-
	7.2 - 36	47.02	200	77	-	**FF**	**37**	**D**	**16**	**DT**	**71D4**	33	454
	7.7 - 38	43.83	200	72	-								
	8.8 - 44	38.31	200	63	-								
	9.4 - 47	35.91	200	59	-								
	11 - 53	31.69	179	52	-								
	12 - 60	28.09	159	46	-								



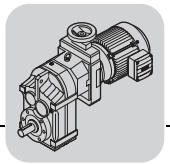
F..D..DT/DV.. [kW]

R = 1:5

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠						m [kg]	
0.37 / 0.30	**14 - 71**	23.63	133	39	-							
	16 - 82	20.57	116	34	-							
	18 - 87	19.27	109	32	-							
	20 - 99	17.03	96	28	-							
	24 - 117	14.33	81	24	-							
	26 - 131	12.87	73	21	-							
	31 - 152	11.08	63	18	-	**FA**	**37**	**D**	**16**	**DT**	**71D4**	32	455
	32 - 162	10.42	59	17	-	**FAF**	**37**	**D**	**16**	**DT**	**71D4**	34	454
	38 - 188	8.97	51	15	-	**F**	**37**	**D**	**16**	**DT**	**71D4**	31	-
	42 - 210	8.01	45	13	-	**FF**	**37**	**D**	**16**	**DT**	**71D4**	33	454
	50 - 250	6.74	38	11	-								
	56 - 278	6.05	34	10	-								
	65 - 323	5.21	29	8.6	-								
	69 - 344	4.90	28	8.1	-								
	80 - 399	4.22	24	6.9	-								
	90 - 447	3.77	21	6.2	-								
0.55 / 0.45	**0.78 - 3.9**	281.71	1500	1200	-								
	0.84 - 4.2	262.93	1500	1120	-	**FA**	**77**	**D**	**16**	**DT**	**80N6**	77	463
	0.98 - 4.9	225.79	1500	960	-	**FAF**	**77**	**D**	**16**	**DT**	**80N6**	88	462
	1.1 - 5.5	198.31	1460	850	-	**F**	**77**	**D**	**16**	**DT**	**80N6**	73	-
	1.2 - 5.8	188.40	1390	800	-	**FF**	**77**	**D**	**16**	**DT**	**80N6**	80	462
	1.2 - 5.9	281.71	1500	730	-								
	1.3 - 6.3	262.93	1500	680	-								
	1.5 - 7.4	225.79	1500	585	-	**FA**	**77**	**D**	**16**	**DT**	**80K4**	76	463
	1.7 - 8.4	198.31	1480	515	-	**FAF**	**77**	**D**	**16**	**DT**	**80K4**	86	462
	1.8 - 8.8	188.40	1400	490	-	**F**	**77**	**D**	**16**	**DT**	**80K4**	72	-
	2.0 - 10	166.47	1240	430	-	**FF**	**77**	**D**	**16**	**DT**	**80K4**	78	462
	2.3 - 12	142.27	1060	370	-								
	2.6 - 13	130.42	970	340	-								
	1.3 - 6.4	170.85	820	730	-	**FA**	**67**	**D**	**16**	**DT**	**80N6**	54	461
	1.4 - 6.8	162.31	820	690	-	**FAF**	**67**	**D**	**16**	**DT**	**80N6**	60	460
	1.6 - 7.7	142.40	820	605	-	**F**	**67**	**D**	**16**	**DT**	**80N6**	51	-
	1.8 - 9.1	120.79	820	515	-	**FF**	**67**	**D**	**16**	**DT**	**80N6**	58	460
	1.5 - 7.2	228.99	820	595	-								
	1.7 - 8.5	195.39	820	505	-								
	1.9 - 9.7	170.85	820	445	-	**FA**	**67**	**D**	**16**	**DT**	**80K4**	53	461
	2.0 - 10	162.31	820	420	-	**FAF**	**67**	**D**	**16**	**DT**	**80K4**	59	460
	2.3 - 12	142.40	820	370	-	**F**	**67**	**D**	**16**	**DT**	**80K4**	50	-
	2.8 - 14	120.79	820	315	-	**FF**	**67**	**D**	**16**	**DT**	**80K4**	56	460
	3.1 - 15	109.04	810	280	-								
	1.7 - 8.3	199.70	600	515	-								
	1.8 - 9.0	183.60	600	475	-								
	2.1 - 11	157.09	600	405	-								
	2.5 - 12	136.16	600	355	-								
	2.6 - 13	127.27	600	330	-	**FA**	**57**	**D**	**16**	**DT**	**80K4**	46	459
	3.0 - 15	110.01	600	285	-	**FAF**	**57**	**D**	**16**	**DT**	**80K4**	53	458
	3.6 - 18	93.47	600	240	-	**F**	**57**	**D**	**16**	**DT**	**80K4**	46	-
	4.0 - 20	83.46	600	215	-	**FF**	**57**	**D**	**16**	**DT**	**80K4**	52	458
	4.6 - 23	72.98	545	189	-								
	4.9 - 24	68.22	510	177	-								
	5.7 - 28	58.97	440	153	-								
	2.2 - 11	150.06	400	390	-								
	2.6 - 13	130.07	400	335	-								
	2.7 - 14	121.57	400	315	-								
	3.2 - 16	105.09	400	270	-								
	3.7 - 19	89.29	400	230	-								
	4.2 - 21	79.72	400	205	-	**FA**	**47**	**D**	**16**	**DT**	**80K4**	39	457
	4.9 - 24	68.09	400	176	-	**FAF**	**47**	**D**	**16**	**DT**	**80K4**	42	456
	5.1 - 25	65.36	400	169	-	**F**	**47**	**D**	**16**	**DT**	**80K4**	38	-
	5.9 - 29	56.49	400	146	-	**FF**	**47**	**D**	**16**	**DT**	**80K4**	41	456
	6.9 - 35	48.00*	360	124	-								
	7.8 - 39	42.86	320	111	-								
	9.1 - 45	36.61	275	95	-								
	9.7 - 48	34.29	255	89	-								
	12 - 57	28.88	215	75	-								



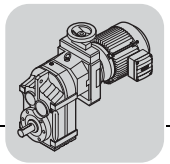
R = 1:5																
P_m/P_{a2} [kW]	n_{a1} [1/min]	-	n_{a2}	i	M_{a1} [Nm]	M_{a2}	⚠								m [kg]	
0.55 / 0.45	11	-	54	30.86	230	80	-	FA	47	D	16	DT	80K4		38	457
	11	-	57	29.32	220	76	-	FAF	47	D	16	DT	80K4		41	456
	13	-	65	25.72	192	67	-	F	47	D	16	DT	80K4		38	-
	15	-	76	21.82	163	57	-	FF	47	D	16	DT	80K4		40	456
	4.7	-	24	70.50	200	183	-									
	5.0	-	25	66.09	200	171	-									
	5.7	-	28	58.32	200	151	-									
	6.1	-	30	54.54	200	141	-									
	6.5	-	32	51.70	200	134	-	FA	37	D	16	DT	80K4		34	455
	7.1	-	35	47.02	200	122	-	FAF	37	D	16	DT	80K4		36	454
	7.6	-	38	43.83	200	114	-	F	37	D	16	DT	80K4		33	-
	8.7	-	43	38.31	200	99	-	FF	37	D	16	DT	80K4		35	454
	9.3	-	46	35.91	200	93	-									
	11	-	52	31.69	200	82	-									
	12	-	59	28.09	200	73	-									
	14	-	70	23.63	176	61	-									
	16	-	81	20.57	153	53	-									
	17	-	86	19.27	144	50	-									
	20	-	97	17.03	127	44	-									
	23	-	116	14.33	107	37	-									
	26	-	129	12.87	96	33	-									
	30	-	150	11.08	83	29	-	FA	37	D	16	DT	80K4		34	455
	32	-	159	10.42	78	27	-	FAF	37	D	16	DT	80K4		36	454
	37	-	185	8.97	67	23	-	F	37	D	16	DT	80K4		33	-
	42	-	207	8.01	60	21	-	FF	37	D	16	DT	80K4		35	454
	49	-	246	6.74	50	18	-									
	55	-	274	6.05	45	16	-									
	64	-	318	5.21	39	14	-									
	68	-	339	4.90	37	13	-									
	79	-	393	4.22	31	11	-									
	88	-	440	3.77	28	9.8	-									
	98	-	489	6.74	30	6.8	-									
	109	-	544	6.05	27	6.1	-	FA	37	D	16	DT	71D2		32	455
	127	-	632	5.21	23	5.3	-	FAF	37	D	16	DT	71D2		34	454
	135	-	672	4.90	22	5.0	-	F	37	D	16	DT	71D2		31	-
	157	-	781	4.22	19	4.3	-	FF	37	D	16	DT	71D2		33	454
	176	-	874	3.77	17	3.8	-									
0.75 / 0.60	0.87	-	4.3	270.68	3000	1480	-	FA	87	D	26	DT	90S6		135	465
	0.92	-	4.6	255.37	3000	1400	-	FAF	87	D	26	DT	90S6		150	464
	1.0	-	5.1	228.93	3000	1250	-	F	87	D	26	DT	90S6		130	-
	1.2	-	5.9	197.20	3000	1080	-	FF	87	D	26	DT	90S6		145	464
	1.3	-	6.5	179.97	2790	980	-									
	1.2	-	5.9	198.31	1500	1080	-	FA	77	D	26	DT	90S6		93	463
	1.2	-	6.2	188.40	1500	1030	-	FAF	77	D	26	DT	90S6		105	462
	1.4	-	7.0	166.47	1500	910	-	F	77	D	26	DT	90S6		90	-
	1.7	-	8.2	142.27	1500	780	-	FF	77	D	26	DT	90S6		96	462
	1.2	-	6.0	281.71	1500	1010	-	FA	77	D	16	DT	80N4		77	463
	1.3	-	6.4	262.93	1500	940	-	FAF	77	D	16	DT	80N4		88	462
	1.5	-	7.5	225.79	1500	810	-	F	77	D	16	DT	80N4		73	-
	1.7	-	8.5	198.31	1460	710	-	FF	77	D	16	DT	80N4		80	462
	1.8	-	8.9	188.40	1380	675	-									
	1.5	-	7.4	228.99	820	820	-									
	1.7	-	8.6	195.39	820	700	-									
	2.0	-	9.8	170.85	820	610	-	FA	67	D	16	DT	80N4		54	461
	2.1	-	10	162.31	820	580	-	FAF	67	D	16	DT	80N4		60	460
	2.4	-	12	142.40	820	510	-	F	67	D	16	DT	80N4		51	-
	2.8	-	14	120.79	820	430	-	FF	67	D	16	DT	80N4		58	460
	3.1	-	15	109.04	800	390	-									



F..D..DT/DV.. [kW]

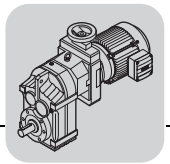
R = 1:5

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
0.75 / 0.60	**2.1 - 11**	157.09	600	560	-								
	2.5 - 12	136.16	600	485	-								
	2.7 - 13	127.27	600	455	-								
	3.1 - 15	110.01	600	395	-								
	3.6 - 18	93.47	600	335	-								
	4.0 - 20	83.46	600	300	-	**FA**	**57**	**D**	**16**	**DT**	**80N4**	48	459
	4.6 - 23	72.98	535	260	-	**FAF**	**57**	**D**	**16**	**DT**	**80N4**	54	458
	5.0 - 25	68.22	500	245	-	**F**	**57**	**D**	**16**	**DT**	**80N4**	48	-
	5.7 - 29	58.97	435	210	-	**FF**	**57**	**D**	**16**	**DT**	**80N4**	53	458
	6.8 - 34	50.10	370	179	-								
	7.6 - 38	44.73	330	160	-								
	8.8 - 44	38.21	280	137	-								
	9.5 - 47	35.79	265	128	-								
	11 - 56	30.15	220	108	-								
	3.2 - 16	105.09	400	375	-								
	3.8 - 19	89.29	400	320	-								
	4.2 - 21	79.72	400	285	-								
	5.0 - 25	68.09	400	245	-	**FA**	**47**	**D**	**16**	**DT**	**80N4**	40	457
	5.2 - 26	65.36	400	235	-	**FAF**	**47**	**D**	**16**	**DT**	**80N4**	43	456
	6.0 - 30	56.49	400	200	-	**F**	**47**	**D**	**16**	**DT**	**80N4**	40	-
	7.0 - 35	48.00*	350	172	-	**FF**	**47**	**D**	**16**	**DT**	**80N4**	42	456
	7.9 - 39	42.86	315	153	-								
	9.2 - 46	36.61	270	131	-								
	9.9 - 49	34.29	250	123	-								
	12 - 58	28.88	210	103	-								
	11 - 55	30.86	225	110	-	**FA**	**47**	**D**	**16**	**DT**	**80N4**	40	457
	12 - 57	29.32	215	105	-	**FAF**	**47**	**D**	**16**	**DT**	**80N4**	43	456
	13 - 65	25.72	189	92	-	**F**	**47**	**D**	**16**	**DT**	**80N4**	39	-
	16 - 77	21.82	160	78	-	**FF**	**47**	**D**	**16**	**DT**	**80N4**	42	456
	6.2 - 31	54.54	200	195	-								
	6.5 - 33	51.70	200	185	-								
	7.2 - 36	47.02	200	168	-	**FA**	**37**	**D**	**16**	**DT**	**80N4**	35	455
	7.7 - 38	43.83	200	157	-	**FAF**	**37**	**D**	**16**	**DT**	**80N4**	37	454
	8.8 - 44	38.31	200	137	-	**F**	**37**	**D**	**16**	**DT**	**80N4**	35	-
	9.4 - 47	35.91	200	128	-	**FF**	**37**	**D**	**16**	**DT**	**80N4**	36	454
	11 - 53	31.69	200	113	-								
	12 - 60	28.09	200	100	-								
	14 - 71	23.63	174	84	-								
	16 - 82	20.57	151	74	-								
	18 - 87	19.27	142	69	-								
	20 - 99	17.03	125	61	-								
	24 - 117	14.33	105	51	-								
	26 - 131	12.87	95	46	-								
	31 - 152	11.08	81	40	-	**FA**	**37**	**D**	**16**	**DT**	**80N4**	35	455
	32 - 162	10.42	77	37	-	**FAF**	**37**	**D**	**16**	**DT**	**80N4**	37	454
	38 - 188	8.97	66	32	-	**F**	**37**	**D**	**16**	**DT**	**80N4**	35	-
	42 - 210	8.01	59	29	-	**FF**	**37**	**D**	**16**	**DT**	**80N4**	36	454
	50 - 250	6.74	50	24	-								
	56 - 278	6.05	44	22	-								
	65 - 323	5.21	38	19	-								
	69 - 344	4.90	36	18	-								
	80 - 399	4.22	31	15	-								
	90 - 447	3.77	28	14	-								
	83 - 411	8.01	41	12	-								
	98 - 489	6.74	34	10	-								
	109 - 544	6.05	31	9.3	-	**FA**	**37**	**D**	**16**	**DT**	**80K2**	34	455
	127 - 632	5.21	26	8.0	-	**FAF**	**37**	**D**	**16**	**DT**	**80K2**	36	454
	135 - 672	4.90	25	7.5	-	**F**	**37**	**D**	**16**	**DT**	**80K2**	33	-
	157 - 781	4.22	21	6.5	-	**FF**	**37**	**D**	**16**	**DT**	**80K2**	35	454
	176 - 874	3.77	19	5.8	-								



R = 1:5

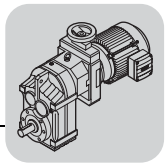
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
1.1 / 0.90	0.89 - 4.4	270.68	3000	2120	-								
	0.94 - 4.7	255.37	3000	2000	-	FA	87	D	26	DT	90L6	140	465
	1.1 - 5.2	228.93	3000	1790	-	FAF	87	D	26	DT	90L6	155	464
	1.2 - 6.1	197.20	2990	1540	-	F	87	D	26	DT	90L6	135	-
	1.3 - 6.7	179.97	2730	1410	-	FF	87	D	26	DT	90L6	145	464
	1.5 - 7.5	159.61	2420	1250	-								
	1.4 - 6.7	270.68	3000	1320	-	FA	87	D	26	DT	90S4	135	465
	1.4 - 7.1	255.37	3000	1250	-	FAF	87	D	26	DT	90S4	150	464
	1.6 - 8.0	228.93	3000	1120	-	F	87	D	26	DT	90S4	130	-
	1.9 - 9.2	197.20	2940	960	-	FF	87	D	26	DT	90S4	145	464
	1.3 - 6.4	188.40	1500	1470	-	FA	77	D	26	DT	90L6	96	463
	1.4 - 7.2	166.47	1500	1300	-	FAF	77	D	26	DT	90L6	105	462
	1.7 - 8.4	142.27	1500	1110	-	F	77	D	26	DT	90L6	92	-
	1.8 - 9.2	130.42	1500	1020	-	FF	77	D	26	DT	90L6	98	462
	1.8 - 9.2	198.31	1500	970	-								
	1.9 - 9.7	188.40	1500	920	-	FA	77	D	26	DT	90S4	93	463
	2.2 - 11	166.47	1500	810	-	FAF	77	D	26	DT	90S4	105	462
	2.6 - 13	142.27	1500	695	-	F	77	D	26	DT	90S4	90	-
	2.8 - 14	130.42	1500	635	-	FF	77	D	26	DT	90S4	96	462
	2.2 - 11	162.31	820	790	-								
	2.6 - 13	142.40	820	695	-	FA	67	D	26	DT	90S4	70	461
	3.0 - 15	120.79	820	590	-	FAF	67	D	26	DT	90S4	76	460
	3.3 - 17	109.04	820	530	-	F	67	D	26	DT	90S4	67	-
	3.8 - 19	95.94	820	470	-	FF	67	D	26	DT	90S4	73	460
	2.4 - 12	281.71	1420	695	-								
	2.5 - 13	262.93	1330	650	-	FA	77	D	16	DT	80N2	77	463
	2.9 - 15	225.79	1140	555	-	FAF	77	D	16	DT	80N2	88	462
	3.3 - 17	198.31	1000	490	-	F	77	D	16	DT	80N2	73	-
	3.5 - 17	188.40	950	465	-	FF	77	D	16	DT	80N2	80	462
	4.0 - 20	166.47	840	410	-								
	2.9 - 14	228.99	820	565	-								
	3.4 - 17	195.39	820	480	-	FA	67	D	16	DT	80N2	54	461
	3.9 - 19	170.85	820	420	-	FAF	67	D	16	DT	80N2	60	460
	4.1 - 20	162.31	820	400	-	F	67	D	16	DT	80N2	51	-
	4.7 - 23	142.40	720	350	-	FF	67	D	16	DT	80N2	58	460
	5.5 - 27	120.79	610	300	-								
	3.3 - 16	199.70	600	490	-								
	3.6 - 18	183.60	600	455	-								
	4.2 - 21	157.09	600	385	-	FA	57	D	16	DT	80N2	48	459
	4.9 - 24	136.16	600	335	-	FAF	57	D	16	DT	80N2	54	458
	5.2 - 26	127.27	600	315	-	F	57	D	16	DT	80N2	48	-
	6.0 - 30	110.01	555	270	-	FF	57	D	16	DT	80N2	53	458
	7.1 - 35	93.47	470	230	-								
	7.9 - 39	83.46	420	205	-								
	4.4 - 22	150.06	400	370	-								
	5.1 - 25	130.07	400	320	-								
	5.4 - 27	121.57	400	300	-								
	6.3 - 31	105.09	400	260	-								
	7.4 - 37	89.29	400	220	-	FA	47	D	16	DT	80N2	40	457
	8.3 - 41	79.72	400	197	-	FAF	47	D	16	DT	80N2	43	456
	9.7 - 48	68.09	345	168	-	F	47	D	16	DT	80N2	40	-
	10 - 50	65.36	330	161	-	FF	47	D	16	DT	80N2	42	456
	12 - 58	56.49	285	139	-								
	14 - 69	48.00*	240	118	-								
	15 - 77	42.86	215	106	-								



F..D..DT/DV.. [kW]

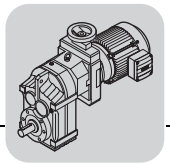
R = 1:5

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
1.1 / 0.90	**8.2 - 41**	80.65	200	199	-								
	9.4 - 47	70.50	200	174	-								
	10 - 50	66.09	200	163	-								
	11 - 56	58.32	200	144	-								
	12 - 60	54.54	200	134	-	**FA**	**37**	**D**	**16**	**DT**	**80N2**	35	455
	13 - 64	51.70	200	127	-	**FAF**	**37**	**D**	**16**	**DT**	**80N2**	37	454
	14 - 70	47.02	200	116	-	**F**	**37**	**D**	**16**	**DT**	**80N2**	35	-
	15 - 75	43.83	200	108	-	**FF**	**37**	**D**	**16**	**DT**	**80N2**	36	454
	17 - 86	38.31	194	94	-								
	18 - 92	35.91	181	89	-								
	21 - 104	31.69	160	78	-								
	24 - 117	28.09	142	69	-								
	28 - 139	23.63	119	58	-								
	32 - 160	20.57	104	51	-								
	34 - 171	19.27	97	48	-								
	39 - 193	17.03	86	42	-								
	46 - 230	14.33	72	35	-								
	51 - 256	12.87	65	32	-								
	60 - 297	11.08	56	27	-	**FA**	**37**	**D**	**16**	**DT**	**80N2**	35	455
	63 - 316	10.42	53	26	-	**FAF**	**37**	**D**	**16**	**DT**	**80N2**	37	454
	74 - 367	8.97	45	22	-	**F**	**37**	**D**	**16**	**DT**	**80N2**	35	-
	83 - 411	8.01	41	20	-	**FF**	**37**	**D**	**16**	**DT**	**80N2**	36	454
	98 - 489	6.74	34	17	-								
	109 - 544	6.05	31	15	-								
	127 - 632	5.21	26	13	-								
	135 - 672	4.90	25	12	-								
	157 - 781	4.22	21	10	-								
	176 - 874	3.77	19	9.3	-								
1.5 / 1.2	**0.78 - 3.9**	276.77	4300	3290	-								
	0.85 - 4.3	253.41	4300	3010	-	**FA**	**97**	**D**	**36**	**DV**	**100M6**	235	467
	0.97 - 4.9	223.88	4300	2660	-	**FAF**	**97**	**D**	**36**	**DV**	**100M6**	265	466
	1.1 - 5.7	189.92	4300	2260	-	**F**	**97**	**D**	**36**	**DV**	**100M6**	225	-
	1.2 - 6.2	174.87	4300	2080	-	**FF**	**97**	**D**	**36**	**DV**	**100M6**	245	466
	1.4 - 7.0	156.30	4300	1860	-								
	1.1 - 5.5	197.20	3000	2340	-								
	1.2 - 6.0	179.97	3000	2140	-	**FA**	**87**	**D**	**36**	**DV**	**100M6**	160	465
	1.4 - 6.8	159.61	3000	1900	-	**FAF**	**87**	**D**	**36**	**DV**	**100M6**	180	464
	1.6 - 8.1	134.16	3000	1590	-	**F**	**87**	**D**	**36**	**DV**	**100M6**	155	-
	1.8 - 8.8	123.29	3000	1460	-	**FF**	**87**	**D**	**36**	**DV**	**100M6**	170	464
	1.4 - 6.8	270.68	3000	1850	-	**FA**	**87**	**D**	**26**	**DT**	**90L4**	140	465
	1.4 - 7.2	255.37	3000	1740	-	**FAF**	**87**	**D**	**26**	**DT**	**90L4**	155	464
	1.6 - 8.0	228.93	3000	1560	-	**F**	**87**	**D**	**26**	**DT**	**90L4**	135	-
	1.9 - 9.3	197.20	2920	1350	-	**FF**	**87**	**D**	**26**	**DT**	**90L4**	145	464
	1.9 - 9.2	198.31	1500	1350	-								
	1.9 - 9.7	188.40	1500	1290	-								
	2.2 - 11	166.47	1500	1140	-	**FA**	**77**	**D**	**26**	**DT**	**90L4**	96	463
	2.6 - 13	142.27	1500	970	-	**FAF**	**77**	**D**	**26**	**DT**	**90L4**	105	462
	2.8 - 14	130.42	1500	890	-	**F**	**77**	**D**	**26**	**DT**	**90L4**	92	-
	3.2 - 16	114.45	1500	780	-	**FF**	**77**	**D**	**26**	**DT**	**90L4**	98	462
	3.4 - 17	108.46*	1500	740	-								
	3.4 - 17	109.04	820	745	-								
	3.8 - 19	95.94	820	655	-								
	4.0 - 20	90.59	820	620	-								
	4.6 - 23	79.76	820	545	-	**FA**	**67**	**D**	**26**	**DT**	**90L4**	72	461
	5.4 - 27	67.65	820	460	-	**FAF**	**67**	**D**	**26**	**DT**	**90L4**	78	460
	6.0 - 30	61.07	820	415	-	**F**	**67**	**D**	**26**	**DT**	**90L4**	69	-
	6.8 - 34	53.73	795	365	-	**FF**	**67**	**D**	**26**	**DT**	**90L4**	75	460
	7.2 - 36	50.74	750	345	-								
	8.5 - 42	43.20	640	295	-								



R = 1:5

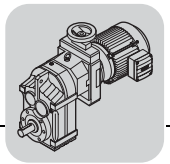
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
1.5 / 1.2	4.4 - 22	83.46	600	570	-									
	5.0 - 25	72.98	600	500	-									
	5.4 - 27	68.22	600	465	-	FA	57	D	26	DT	90L4		65	459
	6.2 - 31	58.97	600	405	-	FAF	57	D	26	DT	90L4		72	458
	7.3 - 37	50.10	600	340	-	F	57	D	26	DT	90L4		65	-
	8.2 - 41	44.73	600	305	-	FF	57	D	26	DT	90L4		71	458
	9.6 - 48	38.21	565	260	-									
	10 - 51	35.79	530	245	-									
	12 - 61	29.94	445	205	-									
	13 - 64	28.45	420	194	-									
	15 - 73	24.96	370	170	-									
	17 - 87	21.17	315	145	-									
	19 - 96	19.11	285	130	-									
	22 - 109	16.81	250	115	-									
	23 - 115	15.88	235	108	-	FA	57	D	26	DT	90L4		65	459
	27 - 136	13.52	200	92	-	FAF	57	D	26	DT	90L4		71	458
	30 - 149	12.29	182	84	-	F	57	D	26	DT	90L4		65	-
	35 - 172	10.64	158	73	-	FF	57	D	26	DT	90L4		70	458
	39 - 197	9.31	138	64	-									
	45 - 224	8.19	121	56	-									
	48 - 237	7.73	115	53	-									
	56 - 279	6.58	98	45	-									
	61 - 307	5.98	89	41	-									
	71 - 354	5.18	77	35	-									
	76 - 377	9.31	102	30	-									
	86 - 429	8.19	90	26	-	FA	57	D	26	DT	90S2		62	459
	91 - 454	7.73	85	25	-	FAF	57	D	26	DT	90S2		69	458
	107 - 533	6.58	72	21	-	F	57	D	26	DT	90S2		62	-
	118 - 587	5.98	66	19	-	FF	57	D	26	DT	90S2		68	458
	136 - 678	5.18	57	17	-									
2.2 / 1.8	0.99 - 5.0	223.88	4300	3860	-									
	1.2 - 5.8	189.92	4300	3270	-									
	1.3 - 6.3	174.87	4300	3010	-	FA	97	D	36	DV	112M6		245	467
	1.4 - 7.1	156.30	4300	2690	-	FAF	97	D	36	DV	112M6		275	466
	1.6 - 7.9	140.71	4300	2420	-	F	97	D	36	DV	112M6		235	-
	1.7 - 8.7	127.42	4300	2190	-	FF	97	D	36	DV	112M6		255	466
	2.0 - 9.8	112.99	4300	1950	-									
	1.4 - 6.8	270.68	3000	2680	-									
	1.4 - 7.2	255.37	3000	2530	-									
	1.6 - 8.0	228.93	3000	2270	-	FA	87	D	26	DV	100M4		145	465
	1.9 - 9.3	197.20	2920	1950	-	FAF	87	D	26	DV	100M4		160	464
	2.0 - 10	179.97	2670	1780	-	F	87	D	26	DV	100M4		135	-
	2.3 - 11	159.61	2370	1580	-	FF	87	D	26	DV	100M4		150	464
	2.7 - 14	134.16	1990	1330	-									
	2.6 - 13	142.27	1500	1410	-									
	2.8 - 14	130.42	1500	1290	-	FA	77	D	26	DV	100M4		100	463
	3.2 - 16	114.45	1500	1130	-	FAF	77	D	26	DV	100M4		110	462
	3.4 - 17	108.46*	1500	1070	-	F	77	D	26	DV	100M4		96	-
	3.9 - 19	94.93	1410	940	-	FF	77	D	26	DV	100M4		100	462
	4.6 - 23	79.76	820	790	-									
	5.4 - 27	67.65	820	670	-	FA	67	D	26	DV	100M4		76	461
	6.0 - 30	61.07	820	605	-	FAF	67	D	26	DV	100M4		82	460
	6.8 - 34	53.73	795	530	-	F	67	D	26	DV	100M4		73	-
	7.2 - 36	50.74	750	500	-	FF	67	D	26	DV	100M4		79	460
	8.5 - 42	43.20	640	430	-									
	6.2 - 31	58.97	600	585	-									
	7.3 - 37	50.10	600	495	-	FA	57	D	26	DV	100M4		69	459
	8.2 - 41	44.73	600	445	-	FAF	57	D	26	DV	100M4		76	458
	9.6 - 48	38.21	565	380	-	F	57	D	26	DV	100M4		69	-
	10 - 51	35.79	530	355	-	FF	57	D	26	DV	100M4		75	458
	12 - 61	30.15	445	300	-									



F..D..DT/DV.. [kW]

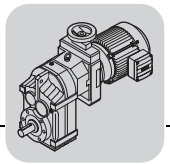
R = 1:5

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
2.2 / 1.8	**12 - 61**	29.94	445	295	-								
	13 - 64	28.45	420	280	-								
	15 - 73	24.96	370	245	-								
	17 - 87	21.17	315	210	-								
	19 - 96	19.11	285	189	-								
	22 - 109	16.81	250	166	-								
	23 - 115	15.88	235	157	-	**FA**	**57**	**D**	**26**	**DV**	**100M4**	69	459
	27 - 136	13.52	200	134	-	**FAF**	**57**	**D**	**26**	**DV**	**100M4**	75	458
	30 - 149	12.29	182	122	-	**F**	**57**	**D**	**26**	**DV**	**100M4**	68	-
	35 - 172	10.64	158	105	-	**FF**	**57**	**D**	**26**	**DV**	**100M4**	74	458
	39 - 197	9.31	138	92	-								
	45 - 224	8.19	121	81	-								
	48 - 237	7.73	115	77	-								
	56 - 279	6.58	98	65	-								
	61 - 307	5.98	89	59	-								
	71 - 354	5.18	77	51	-								
	76 - 381	9.31	105	45	-								
	87 - 433	8.19	92	40	-	**FA**	**57**	**D**	**26**	**DT**	**90L2**	65	459
	92 - 459	7.73	87	38	-	**FAF**	**57**	**D**	**26**	**DT**	**90L2**	71	458
	108 - 539	6.58	74	32	-	**F**	**57**	**D**	**26**	**DT**	**90L2**	65	-
	119 - 593	5.98	68	29	-	**FF**	**57**	**D**	**26**	**DT**	**90L2**	70	458
	137 - 685	5.18	58	25	-								
3.0 / 2.5	**1.3 - 6.3**	174.87	4300	4190	-	**FA**	**97**	**D**	**36**	**DV**	**132S6**	250	467
	1.4 - 7.1	156.30	4300	3740	-	**FAF**	**97**	**D**	**36**	**DV**	**132S6**	285	466
	1.6 - 7.9	140.71	4300	3370	-	**F**	**97**	**D**	**36**	**DV**	**132S6**	245	-
						FF	**97**	**D**	**36**	**DV**	**132S6**	265	466
	1.2 - 6.0	276.77	4300	4220	-								
	1.3 - 6.5	253.41	4300	3870	-								
	1.5 - 7.4	223.88	4300	3420	-	**FA**	**97**	**D**	**36**	**DV**	**100L4**	235	467
	1.7 - 8.7	189.92	4300	2900	-	**FAF**	**97**	**D**	**36**	**DV**	**100L4**	265	466
	1.9 - 9.5	174.87	4300	2670	-	**F**	**97**	**D**	**36**	**DV**	**100L4**	225	-
	2.1 - 11	156.30	4300	2390	-	**FF**	**97**	**D**	**36**	**DV**	**100L4**	250	466
	2.3 - 12	140.71	4300	2150	-								
	2.6 - 13	127.42	4300	1940	-								
	1.8 - 9.2	179.97	3000	2750	-								
	2.1 - 10	159.61	3000	2440	-								
	2.5 - 12	134.16	3000	2050	-	**FA**	**87**	**D**	**36**	**DV**	**100L4**	165	465
	2.7 - 13	123.29	3000	1880	-	**FAF**	**87**	**D**	**36**	**DV**	**100L4**	180	464
	3.0 - 15	109.49	3000	1670	-	**F**	**87**	**D**	**36**	**DV**	**100L4**	160	-
	3.4 - 17	97.89	3000	1490	-	**FF**	**87**	**D**	**36**	**DV**	**100L4**	170	464
	3.7 - 19	88.01	3000	1340	-								
	3.5 - 17	94.93	1500	1450	-								
	3.9 - 19	85.52	1500	1310	-								
	4.4 - 22	75.02	1500	1140	-								
	4.5 - 23	72.50	1500	1110	-								
	5.0 - 25	66.46	1500	1010	-								
	5.7 - 28	58.32	1500	890	-	**FA**	**77**	**D**	**36**	**DV**	**100L4**	125	463
	6.0 - 30	55.27	1500	840	-	**FAF**	**77**	**D**	**36**	**DV**	**100L4**	135	462
	6.8 - 34	48.37	1500	740	-	**F**	**77**	**D**	**36**	**DV**	**100L4**	120	-
	7.6 - 38	43.58	1500	665	-	**FF**	**77**	**D**	**36**	**DV**	**100L4**	130	462
	8.6 - 43	38.23	1500	585	-								
	9.8 - 49	33.74	1370	515	-								
	11 - 55	29.91	1210	455	-								
	13 - 65	25.54	1040	390	-								



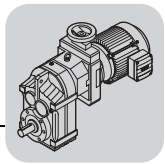
R = 1:5

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
3.0 / 2.5	10 - 52	31.51	1280	480	-								
	11 - 57	28.75	1170	440	-								
	13 - 65	25.50*	1040	390	-								
	15 - 77	21.43	870	325	-								
	17 - 84	19.70	800	300	-								
	19 - 94	17.49	710	265	-								
	21 - 106	15.64*	635	240	-								
	23 - 117	14.06	570	215	-	FA	77	D	36	DV	100L4	125	463
	27 - 135	12.20	495	186	-	FAF	77	D	36	DV	100L4	135	462
	30 - 151	10.93	445	167	-	F	77	D	36	DV	100L4	120	-
	35 - 178	9.30	380	142	-	FF	77	D	36	DV	100L4	125	462
	40 - 200	8.26	335	126	-								
	45 - 224	7.39	300	113	-								
	50 - 249	6.64	270	101	-								
	57 - 287	5.76	235	88	-								
	64 - 320	5.16	210	79	-								
	77 - 386	4.28	174	65	-								
	80 - 400	8.26	192	59	-								
	89 - 447	7.39	171	53	-	FA	77	D	36	DV	100M2	120	463
	99 - 498	6.64	154	48	-	FAF	77	D	36	DV	100M2	130	462
	114 - 573	5.76	134	41	-	F	77	D	36	DV	100M2	120	-
	128 - 640	5.16	120	37	-	FF	77	D	36	DV	100M2	125	462
	154 - 772	4.28	99	31	-								
4.0 / 3.4	1.8 - 8.8	189.92	4300	3880	-	FA	97	D	36	DV	112M4	245	467
	1.9 - 9.6	174.87	4300	3570	-	FAF	97	D	36	DV	112M4	275	466
	2.1 - 11	156.30	4300	3190	-	F	97	D	36	DV	112M4	235	-
	2.4 - 12	140.71	4300	2870	-	FF	97	D	36	DV	112M4	255	466
	2.6 - 13	127.42	4300	2600	-								
	2.5 - 12	134.16	3000	2740	-								
	2.7 - 14	123.29	3000	2520	-								
	3.1 - 15	109.49	3000	2230	-	FA	87	D	36	DV	112M4	175	465
	3.4 - 17	97.89	3000	2000	-	FAF	87	D	36	DV	112M4	190	464
	3.8 - 19	88.01	3000	1800	-	F	87	D	36	DV	112M4	165	-
	4.4 - 22	76.39	3000	1560	-	FF	87	D	36	DV	112M4	180	464
	4.9 - 25	68.40	2740	1400	-								
	4.6 - 23	72.50	1500	1480	-								
	5.0 - 25	66.46	1500	1360	-								
	5.7 - 29	58.32	1500	1190	-								
	6.0 - 30	55.27	1500	1130	-	FA	77	D	36	DV	112M4	135	463
	6.9 - 35	48.37	1500	990	-	FAF	77	D	36	DV	112M4	145	462
	7.7 - 38	43.58	1500	890	-	F	77	D	36	DV	112M4	130	-
	8.7 - 44	38.23	1500	780	-	FF	77	D	36	DV	112M4	135	462
	9.9 - 50	33.74	1350	690	-								
	11 - 56	29.91	1200	610	-								
	13 - 66	25.54	1020	520	-								
	11 - 53	31.51	1260	645	-								
	12 - 58	28.75	1150	585	-								
	13 - 66	25.50*	1020	520	-								
	16 - 78	21.43	860	435	-								
	17 - 85	19.70	790	400	-								
	19 - 96	17.49	700	355	-								
	21 - 107	15.64*	625	320	-								
	24 - 119	14.06	565	285	-	FA	77	D	36	DV	112M4	130	463
	27 - 137	12.20	490	250	-	FAF	77	D	36	DV	112M4	145	462
	31 - 153	10.93	435	225	-	F	77	D	36	DV	112M4	130	-
	36 - 180	9.30	370	190	-	FF	77	D	36	DV	112M4	135	462
	40 - 203	8.26	330	169	-								
	45 - 227	7.39	295	151	-								
	50 - 252	6.64	265	136	-								
	58 - 291	5.76	230	118	-								
	65 - 325	5.16	205	105	-								
	78 - 391	4.28	171	87	-								

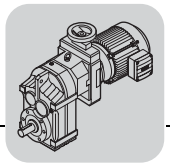


F..D..DT/DV.. [kW]

R = 1:5															
P_m/P_{a2} [kW]	n_{a1} [1/min]		n_{a2}	i	M_{a1} [Nm]	M_{a2}	⚠							m [kg]	
4.0 / 3.4	81	-	409	8.26	188	80	-								
	91	-	457	7.39	168	72	-	FA	77	D	36	DV	112M2	130	463
	101	-	508	6.64	151	64	-	FAF	77	D	36	DV	112M2	145	462
	117	-	586	5.76	131	56	-	F	77	D	36	DV	112M2	130	-
	130	-	654	5.16	117	50	-	FF	77	D	36	DV	112M2	135	462
	157	-	788	4.28	97	41	-								
5.5 / 4.6	2.4	-	12	140.71	4300	3980	-	FA	97	D	36	DV	132S4	250	467
	2.6	-	13	127.42	4300	3610	-	FAF	97	D	36	DV	132S4	285	466
	3.0	-	15	112.99	4300	3200	-	F	97	D	36	DV	132S4	245	-
								FF	97	D	36	DV	132S4	265	466
	3.4	-	17	97.89	3000	2770	-								
	3.8	-	19	88.01	3000	2490	-								
	4.4	-	22	76.39	3000	2160	-	FA	87	D	36	DV	132S4	180	465
	4.9	-	25	68.40	2720	1940	-	FAF	87	D	36	DV	132S4	195	464
	5.9	-	30	56.75	2260	1610	-	F	87	D	36	DV	132S4	175	-
	6.7	-	34	50.36	2000	1430	-	FF	87	D	36	DV	132S4	185	464
	7.4	-	37	45.28	1800	1280	-								
	9.9	-	50	33.92	1350	960	-	FA	87	D	36	DV	132S4	175	465
	12	-	59	28.78	1140	810	-	FAF	87	D	36	DV	132S4	195	464
	13	-	64	26.50	1050	750	-	F	87	D	36	DV	132S4	170	-
	14	-	71	23.68	940	670	-	FF	87	D	36	DV	132S4	185	464
	7.0	-	35	48.37	1500	1370	-								
	7.7	-	39	43.58	1500	1230	-	FA	77	D	36	DV	132S4	140	463
	8.8	-	44	38.23	1500	1080	-	FAF	77	D	36	DV	132S4	150	462
	10	-	50	33.74	1340	950	-	F	77	D	36	DV	132S4	135	-
	11	-	56	29.91	1190	850	-	FF	77	D	36	DV	132S4	145	462
	13	-	66	25.54	1010	725	-								
	11	-	54	31.51	1250	890	-								
	12	-	59	28.75	1140	810	-								
	13	-	66	25.50*	1010	720	-								
	16	-	79	21.43	850	605	-								
	17	-	86	19.70	785	555	-								
	19	-	96	17.49	695	495	-								
	22	-	108	15.64*	620	445	-								
	24	-	120	14.06	560	400	-	FA	77	D	36	DV	132S4	140	463
	28	-	138	12.20	485	345	-	FAF	77	D	36	DV	132S4	150	462
	31	-	154	10.93	435	310	-	F	77	D	36	DV	132S4	135	-
	36	-	181	9.30	370	265	-	FF	77	D	36	DV	132S4	145	462
	41	-	204	8.26	330	235	-								
	46	-	228	7.39	295	210	-								
	51	-	254	6.64	265	188	-								
	58	-	293	5.76	230	163	-								
	65	-	327	5.16	205	146	-								
	79	-	394	4.28	170	121	-								
	82	-	411	8.26	186	112	-								
	92	-	460	7.39	167	100	-	FA	77	D	36	DV	132S2	140	463
	102	-	512	6.64	150	90	-	FAF	77	D	36	DV	132S2	150	462
	118	-	590	5.76	130	78	-	F	77	D	36	DV	132S2	135	-
	131	-	659	5.16	116	70	-	FF	77	D	36	DV	132S2	145	462
	158	-	794	4.28	97	58	-								

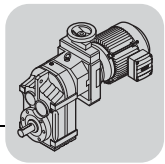


R = 1:4																
P_m/P_{a2} [kW]	n_{a1} [1/min]	-	n_{a2}	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
7.5 / 6.4	2.2	-	9.0	178.64	7680	7240	-									
	2.5	-	9.9	161.28*	7680	6540	-									
	2.8	-	11	146.49	7680	5940	-									
	3.1	-	12	129.97	7680	5270	-	**FA**	**107**	**D**	**46**	**DV**	**132M4**	375	469	
	3.4	-	14	117.94	7680	4780	-	**FAF**	**107**	**D**	**46**	**DV**	**132M4**	405	468	
	4.0	-	16	101.38*	6610	4110	-	**F**	**107**	**D**	**46**	**DV**	**132M4**	360	-	
	4.4	-	17	92.47*	6030	3750	-	**FF**	**107**	**D**	**46**	**DV**	**132M4**	380	468	
	4.5	-	18	88.49	5770	3590	-									
	4.8	-	19	83.99	5480	3410	-									
	3.9	-	16	102.16	4300	4140	-									
	4.1	-	16	97.58	4300	3960	-									
	4.5	-	18	89.85	4300	3640	-									
	4.7	-	19	86.59	4300	3510	-	**FA**	**97**	**D**	**46**	**DV**	**132M4**	295	467	
	5.0	-	20	80.31	4300	3260	-	**FAF**	**97**	**D**	**46**	**DV**	**132M4**	330	466	
	5.3	-	21	75.63	4300	3070	-	**F**	**97**	**D**	**46**	**DV**	**132M4**	290	-	
	5.6	-	22	72.29	4300	2930	-	**FF**	**97**	**D**	**46**	**DV**	**132M4**	310	466	
	6.2	-	24	65.47	4270	2650	-									
	6.9	-	28	58.06	3790	2350	-									
	5.9	-	23	68.40	3000	2770	-	**FA**	**87**	**D**	**46**	**DV**	**132M4**	230	465	
	7.1	-	28	56.75	3000	2300	-	**FAF**	**87**	**D**	**46**	**DV**	**132M4**	245	464	
	8.0	-	32	50.36	2940	2040	-	**F**	**87**	**D**	**46**	**DV**	**132M4**	225	-	
	8.9	-	35	45.28	2820	1840	-	**FF**	**87**	**D**	**46**	**DV**	**132M4**	235	464	
	12	-	47	33.92	2210	1380	-									
	14	-	56	28.78	1880	1170	-									
	15	-	60	26.50	1730	1070	-									
	17	-	68	23.68	1540	960	-									
	19	-	75	21.32*	1390	860	-									
	21	-	83	19.31	1260	785	-									
	24	-	94	17.12	1120	695	-									
	26	-	103	15.48	1010	630	-	**FA**	**87**	**D**	**46**	**DV**	**132M4**	225	465	
	31	-	122	13.12*	860	530	-	**FAF**	**87**	**D**	**46**	**DV**	**132M4**	240	464	
	35	-	140	11.46	745	465	-	**F**	**87**	**D**	**46**	**DV**	**132M4**	220	-	
	42	-	167	9.58	625	390	-	**FF**	**87**	**D**	**46**	**DV**	**132M4**	230	464	
	49	-	193	8.29	540	335	-									
	55	-	218	7.35	480	300	-									
	61	-	241	6.65	435	270	-									
	72	-	284	5.63	365	230	-									
	82	-	325	4.92	320	200	-									
	98	-	389	4.12	270	167	-									
	99	-	392	8.29	370	163	-									
	111	-	442	7.35	325	145	-	**FA**	**87**	**D**	**46**	**DV**	**132M2**	225	465	
	123	-	489	6.65	295	131	-	**FAF**	**87**	**D**	**46**	**DV**	**132M2**	240	464	
	145	-	577	5.63	250	111	-	**F**	**87**	**D**	**46**	**DV**	**132M2**	220	-	
	166	-	660	4.92	220	97	M2	**FF**	**87**	**D**	**46**	**DV**	**132M2**	230	464	
	198	-	789	4.12	183	81	M2									
9.2 / 7.7	2.8	-	11	146.49	7680	7240	-									
	3.1	-	12	129.97	7680	6430	-									
	3.4	-	14	117.94	7640	5830	-	**FA**	**107**	**D**	**46**	**DV**	**132ML4**	385	469	
	4.0	-	16	101.38*	6560	5010	-	**FAF**	**107**	**D**	**46**	**DV**	**132ML4**	415	468	
	4.4	-	17	92.47*	5990	4570	-	**F**	**107**	**D**	**46**	**DV**	**132ML4**	370	-	
	4.6	-	18	88.49	5730	4380	-	**FF**	**107**	**D**	**46**	**DV**	**132ML4**	390	468	
	4.8	-	19	83.99	5440	4150	-									
	5.4	-	22	74.52	4820	3680	-									
	4.7	-	19	86.59	4300	4280	-									
	5.0	-	20	80.31	4300	3970	-									
	5.4	-	21	75.63	4300	3740	-	**FA**	**97**	**D**	**46**	**DV**	**132ML4**	305	467	
	5.6	-	22	72.29	4300	3570	-	**FAF**	**97**	**D**	**46**	**DV**	**132ML4**	340	466	
	6.2	-	25	65.47	4240	3240	-	**F**	**97**	**D**	**46**	**DV**	**132ML4**	300	-	
	7.0	-	28	58.06	3760	2870	-	**FF**	**97**	**D**	**46**	**DV**	**132ML4**	320	466	
	7.7	-	31	52.49	3400	2600	-									



F..D..DT/DV.. [kW]

R = 1:4																
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2}	⚠								m [kg]	
9.2 / 7.7	**7.2**	-	**28**	56.75	3000	2810	-									
	8.1	-	**32**	50.36	2940	2490	-	**FA**	**87**		**D**		**46**	**DV**	**132ML4**	240	465
	9.0	-	**36**	45.28	2820	2240	-	**FAF**	**87**		**D**		**46**	**DV**	**132ML4**	255	464
	10	-	**41**	39.30	2540	1940	-	**F**	**87**		**D**		**46**	**DV**	**132ML4**	235	-
	12	-	**46**	35.19	2280	1740	-	**FF**	**87**		**D**		**46**	**DV**	**132ML4**	245	464
	14	-	**55**	29.20	1890	1440	-										
	12	-	**48**	33.92	2200	1680	-										
	14	-	**56**	28.78	1860	1420	-										
	15	-	**61**	26.50	1720	1310	-										
	17	-	**68**	23.68	1530	1170	-										
	19	-	**76**	21.32*	1380	1050	-										
	21	-	**84**	19.31	1250	950	-										
	24	-	**94**	17.12	1110	850	-										
	26	-	**104**	15.48	1000	765	-	**FA**	**87**		**D**		**46**	**DV**	**132ML4**	235	465
	31	-	**123**	13.12*	850	650	-	**FAF**	**87**		**D**		**46**	**DV**	**132ML4**	250	464
	35	-	**141**	11.46	740	565	-	**F**	**87**		**D**		**46**	**DV**	**132ML4**	230	-
	42	-	**168**	9.58	620	475	-	**FF**	**87**		**D**		**46**	**DV**	**132ML4**	245	464
	49	-	**195**	8.29	535	410	-										
	55	-	**219**	7.35	475	365	-										
	61	-	**243**	6.65	430	330	-										
	72	-	**286**	5.63	365	280	-										
	82	-	**328**	4.92	320	245	-										
	99	-	**392**	4.12	265	205	-										
	98	-	**390**	8.29	370	200	-										
	111	-	**440**	7.35	330	178	-	**FA**	**87**		**D**		**46**	**DV**	**132ML2**	235	465
	122	-	**487**	6.65	295	161	-	**FAF**	**87**		**D**		**46**	**DV**	**132ML2**	250	464
	144	-	**575**	5.63	250	136	-	**F**	**87**		**D**		**46**	**DV**	**132ML2**	230	-
	165	-	**658**	4.92	220	119	M2	**FF**	**87**		**D**		**46**	**DV**	**132ML2**	245	464
	198	-	**786**	4.12	184	100	M2										
11.0 / 9.2	**3.4**	-	**14**	117.94	7640	6980	-										
	4.0	-	**16**	101.38*	6560	6000	-										
	4.4	-	**17**	92.47*	5990	5480	-	**FA**	**107**		**D**		**46**	**DV**	**160M4**	395	469
	4.6	-	**18**	88.49	5730	5240	-	**FAF**	**107**		**D**		**46**	**DV**	**160M4**	420	468
	4.8	-	**19**	83.99	5440	4970	-	**F**	**107**		**D**		**46**	**DV**	**160M4**	375	-
	5.4	-	**22**	74.52	4820	4410	-	**FF**	**107**		**D**		**46**	**DV**	**160M4**	395	468
	6.0	-	**24**	67.62	4380	4000	-										
	5.6	-	**22**	72.29	4300	4280	-										
	6.2	-	**25**	65.47	4240	3880	-										
	7.0	-	**28**	58.06	3760	3440	-	**FA**	**97**		**D**		**46**	**DV**	**160M4**	315	467
	7.7	-	**31**	52.49	3400	3110	-	**FAF**	**97**		**D**		**46**	**DV**	**160M4**	345	466
	9.1	-	**36**	44.49	2880	2630	-	**F**	**97**		**D**		**46**	**DV**	**160M4**	305	-
	10	-	**42**	38.86	2520	2300	-	**FF**	**97**		**D**		**46**	**DV**	**160M4**	325	466
	12	-	**50**	32.50	2100	1920	-										
	9.4	-	**37**	43.28	2800	2560	-	**FA**	**97**		**D**		**46**	**DV**	**160M4**	305	467
	11	-	**44**	36.64	2370	2170	-	**FAF**	**97**		**D**		**46**	**DV**	**160M4**	340	466
	12	-	**48**	33.91	2200	2010	-	**F**	**97**		**D**		**46**	**DV**	**160M4**	300	-
	13	-	**53**	30.39	1970	1800	-	**FF**	**97**		**D**		**46**	**DV**	**160M4**	320	466
	9.0	-	**36**	45.28	2820	2680	-	**FA**	**87**		**D**		**46**	**DV**	**160M4**	245	465
	10	-	**41**	39.30	2540	2330	-	**FAF**	**87**		**D**		**46**	**DV**	**160M4**	260	464
	12	-	**46**	35.19	2280	2080	-	**F**	**87**		**D**		**46**	**DV**	**160M4**	240	-
	14	-	**55**	29.20	1890	1730	-	**FF**	**87**		**D**		**46**	**DV**	**160M4**	250	464



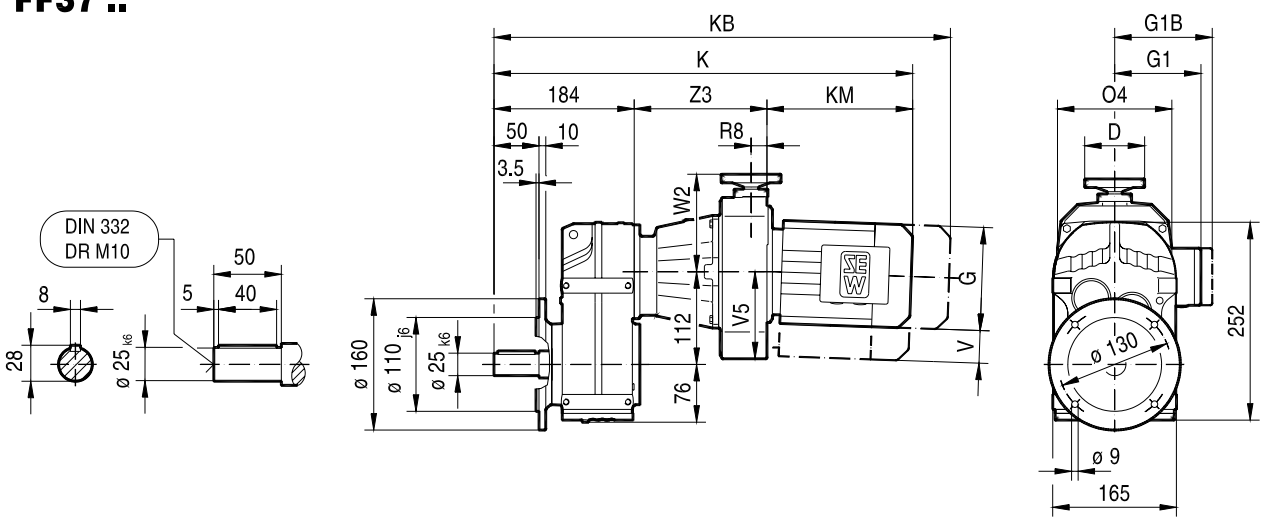
R = 1:4

P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
11.0 / 9.2	**12 - 48**	33.92	2200	2010	-								
	14 - 56	28.78	1860	1700	-								
	15 - 61	26.50	1720	1570	-								
	17 - 68	23.68	1530	1400	-								
	19 - 76	21.32*	1380	1260	-								
	21 - 84	19.31	1250	1140	-								
	24 - 94	17.12	1110	1010	-								
	26 - 104	15.48	1000	920	-	**FA**	**87**	**D**	**46**	**DV**	**160M4**	240	465
	31 - 123	13.12*	850	775	-	**FAF**	**87**	**D**	**46**	**DV**	**160M4**	260	464
	35 - 141	11.46	740	680	-	**F**	**87**	**D**	**46**	**DV**	**160M4**	235	-
	42 - 168	9.58	620	570	-	**FF**	**87**	**D**	**46**	**DV**	**160M4**	250	464
	49 - 195	8.29	535	490	-								
	55 - 219	7.35	475	435	-								
	61 - 243	6.65	430	395	-								
	72 - 286	5.63	365	335	-								
	82 - 328	4.92	320	290	-								
	99 - 392	4.12	265	245	-								
	99 - 392	8.29	370	240	-								
	111 - 442	7.35	325	210	-	**FA**	**87**	**D**	**46**	**DV**	**160M2**	240	465
	123 - 489	6.65	295	192	-	**FAF**	**87**	**D**	**46**	**DV**	**160M2**	260	464
	145 - 577	5.63	250	162	-	**F**	**87**	**D**	**46**	**DV**	**160M2**	235	-
	166 - 660	4.92	220	142	M2	**FF**	**87**	**D**	**46**	**DV**	**160M2**	250	464
	198 - 789	4.12	183	119	M2								

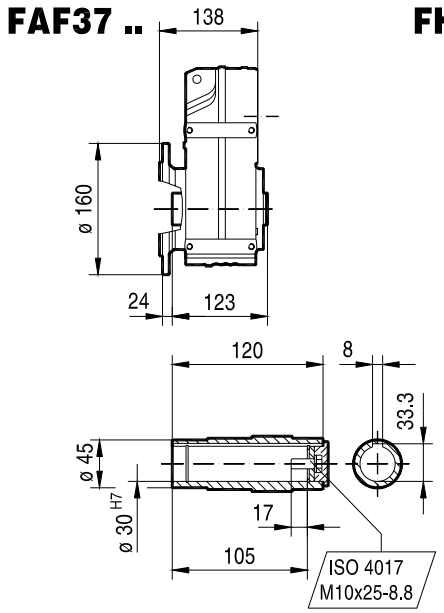
15.3 F..D..DT/DV.. [mm]

FF37 ..

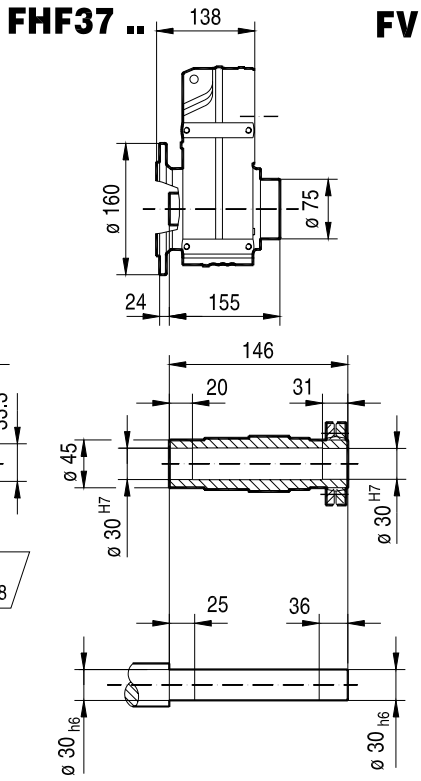
15 032 001



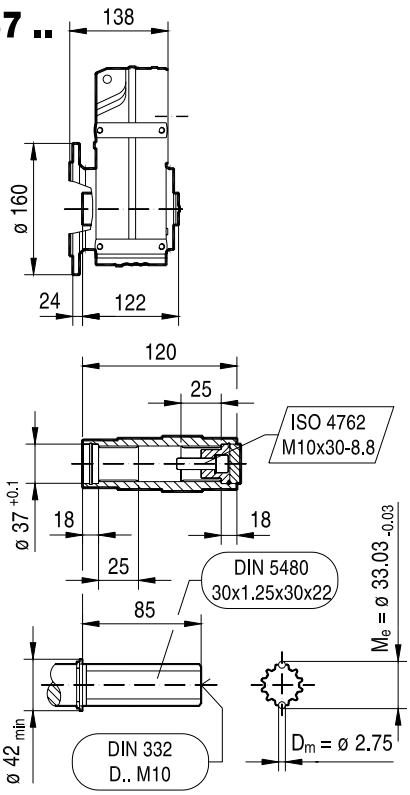
FAF37 ..



FHF37 ..



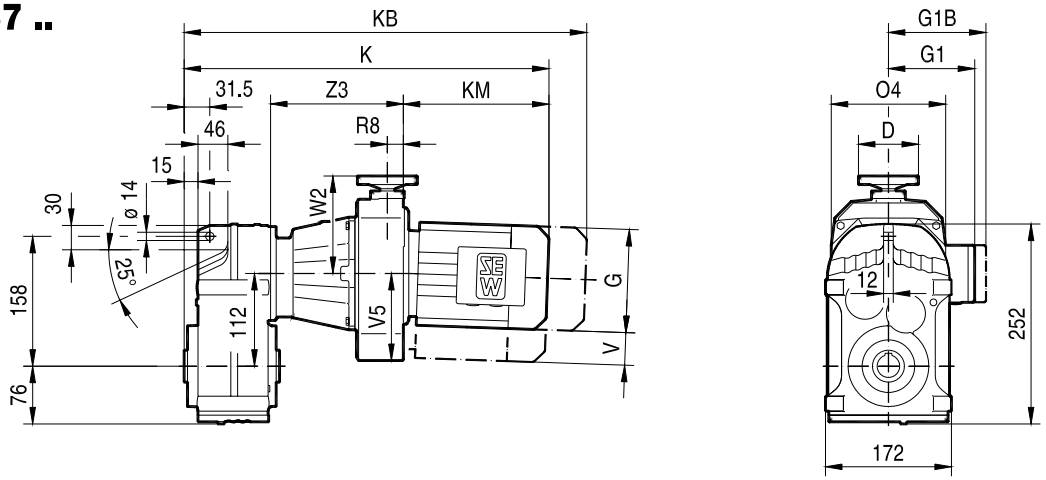
FVF37 ..



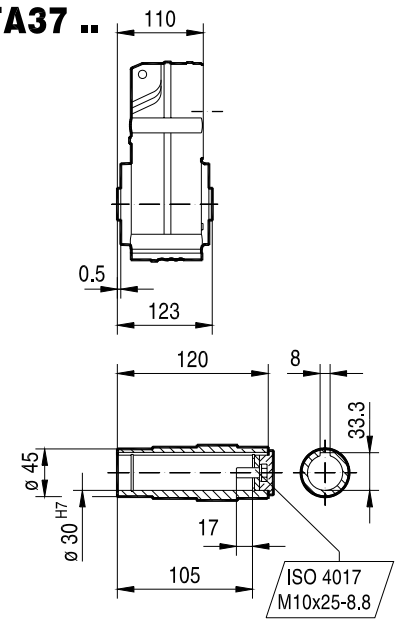
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
FF37 **FAF37** **FHF37** **FVF37**	**D16**	**DT71D**	100	145	122	127	577	641	198	156	25	49	119	160	195
		DT80..	100	145	122	127	627	691	248	156	25	49	119	160	195

15 033 001

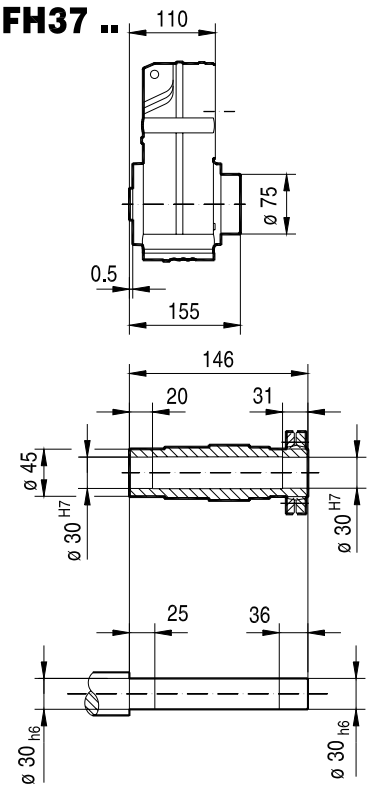
FA37 ..



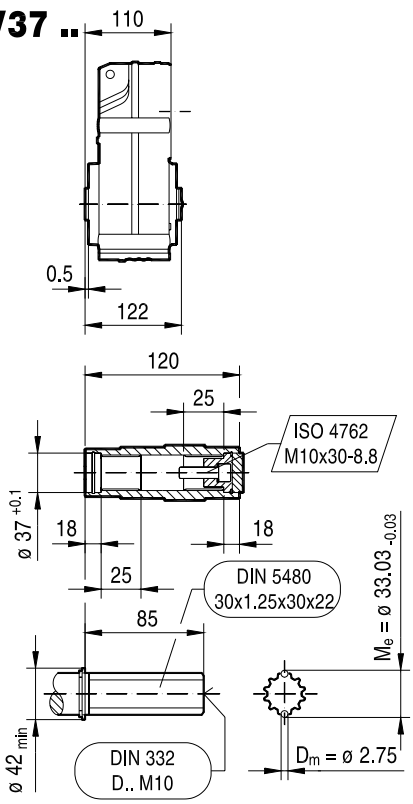
FA37 ..



FH37 ..



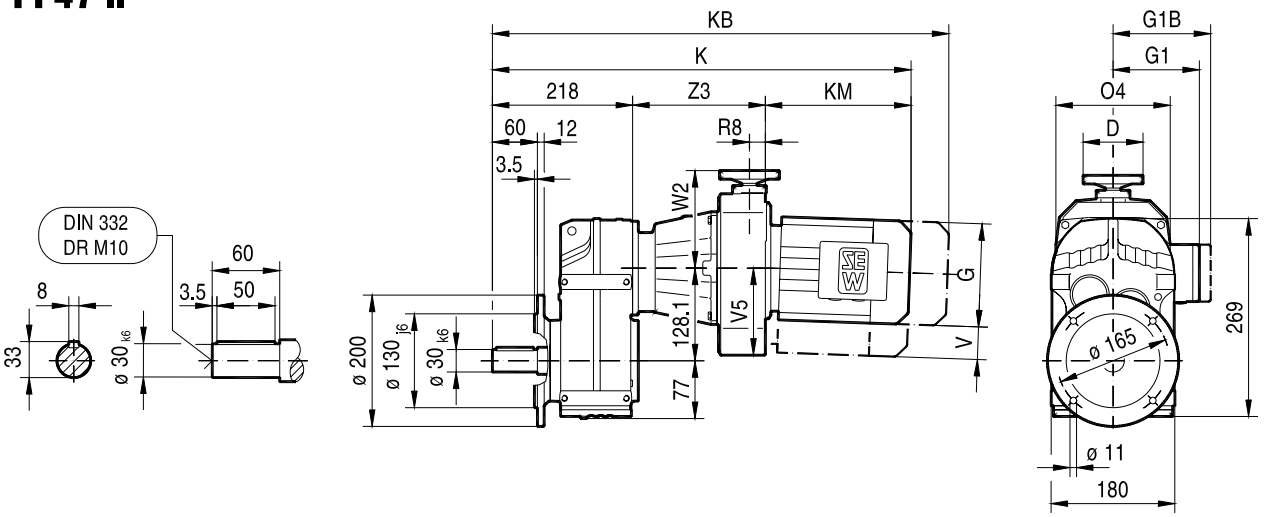
FV37 ..



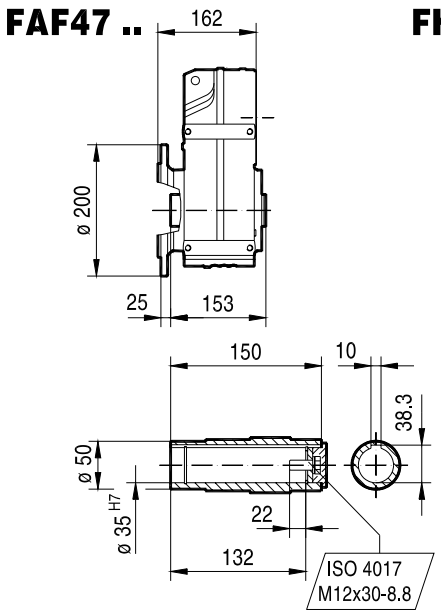
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
FA37 **FH37** **FV37**	**D16**	**DT71D**	100	145	122	127	503	567	198	156	25	49	119	160	195
		DT80..	100	145	122	127	553	617	248	156	25	49	119	160	195

FF47 ..

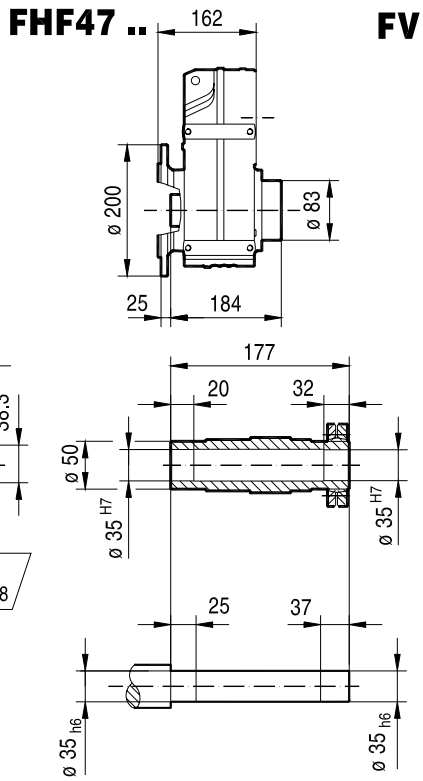
15 034 001



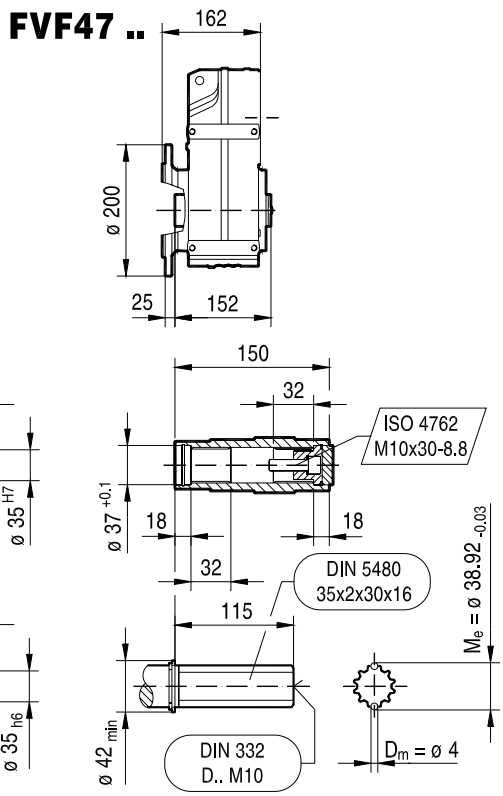
FAF47 ..



FHF47 ..



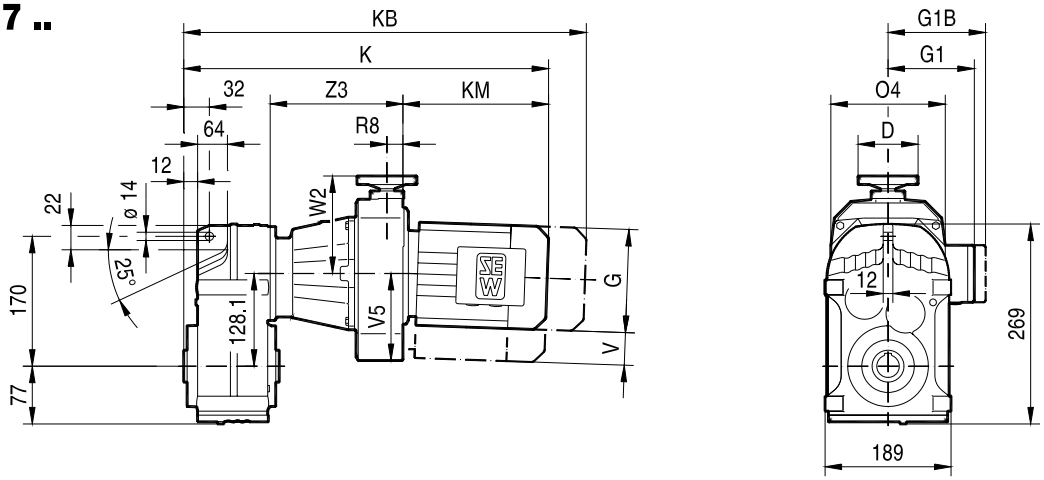
FVF47 ..



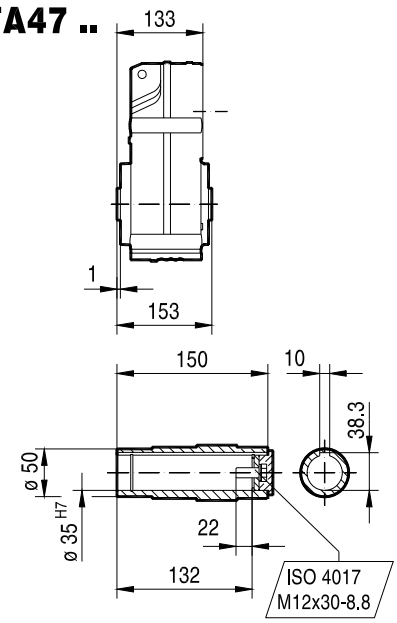
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
FF47 **FAF47** **FHF47** **FVF47**	**D16**	**DT71D**	100	145	122	127	611	675	198	156	25	49	119	160	195
		DT80..	100	145	122	127	661	725	248	156	25	49	119	160	195

15 035 001

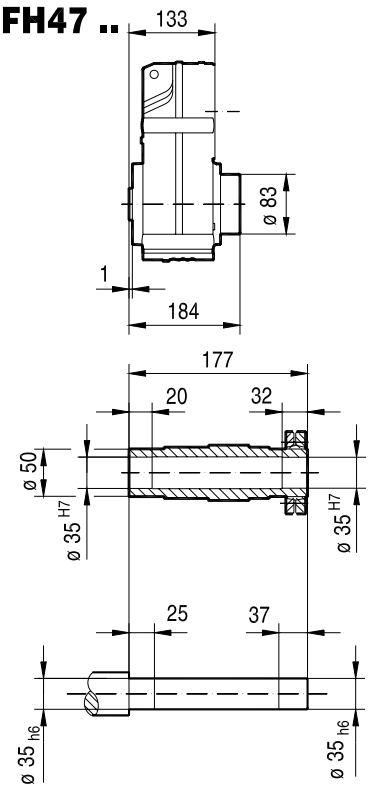
FA47 ..



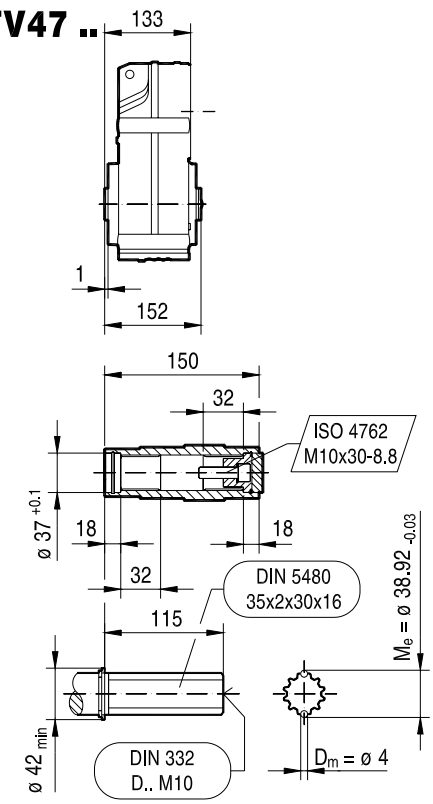
FA47 ..



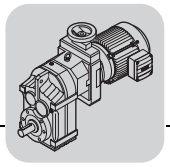
FH47 ..



FV47 ..



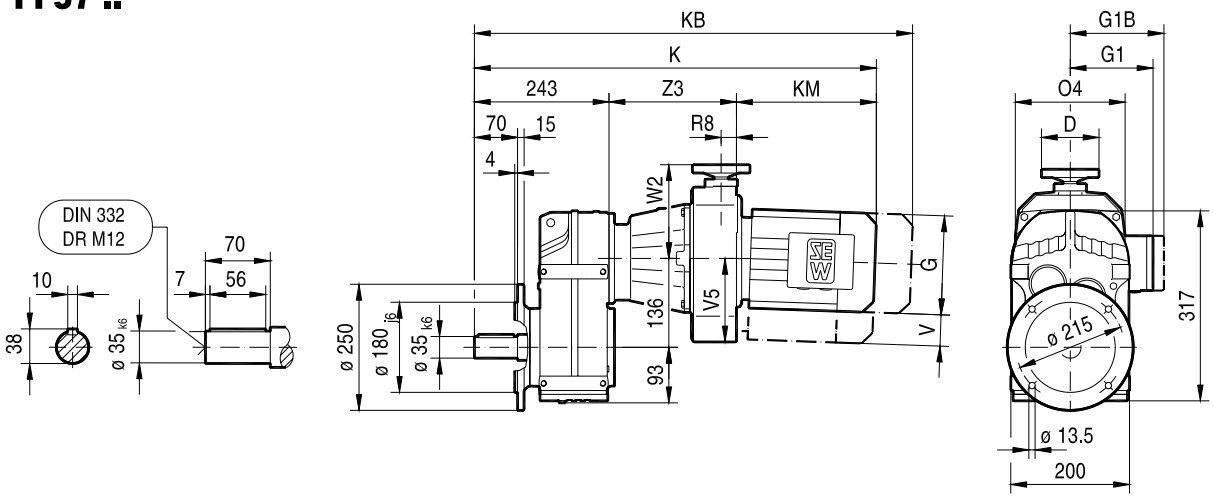
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
FA47 FH47 FV47	**D16**	**DT71D**	100	145	122	127	526	590	198	156	25	49	119	160	195
		DT80..	100	145	122	127	576	640	248	156	25	49	119	160	195



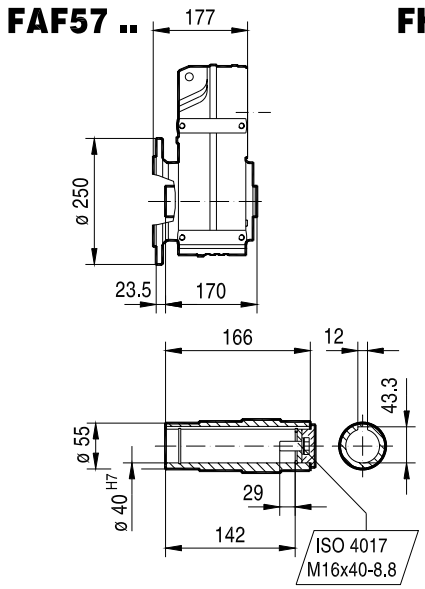
F..D..DT/DV.. [mm]

FF57 ..

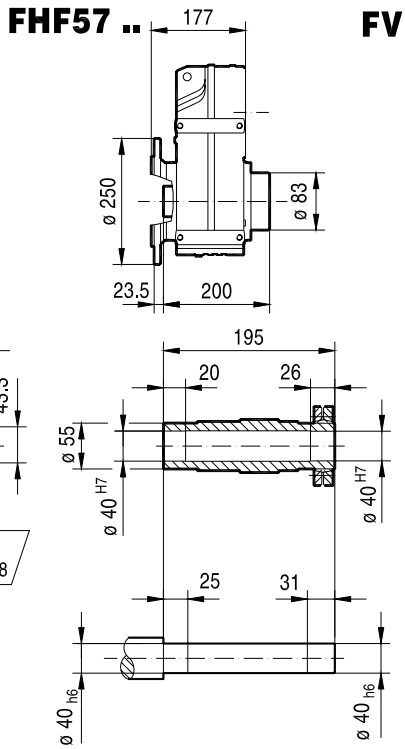
15 036 001



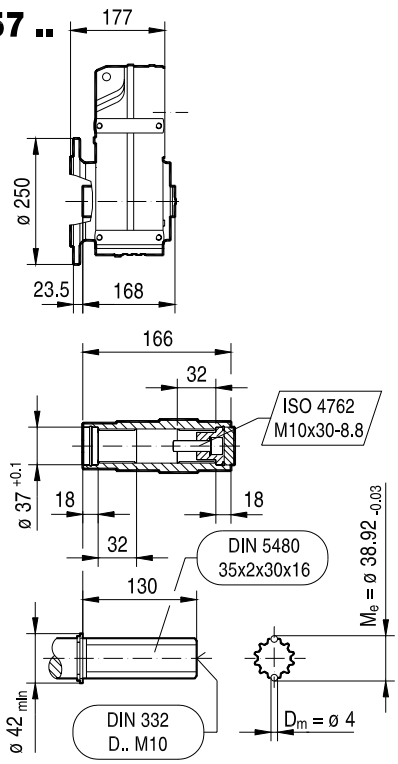
FAF57 ..



FHF57 ..



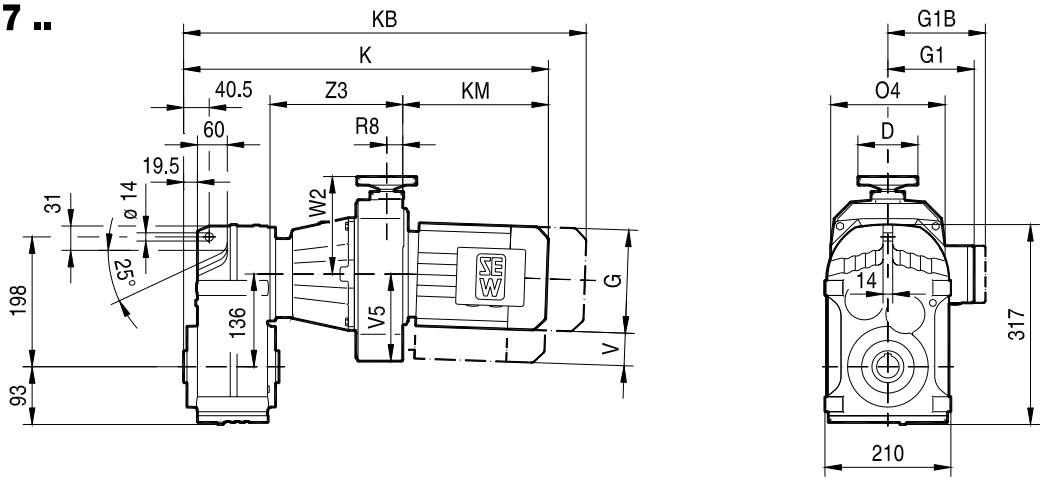
FVF57 ..



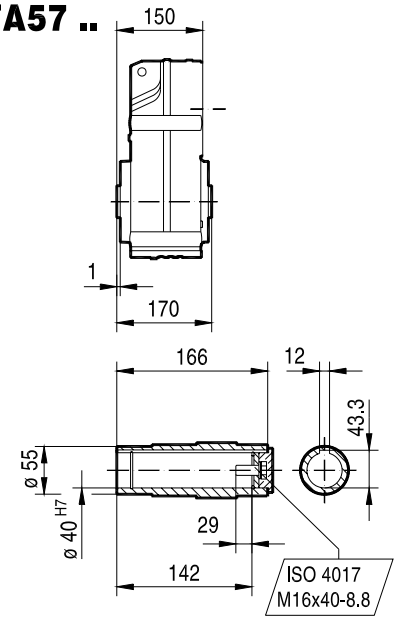
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
FF57 FAF57 FHF57 FVF57	D16	DT71D	100	145	122	127	629	693	198	156	25	49	119	160	188
		DT80..	100	145	122	127	679	743	248	156	25	49	119	160	188
	D26	DT90..	100	197	154	161	719	804	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	769	854	298	205	32.5	66	153	192	228

15 037 001

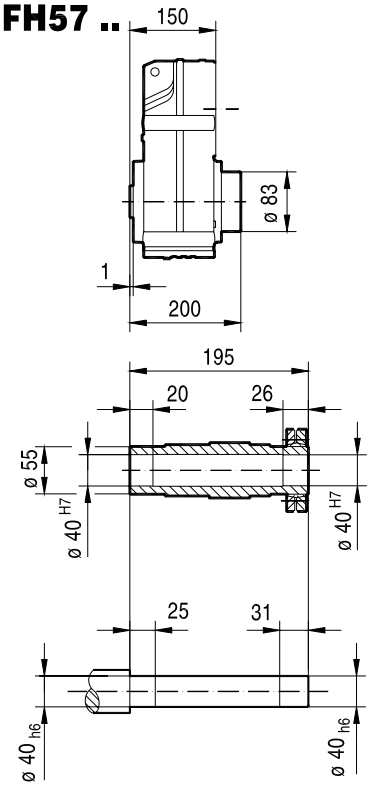
FA57 ..



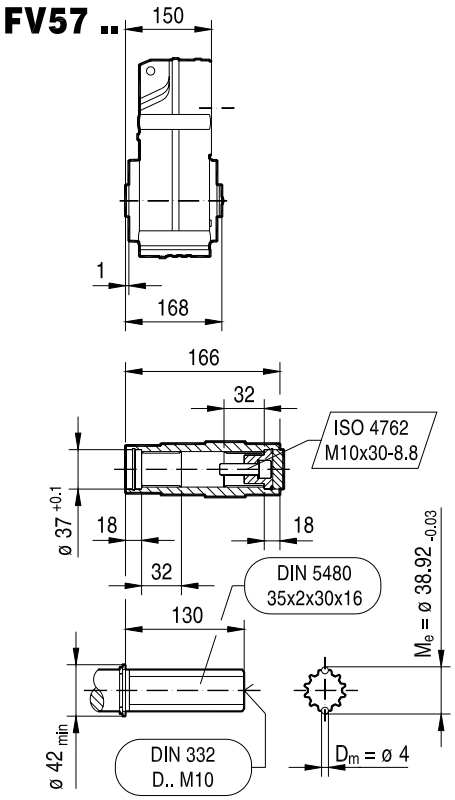
FA57 ..



FH57 ..



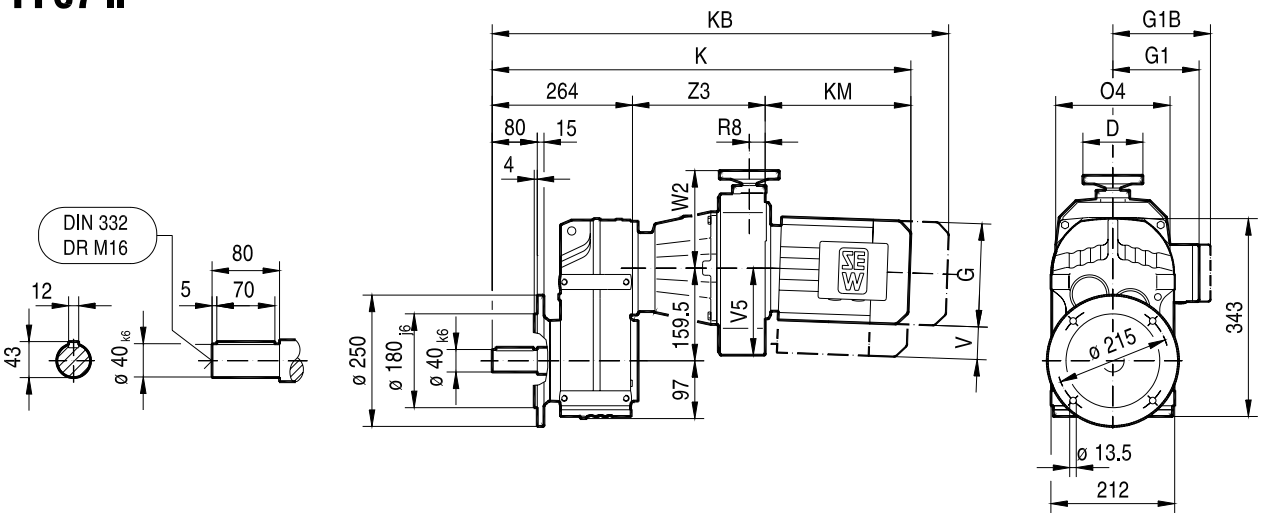
FV57 ..



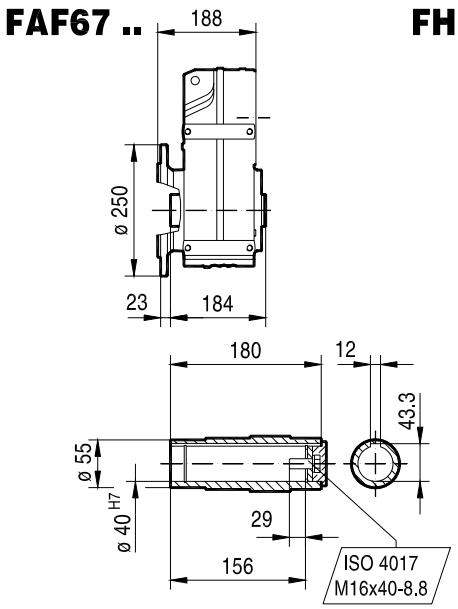
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
FA57 FH57 FV57	D16	DT71D	100	145	122	127	536	600	198	156	25	49	119	160	188
		DT80..	100	145	122	127	586	650	248	156	25	49	119	160	188
	D26	DT90..	100	197	154	161	626	711	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	676	761	298	205	32.5	66	153	192	228

FF67 ..

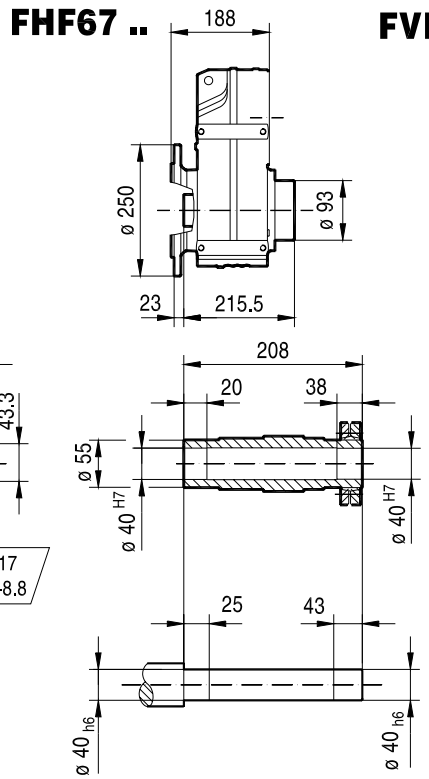
15 038 001



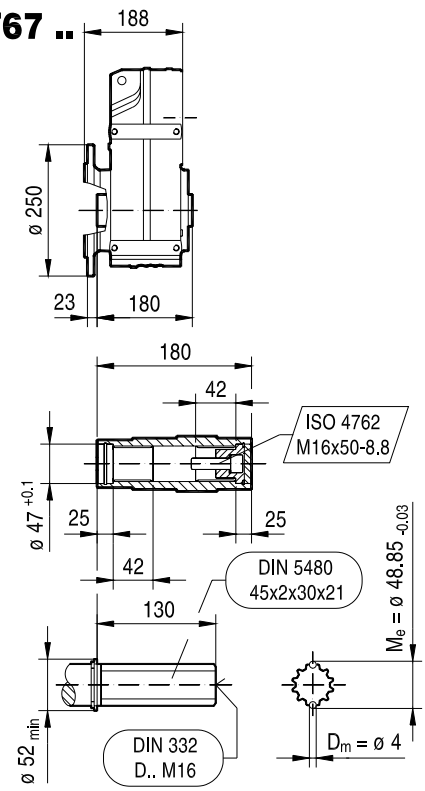
FAF67 ..



FHF67 ..



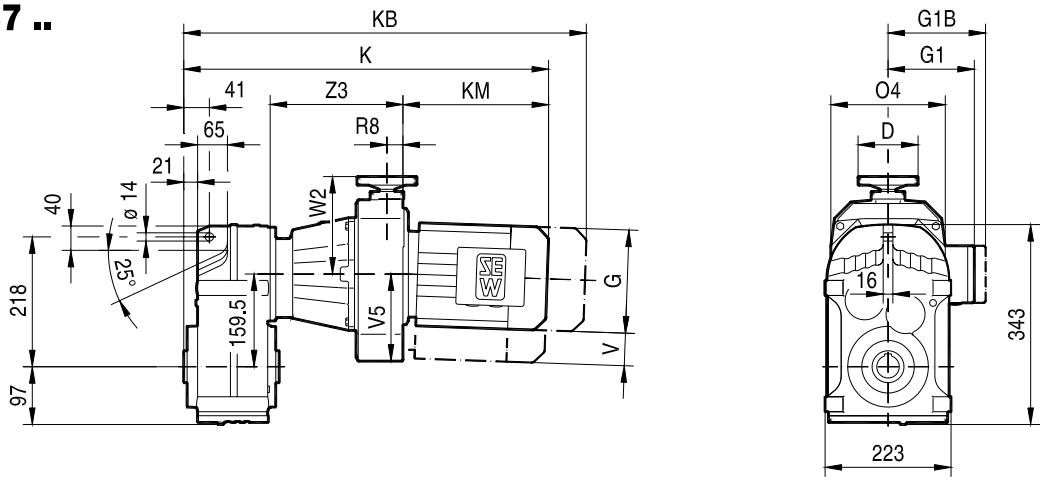
FVF67 ..



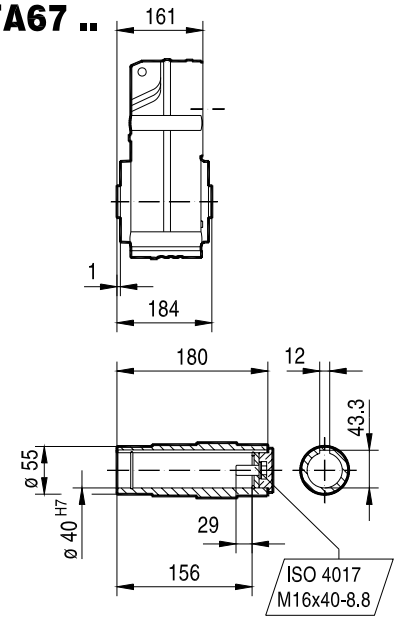
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
FF67 **FAF67** **FHF67** **FVF67**	**D16**	**DT71D**	100	145	122	127	650	714	198	156	25	49	119	160	188
		DT80..	100	145	122	127	700	764	248	156	25	49	119	160	188
	D26	**DT90..**	100	197	154	161	740	825	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	790	875	298	205	32.5	66	153	192	228

15 039 001

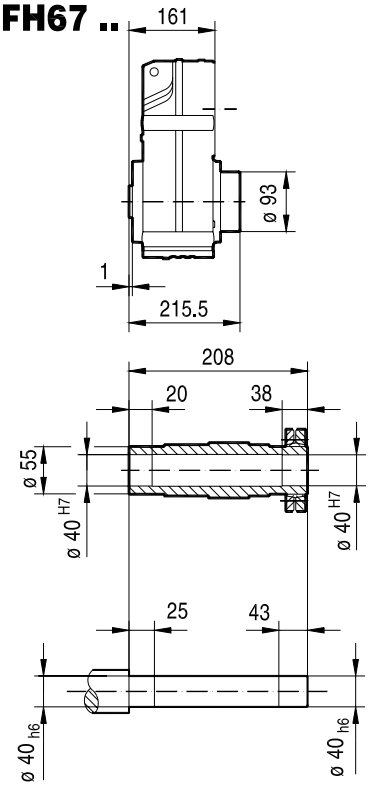
FA67 ..



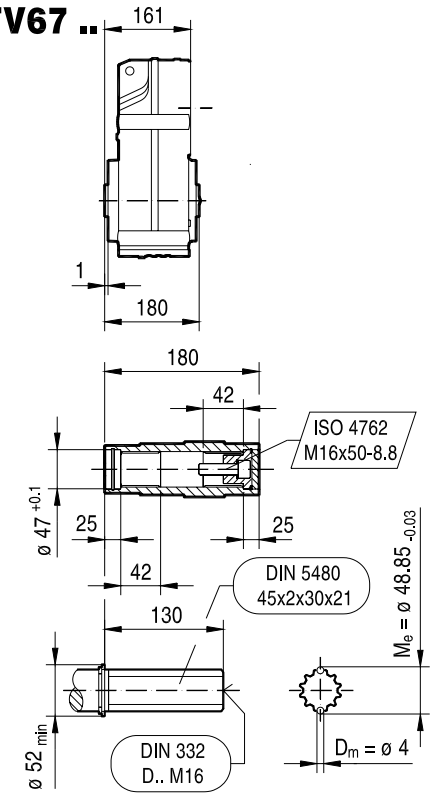
FA67 ..



FH67 ..



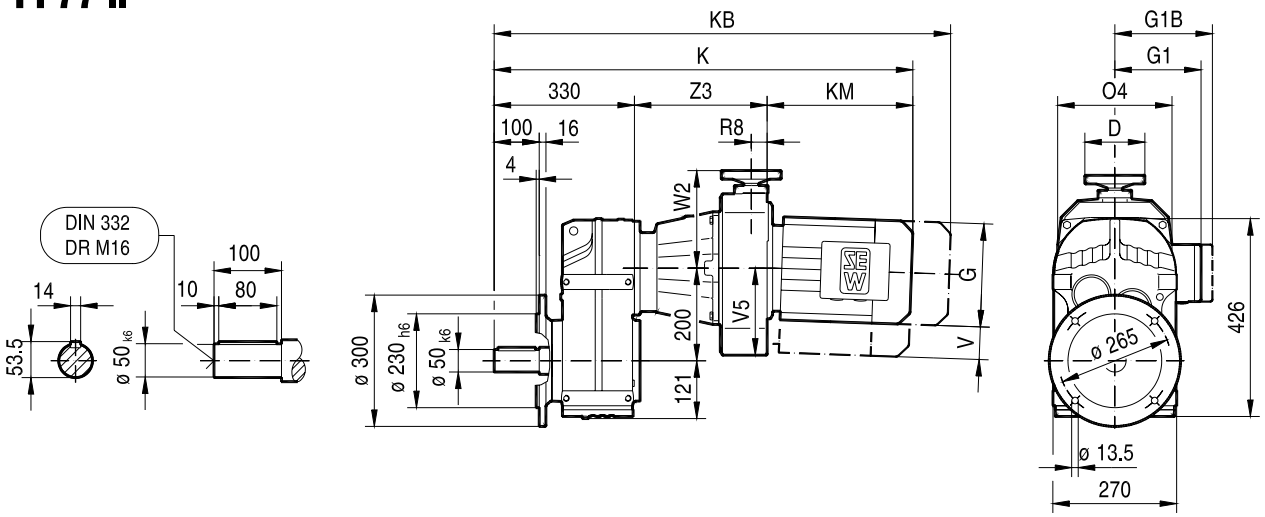
FV67 ..



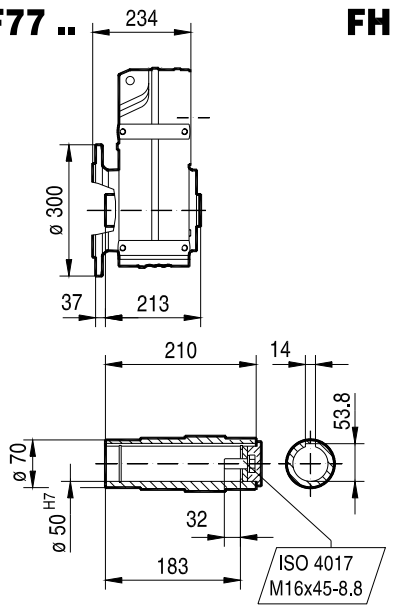
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
FA67 FH67 FV67	**D16**	**DT71D**	100	145	122	127	547	611	198	156	25	49	119	160	188
		DT80..	100	145	122	127	597	661	248	156	25	49	119	160	188
	D26	**DT90..**	100	197	154	161	637	722	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	687	772	298	205	32.5	66	153	192	228

FF77 ..

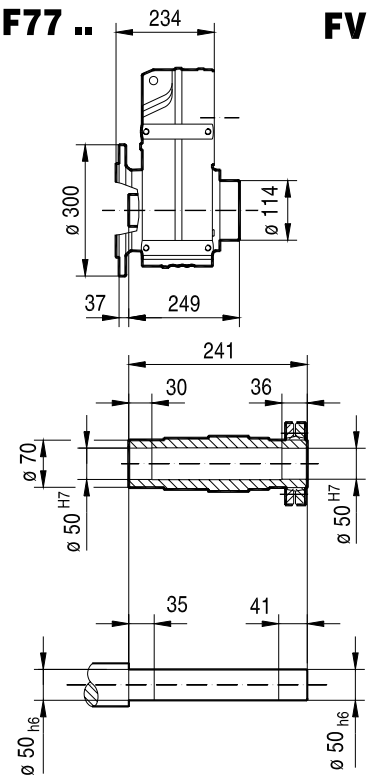
15 040 001



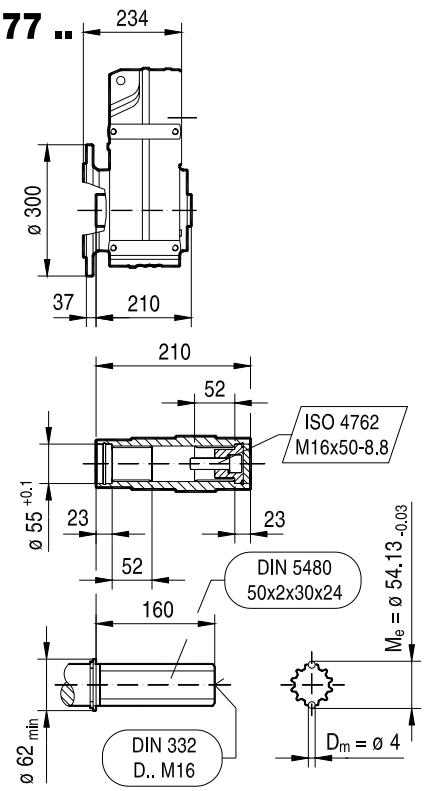
FAF77 ..



FHF77 ..



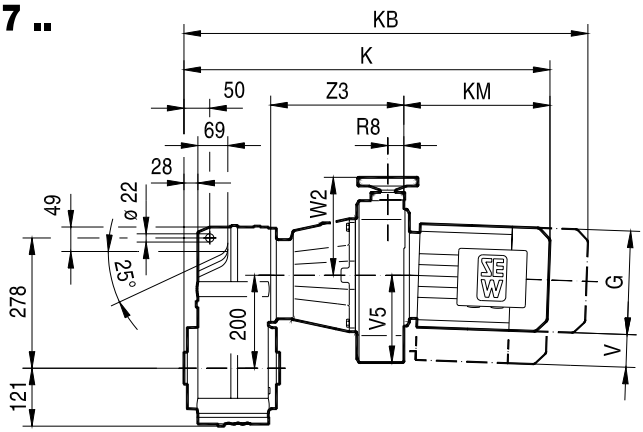
FVF77 ..

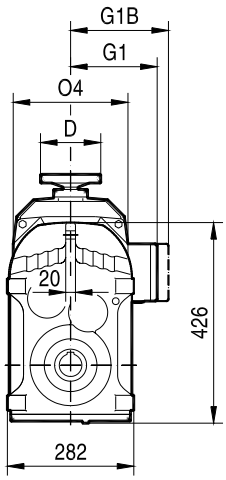


(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
FF77 FAF77 FHF77 FVF77	D16	DT71D	100	145	122	127	710	774	198	156	25	49	119	160	182
		DT80..	100	145	122	127	760	824	248	156	25	49	119	160	182
	D26	DT90..	100	197	154	161	798	883	248	205	32.5	66	153	192	220
		DV100M	100	197	166	166	848	933	298	205	32.5	66	153	192	220
	D36	DV100M	160	197	166	166	923	1008	309	265	38	88	204	232	284
		DV100L	160	197	166	166	953	1038	339	265	38	88	204	232	284
		DV112M	160	221	179	182	946	1026	332	265	38	88	204	232	284
		DV132S	160	221	179	182	991	1071	377	265	38	88	204	232	284

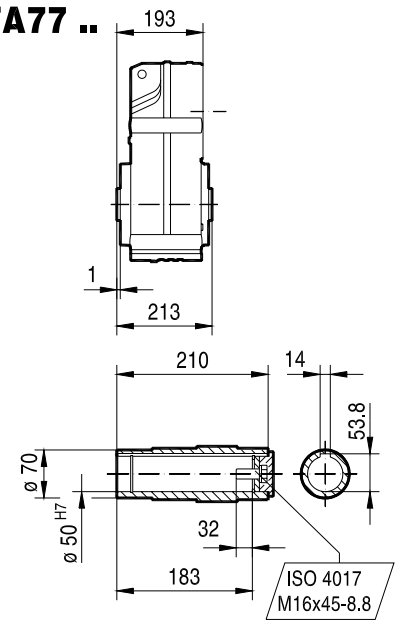
15 041 001

FA77 ..

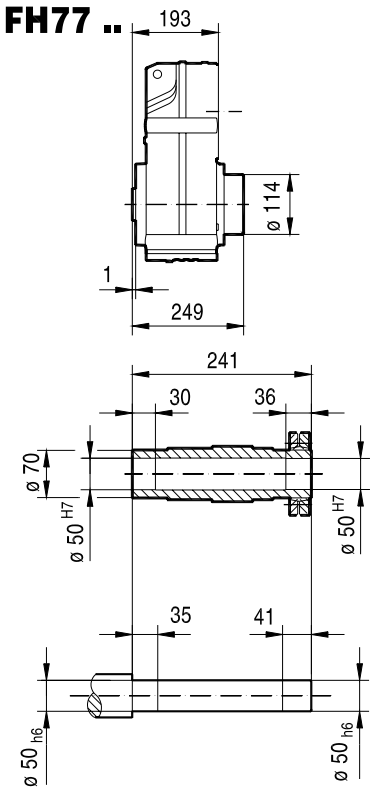




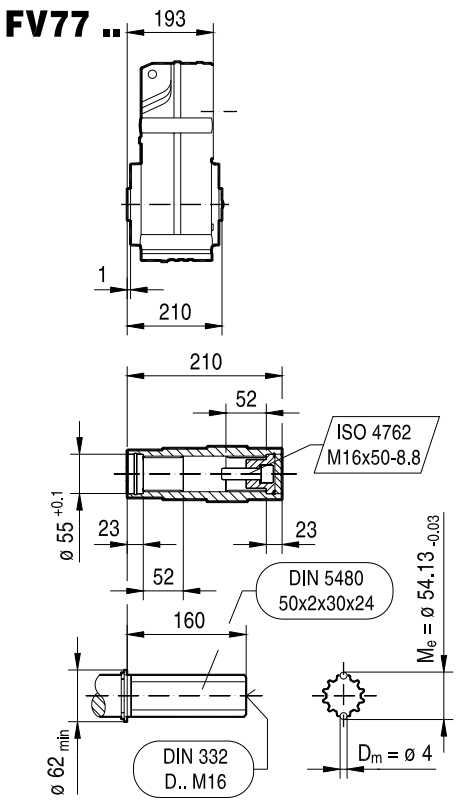
FA77 ..



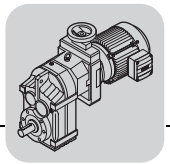
FH77 ..



FV77 ..



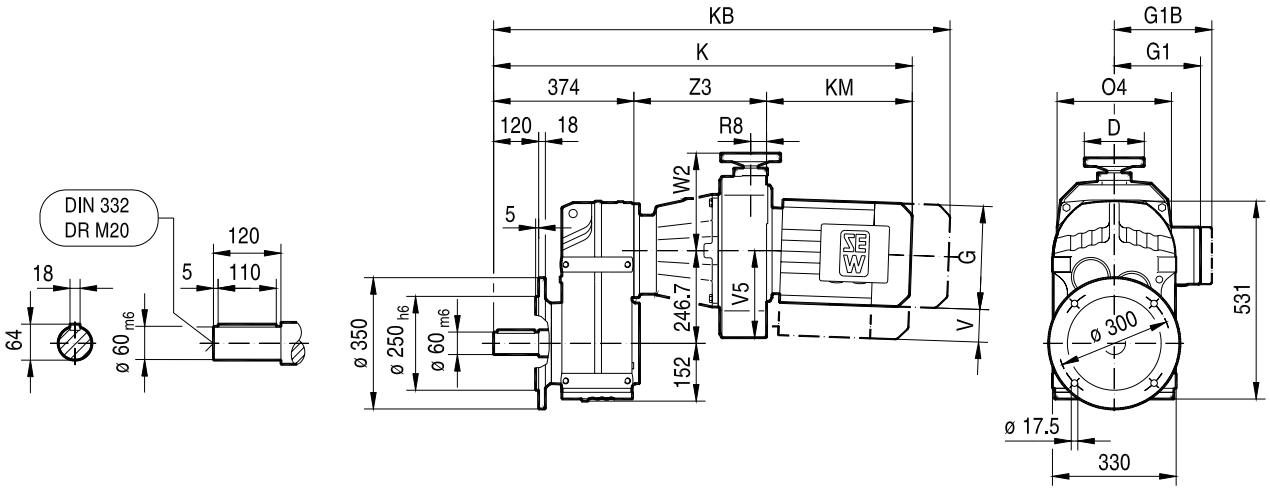
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
FA77 FH77 FV77	D16	DT71D	100	145	122	127	573	637	198	156	25	49	119	160	182
		DT80..	100	145	122	127	623	687	248	156	25	49	119	160	182
	D26	DT90..	100	197	154	161	661	746	248	205	32.5	66	153	192	220
		DV100M	100	197	166	166	711	796	298	205	32.5	66	153	192	220
	D36	DV100M	160	197	166	166	786	871	309	265	38	88	204	232	284
		DV100L	160	197	166	166	816	901	339	265	38	88	204	232	284
		DV112M	160	221	179	182	809	889	332	265	38	88	204	232	284
		DV132S	160	221	179	182	854	934	377	265	38	88	204	232	284



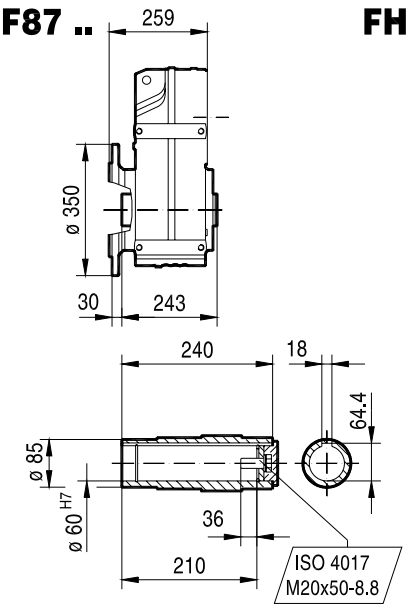
F..D..DT/DV.. [mm]

FF87 ..

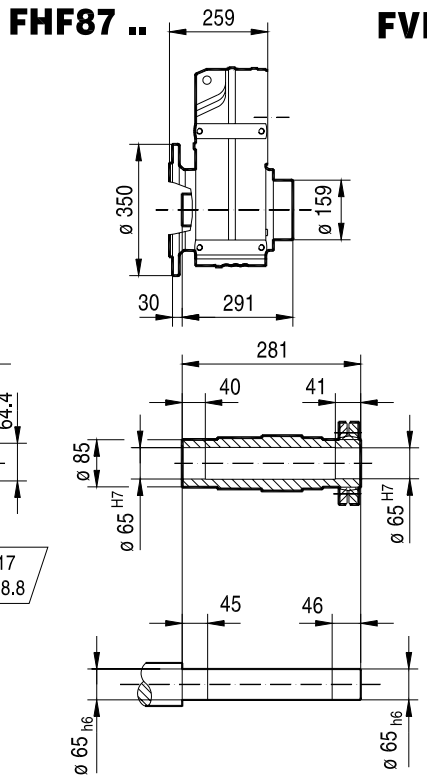
15 042 001



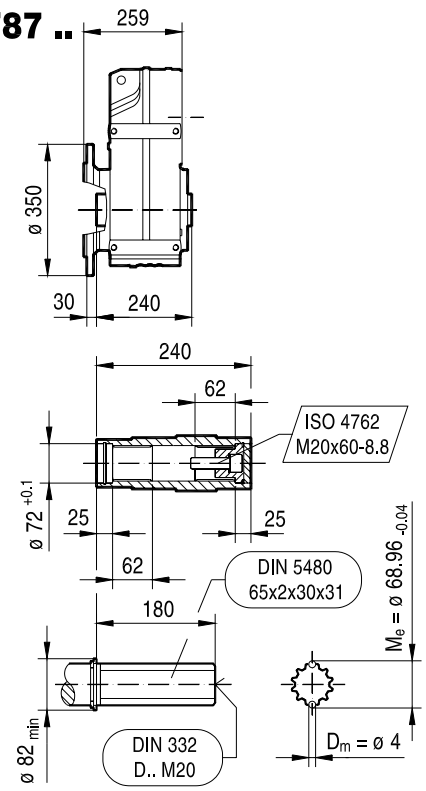
FAF87 ..



FHF87 ..



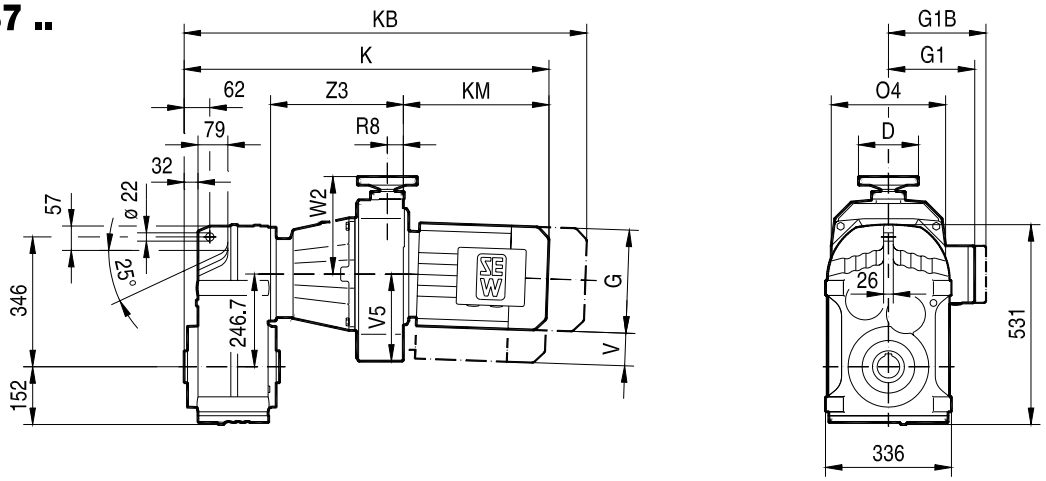
FVF87 ..



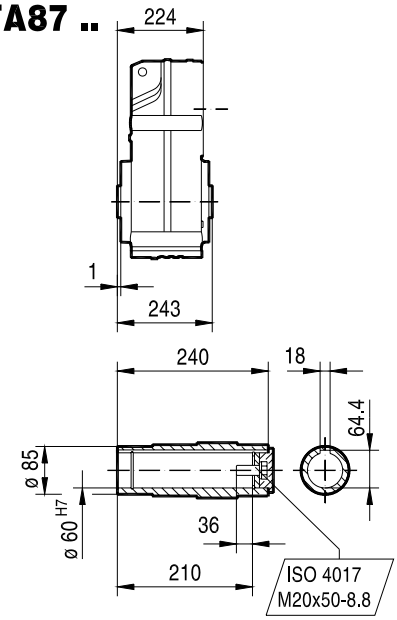
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
FF87 FAF87 FHF87 FVF87	D26	DT90..	100	197	154	161	838	923	248	205	32.5	66	153	192	216
		DV100M	100	197	166	166	888	973	298	205	32.5	66	153	192	216
	D36	DV100M	160	197	166	166	962	1047	309	265	38	88	204	232	279
		DV100L	160	197	166	166	992	1077	339	265	38	88	204	232	279
		DV112M	160	221	179	182	985	1065	332	265	38	88	204	232	279
		DV132S	160	221	179	182	1030	1110	377	265	38	88	204	232	279
	D46	DV132M	160	275	230	230	1117	1229	388	305	45.5	91	232	259	355
		DV132ML	160	275	230	230	1177	1289	448	305	45.5	91	232	259	355
		DV160M	160	275	230	230	1177	1289	448	305	45.5	91	232	259	355

15 043 001

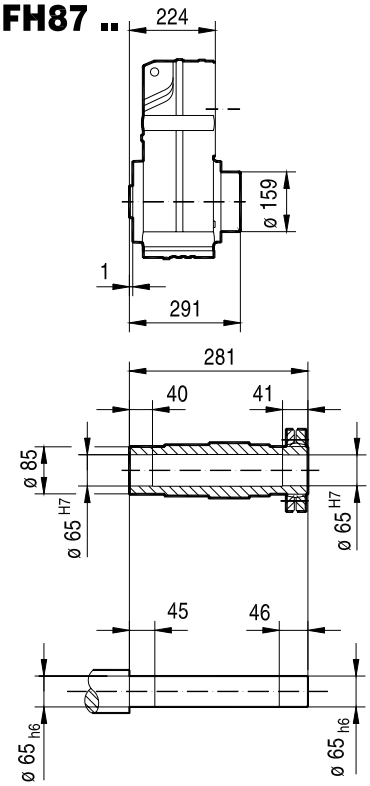
FA87 ..



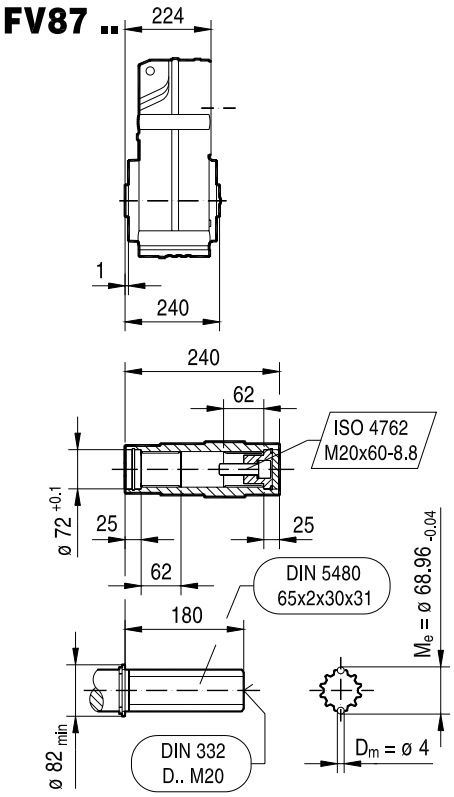
FA87 ..



FH87 ..



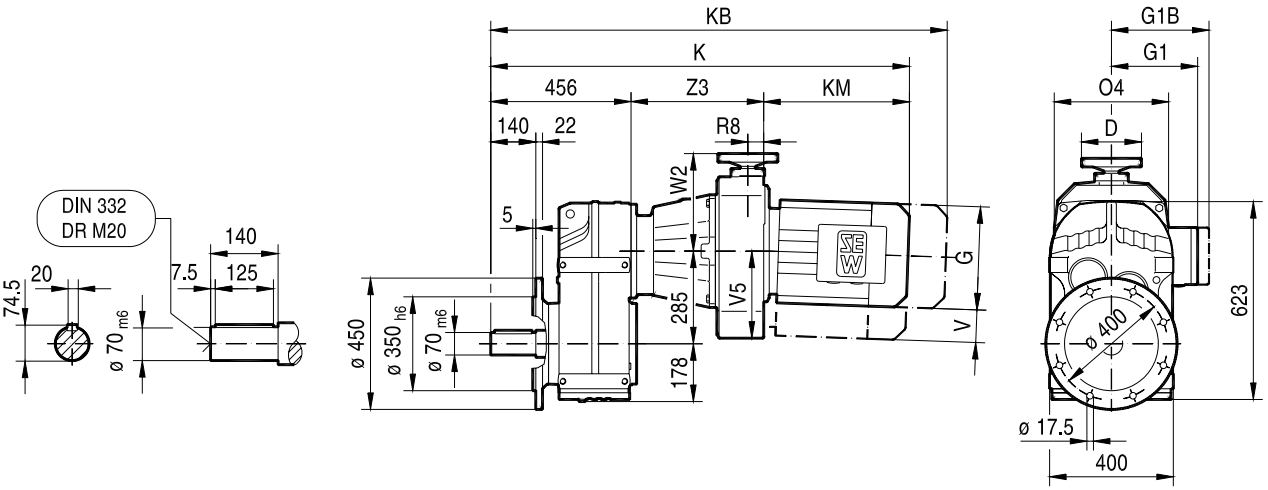
FV87 ..



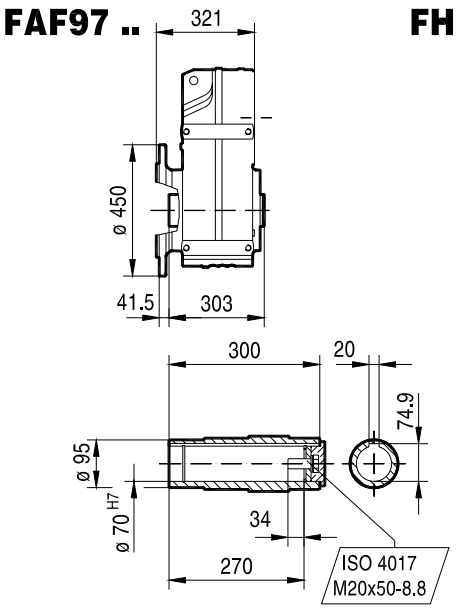
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
FA87 FH87 FV87	D26	DT90..	100	197	154	161	688	773	248	205	32.5	66	153	192	216
		DV100M	100	197	166	166	738	823	298	205	32.5	66	153	192	216
	D36	DV100M	160	197	166	166	812	897	309	265	38	88	204	232	279
		DV100L	160	197	166	166	842	927	339	265	38	88	204	232	279
		DV112M	160	221	179	182	835	915	332	265	38	88	204	232	279
		DV132S	160	221	179	182	880	960	377	265	38	88	204	232	279
	D46	DV132M	160	275	230	230	967	1079	388	305	45.5	91	232	259	355
		DV132ML	160	275	230	230	1027	1139	448	305	45.5	91	232	259	355
		DV160M	160	275	230	230	1027	1139	448	305	45.5	91	232	259	355

FF97 ..

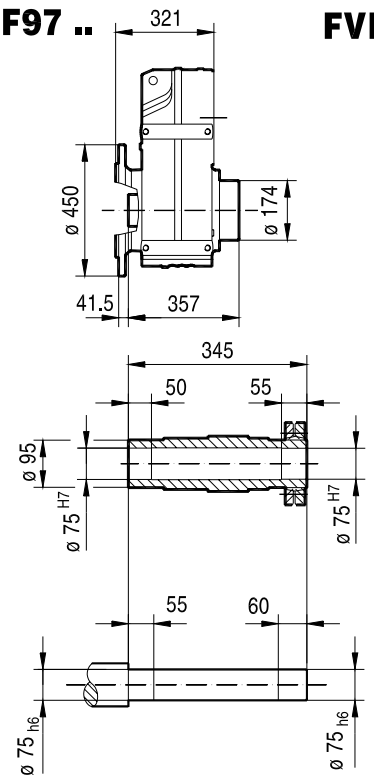
15 044 001



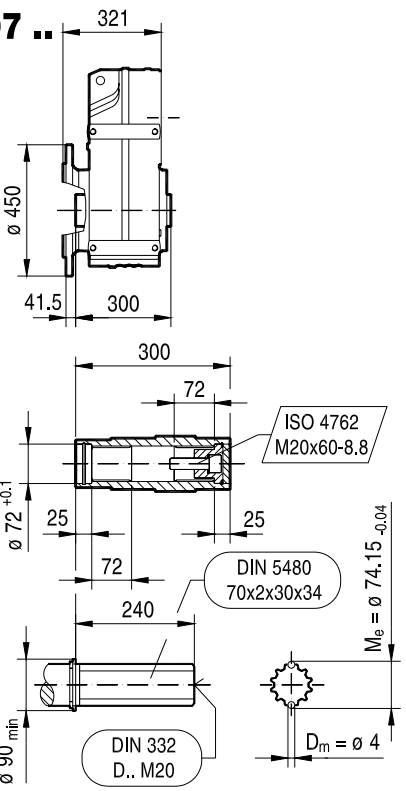
FAF97 ..



FHF97 ..



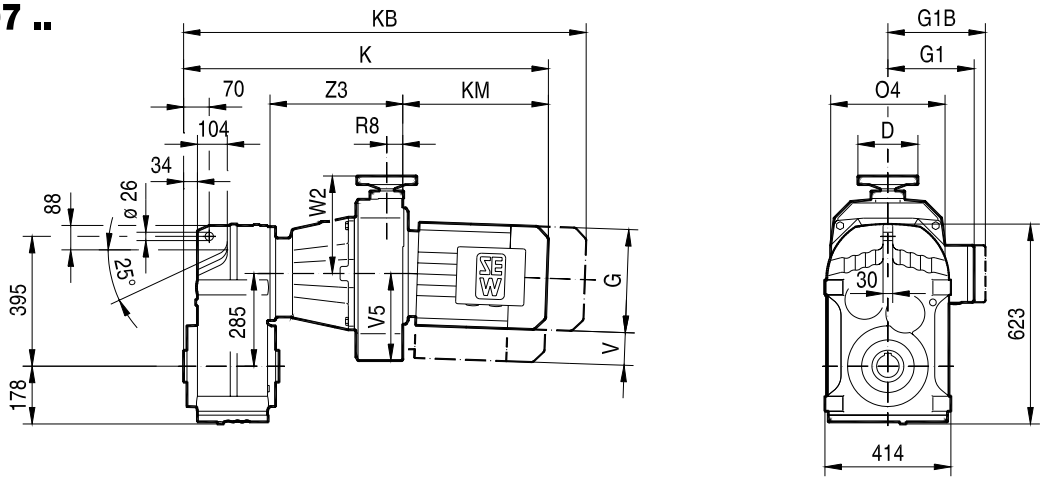
FVF97 ..



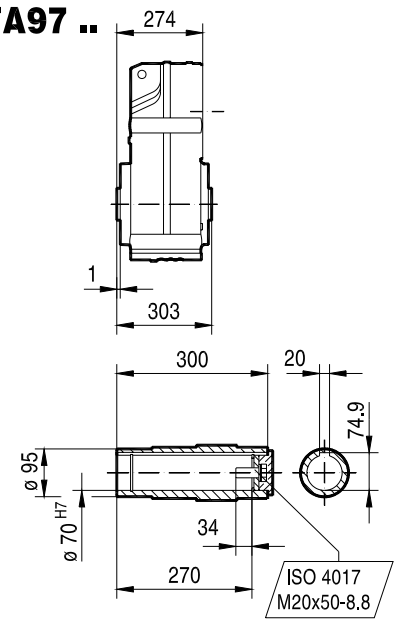
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
FF97 FAF97 FHF97 FVF97	D36	DV100M	160	197	166	166	1039	1124	309	265	38	88	204	232	274
		DV100L	160	197	166	166	1069	1154	339	265	38	88	204	232	274
		DV112M	160	221	179	182	1062	1142	332	265	38	88	204	232	274
		DV132S	160	221	179	182	1107	1187	377	265	38	88	204	232	274
	D46	DV132M	160	275	230	230	1193	1305	388	305	45.5	91	232	259	349
		DV132ML	160	275	230	230	1253	1365	448	305	45.5	91	232	259	349
		DV160M	160	275	230	230	1253	1365	448	305	45.5	91	232	259	349

15 045 001

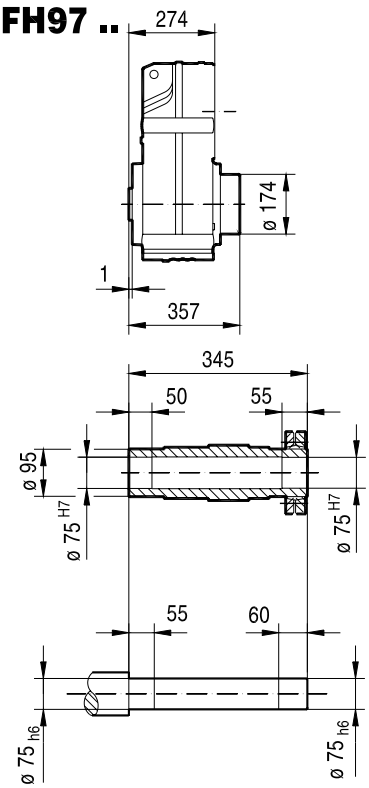
FA97 ..



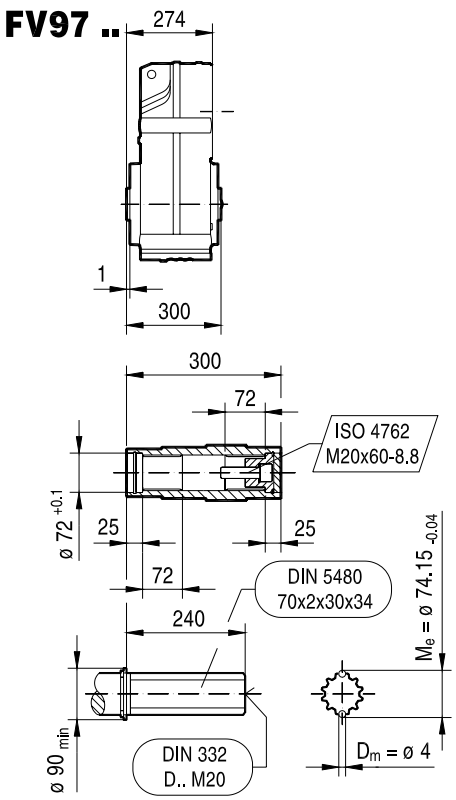
FA97 ..



FH97 ..



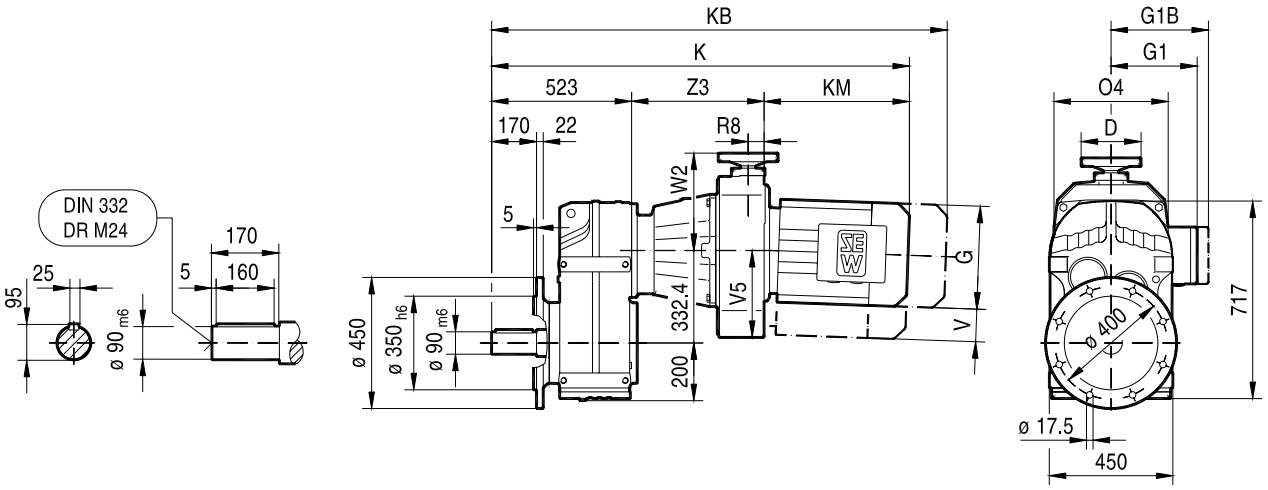
FV97 ..



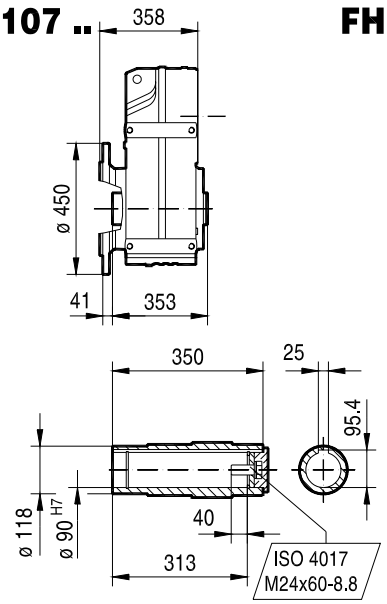
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
FA97 FH97 FV97	D36	DV100M	160	197	166	166	857	942	309	265	38	88	204	232	274
		DV100L	160	197	166	166	887	972	339	265	38	88	204	232	274
		DV112M	160	221	179	182	880	960	332	265	38	88	204	232	274
		DV132S	160	221	179	182	925	1005	377	265	38	88	204	232	274
	D46	DV132M	160	275	230	230	1011	1123	388	305	45.5	91	232	259	349
		DV132ML	160	275	230	230	1071	1183	448	305	45.5	91	232	259	349
		DV160M	160	275	230	230	1071	1183	448	305	45.5	91	232	259	349

FF107 ..

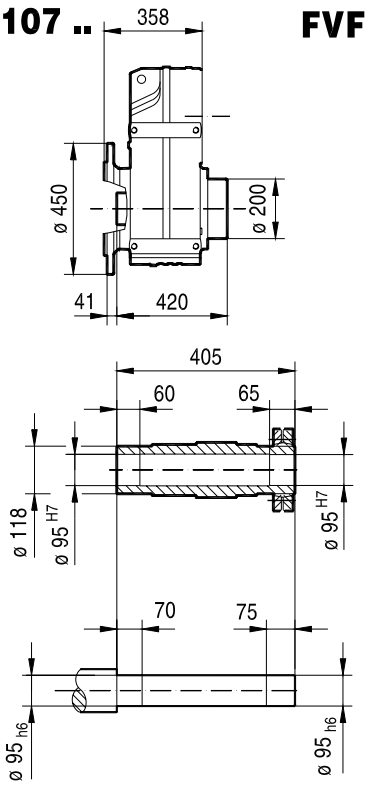
15 046 001



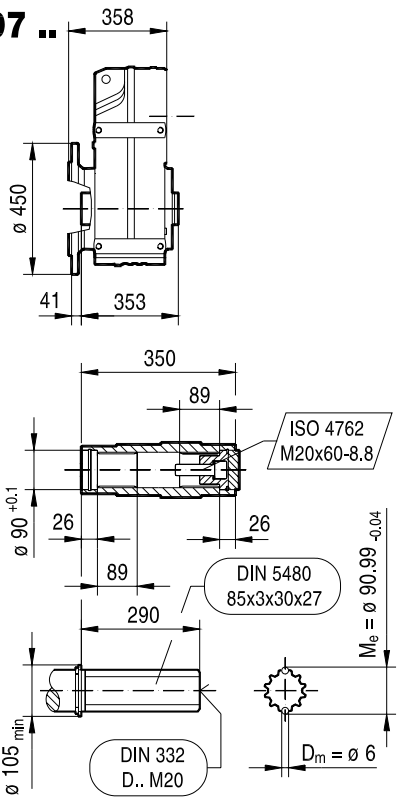
FAF107 ..



FHF107 ..



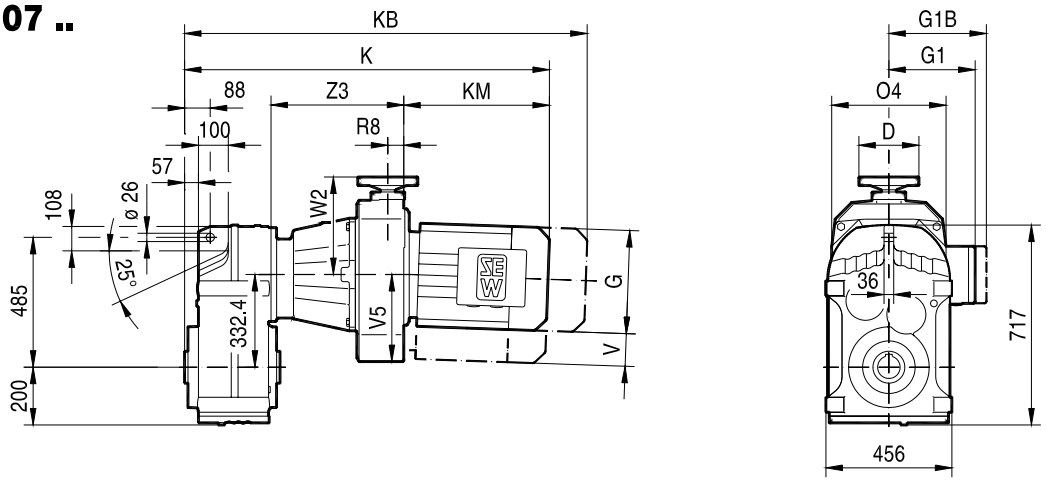
FVF107 ..



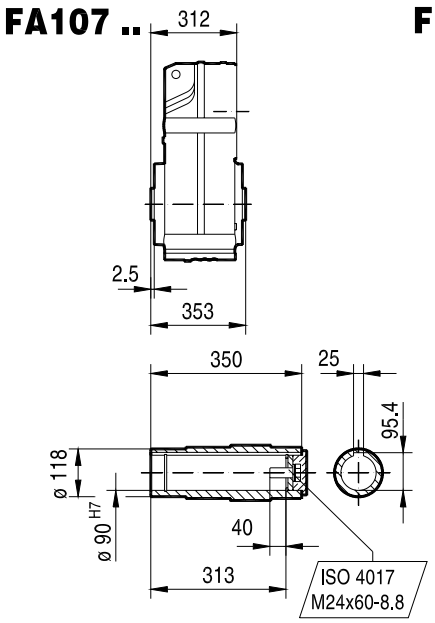
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
FF107 **FAF107** **FHF107** **FVF107**	**D46**	**DV132M**	160	275	230	230	1255	1367	388	305	45.5	91	232	259	344
		DV132ML	160	275	230	230	1315	1427	448	305	45.5	91	232	259	344
		DV160M	160	275	230	230	1315	1427	448	305	45.5	91	232	259	344

15 047 001

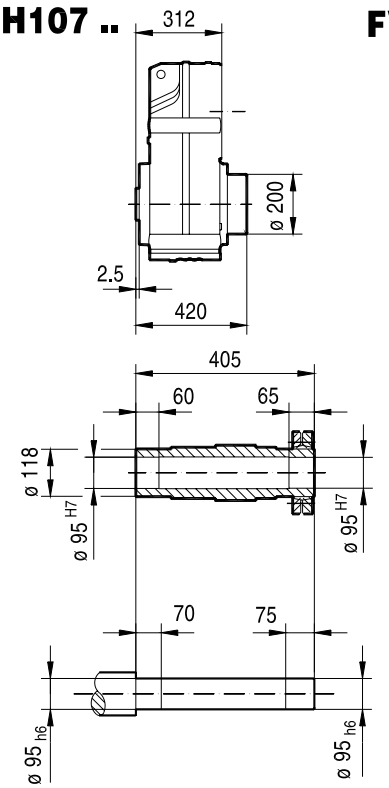
FA107 ..



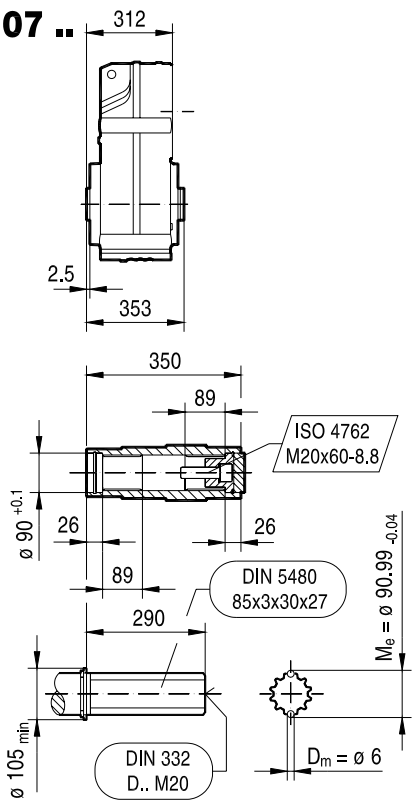
FA107 ..



FH107 ..



FV107 ..

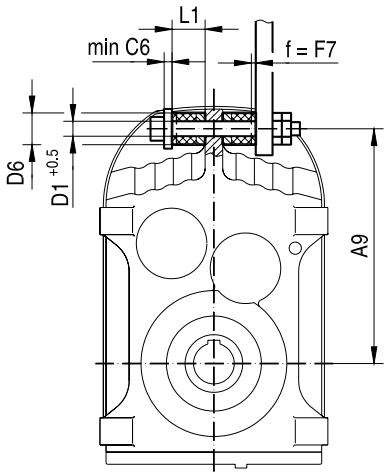


(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
FA107 **FH107** **FV107**	**D46**	**DV132M**	160	275	230	230	1044	1156	388	305	45.5	91	232	259	344
		DV132ML	160	275	230	230	1104	1216	448	305	45.5	91	232	259	344
		DV160M	160	275	230	230	1104	1216	448	305	45.5	91	232	259	344

15.4 Drehmomentstütze F../G..

15 048 001

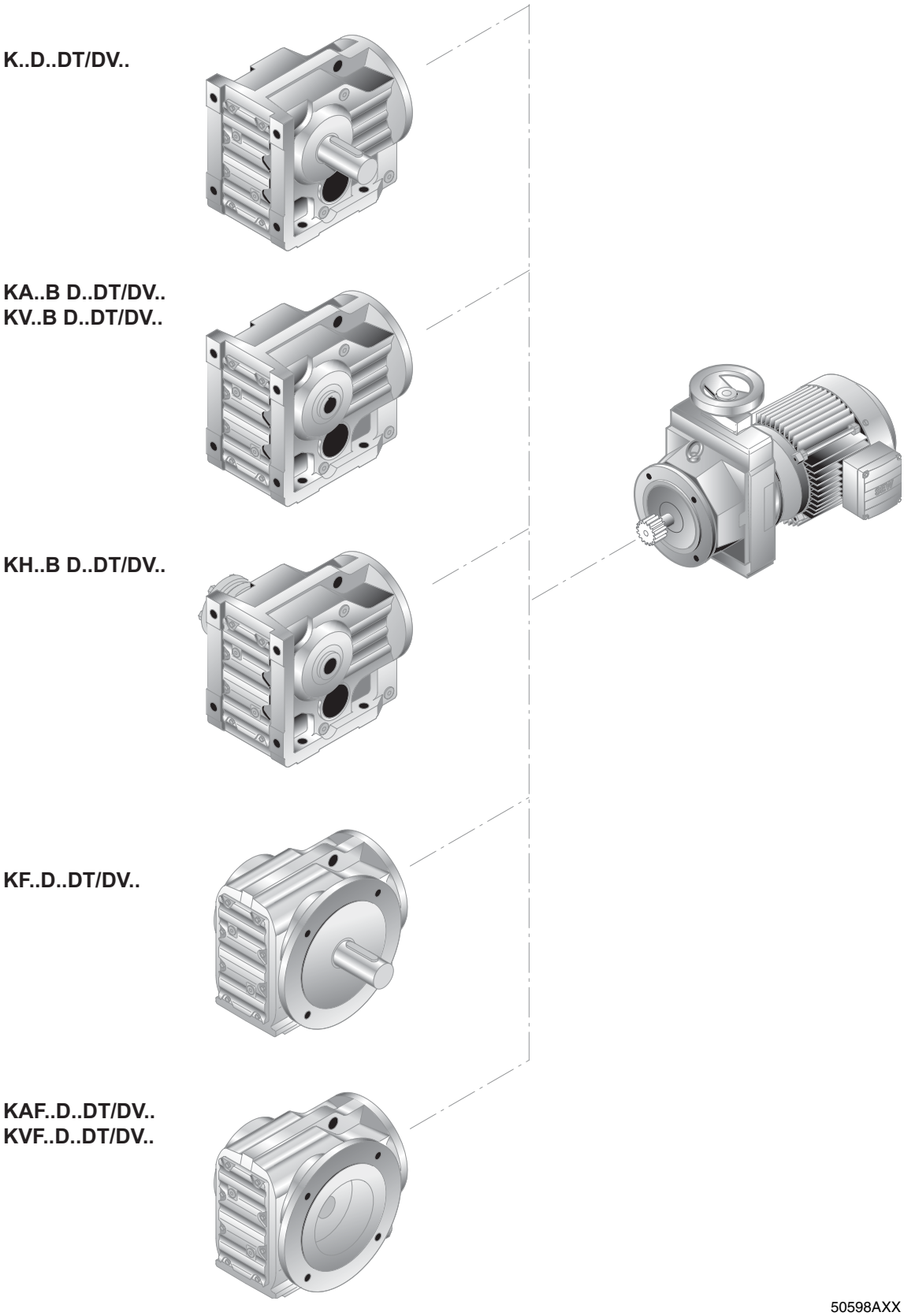
F../G ..



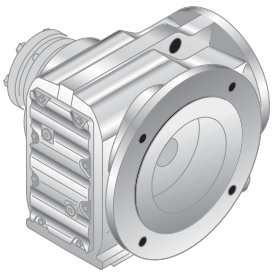
	A9	C6	D1	D6	F7	L1
FA37/G D..	158	5	12.5	40	1	20
FA47/G D..	170	5	12.5	40	1.8	20
FA57/G D..	198	5	12.5	40	2.4	20
FA67/G D..	218	5	12.5	40	3	20
FA77/G D..	278	10	21	60	3.2	30
FA87/G D..	346	10	21	60	4.5	30
FA97/G D..	395	12	25	80	5	40
FA107/G D..	485	12	25	80	6	40

16 K..

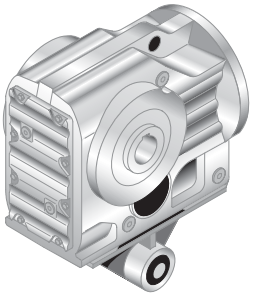
16.1 K..D..DT/DV..

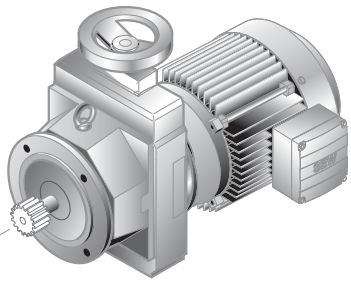


KHF..D..DT/DV..

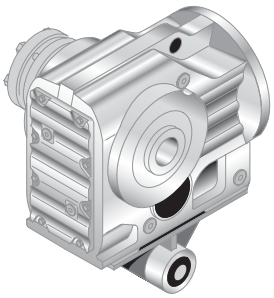


KA..D..DT/DV..
KV..D..DT/DV..

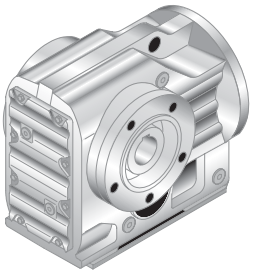




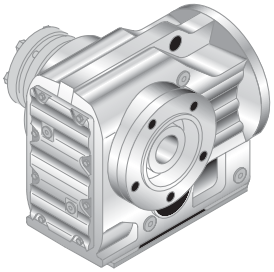
KH..D..DT/DV..



KAZ..D..DT/DV..
KVZ..D..DT/DV..



KHZ..D..DT/DV..



50599AXX

16.2 K ..D..M

R = 1:5														
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	📖
0.37 / 0.24	0.20 - 1.0	1657	2700	2530	-								
	0.24 - 1.2	1415	2700	2160	-								
	0.28 - 1.4	1229	2700	1870	-								
	0.31 - 1.6	1078	2700	1640	-								
	0.36 - 1.8	951	2700	1450	-								
	0.40 - 2.0	837	2700	1280	-								
	0.47 - 2.3	726	2700	1110	-								
	0.53 - 2.6	638	2700	970	-								
	0.60 - 3.0	562	2700	860	-	K	87 R57	D	16	DT	71D4	130	-
	0.71 - 3.6	474	2480	725	-	KF	87 R57	D	16	DT	71D4	140	-
	0.79 - 4.0	426	2230	650	-	KA	87 R57	D	16	DT	71D4	120	-
	0.91 - 4.5	373	1950	570	-	KAF	87 R57	D	16	DT	71D4	130	-
	1.0 - 5.1	330	1730	505	-								
	1.2 - 5.7	294	1540	450	-								
	1.4 - 6.7	250	1310	380	-								
	1.4 - 7.1	236	1240	360	-								
	1.7 - 8.4	201	1050	305	-								
	1.9 - 9.2	183	960	280	-								
	2.1 - 11	159	830	245	-								
	2.4 - 12	141	740	215	-								
	0.37 - 1.8	924	1550	1410	-								
	0.42 - 2.1	815	1550	1240	-								
	0.48 - 2.4	709	1550	1080	-								
	0.54 - 2.7	622	1550	950	-								
	0.61 - 3.1	552	1550	840	-								
	0.70 - 3.5	485	1550	740	-	K	77 R37	D	16	DT	71D4	84	-
	0.79 - 3.9	428	1550	655	-	KF	77 R37	D	16	DT	71D4	92	-
	0.92 - 4.6	367	1550	560	-	KA	77 R37	D	16	DT	71D4	77	-
	1.0 - 5.1	328	1550	500	-	KAF	77 R37	D	16	DT	71D4	84	-
	1.2 - 5.8	290	1520	440	-								
	1.3 - 6.7	252	1320	385	-								
	1.5 - 7.6	221	1160	335	-								
	1.7 - 8.6	195	1020	295	-								
	1.9 - 9.6	175	920	265	-								
	2.2 - 11	154	810	235	-								
	0.72 - 3.6	471	820	720	-								
	0.81 - 4.0	420	820	640	-								
	0.94 - 4.7	361	820	550	-								
	1.1 - 5.2	323	820	495	-	K	67 R37	D	16	DT	71D4	60	-
	1.2 - 6.0	279	820	425	-	KF	67 R37	D	16	DT	71D4	66	-
	1.4 - 6.8	246	820	375	-	KA	67 R37	D	16	DT	71D4	58	-
	1.6 - 7.8	217	820	330	-	KAF	67 R37	D	16	DT	71D4	63	-
	1.8 - 8.8	191	820	290	-								
	2.0 - 10	166	820	255	-								
	2.4 - 12	144	755	220	-								
	2.8 - 14	122	640	186	-								
	0.93 - 4.7	362	600	550	-								
	1.1 - 5.3	319	600	485	-								
	1.2 - 6.0	280	600	425	-								
	1.4 - 6.8	246	600	375	-	K	57 R37	D	16	DT	71D4	54	-
	1.6 - 7.8	215	600	330	-	KF	57 R37	D	16	DT	71D4	59	-
	1.8 - 8.8	192	600	295	-	KA	57 R37	D	16	DT	71D4	52	-
	2.0 - 10	166	600	255	-	KAF	57 R37	D	16	DT	71D4	58	-
	2.3 - 12	145	600	220	-								
	2.6 - 13	129	600	197	-								
	3.1 - 15	111	580	169	-								
	3.5 - 17	97	510	148	-								
	1.3 - 6.6	256	400	390	-								
	1.5 - 7.5	225	400	345	-								
	1.7 - 8.5	198	400	300	-								
	2.0 - 9.8	171	400	260	-	K	47 R37	D	16	DT	71D4	49	-
	2.2 - 11	153	400	235	-	KF	47 R37	D	16	DT	71D4	52	-
	2.6 - 13	131	400	200	-	KA	47 R37	D	16	DT	71D4	48	-
	3.0 - 15	112	400	171	-	KAF	47 R37	D	16	DT	71D4	51	-
	3.4 - 17	99	400	151	-								
	3.6 - 18	94	400	143	-								

R = 1:5																
P_m/P_{a2} [kW]	n_{a1} [1/min]	-	n_{a2}	i	M_{a1} [Nm]	M_{a2}	⚠								m [kg]	
0.37 / 0.30	1.2	-	5.7	192.18	1410	550	-	K	77	D	16	DT	80K6		76	504
	1.2	-	6.1	179.37	1320	515	-	KF	77	D	16	DT	80K6		84	505
	1.4	-	7.1	154.02	1130	440	-	KA	77	D	16	DT	80K6		68	506
	1.6	-	8.1	135.28	1000	390	-	KAF	77	D	16	DT	80K6		76	505
	1.5	-	7.6	144.79*	820	415	-									
	1.8	-	8.9	123.54	820	355	-	K	67	D	16	DT	80K6		52	501
	2.0	-	10	108.03	795	310	-	KF	67	D	16	DT	80K6		58	502
	2.1	-	11	102.62	755	295	-	KA	67	D	16	DT	80K6		50	503
	2.5	-	12	90.04	665	260	-	KAF	67	D	16	DT	80K6		55	502
	2.3	-	12	144.79*	820	240	-	K	67	D	16	DT	71D4		50	501
	2.7	-	14	123.54	700	205	-	KF	67	D	16	DT	71D4		56	502
	3.1	-	16	108.03	610	178	-	KA	67	D	16	DT	71D4		48	503
	3.3	-	16	102.62	580	169	-	KAF	67	D	16	DT	71D4		53	502
	2.3	-	12	145.14*	600	240	-									
	2.7	-	14	123.85	600	205	-	K	57	D	16	DT	71D4		45	498
	3.1	-	16	108.29	600	178	-	KF	57	D	16	DT	71D4		49	499
	3.3	-	16	102.88*	580	169	-	KA	57	D	16	DT	71D4		42	500
	3.8	-	19	90.26*	510	149	-	KAF	57	D	16	DT	71D4		48	499
	4.4	-	22	76.56*	430	126	-									
	2.6	-	13	131.87*	400	215	-									
	2.8	-	14	121.48*	400	200	-									
	3.2	-	16	104.37	400	172	-									
	3.7	-	19	90.86	400	150	-									
	4.0	-	20	85.12*	400	140	-	K	47	D	16	DT	71D4		39	495
	4.5	-	22	75.20*	400	124	-	KF	47	D	16	DT	71D4		42	496
	5.3	-	27	63.30*	355	104	-	KA	47	D	16	DT	71D4		38	497
	6.0	-	30	56.83	320	94	-	KAF	47	D	16	DT	71D4		41	496
	6.9	-	34	48.95*	275	81	-									
	7.4	-	37	46.03*	260	76	-									
	8.5	-	43	39.61	225	65	-									
	9.6	-	48	35.39	200	58	-									
	3.2	-	16	106.38	200	175	-									
	3.5	-	17	97.81	200	161	-									
	4.0	-	20	83.69	200	138	-									
	4.7	-	23	72.54	200	119	-									
	5.0	-	25	67.80	200	112	-									
	5.8	-	29	58.60	200	96	-									
	6.8	-	34	49.79	200	82	-									
	7.6	-	38	44.46	200	73	-									
	8.9	-	44	37.97	200	63	-									
	9.5	-	47	35.57	200	59	-									
	11	-	56	29.96	169	49	-									
	12	-	58	28.83	163	47	-	K	37	D	16	DT	71D4		32	492
	14	-	67	24.99	141	41	-	KF	37	D	16	DT	71D4		34	493
	14	-	72	23.36	132	38	-	KA	37	D	16	DT	71D4		31	494
	17	-	83	20.19	114	33	-	KAF	37	D	16	DT	71D4		33	493
	20	-	98	17.15	97	28	-									
	22	-	110	15.31	87	25	-									
	26	-	129	13.08	74	22	-									
	28	-	139	12.14	69	20	-									
	32	-	161	10.49	59	17	-									
	38	-	189	8.91	50	15	-									
	43	-	212	7.96	45	13	-									
	50	-	248	6.80	38	11	-									
	53	-	264	6.37	36	11	-									
	63	-	314	5.36	30	8.8	-									

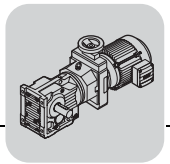
R = 1:5														
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2}	⚠							m [kg]	
0.55 / 0.39	0.21 - 1.0	1625	4300	3900	-								
	0.23 - 1.2	1430	4300	3430	-								
	0.26 - 1.3	1261	4300	3030	-								
	0.30 - 1.5	1102	4300	2650	-								
	0.35 - 1.7	957	4300	2300	-								
	0.39 - 1.9	855	4300	2050	-								
	0.45 - 2.2	743	4300	1780	-	K	97 R57	D	16	DT	80K4	190	-
	0.51 - 2.5	652	4300	1570	-	KF	97 R57	D	16	DT	80K4	210	-
	0.58 - 2.9	573	3960	1380	-	KA	97 R57	D	16	DT	80K4	170	-
	0.66 - 3.3	504	3480	1210	-	KAF	97 R57	D	16	DT	80K4	195	-
	0.76 - 3.8	437	3020	1050	-								
	0.87 - 4.3	382	2640	920	-								
	1.1 - 5.4	305	2110	735	-								
	1.3 - 6.4	258	1780	620	-								
	1.4 - 7.2	232	1600	555	-								
	1.7 - 8.3	199	1370	480	-								
	0.31 - 1.5	1078	2700	2590	-								
	0.35 - 1.7	951	2700	2280	-								
	0.40 - 2.0	837	2700	2010	-								
	0.46 - 2.3	726	2700	1740	-								
	0.52 - 2.6	638	2700	1530	-								
	0.59 - 3.0	562	2700	1350	-								
	0.70 - 3.5	474	2700	1140	-	K	87 R57	D	16	DT	80K4	130	-
	0.78 - 3.9	426	2700	1020	-	KF	87 R57	D	16	DT	80K4	140	-
	0.89 - 4.5	373	2580	900	-	KA	87 R57	D	16	DT	80K4	120	-
	1.0 - 5.0	330	2280	795	-	KAF	87 R57	D	16	DT	80K4	130	-
	1.1 - 5.6	294	2030	705	-								
	1.3 - 6.6	250	1730	600	-								
	1.4 - 7.0	236	1630	565	-								
	1.7 - 8.2	201	1390	485	-								
	1.8 - 9.1	183	1260	440	-								
	2.1 - 10	159	1100	380	-								
	2.4 - 12	141	970	340	-								
	0.54 - 2.7	622	1550	1490	-								
	0.60 - 3.0	552	1550	1330	-								
	0.69 - 3.4	485	1550	1160	-								
	0.78 - 3.9	428	1550	1030	-								
	0.91 - 4.5	367	1550	880	-	K	77 R37	D	16	DT	80K4	86	-
	1.0 - 5.1	328	1550	790	-	KF	77 R37	D	16	DT	80K4	94	-
	1.2 - 5.7	290	1550	695	-	KA	77 R37	D	16	DT	80K4	78	-
	1.3 - 6.6	252	1550	605	-	KAF	77 R37	D	16	DT	80K4	86	-
	1.5 - 7.5	221	1530	530	-								
	1.7 - 8.5	195	1350	470	-								
	1.9 - 9.5	175	1210	420	-								
	2.2 - 11	154	1060	370	-								
	1.0 - 5.1	323	820	775	-								
	1.2 - 6.0	279	820	670	-								
	1.4 - 6.7	246	820	590	-	K	67 R37	D	16	DT	80K4	62	-
	1.5 - 7.7	217	820	520	-	KF	67 R37	D	16	DT	80K4	68	-
	1.8 - 8.7	191	820	460	-	KA	67 R37	D	16	DT	80K4	59	-
	2.0 - 10	166	820	400	-	KAF	67 R37	D	16	DT	80K4	65	-
	2.3 - 12	144	820	345	-								
	2.7 - 14	122	820	295	-								
	1.4 - 6.7	246	600	590	-								
	1.6 - 7.7	215	600	515	-								
	1.7 - 8.6	192	600	460	-	K	57 R37	D	16	DT	80K4	56	-
	2.0 - 10	166	600	400	-	KF	57 R37	D	16	DT	80K4	61	-
	2.3 - 11	145	600	350	-	KA	57 R37	D	16	DT	80K4	54	-
	2.6 - 13	129	600	310	-	KAF	57 R37	D	16	DT	80K4	60	-
	3.0 - 15	111	600	265	-								
	3.4 - 17	97	600	235	-								

R = 1:5																	
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠									m [kg]	
0.55 / 0.39	2.2	-	11	153	400	365	-										
	2.5	-	13	131	400	315	-	K	47 R37	D	16	DT	80K4	50	-		
	3.0	-	15	112	400	270	-	KF	47 R37	D	16	DT	80K4	54	-		
	3.4	-	17	99	400	240	-	KA	47 R37	D	16	DT	80K4	50	-		
	3.6	-	18	94	400	225	-	KAF	47 R37	D	16	DT	80K4	52	-		
0.55 / 0.45	1.2	-	5.7	192.18	1410	820	-										
	1.2	-	6.1	179.37	1320	765	-	K	77	D	16	DT	80N6	77	504		
	1.4	-	7.1	154.02	1130	655	-	KF	77	D	16	DT	80N6	85	505		
	1.6	-	8.1	135.28	1000	575	-	KA	77	D	16	DT	80N6	70	506		
	1.7	-	8.5	128.52	950	550	-	KAF	77	D	16	DT	80N6	77	505		
	1.9	-	9.7	113.56	840	485	-										
	1.5	-	7.6	144.79*	820	615	-	K	67	D	16	DT	80N6	53	501		
	1.8	-	8.9	123.54	820	525	-	KF	67	D	16	DT	80N6	59	502		
	2.0	-	10	108.03	795	460	-	KA	67	D	16	DT	80N6	51	503		
	2.1	-	11	102.62	755	435	-	KAF	67	D	16	DT	80N6	57	502		
	2.3	-	11	144.79*	820	375	-										
	2.7	-	13	123.54	820	320	-	K	67	D	16	DT	80K4	52	501		
	3.1	-	15	108.03	800	280	-	KF	67	D	16	DT	80K4	58	502		
	3.2	-	16	102.62	765	265	-	KA	67	D	16	DT	80K4	50	503		
	3.7	-	18	90.04	670	235	-	KAF	67	D	16	DT	80K4	55	502		
	2.3	-	11	145.14*	600	375	-										
	2.7	-	13	123.85	600	320	-										
	3.1	-	15	108.29	600	280	-										
	3.2	-	16	102.88*	600	265	-	K	57	D	16	DT	80K4	46	498		
	3.7	-	18	90.26*	600	235	-	KF	57	D	16	DT	80K4	51	499		
	4.4	-	22	76.56*	570	198	-	KA	57	D	16	DT	80K4	44	500		
	4.8	-	24	69.12	515	179	-	KAF	57	D	16	DT	80K4	50	499		
	5.5	-	27	60.81*	455	158	-										
	5.8	-	29	57.42*	430	149	-										
	2.5	-	13	131.87*	400	340	-										
	2.7	-	14	121.48*	400	315	-										
	3.2	-	16	104.37	400	270	-										
	3.7	-	18	90.86	400	235	-										
	3.9	-	19	85.12*	400	220	-										
	4.4	-	22	75.20*	400	195	-	K	47	D	16	DT	80K4	40	495		
	5.3	-	26	63.30*	400	164	-	KF	47	D	16	DT	80K4	44	496		
	5.9	-	29	56.83	400	147	-	KA	47	D	16	DT	80K4	40	497		
	6.8	-	34	48.95*	365	127	-	KAF	47	D	16	DT	80K4	42	496		
	7.2	-	36	46.03*	345	119	-										
	8.4	-	42	39.61	295	103	-										
	9.4	-	47	35.39	265	92	-										
	11	-	53	31.30	235	81	-										
	11	-	57	29.32	220	76	-										
	56	-	280	11.77	53	12	-										
	63	-	312	10.56	47	11	-										
	73	-	362	9.10	41	9.2	-	K	47	D	16	DT	71D2	39	495		
	77	-	385	8.56	38	8.7	-	KF	47	D	16	DT	71D2	42	496		
	90	-	447	7.36	33	7.5	-	KA	47	D	16	DT	71D2	38	497		
	101	-	501	6.58	29	6.7	-	KAF	47	D	16	DT	71D2	41	496		
	114	-	567	5.81	26	5.9	-										

R = 1:5														
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
0.55 / 0.45	4.6 - 23	72.54	200	188	-								
	4.9 - 24	67.80	200	176	-								
	5.7 - 28	58.60	200	152	-								
	6.7 - 33	49.79	200	129	-								
	7.5 - 37	44.46	200	115	-								
	8.8 - 44	37.97	200	98	-								
	9.4 - 47	35.57	200	92	-								
	11 - 55	29.96	200	78	-								
	12 - 58	28.83	200	75	-								
	13 - 66	24.99	186	65	-	K	37	D	16	DT	80K4	33	492
	14 - 71	23.36	174	61	-	KF	37	D	16	DT	80K4	36	493
	17 - 82	20.19	150	52	-	KA	37	D	16	DT	80K4	33	494
	19 - 97	17.15	128	44	-	KAF	37	D	16	DT	80K4	35	493
	22 - 108	15.31	114	40	-								
	25 - 127	13.08	97	34	-								
	27 - 137	12.14	90	31	-								
	32 - 158	10.49	78	27	-								
	37 - 186	8.91	66	23	-								
	42 - 208	7.96	59	21	-								
	49 - 244	6.80	51	18	-								
	52 - 261	6.37	47	17	-								
	62 - 309	5.36	40	14	-								
	55 - 271	12.14	54	12	-								
	63 - 314	10.49	47	11	-								
	74 - 370	8.91	40	9.0	-	K	37	D	16	DT	71D2	32	492
	83 - 414	7.96	36	8.1	-	KF	37	D	16	DT	71D2	34	493
	97 - 485	6.80	30	6.9	-	KA	37	D	16	DT	71D2	31	494
	104 - 517	6.37	29	6.5	-	KAF	37	D	16	DT	71D2	33	493
	123 - 614	5.36	24	5.4	-								
0.75 / 0.54	0.27 - 1.3	1261	4300	4180	-								
	0.31 - 1.5	1102	4300	3650	-								
	0.35 - 1.8	957	4300	3170	-								
	0.40 - 2.0	855	4300	2830	-								
	0.46 - 2.3	743	4300	2460	-								
	0.52 - 2.6	652	4300	2160	-	K	97 R57	D	16	DT	80N4	190	-
	0.59 - 2.9	573	3900	1900	-	KF	97 R57	D	16	DT	80N4	210	-
	0.67 - 3.3	504	3430	1670	-	KA	97 R57	D	16	DT	80N4	170	-
	0.77 - 3.9	437	2970	1450	-	KAF	97 R57	D	16	DT	80N4	195	-
	0.89 - 4.4	382	2600	1270	-								
	1.1 - 5.5	305	2080	1010	-								
	1.3 - 6.5	258	1760	850	-								
	1.5 - 7.3	232	1580	770	-								
	1.7 - 8.5	199	1350	660	-								
	0.47 - 2.3	726	2700	2410	-								
	0.53 - 2.6	638	2700	2110	-								
	0.60 - 3.0	562	2700	1860	-								
	0.71 - 3.6	474	2700	1570	-								
	0.79 - 4.0	426	2700	1410	-								
	0.91 - 4.5	373	2540	1240	-	K	87 R57	D	16	DT	80N4	135	-
	1.0 - 5.1	330	2250	1090	-	KF	87 R57	D	16	DT	80N4	140	-
	1.2 - 5.7	294	2000	970	-	KA	87 R57	D	16	DT	80N4	120	-
	1.4 - 6.7	250	1700	830	-	KAF	87 R57	D	16	DT	80N4	135	-
	1.4 - 7.1	236	1610	780	-								
	1.7 - 8.4	201	1370	665	-								
	1.9 - 9.2	183	1250	605	-								
	2.1 - 11	159	1080	525	-								
	2.4 - 12	141	960	465	-								
	0.79 - 3.9	428	1550	1420	-								
	0.92 - 4.6	367	1550	1220	-								
	1.0 - 5.1	328	1550	1090	-								
	1.2 - 5.8	290	1550	960	-	K	77 R37	D	16	DT	80N4	87	-
	1.3 - 6.7	252	1550	840	-	KF	77 R37	D	16	DT	80N4	95	-
	1.5 - 7.6	221	1500	730	-	KA	77 R37	D	16	DT	80N4	80	-
	1.7 - 8.6	195	1330	645	-	KAF	77 R37	D	16	DT	80N4	88	-
	1.9 - 9.6	175	1190	580	-								
	2.2 - 11	154	1050	510	-								

R = 1:5																	
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠									m [kg]	
0.75 / 0.54	1.4	-	6.8	246	820	820	-										
	1.6	-	7.8	217	820	720	-	K	67	R37	D	16	DT	80N4		63	-
	1.8	-	8.8	191	820	635	-	KF	67	R37	D	16	DT	80N4		69	-
	2.0	-	10	166	820	550	-	KA	67	R37	D	16	DT	80N4		61	-
	2.4	-	12	144	820	475	-	KAF	67	R37	D	16	DT	80N4		66	-
	2.8	-	14	122	820	405	-										
	2.0	-	10	166	600	550	-										
	2.3	-	12	145	600	480	-	K	57	R37	D	16	DT	80N4		58	-
	2.6	-	13	129	600	425	-	KF	57	R37	D	16	DT	80N4		62	-
	3.1	-	15	111	600	370	-	KA	57	R37	D	16	DT	80N4		55	-
	3.5	-	17	97	600	320	-	KAF	57	R37	D	16	DT	80N4		61	-
	3.0	-	15	112	400	370	-	K	47	R37	D	16	DT	80N4		52	-
	3.4	-	17	99	400	330	-	KF	47	R37	D	16	DT	80N4		55	-
	3.6	-	18	94	400	310	-	KA	47	R37	D	16	DT	80N4		51	-
								KAF	47	R37	D	16	DT	80N4		54	-
0.75 / 0.60	1.8	-	8.8	192.18	1410	685	-	K	77		D	16	DT	80N4		77	504
	1.9	-	9.4	179.37	1320	640	-	KF	77		D	16	DT	80N4		85	505
	2.2	-	11	154.02	1130	550	-	KA	77		D	16	DT	80N4		70	506
	2.5	-	12	135.28	990	485	-	KAF	77		D	16	DT	80N4		77	505
	2.3	-	12	144.79*	820	515	-										
	2.7	-	14	123.54	820	440	-	K	67		D	16	DT	80N4		53	501
	3.1	-	16	108.03	795	385	-	KF	67		D	16	DT	80N4		59	502
	3.3	-	16	102.62	755	365	-	KA	67		D	16	DT	80N4		51	503
	3.8	-	19	90.04	660	320	-	KAF	67		D	16	DT	80N4		57	502
	2.3	-	12	145.14*	600	520	-										
	2.7	-	14	123.85	600	445	-										
	3.1	-	16	108.29	600	385	-										
	3.3	-	16	102.88*	600	370	-	K	57		D	16	DT	80N4		48	498
	3.8	-	19	90.26*	600	325	-	KF	57		D	16	DT	80N4		52	499
	4.4	-	22	76.56*	560	275	-	KA	57		D	16	DT	80N4		46	500
	4.9	-	24	69.12	505	245	-	KAF	57		D	16	DT	80N4		51	499
	5.6	-	28	60.81*	445	215	-										
	5.9	-	29	57.42*	420	205	-										
	4.0	-	20	85.12*	400	305	-										
	4.5	-	22	75.20*	400	270	-										
	5.3	-	27	63.30*	400	225	-										
	6.0	-	30	56.83	400	205	-	K	47		D	16	DT	80N4		42	495
	6.9	-	34	48.95*	360	175	-	KF	47		D	16	DT	80N4		45	496
	7.4	-	37	46.03*	340	165	-	KA	47		D	16	DT	80N4		41	497
	8.5	-	43	39.61	290	142	-	KAF	47		D	16	DT	80N4		44	496
	9.6	-	48	35.39	260	127	-										
	11	-	54	31.30	230	112	-										
	12	-	57	29.32	215	105	-										
	6.8	-	34	49.79	200	178	-										
	7.6	-	38	44.46	200	159	-										
	8.9	-	44	37.97	200	136	-										
	9.5	-	47	35.57	200	127	-										
	11	-	56	29.96	200	107	-										
	12	-	58	28.83	200	103	-										
	14	-	67	24.99	183	89	-										
	14	-	72	23.36	172	84	-										
	17	-	83	20.19	148	72	-	K	37		D	16	DT	80N4		35	492
	20	-	98	17.15	126	61	-	KF	37		D	16	DT	80N4		37	493
	22	-	110	15.31	112	55	-	KA	37		D	16	DT	80N4		34	494
	26	-	129	13.08	96	47	-	KAF	37		D	16	DT	80N4		36	493
	28	-	139	12.14	89	43	-										
	32	-	161	10.49	77	38	-										
	38	-	189	8.91	65	32	-										
	43	-	212	7.96	58	28	-										
	50	-	248	6.80	50	24	-										
	53	-	264	6.37	47	23	-										
	63	-	314	5.36	39	19	-										

R = 1:5																
P_m/P_{a2} [kW]	n_{a1} [1/min]	-	n_{a2}	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
0.75 / 0.60	63	-	314	10.49	53	16	-									
	74	-	370	8.91	45	14	-	K	37	D	16	DT	80K2		33	492
	83	-	414	7.96	40	12	-	KF	37	D	16	DT	80K2		36	493
	97	-	485	6.80	34	10	-	KA	37	D	16	DT	80K2		33	494
	104	-	517	6.37	32	9.8	-	KAF	37	D	16	DT	80K2		35	493
	123	-	614	5.36	27	8.2	-									
1.1 / 0.84	0.21	-	1.1	1713	8000	7750	-									
	0.23	-	1.2	1554	8000	7030	-									
	0.27	-	1.4	1336	8000	6050	-									
	0.31	-	1.6	1166	8000	5280	-									
	0.35	-	1.8	1030	8000	4660	-									
	0.40	-	2.0	904	8000	4090	-									
	0.46	-	2.3	793	8000	3590	-									
	0.52	-	2.6	696	8000	3150	-									
	0.59	-	3.0	615	8000	2780	-									
	0.70	-	3.5	522	7230	2360	-	K	107 R77	D	26	DT	90S4		330	-
	0.79	-	4.0	461	6380	2090	-	KF	107 R77	D	26	DT	90S4		345	-
	0.89	-	4.5	408	5650	1850	-	KA	107 R77	D	26	DT	90S4		305	-
	1.0	-	5.0	364	5040	1650	-	KAF	107 R77	D	26	DT	90S4		330	-
	1.2	-	5.7	318	4400	1440	-									
	1.3	-	6.4	286	3960	1290	-									
	1.4	-	7.2	251	3470	1140	-									
	1.6	-	8.2	222	3070	1000	-									
	1.9	-	9.3	196	2710	890	-									
	2.1	-	10	174	2410	785	-									
	2.4	-	12	154	2130	695	-									
	2.6	-	13	140	1940	635	-									
	0.43	-	2.1	855	4300	3870	-									
	0.49	-	2.5	743	4300	3360	-									
	0.56	-	2.8	652	4300	2950	-									
	0.64	-	3.2	573	4300	2590	-									
	0.72	-	3.6	504	4300	2280	-	K	97 R57	D	26	DT	90S4		205	-
	0.83	-	4.2	437	4300	1980	-	KF	97 R57	D	26	DT	90S4		225	-
	0.95	-	4.8	382	4300	1730	-	KA	97 R57	D	26	DT	90S4		190	-
	1.1	-	5.3	342	4300	1550	-	KAF	97 R57	D	26	DT	90S4		215	-
	1.2	-	6.0	305	4220	1380	-									
	1.4	-	7.0	258	3570	1170	-									
	1.6	-	7.8	232	3210	1050	-									
	1.8	-	9.2	199	2760	900	-									
	0.65	-	3.2	562	2700	2540	-									
	0.77	-	3.8	474	2700	2140	-									
	0.86	-	4.3	426	2700	1930	-									
	0.98	-	4.9	373	2700	1690	-									
	1.1	-	5.5	330	2700	1490	-	K	87 R57	D	26	DT	90S4		150	-
	1.2	-	6.2	294	2700	1330	-	KF	87 R57	D	26	DT	90S4		155	-
	1.5	-	7.3	250	2700	1130	-	KA	87 R57	D	26	DT	90S4		135	-
	1.5	-	7.7	236	2700	1070	-	KAF	87 R57	D	26	DT	90S4		150	-
	1.8	-	9.1	201	2700	910	-									
	2.0	-	10	183	2530	830	-									
	2.3	-	11	159	2200	720	-									
	2.6	-	13	141	1950	640	-									
1.1 / 0.90	1.4	-	6.9	174.19	2640	1360	-									
	1.5	-	7.3	164.34*	2490	1290	-	K	87	D	26	DT	90L6		135	507
	1.6	-	8.1	147.32*	2230	1150	-	KF	87	D	26	DT	90L6		145	508
	1.9	-	9.4	126.91*	1920	990	-	KA	87	D	26	DT	90L6		120	509
	2.1	-	10	115.82	1750	910	-	KAF	87	D	26	DT	90L6		135	508
	2.1	-	10	174.19	2600	850	-	K	87	D	26	DT	90S4		130	507
	2.2	-	11	164.34*	2450	800	-	KF	87	D	26	DT	90S4		140	508
	2.5	-	12	147.32*	2200	720	-	KA	87	D	26	DT	90S4		120	509
	2.9	-	14	126.91*	1890	620	-	KAF	87	D	26	DT	90S4		130	508
	1.8	-	8.8	135.28	1550	1060	-	K	77	D	26	DT	90L6		96	504
	1.9	-	9.3	128.52	1550	1010	-	KF	77	D	26	DT	90L6		105	505
	2.1	-	11	113.56	1550	890	-	KA	77	D	26	DT	90L6		88	506
	2.5	-	12	97.05	1470	760	-	KAF	77	D	26	DT	90L6		96	505



R = 1:5																
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
1.1 / 0.90	2.7	-	13	135.28	1550	660	-	K	77	D	26	DT	90S4		93	504
	2.8	-	14	128.52	1550	625	-	KF	77	D	26	DT	90S4		100	505
	3.2	-	16	113.56	1550	555	-	KA	77	D	26	DT	90S4		86	506
	3.8	-	19	97.05	1450	475	-	KAF	77	D	26	DT	90S4		94	505
	4.1	-	20	88.97	1330	435	-									
	3.4	-	17	108.03	820	525	-	K	67	D	26	DT	90S4		69	501
	3.6	-	18	102.62	820	500	-	KF	67	D	26	DT	90S4		74	502
	4.0	-	20	90.04	820	440	-	KA	67	D	26	DT	90S4		66	503
	4.8	-	24	76.37	820	375	-	KAF	67	D	26	DT	90S4		72	502
	3.4	-	17	108.29	600	530	-									
	3.5	-	18	102.88*	600	500	-									
	4.0	-	20	90.26*	600	440	-									
	4.8	-	24	76.56*	600	375	-									
	5.3	-	26	69.12	600	335	-									
	6.0	-	30	60.81*	600	295	-	K	57	D	26	DT	90S4		63	498
	6.4	-	32	57.42*	600	280	-	KF	57	D	26	DT	90S4		68	499
	7.5	-	37	48.89	600	240	-	KA	57	D	26	DT	90S4		61	500
	8.2	-	41	44.43	600	215	-	KAF	57	D	26	DT	90S4		67	499
	9.5	-	47	38.49	575	188	-									
	10	-	51	35.70	535	174	-									
	12	-	60	30.28	450	148	-									
	13	-	67	27.34	410	133	-									
	4.6	-	23	144.79*	730	355	-									
	5.4	-	27	123.54	625	305	-	K	67	D	16	DT	80N2		53	501
	6.1	-	30	108.03	545	265	-	KF	67	D	16	DT	80N2		59	502
	6.5	-	32	102.62	520	255	-	KA	67	D	16	DT	80N2		51	503
	7.4	-	37	90.04	455	220	-	KAF	67	D	16	DT	80N2		57	502
	4.6	-	23	145.14*	600	360	-									
	5.3	-	27	123.85	600	305	-	K	57	D	16	DT	80N2		48	498
	6.1	-	30	108.29	545	265	-	KF	57	D	16	DT	80N2		52	499
	6.4	-	32	102.88*	520	255	-	KA	57	D	16	DT	80N2		46	500
	7.3	-	36	90.26*	455	220	-	KAF	57	D	16	DT	80N2		51	499
	7.8	-	39	85.12*	400	210	-									
	8.8	-	44	75.20*	380	185	-									
	10	-	52	63.30*	320	156	-	K	47	D	16	DT	80N2		42	495
	12	-	58	56.83	285	140	-	KF	47	D	16	DT	80N2		45	496
	14	-	67	48.95*	245	121	-	KA	47	D	16	DT	80N2		41	497
	14	-	72	46.03*	235	113	-	KAF	47	D	16	DT	80N2		44	496
	17	-	83	39.61	200	98	-									
	11	-	56	58.60	200	144	-									
	13	-	66	49.79	200	123	-									
	15	-	74	44.46	200	110	-									
	17	-	87	37.97	192	94	-									
	19	-	93	35.57	180	88	-									
	22	-	110	29.96	151	74	-									
	23	-	114	28.83	146	71	-									
	26	-	132	24.99	126	62	-									
	28	-	141	23.36	118	58	-	K	37	D	16	DT	80N2		35	492
	33	-	163	20.19	102	50	-	KF	37	D	16	DT	80N2		37	493
	39	-	192	17.15	87	42	-	KA	37	D	16	DT	80N2		34	494
	43	-	215	15.31	77	38	-	KAF	37	D	16	DT	80N2		36	493
	51	-	252	13.08	66	32	-									
	55	-	271	12.14	61	30	-									
	63	-	314	10.49	53	26	-									
	74	-	370	8.91	45	22	-									
	83	-	414	7.96	40	20	-									
	97	-	485	6.80	34	17	-									
	104	-	517	6.37	32	16	-									
	123	-	614	5.36	27	13	-									
1.5 / 1.1	0.24	-	1.2	1541	13000	9750	-	K	127 R77	D	26	DT	90L4		485	-
	0.27	-	1.4	1342	13000	8490	-	KF	127 R77	D	26	DT	90L4		530	-
								KA	127 R77	D	26	DT	90L4		455	-
								KAF	127 R77	D	26	DT	90L4		490	-

R = 1:5														
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠						m [kg]	
1.5 / 1.1	0.31	-	1.6	1166	8000	7380	-							
	0.36	-	1.8	1030	8000	6520	-							
	0.41	-	2.0	904	8000	5720	-							
	0.46	-	2.3	793	8000	5020	-							
	0.53	-	2.6	696	8000	4400	-							
	0.60	-	3.0	615	8000	3890	-							
	0.70	-	3.5	522	7180	3300	-							
	0.80	-	4.0	461	6340	2920	-	K	107 R77	D	26	DT	90L4	335	-
	0.90	-	4.5	408	5610	2580	-	KF	107 R77	D	26	DT	90L4	345	-
	1.0	-	5.0	364	5000	2300	-	KA	107 R77	D	26	DT	90L4	305	-
	1.2	-	5.8	318	4370	2010	-	KAF	107 R77	D	26	DT	90L4	330	-
	1.3	-	6.4	286	3930	1810	-								
	1.5	-	7.3	251	3450	1590	-								
	1.7	-	8.3	222	3050	1400	-								
	1.9	-	9.3	196	2690	1240	-								
	2.1	-	11	174	2390	1100	-								
	2.4	-	12	154	2120	970	-								
	2.6	-	13	140	1920	890	-								
	0.56	-	2.8	652	4300	4130	-								
	0.64	-	3.2	573	4300	3630	-								
	0.73	-	3.6	504	4300	3190	-								
	0.84	-	4.2	437	4300	2770	-	K	97 R57	D	26	DT	90L4	210	-
	0.96	-	4.8	382	4300	2420	-	KF	97 R57	D	26	DT	90L4	230	-
	1.1	-	5.4	342	4300	2160	-	KA	97 R57	D	26	DT	90L4	190	-
	1.2	-	6.0	305	4190	1930	-	KAF	97 R57	D	26	DT	90L4	215	-
	1.4	-	7.1	258	3550	1630	-								
	1.6	-	7.9	232	3190	1470	-								
	1.9	-	9.2	199	2740	1260	-								
	0.86	-	4.3	426	2700	2700	-								
	0.98	-	4.9	373	2700	2360	-								
	1.1	-	5.5	330	2700	2090	-								
	1.2	-	6.2	294	2700	1860	-	K	87 R57	D	26	DT	90L4	150	-
	1.5	-	7.3	250	2700	1580	-	KF	87 R57	D	26	DT	90L4	160	-
	1.6	-	7.8	236	2700	1490	-	KA	87 R57	D	26	DT	90L4	140	-
	1.8	-	9.1	201	2700	1270	-	KAF	87 R57	D	26	DT	90L4	150	-
	2.0	-	10	183	2520	1160	-								
	2.3	-	12	159	2190	1010	-								
	2.6	-	13	141	1940	890	-								
1.5 / 1.2	1.4	-	7.1	153.21*	4300	1820	-	K	97	D	36	DV	100M6	220	510
	1.5	-	7.7	140.28	4300	1670	-	KF	97	D	36	DV	100M6	240	511
	1.8	-	8.8	123.93*	4300	1470	-	KA	97	D	36	DV	100M6	205	512
	2.1	-	10	105.13	4270	1250	-	KAF	97	D	36	DV	100M6	230	511
	2.1	-	11	174.19	2580	1190	-	K	87	D	26	DT	90L4	135	507
	2.2	-	11	164.34*	2440	1120	-	KF	87	D	26	DT	90L4	145	508
	2.5	-	12	147.32*	2180	1010	-	KA	87	D	26	DT	90L4	120	509
	2.9	-	14	126.91*	1880	870	-	KAF	87	D	26	DT	90L4	135	508
	2.7	-	14	135.28	1550	920	-								
	2.9	-	14	128.52	1550	880	-								
	3.2	-	16	113.56	1550	775	-	K	77	D	26	DT	90L4	96	504
	3.8	-	19	97.05	1440	660	-	KF	77	D	26	DT	90L4	105	505
	4.1	-	21	88.97	1320	605	-	KA	77	D	26	DT	90L4	88	506
	4.7	-	23	78.07	1160	535	-	KAF	77	D	26	DT	90L4	96	505
	5.0	-	25	73.99	1100	505	-								
	3.4	-	17	108.03	820	735	-								
	3.6	-	18	102.62	820	700	-	K	67	D	26	DT	90L4	71	501
	4.1	-	20	90.04	820	615	-	KF	67	D	26	DT	90L4	77	502
	4.8	-	24	76.37	820	520	-	KA	67	D	26	DT	90L4	68	503
	5.3	-	27	68.95	820	470	-	KAF	67	D	26	DT	90L4	74	502
	6.0	-	30	60.66	820	415	-								

R = 1:5															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
1.5 / 1.2	4.8	-	24	76.56*	600	525	-								
	5.3	-	27	69.12	600	470	-								
	6.0	-	30	60.81*	600	415	-								
	6.4	-	32	57.42*	600	390	-	K	57	D	26	DT	90L4	65	498
	7.5	-	37	48.89	600	335	-	KF	57	D	26	DT	90L4	70	499
	8.3	-	41	44.43	600	305	-	KA	57	D	26	DT	90L4	63	500
	9.5	-	48	38.49	570	265	-	KAF	57	D	26	DT	90L4	69	499
	10	-	51	35.70	530	245	-								
	12	-	61	30.28	450	205	-								
	13	-	67	27.34	405	187	-								
	6.5	-	32	56.83	400	390	-								
	7.5	-	37	48.95*	400	335	-								
	8.0	-	40	46.03*	400	315	-								
	9.3	-	46	39.61	400	270	-								
	10	-	52	35.39	400	240	-								
	12	-	59	31.30	400	215	-								
	13	-	63	29.32	400	200	-								
	14	-	71	25.91	385	177	-								
	17	-	84	21.81	325	149	-	K	47	D	26	DT	90L4	59	495
	19	-	94	19.58	290	134	-	KF	47	D	26	DT	90L4	63	496
	22	-	109	16.86	250	115	-	KA	47	D	26	DT	90L4	58	497
	23	-	116	15.86	235	108	-	KAF	47	D	26	DT	90L4	61	496
	27	-	134	13.65	200	93	-								
	30	-	150	12.19	181	83	-								
	31	-	156	11.77	174	80	-								
	35	-	174	10.56	157	72	-								
	40	-	201	9.10	135	62	-								
	43	-	214	8.56	127	58	-								
	50	-	249	7.36	109	50	-								
	56	-	279	6.58	98	45	-								
	63	-	315	5.81	86	40	-								
	67	-	332	10.56	116	34	-								
	77	-	386	9.10	100	29	-	K	47	D	26	DT	90S2	57	495
	82	-	410	8.56	94	28	-	KF	47	D	26	DT	90S2	60	496
	95	-	477	7.36	81	24	-	KA	47	D	26	DT	90S2	56	497
	107	-	534	6.58	72	21	-	KAF	47	D	26	DT	90S2	59	496
	121	-	604	5.81	64	19	-								
2.2 / 1.6	0.36	-	1.8	1025	13000	9410	-	K	127 R77	D	26	DV	100M4	485	-
								KF	127 R77	D	26	DV	100M4	530	-
								KA	127 R77	D	26	DV	100M4	460	-
								KAF	127 R77	D	26	DV	100M4	495	-
	0.46	-	2.3	793	8000	7280	-								
	0.53	-	2.6	696	8000	6390	-								
	0.60	-	3.0	615	8000	5640	-								
	0.70	-	3.5	522	7180	4790	-								
	0.80	-	4.0	461	6340	4230	-								
	0.90	-	4.5	408	5610	3740	-								
	1.0	-	5.0	364	5000	3340	-	K	107 R77	D	26	DV	100M4	340	-
	1.2	-	5.8	318	4370	2920	-	KF	107 R77	D	26	DV	100M4	350	-
	1.3	-	6.4	286	3930	2630	-	KA	107 R77	D	26	DV	100M4	310	-
	1.5	-	7.3	251	3450	2300	-	KAF	107 R77	D	26	DV	100M4	335	-
	1.7	-	8.3	222	3050	2040	-								
	1.9	-	9.3	196	2690	1800	-								
	2.1	-	11	174	2390	1600	-								
	2.4	-	12	154	2120	1410	-								
	2.6	-	13	140	1920	1290	-								
	0.84	-	4.2	437	4300	4010	-								
	0.96	-	4.8	382	4300	3510	-								
	1.1	-	5.4	342	4300	3140	-	K	97 R57	D	26	DV	100M4	210	-
	1.2	-	6.0	305	4190	2800	-	KF	97 R57	D	26	DV	100M4	230	-
	1.4	-	7.1	258	3550	2370	-	KA	97 R57	D	26	DV	100M4	195	-
	1.6	-	7.9	232	3190	2130	-	KAF	97 R57	D	26	DV	100M4	220	-
	1.9	-	9.2	199	2740	1830	-								

R = 1:5														
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
2.2 / 1.6	1.2 - 6.2	294	2700	2700	-								
	1.5 - 7.3	250	2700	2290	-								
	1.6 - 7.8	236	2700	2170	-	K	87 R57	D	26	DV	100M4	155	-
	1.8 - 9.1	201	2700	1840	-	KF	87 R57	D	26	DV	100M4	165	-
	2.0 - 10	183	2520	1680	-	KA	87 R57	D	26	DV	100M4	140	-
	2.3 - 12	159	2190	1460	-	KAF	87 R57	D	26	DV	100M4	155	-
	2.6 - 13	141	1940	1290	-								
2.2 / 1.8	1.4 - 7.2	153.21*	4300	2640	-								
	1.6 - 7.9	140.28	4300	2420	-	K	97	D	36	DV	112M6	230	510
	1.8 - 9.0	123.93*	4300	2130	-	KF	97	D	36	DV	112M6	250	511
	2.1 - 11	105.13	4180	1810	-	KA	97	D	36	DV	112M6	215	512
	2.3 - 11	96.80	3850	1670	-	KAF	97	D	36	DV	112M6	240	511
	1.7 - 8.7	126.91*	2700	2190	-								
	1.9 - 9.6	115.82	2700	1990	-	K	87	D	36	DV	112M6	165	507
	2.1 - 11	102.71*	2700	1770	-	KF	87	D	36	DV	112M6	175	508
	2.6 - 13	86.34	2700	1490	-	KA	87	D	36	DV	112M6	155	509
	2.8 - 14	79.34	2700	1370	-	KAF	87	D	36	DV	112M6	170	508
	2.1 - 11	174.19	2580	1720	-								
	2.2 - 11	164.34*	2440	1630	-	K	87	D	26	DV	100M4	135	507
	2.5 - 12	147.32*	2180	1460	-	KF	87	D	26	DV	100M4	145	508
	2.9 - 14	126.91*	1880	1260	-	KA	87	D	26	DV	100M4	125	509
	3.2 - 16	115.82	1720	1150	-	KAF	87	D	26	DV	100M4	140	508
	3.6 - 18	102.71*	1520	1020	-								
	2.7 - 14	135.28	1550	1340	-								
	2.9 - 14	128.52	1550	1270	-								
	3.2 - 16	113.56	1550	1120	-								
	3.8 - 19	97.05	1440	960	-	K	77	D	26	DV	100M4	100	504
	4.1 - 21	88.97	1320	880	-	KF	77	D	26	DV	100M4	110	505
	4.7 - 23	78.07	1160	775	-	KA	77	D	26	DV	100M4	92	506
	5.0 - 25	73.99	1100	730	-	KAF	77	D	26	DV	100M4	100	505
	5.7 - 28	64.75	960	640	-								
	6.3 - 31	58.34	860	580	-								
	5.3 - 27	68.95	820	685	-								
	6.0 - 30	60.66	820	600	-	K	67	D	26	DV	100M4	75	501
	6.4 - 32	57.28	820	565	-	KF	67	D	26	DV	100M4	81	502
	7.5 - 38	48.77	725	485	-	KA	67	D	26	DV	100M4	72	503
	8.3 - 41	44.32	655	440	-	KAF	67	D	26	DV	100M4	78	502
	6.4 - 32	57.42*	600	570	-								
	7.5 - 37	48.89	600	485	-								
	8.3 - 41	44.43	600	440	-	K	57	D	26	DV	100M4	69	498
	9.5 - 48	38.49	570	380	-	KF	57	D	26	DV	100M4	74	499
	10 - 51	35.70	530	355	-	KA	57	D	26	DV	100M4	67	500
	12 - 61	30.28	450	300	-	KAF	57	D	26	DV	100M4	73	499
	13 - 67	27.34	405	270	-								
	9.3 - 46	39.61	400	390	-								
	10 - 52	35.39	400	350	-								
	12 - 59	31.30	400	310	-								
	13 - 63	29.32	400	290	-								
	14 - 71	25.91	385	255	-								
	17 - 84	21.81	325	215	-								
	19 - 94	19.58	290	194	-								
	22 - 109	16.86	250	167	-	K	47	D	26	DV	100M4	63	495
	23 - 116	15.86	235	157	-	KF	47	D	26	DV	100M4	67	496
	27 - 134	13.65	200	135	-	KA	47	D	26	DV	100M4	62	497
	30 - 150	12.19	181	121	-	KAF	47	D	26	DV	100M4	65	496
	31 - 156	11.77	174	117	-								
	35 - 174	10.56	157	105	-								
	40 - 201	9.10	135	90	-								
	43 - 214	8.56	127	85	-								
	50 - 249	7.36	109	73	-								
	56 - 279	6.58	98	65	-								
	63 - 315	5.81	86	58	-								

R = 1:5																	
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠									m [kg]	
2.2 / 1.8	**67**	-	**336**	10.56	119	52	-										
	78	-	**390**	9.10	103	44	-	**K**	**47**		**D**		**26**	**DT**	**90L2**	59	495
	83	-	**415**	8.56	97	42	-	**KF**	**47**		**D**		**26**	**DT**	**90L2**	63	496
	97	-	**482**	7.36	83	36	-	**KA**	**47**		**D**		**26**	**DT**	**90L2**	58	497
	108	-	**539**	6.58	74	32	-	**KAF**	**47**		**D**		**26**	**DT**	**90L2**	61	496
	122	-	**611**	5.81	66	28	-										
3.0 / 2.3	**0.27**	-	**1.3**	1229	18000	17400	-	**K**	**157**	**R97**	**D**		**36**	**DV**	**100L4**	820	-
	0.30	-	**1.5**	1093	18000	15500	-	**KF**	**157**	**R97**	**D**		**36**	**DV**	**100L4**	900	-
								KA	**157**	**R97**	**D**		**36**	**DV**	**100L4**	780	-
								KAF	**157**	**R97**	**D**		**36**	**DV**	**100L4**	840	-
	0.90	-	**4.5**	367	13000	5190	-										
	1.0	-	**5.0**	330	12400	4670	-										
	1.2	-	**5.8**	287	10800	4060	-	**K**	**127**	**R87**	**D**		**36**	**DV**	**100L4**	540	-
	1.3	-	**6.5**	253	9520	3580	-	**KF**	**127**	**R87**	**D**		**36**	**DV**	**100L4**	580	-
	1.6	-	**7.8**	213	8020	3010	-	**KA**	**127**	**R87**	**D**		**36**	**DV**	**100L4**	510	-
	1.7	-	**8.3**	200	7530	2830	-	**KAF**	**127**	**R87**	**D**		**36**	**DV**	**100L4**	550	-
	2.0	-	**10**	166	6250	2350	-										
	2.2	-	**11**	147	5530	2080	-										
	0.37	-	**1.8**	899	13000	12700	-										
	0.42	-	**2.1**	790	13000	11200	-										
	0.47	-	**2.4**	704	13000	9960	-	**K**	**127**	**R77**	**D**		**36**	**DV**	**100L4**	510	-
	0.54	-	**2.7**	610	13000	8630	-	**KF**	**127**	**R77**	**D**		**36**	**DV**	**100L4**	550	-
	0.60	-	**3.0**	549	13000	7770	-	**KA**	**127**	**R77**	**D**		**36**	**DV**	**100L4**	485	-
	0.69	-	**3.5**	477	13000	6750	-	**KAF**	**127**	**R77**	**D**		**36**	**DV**	**100L4**	520	-
	0.79	-	**4.0**	418	13000	5920	-										
	0.63	-	**3.2**	522	8000	7390	-										
	0.71	-	**3.6**	461	8000	6520	-										
	0.81	-	**4.0**	408	8000	5770	-										
	0.90	-	**4.5**	364	8000	5150	-										
	1.0	-	**5.2**	318	8000	4500	-	**K**	**107**	**R77**	**D**		**36**	**DV**	**100L4**	365	-
	1.2	-	**5.8**	286	8000	4050	-	**KF**	**107**	**R77**	**D**		**36**	**DV**	**100L4**	375	-
	1.3	-	**6.6**	251	8000	3550	-	**KA**	**107**	**R77**	**D**		**36**	**DV**	**100L4**	335	-
	1.5	-	**7.4**	222	8000	3140	-	**KAF**	**107**	**R77**	**D**		**36**	**DV**	**100L4**	360	-
	1.7	-	**8.4**	196	7380	2770	-										
	1.9	-	**9.5**	174	6550	2460	-										
	2.1	-	**11**	154	5800	2180	-										
	2.4	-	**12**	140	5270	1980	-										
3.0 / 2.5	**1.4**	-	**7.2**	153.21*	4300	3670	-	**K**	**97**		**D**		**36**	**DV**	**132S6**	240	510
	1.6	-	**7.9**	140.28	4300	3360	-	**KF**	**97**		**D**		**36**	**DV**	**132S6**	260	511
	1.8	-	**9.0**	123.93*	4300	2970	-	**KA**	**97**		**D**		**36**	**DV**	**132S6**	220	512
	2.1	-	**11**	105.13	4180	2520	-	**KAF**	**97**		**D**		**36**	**DV**	**132S6**	245	511
	2.1	-	**11**	153.21*	4300	2340	-	**K**	**97**		**D**		**36**	**DV**	**100L4**	225	510
	2.4	-	**12**	140.28	4300	2140	-	**KF**	**97**		**D**		**36**	**DV**	**100L4**	245	511
	2.7	-	**13**	123.93*	4300	1890	-	**KA**	**97**		**D**		**36**	**DV**	**100L4**	205	512
	3.1	-	**16**	105.13	4270	1600	-	**KAF**	**97**		**D**		**36**	**DV**	**100L4**	230	511
	2.6	-	**13**	126.91*	2700	1940	-										
	2.8	-	**14**	115.82	2700	1770	-	**K**	**87**		**D**		**36**	**DV**	**100L4**	160	507
	3.2	-	**16**	102.71*	2700	1570	-	**KF**	**87**		**D**		**36**	**DV**	**100L4**	170	508
	3.8	-	**19**	86.34	2700	1320	-	**KA**	**87**		**D**		**36**	**DV**	**100L4**	145	509
	4.2	-	**21**	79.34	2700	1210	-	**KAF**	**87**		**D**		**36**	**DV**	**100L4**	160	508
	4.7	-	**23**	70.46	2700	1080	-										

R = 1:5																
P_m/P_{a2} [kW]	n_{a1} [1/min]	-	n_{a2}	i	M_{a1} [Nm]	M_{a2}	⚠								m [kg]	
3.0 / 2.5	3.4	-	17	97.05	1550	1480	-									
	3.7	-	19	88.97	1550	1360	-									
	4.2	-	21	78.07	1550	1190	-									
	4.5	-	22	73.99	1550	1130	-									
	5.1	-	26	64.75	1550	990	-									
	5.7	-	28	58.34	1550	890	-									
	6.4	-	32	51.18	1550	780	-									
	7.3	-	37	45.16	1550	690	-									
	8.2	-	41	40.04	1550	610	-									
	9.4	-	47	35.20	1430	535	-	K	77		D	36	DV	100L4	125	504
	11	-	53	30.89	1250	470	-	KF	77		D	36	DV	100L4	135	505
	11	-	56	29.27	1190	445	-	KA	77		D	36	DV	100L4	120	506
	13	-	64	25.62	1040	390	-	KAF	77		D	36	DV	100L4	125	505
	14	-	72	23.08	940	350	-									
	16	-	82	20.25	820	310	-									
	18	-	92	17.87	725	275	-									
	21	-	104	15.84	645	240	-									
	24	-	122	13.52	550	205	-									
	27	-	134	12.36	500	189	-									
	30	-	152	10.84	440	165	-									
	34	-	173	9.56	390	146	-									
	39	-	195	8.48	345	129	-									
	45	-	228	7.24	295	111	-									
	53	-	267	12.36	285	89	-	K	77		D	36	DV	100M2	125	504
	61	-	305	10.84	250	78	-	KF	77		D	36	DV	100M2	130	505
	69	-	346	9.56	220	69	-	KA	77		D	36	DV	100M2	115	506
	78	-	390	8.48	197	61	-	KAF	77		D	36	DV	100M2	125	505
	91	-	456	7.24	168	52	-									
4.0 / 3.1	0.26	-	1.3	1296	32000	24500	-	K	167	R97	D	36	DV	112M4	1220	-
	0.30	-	1.5	1101	32000	20800	-	KH	167	R97	D	36	DV	112M4	1180	-
	0.35	-	1.8	942	18000	17800	-									
	0.39	-	2.0	854	18000	16200	-									
	0.44	-	2.2	756	18000	14300	-									
	0.51	-	2.5	661	18000	12500	-	K	157	R97	D	36	DV	112M4	830	-
	0.59	-	3.0	567	18000	10700	-	KF	157	R97	D	36	DV	112M4	900	-
	0.66	-	3.3	504	18000	9540	-	KA	157	R97	D	36	DV	112M4	790	-
	0.77	-	3.9	434	16100	8210	-	KAF	157	R97	D	36	DV	112M4	850	-
	0.88	-	4.4	379	14100	7170	-									
	1.0	-	5.0	333	12400	6300	-									
	1.2	-	5.8	291	10800	5510	-									
	0.91	-	4.6	367	13000	6940	-									
	1.0	-	5.1	330	12200	6240	-									
	1.2	-	5.8	287	10600	5430	-	K	127	R87	D	36	DV	112M4	550	-
	1.3	-	6.6	253	9390	4790	-	KF	127	R87	D	36	DV	112M4	590	-
	1.6	-	7.9	213	7900	4030	-	KA	127	R87	D	36	DV	112M4	520	-
	1.7	-	8.4	200	7420	3780	-	KAF	127	R87	D	36	DV	112M4	560	-
	2.0	-	10	166	6160	3140	-									
	2.3	-	11	147	5450	2780	-									
	0.55	-	2.8	610	13000	11500	-	K	127	R77	D	36	DV	112M4	520	-
	0.61	-	3.1	549	13000	10400	-	KF	127	R77	D	36	DV	112M4	560	-
	0.70	-	3.5	477	13000	9020	-	KA	127	R77	D	36	DV	112M4	490	-
	0.80	-	4.0	418	13000	7910	-	KAF	127	R77	D	36	DV	112M4	530	-
	0.82	-	4.1	408	8000	7720	-									
	0.92	-	4.6	364	8000	6890	-									
	1.1	-	5.3	318	8000	6020	-									
	1.2	-	5.9	286	8000	5410	-	K	107	R77	D	36	DV	112M4	370	-
	1.3	-	6.7	251	8000	4750	-	KF	107	R77	D	36	DV	112M4	385	-
	1.5	-	7.5	222	8000	4200	-	KA	107	R77	D	36	DV	112M4	345	-
	1.7	-	8.6	196	7270	3710	-	KAF	107	R77	D	36	DV	112M4	370	-
	1.9	-	9.6	174	6460	3290	-									
	2.2	-	11	154	5710	2910	-									
	2.4	-	12	140	5190	2650	-									

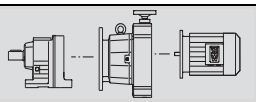
R = 1:5																
P_m/P_{a2} [kW]	n_{a1} [1/min]	-	n_{a2}	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
4.0 / 3.4	2.2	-	11	153.21*	4300	3130	-	K	97	D	36	DV	112M4	230	510
	2.4	-	12	140.28	4300	2860	-	KF	97	D	36	DV	112M4	250	511
	2.7	-	14	123.93*	4300	2530	-	KA	97	D	36	DV	112M4	215	512
	3.2	-	16	105.13	4210	2150	-	KAF	97	D	36	DV	112M4	240	511
	3.5	-	17	96.80	3870	1980	-								
	2.6	-	13	126.91*	2700	2590	-								
	2.9	-	14	115.82	2700	2360	-								
	3.2	-	16	102.71*	2700	2100	-	K	87	D	36	DV	112M4	165	507
	3.9	-	19	86.34	2700	1760	-	KF	87	D	36	DV	112M4	175	508
	4.2	-	21	79.34	2700	1620	-	KA	87	D	36	DV	112M4	155	509
	4.7	-	24	70.46	2700	1440	-	KAF	87	D	36	DV	112M4	170	508
	5.3	-	27	63.00*	2520	1290	-								
	5.9	-	30	56.64	2270	1160	-								
	4.5	-	23	73.99	1550	1510	-								
	5.2	-	26	64.75	1550	1320	-								
	5.7	-	29	58.34	1550	1190	-								
	6.5	-	33	51.18	1550	1040	-								
	7.4	-	37	45.16	1550	920	-								
	8.3	-	42	40.04	1550	820	-								
	9.5	-	48	35.20	1410	720	-								
	11	-	54	30.89	1240	630	-								
	11	-	57	29.27	1170	595	-	K	77	D	36	DV	112M4	135	504
	13	-	65	25.62	1030	525	-	KF	77	D	36	DV	112M4	140	505
	14	-	73	23.08	920	470	-	KA	77	D	36	DV	112M4	125	506
	17	-	83	20.25	810	415	-	KAF	77	D	36	DV	112M4	135	505
	19	-	94	17.87	715	365	-								
	21	-	106	15.84	635	325	-								
	25	-	124	13.52	540	275	-								
	27	-	136	12.36	495	250	-								
	31	-	155	10.84	435	220	-								
	35	-	175	9.56	385	195	-								
	39	-	198	8.48	340	173	-								
	46	-	231	7.24	290	148	-								
	50	-	250	13.52	305	131	-								
	54	-	273	12.36	280	120	-	K	77	D	36	DV	112M2	135	504
	62	-	311	10.84	245	105	-	KF	77	D	36	DV	112M2	140	505
	70	-	353	9.56	215	93	-	KA	77	D	36	DV	112M2	125	506
	79	-	398	8.48	193	82	-	KAF	77	D	36	DV	112M2	135	505
	93	-	466	7.24	164	70	-								
5.5 / 4.2	0.40	-	2.0	843	31100	22100	-	K	167 R97	D	36	DV	132S4	1230	-
	0.44	-	2.2	757	27900	19900	-	KH	167 R97	D	36	DV	132S4	1190	-
	0.51	-	2.6	661	18000	17300	-								
	0.59	-	3.0	567	18000	14900	-								
	0.67	-	3.4	504	18000	13200	-	K	157 R97	D	36	DV	132S4	830	-
	0.78	-	3.9	434	16000	11400	-	KF	157 R97	D	36	DV	132S4	910	-
	0.89	-	4.5	379	14000	9940	-	KA	157 R97	D	36	DV	132S4	800	-
	1.0	-	5.1	333	12300	8740	-	KAF	157 R97	D	36	DV	132S4	860	-
	1.2	-	5.8	291	10700	7640	-								
	0.92	-	4.6	367	13000	9630	-								
	1.0	-	5.1	330	12200	8660	-								
	1.2	-	5.9	287	10600	7530	-	K	127 R87	D	36	DV	132S4	550	-
	1.3	-	6.7	253	9320	6640	-	KF	127 R87	D	36	DV	132S4	600	-
	1.6	-	7.9	213	7850	5590	-	KA	127 R87	D	36	DV	132S4	530	-
	1.7	-	8.4	200	7370	5250	-	KAF	127 R87	D	36	DV	132S4	560	-
	2.0	-	10	166	6120	4360	-								
	2.3	-	11	147	5420	3860	-								
	0.71	-	3.5	477	13000	12500	-	K	127 R77	D	36	DV	132S4	530	-
	0.80	-	4.0	418	13000	11000	-	KF	127 R77	D	36	DV	132S4	570	-
								KA	127 R77	D	36	DV	132S4	500	-
								KAF	127 R77	D	36	DV	132S4	540	-

R = 1:5															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2}	⚠								m [kg]	
5.5 / 4.2	**1.2 - 5.9**	286	8000	7500	-									
	1.3 - 6.7	251	8000	6590	-									
	1.5 - 7.6	222	8000	5820	-	**K**	**107**	**R77**	**D**	**36**	**DV**	**132S4**	380	-
	1.7 - 8.6	196	7220	5140	-	**KF**	**107**	**R77**	**D**	**36**	**DV**	**132S4**	390	-
	1.9 - 9.7	174	6410	4570	-	**KA**	**107**	**R77**	**D**	**36**	**DV**	**132S4**	350	-
	2.2 - 11	154	5670	4040	-	**KAF**	**107**	**R77**	**D**	**36**	**DV**	**132S4**	375	-
	2.4 - 12	140	5160	3670	-									
5.5 / 4.6	**2.4 - 12**	140.28	4300	3970	-									
	2.7 - 14	123.93*	4300	3510	-	**K**	**97**		**D**	**36**	**DV**	**132S4**	240	510
	3.2 - 16	105.13	4180	2980	-	**KF**	**97**		**D**	**36**	**DV**	**132S4**	260	511
	3.5 - 17	96.80	3850	2740	-	**KA**	**97**		**D**	**36**	**DV**	**132S4**	220	512
	3.9 - 20	86.52	3440	2450	-	**KAF**	**97**		**D**	**36**	**DV**	**132S4**	245	511
	4.3 - 22	77.89*	3100	2200	-									
	3.9 - 20	86.34	2700	2440	-									
	4.2 - 21	79.34	2700	2250	-									
	4.8 - 24	70.46	2700	1990	-	**K**	**87**		**D**	**36**	**DV**	**132S4**	175	507
	5.3 - 27	63.00*	2500	1780	-	**KF**	**87**		**D**	**36**	**DV**	**132S4**	185	508
	5.9 - 30	56.64	2250	1600	-	**KA**	**87**		**D**	**36**	**DV**	**132S4**	165	509
	6.8 - 34	49.16	1950	1390	-	**KAF**	**87**		**D**	**36**	**DV**	**132S4**	175	508
	7.6 - 38	44.02	1750	1250	-									
	6.6 - 33	51.18	1550	1450	-									
	7.5 - 37	45.16	1550	1280	-									
	8.4 - 42	40.04	1550	1130	-									
	9.6 - 48	35.20	1400	1000	-									
	11 - 55	30.89	1230	870	-									
	11 - 58	29.27	1160	830	-									
	13 - 66	25.62	1020	725	-									
	15 - 73	23.08	920	655	-	**K**	**77**		**D**	**36**	**DV**	**132S4**	140	504
	17 - 83	20.25	800	575	-	**KF**	**77**		**D**	**36**	**DV**	**132S4**	150	505
	19 - 94	17.87	710	505	-	**KA**	**77**		**D**	**36**	**DV**	**132S4**	135	506
	21 - 107	15.84	630	450	-	**KAF**	**77**		**D**	**36**	**DV**	**132S4**	140	505
	25 - 125	13.52	535	385	-									
	27 - 137	12.36	490	350	-									
	31 - 156	10.84	430	305	-									
	35 - 177	9.56	380	270	-									
	40 - 199	8.48	335	240	-									
	46 - 233	7.24	290	205	-									
	50 - 251	13.52	305	184	-									
	55 - 275	12.36	280	168	-	**K**	**77**		**D**	**36**	**DV**	**132S2**	140	504
	63 - 314	10.84	245	147	-	**KF**	**77**		**D**	**36**	**DV**	**132S2**	150	505
	71 - 355	9.56	215	130	-	**KA**	**77**		**D**	**36**	**DV**	**132S2**	135	506
	80 - 401	8.48	191	115	-	**KAF**	**77**		**D**	**36**	**DV**	**132S2**	140	505
	94 - 469	7.24	163	98	-									

R = 1:4															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1}	M_{a2} [Nm]	⚠							m [kg]	
7.5 / 5.8	0.64	-	2.5	632	32000	23800	-	K	167 R97	D	46	DV	132M4	1270	-
	0.72	-	2.9	561	32000	21100	-	KH	167 R97	D	46	DV	132M4	1230	-
	1.6	-	6.3	253	15300	9510	-								
	1.8	-	7.0	230	13900	8650	-								
	1.9	-	7.5	213	12900	8010	-	K	157 R107	D	46	DV	132M4	920	-
	2.1	-	8.6	187	11300	7030	-	KF	157 R107	D	46	DV	132M4	1000	-
	2.6	-	10	157	9490	5900	-	KA	157 R107	D	46	DV	132M4	880	-
	3.3	-	13	122	7380	4590	-	KAF	157 R107	D	46	DV	132M4	940	-
	3.8	-	15	107	6470	4020	-								
	0.93	-	3.7	434	18000	16300	-	K	157 R97	D	46	DV	132M4	880	-
	1.1	-	4.2	379	18000	14200	-	KF	157 R97	D	46	DV	132M4	960	-
	1.2	-	4.8	333	18000	12500	-	KA	157 R97	D	46	DV	132M4	840	-
	1.4	-	5.5	291	17600	10900	-	KAF	157 R97	D	46	DV	132M4	900	-
	1.2	-	4.9	330	13000	12400	-								
	1.4	-	5.6	287	13000	10800	-								
	1.6	-	6.3	253	13000	9510	-	K	127 R87	D	46	DV	132M4	600	-
	1.9	-	7.5	213	12900	8010	-	KF	127 R87	D	46	DV	132M4	640	-
	2.0	-	8.0	200	12000	7520	-	KA	127 R87	D	46	DV	132M4	570	-
	2.4	-	9.7	166	10000	6240	-	KAF	127 R87	D	46	DV	132M4	610	-
	2.7	-	11	147	8890	5530	-								
7.5 / 6.4	2.2	-	8.8	121.46	7720	7340	-	K	107	D	46	DV	160M6	410	513
	2.4	-	9.6	112.41*	7150	6790	-	KF	107	D	46	DV	160M6	425	514
	2.7	-	11	100.75	6400	6090	-	KA	107	D	46	DV	160M6	385	515
	3.0	-	12	90.96*	5780	5490	-	KAF	107	D	46	DV	160M6	410	514
	2.8	-	11	143.47*	8000	5820	-								
	3.3	-	13	121.46	7920	4930	-	K	107	D	46	DV	132M4	395	513
	3.6	-	14	112.41*	7330	4560	-	KF	107	D	46	DV	132M4	405	514
	4.0	-	16	100.75	6570	4090	-	KA	107	D	46	DV	132M4	365	515
	4.4	-	18	90.96*	5930	3690	-	KAF	107	D	46	DV	132M4	390	514
	4.9	-	19	82.61	5390	3350	-								
	3.8	-	15	105.13	4300	4260	-								
	4.2	-	17	96.80	4300	3930	-								
	4.7	-	19	86.52	4300	3510	-	K	97	D	46	DV	132M4	285	510
	5.2	-	21	77.89*	4300	3160	-	KF	97	D	46	DV	132M4	305	511
	5.7	-	23	70.54	4300	2860	-	KA	97	D	46	DV	132M4	265	512
	6.4	-	26	62.55	4080	2540	-	KAF	97	D	46	DV	132M4	290	511
	7.1	-	28	56.55	3690	2290	-								
	8.4	-	33	47.93*	3130	1940	-								
	6.4	-	25	63.00*	2700	2550	-								
	7.1	-	28	56.64	2700	2300	-								
	8.2	-	33	49.16	2700	1990	-								
	9.2	-	36	44.02	2600	1780	-								
	11	-	44	36.52*	2380	1480	-								
	13	-	51	31.39	2050	1270	-	K	87	D	46	DV	132M4	225	507
	14	-	57	27.88	1820	1130	-	KF	87	D	46	DV	132M4	230	508
	16	-	64	24.92	1630	1010	-	KA	87	D	46	DV	132M4	210	509
	18	-	71	22.41	1460	910	-	KAF	87	D	46	DV	132M4	225	508
	21	-	82	19.45	1270	790	-								
	23	-	92	17.42	1140	705	-								
	25	-	100	16.00	1040	650	-								
	28	-	111	14.45	940	585	-								
	32	-	127	12.56	820	510	-								
	36	-	145	22.41	1000	440	-								
	42	-	167	19.45	860	385	-								
	47	-	187	17.42	775	345	-								
	51	-	203	16.00	710	315	-	K	87	D	46	DV	132M2	225	507
	57	-	225	14.45	640	285	-	KF	87	D	46	DV	132M2	230	508
	65	-	259	12.56	560	250	M2,4,6	KA	87	D	46	DV	132M2	210	509
	73	-	291	11.17	495	220	-	KAF	87	D	46	DV	132M2	225	508
	82	-	325	10.00	445	197	-								
	98	-	392	8.29	370	163	-								
	113	-	450	7.21	320	142	M2,4,6								

R = 1:4															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1}	M_{a2} [Nm]	⚠							m [kg]	
9.2 / 7.2	**0.72**	-	**2.9**	561	32000	25700	-	**K**	**167 R97**	**D**	**46**	**DV**	**132ML4**	1280	-
	0.84	-	**3.4**	481	28900	22100	-	**KH**	**167 R97**	**D**	**46**	**DV**	**132ML4**	1250	-
	1.6	-	**6.4**	253	15200	11600	-								
	1.8	-	**7.0**	230	13800	10500	-								
	1.9	-	**7.6**	213	12800	9770	-	**K**	**157 R107**	**D**	**46**	**DV**	**132ML4**	930	-
	2.2	-	**8.6**	187	11200	8570	-	**KF**	**157 R107**	**D**	**46**	**DV**	**132ML4**	1010	-
	2.6	-	**10**	157	9430	7200	-	**KA**	**157 R107**	**D**	**46**	**DV**	**132ML4**	890	-
	3.3	-	**13**	122	7320	5590	-	**KAF**	**157 R107**	**D**	**46**	**DV**	**132ML4**	950	-
	3.8	-	**15**	107	6420	4910	-								
	1.1	-	**4.3**	379	18000	17400	-	**K**	**157 R97**	**D**	**46**	**DV**	**132ML4**	890	-
	1.2	-	**4.8**	333	18000	15300	-	**KF**	**157 R97**	**D**	**46**	**DV**	**132ML4**	970	-
	1.4	-	**5.5**	291	17500	13300	-	**KA**	**157 R97**	**D**	**46**	**DV**	**132ML4**	850	-
								KAF	**157 R97**	**D**	**46**	**DV**	**132ML4**	910	-
	1.6	-	**6.4**	253	13000	11600	-								
	1.9	-	**7.6**	213	12800	9770	-	**K**	**127 R87**	**D**	**46**	**DV**	**132ML4**	610	-
	2.0	-	**8.1**	200	12000	9170	-	**KF**	**127 R87**	**D**	**46**	**DV**	**132ML4**	650	-
	2.4	-	**9.7**	166	9970	7610	-	**KA**	**127 R87**	**D**	**46**	**DV**	**132ML4**	580	-
	2.8	-	**11**	147	8820	6740	-	**KAF**	**127 R87**	**D**	**46**	**DV**	**132ML4**	620	-
9.2 / 7.7	**2.8**	-	**11**	143.47*	8000	7090	-								
	3.3	-	**13**	121.46	7860	6010	-								
	3.6	-	**14**	112.41*	7280	5560	-	**K**	**107**	**D**	**46**	**DV**	**132ML4**	405	513
	4.0	-	**16**	100.75	6520	4980	-	**KF**	**107**	**D**	**46**	**DV**	**132ML4**	415	514
	4.5	-	**18**	90.96*	5890	4500	-	**KA**	**107**	**D**	**46**	**DV**	**132ML4**	375	515
	4.9	-	**20**	82.61	5350	4080	-	**KAF**	**107**	**D**	**46**	**DV**	**132ML4**	400	514
	5.5	-	**22**	73.30	4750	3620	-								
	6.1	-	**24**	66.52*	4310	3290	-								
	4.7	-	**19**	86.52	4300	4280	-								
	5.2	-	**21**	77.89*	4300	3850	-	**K**	**97**	**D**	**46**	**DV**	**132ML4**	295	510
	5.8	-	**23**	70.54	4300	3490	-	**KF**	**97**	**D**	**46**	**DV**	**132ML4**	315	511
	6.5	-	**26**	62.55	4050	3090	-	**KA**	**97**	**D**	**46**	**DV**	**132ML4**	275	512
	7.2	-	**29**	56.55	3660	2800	-	**KAF**	**97**	**D**	**46**	**DV**	**132ML4**	300	511
	8.5	-	**34**	47.93*	3100	2370	-								
	9.2	-	**37**	44.02	2600	2180	-								
	11	-	**44**	36.52*	2360	1810	-								
	13	-	**51**	31.39	2030	1550	-								
	15	-	**58**	27.88	1800	1380	-								
	16	-	**65**	24.92	1610	1230	-								
	18	-	**72**	22.41	1450	1110	-								
	21	-	**83**	19.45	1260	960	-	**K**	**87**	**D**	**46**	**DV**	**132ML4**	235	507
	23	-	**93**	17.42	1130	860	-	**KF**	**87**	**D**	**46**	**DV**	**132ML4**	245	508
	25	-	**101**	16.00	1040	790	-	**KA**	**87**	**D**	**46**	**DV**	**132ML4**	220	509
	28	-	**112**	14.45	940	715	-	**KAF**	**87**	**D**	**46**	**DV**	**132ML4**	235	508
	32	-	**128**	12.56	810	620	-								
	36	-	**144**	11.17	725	550	-								
	41	-	**161**	10.00	645	495	-								
	49	-	**194**	8.29	535	410	-								
	56	-	**224**	7.21	465	355	-								
	51	-	**202**	16.00	715	385	-								
	56	-	**224**	14.45	645	350	M2,4,6								
	65	-	**258**	12.56	560	305	M2,4,6	**K**	**87**	**D**	**46**	**DV**	**132ML2**	235	507
	73	-	**290**	11.17	500	270	-	**KF**	**87**	**D**	**46**	**DV**	**132ML2**	245	508
	81	-	**324**	10.00	445	240	-	**KA**	**87**	**D**	**46**	**DV**	**132ML2**	220	509
	98	-	**390**	8.29	370	200	M2,4,6	**KAF**	**87**	**D**	**46**	**DV**	**132ML2**	235	508
	113	-	**449**	7.21	320	175	M2,4,6								

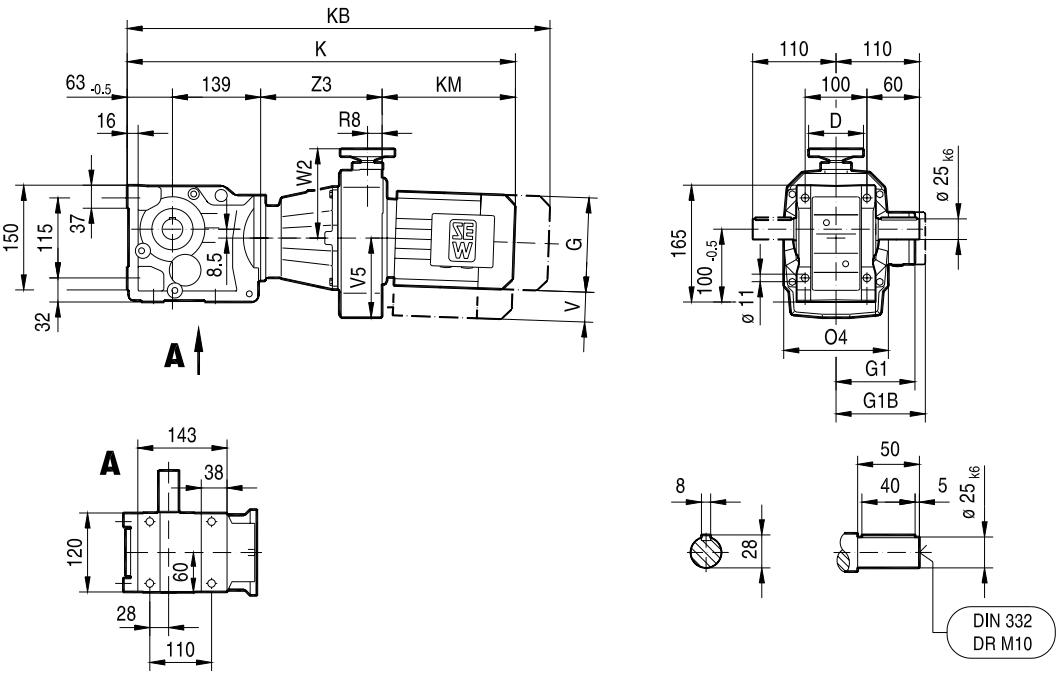
R = 1:4															
P_m/P_{a2} [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
11.0 / 8.4	0.49 - 1.9	835	50000	45800	-									
	0.56 - 2.2	729	43800	40000	-									
	0.65 - 2.6	622	37300	34200	-									
	0.78 - 3.1	520	31200	28600	-									
	0.89 - 3.6	454	27300	24900	-	K	187 R107	D	46	DV	160M4		1910	-
	1.1 - 4.5	355	21300	19500	-	KH	187 R107	D	46	DV	160M4		1840	-
	1.6 - 6.2	261	15700	14300	-									
	1.8 - 7.3	221	13300	12100	-									
	2.1 - 8.4	193	11600	10600	-									
	2.5 - 9.9	163	9790	8950	-									
	0.55 - 2.2	738	44300	40500	-									
	0.65 - 2.6	621	37300	34100	-	K	187 R97	D	46	DV	160M4		1870	-
	0.77 - 3.1	527	31600	28900	-	KH	187 R97	D	46	DV	160M4		1800	-
	0.84 - 3.4	481	28900	26400	-									
	0.96 - 3.8	423	25400	23200	-	K	167 R97	D	46	DV	160M4		1290	-
	1.1 - 4.4	369	22200	20300	-	KH	167 R97	D	46	DV	160M4		1250	-
	1.2 - 5.0	325	18000	17800	-									
	1.4 - 5.4	299	17900	16400	-									
	1.6 - 6.4	253	15200	13900	-									
	1.8 - 7.0	230	13800	12600	-	K	157 R107	D	46	DV	160M4		930	-
	1.9 - 7.6	213	12800	11700	-	KF	157 R107	D	46	DV	160M4		1010	-
	2.2 - 8.6	187	11200	10300	-	KA	157 R107	D	46	DV	160M4		900	-
	2.6 - 10	157	9430	8620	-	KAF	157 R107	D	46	DV	160M4		960	-
	3.3 - 13	122	7320	6700	-									
	3.8 - 15	107	6420	5870	-									
	1.4 - 5.5	291	17500	16000	-	K	157 R97	D	46	DV	160M4		900	-
						KF	157 R97	D	46	DV	160M4		970	-
						KA	157 R97	D	46	DV	160M4		860	-
						KAF	157 R97	D	46	DV	160M4		920	-
	1.9 - 7.6	213	12800	11700	-	K	127 R87	D	46	DV	160M4		620	-
	2.0 - 8.1	200	12000	11000	-	KF	127 R87	D	46	DV	160M4		660	-
	2.4 - 9.7	166	9970	9110	-	KA	127 R87	D	46	DV	160M4		590	-
	2.8 - 11	147	8820	8070	-	KAF	127 R87	D	46	DV	160M4		630	-
11.0 / 9.2	3.3 - 13	121.46	7860	7190	-									
	3.6 - 14	112.41*	7280	6660	-									
	4.0 - 16	100.75	6520	5970	-	K	107	D	46	DV	160M4		410	513
	4.5 - 18	90.96*	5890	5390	-	KF	107	D	46	DV	160M4		425	514
	4.9 - 20	82.61	5350	4890	-	KA	107	D	46	DV	160M4		385	515
	5.5 - 22	73.30	4750	4340	-	KAF	107	D	46	DV	160M4		410	514
	6.1 - 24	66.52*	4310	3940	-									
	5.8 - 23	70.54	4300	4180	-	K	97	D	46	DV	160M4		300	510
	6.5 - 26	62.55	4050	3700	-	KF	97	D	46	DV	160M4		320	511
	7.2 - 29	56.55	3660	3350	-	KA	97	D	46	DV	160M4		285	512
	8.5 - 34	47.93*	3100	2840	-	KAF	97	D	46	DV	160M4		310	511
	11 - 44	36.52*	2360	2160	-									
	13 - 51	31.39	2030	1860	-									
	15 - 58	27.88	1800	1650	-									
	16 - 65	24.92	1610	1480	-									
	18 - 72	22.41	1450	1330	-									
	21 - 83	19.45	1260	1150	-	K	87	D	46	DV	160M4		240	507
	23 - 93	17.42	1130	1030	-	KF	87	D	46	DV	160M4		250	508
	25 - 101	16.00	1040	950	-	KA	87	D	46	DV	160M4		230	509
	28 - 112	14.45	940	860	-	KAF	87	D	46	DV	160M4		240	508
	32 - 128	12.56	810	745	-									
	36 - 144	11.17	725	660	-									
	41 - 161	10.00	645	590	-									
	49 - 194	8.29	535	490	-									
	56 - 224	7.21	465	425	-									

R = 1:4																
P_m/P_{a2} [kW]	n_{a1} [1/min]	-	n_{a2}	i	M_{a1} [Nm]	M_{a2}	⚠								m [kg]	
11.0 / 9.2	**42**	-	**167**	19.45	860	560	-									
	47	-	**187**	17.42	775	500	-									
	51	-	**203**	16.00	710	460	-									
	57	-	**225**	14.45	640	415	M2,4,6	**K**	**87**		**D**		**46**	**DV**	**160M2**	240	507
	65	-	**259**	12.56	560	360	M2,4,6	**KF**	**87**		**D**		**46**	**DV**	**160M2**	250	508
	73	-	**291**	11.17	495	320	-	**KA**	**87**		**D**		**46**	**DV**	**160M2**	230	509
	82	-	**325**	10.00	445	290	-	**KAF**	**87**		**D**		**46**	**DV**	**160M2**	240	508
	98	-	**392**	8.29	370	240	M2,4,6										
	113	-	**450**	7.21	320	210	M2,4,6										

16.3 KK..D..DT/DV.. [mm]

15 049 001

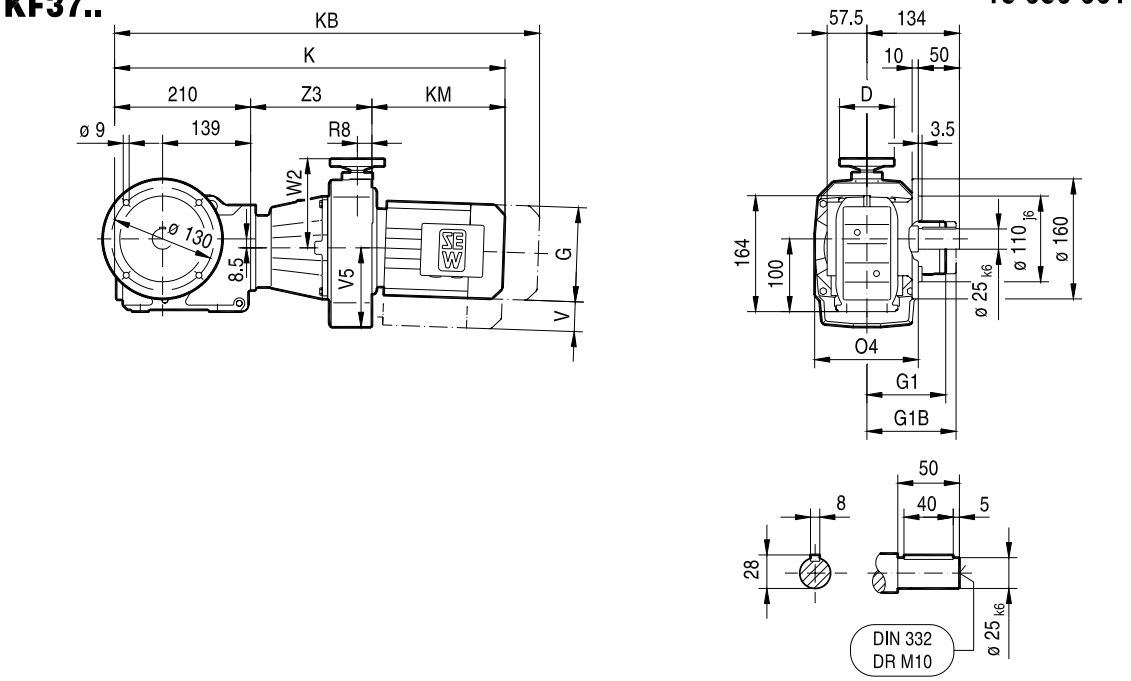
K37 ..



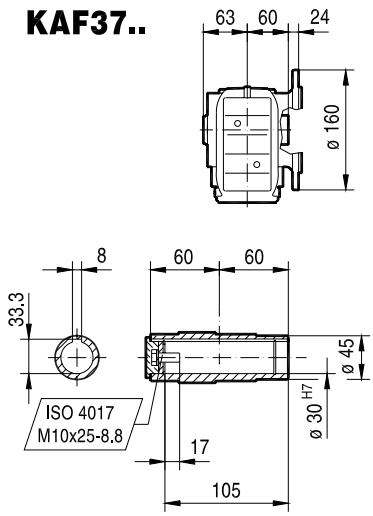
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
K37	**D16**	**DT71D**	100	145	122	127	595	659	198	156	25	49	119	160	195
		DT80..	100	145	122	127	645	709	248	156	25	49	119	160	195

KF37..

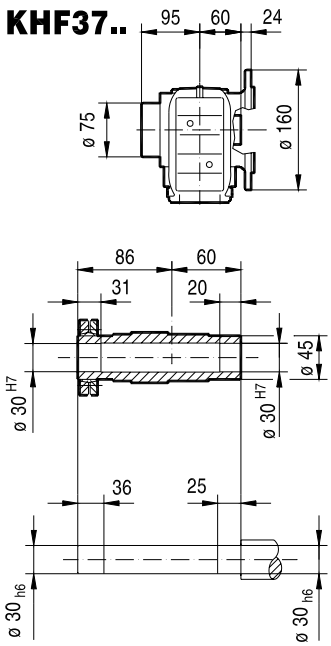
15 050 001



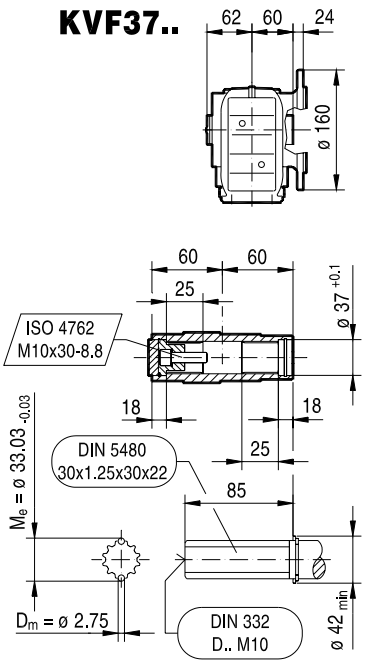
KAF37..



KHF37..



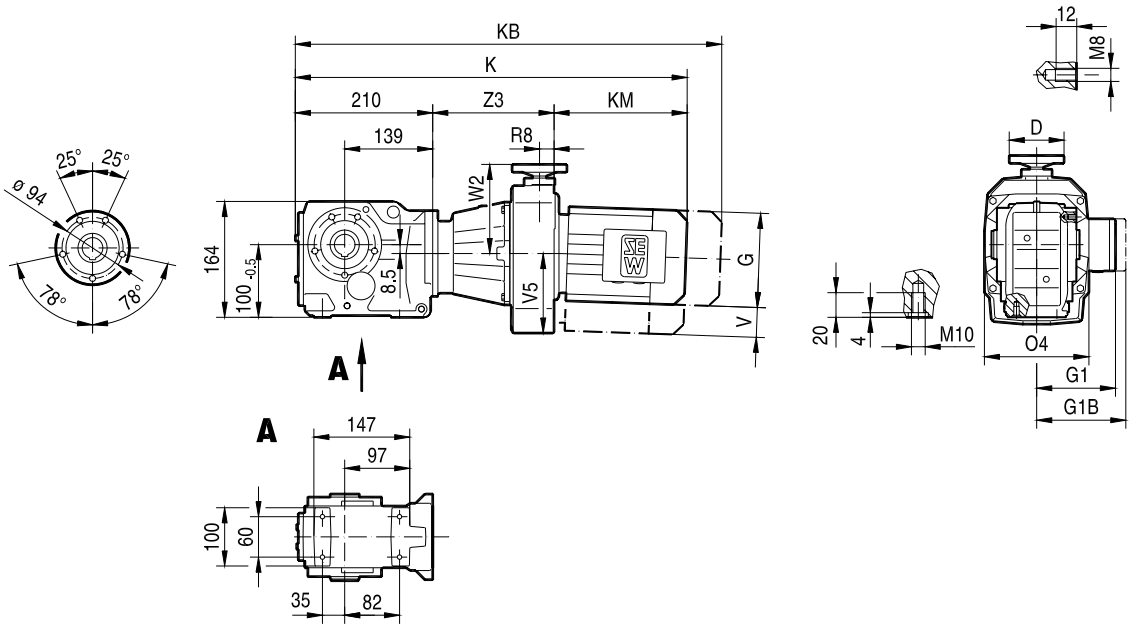
KVF37..



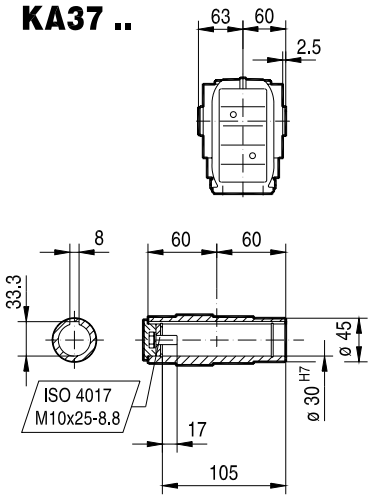
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
KF37 **KAF37** **KHF37** **KVF37**	**D16**	**DT71D**	100	145	122	127	603	667	198	156	25	49	119	160	195
		DT80..	100	145	122	127	653	717	248	156	25	49	119	160	195

KA37 ..

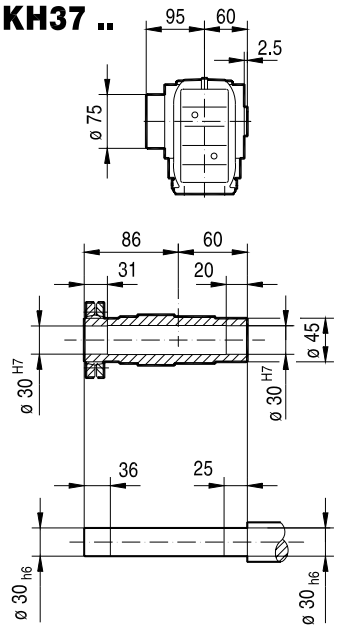
15 051 001



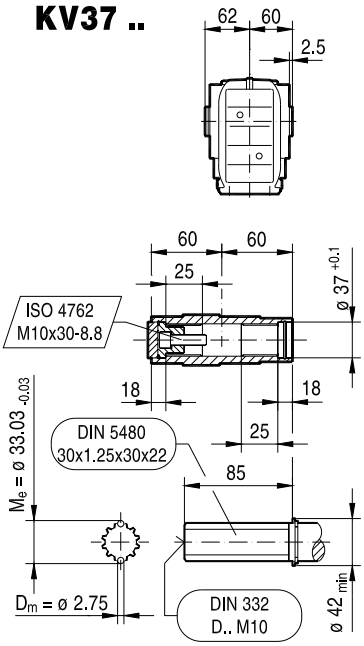
KA37 ..



KH37 ..



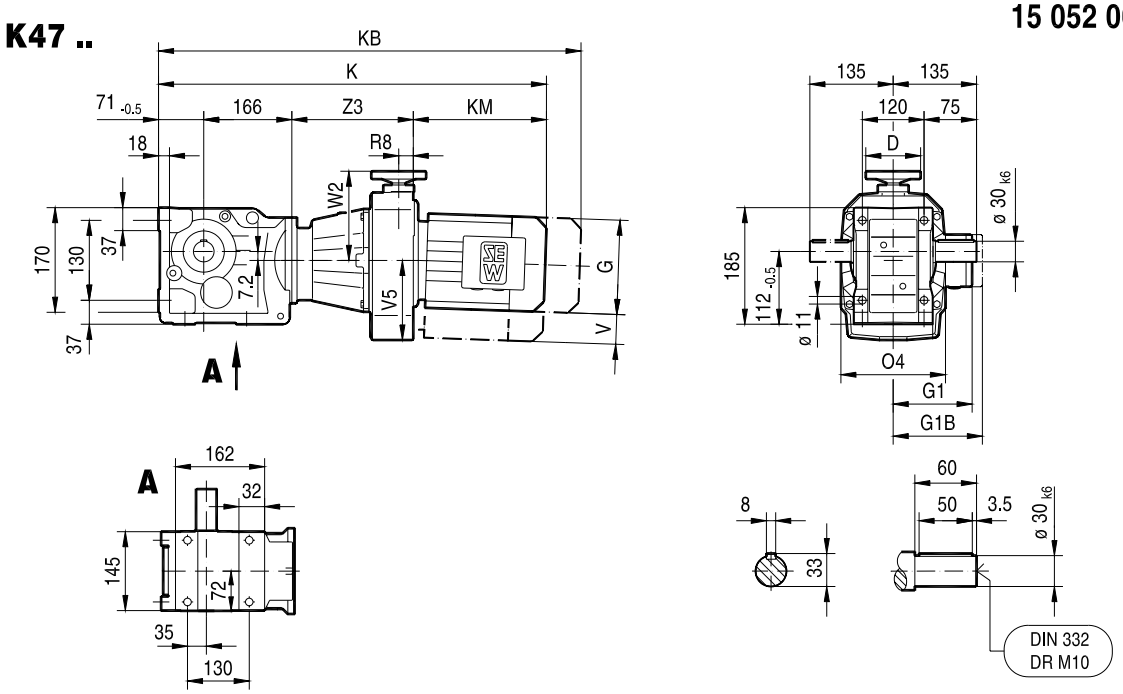
KV37 ..



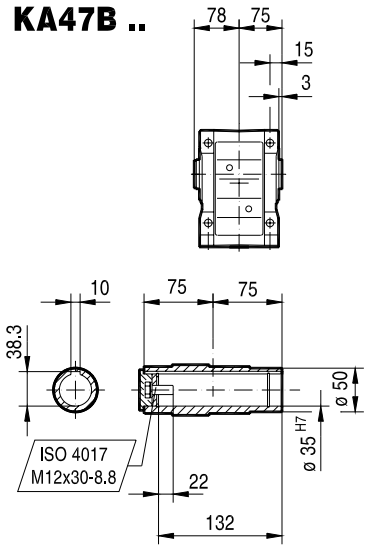
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
KA37 **KH37** **KV37**	**D16**	**DT71D**	100	145	122	127	603	667	198	156	25	49	119	160	195
		DT80..	100	145	122	127	653	717	248	156	25	49	119	160	195

15 052 001

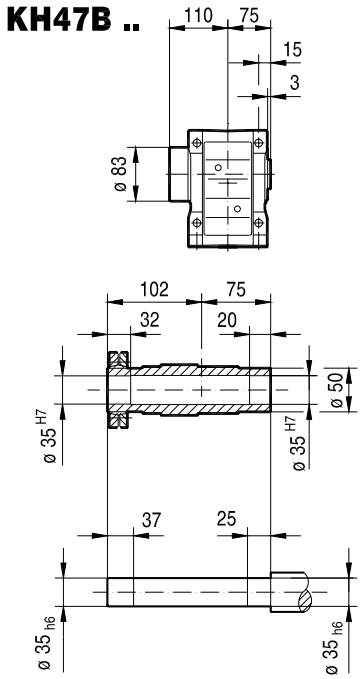
K47 ..



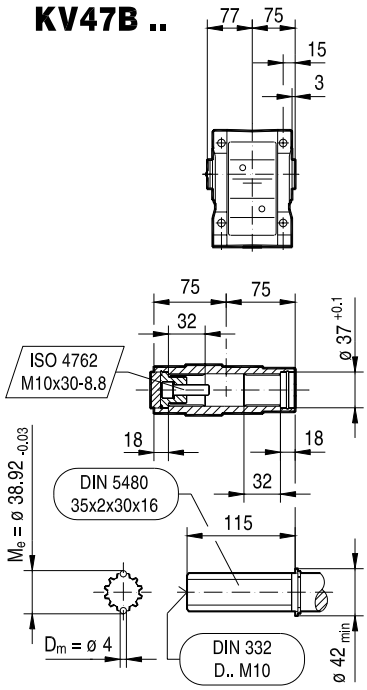
KA47B ..



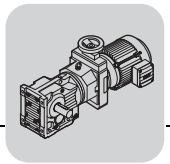
KH47B ..



KV47B ..



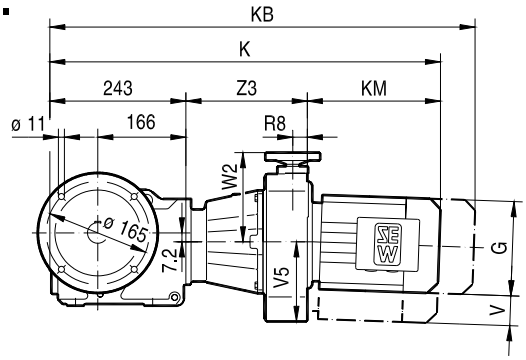
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
K47 KA47B KH47B KV47B	**D16**	**DT71D**	100	145	122	127	623	687	198	156	25	49	119	160	188
		DT80..	100	145	122	127	673	737	248	156	25	49	119	160	188
	D26	**DT90..**	100	197	154	161	713	798	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	763	848	298	205	32.5	66	153	192	228

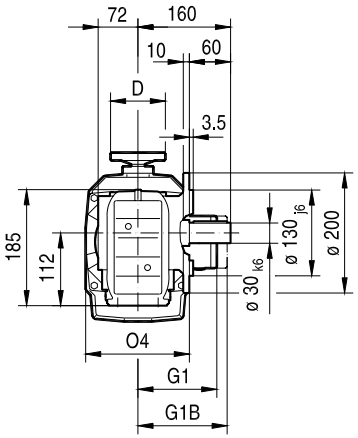


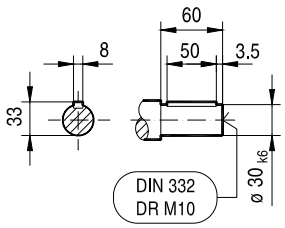
KK..D..DT/DV.. [mm]

KF47..

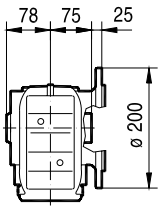
15 053 001

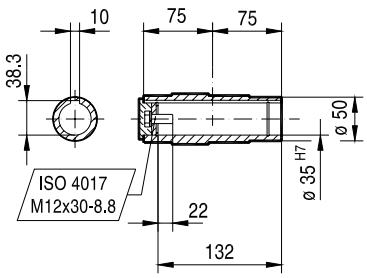




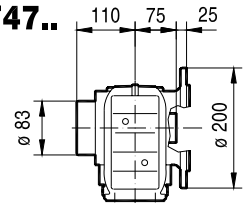


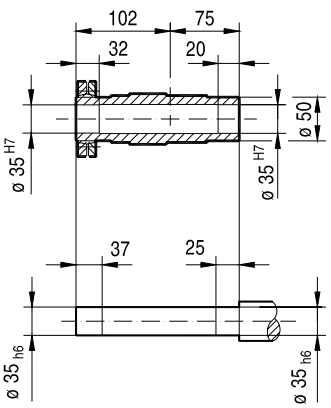
KAF47..



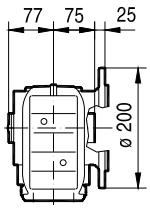


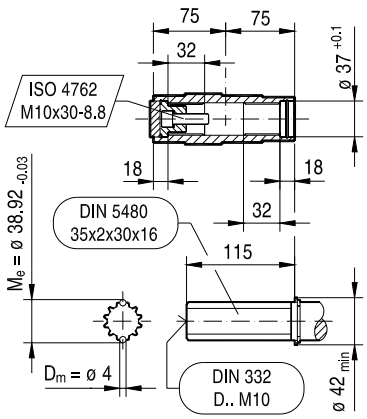
KHF47..





KVF47..

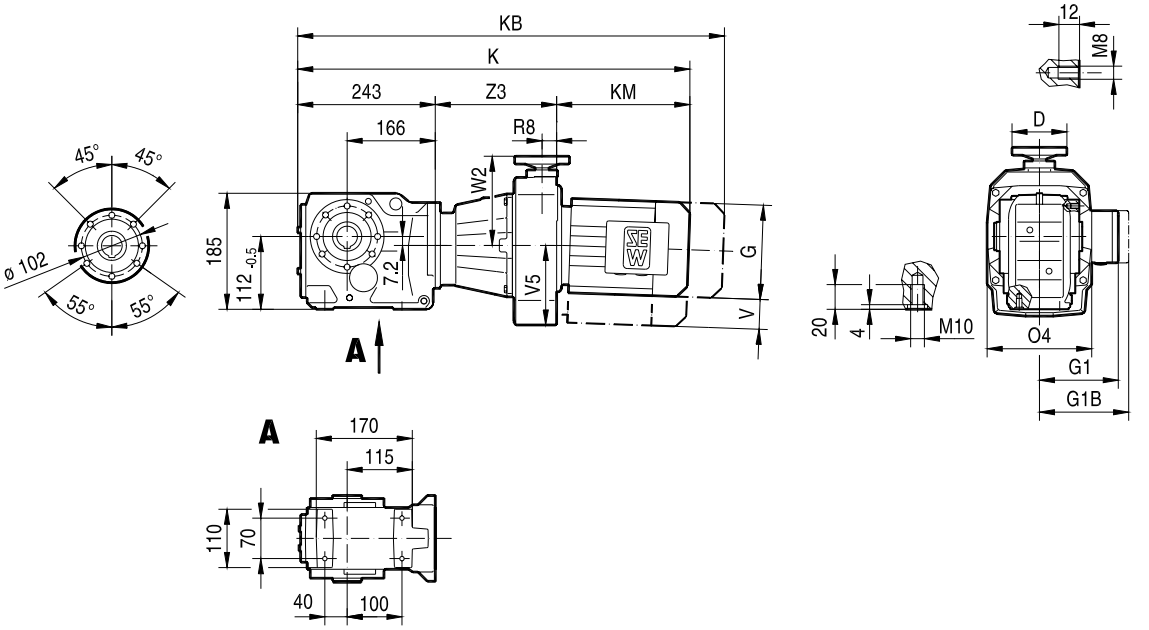




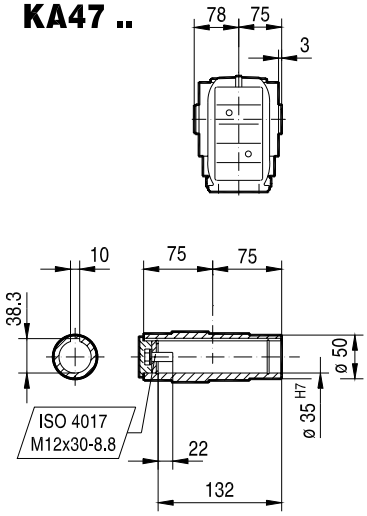
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
KF47 KAF47 KHF47 KVF47	**D16**	**DT71D**	100	145	122	127	629	693	198	156	25	49	119	160	188
		DT80..	100	145	122	127	679	743	248	156	25	49	119	160	188
	D26	**DT90..**	100	197	154	161	719	804	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	769	854	298	205	32.5	66	153	192	228

KA47 ..

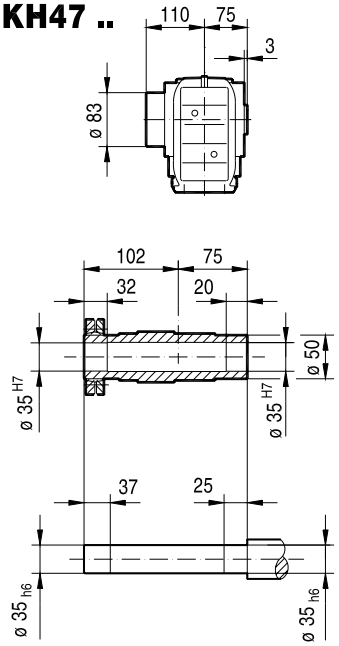
15 054 001



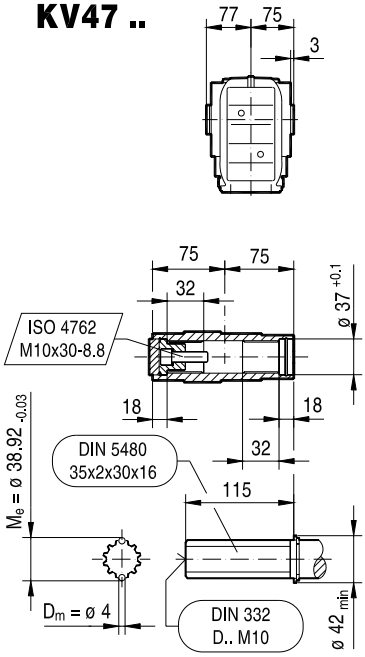
KA47 ..



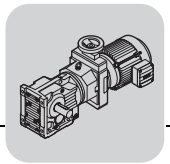
KH47 ..



KV47 ..



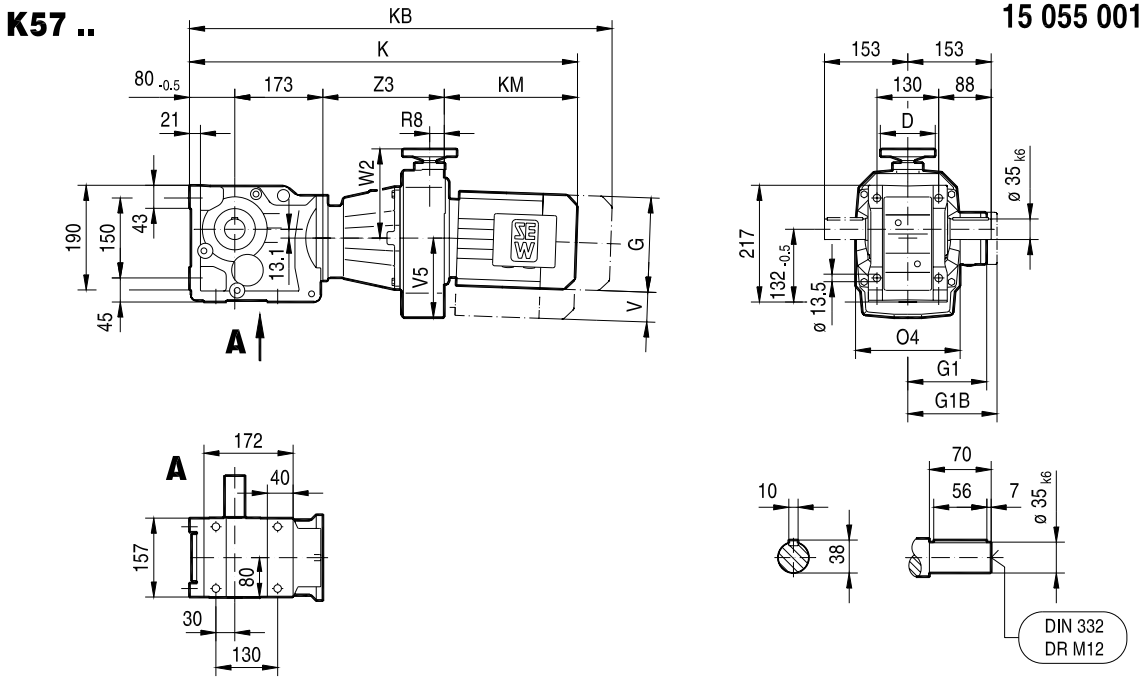
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
KA47 KH47 KV47	D16	DT71D	100	145	122	127	629	693	198	156	25	49	119	160	188
		DT80..	100	145	122	127	679	743	248	156	25	49	119	160	188
	D26	DT90..	100	197	154	161	719	804	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	769	854	298	205	32.5	66	153	192	228



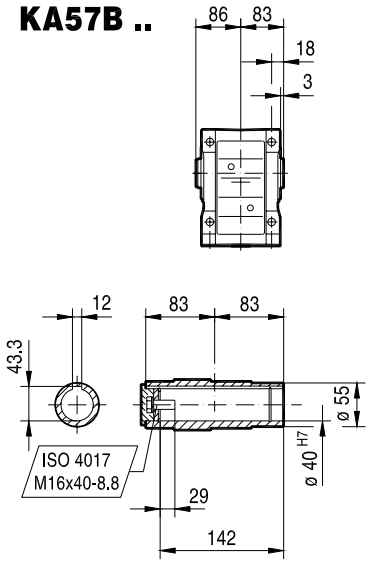
KK..D..DT/DV.. [mm]

K57 ..

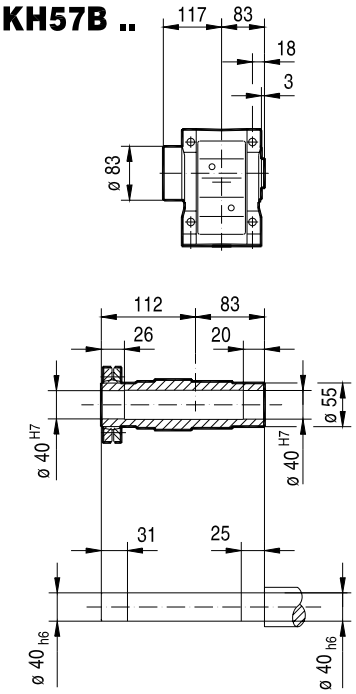
15 055 001



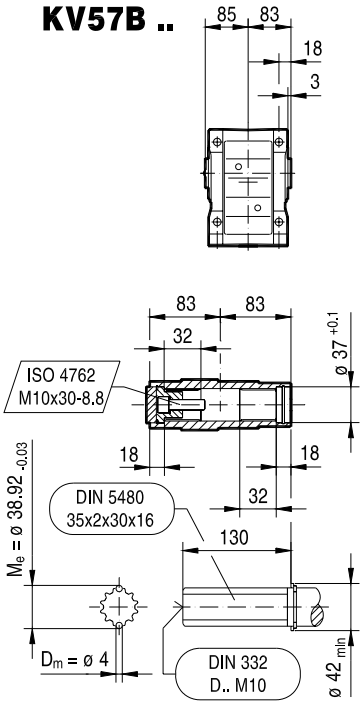
KA57B ..



KH57B ..



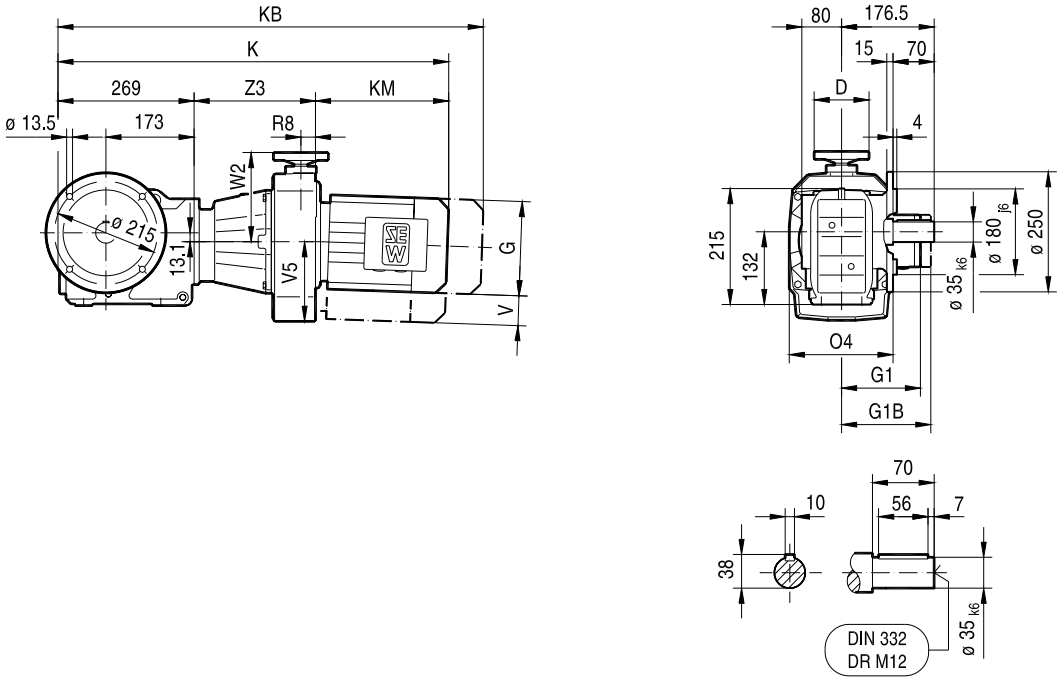
KV57B ..



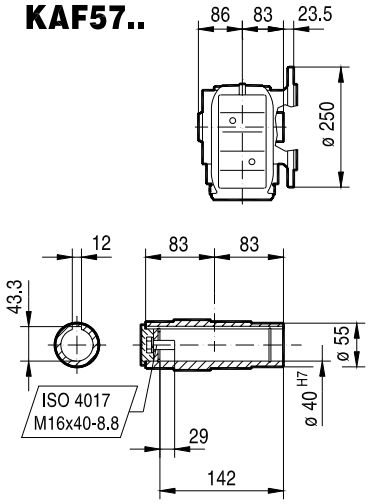
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
K57 **KA57B** **KH57B** **KV57B**	**D16**	**DT71D**	100	145	122	127	639	703	198	156	25	49	119	160	188
		DT80..	100	145	122	127	689	753	248	156	25	49	119	160	188
	D26	**DT90..**	100	197	154	161	729	814	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	779	864	298	205	32.5	66	153	192	228

KF57..

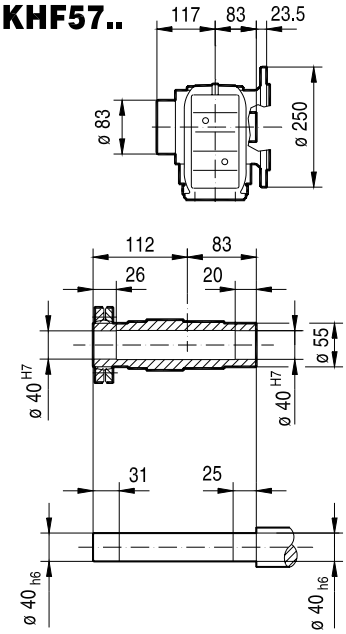
15 056 001



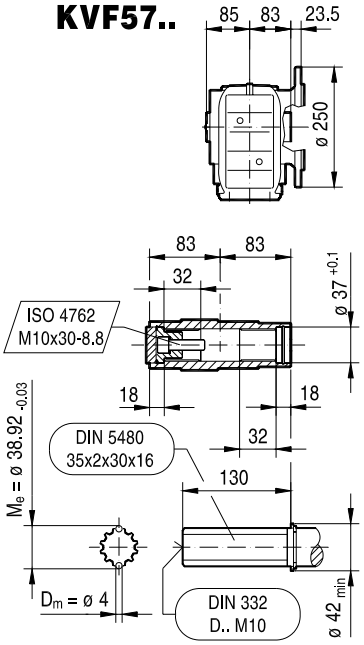
KAF57..



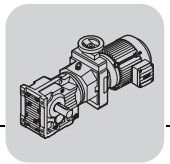
KHF57..



KVF57..



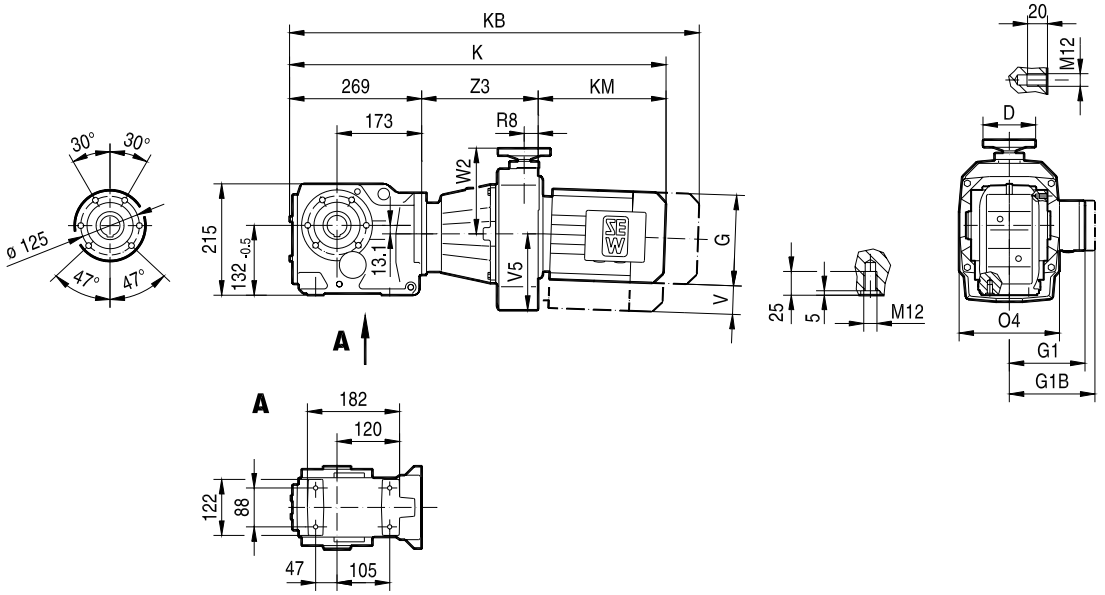
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
KF57 KAF57 KHF57 KVF57	D16	DT71D	100	145	122	127	655	719	198	156	25	49	119	160	188
		DT80..	100	145	122	127	705	769	248	156	25	49	119	160	188
	D26	DT90..	100	197	154	161	745	830	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	795	880	298	205	32.5	66	153	192	228



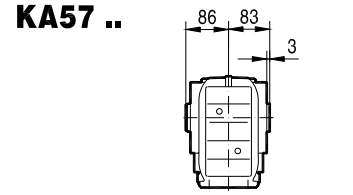
KK..D..DT/DV.. [mm]

KA57 ..

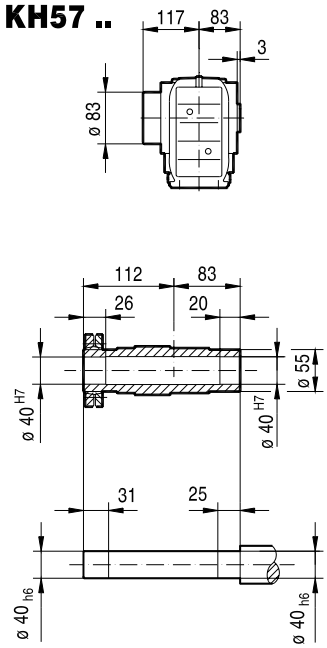
15 057 001



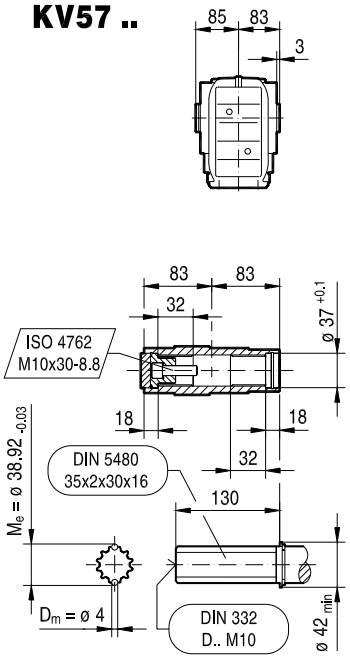
KA57 ..



KH57 ..



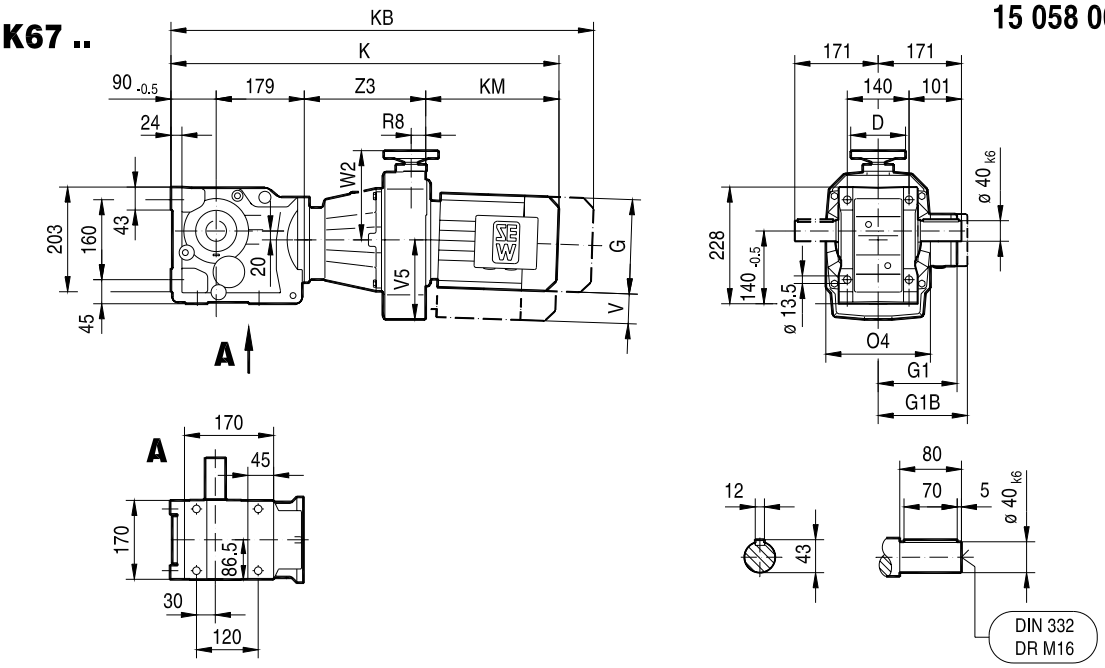
KV57 ..



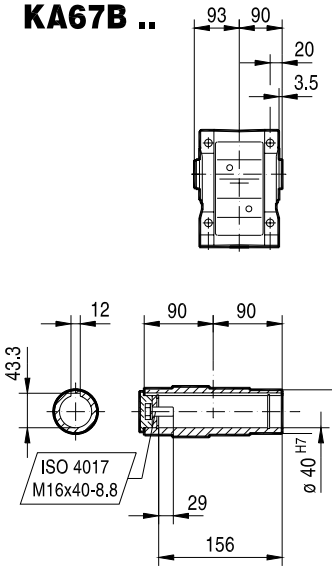
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
KA57 KH57 KV57	D16	DT71D	100	145	122	127	655	719	198	156	25	49	119	160	188
		DT80..	100	145	122	127	705	769	248	156	25	49	119	160	188
	D26	DT90..	100	197	154	161	745	830	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	795	880	298	205	32.5	66	153	192	228

15 058 001

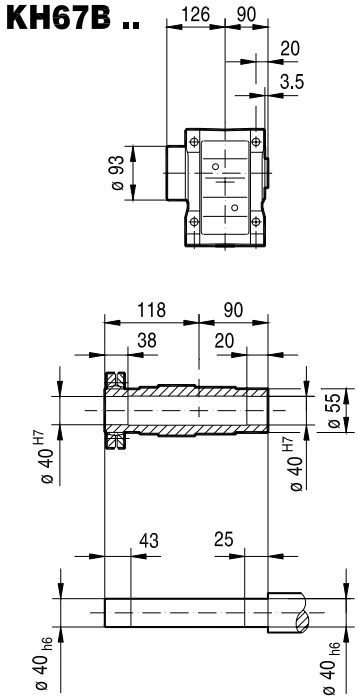
K67 ..



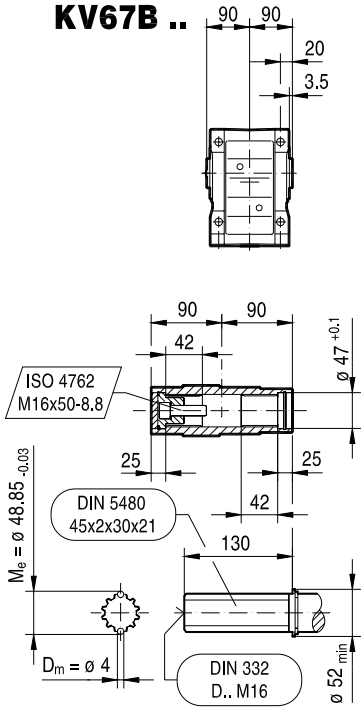
KA67B ..



KH67B ..



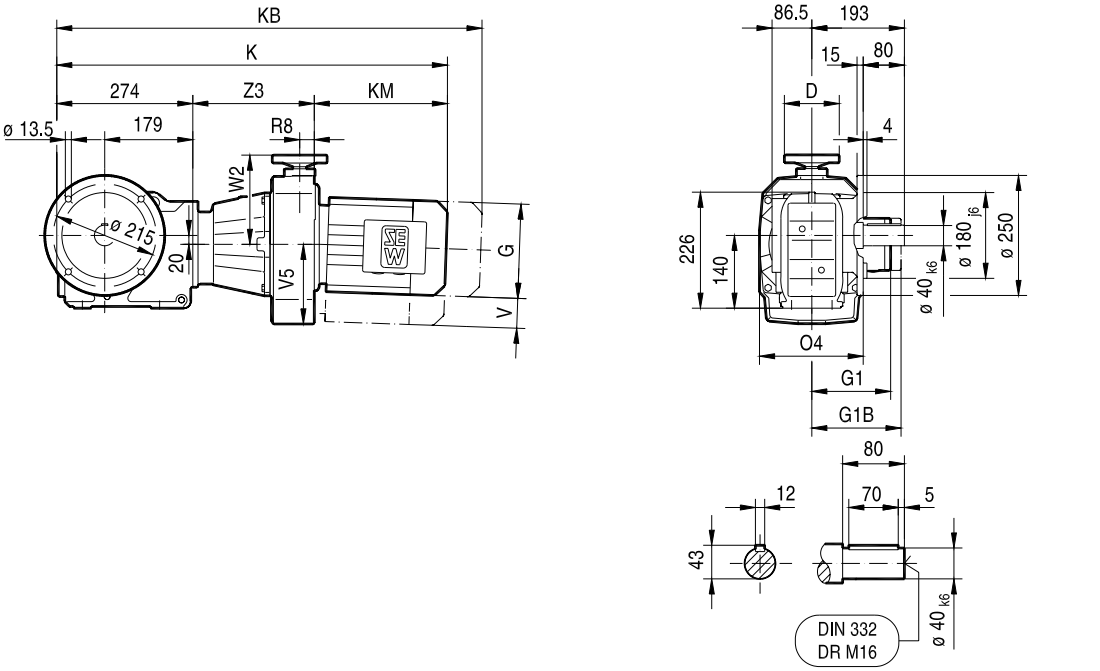
KV67B ..



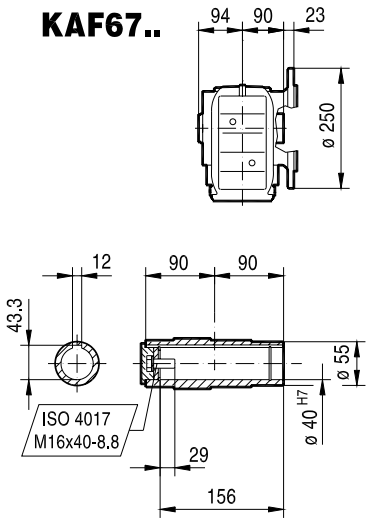
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
K67 KA67B KH67B KV67B	**D16**	**DT71D**	100	145	122	127	655	719	198	156	25	49	119	160	188
		DT80..	100	145	122	127	705	769	248	156	25	49	119	160	188
	D26	**DT90..**	100	197	154	161	745	830	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	795	880	298	205	32.5	66	153	192	228

15 059 001

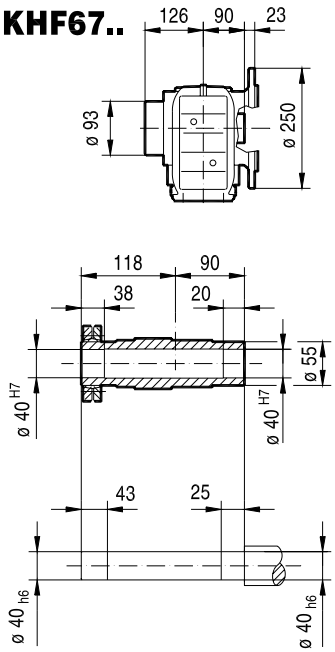
KF67..



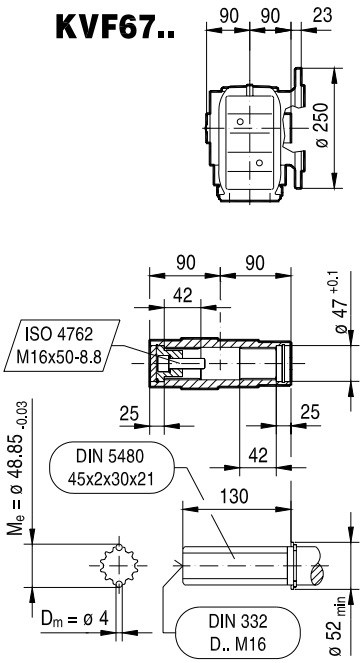
KAF67..



KHF67..



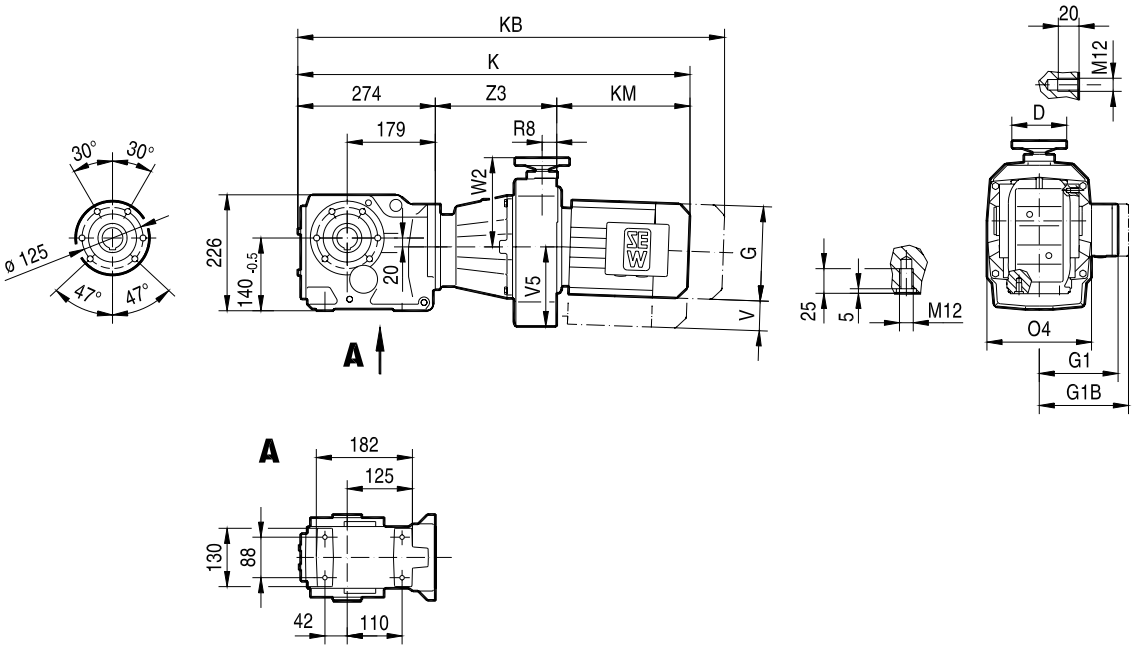
KVF67..



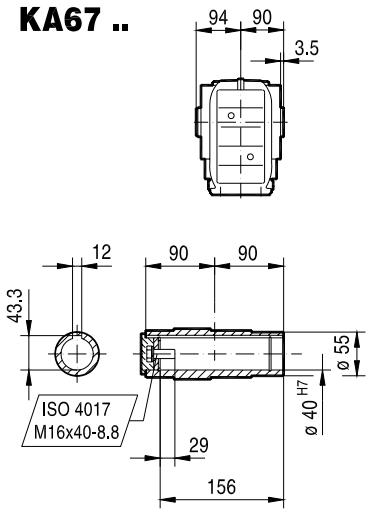
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
KF67 KAF67 KHF67 KVF67	D16	DT71D	100	145	122	127	660	724	198	156	25	49	119	160	188
		DT80..	100	145	122	127	710	774	248	156	25	49	119	160	188
	D26	DT90..	100	197	154	161	750	835	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	800	885	298	205	32.5	66	153	192	228

KA67 ..

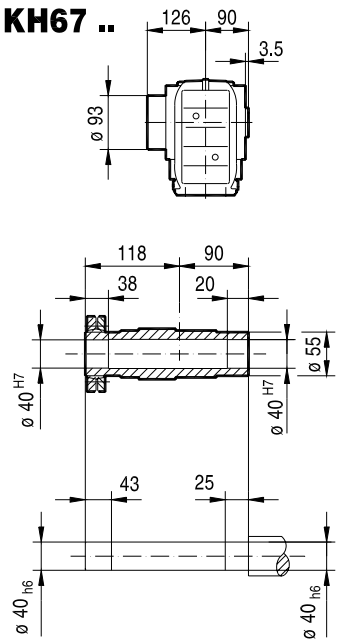
15 060 001



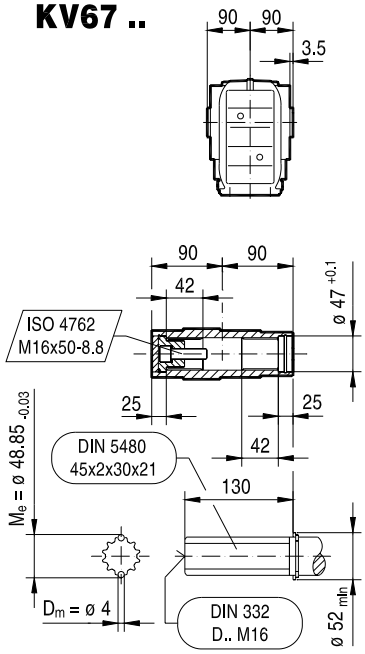
KA67 ..



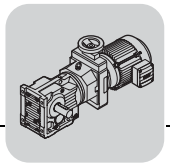
KH67 ..



KV67 ..



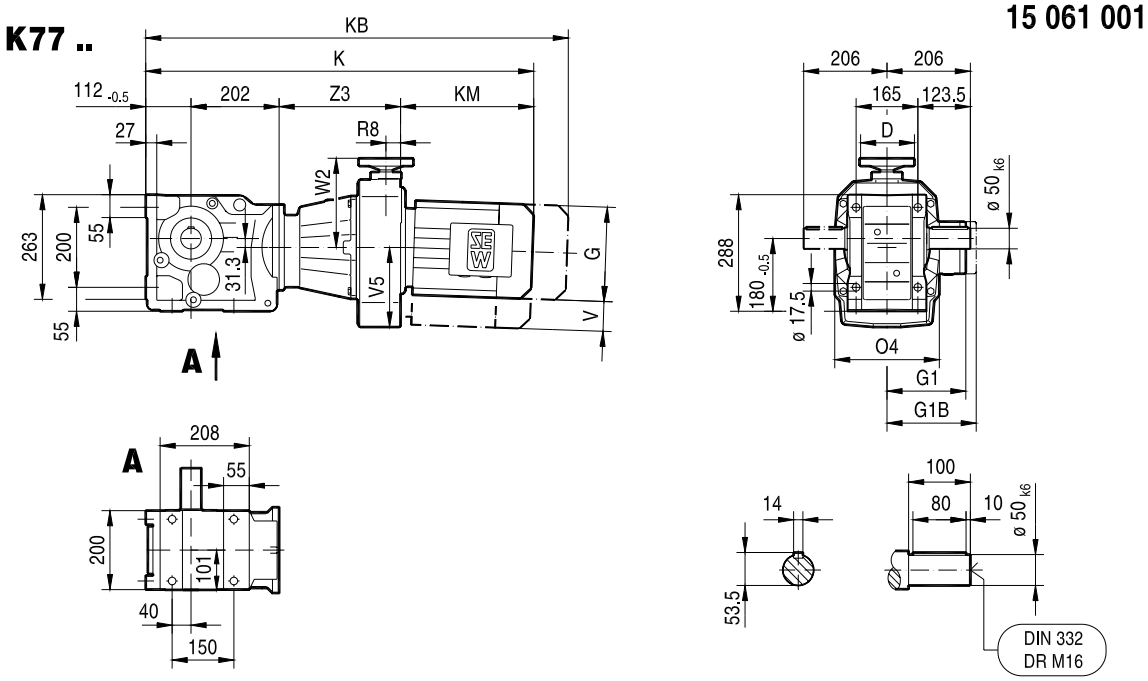
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
KA67 KH67 KV67	D16	DT71D	100	145	122	127	660	724	198	156	25	49	119	160	188
		DT80..	100	145	122	127	710	774	248	156	25	49	119	160	188
	D26	DT90..	100	197	154	161	750	835	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	800	885	298	205	32.5	66	153	192	228



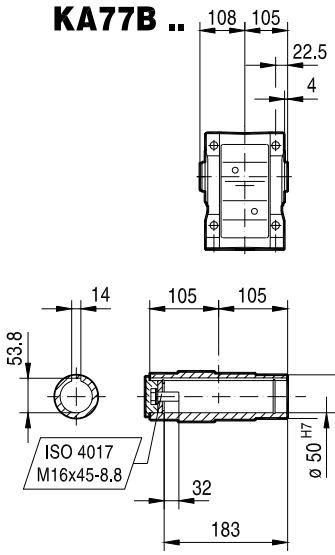
KK..D..DT/DV.. [mm]

15 061 001

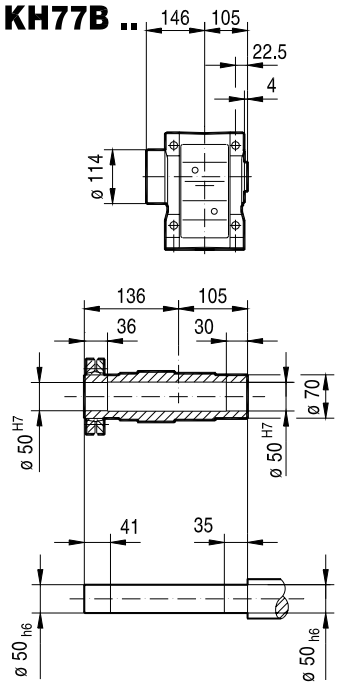
K77 ..



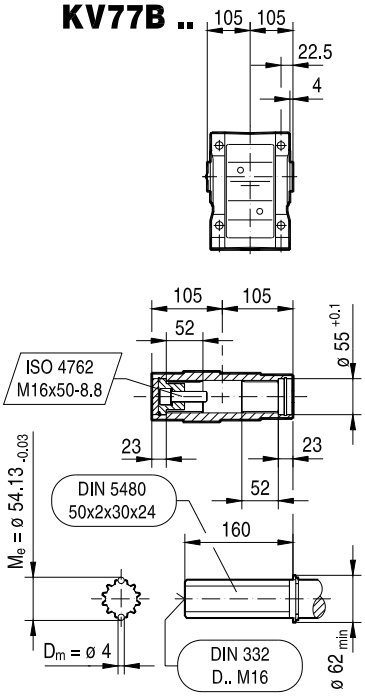
KA77B ..



KH77B ..



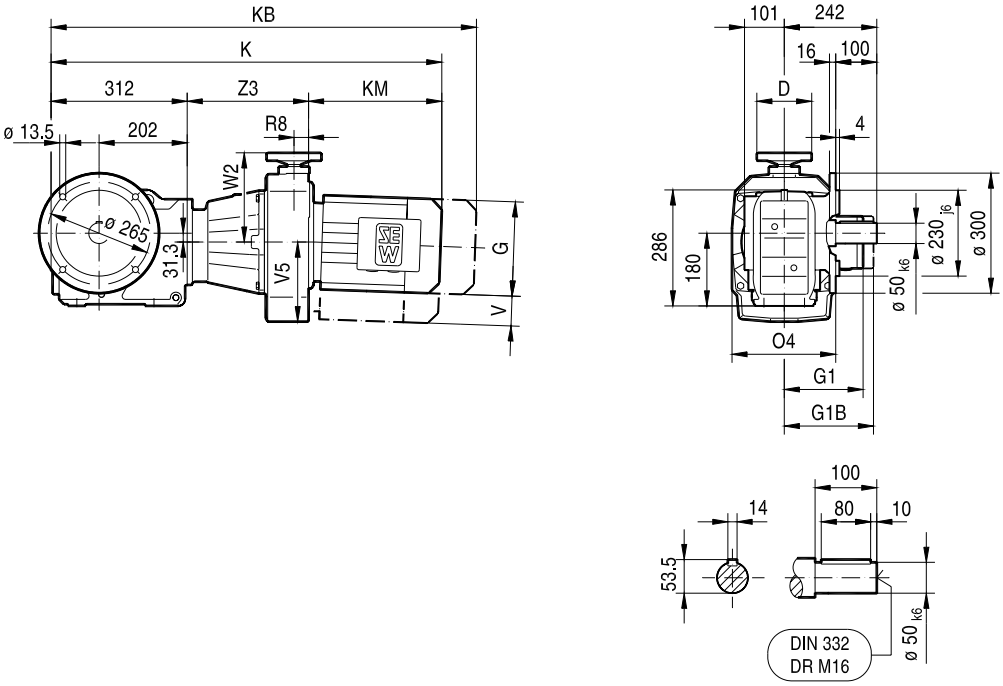
KV77B ..



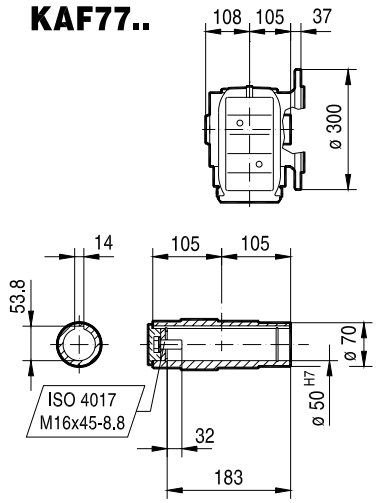
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
K77 KA77B KH77B KV77B	D16	DT80..	100	145	122	127	744	808	248	156	25	49	119	160	182
	D26	DT90..	100	197	154	161	782	867	248	205	32.5	66	153	192	220
		DV100M	100	197	166	166	832	917	298	205	32.5	66	153	192	220
	D36	DV100M	160	197	166	166	907	992	309	265	38	88	204	232	284
		DV100L	160	197	166	166	937	1022	339	265	38	88	204	232	284
		DV112M	160	221	179	182	930	1010	332	265	38	88	204	232	284
		DV132S	160	221	179	182	975	1055	377	265	38	88	204	232	284

KF77..

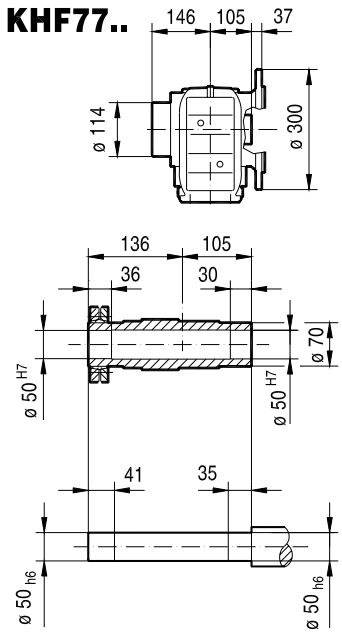
15 062 001



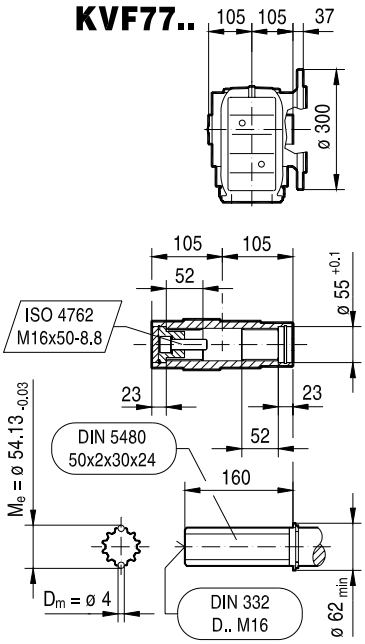
KAF77..



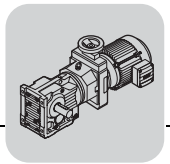
KHF77..



KVF77..



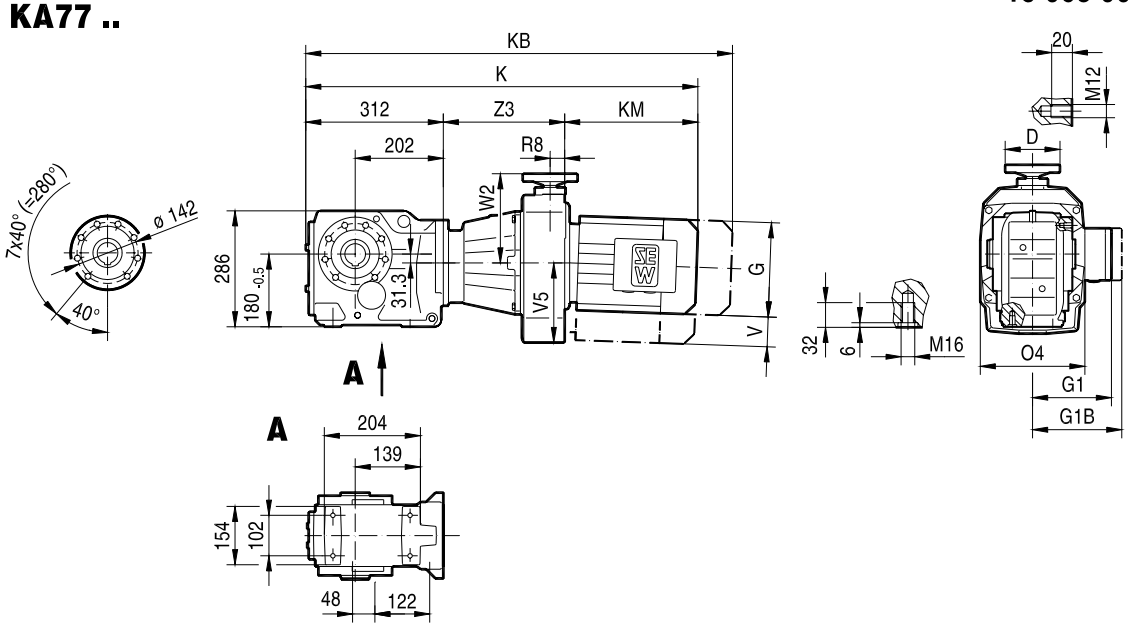
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
KF77 KAF77 KHF77 KVF77	D16	DT80..	100	145	122	127	742	806	248	156	25	49	119	160	182
	D26	DT90..	100	197	154	161	780	865	248	205	32.5	66	153	192	220
		DV100M	100	197	166	166	830	915	298	205	32.5	66	153	192	220
	D36	DV100M	160	197	166	166	905	990	309	265	38	88	204	232	284
		DV100L	160	197	166	166	935	1020	339	265	38	88	204	232	284
		DV112M	160	221	179	182	928	1008	332	265	38	88	204	232	284
		DV132S	160	221	179	182	973	1053	377	265	38	88	204	232	284



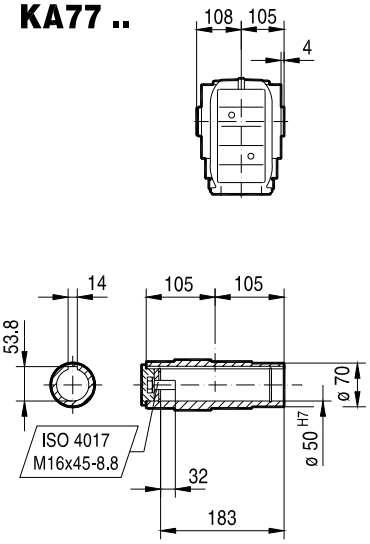
KK..D..DT/DV.. [mm]

15 063 001

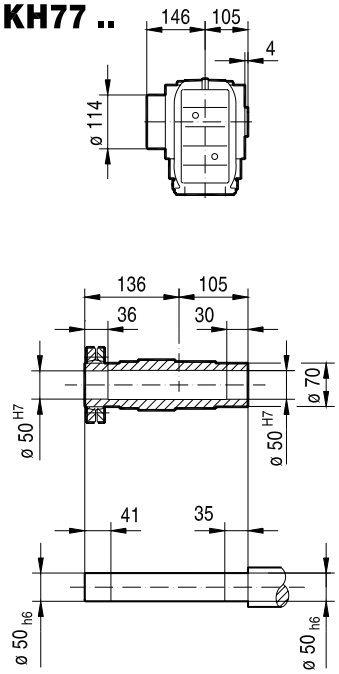
KA77 ..



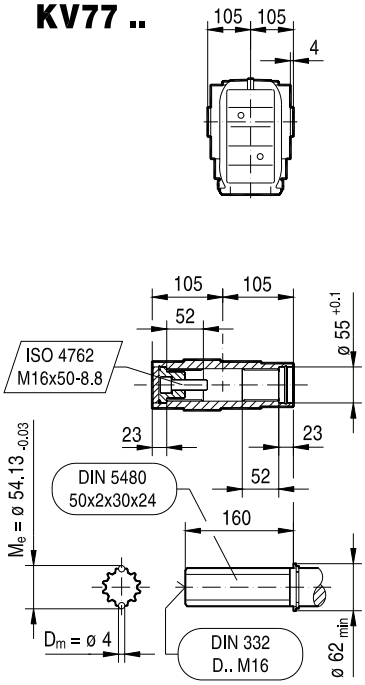
KA77 ..



KH77 ..

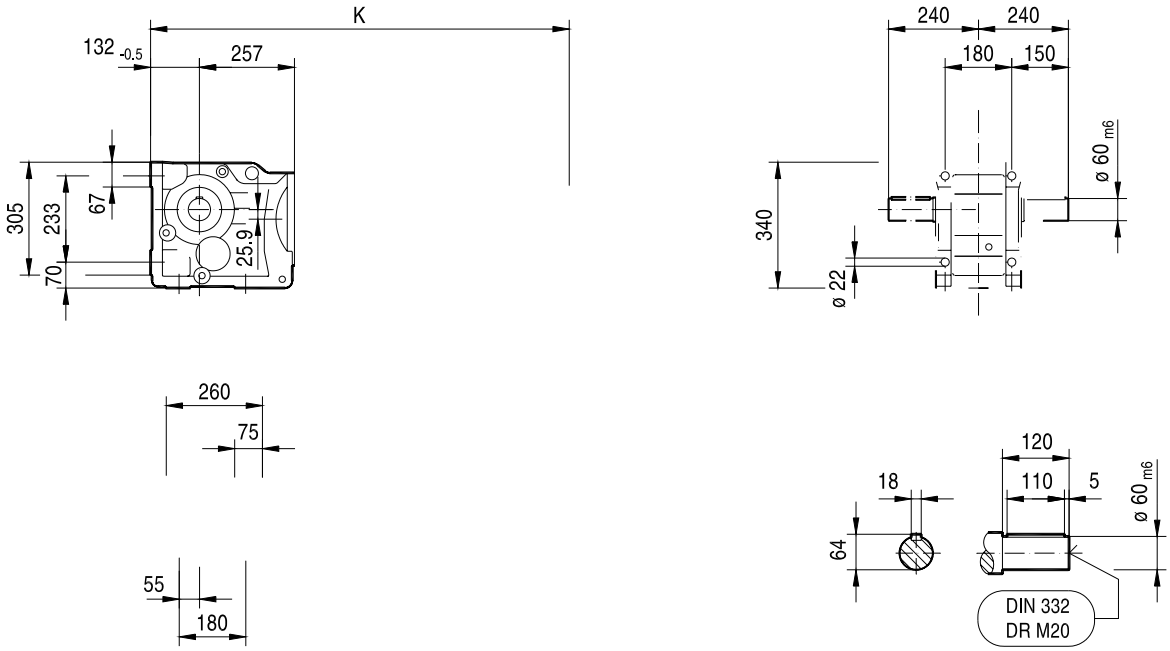


KV77 ..

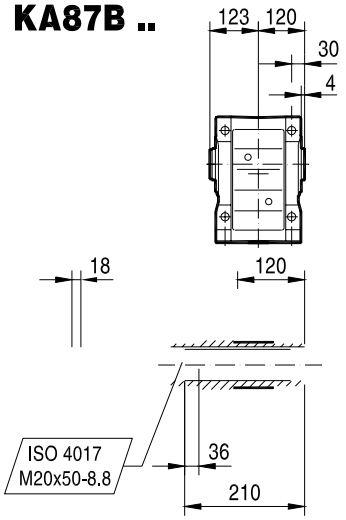


(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
KA77 KH77 KV77	D16	DT80..	100	145	122	127	742	806	248	156	25	49	119	160	182
	D26	DT90..	100	197	154	161	780	865	248	205	32.5	66	153	192	220
		DV100M	100	197	166	166	830	915	298	205	32.5	66	153	192	220
	D36	DV100M	160	197	166	166	905	990	309	265	38	88	204	232	284
		DV100L	160	197	166	166	935	1020	339	265	38	88	204	232	284
		DV112M	160	221	179	182	928	1008	332	265	38	88	204	232	284
		DV132S	160	221	179	182	973	1053	377	265	38	88	204	232	284

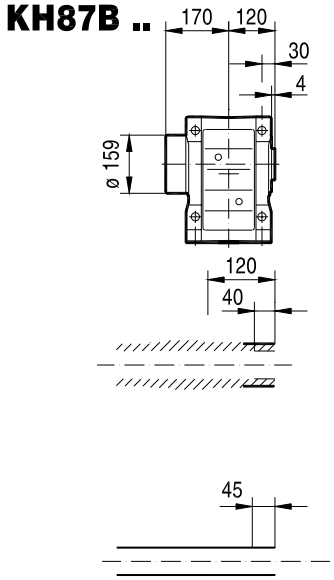
K87 ..



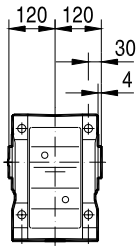
KA87B ..



KH87B ..

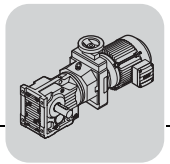


KV87B ..



16

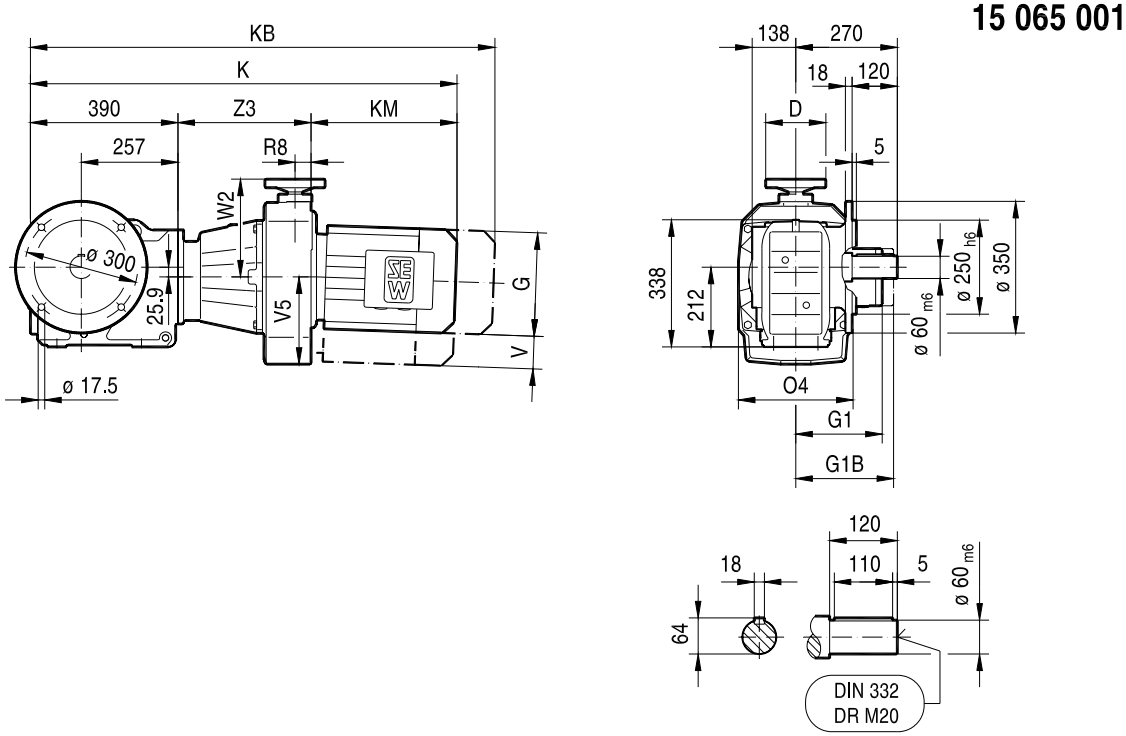
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
K87 KA87B KH87B KV87B	D26	DT90..	100	197	154	161	853	938	248	205	32.5	66	153	192	216
		DV100M	100	197	166	166	903	988	298	205	32.5	66	153	192	216
	D36	DV100M	160	197	166	166	977	1062	309	265	38	88	204	232	279
		DV100L	160	197	166	166	1007	1092	339	265	38	88	204	232	279
		DV112M	160	221	179	182	1000	1080	332	265	38	88	204	232	279
		DV132S	160	221	179	182	1045	1125	377	265	38	88	204	232	279
	D46	DV132M	160	275	230	230	1132	1244	388	305	45.5	91	232	259	355
		DV132ML	160	275	230	230	1192	1304	448	305	45.5	91	232	259	355
		DV160M	160	275	230	230	1192	1304	448	305	45.5	91	232	259	355



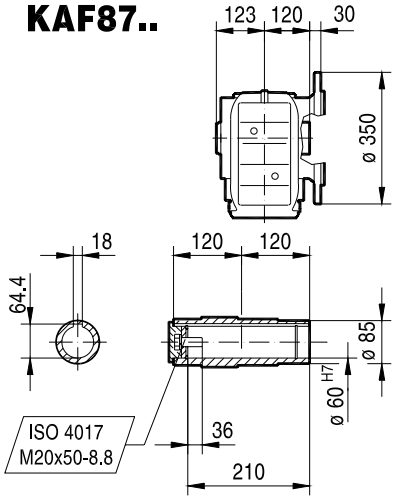
KK..D..DT/DV.. [mm]

KF87 ..

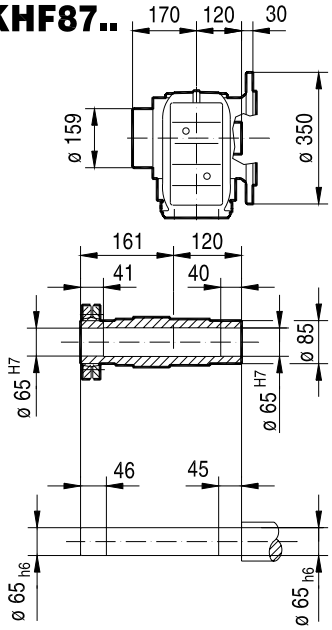
15 065 001



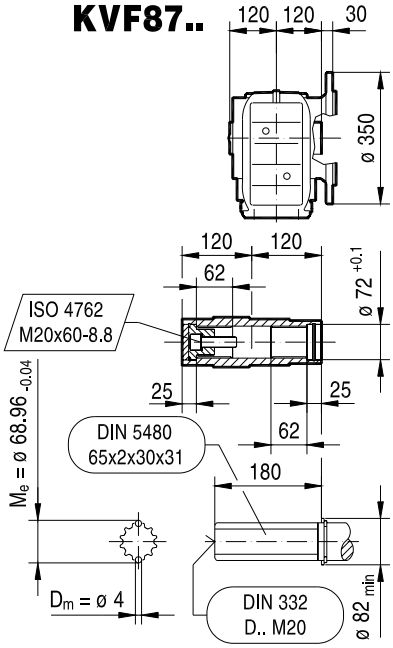
KAF87..



KHF87..



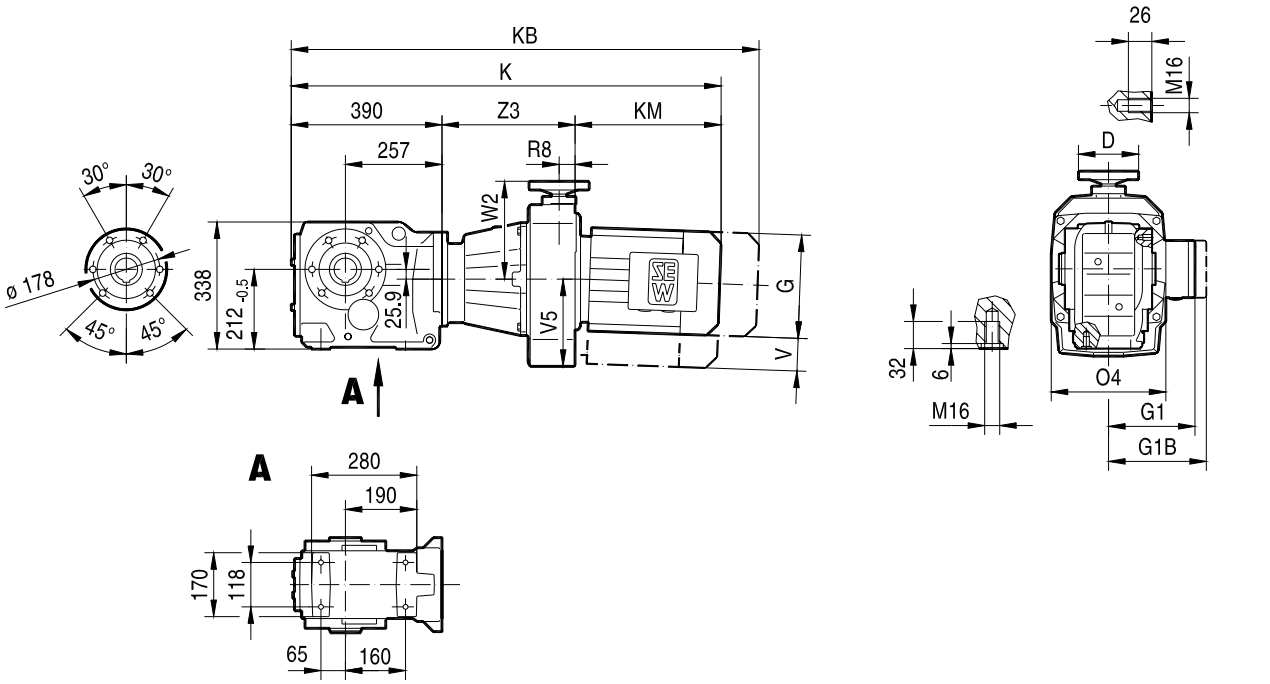
KVF87..



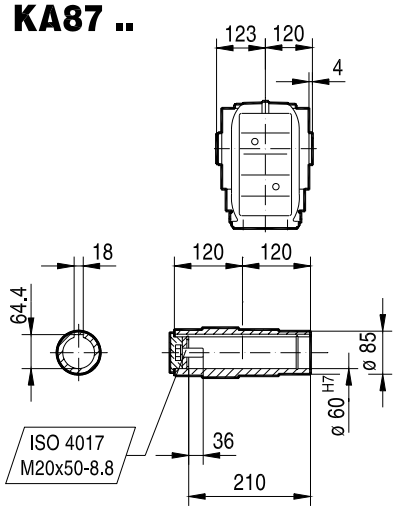
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
KF87 KAF87 KHF87 KVF87	D26	DT90..	100	197	154	161	854	939	248	205	32.5	66	153	192	216
		DV100M	100	197	166	166	904	989	298	205	32.5	66	153	192	216
	D36	DV100M	160	197	166	166	978	1063	309	265	38	88	204	232	279
		DV100L	160	197	166	166	1008	1093	339	265	38	88	204	232	279
		DV112M	160	221	179	182	1001	1081	332	265	38	88	204	232	279
		DV132S	160	221	179	182	1046	1126	377	265	38	88	204	232	279
	D46	DV132M	160	275	230	230	1133	1245	388	305	45.5	91	232	259	355
		DV132ML	160	275	230	230	1193	1305	448	305	45.5	91	232	259	355
		DV160M	160	275	230	230	1193	1305	448	305	45.5	91	232	259	355

KA87 ..

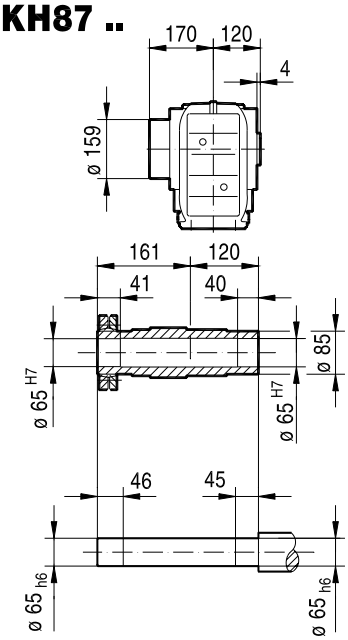
15 066 001



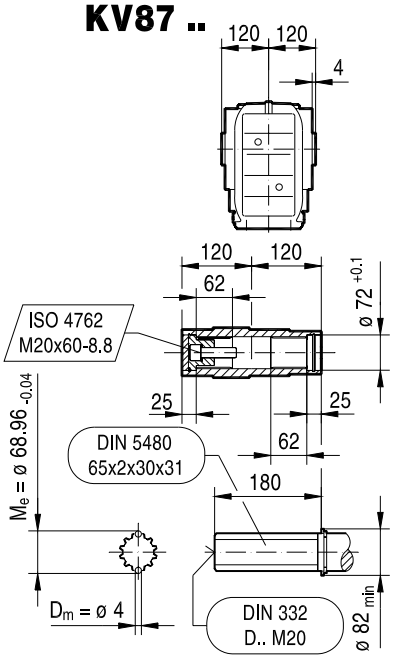
KA87 ..



KH87 ..

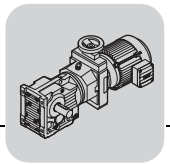


KV87 ..



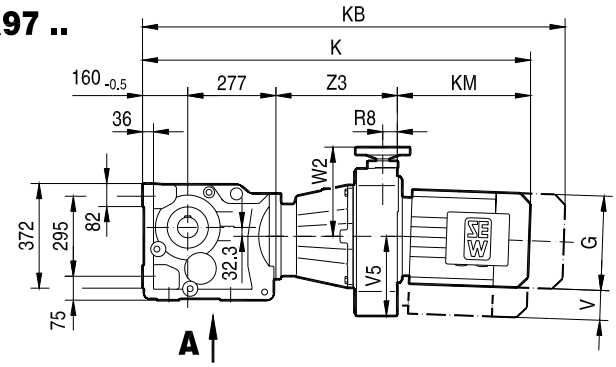
16

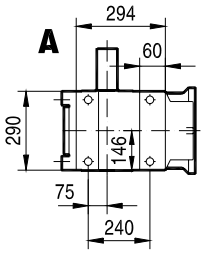
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
KA87 KH87 KV87	D26	DT90..	100	197	154	161	854	939	248	205	32.5	66	153	192	216
		DV100M	100	197	166	166	904	989	298	205	32.5	66	153	192	216
	D36	DV100M	160	197	166	166	978	1063	309	265	38	88	204	232	279
		DV100L	160	197	166	166	1008	1093	339	265	38	88	204	232	279
		DV112M	160	221	179	182	1001	1081	332	265	38	88	204	232	279
		DV132S	160	221	179	182	1046	1126	377	265	38	88	204	232	279
	D46	DV132M	160	275	230	230	1133	1245	388	305	45.5	91	232	259	355
		DV132ML	160	275	230	230	1193	1305	448	305	45.5	91	232	259	355
		DV160M	160	275	230	230	1193	1305	448	305	45.5	91	232	259	355



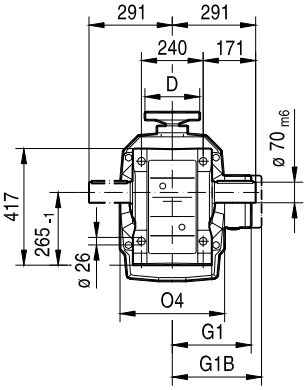
KK..D..DT/DV.. [mm]

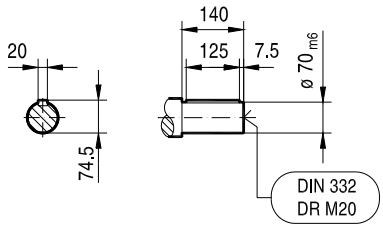
K97 ..



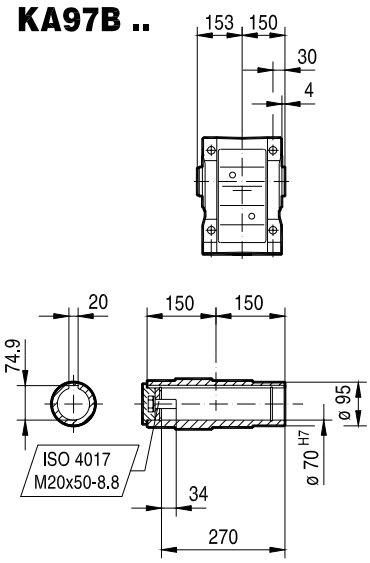


15 067 001

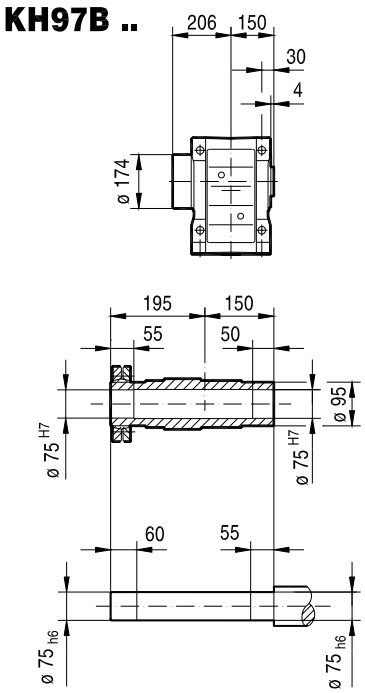




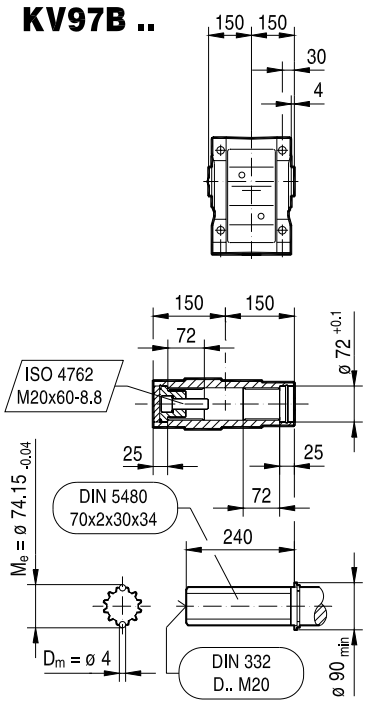
KA97B ..



KH97B ..



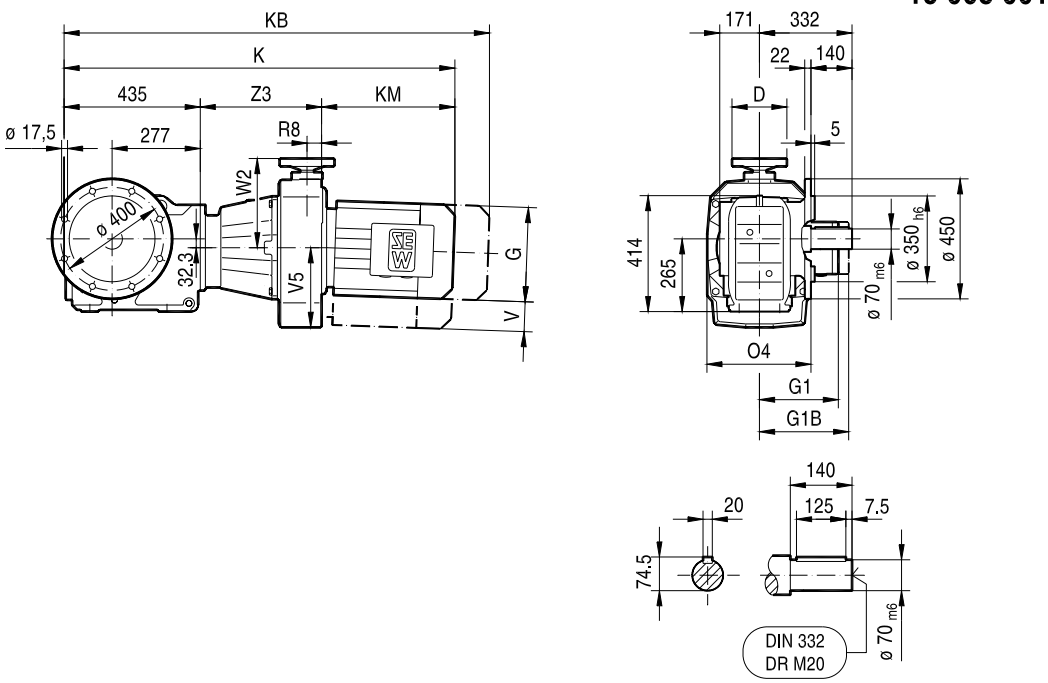
KV97B ..



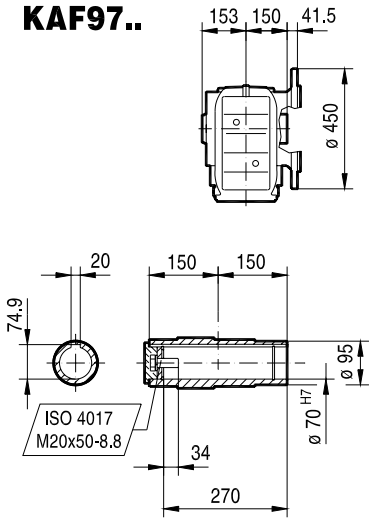
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
K97 KA97B KH97B KV97B	D36	DV100M	160	197	166	166	1020	1105	309	265	38	88	204	232	274
		DV100L	160	197	166	166	1050	1135	339	265	38	88	204	232	274
		DV112M	160	221	179	182	1043	1123	332	265	38	88	204	232	274
		DV132S	160	221	179	182	1088	1168	337	265	38	88	204	232	274
	D46	DV132M	160	275	230	230	1174	1286	388	305	45.5	91	232	259	349
		DV132ML	160	275	230	230	1234	1346	448	305	45.5	91	232	259	349
		DV160M	160	275	230	230	1234	1346	448	305	45.5	91	232	259	349

KF97..

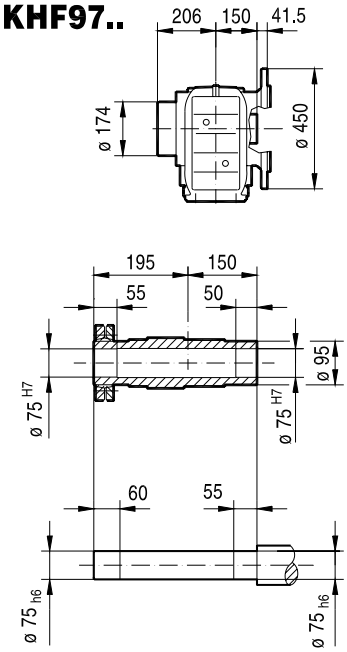
15 068 001



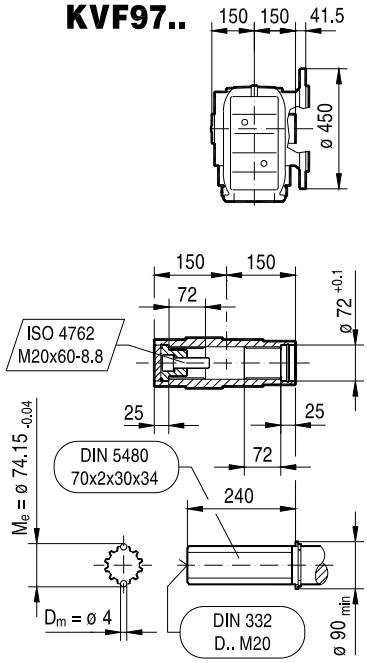
KAF97..



KHF97..



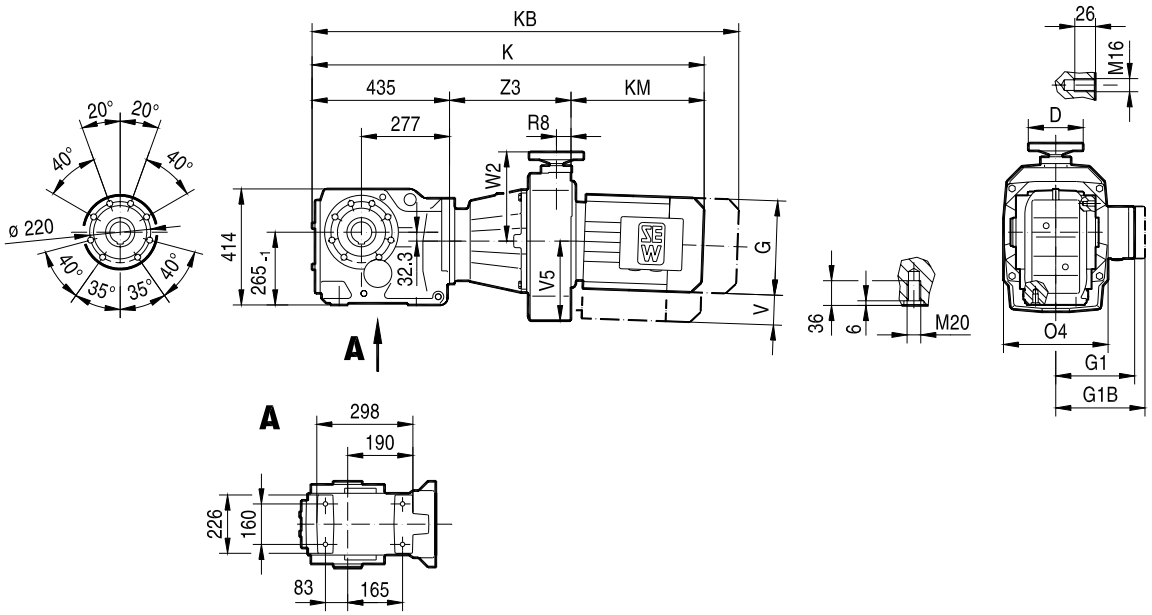
KVF97..



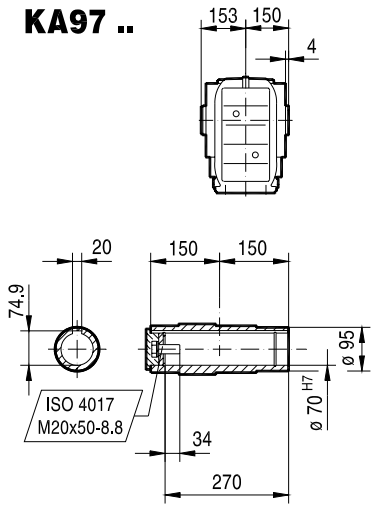
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
KF97 KAF97 KHF97 KVF97	D36	DV100M	160	197	166	166	1018	1103	309	265	38	88	204	232	274
		DV100L	160	197	166	166	1048	1133	339	265	38	88	204	232	274
		DV112M	160	221	179	182	1041	1121	332	265	38	88	204	232	274
		DV132S	160	221	179	182	1086	1166	337	265	38	88	204	232	274
	D46	DV132M	160	275	230	230	1172	1284	388	305	45.5	91	232	259	349
		DV132ML	160	275	230	230	1232	1344	448	305	45.5	91	232	259	349
		DV160M	160	275	230	230	1232	1344	448	305	45.5	91	232	259	349

KA97 ..

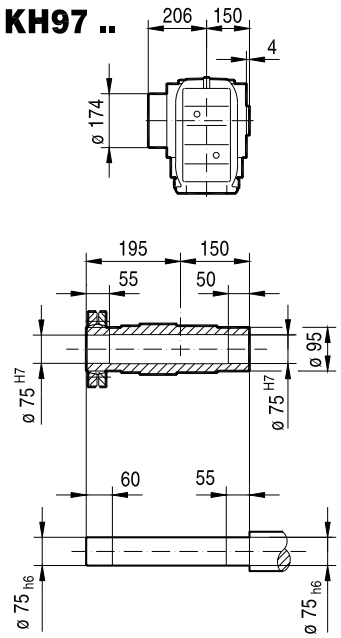
15 069 001



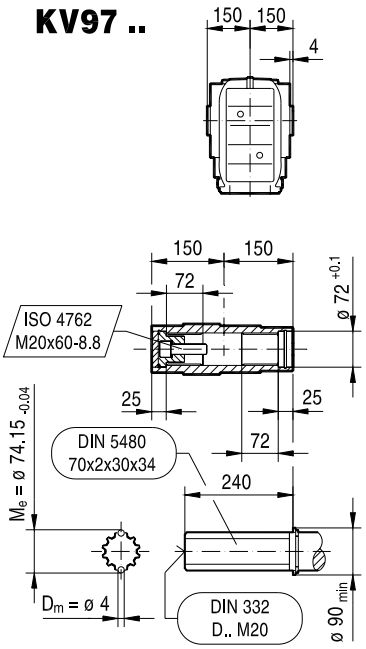
KA97 ..



KH97 ..



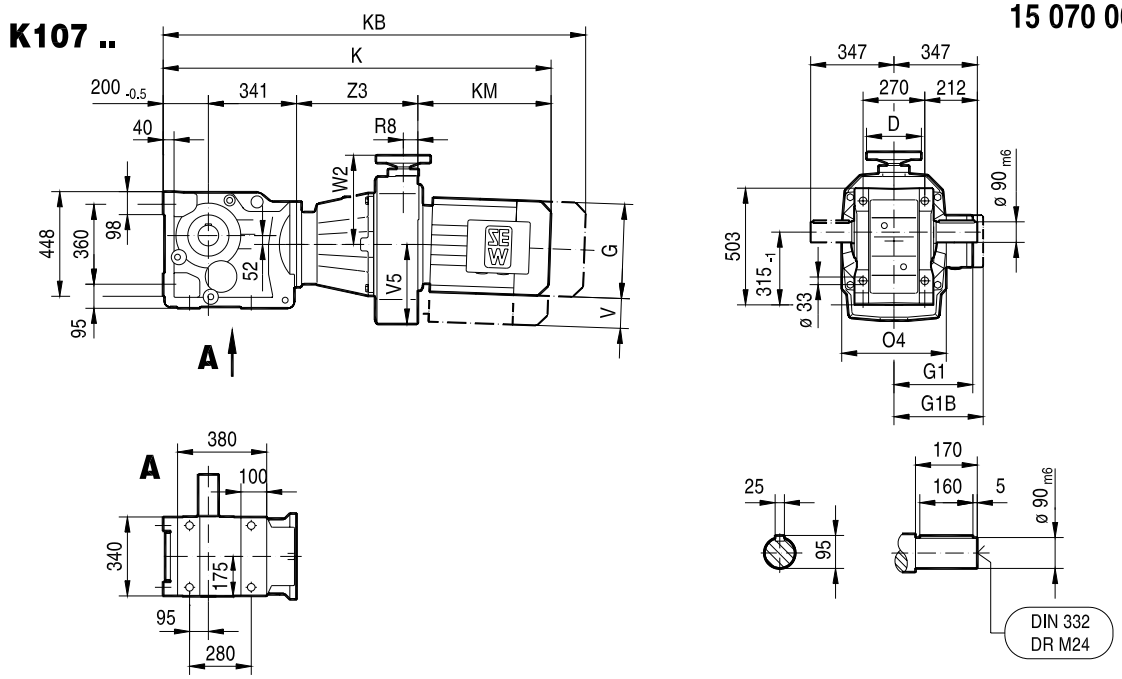
KV97 ..



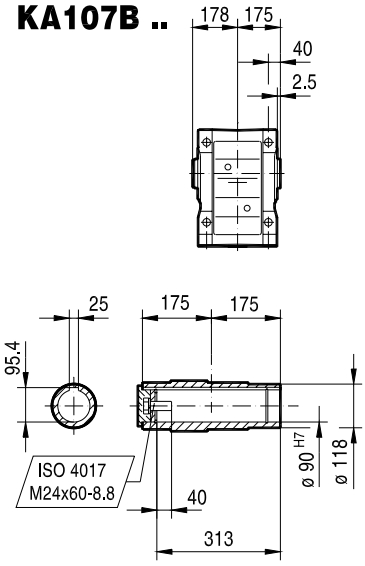
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
KA97 KH97 KV97	D36	DV100M	160	197	166	166	1018	1103	309	265	38	88	204	232	274
		DV100L	160	197	166	166	1048	1133	339	265	38	88	204	232	274
		DV112M	160	221	179	182	1041	1121	332	265	38	88	204	232	274
		DV132S	160	221	179	182	1086	1166	337	265	38	88	204	232	274
	D46	DV132M	160	275	230	230	1172	1284	388	305	45.5	91	232	259	349
		DV132ML	160	275	230	230	1232	1344	448	305	45.5	91	232	259	349
		DV160M	160	275	230	230	1232	1344	448	305	45.5	91	232	259	349

15 070 001

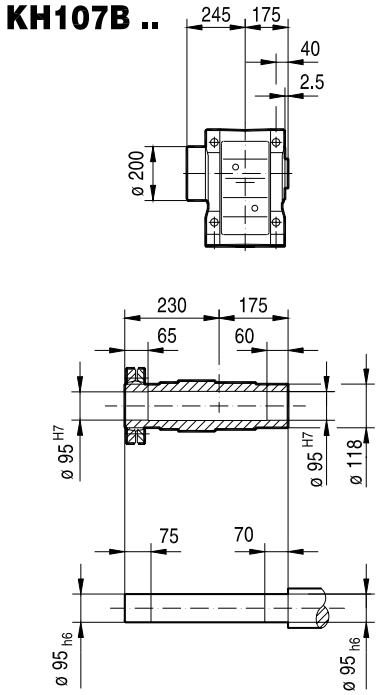
K107 ..



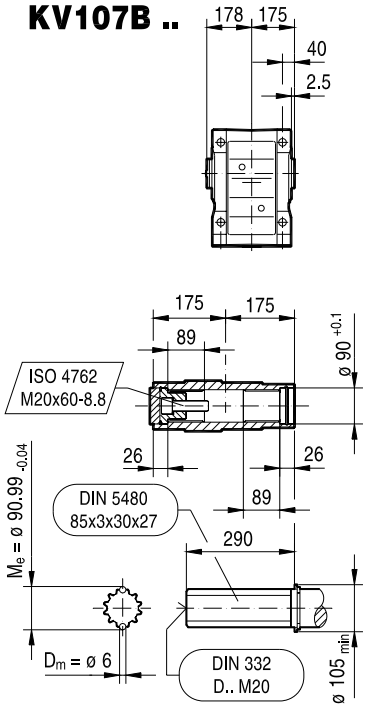
KA107B ..



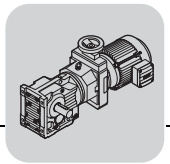
KH107B ..



KV107B ..



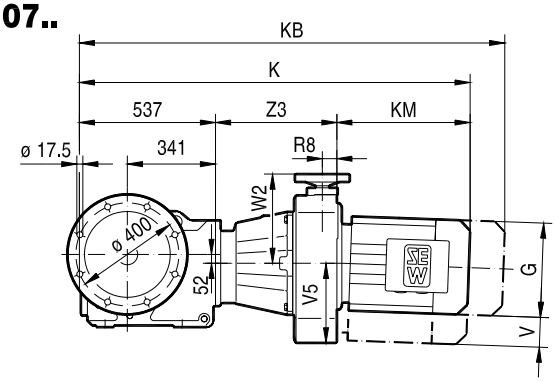
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
K107 **KA107B** **KH107B** **KV107B**	**D46**	**DV132M**	160	275	230	230	1273	1385	388	305	45.5	91	232	259	344
		DV132ML	160	275	230	230	1333	1445	448	305	45.5	91	232	259	344
		DV160M	160	275	230	230	1333	1445	448	305	45.5	91	232	259	344

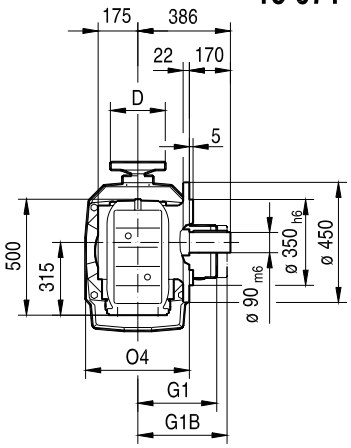


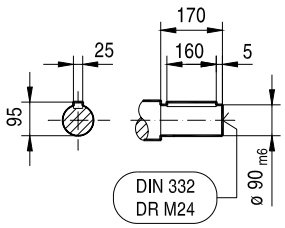
KK..D..DT/DV.. [mm]

KF107..

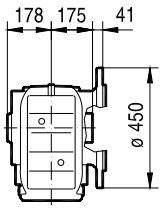
15 071 001

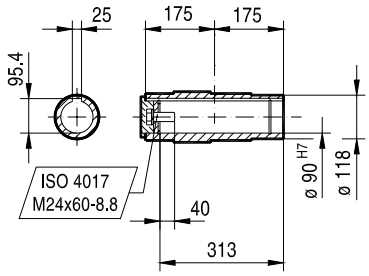




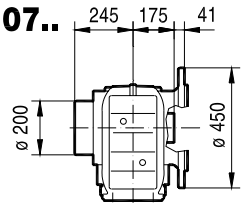


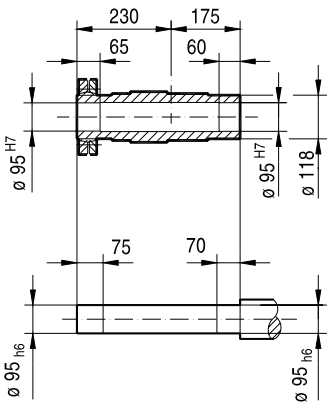
KAF107..



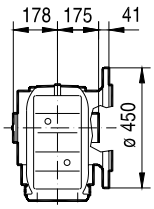


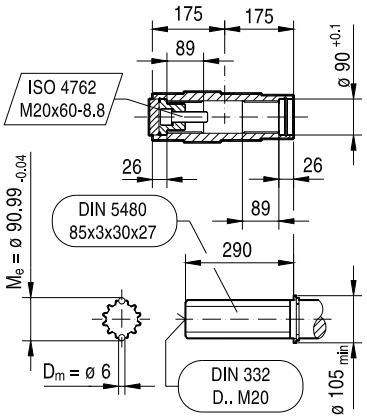
KHF107..





KVF107..

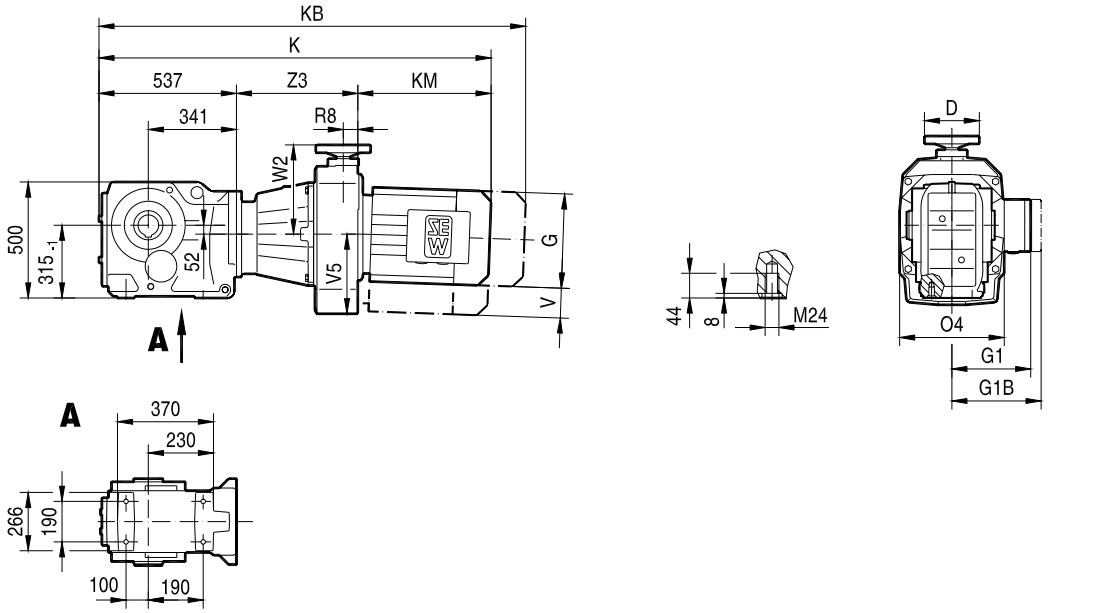




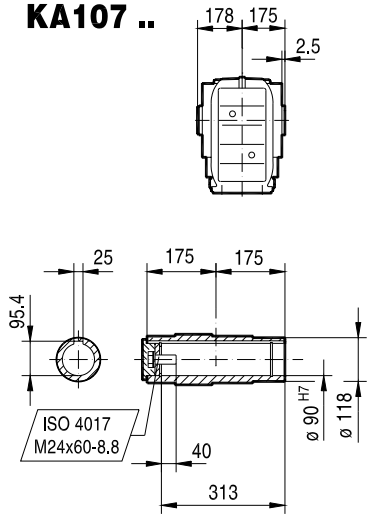
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
KF107 **KAF107** **KHF107** **KVF107**	**D46**	**DV132M**	160	275	230	230	1269	1381	388	305	45.5	91	232	259	344
		DV132ML	160	275	230	230	1329	1441	448	305	45.5	91	232	259	344
		DV160M	160	275	230	230	1329	1441	448	305	45.5	91	232	259	344

KA107 ..

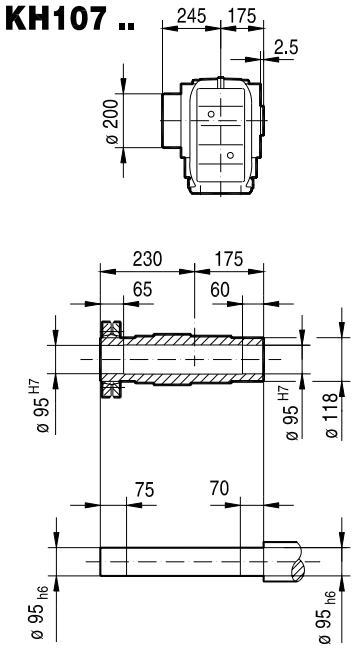
15 072 001



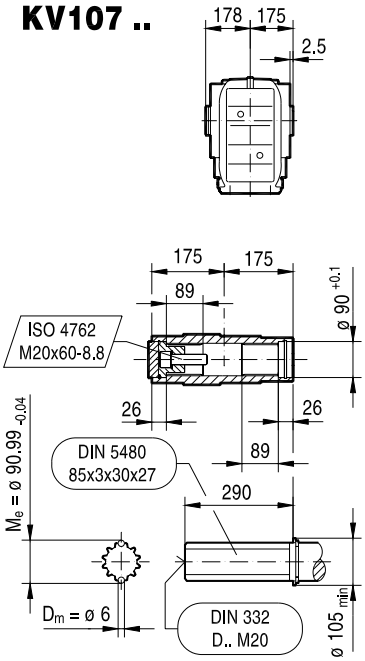
KA107 ..



KH107 ..



KV107 ..

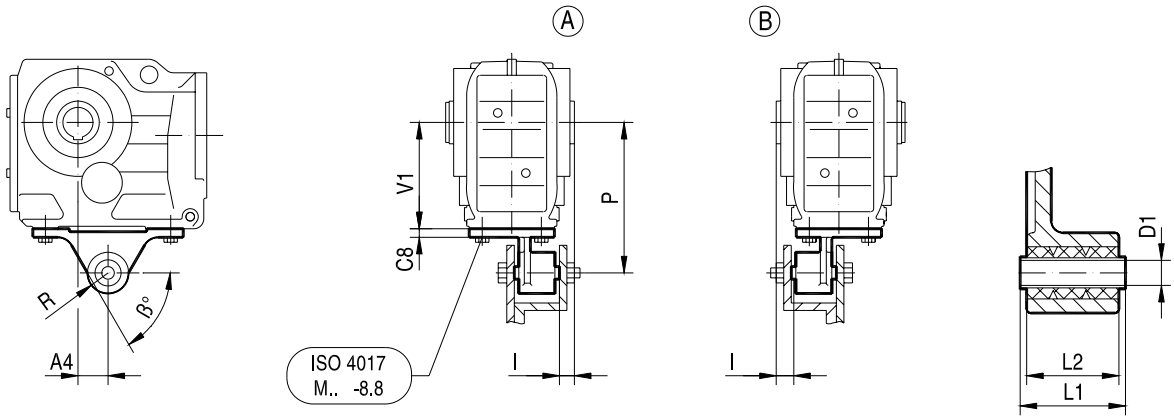


(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
KA107 **KH107** **KV107**	**D46**	**DV132M**	160	275	230	230	1269	1381	388	305	45.5	91	232	259	344
		DV132ML	160	275	230	230	1329	1441	448	305	45.5	91	232	259	344
		DV160M	160	275	230	230	1329	1441	448	305	45.5	91	232	259	344

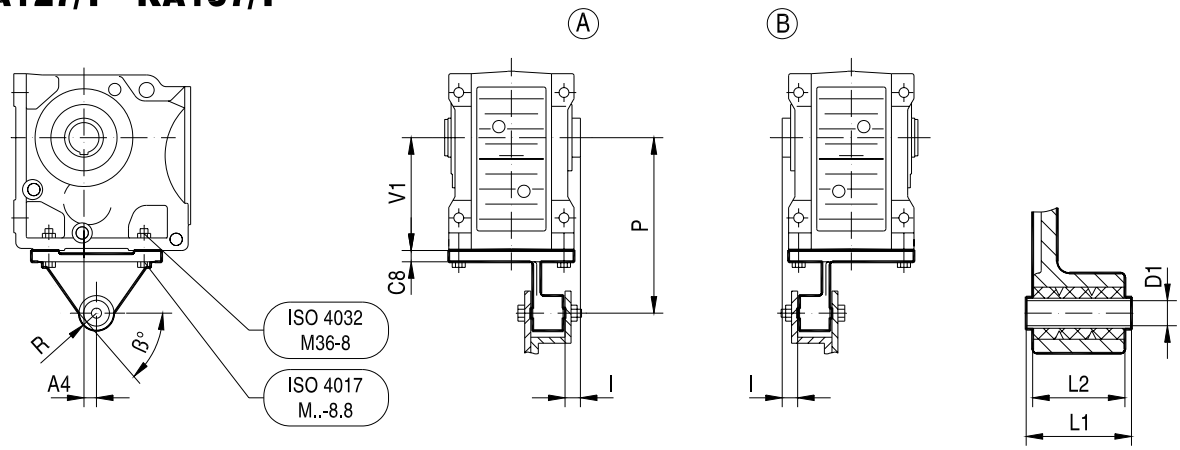
16.4 Drehmomentstütze KA../T

15 073 001

KA37/T - KA107/T



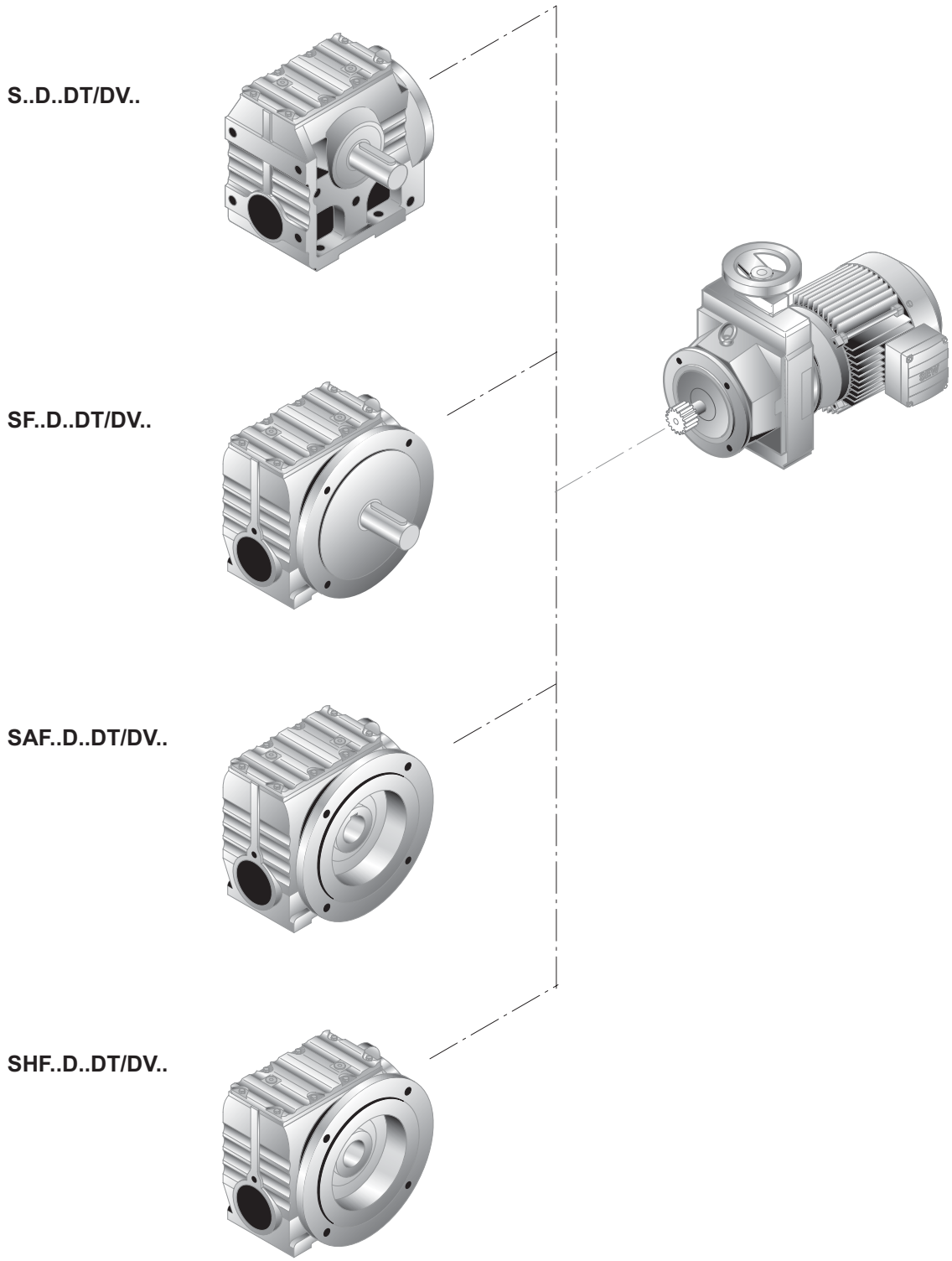
KA127/T - KA157/T



	A4	ß	C8	D1	I	L1	L2	M	P	R	V1
KA37/T D..	23.5	60	10	10.4	20	36	31	M10x25	140	22.5	100
KA47/T D..	30	55	12	10.4	20	36	31	M10x30	160	22.5	112
KA57/T D..	40	55	13	16.4	18	60	54	M12x35	192	29	132
KA67/T D..	45	55	13	16.4	25	60	54	M12x35	200	29	140
KA77/T D..	52.5	60	14	16.4	25	60	54	M16x40	250	29	180
KA87/T D..	60	60	16	25	30	80	72	M16x45	300	41	212
KA97/T D..	70	50	17	25	40	100	92	M20x50	350	41	265
KA107/T D..	74	55	20	25	45	100	92	M24x60	450	41	315

17 S..

17.1 S..D..DT/DV..

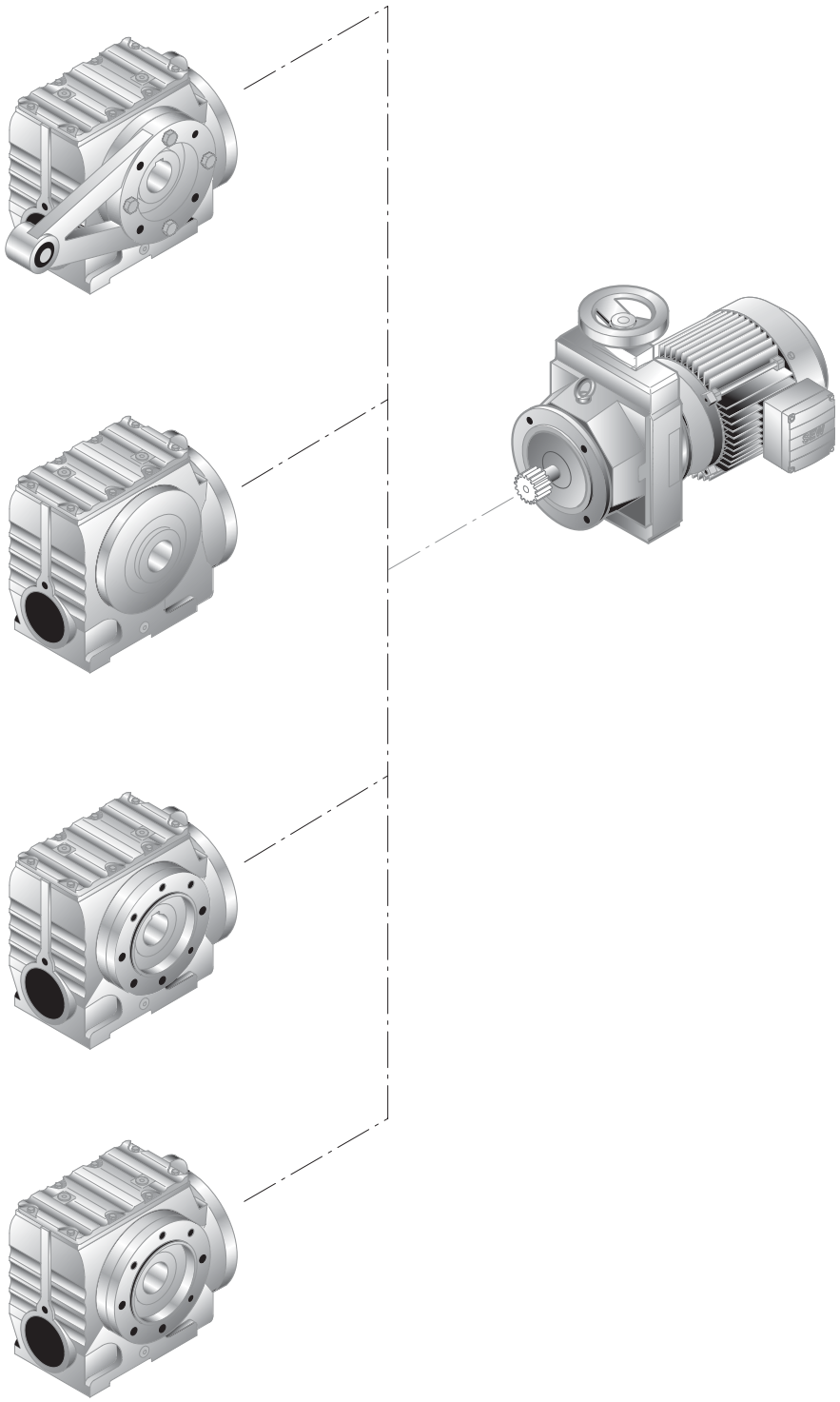


SA..D..DT/DV..

SH..D..DT/DV..

SAZ..D..DT/DV..

SHZ..D..DT/DV..



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17.2 S ..D..M

R = 1:5														
P_m [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2}	⚠							m [kg]	
0.37	0.25 - 1.3	1332	2500	2060	-								
	0.28 - 1.4	1191	2500	1840	-								
	0.33 - 1.6	1032	2500	1600	-								
	0.36 - 1.8	930	2500	1440	-								
	0.41 - 2.0	831	2500	1290	-								
	0.47 - 2.3	719	2500	1110	-	S	87 R57	D	16	DT	71D4	120	-
	0.54 - 2.7	624	2500	970	-	SF	87 R57	D	16	DT	71D4	140	-
	0.61 - 3.0	558	2500	860	-	SA	87 R57	D	16	DT	71D4	115	-
	0.78 - 3.9	435	2310	675	-	SAF	87 R57	D	16	DT	71D4	135	-
	1.1 - 5.2	323	1720	500	-								
	1.3 - 6.6	255	1360	395	-								
	1.5 - 7.6	222	1180	345	-								
	1.7 - 8.2	205	1090	315	-								
	0.47 - 2.4	714	1240	1110	-								
	0.53 - 2.6	637	1240	990	-								
	0.59 - 2.9	574	1240	890	-								
	0.68 - 3.4	499	1240	775	-	S	77 R37	D	16	DT	71D4	73	-
	0.77 - 3.8	438	1240	680	-	SF	77 R37	D	16	DT	71D4	83	-
	0.87 - 4.3	389	1240	600	-	SA	77 R37	D	16	DT	71D4	73	-
	1.0 - 5.2	327	1240	505	-	SAF	77 R37	D	16	DT	71D4	79	-
	1.2 - 5.8	289	1240	450	-								
	1.4 - 6.7	250	1240	385	-								
	1.5 - 7.7	219	1160	340	-								
	0.93 - 4.6	365	570	565	-								
	1.1 - 5.3	319	570	495	-								
	1.2 - 6.0	281	570	435	-	S	67 R37	D	16	DT	71D4	54	-
	1.4 - 6.8	246	570	380	-	SF	67 R37	D	16	DT	71D4	61	-
	1.5 - 7.6	221	570	340	-	SA	67 R37	D	16	DT	71D4	55	-
	1.7 - 8.5	198	570	305	-	SAF	67 R37	D	16	DT	71D4	60	-
	2.0 - 10	168	570	260	-								
	2.2 - 11	156	570	240	-								
0.37	0.86 - 4.3	256.47	1070	480	-	S	77	D	16	DT	80K6	65	539
	0.98 - 4.9	225.26	940	425	-	SF	77	D	16	DT	80K6	75	-
	1.0 - 5.1	214.00*	900	410	-	SA	77	D	16	DT	80K6	64	540
						SAF	77	D	16	DT	80K6	71	-
	1.0 - 5.0	217.41	570	380	-	S	67	D	16	DT	80K6	46	537
	1.2 - 5.8	190.11	570	335	-	SF	67	D	16	DT	80K6	53	-
	1.2 - 6.1	180.60*	570	320	-	SA	67	D	16	DT	80K6	47	538
						SAF	67	D	16	DT	80K6	52	-
	1.6 - 7.7	217.41	570	230	-	S	67	D	16	DT	71D4	45	537
	1.8 - 8.9	190.11	565	205	-	SF	67	D	16	DT	71D4	51	-
	1.9 - 9.3	180.60*	535	194	-	SA	67	D	16	DT	71D4	46	538
						SAF	67	D	16	DT	71D4	50	-
	1.7 - 8.4	201.00*	330	200	-	S	57	D	16	DT	71D4	33	535
	1.8 - 9.1	184.80*	330	187	-	SF	57	D	16	DT	71D4	37	-
	2.1 - 11	158.12	330	163	-	SA	57	D	16	DT	71D4	33	536
						SAF	57	D	16	DT	71D4	36	-
	2.1 - 11	158.12	185	157	-								
	2.5 - 12	137.05	185	139	-	S	47	D	16	DT	71D4	29	533
	2.6 - 13	128.10*	185	131	-	SF	47	D	16	DT	71D4	33	-
	3.1 - 15	110.73	185	115	-	SA	47	D	16	DT	71D4	30	534
	3.6 - 18	94.08*	185	100	-	SAF	47	D	16	DT	71D4	32	-
	4.0 - 20	84.00*	185	90	-								

R = 1:5																
P_m [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
0.37	4.7	-	24	71.44*	92	75	-									
	5.3	-	27	63.33	92	67	-									
	6.0	-	30	55.93	92	71	-									
	6.3	-	31	53.83	92	58	-									
	6.6	-	33	51.30*	92	66	-									
	7.7	-	39	43.68	92	57	-									
	9.0	-	45	37.66	92	49	-									
	9.6	-	48	35.10*	92	46	-									
	11	-	55	30.68	92	41	-									
	12	-	59	28.76	92	38	-									
	13	-	66	25.38*	92	34	-	S	37		D	16	DT	71D4	26	531
	15	-	75	22.50*	91	30	-	SF	37		D	16	DT	71D4	28	-
	17	-	85	19.89	72	29	-	SA	37		D	16	DT	71D4	26	532
	18	-	88	19.13*	78	26	-	SAF	37		D	16	DT	71D4	27	-
	19	-	92	18.24*	72	26	-									
	22	-	108	15.53	71	23	-									
	25	-	126	13.39	62	20	-									
	27	-	135	12.48*	58	18	-									
	31	-	154	10.91	51	16	-									
	33	-	165	10.23	48	15	-									
	38	-	187	9.02*	42	13	-									
	42	-	210	8.00*	38	12	-									
	50	-	248	6.80*	32	10	-									
0.55	0.24	-	1.2	1394	4200	3400	-									
	0.27	-	1.4	1223	4200	2980	-									
	0.31	-	1.6	1070	4200	2610	-									
	0.36	-	1.8	928	4200	2260	-									
	0.40	-	2.0	824	4200	2010	-									
	0.47	-	2.3	714	4200	1740	-									
	0.53	-	2.6	626	4200	1530	-	S	97 R57		D	16	DT	80K4	180	-
	0.62	-	3.1	538	3770	1310	-	SF	97 R57		D	16	DT	80K4	210	-
	0.69	-	3.4	484	3390	1180	-	SA	97 R57		D	16	DT	80K4	175	-
	0.79	-	4.0	420	2950	1020	-	SAF	97 R57		D	16	DT	80K4	200	-
	0.89	-	4.4	376	2640	920	-									
	1.0	-	5.1	327	2290	795	-									
	1.2	-	5.8	287	2010	700	-									
	1.3	-	6.6	252	1770	615	-									
	1.6	-	8.1	205	1440	500	-									
	0.36	-	1.8	930	2500	2270	-									
	0.40	-	2.0	831	2500	2030	-									
	0.46	-	2.3	719	2500	1750	-									
	0.53	-	2.7	624	2500	1520	-	S	87 R57		D	16	DT	80K4	120	-
	0.60	-	3.0	558	2500	1360	-	SF	87 R57		D	16	DT	80K4	140	-
	0.77	-	3.8	435	2450	1060	-	SA	87 R57		D	16	DT	80K4	120	-
	1.0	-	5.1	323	2260	790	-	SAF	87 R57		D	16	DT	80K4	135	-
	1.3	-	6.5	255	1790	620	-									
	1.5	-	7.5	222	1560	540	-									
	1.6	-	8.1	205	1440	500	-									
	0.67	-	3.3	499	1240	1220	-									
	0.76	-	3.8	438	1240	1070	-									
	0.86	-	4.3	389	1240	950	-	S	77 R37		D	16	DT	80K4	75	-
	1.0	-	5.1	327	1240	795	-	SF	77 R37		D	16	DT	80K4	85	-
	1.2	-	5.7	289	1240	705	-	SA	77 R37		D	16	DT	80K4	75	-
	1.3	-	6.6	250	1240	610	-	SAF	77 R37		D	16	DT	80K4	81	-
	1.5	-	7.6	219	1240	535	-									
	1.5	-	7.5	221	570	540	-	S	67 R37		D	16	DT	80K4	56	-
	1.7	-	8.4	198	570	485	-	SF	67 R37		D	16	DT	80K4	63	-
	2.0	-	9.9	168	570	410	-	SA	67 R37		D	16	DT	80K4	57	-
	2.1	-	11	156	570	380	-	SAF	67 R37		D	16	DT	80K4	62	-
0.55	0.86	-	4.3	256.47	1070	715	-	S	77		D	16	DT	80N6	66	539
	0.98	-	4.9	225.26	940	635	-	SF	77		D	16	DT	80N6	76	-
	1.0	-	5.1	214.00*	900	605	-	SA	77		D	16	DT	80N6	66	540
								SAF	77		D	16	DT	80N6	72	-

R = 1:5																
P_m [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
0.55	1.3	-	6.5	256.47	1090	455	-	S	77	D	16	DT	80K4		65	539
	1.5	-	7.4	225.26	950	405	-	SF	77	D	16	DT	80K4		75	-
	1.6	-	7.8	214.00*	910	385	-	SA	77	D	16	DT	80K4		64	540
	1.8	-	8.8	189.09	810	345	-	SAF	77	D	16	DT	80K4		71	-
	1.2	-	5.8	190.11	570	500	-	S	67	D	16	DT	80N6		48	537
	1.2	-	6.1	180.60*	570	475	-	SF	67	D	16	DT	80N6		54	-
								SA	67	D	16	DT	80N6		49	538
								SAF	67	D	16	DT	80N6		53	-
	1.5	-	7.6	217.41	570	360	-	S	67	D	16	DT	80K4		46	537
	1.8	-	8.7	190.11	570	320	-	SF	67	D	16	DT	80K4		53	-
	1.9	-	9.2	180.60*	570	305	-	SA	67	D	16	DT	80K4		47	538
								SAF	67	D	16	DT	80K4		52	-
	1.8	-	9.0	184.80*	330	295	-	S	57	D	16	DT	80K4		35	535
	2.1	-	10	158.12	330	255	-	SF	57	D	16	DT	80K4		39	-
	2.4	-	12	137.05	330	225	-	SA	57	D	16	DT	80K4		34	536
								SAF	57	D	16	DT	80K4		37	-
	3.5	-	18	94.08*	185	157	-									
	4.0	-	20	84.00*	185	142	-									
	4.7	-	23	71.75*	185	123	-									
	4.8	-	24	69.39	185	140	-	S	47	D	16	DT	80K4		31	533
	5.0	-	25	67.20*	185	116	-	SF	47	D	16	DT	80K4		35	-
	5.2	-	26	63.80*	185	130	-	SA	47	D	16	DT	80K4		32	534
	6.1	-	30	54.59	185	112	-	SAF	47	D	16	DT	80K4		34	-
	7.0	-	35	47.32	185	98	-									
	7.5	-	38	44.22*	185	92	-									
	8.7	-	43	38.23	185	80	-									
	9.5	-	47	35.10*	92	73	-									
	11	-	54	30.68	92	64	-									
	12	-	58	28.76	92	60	-									
	13	-	65	25.38*	92	54	-									
	15	-	74	22.50*	92	48	-									
	17	-	83	19.89	72	45	-									
	17	-	87	19.13*	92	41	-	S	37	D	16	DT	80K4		28	531
	18	-	91	18.24*	72	41	-	SF	37	D	16	DT	80K4		29	-
	21	-	107	15.53	72	36	-	SA	37	D	16	DT	80K4		28	532
	25	-	124	13.39	72	31	-	SAF	37	D	16	DT	80K4		29	-
	27	-	133	12.48*	72	29	-									
	31	-	152	10.91	67	25	-									
	33	-	162	10.23	63	24	-									
	37	-	184	9.02*	56	21	-									
	42	-	207	8.00*	50	19	-									
	49	-	244	6.80*	43	16	-									
	49	-	246	13.39	51	12	-									
	53	-	264	12.48*	48	12	-									
	61	-	302	10.91	42	10	-	S	37	D	16	DT	71D2		26	531
	65	-	322	10.23	40	9.5	-	SF	37	D	16	DT	71D2		28	-
	73	-	365	9.02*	35	8.4	-	SA	37	D	16	DT	71D2		26	532
	83	-	412	8.00*	31	7.4	-	SAF	37	D	16	DT	71D2		27	-
	97	-	484	6.80*	27	6.3	-									
0.75	0.28	-	1.4	1223	4200	4110	-									
	0.32	-	1.6	1070	4200	3600	-									
	0.36	-	1.8	928	4200	3120	-									
	0.41	-	2.0	824	4200	2770	-									
	0.47	-	2.4	714	4200	2400	-									
	0.54	-	2.7	626	4200	2110	-	S	97 R57	D	16	DT	80N4		180	-
	0.63	-	3.1	538	3720	1810	-	SF	97 R57	D	16	DT	80N4		210	-
	0.70	-	3.5	484	3340	1630	-	SA	97 R57	D	16	DT	80N4		175	-
	0.81	-	4.0	420	2900	1410	-	SAF	97 R57	D	16	DT	80N4		200	-
	0.90	-	4.5	376	2600	1260	-									
	1.0	-	5.2	327	2260	1100	-									
	1.2	-	5.9	287	1980	970	-									
	1.3	-	6.7	252	1740	850	-									
	1.7	-	8.2	205	1420	690	-									

R = 1:5															
P_m [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
0.75	0.47	-	2.3	719	2500	2420	-								
	0.54	-	2.7	624	2500	2100	-								
	0.61	-	3.0	558	2500	1880	-	S	87 R57	D	16	DT	80N4	120	-
	0.78	-	3.9	435	2450	1460	-	SF	87 R57	D	16	DT	80N4	145	-
	1.1	-	5.2	323	2230	1090	-	SA	87 R57	D	16	DT	80N4	120	-
	1.3	-	6.6	255	1760	860	-	SAF	87 R57	D	16	DT	80N4	135	-
	1.5	-	7.6	222	1530	745	-								
	1.7	-	8.2	205	1420	690	-								
	1.0	-	5.2	327	1240	1100	-	S	77 R37	D	16	DT	80N4	76	-
	1.2	-	5.8	289	1240	970	-	SF	77 R37	D	16	DT	80N4	86	-
	1.4	-	6.7	250	1240	840	-	SA	77 R37	D	16	DT	80N4	76	-
	1.5	-	7.7	219	1240	735	-	SAF	77 R37	D	16	DT	80N4	83	-
	2.0	-	10	168	570	565	-	S	67 R37	D	16	DT	80N4	58	-
	2.2	-	11	156	570	525	-	SF	67 R37	D	16	DT	80N4	64	-
								SA	67 R37	D	16	DT	80N4	59	-
								SAF	67 R37	D	16	DT	80N4	63	-
0.75	0.81	-	4.1	288.00*	2500	1080	-	S	87	D	26	DT	90S6	120	541
	0.91	-	4.5	258.18	2410	980	-	SF	87	D	26	DT	90S6	140	-
	1.1	-	5.3	222.40*	2100	860	-	SA	87	D	26	DT	90S6	120	542
								SAF	87	D	26	DT	90S6	135	-
	1.0	-	5.2	225.26	1270	810	-	S	77	D	26	DT	90S6	83	539
	1.1	-	5.5	214.00*	1270	780	-	SF	77	D	26	DT	90S6	92	-
	1.2	-	6.2	189.09	1270	695	-	SA	77	D	26	DT	90S6	82	540
								SAF	77	D	26	DT	90S6	89	-
	1.3	-	6.6	256.47	1070	625	-	S	77	D	16	DT	80N4	66	539
	1.5	-	7.5	225.26	940	555	-	SF	77	D	16	DT	80N4	76	-
	1.6	-	7.9	214.00*	900	530	-	SA	77	D	16	DT	80N4	66	540
								SAF	77	D	16	DT	80N4	72	-
	1.6	-	7.7	217.41	570	495	-								
	1.8	-	8.9	190.11	570	440	-	S	67	D	16	DT	80N4	48	537
	1.9	-	9.3	180.60*	570	420	-	SF	67	D	16	DT	80N4	54	-
	2.1	-	11	158.45	570	375	-	SA	67	D	16	DT	80N4	49	538
	2.5	-	13	134.40*	530	325	-	SAF	67	D	16	DT	80N4	53	-
	2.8	-	14	121.33	485	295	-								
	2.6	-	13	128.10*	330	295	-								
	3.1	-	15	110.73	330	260	-								
	3.6	-	18	94.08*	330	225	-								
	4.0	-	20	84.00*	325	200	-	S	57	D	16	DT	80N4	36	535
	4.7	-	23	71.75*	285	174	-	SF	57	D	16	DT	80N4	40	-
	4.9	-	24	69.39	300	196	-	SA	57	D	16	DT	80N4	36	536
	5.0	-	25	67.20*	270	164	-	SAF	57	D	16	DT	80N4	39	-
	5.3	-	26	63.80*	300	182	-								
	6.2	-	31	54.59	280	157	-								
	5.0	-	25	67.20*	185	160	M1-6								
	6.2	-	31	54.59	185	155	-								
	7.2	-	36	47.32	185	135	-								
	7.7	-	38	44.22*	185	127	-								
	8.8	-	44	38.23	185	111	-	S	47	D	16	DT	80N4	32	533
	10	-	52	32.48*	171	95	-	SF	47	D	16	DT	80N4	36	-
	12	-	58	29.00*	154	85	-	SA	47	D	16	DT	80N4	33	534
	14	-	68	24.77	133	73	-	SAF	47	D	16	DT	80N4	35	-
	15	-	73	23.20*	125	69	-								
	17	-	83	20.33	122	64	-								
	19	-	96	17.62	106	56	-								
	21	-	102	16.47*	99	53	-								

R = 1:5																
P_m [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
0.75	15	-	75	22.50*	92	66	-									
	18	-	88	19.13*	92	57	-									
	25	-	126	13.39	72	43	-									
	27	-	135	12.48*	72	40	-	S	37		D	16	DT	80N4	29	531
	31	-	154	10.91	66	35	-	SF	37		D	16	DT	80N4	31	-
	33	-	165	10.23	62	33	-	SA	37		D	16	DT	80N4	29	532
	38	-	187	9.02*	55	29	-	SAF	37		D	16	DT	80N4	31	-
	42	-	210	8.00*	49	26	-									
	50	-	248	6.80*	42	22	-									
	49	-	246	13.39	56	19	-									
	53	-	264	12.48*	54	17	-	S	37		D	16	DT	80K2	28	531
	61	-	302	10.91	48	15	-	SF	37		D	16	DT	80K2	29	-
	65	-	322	10.23	45	14	-	SA	37		D	16	DT	80K2	28	532
	73	-	365	9.02*	40	13	-	SAF	37		D	16	DT	80K2	29	-
	83	-	412	8.00*	35	11	-									
	97	-	484	6.80*	30	9.6	-									
1.1	0.44	-	2.2	824	4200	3790	-									
	0.51	-	2.6	714	4200	3280	-									
	0.58	-	2.9	626	4200	2880	-									
	0.68	-	3.4	538	4200	2470	-									
	0.75	-	3.8	484	4200	2220	-	S	97	R57	D	26	DT	90S4	195	-
	0.87	-	4.3	420	4200	1930	-	SF	97	R57	D	26	DT	90S4	225	-
	0.97	-	4.8	376	4200	1730	-	SA	97	R57	D	26	DT	90S4	190	-
	1.1	-	5.6	327	4200	1500	-	SAF	97	R57	D	26	DT	90S4	215	-
	1.3	-	6.3	287	4030	1320	-									
	1.4	-	7.2	252	3540	1160	-									
	1.7	-	8.3	219	3080	1010	-									
	1.8	-	8.9	205	2880	940	-									
	0.75	-	3.8	485	2500	2230	-									
	0.84	-	4.2	435	2450	2000	-									
	0.96	-	4.8	378	2450	1740	-	S	87	R57	D	26	DT	90S4	135	-
	1.1	-	5.6	323	2400	1480	-	SF	87	R57	D	26	DT	90S4	160	-
	1.3	-	6.5	281	2400	1290	-	SA	87	R57	D	26	DT	90S4	135	-
	1.4	-	7.1	255	1980	1170	-	SAF	87	R57	D	26	DT	90S4	150	-
	1.6	-	8.2	222	1980	1020	-									
	1.8	-	8.9	205	1980	940	-									
1.1	0.83	-	4.2	288.00*	2500	1550	-	S	87		D	26	DT	90L6	125	541
	0.93	-	4.6	258.18	2360	1400	-	SF	87		D	26	DT	90L6	145	-
	1.1	-	5.4	222.40*	2050	1230	-	SA	87		D	26	DT	90L6	120	542
								SAF	87		D	26	DT	90L6	135	-
	1.3	-	6.3	288.00*	2500	1000	-	S	87		D	26	DT	90S4	120	541
	1.4	-	7.0	258.18	2320	910	-	SF	87		D	26	DT	90S4	140	-
	1.6	-	8.2	222.40*	2030	795	-	SA	87		D	26	DT	90S4	120	542
								SAF	87		D	26	DT	90S4	135	-
	1.1	-	5.3	225.26	1270	1170	-	S	77		D	26	DT	90L6	85	539
	1.1	-	5.6	214.00*	1270	1110	-	SF	77		D	26	DT	90L6	95	-
	1.3	-	6.3	189.09	1270	1000	-	SA	77		D	26	DT	90L6	84	540
								SAF	77		D	26	DT	90L6	91	-
	1.6	-	8.1	225.26	1270	760	-	S	77		D	26	DT	90S4	83	539
	1.7	-	8.5	214.00*	1270	725	-	SF	77		D	26	DT	90S4	92	-
	1.9	-	9.6	189.09	1270	650	-	SA	77		D	26	DT	90S4	82	540
	2.3	-	11	161.60*	1270	560	-	SAF	77		D	26	DT	90S4	89	-
	2.3	-	11	158.45	570	510	-									
	2.7	-	14	134.40*	570	440	-	S	67		D	26	DT	90S4	63	537
	3.0	-	15	121.33	570	400	-	SF	67		D	26	DT	90S4	69	-
	3.4	-	17	106.75*	570	360	-	SA	67		D	26	DT	90S4	64	538
	3.6	-	18	100.80*	570	340	-	SAF	67		D	26	DT	90S4	68	-
	3.0	-	15	217.41	570	365	-	S	67		D	16	DT	80N2	48	537
	3.5	-	17	190.11	560	325	-	SF	67		D	16	DT	80N2	54	-
	3.7	-	18	180.60*	535	310	-	SA	67		D	16	DT	80N2	49	538
	4.2	-	21	158.45	475	275	-	SAF	67		D	16	DT	80N2	53	-

R = 1:5

P_m [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
1.1	4.2 - 21	158.12	300	260	M1-6								
	4.8 - 24	137.05	300	230	M1-6								
	5.2 - 26	128.10*	295	215	M1-6								
	6.0 - 30	110.73	295	189	M1-6	S	57	D	16	DT	80N2	36	535
	7.0 - 35	94.08*	285	162	M1-6	SF	57	D	16	DT	80N2	40	-
	7.9 - 39	84.00*	255	146	M1-6	SA	57	D	16	DT	80N2	36	536
	9.2 - 46	71.75*	225	126	M1-6	SAF	57	D	16	DT	80N2	39	-
	9.5 - 47	69.39	260	141	-								
	9.8 - 49	67.20*	210	119	M1-6								
	10 - 52	63.80*	180	128	-								
	12 - 60	54.59	176	111	-								
	14 - 70	47.32	175	97	-								
	15 - 74	44.22*	169	91	-	S	47	D	16	DT	80N2	32	533
	17 - 86	38.23	147	79	-	SF	47	D	16	DT	80N2	36	-
	20 - 101	32.48*	127	67	-	SA	47	D	16	DT	80N2	33	534
	23 - 114	29.00*	114	61	-	SAF	47	D	16	DT	80N2	35	-
	27 - 133	24.77	99	52	-								
	29 - 142	23.20*	93	49	-								
	33 - 162	20.33	88	45	-								
	23 - 115	28.76	86	59	M1-6								
	26 - 130	25.38*	84	53	M1-6								
	36 - 181	18.24*	60	40	-								
	43 - 212	15.53	58	35	-								
	49 - 246	13.39	56	30	-	S	37	D	16	DT	80N2	29	531
	53 - 264	12.48*	54	28	-	SF	37	D	16	DT	80N2	31	-
	61 - 302	10.91	48	25	-	SA	37	D	16	DT	80N2	29	532
	65 - 322	10.23	45	23	-	SAF	37	D	16	DT	80N2	31	-
	73 - 365	9.02*	40	20	-								
	83 - 412	8.00*	35	18	-								
	97 - 484	6.80*	30	15	-								
1.5	0.59 - 2.9	626	4200	4020	-								
	0.68 - 3.4	538	4200	3460	-								
	0.76 - 3.8	484	4200	3110	-								
	0.87 - 4.4	420	4200	2700	-	S	97 R57	D	26	DT	90L4	195	-
	0.98 - 4.9	376	4200	2420	-	SF	97 R57	D	26	DT	90L4	230	-
	1.1 - 5.6	327	4200	2100	-	SA	97 R57	D	26	DT	90L4	190	-
	1.3 - 6.4	287	4010	1840	-	SAF	97 R57	D	26	DT	90L4	215	-
	1.5 - 7.3	252	3520	1620	-								
	1.7 - 8.4	219	3060	1410	-								
	1.8 - 8.9	205	2860	1320	-								
	0.97 - 4.9	378	2450	2430	-								
	1.1 - 5.7	323	2400	2080	-	S	87 R57	D	26	DT	90L4	140	-
	1.3 - 6.5	281	2400	1810	-	SF	87 R57	D	26	DT	90L4	160	-
	1.4 - 7.2	255	1980	1640	-	SA	87 R57	D	26	DT	90L4	135	-
	1.7 - 8.3	222	1980	1430	-	SAF	87 R57	D	26	DT	90L4	155	-
	1.8 - 8.9	205	1980	1320	-								
1.5	0.76 - 3.8	286.40*	4200	2440	-	S	97	D	36	DV	100M6	210	543
	0.83 - 4.1	262.22	4200	2250	-	SF	97	D	36	DV	100M6	240	-
	0.93 - 4.7	231.67	4200	2010	-	SA	97	D	36	DV	100M6	205	544
	1.1 - 5.5	196.52	4200	1730	-	SAF	97	D	36	DV	100M6	230	-
	0.97 - 4.9	222.40*	2500	1860	-	S	87	D	36	DV	100M6	145	541
	1.1 - 5.4	202.96	2500	1710	-	SF	87	D	36	DV	100M6	170	-
	1.2 - 6.0	180.00*	2500	1530	-	SA	87	D	36	DV	100M6	145	542
	1.4 - 7.2	151.30	2500	1310	-	SAF	87	D	36	DV	100M6	160	-
	1.3 - 6.4	288.00*	2500	1410	-	S	87	D	26	DT	90L4	125	541
	1.4 - 7.1	258.18	2310	1270	-	SF	87	D	26	DT	90L4	145	-
	1.7 - 8.2	222.40*	2010	1110	-	SA	87	D	26	DT	90L4	120	542
						SAF	87	D	26	DT	90L4	135	-

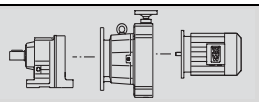
R = 1:5																
P_m [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
1.5	1.6	-	8.1	225.26	1270	1060	-									
	1.7	-	8.6	214.00*	1270	1020	-									
	1.9	-	9.7	189.09	1270	910	-									
	2.3	-	11	161.60*	1270	785	-	S	77		D		26	DT	90L4	85	539
	2.5	-	12	148.15	1270	725	-	SF	77		D		26	DT	90L4	95	-
	2.8	-	14	130.00*	1150	645	-	SA	77		D		26	DT	90L4	84	540
	3.0	-	15	123.20*	1100	615	-	SAF	77		D		26	DT	90L4	91	-
	3.4	-	17	107.83	980	540	-										
	3.8	-	19	97.14	890	490	-										
	3.6	-	18	100.80*	570	475	M1-6										
	4.3	-	21	85.83	570	410	M1-6										
	4.7	-	24	78.00*	570	375	M1-6										
	5.4	-	27	67.57	565	330	M1-6										
	5.6	-	28	65.63	570	365	-										
	5.9	-	29	62.35*	570	350	-										
	6.7	-	34	54.70	570	310	-										
	7.9	-	40	46.40*	505	265	-										
	8.8	-	44	41.89	460	240	-										
	10	-	50	36.85	410	210	-										
	11	-	53	34.80*	385	200	-										
	12	-	62	29.63	335	172	-	S	67		D		26	DT	90L4	65	537
	14	-	68	26.93	305	157	-	SF	67		D		26	DT	90L4	72	-
	15	-	75	24.44	300	150	-	SA	67		D		26	DT	90L4	66	538
	16	-	79	23.33	265	136	-	SAF	67		D		26	DT	90L4	71	-
	16	-	79	23.22*	290	143	-										
	18	-	90	20.37	255	126	-										
	21	-	106	17.28*	215	107	-										
	24	-	118	15.60*	197	97	-										
	27	-	134	13.73*	174	86	-										
	28	-	141	12.96*	165	81	-										
	33	-	166	11.03	141	69	-										
	37	-	183	10.03	129	63	-										
	42	-	211	8.69	112	55	-										
	49	-	242	7.56*	98	48	-										
	45	-	225	15.60*	152	46	-										
	51	-	256	13.73*	135	41	-										
	54	-	271	12.96*	127	39	-	S	67		D		26	DT	90S2	63	537
	64	-	318	11.03	109	33	-	SF	67		D		26	DT	90S2	69	-
	70	-	350	10.03	99	30	-	SA	67		D		26	DT	90S2	64	538
	81	-	404	8.69	86	26	-	SAF	67		D		26	DT	90S2	68	-
	93	-	464	7.56*	76	23	-										
2.2	0.87	-	4.4	420	4200	3910	-										
	0.98	-	4.9	376	4200	3500	-										
	1.1	-	5.6	327	4200	3050	-	S	97	R57	D		26	DV	100M4	200	-
	1.3	-	6.4	287	4010	2670	-	SF	97	R57	D		26	DV	100M4	235	-
	1.5	-	7.3	252	3520	2350	-	SA	97	R57	D		26	DV	100M4	195	-
	1.7	-	8.4	219	3060	2040	-	SAF	97	R57	D		26	DV	100M4	220	-
	1.8	-	8.9	205	2860	1910	-										
	1.8	-	8.9	205	1980	1910	-	S	87	R57	D		26	DV	100M4	145	-
								SF	87	R57	D		26	DV	100M4	165	-
								SA	87	R57	D		26	DV	100M4	140	-
								SAF	87	R57	D		26	DV	100M4	155	-
2.2	0.77	-	3.9	286.40*	4200	3540	-	S	97		D		36	DV	112M6	220	543
	0.84	-	4.2	262.22	4200	3260	-	SF	97		D		36	DV	112M6	255	-
	0.95	-	4.8	231.67	4200	2920	-	SA	97		D		36	DV	112M6	215	544
	1.1	-	5.6	196.52	4200	2510	-	SAF	97		D		36	DV	112M6	240	-
	1.2	-	6.2	180.00*	2500	2220	-	S	87		D		36	DV	112M6	155	541
	1.5	-	7.3	151.30	2500	1900	-	SF	87		D		36	DV	112M6	180	-
								SA	87		D		36	DV	112M6	155	542
								SAF	87		D		36	DV	112M6	170	-
	1.3	-	6.4	288.00*	2500	2040	-	S	87		D		26	DV	100M4	125	541
	1.4	-	7.1	258.18	2310	1850	-	SF	87		D		26	DV	100M4	150	-
	1.7	-	8.2	222.40*	2010	1610	-	SA	87		D		26	DV	100M4	125	542
								SAF	87		D		26	DV	100M4	140	-

R = 1:5

P_m [kW]	n_{a1} - n_{a2} [1/min]	i	M_{a1} [Nm]	M_{a2} [Nm]	⚠							m [kg]	
2.2	**2.3 - 11**	161.60*	1270	1140	-								
	2.5 - 12	148.15	1270	1050	-								
	2.8 - 14	130.00*	1150	930	-								
	3.0 - 15	123.20*	1100	890	-								
	3.4 - 17	107.83	980	785	-	**S**	**77**	**D**	**26**	**DV**	**100M4**	89	539
	3.8 - 19	97.14	890	715	-	**SF**	**77**	**D**	**26**	**DV**	**100M4**	99	-
	4.3 - 22	85.22	790	630	-	**SA**	**77**	**D**	**26**	**DV**	**100M4**	88	540
	4.9 - 24	75.20*	705	560	-	**SAF**	**77**	**D**	**26**	**DV**	**100M4**	95	-
	4.9 - 24	75.09	870	640	-								
	5.2 - 26	71.33	820	605	-								
	5.5 - 27	66.67	635	500	-								
	5.8 - 29	63.03	735	540	-								
	5.4 - 27	67.57	565	480	M1-6								
	6.7 - 34	54.70	570	445	-								
	7.9 - 40	46.40*	505	380	-								
	8.8 - 44	41.89	460	345	-								
	10 - 50	36.85	410	305	-								
	11 - 53	34.80*	385	290	-								
	12 - 62	29.63	335	250	-								
	14 - 68	26.93	305	225	-								
	15 - 75	24.44	300	220	-	**S**	**67**	**D**	**26**	**DV**	**100M4**	69	537
	16 - 79	23.33	265	198	-	**SF**	**67**	**D**	**26**	**DV**	**100M4**	76	-
	16 - 79	23.22*	290	205	-	**SA**	**67**	**D**	**26**	**DV**	**100M4**	70	538
	18 - 90	20.37	255	183	-	**SAF**	**67**	**D**	**26**	**DV**	**100M4**	75	-
	21 - 106	17.28*	215	156	-								
	24 - 118	15.60*	197	141	-								
	27 - 134	13.73*	174	124	-								
	28 - 141	12.96*	165	118	-								
	33 - 166	11.03	141	100	-								
	37 - 183	10.03	129	91	-								
	42 - 211	8.69	112	79	-								
	49 - 242	7.56*	98	69	-								
	41 - 205	17.28*	172	78	-								
	46 - 228	15.60*	156	70	-								
	52 - 258	13.73*	138	62	-	**S**	**67**	**D**	**26**	**DT**	**90L2**	65	537
	55 - 274	12.96*	131	59	-	**SF**	**67**	**D**	**26**	**DT**	**90L2**	72	-
	64 - 322	11.03	112	50	-	**SA**	**67**	**D**	**26**	**DT**	**90L2**	66	538
	71 - 354	10.03	102	46	-	**SAF**	**67**	**D**	**26**	**DT**	**90L2**	71	-
	82 - 408	8.69	89	39	-								
	94 - 469	7.56*	78	34	-								
3.0	**1.2 - 5.8**	286.40*	4200	3250	-	**S**	**97**	**D**	**36**	**DV**	**100L4**	210	543
	1.3 - 6.3	262.22	4200	3000	-	**SF**	**97**	**D**	**36**	**DV**	**100L4**	245	-
	1.4 - 7.1	231.67	4200	2670	-	**SA**	**97**	**D**	**36**	**DV**	**100L4**	205	544
	1.7 - 8.4	196.52	4200	2290	-	**SAF**	**97**	**D**	**36**	**DV**	**100L4**	230	-
	1.8 - 9.2	180.00*	2500	2040	-	**S**	**87**	**D**	**36**	**DV**	**100L4**	150	541
	2.2 - 11	151.30	2500	1740	-	**SF**	**87**	**D**	**36**	**DV**	**100L4**	170	-
	2.4 - 12	139.05	2500	1610	-	**SA**	**87**	**D**	**36**	**DV**	**100L4**	145	542
	2.7 - 13	123.48	2500	1440	-	**SAF**	**87**	**D**	**36**	**DV**	**100L4**	160	-

R = 1:5																
P_m [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
3.0	3.9	-	19	85.22	1270	970	M1-6									
	4.4	-	22	75.20*	1270	870	M1-6									
	4.9	-	25	66.67	1270	775	M1-6									
	5.8	-	29	56.92	1270	665	M1-6									
	6.1	-	31	53.87	1240	715	-									
	6.7	-	33	49.38	1240	660	-									
	7.6	-	38	43.33	1240	580	-									
	8.0	-	40	41.07	1240	550	-									
	9.2	-	46	35.94	1180	485	-									
	10	-	51	32.38	1070	440	-									
	12	-	58	28.41	940	385	-	S	77	D	36	DV	100L4	115	539	
	13	-	66	25.07	840	340	-	SF	77	D	36	DV	100L4	125	-	
	14	-	72	22.89	675	320	-	SA	77	D	36	DV	100L4	115	540	
	15	-	74	22.22	745	305	-	SAF	77	D	36	DV	100L4	120	-	
	16	-	79	20.99	735	295	-									
	17	-	87	18.97	645	260	-									
	18	-	90	18.42	650	260	-									
	19	-	95	17.45	615	245	-									
	22	-	108	15.28	545	215	-									
	24	-	120	13.76	490	195	-									
	27	-	137	12.07	435	172	-									
	31	-	155	10.65	385	152	-									
	35	-	175	9.44	340	135	-									
	41	-	205	8.06	295	115	-									
	43	-	216	15.28	320	103	-									
	48	-	240	13.76	290	93	-	S	77	D	36	DV	100M2	110	539	
	55	-	274	12.07	255	81	-	SF	77	D	36	DV	100M2	120	-	
	62	-	310	10.65	225	72	-	SA	77	D	36	DV	100M2	110	540	
	70	-	350	9.44	200	64	-	SAF	77	D	36	DV	100M2	120	-	
	82	-	410	8.06	173	55	M2									
4.0	1.4	-	7.2	231.67	4200	3570	-									
	1.7	-	8.5	196.52	4200	3070	-	S	97	D	36	DV	112M4	220	543	
	1.9	-	9.3	180.95	4200	2840	-	SF	97	D	36	DV	112M4	255	-	
	2.1	-	10	161.74	4200	2560	-	SA	97	D	36	DV	112M4	215	544	
	2.3	-	12	145.60*	3870	2310	-	SAF	97	D	36	DV	112M4	240	-	
	2.7	-	14	123.48	2500	1920	M2,4-6									
	3.0	-	15	110.40*	2500	1730	M2,4-6									
	3.4	-	17	99.26	2470	1570	M2,4-6									
	3.9	-	19	86.15	2300	1370	M2,4-6	S	87	D	36	DV	112M4	155	541	
	4.3	-	22	77.14	2080	1230	M2,4-6	SF	87	D	36	DV	112M4	180	-	
	4.7	-	24	70.43	1980	1270	-	SA	87	D	36	DV	112M4	155	542	
	5.2	-	26	64.27	1980	1160	-	SAF	87	D	36	DV	112M4	170	-	
	5.2	-	26	64.00*	1760	1030	M1-6									
	5.9	-	29	57.00*	1860	1030	-									
	5.9	-	29	56.92	1270	890	M1-6									
	6.2	-	31	53.87	1240	960	-									
	6.8	-	34	49.38	1240	880	-									
	7.7	-	39	43.33	1240	775	-									
	8.1	-	41	41.07	1240	735	-									
	9.3	-	47	35.94	1160	650	-									
	10	-	52	32.38	1050	585	-									
	12	-	59	28.41	930	515	-									
	13	-	67	25.07	830	455	-									
	15	-	73	22.89	675	430	-	S	77	D	36	DV	112M4	125	539	
	15	-	75	22.22	735	405	-	SF	77	D	36	DV	112M4	130	-	
	16	-	80	20.99	725	395	-	SA	77	D	36	DV	112M4	120	540	
	18	-	88	18.97	635	350	-	SAF	77	D	36	DV	112M4	130	-	
	18	-	91	18.42	640	345	-									
	19	-	96	17.45	610	330	-									
	22	-	110	15.28	535	290	-									
	24	-	122	13.76	485	260	-									
	28	-	139	12.07	425	230	-									
	31	-	157	10.65	380	205	-									
	35	-	178	9.44	335	180	-									
	41	-	208	8.06	290	154	-									

R = 1:5																	
P_m [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠									m [kg]	
4.0	39	-	193	17.45	360	158	-										
	44	-	221	15.28	315	139	-										
	49	-	245	13.76	285	125	-	S	77	D	36	DV	112M2	125	539		
	56	-	280	12.07	250	110	-	SF	77	D	36	DV	112M2	130	-		
	63	-	317	10.65	220	97	-	SA	77	D	36	DV	112M2	120	540		
	71	-	358	9.44	197	86	M2	SAF	77	D	36	DV	112M2	130	-		
	83	-	419	8.06	169	74	M2										
5.5	2.1	-	10	161.74	4200	3550	-										
	2.3	-	12	145.60*	3850	3210	-										
	2.6	-	13	131.85	3520	2930	-										
	2.9	-	14	116.92	3150	2610	M2	S	97	D	36	DV	132S4	230	543		
	3.2	-	16	105.71	2880	2370	M2	SF	97	D	36	DV	132S4	260	-		
	3.8	-	19	89.60*	2480	2030	M2	SA	97	D	36	DV	132S4	220	544		
	4.2	-	21	80.85	2670	2050	-	SAF	97	D	36	DV	132S4	250	-		
	4.3	-	22	78.26	2190	1780	-										
	4.7	-	24	71.43	2370	1820	-										
	5.1	-	26	65.45	1860	1500	-										
	5.3	-	26	64.00*	1750	1430	M1-6										
	5.9	-	30	57.00*	1850	1430	-	S	87	D	36	DV	132S4	165	541		
	7.0	-	35	47.91	1570	1210	-	SF	87	D	36	DV	132S4	185	-		
	7.6	-	38	44.03	1450	1120	-	SA	87	D	36	DV	132S4	160	542		
	8.6	-	43	39.10	1290	990	-	SAF	87	D	36	DV	132S4	180	-		
	9.6	-	48	34.96*	1160	890	-										
	7.8	-	39	43.33	1240	1080	M1-6										
	8.2	-	41	41.07	1240	1020	M1-6										
	9.4	-	47	35.94	1150	900	M1-6										
	10	-	52	32.38	1040	810	M1-6										
	12	-	59	28.41	920	715	M1-6										
	13	-	67	25.07	820	635	M1-6										
	15	-	74	22.89	675	595	-										
	15	-	76	22.22	730	565	M1-6	S	77	D	36	DV	132S4	130	539		
	16	-	80	20.99	720	545	-	SF	77	D	36	DV	132S4	140	-		
	18	-	89	18.97	630	480	M1-6	SA	77	D	36	DV	132S4	130	540		
	18	-	92	18.42	635	480	-	SAF	77	D	36	DV	132S4	135	-		
	19	-	97	17.45	605	455	-										
	22	-	110	15.28	530	400	-										
	24	-	123	13.76	480	360	-										
	28	-	140	12.07	425	320	-										
	32	-	158	10.65	375	280	-										
	36	-	179	9.44	335	250	-										
	42	-	209	8.06	285	215	-										
	39	-	195	17.45	355	220	-										
	44	-	222	15.28	315	195	-										
	49	-	247	13.76	280	175	M2	S	77	D	36	DV	132S2	130	539		
	56	-	282	12.07	250	154	M2	SF	77	D	36	DV	132S2	140	-		
	64	-	319	10.65	220	136	M2	SA	77	D	36	DV	132S2	130	540		
	72	-	360	9.44	196	121	M1-6	SAF	77	D	36	DV	132S2	135	-		
	84	-	422	8.06	168	103	M1-6										

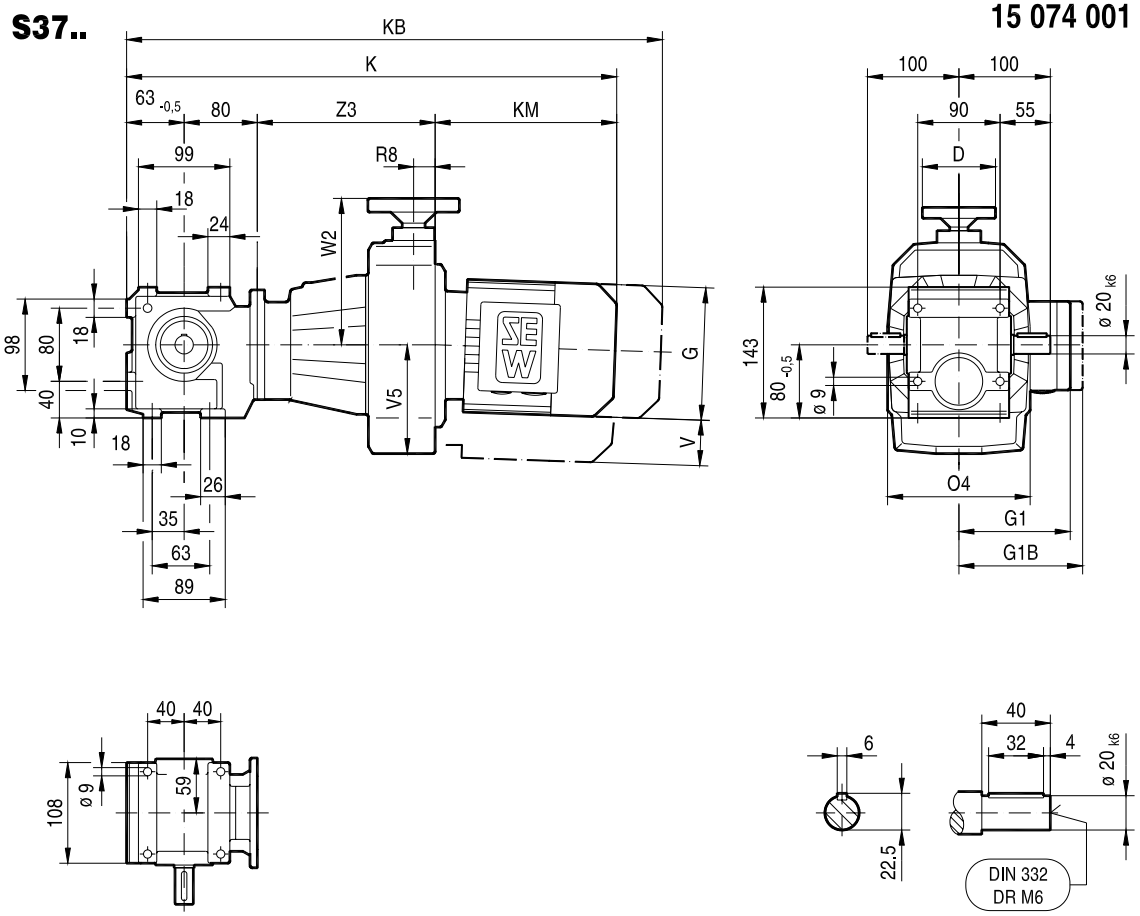
R = 1:4																	
P_m [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
4.0	**1.7**	**-**	**6.7**	161.74	4200	3890	-	**S**	**97**	**D**	**46**	**DV**	**132M6**		275	543
								SF	**97**	**D**	**46**	**DV**	**132M6**		305	-
								SA	**97**	**D**	**46**	**DV**	**132M6**		270	544
								SAF	**97**	**D**	**46**	**DV**	**132M6**		295	-
7.5	**4.5**	**-**	**18**	89.60*	4160	2900	M1-6									
	5.2	**-**	**20**	78.26	3820	2550	M1-6									
	5.6	**-**	**22**	71.43	4000	2610	-									
	6.2	**-**	**24**	65.45	3240	2150	M1-6	**S**	**97**	**D**	**46**	**DV**	**132M4**		275	543
	6.7	**-**	**26**	60.59	3420	2220	-	**SF**	**97**	**D**	**46**	**DV**	**132M4**		305	-
	7.2	**-**	**29**	55.79	3160	2050	-	**SA**	**97**	**D**	**46**	**DV**	**132M4**		270	544
	8.1	**-**	**32**	49.87	2840	1840	-	**SAF**	**97**	**D**	**46**	**DV**	**132M4**		295	-
	9.0	**-**	**36**	44.89	2560	1660	-									
	9.9	**-**	**39**	40.65	2330	1500	-									
	11	**-**	**44**	36.05	2080	1340	-									
	9.2	**-**	**36**	44.03	1980	1600	-									
	10	**-**	**41**	39.10	1980	1430	-									
	12	**-**	**46**	34.96*	1970	1280	-									
	13	**-**	**51**	31.43	1780	1150	-									
	15	**-**	**59**	27.28	1550	1000	-									
	16	**-**	**63**	25.50*	1430	960	-									
	16	**-**	**66**	24.43	1400	900	M2	**S**	**87**	**D**	**46**	**DV**	**132M4**		215	541
	19	**-**	**75**	21.43	1260	810	-	**SF**	**87**	**D**	**46**	**DV**	**132M4**		235	-
	20	**-**	**79**	20.27	1170	750	M2	**SA**	**87**	**D**	**46**	**DV**	**132M4**		210	542
	20	**-**	**81**	19.70	1160	745	-	**SAF**	**87**	**D**	**46**	**DV**	**132M4**		225	-
	23	**-**	**92**	17.49	1040	665	-									
	26	**-**	**102**	15.64*	930	595	-									
	29	**-**	**114**	14.06	840	535	-									
	33	**-**	**131**	12.21	730	465	-									
	37	**-**	**147**	10.93	655	420	-									
	44	**-**	**177**	9.07	545	345	-									
	51	**-**	**203**	7.88	475	300	-									
	47	**-**	**186**	17.49	720	325	-									
	52	**-**	**208**	15.64*	645	290	M2	**S**	**87**	**D**	**46**	**DV**	**132M2**		215	541
	58	**-**	**231**	14.06	580	260	M2	**SF**	**87**	**D**	**46**	**DV**	**132M2**		235	-
	67	**-**	**266**	12.21	505	230	M2	**SA**	**87**	**D**	**46**	**DV**	**132M2**		210	542
	75	**-**	**297**	10.93	455	205	M2,4-6	**SAF**	**87**	**D**	**46**	**DV**	**132M2**		225	-
	90	**-**	**358**	9.07	375	170	M2,4-6									
	104	**-**	**412**	7.88	330	148	M1-6									
9.2	**5.7**	**-**	**23**	71.43	3970	3180	-									
	6.2	**-**	**25**	65.45	3220	2620	M1-6									
	6.7	**-**	**27**	60.59	3390	2710	-	**S**	**97**	**D**	**46**	**DV**	**132ML4**		285	543
	7.3	**-**	**29**	55.79	3140	2500	-	**SF**	**97**	**D**	**46**	**DV**	**132ML4**		315	-
	8.1	**-**	**32**	49.87	2820	2240	-	**SA**	**97**	**D**	**46**	**DV**	**132ML4**		280	544
	9.0	**-**	**36**	44.89	2550	2020	-	**SAF**	**97**	**D**	**46**	**DV**	**132ML4**		305	-
	10	**-**	**40**	40.65	2320	1840	-									
	11	**-**	**45**	36.05	2060	1630	-									
	12	**-**	**49**	32.60	1870	1480	-									
	12	**-**	**46**	34.96*	1960	1560	M1-6									
	13	**-**	**51**	31.43	1770	1400	M1-6									
	15	**-**	**59**	27.28	1540	1220	M1-6									
	16	**-**	**63**	25.50*	1430	1170	-									
	17	**-**	**66**	24.43	1390	1100	M1-6									
	19	**-**	**75**	21.43	1250	990	-	**S**	**87**	**D**	**46**	**DV**	**132ML4**		225	541
	20	**-**	**80**	20.27	1160	910	M1-6	**SF**	**87**	**D**	**46**	**DV**	**132ML4**		245	-
	21	**-**	**82**	19.70	1160	910	-	**SA**	**87**	**D**	**46**	**DV**	**132ML4**		220	542
	23	**-**	**92**	17.49	1030	810	-	**SAF**	**87**	**D**	**46**	**DV**	**132ML4**		235	-
	26	**-**	**103**	15.64*	920	725	-									
	29	**-**	**115**	14.06	830	655	-									
	33	**-**	**132**	12.21	725	570	-									
	37	**-**	**148**	10.93	650	510	-									
	45	**-**	**178**	9.07	545	425	-									
	51	**-**	**205**	7.88	475	370	-									

R = 1:4																
P_m [kW]	n_{a1} - n_{a2} [1/min]			i	M_{a1} [Nm]	M_{a2} [Nm]	⚠								m [kg]	
9.2	47	-	185	17.49	720	400	M2									
	52	-	207	15.64*	645	360	M2									
	58	-	230	14.06	580	320	M2,4-6	S	87	D	46	DV	132ML2	225	541
	67	-	265	12.21	505	280	M2,4-6	SF	87	D	46	DV	132ML2	245	-
	74	-	296	10.93	455	250	M1-6	SA	87	D	46	DV	132ML2	220	542
	90	-	357	9.07	380	210	M1-6	SAF	87	D	46	DV	132ML2	235	-
	103	-	411	7.88	330	181	M1-6									
11.0	6.7	-	27	60.59	3390	3240	-									
	7.3	-	29	55.79	3140	2990	-									
	8.1	-	32	49.87	2820	2680	-	S	97	D	46	DV	160M4	290	543
	9.0	-	36	44.89	2550	2420	-	SF	97	D	46	DV	160M4	325	-
	10	-	40	40.65	2320	2200	-	SA	97	D	46	DV	160M4	285	544
	11	-	45	36.05	2060	1950	-	SAF	97	D	46	DV	160M4	310	-
	12	-	49	32.60	1870	1770	-									
	15	-	61	26.39	1570	1470	-									
	17	-	66	24.43	1390	1320	M1-6									
	19	-	75	21.43	1250	1180	-									
	20	-	80	20.27	1160	1090	M1-6									
	21	-	82	19.70	1160	1090	-									
	23	-	92	17.49	1030	970	-	S	87	D	46	DV	160M4	230	541
	26	-	103	15.64*	920	870	-	SF	87	D	46	DV	160M4	250	-
	29	-	115	14.06	830	780	-	SA	87	D	46	DV	160M4	225	542
	33	-	132	12.21	725	680	-	SAF	87	D	46	DV	160M4	245	-
	37	-	148	10.93	650	610	-									
	45	-	178	9.07	545	505	M2									
	51	-	205	7.88	475	440	M2									
	47	-	186	17.49	720	475	M2,4-6									
	52	-	208	15.64*	645	425	M2,4-6									
	58	-	231	14.06	580	385	M1-6	S	87	D	46	DV	160M2	230	541
	67	-	266	12.21	505	335	M1-6	SF	87	D	46	DV	160M2	250	-
	75	-	297	10.93	455	300	M1-6	SA	87	D	46	DV	160M2	225	542
	90	-	358	9.07	375	250	M1-6	SAF	87	D	46	DV	160M2	245	-
	104	-	412	7.88	330	215	M1-6									

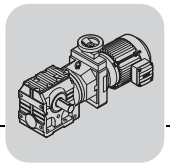
17.3 S..D..DT/DV.. [mm]

S37..

15 074 001



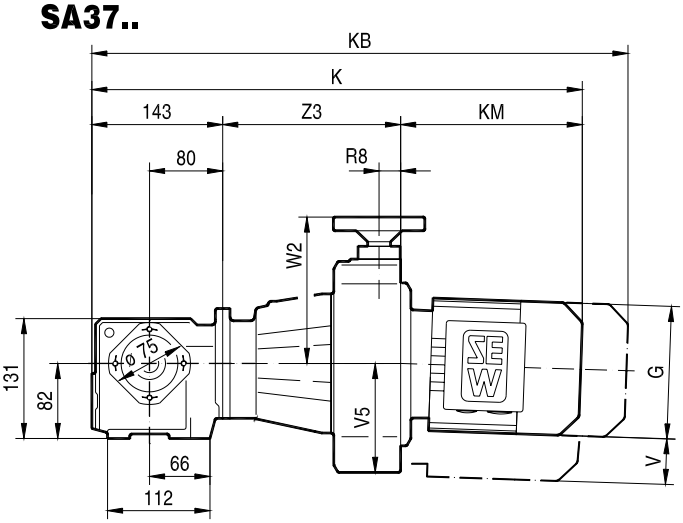
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
S37	**D16**	**DT71D**	100	145	122	127	536	600	198	156	25	49	119	160	195
		DT80..	100	145	122	127	586	650	248	156	25	49	119	160	195

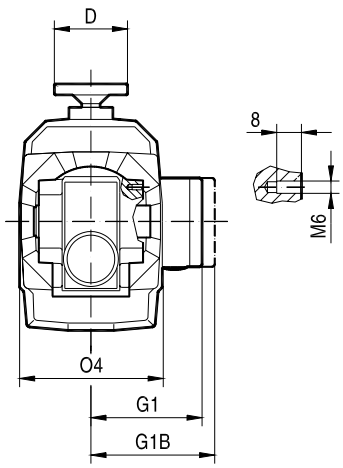


S..D..DT/DV.. [mm]

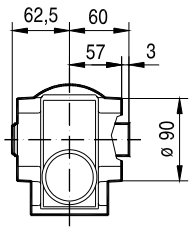
SA37..

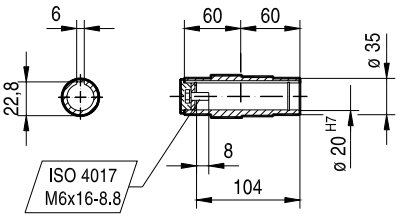
15 075 001



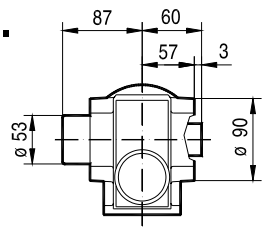


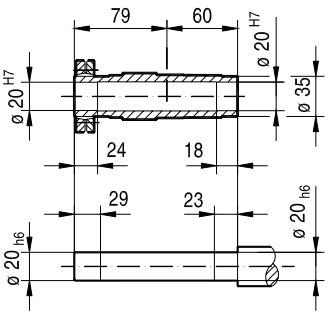
SA37..





SH37..

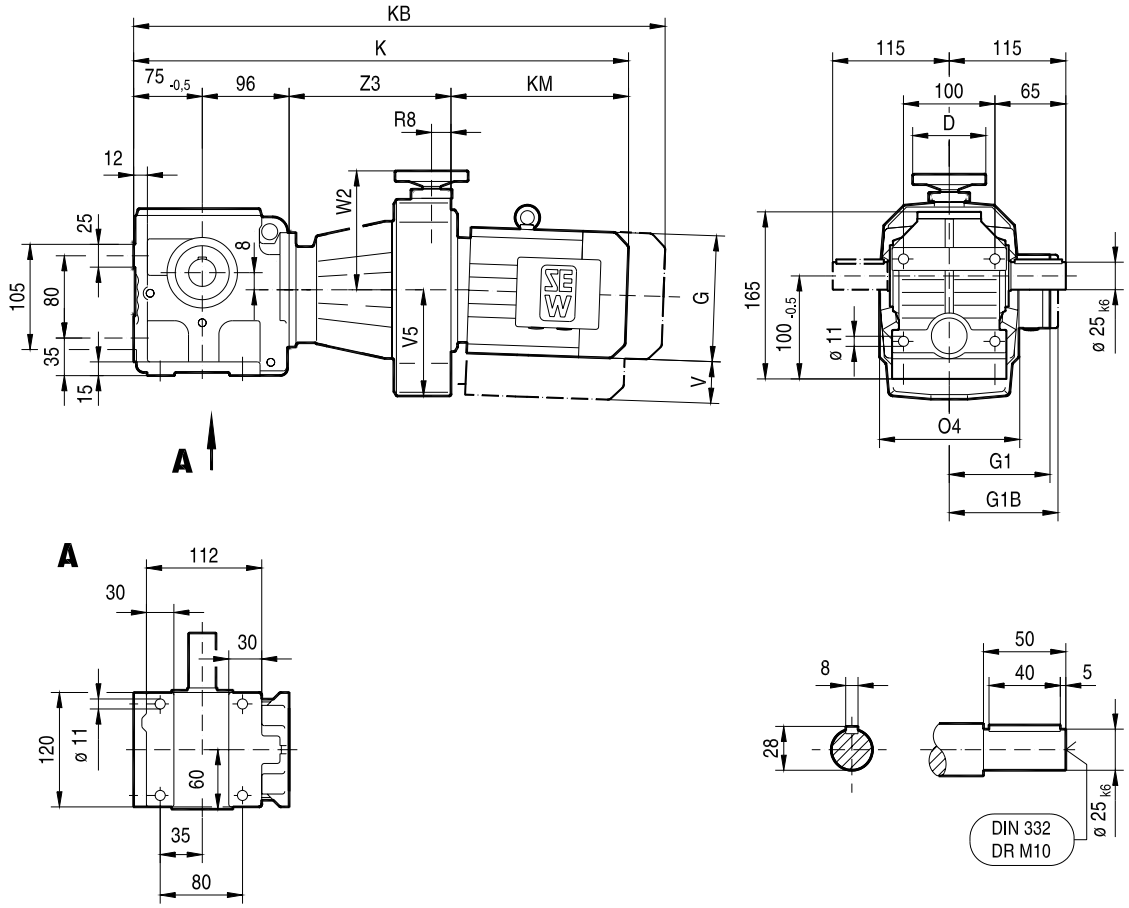




(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
SA37 SH37	**D16**	**DT71D**	100	145	122	127	536	600	198	156	25	49	119	160	195
		DT80..	100	145	122	127	586	650	248	156	25	49	119	160	195

15 076 001

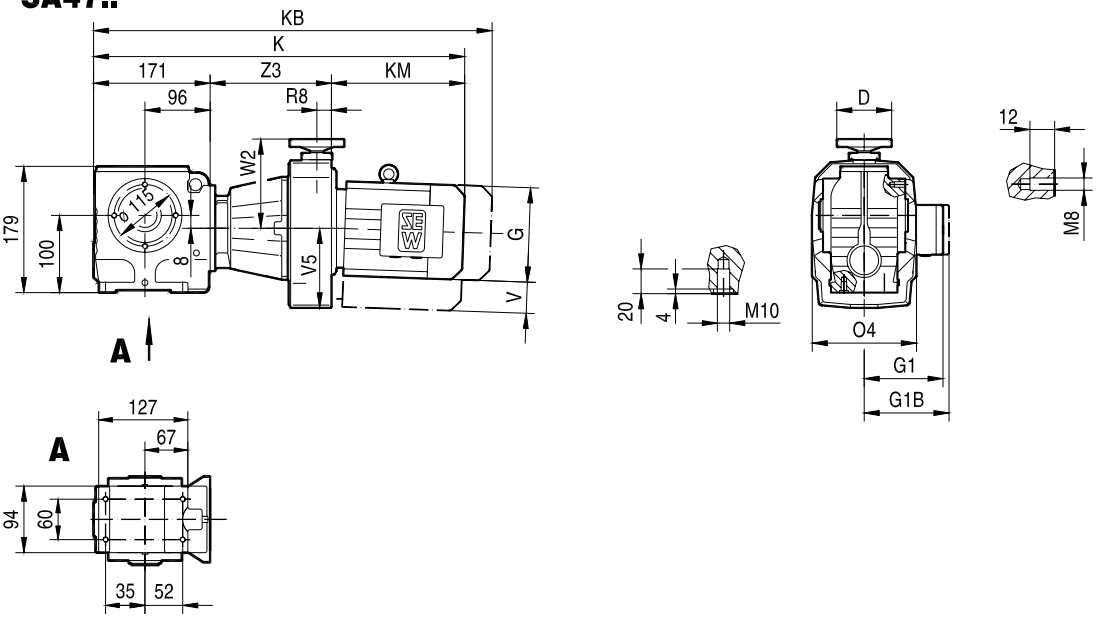
S47..



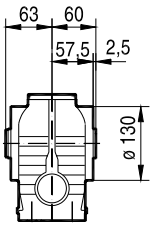
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
S47	**D16**	**DT71D**	100	145	122	127	564	628	198	156	25	49	119	160	195
		DT80..	100	145	122	127	614	678	248	156	25	49	119	160	195

15 077 001

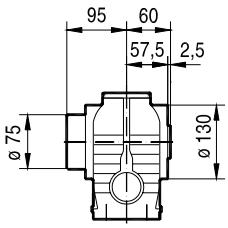
SA47..



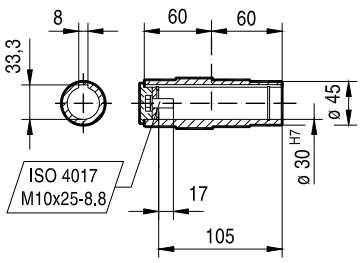
SA47..



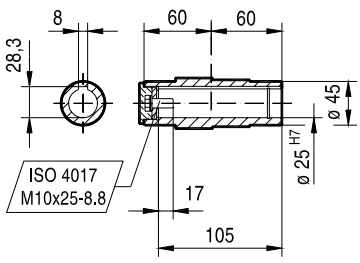
SH47..

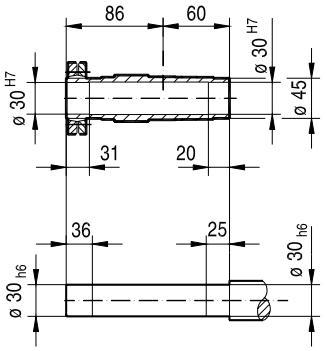


ø 30 H7



ø 25 H7

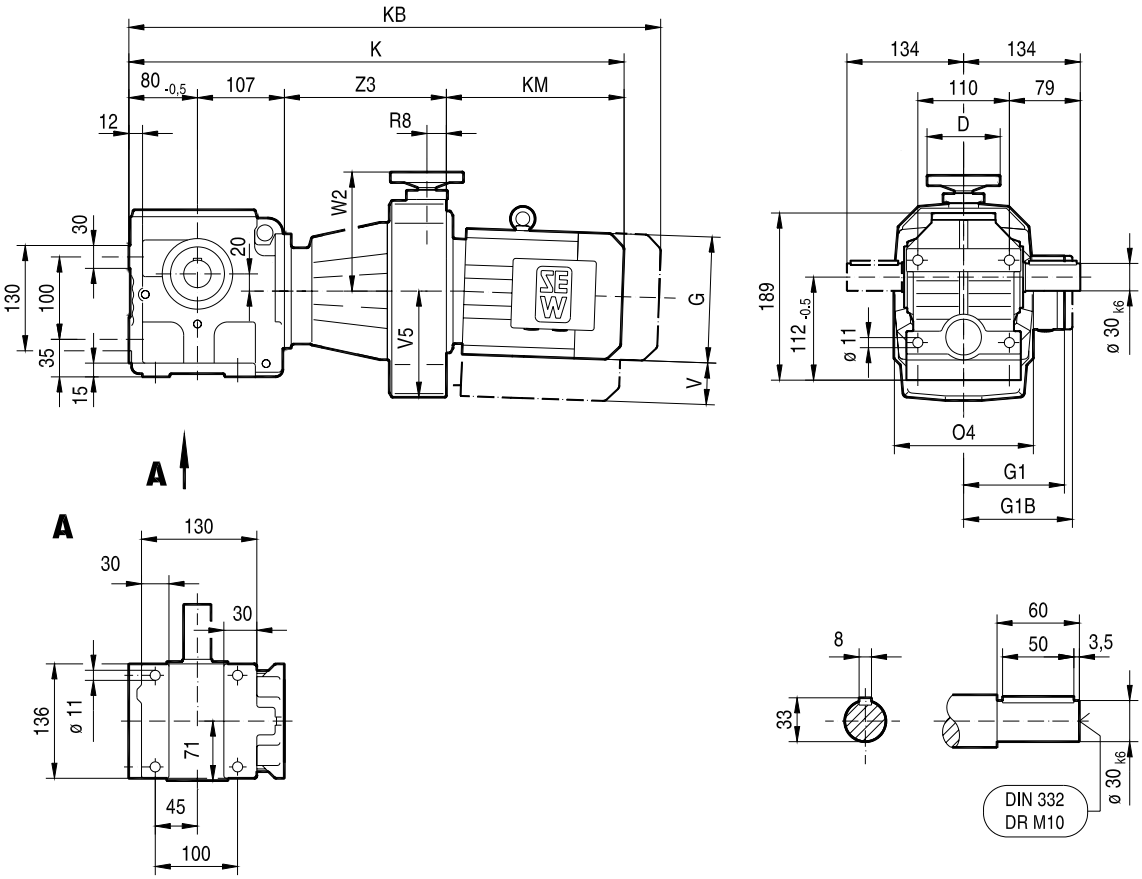




(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
SA47 SH47	**D16**	**DT71D**	100	145	122	127	564	628	198	156	25	49	119	160	195
		DT80..	100	145	122	127	614	678	248	156	25	49	119	160	195

S57..

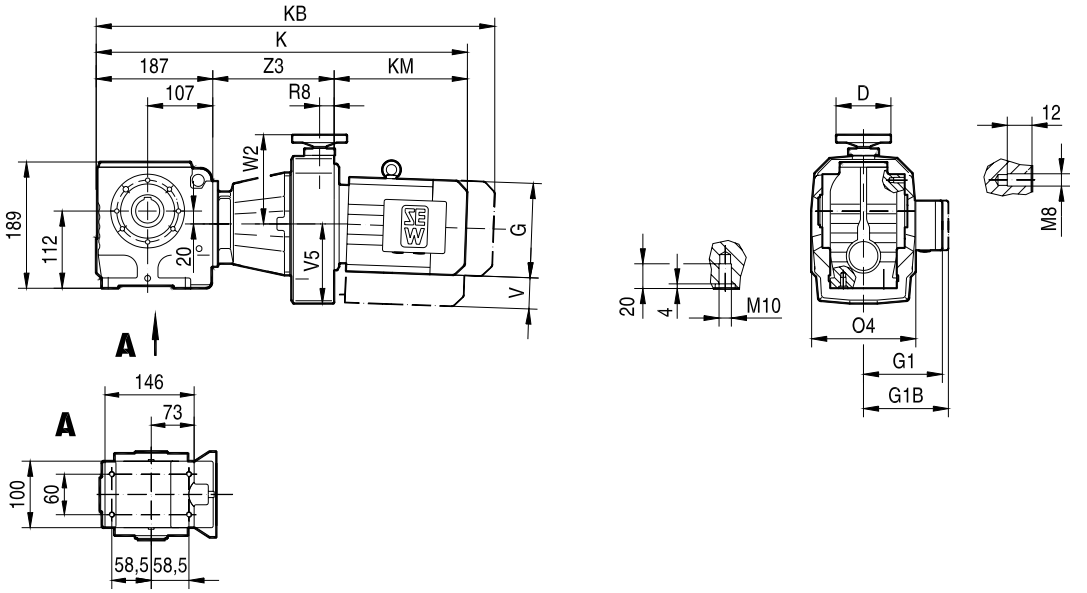
15 078 001



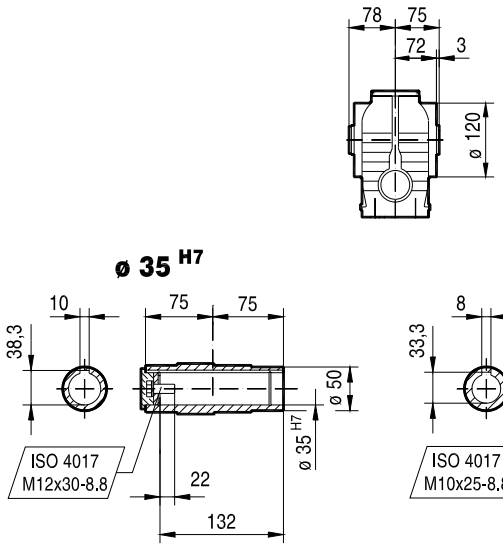
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
S57	**D16**	**DT71D**	100	145	122	127	580	644	198	156	25	49	119	160	195
		DT80..	100	145	122	127	630	694	248	156	25	49	119	160	195

15 079 001

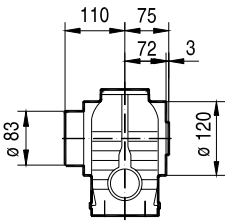
SA57..



SA57..

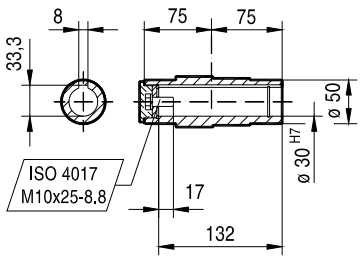


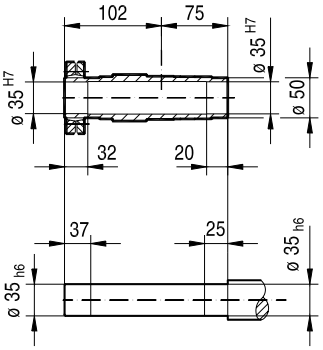
SH57..



ø 35 H7

ø 30 H7

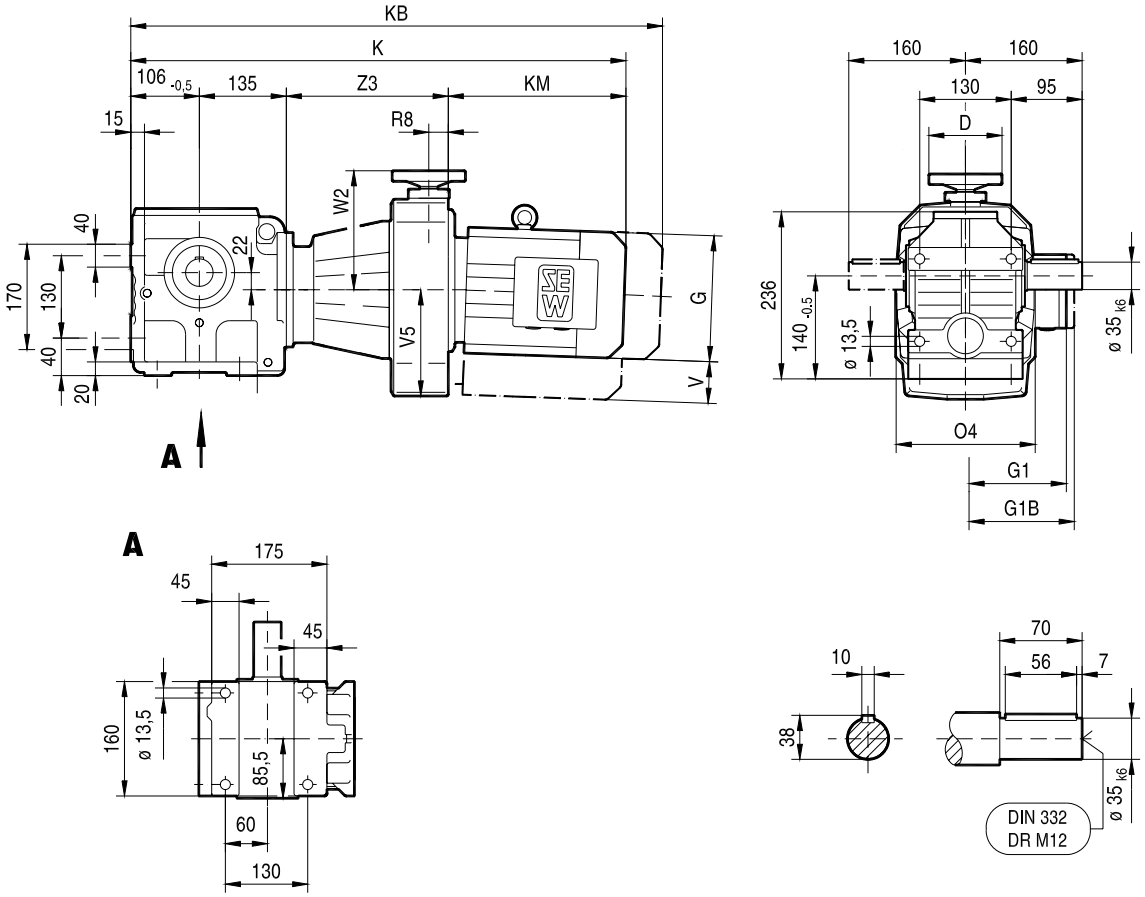




(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
SA57 **SH57**	**D16**	**DT71D**	100	145	122	127	580	644	198	156	25	49	119	160	195
		DT80..	100	145	122	127	630	694	248	156	25	49	119	160	195

15 080 001

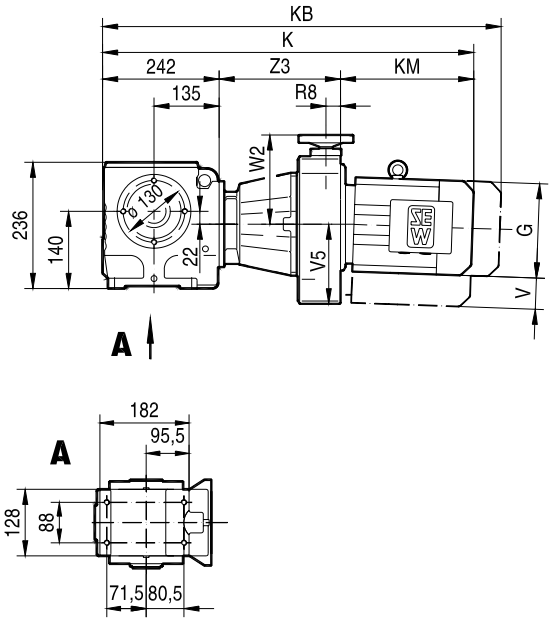
S67..

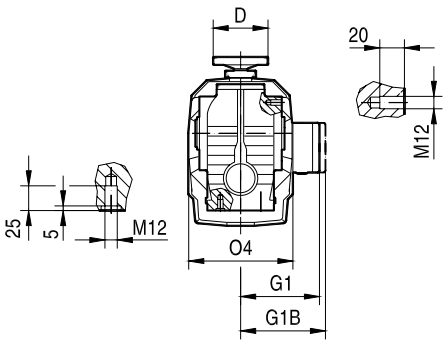


(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
S67	D16	DT71D	100	145	122	127	627	691	198	156	25	49	119	160	188
		DT80..	100	145	122	127	677	741	248	156	25	49	119	160	188
	D26	DT90..	100	197	154	161	717	802	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	767	852	298	205	32.5	66	153	192	228

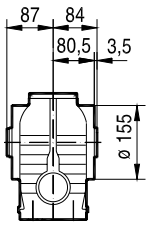
15 081 001

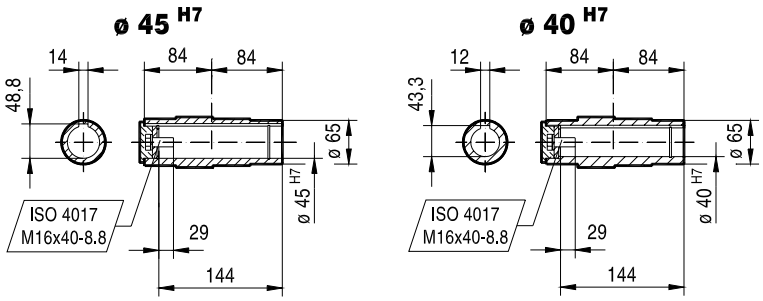
SA67..



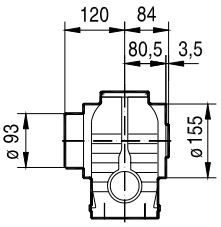


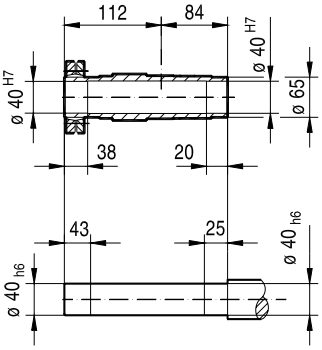
SA67..





SH67..

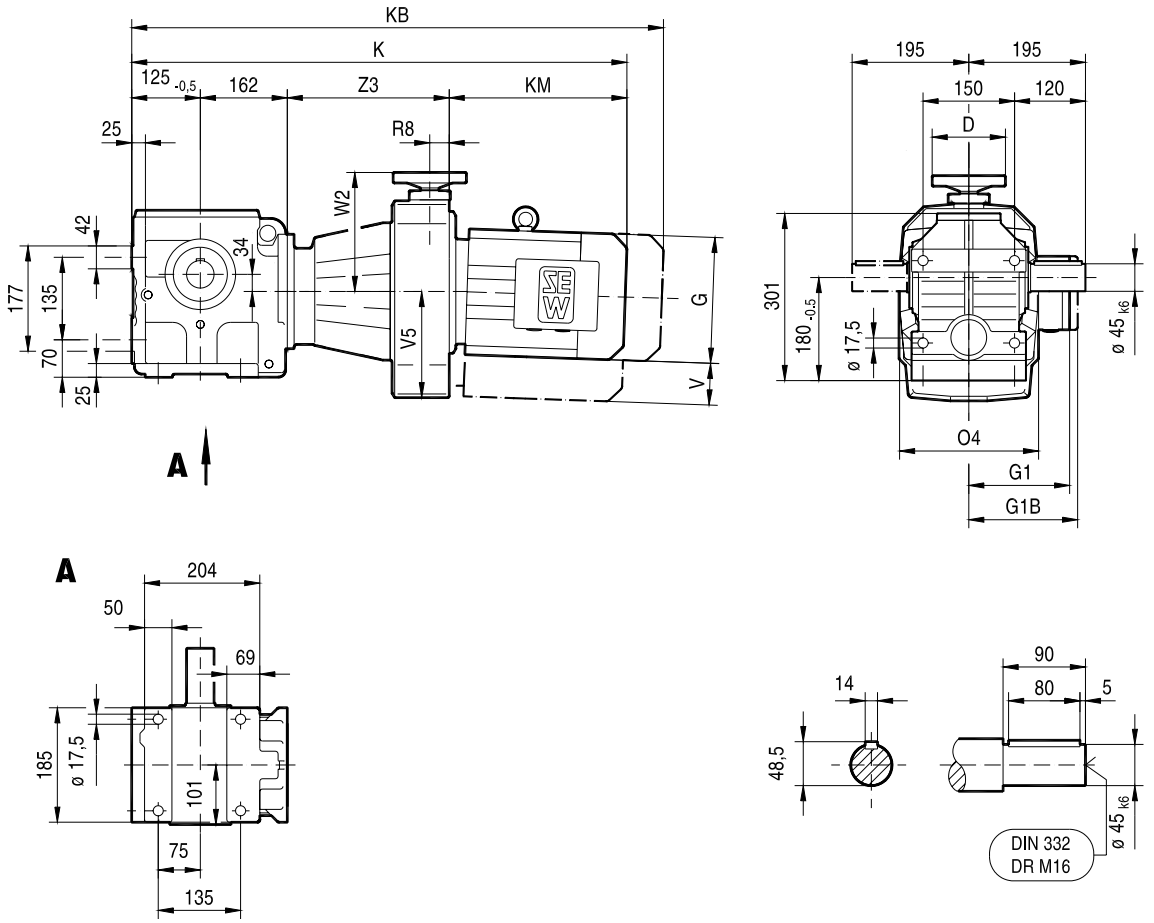




(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
SA67 SH67	D16	DT71D	100	145	122	127	628	692	198	156	25	49	119	160	188
		DT80..	100	145	122	127	678	742	248	156	25	49	119	160	188
	D26	DT90..	100	197	154	161	718	803	248	205	32.5	66	153	192	228
		DV100M	100	197	166	166	768	853	298	205	32.5	66	153	192	228

S77..

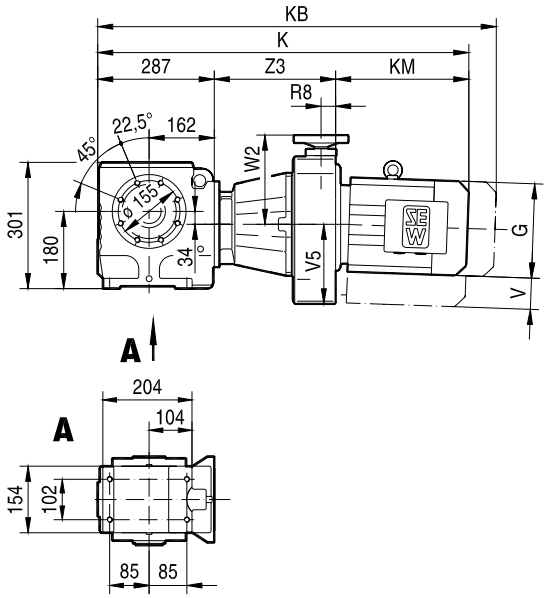
15 082 001

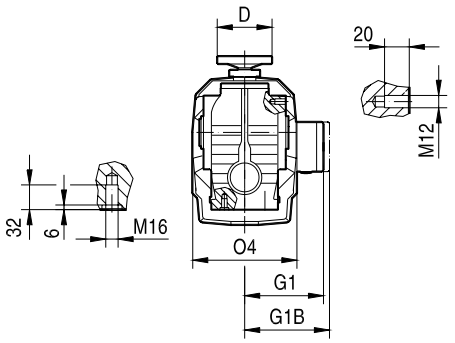


(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
S77	D16	DT80..	100	145	122	127	717	781	248	156	25	49	119	160	182
	D26	DT90..	100	197	154	161	755	840	248	205	32.5	66	153	192	220
		DV100M	100	197	166	166	805	890	298	205	32.5	66	153	192	220
	D36	DV100M	160	197	166	166	880	965	309	265	38	88	204	232	284
		DV100L	160	197	166	166	910	995	339	265	38	88	204	232	284
		DV112M	160	221	179	182	903	983	332	265	38	88	204	232	284
		DV132S	160	221	179	182	948	1028	377	265	38	88	204	232	284

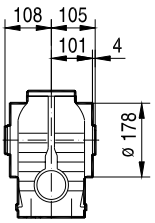
15 083 001

SA77..

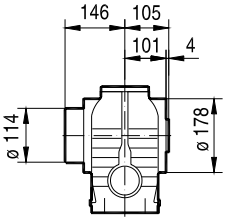




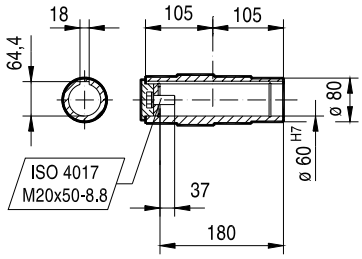
SA77..



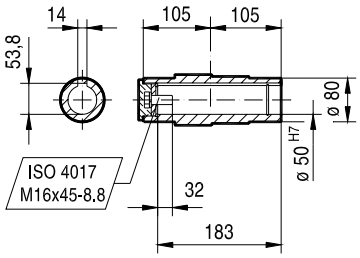
SH77..

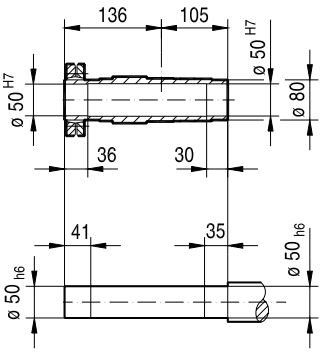


ø 60 H7



ø 50 H7

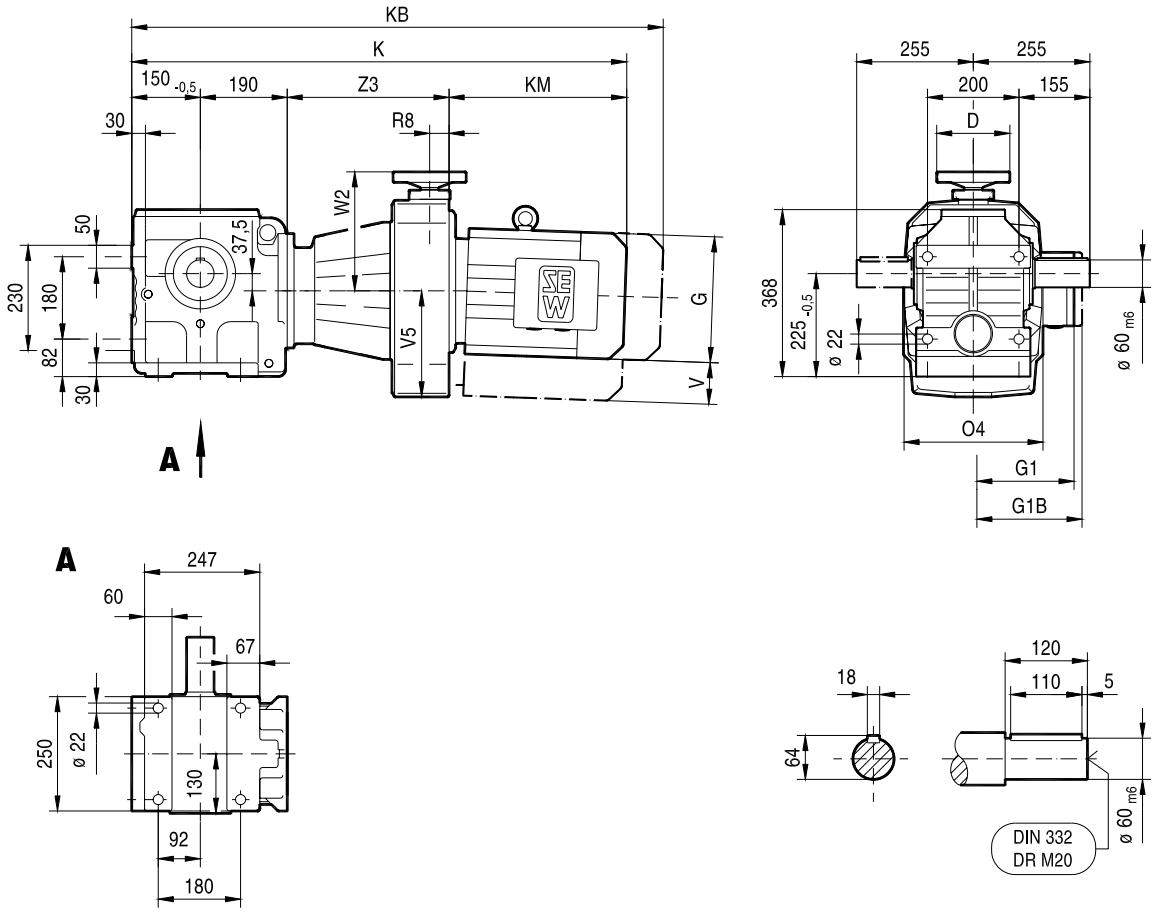




(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
SA77 SH77	D16	DT80..	100	145	122	127	717	781	248	156	25	49	119	160	182
	D26	DT90..	100	197	154	161	755	840	248	205	32.5	66	153	192	220
		DV100M	100	197	166	166	805	890	298	205	32.5	66	153	192	220
	D36	DV100M	160	197	166	166	880	965	309	265	38	88	204	232	284
		DV100L	160	197	166	166	910	995	339	265	38	88	204	232	284
		DV112M	160	221	179	182	903	983	332	265	38	88	204	232	284
		DV132S	160	221	179	182	948	1028	377	265	38	88	204	232	284

15 084 001

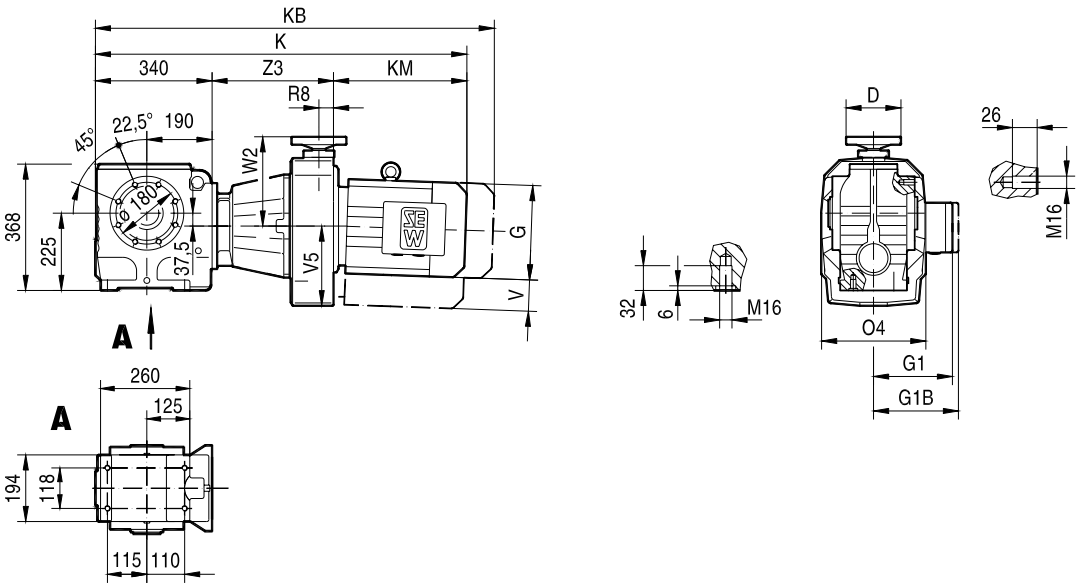
S87..



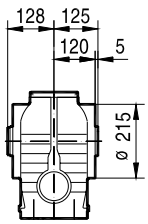
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
S87	D26	DT90..	100	197	154	161	804	889	248	205	32.5	66	153	192	216
		DV100M	100	197	166	166	854	939	298	205	32.5	66	153	192	216
	D36	DV100M	160	197	166	166	928	1013	309	265	38	88	204	232	279
		DV100L	160	197	166	166	958	1043	339	265	38	88	204	232	279
		DV112M	160	221	179	182	951	1031	332	265	38	88	204	232	279
		DV132S	160	221	179	182	996	1076	377	265	38	88	204	232	279
	D46	DV132M	160	275	230	230	1083	1195	388	305	45.5	91	232	259	355
		DV132ML	160	275	230	230	1143	1255	448	305	45.5	91	232	259	355
		DV160M	160	275	230	230	1143	1255	448	305	45.5	91	232	259	355

15 085 001

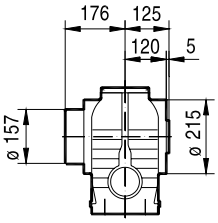
SA87..

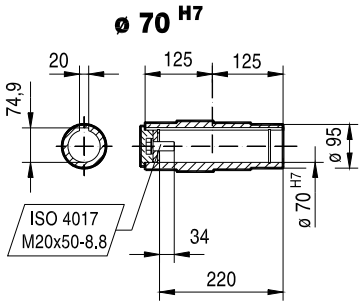


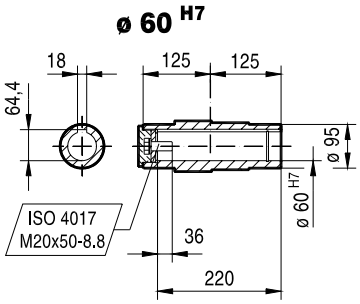
SA87..

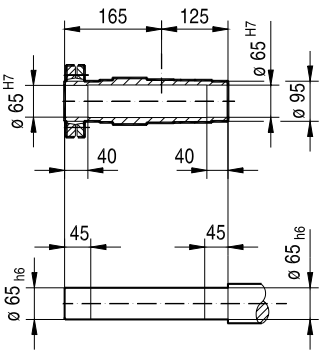


SH87..





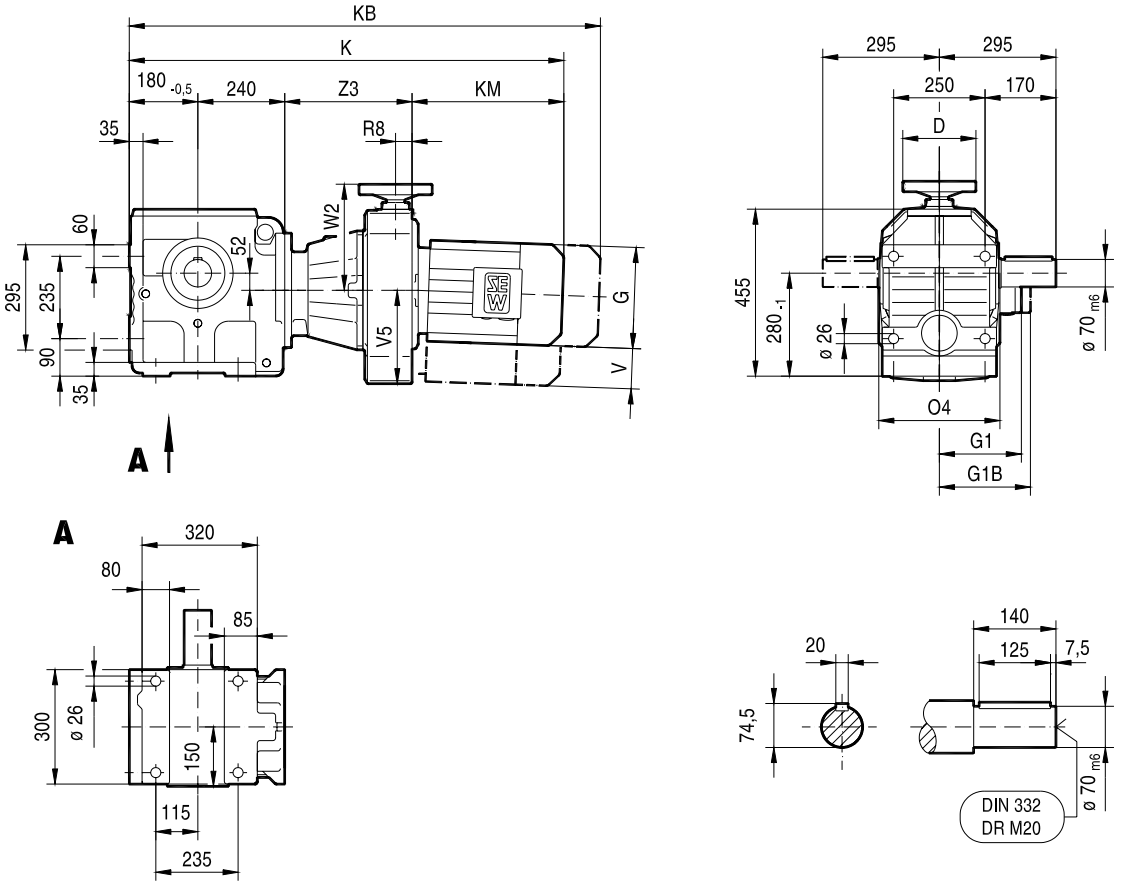




(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
SA87 SH87	D26	DT90..	100	197	154	161	804	889	248	205	32.5	66	153	192	216
		DV100M	100	197	166	166	854	939	298	205	32.5	66	153	192	216
	D36	DV100M	160	197	166	166	928	1013	309	265	38	88	204	232	279
		DV100L	160	197	166	166	958	1043	339	265	38	88	204	232	279
		DV112M	160	221	179	182	951	1031	332	265	38	88	204	232	279
		DV132S	160	221	179	182	996	1076	377	265	38	88	204	232	279
	D46	DV132M	160	275	230	230	1083	1195	388	305	45.5	91	232	259	355
		DV132ML	160	275	230	230	1143	1255	448	305	45.5	91	232	259	355
		DV160M	160	275	230	230	1143	1255	448	305	45.5	91	232	259	355

15 086 001

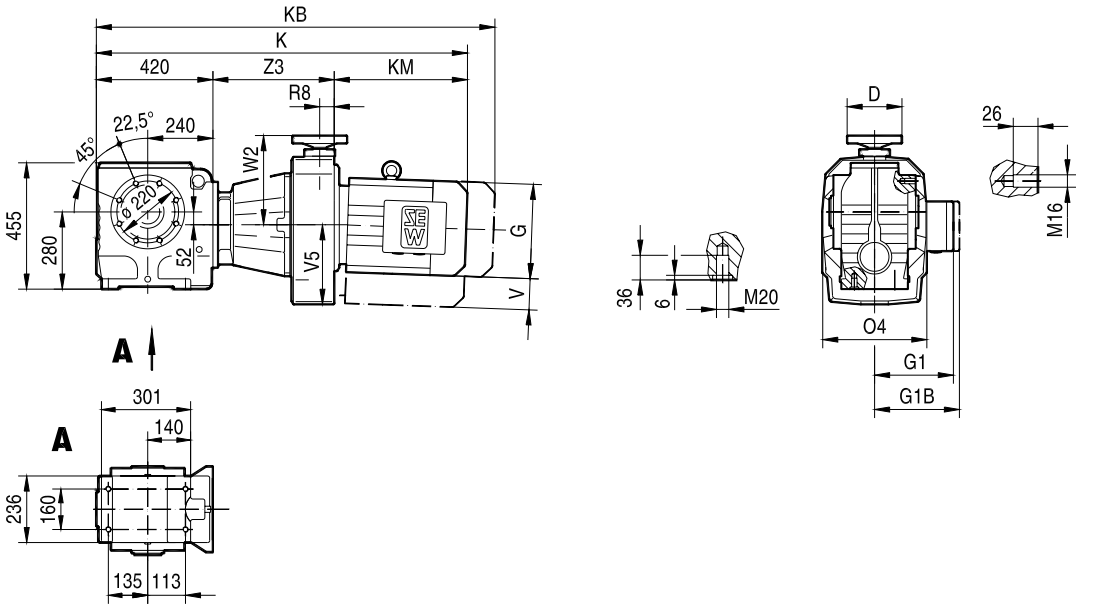
S97..



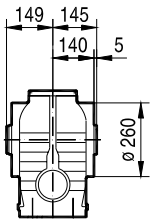
(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
S97	D36	DV100M	160	197	166	166	1003	1088	309	265	38	88	204	232	274
		DV100L	160	197	166	166	1033	1118	339	265	38	88	204	232	274
		DV112M	160	221	179	182	1026	1106	332	265	38	88	204	232	274
		DV132S	160	221	179	182	1071	1151	377	265	38	88	204	232	274
	D46	DV132M	160	275	230	230	1157	1269	388	305	45.5	91	232	259	349
		DV132ML	160	275	230	230	1217	1329	448	305	45.5	91	232	259	349
		DV160M	160	275	230	230	1217	1329	448	305	45.5	91	232	259	349

15 087 001

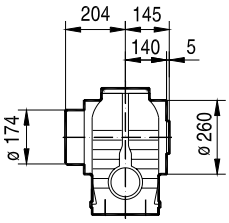
SA97..



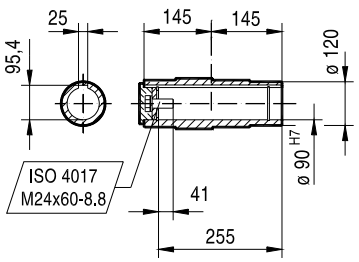
SA97..



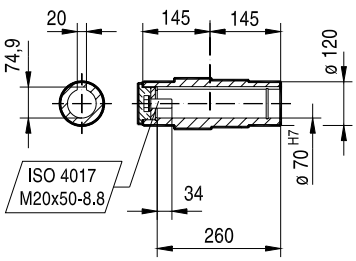
SH97..

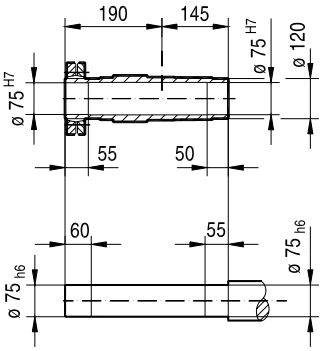


ø 90 H7



ø 70 H7



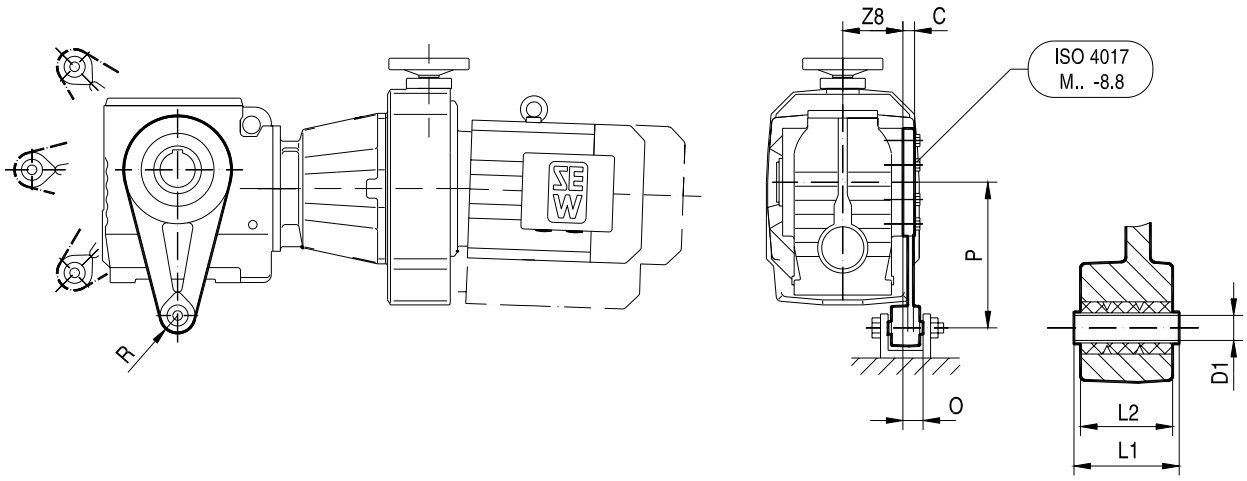


(→ 151)			D	G	G1	G1B	K	KB	KM	O4	R8	V	V5	W2	Z3
SA97 SH97	D36	DV100M	160	197	166	166	1003	1088	309	265	38	88	204	232	274
		DV100L	160	197	166	166	1033	1118	339	265	38	88	204	232	274
		DV112M	160	221	179	182	1026	1106	332	265	38	88	204	232	274
		DV132S	160	221	179	182	1071	1151	377	265	38	88	204	232	274
	D46	DV132M	160	275	230	230	1157	1269	388	305	45.5	91	232	259	349
		DV132ML	160	275	230	230	1217	1329	448	305	45.5	91	232	259	349
		DV160M	160	275	230	230	1217	1329	448	305	45.5	91	232	259	349

17.4 Drehmomentstütze S../T..

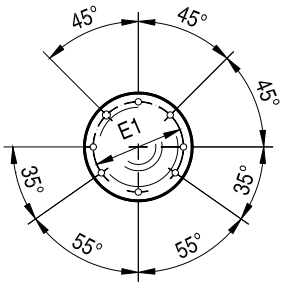
15 088 001

S../T..

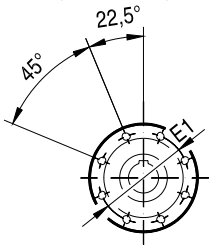


S..37, S..47, S..67

S..57



S..77, S..87, S..97

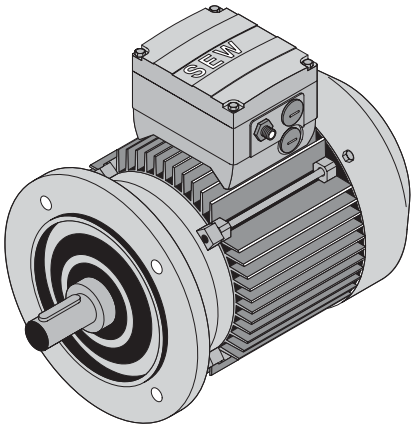


17

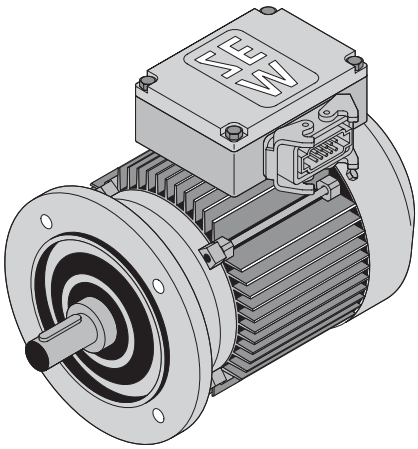
	C	D1	E1	L1	L2	M	O	P	R	Z8	
SA37/T D	10	10.4	75	36	31	M6x16	26	110	21	57	
SA47/T D	15	10.4	115	36	31	M8x25	20.5	130	21	57.5	
SA57/T D	15	10.4	102	36	31	M8x25	18.5	160	21	72	
SA67/T D	18	10.4	130	36	31	M12x35	19.5	200	21	80.5	
SA77/T D	18	16.4	155	60	54	M12x35	32.5	250	30	101	
SA87/T D	24	16.4	180	60	54	M16x45	25.5	310	30	120	
SA97/T D	26	25	220	80	72	M16x50	33	380	40	140	

18 AC motors

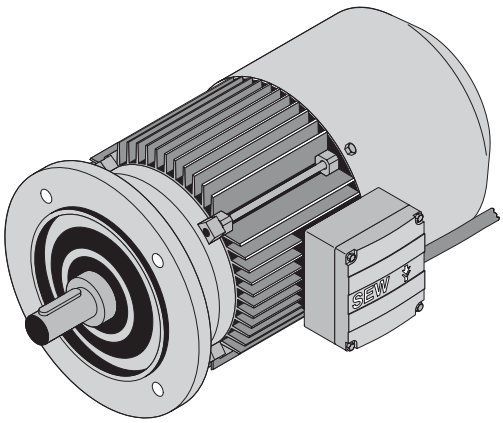
18.1 Examples of different types



DFT, DFV../MSW



DFT, DFV../AMA1



DFR/BR/IS, DFT, DFV../BM(G)/IS

05429AXX

See the Gearmotors Catalog for detailed project planning notes.

18.2 Technical data AC motors

3000 1/min - S1

Motor type	P_N M_N [kW] [Nm]	n_N [1/min]	I_N 380-415 V (400 V) [A]	cosφ	EFF3	$\eta_{75\,\%}$ $\eta_{100\,\%}$ [%]	I_A/I_N	M_A/M_N M_H/M_N	J_{Mot} 1) [10^{-4} kgm^2]	J_{Mot} 2) [10^{-4} kgm^2]	Z_0 BG[3] BGE[4] [1/h]	M_{Bmax} [Nm]	m 1 [kg]	m 2 [kg]
DFR63S2	0.18 0.63	2720	0.46 (0.45)	0.88	-	-	4.2	2.4 2.2	3.6	4.8	5000 -	1.6	6.2	8.0
DFR63M2	0.25 0.9	2660	0.66 (0.65)	0.86	-	-	3.5	2.2 1.9	3.6	4.8	4500 -	2.4	6.2	8.0
DFR63L2	0.37 1.3	2650	1.0 (0.92)	0.87	-	-	3.5	2.1 1.9	4.4	5.6	4000 -	3.2	6.7	8.5
DT71D2	0.55 1.9	2700	1.75 (1.65)	0.78	-	-	3.2	2.2 1.9	4.6	5.5	2700 4600	5	7.0	9.9
DT80K2	0.75 2.7	2700	2.35 (2.0)	0.86	-	-	3.7	2.0 1.8	6.6	7.5	2100 5800	10	9.9	12.7
DT80N2	1.1 3.9	2700	2.7 (2.65)	0.84	EFF3	74.4 72.6	4.0	2.0 1.8	8.7	9.6	1800 3600	10	11.5	14.3
DT90S2	1.5 5.3	2800	3.95 (3.8)	0.82	EFF3	71.4 71.7	4.2	2.3 2.1	25	31	1300 2700	20	16	26
DT90L2	2.2 7.5	2810	5.8 (5.1)	0.82	EFF3	74.1 74.3	4.8	2.5 2.2	34	40	1150 2700	20	18	28
DV100M2	3 10.2	2800	6.4 (5.9)	0.94	EFF3	81.0 78.6	5.0	2.0 1.8	53	59	700 1800	40	27	37
DV112M2	4 13.3	2860	8.2 (8.1)	0.88	EFF3	83.4 82.4	5.6	2.3 1.8	98	110	- 700	55	38	50
DV132S2	5.5 18.2	2880	10.9 (10.5)	0.88	EFF3	85.7 85.0	6.6	2.5 2.2	146	158	- 540	75	48	60
DV132M2	7.5 24.7	2900	15.2 (15.2)	0.86	EFF3	85.5 86.2	6.8	2.6 1.8	280	330	- 540	100	66	90
DV132ML2	9.2 30.4	2890	19 (18.1)	0.87	EFF3	86.0 86.5	7.2	2.8 1.8	330	380	- 450	150	75	100
DV160M2	11 36.2	2900	21.5 (21)	0.88	EFF3	87.5 88.0	7.7	2.7 1.7	398	448	- 390	150	84	109
DV160L2[5)]	15 48.9	2930	34 (32)	0.80	EFF3	84.4 85.7	6.0	2.7 1.4	925	1060	- -	200	124	166
DV180M2[5]	18.5 60.7	2930	38.0 (37.0)	0.85	EFF3	85.5 85.3	6.1	2.6 1.5	1120	1255	- -	300	167	188
DV180L2[5]	22 72.2	2930	45 (44.0)	0.85	EFF3	85.3 85.2	6.4	2.8 1.4	1290	1425	- -	300	158	200

1) Without brake

2) With brake

3) Operation with BG brake control system

4) Operation with BGE brake control system

5) Type with brake: For standstill only; operational braking not possible. Contact SEW-EURODRIVE concerning emergency braking.

1500 1/min - S1

Motor type	P_N M_N [kW] [Nm]	n_N [1/min]	I_N 380-415 V (400 V) [A]	cosφ	EFF 2	$\eta_{75\,\%}$ $\eta_{100\,\%}$ [%]	I_A/I_N	M_A/M_N M_H/M_N	J_{Mot} 1) [10^{-4} kgm^2]	J_{Mot} 2) [10^{-4} kgm^2]	Z_0 BG[3] BGE[4] [1/h]	M_{Bmax} [Nm]	m 1 [kg]	m 2 [kg]
DFR63S4	0.12 0.83	1380	0.39 (0.39)	0.69	-	-	3.3	2.4 2.2	3.6	4.8	10000 -	2.4	6.1	7.6
DFR63M4	0.18 1.3	1320	0.55 (0.55)	0.78	-	-	2.9	1.8 1.7	3.6	4.8	10000 -	3.2	6.1	7.6
DFR63L4	0.25 1.8	1300	0.73 (0.68)	0.81	-	-	2.8	1.8 1.7	4.4	5.6	10000 -	3.2	6.7	8.2
DT71D4	0.37 2.6	1380	1.24 (1.15)	0.76	-	-	3.0	1.8 1.7	4.6	5.5	6000 9500	5	7.0	9.9
DT80K4	0.55 3.9	1360	1.75 (1.75)	0.72	-	-	3.4	2.1 1.8	6.6	7.5	4100 11000	10	9.9	12.7
DT80N4	0.75 5.2	1380	2.15 (2.1)	0.73	-	-	3.8	2.2 2.0	8.7	9.6	5200 14000	10	11.5	14.3
DT90S4	1.1 7.5	1400	2.8 (2.8)	0.77	EFF 2	77.5 76.5	4.3	2.0 1.9	25	31	2500 6300	20	16	26
DT90L4	1.5 10.2	1410	3.7 (3.55)	0.78	EFF 2	80.2 79.0	5.3	2.6 2.3	34	40	3000 7600	20	18	28
DV100M4	2.2 15	1410	4.9 (4.7)	0.83	EFF 2	82.8 82.0	5.9	2.7 2.3	53	59	1800 8500	40	27	37
DV100L4	3 20.5	1400	6.5 (6.3)	0.83	EFF 2	84.5 83.0	5.6	2.7 2.2	65	71	1800 7600	40	30	40
DV112M4	4 26.9	1420	8.7 (8.7)	0.84	EFF 2	85.9 84.2	5.4	2.4 2.1	98	110	- 3800	55	38	50
DV132S4	5.5 36.7	1430	11.4 (11.0)	0.85	EFF 2	87.6 85.7	6.0	2.7 2.4	146	158	- 3000	75	48	60
DV132M4	7.5 50.1	1430	15.5 (15.5)	0.85	EFF 2	89.5 87.5	6.2	2.1 2.0	280	330	- 1700	100	66	90
DV132ML4	9.2 61	1440	18.7 (18.1)	0.84	EFF 2	89.6 88.0	6.0	2.5 2.0	330	380	- 1200	150	75	100
DV160M4	11 72.9	1440	22.5 (22.5)	0.83	EFF 2	88.9 88.5	6.0	2.5 2.3	398	448	- 1200	150	84	109
DV160L4	15 98.1	1460	31.0 (29.5)	0.82	EFF 2	90.3 90.0	5.5	2.4 1.8	925	1060	- 1000	200	124	166
DV180M4	18.5 121	1465	38.5 (37)	0.80	EFF 2	90.8 90.0	5.9	2.6 2.0	1120	1255 1350[5]	- 1300	300 300[6]	147	188 192[6]
DV180L4	22 143	1465	46 (42.5)	0.82	EFF 2	91.4 90.5	6.0	2.7 2.0	1290	1425 1520[6]	- 650	300 300[6]	158	200 204[6]
DV200L4	30 195	1470	57 (55)	0.86	EFF 2	91.8 91.5	6.5	2.8 2.0	2340	2475 2570[6]	- 600	300 600[6]	244	295 299[6]
DV225S4	37 240	1470	70 (67)	0.87	EFF 2	93.2 92.5	6.5	2.8 2.0	3010	3145 3240[6]	- 360	300 600[6]	296	347 351[6]
DV225M4	45 292	1470	86 (83)	0.85	EFF 2	93.8 93.0	7.3	3.3 2.0	3570	3705 3800[6]	- 300	300 600[6]	325	377 381[6]

1) Without brake

2) With brake

3) Operation with BG brake control system

4) Operation with BGE brake control system

5) Double disc brake

1000 1/min - S1

Motor type	P_N [kW]	M_N [Nm]	n_N [1/min]	I_N 380-415 V (400 V) [A]	cosφ	I_A/I_N	M_A/M_N M_H/M_N	J_{Mot} 1) [10^{-4} kgm^2]	J_{Mot} 2) [10^{-4} kgm^2]	Z_0 BG[3] BGE[4] [1/h]	M_{Bmax} [Nm]	m 1 [kg]	m 2 [kg]
DFR63S6	0.09	0.95	900	0.42 (0.38)	0.64	2.2	1.8 1.6	5.4	6.6	20000 -	2.5	6.0	7.5
DFR63M6	0.12	1.2	900	0.62 (0.58)	0.65	2.1	1.8 1.7	5.4	6.6	20000 -	3.2	6.0	7.5
DFR63L6	0.18	2	870	0.81 (0.78)	0.70	2.2	1.6 1.5	6.8	8.0	20000 -	3.2	6.6	8.1
DT71D6	0.25	2.7	880	0.9 (0.85)	0.72	2.7	1.6 1.6	8.3	9.2	8500 18000	5	7.0	9.9
DT80K6	0.37	3.9	900	1.44 (1.29)	0.68	3.0	1.9 1.9	10.3	11.2	5800 16000	10	9.9	12.7
DT80N6	0.55	5.8	900	1.78 (1.7)	0.73	3.0	1.8 1.7	14.1	15	7500 18000	10	11.5	14.3
DT90S6	0.75	8	900	2.4 (2.35)	0.70	3.1	2.0 1.9	25	31	4000 10000	20	16	26
DT90L6	1.1	11.4	920	3.35 (3.3)	0.69	3.5	2.2 2.1	34	40	3500 8500	20	18	28
DV100M6	1.5	15.6	920	4.1 (4.05)	0.70	4.0	2.3 2.0	53	59	2400 7200	40	27	37
DV112M6	2.2	22.3	940	5.6 (5.5)	0.77	4.6	1.8 2.0	98	110	- 4500	55	38	50
DV132S6	3	30.4	940	8.1 (7.6)	0.75	4.6	2.2 2.2	146	158	- 3600	75	48	60
DV132M6	4	39.8	960	10.0 (10.0)	0.70	5.9	2.1 2.1	430	480	- 2900	100	66	90
DV132ML6	5.5	54.7	960	13.8 (12.9)	0.70	5.7	2.1 2.0	524	574	- 2700	150	75	100
DV160M6	7.5	74.6	960	17.8 (16.7)	0.76	5.0	1.8 1.6	650	700	- 1800	150	84	109
DV160L6	11	109	960	23.5 (22)	0.77	6.5	2.2 1.7	1340	1475	- 1500	200	130	172
DV180L6	15	148	970	32 (31.5)	0.83	6.5	2.2 1.6	2010	2145 2240[5)]	- 1200	300 300[5]	164	205 209[5]
DV200LS6	18.5	182	970	38 (37)	0.80	5.0	2.2 1.7	2990	3125 3220[5]	- 900	300 600[5]	220	271 275[5]
DV200L6	22	217	970	46 (43.5)	0.80	4.7	2.2 1.7	3490	3625 3720[5]	- 700	300 600[5]	244	295 299[5]

1) Without brake
2) With brake
3) Operation with BG brake control system
4) Operation with BGE brake control system
5) Double disc brake

750 1/min - S1

Motor type	P_N [kW]	M_N [Nm]	n_N [1/min]	I_N 400 V [A]	cosφ	I_A/I_N	M_A/M_N M_H/M_N	J_{Mot} [10^{-4} kgm^2] 1)	J_{Mot} [10^{-4} kgm^2] 2)	Z_0 BG[3] BGE[4] [1/h]	M_{Bmax} [Nm]	m [kg] 1	m [kg] 2
DT71D8	0.15	2.2	650	0.69	0.72	2.2	1.4 1.4	8.3	9.2	10000 21000	5	7.0	9.9
DT80N8	0.25	3.5	680	1.24	0.55	2.6	1.9 1.9	14.1	15	6000 17000	10	11.5	14.3
DT90S8	0.37	5.2	680	1.55	0.62	2.5	1.4 1.4	25	31	4600 11000	20	16	26
DT90L8	0.55	7.7	680	2.3	0.60	2.5	1.5 1.5	34	40	3900 9500	20	18	28
DV100M8	0.75	10.3	690	2.9	0.59	2.6	2.1 2.0	53	59	3300 8700	40	27	37
DV100L8	1.1	15.6	670	4.1	0.60	2.8	1.9 1.7	65	71	2800 8100	40	30	40
DV112M8	1.5	20.4	700	5.1	0.62	3.4	1.7 1.6	98	110	- 5500	55	38	50
DV132S8	2.2	30	700	7.1	0.62	3.4	1.9 1.9	146	158	- 4100	75	48	60
DV132M8	3	39.7	720	9.0	0.65	4.0	1.8 2.0	430	480	- 3200	100	66	90
DV132ML8	4	53	720	12.4	0.67	4.2	1 8 1.6	524	574	- 2700	150	75	100
DV160M8	5.5	74	710	15.8	0.65	4.5	1.8 1.5	650	700	- 2300	150	84	109
DV160L8	7.5	99.4	720	19	0.73	5.2	1.8 1.7	1340	1475	- 1600	200	130	172
DV180L8	11	145	720	25.5	0.72	5.2	2.0 1.8	2010	2145 2240[5)]	- 1300	300 300[5]	164	205 209[5]
DV200L8	15	198	720	33.5	0.74	3.8	2.0 1.8	3490	3625 3720[5]	- 900	300 600[5]	244	295 299[5]

1) Without brake
2) With brake
3) Operation with BG brake control system
4) Operation with BGE brake control system
5) Double disc brake

1500/3000 1/min - S1

Motor type	P_N [kW]	n_N [1/min]	I_N 400 V [A]	cosφ	I_A/I_N	M_A/M_N	M_H/M_N	J_{Mot} [10^{-4} kgm^2] 1)	J_{Mot} [10^{-4} kgm^2] 2)	Z_0 BG[3] [1/h]	Z_0 BGE[4] [1/h]	M_{Bmax} [Nm]	m [kg] 1	m [kg] 2
DFR63M4/2	0.15 0.20	1370 2710	0.55 0.53	0.74 0.85	2.8 3.6	1.7 1.9	1.7 1.8	3.6	4.8	8000 3600	-	1.6	5.9	7.7
DFR63L4/2	0.20 0.28	1370 2710	0.67 0.67	0.72 0.90	2.9 3.8	1.7 1.8	1.6 1.7	4.4	5.6	8000 3200	-	2.4	6.6	8.4
DT71D4/2	0.25 0.37	1400 2720	1.05 1.00	0.71 0.88	3.0 3.5	1.5 1.6	1.7 1.6	4.6	5.5	4800 2000	7500 2700	5	7.0	9.9
DT80K4/2	0.4 0.63	1380 2700	1.24 1.52	0.75 0.93	3.0 3.5	1.6 1.5	1.7 1.5	6.6	7.5	3000 1700	5400 2200	10	9.9	12.7
DT80N4/2	0.55 0.88	1380 2700	1.81 2.05	0.71 0.91	3.2 3.6	1.8 1.7	1.9 1.6	8.7	9.6	2500 1800	5000 4300	10	11.5	14.3
DT90S4/2	0.88 1.3	1420 2820	2.45 3.35	0.76 0.85	4.3 4.2	2.1 1.9	2.0 1.8	25	31	2300 1000	4500 2000	20	16	26
DT90L4/2	1.1 1.8	1430 2780	2.95 4.25	0.75 0.90	5.3 4.6	2.3 2.0	2.4 2.0	34	40	2000 900	4100 1400	20	18	28
DV100M4/2	1.5 2.2	1430 2840	3.35 4.3	0.8 0.93	6.4 6.4	2.5 2.2	2.4 1.8	53	58	1000 600	3500 900	40	27	37
DV100L4/2	2.5 3.0	1400 2840	5.4 5.6	0.84 0.93	5.0 6.7	2.2 2.5	1.9 2.0	65	71	1200 700	2400 1000	40	30	40
DV112M4/2	3.3 4.0	1420 2860	7.2 8.7	0.82 0.83	5.0 5.0	1.8 2.1	1.9 1.8	98	110	-	1800 700	55	38	50
DV132S4/2	4.4 5.5	1420 2860	8.9 11.8	0.85 0.85	5.0 4.4	2.1 2.4	1.9 1.8	146	158	-	900 500	75	48	60
DV132M4/2	6.0 7.5	1450 2900	11.8 15.5	0.86 0.86	6.9 6.9	2.1 1.9	1.8 1.5	280	330	-	1300 450	100	66	90
DV132ML4/2	7.5 10.0	1450 2900	15 20.5	0.85 0.86	7.0 6.6	2.3 2.1	2.0 1.8	330	380	-	1100 350	150	75	100
DV160L4/2[5)]	12.0 14.0	1460 2930	24.5 29	0.81 0.83	5.4 5.7	2.4 2.2	1.6 1.1	925	1060	-	1000 250	200	124	166
DV180M4/2[5]	16.0 18.5	1460 2940	33 37	0.81 0.85	5.6 7.6	2.4 2.4	1.7 1.4	1120	1255 1350[6)]	-	900 180	300 300[6]	147	188 192[6]
DV180L4/2[5]	18.5 23.0	1465 2940	38 47	0.80 0.83	5.8 7.2	2.7 2.6	1.7 1.2	1290	1425 1520[6]	-	800 150	300 300[6]	158	200 204[6]
DV200L4/2[5]	26 33	1470 2940	47.5 63	0.87 0.91	7.3 7.3	3.4 3.0	2.6 2.0	2340	2475 2570[6]	-	350 70	300 600[6]	244	295 299[6]
DV225S4/2[5]	30 38	1470 2950	56 73	0.86 0.90	6.8 8.2	3.0 3.0	2.5 2.0	3010	3145 3240[6]	-	270 55	300 600[6]	296	347 351[6]
DV225M4/2[5]	35 45	1475 2950	64 84	0.86 0.90	6.8 8.3	3.2 3.2	2.5 2.0	3570	3705 3800[6]	-	180 45	300 600[6]	325	377 381[6]

1) Without brake

2) With brake

3) Operation with BG brake control system

4) Operation with BGE brake control system

5) Do not brake from 2-pole speed. Contact SEW-EURODRIVE concerning emergency braking.

6) Double disc brake

1000/3000 1/min - S3 - 40/60 % cdf (SDT/SDV: 40/100 % cdf)

Motor type	P_N [kW]	n_N [1/min]	I_N 400 V [A]	cosφ	I_A/I_N	M_A/M_N	M_H/M_N	J_{Mot} 1) [10^{-4} kgm^2]	J_{Mot} 2) [10^{-4} kgm^2]	Z_0 BG[3] [1/h]	Z_0 BGE[4] [1/h]	M_{Bmax} [Nm]	m 1 [kg]	m 2 [kg]
DT71D6/2	0.08 0.25	890 2730	0.43 0.83	0.7 0.82	2.0 3.0	1.5 2.3	1.6 2.0	4.6	5.5	10000 7000	18000 9000	2.5	7.2	10.8
DT80K6/2	0.13 0.4	890 2780	0.67 1.32	0.66 0.76	2.0 3.6	1.5 2.6	1.6 2.0	6.6	7.5	10000 7000	18000 9000	5	10.5	14.1
DT80N6/2	0.2 0.6	890 2790	0.93 1.78	0.68 0.78	2.0 3.9	1.5 2.5	1.6 2.1	8.7	9.6	10000 4000	15000 5000	5	11.8	15.4
SDT90S6/2	0.3 0.9	820 2580	1.55 2.70	0.72 0.85	2.0 2.9	1.7 2.3	1.6 2.0	25	30	12000 2500	18000 3500	10	16	25
SDT90L6/2	0.4 1.3	840 2580	1.55 3.55	0.70 0.87	2.3 3.5	1.7 2.3	1.6 2.0	34	39	9000 2400	17000 3300	10	19	28
SDT100LS6/2	0.6 1.8	860 2640	2.50 4.90	0.66 0.84	2.2 3.5	1.8 2.4	1.7 2.1	43	48	8000 2000	15000 3000	20	23	32
SDT100L6/2	0.8 2.4	850 2650	2.75 5.5	0.66 0.85	2.5 3.8	1.7 2.5	1.7 2.2	53	58	8000 2000	15000 3000	20	27	37
SDV112M6/2	1.0 3.0	910 2700	3.6 6.7	0.65 0.87	2.8 4.1	1.7 2.3	1.7 2.0	98	110	-	5000 1600	30	38	50
SDV132S6/2	1.3 4.0	920 2700	4.95 8.6	0.60 0.90	2.8 4.4	1.8 2.2	1.8 2.0	146	158	-	4500 1500	37	48	60
DV132M6/2	1.6 4.8	950 2870	3.95 9.9	0.74 0.88	4.8 6.3	2.4 2.7	2.4 1.7	280	330	-	3600 560	50	65	89
DV132ML6/2	2.0 6.0	950 2900	5.2 13.2	0.72 0.86	4.8 5.0	2.3 2.3	2.2 1.6	330	380	-	3000 470	75	75	96
DV160M6/2	2.5 7.5	950 2900	6.4 15.2	0.72 0.90	5.0 6.0	2.5 2.3	2.4 1.5	398	448	-	2400 300	75	85	106
DV160L6/2[5)]	3.7 11	960 2920	9.4 29.5	0.53 0.68	4.2 5.6	2.2 3.0	1.9 2.0	925	1060	-	1400 220	100	123	159
DV180M6/2[5]	4.2 13	960 2940	10.5 32	0.75 0.70	4.5 6.5	2.1 3.2	1.9 2.3	1120	1255 1350[6)]	-	1300 190	150 150[6]	143	179 183[6]
DV180L6/2[5]	5.5 16	965 2950	13.5 45.0	0.71 0.63	4.5 6.3	2.4 3.6	2.1 2.6	1290	1425 1520[6]	-	1000 160	300 300[6]	162	198 202[6]
DV200L6/2[5]	7.5 22	960 2930	19.0 45.0	0.70 0.86	4.7 6.9	2.8 3.0	2.1 2.2	2340	2475 2570[6]	-	750 130	300 600[6]	248	295 299[6]

1) Without brake

2) With brake

3) Operation with BG brake control system

4) Operation with BGE brake control system

5) Do not brake from 2-pole speed. Contact SEW-EURODRIVE concerning emergency braking.

6) Double disc brake

750/3000 1/min - S3 - 40/60 % cdf (SDT/SDV: 40/100 % cdf)

Motor type	P_N [kW]	n_N [1/min]	I_N 400 V [A]	cosφ	I_A/I_N	M_A/M_N	M_H/M_N	J_{Mot} 1) [10^{-4} kgm^2]	J_{Mot} 2) [10^{-4} kgm^2]	Z_0 BG[3] [1/h]	Z_0 BGE[4] [1/h]	M_{Bmax} [Nm]	m 1 [kg]	m 2 [kg]
DT71D8/2	0.06 0.25	675 2670	0.45 0.70	0.66 0.89	1.9 3.1	1.4 2.0	1.4 1.8	4.4	5.3	20000 7000	27000 9000	2.5	7.2	10.8
DT80K8/2	0.1 0.4	660 2730	0.80 1.15	0.62 0.85	1.5 3.4	1.7 1.8	1.6 1.7	6.6	7.5	15000 7000	20000 9000	5	10.5	14.1
DT80N8/2	0.15 0.6	660 2710	1.00 1.70	0.60 0.89	1.6 3.7	1.6 2.1	1.6 2.1	8.7	9.6	5000 4000	6300 5000	5	11.8	15.4
SDT90S8/2	0.22 0.9	650 2680	1.61 2.55	0.61 0.82	1.7 3.3	1.7 2.5	1.6 2.3	25	30.4	15000 2500	20000 3500	10	16	25
SDT90L8/2	0.3 1.3	630 2680	1.75 3.35	0.64 0.84	2.0 4.2	1.7 2.7	1.6 2.4	34	39.4	15000 2500	20000 3300	10	18	27
SDT100LS8/2	0.45 1.8	630 2680	2.40 4.20	0.62 0.89	2.0 4.0	1.7 2.4	1.6 2.2	42.7	48.1	7000 1800	9000 2600	20	23	32
SDT100L8/2	0.6 2.4	630 2700	3.05 5.3	0.60 0.90	2.0 4.5	1.8 2.6	1.7 2.2	53	58.4	4500 1800	9000 2600	20	27	37
SDV112M8/2	0.8 3.0	680 2730	3.95 6.9	0.55 0.84	2.2 4.0	1.4 2.0	1.6 1.8	98	110.2	-	8000 1200	30	38	50
SDV132S8/2	1.0 4.0	690 2730	5.2 8.6	0.54 0.90	2.6 4.5	1.4 2.0	1.6 1.8	146	158	-	6000 1200	37	48	60
DV132M8/2	1.2 4.8	710 2850	4.55 10	0.57 0.88	3.5 6.3	1.9 2.7	1.9 1.7	280	330	-	3600 550	50	65	89
DV132ML8/2	1.5 6.0	710 2900	5.5 13.2	0.57 0.86	3.3 5.0	2.0 2.3	1.9 1.6	330	380	-	3400 470	75	75	96
DV160M8/2	1.9 7.5	710 2900	7.1 15.2	0.56 0.85	3.5 5.2	1.8 2.0	1.7 1.5	398	448	-	2600 300	75	85	106
DV160L8/2[5)]	2.8 11	725 2920	10.5 29.5	0.53 0.68	3.4 5.6	2.2 3.0	1.9 2.0	925	1060	-	1800 220	100	123	159
DV180M8/2[5]	3.3 13	725 2940	12.1 32	0.52 0.70	3.5 6.5	2.4 3.2	2.1 2.3	1120	1255 1350[6)]	-	1500 190	150 150[6]	143	179 192[6]
DV180L8/2[5]	4 16	720 2950	13.5 45.0	0.58 0.63	3.2 6.3	1.9 3.6	1.6 2.6	1290	1425 1520[6]	-	1300 160	150 150[6]	154	190 192[6]
DV200L8/2[5]	5 20	730 2930	15.8 42	0.57 0.86	4.0 7.5	3.0 3.5	2.5 2.5	2340	2475 2570[6]	-	450 160	150 300[6]	250	292 296[6]
DV225S8/2[57)]	6 24	730 2930	19 47.5	0.56 0.90	4.2 8.0	3.3 3.3	3.0 2.2	3010	3145 3240[6]	-	360 77	150 300[6]	298	340 355[6]
DV225M8/2[57]	7.5 30	730 2940	24 61	0.56 0.90	4.6 9.5	3.3 3.5	3.0 2.1	3570	3705 3800[6]	-	270 60	150 300[6]	319	361 365[6]

1) Without brake
2) With brake
3) Operation with BG brake control system
4) Operation with BGE brake control system
5) Do not brake from 2-pole speed. Contact SEW-EURODRIVE concerning emergency braking.
6) Double disc brake
7) Only available in ⅄ / Δ

500/3000 1/min - S3 - 40/60 % cdf

Motor type	P_N [kW]	n_N [1/min]	I_N 400 V [A]	cosφ	I_A/I_N	M_A/M_N	M_H/M_N	J_{Mot} [10^{-4} kgm^2] 1)	J_{Mot} [10^{-4} kgm^2] 2)	Z_0 BG[3] [1/h]	Z_0 BGE[4] [1/h]	M_{Bmax} [Nm]	m [kg] 1	m [kg] 2
DT90S12/2	0.11 0.7	390 2650	0.95 1.75	0.69 0.93	1.4 3.6	1.6 2.1	1.5 2.0	25	31	8000 1900	12000 2900	10	16	25
DT90L12/2	0.15 0.9	380 2700	1.21 2.10	0.70 0.93	1.4 4.1	1.6 2.3	1.7 2.0	34	40	6000 1600	10000 2400	10	18	27
DV100M12/2	0.2 1.2	405 2740	1.55 2.50	0.59 0.95	1.5 5.0	1.9 2.8	1.6 2.2	53	59	5000 1300	8100 2000	20	27	37
DV100L12/2	0.25 1.6	400 2800	1.65 3.1	0.60 0.95	1.6 6.1	1.9 3.0	1.7 2.4	65	71	4000 1300	6300 2000	20	30	40
DV112M12/2	0.33 2.0	430 2760	2.0 4.3	0.59 0.95	1.8 4.9	1.6 2.4	1.5 2.1	98	110	-	5400 1400	30	38	50
DV132S12/2	0.5 3.0	420 2860	2.3 6.0	0.58 0.92	2.0 6.2	1.7 2.8	1.6 2.3	146	158	-	4500 900	37	48	60
DV132M12/2	0.7 4.0	450 2890	3.9 8.7	0.50 0.87	2.2 6.4	1.8 2.3	1.7 1.6	280	330	-	2700 700	50	65	89
DV132ML12/2	0.85 5.0	460 2880	4.75 9.7	0.50 0.93	2.4 6.5	1.8 2.3	1.6 1.5	330	380	-	2500 580	75	75	96
DV160M12/2	1.2 7.0	440 2880	5.9 13.8	0.57 0.90	2.0 6.5	1.6 2.4	1.5 1.7	398	448	-	2500 450	75	106	106
DV160L12/2[5)]	1.4 8.5	465 2910	7.2 20	0.48 0.75	2.0 5.5	1.6 2.5	1.5 1.6	925	1060	-	1100 220	100	120	156
DV180M12/2[5]	2.0 12	460 2900	10.0 24.5	0.48 0.88	2.0 5.2	1.6 2.3	1.5 1.4	1120	1255 1350[6)]	-	840 200	150 150[6]	142	179 183[6]
DV180L12/2[5]	2.3 13.5	460 2940	12.7 27	0.45 0.87	2.0 5.5	1.8 2.7	1.6 1.5	1290	1425 1520[6]	-	600 180	150 150[6]	154	198 202[6]
DV200L12/2[5]	3.5 20	475 2930	15.8 43	0.48 0.85	2.3 7.5	2.0 3.0	1.7 2.2	2340	2475 2570[6]	-	750 130	150 300[6]	250	295 299[6]

1) Without brake

2) With brake

3) Operation with BG brake control system

4) Operation with BGE brake control system

5) Do not brake from 2-pole speed. Contact SEW-EURODRIVE concerning emergency braking.

6) Double disc brake

1000/1500 1/min - S1

Motor type	P_N [kW]	n_N [1/min]	I_N 400 V [A]	cosφ	I_A/I_N	M_A/M_N	M_H/M_N	J_{Mot} 1) [10^{-4} kgm^2]	J_{Mot} 2) [10^{-4} kgm^2]	Z_0 BG[3] [1/h]	Z_0 BGE[4] [1/h]	M_{Bmax} [Nm]	m 1 [kg]	m 2 [kg]
DT71D6/4	0.11 0.15	900 1420	0.62 0.74	0.76 0.70	2.1 2.6	1.5 1.5	1.7 1.7	4.4	5.3	16000 10000	18000 13000	2.5	7.0	10.6
DT80K6/4	0.13 0.22	920 1440	0.64 1.14	0.67 0.61	2.3 3.0	1.8 1.9	1.9 2.0	6.6	7.5	13000 9000	16000 10000	5	10.5	14.1
DT80N6/4	0.18 0.3	920 1440	0.91 1.44	0.68 0.62	2.5 3.0	1.9 1.9	1.9 2.0	8.7	9.6	10000 8000	14000 8500	5	11.8	15.4
DT90S6/4	0.33 0.55	940 1440	1.24 1.67	0.75 0.75	2.8 4.0	1.5 1.5	1.7 1.9	25	31	8500 4000	9000 5600	10	16.4	25.4
DT90L6/4	0.48 0.75	940 1440	1.67 2.0	0.70 0.78	3.2 4.3	1.5 1.5	1.8 1.9	34	40	8000 2400	8100 3600	10	19	28
DV100M6/4	0.8 1.1	940 1440	2.3 2.7	0.72 0.79	3.9 5.3	1.8 1.7	1.8 1.8	53	59	7500 2000	7600 2800	20	27	37
DV100L6/4	1.1 1.5	940 1440	3.3 3.5	0.70 0.80	3.7 5.5	1.9 1.9	1.8 1.8	65	71	7000 1900	7200 2600	20	30	40
DV112M6/4	1.3 2.0	950 1460	3.6 5.1	0.73 0.80	4.3 5.0	1.7 1.5	2.0 2.0	98.0	110.2	-	4700 1900	30	38	50
DV132S6/4	2.0 3.0	950 1460	5.4 7.9	0.75 0.75	4.0 5.5	1.7 2.0	2.0 2.0	146	158	-	3800 1500	37	48	60
DV132M6/4	2.8 4.4	970 1470	7.0 10.4	0.72 0.75	4.7 6.6	1.7 1.9	2.0 1.7	280	330	-	2500 1700	50	66	90
DV132ML6/4	3.7 5.2	970 1470	8.8 11	0.77 0.80	4.6 7.0	1.7 1.9	2.0 1.8	330	380	-	2000 1300	75	76	97
DV160M6/4	4.8 6.6	970 1460	11.4 13.5	0.76 0.84	5.0 6.7	1.7 1.9	2.0 2.0	398	448	-	1500 1000	75	85	106
DV160L6/4	6.0 9.2	970 1455	15.2 19	0.70 0.83	4.3 5.1	2.1 2.1	1.9 1.7	925	1060	-	1100 550	100	123	159
DV180L6/4	9.2 14	960 1460	22.5 33.5	0.73 0.73	4.0 6.1	2.6 2.8	1.5 2.0	1290	1425 1520[5)]	-	700 550	150 150[5]	162	198 202[5]
DV200L6/4	16 22	980 1470	31 40.5	0.85 0.90	4.6 5.4	2.2 2.2	2.0 2.0	3490	3625 3720[5]	-	500 350	150 300[5]	232	274 278[5]
DV225S6/4	18.5 26	970 1440	37 47.5	0.82 0.87	5.0 5.0	2.2 2.0	2.0 1.5	4487	4622 4717[5]	-	270 180	150 300[5]	308	350 354[5]
DV225M6/4	22 30	970 1470	42 53	0.85 0.90	5.4 5.8	2.5 2.2	2.0 1.8	5318	5453 5448[5]	-	200 150	150 300[5]	330	372 376[5]

1) Without brake

2) With brake

3) Operation with BG brake control system

4) Operation with BGE brake control system

5) Double disc brake

750/1500 1/min - S1

Motor type	P_N [kW]	n_N [1/min]	I_N 400 V [A]	cosφ	I_A/I_N	M_A/M_N	M_H/M_N	J_{Mot} 1) [10^{-4} kgm^2]	J_{Mot} 2) [10^{-4} kgm^2]	Z_0 BG[3] [1/h]	Z_0 BGE[4] [1/h]	M_{Bmax} [Nm]	m 1 [kg]	m 2 [kg]
DT71D8/4	0.10 0.18	650 1380	0.49 0.54	0.70 0.85	2.2 3.3	1.7 1.5	1.6 1.4	6.6	7.5	7000 4000	12000 7000	5	7.3	10.9
DT80K8/4	0.16 0.3	650 1380	0.76 0.86	0.68 0.83	1.9 3.0	1.5 1.5	1.5 1.5	10.3	11.2	6000 3500	11000 6000	10	10	13.6
DT80N8/4	0.22 0.4	670 1400	1.02 1.14	0.66 0.83	2.1 3.5	1.7 1.6	1.7 1.6	14.1	15	5500 3400	10000 6000	10	11.4	15
DT90S8/4	0.3 0.6	700 1400	1.7 1.7	0.58 0.84	2.5 4.3	1.7 1.6	1.7 1.5	25	30.4	3500 2800	9000 5000	20	16	25
DT90L8/4	0.44 0.88	700 1400	2.1 2.2	0.56 0.84	2.4 4.2	1.9 1.7	2.1 1.7	34	39.4	3200 2500	7200 4300	20	18	27
DV100M8/4	0.66 1.3	700 1420	2.55 2.85	0.57 0.84	3.2 5.0	2.0 1.9	1.9 1.7	53	59	2600 2000	5600 3600	40	27	37
DV100L8/4	0.9 1.8	690 1410	3.5 3.95	0.57 0.84	2.9 4.8	1.9 2.0	1.8 1.8	65	71	2500 1500	5000 2700	40	30	40
DV112M8/4	1.2 2.2	700 1440	4.25 4.75	0.58 0.86	3.4 5.8	1.9 1.9	1.8 1.3	98	110	-	4000 2000	55	38	50
DV132S8/4	1.8 3.3	700 1440	7.2 7.1	0.57 0.86	3.7 6.3	2.3 2.1	2.3 1.9	146	158	-	3100 1500	75	48	60
DV132M8/4	2.2 4.4	700 1410	7.0 8.9	0.60 0.88	3.9 5.7	2.2 2.2	2.2 2.0	280	330	-	3000 1500	100	66	90
DV132ML8/4	2.7 5.5	700 1400	8.3 10.9	0.62 0.84	3.6 5.3	2.3 2.2	2.2 2.0	330	380	-	2700 1400	150	75	96
DV160M8/4	3.8 7.5	720 1460	11.8 14.7	0.60 0.85	3.8 6.0	2.8 2.8	2.7 2.7	398	448	-	2000 1400	150	85	106
DV160L8/4	5.5 10	720 1460	18.1 20	0.55 0.83	3.1 5.7	1.7 2.3	1.8 1.8	925	1060	-	1600 1200	200	120	156
DV180L8/4	7.5 15	730 1470	26 30.5	0.51 0.81	3.5 6.0	2.5 2.5	2.2 2.2	1290	1425 1520[5)]	-	1100 1000	300 300[5]	154	190 194[5]
DV200LS8/4	12 20	730 1470	34.5 39.5	0.60 0.84	4.1 5.1	2.6 2.3	1.8 1.7	2990	3125 3220[5]		1000 800	300 600[5]	222	264 268[5]
DV200L8/4	14 22	730 1470	34.5 40.5	0.66 0.88	4.8 6.4	2.9 2.6	2.3 2.5	3490	3625 3720[5]	-	900 700	300 600[5]	232	274 278[5]
DV225S8/4	18.5 28	730 1470	44.5 51	0.70 0.90	4.3 5.8	2.5 2.3	2.0 2.0	4487	4622 4717[5]	-	700 500	300 600[5]	308	350 354[5]
DV225M8/4	25 34	730 1470	57 62	0.72 0.88	3.8 6.0	2.2 2.5	1.7 1.9	5318	5453 5448[5]	-	600 450	300 600[5]	330	372 376[5]

1) Without brake
2) With brake
3) Operation with BG brake control system
4) Operation with BGE brake control system
5) Double disc brake

18.3 Technical data on SEW brakes

The following table lists the technical data of SEW brakes. The type and number of brake springs determines the level of the braking torque. Maximum braking torque M_{Bmax} is installed as standard, unless specified otherwise in the order. Other brake spring combinations can result in reduced braking torque values M_{Bred}.

Brake Type	For motor size	M_{Bmax} [Nm]	Reduced braking torques M_{Bred} [Nm]							W [10^6 J]	t_1 [10^{-3} s]	t_2		P_B [W]
												t_2II [10^{-3} s]	t_2I [10^{-3} s]	
BR03	**DR63**	3.2	2.4	1.6	0.8					200	25	3	30	24
BMG05	**DT71/80**	5.0	4	2.5	1.6	1.2				120	30[1)] 20	5	35	32
BMG1	**DT80**	10	7.5	6						120	50[1)] 20	8	40	36
BMG2	**DT90/ DV100**	20	16	10	6.6	5				260	70[1)] 30	12	80	40
BMG4	**DV100**	40	30	24						260	130[1)] 35	15	80	50
BMG8	**DV112M**	55	45	37	30	19	12.6	9.5		600	30	12	60	65
	DV132S	75	55	45	37	30	19	12.6	9.5	600	35	10	50	65
BM15	**DV132M**	100	75	50	35	25				1000	40	14	70	95
	DV132ML/ DV160M	150	125	100	75	50	35	25		1000	50	12	50	95
BM30	**DV160L**	200	150	125	100	75	50			1500	55	18	90	95
	DV180M/L	300	250	200	150	125	100	75	50	1500	60	16	80	95
BM31	**DV200/225**	300	250	200	150	125	100	75	50	1500	60	16	80	95
BM32[2)]	**DV180M/L**	300	250	200	150	100				1500	55	18	90	95
BM62[2)]	**DV200/225**	600	500	400	300	250	200	150	100	1500	60	16	80	95

1) for operation with the BGE/BME brake control system

2) Double disc brake

$M_{B\,max}$	Maximum braking torque
$M_{B\,red}$	Reduced braking torque
W	Braking work until service
t_1	Response time
t_2I	Brake application time for cut-off in the AC circuit
t_2II	Brake application time for cut-off in the DC and AC circuit
P_B	Braking power

The response and application times are recommended values in relation to the maximum braking torque.

18.4 Dimension sheets for AC motors

Flange-mounted DFR63 - DFV112M

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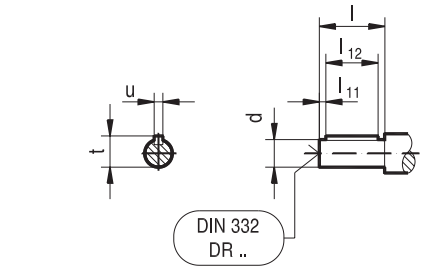

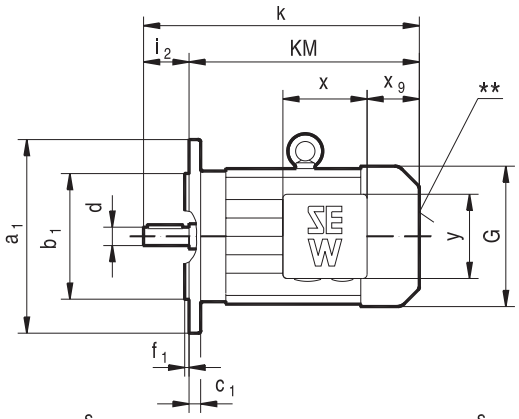

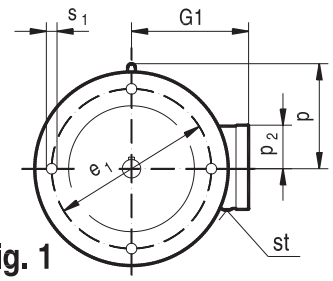

Fig. 1

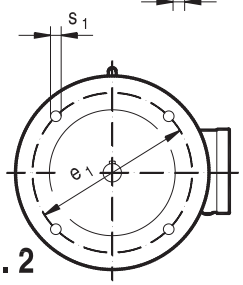

Fig. 2

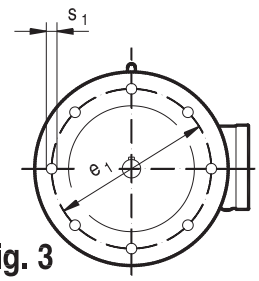

Fig. 3

** Keep the air inlet clear

	DFR63..		DFT71D		DFT80..		DFT90..		DFV100M SDFT100..		DFV100L		DFV112M		
a_1 [1] (P)	**140**	160	**160**	200	160	**200**	**200**	250	200	**250**	200	**250**	200	**250**	300
b_1 (N)	95	110	110	130	110	130	130	180	130	180	130	180	130	180	230
c_1 (LA)	9	10	10	12	10	12	12	15	12	15	12	15	12	15	16
e_1 (M)	115	130	130	165	130	165	165	215	165	215	165	215	165	215	265
f_1 (T)	3	3.5	3.5		3.5		3.5	4	3.5	4	3.5	4	3.5	4	
Fig.	2		2		2		2	1	2		2		1	2	1
G (AC)	132		145		145		197		197		197		221		
G1 (AD)	105		122		122		154		166		166		179		
i_2 (R+E)	23	30	30		40		50	66	60		60		63.5	60	
k (LB+R+E)	210	217	232		292		323		371		401		409		
KM (LB)	187		202		252		273	257	311		341		345	349	
p	-		-		-		-		-		-		147		
p_2	51		50		50		50		56		56		56		
s_1 (S)	9		9	11	9	11	11	14	11	14	11	14	11	14	
st	2x∅20.5 [2] 2x∅16.5 [2]		1xM25x1.5 1xM16x1.5		1xM25x1.5 1xM16x1.5		1xM25x1.5 1xM16x1.5		1xM32x1.5 1xM16x1.5		1xM32x1.5 1xM16x1.5		1xM32x1.5 1xM16x1.5		
x_9	51		61		61		76		74		74		91		
x	100		87		87		87		106		106		106		
y	100		97		97		97		109		109		109		
d (D)	11	14	14		19		24		28		28		28		
l (E)	23	30	30		40		50		60		60		60		
l_{11} (E-EB-ED)	3.5	4	4		4		5		5		5		5		
l_{12} (EB)	16	22	22		32		40		50		50		50		
t (GA)	12.6	16	16		21.5		27		31		31		31		
u (F)	4	5	5		6		8		8		8		8		

1) Flange diameter a_1 (P): The preferred IEC range is printed in bold.

2) Knock-out for M20x1.5 and M16x1.5.

Flange-mounted DFV132S - DFV225

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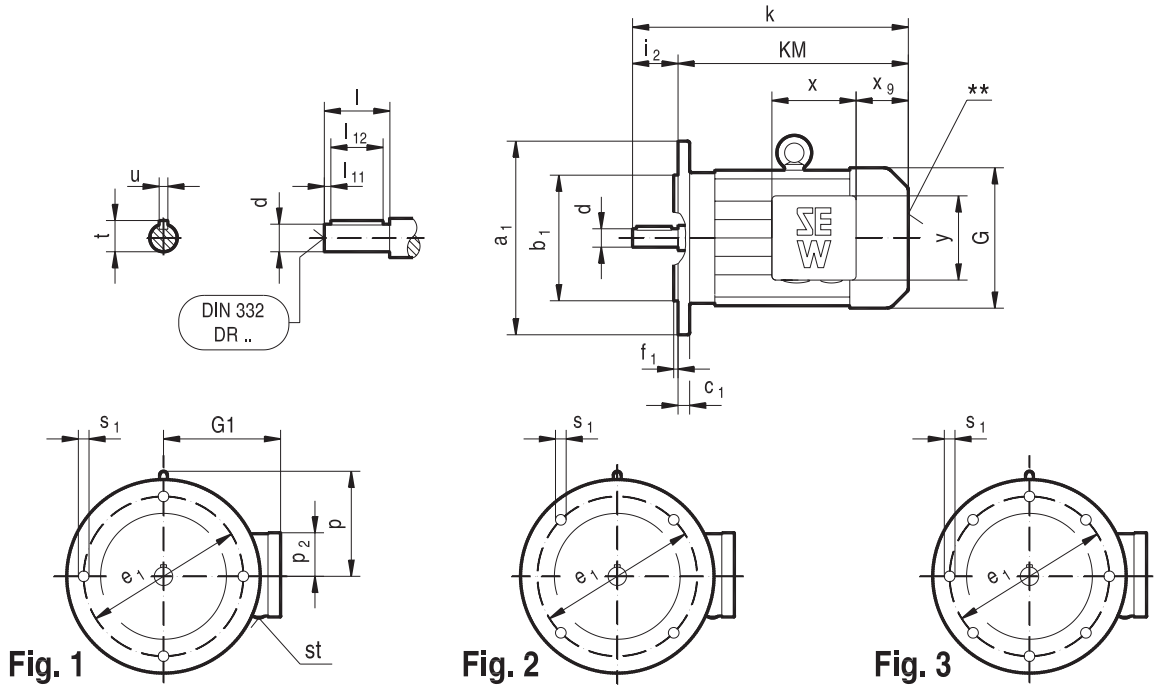

Fig. 1 Fig. 2 Fig. 3

** Keep the air inlet clear

	DFV132S			DFV132M			DFV132ML		DFV160M			DFV160L			DFV180..			DFV200..		DFV225..
a_1[1] (P)	250	**300**	350	250	**300**	350	**300**	350	300	**350**	450	300	**350**	450	300	**350**	450	**400**	450	**450**
b_1 (N)	180	230	250	180	230	250	230	250	230	250	350	230	250	350	230	250	350	300	350	350
c_1 (LA)	15	16	18	15	16	18	16	18	16	18	22	16	18	22	16	18	22	20	22	22
e_1 (M)	215	265	300	215	265	300	265	300	265	300	400	265	300	400	265	300	400	350	400	400
f_1 (T)	4	4	5	4	4	5	4	5	4	5	5	4	5	5	4	5	5	5	5	5
Fig.	2	2	1	1	2	2	2		2	2	3	1	2	3	1	2	3	2	3	3
G (AC)	221			275			275		275			331			331			394		394
G1 (AD)	179			230			230		230			259			253			285		289
i_2 (R+E)	80		99.5	75	80		80		110		131	104	110	125	104	110	125	110	118	140
k (LB+R+E)	474			482			542		572			613			685			726		830
KM (LB)	394		374	407	402		462		462		441	509	503	488	581	575	560	616	608	690
p	147			190			190		190			219			219			262		262
p_2	56			76			76		76			76			76			76		76
s_1 (S)	14		18	14		18	14	18	14		18	14		18	14		18	18		18
st	1xM32x1.5 1xM16x1.5			2xM32x1.5 2xM16x1.5			2xM32x1.5 2xM16x1.5		2xM40x1.5 2xM16x1.5			2xM40x1.5 2xM16x1.5			2xM40x1.5 2xM16x1.5			2xM50x1.5 2xM16x1.5		2xM50x1.5 2xM16x1.5
x_9	91			59			59		59			83			208			236		278
x	106			182			182		182			182			182			182		182
y	109			152			152		152			152			152			152		152
d (D)	38			38			38		42			42			48			55		60
l (E)	80			80			80		110			110			110			110		140
l_{11} (E-EB-ED)	5			5			5		10			10			10			10		15
l_{12} (EB)	70			70			70		70			70			80			90		100
t (GA)	41			41			41		45			45			51.5			59		64
u (F)	10			10			10		12			12			14			16		18

1) Flange diameter a_1 (P): The preferred IEC range is printed in bold.

18.5 Additional lengths for brake motors

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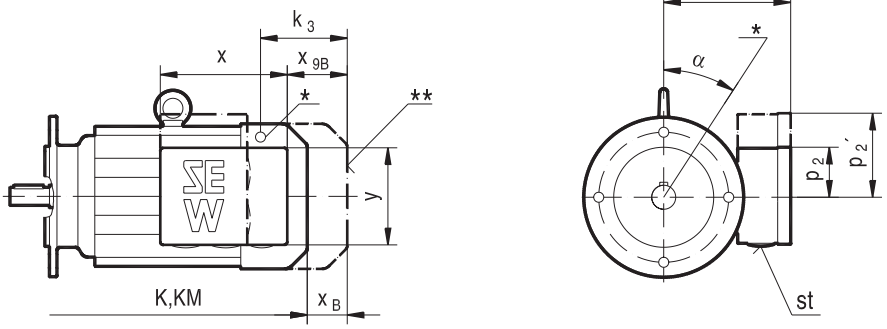


* Manual brake release can be pivoted through 90° together with the terminal box, with the exception of DFR63 and the foot-mounted versions of DT71D, DT90.., DV132M and DV160L.

** Keep the air inlet clear

	DFR63.. /BR03	D(F)T71D /BMG[2]	D(F)T80.. /BMG	D(F)T90.. /BMG[2]	SD(F)T100.. /BMG	D(F)V100.. /BMG	D(F)V112M /BMG	D(F)V132S /BMG	D(F)V132M /BM[2]
G1B	105	127	127	161	166	166	182	182	230
k_3	39	59	59	69	69	69	97	97	112
p_2	50	50	50	50	56	56	56	56	112
p_2'[3]	-	84	84	84	86	86	86	86	106
st	2x∅20.5[5] 2x∅16.5[5]	2xM25x1.5 1xM16x1.5	2xM25x1.5 1xM16x1.5	2xM25x1.5 1xM16x1.5	2xM32x1.5 1xM16x1.5	2xM32x1.5 1xM16x1.5	2xM32x1.5 1xM16x1.5	2xM32x1.5 1xM16x1.5	2xM32x1.5 2xM16x1.5
x_{9B}	106	86	86	121	125	125	131	131	171
x_B [6]	55	64	64	85	85	85	80	80	112
x	100	127	127	127	139	139	139	139	182
y	100	97	97	97	109	109	109	109	152
a	90°	33°	33°	33°	33°	33°	33°	33°	33°

	D(F)V132ML /BM	D(F)V160M /BM	D(F)V160L /BM[2]	D(F)V180.. /BM	D(F)V200.. /BM	D(F)V225.. /BM	D(F)V180.. /BM32	D(F)V200.. /BM62	D(F)V225.. /BM62
G1B	230	230	259	254	285	289	254	285	289
k_3	112	112	160	160	172	172	133	143	143
p_2	76	76	76	76	76	76	76	76	76
p_2'[3]	106	106	106	106	106	106	106	106	106
st	2xM32x1.5 2xM16x1.5	2xM40x1.5 2xM16x1.5	2xM40x1.5 2xM16x1.5	2xM40x1.5 2xM16x1.5	2xM50x1.5 2xM16x1.5	2xM50x1.5 2xM16x1.5	2xM40x1.5 2xM16x1.5	2xM50x1.5 2xM16x1.5	2xM50x1.5 2xM16x1.5
x_{9B}	171	171	240	362	391	433	362	391	433
x_B [6]	112	112	156	156	156	156	156	156	156
x	182	182	182	182	182	182	182	182	182
y	152	152	152	152	152	152	152	152	152
a	33°	33°	33°	33°	33°	33°	33°	33°	33°

2) The fan guard is flat at the bottom in the foot-mounted versions of DT71D, DT90.., DV132M and DV160L.

3) Note dimension p2' when turning the cable entry into position 1 or 3!

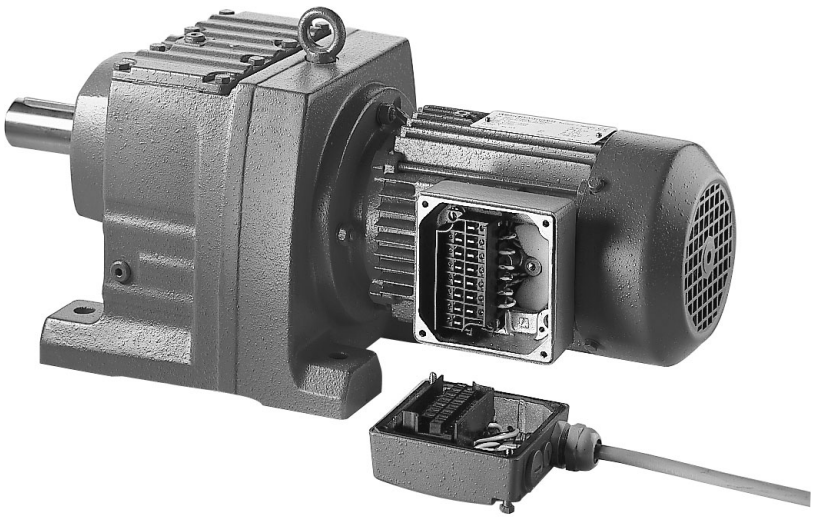
4) Knock-out for M20x1.5 and M12x1.5

5) Knock-out for M20x1.5 and M16x1.5

6) Note the space required for removing the fan guard in the axial direction!

18.6 Technical data and dimensions of plug connectors

IS integrated plug connector



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On request, AC (brake) motors DR63 and DT71 ... DV132S.. can be supplied with the integrated, 12-pole IS plug connector instead of the standard terminal box. The IS top part (mating connector) is included in the scope of delivery. IS is particularly compact and offers the following connection options:

- Motor, single speed or double pole-changing
- Brake
- Temperature monitoring (TF or TH)

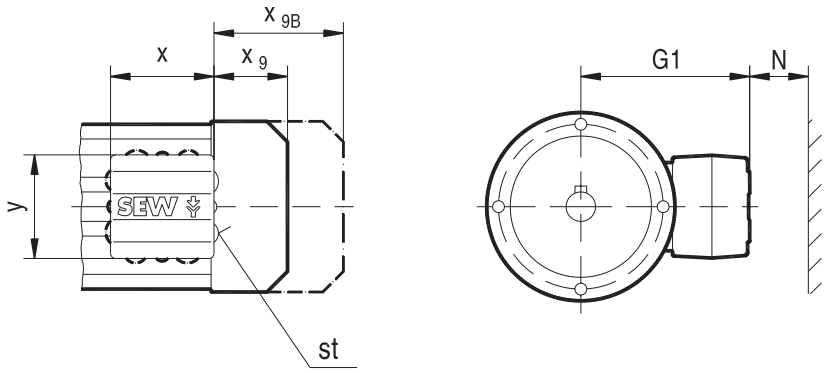
As with the terminal box, the cable run with the integrated plug connector IS can be from four different directions offset at 90°.

Technical data

IS size	1	2
For AC (brake) motors	DR63 ... DT90	DV100 ... DV132S
Number of contacts	12 + 2 × PE	
Contact connection	Screw connection	
Contact type	Blade / bushing	
Max. voltage / (CSA)	690 V_{AC} / (600 V_{AC})	
Max. contact load	16 A_{eff}	
Enclosure	Corresponding to motor protection type (IP54, IP55, optionally IP65)	
Ambient temperature	-45 °C ... +40 °C	

- IS requires a clearance of 30 mm for removing the connector.
- **For brake motors with IS size 1 only:** Only brake control systems BG1.2, BG2.4, BSR and BUR can be accommodated in the IS. Other brake control systems must be installed in the control cabinet.

IS dimensions



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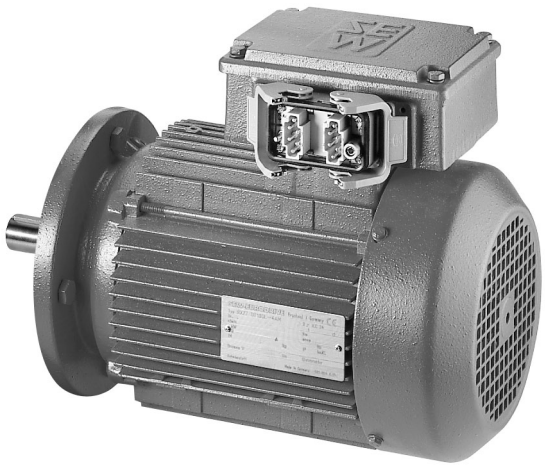
	DFR63..	D(F)T71D	D(F)T80..	D(F)T90..	D(F)V100..	D(F)V112M	D(F)V132S
G1 (AD)	119	149	149	185	185	199	199
x9	51	62	62	77	62	80	80
x9B[1)]	106	126	126	162	146	160	160
x	100	100	100	100	116	116	116
y	100	100	100	100	116	116	116
N[2)]	30	30	30	30	30	30	30
st	1xM20x1.5 1xM16x1.5 1xM12x1.5	1xM20x1.5 1xM16x1.5 1xM12x1.5	1xM20x1.5 1xM16x1.5 1xM12x1.5	1xM20x1.5 1xM16x1.5 1xM12x1.5	1xM25x1.5 1xM20x1.5 1xM12x1.5	1xM25x1.5 1xM20x1.5 1xM12x1.5	1xM25x1.5 1xM20x1.5 1xM12x1.5

1) Brake motor

2) Space required for removing the plug

Plug connectors ASA1/ASD1 and AMA1/AMD1



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The installed plug connector systems ASA1/ASD1 are based on the plug connector systems HAN 10ES and AMA1/AMD1 on HAN Modular made by Harting. The plugs are mounted on the side of the SEW terminal box. They are fastened onto the terminal box either using two clips as in the ASA1 and AMA1 or with one clip as in the ASD1 and AMD1.

Both systems are used for AC (brake) motors DT71 ... DV132S for ASA1/ASD1 and DT71 ... DV180 for AMA1/AMD1 with supply voltages up to 500 V_{AC}. The maximum contact current is 16 A. UL approval has been granted for ASA1/ASD1 and AMA1/AMD1 plug connectors. **The mating connectors (sleeve housing) with contact tubes are not included in the scope of delivery.**

ASA1/ASD1

The ten contacts of the ASA1 (twin clip transverse closure) and ASD1 plug connectors (single clip longitudinal closure) connect the motor winding (six contacts), the brake (two contacts only) and the thermal motor protection (two contacts). It is possible to connect both single speed motors and double pole-changing motors.

With brake motors, it is only possible to select the type with the brake control system in the terminal box. In this case, the disconnection in the DC circuit has to take place electronically using BSR or BUR.

The ASD1 type with single clip closure corresponds to the DESINA regulation issued by the Association of German Machine Tool Manufacturers (VDW).

AMA1 / AMD1

AMA1 (twin clip transverse closure) and AMD1 (single clip longitudinal closure) consist of plug connectors with two socket inserts having 6 or 3+6 contacts each. One socket insert is used for connecting the motor winding, the other for the thermal motor protection and the brake. It is possible to connect both single speed motors and double pole-changing motors.

With brake motors, the brake control system can be either located in the terminal box or in the control cabinet. All versions of the brake control system are possible without restrictions.

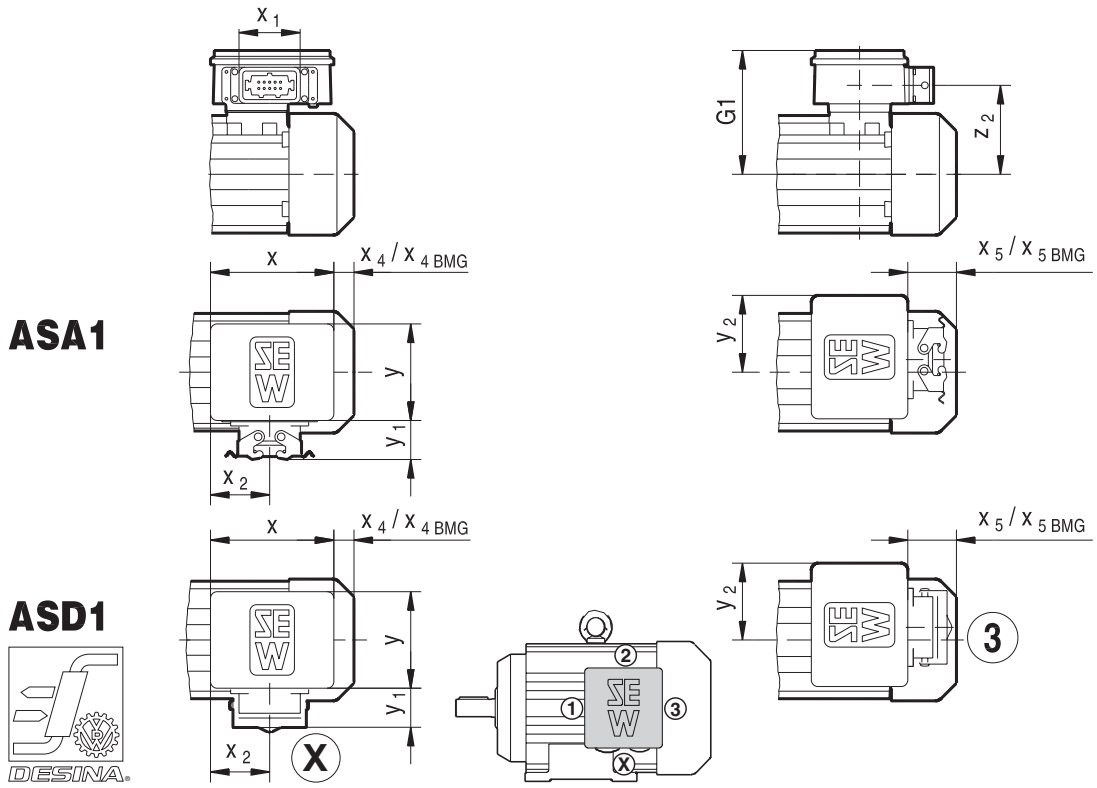
The following positions of the motor terminal box and the cable entry are not possible with ASA1/ASD1/AMA1/AMD1 plug connectors:

- Motor size DT71..
  - Cable entry position 1 is never possible.
  - Cable entry position X is not possible with the terminal box 180° position.
- Motor sizes DT80.. - DV132S
  - Cable entry position 1 is never possible.

Technical data

Plug connector	ASA1	ASD1	AMA1	AMD1	AMA1	AMD1
For motors	DT71 ... DV132S../BMG		DT71 ... DV132S../BMG		DV132M ... DV180L../BM	
Locking of mating connector	2-clip transverse	1-clip longitudinal	2-clip transverse	1-clip longitudinal	2-clip transverse	1-clip longitudinal
Basic connector system	Harting, HAN 10ES		Fa. Harting, HAN Modular			
Number of contacts	10 + 2 × PE		2 × 6 + 2 × PE		2 × 3 + 1 × 6 + 2 × PE	
Contact connection	Cage clamp springs		Crimp			
Contact type	Pin / socket					
Max. voltage / (CSA)	500 V_{AC} / (600 V_{AC})					
Max. contact load	10 × 16 $A_{r.m.s.}$		12 × 16 $A_{r.m.s.}$		3 × 40 $A_{r.m.s.}$ + 6 × 16 $A_{r.m.s.}$	
Enclosure	Corresponding to motor protection type (IP54, IP55, optionally IP65)					
Ambient temperature	-40 °C ... +60 °C					

Dimensions of ASA1, ASD1



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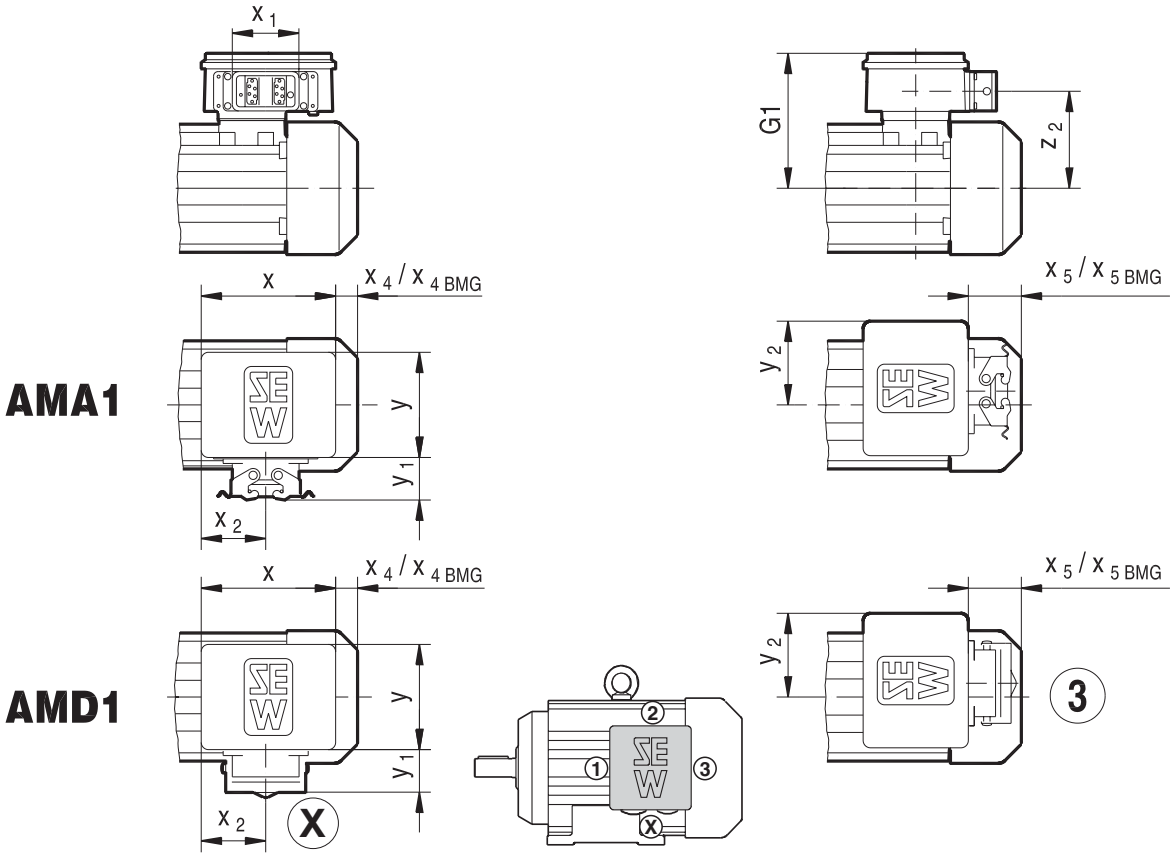
	D(F)T71D D(F)T80..	D(F)T90..	D(F)V100..	D(F)V112M D(F)V132S
G1 (AD)	149	182	182	195
x	147	147	167	167
x1	80	80	80	80
x2	71	71	85	85
x4	14	28	29	47
x4BMG	78	113	114	127
x5	48	62	64	82
x5BMG	112	147	149	164
y	115	115	123	123
y1	47	47	47	47
y2	92	92	97	97
z2	106	139	137	150

Dimensions of AMA1, AMD1



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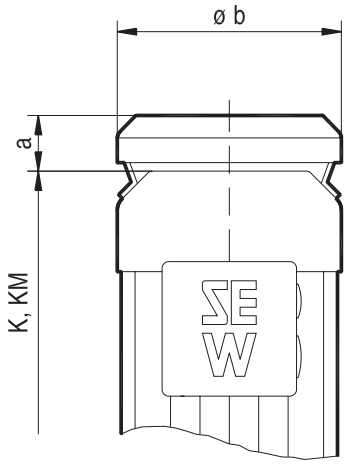
	D(F)T71D	D(F)T80..	D(F)T90..	D(F)V100..	D(F)V112M	D(F)V132S
G1 (AD)	149	149	182	182	195	195
x	147	147	147	167	167	167
x1	80	80	80	80	80	80
x2	71	71	71	85	85	85
x4	14	14	28	29	47	47
x4BMG	78	78	113	114	127	127
x5	48	48	62	64	82	82
x5BMG	112	112	147	149	164	164
y	115	115	115	123	123	123
y1	47	47	47	47	47	47
y2	92	92	92	97	97	97
z2	106	106	139	137	150	150

	D(F)V132M	D(F)V132ML	D(F)V160M	D(F)V160L	D(F)V180..
G1 (AD)	232	232	232	259	254
x	191	191	191	191	191
x1	80	80	80	80	80
x2	93	93	93	93	93
x4	55	55	55	79	204
x4BMG	167	167	167	235	360
x5	85	85	85	109	234
x5BMG	197	197	197	265	390
y	161	161	161	161	161
y1	47	47	47	47	47
y2	111	111	111	111	111
z2	183	183	183	210	205

18.7 Protection cover C

Dimensions



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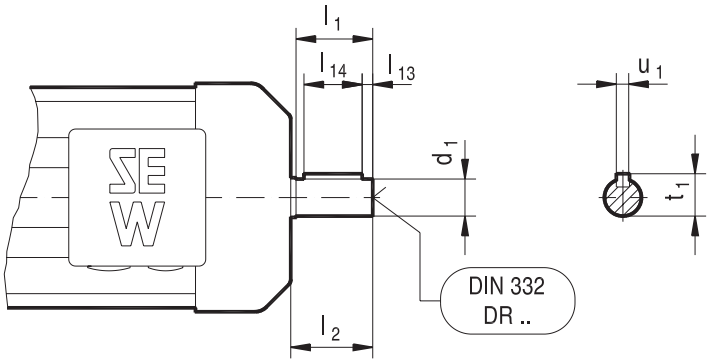
	DFR63	D(F)T71D - D(F)T80..	D(F)T90.. - D(F)V100..	D(F)V112M SD(F)T132S	D(F)V132M – D(F)V160M	D(F)V160L – D(F)V180L	D(F)V200 – D(F)V225..
a	30	36	34	36	37	40	47
∅**b**	145	145	192	223	311	311	415

1/2 is greater than h in the foot-mounted versions DT71, DT90, DV132M and DV160L.

18.8 2nd shaft end

Dimensions



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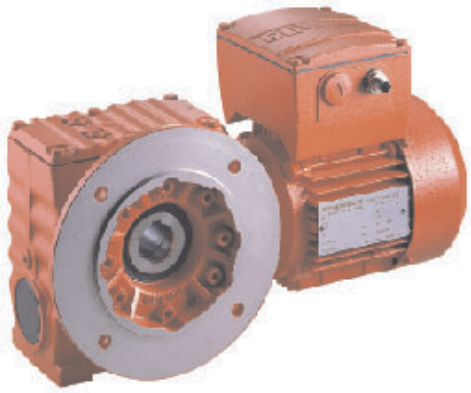
	DFR63	D(F)T71D	D(F)T80..	D(F)T90.. - D(F)V100..	D(F)V112M
d_1	11	11	14	19	24
l_1	23	23	30	40	50
l_2	27	25	31	42	55
l_{13}	3.5	1	4	4	5
l_{14}	16	20	22	32	40
t_1	12.5	12.5	16	21.5	27
u_1	4	4	5	6	8

	D(F)V132S	D(F)V132M/ML – D(F)V160M	D(F)V160L	D(F)V180..	D(F)V200 – 225..
d_1	28	38	42	48	55
l_1	60	80	110	110	110
l_2	65	85	115	115	115
l_{13}	5	5	10	10	10
l_{14}	50	70	70	80	90
t_1	31	41	45	51.5	59
u_1	8	10	12	14	16

18.9 MOVI-SWITCH®

MOVI-SWITCH® is the SEW gearmotor with integrated switching and protection function. Single speed SEW AC motors and AC brake motors in sizes DT71 to DV100 can be combined with all appropriate gear units in the SEW modular concept as part of the MOVI-SWITCH® range.



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MOVI-SWITCH® is switched on and off without changing direction by means of a short circuit-proof star bridge switch. A thermal winding monitor (TF) is also integrated, which acts directly on the switch.

The mains and control connections are the same for motors with or without brake.

Advantages of MOVI-SWITCH®

MOVI-SWITCH® offers the following advantages:

- The circuit breaker and protective functions are completely integrated, saving control cabinet space and cabling.
- Robust and compact, resulting in space-saving installation.
- Use MOVI-SWITCH® to operate motors in the voltage range 3 × 380 ... 500 V, 50 / 60 Hz.
- AC and AC brake motors with the same connection configuration, therefore simple installation.

Possible combinations

The following MOVI-SWITCH® AC motors and AC brake motors can be combined with all suitable variable speed gear unit types, mounting positions and versions in accordance with the selection tables for gearmotors.

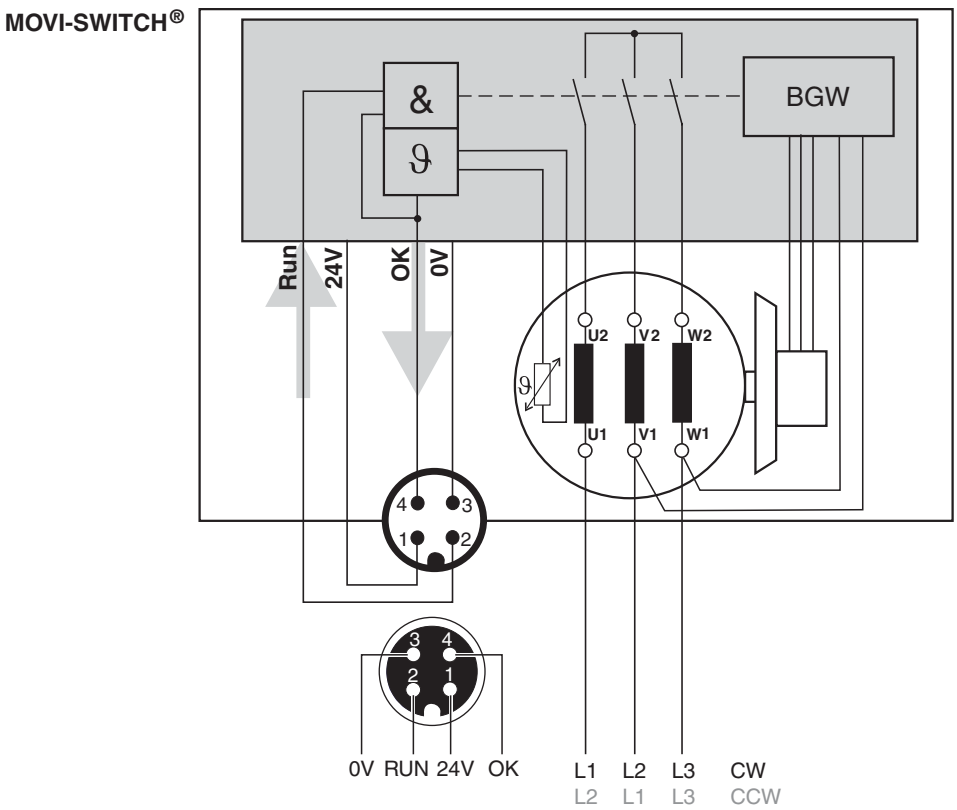
Motor size	Power [kW] with number of poles			
	2	4	6	8
DT71D.. (/BMG)/TF/MSW	0.55	0.37	0.25	0.15
DT80K.. (/BMG)/TF/MSW	0.75	0.55	0.37	-
DT80N.. (/BMG)/TF/MSW	1.1	0.75	0.55	0.25
DT90S.. (/BMG)/TF/MSW	1.5	1.1	0.75	0.37
DT90L.. (/BMG)/TF/MSW	2.2	1.5	1.1	0.55
DV100M.. (/BMG)/TF/MSW	3.0	2.2	1.5	0.75
DV100L.. (/BMG)/TF/MSW	-	3.0	-	1.1

Technical data

MOVI-SWITCH® features	Description
Motor voltage	3 × 380...500 V_{AC}, 50/60 Hz, **motor winding only in ⅄ connection**.
Brake voltage	= Motor voltage / $\sqrt{3}$ Alternative motor voltage
Control voltage	24 V_{DC} according to EN 61131-2
Switching function	On/off with star bridge switch. Short circuit-proof solid-state switch according to class B limit to EN 55011 and EN 55014.
Direction of rotation	CW or CCW, can only be changed externally.
Thermal motor protection	Integrated evaluation of positive temperature coefficient (PTC) thermistor TF, combined in logic operation with the enable signal.
Control	With control voltage 24 V_{DC} via M12 plug connector, identical for motors with and without brake.
Brake control	With integrated brake control system BGW as standard, therefore minimum brake reaction times.

Block diagram

The following diagram shows the operating principle of MOVI-SWITCH®.



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Order information

Note the following points when ordering SEW AC (brake) motors or gearmotors with MOVI-SWITCH®:

- Voltage only for winding in W connection
- Only two brake voltages are possible, namely
  - motor voltage / $\sqrt{3}$ or
  - motor voltage.
- Preferred position of terminal box 270°, please contact SEW for other requirements.

MOVI-SWITCH® flange-mounted version

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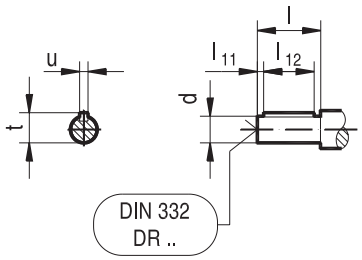


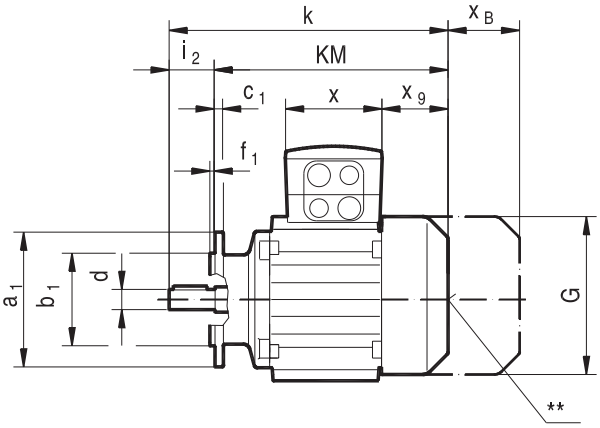
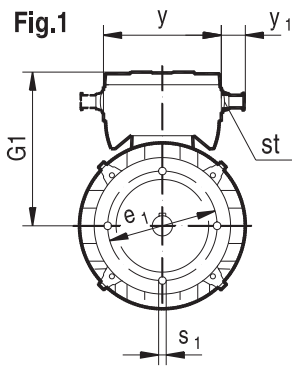
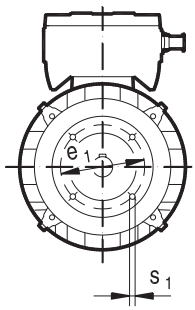


Fig.1



** Keep the air inlet clear

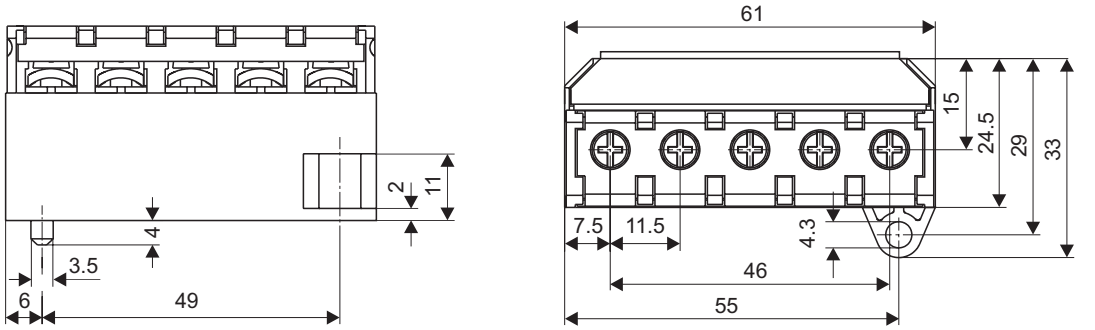
Fig.2



	DFT71D/MSW	DFT80../MSW		DFT90../MSW		DFV100M/MSW		DFV100L/MSW	
a_1 (P)	**160**	160	**200**	**200**	250	200	**250**	200	**250**
b_1 (N)	110	110	130	130	180	130	180	130	180
c_1 (LA)	10	10	12	12	15	12	15	12	15
e_1 (M)	130	130	165	165	215	165	215	165	215
f_1 (T)	3.5	3.5		3.5	4	3.5	4	3.5	4
Fig.	2	2		2	1	2		2	
G (AC)	145	145		197		197		197	
G1 (AD)	149	149		182		183		183	
i_2 (R+E)	30	40		50	66	60		60	
k (LB+R+E)	232	292		323		371		401	
KM (LB)	202	252		273	257	311		341	
s_1 (S)	9	11		11	14	11	14	11	14
st	2 x M25x1.5 1 x M16x1.5					2 x M25x1.5 2 x M16x1.5			
	2 x M25x1.5 1 x M12 plug. 4-pole					2 x M25x1.5 1 x M16x1.5, 1 x M12 plug. 4-pole			
x_B	64	64		85		85		85	
x	115	115		115		147		147	
y	140	140		140		175		175	
x_9	64	64		78.5		79		79	
y_1	25	25		25		25		25	
d (D)	14	19		24		28		28	
l (E)	30	40		50		60		60	
l_{11} (E-EB-ED)	4	4		5		5		5	
l_{12} (EB)	22	32		40		50		50	
t (GA)	16	21.5		27		31		31	
u (F)	5	6		8		8		8	

18.10 Dimensions of brake control systems

BG1.2, BG2.4



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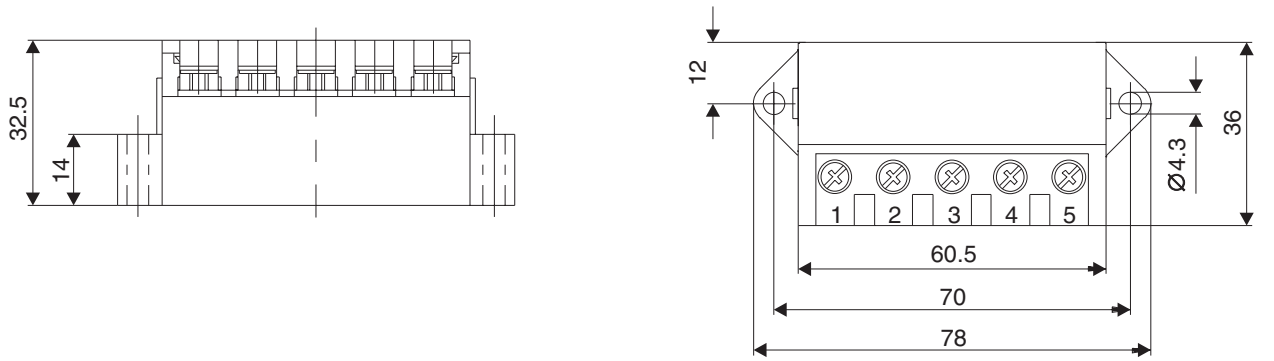
BG1.5, BG3, BGE, BS, BSG



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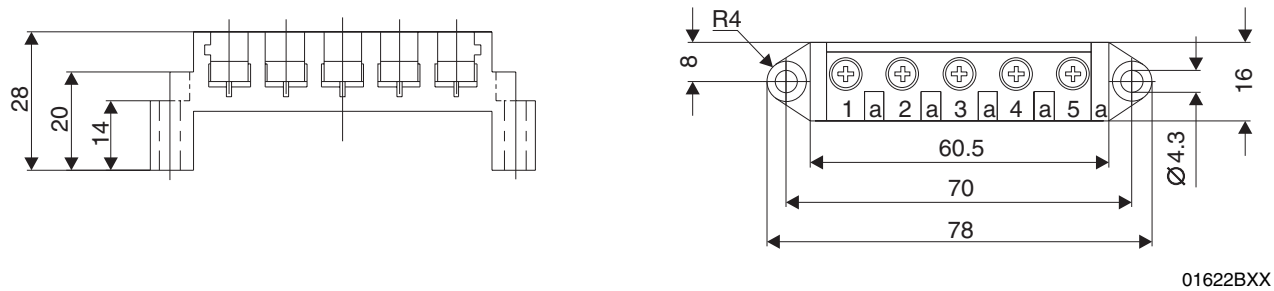
Auxiliary terminal strip



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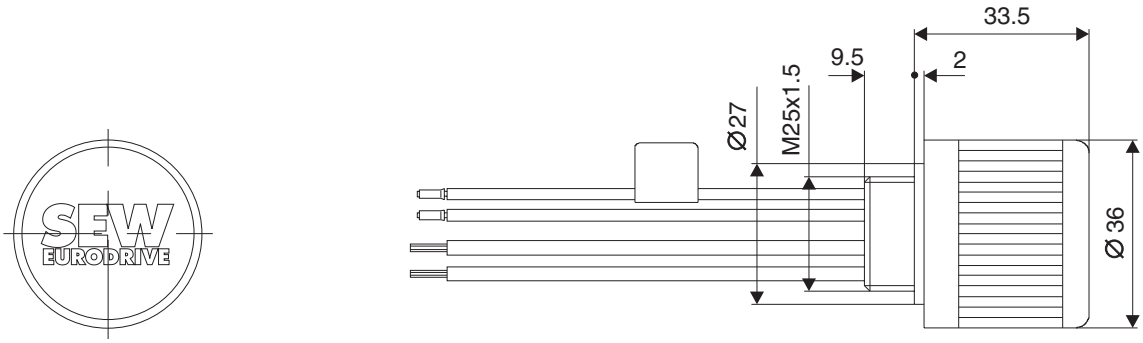
SR, UR



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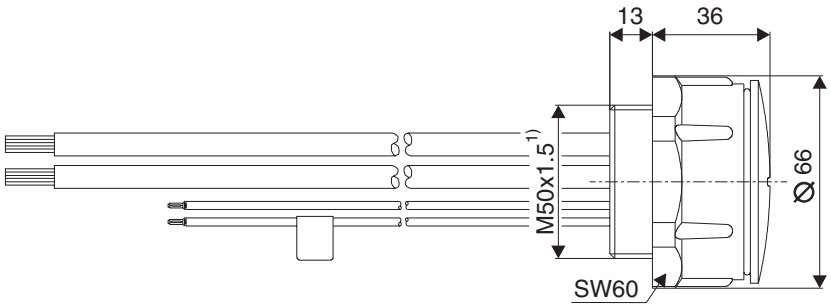
SR19



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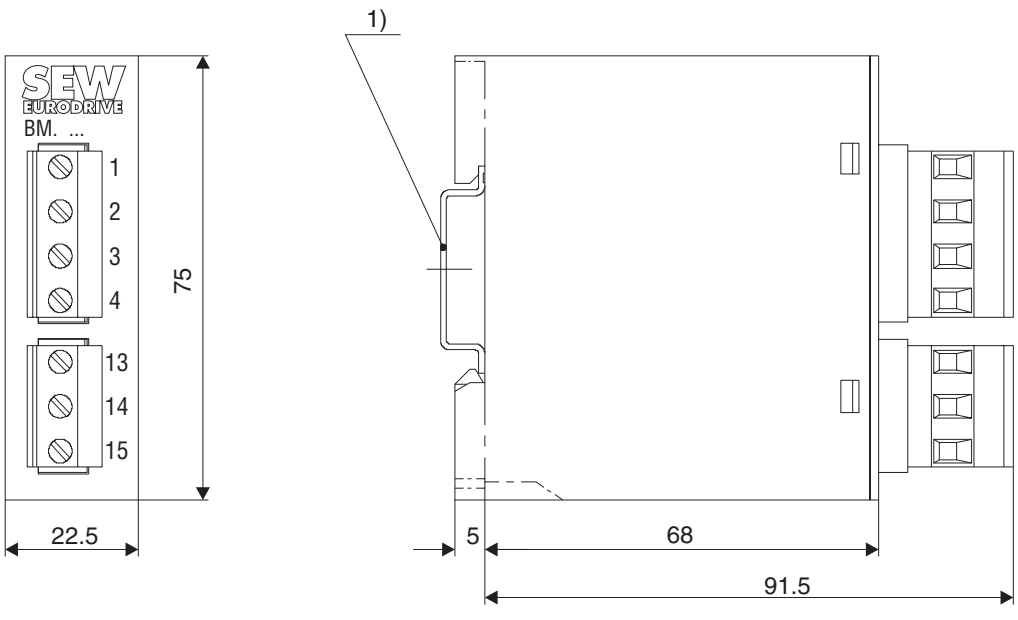
1) With reducing sleeve to M50x1.5

BMS, BME, BMH, BMP, BMK



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19 Abbreviation Key and Index

19.1 Abbreviation key

a, b, f	Constants for converting overhung loads	[mm]
c	Constant for converting overhung loads	[Nmm]
d_{RZ}	Pinion spigot diameter	[mm]
ED	Cyclic duration factor cdf	%
F_A	Axial force	[N]
F_{Aa}	Axial force acting on the output shaft	[N]
F_{Ae}	Axial force acting on the input shaft	[N]
f_B	Service factor = $M_{a\ max}/M_a$	–
F_R	Overhung load	[N]
F_{Ra}	Permitted overhung load (N) on output end, load applied to middle of shaft end	[N]
F_{Re}	Permitted overhung load (N) on input side, load applied to middle of shaft end	[N]
f_Z	Transmission element factor for calculating overhung load	–
H	Installation altitude	[m ü. NN]
i	Gear unit ratio	–
i_{ges}	Gear ratios in total	–
IP..	Enclosure	–
i_{sch}	Gear ratio of the worm gear stage	–
J	Mass moment of inertia	[10^{-4} kgm^2]
$J_{Adapter}$	Mass moment of inertia to be driven of the adapter	[10^{-4} kgm^2]
J_{Last}	Mass moment of inertia to be driven	[10^{-4} kgm^2]
ϑ_{Umg}	Ambient temperature	[°C]
m	Weight without lubricant fill, without brake	[kg]
M_a	Output torque	[Nm]
$M_{a\ max}$	Max. permitted output torque	[Nm]
M_B	Braking torque	[Nm]
$M_{B\ max}$	Max. braking torque	[Nm]
$M_{e\ max}$	Max. permitted input torque	[Nm]
M_R	Slip torque	[Nm]
MS	Tightening torque	[Nm]
n_a	Output speed	[1/min]
n_e	Input speed	[1/min]
n_n	Rated speed	[1/min]
P_a	Output power	[kW]
P_e 1)	Mathematical input power of gear unit	[kW]
P_m	Rated power of the driving motor	[kW]
S..	Duty type	–
S_N	Rated slip	[%]
U_{Bremse}	Operating voltage of brake (AT with brake)	[V]
Z	Starting frequency	[1/h], [c/h]
η	Forward efficiency	–
η'	Back-driving efficiency	–
φ **(/R)**	Circumferential backlash	[']

1) P_e is calculated from $M_{a\ max}$ with regard to the gear unit efficiency values under standard conditions (see Sec. Project Planning for Gear Units). Important: Exceeding $M_{a\ max}$ leads to irreparable damage of the gear unit!

19.2 Index

SEW EURODRIVE

NEW CATALOG

Variable Speed Gearmotors

(Effective as of August 2004)

SEW-EURODRIVE is presenting the new catalog **Variable Speed Gearmotors 2004**. We have further enhanced the contents to give you even more information and make it easier for you to use this catalog.

The main changes compared to the previous edition at a glance:

- **VARIBLOC® and VARIMOT® for potentially explosive atmospheres according to EU directive 94/9/EC (ATEX 100a) have been added.**
- **New TorqLOC® hollow shaft mounting system for gear units with hollow shaft.**
- **Revised lubricant table and lubricant fill quantities.**
- **New slip monitor WS.**

Let us show you that *Made by* **SEW-EURODRIVE** means global expertise in all matters of drive engineering, through

Development, production, consulting, sales and service

all from one source, SEW-EURODRIVE.

Bruchsal, August 2004

SEW-EURODRIVE GmbH & Co KG

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	Nürnberg	SEW-EURODRIVE GmbH & Co KG Plattenäckerweg 6 D-90455 Nürnberg	Tel. +49 911 988845-0 Fax +49 911 988846-0 tb-nuernberg@sew-eurodrive.de
	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
	Rhein-Main	SEW-EURODRIVE GmbH & Co KG Niederstedter Weg 5 D-61348 Bad Homburg	Tel. +49 6172 9617-0 Fax +49 6172 9617-50 tb-rheinmain@sew-eurodrive.de
	Stuttgart	SEW-EURODRIVE GmbH & Co KG Friedrich-List-Straße 46 D-70771 Leinfelden-Echterdingen	Tel. +49 711 16072-0 Fax +49 711 16072-72 tb-stuttgart@sew-eurodrive.de
	Ulm	SEW-EURODRIVE GmbH & Co KG Dieselstraße 14 D-89160 Dornstadt	Tel. +49 7348 9885-0 Fax +49 7348 9885-90 tb-ulm@sew-eurodrive.de

Germany			
	Würzburg	SEW-EURODRIVE GmbH & Co KG Werner-von-Siemens-Straße 55a D-97076 Würzburg-Lengfeld	Tel. +49 931 27886-60 Fax +49 931 27886-66 tb-wuerzburg@sew-eurodrive.de
	Zwickau / Meerane	SEW-EURODRIVE GmbH & Co KG Dänkritzer Weg1 D-08393 Meerane	Tel. +49 3764 7606-0 Fax +49 3764 7606-20 tb-zwickau@sew-eurodrive.de

France			
Production Sales Service	**Haguenau**	SEW-USOCOME 48-54, route de Soufflenheim B. P. 20185 F-67506 Haguenau Cedex	Tel. +33 3 88 73 67 00 Fax +33 3 88 73 66 00 http://www.usocome.com sew@usocome.com
Assembly Sales Service	**Bordeaux**	SEW-USOCOME Parc d'activités de Magellan 62, avenue de Magellan - B. P. 182 F-33607 Pessac Cedex	Tel. +33 5 57 26 39 00 Fax +33 5 57 26 39 09
	Lyon	SEW-USOCOME Parc d'Affaires Roosevelt Rue Jacques Tati F-69120 Vaulx en Velin	Tel. +33 4 72 15 37 00 Fax +33 4 72 15 37 15
	Paris	SEW-USOCOME Zone industrielle 2, rue Denis Papin F-77390 Verneuil l'Etang	Tel. +33 1 64 42 40 80 Fax +33 1 64 42 40 88
Technical Offices	**Alsace Franche-Comté**	SEW-USOCOME 15, rue de Mambourg F-68240 Sigolsheim	Tel. +33 3 89 78 45 11 Fax +33 3 89 78 45 12
	Alsace Nord	SEW-USOCOME 35, rue Jeanne d'Arc F-67250 Surbourg	Tel. +33 3 88 54 74 44 Fax +33 3 88 80 47 62
	Aquitaine	SEW-USOCOME Parc d'activités de Magellan 62, avenue de Magellan B.P.182 F-33607 Pessac Cedex	Tel. +33 5 57 26 39 00 Fax +33 5 57 26 39 09
	Ardennes Lorraine	SEW-USOCOME 7, rue de Prény F-54000 Nancy	Tel. +33 3 83 96 28 04 Fax +33 3 83 96 28 07
	Bourgogne	SEW-USOCOME 10, rue de la Poste F-71350 Saint Loup Géanges	Tel. +33 3 85 49 92 18 Fax +33 3 85 49 92 19
	Bretagne Ouest	SEW-USOCOME 4, rue des Châtaigniers F-44830 Brains	Tel. +33 2 51 70 54 04 Fax +33 2 51 70 54 05
	Centre Pays de Loire	SEW-USOCOME 9, rue des Erables F-37540 Saint Cyr sur Loire	Tel. +33 2 47 41 33 23 Fax +33 2 47 41 34 03
	Centre Auvergne	SEW-USOCOME 27, avenue du Colombier F-19150 Laguenne	Tel. +33 5 55 20 12 10 Fax +33 5 55 20 12 11
	Champagne	SEW-USOCOME 2, chemin des Suivots F-10120 Saint André les Vergers	Tel. +33 3 25 79 63 24 Fax +33 3 25 79 63 25
	Lyon Nord-Est	SEW-USOCOME Parc d'Affaires Roosevelt Rue Jacques Tati F-69120 Vaulx en Velin	Tel. +33 4 72 15 37 03 Fax +33 4 72 15 37 15
	Lyon Ouest	SEW-USOCOME Parc d'Affaires Roosevelt Rue Jacques Tati F-69120 Vaulx en Velin	Tel. +33 4 72 15 37 04 Fax +33 4 72 15 37 15
	Lyon Sud-Est	SEW-USOCOME 4, Montée du Pavé F-26750 Génissieux	Tel. +33 4 75 05 65 95 Fax +33 4 75 05 65 96

France			
	Nord	SEW-USOCOME 348, rue du Calvaire F-59213 Bermerain Cidex 102	Tel. +33 3 27 27 07 88 Fax +33 3 27 27 24 41
	Normandie	SEW-USOCOME Les Courtillages Hameau de Coupigny F-14370 Airan	Tel. +33 2 31 78 99 70 Fax +33 2 31 78 99 72
	Paris Est	SEW-USOCOME Résidence Le Bois de Grâce 2, allée des Souches Vertes F-77420 Champs sur Marne	Tel. +33 1 64 68 40 50 Fax +33 1 64 68 45 00
	Paris Ouest	SEW-USOCOME 1, rue Matisse F-78960 Voisins le Bretonneux	Tel. +33 1 30 64 46 33 Fax +33 1 30 57 54 86
	Paris Picardie	SEW-USOCOME 25 bis, rue Kléber F-92300 Levallois Perret	Tel. +33 1 41 05 92 74 Fax +33 1 41 05 92 75
	Paris Sud	SEW-USOCOME 6. chemin des Bergers Lieu-dit Marchais F-91410 Roinville sous Dourdan	Tel. +33 1 60 81 10 56 Fax +33 1 60 81 10 57
	Provence	SEW-USOCOME Résidence Les Hespérides Bât. B2 67, boulevard des Alpes F-13012 Marseille	Tel. +33 4 91 18 00 11 Fax +33 4 91 18 00 12
	Pyrénées	SEW-USOCOME 271, Lieu-dit Ninaut F-31190 Caujac	Tel. +33 5 61 08 15 85 Fax +33 5 61 08 16 44
	Sud-Atlantique	SEW-USOCOME 12, rue des Pinsons F-44120 Vertou	Tel. +33 2 40 80 32 23 Fax +33 2 40 80 32 13

Algeria			
Sales	**Alger**	Réducom 16, rue des Frères Zaghnoun Bellevue El-Harrach 16200 Alger	Tel. +213 21 8222-84 Fax +213 21 8222-84

Argentina			
Assembly **Sales** **Service**	**Buenos Aires**	SEW EURODRIVE ARGENTINA S.A. Centro Industrial Garin, Lote 35 Ruta Panamericana Km 37,5 1619 Garin	Tel. +54 3327 4572-84 Fax +54 3327 4572-21 sewar@sew-eurodrive.com.ar

Australia			
Assembly **Sales** **Service**	**Melbourne**	SEW-EURODRIVE PTY. LTD. 27 Beverage Drive Tullamarine, Victoria 3043	Tel. +61 3 9933-1000 Fax +61 3 9933-1003 http://www.sew-eurodrive.com.au enquires@sew-eurodrive.com.au
	Sydney	SEW-EURODRIVE PTY. LTD. 9, Sleigh Place, Wetherill Park New South Wales, 2164	Tel. +61 2 9725-9900 Fax +61 2 9725-9905 enquires@sew-eurodrive.com.au
Technical Offices	**Adelaide**	SEW-EURODRIVE PTY. LTD. Unit 1/601 Anzac Highway Glenelg, S.A. 5045	Tel. +61 8 8294-8277 Fax +61 8 8294-2893 enquires@sew-eurodrive.com.au
	Perth	SEW-EURODRIVE PTY. LTD. 105 Robinson Avenue Belmont, W.A. 6104	Tel. +61 8 9478-2688 Fax +61 8 9277-7572 enquires@sew-eurodrive.com.au
	Brisbane	SEW-EURODRIVE PTY.LTD. 1 /34 Collinsvale St Rocklea, Queensland, 4106	Tel. +61 7 3272-7900 Fax +61 7 3272-7901 enquires@sew-eurodrive.com.au

Austria			
Assembly **Sales** **Service**	**Wien**	SEW-EURODRIVE Ges.m.b.H. Richard-Strauss-Strasse 24 A-1230 Wien	Tel. +43 1 617 55 00-0 Fax +43 1 617 55 00-30 http://sew-eurodrive.at sew@sew-eurodrive.at
Technical Offices	**Linz**	SEW-EURODRIVE Ges.m.b.H. Reuchlinstr. 6/3 A-4020 Linz	Tel. +43 732 655 109-0 Fax +43 732 655 109-20 tb-linz@sew-eurodrive.at
	Graz	SEW-EURODRIVE Ges.m.b.H. Grabenstraße 231 A-8045 Graz	Tel. +43 316 685 756-0 Fax +43 316 685 755 tb-graz@sew-eurodrive.at
	Dornbirn	SEW-EURODRIVE Ges.m.b.H. Lustenauerstraße 27/1 A-6850 Dornbirn	Tel. +43 5572 3725 99-0 Fax +43 5572 3725 99-20 tb-dornbirn@sew-eurodrive.at

Bangladesh			
	Dhaka	Triangle Trade International Bldg-5, Road-2, Sec-3, Uttara Model Town Dhaka-1230 Bangladesh	Tel. +880 2 8912246 Fax +880 2 8913344

Belgium			
Assembly **Sales** **Service**	**Brüssel**	CARON-VECTOR S.A. Avenue Eiffel 5 B-1300 Wavre	Tel. +32 10 231-311 Fax +32 10 231-336 http://www.caron-vector.be info@caron-vector.be
Technical Office	**Vlaanderen**	CARON-VECTOR S.A. Industrieweg 112-114 B-9032 Gent (Wondelgem)	Tel. +32 92 273-452 Fax +32 92 274-155

Bolivia			
	La Paz	GRUPO LARCOS LTDA. Av. Jose Carrasco Not. 1398 Entre Hugo Estrada Y Av. Busch La Paz	Tel. +591 2 221808 Fax +591 2 220085 larcos@ceibo.entelnet.bo

Brazil			
Production **Sales** **Service**	**Sao Paulo**	SEW-EURODRIVE Brasil Ltda. Avenida Amâncio Gaiolli, 50 Caixa Postal: 201-07111-970 Guarulhos/SP - Cep.: 07251-250	Tel. +55 11 6489-9133 Fax +55 11 6480-3328 http://www.sew.com.br sew@sew.com.br
	Additional addresses for service in Brazil provided on request!		

Bulgaria			
Sales	**Sofia**	BEVER-DRIVE GMBH Bogdanovetz Str.1 BG-1606 Sofia	Tel. +359 2 9532565 Fax +359 2 9549345 bever@mbox.infotel.bg

Cameroon			
Sales	**Douala**	Electro-Services Rue Drouot Akwa B.P. 2024 Douala	Tel. +237 4322-99 Fax +237 4277-03

Canada			
Assembly **Sales** **Service**	**Toronto**	SEW-EURODRIVE CO. OF CANADA LTD. 210 Walker Drive Bramalea, Ontario L6T3W1	Tel. +1 905 791-1553 Fax +1 905 791-2999 http://www.sew-eurodrive.ca l.reynolds@sew-eurodrive.ca
	Vancouver	SEW-EURODRIVE CO. OF CANADA LTD. 7188 Honeyman Street Delta. B.C. V4G 1 E2	Tel. +1 604 946-5535 Fax +1 604 946-2513 b.wake@sew-eurodrive.ca
	Montreal	SEW-EURODRIVE CO. OF CANADA LTD. 2555 Rue Leger Street LaSalle, Quebec H8N 2V9	Tel. +1 514 367-1124 Fax +1 514 367-3677 a.peluso@sew-eurodrive.ca

Canada			
	Additional addresses for service in Canada provided on request!		

Chile			
Assembly **Sales** **Service**	**Santiago de Chile**	SEW-EURODRIVE CHILE LTDA. Las Encinas 1295 Parque Industrial Valle Grande LAMPA RCH-Santiago de Chile P.O. Box Casilla 23 Correo Quilicura - Santiago - Chile	Tel. +56 2 75770-00 Fax +56 2 75770-01 sewsales@entelchile.net

China			
Production **Assembly** **Sales** **Service**	**Tianjin**	SEW-EURODRIVE (Tianjin) Co., Ltd. No. 46, 7th Avenue, TEDA Tianjin 300457	Tel. +86 22 25322612 Fax +86 22 25322611 victor.zhang@sew-eurodrive.cn http://www.sew.com.cn
Assembly **Sales** **Service**	**Suzhou**	SEW-EURODRIVE (Suzhou) Co., Ltd. 333, Suhong Middle Road Suzhou Industrial Park Jiangsu Province, 215021 P. R. China	Tel. +86 512 62581781 Fax +86 512 62581783 suzhou@sew.com.cn
	Guangzhou	SEW-EURODRIVE (Guangzhou) Co., Ltd. No. 9, JunDa Road East Section of GETDD Guangzhou 510530 P. R. China	Tel. +86 20 82267890 Fax +86 20 82267891 sewguangzhou@sew.com.cn

China			
Technical Offices	**Beijing**	SEW-EURODRIVE (Tianjin) Co., LTD Room 1205/1206, Golden Corner Building, No. 129 Xuanwumen Xidajie, Xicheng District Beijing 100031	Tel. +86 10 66412026 Fax +86 10 66411017 beijing@sew.com.cn
	Chengdu	SEW-Eurodrive (Tianjin) Co. Ltd. Room 715, Sichuan International Building No. 206, Shun Cheng Avenue Chengdu 610015	Tel. +86 28 6521560 Fax +86 28 6521563 chengdu@sew.com.cn
	Fuzhou	SEW-Eurodrive (Tianjin) Co. Ltd. Unit D, 15/F, Oriental Hotel Fujian Fuzhou 350001	Tel. +86 591 7507596 Fax +86 591 7507285 fuzhou@sew.com.cn
	Jinan	SEW-Eurodrive (Tianjin) Co.Ltd. Room 2008-2009, Liang You Fu Lin Hotel No. 5, Luo Yuan Avenue Jinan 250063	Tel. +86 531 6412622 Fax +86 531 6412430 jinan@sew.com.cn
	Kunming	SEW-EURODRIVE (Tianjin) Co., Ltd Room 1401 Dong Yuan Business Building No. 464 Tuodong Road, Kunming Yunnan Province 650011	Tel. +86 871 3113677 Fax +86 871 3154454 kunming@sew.com.cn
	Nanjing	SEW-Eurodrive (Tianjing) Co.Ltd. Room 710, Jianda Plaza No. 223, North Zhongshan Road Nanjing 210009	Tel. +86 25 3346768 Fax +86 25 3346871 nanjing@sew.com.cn
	Shanghai	SEW-EURODRIVE (TIANJIN) CO., Ltd 16/F, E Block, Jinxuan Building No. 238 South Dandong Road Xuhui District Shanghai 200030	Tel. +86 21 64693534 Fax +86 21 64695532 shanghai@sew.com.cn
	Shenyang	SEW-EURODRIVE (Tianjin) Co., Ltd Shenyang OfficeRoom 0605 Koh Brother Building No. 21 Beijing Street Shenhe District Shenyang City, 110013	Tel. +86 24 22521596 Fax +86 24 22521579 shenyang@sew.com.cn
	Wuhan	SEW-Eurodrive (Tianjin) Co.Ltd. Room 911, Tai He Plaza Wusheng Road Wuhan 430033	Tel. +86 27 85712293 Fax +86 27 85712282 wuhan@sew.com.cn
	Xian	SEW-EURODRIVE (TIANJIN) Co., Ltd Rm 611, Fan Mei Building No. 1 Nan Guan Main Street Xian 710068, Shanxi Province	Tel. +86 29 7811327 Fax +86 29 7811327 xian@sew.com.cn

Colombia			
Assembly **Sales** **Service**	**Bogotá**	SEW-EURODRIVE COLOMBIA LTDA. Calle 22 No. 132-60 Bodega 6, Manzana B Santafé de Bogotá	Tel. +57 1 54750-50 Fax +57 1 54750-44 sewcol@andinet.com

Croatia			
Sales **Service**	**Zagreb**	KOMPEKS d. o. o. PIT Erdödy 4 II HR 10 000 Zagreb	Tel. +385 1 4613-158 Fax +385 1 4613-158 kompeks@net.hr

Czech Republic			
Sales	**Praha**	SEW-EURODRIVE CZ S.R.O. Business Centrum Praha Luná 591 CZ-16000 Praha 6 - Vokovice	Tel. +420 220121234 + 220121236 Fax +420 220121237 http://www.sew-eurodrive.cz sew@sew-eurodrive.cz

Czech Republic			
Technical Offices	**Brno**	SEW-EURODRIVE CZ S.R.O. Krenova 52 CZ -60200 Brno	Tel. +420 543256151 + 543256163 Fax +420 543256845
	Hradec Kralove	SEW-EURODRIVE CZ S.R.O. Technicka Kancelar - vychodni Cechy Svermova CZ-53374 Horni Jeleni	Tel. +420 466673711 Fax +420 466673634
	Klatovy	SEW-EURODRIVE CZ S.R.O. Technical Office Klatovy Kollarova 528 CZ-33901 Klatovy 3	Tel. +420 376310729 Fax +420 376310725

Denmark			
Assembly **Sales** **Service**	**Kopenhagen**	SEW-EURODRIVEA/S Geminivej 28-30, P.O. Box 100 DK-2670 Greve	Tel. +45 43 9585-00 Fax +45 43 9585-09 http://www.sew-eurodrive.dk sew@sew-eurodrive.dk
Technical Offices	**Aarhus**	SEW-EURODRIVEA/S Birkenhaven 45 DK-8520 Lystrup	Tel. +45 86 2283-44 Fax +45 86 2284-90
	Helsingør	SEW-EURODRIVEA/S Rømøvej 2 DK-3140 Ålsgårde	Tel. +45 49 7557-00 Fax +45 49 7558-00
	Odense	SEW-EURODRIVEA/S Lindelyvei 29, Nr. Søby DK-5792 Arslev	Tel. +45 65 9020-70 Fax +45 65 9023-09

Egypt			
	Cairo	Copam Egypt for Engineering & Agencies 33 El Hegaz ST, Heliopolis, Cairo	Tel. +20 2 2566-299 + 1 23143088 Fax +20 2 2594-757 copam@datum.com.eg

Estonia			
Sales	**Tallin**	ALAS-KUUL AS Paldiski mnt.125 EE 0006 Tallin	Tel. +372 6593230 Fax +372 6593231 veiko.soots@alas-kuul.ee

Finland			
Assembly **Sales** **Service**	**Lahti**	SEW-EURODRIVE OY Vesimäentie 4 FIN-15860 Hollola 2	Tel. +358 3 589-300 Fax +358 3 7806-211 http://www.sew-eurodrive.fi sew@sew-eurodrive.fi
Technical Offices	**Helsinki**	SEW-EURODRIVE OY Luutnantinaukio 5C LT2 FIN-00410 Helsinki	Tel. +358 3 589-300 Fax + 358 9 5666-311
	Vaasa	SEW-EURODRIVE OY Kauppapuistikko 11 E FIN-65100 Vaasa	Tel. +358 3 589-300 Fax +358 6 3127-470

Gabon			
Sales	**Libreville**	Electro-Services B.P. 1889 Libreville	Tel. +241 7340-11 Fax +241 7340-12

Great Britain			
Assembly **Sales** **Service**	**Normanton**	SEW-EURODRIVE Ltd. Beckbridge Industrial Estate P.O. Box No.1 GB-Normanton, West- Yorkshire WF6 1QR	Tel. +44 1924 893-855 Fax +44 1924 893-702 http://www.sew-eurodrive.co.uk info@sew-eurodrive.co.uk

Great Britain			
Technical Offices	**London**	SEW-EURODRIVE Ltd. 764 Finchely Road, Temple Fortune GB-London N.W.11 7TH	Tel. +44 20 8458-8949 Fax +44 20 8458-7417
	Midlands	SEW-EURODRIVE Ltd. 5 Sugar Brook court, Aston Road, Bromsgrove, Worcs B60 3EX	Tel. +44 1527 877-319 Fax +44 1527 575-245
	Scotland	SEW-EURODRIVE Ltd. Scottish Office No 37 Enterprise House Springkerse Business Park GB-Stirling FK7 7UF Scotland	Tel. +44 17 8647-8730 Fax +44 17 8645-0223

Greece			
Sales **Service**	**Athen**	Christ. Boznos & Son S.A. 12, Mavromichali Street P.O. Box 80136, GR-18545 Piraeus	Tel. +30 2 1042 251-34 Fax +30 2 1042 251-59 http://www.boznos.gr info@boznos.gr
Technical Office	**Thessaloniki**	Christ. Boznos & Son S.A. Maiandrou 15 562 24 Evosmos, Thessaloniki	Tel. +30 2 310 7054-00 Fax +30 2 310 7055-15

Hong Kong			
Assembly **Sales** **Service**	**Hong Kong**	SEW-EURODRIVE LTD. Unit No. 801-806, 8th Floor Hong Leong Industrial Complex No. 4, Wang Kwong Road Kowloon, Hong Kong	Tel. +852 2 7960477 + 79604654 Fax +852 2 7959129 sew@sewhk.com

Hungary			
Sales **Service**	**Budapest**	SEW-EURODRIVE Kft. H-1037 Budapest Kunigunda u. 18	Tel. +36 1 437 06-58 Fax +36 1 437 06-50 office@sew-eurodrive.hu

Iceland			
	Hafnarfirdi	VARMAVERK ehf Dalshrauni 5 IS - 220 Hafnarfirdi	Tel. +354 5 6517-50 Fax +354 5 6519-51 varmaverk@varmaverk.is

India			
Assembly **Sales** **Service**	**Baroda**	SEW-EURODRIVE India Pvt. Ltd. Plot No. 4, Gidc Por Ramangamdi · Baroda - 391 243 Gujarat	Tel. +91 265 2831021 Fax +91 265 2831087 mdoffice@seweurodriveindia.com

India			
Technical Offices	**Bangalore**	SEW-EURODRIVE India Private Limited 308, Prestige Centre Point 7, Edward Road Bangalore	Tel. +91 80 22266565 Fax +91 80 22266569 sewbangalore@sify.com
	Calcutta	SEW EURODRIVE INDIA PVT. LTD. Juthika Apartment, Flat No. B1 11/1, Sunny Park Calcutta - 700 019	Tel. +91 33 24615820 Fax +91 33 24615826 sewcal@cal.vsnl.net.in
	Chennai	SEW-EURODRIVE India Private Limited 2nd Floor, Hariram Building 16, College Road Chennai - 600 006, Tamil Nadu	Tel. +91 44 28214471 Fax +91 44 28214473
	Mumbai	SEW-EURODRIVE India Private Limited 312 A, 3rd Floor, Acme Plaza Andheri Kurla Road, Andheri (E) Mumbai	Tel. +91 22 28348440 Fax +91 22 28217858 sewmumbai@vsnl.net
	New Delhi	SEW-EURODRIVE India Private Limited 303 Kirti Deep, 2-Nangal Raya Business Centre New Delhi 110 046	Tel. +91 11 25611566 Fax +91 11 25513494
	Pune	SEW-EURODRIVE India Private Limited 206, Metro House 7 Mangaldas Road Pune 411001, Maharashtra	Tel. +91 20 26111054 Fax +91 20 26132337 sewpun@pn2.vsnl.net.in

Indonesia			
Technical Office	**Jakarta**	SEW-EURODRIVE Pte Ltd. Jakarta Liaison Office, Menara Graha Kencana Jl. Perjuangan No. 88, LT 3 B, Kebun Jeruk, Jakarta 11530	Tel. +62 21 5359066 Fax +62 21 5363686

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

Israel			
	Tel-Aviv	Liraz Handasa Ltd. Ahofer Str 34B / 228 58858 Holon	Tel. +972 3 5599511 Fax +972 3 5599512 lirazhandasa@barak-online.net

Italy			
Assembly **Sales** **Service**	**Milano**	SEW-EURODRIVE di R. Blickle & Co.s.a.s. Via Bernini,14 I-20020 Solaro (Milano)	Tel. +39 2 96 9801 Fax +39 2 96 799781 sewit@sew-eurodrive.it

Italy			
Technical Offices	**Bologna**	SEW-EURODRIVE di R. Blickle & Co.s.a.s. Via Emilia,172 I-40064 Ozzano dell'Emilia (Bo)	Tel. +39 51 796-660 Fax +39 51 796-595
	Caserta	SEW-EURODRIVE di R. Blickle & Co.s.a.s. Viale Carlo III-Parco Matilde A I-81020 S. Nicola la Strada (Caserta)	Tel. +39 823 450611 Fax +39 823 421414
	Firenze	RIMA Via Einstein, 14 I-50013 Campi Bisenzio (Firenze)	Tel. +39 55 898 58-21 Fax +39 55 898 58-30
	Roma	Elettromec Via Castel Rosso, 10 I-00144 Roma	Tel. +39 6 592 45-30 Fax +39 6 592 45-30
	Torino	SEW-EURODRIVE di R. Blickle & Co.s.a.s. Filiale Torino c.so Unione Sovietica 612/15 - int. C I-11035 Torino	Tel. +39 11 3473780 Fax +39 11 3473783
	Verona	SEW-EURODRIVE di R. Blickle & Co.s.a.s. Via P. Sgulmero, 27/A I-37132 Verona	Tel. +39 45 97-7722 Fax +39 45 97-6079

Ivory Coast			
Sales	**Abidjan**	SICA Ste industrielle et commerciale pour l'Afrique 165, Bld de Marseille B.P. 2323, Abidjan 08	Tel. +225 2579-44 Fax +225 2584-36

Japan			
Assembly **Sales** **Service**	**Toyoda-cho**	SEW-EURODRIVE JAPAN CO., LTD 250-1, Shimoman-no, Toyoda-cho, Iwata gun Shizuoka prefecture, 438-0818	Tel. +81 538 373811 Fax +81 538 373814 sewjapan@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 sewkyushu@jasmine.ocn.ne.jp
	Osaka	SEW-EURODRIVE JAPAN CO., LTD. B-Space EIRAI Bldg., 3rd Floor 1-6-9 Kyoumachibori, Nishi-ku, Osaka, 550-0003	Tel. +81 6 6444--8330 Fax +81 6 6444--8338 sewosaka@crocus.ocn.ne.jp
	Tokyo	SEW-EURODRIVE JAPAN CO., LTD. Izumi-Bldg. 5 F 3-2-15 Misaki-cho Chiyoda-ku, Tokyo 101-0061	Tel. +81 3 3239-0469 Fax +81 3 3239-0943 sewtokyo@basil.ocn.ne.jp

Korea			
Assembly **Sales** **Service**	**Ansan-City**	SEW-EURODRIVE KOREA CO., LTD. B 601-4, Banweol Industrial Estate Unit 1048-4, Shingil-Dong Ansan 425-120	Tel. +82 31 492-8051 Fax +82 31 492-8056 master@sew-korea.co.kr
	Busan	SEW-EURODRIVE KOREA Co., Ltd. No. 1720 - 11, Songjeong - dong Gangseo-ku Busan 618-270	Tel. +82 51 832-0204 Fax +82 51 832-0230 master@sew-korea.co.kr

Korea			
Technical Offices	**Daegu**	SEW-EURODRIVE KOREA Co., Ltd. No.1108 Sungan officete I 87-36, Duryu 2-dong, Dalseo-ku Daegu 704-712	Tel. +82 53 650-7111 Fax +82 53 650-7112 sewdaegu@netsgo.com
	DaeJeon	SEW-EURODRIVE KOREA Co., Ltd. No. 2017, Hongin offictel 536-9, Bongmyung-dong, Yusung-ku Daejeon 305-301	Tel. +82 42 828-6461 Fax +82 42 828-6463 sewdaejeon@netsgo.com
	Kwangju	SEW-EURODRIVE KOREA Co., Ltd. 4fl., Shinhyun B/D 96-16 Unam-dong, Buk-ku Kwangju 500-170	Tel. +82 62 511-9172 Fax +82 62 511-9174 sewkwangju@netsgo.com
	Seoul	SEW-EURODRIVE KOREA Co., Ltd. No.1104 Sunkyung officetel 106-4 Kuro 6-dong, Kuro-ku Seoul 152-054	Tel. +82 2 862-8051 Fax +82 2 862-8199 sewseoul@netsgo.com

Latvia			
Sales	**Riga**	SIA Alas-Kuul Katlakalna 11C LV-1073 Riga	Tel. +371 7139386 Fax +371 7139386 info@alas-kuul.ee

Lebanon			
Sales	**Beirut**	Gabriel Acar & Fils sarl B. P. 80484 Bourj Hammoud, Beirut	Tel. +961 1 4947-86 +961 1 4982-72 +961 3 2745-39 Fax +961 1 4949-71 gacar@beirut.com

Lithuania			
Sales	**Alytus**	UAB Irseva Merkines g. 2A LT-4580 Alytus	Tel. +370 315 79204 Fax +370 315 79688 irmantas.irseva@one.lt

Luxembourg			
Assembly **Sales** **Service**	**Brüssel**	CARON-VECTOR S.A. Avenue Eiffel 5 B-1300 Wavre	Tel. +32 10 231-311 Fax +32 10 231-336 http://www.caron-vector.be info@caron-vector.be

Malaysia			
Assembly **Sales** **Service**	**Johore**	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 kchtan@pd.jaring.my
Technical Offices	**Kota Kinabalu**	SEW-EURODRIVE Sdn Bhd (Kota Kinabalu Branch) Lot No. 2,1st Floor, Inanam Baru Phase III, Miles 5.1 /2, Jalan Tuaran, Inanam 89350 Kota Kinabalu Sabah, Malaysia	Tel. +60 88 424792 Fax +60 88 424807
	Kuala Lumpur	SEW-EURODRIVE Sdn. Bhd. No. 2, Jalan Anggerik Mokara 31/46 Kota Kemuning Seksyen 31 40460 Shah Alam Selangor Darul Ehsan	Tel. +60 3 5229633 Fax +60 3 5229622 sewpjy@po.jaring.my
	Kuching	SEW-EURODRIVE Sdn. Bhd. Lot 268, Section 9 KTLD Lorong 9, Jalan Satok 93400 Kuching, Sarawak East Malaysia	Tel. +60 82 232380 Fax +60 82 242380
	Penang	SEW-EURODRIVE Sdn. Bhd. No. 38, Jalan Bawal Kimsar Garden 13700 Prai, Penang	Tel. +60 4 3999349 Fax +60 4 3999348 seweurodrive@po.jaring.my

Mexico			
	Queretaro	SEW-EURODRIVE, Sales and Distribution, S. A. de C. V. Privada Tequisquiapan No. 102 Parque Ind. Queretaro C. P. 76220 Queretaro, Mexico	Tel. +52 442 1030-300 Fax +52 442 1030-301 scmexico@seweurodrive.com.mx

Morocco			
Sales	**Casablanca**	S. R. M. Société de Réalisations Mécaniques 5, rue Emir Abdelkader 05 Casablanca	Tel. +212 2 6186-69 + 6186-70 + 6186-71 Fax +212 2 6215-88 srm@marocnet.net.ma

Netherlands			
Assembly **Sales** **Service**	**Rotterdam**	VECTOR Aandrijftechniek B.V. Industrieweg 175 NL-3044 AS Rotterdam Postbus 10085 NL-3004 AB Rotterdam	Tel. +31 10 4463-700 Fax +31 10 4155-552 http://www.vector.nu info@vector.nu

New Zealand			
Assembly **Sales** **Service**	**Auckland**	SEW-EURODRIVE NEW ZEALAND LTD. P.O. Box 58-428 82 Greenmount drive East Tamaki Auckland	Tel. +64 9 2745627 Fax +64 9 2740165 sales@sew-eurodrive.co.nz
	Christchurch	SEW-EURODRIVE NEW ZEALAND LTD. 10 Settlers Crescent, Ferrymead 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

Norway			
Assembly **Sales** **Service**	**Moss**	SEW-EURODRIVE A/S Solgaard skog 71 N-1599 Moss	Tel. +47 69 241-020 Fax +47 69 241-040 sew@sew-eurodrive.no

Pakistan			
Technical Office	**Karachi**	SEW-EURODRIVE Pte. Ltd. Karachi Liaison Office A/3, 1st Floor, Central Commercial Area Sultan Ahmed Shah Road Block 7/8, K.C.H.S. Union Ltd., Karachi	Tel. +92 21 4529369 Fax +92 21 4547365 seweurodrive@cyber.net.pk

Paraguay			
	Asunción	EQUIS S. R. L. Avda. Madame Lynchy y Sucre Asunción	Tel. +595 21 6721-48 Fax +595 21 6721-50 equisa@uninet.com.py

Peru			
Assembly **Sales** **Service**	**Lima**	SEW DEL PERU MOTORES REDUCTORES S.A.C. Los Calderos <FmSdata>[Idot] 120-124 Urbanizacion Industrial Vulcano, ATE, Lima	Tel. +51 1 3495280 Fax +51 1 3493002 sewperu@sew-eurodrive.com.pe

Philippines			
Technical Office	**Manila**	SEW-EURODRIVE Pte Ltd Manila Liaison Office Suite 110, Ground Floor Comfoods Building Senator Gil Puyat Avenue 1200 Makati City	Tel. +63 2 894275254 Fax +63 2 8942744 sewmla@i-next.net

Poland			
Assembly **Sales** **Service**	**Lodz**	SEW-EURODRIVE Polska Sp.z.o.o. ul. Techniczna 5 PL-92-518 Lodz	Tel. +48 42 67710-90 Fax +48 42 67710-99 http://www.sew-eurodrive.pl sew@sew-eurodrive.pl
Technical Office	**Katowice**	SEW-EURODRIVE Polska Sp.z.o.o. ul. Nad Jeziorem 87 PL-43-100 Tychy	Tel. +48 32 2175026 + 32 2175027 Fax +48 32 2277910
	Bydgoszcz	SEW-EURODRIVE Polska Sp.z.o.o. ul. Fordonska 246 PL-85-959 Bydgoszcz	Tel. +48 52 3606590 Fax +48 52 3606591
	Szczecinek	SEW-EURODRIVE Polska Sp.z.o.o. ul. Mickiewicza 2 pok. 36 PL-78-400 Szczecinek	Tel. +48 94 3728820 Fax +48 94 3728821

Portugal			
Assembly **Sales** **Service**	**Coimbra**	SEW-EURODRIVE, LDA. Apartado 15 P-3050-901 Mealhada	Tel. +351 231 20 9670 Fax +351 231 20 3685 http://www.sew-eurodrive.pt infosew@sew-eurodrive.pt
Technical Offices	**Lisboa**	Tertir Edificio Lisboa Gabinete 119 P-2615 Alverca do Ribatejo	Tel. +351 21 958-0198 Fax +351 21 958-0245 esc.lisboa@sew-eurodrive.pt
	Porto	AV. D. AFONSO HENRIQUES, 1196-9° Sala 909 - Edificio Acia P- 4450 Matosinhos	Tel. +351 22 935038-3 Fax +351 22 935038-4 MobilTel. +351 9 332559110 esc.porto@sew-eurodrive.pt

Romania			
Sales **Service**	**Bucuresti**	Sialco Trading SRL str. Madrid nr.4 011785 Bucuresti	Tel. +40 21 230-1328 Fax +40 21 230-7170 sialco@sialco.ro

Russia			
Sales	**St. Petersburg**	ZAO SEW-EURODRIVE P.O. Box 263 RUS-195220 St. Petersburg	Tel. +7 812 5357142 +812 5350430 Fax +7 812 5352287 http://www.sew-eurodrive.ru sew@sew-eurodrive.ru
Technical Office	**Moskau**	ZAO SEW-EURODRIVE RUS-119180 Moskau	Tel. +7 095 9337090 Fax +7 095 9337094 mso@sew-eurodrive.ru
	Novosibirsk	ZAO SEW-EURODRIVE pr. K Marksa, d.30 RUS-630087 Novosibirsk	Tel. +7 3832 350200 Fax +7 3832 462544 nso@sew-eurodrive.ru

Senegal			
Sales	**Dakar**	SENEMECA Mécanique Générale Km 8, Route de Rufisque B.P. 3251, Dakar	Tel. +221 849 47-70 Fax +221 849 47-71 senemeca@sentoo.sn

Serbia and Montenegro			
Sales	**Beograd**	DIPAR d.o.o. Kajmakcalanska 54 SCG-11000 Beograd	Tel. +381 11 3046677 Fax +381 11 3809380 dipar@yubc.net

Singapore			
Assembly **Sales** **Service**	**Singapore**	SEW-EURODRIVE PTE. LTD. No 9, Tuas Drive 2 Jurong Industrial Estate Singapore 638644	Tel. +65 68621701 ... 1705 Fax +65 68612827 sales@sew-eurodrive.com.sg

Slovakia			
Sales	**Sered**	SEW-Eurodrive SK s.r.o. Trnavska 920 SK-926 01 Sered	Tel. +421 31 7891311 Fax +421 31 7891312 sew@sew-eurodrive.sk

Slovenia			
Sales **Service**	**Celje**	Pakman - Pogonska Tehnika d.o.o. Ul. XIV. divizije 14 SLO – 3000 Celje	Tel. +386 3 490 83-20 Fax +386 3 490 83-21 pakman@siol.net

South Africa			
Assembly **Sales** **Service**	**Johannesburg**	SEW-EURODRIVE (PROPRIETARY) LIMITED Eurodrive House Cnr. Adcock Ingram and Aerodrome Roads Aeroton Ext. 2 Johannesburg 2013 P.O.Box 90004 Bertsham 2013	Tel. +27 11 248-7000 Fax +27 11 494-3104 dross@sew.co.za
	Capetown	SEW-EURODRIVE (PROPRIETARY) LIMITED Rainbow Park Cnr. Racecourse & Omuramba Road Montague Gardens Cape Town P.O.Box 36556 Chempet 7442 Cape Town	Tel. +27 21 552-9820 Fax +27 21 552-9830 Telex 576 062 dswanepoel@sew.co.za
	Durban	SEW-EURODRIVE (PROPRIETARY) LIMITED 2 Monaceo Place Pinetown Durban P.O. Box 10433, Ashwood 3605	Tel. +27 31 700-3451 Fax +27 31 700-3847 dtait@sew.co.za
	Nelspruit	SEW-EURODRIVE (PTY) LTD. 7 Christie Crescent Vintonia P.O.Box 1942 Nelspruit 1200	Tel. +27 13 752-8007 Fax +27 13 752-8008 robermeyer@sew.co.za
Technical Offices	**Port Elizabeth**	SEW-EURODRIVE PTY LTD. 5 b Linsay Road Neave Township 6000 Port Elizabeth	Tel. +27 41 453-0303 Fax +27 41 453-0305 dswanepoel@sew.co.za
	Richards Bay	SEW-EURODRIVE PTY LTD. 25 Eagle Industrial Park Alton Richards Bay P.O. Box 458 Richards Bay 3900	Tel. +27 35 797-3805 Fax +27 35 797-3819 dtait@sew.co.za

Spain			
Assembly **Sales** **Service**	**Bilbao**	SEW-EURODRIVE ESPAÑA, S.L. Parque Tecnológico, Edificio, 302 E-48170 Zamudio (Vizcaya)	Tel. +34 9 4431 84-70 Fax +34 9 4431 84-71 sew.spain@sew-eurodrive.es
Technical Offices	**Barcelona**	Delegación Barcelona Avenida Francesc Maciá 40-44 Oficina 3.1 E-08206 Sabadell (Barcelona)	Tel. +34 9 37 162200 Fax +34 9 37 233007
	Lugo	Delegación Noroeste Apartado, 1003 E-27080 Lugo	Tel. +34 6 3940 3348 Fax +34 9 8220 2934
	Madrid	Delegación Madrid Gran Via. 48-2° A-D E-28220 Majadahonda (Madrid)	Tel. +34 9 1634 2250 Fax +34 9 1634 0899

Sri Lanka			
	Colombo 4	SM International (Pte) Ltd 254, Galle Raod Colombo 4, Sri Lanka	Tel. +94 1 2584887 Fax +94 1 2582981

Sweden			
Assembly **Sales** **Service**	**Jönköping**	SEW-EURODRIVE AB Gnejsvägen 6-8 S-55303 Jönköping Box 3100 S-55003 Jönköping	Tel. +46 36 3442-00 Fax +46 36 3442-80 http://www.sew-eurodrive.se info@sew-eurodrive.se
Technical Offices	**Göteborg**	SEW-EURODRIVE AB Gustaf Werners gata 8 S-42131 Västra Frölunda	Tel. +46 31 70968-80 Fax +46 31 70968-93
	Malmö	SEW-EURODRIVE AB Borrgatan 5 S-21124 Malmö	Tel. +46 40 68064-80 Fax +46 40 68064-93
	Stockholm	SEW-EURODRIVE AB Björkholmsvägen 10 S-14125 Huddinge	Tel. +46 8 44986-80 Fax +46 8 44986-93
	Skellefteå	SEW-EURODRIVE AB Trädgårdsgatan 8 S-93131 Skellefteå	Tel. +46 910 7153-80 Fax +46 910 7153-93

Switzerland			
Assembly **Sales** **Service**	**Basel**	Alfred Imhof A.G. Jurastrasse 10 CH-4142 Münchenstein bei Basel	Tel. +41 61 41717-17 Fax +41 61 41717-00 http://www.imhof-sew.ch info@imhof-sew.ch
Technical Offices	**Suisse romande**	André Gerber Es Perreyres 1436 Chamblon	Tel. +41 2 444538-50 Fax +41 2 444548-87
	Bern	Rudolf Bühler Allerheiligenstraße 97d 2540 Grenchen	Tel. +41 3 265223-39 Fax +41 3 265223-31
	Luzern	Beat Lütolf Baumacher 11 6244 Nebikon	Tel. +41 6 275647-80 Fax +41 6 275647-86
	Zürich	René Rothenbühler Nörgelbach 7 8493 Saland	Tel. +41 5 238631-50 Fax +41 5 238632-13

Taiwan (R.O.C.)			
	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
	Taipei	Ting Shou Trading Co., Ltd. 6F-3, No. 267, Sec. 2 Tung Hwa South Road, Taipei	Tel. +886 2 27383535 Fax +886 2 27368268 Telex 27 245 nestnet@ms6.hinet.net

Thailand			
Assembly **Sales** **Service**	**Chon Buri**	SEW-EURODRIVE (Thailand) Ltd. Bangpakong Industrial Park 2 700/456, Moo.7, Tambol Donhuaroh Muang District Chon Buri 20000	Tel. +66 38 454281 Fax +66 38 454288 sewthailand@sew-eurodrive.co.th

Thailand			
Technical Offices	**Bangkok**	SEW-EURODRIVE PTE LTD Bangkok Liaison Office 6th floor, TPS Building 1023, Phattanakarn Road Klongtan, Phrakanong, Bangkok,10110	Tel. +66 2 7178149 Fax +66 2 7178152 sewthailand@sew-eurodrive.co.th
	Hadyai	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 sewhdy@ksc.th.com
	Khonkaen	SEW-EURODRIVE (Thailand) Ltd. 4th Floor, Kaow-U-HA MOTOR Bldg, 359/2, Mitraphab Road. Muang District Khonkaen 40000	Tel. +66 43 225745 Fax +66 43 324871 sewkk@cscoms.com
	Lampang	SEW-EURODRIVE (Thailand) Ltd. 264 Chatchai Road, sob-tuy, Muang, Lampang 52100	Tel. +66 54 310241 Fax +66 54 310242 sewthailand@sew-eurodrive.co.th

Tunisia			
Sales	**Tunis**	T. M.S. Technic Marketing Service 7, rue Ibn El Heithem Z.I. SMMT 2014 Mégrine Erriadh	Tel. +216 1 4340-64 + 1 4320-29 Fax +216 1 4329-76

Turkey			
Assembly **Sales** **Service**	**Istanbul**	SEW-EURODRIVE Hareket Sistemleri Sirketi Bagdat Cad. Koruma Cikmazi No. 3 TR-34846 Maltepe ISTANBUL	Tel. +90 216 4419163 + 216 4419164 + 216 3838014 Fax +90 216 3055867 sew@sew-eurodrive.com.tr
Technical Offices	**Ankara**	SEW-EURODRIVE Hareket Sistemleri Ticaret Ltd. Sirketi Özcelik Is Merkezi, 14. Sok, No. 4/42 TR-06370 Ostim/Ankara	Tel. +90 312 2868014 Fax +90 312 2868015
	Izmir	SEW-EURODRIVE Hareket Sistemleri Ticaret Ltd. Sirketi 1203/11 Sok. No. 4/613 Hasan Atli Is Merkezi TR-35110 Yenisehir-Izmir	Tel. +90 232 4696264 Fax +90 232 4336105

Uruguay			
	Montevideo	SEW-EURODRIVE Argentina S. A. Sucursal Uruguay German Barbato 1526 CP 11200 Montevideo	Tel. +598 2 90181-89 Fax +598 2 90181-88 sewuy@sew-eurodrive.com.uy

USA			
Production **Assembly** **Sales** **Service**	**Greenville**	SEW-EURODRIVE INC. 1295 Old Spartanburg Highway P.O. Box 518 Lyman, S.C. 29365	Tel. +1 864 439-7537 Fax Sales +1 864 439-7830 Fax Manuf. +1 864 439-9948 Fax Ass. +1 864 439-0566 Telex 805 550 http://www.seweurodrive.com cslyman@seweurodrive.com

USA			
Assembly **Sales** **Service**	**San Francisco**	SEW-EURODRIVE INC. 30599 San Antonio St. Hayward, California 94544-7101	Tel. +1 510 487-3560 Fax +1 510 487-6381 cshayward@seweurodrive.com
	Philadelphia/PA	SEW-EURODRIVE INC. Pureland Ind. Complex 2107 High Hill Road, P.O. Box 481 Bridgeport, New Jersey 08014	Tel. +1 856 467-2277 Fax +1 856 845-3179 csbridgeport@seweurodrive.com
	Dayton	SEW-EURODRIVE INC. 2001 West Main Street Troy, Ohio 45373	Tel. +1 937 335-0036 Fax +1 937 440-3799 cstroy@seweurodrive.com
	Dallas	SEW-EURODRIVE INC. 3950 Platinum Way Dallas, Texas 75237	Tel. +1 214 330-4824 Fax +1 214 330-4724 csdallas@seweurodrive.com
	Additional addresses for service in the USA provided on request!		

Venezuela			
Assembly **Sales** **Service**	**Valencia**	SEW-EURODRIVE Venezuela S.A. Av. Norte Sur No. 3, Galpon 84-319 Zona Industrial Municipal Norte Valencia, Estado Carabobo	Tel. +58 241 832-9804 Fax +58 241 838-6275 sewventas@cantv.net sewfinanzas@cantv.net

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