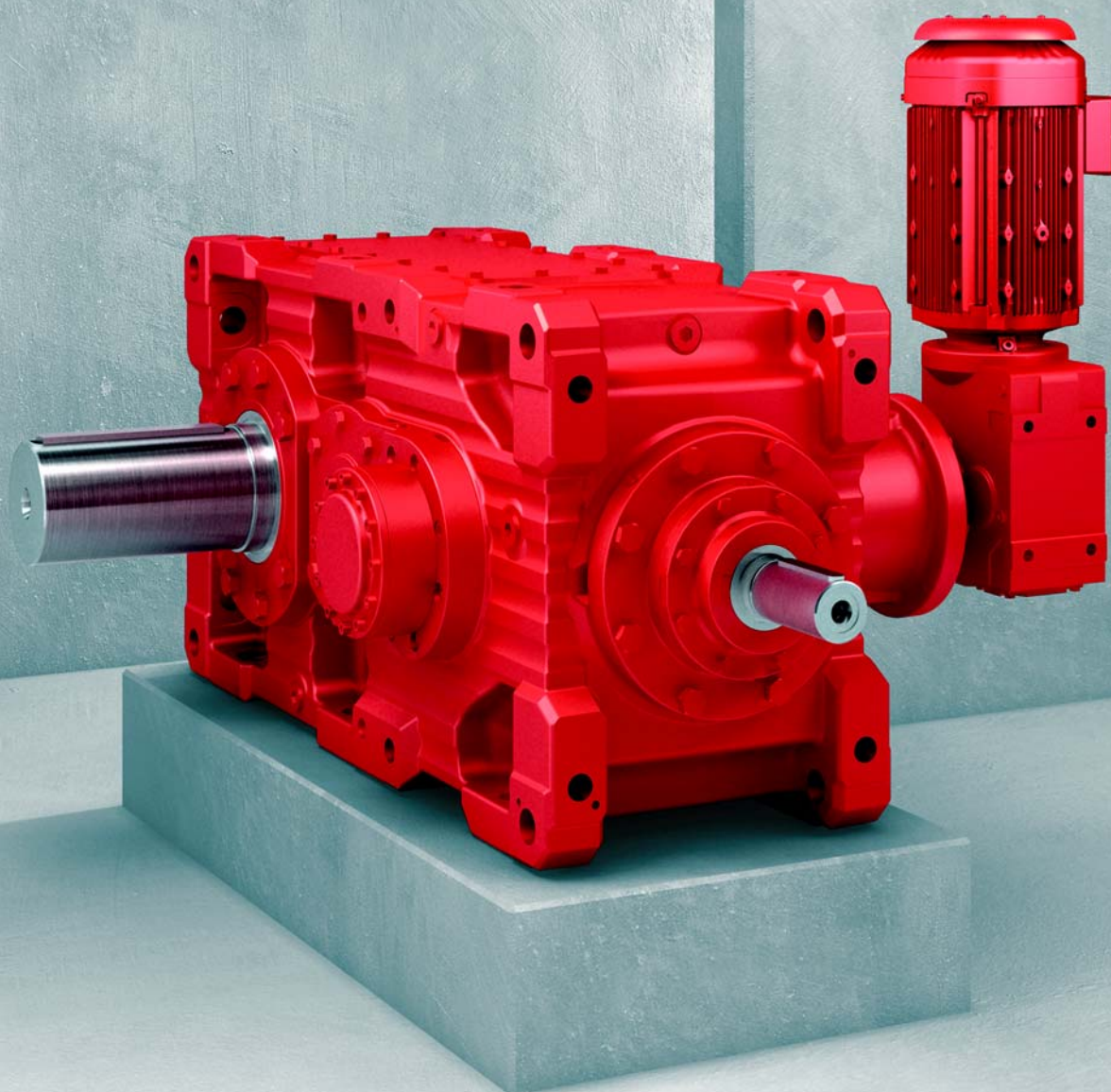


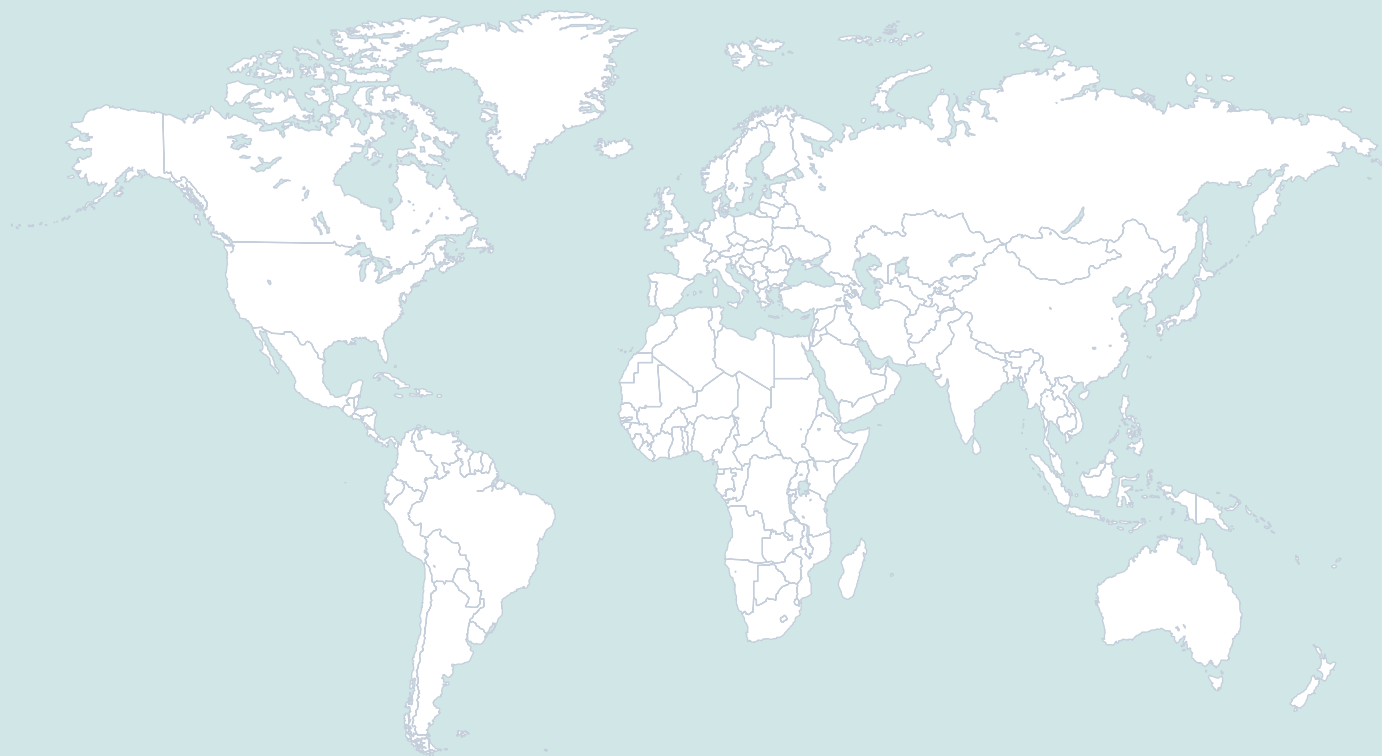


SEW
EURODRIVE

Catalog



Industrial Gear Units
X.. Series Bevel-Helical Gear Units
Bucket Elevator Drives
Torque Classes from 6.8 – 270 kNm





1	Introduction	6
1.1	The SEW-EURODRIVE group of companies	6
1.2	Products and systems from SEW-EURODRIVE	7
1.3	Copyright	9
1.4	Structure of the notes	9
1.5	Important information	9
2	Product Description and Overview of Types	10
2.1	General information	10
2.2	Drive concepts for bucket elevators	12
2.3	Gear unit structure	14
2.4	Auxiliary drive / IEC motor standards IE1 and IE2	15
2.5	Overrunning clutch	16
2.6	Speed monitoring	17
2.7	Backstop	18
2.8	Nominal torque classes of bevel-helical gear units	19
2.9	Assignment of bevel-helical gear units and auxiliary drives, with IE1 and IE2 motors	19
2.10	Input and output shaft	20
2.11	Overview of sealing systems	24
2.12	Nameplate	26
2.13	Abbreviations for optional accessories	27
2.14	Coating and surface protection systems	28
2.15	Storage and transport conditions	29
3	Mounting Position, Mounting Surfaces and Shaft Position	31
3.1	Mounting position and standard mounting surface	31
3.2	Pivoted mounting positions and variable mounting positions	32
3.3	Shaft position, directions of rotation, backstop, auxiliary drive	33
3.4	Position of motor terminal box and cable entry	34
4	Project Planning for Drives	35
4.1	Additional documentation	35
4.2	Project planning procedure	36
4.3	Project planning example: Bucket elevator drive	49
5	Lubrication, Cooling and Heating	53
5.1	Overview of the lubrication and cooling types	53
5.2	Terms	54
5.3	Lubricant selection / lubricant table	55
5.4	Accessories	61
5.5	Cooling	62
5.6	Oil heater /OH	63
6	Options and accessories	66
6.1	Torque-limited backstop	66
6.2	Torque arm /T	67
6.3	Flange couplings with cylindrical interference fit /FC	68
6.4	Drive packages on steel frame	69



7	Condition Monitoring	71
7.1	Temperature sensor /PT100	71
7.2	Temperature switch /NTB	72
7.3	Inductive encoder	73
7.4	Speed monitor	74
7.5	Diagnostic unit DUO10A (oil aging)	75
7.6	DUV10A diagnostic unit (vibration diagnostics)	77
8	Design and Operating Notes	79
8.1	General information	79
8.2	Gear unit mounting	79
8.3	Auxiliary drive	79
8.4	Dimensioning the machine shaft for hollow shaft gear units	80
8.5	Dimensioning the machine shaft with flange coupling	80
9	Information on the Dimension Sheets	81
9.1	General information	81
9.2	Tolerances	81
9.3	Symbols	82
9.4	Information on the selection tables	83
10	Selection Tables	84
10.1	IE1 motor standard	84
10.2	IE2 motor standard	103
11	Dimension Sheets for Bevel-Helical Gear Units	122
11.1	X3K100 - 210 / empty buckets	122
11.2	X3K100 - 210 / full buckets	124
11.3	X3K220 - 250 / empty buckets	126
11.4	X3K220 - 250 / full buckets	128
11.5	X3K260 - 280 / empty buckets	130
11.6	X3K260 - 280 / full buckets	132
12	Additional Dimension Sheets	134
12.1	Universal housing /HU	134
12.2	Housing bores [mm]	138
12.3	Smooth solid shaft X..R [mm]	140
12.4	Hollow shaft with key X..A [mm]	141
12.5	Hollow shaft with shrink disk X..H [mm]	142
12.6	Splined hollow shaft X..V [mm]	143
12.7	Fan X..K /FAN [mm]	145
12.8	Fan X..K /FAN-ADV [mm]	146
12.9	Water cooling cartridge /CCT [mm]	147
12.10	Oil heater /OH [mm]	148
12.11	Torque arm /T [mm]	149
12.12	Torque arm /T-HH [mm]	150
12.13	Backstop X.K.. /BS [mm]	151
12.14	Torque limited backstop X.K.. /BSL [mm]	152



12.15 Oil dipstick /OD [mm]	153
12.16 Oil drain valve /ODV	154
12.17 Oil level glass /OLG [mm]	155
13 Drive Packages on a Steel Frame	156
13.1 X3K.. Swing base with elastic coupling [mm].....	156
13.2 X3K.. Swing base with elastic coupling and drum brake [mm]	160
13.3 X3K.. Swing base with hydraulic centrifugal coupling [mm].....	164
13.4 X3K.. Swing base with hydraulic centrifugal coupling and drum brake [mm].....	168
13.5 X3K.. Base frame with elastic coupling [mm].....	172
13.6 X3K.. Base frame with elastic coupling and drum brake [mm].....	176
13.7 X3K.. Base frame mit hydraulic centrifugal coupling [mm].....	180
13.8 X3K.. Base frame with hydraulic centrifugal coupling and drum brake [mm].....	184
14 Address Directory	188
15 Abbreviation Key and Index.....	210
15.1 Abbreviation key	210
15.2 Index	211

1 Introduction

1.1 The SEW-EURODRIVE group of companies

Global presence

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

Not only are we represented in all important industries of our time, we are also present all over the world: with 15 production plants and 67 assembly plants in 45 countries and our customer service, which we see as an integrative part of our portfolio that extends our high quality standards.

Always the right drive

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

Our electronic components MOVITRAC[®] frequency inverters, MOVIDRIVE[®] drive inverters and MOVIAXIS[®] multi-axis servo inverters enhance the gearmotors, forming a combination that blends perfectly with the existing SEW-EURODRIVE systems program. As in the case for mechanical systems, the development, production and assembly is also carried out completely by SEW-EURODRIVE. In combination with our drive electronics, these drives provide the utmost in flexibility.

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

For economical, decentralized installations, SEW-EURODRIVE offers components from its decentralized drive system, such as MOVIMOT[®], the gearmotor with integrated frequency inverter or MOVI-SWITCH[®], the gearmotor with integrated switching and protection function. SEW-EURODRIVE hybrid cables have been designed specifically to ensure cost-effective solutions, independent of the philosophy behind or the size of the system. The latest developments from SEW-EURODRIVE: MOVITRANS[®] system components for contactless energy transfer, MOVIPRO[®] the decentralized drive control, and MOVIFIT[®] the new decentralized intelligence.

Power, quality and sturdy design combined in one standard product: With high torque levels, industrial gear units from SEW-EURODRIVE realize major movements. The modular concept once again provides optimum adaptation of industrial gear units to meet a wide range of the most varying applications.

Your ideal partner

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



1.2 Products and systems from SEW-EURODRIVE

The products and systems from SEW-EURODRIVE are divided into four product groups. These four product groups are:

1. Gearmotors and frequency inverters
2. Servo drive systems
3. Decentralized drive systems
4. Industrial gear units

Products and systems used in several group applications are listed in a separate group "Products and systems covering several product groups". Consult the following tables to locate the products and systems included in the respective product group:

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

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

3. Decentralized drive systems		
Decentralized drives	Communication and installation	Contactless energy transfer
• MOVIMOT® gearmotors with integrated frequency inverter • MOVIMOT® motors/brakemotors with integrated frequency inverter • MOVI-SWITCH® gearmotors with integrated switching and protection function • MOVI-SWITCH® motors/brakemotors with integrated switching and protection function	• Fieldbus interfaces • Field distributors for decentralized installation • MOVIFIT® product range – MOVIFIT® MC for controlling MOVIMOT® drives – MOVIFIT® SC with integrated electronic motor switch – MOVIFIT® FC with integrated frequency inverter	• MOVITRANS® system – Stationary components for energy supply – Mobile components for energy consumption – Line cables and installation material

4. Industrial gear units		
Helical and bevel-helical gear units • X series • MC series • ML series	Helical and bevel-helical planetary gear units • P series (also as planetary gearmotors) • PMC series	Drive packages • Application solutions with - Swing base - Gearmotors - Motors - Couplings - Drum and disk brakes - Lubrication systems for conveyor drives, bucket elevators, crushers, agitators, cooling towers, crane systems and much more

Products and systems covering several product groups
• Operator terminals • MOVI-PLC® drive-based control system

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

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

Visit our homepage at

www.sew-eurodrive.com

The website provides comprehensive information and services.

1.3 Copyright

© 2011 - SEW-EURODRIVE. All rights reserved.

Unauthorized reproduction, copying, distribution or any other use of the whole or any part of this documentation is strictly prohibited.

1.4 Structure of the notes

The notes in this catalog are designed as follows:

Pictogram	Signal word	Meaning
	INFORMATION	Useful information or tip. Simplifies the handling of the drive system.

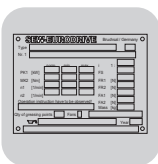
1.5 Important information

Note the following points:



INFORMATION

- The illustrations in the catalog are examples. Final dimensions are available from SEW-EURODRIVE on request.
- Oil fill quantities are recommended values. Use the marks on the oil dipstick or oil level glass to determine the oil level.
- The gear units are ready for operation when delivered, but are not filled with oil.
- Oil viscosity and grade must comply with those specified on the nameplate.
- The specified weight data are guide values.
- The buyer must provide protection against unintentional contact with moving parts. The applicable safety regulations of the country in which the unit will be used are to be followed.



2 Product Description and Overview of Types

2.1 General information

2.1.1 Nominal power, torques and drive speeds

The nominal power and torque values mentioned in the catalog depend on the input speed and are valid for a service factor of $F_S = 1.0$ and constant load. The overview shows nominal power and torques for drive speeds of 1000 rpm to 1800 rpm. The nominal torques also apply to drive speeds 3% less than the synchronous speed. For speeds > 1800 rpm, please contact SEW-EURODRIVE.

2.1.2 Mounting position

This catalog describes horizontal gear units with "M1" mounting position. As an alternative to the usual foot mounting, bucket elevator drives are available with torque arm.

2.1.3 Lubrication

The lubrication type "splash lubrication" is used for bucket elevator drives as standard. Pressure or bath lubrication can be used optionally for these gear units.

As standard, the oil level is checked visually via an oil level glass. An oil dipstick may also optionally be used. Instead of the oil drain plug, an oil drain valve can be provided. An oil heater may be necessary when ambient temperatures are low. SEW-EURODRIVE provides the oil heater with a pre-set thermostat that is attached to the gear unit.

2.1.4 Sealing system

Bucket elevator drives are supplied with regreasable radial labyrinth seal (Taconite) as standard.

The shafts are optionally available with an oil seal bushing.

2.1.5 Thermal rating / cooling

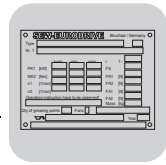
The thermal rating needs to be checked for every gear unit. The relevant values are listed in the selection tables in chapter 10.

If the thermal rating of the gear unit is insufficient, it can be operated with a fan on the input shaft (direction-independent) or with an oil-air cooler. In this case you will have to make sure that there is enough space left for unimpeded air admission both in axial and radial direction (see chapter 5.5). Please contact SEW-EURODRIVE for information on additional cooling options.

2.1.6 Motor connection

SEW-EURODRIVE can supply the following variants with the gear unit:

- **Motor adapter** with an elastic coupling for attaching IEC (B5) / NEMA ("C" face) motors. The motor adapter may optionally be designed with a fan.
- **Steel frame** as swing base or base plate (including the necessary components, such as couplings, brake, motor and protection guards; see chapters 6.3 and 12).



2.1.7 Backstop

Bucket elevator drives come equipped with integrated, oil-lubricated backstop to prevent inadvertent reverse rotation (see chapter 2.8). For dual or multiple drives with torque limitation as option.

2.1.8 Condition monitoring

A variety of optional equipment is available for condition monitoring:

- PT100 temperature sensor (chapter 7.1): For measuring the oil bath temperature
- NTB temperature switch (chapter 7.2): For monitoring the oil temperature of the gear unit

2.1.9 Surface and corrosion protection

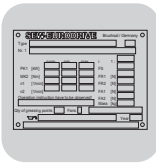
On request, all gear units can be supplied with special surface protection for applications in extremely humid and chemically aggressive environments.

2.1.10 Painting

The gear units are painted with "blue-gray" / RAL 7031 according to DIN 1843 as standard. Special paints are available on request. The SEW protection guards included in the delivery are painted in "signal yellow" / RAL 1003.

2.1.11 Noise level

Normally, the gear unit's sound-power levels, according to ISO 8579-1, are below the 50% line given in the standard.



2.2 Drive concepts for bucket elevators

Two drive concepts are distinguished for bucket elevators:

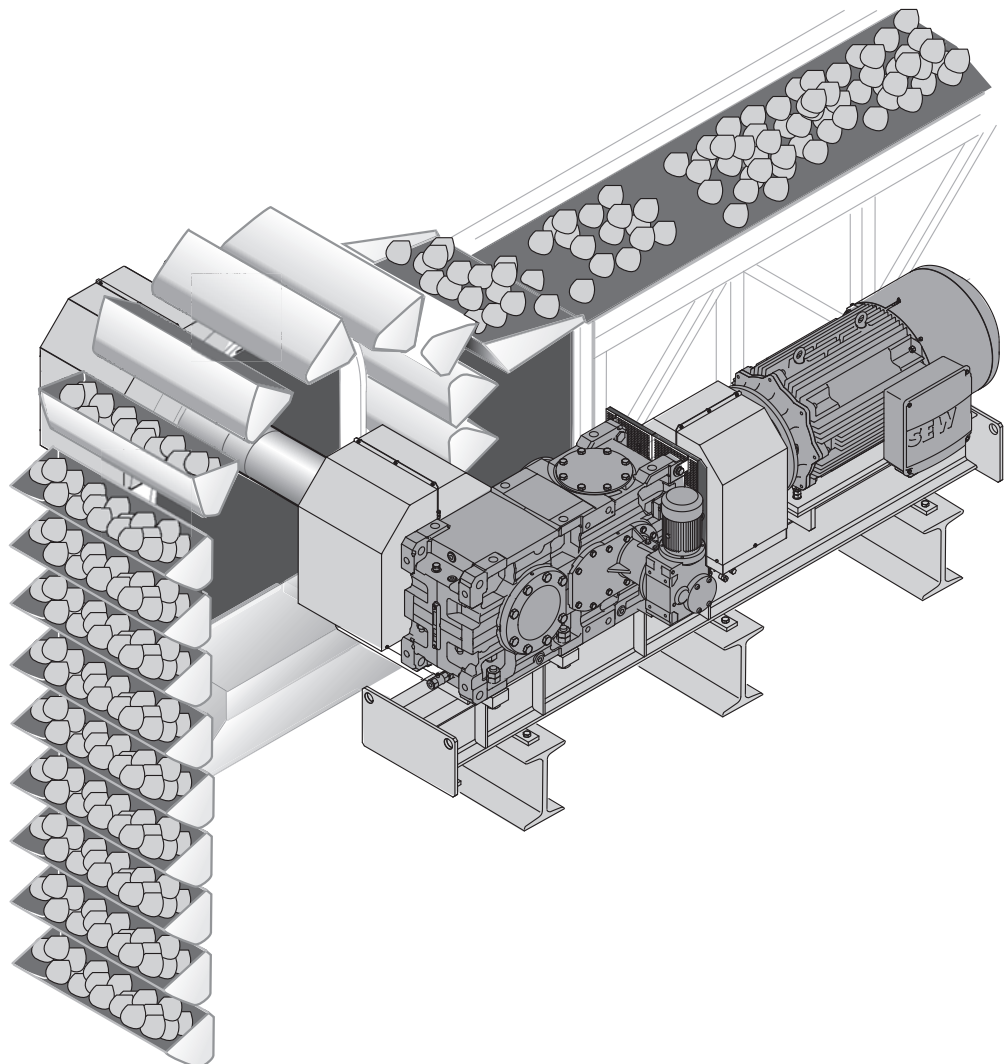
- Single drive
- Dual drive

2.2.1 Single drive

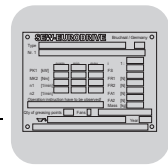
The bucket elevator is driven by a drive that transfers the complete drive power.

The backstop of the main drive is designed in such a way that it is capable of blocking the entire retrodriving torque of the bucket elevator.

In the variant "Empty buckets", the auxiliary drive might cause the empty bucket to slip during maintenance work. In the variant "Full buckets", this can also occur in loaded condition.



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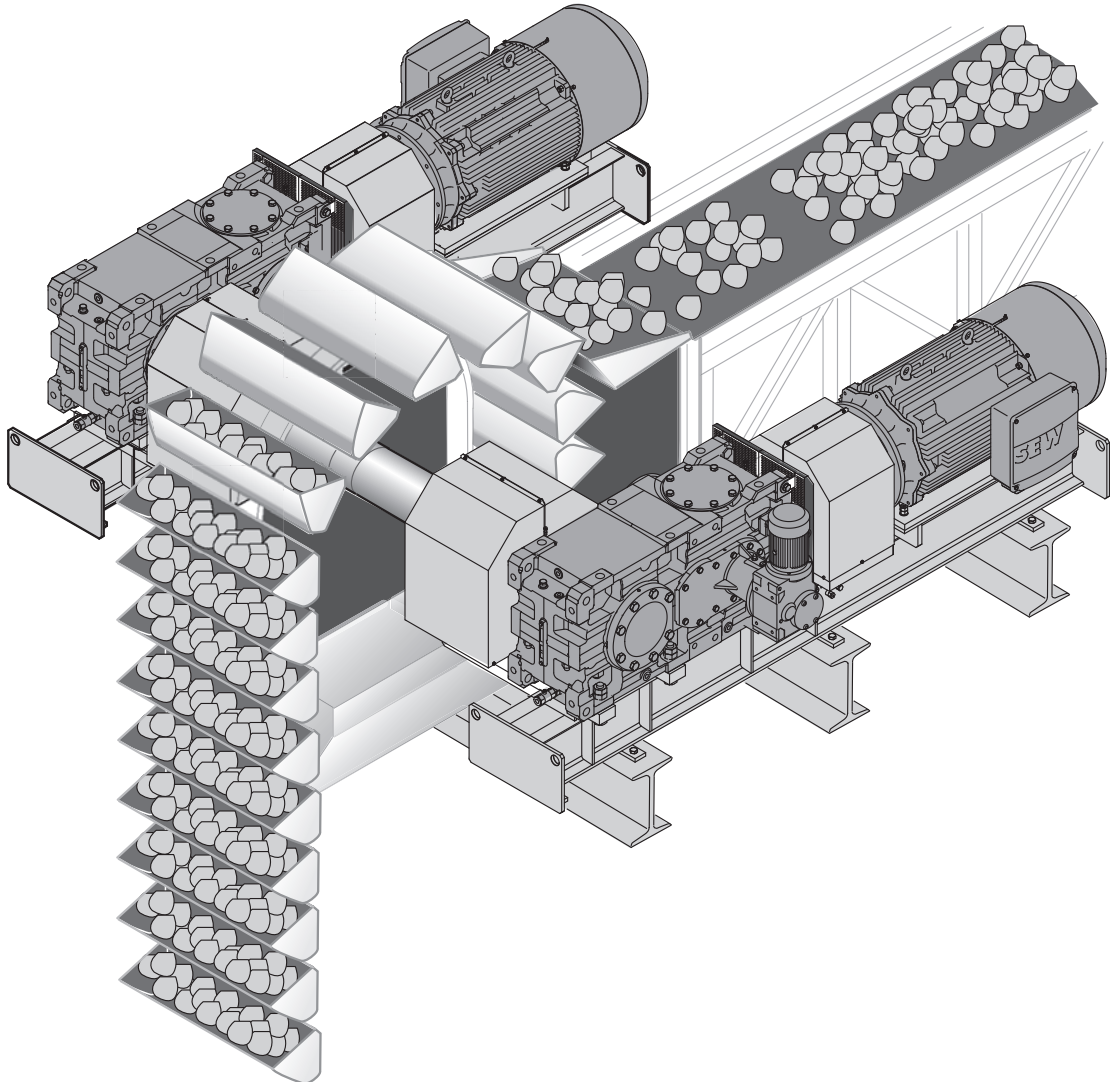


2.2.2 Dual drive

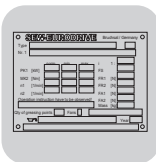
For dual drives, a drive is arranged each to the left and right of the bucket elevator head (mirror-inverted). The required drive power is divided among the two drives.

In order to avoid the retrodriving torque from being distributed unevenly to the backstops of the gear unit, SEW-EURODRIVE recommends using torque limited backstops for dual drives. The retrodriving torque of the bucket elevator is distributed evenly among the two drives due to the torque limitation.

It is usually sufficient to equip only one of the two gear units with an auxiliary drive. The "Full buckets" variant should be chosen to provide for sufficient power reserves.



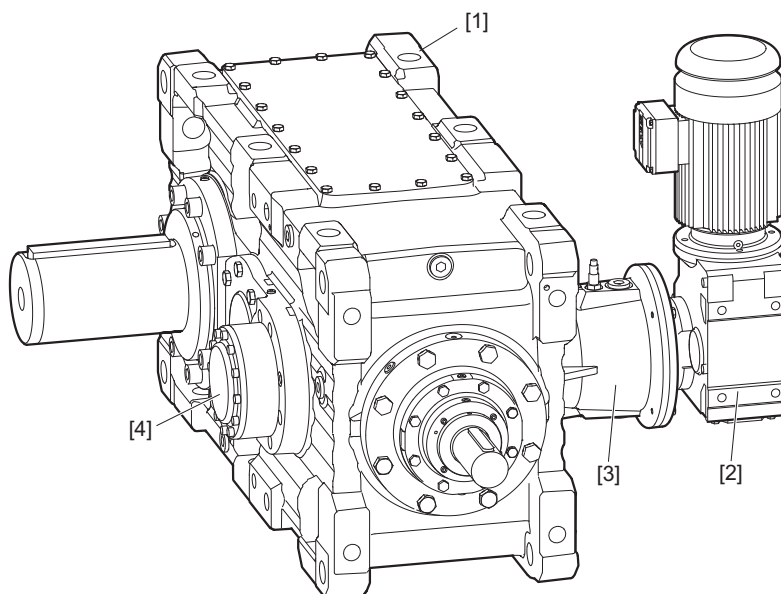
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2.3 Gear unit structure

The bucket elevator drive is a standardized application gear unit based on the basic concept of the X gear unit series and covers a gear ratio range of 28...90.

More information on the X series can be found in the catalog "Helical and Bevel-Helical X.. Series Horizontal Gear Units" (publication number: 16808428).



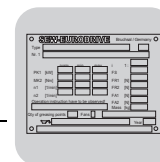
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Unlike the basic design of the X gear unit series, bucket elevator drives come equipped with the following components as standard:

- [1] X.K.. bevel-helical gear unit
- [2] Auxiliary drive
- [3] Auxiliary drive adapter with overrunning clutch and encoder for speed monitoring
- [4] Backstop

More options are available:

- Speed monitor
- Fan (other cooling options on request)
- Torque-limited backstop
- Oil heater
- Oil drain valve



2.4 Auxiliary drive / IEC motor standards IE1 and IE2

The auxiliary drive [2] is available as "empty buckets" (for maintenance purposes only) or "full buckets" variant. The auxiliary drive is mounted to the bevel-helical gear unit [1] via an auxiliary drive adapter [3]. Refer to the order documents for the exact output torque rates in auxiliary drive operation.

Main drive and auxiliary drive are to be electrically interlocked in such a way that only one of the two motors can be switched on.

The auxiliary drive has its own oil circulation which is separated from the oil circulation of the bevel-helical gear unit. The auxiliary drive is delivered filled with oil.

2.4.1 IEC motor standard

DR motors comply with all international standards and meet the new parts of the IEC motor standard.

The auxiliary drive can be combined with one of the two types of energy efficient motors (IE1 or IE2). These are shown in the following table.

As standard, DRS motors are used.

IE1 motor standard: Standard Efficiency
- Improved levels of efficiency - DRS type AC motors (standard motor) - Copper or aluminum die-cast rotor cage - Duty cycle: S3 / 75

DRE motors can be installed as option:

IE2 motor standard: High Efficiency
- High levels of efficiency DRE type (energy efficient) AC motors - Copper or aluminum die-cast rotor cage - Duty cycle: S3 / 75

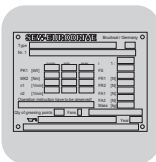
INFORMATION



- As the auxiliary drive is typically not used for S1 continuous duty, the motor is designed with S3 / 75 duty type. This means the cyclic duration factor (cdf) is a maximum of 7.5 minutes or less over a period of 10 minutes (max. cdf 75%). An IE1 motor can also be used in countries where an IE1 motor in S1 duty is no longer permitted due to efficiency regulations (for example EU Europe).

For other shaft positions, contact SEW-EURODRIVE.

- The SEW homepage (www.sew-eurodrive.com) provides further information on DR motors. If you are unclear about any of the information in this documentation, or if you require further information, consult SEW-EURODRIVE.
- DR motor combinations with bucket elevator gear units are listed in the selection tables, see chapter 10.
- Motor types DRS and DRE need not have the same dimensions despite the same power. Refer to chapter 11 for dimensions and maximum motor sizes.



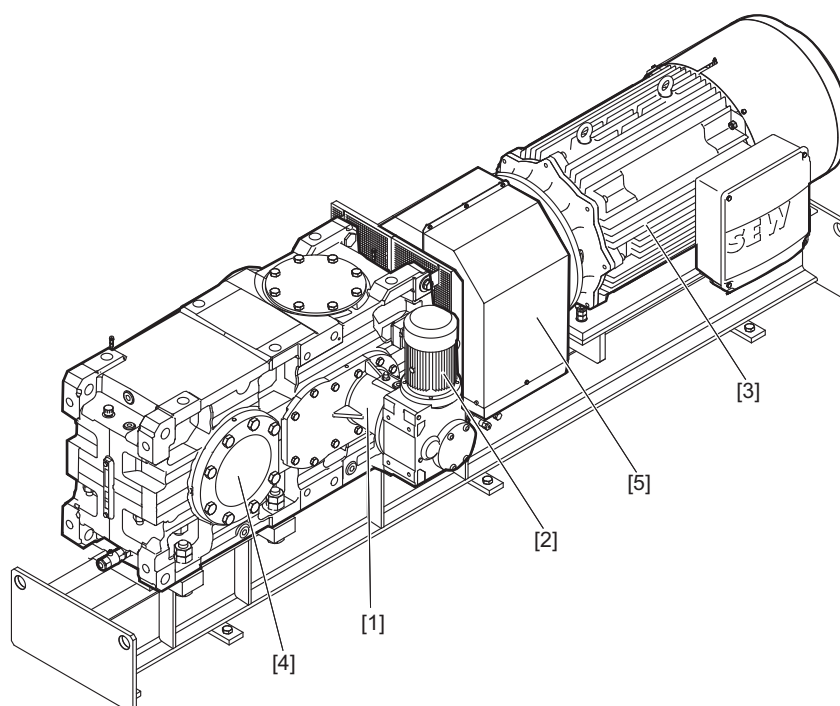
2.5 Overrunning clutch

The overrunning clutch is a part of the auxiliary drive adapter [1] and allows for operation in one direction of rotation via the auxiliary drive [2].

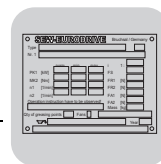
When the main drive [3] is used, the overrunning clutch is in no load-operation. When the auxiliary drive [2] is used, i.e. in transfer operation, the input shaft of the bevel-helical gear unit [1] is rotating slowly.

The rotary motion of the input shaft of the bevel-helical gear unit [4] must not be obstructed. A brake [5] on the input side of the main drive [3] must be released for auxiliary drive [2] operation.

The overrunning clutch is integrated in the oil circuit of the bevel-helical gear unit. This means maintenance and oil change for the overrunning clutch and the bevel-helical gear unit [3] are carried out at the same time.



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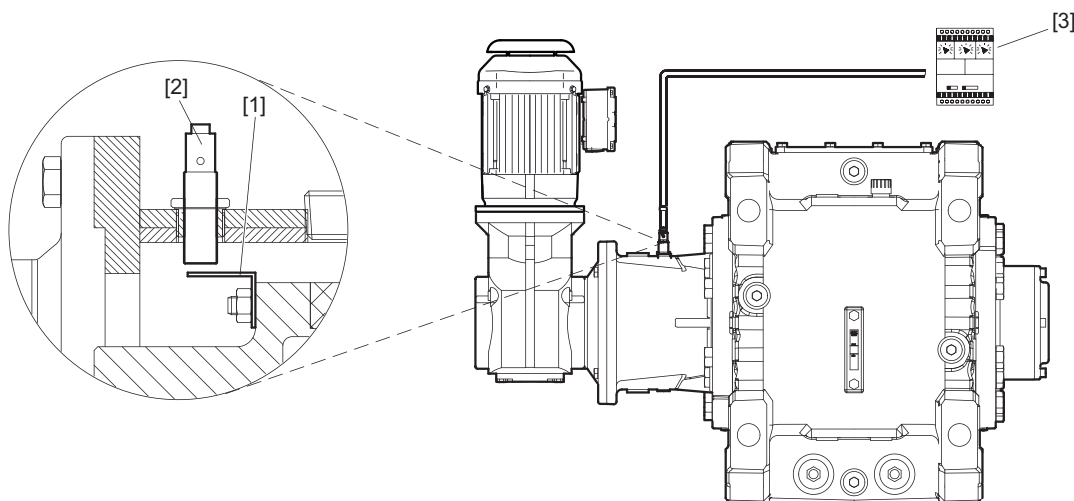


2.6 Speed monitoring



INFORMATION

For safety reasons, the overrunning clutch must be equipped with speed monitoring. This is because, in case of a malfunction, the overrunning clutch may be damaged due to overspeed.



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- [1] Trigger cam
- [2] Inductive encoder
- [3] Speed monitor (optional)

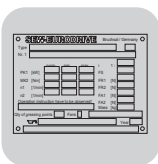
The speed of the overrunning clutch is detected in a contactless manner via trip cam [1] and an inductive conductor [2]. The speed monitor [3] compares the encoder pulses with a defined switching speed.

If the switching speed is exceeded (e.g. due to a malfunction of the overrunning clutch), the output relay switches (optionally NC contact or NO contact). The connection must be made in such a way that the main drive is switched off in this situation. Overspeed at the auxiliary drive will be prevented in this way.



INFORMATION

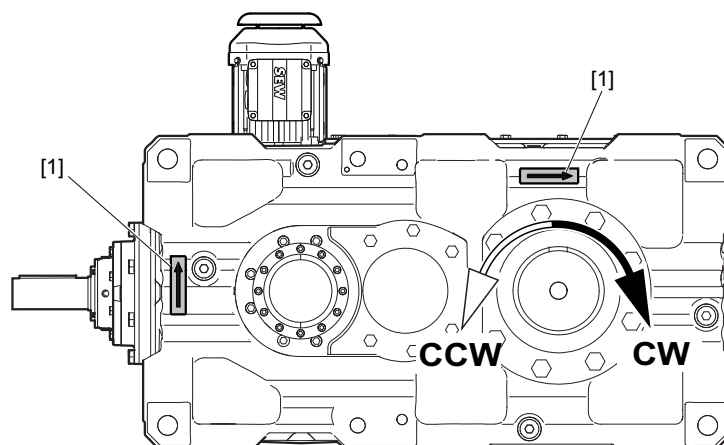
The encoder is included in the scope of delivery. The speed monitor is not included in the scope of delivery and can be ordered separately (see page 74).



2.7 Backstop

The purpose of a backstop is to prevent undesirable reverse rotation. During operation, the backstop permits rotation in only one specified direction of rotation.

The backstop functions by using centrifugal lift-off sprags. Once the lift-off speed is reached, the sprags completely lift off from the contact surface of the outer ring. The backstop is lubricated with gear oil.



The direction of rotation is determined with a view to the output shaft (LSS).

- CW = Clockwise
- CCW = Counterclockwise

The permitted direction of rotation [1] is indicated on the housing.

The backstop is dimensioned according to the following basic rules:

- Speed of the input shaft of the gear unit: 0... 1800 rpm
- Maximum permitted torque of the backstop in relation to the output shaft:
at least 1.8 times the nominal gear unit torque.

Contact SEW-EURODRIVE for differing requirements.

Wear can occur on the backstop when operated below lift-off speed.

In the following cases **always** contact SEW-EURODRIVE for specifying the maintenance intervals:

- Input speed rates $n_1 < 950$ rpm
- or any of the following gear unit designs:

n_1 [rpm]	Size X3K..	
950...1150	X100...130	all i_N
	X140...170	$i_N \geq 31.5$
1150...1400	X100...110	$i_N \geq 25$
	X120...130	$i_N \geq 40$
	X140...170	$i_N \geq 10$
> 1400	X100...130	$i_N \geq 35.5$
	X140...170	$i_N \geq 63$

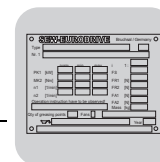
n_1 = Input speed (HSS)

i_N = Nominal gear unit ratio



INFORMATION

For information on torque limiting backstops, for example for dual drives, contact SEW-EURODRIVE.



2.8 Nominal torque classes of bevel-helical gear units

Size	Nominal torque class [kNm]	Nominal gear ratio ranges	Size	Nominal torque class [kNm]	Nominal gear ratio ranges
X3K100	6.8	31.5...80	X3K190	65	28...80
X3K110	8.5	28...90	X3K200	79	28...71
X3K120	12.8	28...71	X3K210	90	28...80
X3K130	16	28...90	X3K220	112	28...71
X3K140	22	28...71	X3K230	131	28...80
X3K150	27.5	28...90	X3K240	156	28...71
X3K160	36	28...71	X3K250	175	28...80
X3K170	45	28...90	X3K260	205	28...71
X3K180	58	28...71	X3K270	240	28...80
X3K190	65	28...80	X3K280	270	31.5...90

2.9 Assignment of bevel-helical gear units and auxiliary drives, with IE1 and IE2 motors

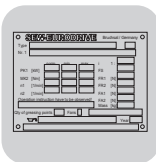
Main drive	Auxiliary drives / full buckets				Auxiliary drives / empty buckets			
	Gear unit	Motor		Ratio i	Gear unit	Motor		Ratio i
		IE1	IE2			IE1	IE2	
X3K100-110	KF57	DRS90M4/Z/C	DRE90L4/Z/C	35.7	KF37	DRS80S4/C	DRE80M4/C	28.83
X3K120-130	KF67	DRS90L4/Z/C	DRE100M4/Z/C	35.62	KF47	DRS80M4/C	DRE90M4/C	31.30
X3K140-150	KF77	DRS112M4/Z/C	DRE132S4/Z/C	38.39	KF57	DRS90M4/C	DRE90L4/C	35.70
X3K160-170	KF87	DRS132S4/Z/C	DRE132M4/Z/C	36.52	KF67	DRS90L4/C	DRE100M4/C	35.62
X3K180-190	KF97	DRS132MC4/Z/C	DRE160M4/Z/C	38.3	KF77	DRS100M4/C	DRE112M4/C	38.39
X3K200-210	KF97	DRS160M4/Z/C	DRE180S4/Z/C	38.3	KF77	DRS112M4/C	DRE132S4/C	38.39
X3K220-230	KF107	DRS180M4/Z/C	DRE180L4/Z/C	37.0	KF87	DRS112M4/C	DRE132S4/C	36.52
X3K240-250	KF127	DRS180LC4/Z/C	DRE200L4/Z/C	36.25	KF87	DRS132S4/C	DRE132M4/C	36.52
X3K260-280	KF127	DRS225S4/Z/C	DRE225S4/Z/C	36.25	KF87	DRS132S4/C	DRE132M4/C	36.52



INFORMATION

In the "full buckets" variant, the auxiliary drive motors of sizes DR. 90-160 are equipped with a flywheel fan /Z (increased mass moment of inertia). Auxiliary drive motors of sizes DR. 180-225 are not equipped with a flywheel fan.

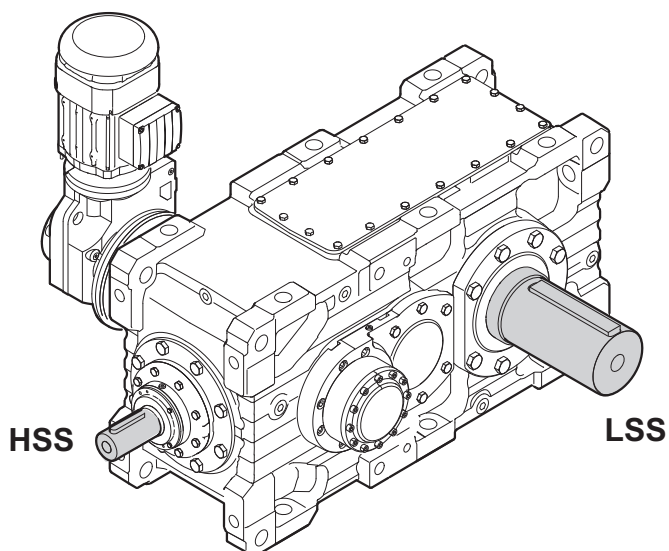
All motors have a canopy as the motors are installed vertically by standard.



2.10 Input and output shaft

Two types of shafts are differentiated in the catalog:

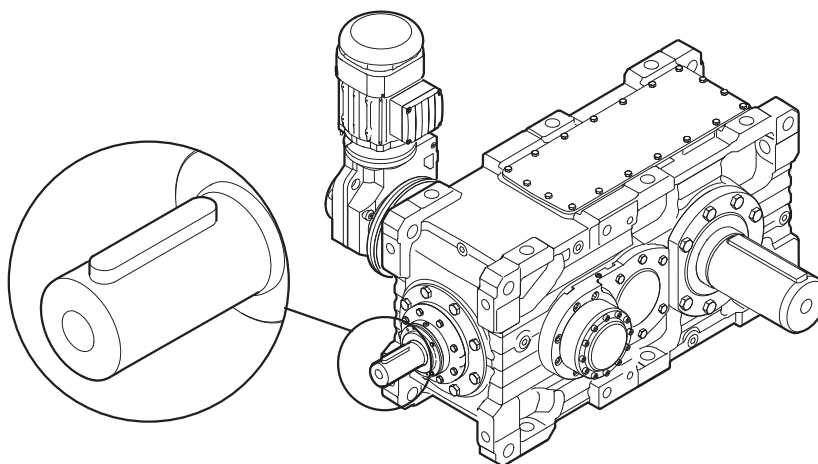
- High-speed shaft (**HSS**)
- Low-speed shaft (**LSS**)



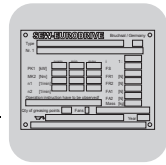
65498AXX

2.10.1 Input shaft

The input shaft is provided with a closed keyway (according to DIN 6885/T1) and a center bore (according to DIN 332). The matching key according to DIN 6885/T1 - form A is included in the scope of delivery.

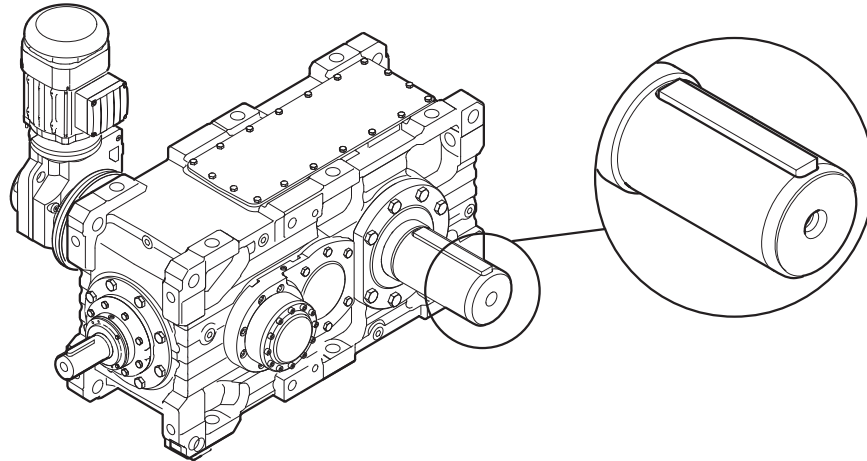


65501AXX



2.10.2 Output shaft as a solid shaft with key /..S

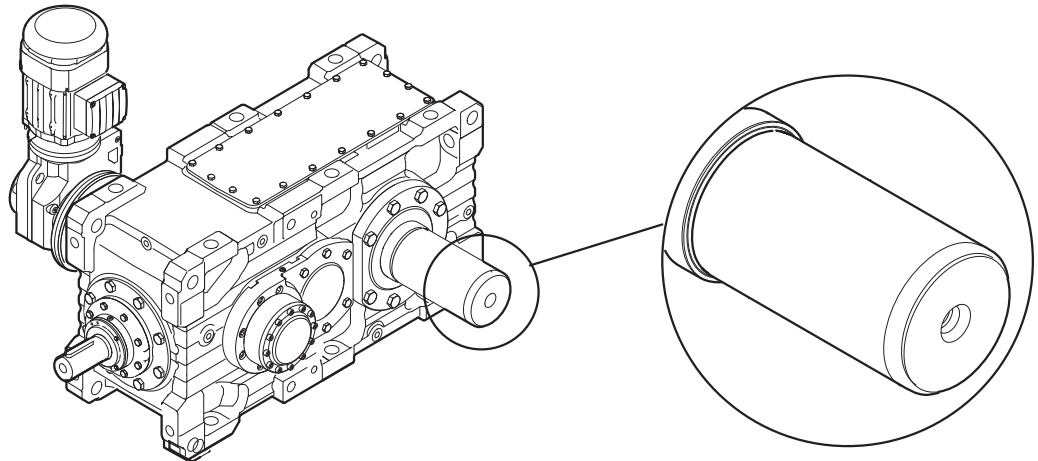
The output shaft is provided with a closed keyway according to DIN 6885/T1 and a center bore according to DIN 332. The scope of delivery includes a key according to DIN 6885/T1 - form B. The shaft has an insertion area with a reduced diameter to simplify the mounting of output elements, such as a coupling hub.



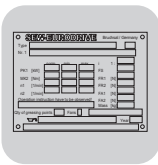
65502AXX

2.10.3 Smooth output shaft /..R

The gear units are available with a smooth output shaft to install non-positive output elements, such as flange couplings with a cylindrical interference fit. The shaft's face has a center bore according to DIN 332. The insertion area with reduced diameter facilitates the mounting of output elements.



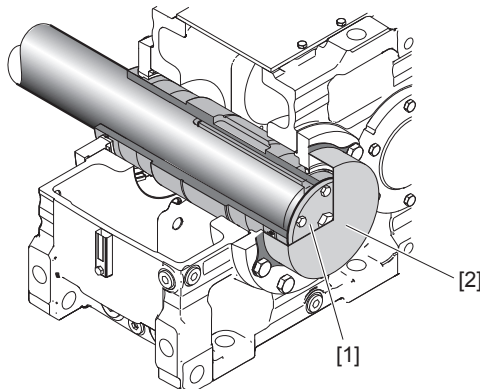
68809AXX



2.10.4 Output shaft as a hollow shaft with keyway /..A

The hollow shaft is equipped with a keyway according to DIN 6885/T1.

Included in the scope of delivery: Endplate with screws [1] or 2 retaining rings, and protection cover [2].



The protection cover is dust-proof. The standard sealing system is therefore normally used on the protection guard side.

INFORMATION



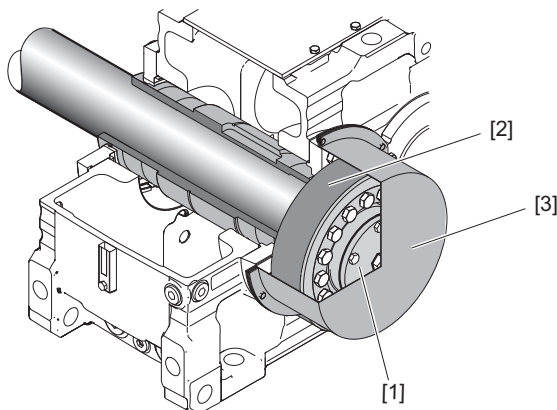
For detailed information on the geometry of the machine shaft, refer to page 141 and subsequent pages.

In case of a through-going machine shaft, the gear unit is delivered without endplate and protection cover. In this case, both gear unit sides are equipped with the same sealing system.

2.10.5 Output shaft as a hollow shaft with shrink disk /..H

The shrink disk is positioned on the side opposite to the machine shaft.

Included in the scope of delivery: Endplate with retaining screws [1], or 2 retaining rings, shrink disk [2], protection guard [3].



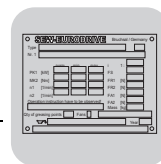
The protection cover is dust-proof. The standard sealing system is therefore normally used on the protection guard side.

INFORMATION



For detailed information on the geometry of the machine shaft, refer to page 142.

In case of a through-going machine shaft, the gear unit is delivered without endplate and protection cover. In this case, both gear unit sides are equipped with the same sealing system.

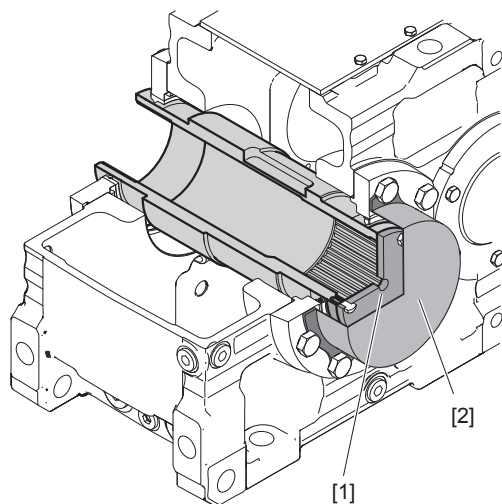


2.10.6 Output shaft as a splined hollow shaft /..V

The output shaft is a splined shaft according to DIN 5480.

Included in the scope of delivery:

Endplate with screws [1], or 2 retaining rings and protection cover [2].

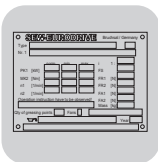


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INFORMATION

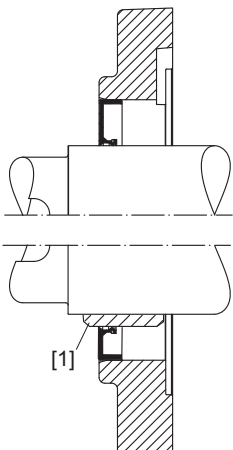
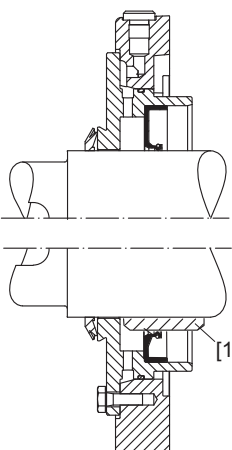
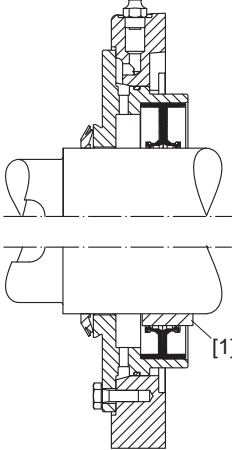
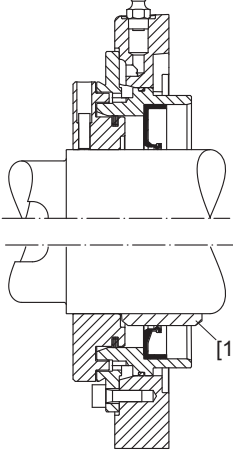
For detailed information on the geometry of the machine shaft, refer to page 143.



2.11 Overview of sealing systems

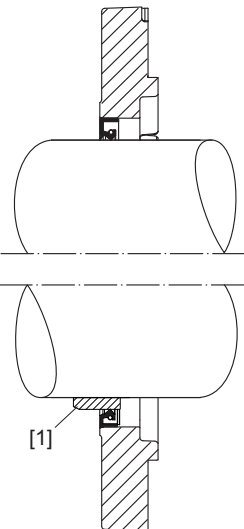
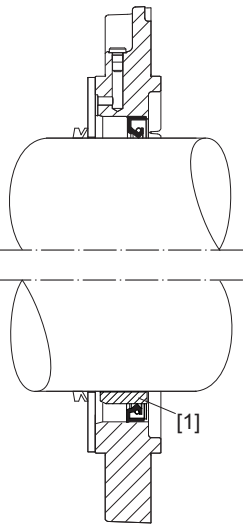
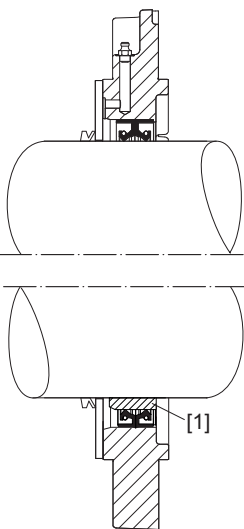
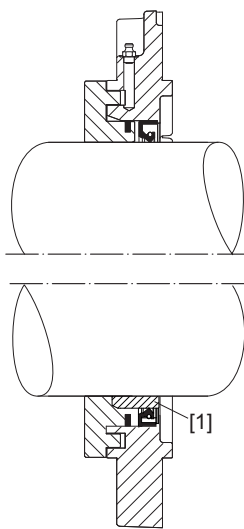
The following sealing systems can be used:

2.11.1 Input shaft

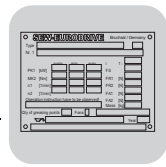
Standard	Dust-proof	Dust-proof regreasable	Radial labyrinth seal (Taconite) regreasable
Single oil seal with dust protection lip	Single oil seal with dust protection cover	Double oil seal with dust protection cover	Single oil seal with radial labyrinth seal
• Normal environment	• Medium dust load with abrasive particles	• High dust load with abrasive particles	• Very high dust load with abrasive particles
 65898AXX	 65899AXX	 65900AXX	 65901AXX

[1] with oil seal sleeve as option

2.11.2 Output shaft

Standard	Dust-proof	Dust-proof regreasable	Radial labyrinth seal (Taconite) regreasable
Single oil seal with dust protection lip	Single oil seal with dust protection cover	Double oil seal with dust protection cover	Single oil seal with radial labyrinth seal
• Normal environment	• Medium dust load with abrasive particles	• High dust load with abrasive particles	• Very high dust load with abrasive particles
 65910AXX	 65911AXX	 65912AXX	 65913AXX

[1] with oil seal sleeve as option

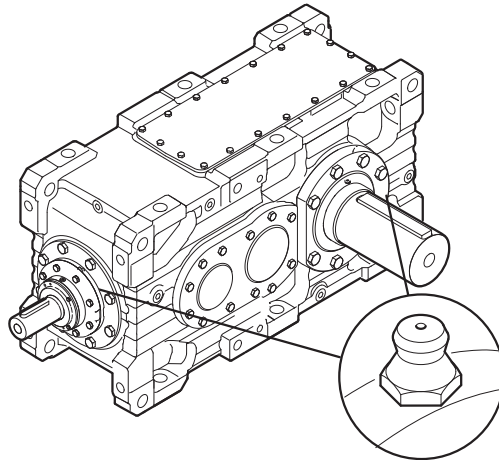


2.11.3 Position of greasing points

Grease nipple on inspection cover (standard)

Taper greasing nipples according to DIN 71412 A R1/8 are normally used on the gear unit cover in regreasable sealing systems. The greasing points are located near the input and output shafts.

Example



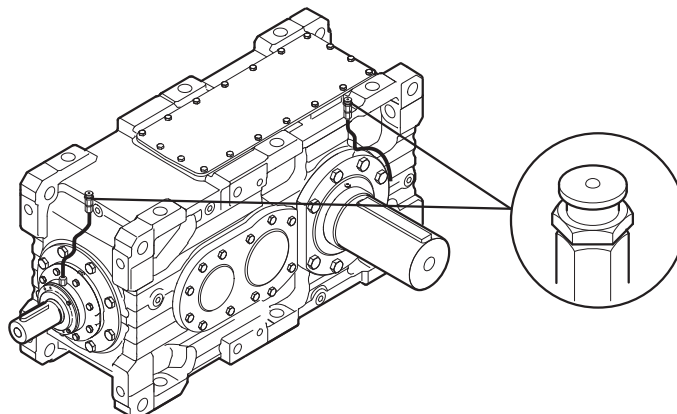
Grease nipple on the side of the gear unit (option)

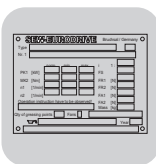
If installation space is limited, the grease nipples can be relocated to the side of the gear unit (mounting surface F2 as standard). Flat greasing nipples according to DIN 3404 A G1/8 are used.

Note the following points:

- This option is used as standard for drives with fan, motor adapter, V-belt drive, and Drywell.
- The option applies to both drive and output shaft(s).

Example





Product Description and Overview of Types

Nameplate

2.12 Nameplate

2.12.1 Sample unit

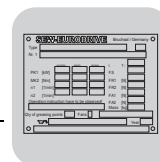
The following figure shows an example nameplate for bevel-helical gear units.

SEW-EURODRIVE		Bruchsal / Germany	
Type	X3KS190/B		
Nr. 1	01.1101687801.0001.06 / 66.1234567812		
	norm.	min.	max.
PK1 [kW]	180	36	180
MK2 [Nm]	43300	43300	43300
n1 [1/min]	1480	296	1480
n2 [1/min]	37.9	7.6	37.9
Operation instruction have to be observed!			FA2 [N]
Made in Germany			Mass [kg]
Qty of greasing points			Fans
CLP HC460 - Synthetic Oil - 79 ltr.			Year

1457 7739.10

60614AXX

Type		Type designation
Nr. 1		Manufacturing number
P _{K1}	[kW]	Operating power on the input shaft (HSS)
M _{K2}	[Nm]	Gear unit output torque
n ₁	[rpm]	Input speed (HSS)
n ₂	[1/min]	Output speed (LSS)
norm.		Normal operating point
min.		Operating point at minimum speed
max.		Operating point at maximum speed
i		Exact gear unit reduction ratio
F _S		Service factor
F _{R1}	[N]	Actual overhung load acting on the input shaft
F _{R2}	[N]	Actual overhung load acting on the output shaft
F _{A1}	[N]	Actual axial load acting on the input shaft
F _{A2}	[N]	Actual axial load acting on the output shaft
Mass	[kg]	Weight of the gear unit
Qty of greasing points		Number of regreasing points
Fans		Number of installed fans
		Oil grade and viscosity class / oil volume
Year		Year of manufacture
IM		Mounting position and mounting surface

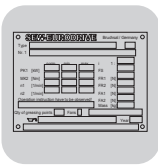


2.13 Abbreviations for optional accessories

The table shows the abbreviations used and what they mean.

Abbreviation	Meaning	see page
/BF	Base frame	page 70, page 172
/BS	Backstop	page 18, page 151
/BSL	Torque-limited backstop	page 152
/FC	Flange coupling	page 68
/FAN	Fan	page 62, page 145
/FAN-ADV	Fan version Advanced	page 62, page 146
/HH	Horizontal housing	page 130
/LSST	Through-going output shaft	page 20
/SB	Swing base	page 70, page 156
/T	Torque arm	page 67, page 149
/OD	Oil dipstick	page 61, page 153
/ODV	Oil drain valve	page 61, page 154
/OH	Oil heater	page 63, page 148
/OLG	Oil level glass	page 61, page 155

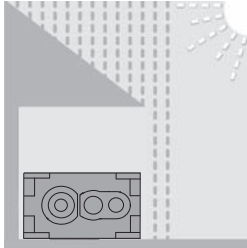
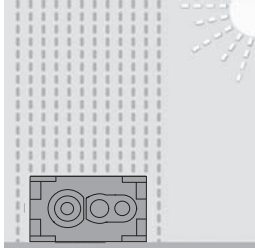
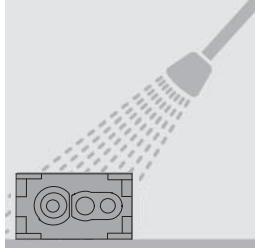
All options are part of the type designation except for mounting flange, torque arm, horizontal and universal housing.



2.14 Coating and surface protection systems

Gear units are available with surface protection OS1, OS2, and OS3.

The following table gives an overview of coating and surface protection systems.

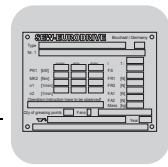
SEW design	OS1 Low environmental impact	OS2 Medium environmental impact	OS3 High environmental impact
Used as surface protection with typical ambient conditions Corrosion categories DIN EN ISO 12944-2	 Suited for environments prone to condensation and atmospheres with low humidity or contamination, such as outdoor applications under roof or with protection, unheated buildings where condensation can build up. According to corrosivity category: C2 (low)	 Suited for environments with high humidity or moderate atmospheric contamination, such as applications outdoors subject to direct weathering. According to corrosivity category C3 (moderate)	 Suited for environments with high humidity and occasionally severe atmospheric and chemical contamination. Occasionally acidic or caustic wet cleaning. Also for applications in coastal areas with moderate salt load. According to corrosivity category C4 (high)
Sample applications	- Systems in saw mills - Agitators and mixers	- Applications in gravel plants - Cable cars	- Port cranes - Sewage treatment plants - Mining applications
Condensation test ISO 6270	120 h	120 h	240 h
Salt spray test ISO 7253	-	240 h	480 h
Color top coat ¹⁾	RAL 7031	RAL 7031	RAL 7031
Color according to RAL	Yes	Yes	Yes
Uncoated parts: shaft end / flanges	Water and hand perspiration repelling anticorrosion agent applied at the factory for external preservation.		

1) Standard color

INFORMATION



- Sheet metal parts (such as protection covers) are painted in RAL 1003 as standard.
- Higher quality surface protection systems are available on request.



2.15 Storage and transport conditions

The gear units can be provided with the following protection and packaging types depending on the storage and transport conditions.

2.15.1 Internal conservation

Standard corrosion protection

After the test run, the test oil fill is drained out of the gear unit. The remaining oil film protects the gear unit against corrosion for a limited period of time.

Long-term corrosion protection

After the test run, the test oil fill is drained out of the gear unit and the interior space is filled with a vapor phase inhibitor. The breather filter is replaced by a screw plug and enclosed with the gear unit.

2.15.2 External conservation

The following measures are generally taken for external corrosion protection:

- Corrosion protection is applied to bare, non-painted functional surfaces of shafts, flanges, mounting and foot surfaces on the gear unit. Remove it only using an appropriate solvent which is not harmful to the oil seal.
- Small spare parts and loose pieces, such as bolts, nuts, etc., are packed in corrosion protection plastic bags (VCI corrosion protection bags).
- Threaded holes and blind holes are covered by plastic plugs.

INFORMATION



- If the gear unit is stored longer than 6 months, you must check the protective coating of unpainted areas as well as the paint at regular intervals. Areas with protective coating and/or paint that has been removed may have to be repainted.

2.15.3 Packaging

Standard packaging

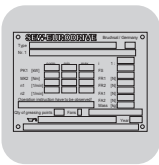
The gear unit is delivered on a pallet without cover.

Application: Land transport

Long-term packaging

The gear unit is delivered in a wooden box that is also appropriate for sea transport.

Application: Sea transport and/or for long-term storage



2.15.4 Storage conditions

INFORMATION



- During storage up to startup, the gear unit must be stored in a shock-free manner in order to prevent damage to the rolling bearing races.
- The output shaft must be rotated at least one full rotation every six months so that the position of the roller elements in the bearings of the input and output shafts changes.

INFORMATION



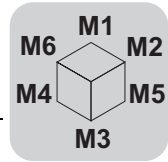
The gear units are delivered without oil; different protection systems are required depending on the storage period and storage conditions as shown in the table below.

Corrosion protection + packaging	Storage location	Storage duration
Standard corrosion protection + standard packaging	With roof, enclosed at constant temperature and atmospheric humidity (5 °C < 9 < 60 °C, < 50 % relative atmospheric humidity). No sudden temperature fluctuations. Controlled ventilation with filter (free from dust and dirt). No aggressive vapors, no shocks.	Max. 6 months with intact surface corrosion protection
Long-term corrosion protection + standard packaging	With roof, enclosed at constant temperature and atmospheric humidity (5 °C < 9 < 60 °C, < 50 % relative atmospheric humidity). No sudden temperature fluctuations. Controlled ventilation with filter (free from dust and dirt). No aggressive vapors, no shocks.	Max. 3 years with regular inspection and checking for intactness.
Long-term corrosion protection + long-term packaging	With roof, protected against rain and shocks.	Max. 3 years with regular inspection and checking for intactness.

INFORMATION



If stored in tropical zones, provide for sufficient protection against insect damage. Contact SEW-EURODRIVE for differing requirements.



3 Mounting Position, Mounting Surfaces and Shaft Position

3.1 Mounting position and standard mounting surface

A certain standard mounting surface is assigned to each mounting position:

INFORMATION

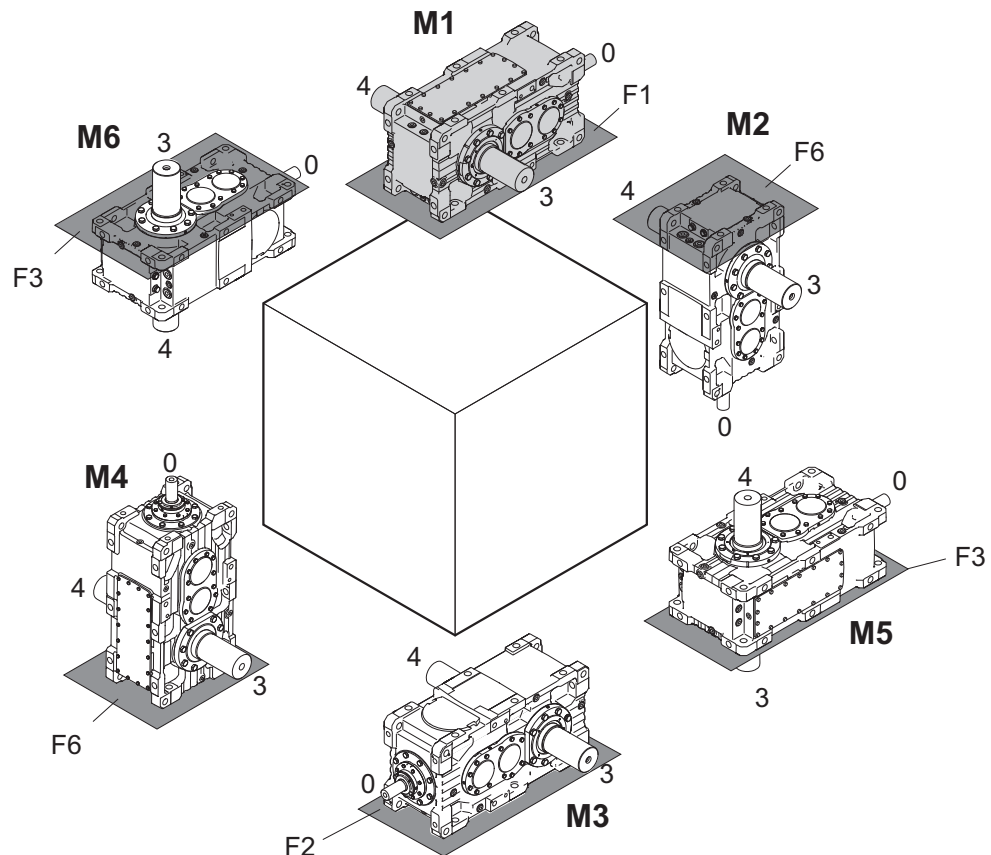


- The mounting position and/or mounting surface must not differ from the order.
- A deviation of $\pm 1^\circ$ is permitted.

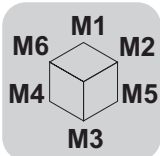
INFORMATION



- M1 mounting position is the standard.
- Restrictions may arise with accessories and possibly longer delivery times for versions deviating from the standard version.
- Other mounting surfaces are possible in combination with a certain mounting position. Refer to the order-specific dimension drawing.



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Mounting Position, Mounting Surfaces and Shaft Position

Pivoted mounting positions and variable mounting positions

3.2 Pivoted mounting positions and variable mounting positions

Mounting positions other than standard mounting positions are referred to as pivoted or variable mounting positions.

Gear units with pivoted mounting position have a **fixed** mounting position that differs from the standard.

Gear units with variable mounting position can change the mounting position **variably** during operation within the specified range.

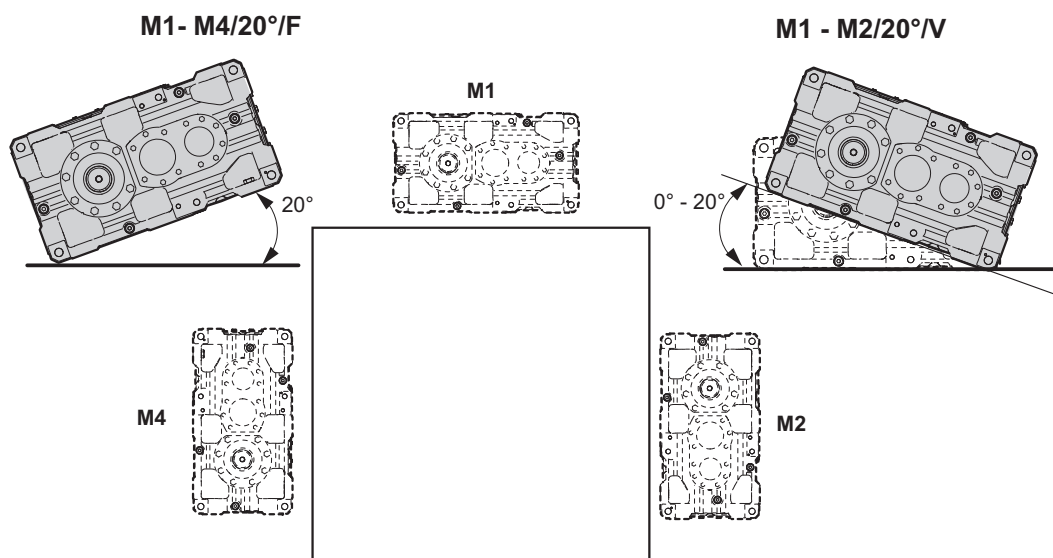
The designation of pivoted and variable mounting positions is set up as follows:

M1 - M2/20°/V

[1] [2] [3] [4]

- [1] Initial mounting position
- [2] Required mounting position
- [3] Pivoting angle
- [4] F = Fixed final position; V = Variable final position

The following figure shows two examples:



64790AXX

All final positions have to be specified if the mounting position of the gear unit deviates from standard mounting positions in several directions. Combinations of fixed and variable final positions are possible.

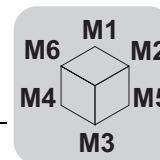
Example of a gear unit based on M1 that is tilted by $\pm 20^\circ$ around the drive shaft during operation and is mounted in a fixed angle of 30° around the longitudinal axis:

M1 - M2/20°/V - M4/20°/V - M5/30°/F



INFORMATION

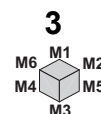
Pivoted and variable mounting positions might involve restrictions concerning accessories and technical data. Also, delivery times might be longer. Consult SEW-EURODRIVE.



3.3 Shaft position, directions of rotation, backstop, auxiliary drive

The following figures show the standard versions of bucket elevator gear units. The auxiliary drives are designed in M4A mounting position with terminal box 0°.

The shaft positions (**03** and **04**) and corresponding directions of rotation shown in the following figures apply to solid and hollow output shafts (LSS).

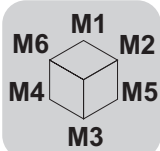


Shaft position 03 / X.KS..	Shaft position 03 / X.KH.. / X.KA..
65503AXX	65504AXX
Shaft position 04 / X.KS..	Shaft position 04 / X.KH.. / X.KA..
65508AXX	65509AXX

INFORMATION



The auxiliary drive and the shrink disk (X.KH.. version) are always located opposite the output side of the gear unit. The backstop is installed opposite the auxiliary drive. For bucket elevator drives without auxiliary drive, the backstop is installed opposite the output side of the gear unit.



Mounting Position, Mounting Surfaces and Shaft Position

Position of motor terminal box and cable entry

3.4 Position of motor terminal box and cable entry

The position of the motor terminal box has so far been indicated with 0°, 90°, 180° or 270° as viewed onto the fan guard (see figure below). A change in the product standard EN 60034 specifies that the following designations for terminal box positions will have to be used in future:

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

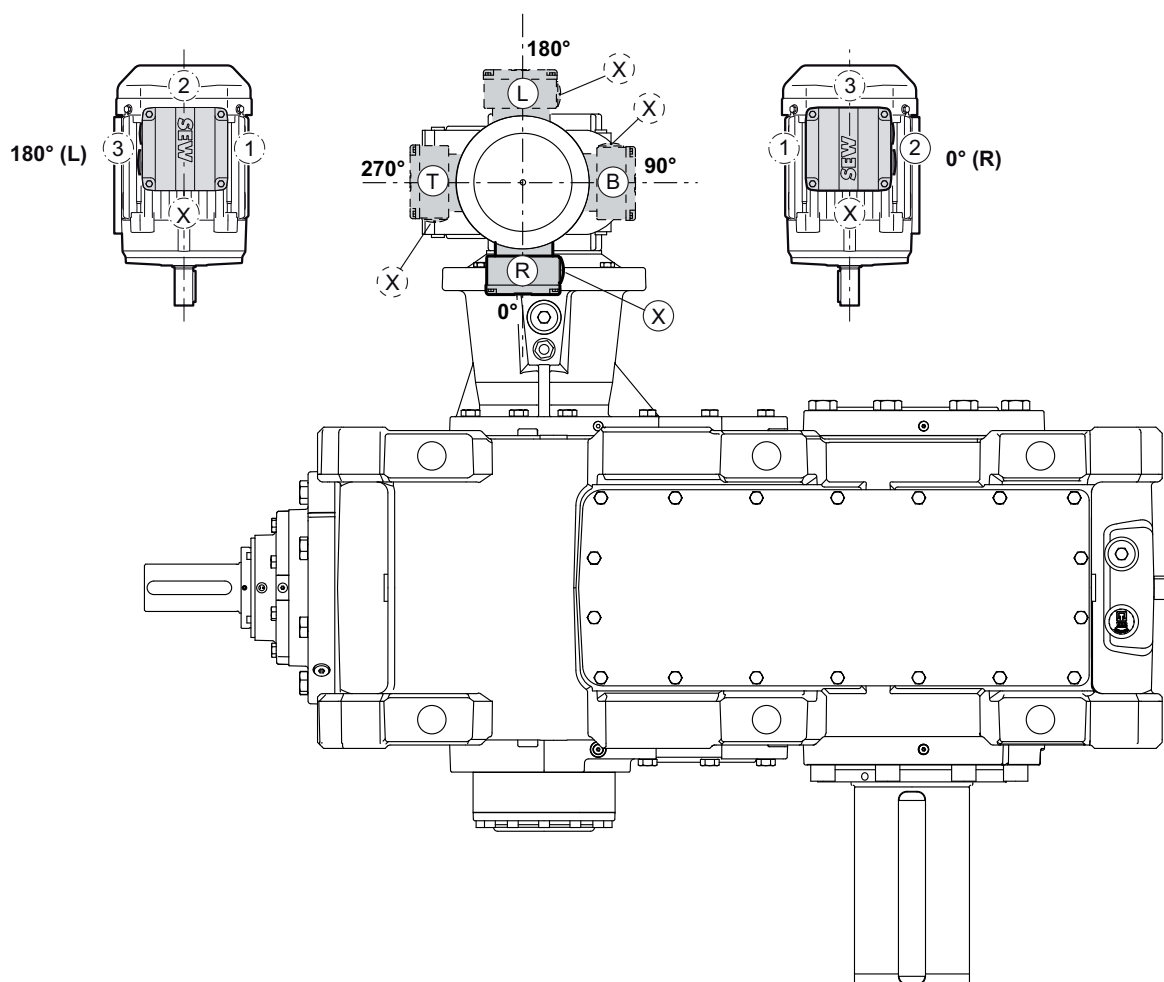
This new designation applies to foot-mounted motors without a gear unit in mounting position B3 (= M1). The previous designation is maintained for gearmotors. The following figure shows both designations. If the mounting position of the motor changes, R, B, L and T are rotated accordingly.

The position of the cable entry can be selected as well. The possibilities are "X" (= standard position), "1", "2" or "3" (see following figure).

INFORMATION



Unless indicated otherwise, you will receive the terminal box type 0° (R) with cable entry "X".



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4 Project Planning for 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. This is primarily documentation from the "Drive Engineering - Practical Implementation" series. You can order the latest documentation from SEW-EURODRIVE. This documentation can be downloaded as pdf from the the SEW-EURODRIVE website (<http://www.sew-eurodrive.com>).

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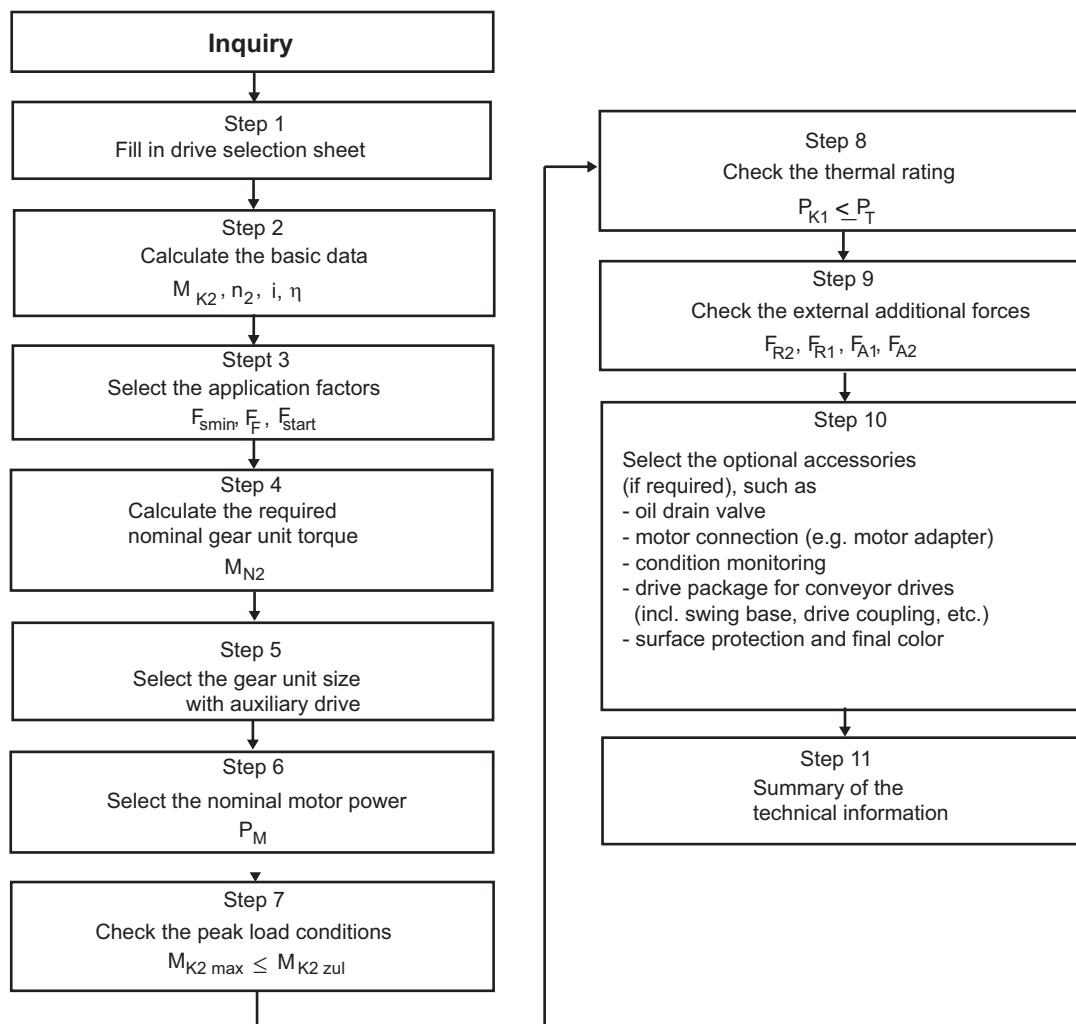
Drive Engineering – Practical Implementation

The publication "Drive Engineering – Practical Implementation – Drive Selection with SEW-EURODRIVE Gearmotors" provides extensive information on characteristics, differentiating features and application areas of SEW drives. A comprehensive collection and assignment of the most important formulae for drive calculation as well as detailed examples for the most frequently used applications make this documentation an important tool for project planning and an essential addition to SEW-EURODRIVE product catalogs.



4.2 Project planning procedure

The following flow diagram illustrates the project planning procedure for a bucket elevator drive.



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4.2.1 Step 1: Drive selection data

1.0 Machine on LSS (normally a driven machine)

Legend: [...] = Values to be filled in
[X] = Mark your selection with ☒

1.1 Field of application/industry [...]

1.2 Application [...]

1.3 Ambient temperature [°C] [...]

normal	min.	max.

1.4 Installation altitude [m] [...]

1.5 Gear unit installation [X]

- ☐ Small space ($v_a \geq 0.5$ m/s)
- ☐ Large spaces and halls ($v_a \geq 1.4$ m/s)
- ☐ Outdoors with protection against the sun ($v_a \geq 3$ m/s)

1.6 Ambient conditions [X]

- ☐ normal
- ☐ dusty
- ☐ damp
- ☐ corrosive
- ☐ dry

2.0 Load characteristics

2.2 Drive concept

- ☐ Single drive
- ☐ Dual drive

For dual drive, enter the following data for one drive only!

2.2 Required speed n_2 [rpm] [...]

normal	min.	max.

2.3 Operating power on HSS P_{K1} [kW] [...]

normal	min.	max.

2.4 Operating torque on LSS M_{K2} [kNm] [...]

normal	min.	max.

2.5 Frequency of peak loads ($M_{K2 \text{ max.}}$ or $P_{K1 \text{ max.}}$)

 per hour

2.6 Number of startup per hour [...]

 start-ups

2.7 Direction of rotation under load (LSS) [X]

- ☐ Clockwise (CW)
- ☐ Counterclockwise (CCW)

2.8 Operating time/day [X]

- ☐ ≤ 3 hours
- ☐ 3 ... 10 hours
- ☐ > 10 hours

2.9 Backstop [X]

- ☐ Standard backstop
- ☐ Torque-limiting backstop (recommended for dual drive)

2.10 Auxiliary drive [X]

- ☐ "Empty" buckets
- ☐ "Full" buckets
- ☐ Auxiliary drive on both drives (optional for dual drives)
- ☐ Speed monitoring required for encoder
- ☐ Output torque on LSS via auxiliary drive M_{K3}

3.0 Machine on HSS (normally a drive machine)

3.1 Type: [X]

- ☐ AC motor ☐ AC motor/inverter ☐ DC motor
- ☐ Hydraulic motor ☐ Servomotor

3.2 Motor power P_M [kW] [...]

normal	min.	max.

3.3 Motor speed n_M [rpm] [...]

normal	min.	max.

3.4 Motor torque M_M [kNm] [...]

normal	min.	max.

3.5 Input speed n_1 [rpm] [...]

normal	min.	max.

3.6 If electric motor: [X] [...]

- ☐ IEC
- ☐ NEMA

Motor size (IEC or NEMA code):

3.7 Motor mounting position [X] [...]

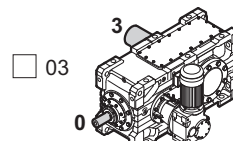
- ☐ B3
- ☐ B5
- ☐ V1
- ☐ Other:

4.0 Gear unit requirements

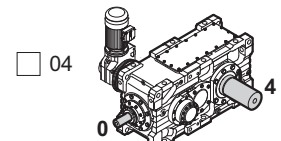
4.1 Mounting position if other than M1

4.2 Shaft position [X]

For dual drive, enter only shaft position of drive with auxiliary drive



For dual drive, second gear unit shaft position 04



For dual drive, second gear unit shaft position 03



4.6 Required service factor $F_{S \min}$ [X] [...]

based on

- ☐ Motor power P_M /motor torque M_M
- ☐ Operating power P_{K1} /operating torque M_{K1}

4.7 Required bearing service life $L_{h \min}$ [...]

 hours

4.8 Gear unit fixation / torque arm [X]

- ☐ Foot-mounted
- ☐ Torque arm

4.9 LSS connection to customer machine shaft [X] [...]

- ☐ Elastic coupling (claw or pin coupling)
- ☐ Flexible coupling
- ☐ Rigid flange coupling
- ☐ Drum coupling
- ☐ Chain sprocket
- ☐ Pinion
-
- ☐ Hollow shaft - torque arm
- ☐ Hollow shaft - foot-mounted
- ☐ Other

4.10 LSS gear unit version [X] [...]

LSS version (if solid shaft)

- ☐ Solid shaft with keyway
- ☐ Solid shaft without keyway
- ☐ Splined solid shaft DIN 5480
- ☐ Other

LSS version (if hollow shaft)

- ☐ Hollow shaft with keyway
- ☐ Hollow shaft for shrink disk connection, incl. shrink disk
- ☐ Splined hollow shaft DIN 5480
- ☐ Other

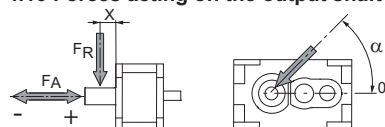
4.11 HSS connection to motor [X]

- ☐ Customer installation (base frame)
- ☐ Motor adapter with elastic coupling
- ☐ Swing base/base frame
- ☐ Motor scoop with V-belt drive
- ☐ Motor scoop
- ☐ Other, see diagram

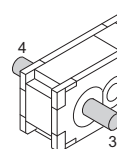
4.12 Machine shaft bearings

- ☐ 2 bearings, gear unit transfers only torque
- ☐ 1 bearing opposite gear unit; gear unit acts as a bearing point
- ☐ 1 bearing directly on the gear unit; gear unit acts as a bearing point

4.13 Forces acting on the output shaft LSS [X] [...]

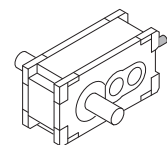


	Shaft 3	Shaft 4
Axial force F_A [kN]		
Radial force F_R [kN]		
Distance from shaft shoulder X [mm]		
Application angle of the radial force α [°]		
or variable	☐	☐



4.14 Forces acting on the input shaft HSS [X] [...]

	Shaft 0	Shaft 3	Shaft 4
Axial force F_A [kN]			
Radial force F_R [kN]			
Distance from shaft shoulder X [mm]			
Application angle of the radial force α [°]			
or variable	☐	☐	☐



4.15 Electrical supply [X] [...]

	3-phase	1-phase	DC	V	Hz
Mains supply V_{mains}	☐	☐	☐		
	3-phase	1-phase	DC	V	Hz
Auxiliary voltage V_{aux}	☐	☐	☐		
Degree of protection					
Expl. protection required	☐ Yes ☐ No				

4.16 Permitted cooling (if required) [X]

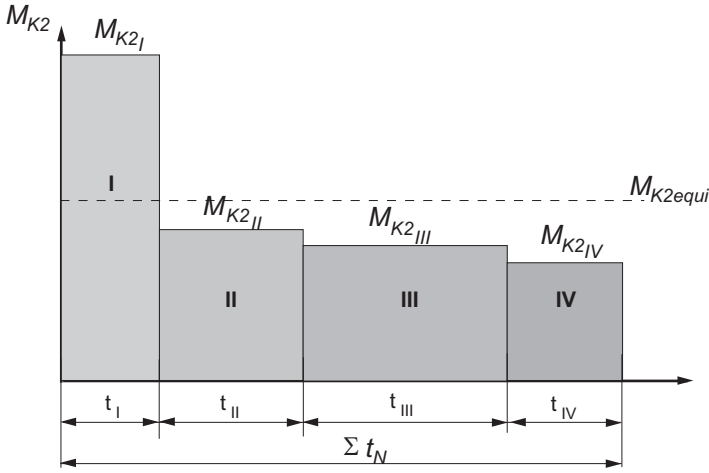
	Permitted	Not permitted
Fan	☐	☐
Cooling cover/cartridge	☐	☐
External oil-air cooler	☐	☐
External oil-water cooler	☐	☐

Cooling water available ☐ Yes ☐ No

Cooling water temperature °C



Step 2: Calculating the basic data – M_{K2} , n_2 , i , η

Constant torque	$M_{K2} = \frac{P_{K1} \times 9550 \times \eta}{n_2} \text{ [Nm]}$ Comment: If P_{K1} is not known $\rightarrow P_{K1} = P_M$ M_{K2} = Operating torque at LSS [Nm] P_{K1} = Operating power on HSS [kW] n_2 = Output speed (LSS) [rpm] P_M = Nominal motor power [kW] η = Efficiency
Equivalent torque with load spectrum and constant Speed n_2	$M_{K2equiv} = \sqrt[6.6]{(M_{K2I})^{6.6} \times \frac{t_I}{\sum t_N} + (M_{K2II})^{6.6} \times \frac{t_{II}}{\sum t_N} + \dots (M_{K2n})^{6.6} \times \frac{t_n}{\sum t_N}}$ The following figure shows a load example:  M_{K2} = Operating torque on LSS [Nm] $\frac{t_I}{\sum t_N} \dots \frac{t_n}{\sum t_N}$ = Time slice of the load I, II,...n = Types of load
Übersetzung	$i = \frac{n_1}{n_2}$ n_1 = Input speed (HSS) rpm n_2 = Output speed (LSS) rpm
The following efficiencies apply to gear units – η	$\eta = f(i; \text{gear unit type})$ The efficiency of the gear unit is mainly determined by the gearing and bearing friction as well by churning losses. The following guide values apply for calculating splash and pressure lubrication: X3K.. = 0.955



4.2.2 Step 3: Selecting the application factors

Application-specific service factor	$F_{S \min}$	
Peak load factor	F_F	see following page
Start factor	F_{start}	see following page

$F_{S \min}$ application-specific service factor

The application-specific service factor $F_{S \min}$ takes account of the typical load behavior with regard to the driven machine.

Recommended values with reference to

- Field of application
- Type of driven machine
- Operating period / day

are given in the following table.

INFORMATION



In the event of deviations from the typical load behavior, please consult SEW-EURODRIVE.

Field of application	Type of application (driven machine)	Application-specific service factor $F_{S \min}$ Operating period / day		
		< 3 h	3-10 h	> 10 h
Conveyors	Bucket elevators	-	1.40	1.50
	Vertical conveyors other	-	1.50	1.80
	Belt conveyors ≤ 100 kW	1.15	1.25	1.40
	Belt conveyors > 100 kW	1.15	1.30	1.50
	Apron feeders	-	1.25	1.50
	Screw feeders	1.15	1.25	1.50
	Shakers, screens	1.55	1.75	2.00
	Escalators	1.25	1.25	1.50
	Passenger elevators	1)	1)	1)

1) Consult SEW-EURODRIVE



Peak factor F_F

The peak load factor F_F takes account of the overload capacity of the gearing and the rotating parts.

Peak factor - F_F					
Frequency of peak load per hour					
1...5	6...20	21...40	41...80	81...160	> 160
1	1.2	1.3	1.5	1.75	2.0

4



Start factor F_{start}

The start factor F_{start} takes account of the overload caused by startup.

Start mode	Startup factor F_{start}
Direct	3.0
Soft start	1.8
Frequency inverter	1.5...2.0 ¹⁾
Star / delta	1.3
Hydraulic coupling without delay chamber	2.0
Hydraulic coupling with delay chamber	1.6

1) Dependent on setting

4.2.3 Step 4: Calculating the required nominal gear unit torque M_{N2}

Constant load direction – constant torque:

$$M_{N2} \geq M_{K2} \times F_{S \min} [Nm]$$

M_{N2} = Nominal gear unit torque [kNm]
 M_{K2} = Operating torque on the LSS [kNm]
 $F_{S \min}$ = Application-specific service factor



4.2.4 Step 5: Selecting the gear unit size – M_{N2}

The selection of the gear unit size is based on the nominal gear unit torque M_{N2} according to the tables showing the overview of speed and power ratings beginning on

If the input speed $n_1 < 1000$ rpm, then the value for 1000 rpm can be used for M_{N2} .

For input speeds $n_1 > 1800$ rpm, please contact SEW-EURODRIVE.

The following selection table is exemplary for gear unit size X3K100:

X.K100..										6.80 kNm			
i _{rated}	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	KF37 i=28.83		KF57 i=35.7		 P _{TH} [kW]				
					 n ₃ [1/min]	M _{K3} [kNm]	 n ₃ [1/min]	M _{K3} [kNm]					
									P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C	
n ₁ = 1000 1/min (50Hz)					DRS80S4 0.8 kW S3 I _N =1.87 A (400V)		DRS90M4/Z 1.6 kW S3 I _N =3.55 A (400V)		IE1				
31.5	30.35	33	6.80	24	2.9	2.57	2.3	6.43	43	32	58	42	
35.5	34.35	29	6.80	21	3.2	2.29	2.6	5.75	37	28	50	37	
40	38.45	26	6.80	19.2	2.9	2.57	2.3	6.43	39	29	51	38	
45	42.96	23	6.80	17.2	2.6	2.87	2.0	7.19	34	25	45	33	
50	48.08	21	6.80	15.3	2.3	3.21	1.8	8.04	35	26	46	34	
56	52.49	19	6.80	14.2	2.6	2.87	2.0	7.19	31	23	42	31	
63	58.74	17	6.80	12.7	2.3	3.21	1.8	8.04	32	24	43	32	
71	67.2	15	6.80	11.1	2.6	2.87	2.0	7.19	28	20	36	27	
80	75.21	13	6.80	9.9	2.3	3.21	1.8	8.04	28	20	37	27	



4.2.5 Step 6: Selecting the nominal motor power P_M

$$P_M \geq P_{K1} = \frac{P_{K2}}{\eta} \text{ [kW]}$$

P_M = Nominal motor power [kW]
 P_{K1} = Operating power on HSS [kW]
 P_{K2} = Operating power on LSS [kW]

→ Select the nominal motor power

4



4.2.6 Step 7: Checking the peak load conditions – $M_{K2 \text{ zul}}$; $M_{K2 \text{ max}}$

Permitted peak output torque $M_{K2 \text{ zul}}$:

Constant load direction

$$M_{K2 \text{ zul}} = \frac{2 \times M_{N2}}{F_F} \text{ [kNm]}$$

$M_{K2 \text{ zul}}$ = Permitted peak output torque [kNm]
 M_{N2} = Nominal gear unit torque [kNm]
 F_F = Peak load factor

Calculate the peak output torque $M_{K2 \text{ max}}$:

$$M_{K2 \text{ max}} = \frac{P_M \times 9.55 \times \eta}{n_2} \times F_{\text{start}}^* \text{ [kNm]}$$

$M_{K2 \text{ max}}$ = Peak output torque [kNm]
 P_M = Nominal motor power [kW]
 F_{start} = Startup factor
 n_2 = Output speed (LSS) [rpm]
 η = Efficiency

* If F_{start} is not specified, take account of the start factors according to page 35.

Check the gear unit selection:

$$M_{K2 \text{ max}} \leq M_{K2 \text{ zul}}$$

**4.2.7 Step 8: Checking the thermal rating P_T**

The thermal rating P_T of a gear unit is the power that a gear unit can transmit without exceeding a certain oil temperature. The thermal rating depends on the following factors:

- Ambient temperature
- Air circulation and sunlight exposure at the installation site
- Installation altitude
- Heat conduction to the foundation at the installation site
- Gear unit type, size, and ratio
- Type of gear unit external cooling
- Type of gear unit lubrication
- Lubricant type
- Cyclic duration factor

For the following ambient conditions, the thermal rating can be directly read from the selection tables:

- Ambient temperature 20 °C or 40 °C (The thermal rating for an ambient temperature of 30 °C can be interpolated)
- Installation in a large hall
- Natural cooling or cooling with fan
- Foundation as steel support structure
- Installation altitude $\leq 1\,000$ m above sea level NN
- Horizontal mounting position (M1)
- Splash lubrication

INFORMATION

- Sufficient protection from direct sunlight is absolutely necessary when installed outdoors.
 - Please contact SEW-EURODRIVE in case of other ambient conditions.
-



$$P_T = P_{TH} \times f_1 \text{ [kW]}$$

P_{TH} = Nominal thermal rating of the gear unit [kW]. The values in the selection tables in chapter 10 depend on the ambient temperature and cooling method.

f_1 = Altitude factor

Altitude factor f_1

	Altitude H [m above sea level]				
	up to 1000	1000 - 2000	2000 - 3000	3000 - 4000	4000 - 5000
f_1	1.00	0.95	0.91	0.87	0.83



INFORMATION



Contact SEW-EURODRIVE in case of deviating conditions.

4.2.8 Step 9: Checking the thermal rating:

The gear unit's thermal rating must be at least as large as the operating power on the input shaft [HSS].

$$P_T \geq P_{K1}$$

4.2.9 Step 10: Checking the external additional forces

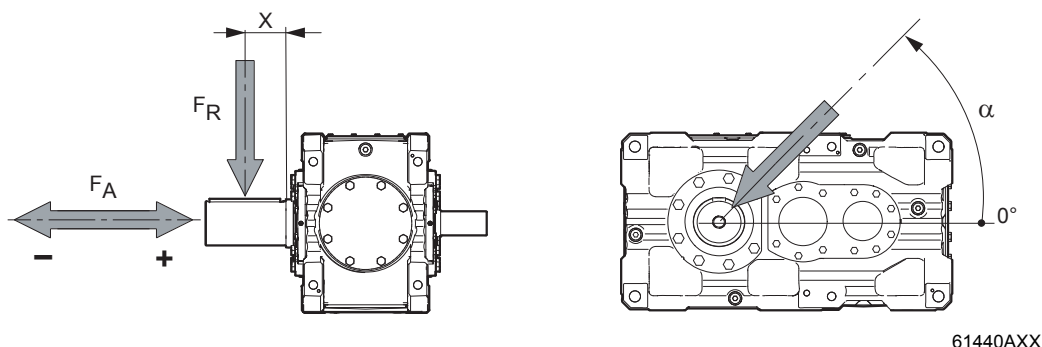
Dependencies

The permitted forces on the shaft depend on the following factors:

- Service factor
- Required bearing life
- Direction of the axial load (from or towards gear unit)
- Application angle of the overhung load (rotating or at a specific position)
- Application angle of the overhung load in relation to the shaft shoulder
- Relation axial load/overhung load and vice versa



Definition of the force application



INFORMATION



The force application is always defined as viewed onto the output shaft end.

Determining the overhung load

An important factor for determining the resulting overhung load is the type of transmission element mounted to the shaft end. The following transmission element factors f_z must 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	Influence of the pre-tensioning
Flat belt pulleys	2.50	Influence of the pre-tensioning
Toothed belt pulleys	1.50	Influence of the pre-tensioning

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

$$F_R = \frac{M_d \times 2000}{d_0} \times f_z \quad [\text{N}]$$

F_R = Overhung load [N]

M_d = Torque [Nm]

d_0 = Mean diameter of the installed transmission element [mm]

f_z = Transmission element factor



**Permitted
overhung forces
output shaft
(LSS)**

The following table shows two values for the permitted overhung force on standard solid shafts that apply under the following conditions:

- The application point of the overhung load is on the midpoint of the shaft end
- No external axial load F_A acts on the output shaft.
- The gear unit service factor is 1.3 or higher
- The application angle of the overhung load is applied at the most unfavorable point

For the force F_{Ra}

- The shaft speed is less than or equal to the given value

For the force $F_{Ra \max}$

- Applies only to foot-mounted gear units in M1 mounting position
- Max. possible peak value under more advantageous service conditions

Size	F_R [kN]		$F_{R\max}$ [kN]
	X3KS..		X..S.
Speed n_2	≤ 70 rpm		-
Shaft position	03, 04		All shaft positions
Bearings	STD	HD	
X.K100	16	-	17
X.K110	22	-	25
X.K120	32	-	55
X.K130	44	-	68
X.K140	45	-	77
X.K150	53	-	97
X.K160	75	-	125
X.K170	69	-	115
X.K180	93	-	170
X.K190	91	-	170
X.K200	105	-	190
X.K210	99	-	190
X.K220	128	195	230
X.K230	116	183	230
X.K240	184	276	280
X.K250	172	269	280
X.K260	151	271	290
X.K270	213	310	310
X.K280	208	310	310

F_R = Overhung load

n_2 = Output speed

STD = Standard bearing

HD = Reinforced bearing

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Contact SEW-EURODRIVE in case of deviating conditions.



***Permitted axial
forces – output
shaft (LSS)***

Please contact SEW-EURODRIVE.

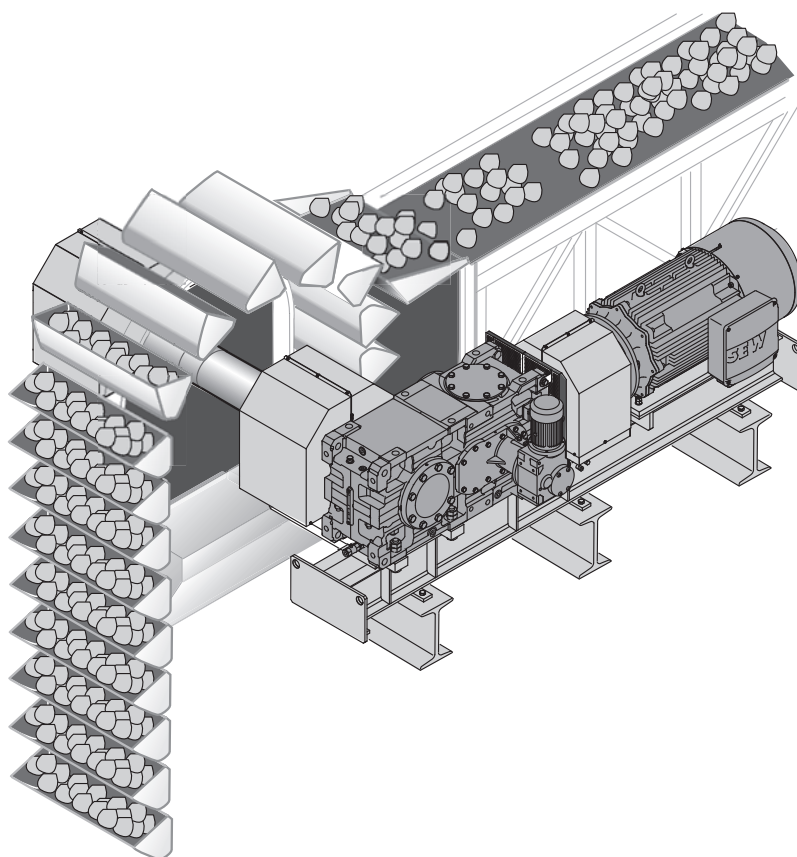
***Permitted over-
hung and axial
loads – input
shaft (HSS)***

Please contact SEW-EURODRIVE.



4.3 Project planning example: Bucket elevator drive

The following project planning example shows the planning of a bucket elevator drive.



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Technical data and requirements on the application

Main gear unit

- Bevel-helical gear unit, foot-mounted, solid shaft with key
- Output speed $n_2 = 30$ rpm
- Input speed motor $n_1 = 1470$ rpm
- Operating power on the output shaft LSS $P_{K2} = 135$ kW
- Peak operating torque on the output shaft LSS $M_{K2 \max} = 55$ kNm
- Operating period: 24 hours a day
- The gear unit is started up five times per hour (frequency of maximum output torque).
- The gear unit is to be operated in a large hall under very dusty conditions and an ambient temperature range between 0 °C and 40 °C.
- Installation altitude $H = 1200$ m
- Oil drain valve

Auxiliary drive

- "Full buckets design"
- Output speed when operated with auxiliary drive $n_3 \approx 3$ rpm
- Output torque when operated with auxiliary drive $M_{K3} \approx 30$ kNm



Step 1: Filling out the drive selection sheet

Step 2: Calculating the basic data

Constant operating torque M_{K2} :

$$M_{K2} = \frac{P_{K2} \times 9550}{n_2} = \frac{135 \text{ kW} \times 9550}{30 \text{ 1/min}} = 43.0 \text{ kNm}$$

M_{K2} = Operating torque on the LSS [kNm]
 P_{K2} = Output power [kW]
 n_2 = Output speed LSS [rpm]

Calculate the gear unit reduction ratio using the following formula:

$$i = \frac{n_1}{n_2} = \frac{1470}{30} = 49$$

i = Gear ratio
 n_1 = Input speed (HSS) [rpm]
 n_2 = Output speed (LSS) [rpm]

This value is used to specify the nominal gear ratio $i_n = 50$

Step 3: Selecting the application factors

Application-specific service factor (bucket elevator, $t > 10$ h/day)	$F_{S \min} = 1.5$
Peak load factor (1...5 peak loads per hour)	$F_F = 1.0$
Start factor (frequency inverter)	$F_{\text{start}} = 1.6$

Step 4: Calculating the required nominal gear unit torque

Required nominal gear unit torque M_{N2} :

$$M_{N2} \geq M_{K2} \times F_{S \min} = 43 \text{ kNm} \times 1.5 = 64.5 \text{ kNm}$$

M_{N2} = Nominal gear unit torque [kNm]
 M_{K2} = Operating torque on the LSS [kNm]
 $F_{S \min}$ = Application-specific service factor



Step 5: Selecting the gear unit size

Select a gear unit of the next larger torque class using the foldout page at the end of this catalog.

- Nominal gear unit torque $M_{N2} = 65 \text{ kNm}$

See selection table in section 10

- Gear unit type **X3KSB190/B**
- Nominal gear ratio $i_N = 50 \rightarrow$ exact gear ratio $i_{ex} = 48.85$
- Auxiliary drive **KF97DRS132MC4/Z**
- $n_3 = 1.8 \text{ rpm}$, $M_{K3} = 47.5 \text{ kNm}$

4



Step 6: Selecting the nominal motor power

Required motor power:

$$P_M \geq P_{K1} = \frac{P_{K2}}{\eta} = \frac{135 \text{ kW}}{0.955} = 141.4 \text{ kW}$$

P_M = Nominal motor power [kW]
 P_{K2} = Operating power on LSS [kW]
 P_{K1} = Operating power on HSS [kW]
 η = Efficiency from chapter 4.2.2

Select a motor of the next larger power class: $P_M = 160 \text{ kW}$

Step 7: Checking the peak load conditions

Permitted peak torque $M_{K2 \text{ zul}}$:

$$M_{K2 \text{ zul}} = \frac{2 \times M_{N2}}{F_F} = \frac{2 \times 65 \text{ kNm}}{1} = 130 \text{ kNm}$$

$M_{K2 \text{ zul}}$ = Permitted peak output torque [kNm]
 M_{N2} = Nominal gear unit torque [kNm]
 F_F = Peak load factor

Calculate the peak output torque $M_{K2 \text{ max}}$ based on the motor power

$$M_{K2 \text{ max}} = \frac{P_M \times 9.55 \times \eta \times F_{start}}{n_2} = \frac{160 \text{ kW} \times 9.55 \times 0.955 \times 1.6}{30 \text{ 1/min}} = 77.8 \text{ kNm}$$

The peak output torque $M_{K2 \text{ max}}$ must not exceed the permitted peak output torque $M_{K2 \text{ zul}}$.

$$M_{K2 \text{ max}} \leq M_{K2 \text{ zul}}$$

$$77.8 \text{ kNm} \leq 130 \text{ kNm}$$

→ This means you can use the selected gear unit size.



Step 8: Checking the thermal rating and selecting the gear unit cooling

$$P_T = P_{TH} \times f_1 = 103 \text{ kW} \times 0.95 = 98 \text{ kW}$$

$$f_1 = 0.95 \rightarrow H = 1200 \text{ m}$$

P_T = Thermal rating [kW]
 P_{TH} = Nominal thermal rating [kW]
 f_1 = Altitude factor

The operating power P_{K1} must not exceed the thermal rating P_T ($P_{K1} \leq P_T$). Additional cooling is required if $P_{K1} > P_T$

$$141.4 \text{ kW} > 100 \text{ kW}$$

→ Thermal rating not sufficient at 40 °C without additional cooling

With fan:

$$P_T = P_{TH} \times f_1 = 213 \text{ kW} \times 0.95 = 202.4 \text{ kW}$$

$$141.4 \text{ kW} < 202.4 \text{ kW}$$

→ Thermal rating sufficient at 40 °C with a fan

Step 9: Checking the external additional forces

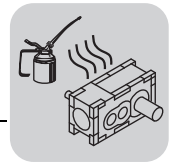
There are no external additional forces.

Step 10: Selecting the optional equipment

- Oil drain valve

Step 11: Summary of all the technical information

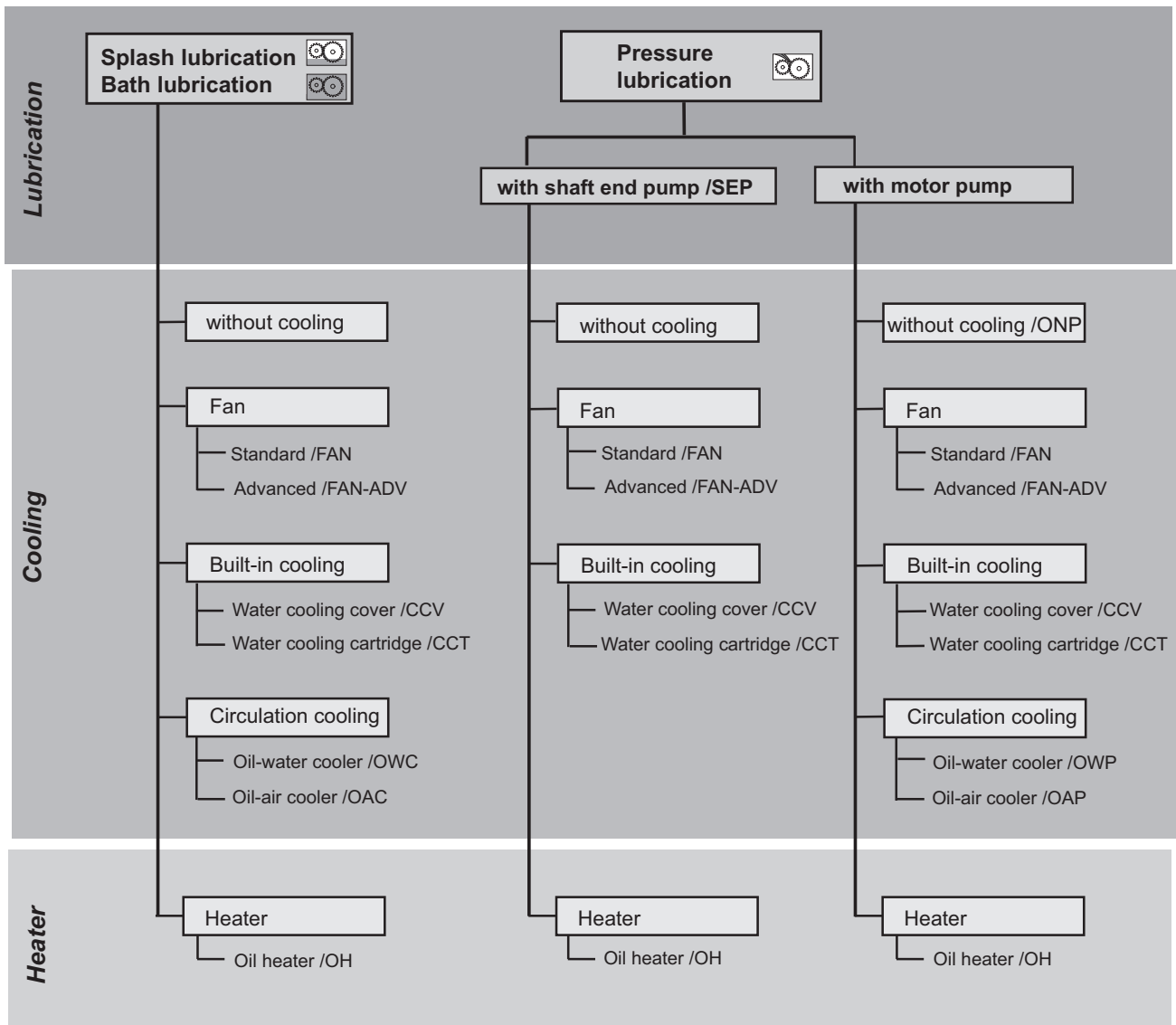
- Gear unit type: X3KSB190/B
- Gear ratio $i_{ex} = 48.85$
- Nominal gear unit torque $M_{N2} = 65 \text{ kNm}$
- Motor: $P_M = 160 \text{ kW}$
- Oil drain valve
- Fan on the input shaft
- Auxiliary drive KF97DV132ML4/Z
 $n_3 = 1.7 \text{ rpm}$, $M_{K3} = 48.3 \text{ kNm}$



5 Lubrication, Cooling and Heating

5.1 Overview of the lubrication and cooling types

The following combinations of lubrication and cooling types are possible.



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5.2 Terms

5.2.1 Types of lubrication

A basic concept for the type of lubrication has been specified for each SEW-EURODRIVE gear unit. Fundamentally, a combination of types is possible:

Splash lubrication

The oil level is low; gearing and bearing parts that are not immersed in the oil bath are lubricated by splashing oil. Standard lubrication type for horizontal mounting positions (M1 or M3).

Bath lubrication

The gear unit is (almost) completely filled with oil; all gearing and bearing positions are submerged in the oil bath either completely or partly.

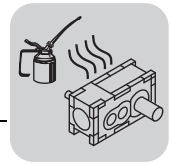
- Standard lubrication type with oil expansion tank for:
 - Pivoted mounting positions for horizontal gear units beyond a certain inclination angle (depending on type of gear unit, version and size)
 - Vertical gear units (mounting position M5)
 - Upright mounting position (M4) with X.K gear units
- Standard lubrication type without oil expansion tank for:
 - Upright mounting position (M4) with X.F gear units

Pressure lubrication

With pressure lubrication, the oil level is low. Gearing and bearing parts that are not immersed in the oil sump are lubricated by oil using a shaft end pump or motor pump through lubrication lines.

Pressure lubrication is used when:

- Splash lubrication is not possible (see the relevant mounting positions and variants under "Bath lubrication")
- Instead of bath lubrication if it is not desired and/or is not thermally advantageous (see the relevant mounting positions and variants)
- Drywell sealing system is desired (only vertical LSS downwards)
- High input speeds are present and the speed limit for other types of lubrication is exceeded (dependant on the gear unit size, version, and number of stages)



5.2.2 Cooling types

The following types of cooling are differentiated for the gear units:

Natural cooling

The gear unit is cooled by natural convection.

Fan cooling

A fan is installed on the gear unit input shaft. Its airflow improves the transmission of heat from the gear unit surface to the environment.

5.2.3 Oil heater

An oil heater pre-heats the gear unit oil using heating elements in the gear unit oil bath. Oil heating may be required to ensure lubrication at startup when the ambient temperature is low.



5.3 Lubricant selection / lubricant table



INFORMATION

The oil viscosity and type (mineral/synthetic) to be used are determined by SEW-EURODRIVE specifically for each order. This information is noted in the order confirmation and on the gear unit's nameplate. Any deviation from these conditions requires consultation with SEW-EURODRIVE.

5.3.1 General information on selecting the oil

Unless a special arrangement is made, SEW-EURODRIVE delivers the drives without oil fill. This does not apply to auxiliary drives and primary gear units.



INFORMATION

This means the gear unit must be filled with the correct oil grade and quantity before startup. You find the corresponding information on the nameplate of the gear unit.

The following tables provide an overview of mineral and synthetic oils.



Lubrication, Cooling and Heating

Lubricant selection / lubricant table

Mineral oil

Standards

Lubrication oils are divided into ISO VG viscosity classes according to ISO 3448 and DIN 51519.

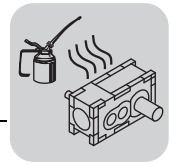
ISO Class	ISO 6743-6 Designation	DIN 51517-3 Designation	AGMA 9005-D94 Designation
150	ISO-L-CKC 150	DIN 51517-CLP 150	AGMA 4 EP
220	ISO-L-CKC 220	DIN 51517-CLP 220	AGMA 5 EP
320	ISO-L-CKC 320	DIN 51517-CLP 320	AGMA 6 EP
460	ISO-L-CKC 460	DIN 51517-CLP 460	AGMA 7 EP
680	ISO-L-CKC 680	DIN 51517-CLP 680	AGMA 8 EP

Synthetic oil

Standards

Lubrication oils are divided into ISO VG viscosity classes according to ISO 3448 and DIN 51519.

ISO Class	ISO 6743-6 Designation	DIN 51519 Designation	AGMA 9005-D94 Designation
150	ISO-L-CKT 150	CLP HC 150	AGMA 4 EP
220	ISO-L-CKT 220	CLP HC 220	AGMA 5 EP
320	ISO-L-CKT 320	CLP HC 320	AGMA 6 EP
460	ISO-L-CKT 460	CLP HC 460	AGMA 7 EP
680	ISO-L-CKT 680	CLP HC 680	AGMA 8 EP



In addition to the required viscosity, the oil must fulfill the following criteria:

- CLP oils according to DIN 51517-3
- Micro-pitting test according to FVA, FV Nr.54/ I-IV, GFT class high, damage force level >10

If synthetic oil is used, SEW-EURODRIVE recommends polyalphaolefin-based oil (CLP HC).



INFORMATION

Observe the operating temperature of the gear unit when specifying the oil change intervals.

If required, a cooling system must be used or the oil change interval must be shortened (see "Lubricant Change Intervals" in the "Helical and Bevel-Helical X.. Series Gear Units operating instructions").



5.3.2 Permitted lubricants



INFORMATION

- The standard for viscosity and oil grade is the type of oil that is specified by SEW-EURODRIVE in the order (see order confirmation and nameplate).
- Consult SEW-EURODRIVE if you use bio and food grade lubricants or polyglycol oils.
- Check the compatibility of the greases and oils used.

Information to the lubricant table

The lubricant table shows the permitted lubricants for SEW-EURODRIVE industrial gear units. This information is provided to preselect the lubricant. The proper and final lubricant selection is made by SEW-EURODRIVE to match the specific project. Consider the used abbreviations, meaning of shading and notes.

CLP	= Mineral oil
CLP HC	= Synthetic polyalphaolefin
E	= Ester oil (water hazard classification 1)
	= Mineral lubricant
	= Synthetic lubricant

3) = Lubricants may only be used if service factor $F_s \geq 1.3$

4) = Take into account critical startup behavior at low ambient temperatures

6) = Ambient temperature



= Lubricant for the food industry (food grade oil)



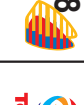
= Biodegradable oil (lubricant for agriculture, forestry, and water management)



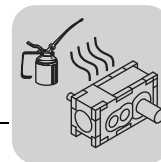
Lubrication, Cooling and Heating

Lubricant selection / lubricant table

5.3.3 Lubricant table

6) °C -50 0 +50 +100														
-10	CLP CC	ISO, NLGI	Mobilgear 600XP 320	Shell Omala F 320	BP Energol GR-XP-320	Kluberoil GEM 1-320 N	Meropa 320	Alpha SP 320 Tribol 1100/320	Optigear BM 320	Renolin CLP 320 Plus Renolin High Gear 320	Goya NT 320	Carter EP 320		
-20	CLP CC	ISO, NLGI	Mobilgear 600XP 150		BP Energol GR-XP-150	Kluberoil GEM 1-150 N	Meropa 150	Alpha SP 150 Tribol 1100/150	Optigear BM 150	Renolin CLP 150 Plus Renolin High Gear 150	Goya NT 150			
-15	CLPCC	ISO, NLGI	Mobilgear 600XP 220	Shell Omala F 220	BP Energol GR-XP-220	Kluberoil GEM 1-220 N	Meropa 220	Alpha SP 220 Tribol 1100/220	Optigear BM 220	Renolin CLP 220 Plus Renolin High Gear 220	Goya NT 220	Carter EP 220		
-5	CLP CC	ISO, NLGI	Mobilgear 600XP 460	Shell Omala F 460	BP Energol GR-XP-460	Kluberoil GEM 1-460 N	Meropa 460	Alpha SP 460 Tribol 1100/460	Optigear BM 460	Renolin CLP 460 Plus Renolin High Gear 460	Goya NT 460	Carter EP 460		
0	CLP CC	ISO, NLGI	Mobilgear 600XP 680		BP Energol GR-XP-680	Kluberoil GEM 1-680 N	Meropa 680	Alpha SP 680 Tribol 1100/680	Optigear BM 680	Renolin CLP 680 Plus Renolin High Gear 680	Goya NT 680	Carter EP 680		
+5	CLP CC	ISO, NLGI						Tribol 1100/1000						
-25	CLP HC	ISO, NLGI	Mobil SHC Gear 320 Mobil SHC 632	Shell Omala S4 GX 320	BP Energol EP-XF-320	Klubersynth GEM 4-320 N	Pinnacle EP 320	Alphasyn EP 320	Optigear Synthetic X 320	Reolin Unsyn CLP 320 Renolin High Gear Synth 320	Ei Greco 320	Carter SH 320		
-35	CLP HC	ISO, NLGI	Mobil SHC Gear 150 Mobil SHC 629	Shell Omala S4 GX 150	BP Energol EP-XF-150	Klubersynth GEM 4-150 N	Pinnacle EP 150	Alphasyn EP 150	Optigear Synthetic X 150	Reolin Unsyn CLP 150	Ei Greco 150	Carter SH 150		
-30	CLP HC	ISO, NLGI	Mobil SHC Gear 220 Mobil SHC 630	Shell Omala S4 GX 220	BP Energol EP-XF-220	Klubersynth GEM 4-220 N	Pinnacle EP 220	Alphasyn EP 220	Optigear Synthetic X 220	Reolin Unsyn CLP 220 Renolin High Gear Synth 220	Ei Greco 220	Carter SH 220		
-20	CLP HC	ISO, NLGI	Mobil SHC Gear 460 Mobil SHC 634	Shell Omala S4 GX 460	BP Energol EP-XF-460	Klubersynth GEM 4-460 N	Pinnacle EP 460	Alphasyn EP 460	Optigear Synthetic X 460	Reolin Unsyn CLP 460 Renolin High Gear Synth 460	Ei Greco 460	Carter SH 460		
-10	CLP HC	ISO, NLGI	Mobil SHC Gear 680 Mobil SHC 636	Shell Omala S4 GX 680	BP Energol EP-XF-680	Klubersynth GEM 4-680 N	Pinnacle EP 680		Optigear Synthetic X 680	Reolin Unsyn CLP 680	Ei Greco 680	Carter SH 680		
0	CLP HC	ISO, NLGI	Mobil SHC Gear 1000 Mobil SHC 639			Klubersynth GEM 4-1000 N								
-10	CLP HC NSF H1	ISO, NLGI				Kluberoil 4UH1-460 N			Optileb GT 460	Cassida Fluid GL 460				
-20	CLP HC NSF H1	ISO, NLGI				Kluberoil 4UH1-220 N			Optileb GT 220	Cassida Fluid GL 220				
-40	CLP HC NSF H1	ISO, NLGI				Kluberoil 4UH1-68 N			Optileb HT 68	Cassida Fluid GL 68				
-20	CLP HC NSF H1	ISO, NLGI				Kluberoil 4UH1-68 N								

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5.3.4 Lubricant fill quantities for mounting position M1 / mounting surface F1

The specified fill quantities are **guide values**.

The required oil level depends on the mark on the oil sight glass, oil level glass and/or the oil dipstick.

Size X3K..	Oil quantity [l]
100	14
110	15
120	21
130	23
140	33
150	34
160	60
170	60
180	75
190	75
200	100
210	100
220	130
230	130
240	170
250	170
260	255
270	255
280	325



INFORMATION



For oil fill quantities of auxiliary drives, refer to the catalog "Gear Unit Types R..7, F..7, K..7, S..7" document number: 16997611.



Lubrication, Cooling and Heating

Lubricant selection / lubricant table

5.3.5 Sealing grease

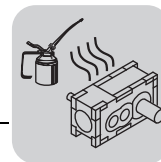
The table shows the grease types recommended by SEW-EURODRIVE for operating temperatures from -20 °C to 100 °C.

Manufacturer	Grease
ARAL	ARALUB HLP 2
BP	Energrease LS-EPS
Castrol	Spheerol EPL2
Fuchs	Renolit CX TOM 15 OEM
Klüber	Centoplex EP2
Kuwait	Q8 Rembrandt EP2
Mobile	Mobilux EP 2
Shell	Alvania EP2
Texaco	Mulifak EP 2
Total	Multis EP 2
 Castrol	Obeen FS2
 Fuchs	Plantogel 2S



INFORMATION

If the lubricant used is not listed in the above table, you have to make sure that it is suitable for the intended application.

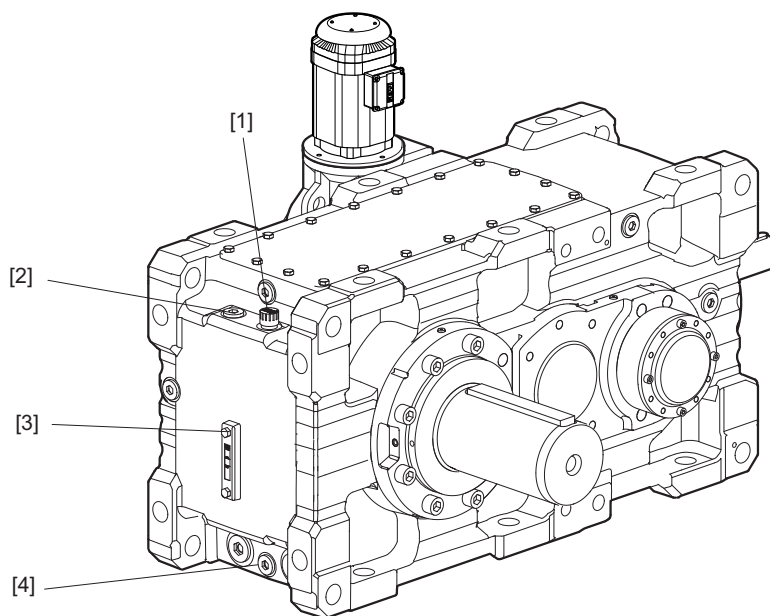


5.4 Accessories



INFORMATION

The position of accessories might vary depending on the gear unit type and size. See pages page 153 and subsequent for detailed information.



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- [1] Gear unit breather
- [2] Oil dipstick (optional)
- [3] Oil level glass
- [4] Oil drain



Visual oil level check

The following types are available as standard for gear units in **M1** mounting position with splash lubrication:

- Oil dipstick for gear unit sizes X.100 to X.170 (see page 153)
- Oil level glass for gear unit sizes X.180 to X.280 (see page 155)

For other mounting positions and types of lubrication, the gear unit is equipped with an oil dipstick as standard.

Gear unit venting

The purpose of a gear unit breather is to prevent that non-permitted pressure occurs from heating during operation. The gear units are equipped with a high-quality breather filter with a filter mesh of 2 µm as standard.

Oil drain

The gear unit is equipped with an oil drain plug as standard. An oil drain valve can be provided as option (see page 154). This valve allows for a drain pipe to be easily attached when changing the gear unit oil.



5.5 Cooling

If the thermal rating of the gear unit is insufficient, it can be operated with a fan on the input shaft (direction-independent) or with an oil-air cooler. For gear units with fans on the input shaft, make sure that there is enough space in the axial and radial directions to allow for a sufficient supply of cooling air.

Please contact SEW-EURODRIVE for information on additional cooling options.

5.5.1 Fan /FAN

Fans with optimized noise and flow engineering geometry are used.

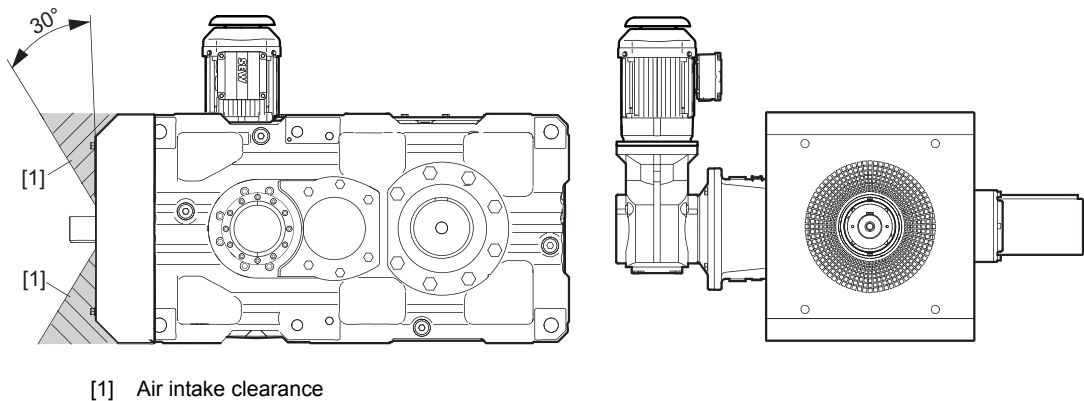
A fan may be retrofitted to raise the thermal rating or when the ambient conditions change after gear unit startup.

INFORMATION



For information on dimensions, position and air intake clearance for the fan, refer to page 145 and subsequent pages.

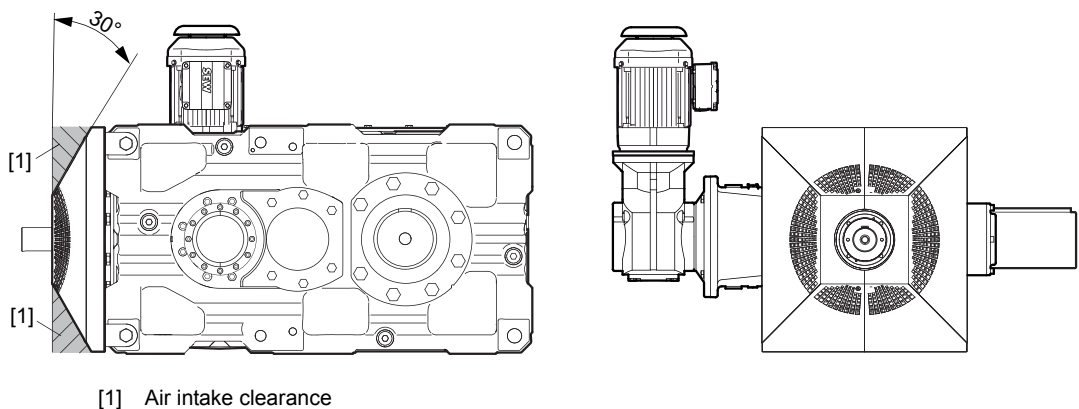
X.K.. Fan (standard) /FAN



X.K.. Fan Advanced (option) /FAN-ADV

When the type X3K.. Advanced is used, the connection element (e.g. hydraulic centrifugal coupling) can be mounted flush to the fan guard.

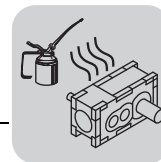
The air intake clearance is integrated into the fan guard.



INFORMATION



The X3K.. Advanced fan cannot be used together with a torque arm because the fan guard is mounted to the attachment point of the torque arm.



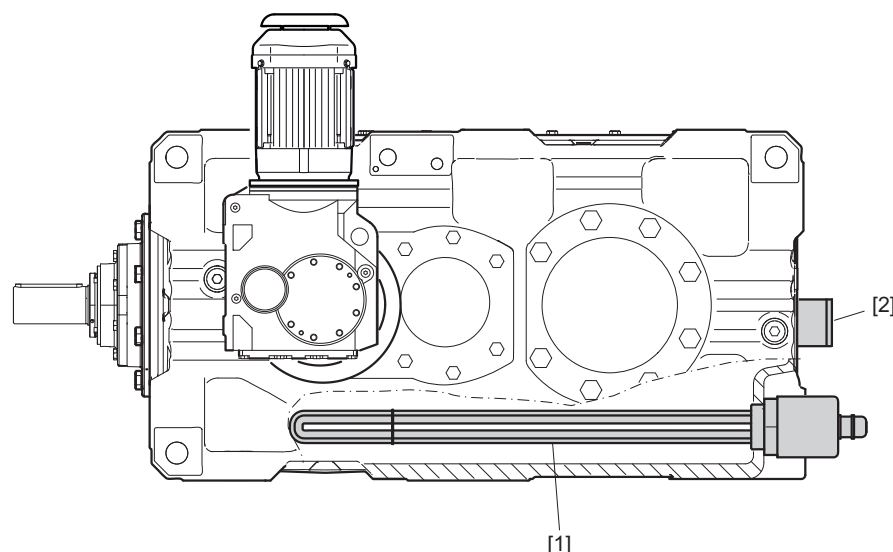
5.6 Oil heater /OH

An oil heater is required to ensure lubrication at cold startup.

5.6.1 Structure

The oil heater consists of two basic parts:

1. Resistor element in the oil sump ("Oil heater") with terminal box
2. Temperature sensor with thermostat



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[1] Oil heater

[2] Temperature sensor with thermostat



INFORMATION

- It is essential that the heating elements are fully immersed in the oil sump to prevent any damage.
- The position of the thermostat and the temperature sensor varies with design and mounting position of the gear unit.
- Not all combinations of accessory options might be possible depending on the mounting position and mounting surface. Please contact SEW-EURODRIVE.

5.6.2 Notes regarding the function of the oil heater

- The trip point of thermostats (see table on subsequent pages: "The trip point of the oil heater thermostat is factory-set to a temperature of about 5 K above the respective limit temperature "initial temperature for gear unit startup", see chapter "Limit temperature for gear unit startup").

At this temperature (see table on subsequent pages: Minimum permitted initial temperatures for gear unit start), the thermostat switched off the oil heater. Only then, the gear unit may be started up. The thermostat activates the oil heater again once the temperatures is about 5 K below the trip point.



Lubrication, Cooling and Heating

Oil heater /OH

- Thermostat and oil heater are installed on the gear unit and are ready for operation, but they must be wired properly and connected to the external power supply before startup.
- Contact SEW-EURODRIVE if another oil viscosity class is used or if ambient temperatures fall below the specified limit temperature.

5.6.3 Connection power

The table below shows the power of the heating that may be installed.

Size	P_{inst}			
	1 heating element		2 heating elements	
	[kW]	[K/h]	[kW]	[K/h]
X100	1 x 0.6	7	2 x 0.6	13
X110	1 x 0.6	6	-	-
X120	1 x 0.7	6	2 x 0.7	11
X130	1 x 0.7	5	-	-
X140	1 x 0.8	5	2 x 0.8	10
X150	1 x 0.9	5	-	-
X160	1 x 1.1	4	2 x 1.1	8
X170	1 x 1.1	4	-	-
X180	1 x 1.6	5	2 x UCS63B	10
X190	1 x 1.6	5	-	-
X200	1 x 1.8	4	2 x 1.8	8
X210	1 x 1.8	4	-	-
X220	1 x 2.2	4	2 x 2.2	8
X230	1 x 2.2	4	-	-
X240	1 x 2.2	3	2 x 2.2	6
X250	1 x 2.6	3	-	-
X260	1 x 3.8	4	2 x 3.8	8
X270	1 x 3.8	4	-	-
X280	1 x 4.2	4	-	-

K/h = Heating power [Kelvin/hour]

P_{inst} = Power of the installed heater

5.6.4 Limit temperature for gear unit startup

The minimum permitted ambient temperature for gear unit startup depends on the viscosity of the oil used and of the lubrication type of the gear unit.

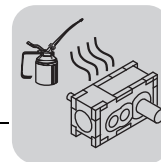
INFORMATION



- Before startup, the oil must be heated up to the temperature specified under "without heater" (see following table).
- The following tables show the limit temperatures (minimum ambient temperatures) for gear unit startup without and with oil heater.

The tables apply to gear units with splash lubrication.

For gear unit variants with mounting positions and types of lubrication not mentioned here, please contact SEW-EURODRIVE.



Mineral oil

Factory-set thermostat settings

Type of lubrication	Lubricants		
	ISO VG320	ISO VG220	ISO VG150
	Temperatures set on the thermostat at the factory		
Splash lubrication	-7 °C	-11 °C	-16 °C

Minimum permitted initial temperatures for gear unit startup:

Type of lubrication	Variant	ISO VG320	ISO VG220	ISO VG150
Splash lubrication	Without heater (minimum permitted ambient/oil bath temperature)	-12 °C	-16 °C	-21 °C
	With heater (1 heating element) (minimum permitted ambient temperature)	-26 °C	-30 °C	-35 °C
	With heater (2 heating elements) (minimum permitted ambient temperature)	-40 °C	-40 °C	-40 °C



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Synthetic oil

Factory-set thermostat settings

Type of lubrication	Lubricants		
	ISO VG320	ISO VG220	ISO VG150
	Temperatures set on the thermostat at the factory		
Splash lubrication	-20 °C	-24 °C	-28 °C

Minimum permitted initial temperatures for gear unit startup:

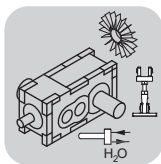
Type of lubrication	Variant	Lubricants		
		ISO VG320	ISO VG220	ISO VG150
Splash lubrication	Initial temperature for gear unit startup (minimum permitted oil bath temperature)	-25 °C	-29 °C	-33 °C
	With heater (1 heating element)¹⁾ (minimum permitted ambient temperature)	-39 °C	-40 °C	-40 °C
	With heater (2 heating elements)¹⁾ (minimum permitted ambient temperature)	-40 °C	-40 °C	-40 °C

1) Gear units with 1 or 2 heating elements can be heated to the initial temperature at minimum permitted ambient temperature and after a sufficient heating period.



INFORMATION

The temperatures specified refer to the average values of the permitted lubricants based on the lubricant table (see chapter 5.3). In borderline cases, the permitted temperature of the lubricant that is actually being used must be verified. When planning the motor, observe the increased starting torque at low temperatures. It may be necessary to contact SEW-EURODRIVE.

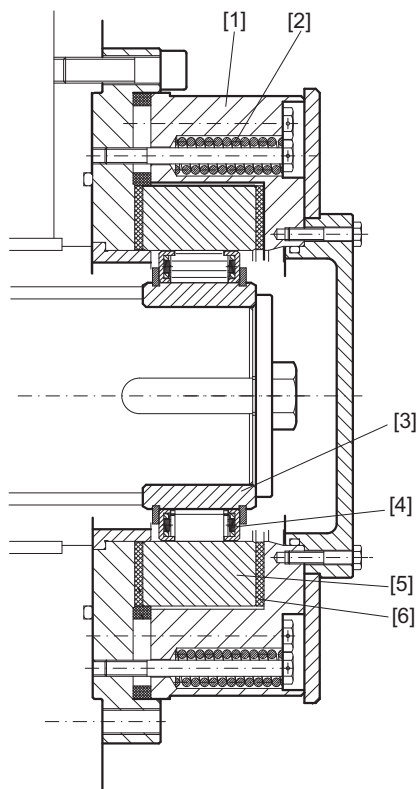


6 Options and accessories

6.1 Torque-limited backstop

Torque-limiting backstops are used in dual drives where both drives are equipped with a backstop.

The torque limitation prevents the restoring torque from being unevenly distributed to the individual backstops. Dynamic torque peaks are also reduced during the blocking phase.



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- | | |
|-------------------------|---------------------|
| [1] Housing | [4] Freewheel cage |
| [2] Compression springs | [5] Outer ring |
| [3] Inner ring | [6] Friction lining |

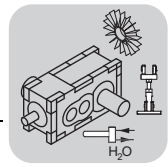
As with a backstop without torque control, the locking torque is transmitted to the outer ring via sprags.

However, for a torque-controlled backstop, the outer ring [5] is not securely bolted on the gear unit housing. It is held between two friction linings [6]. The friction linings are loaded via a housing [1] with screws and compression springs [2].

INFORMATION



The slip torque is factory-set. Changing the slip torque is not permitted.

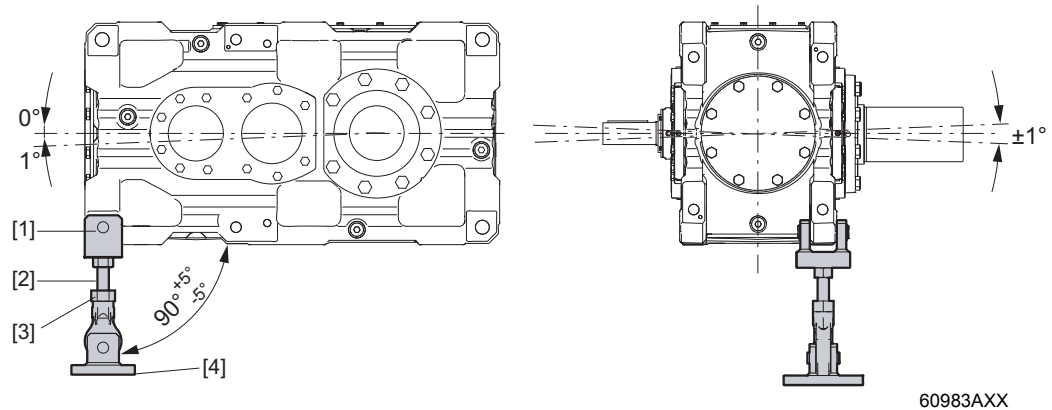


6.2 Torque arm /T

A torque arm is available as option for shaft-mounted gear units to support the reaction torque (for dimensions, see page 149). The torque arm can bear tensile stress as well as thrust loads.

The length of the torque arm can be adjusted within a certain range.

The torque arm consists of a yoke with bolt [1], a threaded bolt [2], a maintenance-free joint head [3], and a yoke plate with bolt [4]. The design using the joint head allows for compensating assembly tolerances and operational displacements. Constraining forces on the output shaft are avoided in this way.



[1] Yoke with bolt
[2] Threaded bolt with nut

[3] Joint head
[4] Yoke plate with bolt

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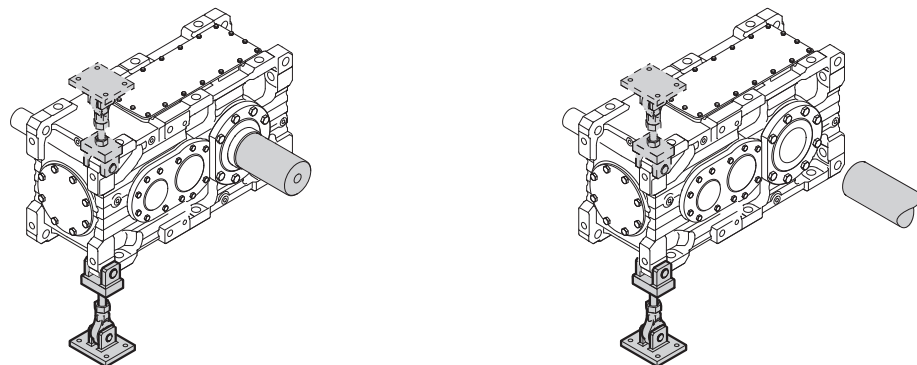


INFORMATION

Do not deform the torque arm during installation. Deformation leads to constraining forces on the output shaft, which may negatively influence the service life of the output shaft bearings.

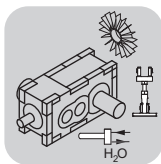
To keep the bending torques on the machine shaft to a minimum, always mount the torque arm on the same side as the machine that is driven.

The torque arm can be mounted on the top or bottom of the gear unit.



INFORMATION

The fan X.K.. cannot be used together with a torque arm because the fan guard is mounted to the attachment point of the torque arm.



Options and accessories

Flange couplings with cylindrical interference fit /FC

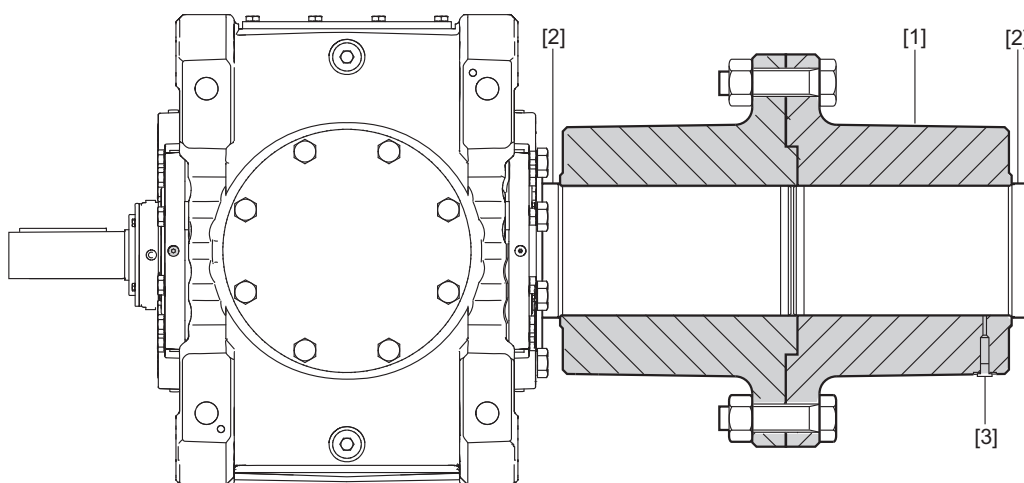
6.3 Flange couplings with cylindrical interference fit /FC

Flange couplings [1] are rigid couplings for connecting two shafts [2].

They are suitable for operation in both directions of rotation, but cannot compensate any shaft misalignments.

Torque between shaft and coupling is transmitted via a cylindrical interference fit.

The two coupling halves are mounted together at their flanges. The couplings are equipped with several disassembly bores [3] for removing the interference fit hydraulically.

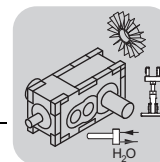


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INFORMATION

Additional information on the flange coupling and dimensioning of the machine shaft, refer to the X Series Helical and Bevel-Helical Gear Units catalog. Document number: 17058813.



6.4 Drive packages on steel frame

For gear units in a horizontal mounting position, complete preassembled drive packages on a steel frame (swing base or base plate) are available from SEW-EURODRIVE.

INFORMATION



For dimension of sizes 100 to 250, refer to the dimension sheets from page 156. More sizes are available from SEW-EURODRIVE on request.

6.4.1 Swing base /SB

A swing base is a steel frame [1] that accommodates the gear unit, (hydro) coupling and motor (and brake, if required), including a protection device, such as a guard. A swing base is normally used for:

- Hollow shaft gear units or
- Solid shaft gear units with flange coupling on the output shaft

The steel frame [1] is supported by a torque arm [2].

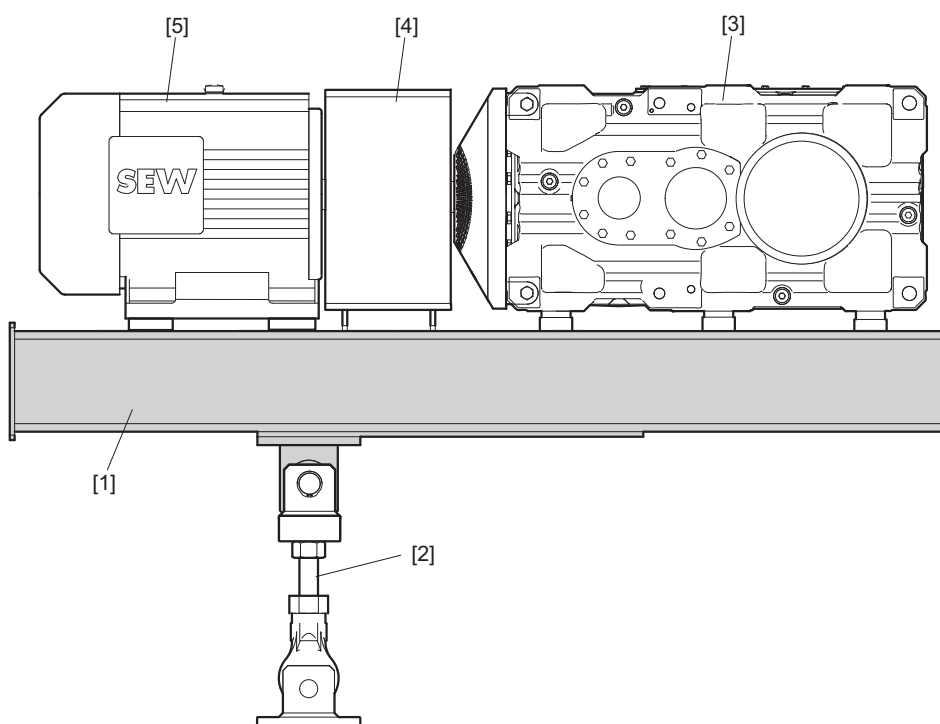
INFORMATION



Observe

- that the system frame is sufficiently dimensioned to absorb the torque
- the swing base is not deformed during installation (hazard of damage to gear unit and coupling)

Example: Swing base with coupling



60797AXX

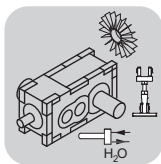
[1] Swing base

[2] Torque arm (optional)

[3] Bevel-helical gear unit

[4] Coupling with protection cover

[5] Motor



Options and accessories

Drive packages on steel frame

6.4.2 Base frame /BF

A base frame is a steel frame [1] that accommodates the gear unit, coupling and motor (and brake, if required), including a protection device, such as a guard. The steel frame is supported by several foot mountings [2]. Such a frame is usually used for solid shaft gear units with elastic coupling on the output shaft.

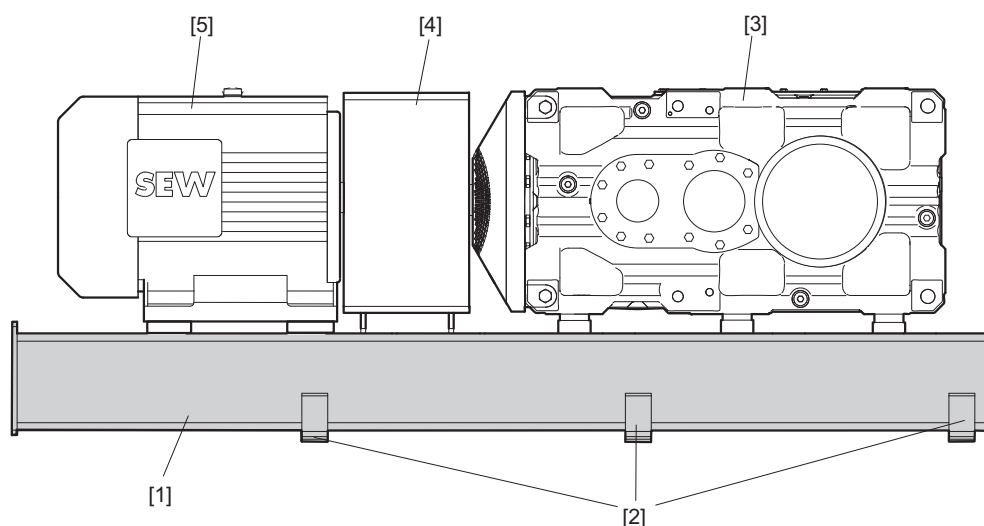


INFORMATION

It is important

- that the support structure of the foot mounting is adequately dimensioned and rigid.
- the base frame is not deformed during installation (hazard of damage to gear unit and coupling).

Example: Base frame with coupling



60798AXX

- [1] Base frame
- [2] Foot mounting
- [3] Bevel-helical gear unit
- [4] Coupling with protection cover
- [5] Motor



7 Condition Monitoring

INFORMATION



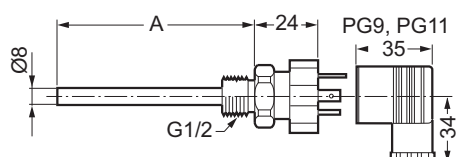
The electrical wiring of the following condition monitoring devices is **not** included in the scope of delivery.

7.1 Temperature sensor /PT100

The temperature sensor PT100 can be used to measure the temperature of the oil in the gear unit.

The temperature sensor is located in the gear unit's oil sump. The exact position depends on the gear unit version and position of the shaft.

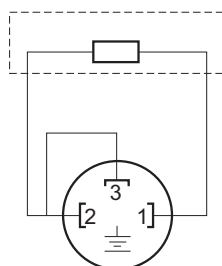
Dimensions



68455AXX

Sizes	A [mm]
X.100 - X.170	50
X.180 - X.280	150

Electrical connection



50534AXX

[1] / [2] Resistor element connection

Technical data

- Design with thermometer pocket and changeable measuring insert
- Sensor tolerance [K] $\pm (0.3 + 0.005 \times T)$, (corresponds to DIN IEC 751 class B),
T = Oil temperature [°C]
- Plug connector DIN 43650 PG9 (IP65)
- The tightening torque for the retaining screw in the back of the plug connector for electrical connection is 0.25 Nm.



7.2 Temperature switch /NTB

A temperature switch with preset switching temperatures of 70, 80, 90 or 100 °C is used for monitoring the gear unit oil temperature.

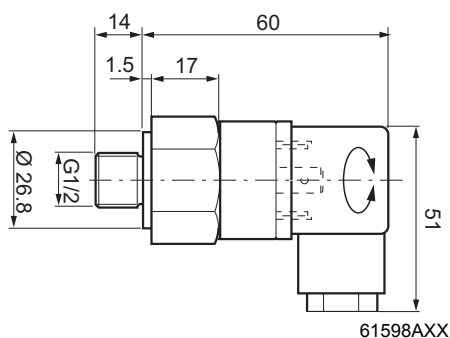
The temperature switch is also used as limit value switch for various functions, such as

- a pre-alarm
- or
- a main alarm for switching off the main motor.

To guarantee a long service life and functioning under all conditions, it is recommended to use a relay in the power circuit instead of a direct connection through the temperature switch.

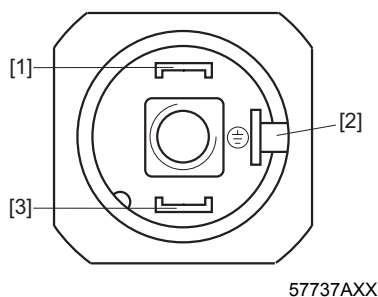
The temperature switch is located in the gear unit's oil sump. The exact position depends on the gear unit version and position of the shaft.

Dimensions



[1] Cable clamp

Electrical connection



[1] and [3] NC contact (without vacuum)

[2] Grounding terminal 6.3 x 0.8

Technical data

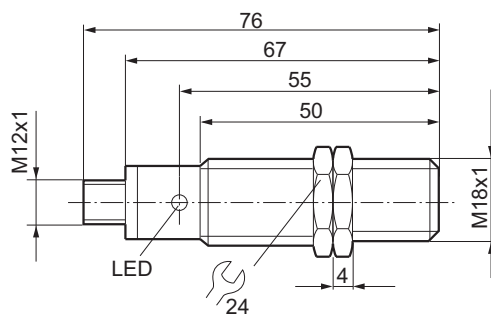
- Switching accuracy ± 5 °K
- Maximum switching capacity 1 A - AC 240 V
- Plug connector DIN 43650 PG9 (IP65)
- The tightening torque for the retaining screw in the back of the plug connector for electrical connection is 0.25 Nm.



7.3 Inductive encoder

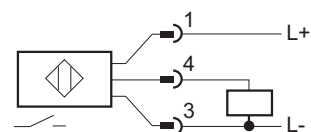
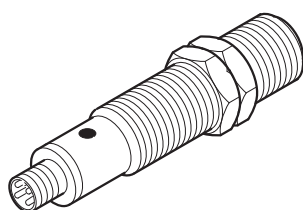
The speed of the overrunning clutch is monitored using an inductive encoder.

7.3.1 Dimensions



63042AXX

7.3.2 Electrical connection



63043AXX

7.3.3 Technical data

- Electrical design DC PNP (N.O. contact)
- Operating voltage DC 10 - 36 V
- Maximum current carrying capacity 250 mA
- Working distance 0 - 4 mm
- Degree of protection IP67
- Connection via three-core cable with a cable cross section of 1.5 mm², maximum cable length of 500 m

INFORMATION



The connecting lead and the M12 plug connector are not included in the scope of delivery

Make sure that the signal line is installed separately (not in multi-core cables): Shield it, if necessary.



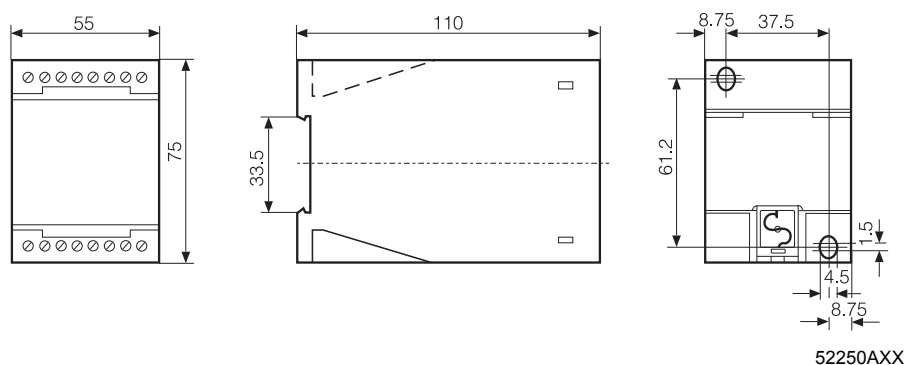
Condition Monitoring

Speed monitor

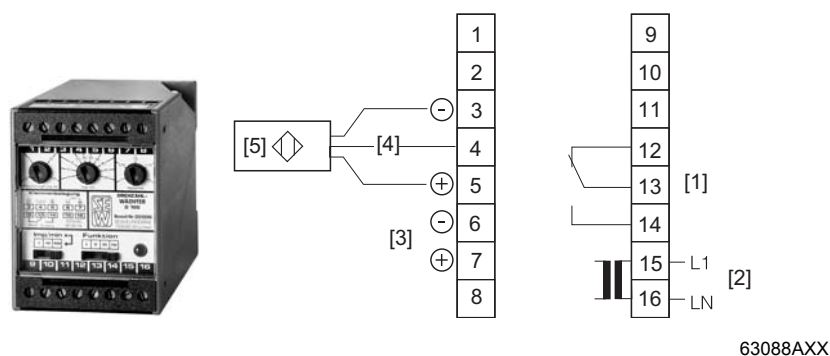
7.4 Speed monitor

A speed monitor is available for evaluating the signals of the inductive encoder.

7.4.1 Dimensions



7.4.2 Electrical connection



- [1] Relay output
 [2] Supply voltage AC 230 V (47...63 Hz)
 [4] Supply voltage DC 24 V

- [4] Signal
 [5] Encoder

7.4.3 Technical data

- Operating voltage AC 230 V (50 ... 60 Hz) $\pm 10\%$ / DC 24 V $\pm 10\%$
- Maximum switching capacity 8 A - 250 V_{AC}
- Auxiliary power for sensors DC 24 V (max. 30 mA)
- Maximum input frequency 250 Hz
- Degree of protection of housing IP40 / terminals IP20



7.5 Diagnostic unit DUO10A (oil aging)

The DUO10A diagnostic unit was developed for advance planning of oil changes.

The diagnostic unit consists of a PT100 temperature sensor and an evaluation unit. The temperature sensor installed in the gear unit measures the present gear unit oil temperature. The diagnostic unit calculates the estimated remaining service life for the gear unit oil based on the measured oil temperature. This calculated value is continuously shown on the evaluation unit's display; when needed, the display can be changed to the current gear unit oil temperature.

The oil types used by SEW are recorded in the evaluation unit, wherein a type of oil approved by SEW-EURODRIVE can be customized.

Oil grades:

Oil grade	Designation	Temperature limit
Mineral oil CLP/ Bio oil	OIL1	100 °C
Synthetic oil CLPHC/CLPPAO	OIL2	130 °C
Polyglycol oil CLPPG	OIL3	130 °C
Food grade oil	OIL4	100 °C
Customer-specific	OIL5	Default setting = OIL1

Four switching outputs (NC/NO) with the following functions are available to connect the evaluation unit:

- Early warning:
Is set a few days before expiration of the remaining service life. The number of days can be set directly on the evaluation unit.
- Main alarm:
Is set when the estimated remaining service life reaches zero.
- Limit temperature:
Shows when the permitted oil temperature has been exceeded.
- Ready for operation:
Displays errors in the wiring and recognizable faults in the evaluation unit.



INFORMATION

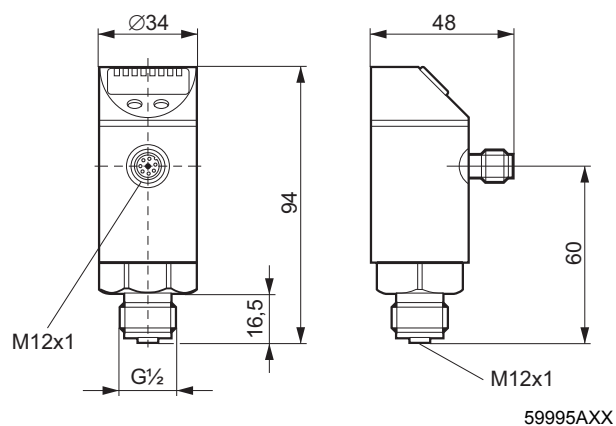
For more information on the evaluation unit and accessories, refer to the "DUO10A Diagnostic Unit" manual, publication no. 11473428.



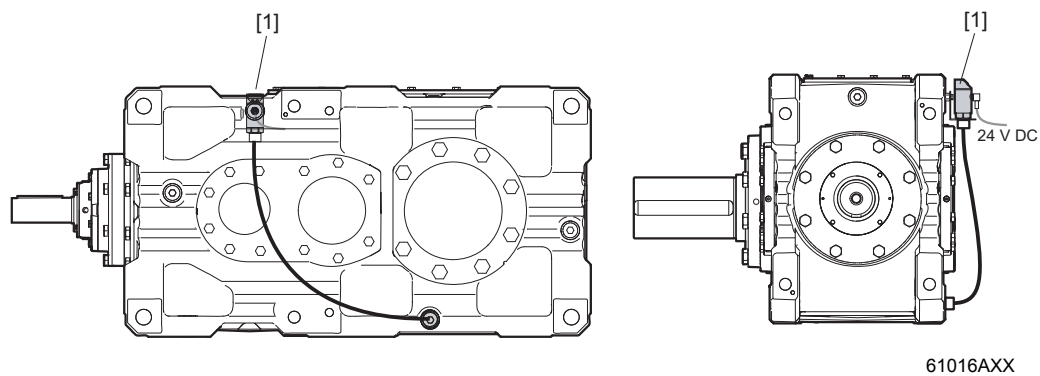
Condition Monitoring

Diagnostic unit DUO10A (oil aging)

Dimensions



Mounting examples



[1] DUO10A diagnostic unit



7.6 DUV10A diagnostic unit (vibration diagnostics)

The DUV30A diagnostic unit provides a vibration analysis value, in which it uses frequency analysis methods to evaluate vibration signals from the gear unit.

A micromechanical acceleration pickup, built into the diagnostic unit, is used as the sensor. The unit allows to monitor up to 5 different objects (bearings, etc.) or individual 20 frequencies (imbalance, gear meshing frequencies, etc.). Further, a frequency-dependent level monitor can be activated for monitoring impacts or vibrations. The objects to be monitored are defined using external software and are transferred to the diagnostic unit via RS-232 interface.

The damage progress is indicated by a series of LEDs on the DUV30A diagnostic unit. Two switching outputs are available for connecting the diagnostic unit.

- Early warning:

The early warning signals that the early warning threshold of one of the objects (bearings, etc.) has been exceeded, in this way warning of a beginning damaging process.

- Main alarm:

The main alarm signals that the main alarm threshold of one of the objects (bearings, etc.) has been exceeded, in this way warning of upcoming damage.

After startup of the drive to be monitored and the diagnostic unit, a comparison measurement ("teach-in") is carried out and stored in the diagnostic unit. During operation, the current measurements and the teach-in values are compared, and a trend analysis is carried out. Changes to this relationship (measured value: teach-in value) indicate the early phase of possible damages.

The maximum operating range is 120 to 10000 rpm or 12 to 3500 rpm (shaft speed) depending per setting at a minimum measuring time of 0.8 or 8 seconds per object. The diagnostic unit can be operated either with constant or variable speed, whereby the actual measurement can only occur during constant speed.

INFORMATION



For more information on the evaluation unit and accessories, refer to the "DUV10A Diagnostic Unit" manual, publication no. 16710010.

INFORMATION



Parameterization of the DUV30A diagnostic unit is not included in the scope of delivery as standard.

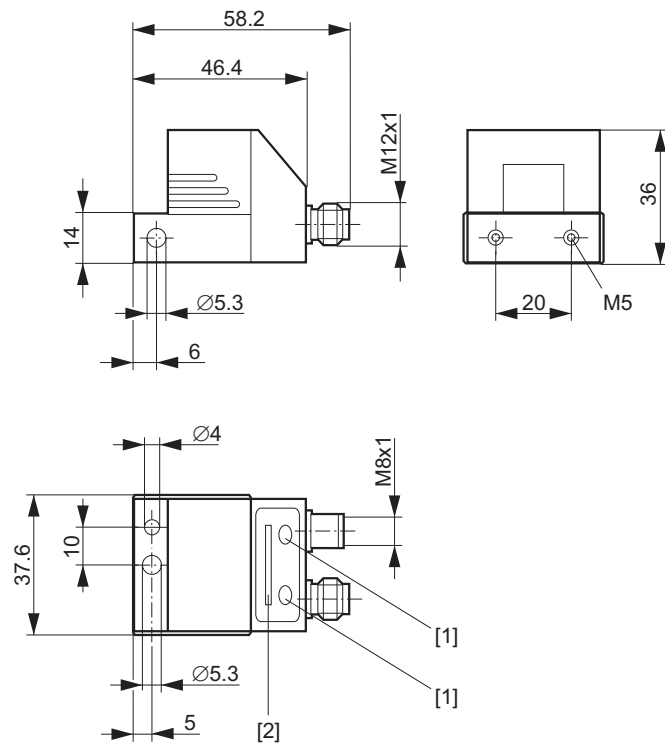




Condition Monitoring

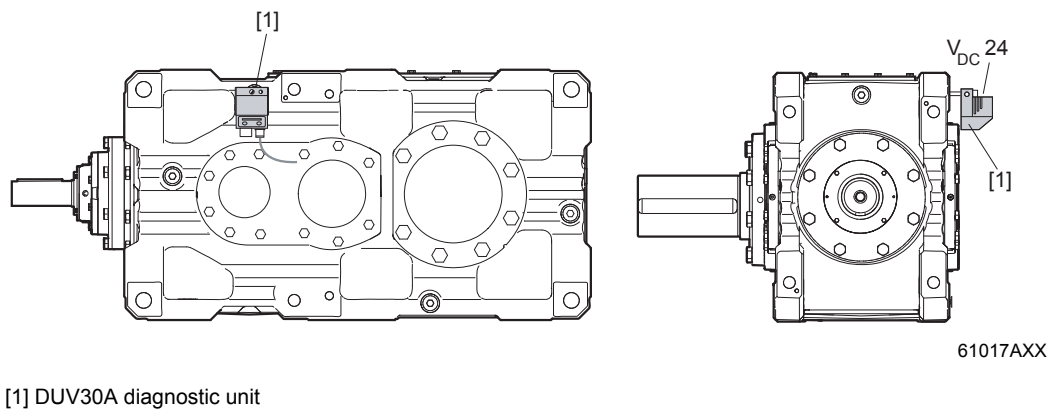
DUV10A diagnostic unit (vibration diagnostics)

Dimensions



58351AXX

Mounting examples



[1] DUV30A diagnostic unit

61017AXX



8 Design and Operating Notes

8.1 General information

Not included in the scope of delivery:

- Set of wrenches
- Torque wrench
- Mounting device
- Compensation elements (shims, spacing rings)
- Fasteners for input and output elements
- Lubricant (e.g. NOCO® fluid from SEW-EURODRIVE) → except for hollow shaft gear units
- For hollow shaft gear units → aids for assembly/disassembly on the machine shaft
- Fastening parts for the gear unit base

8.2 Gear unit mounting

The table shows the thread sizes and tightening torques of the individual gear unit sizes.

Size	Screw/nut	Tightening torque Strength class 8.8 [Nm]
X100-110	M20	410
X120-130	M24	710
X140-150	M30	1420
X160-190	M36	2500
X200-230	M42	4000
X240-280	M48	6000



8.3 Auxiliary drive

All motors have a canopy as the motors are installed vertically by standard.

**8.4 Dimensioning the machine shaft for hollow shaft gear units**

The material of the machine shaft as well as the keyed connection (of version X..A) should be dimensioned by the customer according to the loads that will occur. The shaft material should have a yield point of at least 320 N/mm².

Hollow shaft with key

The key length should have at least the minimum length shown in the dimension sheets. If a longer key is used, it should be aligned symmetrically to the hollow shaft.

With a through-going machine shaft or axial forces, SEW-EURODRIVE recommends that the machine shaft be designed with a contact shoulder. Contact SEW-EURODRIVE in the case of reversing directions of the load.

INFORMATION

For detailed guidelines regarding the design of the machine shaft, refer to the dimension sheets from page 141.

8.5 Dimensioning the machine shaft with flange coupling

The material of the machine shaft as well as the keyed connection (of versions with key) should be dimensioned by the customer according to the loads that will occur. The shaft material should have a yield point of at least 320 N/mm². Choose the dimensions of the machine shaft according to the smooth solid shaft X..R.

INFORMATION

Additional information on the flange coupling and dimensioning of the machine shaft, refer to the X Series Helical and Bevel-Helical Gear Units catalog. Publication number: 17058813.



9 Information on the Dimension Sheets

INFORMATION



Unless specified otherwise, all dimensions are given in **mm**.

9.1 General information

Scope of delivery



= Standard parts supplied by SEW-EURODRIVE.



= Standard parts not supplied by SEW-EURODRIVE.

Oil volume/ weight

The specified fill quantities are guide values. The information on the nameplate is binding.

INFORMATION



The weight data in the selection tables do not include the oil fill.

Options

The option dimension sheets show the options in connection with gear unit X.S.. with a solid shaft. Unless otherwise indicated, all options are also possible for gear units with hollow shafts X.A../X.H..

9.2 Tolerances

Shaft ends

Diameter tolerance in accordance with DIN 748:

Ø = Smooth output shaft /..R → ISO k6

Ø = Output shaft as a solid shaft with key /..S → ISO m6

Center bores according to DIN 332, part 2 (type D..):

Ø > 16...21 mm	→ M6
Ø > 21...24 mm	→ M8
Ø > 24...30 mm	→ M10
Ø > 30...38 mm	→ M12
Ø > 38...50 mm	→ M16
Ø > 50...85 mm	→ M20
Ø > 85...130 mm	→ M24
Ø > 130...225 mm ⁵⁾	→ M30
Ø > 225...320 mm ⁵⁾	→ M36
Ø > 320...500 mm ⁵⁾	→ M42

⁵⁾ Dimensions not according to DIN 332; the thread depth including the counterbore is at least twice that of the nominal thread diameter

Keys according to DIN 6885 (domed type)



Hollow shafts

Diameter tolerance:

- ∅ → ISO H7 for hollow shafts for shrink disks
- ∅ → ISO H8 for hollow shafts with keyway

Mounting flange

Centering shoulder tolerance: ISO f7

9.3 Symbols

The table contains the symbols used in the following illustrations and explains their meaning.

Symbol	Meaning
	Oil fill plug
	Oil drain
	Oil level glass
	Oil dipstick
	Breather plug
	Inspection opening
	Air outlet screw
	Oil supply
	Oil return
	Flat greasing nipple
	Taper greasing nipple



9.4 Information on the selection tables

Detailed selection table example

X.K100..										6.80 kNm				
i _{rated}	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	KF37 i=28.83		KF57 i=35.7		 P _{TH} [kW]					
					 n ₃ [1/min]	M _{K3} [kNm]	 n ₃ [1/min]	M _{K3} [kNm]						
									P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C		
n ₁ = 1000 1/min (50Hz)					[1] DRS80S4 0.8 kW S3 I _N =1.87 A (400V)		[1] DRS90M4/Z 1.6 kW S3 I _N =3.55 A (400V)		[17] IE1					
31.5	30.35	33	6.80	24	2.9	2.57	2.3	6.43	43	32	58	42	122 124	[15] [16]
35.5	34.35	29	6.80	21	3.2	2.29	2.6	5.75	37	28	50	37		
40	38.45	26	6.80	19.2	2.9	2.57	2.3	6.43	39	29	51	38		
45	42.96	23	6.80	17.2	2.6	2.87	2.0	7.19	34	25	45	33		
50	48.08	21	6.80	15.3	2.3	3.21	1.8	8.04	35	26	46	34		
56	52.49	19	6.80	14.2	2.6	2.87	2.0	7.19	31	23	42	31		
63	58.74	17	6.80	12.7	2.3	3.21	1.8	8.04	32	24	43	32		
71	67.2	15	6.80	11.1	2.6	2.87	2.0	7.19	28	20	36	27		
80	75.21	13	6.80	9.9	2.3	3.21	1.8	8.04	28	20	37	27		
[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]		

Key

- [1] Type and technical data of auxiliary drive
- [2] Nominal gear ratio
- [3] Exact gear unit reduction ratio
- [4] Output speed (LSS)
- [5] Nominal gear unit torque
- [6] Nominal gear unit power
- [7] Output speed when operated with auxiliary drive (empty buckets)
- [8] Output torque when operated with auxiliary drive (empty buckets)
- [9] Output speed when operated with auxiliary drive (full buckets)
- [10] Output torque when operated with auxiliary drive (full buckets)
- [11] Thermal limit rating: Without additional cooling at 20 °C ambient temperature
- [12] Thermal limit rating: Without additional cooling at 40 °C ambient temperature
- [13] Thermal limit rating: With fan at 20 °C ambient temperature
- [14] Thermal limit rating: With fan at 40 °C ambient temperature
- [15] Page referenc to the main dimension sheet: Empty buckets
- [16] Page referenc to the main dimension sheet: Empty buckets
- [17] IEC motor standard (see page 15)

Symbol

Empty buckets



Splash lubrication



Page reference

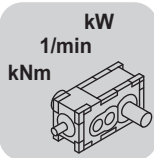
Full buckets



fan

Footnotes in the selection tables

- 1) = Pressure lubrication required; contact SEW-EURODRIVE
- *) = Contact SEW-EURODRIVE



Selection Tables

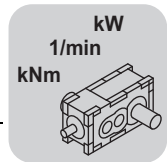
IE1 motor standard

10 Selection Tables

10.1 IE1 motor standard

10.1.1 X3K100

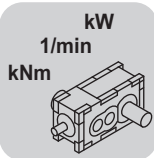
X.K100..										6.80 kNm			
					KF37 i=28.83		KF57 i=35.7		 P _{TH} [kW]				 
													
					i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	
n ₁ = 1000 1/min (50Hz)					DRS80S4 0.8 kW S3 I _N =1.87 A (400V)		DRS90M4/Z 1.6 kW S3 I _N =3.55 A (400V)		IE1				122 124
31.5	30.35	33	6.80	24	2.9	2.57	2.3	6.43	43	32	58	42	
35.5	34.35	29	6.80	21	3.2	2.29	2.6	5.75	37	28	50	37	
40	38.45	26	6.80	19.2	2.9	2.57	2.3	6.43	39	29	51	38	
45	42.96	23	6.80	17.2	2.6	2.87	2.0	7.19	34	25	45	33	
50	48.08	21	6.80	15.3	2.3	3.21	1.8	8.04	35	26	46	34	
56	52.49	19	6.80	14.2	2.6	2.87	2.0	7.19	31	23	42	31	
63	58.74	17	6.80	12.7	2.3	3.21	1.8	8.04	32	24	43	32	
71	67.2	15	6.80	11.1	2.6	2.87	2.0	7.19	28	20	36	27	
80	75.21	13	6.80	9.9	2.3	3.21	1.8	8.04	28	20	37	27	
n ₁ = 1200 1/min (60Hz)					DRS80S4 0.8 kW S3 I _N =1.82 A (460V)		DRS90M4/Z 1.6 kW S3 I _N =3.5 A (460V)		IE1				122 124
31.5	30.35	40	6.80	29	3.5	2.07	2.8	5.19	45	33	67	49	
35.5	34.35	35	6.80	26	4.0	1.85	3.2	4.64	39	28	58	43	
40	38.45	31	6.80	23	3.5	2.07	2.8	5.19	40	29	60	44	
45	42.96	28	6.80	21	3.2	2.31	2.5	5.80	35	26	52	39	
50	48.08	25	6.80	18.4	2.8	2.59	2.3	6.49	36	27	54	40	
56	52.49	23	6.80	17.0	3.2	2.31	2.5	5.80	33	24	49	36	
63	58.74	20	6.80	15.2	2.8	2.59	2.3	6.49	34	25	50	37	
71	67.2	18	6.80	13.3	3.2	2.31	2.5	5.80	29	21	43	32	
80	75.21	16	6.80	11.9	2.8	2.59	2.3	6.49	29	21	43	32	
n ₁ = 1500 1/min (50Hz)					DRS80S4 0.8 kW S3 I _N =1.87 A (400V)		DRS90M4/Z 1.6 kW S3 I _N =3.55 A (400V)		IE1				122 124
31.5	30.35	49	6.80	36	2.9	2.57	2.3	6.43	46	33	81	59	
35.5	34.35	44	6.80	32	3.2	2.29	2.6	5.75	40	29	70	51	
40	38.45	39	6.80	29	2.9	2.57	2.3	6.43	42	30	72	53	
45	42.96	35	6.80	26	2.6	2.87	2.0	7.19	37	26	63	47	
50	48.08	31	6.80	23	2.3	3.21	1.8	8.04	38	27	65	48	
56	52.49	29	6.80	21	2.6	2.87	2.0	7.19	34	25	59	44	
63	58.74	26	6.80	19.0	2.3	3.21	1.8	8.04	35	26	61	45	
71	67.2	22	6.80	16.6	2.6	2.87	2.0	7.19	30	22	52	38	
80	75.21	20	6.80	14.8	2.3	3.21	1.8	8.04	30	22	52	38	
n ₁ = 1800 1/min (60Hz)					DRS80S4 0.8 kW S3 I _N =1.82 A (460V)		DRS90M4/Z 1.6 kW S3 I _N =3.5 A (460V)		IE1				122 124
31.5	30.35	59	6.80	44	3.5	2.07	2.8	5.19	47	33	94	68	
35.5	34.35	52	6.80	39	4.0	1.85	3.2	4.64	41	29	81	60	
40	38.45	47	6.80	35	3.5	2.07	2.8	5.19	43	31	84	62	
45	42.96	42	6.80	31	3.2	2.31	2.5	5.80	37	27	74	54	
50	48.08	37	6.80	28	2.8	2.59	2.3	6.49	39	28	76	56	
56	52.49	34	6.80	26	3.2	2.31	2.5	5.80	35	25	69	51	
63	58.74	31	6.80	23	2.8	2.59	2.3	6.49	36	26	71	52	
71	67.2	27	6.80	20	3.2	2.31	2.5	5.80	31	22	60	44	
80	75.21	24	6.80	17.8	2.8	2.59	2.3	6.49	31	22	61	45	



10.1.2 X3K110

X.K110..										8.50 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	KF37 i=28.83		KF57 i=35.7		 P _{TH} [kW]				
													
n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C						
n ₁ = 1000 1/min (50Hz)					DRS80S4 0.8 kW S3 I _N =1.87 A (400V)		DRS90M4/Z 1.6 kW S3 I _N =3.55 A (400V)		IE1				
28	28.26	35	8.50	33	3.1	2.39	2.4	5.99	51	38	68	50	122 124
31.5	31.21	32	8.50	30	2.8	2.64	2.2	6.61	46	34	61	45	
35.5	34.94	29	8.50	26	2.5	2.95	2.0	7.40	46	33	61	45	
40	39.53	25	8.50	23	2.8	2.64	2.2	6.61	39	29	52	39	
45	44.26	23	8.50	21	2.5	2.95	2.0	7.40	41	30	54	40	
50	49.44	20	8.50	18.6	2.2	3.30	1.8	8.27	37	27	49	37	
56	55.35	18	8.50	16.6	2.0	3.70	1.6	9.26	37	27	49	36	
63	60.4	17	8.50	15.4	2.2	3.30	1.8	8.27	33	25	44	33	
71	67.62	15	8.50	13.8	2.0	3.70	1.6	9.26	34	25	45	34	
80	77.33	13	8.50	12.0	2.2	3.30	1.8	8.27	29	21	38	29	
90	86.58	12	8.50	10.7	2.0	3.70	1.6	9.26	29	22	39	29	
n ₁ = 1200 1/min (60Hz)					DRS80S4 0.8 kW S3 I _N =1.82 A (460V)		DRS90M4/Z 1.6 kW S3 I _N =3.5 A (460V)		IE1				
28	28.26	42	8.50	39	3.8	1.94	3.0	4.83	53	38	79	58	122 124
31.5	31.21	38	8.50	35	3.4	2.14	2.7	5.33	48	35	71	53	
35.5	34.94	34	8.50	32	3.0	2.40	2.5	5.97	47	34	71	52	
40	39.53	30	8.50	28	3.4	2.14	2.7	5.33	41	30	61	45	
45	44.26	27	8.50	25	3.0	2.40	2.5	5.97	42	31	63	47	
50	49.44	24	8.50	22	2.7	2.68	2.2	6.67	39	28	58	43	
56	55.35	22	8.50	20	2.4	3.01	2.0	7.47	38	28	57	42	
63	60.4	20	8.50	18.5	2.7	2.68	2.2	6.67	35	25	51	38	
71	67.62	18	8.50	16.5	2.4	3.01	2.0	7.47	36	26	53	39	
80	77.33	16	8.50	14.4	2.7	2.68	2.2	6.67	30	22	45	33	
90	86.58	14	8.50	12.9	2.4	3.01	2.0	7.47	30	22	45	33	
n ₁ = 1500 1/min (50Hz)					DRS80S4 0.8 kW S3 I _N =1.87 A (400V)		DRS90M4/Z 1.6 kW S3 I _N =3.55 A (400V)		IE1				
28	28.26	53	8.50	49	3.1	2.39	2.4	5.99	55	39	96	70	122 124
31.5	31.21	48	8.50	44	2.8	2.64	2.2	6.61	49	35	86	63	
35.5	34.94	43	8.50	40	2.5	2.95	2.0	7.40	49	35	85	62	
40	39.53	38	8.50	35	2.8	2.64	2.2	6.61	43	31	74	54	
45	44.26	34	8.50	31	2.5	2.95	2.0	7.40	44	32	76	56	
50	49.44	30	8.50	28	2.2	3.30	1.8	8.27	40	29	70	51	
56	55.35	27	8.50	25	2.0	3.70	1.6	9.26	40	29	69	51	
63	60.4	25	8.50	23	2.2	3.30	1.8	8.27	36	26	62	46	
71	67.62	22	8.50	21	2.0	3.70	1.6	9.26	37	27	64	47	
80	77.33	19	8.50	18.0	2.2	3.30	1.8	8.27	32	23	54	40	
90	86.58	17	8.50	16.1	2.0	3.70	1.6	9.26	32	23	55	40	
n ₁ = 1800 1/min (60Hz)					DRS80S4 0.8 kW S3 I _N =1.82 A (460V)		DRS90M4/Z 1.6 kW S3 I _N =3.5 A (460V)		IE1				
28	28.26	64	8.50	59	3.8	1.94	3.0	4.83	55	39	110	81	122 124
31.5	31.21	58	8.50	53	3.4	2.14	2.7	5.33	50	35	100	73	
35.5	34.94	52	8.50	47	3.0	2.40	2.5	5.97	49	35	99	72	
40	39.53	46	8.50	42	3.4	2.14	2.7	5.33	44	31	86	63	
45	44.26	41	8.50	37	3.0	2.40	2.5	5.97	45	32	89	65	
50	49.44	36	8.50	34	2.7	2.68	2.2	6.67	41	30	81	60	
56	55.35	33	8.50	30	2.4	3.01	2.0	7.47	41	29	80	59	
63	60.4	30	8.50	28	2.7	2.68	2.2	6.67	37	27	72	53	
71	67.62	27	8.50	25	2.4	3.01	2.0	7.47	38	28	75	55	
80	77.33	23	8.50	22	2.7	2.68	2.2	6.67	33	24	63	47	
90	86.58	21	8.50	19.3	2.4	3.01	2.0	7.47	33	24	64	47	



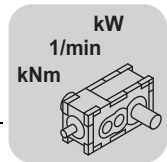


Selection Tables

IE1 motor standard

10.1.3 X3K120

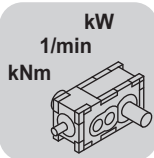
X.K120..										12.8 kNm				
					KF47 i=31.3		KF67 i=35.62		 P _{TH} [kW]					
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]										
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C		
n ₁ = 1000 1/min (50Hz)					DRS80M4 1.2 kW S3 I _N =2.6 A (400V)		DRS90L4/Z 2.5 kW S3 I _N =5.5 A (400V)		IE1					
28	29.32	34	12.4	46	2.7	4.03	2.4	9.69	65	47	87	63	122 124	
31.5	30.96	32	12.4	43	2.6	4.25	2.2	10.2	57	42	76	56		
35.5	35.25	28	12.4	38	2.3	4.84	2.0	11.6	58	42	78	57		
40	40.01	25	12.4	34	2.6	4.25	2.2	10.2	49	36	66	49		
45	45.55	22	12.8	30	2.3	4.84	2.0	11.6	51	38	68	50		
50	47.92	21	12.8	29	2.6	4.25	2.2	10.2	45	33	60	45		
56	54.55	18	12.8	26	2.3	4.84	2.0	11.6	46	33	61	45		
63	61.35	16	12.8	23	2.6	4.25	2.2	10.2	41	30	54	40		
71	69.84	14	12.8	20	2.3	4.84	2.0	11.6	41	30	54	40		
n ₁ = 1200 1/min (60Hz)					DRS80M4 1.2 kW S3 I _N =2.7 A (460V)		DRS90L4/Z 2.5 kW S3 I _N =5.3 A (460V)		IE1					
28	29.32	41	12.4	55	3.4	3.27	2.9	7.80	66	48	100	73	122 124	
31.5	30.96	39	12.4	52	3.2	3.45	2.8	8.23	59	42	89	65		
35.5	35.25	34	12.4	46	2.8	3.93	2.4	9.37	59	43	90	66		
40	40.01	30	12.4	40	3.2	3.45	2.8	8.23	51	37	77	56		
45	45.55	26	12.8	37	2.8	3.93	2.4	9.37	53	38	80	58		
50	47.92	25	12.8	35	3.2	3.45	2.8	8.23	47	34	70	52		
56	54.55	22	12.8	31	2.8	3.93	2.4	9.37	47	34	71	52		
63	61.35	20	12.8	27	3.2	3.45	2.8	8.23	42	31	63	46		
71	69.84	17	12.8	24	2.8	3.93	2.4	9.37	42	31	63	47		
n ₁ = 1500 1/min (50Hz)					DRS80M4 1.2 kW S3 I _N =2.6 A (400V)		DRS90L4/Z 2.5 kW S3 I _N =5.5 A (400V)		IE1					
28	29.32	51	12.4	69	2.7	4.03	2.4	9.69	67	47	120	87	122 124	
31.5	30.96	48	12.4	65	2.6	4.25	2.2	10.2	60	42	105	77		
35.5	35.25	43	12.4	57	2.3	4.84	2.0	11.6	60	42	110	78		
40	40.01	37	12.4	50	2.6	4.25	2.2	10.2	53	38	92	67		
45	45.55	33	12.8	46	2.3	4.84	2.0	11.6	54	39	96	70		
50	47.92	31	12.8	44	2.6	4.25	2.2	10.2	49	35	85	62		
56	54.55	27	12.8	39	2.3	4.84	2.0	11.6	49	35	85	63		
63	61.35	24	12.8	34	2.6	4.25	2.2	10.2	44	31	76	56		
71	69.84	21	12.8	30	2.3	4.84	2.0	11.6	44	32	76	56		
n ₁ = 1800 1/min (60Hz)					DRS80M4 1.2 kW S3 I _N =2.7 A (460V)		DRS90L4/Z 2.5 kW S3 I _N =5.3 A (460V)		IE1					
28	29.32	61	12.4	83	3.4	3.27	2.9	7.80	66	45	140	100	122 124	
31.5	30.96	58	12.4	78	3.2	3.45	2.8	8.23	59	40	125	88		
35.5	35.25	51	12.4	69	2.8	3.93	2.4	9.37	60	41	125	89		
40	40.01	45	12.4	60	3.2	3.45	2.8	8.23	53	37	105	78		
45	45.55	40	12.8	55	2.8	3.93	2.4	9.37	55	39	110	81		
50	47.92	38	12.8	53	3.2	3.45	2.8	8.23	49	35	99	72		
56	54.55	33	12.8	46	2.8	3.93	2.4	9.37	50	35	99	72		
63	61.35	29	12.8	41	3.2	3.45	2.8	8.23	44	32	88	65		
71	69.84	26	12.8	36	2.8	3.93	2.4	9.37	45	32	89	65		



10.1.4 X3K130

X.K130..										16.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	KF47 i=31.3		KF67 i=35.62		 P _{TH} [kW]					
														
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C		
n ₁ = 1000 1/min (50Hz)					DRS80M4 1.2 kW S3 I _N =2.6 A (400V)		DRS90L4/Z 2.5 kW S3 I _N =5.5 A (400V)		IE1				122 124	
28	28.43	35	15.5	59	2.2	5.02	1.9	12.0	75	54	100	73		
31.5	32.19	31	15.5	52	2.5	4.42	2.2	10.6	68	50	91	67		
35.5	36.56	27	15.5	46	2.2	5.02	1.9	12.0	69	50	93	68		
40	38.71	26	15.5	43	2.1	5.31	1.8	12.7	61	45	81	60		
45	43.96	23	15.5	38	1.8	6.04	1.6	14.5	62	45	82	61		
50	50.02	20	15.5	34	2.1	5.31	1.8	12.7	54	40	72	53		
56	56.81	18	16.0	31	1.8	6.04	1.6	14.5	53	39	71	53		
63	59.9	17	16.0	29	2.1	5.31	1.8	12.7	48	36	64	48		
71	68.03	15	16.0	26	1.8	6.04	1.6	14.5	49	36	65	48		
80	76.69	13	16.0	23	2.1	5.31	1.8	12.7	43	32	57	43		
90	87.09	11	16.0	20	1.8	6.04	1.6	14.5	43	32	58	43		
n ₁ = 1200 1/min (60Hz)					DRS80M4 1.1 kW S3 I _N =2.7 A (460V)		DRS90L4/Z 2.5 kW S3 I _N =5.3 A (460V)		IE1				122 124	
28	28.43	42	15.5	71	2.7	3.73	2.4	9.72	76	54	115	84		
31.5	32.19	37	15.5	63	3.1	3.29	2.7	8.56	70	50	105	77		
35.5	36.56	33	15.5	55	2.7	3.73	2.4	9.72	71	51	110	79		
40	38.71	31	15.5	52	2.5	3.95	2.2	10.2	63	45	95	69		
45	43.96	27	15.5	46	2.2	4.49	2.0	11.6	63	46	96	70		
50	50.02	24	15.5	40	2.5	3.95	2.2	10.2	56	41	84	62		
56	56.81	21	16.0	37	2.2	4.49	2.0	11.6	55	40	83	61		
63	59.9	20	16.0	35	2.5	3.95	2.2	10.2	50	37	75	55		
71	68.03	18	16.0	31	2.2	4.49	2.0	11.6	51	37	76	56		
80	76.69	16	16.0	27	2.5	3.95	2.2	10.2	45	33	67	50		
90	87.09	14	16.0	24	2.2	4.49	2.0	11.6	45	33	67	50		
n ₁ = 1500 1/min (50Hz)					DRS80M4 1.2 kW S3 I _N =2.6 A (400V)		DRS90L4/Z 2.5 kW S3 I _N =5.5 A (400V)		IE1				122 124	
28	28.43	53	15.5	89	2.2	5.02	1.9	12.0	75	51	140	99		
31.5	32.19	47	15.5	78	2.5	4.42	2.2	10.6	71	50	125	92		
35.5	36.56	41	15.5	69	2.2	5.02	1.9	12.0	72	51	130	94		
40	38.71	39	15.5	65	2.1	5.31	1.8	12.7	64	45	115	83		
45	43.96	34	15.5	57	1.8	6.04	1.6	14.5	65	46	115	84		
50	50.02	30	15.5	50	2.1	5.31	1.8	12.7	58	41	100	74		
56	56.81	26	16.0	46	1.8	6.04	1.6	14.5	57	41	100	73		
63	59.9	25	16.0	44	2.1	5.31	1.8	12.7	52	38	91	67		
71	68.03	22	16.0	39	1.8	6.04	1.6	14.5	52	38	91	67		
80	76.69	20	16.0	34	2.1	5.31	1.8	12.7	47	34	81	60		
90	87.09	17	16.0	30	1.8	6.04	1.6	14.5	47	34	81	60		
n ₁ = 1800 1/min (60Hz)					DRS80M4 1.1 kW S3 I _N =2.7 A (460V)		DRS90L4/Z 2.5 kW S3 I _N =5.3 A (460V)		IE1				122 124	
28	28.43	63	15.5	106	2.7	3.73	2.4	9.72	72	47	160	110		
31.5	32.19	56	15.5	94	3.1	3.29	2.7	8.56	71	49	145	105		
35.5	36.56	49	15.5	83	2.7	3.73	2.4	9.72	72	49	150	105		
40	38.71	46	15.5	78	2.5	3.95	2.2	10.2	64	44	130	95		
45	43.96	41	15.5	69	2.2	4.49	2.0	11.6	65	45	135	96		
50	50.02	36	15.5	60	2.5	3.95	2.2	10.2	58	41	115	85		
56	56.81	32	16.0	55	2.2	4.49	2.0	11.6	58	41	115	84		
63	59.9	30	16.0	53	2.5	3.95	2.2	10.2	53	38	105	77		
71	68.03	26	16.0	46	2.2	4.49	2.0	11.6	53	38	105	78		
80	76.69	23	16.0	41	2.5	3.95	2.2	10.2	48	34	94	69		
90	87.09	21	16.0	36	2.2	4.49	2.0	11.6	48	34	95	69		



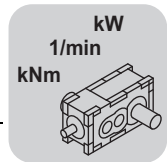


Selection Tables

IE1 motor standard

10.1.5 X3K140

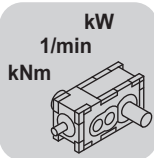
X.K140..										22.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	KF57 i=35.7		KF77 i=38.39		 P _{TH} [kW]					
							P _{TH}		P _{TH}					
							20°C	40°C	20°C	40°C				
n ₁ = 1000 1/min (50Hz)					DRS90M4 1.6 kW S3 I _N =3.55 A (400V)		DRS112M4/Z 4.4 kW S3 I _N =9 A (400V)		IE1					
28	28.25	35	22.0	84	2.4	5.99	2.4	17.0	87	63	125	93	122 124	
31.5	33.46	30	22.0	71	2.6	5.60	2.5	15.9	79	58	115	85		
35.5	35.78	28	22.0	67	2.4	5.99	2.4	17.0	77	56	110	82		
40	40.78	25	22.0	58	2.1	6.82	2.1	19.4	72	52	100	77		
45	43.61	23	22.0	55	2.0	7.30	1.9	20.7	71	52	100	76		
50	49.82	20	22.0	48	2.1	6.82	2.1	19.4	64	47	91	69		
56	53.28	19	22.0	45	2.0	7.30	1.9	20.7	65	48	92	70		
63	63.79	16	22.0	38	2.1	6.82	2.1	19.4	58	42	81	62		
71	68.21	15	22.0	35	2.0	7.30	1.9	20.7	58	43	82	62		
n ₁ = 1200 1/min (60Hz)					DRS90M4 1.6 kW S3 I _N =3.5 A (460V)		DRS112M4/Z 4.4 kW S3 I _N =8.6 A (460V)		IE1					
28	28.25	42	22.0	101	3.0	4.83	2.9	14.0	88	63	145	105	122 124	
31.5	33.46	36	22.0	86	3.2	4.52	3.1	13.1	81	58	130	98		
35.5	35.78	34	22.0	80	3.0	4.83	2.9	14.0	79	56	125	95		
40	40.78	29	22.0	70	2.7	5.50	2.5	15.9	74	53	120	89		
45	43.61	28	22.0	66	2.5	5.89	2.4	17.0	73	52	120	88		
50	49.82	24	22.0	58	2.7	5.50	2.5	15.9	66	48	105	80		
56	53.28	23	22.0	54	2.5	5.89	2.4	17.0	67	48	110	81		
63	63.79	19	22.0	45	2.7	5.50	2.5	15.9	59	43	95	72		
71	68.21	18	22.0	42	2.5	5.89	2.4	17.0	60	44	96	72		
n ₁ = 1500 1/min (50Hz)					DRS90M4 1.6 kW S3 I _N =3.55 A (400V)		DRS112M4/Z 4.4 kW S3 I _N =9 A (400V)		IE1					
28	28.25	53	22.0	127	2.4	5.99	2.4	17.0	88	61	170	125	122 124	
31.5	33.46	45	22.0	107	2.6	5.60	2.5	15.9	83	58	155	115		
35.5	35.78	42	22.0	100	2.4	5.99	2.4	17.0	80	56	150	115		
40	40.78	37	22.0	88	2.1	6.82	2.1	19.4	75	53	140	105		
45	43.61	34	22.0	82	2.0	7.30	1.9	20.7	74	52	140	105		
50	49.82	30	22.0	72	2.1	6.82	2.1	19.4	68	48	130	96		
56	53.28	28	22.0	68	2.0	7.30	1.9	20.7	69	49	130	97		
63	63.79	24	22.0	57	2.1	6.82	2.1	19.4	61	44	115	86		
71	68.21	22	22.0	53	2.0	7.30	1.9	20.7	62	44	115	87		
n ₁ = 1800 1/min (60Hz)					DRS90M4 1.6 kW S3 I _N =3.5 A (460V)		DRS112M4/Z 4.4 kW S3 I _N =8.6 A (460V)		IE1					
28	28.25	64	22.0	152	3.0	4.83	2.9	14.0	85	56	200	145	122 124	
31.5	33.46	54	22.0	128	3.2	4.52	3.1	13.1	82	56	180	135		
35.5	35.78	50	22.0	120	3.0	4.83	2.9	14.0	79	54	175	130		
40	40.78	44	22.0	105	2.7	5.50	2.5	15.9	74	51	165	120		
45	43.61	41	22.0	98	2.5	5.89	2.4	17.0	74	51	165	120		
50	49.82	36	22.0	87	2.7	5.50	2.5	15.9	68	47	150	110		
56	53.28	34	22.0	81	2.5	5.89	2.4	17.0	69	48	150	110		
63	63.79	28	22.0	68	2.7	5.50	2.5	15.9	62	43	135	99		
71	68.21	26	22.0	64	2.5	5.89	2.4	17.0	62	44	135	100		



10.1.6 X3K150

X.K150..										27.5 kNm			
					KF57 i=35.7		KF77 i=38.39		 P _{TH} [kW]				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]									
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C	
n ₁ = 1000 1/min (50Hz)					DRS90M4 1.6 kW S3 I _N =3.55 A (400V)		DRS112M4/Z 4.4 kW S3 I _N =9 A (400V)		IE1				122 124
28	28.1	36	27.5	106	2.5	5.95	2.4	16.9	99	71	140	105	
31.5	32.81	30	27.5	91	2.1	6.95	2.0	19.7	94	68	135	100	
35.5	35.13	28	27.5	85	2.0	7.45	1.9	21.1	93	67	135	100	
40	41.56	24	27.5	72	2.1	6.95	2.0	19.7	85	62	120	91	
45	44.5	22	27.5	67	2.0	7.45	1.9	21.1	84	61	120	90	
50	50.65	20	27.5	59	1.7	8.47	1.7	24.1	77	56	110	82	
56	54.23	18	27.5	55	1.6	9.07	1.6	25.8	76	56	110	82	
63	61.88	16	27.5	49	1.7	8.47	1.7	24.1	71	52	100	75	
71	66.26	15	27.5	45	1.6	9.07	1.6	25.8	70	51	99	75	
80	79.22	13	27.5	38	1.7	8.47	1.7	24.1	63	46	89	67	
90	84.83	12	27.5	35	1.6	9.07	1.6	25.8	62	46	88	67	
n ₁ = 1200 1/min (60Hz)					DRS90M4 1.6 kW S3 I _N =3.5 A (460V)		DRS112M4/Z 4.4 kW S3 I _N =8.6 A (460V)		IE1				122 124
28	28.1	43	27.5	127	3.1	4.80	2.9	13.9	100	71	165	120	
31.5	32.81	37	27.5	109	2.6	5.61	2.5	16.2	96	68	155	115	
35.5	35.13	34	27.5	102	2.4	6.01	2.3	17.4	95	68	155	115	
40	41.56	29	27.5	86	2.6	5.61	2.5	16.2	87	63	140	105	
45	44.5	27	27.5	80	2.4	6.01	2.3	17.4	87	62	140	105	
50	50.65	24	27.5	71	2.1	6.84	2.0	19.8	79	57	125	96	
56	54.23	22	27.5	66	2.0	7.32	1.9	21.2	78	57	125	95	
63	61.88	19	27.5	58	2.1	6.84	2.0	19.8	73	53	115	88	
71	66.26	18	27.5	54	2.0	7.32	1.9	21.2	72	52	115	87	
80	79.22	15	27.5	46	2.1	6.84	2.0	19.8	65	47	105	78	
90	84.83	14	27.5	43	2.0	7.32	1.9	21.2	65	47	105	78	
n ₁ = 1500 1/min (50Hz)					DRS90M4 1.6 kW S3 I _N =3.55 A (400V)		DRS112M4/Z 4.4 kW S3 I _N =9 A (400V)		IE1				122 124
28	28.1	53	27.5	159	2.5	5.95	2.4	16.9	100	69	195	145	
31.5	32.81	46	27.5	136	2.1	6.95	2.0	19.7	96	66	185	140	
35.5	35.13	43	27.5	127	2.0	7.45	1.9	21.1	95	66	185	135	
40	41.56	36	27.5	108	2.1	6.95	2.0	19.7	89	63	170	125	
45	44.5	34	27.5	100	2.0	7.45	1.9	21.1	88	62	165	125	
50	50.65	30	27.5	88	1.7	8.47	1.7	24.1	81	57	155	115	
56	54.23	28	27.5	82	1.6	9.07	1.6	25.8	80	57	150	115	
63	61.88	24	27.5	73	1.7	8.47	1.7	24.1	75	53	140	105	
71	66.26	23	27.5	68	1.6	9.07	1.6	25.8	74	53	140	105	
80	79.22	19	27.5	57	1.7	8.47	1.7	24.1	67	48	125	94	
90	84.83	18	27.5	53	1.6	9.07	1.6	25.8	67	48	125	93	
n ₁ = 1800 1/min (60Hz)					DRS90M4 1.6 kW S3 I _N =3.5 A (460V)		DRS112M4/Z 4.4 kW S3 I _N =8.6 A (460V)		IE1				122 124
28	28.1	64	27.5	191	3.1	4.80	2.9	13.9	97	64	225	165	
31.5	32.81	55	27.5	164	2.6	5.61	2.5	16.2	94	62	215	160	
35.5	35.13	51	27.5	153	2.4	6.01	2.3	17.4	93	62	215	155	
40	41.56	43	27.5	129	2.6	5.61	2.5	16.2	89	61	195	145	
45	44.5	40	27.5	121	2.4	6.01	2.3	17.4	88	61	195	145	
50	50.65	36	27.5	106	2.1	6.84	2.0	19.8	81	56	175	130	
56	54.23	33	27.5	99	2.0	7.32	1.9	21.2	80	55	175	130	
63	61.88	29	27.5	88	2.1	6.84	2.0	19.8	75	52	160	120	
71	66.26	27	27.5	82	2.0	7.32	1.9	21.2	74	52	160	120	
80	79.22	23	27.5	68	2.1	6.84	2.0	19.8	68	48	145	110	
90	84.83	21	27.5	64	2.0	7.32	1.9	21.2	67	48	145	110	



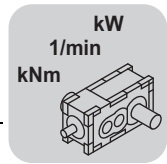


Selection Tables

IE1 motor standard

10.1.7 X3K160

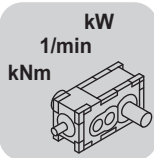
X.K160..										36.0 kNm				
					KF67 i=35.62		KF87 i=36.52		 P _{TH} [kW]				 	
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]										
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH}	P _{TH}	P _{TH}	P _{TH}		
									20°C	40°C	20°C	40°C		
n ₁ = 1000 1/min (50Hz)					DRS90L4 2.5 kW S3 I _N =5.5 A (400V)		DRS132S4/Z 6 kW S3 I _N =12.2 A (400V)		IE1					
28	27.91	36	36.0	140	2.5	9.22	2.5	21.7	140	100	200	150	122 124	
31.5	30.94	32	36.0	126	2.8	8.18	2.8	19.3	130	93	185	140		
35.5	34.87	29	36.0	112	2.5	9.22	2.5	21.7	130	92	180	135		
40	39.12	26	36.0	100	2.2	10.3	2.3	24.4	105	78	155	115		
45	44.08	23	36.0	89	2.0	11.6	2.0	27.5	105	76	150	115		
50	48.46	21	36.0	81	2.2	10.3	2.3	24.4	94	69	135	100		
56	54.62	18	36.0	72	2.0	11.6	2.0	27.5	95	69	135	100		
63	62.05	16	36.0	63	2.2	10.3	2.3	24.4	85	62	120	91		
71	69.92	14	36.0	56	2.0	11.6	2.0	27.5	85	62	120	91		
n ₁ = 1200 1/min (60Hz)					DRS90L4 2.5 kW S3 I _N =5.3 A (460V)		DRS132S4/Z 6 kW S3 I _N =11.9 A (460V)		IE1					
28	27.91	43	36.0	168	3.1	7.42	3.1	17.8	140	99	235	175	122 124	
31.5	30.94	39	36.0	151	3.5	6.58	3.5	15.8	130	94	215	160		
35.5	34.87	34	36.0	134	3.1	7.42	3.1	17.8	130	92	210	160		
40	39.12	31	36.0	120	2.8	8.33	2.7	20.0	110	78	180	135		
45	44.08	27	36.0	106	2.4	9.38	2.4	22.5	110	77	175	130		
50	48.46	25	36.0	98	2.8	8.33	2.7	20.0	97	70	155	115		
56	54.62	22	36.0	87	2.4	9.38	2.4	22.5	97	70	155	120		
63	62.05	19	36.0	76	2.8	8.33	2.7	20.0	87	63	140	105		
71	69.92	17	36.0	68	2.4	9.38	2.4	22.5	88	63	140	105		
n ₁ = 1500 1/min (50Hz)					DRS90L4 2.5 kW S3 I _N =5.5 A (400V)		DRS132S4/Z 6 kW S3 I _N =12.2 A (400V)		IE1					
28	27.91	54	36.0	210	2.5	9.22	2.5	21.7	140	93	275	205	122 124	
31.5	30.94	48	36.0	189	2.8	8.18	2.8	19.3	130	91	255	190		
35.5	34.87	43	36.0	168	2.5	9.22	2.5	21.7	130	90	250	185		
40	39.12	38	36.0	150	2.2	10.3	2.3	24.4	110	76	210	160		
45	44.08	34	36.0	133	2.0	11.6	2.0	27.5	110	75	210	155		
50	48.46	31	36.0	122	2.2	10.3	2.3	24.4	98	69	185	140		
56	54.62	27	36.0	108	2.0	11.6	2.0	27.5	99	70	190	140		
63	62.05	24	36.0	95	2.2	10.3	2.3	24.4	89	64	170	125		
71	69.92	21	36.0	85	2.0	11.6	2.0	27.5	90	64	170	125		
n ₁ = 1800 1/min (60Hz)					DRS90L4 2.5 kW S3 I _N =5.3 A (460V)		DRS132S4/Z 6 kW S3 I _N =11.9 A (460V)		IE1					
28	27.91	64	36.0	252	3.1	7.42	3.1	17.8	130	82	315	230	122 124	
31.5	30.94	58	36.0	227	3.5	6.58	3.5	15.8	130	86	295	215		
35.5	34.87	52	36.0	201	3.1	7.42	3.1	17.8	125	85	290	215		
40	39.12	46	36.0	180	2.8	8.33	2.7	20.0	110	72	245	180		
45	44.08	41	36.0	159	2.4	9.38	2.4	22.5	105	71	240	180		
50	48.46	37	36.0	146	2.8	8.33	2.7	20.0	98	67	215	160		
56	54.62	33	36.0	130	2.4	9.38	2.4	22.5	99	68	220	160		
63	62.05	29	36.0	114	2.8	8.33	2.7	20.0	90	63	195	145		
71	69.92	26	36.0	101	2.4	9.38	2.4	22.5	90	63	195	145		



10.1.8 X3K170

X.K170..										45.0 kNm				
					KF67 i=35.62		KF87 i=36.52		 P _{TH} [kW]					
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]										
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C		
n ₁ = 1000 1/min (50Hz)					DRS90L4 2.5 kW S3 I _N =5.5 A (400V)		DRS132S4/Z 6 kW S3 I _N =12.2 A (400V)		IE1					
28	28.26	35	45.0	173	2.5	9.34	2.5	22.0	155	110	220	165	122 124	
31.5	30.78	32	45.0	158	2.3	10.1	2.3	24.0	145	105	205	155		
35.5	34.6	29	45.0	141	2.0	11.4	2.0	26.9	140	100	205	150		
40	38.45	26	45.0	127	2.3	10.1	2.3	24.0	135	97	190	145		
45	43.22	23	45.0	113	2.0	11.4	2.0	26.9	130	96	190	140		
50	48.62	21	45.0	100	1.8	12.8	1.8	30.3	110	79	155	115		
56	54.64	18	45.0	89	1.6	14.4	1.6	34.1	110	79	155	115		
63	60.23	17	45.0	82	1.8	12.8	1.8	30.3	97	71	140	105		
71	67.69	15	45.0	73	1.6	14.4	1.6	34.1	96	70	135	105		
80	77.11	13	45.0	64	1.8	12.8	1.8	30.3	88	64	125	94		
90	86.67	12	45.0	57	1.6	14.4	1.6	34.1	86	63	120	92		
n ₁ = 1200 1/min (60Hz)					DRS90L4 2.5 kW S3 I _N =5.3 A (460V)		DRS132S4/Z 6 kW S3 I _N =11.9 A (460V)		IE1					
28	28.26	42	45.0	207	3.0	7.51	3.0	18.0	155	110	255	190	122 124	
31.5	30.78	39	45.0	190	2.8	8.18	2.8	19.6	145	100	240	175		
35.5	34.6	35	45.0	169	2.5	9.20	2.5	22.1	140	100	235	175		
40	38.45	31	45.0	152	2.8	8.18	2.8	19.6	135	97	220	165		
45	43.22	28	45.0	135	2.5	9.20	2.5	22.1	135	96	220	165		
50	48.62	25	45.0	120	2.2	10.3	2.2	24.8	110	79	180	135		
56	54.64	22	45.0	107	2.0	11.6	2.0	27.9	110	80	180	135		
63	60.23	20	45.0	98	2.2	10.3	2.2	24.8	100	72	160	120		
71	67.69	18	45.0	87	2.0	11.6	2.0	27.9	99	71	160	120		
80	77.11	16	45.0	77	2.2	10.3	2.2	24.8	90	65	145	110		
90	86.67	14	45.0	68	2.0	11.6	2.0	27.9	89	64	140	105		
n ₁ = 1500 1/min (50Hz)					DRS90L4 2.5 kW S3 I _N =5.5 A (400V)		DRS132S4/Z 6 kW S3 I _N =12.2 A (400V)		IE1					
28	28.26	53	45.0	259	2.5	9.34	2.5	22.0	150	100	305	225	122 124	
31.5	30.78	49	45.0	238	2.3	10.1	2.3	24.0	140	95	280	210		
35.5	34.6	43	45.0	211	2.0	11.4	2.0	26.9	140	94	280	205		
40	38.45	39	45.0	190	2.3	10.1	2.3	24.0	135	95	265	195		
45	43.22	35	45.0	169	2.0	11.4	2.0	26.9	135	94	260	195		
50	48.62	31	45.0	150	1.8	12.8	1.8	30.3	110	78	215	160		
56	54.64	27	45.0	134	1.6	14.4	1.6	34.1	115	79	215	160		
63	60.23	25	45.0	123	1.8	12.8	1.8	30.3	100	72	195	145		
71	67.69	22	45.0	109	1.6	14.4	1.6	34.1	100	71	190	140		
80	77.11	19	45.0	96	1.8	12.8	1.8	30.3	93	66	175	130		
90	86.67	17	45.0	85	1.6	14.4	1.6	34.1	91	65	170	130		
n ₁ = 1800 1/min (60Hz)					DRS90L4 2.5 kW S3 I _N =5.3 A (460V)		DRS132S4/Z 6 kW S3 I _N =11.9 A (460V)		IE1					
28	28.26	64	45.0	311	3.0	7.51	3.0	18.0	140	88	345	250	122 124	
31.5	30.78	58	45.0	285	2.8	8.18	2.8	19.6	135	85	325	235		
35.5	34.6	52	45.0	254	2.5	9.20	2.5	22.1	135	84	320	230		
40	38.45	47	45.0	228	2.8	8.18	2.8	19.6	135	90	305	225		
45	43.22	42	45.0	203	2.5	9.20	2.5	22.1	135	89	300	220		
50	48.62	37	45.0	181	2.2	10.3	2.2	24.8	110	74	250	185		
56	54.64	33	45.0	161	2.0	11.6	2.0	27.9	110	75	250	185		
63	60.23	30	45.0	147	2.2	10.3	2.2	24.8	100	70	225	165		
71	67.69	27	45.0	131	2.0	11.6	2.0	27.9	100	69	220	165		
80	77.11	23	45.0	115	2.2	10.3	2.2	24.8	93	65	200	150		
90	86.67	21	45.0	102	2.0	11.6	2.0	27.9	92	64	200	150		



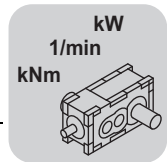


Selection Tables

IE1 motor standard

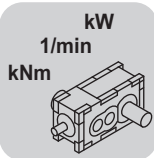
10.1.9 X3K180

X.K180..										58.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	KF77 i=38.39		KF97 i=38.3		 P _{TH} [kW]					
							P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C				
											n ₃ [1/min]	M _{K3} [kNm]		
n ₁ = 1000 1/min (50Hz)					DRS100M4 3.3 kW S3 I _N =7 A (400V)		DRS132MC4/Z 10 kW S3 I _N =20.5 A (400V)		IE1					
28	28.61	35	58.0	220	2.2	13.4	2.4	38.3	160	115	260	190	122 124	
31.5	32.36	31	58.0	194	2.5	12.0	2.7	34.2	145	105	230	175		
35.5	36.24	28	58.0	173	2.2	13.4	2.4	38.3	145	110	235	175		
40	38.93	26	58.0	161	2.1	14.4	2.2	41.1	130	97	210	155		
45	43.6	23	58.0	144	1.9	16.1	2.0	46.1	135	98	210	160		
50	47.57	21	58.0	133	2.1	14.4	2.2	41.1	120	88	185	140		
56	53.27	19	58.0	119	1.9	16.1	2.0	46.1	120	91	190	145		
63	60.9	16	58.0	104	2.1	14.4	2.2	41.1	105	77	160	125		
71	68.2	15	58.0	93	1.9	16.1	2.0	46.1	105	79	165	125		
n ₁ = 1200 1/min (60Hz)					DRS100M4 3.3 kW S3 I _N =6.9 A (460V)		DRS132MC4/Z 10 kW S3 I _N =19.5 A (460V)		IE1					
28	28.61	42	58.0	264	2.8	10.7	2.9	31.8	160	110	285	210	122 124	
31.5	32.36	37	58.0	233	3.1	9.63	3.2	28.3	145	105	255	190		
35.5	36.24	33	58.0	208	2.8	10.7	2.9	31.8	150	105	260	195		
40	38.93	31	58.0	194	2.6	11.5	2.7	34.1	135	96	235	175		
45	43.6	28	58.0	173	2.3	12.9	2.4	38.2	135	97	235	175		
50	47.57	25	58.0	160	2.6	11.5	2.7	34.1	120	89	210	155		
56	53.27	23	58.0	143	2.3	12.9	2.4	38.2	125	91	215	160		
63	60.9	20	58.0	125	2.6	11.5	2.7	34.1	105	79	180	135		
71	68.2	18	58.0	112	2.3	12.9	2.4	38.2	110	80	185	140		
n ₁ = 1500 1/min (50Hz)					DRS100M4 3.3 kW S3 I _N =7 A (400V)		DRS132MC4/Z 10 kW S3 I _N =20.5 A (400V)		IE1					
28	28.61	52	58.0	330	2.2	13.4	2.4	38.3	150	100	315	230	122 124	
31.5	32.36	46	58.0	291	2.5	12.0	2.7	34.2	145	100	285	210		
35.5	36.24	41	58.0	260	2.2	13.4	2.4	38.3	145	100	290	215		
40	38.93	39	58.0	242	2.1	14.4	2.2	41.1	130	91	260	190		
45	43.6	34	58.0	216	1.9	16.1	2.0	46.1	130	92	265	195		
50	47.57	32	58.0	200	2.1	14.4	2.2	41.1	120	86	235	175		
56	53.27	28	58.0	179	1.9	16.1	2.0	46.1	125	89	240	180		
63	60.9	25	58.0	156	2.1	14.4	2.2	41.1	110	78	205	155		
71	68.2	22	58.0	140	1.9	16.1	2.0	46.1	110	80	210	155		
n ₁ = 1800 1/min (60Hz)					DRS100M4 3.3 kW S3 I _N =6.9 A (460V)		DRS132MC4/Z 10 kW S3 I _N =19.5 A (460V)		IE1					
28	28.61	63	58.0	396	2.8	10.7	2.9	31.8	135	*)	330	230	122 124	
31.5	32.36	56	58.0	350	3.1	9.63	3.2	28.3	135	88	305	220		
35.5	36.24	50	58.0	312	2.8	10.7	2.9	31.8	135	89	310	220		
40	38.93	46	58.0	291	2.6	11.5	2.7	34.1	125	81	275	200		
45	43.6	41	58.0	260	2.3	12.9	2.4	38.2	125	82	280	200		
50	47.57	38	58.0	240	2.6	11.5	2.7	34.1	120	80	255	185		
56	53.27	34	58.0	214	2.3	12.9	2.4	38.2	120	82	260	190		
63	60.9	30	58.0	188	2.6	11.5	2.7	34.1	105	75	220	165		
71	68.2	26	58.0	167	2.3	12.9	2.4	38.2	110	77	225	165		



10.1.10 X3K190

X.K190..										65.0 kNm				
					KF77 i=38.39		KF97 i=38.3		 P _{TH} [kW]					
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]										
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C		
n ₁ = 1000 1/min (50Hz)					DRS100M4 3.3 kW S3 I _N =7 A (400V)		DRS132MC4/Z 10 kW S3 I _N =20.5 A (400V)		IE1				122 124	
28	28.53	35	65.0	247	2.3	13.4	2.4	38.2	165	120	265	200		
31.5	32.06	31	65.0	220	2.0	15.0	2.1	42.9	170	125	270	200		
35.5	36.14	28	65.0	195	2.3	13.4	2.4	38.2	150	110	240	180		
40	40.61	25	65.0	174	2.0	15.0	2.1	42.9	155	115	245	185		
45	43.48	23	65.0	162	1.9	16.1	2.0	45.9	140	100	220	165		
50	48.85	20	65.0	144	1.7	18.1	1.8	51.6	140	100	220	165		
56	53.11	19	65.0	134	1.9	16.1	2.0	45.9	125	94	200	150		
63	59.68	17	65.0	119	1.7	18.1	1.8	51.6	125	95	200	150		
71	68	15	65.0	105	1.9	16.1	2.0	45.9	110	80	170	125		
80	76.41	13	65.0	93	1.7	18.1	1.8	51.6	110	81	170	125		
n ₁ = 1200 1/min (60Hz)					DRS100M4 3.3 kW S3 I _N =6.9 A (460V)		DRS132MC4/Z 10 kW S3 I _N =19.5 A (460V)		IE1				122 124	
28	28.53	42	65.0	296	2.8	10.7	2.9	31.7	165	115	295	220		
31.5	32.06	37	65.0	264	2.5	12.0	2.6	35.6	165	120	300	220		
35.5	36.14	33	65.0	234	2.8	10.7	2.9	31.7	155	110	270	200		
40	40.61	30	65.0	208	2.5	12.0	2.6	35.6	155	110	270	205		
45	43.48	28	65.0	194	2.3	12.9	2.4	38.1	140	100	245	180		
50	48.85	25	65.0	173	2.1	14.5	2.1	42.8	140	100	245	185		
56	53.11	23	65.0	161	2.3	12.9	2.4	38.1	130	95	225	165		
63	59.68	20	65.0	143	2.1	14.5	2.1	42.8	130	95	225	170		
71	68	18	65.0	126	2.3	12.9	2.4	38.1	110	82	190	140		
80	76.41	16	65.0	112	2.1	14.5	2.1	42.8	110	82	190	145		
n ₁ = 1500 1/min (50Hz)					DRS100M4 3.3 kW S3 I _N =7 A (400V)		DRS132MC4/Z 10 kW S3 I _N =20.5 A (400V)		IE1				122 124	
28	28.53	53	65.0	370	2.3	13.4	2.4	38.2	155	105	325	235		
31.5	32.06	47	65.0	330	2.0	15.0	2.1	42.9	160	105	330	240		
35.5	36.14	42	65.0	292	2.3	13.4	2.4	38.2	150	105	300	220		
40	40.61	37	65.0	260	2.0	15.0	2.1	42.9	155	105	305	225		
45	43.48	34	65.0	243	1.9	16.1	2.0	45.9	135	96	270	200		
50	48.85	31	65.0	216	1.7	18.1	1.8	51.6	140	97	275	200		
56	53.11	28	65.0	201	1.9	16.1	2.0	45.9	130	92	250	185		
63	59.68	25	65.0	179	1.7	18.1	1.8	51.6	130	93	255	190		
71	68	22	65.0	157	1.9	16.1	2.0	45.9	110	81	215	160		
80	76.41	20	65.0	140	1.7	18.1	1.8	51.6	110	81	215	160		
n ₁ = 1800 1/min (60Hz)					DRS100M4 3.3 kW S3 I _N =6.9 A (460V)		DRS132MC4/Z 10 kW S3 I _N =19.5 A (460V)		IE1				122 124	
28	28.53	63	65.0	445	2.8	10.7	2.9	31.7	140	*)	340	240		
31.5	32.06	56	65.0	396	2.5	12.0	2.6	35.6	145	*)	345	245		
35.5	36.14	50	65.0	351	2.8	10.7	2.9	31.7	145	93	320	230		
40	40.61	44	65.0	312	2.5	12.0	2.6	35.6	145	94	320	235		
45	43.48	41	65.0	292	2.3	12.9	2.4	38.1	130	86	290	210		
50	48.85	37	65.0	260	2.1	14.5	2.1	42.8	130	87	290	210		
56	53.11	34	65.0	241	2.3	12.9	2.4	38.1	125	86	270	195		
63	59.68	30	65.0	215	2.1	14.5	2.1	42.8	125	86	270	200		
71	68	26	65.0	188	2.3	12.9	2.4	38.1	110	78	230	170		
80	76.41	24	65.0	168	2.1	14.5	2.1	42.8	110	78	230	170		

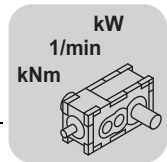


Selection Tables

IE1 motor standard

10.1.11 X3K200

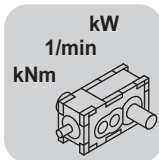
X.K200..										79.0 kNm				
					KF77 i=38.39		KF97 i=38.3		 P _{TH} [kW]					
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]										
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C		
n ₁ = 1000 1/min (50Hz)					DRS112M4 4.4 kW S3 I _N =9 A (400V)		DRS160M4/Z 12 kW S3 I _N =24 A (400V)		IE1					
28	29.17	34	79.0	294	2.3	17.2	2.4	46.1	185	130	300	220	122 124	
31.5	31.97	31	79.0	268	2.7	15.2	2.7	40.7	175	130	275	205		
35.5	36.26	28	79.0	236	2.3	17.2	2.4	46.1	170	125	270	205		
40	39.61	25	79.0	216	2.1	18.8	2.2	50.4	170	125	270	200		
45	44.92	22	79.0	191	1.9	21.3	1.9	57.1	165	120	265	200		
50	48.39	21	79.0	179	2.1	18.8	2.2	50.4	160	120	250	190		
56	54.88	18	79.0	158	1.9	21.3	1.9	57.1	155	115	245	185		
63	61.95	16	79.0	140	2.1	18.8	2.2	50.4	145	110	230	170		
71	70.26	14	79.0	123	1.9	21.3	1.9	57.1	140	105	220	165		
n ₁ = 1200 1/min (60Hz)					DRS100L4 4.4 kW S3 I _N =9.2 A (460V)		DRS160M4/Z 12 kW S3 I _N =23 A (460V)		IE1					
28	29.17	41	79.0	352	2.8	14.4	2.9	38.2	180	125	330	240	122 124	
31.5	31.97	38	79.0	321	3.2	12.7	3.3	33.7	175	125	310	230		
35.5	36.26	33	79.0	283	2.8	14.4	2.9	38.2	170	125	305	225		
40	39.61	30	79.0	259	2.6	15.7	2.6	41.8	170	125	300	225		
45	44.92	27	79.0	229	2.3	17.8	2.3	47.4	170	120	295	220		
50	48.39	25	79.0	214	2.6	15.7	2.6	41.8	160	120	280	210		
56	54.88	22	79.0	189	2.3	17.8	2.3	47.4	160	115	275	205		
63	61.95	19	79.0	167	2.6	15.7	2.6	41.8	150	110	255	190		
71	70.26	17	79.0	148	2.3	17.8	2.3	47.4	145	105	245	185		
n ₁ = 1500 1/min (50Hz)					DRS112M4 4.4 kW S3 I _N =9 A (400V)		DRS160M4/Z 12 kW S3 I _N =24 A (400V)		IE1					
28	29.17	51	79.0	440	2.3	17.2	2.4	46.1	165	*)	360	255	122 124	
31.5	31.97	47	79.0	402	2.7	15.2	2.7	40.7	170	120	345	250		
35.5	36.26	41	79.0	354	2.3	17.2	2.4	46.1	170	115	340	250		
40	39.61	38	79.0	324	2.1	18.8	2.2	50.4	165	115	335	245		
45	44.92	33	79.0	286	1.9	21.3	1.9	57.1	165	115	330	240		
50	48.39	31	79.0	268	2.1	18.8	2.2	50.4	160	115	315	235		
56	54.88	27	79.0	236	1.9	21.3	1.9	57.1	160	115	310	230		
63	61.95	24	79.0	209	2.1	18.8	2.2	50.4	150	105	290	215		
71	70.26	21	79.0	185	1.9	21.3	1.9	57.1	145	105	280	205		
n ₁ = 1800 1/min (60Hz)					DRS100L4 4.4 kW S3 I _N =9.2 A (460V)		DRS160M4/Z 12 kW S3 I _N =23 A (460V)		IE1					
28	29.17	62	78.5	525	2.8	14.4	2.9	38.2	135	*)	370	255	122 124	
31.5	31.97	56	79.0	482	3.2	12.7	3.3	33.7	160	*)	365	260		
35.5	36.26	50	79.0	425	2.8	14.4	2.9	38.2	160	*)	360	260		
40	39.61	45	79.0	389	2.6	15.7	2.6	41.8	160	105	355	255		
45	44.92	40	79.0	343	2.3	17.8	2.3	47.4	155	100	350	250		
50	48.39	37	79.0	322	2.6	15.7	2.6	41.8	155	105	340	245		
56	54.88	33	79.0	284	2.3	17.8	2.3	47.4	155	105	335	245		
63	61.95	29	79.0	251	2.6	15.7	2.6	41.8	145	100	310	230		
71	70.26	26	79.0	221	2.3	17.8	2.3	47.4	140	97	300	220		



10.1.12 X3K210

X.K210..										90.0 kNm				
					KF77 i=38.39		KF97 i=38.3		 P _{TH} [kW]					
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]										
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]						
									P _{TH} 20°C	P _{TH} 40°C		P _{TH} 20°C		P _{TH} 40°C
n ₁ = 1000 1/min (50Hz)					DRS112M4 4.4 kW S3 I _N =9 A (400V)		DRS160M4/Z 12 kW S3 I _N =24 A (400V)		IE1					
28	29.13	34	90.0	335	2.3	17.2	2.4	46.0	185	135	305	225	122 124	
31.5	32.97	30	90.0	296	2.1	19.5	2.1	52.1	185	130	300	220		
35.5	36.2	28	90.0	269	2.3	17.2	2.4	46.0	180	130	280	210		
40	40.99	24	90.0	238	2.1	19.5	2.1	52.1	175	130	275	210		
45	44.85	22	90.0	218	1.9	21.3	1.9	57.1	175	125	275	205		
50	50.78	20	90.0	192	1.7	24.1	1.7	64.6	170	125	270	200		
56	54.79	18	90.0	180	1.9	21.3	1.9	57.1	165	120	255	195		
63	62.03	16	90.0	159	1.7	24.1	1.7	64.6	155	115	245	185		
71	70.15	14	90.0	140	1.9	21.3	1.9	57.1	150	110	230	175		
80	79.42	13	90.0	124	1.7	24.1	1.7	64.6	145	110	230	170		
n ₁ = 1200 1/min (60Hz)					DRS100L4 4.4 kW S3 I _N =9.2 A (460V)		DRS160M4/Z 12 kW S3 I _N =23 A (460V)		IE1					
28	29.13	41	90.0	402	2.8	14.4	2.9	38.2	180	125	335	245	122 124	
31.5	32.97	36	90.0	355	2.5	16.3	2.5	43.2	180	125	330	240		
35.5	36.2	33	90.0	323	2.8	14.4	2.9	38.2	180	130	315	235		
40	40.99	29	90.0	286	2.5	16.3	2.5	43.2	175	125	310	230		
45	44.85	27	90.0	261	2.3	17.8	2.3	47.3	175	125	305	230		
50	50.78	24	90.0	231	2.0	20.2	2.1	53.6	170	125	300	225		
56	54.79	22	90.0	216	2.3	17.8	2.3	47.3	165	120	285	215		
63	62.03	19	90.0	191	2.0	20.2	2.1	53.6	160	115	275	205		
71	70.15	17	90.0	168	2.3	17.8	2.3	47.3	150	110	260	195		
80	79.42	15	90.0	149	2.0	20.2	2.1	53.6	150	110	255	190		
n ₁ = 1500 1/min (50Hz)					DRS112M4 4.4 kW S3 I _N =9 A (400V)		DRS160M4/Z 12 kW S3 I _N =24 A (400V)		IE1					
28	29.13	51	90.0	502	2.3	17.2	2.4	46.0	165	*)	365	260	122 124	
31.5	32.97	45	90.0	444	2.1	19.5	2.1	52.1	165	*)	360	255		
35.5	36.2	41	90.0	404	2.3	17.2	2.4	46.0	175	120	350	260		
40	40.99	37	90.0	357	2.1	19.5	2.1	52.1	170	120	345	255		
45	44.85	33	90.0	326	1.9	21.3	1.9	57.1	170	120	340	250		
50	50.78	30	90.0	288	1.7	24.1	1.7	64.6	170	115	335	245		
56	54.79	27	90.0	270	1.9	21.3	1.9	57.1	165	115	325	240		
63	62.03	24	90.0	238	1.7	24.1	1.7	64.6	160	115	310	230		
71	70.15	21	90.0	211	1.9	21.3	1.9	57.1	155	110	295	220		
80	79.42	19	90.0	186	1.7	24.1	1.7	64.6	150	110	290	215		
n ₁ = 1800 1/min (60Hz)					DRS100L4 4.4 kW S3 I _N =9.2 A (460V)		DRS160M4/Z 12 kW S3 I _N =23 A (460V)		IE1					
28	29.13	62	87.4	585	2.8	14.4	2.9	38.2	*)	*)	375	255	122 124	
31.5	32.97	55	88.6	524	2.5	16.3	2.5	43.2	135	*)	370	255		
35.5	36.2	50	90.0	485	2.8	14.4	2.9	38.2	165	*)	370	270		
40	40.99	44	90.0	428	2.5	16.3	2.5	43.2	160	*)	365	265		
45	44.85	40	90.0	392	2.3	17.8	2.3	47.3	160	105	360	260		
50	50.78	35	90.0	346	2.0	20.2	2.1	53.6	160	105	355	260		
56	54.79	33	90.0	324	2.3	17.8	2.3	47.3	160	110	345	255		
63	62.03	29	90.0	286	2.0	20.2	2.1	53.6	155	105	330	245		
71	70.15	26	90.0	253	2.3	17.8	2.3	47.3	150	105	315	235		
80	79.42	23	90.0	223	2.0	20.2	2.1	53.6	150	100	310	230		



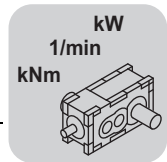


Selection Tables

IE1 motor standard

10.1.13 X3K220

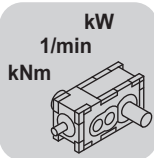
X.K220..														112 kNm			
					KF87 i=36.52		KF107 i=37		 P _{TH} [kW]								
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]					P _{TH} 20°C	P _{TH} 40°C							
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]			P _{TH} 20°C	P _{TH} 40°C					
n ₁ = 1000 1/min (50Hz)					DRS112M4 4.4 kW S3 I _N =9 A (400V)		DRS180M4/Z 20 kW S3 I _N =37.5 A (400V)		IE1								
28	27.9	36	112	435	2.5	16.0	2.5	72.1	245	170	405	295	126 128				
31.5	32.02	31	112	379	2.8	14.5	2.8	65.4	240	175	385	285					
35.5	35.34	28	112	344	2.5	16.0	2.5	72.1	235	175	375	285					
40	39.55	25	112	307	2.3	17.9	2.3	80.7	215	160	345	260					
45	43.65	23	112	278	2.0	19.7	2.1	89.1	215	155	340	255					
50	48.32	21	112	254	2.3	17.9	2.3	80.7	205	150	320	245					
56	53.33	19	112	230	2.0	19.7	2.1	89.1	200	150	315	240					
63	61.86	16	112	198	2.3	17.9	2.3	80.7	175	130	275	210					
71	68.27	15	112	180	2.0	19.7	2.1	89.1	175	130	270	205					
n ₁ = 1200 1/min (60Hz)					DRS100L4 4.4 kW S3 I _N =9.2 A (460V)		DRS180M4/Z 20 kW S3 I _N =37 A (460V)		IE1								
28	27.9	43	112	522	3.0	13.3	3.1	59.7	235	155	445	320	126 128				
31.5	32.02	37	112	455	3.3	12.1	3.4	54.1	240	170	425	315					
35.5	35.34	34	112	412	3.0	13.3	3.1	59.7	240	170	420	310					
40	39.55	30	112	368	2.7	14.9	2.7	66.8	220	155	385	285					
45	43.65	27	112	334	2.4	16.5	2.5	73.8	215	155	380	280					
50	48.32	25	112	304	2.7	14.9	2.7	66.8	205	150	360	270					
56	53.33	23	112	276	2.4	16.5	2.5	73.8	205	150	355	265					
63	61.86	19	112	238	2.7	14.9	2.7	66.8	180	135	310	235					
71	68.27	18	112	215	2.4	16.5	2.5	73.8	180	130	305	230					
n ₁ = 1500 1/min (50Hz)					DRS112M4 4.4 kW S3 I _N =9 A (400V)		DRS180M4/Z 20 kW S3 I _N =37.5 A (400V)		IE1								
28	27.9	54	112	653	2.5	16.0	2.5	72.1	200	*)	475	330	126 128				
31.5	32.02	47	112	569	2.8	14.5	2.8	65.4	230	155	475	345					
35.5	35.34	42	112	515	2.5	16.0	2.5	72.1	230	155	465	340					
40	39.55	38	112	460	2.3	17.9	2.3	80.7	210	145	425	310					
45	43.65	34	112	417	2.0	19.7	2.1	89.1	210	140	420	305					
50	48.32	31	112	380	2.3	17.9	2.3	80.7	205	145	405	300					
56	53.33	28	112	345	2.0	19.7	2.1	89.1	200	140	395	295					
63	61.86	24	112	297	2.3	17.9	2.3	80.7	185	130	350	260					
71	68.27	22	112	269	2.0	19.7	2.1	89.1	180	130	345	255					
n ₁ = 1800 1/min (60Hz)					DRS100L4 4.4 kW S3 I _N =9.2 A (460V)		DRS180M4/Z 20 kW S3 I _N =37 A (460V)		IE1								
28 ¹⁾	27.9	65	112	783	3.0	13.3	3.1	59.7	*)	*)	475	315	126 128				
31.5	32.02	56	112	682	3.3	12.1	3.4	54.1	215	*)	495	355					
35.5	35.34	51	112	618	3.0	13.3	3.1	59.7	210	*)	490	350					
40	39.55	46	112	553	2.7	14.9	2.7	66.8	195	*)	450	320					
45	43.65	41	112	501	2.4	16.5	2.5	73.8	190	*)	440	315					
50	48.32	37	112	457	2.7	14.9	2.7	66.8	195	130	430	310					
56	53.33	34	112	414	2.4	16.5	2.5	73.8	195	130	420	310					
63	61.86	29	112	357	2.7	14.9	2.7	66.8	180	125	375	275					
71	68.27	26	112	323	2.4	16.5	2.5	73.8	175	125	370	275					



10.1.14 X3K230

X.K230..														131 kNm	
					KF87 i=36.52		KF107 i=37		 P _{TH} [kW]						
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]											
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C			
n ₁ = 1000 1/min (50Hz)					DRS112M4 4.4 kW S3 I _N =9 A (400V)		DRS180M4/Z 20 kW S3 I _N =37.5 A (400V)		IE1						
28	28.63	35	131	496	2.5	16.4	2.5	74.0	265	185	435	320	126 128		
31.5	31.43	32	131	452	2.2	18.0	2.3	81.3	260	180	425	315			
35.5	36.26	28	131	392	2.5	16.4	2.5	74.0	245	180	390	295			
40	39.82	25	131	357	2.2	18.0	2.3	81.3	245	180	385	290			
45	44.78	22	131	317	2.0	20.2	2.0	91.4	220	165	355	265			
50	49.17	20	131	289	1.8	22.2	1.8	100	220	160	350	260			
56	54.71	18	131	262	2.0	20.2	2.0	91.4	210	155	330	250			
63	60.08	17	131	239	1.8	22.2	1.8	100	205	155	325	245			
71	70.05	14	131	205	2.0	20.2	2.0	91.4	180	135	285	215			
80	76.91	13	131	186	1.8	22.2	1.8	100	180	135	280	210			
n ₁ = 1200 1/min (60Hz)					DRS100L4 4.4 kW S3 I _N =9.2 A (460V)		DRS180M4/Z 20 kW S3 I _N =37 A (460V)		IE1						
28	28.63	42	131	595	2.9	13.7	3.0	61.3	250	165	475	345	126 128		
31.5	31.43	38	131	542	2.7	15.0	2.7	67.3	250	165	470	340			
35.5	36.26	33	131	470	2.9	13.7	3.0	61.3	245	175	435	325			
40	39.82	30	131	428	2.7	15.0	2.7	67.3	245	175	430	320			
45	44.78	27	131	381	2.4	16.9	2.4	75.7	225	160	395	290			
50	49.17	24	131	347	2.2	18.6	2.2	83.1	220	160	385	290			
56	54.71	22	131	314	2.4	16.9	2.4	75.7	210	155	370	275			
63	60.08	20	131	286	2.2	18.6	2.2	83.1	210	155	365	270			
71	70.05	17	131	246	2.4	16.9	2.4	75.7	185	135	315	240			
80	76.91	16	131	224	2.2	18.6	2.2	83.1	185	135	315	235			
n ₁ = 1500 1/min (50Hz)					DRS112M4 4.4 kW S3 I _N =9 A (400V)		DRS180M4/Z 20 kW S3 I _N =37.5 A (400V)		IE1						
28	28.63	52	131	744	2.5	16.4	2.5	74.0	215	*)	510	355	126 128		
31.5	31.43	48	131	678	2.2	18.0	2.3	81.3	215	*)	500	350			
35.5	36.26	41	131	587	2.5	16.4	2.5	74.0	240	160	485	355			
40	39.82	38	131	535	2.2	18.0	2.3	81.3	235	160	480	350			
45	44.78	33	131	476	2.0	20.2	2.0	91.4	215	150	435	320			
50	49.17	31	131	433	1.8	22.2	1.8	100	215	145	430	315			
56	54.71	27	131	393	2.0	20.2	2.0	91.4	210	150	415	305			
63	60.08	25	131	358	1.8	22.2	1.8	100	210	145	405	300			
71	70.05	21	131	307	2.0	20.2	2.0	91.4	190	135	360	270			
80	76.91	20	131	280	1.8	22.2	1.8	100	185	135	355	265			
n ₁ = 1800 1/min (60Hz)					DRS100L4 4.4 kW S3 I _N =9.2 A (460V)		DRS180M4/Z 20 kW S3 I _N =37 A (460V)		IE1						
28 ¹⁾	28.63	63	126	862	2.9	13.7	3.0	61.3	*)	*)	510	335	126 128		
31.5 ¹⁾	31.43	57	129	801	2.7	15.0	2.7	67.3	*)	*)	500	335			
35.5	36.26	50	129	694	2.9	13.7	3.0	61.3	220	*)	510	365			
40	39.82	45	131	642	2.7	15.0	2.7	67.3	215	*)	500	360			
45	44.78	40	131	571	2.4	16.9	2.4	75.7	200	*)	460	330			
50	49.17	37	131	520	2.2	18.6	2.2	83.1	200	*)	455	325			
56	54.71	33	131	472	2.4	16.9	2.4	75.7	200	135	440	320			
63	60.08	30	131	429	2.2	18.6	2.2	83.1	200	130	435	315			
71	70.05	26	131	368	2.4	16.9	2.4	75.7	185	130	385	285			
80	76.91	23	131	335	2.2	18.6	2.2	83.1	180	125	380	280			



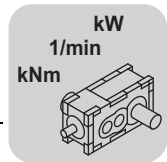


Selection Tables

IE1 motor standard

10.1.15 X3K240

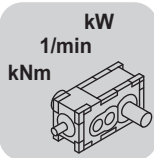
X.K240..										156 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	KF87 i=36.52		KF127 i=36.25		 P _{TH} [kW]					
														
n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C							
n ₁ = 1000 1/min (50Hz)					DRS132S4 6 kW S3 I _N =12.2 A (400V)		DRS180LC4/Z 33 kW S3 I _N =63 A (400V)		IE1				126 128	
28	29.51	34	156	573	2.4	23.0	2.5	123	270	180	465	335		
31.5	32.47	31	156	521	2.8	19.9	2.8	106	270	190	440	325		
35.5	37.38	27	156	452	2.4	23.0	2.5	123	265	190	430	315		
40	39.96	25	156	423	2.2	24.5	2.3	131	260	190	425	315		
45	46	22	156	368	1.9	28.3	2.0	151	255	185	415	310		
50	48.83	20	156	350	2.2	24.5	2.3	131	250	180	400	295		
56	56.2	18	156	304	1.9	28.3	2.0	151	240	175	380	285		
63	62.51	16	156	273	2.2	24.5	2.3	131	225	165	355	265		
71	71.95	14	156	237	1.9	28.3	2.0	151	215	160	340	255		
n ₁ = 1200 1/min (60Hz)					DRS132S4 6 kW S3 I _N =11.9 A (460V)		DRS180LC4/Z 33 kW S3 I _N =61 A (460V)		IE1				126 128	
28	29.51	41	156	688	2.9	18.8	3.0	102	245	*)	500	350		
31.5	32.47	37	156	625	3.4	16.3	3.4	88.7	260	180	480	350		
35.5	37.38	32	156	543	2.9	18.8	3.0	102	255	175	470	345		
40	39.96	30	156	508	2.7	20.1	2.8	109	255	175	470	340		
45	46	26	156	441	2.4	23.2	2.4	125	250	170	460	335		
50	48.83	25	156	419	2.7	20.1	2.8	109	250	175	440	325		
56	56.2	21	156	364	2.4	23.2	2.4	125	235	165	420	310		
63	62.51	19	156	328	2.7	20.1	2.8	109	225	160	395	295		
71	71.95	17	156	285	2.4	23.2	2.4	125	215	155	380	280		
n ₁ = 1500 1/min (50Hz)					DRS132S4 6 kW S3 I _N =12.2 A (400V)		DRS180LC4/Z 33 kW S3 I _N =63 A (400V)		IE1				126 128	
28 ¹⁾	29.51	51	156	860	2.4	23.0	2.5	123	*)	*)	520	345		
31.5	32.47	46	156	781	2.8	19.9	2.8	106	235	*)	520	370		
35.5	37.38	40	156	679	2.4	23.0	2.5	123	230	*)	510	365		
40	39.96	38	156	635	2.2	24.5	2.3	131	230	*)	510	365		
45	46	33	156	551	1.9	28.3	2.0	151	225	140	500	355		
50	48.83	31	156	524	2.2	24.5	2.3	131	235	155	490	355		
56	56.2	27	156	456	1.9	28.3	2.0	151	225	150	465	340		
63	62.51	24	156	410	2.2	24.5	2.3	131	220	150	440	325		
71	71.95	21	156	356	1.9	28.3	2.0	151	210	145	420	310		
n ₁ = 1800 1/min (60Hz)					DRS132S4 6 kW S3 I _N =11.9 A (460V)		DRS180LC4/Z 33 kW S3 I _N =61 A (460V)		IE1				126 128	
28 ¹⁾	29.51	61	156	1031	2.9	18.8	3.0	102	*)	*)	495	285		
31.5	32.47	55	156	937	3.4	16.3	3.4	88.7	*)	*)	540	365		
35.5	37.38	48	156	814	2.9	18.8	3.0	102	*)	*)	520	355		
40	39.96	45	156	762	2.7	20.1	2.8	109	*)	*)	520	360		
45	46	39	156	662	2.4	23.2	2.4	125	185	*)	510	350		
50	48.83	37	156	629	2.7	20.1	2.8	109	210	*)	510	360		
56	56.2	32	156	547	2.4	23.2	2.4	125	200	*)	490	345		
63	62.51	29	156	492	2.7	20.1	2.8	109	205	130	465	335		
71	71.95	25	156	427	2.4	23.2	2.4	125	195	125	445	325		



10.1.16 X3K250

X.K250..										175 kNm					
					KF87 i=36.52		KF127 i=36.25		 P _{TH} [kW]						
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]											
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C			
n ₁ = 1000 1/min (50Hz)					DRS132S4 6 kW S3 I _N =12.2 A (400V)		DRS180LC4/Z 33 kW S3 I _N =63 A (400V)		IE1				126 128		
28	27.55	36	175	689	2.6	21.4	2.6	114	280	190	485	350			
31.5	31.64	32	175	600	2.2	24.6	2.3	131	270	180	460	330			
35.5	34.89	29	175	544	2.6	21.4	2.6	114	275	195	445	330			
40	40.08	25	175	473	2.2	24.6	2.3	131	260	185	425	315			
45	42.95	23	175	442	2.1	26.4	2.1	141	265	190	430	320			
50	49.33	20	175	385	1.8	30.3	1.9	162	255	180	410	305			
56	52.47	19	175	365	2.1	26.4	2.1	141	245	180	395	295			
63	60.27	17	175	318	1.8	30.3	1.9	162	240	175	385	290			
71	67.18	15	175	285	2.1	26.4	2.1	141	225	165	350	265			
80	77.17	13	175	248	1.8	30.3	1.9	162	220	160	345	260			
n ₁ = 1200 1/min (60Hz)					DRS132S4 6 kW S3 I _N =11.9 A (460V)		DRS180LC4/Z 33 kW S3 I _N =61 A (460V)		IE1				126 128		
28	27.55	44	175	826	3.1	17.6	3.2	95.3	255	*)	520	365			
31.5	31.64	38	175	719	2.7	20.2	2.8	109	245	*)	495	350			
35.5	34.89	34	175	652	3.1	17.6	3.2	95.3	265	180	490	360			
40	40.08	30	175	568	2.7	20.2	2.8	109	255	175	465	340			
45	42.95	28	175	530	2.5	21.6	2.6	117	260	180	475	350			
50	49.33	24	175	461	2.2	24.9	2.2	134	250	170	455	330			
56	52.47	23	175	438	2.5	21.6	2.6	117	245	175	440	325			
63	60.27	20	175	381	2.2	24.9	2.2	134	240	170	430	315			
71	67.18	18	175	342	2.5	21.6	2.6	117	225	160	395	295			
80	77.17	16	175	298	2.2	24.9	2.2	134	220	160	385	285			
n ₁ = 1500 1/min (50Hz)					DRS132S4 6 kW S3 I _N =12.2 A (400V)		DRS180LC4/Z 33 kW S3 I _N =63 A (400V)		IE1				126 128		
28 ¹⁾	27.55	54	175	1033	2.6	21.4	2.6	114	*)	*)	540	355			
31.5 ¹⁾	31.64	47	175	899	2.2	24.6	2.3	131	*)	*)	520	340			
35.5	34.89	43	175	816	2.6	21.4	2.6	114	240	*)	530	380			
40	40.08	37	175	710	2.2	24.6	2.3	131	230	*)	510	360			
45	42.95	35	175	662	2.1	26.4	2.1	141	235	*)	520	370			
50	49.33	30	175	577	1.8	30.3	1.9	162	225	*)	495	355			
56	52.47	29	175	547	2.1	26.4	2.1	141	235	155	485	355			
63	60.27	25	175	477	1.8	30.3	1.9	162	230	150	475	345			
71	67.18	22	175	428	2.1	26.4	2.1	141	220	150	440	325			
80	77.17	19	175	372	1.8	30.3	1.9	162	215	145	430	315			
n ₁ = 1800 1/min (60Hz)					DRS132S4 6 kW S3 I _N =11.9 A (460V)		DRS180LC4/Z 33 kW S3 I _N =61 A (460V)		IE1				126 128		
28 ¹⁾	27.55	65	174	1232	3.1	17.6	3.2	95.3	*)	*)	510	*)			
31.5 ¹⁾	31.64	57	175	1079	2.7	20.2	2.8	109	*)	*)	490	285			
35.5	34.89	52	175	979	3.1	17.6	3.2	95.3	*)	*)	540	370			
40	40.08	45	175	852	2.7	20.2	2.8	109	*)	*)	520	355			
45	42.95	42	175	795	2.5	21.6	2.6	117	*)	*)	530	365			
50	49.33	36	175	692	2.2	24.9	2.2	134	185	*)	510	350			
56	52.47	34	175	657	2.5	21.6	2.6	117	210	*)	510	360			
63	60.27	30	175	572	2.2	24.9	2.2	134	205	*)	495	350			
71	67.18	27	175	513	2.5	21.6	2.6	117	205	130	465	335			
80	77.17	23	175	447	2.2	24.9	2.2	134	200	130	455	330			



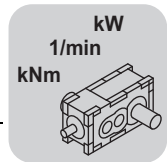


Selection Tables

IE1 motor standard

10.1.17 X3K260

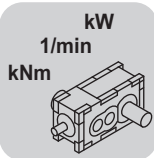
X.K260..										205 kNm				
					KF87 i=36.52		KF127 i=36.25		 P _{TH} [kW]					
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]										
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C		
n ₁ = 1000 1/min (50Hz)					DRS132S4 6 kW S3 I _N =12.2 A (400V)		DRS225S4/Z 40 kW S3 I _N =75 A (400V)		IE1					
28	29.51	34	205	753	2.4	23.0	2.5	148	275	*)	540	380	130 132	
31.5	30.68	33	205	724	2.3	23.9	2.4	154	285	*)	560	395		
35.5	34.7	29	205	640	2.0	27.0	2.1	174	280	165	550	385		
40	38.86	26	205	572	2.3	23.9	2.4	154	310	210	550	405		
45	43.96	23	205	505	2.0	27.0	2.1	174	295	200	530	390		
50	47.48	21	205	472	2.3	23.9	2.4	154	285	200	495	370		
56	53.7	19	205	418	2.0	27.0	2.1	174	280	195	485	360		
63	60.78	16	205	369	2.3	23.9	2.4	154	260	185	445	335		
71	68.75	15	205	326	2.0	27.0	2.1	174	250	175	425	320		
n ₁ = 1200 1/min (60Hz)					DRS132S4 6 kW S3 I _N =11.9 A (460V)		DRS225S4/Z 40 kW S3 I _N =73 A (460V)		IE1					
28	29.51	41	205	904	2.9	18.8	3.0	123	*)	*)	570	385	130 132	
31.5	30.68	39	205	869	2.8	19.6	2.9	128	230	*)	590	400		
35.5	34.7	35	205	768	2.5	22.2	2.5	145	225	*)	580	395		
40	38.86	31	205	686	2.8	19.6	2.9	128	295	180	610	440		
45	43.96	27	205	607	2.5	22.2	2.5	145	280	175	580	420		
50	47.48	25	205	567	2.8	19.6	2.9	128	280	185	550	405		
56	53.7	22	205	501	2.5	22.2	2.5	145	275	180	540	395		
63	60.78	20	205	443	2.8	19.6	2.9	128	260	180	495	370		
71	68.75	17	205	392	2.5	22.2	2.5	145	250	170	475	355		
n ₁ = 1500 1/min (50Hz)					DRS132S4 6 kW S3 I _N =12.2 A (400V)		DRS225S4/Z 40 kW S3 I _N =75 A (400V)		IE1					
28 ¹⁾	29.51	51	205	1130	2.4	23.0	2.5	148	*)	*)	570	340	130 132	
31.5 ¹⁾	30.68	49	205	1086	2.3	23.9	2.4	154	*)	*)	590	360		
35.5 ¹⁾	34.7	43	205	961	2.0	27.0	2.1	174	*)	*)	580	355		
40	38.86	39	205	858	2.3	23.9	2.4	154	240	*)	650	455		
45	43.96	34	205	758	2.0	27.0	2.1	174	230	*)	620	435		
50	47.48	32	205	709	2.3	23.9	2.4	154	250	*)	600	435		
56	53.7	28	205	627	2.0	27.0	2.1	174	245	*)	590	425		
63	60.78	25	205	554	2.3	23.9	2.4	154	245	155	550	405		
71	68.75	22	205	489	2.0	27.0	2.1	174	235	150	530	390		
n ₁ = 1800 1/min (60Hz)					DRS132S4 6 kW S3 I _N =11.9 A (460V)		DRS225S4/Z 40 kW S3 I _N =73 A (460V)		IE1					
28 ¹⁾	29.51	61	205	1355	2.9	18.8	3.0	123	*)	*)	490	*)	130 132	
31.5 ¹⁾	30.68	59	205	1304	2.8	19.6	2.9	128	*)	*)	520	*)		
35.5 ¹⁾	34.7	52	205	1153	2.5	22.2	2.5	145	*)	*)	510	*)		
40 ¹⁾	38.86	46	205	1029	2.8	19.6	2.9	128	*)	*)	660	435		
45 ¹⁾	43.96	41	205	910	2.5	22.2	2.5	145	*)	*)	630	420		
50	47.48	38	205	850	2.8	19.6	2.9	128	*)	*)	630	435		
56	53.7	34	205	752	2.5	22.2	2.5	145	200	*)	610	425		
63	60.78	30	205	664	2.8	19.6	2.9	128	220	*)	580	420		
71	68.75	26	205	587	2.5	22.2	2.5	145	215	*)	560	400		



10.1.18 X3K270

X.K270..										240 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	KF87 i=36.52		KF127 i=36.25		 P _{TH} [kW]					
														
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C		
n ₁ = 1000 1/min (50Hz)					DRS132S4 6 kW S3 I _N =12.2 A (400V)		DRS225S4/Z 40 kW S3 I _N =75 A (400V)		IE1				130 132	
28	28.65	35	240	908	2.5	22.3	2.5	144	295	*)	580	410		
31.5	32.07	31	240	811	2.2	25.0	2.3	161	290	*)	570	405		
35.5	33.7	30	240	772	2.1	26.2	2.2	169	290	*)	570	405		
40	37.72	27	240	690	1.9	29.4	1.9	190	285	*)	560	395		
45	42.68	23	240	610	2.1	26.2	2.2	169	300	205	540	395		
50	47.78	21	240	544	1.9	29.4	1.9	190	305	205	540	395		
56	52.14	19	240	504	2.1	26.2	2.2	169	290	200	510	375		
63	58.37	17	240	450	1.9	29.4	1.9	190	285	200	495	370		
71	66.76	15	240	393	2.1	26.2	2.2	169	260	185	445	335		
80	74.73	13	240	351	1.9	29.4	1.9	190	260	185	445	335		
n ₁ = 1200 1/min (60Hz)					DRS132S4 6 kW S3 I _N =11.9 A (460V)		DRS225S4/Z 40 kW S3 I _N =73 A (460V)		IE1				130 132	
28	28.65	42	240	1090	3.0	18.3	3.1	119	*)	*)	610	415		
31.5	32.07	37	240	973	2.7	20.5	2.7	134	*)	*)	600	410		
35.5	33.7	36	240	926	2.6	21.5	2.6	141	240	*)	600	410		
40	37.72	32	240	828	2.3	24.1	2.3	157	235	*)	590	405		
45	42.68	28	240	731	2.6	21.5	2.6	141	285	*)	590	425		
50	47.78	25	240	653	2.3	24.1	2.3	157	285	180	590	430		
56	52.14	23	240	604	2.6	21.5	2.6	141	285	190	560	410		
63	58.37	21	240	540	2.3	24.1	2.3	157	280	185	550	405		
71	66.76	18	240	472	2.6	21.5	2.6	141	260	180	495	370		
80	74.73	16	240	422	2.3	24.1	2.3	157	260	180	495	370		
n ₁ = 1500 1/min (50Hz)					DRS132S4 6 kW S3 I _N =12.2 A (400V)		DRS225S4/Z 40 kW S3 I _N =75 A (400V)		IE1				130 132	
28 ¹⁾	28.65	52	240	1362	2.5	22.3	2.5	144	*)	*)	610	365		
31.5 ¹⁾	32.07	47	240	1217	2.2	25.0	2.3	161	*)	*)	600	360		
35.5 ¹⁾	33.7	45	240	1158	2.1	26.2	2.2	169	*)	*)	600	370		
40 ¹⁾	37.72	40	240	1035	1.9	29.4	1.9	190	*)	*)	590	365		
45	42.68	35	240	914	2.1	26.2	2.2	169	235	*)	640	445		
50	47.78	31	240	817	1.9	29.4	1.9	190	240	*)	640	450		
56	52.14	29	240	755	2.1	26.2	2.2	169	260	*)	620	445		
63	58.37	26	240	675	1.9	29.4	1.9	190	255	*)	600	435		
71	66.76	22	240	590	2.1	26.2	2.2	169	250	155	550	405		
80	74.73	20	240	527	1.9	29.4	1.9	190	250	160	550	405		
n ₁ = 1800 1/min (60Hz)					DRS132S4 6 kW S3 I _N =11.9 A (460V)		DRS225S4/Z 40 kW S3 I _N =73 A (460V)		IE1				130 132	
28 ¹⁾	28.65	63	240	1634	3.0	18.3	3.1	119	*)	*)	530	*)		
31.5 ¹⁾	32.07	56	240	1460	2.7	20.5	2.7	134	*)	*)	520	*)		
35.5 ¹⁾	33.7	53	240	1390	2.6	21.5	2.6	141	*)	*)	530	*)		
40 ¹⁾	37.72	48	240	1241	2.3	24.1	2.3	157	*)	*)	520	*)		
45 ¹⁾	42.68	42	240	1097	2.6	21.5	2.6	141	*)	*)	640	425		
50 ¹⁾	47.78	38	240	980	2.3	24.1	2.3	157	*)	*)	650	430		
56	52.14	35	240	907	2.6	21.5	2.6	141	*)	*)	640	445		
63	58.37	31	240	810	2.3	24.1	2.3	157	210	*)	630	440		
71	66.76	27	240	708	2.6	21.5	2.6	141	225	*)	580	420		
80	74.73	24	240	633	2.3	24.1	2.3	157	225	*)	580	420		



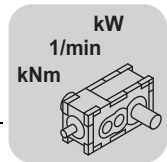


Selection Tables

IE1 motor standard

10.1.19 X3K280

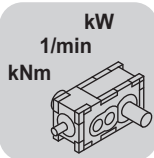
X.K280..										270 kNm				
					KF87 i=36.52		KF127 i=36.25		 P _{TH} [kW]					
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]										
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C		
n ₁ = 1000 1/min (50Hz)					DRS132S4 6 kW S3 I _N =12.2 A (400V)		DRS225S4/Z 40 kW S3 I _N =75 A (400V)		IE1					
31.5	32.07	31	270	913	2.2	25.0	2.3	161	355	*)	670	480	130 132	
35.5	35.92	28	270	815	2.0	28.0	2.0	180	350	215	660	475		
40	37.72	27	270	776	1.9	29.4	1.9	190	350	220	660	475		
45	42.25	24	270	693	1.7	32.9	1.7	212	345	215	650	465		
50	47.78	21	270	613	1.9	29.4	1.9	190	370	255	640	475		
56	53.51	19	270	547	1.7	32.9	1.7	212	360	250	630	465		
63	58.37	17	270	506	1.9	29.4	1.9	190	335	235	570	430		
71	65.38	15	270	452	1.7	32.9	1.7	212	330	230	560	420		
80	74.73	13	270	395	1.9	29.4	1.9	190	305	215	510	385		
90	83.7	12	270	353	1.7	32.9	1.7	212	300	215	500	380		
n ₁ = 1200 1/min (60Hz)					DRS132S4 6 kW S3 I _N =11.9 A (460V)		DRS225S4/Z 40 kW S3 I _N =73 A (460V)		IE1					
31.5	32.07	37	270	1095	2.7	20.5	2.7	134	305	*)	720	500	130 132	
35.5	35.92	33	270	978	2.4	22.9	2.4	150	300	*)	710	490		
40	37.72	32	270	931	2.3	24.1	2.3	157	305	*)	710	495		
45	42.25	28	270	831	2.0	27.0	2.1	176	300	*)	690	485		
50	47.78	25	270	735	2.3	24.1	2.3	157	355	230	710	520		
56	53.51	22	270	656	2.0	27.0	2.1	176	350	225	690	510		
63	58.37	21	270	607	2.3	24.1	2.3	157	330	225	640	475		
71	65.38	18	270	542	2.0	27.0	2.1	176	325	220	620	465		
80	74.73	16	270	474	2.3	24.1	2.3	157	305	215	570	430		
90	83.7	14	270	424	2.0	27.0	2.1	176	300	210	560	420		
n ₁ = 1500 1/min (50Hz)					DRS132S4 6 kW S3 I _N =12.2 A (400V)		DRS225S4/Z 40 kW S3 I _N =75 A (400V)		IE1					
31.5 ¹⁾	32.07	47	270	1369	2.2	25.0	2.3	161	*)	*)	740	475	130 132	
35.5 ¹⁾	35.92	42	270	1222	2.0	28.0	2.0	180	*)	*)	720	465		
40 ¹⁾	37.72	40	270	1164	1.9	29.4	1.9	190	*)	*)	730	470		
45 ¹⁾	42.25	36	270	1039	1.7	32.9	1.7	212	*)	*)	710	465		
50	47.78	31	270	919	1.9	29.4	1.9	190	315	*)	770	550		
56	53.51	28	270	820	1.7	32.9	1.7	212	310	*)	760	540		
63	58.37	26	270	759	1.9	29.4	1.9	190	310	190	710	520		
71	65.38	23	270	678	1.7	32.9	1.7	212	305	190	690	510		
80	74.73	20	270	593	1.9	29.4	1.9	190	300	195	640	475		
90	83.7	18	270	529	1.7	32.9	1.7	212	290	195	630	465		
n ₁ = 1800 1/min (60Hz)					DRS132S4 6 kW S3 I _N =11.9 A (460V)		DRS225S4/Z 40 kW S3 I _N =73 A (460V)		IE1					
31.5 ¹⁾	32.07	56	270	1643	2.7	20.5	2.7	134	*)	*)	680	*)	130 132	
35.5 ¹⁾	35.92	50	270	1467	2.4	22.9	2.4	150	*)	*)	670	370		
40 ¹⁾	37.72	48	270	1397	2.3	24.1	2.3	157	*)	*)	680	380		
45 ¹⁾	42.25	43	270	1247	2.0	27.0	2.1	176	*)	*)	670	375		
50 ¹⁾	47.78	38	270	1103	2.3	24.1	2.3	157	*)	*)	790	540		
56 ¹⁾	53.51	34	270	985	2.0	27.0	2.1	176	*)	*)	780	540		
63	58.37	31	270	911	2.3	24.1	2.3	157	270	*)	740	530		
71	65.38	28	270	813	2.0	27.0	2.1	176	265	*)	730	520		
80	74.73	24	270	712	2.3	24.1	2.3	157	275	*)	680	495		
90	83.7	22	270	635	2.0	27.0	2.1	176	275	165	670	485		



10.2 IE2 motor standard

10.2.1 X3K100

X.K100..														6.80 kNm	
					KF37 i=28.83		KF57 i=35.7		 P _{TH} [kW]				 		
															
					i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]		M _{K3} [kNm]	P _{TH} 20°C
n ₁ = 1000 1/min (50Hz)					DRE80M4 0.82 kW S3 I _N =1.81 A (400V)		DRE90L4/Z 1.7 kW S3 I _N =3.65 A (400V)		IE2						
31.5	30.35	33	6.80	24	2.9	2.57	2.3	6.64	43	32	58	42	?		
35.5	34.35	29	6.80	21	3.3	2.29	2.6	5.93	37	28	50	37			
40	38.45	26	6.80	19.2	2.9	2.57	2.3	6.64	39	29	51	38			
45	42.96	23	6.80	17.2	2.6	2.87	2.1	7.42	34	25	45	33			
50	48.08	21	6.80	15.3	2.3	3.21	1.9	8.31	35	26	46	34			
56	52.49	19	6.80	14.2	2.6	2.87	2.1	7.42	31	23	42	31			
63	58.74	17	6.80	12.7	2.3	3.21	1.9	8.31	32	24	43	32			
71	67.2	15	6.80	11.1	2.6	2.87	2.1	7.42	28	20	36	27			
80	75.21	13	6.80	9.9	2.3	3.21	1.9	8.31	28	20	37	27			
n ₁ = 1200 1/min (60Hz)					DRE80M4 0.82 kW S3 I _N =1.77 A (460V)		DRE90L4/Z 1.7 kW S3 I _N =3.6 A (460V)		IE2						
31.5	30.35	40	6.80	29	3.5	2.11	2.9	5.45	45	33	67	49	?		
35.5	34.35	35	6.80	26	4.0	1.89	3.2	4.87	39	28	58	43			
40	38.45	31	6.80	23	3.5	2.11	2.9	5.45	40	29	60	44			
45	42.96	28	6.80	21	3.2	2.36	2.6	6.09	35	26	52	39			
50	48.08	25	6.80	18.4	2.8	2.65	2.3	6.82	36	27	54	40			
56	52.49	23	6.80	17.0	3.2	2.36	2.6	6.09	33	24	49	36			
63	58.74	20	6.80	15.2	2.8	2.65	2.3	6.82	34	25	50	37			
71	67.2	18	6.80	13.3	3.2	2.36	2.6	6.09	29	21	43	32			
80	75.21	16	6.80	11.9	2.8	2.65	2.3	6.82	29	21	43	32			
n ₁ = 1500 1/min (50Hz)					DRE80M4 0.82 kW S3 I _N =1.81 A (400V)		DRE90L4/Z 1.7 kW S3 I _N =3.65 A (400V)		IE2						
31.5	30.35	49	6.80	36	2.9	2.57	2.3	6.64	46	33	81	59	?		
35.5	34.35	44	6.80	32	3.3	2.29	2.6	5.93	40	29	70	51			
40	38.45	39	6.80	29	2.9	2.57	2.3	6.64	42	30	72	53			
45	42.96	35	6.80	26	2.6	2.87	2.1	7.42	37	26	63	47			
50	48.08	31	6.80	23	2.3	3.21	1.9	8.31	38	27	65	48			
56	52.49	29	6.80	21	2.6	2.87	2.1	7.42	34	25	59	44			
63	58.74	26	6.80	19.0	2.3	3.21	1.9	8.31	35	26	61	45			
71	67.2	22	6.80	16.6	2.6	2.87	2.1	7.42	30	22	52	38			
80	75.21	20	6.80	14.8	2.3	3.21	1.9	8.31	30	22	52	38			
n ₁ = 1800 1/min (60Hz)					DRE80M4 0.82 kW S3 I _N =1.77 A (460V)		DRE90L4/Z 1.7 kW S3 I _N =3.6 A (460V)		IE2						
31.5	30.35	59	6.80	44	3.5	2.11	2.9	5.45	47	33	94	68	?		
35.5	34.35	52	6.80	39	4.0	1.89	3.2	4.87	41	29	81	60			
40	38.45	47	6.80	35	3.5	2.11	2.9	5.45	43	31	84	62			
45	42.96	42	6.80	31	3.2	2.36	2.6	6.09	37	27	74	54			
50	48.08	37	6.80	28	2.8	2.65	2.3	6.82	39	28	76	56			
56	52.49	34	6.80	26	3.2	2.36	2.6	6.09	35	25	69	51			
63	58.74	31	6.80	23	2.8	2.65	2.3	6.82	36	26	71	52			
71	67.2	27	6.80	20	3.2	2.36	2.6	6.09	31	22	60	44			
80	75.21	24	6.80	17.8	2.8	2.65	2.3	6.82	31	22	61	45			

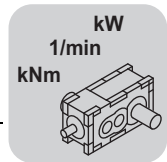


Selection Tables

IE2 motor standard

10.2.2 X3K110

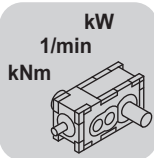
X.K110..										8.50 kNm			
					KF37 i=28.83		KF57 i=35.7		 P _{TH} [kW]				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]									
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C	
n ₁ = 1000 1/min (50Hz)					DRE80M4 0.82 kW S3 I _N =1.81 A (400V)		DRE90L4/Z 1.7 kW S3 I _N =3.65 A (400V)		IE2				122 124
28	28.26	35	8.50	33	3.1	2.39	2.5	6.18	51	38	68	50	
31.5	31.21	32	8.50	30	2.8	2.64	2.3	6.83	46	34	61	45	
35.5	34.94	29	8.50	26	2.5	2.95	2.0	7.64	46	33	61	45	
40	39.53	25	8.50	23	2.8	2.64	2.3	6.83	39	29	52	39	
45	44.26	23	8.50	21	2.5	2.95	2.0	7.64	41	30	54	40	
50	49.44	20	8.50	18.6	2.3	3.30	1.8	8.54	37	27	49	37	
56	55.35	18	8.50	16.6	2.0	3.70	1.6	9.56	37	27	49	36	
63	60.4	17	8.50	15.4	2.3	3.30	1.8	8.54	33	25	44	33	
71	67.62	15	8.50	13.8	2.0	3.70	1.6	9.56	34	25	45	34	
80	77.33	13	8.50	12.0	2.3	3.30	1.8	8.54	29	21	38	29	
90	86.58	12	8.50	10.7	2.0	3.70	1.6	9.56	29	22	39	29	
n ₁ = 1200 1/min (60Hz)					DRE80M4 0.82 kW S3 I _N =1.77 A (460V)		DRE90L4/Z 1.7 kW S3 I _N =3.6 A (460V)		IE2				122 124
28	28.26	42	8.50	39	3.8	1.97	3.1	5.07	53	38	79	58	
31.5	31.21	38	8.50	35	3.4	2.17	2.8	5.60	48	35	71	53	
35.5	34.94	34	8.50	32	3.1	2.44	2.5	6.27	47	34	71	52	
40	39.53	30	8.50	28	3.4	2.17	2.8	5.60	41	30	61	45	
45	44.26	27	8.50	25	3.1	2.44	2.5	6.27	42	31	63	47	
50	49.44	24	8.50	22	2.8	2.72	2.2	7.01	39	28	58	43	
56	55.35	22	8.50	20	2.5	3.05	2.0	7.85	38	28	57	42	
63	60.4	20	8.50	18.5	2.8	2.72	2.2	7.01	35	25	51	38	
71	67.62	18	8.50	16.5	2.5	3.05	2.0	7.85	36	26	53	39	
80	77.33	16	8.50	14.4	2.8	2.72	2.2	7.01	30	22	45	33	
90	86.58	14	8.50	12.9	2.5	3.05	2.0	7.85	30	22	45	33	
n ₁ = 1500 1/min (50Hz)					DRE80M4 0.82 kW S3 I _N =1.81 A (400V)		DRE90L4/Z 1.7 kW S3 I _N =3.65 A (400V)		IE2				122 124
28	28.26	53	8.50	49	3.1	2.39	2.5	6.18	55	39	96	70	
31.5	31.21	48	8.50	44	2.8	2.64	2.3	6.83	49	35	86	63	
35.5	34.94	43	8.50	40	2.5	2.95	2.0	7.64	49	35	85	62	
40	39.53	38	8.50	35	2.8	2.64	2.3	6.83	43	31	74	54	
45	44.26	34	8.50	31	2.5	2.95	2.0	7.64	44	32	76	56	
50	49.44	30	8.50	28	2.3	3.30	1.8	8.54	40	29	70	51	
56	55.35	27	8.50	25	2.0	3.70	1.6	9.56	40	29	69	51	
63	60.4	25	8.50	23	2.3	3.30	1.8	8.54	36	26	62	46	
71	67.62	22	8.50	21	2.0	3.70	1.6	9.56	37	27	64	47	
80	77.33	19	8.50	18.0	2.3	3.30	1.8	8.54	32	23	54	40	
90	86.58	17	8.50	16.1	2.0	3.70	1.6	9.56	32	23	55	40	
n ₁ = 1800 1/min (60Hz)					DRE80M4 0.82 kW S3 I _N =1.77 A (460V)		DRE90L4/Z 1.7 kW S3 I _N =3.6 A (460V)		IE2				122 124
28	28.26	64	8.50	59	3.8	1.97	3.1	5.07	55	39	110	81	
31.5	31.21	58	8.50	53	3.4	2.17	2.8	5.60	50	35	100	73	
35.5	34.94	52	8.50	47	3.1	2.44	2.5	6.27	49	35	99	72	
40	39.53	46	8.50	42	3.4	2.17	2.8	5.60	44	31	86	63	
45	44.26	41	8.50	37	3.1	2.44	2.5	6.27	45	32	89	65	
50	49.44	36	8.50	34	2.8	2.72	2.2	7.01	41	30	81	60	
56	55.35	33	8.50	30	2.5	3.05	2.0	7.85	41	29	80	59	
63	60.4	30	8.50	28	2.8	2.72	2.2	7.01	37	27	72	53	
71	67.62	27	8.50	25	2.5	3.05	2.0	7.85	38	28	75	55	
80	77.33	23	8.50	22	2.8	2.72	2.2	7.01	33	24	63	47	
90	86.58	21	8.50	19.3	2.5	3.05	2.0	7.85	33	24	64	47	



10.2.3 X3K120

X.K120..										12.8 kNm				
					KF47 i=31.3		KF67 i=35.62		 P _{TH} [kW]					
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]										
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C		P _{TH} 20°C		P _{TH} 40°C
n ₁ = 1000 1/min (50Hz)					DRE90M4 1.2 kW S3 I _N =2.6 A (400V)		DRE100M4/Z 2.4 kW S3 I _N =5 A (400V)		IE2					
28	29.32	34	12.4	46	2.7	4.00	2.4	9.07	65	47	87	63	122 124	
31.5	30.96	32	12.4	43	2.6	4.22	2.3	9.58	57	42	76	56		
35.5	35.25	28	12.4	38	2.3	4.81	2.0	10.9	58	42	78	57		
40	40.01	25	12.4	34	2.6	4.22	2.3	9.58	49	36	66	49		
45	45.55	22	12.8	30	2.3	4.81	2.0	10.9	51	38	68	50		
50	47.92	21	12.8	29	2.6	4.22	2.3	9.58	45	33	60	45		
56	54.55	18	12.8	26	2.3	4.81	2.0	10.9	46	33	61	45		
63	61.35	16	12.8	23	2.6	4.22	2.3	9.58	41	30	54	40		
71	69.84	14	12.8	20	2.3	4.81	2.0	10.9	41	30	54	40		
n ₁ = 1200 1/min (60Hz)					DRE90M4 1.2 kW S3 I _N =2.75 A (460V)		DRE100L4/Z 2.4 kW S3 I _N =4.9 A (460V)		IE2					
28	29.32	41	12.4	55	3.4	3.24	3.0	7.42	66	48	100	73	122 124	
31.5	30.96	39	12.4	52	3.2	3.42	2.8	7.84	59	42	89	65		
35.5	35.25	34	12.4	46	2.8	3.89	2.5	8.92	59	43	90	66		
40	40.01	30	12.4	40	3.2	3.42	2.8	7.84	51	37	77	56		
45	45.55	26	12.8	37	2.8	3.89	2.5	8.92	53	38	80	58		
50	47.92	25	12.8	35	3.2	3.42	2.8	7.84	47	34	70	52		
56	54.55	22	12.8	31	2.8	3.89	2.5	8.92	47	34	71	52		
63	61.35	20	12.8	27	3.2	3.42	2.8	7.84	42	31	63	46		
71	69.84	17	12.8	24	2.8	3.89	2.5	8.92	42	31	63	47		
n ₁ = 1500 1/min (50Hz)					DRE90M4 1.2 kW S3 I _N =2.6 A (400V)		DRE100M4/Z 2.4 kW S3 I _N =5 A (400V)		IE2					
28	29.32	51	12.4	69	2.7	4.00	2.4	9.07	67	47	120	87	122 124	
31.5	30.96	48	12.4	65	2.6	4.22	2.3	9.58	60	42	105	77		
35.5	35.25	43	12.4	57	2.3	4.81	2.0	10.9	60	42	110	78		
40	40.01	37	12.4	50	2.6	4.22	2.3	9.58	53	38	92	67		
45	45.55	33	12.8	46	2.3	4.81	2.0	10.9	54	39	96	70		
50	47.92	31	12.8	44	2.6	4.22	2.3	9.58	49	35	85	62		
56	54.55	27	12.8	39	2.3	4.81	2.0	10.9	49	35	85	63		
63	61.35	24	12.8	34	2.6	4.22	2.3	9.58	44	31	76	56		
71	69.84	21	12.8	30	2.3	4.81	2.0	10.9	44	32	76	56		
n ₁ = 1800 1/min (60Hz)					DRE90M4 1.2 kW S3 I _N =2.75 A (460V)		DRE100L4/Z 2.4 kW S3 I _N =4.9 A (460V)		IE2					
28	29.32	61	12.4	83	3.4	3.24	3.0	7.42	66	45	140	100	122 124	
31.5	30.96	58	12.4	78	3.2	3.42	2.8	7.84	59	40	125	88		
35.5	35.25	51	12.4	69	2.8	3.89	2.5	8.92	60	41	125	89		
40	40.01	45	12.4	60	3.2	3.42	2.8	7.84	53	37	105	78		
45	45.55	40	12.8	55	2.8	3.89	2.5	8.92	55	39	110	81		
50	47.92	38	12.8	53	3.2	3.42	2.8	7.84	49	35	99	72		
56	54.55	33	12.8	46	2.8	3.89	2.5	8.92	50	35	99	72		
63	61.35	29	12.8	41	3.2	3.42	2.8	7.84	44	32	88	65		
71	69.84	26	12.8	36	2.8	3.89	2.5	8.92	45	32	89	65		



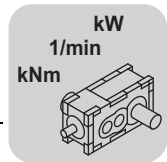


Selection Tables

IE2 motor standard

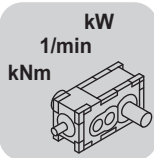
10.2.4 X3K130

X.K130..														16.0 kNm	
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	KF47 i=31.3		KF67 i=35.62		 P _{TH} [kW]				 		
					 n ₃ [1/min]	M _{K3} [kNm]	 n ₃ [1/min]	M _{K3} [kNm]	P _{TH}		P _{TH}				
									20°C	40°C	20°C	40°C			
n ₁ = 1000 1/min (50Hz)					DRE90M4 1.2 kW S3 I _N =2.6 A (400V)		DRE100M4/Z 2.4 kW S3 I _N =5 A (400V)		IE2						
28	28.43	35	15.5	59	2.2	4.99	1.9	11.3	75	54	100	73	122 124		
31.5	32.19	31	15.5	52	2.5	4.39	2.2	9.96	68	50	91	67			
35.5	36.56	27	15.5	46	2.2	4.99	1.9	11.3	69	50	93	68			
40	38.71	26	15.5	43	2.1	5.28	1.8	11.9	61	45	81	60			
45	43.96	23	15.5	38	1.8	6.00	1.6	13.6	62	45	82	61			
50	50.02	20	15.5	34	2.1	5.28	1.8	11.9	54	40	72	53			
56	56.81	18	16.0	31	1.8	6.00	1.6	13.6	53	39	71	53			
63	59.9	17	16.0	29	2.1	5.28	1.8	11.9	48	36	64	48			
71	68.03	15	16.0	26	1.8	6.00	1.6	13.6	49	36	65	48			
80	76.69	13	16.0	23	2.1	5.28	1.8	11.9	43	32	57	43			
90	87.09	11	16.0	20	1.8	6.00	1.6	13.6	43	32	58	43			
n ₁ = 1200 1/min (60Hz)					DRE90M4 1.2 kW S3 I _N =2.75 A (460V)		DRE100L4/Z 2.4 kW S3 I _N =4.9 A (460V)		IE2						
28	28.43	42	15.5	71	2.7	4.04	2.4	9.25	76	54	115	84	122 124		
31.5	32.19	37	15.5	63	3.1	3.56	2.7	8.14	70	50	105	77			
35.5	36.56	33	15.5	55	2.7	4.04	2.4	9.25	71	51	110	79			
40	38.71	31	15.5	52	2.6	4.28	2.2	9.79	63	45	95	69			
45	43.96	27	15.5	46	2.3	4.86	2.0	11.1	63	46	96	70			
50	50.02	24	15.5	40	2.6	4.28	2.2	9.79	56	41	84	62			
56	56.81	21	16.0	37	2.3	4.86	2.0	11.1	55	40	83	61			
63	59.9	20	16.0	35	2.6	4.28	2.2	9.79	50	37	75	55			
71	68.03	18	16.0	31	2.3	4.86	2.0	11.1	51	37	76	56			
80	76.69	16	16.0	27	2.6	4.28	2.2	9.79	45	33	67	50			
90	87.09	14	16.0	24	2.3	4.86	2.0	11.1	45	33	67	50			
n ₁ = 1500 1/min (50Hz)					DRE90M4 1.2 kW S3 I _N =2.6 A (400V)		DRE100M4/Z 2.4 kW S3 I _N =5 A (400V)		IE2						
28	28.43	53	15.5	89	2.2	4.99	1.9	11.3	75	51	140	99	122 124		
31.5	32.19	47	15.5	78	2.5	4.39	2.2	9.96	71	50	125	92			
35.5	36.56	41	15.5	69	2.2	4.99	1.9	11.3	72	51	130	94			
40	38.71	39	15.5	65	2.1	5.28	1.8	11.9	64	45	115	83			
45	43.96	34	15.5	57	1.8	6.00	1.6	13.6	65	46	115	84			
50	50.02	30	15.5	50	2.1	5.28	1.8	11.9	58	41	100	74			
56	56.81	26	16.0	46	1.8	6.00	1.6	13.6	57	41	100	73			
63	59.9	25	16.0	44	2.1	5.28	1.8	11.9	52	38	91	67			
71	68.03	22	16.0	39	1.8	6.00	1.6	13.6	52	38	91	67			
80	76.69	20	16.0	34	2.1	5.28	1.8	11.9	47	34	81	60			
90	87.09	17	16.0	30	1.8	6.00	1.6	13.6	47	34	81	60			
n ₁ = 1800 1/min (60Hz)					DRE90M4 1.2 kW S3 I _N =2.75 A (460V)		DRE100L4/Z 2.4 kW S3 I _N =4.9 A (460V)		IE2						
28	28.43	63	15.5	106	2.7	4.04	2.4	9.25	72	47	160	110	122 124		
31.5	32.19	56	15.5	94	3.1	3.56	2.7	8.14	71	49	145	105			
35.5	36.56	49	15.5	83	2.7	4.04	2.4	9.25	72	49	150	105			
40	38.71	46	15.5	78	2.6	4.28	2.2	9.79	64	44	130	95			
45	43.96	41	15.5	69	2.3	4.86	2.0	11.1	65	45	135	96			
50	50.02	36	15.5	60	2.6	4.28	2.2	9.79	58	41	115	85			
56	56.81	32	16.0	55	2.3	4.86	2.0	11.1	58	41	115	84			
63	59.9	30	16.0	53	2.6	4.28	2.2	9.79	53	38	105	77			
71	68.03	26	16.0	46	2.3	4.86	2.0	11.1	53	38	105	78			
80	76.69	23	16.0	41	2.6	4.28	2.2	9.79	48	34	94	69			
90	87.09	21	16.0	36	2.3	4.86	2.0	11.1	48	34	95	69			



10.2.5 X3K140

X.K140..										22.0 kNm				
					KF57 i=35.7		KF77 i=38.39		 P _{TH} [kW]					
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]										
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C		
n ₁ = 1000 1/min (50Hz)					DRE90L4 1.7 kW S3 I _N =3.65 A (400V)		DRE132S4/Z 4.4 kW S3 I _N =8.7 A (400V)		IE2					
28	28.25	35	22.0	84	2.5	6.18	2.4	16.8	87	63	125	93	122 124	
31.5	33.46	30	22.0	71	2.7	5.78	2.6	15.7	79	58	115	85		
35.5	35.78	28	22.0	67	2.5	6.18	2.4	16.8	77	56	110	82		
40	40.78	25	22.0	58	2.2	7.04	2.1	19.1	72	52	100	77		
45	43.61	23	22.0	55	2.1	7.53	2.0	20.4	71	52	100	76		
50	49.82	20	22.0	48	2.2	7.04	2.1	19.1	64	47	91	69		
56	53.28	19	22.0	45	2.1	7.53	2.0	20.4	65	48	92	70		
63	63.79	16	22.0	38	2.2	7.04	2.1	19.1	58	42	81	62		
71	68.21	15	22.0	35	2.1	7.53	2.0	20.4	58	43	82	62		
n ₁ = 1200 1/min (60Hz)					DRE90L4 1.7 kW S3 I _N =3.6 A (460V)		DRE132S4/Z 4.4 kW S3 I _N =8.7 A (460V)		IE2					
28	28.25	42	22.0	101	3.1	5.07	2.9	13.8	88	63	145	105	122 124	
31.5	33.46	36	22.0	86	3.3	4.74	3.1	12.9	81	58	130	98		
35.5	35.78	34	22.0	80	3.1	5.07	2.9	13.8	79	56	125	95		
40	40.78	29	22.0	70	2.7	5.78	2.5	15.8	74	53	120	89		
45	43.61	28	22.0	66	2.5	6.18	2.4	16.9	73	52	120	88		
50	49.82	24	22.0	58	2.7	5.78	2.5	15.8	66	48	105	80		
56	53.28	23	22.0	54	2.5	6.18	2.4	16.9	67	48	110	81		
63	63.79	19	22.0	45	2.7	5.78	2.5	15.8	59	43	95	72		
71	68.21	18	22.0	42	2.5	6.18	2.4	16.9	60	44	96	72		
n ₁ = 1500 1/min (50Hz)					DRE90L4 1.7 kW S3 I _N =3.65 A (400V)		DRE132S4/Z 4.4 kW S3 I _N =8.7 A (400V)		IE2					
28	28.25	53	22.0	127	2.5	6.18	2.4	16.8	88	61	170	125	122 124	
31.5	33.46	45	22.0	107	2.7	5.78	2.6	15.7	83	58	155	115		
35.5	35.78	42	22.0	100	2.5	6.18	2.4	16.8	80	56	150	115		
40	40.78	37	22.0	88	2.2	7.04	2.1	19.1	75	53	140	105		
45	43.61	34	22.0	82	2.1	7.53	2.0	20.4	74	52	140	105		
50	49.82	30	22.0	72	2.2	7.04	2.1	19.1	68	48	130	96		
56	53.28	28	22.0	68	2.1	7.53	2.0	20.4	69	49	130	97		
63	63.79	24	22.0	57	2.2	7.04	2.1	19.1	61	44	115	86		
71	68.21	22	22.0	53	2.1	7.53	2.0	20.4	62	44	115	87		
n ₁ = 1800 1/min (60Hz)					DRE90L4 1.7 kW S3 I _N =3.6 A (460V)		DRE132S4/Z 4.4 kW S3 I _N =8.7 A (460V)		IE2					
28	28.25	64	22.0	152	3.1	5.07	2.9	13.8	85	56	200	145	122 124	
31.5	33.46	54	22.0	128	3.3	4.74	3.1	12.9	82	56	180	135		
35.5	35.78	50	22.0	120	3.1	5.07	2.9	13.8	79	54	175	130		
40	40.78	44	22.0	105	2.7	5.78	2.5	15.8	74	51	165	120		
45	43.61	41	22.0	98	2.5	6.18	2.4	16.9	74	51	165	120		
50	49.82	36	22.0	87	2.7	5.78	2.5	15.8	68	47	150	110		
56	53.28	34	22.0	81	2.5	6.18	2.4	16.9	69	48	150	110		
63	63.79	28	22.0	68	2.7	5.78	2.5	15.8	62	43	135	99		
71	68.21	26	22.0	64	2.5	6.18	2.4	16.9	62	44	135	100		

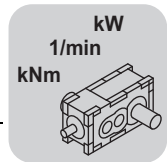


Selection Tables

IE2 motor standard

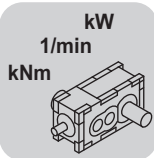
10.2.6 X3K150

X.K150..										27.5 kNm				
					KF57 i=35.7		KF77 i=38.39		 P _{TH} [kW]					
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]										
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C		
n ₁ = 1000 1/min (50Hz)					DRE90L4 1.7 kW S3 I _N =3.65 A (400V)		DRE132S4/Z 4.4 kW S3 I _N =8.7 A (400V)		IE2				122 124	
28	28.1	36	27.5	106	2.5	6.15	2.4	16.7	99	71	140	105		
31.5	32.81	30	27.5	91	2.2	7.18	2.1	19.5	94	68	135	100		
35.5	35.13	28	27.5	85	2.0	7.69	1.9	20.8	93	67	135	100		
40	41.56	24	27.5	72	2.2	7.18	2.1	19.5	85	62	120	91		
45	44.5	22	27.5	67	2.0	7.69	1.9	20.8	84	61	120	90		
50	50.65	20	27.5	59	1.8	8.75	1.7	23.7	77	56	110	82		
56	54.23	18	27.5	55	1.7	9.37	1.6	25.4	76	56	110	82		
63	61.88	16	27.5	49	1.8	8.75	1.7	23.7	71	52	100	75		
71	66.26	15	27.5	45	1.7	9.37	1.6	25.4	70	51	99	75		
80	79.22	13	27.5	38	1.8	8.75	1.7	23.7	63	46	89	67		
90	84.83	12	27.5	35	1.7	9.37	1.6	25.4	62	46	88	67		
n ₁ = 1200 1/min (60Hz)					DRE90L4 1.7 kW S3 I _N =3.6 A (460V)		DRE132S4/Z 4.4 kW S3 I _N =8.7 A (460V)		IE2				122 124	
28	28.1	43	27.5	127	3.1	5.05	2.9	13.8	100	71	165	120		
31.5	32.81	37	27.5	109	2.6	5.89	2.5	16.1	96	68	155	115		
35.5	35.13	34	27.5	102	2.5	6.31	2.3	17.2	95	68	155	115		
40	41.56	29	27.5	86	2.6	5.89	2.5	16.1	87	63	140	105		
45	44.5	27	27.5	80	2.5	6.31	2.3	17.2	87	62	140	105		
50	50.65	24	27.5	71	2.2	7.18	2.1	19.6	79	57	125	96		
56	54.23	22	27.5	66	2.0	7.69	1.9	21.0	78	57	125	95		
63	61.88	19	27.5	58	2.2	7.18	2.1	19.6	73	53	115	88		
71	66.26	18	27.5	54	2.0	7.69	1.9	21.0	72	52	115	87		
80	79.22	15	27.5	46	2.2	7.18	2.1	19.6	65	47	105	78		
90	84.83	14	27.5	43	2.0	7.69	1.9	21.0	65	47	105	78		
n ₁ = 1500 1/min (50Hz)					DRE90L4 1.7 kW S3 I _N =3.65 A (400V)		DRE132S4/Z 4.4 kW S3 I _N =8.7 A (400V)		IE2				122 124	
28	28.1	53	27.5	159	2.5	6.15	2.4	16.7	100	69	195	145		
31.5	32.81	46	27.5	136	2.2	7.18	2.1	19.5	96	66	185	140		
35.5	35.13	43	27.5	127	2.0	7.69	1.9	20.8	95	66	185	135		
40	41.56	36	27.5	108	2.2	7.18	2.1	19.5	89	63	170	125		
45	44.5	34	27.5	100	2.0	7.69	1.9	20.8	88	62	165	125		
50	50.65	30	27.5	88	1.8	8.75	1.7	23.7	81	57	155	115		
56	54.23	28	27.5	82	1.7	9.37	1.6	25.4	80	57	150	115		
63	61.88	24	27.5	73	1.8	8.75	1.7	23.7	75	53	140	105		
71	66.26	23	27.5	68	1.7	9.37	1.6	25.4	74	53	140	105		
80	79.22	19	27.5	57	1.8	8.75	1.7	23.7	67	48	125	94		
90	84.83	18	27.5	53	1.7	9.37	1.6	25.4	67	48	125	93		
n ₁ = 1800 1/min (60Hz)					DRE90L4 1.7 kW S3 I _N =3.6 A (460V)		DRE132S4/Z 4.4 kW S3 I _N =8.7 A (460V)		IE2				122 124	
28	28.1	64	27.5	191	3.1	5.05	2.9	13.8	97	64	225	165		
31.5	32.81	55	27.5	164	2.6	5.89	2.5	16.1	94	62	215	160		
35.5	35.13	51	27.5	153	2.5	6.31	2.3	17.2	93	62	215	155		
40	41.56	43	27.5	129	2.6	5.89	2.5	16.1	89	61	195	145		
45	44.5	40	27.5	121	2.5	6.31	2.3	17.2	88	61	195	145		
50	50.65	36	27.5	106	2.2	7.18	2.1	19.6	81	56	175	130		
56	54.23	33	27.5	99	2.0	7.69	1.9	21.0	80	55	175	130		
63	61.88	29	27.5	88	2.2	7.18	2.1	19.6	75	52	160	120		
71	66.26	27	27.5	82	2.0	7.69	1.9	21.0	74	52	160	120		
80	79.22	23	27.5	68	2.2	7.18	2.1	19.6	68	48	145	110		
90	84.83	21	27.5	64	2.0	7.69	1.9	21.0	67	48	145	110		



10.2.7 X3K160

X.K160..														36.0 kNm	
					KF67 i=35.62		KF87 i=36.52		 P _{TH} [kW]						
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]											
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH}	P _{TH}	P _{TH}	P _{TH}			
									20°C	40°C	20°C	40°C			
n ₁ = 1000 1/min (50Hz)					DRE100M4 2.4 kW S3 I _N =5 A (400V)		DRE132M4/Z 6 kW S3 I _N =11.6 A (400V)		IE2						
28	27.91	36	36.0	140	2.5	8.63	2.5	21.6	140	100	200	150	122 124		
31.5	30.94	32	36.0	126	2.9	7.66	2.9	19.2	130	93	185	140			
35.5	34.87	29	36.0	112	2.5	8.63	2.5	21.6	130	92	180	135			
40	39.12	26	36.0	100	2.3	9.69	2.3	24.3	105	78	155	115			
45	44.08	23	36.0	89	2.0	10.9	2.0	27.4	105	76	150	115			
50	48.46	21	36.0	81	2.3	9.69	2.3	24.3	94	69	135	100			
56	54.62	18	36.0	72	2.0	10.9	2.0	27.4	95	69	135	100			
63	62.05	16	36.0	63	2.3	9.69	2.3	24.3	85	62	120	91			
71	69.92	14	36.0	56	2.0	10.9	2.0	27.4	85	62	120	91			
n ₁ = 1200 1/min (60Hz)					DRE100L4 2.4 kW S3 I _N =4.9 A (460V)		DRE132M4/Z 6 kW S3 I _N =10.7 A (460V)		IE2						
28	27.91	43	36.0	168	3.1	7.06	3.1	17.8	140	99	235	175	122 124		
31.5	30.94	39	36.0	151	3.5	6.27	3.5	15.8	130	94	215	160			
35.5	34.87	34	36.0	134	3.1	7.06	3.1	17.8	130	92	210	160			
40	39.12	31	36.0	120	2.8	7.92	2.8	19.9	110	78	180	135			
45	44.08	27	36.0	106	2.5	8.93	2.4	22.5	110	77	175	130			
50	48.46	25	36.0	98	2.8	7.92	2.8	19.9	97	70	155	115			
56	54.62	22	36.0	87	2.5	8.93	2.4	22.5	97	70	155	120			
63	62.05	19	36.0	76	2.8	7.92	2.8	19.9	87	63	140	105			
71	69.92	17	36.0	68	2.5	8.93	2.4	22.5	88	63	140	105			
n ₁ = 1500 1/min (50Hz)					DRE100M4 2.4 kW S3 I _N =5 A (400V)		DRE132M4/Z 6 kW S3 I _N =11.6 A (400V)		IE2						
28	27.91	54	36.0	210	2.5	8.63	2.5	21.6	140	93	275	205	122 124		
31.5	30.94	48	36.0	189	2.9	7.66	2.9	19.2	130	91	255	190			
35.5	34.87	43	36.0	168	2.5	8.63	2.5	21.6	130	90	250	185			
40	39.12	38	36.0	150	2.3	9.69	2.3	24.3	110	76	210	160			
45	44.08	34	36.0	133	2.0	10.9	2.0	27.4	110	75	210	155			
50	48.46	31	36.0	122	2.3	9.69	2.3	24.3	98	69	185	140			
56	54.62	27	36.0	108	2.0	10.9	2.0	27.4	99	70	190	140			
63	62.05	24	36.0	95	2.3	9.69	2.3	24.3	89	64	170	125			
71	69.92	21	36.0	85	2.0	10.9	2.0	27.4	90	64	170	125			
n ₁ = 1800 1/min (60Hz)					DRE100L4 2.4 kW S3 I _N =4.9 A (460V)		DRE132M4/Z 6 kW S3 I _N =10.7 A (460V)		IE2						
28	27.91	64	36.0	252	3.1	7.06	3.1	17.8	130	82	315	230	122 124		
31.5	30.94	58	36.0	227	3.5	6.27	3.5	15.8	130	86	295	215			
35.5	34.87	52	36.0	201	3.1	7.06	3.1	17.8	125	85	290	215			
40	39.12	46	36.0	180	2.8	7.92	2.8	19.9	110	72	245	180			
45	44.08	41	36.0	159	2.5	8.93	2.4	22.5	105	71	240	180			
50	48.46	37	36.0	146	2.8	7.92	2.8	19.9	98	67	215	160			
56	54.62	33	36.0	130	2.5	8.93	2.4	22.5	99	68	220	160			
63	62.05	29	36.0	114	2.8	7.92	2.8	19.9	90	63	195	145			
71	69.92	26	36.0	101	2.5	8.93	2.4	22.5	90	63	195	145			

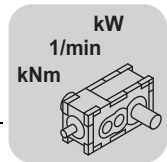


Selection Tables

IE2 motor standard

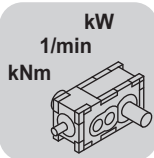
10.2.8 X3K170

X.K170..										45.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	KF67 i=35.62		KF87 i=36.52		 P _{TH} [kW]					
					 n ₃ [1/min]	M _{K3} [kNm]	 n ₃ [1/min]	M _{K3} [kNm]						
									P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C		
n ₁ = 1000 1/min (50Hz)					DRE100M4 2.4 kW S3 I _N =5 A (400V)		DRE132M4/Z 6 kW S3 I _N =11.6 A (400V)		IE2					
28	28.26	35	45.0	173	2.5	8.74	2.5	21.9	155	110	220	165	122 124	
31.5	30.78	32	45.0	158	2.3	9.52	2.3	23.9	145	105	205	155		
35.5	34.6	29	45.0	141	2.1	10.7	2.0	26.8	140	100	205	150		
40	38.45	26	45.0	127	2.3	9.52	2.3	23.9	135	97	190	145		
45	43.22	23	45.0	113	2.1	10.7	2.0	26.8	130	96	190	140		
50	48.62	21	45.0	100	1.8	12.0	1.8	30.2	110	79	155	115		
56	54.64	18	45.0	89	1.6	13.5	1.6	33.9	110	79	155	115		
63	60.23	17	45.0	82	1.8	12.0	1.8	30.2	97	71	140	105		
71	67.69	15	45.0	73	1.6	13.5	1.6	33.9	96	70	135	105		
80	77.11	13	45.0	64	1.8	12.0	1.8	30.2	88	64	125	94		
90	86.67	12	45.0	57	1.6	13.5	1.6	33.9	86	63	120	92		
n ₁ = 1200 1/min (60Hz)					DRE100L4 2.4 kW S3 I _N =4.9 A (460V)		DRE132M4/Z 6 kW S3 I _N =10.7 A (460V)		IE2					
28	28.26	42	45.0	207	3.1	7.15	3.1	18.0	155	110	255	190	122 124	
31.5	30.78	39	45.0	190	2.8	7.79	2.8	19.6	145	100	240	175		
35.5	34.6	35	45.0	169	2.5	8.75	2.5	22.0	140	100	235	175		
40	38.45	31	45.0	152	2.8	7.79	2.8	19.6	135	97	220	165		
45	43.22	28	45.0	135	2.5	8.75	2.5	22.0	135	96	220	165		
50	48.62	25	45.0	120	2.2	9.85	2.2	24.8	110	79	180	135		
56	54.64	22	45.0	107	2.0	11.0	2.0	27.9	110	80	180	135		
63	60.23	20	45.0	98	2.2	9.85	2.2	24.8	100	72	160	120		
71	67.69	18	45.0	87	2.0	11.0	2.0	27.9	99	71	160	120		
80	77.11	16	45.0	77	2.2	9.85	2.2	24.8	90	65	145	110		
90	86.67	14	45.0	68	2.0	11.0	2.0	27.9	89	64	140	105		
n ₁ = 1500 1/min (50Hz)					DRE100M4 2.4 kW S3 I _N =5 A (400V)		DRE132M4/Z 6 kW S3 I _N =11.6 A (400V)		IE2					
28	28.26	53	45.0	259	2.5	8.74	2.5	21.9	150	100	305	225	122 124	
31.5	30.78	49	45.0	238	2.3	9.52	2.3	23.9	140	95	280	210		
35.5	34.6	43	45.0	211	2.1	10.7	2.0	26.8	140	94	280	205		
40	38.45	39	45.0	190	2.3	9.52	2.3	23.9	135	95	265	195		
45	43.22	35	45.0	169	2.1	10.7	2.0	26.8	135	94	260	195		
50	48.62	31	45.0	150	1.8	12.0	1.8	30.2	110	78	215	160		
56	54.64	27	45.0	134	1.6	13.5	1.6	33.9	115	79	215	160		
63	60.23	25	45.0	123	1.8	12.0	1.8	30.2	100	72	195	145		
71	67.69	22	45.0	109	1.6	13.5	1.6	33.9	100	71	190	140		
80	77.11	19	45.0	96	1.8	12.0	1.8	30.2	93	66	175	130		
90	86.67	17	45.0	85	1.6	13.5	1.6	33.9	91	65	170	130		
n ₁ = 1800 1/min (60Hz)					DRE100L4 2.4 kW S3 I _N =4.9 A (460V)		DRE132M4/Z 6 kW S3 I _N =10.7 A (460V)		IE2					
28	28.26	64	45.0	311	3.1	7.15	3.1	18.0	140	88	345	250	122 124	
31.5	30.78	58	45.0	285	2.8	7.79	2.8	19.6	135	85	325	235		
35.5	34.6	52	45.0	254	2.5	8.75	2.5	22.0	135	84	320	230		
40	38.45	47	45.0	228	2.8	7.79	2.8	19.6	135	90	305	225		
45	43.22	42	45.0	203	2.5	8.75	2.5	22.0	135	89	300	220		
50	48.62	37	45.0	181	2.2	9.85	2.2	24.8	110	74	250	185		
56	54.64	33	45.0	161	2.0	11.0	2.0	27.9	110	75	250	185		
63	60.23	30	45.0	147	2.2	9.85	2.2	24.8	100	70	225	165		
71	67.69	27	45.0	131	2.0	11.0	2.0	27.9	100	69	220	165		
80	77.11	23	45.0	115	2.2	9.85	2.2	24.8	93	65	200	150		
90	86.67	21	45.0	102	2.0	11.0	2.0	27.9	92	64	200	150		



10.2.9 X3K180

X.K180..										58.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	KF77 i=38.39		KF97 i=38.3		 P _{TH} [kW]				 	
					 n ₃ [1/min]	M _{K3} [kNm]	 n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C		P _{TH} 40°C			
									P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C		
n ₁ = 1000 1/min (50Hz)					DRE112M4 3.3 kW S3 I _N =6.6 A (400V)		DRE160M4/Z 10 kW S3 I _N =19.7 A (400V)		IE2					
28	28.61	35	58.0	220	2.4	12.8	2.4	38.3	160	115	260	190	122 124	
31.5	32.36	31	58.0	194	2.6	11.4	2.7	34.2	145	105	230	175		
35.5	36.24	28	58.0	173	2.4	12.8	2.4	38.3	145	110	235	175		
40	38.93	26	58.0	161	2.2	13.7	2.2	41.1	130	97	210	155		
45	43.6	23	58.0	144	2.0	15.4	2.0	46.1	135	98	210	160		
50	47.57	21	58.0	133	2.2	13.7	2.2	41.1	120	88	185	140		
56	53.27	19	58.0	119	2.0	15.4	2.0	46.1	120	91	190	145		
63	60.9	16	58.0	104	2.2	13.7	2.2	41.1	105	77	160	125		
71	68.2	15	58.0	93	2.0	15.4	2.0	46.1	105	79	165	125		
n ₁ = 1200 1/min (60Hz)					DRE112M4 3.3 kW S3 I _N =6.4 A (400V)		DRE160M4/Z 10 kW S3 I _N =19.1 A (400V)		IE2					
28	28.61	42	58.0	264	2.9	10.5	2.9	31.8	160	110	285	210	122 124	
31.5	32.36	37	58.0	233	3.2	9.44	3.2	28.3	145	105	255	190		
35.5	36.24	33	58.0	208	2.9	10.5	2.9	31.8	150	105	260	195		
40	38.93	31	58.0	194	2.7	11.3	2.7	34.1	135	96	235	175		
45	43.6	28	58.0	173	2.4	12.7	2.4	38.2	135	97	235	175		
50	47.57	25	58.0	160	2.7	11.3	2.7	34.1	120	89	210	155		
56	53.27	23	58.0	143	2.4	12.7	2.4	38.2	125	91	215	160		
63	60.9	20	58.0	125	2.7	11.3	2.7	34.1	105	79	180	135		
71	68.2	18	58.0	112	2.4	12.7	2.4	38.2	110	80	185	140		
n ₁ = 1500 1/min (50Hz)					DRE112M4 3.3 kW S3 I _N =6.6 A (400V)		DRE160M4/Z 10 kW S3 I _N =19.7 A (400V)		IE2					
28	28.61	52	58.0	330	2.4	12.8	2.4	38.3	150	100	315	230	122 124	
31.5	32.36	46	58.0	291	2.6	11.4	2.7	34.2	145	100	285	210		
35.5	36.24	41	58.0	260	2.4	12.8	2.4	38.3	145	100	290	215		
40	38.93	39	58.0	242	2.2	13.7	2.2	41.1	130	91	260	190		
45	43.6	34	58.0	216	2.0	15.4	2.0	46.1	130	92	265	195		
50	47.57	32	58.0	200	2.2	13.7	2.2	41.1	120	86	235	175		
56	53.27	28	58.0	179	2.0	15.4	2.0	46.1	125	89	240	180		
63	60.9	25	58.0	156	2.2	13.7	2.2	41.1	110	78	205	155		
71	68.2	22	58.0	140	2.0	15.4	2.0	46.1	110	80	210	155		
n ₁ = 1800 1/min (60Hz)					DRE112M4 3.3 kW S3 I _N =6.4 A (400V)		DRE160M4/Z 10 kW S3 I _N =19.1 A (400V)		IE2					
28	28.61	63	58.0	396	2.9	10.5	2.9	31.8	135	*)	330	230	122 124	
31.5	32.36	56	58.0	350	3.2	9.44	3.2	28.3	135	88	305	220		
35.5	36.24	50	58.0	312	2.9	10.5	2.9	31.8	135	89	310	220		
40	38.93	46	58.0	291	2.7	11.3	2.7	34.1	125	81	275	200		
45	43.6	41	58.0	260	2.4	12.7	2.4	38.2	125	82	280	200		
50	47.57	38	58.0	240	2.7	11.3	2.7	34.1	120	80	255	185		
56	53.27	34	58.0	214	2.4	12.7	2.4	38.2	120	82	260	190		
63	60.9	30	58.0	188	2.7	11.3	2.7	34.1	105	75	220	165		
71	68.2	26	58.0	167	2.4	12.7	2.4	38.2	110	77	225	165		

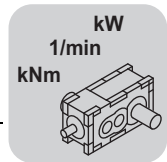


Selection Tables

IE2 motor standard

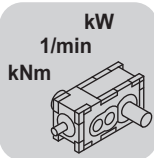
10.2.10 X3K190

X.K190..										65.0 kNm			
					KF77 i=38.39		KF97 i=38.3		 P _{TH} [kW]				 
													
					i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	
n ₁ = 1000 1/min (50Hz)					DRE112M4 3.3 kW S3 I _N =6.6 A (400V)		DRE160M4/Z 10 kW S3 I _N =19.7 A (400V)		IE2				122 124
28	28.53	35	65.0	247	2.4	12.7	2.4	38.2	165	120	265	200	
31.5	32.06	31	65.0	220	2.1	14.3	2.1	42.9	170	125	270	200	
35.5	36.14	28	65.0	195	2.4	12.7	2.4	38.2	150	110	240	180	
40	40.61	25	65.0	174	2.1	14.3	2.1	42.9	155	115	245	185	
45	43.48	23	65.0	162	2.0	15.3	2.0	45.9	140	100	220	165	
50	48.85	20	65.0	144	1.8	17.2	1.8	51.6	140	100	220	165	
56	53.11	19	65.0	134	2.0	15.3	2.0	45.9	125	94	200	150	
63	59.68	17	65.0	119	1.8	17.2	1.8	51.6	125	95	200	150	
71	68	15	65.0	105	2.0	15.3	2.0	45.9	110	80	170	125	
80	76.41	13	65.0	93	1.8	17.2	1.8	51.6	110	81	170	125	
n ₁ = 1200 1/min (60Hz)					DRE112M4 3.3 kW S3 I _N =6.4 A (460V)		DRE160M4/Z 10 kW S3 I _N =19.1 A (460V)		IE2				122 124
28	28.53	42	65.0	296	2.9	10.5	2.9	31.7	165	115	295	220	
31.5	32.06	37	65.0	264	2.6	11.8	2.6	35.6	165	120	300	220	
35.5	36.14	33	65.0	234	2.9	10.5	2.9	31.7	155	110	270	200	
40	40.61	30	65.0	208	2.6	11.8	2.6	35.6	155	110	270	205	
45	43.48	28	65.0	194	2.4	12.6	2.4	38.1	140	100	245	180	
50	48.85	25	65.0	173	2.1	14.2	2.1	42.8	140	100	245	185	
56	53.11	23	65.0	161	2.4	12.6	2.4	38.1	130	95	225	165	
63	59.68	20	65.0	143	2.1	14.2	2.1	42.8	130	95	225	170	
71	68	18	65.0	126	2.4	12.6	2.4	38.1	110	82	190	140	
80	76.41	16	65.0	112	2.1	14.2	2.1	42.8	110	82	190	145	
n ₁ = 1500 1/min (50Hz)					DRE112M4 3.3 kW S3 I _N =6.6 A (400V)		DRE160M4/Z 10 kW S3 I _N =19.7 A (400V)		IE2				122 124
28	28.53	53	65.0	370	2.4	12.7	2.4	38.2	155	105	325	235	
31.5	32.06	47	65.0	330	2.1	14.3	2.1	42.9	160	105	330	240	
35.5	36.14	42	65.0	292	2.4	12.7	2.4	38.2	150	105	300	220	
40	40.61	37	65.0	260	2.1	14.3	2.1	42.9	155	105	305	225	
45	43.48	34	65.0	243	2.0	15.3	2.0	45.9	135	96	270	200	
50	48.85	31	65.0	216	1.8	17.2	1.8	51.6	140	97	275	200	
56	53.11	28	65.0	201	2.0	15.3	2.0	45.9	130	92	250	185	
63	59.68	25	65.0	179	1.8	17.2	1.8	51.6	130	93	255	190	
71	68	22	65.0	157	2.0	15.3	2.0	45.9	110	81	215	160	
80	76.41	20	65.0	140	1.8	17.2	1.8	51.6	110	81	215	160	
n ₁ = 1800 1/min (60Hz)					DRE112M4 3.3 kW S3 I _N =6.4 A (460V)		DRE160M4/Z 10 kW S3 I _N =19.1 A (460V)		IE2				122 124
28	28.53	63	65.0	445	2.9	10.5	2.9	31.7	140	*)	340	240	
31.5	32.06	56	65.0	396	2.6	11.8	2.6	35.6	145	*)	345	245	
35.5	36.14	50	65.0	351	2.9	10.5	2.9	31.7	145	93	320	230	
40	40.61	44	65.0	312	2.6	11.8	2.6	35.6	145	94	320	235	
45	43.48	41	65.0	292	2.4	12.6	2.4	38.1	130	86	290	210	
50	48.85	37	65.0	260	2.1	14.2	2.1	42.8	130	87	290	210	
56	53.11	34	65.0	241	2.4	12.6	2.4	38.1	125	86	270	195	
63	59.68	30	65.0	215	2.1	14.2	2.1	42.8	125	86	270	200	
71	68	26	65.0	188	2.4	12.6	2.4	38.1	110	78	230	170	
80	76.41	24	65.0	168	2.1	14.2	2.1	42.8	110	78	230	170	



10.2.11 X3K200

X.K200..														79.0 kNm	
					KF77 i=38.39		KF97 i=38.3		 P _{TH} [kW]						
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]											
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C			
n ₁ = 1000 1/min (50Hz)					DRE132S4 4.4 kW S3 I _N =8.7 A (400V)		DRE180S4/Z 12 kW S3 I _N =22.5 A (400V)		IE2						
28	29.17	34	79.0	294	2.4	17.0	2.4	45.8	185	130	300	220	122 124		
31.5	31.97	31	79.0	268	2.7	15.0	2.7	40.4	175	130	275	205			
35.5	36.26	28	79.0	236	2.4	17.0	2.4	45.8	170	125	270	205			
40	39.61	25	79.0	216	2.2	18.5	2.2	50.0	170	125	270	200			
45	44.92	22	79.0	191	1.9	21.0	1.9	56.8	165	120	265	200			
50	48.39	21	79.0	179	2.2	18.5	2.2	50.0	160	120	250	190			
56	54.88	18	79.0	158	1.9	21.0	1.9	56.8	155	115	245	185			
63	61.95	16	79.0	140	2.2	18.5	2.2	50.0	145	110	230	170			
71	70.26	14	79.0	123	1.9	21.0	1.9	56.8	140	105	220	165			
n ₁ = 1200 1/min (60Hz)					DRE132S4 4.4 kW S3 I _N =8.7 A (400V)		DRE180S4/Z 12 kW S3 I _N =22.5 A (400V)		IE2						
28	29.17	41	79.0	352	2.9	14.0	2.9	38.0	180	125	330	240	122 124		
31.5	31.97	38	79.0	321	3.3	12.4	3.3	33.5	175	125	310	230			
35.5	36.26	33	79.0	283	2.9	14.0	2.9	38.0	170	125	305	225			
40	39.61	30	79.0	259	2.6	15.3	2.6	41.5	170	125	300	225			
45	44.92	27	79.0	229	2.3	17.4	2.3	47.1	170	120	295	220			
50	48.39	25	79.0	214	2.6	15.3	2.6	41.5	160	120	280	210			
56	54.88	22	79.0	189	2.3	17.4	2.3	47.1	160	115	275	205			
63	61.95	19	79.0	167	2.6	15.3	2.6	41.5	150	110	255	190			
71	70.26	17	79.0	148	2.3	17.4	2.3	47.1	145	105	245	185			
n ₁ = 1500 1/min (50Hz)					DRE132S4 4.4 kW S3 I _N =8.7 A (400V)		DRE180S4/Z 12 kW S3 I _N =22.5 A (400V)		IE2						
28	29.17	51	79.0	440	2.4	17.0	2.4	45.8	165	*)	360	255	122 124		
31.5	31.97	47	79.0	402	2.7	15.0	2.7	40.4	170	120	345	250			
35.5	36.26	41	79.0	354	2.4	17.0	2.4	45.8	170	115	340	250			
40	39.61	38	79.0	324	2.2	18.5	2.2	50.0	165	115	335	245			
45	44.92	33	79.0	286	1.9	21.0	1.9	56.8	165	115	330	240			
50	48.39	31	79.0	268	2.2	18.5	2.2	50.0	160	115	315	235			
56	54.88	27	79.0	236	1.9	21.0	1.9	56.8	160	115	310	230			
63	61.95	24	79.0	209	2.2	18.5	2.2	50.0	150	105	290	215			
71	70.26	21	79.0	185	1.9	21.0	1.9	56.8	145	105	280	205			
n ₁ = 1800 1/min (60Hz)					DRE132S4 4.4 kW S3 I _N =8.7 A (400V)		DRE180S4/Z 12 kW S3 I _N =22.5 A (400V)		IE2						
28	29.17	62	78.5	525	2.9	14.0	2.9	38.0	135	*)	370	255	122 124		
31.5	31.97	56	79.0	482	3.3	12.4	3.3	33.5	160	*)	365	260			
35.5	36.26	50	79.0	425	2.9	14.0	2.9	38.0	160	*)	360	260			
40	39.61	45	79.0	389	2.6	15.3	2.6	41.5	160	105	355	255			
45	44.92	40	79.0	343	2.3	17.4	2.3	47.1	155	100	350	250			
50	48.39	37	79.0	322	2.6	15.3	2.6	41.5	155	105	340	245			
56	54.88	33	79.0	284	2.3	17.4	2.3	47.1	155	105	335	245			
63	61.95	29	79.0	251	2.6	15.3	2.6	41.5	145	100	310	230			
71	70.26	26	79.0	221	2.3	17.4	2.3	47.1	140	97	300	220			

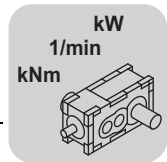


Selection Tables

IE2 motor standard

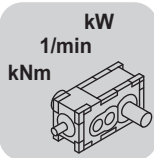
10.2.12 X3K210

X.K210..										90.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	KF77 i=38.39		KF97 i=38.3		 P _{TH} [kW]					
							P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C				
											n ₃ [1/min]	M _{K3} [kNm]		
n ₁ = 1000 1/min (50Hz)					DRE132S4 4.4 kW S3 I _N =8.7 A (400V)		DRE180S4/Z 12 kW S3 I _N =22.5 A (400V)		IE2					
28	29.13	34	90.0	335	2.4	17.0	2.4	45.7	185	135	305	225	122 124	
31.5	32.97	30	90.0	296	2.1	19.2	2.1	51.8	185	130	300	220		
35.5	36.2	28	90.0	269	2.4	17.0	2.4	45.7	180	130	280	210		
40	40.99	24	90.0	238	2.1	19.2	2.1	51.8	175	130	275	210		
45	44.85	22	90.0	218	1.9	21.0	1.9	56.7	175	125	275	205		
50	50.78	20	90.0	192	1.7	23.8	1.7	64.2	170	125	270	200		
56	54.79	18	90.0	180	1.9	21.0	1.9	56.7	165	120	255	195		
63	62.03	16	90.0	159	1.7	23.8	1.7	64.2	155	115	245	185		
71	70.15	14	90.0	140	1.9	21.0	1.9	56.7	150	110	230	175		
80	79.42	13	90.0	124	1.7	23.8	1.7	64.2	145	110	230	170		
n ₁ = 1200 1/min (60Hz)					DRE132S4 4.4 kW S3 I _N =8.7 A (400V)		DRE180S4/Z 12 kW S3 I _N =22.5 A (400V)		IE2					
28	29.13	41	90.0	402	2.9	14.0	2.9	38.0	180	125	335	245	122 124	
31.5	32.97	36	90.0	355	2.5	15.9	2.6	43.0	180	125	330	240		
35.5	36.2	33	90.0	323	2.9	14.0	2.9	38.0	180	130	315	235		
40	40.99	29	90.0	286	2.5	15.9	2.6	43.0	175	125	310	230		
45	44.85	27	90.0	261	2.3	17.4	2.3	47.1	175	125	305	230		
50	50.78	24	90.0	231	2.0	19.7	2.1	53.3	170	125	300	225		
56	54.79	22	90.0	216	2.3	17.4	2.3	47.1	165	120	285	215		
63	62.03	19	90.0	191	2.0	19.7	2.1	53.3	160	115	275	205		
71	70.15	17	90.0	168	2.3	17.4	2.3	47.1	150	110	260	195		
80	79.42	15	90.0	149	2.0	19.7	2.1	53.3	150	110	255	190		
n ₁ = 1500 1/min (50Hz)					DRE132S4 4.4 kW S3 I _N =8.7 A (400V)		DRE180S4/Z 12 kW S3 I _N =22.5 A (400V)		IE2					
28	29.13	51	90.0	502	2.4	17.0	2.4	45.7	165	*)	365	260	122 124	
31.5	32.97	45	90.0	444	2.1	19.2	2.1	51.8	165	*)	360	255		
35.5	36.2	41	90.0	404	2.4	17.0	2.4	45.7	175	120	350	260		
40	40.99	37	90.0	357	2.1	19.2	2.1	51.8	170	120	345	255		
45	44.85	33	90.0	326	1.9	21.0	1.9	56.7	170	120	340	250		
50	50.78	30	90.0	288	1.7	23.8	1.7	64.2	170	115	335	245		
56	54.79	27	90.0	270	1.9	21.0	1.9	56.7	165	115	325	240		
63	62.03	24	90.0	238	1.7	23.8	1.7	64.2	160	115	310	230		
71	70.15	21	90.0	211	1.9	21.0	1.9	56.7	155	110	295	220		
80	79.42	19	90.0	186	1.7	23.8	1.7	64.2	150	110	290	215		
n ₁ = 1800 1/min (60Hz)					DRE132S4 4.4 kW S3 I _N =8.7 A (400V)		DRE180S4/Z 12 kW S3 I _N =22.5 A (400V)		IE2					
28	29.13	62	87.4	585	2.9	14.0	2.9	38.0	*)	*)	375	255	122 124	
31.5	32.97	55	88.6	524	2.5	15.9	2.6	43.0	135	*)	370	255		
35.5	36.2	50	90.0	485	2.9	14.0	2.9	38.0	165	*)	370	270		
40	40.99	44	90.0	428	2.5	15.9	2.6	43.0	160	*)	365	265		
45	44.85	40	90.0	392	2.3	17.4	2.3	47.1	160	105	360	260		
50	50.78	35	90.0	346	2.0	19.7	2.1	53.3	160	105	355	260		
56	54.79	33	90.0	324	2.3	17.4	2.3	47.1	160	110	345	255		
63	62.03	29	90.0	286	2.0	19.7	2.1	53.3	155	105	330	245		
71	70.15	26	90.0	253	2.3	17.4	2.3	47.1	150	105	315	235		
80	79.42	23	90.0	223	2.0	19.7	2.1	53.3	150	100	310	230		



10.2.13 X3K220

X.K220..										112 kNm				
					KF87 i=36.52		KF107 i=37		 P _{TH} [kW]					
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]										
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH}	P _{TH}	P _{TH}	P _{TH}		
									20°C	40°C	20°C	40°C		
n ₁ = 1000 1/min (50Hz)					DRE132S4 4.4 kW S3 I _N =8.7 A (400V)		DRE180L4/Z 20 kW S3 I _N =37 A (400V)		IE2					
28	27.9	36	112	435	2.6	15.7	2.5	71.9	245	170	405	295	126 128	
31.5	32.02	31	112	379	2.8	14.3	2.8	65.1	240	175	385	285		
35.5	35.34	28	112	344	2.6	15.7	2.5	71.9	235	175	375	285		
40	39.55	25	112	307	2.3	17.6	2.3	80.5	215	160	345	260		
45	43.65	23	112	278	2.1	19.4	2.1	88.8	215	155	340	255		
50	48.32	21	112	254	2.3	17.6	2.3	80.5	205	150	320	245		
56	53.33	19	112	230	2.1	19.4	2.1	88.8	200	150	315	240		
63	61.86	16	112	198	2.3	17.6	2.3	80.5	175	130	275	210		
71	68.27	15	112	180	2.1	19.4	2.1	88.8	175	130	270	205		
n ₁ = 1200 1/min (60Hz)					DRE132S4 4.4 kW S3 I _N =8.7 A (460V)		DRE180L4/Z 20 kW S3 I _N =36.5 A (460V)		IE2					
28	27.9	43	112	522	3.1	13.0	3.1	59.5	235	155	445	320	126 128	
31.5	32.02	37	112	455	3.4	11.8	3.4	53.9	240	170	425	315		
35.5	35.34	34	112	412	3.1	13.0	3.1	59.5	240	170	420	310		
40	39.55	30	112	368	2.8	14.6	2.7	66.6	220	155	385	285		
45	43.65	27	112	334	2.5	16.1	2.5	73.6	215	155	380	280		
50	48.32	25	112	304	2.8	14.6	2.7	66.6	205	150	360	270		
56	53.33	23	112	276	2.5	16.1	2.5	73.6	205	150	355	265		
63	61.86	19	112	238	2.8	14.6	2.7	66.6	180	135	310	235		
71	68.27	18	112	215	2.5	16.1	2.5	73.6	180	130	305	230		
n ₁ = 1500 1/min (50Hz)					DRE132S4 4.4 kW S3 I _N =8.7 A (400V)		DRE180L4/Z 20 kW S3 I _N =37 A (400V)		IE2					
28	27.9	54	112	653	2.6	15.7	2.5	71.9	200	*)	475	330	126 128	
31.5	32.02	47	112	569	2.8	14.3	2.8	65.1	230	155	475	345		
35.5	35.34	42	112	515	2.6	15.7	2.5	71.9	230	155	465	340		
40	39.55	38	112	460	2.3	17.6	2.3	80.5	210	145	425	310		
45	43.65	34	112	417	2.1	19.4	2.1	88.8	210	140	420	305		
50	48.32	31	112	380	2.3	17.6	2.3	80.5	205	145	405	300		
56	53.33	28	112	345	2.1	19.4	2.1	88.8	200	140	395	295		
63	61.86	24	112	297	2.3	17.6	2.3	80.5	185	130	350	260		
71	68.27	22	112	269	2.1	19.4	2.1	88.8	180	130	345	255		
n ₁ = 1800 1/min (60Hz)					DRE132S4 4.4 kW S3 I _N =8.7 A (460V)		DRE180L4/Z 20 kW S3 I _N =36.5 A (460V)		IE2					
28 ¹⁾	27.9	65	112	783	3.1	13.0	3.1	59.5	*)	*)	475	315	126 128	
31.5	32.02	56	112	682	3.4	11.8	3.4	53.9	215	*)	495	355		
35.5	35.34	51	112	618	3.1	13.0	3.1	59.5	210	*)	490	350		
40	39.55	46	112	553	2.8	14.6	2.7	66.6	195	*)	450	320		
45	43.65	41	112	501	2.5	16.1	2.5	73.6	190	*)	440	315		
50	48.32	37	112	457	2.8	14.6	2.7	66.6	195	130	430	310		
56	53.33	34	112	414	2.5	16.1	2.5	73.6	195	130	420	310		
63	61.86	29	112	357	2.8	14.6	2.7	66.6	180	125	375	275		
71	68.27	26	112	323	2.5	16.1	2.5	73.6	175	125	370	275		

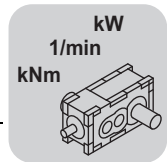


Selection Tables

IE2 motor standard

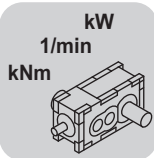
10.2.14 X3K230

X.K230..														131 kNm			
					KF87 i=36.52		KF107 i=37		 P _{TH} [kW]								
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]													
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C					
n ₁ = 1000 1/min (50Hz)					DRE132S4 4.4 kW S3 I _N =8.7 A (400V)		DRE180L4/Z 20 kW S3 I _N =37 A (400V)		IE2					126 128			
28	28.63	35	131	496	2.5	16.1	2.5	73.8	265	185	435	320					
31.5	31.43	32	131	452	2.3	17.7	2.3	81.0	260	180	425	315					
35.5	36.26	28	131	392	2.5	16.1	2.5	73.8	245	180	390	295					
40	39.82	25	131	357	2.3	17.7	2.3	81.0	245	180	385	290					
45	44.78	22	131	317	2.0	20.0	2.0	91.1	220	165	355	265					
50	49.17	20	131	289	1.8	21.9	1.8	100	220	160	350	260					
56	54.71	18	131	262	2.0	20.0	2.0	91.1	210	155	330	250					
63	60.08	17	131	239	1.8	21.9	1.8	100	205	155	325	245					
71	70.05	14	131	205	2.0	20.0	2.0	91.1	180	135	285	215					
80	76.91	13	131	186	1.8	21.9	1.8	100	180	135	280	210					
n ₁ = 1200 1/min (60Hz)					DRE132S4 4.4 kW S3 I _N =8.7 A (460V)		DRE180L4/Z 20 kW S3 I _N =36.5 A (460V)		IE2					126 128			
28	28.63	42	131	595	3.0	13.3	3.0	61.1	250	165	475	345					
31.5	31.43	38	131	542	2.7	14.7	2.7	67.1	250	165	470	340					
35.5	36.26	33	131	470	3.0	13.3	3.0	61.1	245	175	435	325					
40	39.82	30	131	428	2.7	14.7	2.7	67.1	245	175	430	320					
45	44.78	27	131	381	2.4	16.5	2.4	75.5	225	160	395	290					
50	49.17	24	131	347	2.2	18.1	2.2	82.9	220	160	385	290					
56	54.71	22	131	314	2.4	16.5	2.4	75.5	210	155	370	275					
63	60.08	20	131	286	2.2	18.1	2.2	82.9	210	155	365	270					
71	70.05	17	131	246	2.4	16.5	2.4	75.5	185	135	315	240					
80	76.91	16	131	224	2.2	18.1	2.2	82.9	185	135	315	235					
n ₁ = 1500 1/min (50Hz)					DRE132S4 4.4 kW S3 I _N =8.7 A (400V)		DRE180L4/Z 20 kW S3 I _N =37 A (400V)		IE2					126 128			
28	28.63	52	131	744	2.5	16.1	2.5	73.8	215	*)	510	355					
31.5	31.43	48	131	678	2.3	17.7	2.3	81.0	215	*)	500	350					
35.5	36.26	41	131	587	2.5	16.1	2.5	73.8	240	160	485	355					
40	39.82	38	131	535	2.3	17.7	2.3	81.0	235	160	480	350					
45	44.78	33	131	476	2.0	20.0	2.0	91.1	215	150	435	320					
50	49.17	31	131	433	1.8	21.9	1.8	100	215	145	430	315					
56	54.71	27	131	393	2.0	20.0	2.0	91.1	210	150	415	305					
63	60.08	25	131	358	1.8	21.9	1.8	100	210	145	405	300					
71	70.05	21	131	307	2.0	20.0	2.0	91.1	190	135	360	270					
80	76.91	20	131	280	1.8	21.9	1.8	100	185	135	355	265					
n ₁ = 1800 1/min (60Hz)					DRE132S4 4.4 kW S3 I _N =8.7 A (460V)		DRE180L4/Z 20 kW S3 I _N =36.5 A (460V)		IE2					126 128			
28 ¹⁾	28.63	63	126	862	3.0	13.3	3.0	61.1	*)	*)	510	335					
31.5 ¹⁾	31.43	57	129	801	2.7	14.7	2.7	67.1	*)	*)	500	335					
35.5	36.26	50	129	694	3.0	13.3	3.0	61.1	220	*)	510	365					
40	39.82	45	131	642	2.7	14.7	2.7	67.1	215	*)	500	360					
45	44.78	40	131	571	2.4	16.5	2.4	75.5	200	*)	460	330					
50	49.17	37	131	520	2.2	18.1	2.2	82.9	200	*)	455	325					
56	54.71	33	131	472	2.4	16.5	2.4	75.5	200	135	440	320					
63	60.08	30	131	429	2.2	18.1	2.2	82.9	200	130	435	315					
71	70.05	26	131	368	2.4	16.5	2.4	75.5	185	130	385	285					
80	76.91	23	131	335	2.2	18.1	2.2	82.9	180	125	380	280					



10.2.15 X3K240

X.K240..					156 kNm									
					KF87 i=36.52		KF127 i=36.25		 P _{TH} [kW]					
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]										
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C		
n ₁ = 1000 1/min (50Hz)					DRE132M4 6 kW S3 I _N =11.6 A (400V)		DRE200L4/Z 33 kW S3 I _N =62 A (400V)		IE2				126 128	
28	29.51	34	156	573	2.4	22.9	2.5	123	270	180	465	335		
31.5	32.47	31	156	521	2.8	19.9	2.8	106	270	190	440	325		
35.5	37.38	27	156	452	2.4	22.9	2.5	123	265	190	430	315		
40	39.96	25	156	423	2.2	24.5	2.3	131	260	190	425	315		
45	46	22	156	368	1.9	28.2	2.0	151	255	185	415	310		
50	48.83	20	156	350	2.2	24.5	2.3	131	250	180	400	295		
56	56.2	18	156	304	1.9	28.2	2.0	151	240	175	380	285		
63	62.51	16	156	273	2.2	24.5	2.3	131	225	165	355	265		
71	71.95	14	156	237	1.9	28.2	2.0	151	215	160	340	255		
n ₁ = 1200 1/min (60Hz)					DRE132M4 6 kW S3 I _N =10.7 A (460V)		DRE200L4/Z 33 kW S3 I _N =62 A (460V)		IE2				126 128	
28	29.51	41	156	688	2.9	18.8	3.0	101	245	*)	500	350		
31.5	32.47	37	156	625	3.4	16.3	3.4	88.5	260	180	480	350		
35.5	37.38	32	156	543	2.9	18.8	3.0	101	255	175	470	345		
40	39.96	30	156	508	2.7	20.1	2.8	108	255	175	470	340		
45	46	26	156	441	2.4	23.1	2.4	125	250	170	460	335		
50	48.83	25	156	419	2.7	20.1	2.8	108	250	175	440	325		
56	56.2	21	156	364	2.4	23.1	2.4	125	235	165	420	310		
63	62.51	19	156	328	2.7	20.1	2.8	108	225	160	395	295		
71	71.95	17	156	285	2.4	23.1	2.4	125	215	155	380	280		
n ₁ = 1500 1/min (50Hz)					DRE132M4 6 kW S3 I _N =11.6 A (400V)		DRE200L4/Z 33 kW S3 I _N =62 A (400V)		IE2				126 128	
28 ¹⁾	29.51	51	156	860	2.4	22.9	2.5	123	*)	*)	520	345		
31.5	32.47	46	156	781	2.8	19.9	2.8	106	235	*)	520	370		
35.5	37.38	40	156	679	2.4	22.9	2.5	123	230	*)	510	365		
40	39.96	38	156	635	2.2	24.5	2.3	131	230	*)	510	365		
45	46	33	156	551	1.9	28.2	2.0	151	225	140	500	355		
50	48.83	31	156	524	2.2	24.5	2.3	131	235	155	490	355		
56	56.2	27	156	456	1.9	28.2	2.0	151	225	150	465	340		
63	62.51	24	156	410	2.2	24.5	2.3	131	220	150	440	325		
71	71.95	21	156	356	1.9	28.2	2.0	151	210	145	420	310		
n ₁ = 1800 1/min (60Hz)					DRE132M4 6 kW S3 I _N =10.7 A (460V)		DRE200L4/Z 33 kW S3 I _N =62 A (460V)		IE2				126 128	
28 ¹⁾	29.51	61	156	1031	2.9	18.8	3.0	101	*)	*)	495	285		
31.5	32.47	55	156	937	3.4	16.3	3.4	88.5	*)	*)	540	365		
35.5	37.38	48	156	814	2.9	18.8	3.0	101	*)	*)	520	355		
40	39.96	45	156	762	2.7	20.1	2.8	108	*)	*)	520	360		
45	46	39	156	662	2.4	23.1	2.4	125	185	*)	510	350		
50	48.83	37	156	629	2.7	20.1	2.8	108	210	*)	510	360		
56	56.2	32	156	547	2.4	23.1	2.4	125	200	*)	490	345		
63	62.51	29	156	492	2.7	20.1	2.8	108	205	130	465	335		
71	71.95	25	156	427	2.4	23.1	2.4	125	195	125	445	325		

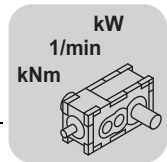


Selection Tables

IE2 motor standard

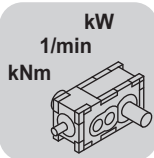
10.2.16 X3K250

X.K250..										175 kNm			
					KF87 i=36.52		KF127 i=36.25		 P _{TH} [kW]				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]									
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C	
n ₁ = 1000 1/min (50Hz)					DRE132M4 6 kW S3 I _N =11.6 A (400V)		DRE200L4/Z 33 kW S3 I _N =62 A (400V)		IE2				126 128
28	27.55	36	175	689	2.6	21.4	2.6	114	280	190	485	350	
31.5	31.64	32	175	600	2.2	24.5	2.3	131	270	180	460	330	
35.5	34.89	29	175	544	2.6	21.4	2.6	114	275	195	445	330	
40	40.08	25	175	473	2.2	24.5	2.3	131	260	185	425	315	
45	42.95	23	175	442	2.1	26.3	2.1	141	265	190	430	320	
50	49.33	20	175	385	1.8	30.2	1.9	162	255	180	410	305	
56	52.47	19	175	365	2.1	26.3	2.1	141	245	180	395	295	
63	60.27	17	175	318	1.8	30.2	1.9	162	240	175	385	290	
71	67.18	15	175	285	2.1	26.3	2.1	141	225	165	350	265	
80	77.17	13	175	248	1.8	30.2	1.9	162	220	160	345	260	
n ₁ = 1200 1/min (60Hz)					DRE132M4 6 kW S3 I _N =10.7 A (460V)		DRE200L4/Z 33 kW S3 I _N =62 A (460V)		IE2				126 128
28	27.55	44	175	826	3.1	17.5	3.2	95.1	255	*)	520	365	
31.5	31.64	38	175	719	2.7	20.1	2.8	109	245	*)	495	350	
35.5	34.89	34	175	652	3.1	17.5	3.2	95.1	265	180	490	360	
40	40.08	30	175	568	2.7	20.1	2.8	109	255	175	465	340	
45	42.95	28	175	530	2.5	21.6	2.6	117	260	180	475	350	
50	49.33	24	175	461	2.2	24.8	2.2	134	250	170	455	330	
56	52.47	23	175	438	2.5	21.6	2.6	117	245	175	440	325	
63	60.27	20	175	381	2.2	24.8	2.2	134	240	170	430	315	
71	67.18	18	175	342	2.5	21.6	2.6	117	225	160	395	295	
80	77.17	16	175	298	2.2	24.8	2.2	134	220	160	385	285	
n ₁ = 1500 1/min (50Hz)					DRE132M4 6 kW S3 I _N =11.6 A (400V)		DRE200L4/Z 33 kW S3 I _N =62 A (400V)		IE2				126 128
28 ¹⁾	27.55	54	175	1033	2.6	21.4	2.6	114	*)	*)	540	355	
31.5 ¹⁾	31.64	47	175	899	2.2	24.5	2.3	131	*)	*)	520	340	
35.5	34.89	43	175	816	2.6	21.4	2.6	114	240	*)	530	380	
40	40.08	37	175	710	2.2	24.5	2.3	131	230	*)	510	360	
45	42.95	35	175	662	2.1	26.3	2.1	141	235	*)	520	370	
50	49.33	30	175	577	1.8	30.2	1.9	162	225	*)	495	355	
56	52.47	29	175	547	2.1	26.3	2.1	141	235	155	485	355	
63	60.27	25	175	477	1.8	30.2	1.9	162	230	150	475	345	
71	67.18	22	175	428	2.1	26.3	2.1	141	220	150	440	325	
80	77.17	19	175	372	1.8	30.2	1.9	162	215	145	430	315	
n ₁ = 1800 1/min (60Hz)					DRE132M4 6 kW S3 I _N =10.7 A (460V)		DRE200L4/Z 33 kW S3 I _N =62 A (460V)		IE2				126 128
28 ¹⁾	27.55	65	174	1232	3.1	17.5	3.2	95.1	*)	*)	510	*)	
31.5 ¹⁾	31.64	57	175	1079	2.7	20.1	2.8	109	*)	*)	490	285	
35.5	34.89	52	175	979	3.1	17.5	3.2	95.1	*)	*)	540	370	
40	40.08	45	175	852	2.7	20.1	2.8	109	*)	*)	520	355	
45	42.95	42	175	795	2.5	21.6	2.6	117	*)	*)	530	365	
50	49.33	36	175	692	2.2	24.8	2.2	134	185	*)	510	350	
56	52.47	34	175	657	2.5	21.6	2.6	117	210	*)	510	360	
63	60.27	30	175	572	2.2	24.8	2.2	134	205	*)	495	350	
71	67.18	27	175	513	2.5	21.6	2.6	117	205	130	465	335	
80	77.17	23	175	447	2.2	24.8	2.2	134	200	130	455	330	



10.2.17 X3K260

X.K260..					205 kNm									
					KF87 i=36.52		KF127 i=36.25		 P _{TH} [kW]				 	
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]										
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C		
n ₁ = 1000 1/min (50Hz)					DRE132M4 6 kW S3 I _N =11.6 A (400V)		DRE225S4/Z 40 kW S3 I _N =75 A (400V)		IE2				130 132	
28	29.51	34	205	753	2.4	22.9	2.5	148	275	*)	540	380		
31.5	30.68	33	205	724	2.3	23.8	2.4	154	285	*)	560	395		
35.5	34.7	29	205	640	2.0	26.9	2.1	174	280	165	550	385		
40	38.86	26	205	572	2.3	23.8	2.4	154	310	210	550	405		
45	43.96	23	205	505	2.0	26.9	2.1	174	295	200	530	390		
50	47.48	21	205	472	2.3	23.8	2.4	154	285	200	495	370		
56	53.7	19	205	418	2.0	26.9	2.1	174	280	195	485	360		
63	60.78	16	205	369	2.3	23.8	2.4	154	260	185	445	335		
71	68.75	15	205	326	2.0	26.9	2.1	174	250	175	425	320		
n ₁ = 1200 1/min (60Hz)					DRE132M4 6 kW S3 I _N =10.7 A (460V)		DRE225S4/Z 40 kW S3 I _N =73 A (460V)		IE2				130 132	
28	29.51	41	205	904	2.9	18.8	3.0	123	*)	*)	570	385		
31.5	30.68	39	205	869	2.8	19.5	2.9	128	230	*)	590	400		
35.5	34.7	35	205	768	2.5	22.1	2.5	145	225	*)	580	395		
40	38.86	31	205	686	2.8	19.5	2.9	128	295	180	610	440		
45	43.96	27	205	607	2.5	22.1	2.5	145	280	175	580	420		
50	47.48	25	205	567	2.8	19.5	2.9	128	280	185	550	405		
56	53.7	22	205	501	2.5	22.1	2.5	145	275	180	540	395		
63	60.78	20	205	443	2.8	19.5	2.9	128	260	180	495	370		
71	68.75	17	205	392	2.5	22.1	2.5	145	250	170	475	355		
n ₁ = 1500 1/min (50Hz)					DRE132M4 6 kW S3 I _N =11.6 A (400V)		DRE225S4/Z 40 kW S3 I _N =75 A (400V)		IE2				130 132	
28 ¹⁾	29.51	51	205	1130	2.4	22.9	2.5	148	*)	*)	570	340		
31.5 ¹⁾	30.68	49	205	1086	2.3	23.8	2.4	154	*)	*)	590	360		
35.5 ¹⁾	34.7	43	205	961	2.0	26.9	2.1	174	*)	*)	580	355		
40	38.86	39	205	858	2.3	23.8	2.4	154	240	*)	650	455		
45	43.96	34	205	758	2.0	26.9	2.1	174	230	*)	620	435		
50	47.48	32	205	709	2.3	23.8	2.4	154	250	*)	600	435		
56	53.7	28	205	627	2.0	26.9	2.1	174	245	*)	590	425		
63	60.78	25	205	554	2.3	23.8	2.4	154	245	155	550	405		
71	68.75	22	205	489	2.0	26.9	2.1	174	235	150	530	390		
n ₁ = 1800 1/min (60Hz)					DRE132M4 6 kW S3 I _N =10.7 A (460V)		DRE225S4/Z 40 kW S3 I _N =73 A (460V)		IE2				130 132	
28 ¹⁾	29.51	61	205	1355	2.9	18.8	3.0	123	*)	*)	490	*)		
31.5 ¹⁾	30.68	59	205	1304	2.8	19.5	2.9	128	*)	*)	520	*)		
35.5 ¹⁾	34.7	52	205	1153	2.5	22.1	2.5	145	*)	*)	510	*)		
40 ¹⁾	38.86	46	205	1029	2.8	19.5	2.9	128	*)	*)	660	435		
45 ¹⁾	43.96	41	205	910	2.5	22.1	2.5	145	*)	*)	630	420		
50	47.48	38	205	850	2.8	19.5	2.9	128	*)	*)	630	435		
56	53.7	34	205	752	2.5	22.1	2.5	145	200	*)	610	425		
63	60.78	30	205	664	2.8	19.5	2.9	128	220	*)	580	420		
71	68.75	26	205	587	2.5	22.1	2.5	145	215	*)	560	400		

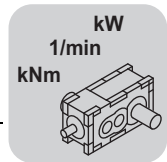


Selection Tables

IE2 motor standard

10.2.18 X3K270

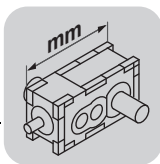
X.K270..										240 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	KF87 i=36.52		KF127 i=36.25		 P _{TH} [kW]					
														
					n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C	P _{TH} 40°C	P _{TH} 20°C	P _{TH} 40°C		
n ₁ = 1000 1/min (50Hz)					DRE132M4 6 kW S3 I _N =11.6 A (400V)		DRE225S4/Z 40 kW S3 I _N =75 A (400V)		IE2				130 132	
28	28.65	35	240	908	2.5	22.2	2.5	144	295	*)	580	410		
31.5	32.07	31	240	811	2.2	24.9	2.3	161	290	*)	570	405		
35.5	33.7	30	240	772	2.1	26.1	2.2	169	290	*)	570	405		
40	37.72	27	240	690	1.9	29.3	1.9	190	285	*)	560	395		
45	42.68	23	240	610	2.1	26.1	2.2	169	300	205	540	395		
50	47.78	21	240	544	1.9	29.3	1.9	190	305	205	540	395		
56	52.14	19	240	504	2.1	26.1	2.2	169	290	200	510	375		
63	58.37	17	240	450	1.9	29.3	1.9	190	285	200	495	370		
71	66.76	15	240	393	2.1	26.1	2.2	169	260	185	445	335		
80	74.73	13	240	351	1.9	29.3	1.9	190	260	185	445	335		
n ₁ = 1200 1/min (60Hz)					DRE132M4 6 kW S3 I _N =10.7 A (460V)		DRE225S4/Z 40 kW S3 I _N =73 A (460V)		IE2				130 132	
28	28.65	42	240	1090	3.0	18.2	3.1	119	*)	*)	610	415		
31.5	32.07	37	240	973	2.7	20.4	2.7	134	*)	*)	600	410		
35.5	33.7	36	240	926	2.6	21.4	2.6	141	240	*)	600	410		
40	37.72	32	240	828	2.3	24.0	2.3	157	235	*)	590	405		
45	42.68	28	240	731	2.6	21.4	2.6	141	285	*)	590	425		
50	47.78	25	240	653	2.3	24.0	2.3	157	285	180	590	430		
56	52.14	23	240	604	2.6	21.4	2.6	141	285	190	560	410		
63	58.37	21	240	540	2.3	24.0	2.3	157	280	185	550	405		
71	66.76	18	240	472	2.6	21.4	2.6	141	260	180	495	370		
80	74.73	16	240	422	2.3	24.0	2.3	157	260	180	495	370		
n ₁ = 1500 1/min (50Hz)					DRE132M4 6 kW S3 I _N =11.6 A (400V)		DRE225S4/Z 40 kW S3 I _N =75 A (400V)		IE2				130 132	
28 ¹⁾	28.65	52	240	1362	2.5	22.2	2.5	144	*)	*)	610	365		
31.5 ¹⁾	32.07	47	240	1217	2.2	24.9	2.3	161	*)	*)	600	360		
35.5 ¹⁾	33.7	45	240	1158	2.1	26.1	2.2	169	*)	*)	600	370		
40 ¹⁾	37.72	40	240	1035	1.9	29.3	1.9	190	*)	*)	590	365		
45	42.68	35	240	914	2.1	26.1	2.2	169	235	*)	640	445		
50	47.78	31	240	817	1.9	29.3	1.9	190	240	*)	640	450		
56	52.14	29	240	755	2.1	26.1	2.2	169	260	*)	620	445		
63	58.37	26	240	675	1.9	29.3	1.9	190	255	*)	600	435		
71	66.76	22	240	590	2.1	26.1	2.2	169	250	155	550	405		
80	74.73	20	240	527	1.9	29.3	1.9	190	250	160	550	405		
n ₁ = 1800 1/min (60Hz)					DRE132M4 6 kW S3 I _N =10.7 A (460V)		DRE225S4/Z 40 kW S3 I _N =73 A (460V)		IE2				130 132	
28 ¹⁾	28.65	63	240	1634	3.0	18.2	3.1	119	*)	*)	530	*)		
31.5 ¹⁾	32.07	56	240	1460	2.7	20.4	2.7	134	*)	*)	520	*)		
35.5 ¹⁾	33.7	53	240	1390	2.6	21.4	2.6	141	*)	*)	530	*)		
40 ¹⁾	37.72	48	240	1241	2.3	24.0	2.3	157	*)	*)	520	*)		
45 ¹⁾	42.68	42	240	1097	2.6	21.4	2.6	141	*)	*)	640	425		
50 ¹⁾	47.78	38	240	980	2.3	24.0	2.3	157	*)	*)	650	430		
56	52.14	35	240	907	2.6	21.4	2.6	141	*)	*)	640	445		
63	58.37	31	240	810	2.3	24.0	2.3	157	210	*)	630	440		
71	66.76	27	240	708	2.6	21.4	2.6	141	225	*)	580	420		
80	74.73	24	240	633	2.3	24.0	2.3	157	225	*)	580	420		



10.2.19 X3K280

X.K280..										270 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	KF87 i=36.52		KF127 i=36.25		 P _{TH} [kW]					
														
								n ₃ [1/min]	M _{K3} [kNm]	n ₃ [1/min]	M _{K3} [kNm]	P _{TH} 20°C		P _{TH} 40°C
n ₁ = 1000 1/min (50Hz)					DRE132M4 6 kW S3 I _N =11.6 A (400V)		DRE225S4/Z 40 kW S3 I _N =75 A (400V)		IE2					
31.5	32.07	31	270	913	2.2	24.9	2.3	161	355	*)	670	480	130 132	
35.5	35.92	28	270	815	2.0	27.9	2.0	180	350	215	660	475		
40	37.72	27	270	776	1.9	29.3	1.9	190	350	220	660	475		
45	42.25	24	270	693	1.7	32.8	1.7	212	345	215	650	465		
50	47.78	21	270	613	1.9	29.3	1.9	190	370	255	640	475		
56	53.51	19	270	547	1.7	32.8	1.7	212	360	250	630	465		
63	58.37	17	270	506	1.9	29.3	1.9	190	335	235	570	430		
71	65.38	15	270	452	1.7	32.8	1.7	212	330	230	560	420		
80	74.73	13	270	395	1.9	29.3	1.9	190	305	215	510	385		
90	83.7	12	270	353	1.7	32.8	1.7	212	300	215	500	380		
n ₁ = 1200 1/min (60Hz)					DRE132M4 6 kW S3 I _N =10.7 A (460V)		DRE225S4/Z 40 kW S3 I _N =73 A (460V)		IE2					
31.5	32.07	37	270	1095	2.7	20.4	2.7	134	305	*)	720	500	130 132	
35.5	35.92	33	270	978	2.4	22.9	2.4	150	300	*)	710	490		
40	37.72	32	270	931	2.3	24.0	2.3	157	305	*)	710	495		
45	42.25	28	270	831	2.0	26.9	2.1	176	300	*)	690	485		
50	47.78	25	270	735	2.3	24.0	2.3	157	355	230	710	520		
56	53.51	22	270	656	2.0	26.9	2.1	176	350	225	690	510		
63	58.37	21	270	607	2.3	24.0	2.3	157	330	225	640	475		
71	65.38	18	270	542	2.0	26.9	2.1	176	325	220	620	465		
80	74.73	16	270	474	2.3	24.0	2.3	157	305	215	570	430		
90	83.7	14	270	424	2.0	26.9	2.1	176	300	210	560	420		
n ₁ = 1500 1/min (50Hz)					DRE132M4 6 kW S3 I _N =11.6 A (400V)		DRE225S4/Z 40 kW S3 I _N =75 A (400V)		IE2					
31.5 ¹⁾	32.07	47	270	1369	2.2	24.9	2.3	161	*)	*)	740	475	130 132	
35.5 ¹⁾	35.92	42	270	1222	2.0	27.9	2.0	180	*)	*)	720	465		
40 ¹⁾	37.72	40	270	1164	1.9	29.3	1.9	190	*)	*)	730	470		
45 ¹⁾	42.25	36	270	1039	1.7	32.8	1.7	212	*)	*)	710	465		
50	47.78	31	270	919	1.9	29.3	1.9	190	315	*)	770	550		
56	53.51	28	270	820	1.7	32.8	1.7	212	310	*)	760	540		
63	58.37	26	270	759	1.9	29.3	1.9	190	310	190	710	520		
71	65.38	23	270	678	1.7	32.8	1.7	212	305	190	690	510		
80	74.73	20	270	593	1.9	29.3	1.9	190	300	195	640	475		
90	83.7	18	270	529	1.7	32.8	1.7	212	290	195	630	465		
n ₁ = 1800 1/min (60Hz)					DRE132M4 6 kW S3 I _N =10.7 A (460V)		DRE225S4/Z 40 kW S3 I _N =73 A (460V)		IE2					
31.5 ¹⁾	32.07	56	270	1643	2.7	20.4	2.7	134	*)	*)	680	*)	130 132	
35.5 ¹⁾	35.92	50	270	1467	2.4	22.9	2.4	150	*)	*)	670	370		
40 ¹⁾	37.72	48	270	1397	2.3	24.0	2.3	157	*)	*)	680	380		
45 ¹⁾	42.25	43	270	1247	2.0	26.9	2.1	176	*)	*)	670	375		
50 ¹⁾	47.78	38	270	1103	2.3	24.0	2.3	157	*)	*)	790	540		
56 ¹⁾	53.51	34	270	985	2.0	26.9	2.1	176	*)	*)	780	540		
63	58.37	31	270	911	2.3	24.0	2.3	157	270	*)	740	530		
71	65.38	28	270	813	2.0	26.9	2.1	176	265	*)	730	520		
80	74.73	24	270	712	2.3	24.0	2.3	157	275	*)	680	495		
90	83.7	22	270	635	2.0	26.9	2.1	176	275	165	670	485		



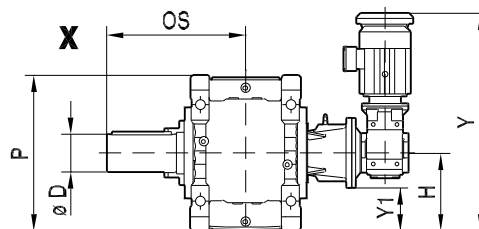
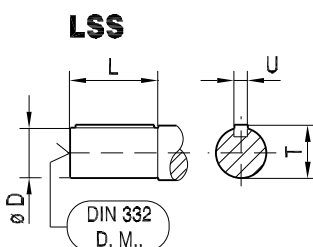
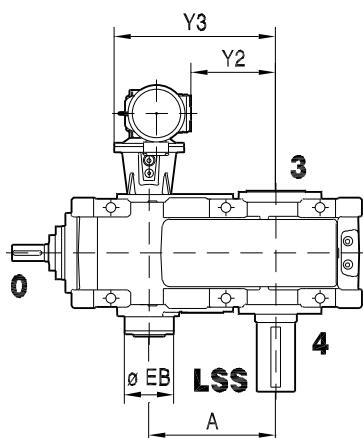
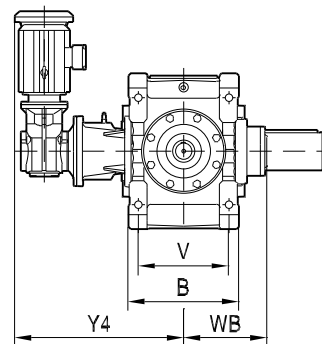
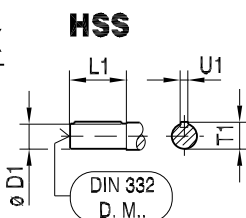
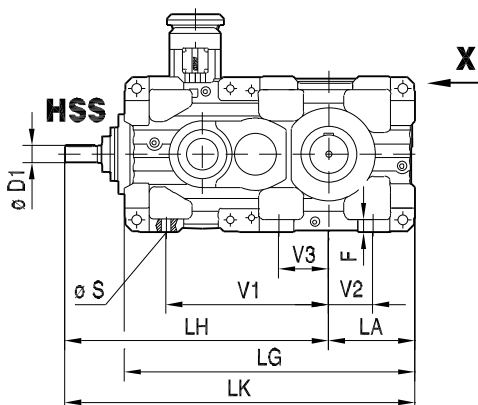


11 Dimension Sheets for Bevel-Helical Gear Units

11.1 X3K100 - 210 / empty buckets U

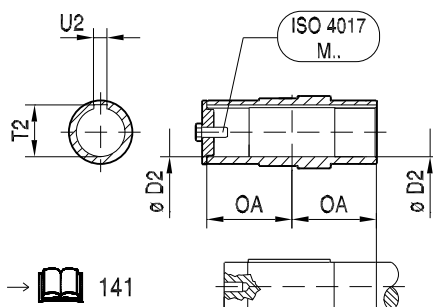
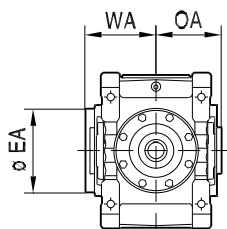
X3KS..

48 024 01 07
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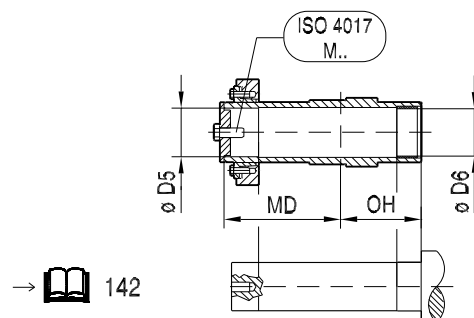
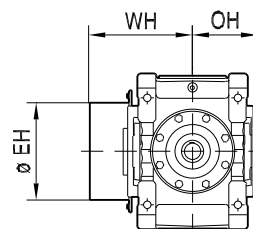


X3KA..

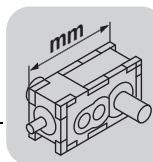
X3KH..



→ 141



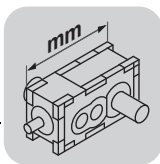
→ 142



																						
X3K..	A	B	ø EB	F	H	LA	LG	LH	LK	P	ø S	V	V1	V2	V3	WB		Y	Y1	Y2	Y3	Y4
X3K.100	278	260	133	29	190 _{-0,5}	190 _{-0,5}	658	632	822	380	24 (4x)	210	370	90	-	213	KF37DRE80M4	631	110	178	358	441
X3K.110	298	260	133	29	190 _{-0,5}	215 _{-0,5}	703	652	867	380	24 (4x)	210	390	115	-	213	KF37DRE80M4	631	110	198	378	441
X3K.120	327	300	153	33	225 _{-0,5}	215 _{-0,5}	767	745	960	450	28 (4x)	245	440	105	-	235	KF47DRE90M4	687	125	215	427	483
X3K.130	363	300	153	33	225 _{-0,5}	250 _{-0,5}	838	781	1031	450	28 (4x)	245	475	140	-	235	KF47DRE90M4	687	125	251	463	483
X3K.140	388	360	175	42	265 _{-0,5}	250 _{-0,5}	903	879	1129	530	35 (4x)	290	510	110	-	284	KF57DRE90L4	754	140	256	513	541
X3K.150	430	360	175	42	265 _{-0,5}	295 _{-0,5}	990	921	1216	530	35 (4x)	290	555	155	-	284	KF57DRE90L4	754	140	298	555	541
X3K.160	474	425	190	50	315 _{-0,5}	355 _{-0,5}	1144	1036	1391	630	42 (4x)	340	620	185	-	320	KF67DRE100M4	840	190	334	599	618
X3K.170	525	425	190	50	315 _{-0,5}	355 _{-0,5}	1195	1087	1442	630	42 (4x)	340	670	185	-	320	KF67DRE100M4	840	190	385	650	618
X3K.180	544	475	210	55	335 _{-0,5}	370 _{-0,5}	1249	1135	1505	670	42 (6x)	390	710	190	215	360	KF77DRE112M4	915	185	364	694	710
X3K.190	576	475	210	55	335 _{-0,5}	370 _{-0,5}	1281	1167	1537	670	42 (6x)	390	740	190	215	360	KF77DRE112M4	915	185	396	726	710
X3K.200	614	515	210	60	375 _{-0,5}	420 _{-0,5}	1409	1286	1706	750	48 (6x)	420	780	205	230	381	KF77DRE132S4	990	225	434	764	729
X3K.210	650	515	210	60	375 _{-0,5}	420 _{-0,5}	1445	1322	1742	750	48 (6x)	420	815	205	230	381	KF77DRE132S4	990	225	470	800	729

	M1	M4	HSS	ø D1	L1	T1	U1	DIN 332 D. M..	LSS	ø D	L	OS	T	U	DIN 332 D. M..	
X3K.100	14	1.5	X3K.100	32 _{k6}	80	35	10 _{h9}	M12	X3KS100	80 _{m6}	170	343	85	22 _{h9}	M20	263
X3K.110	15	1.5	X3K.110	32 _{k6}	80	35	10 _{h9}	M12	X3KS110	90 _{m6}	170	346	95	25 _{h9}	M24	283
X3K.120	21	2.2	X3K.120	38 _{k6}	100	41	10 _{h9}	M12	X3KS120	100 _{m6}	210	401	106	28 _{h9}	M24	400
X3K.130	22	2.2	X3K.130	38 _{k6}	100	41	10 _{h9}	M12	X3KS130	110 _{m6}	210	404	116	28 _{h9}	M24	450
X3K.140	34	3.15	X3K.140	50 _{k6}	110	53.5	14 _{h9}	M16	X3KS140	120 _{m6}	210	432	127	32 _{h9}	M24	650
X3K.150	35	3.15	X3K.150	50 _{k6}	110	53.5	14 _{h9}	M16	X3KS150	130 _{m6}	250	475	137	32 _{h9}	M24	690
X3K.160	61	3.7	X3K.160	60 _{m6}	140	64	18 _{h9}	M20	X3KS160	140 _{m6}	250	506	148	36 _{h9}	M30	1047
X3K.170	61	3.7	X3K.170	60 _{m6}	140	64	18 _{h9}	M20	X3KS170	160 _{m6}	300	556	169	40 _{h9}	M30	1192
X3K.180	76	5.9	X3K.180	70 _{m6}	140	74.5	20 _{h9}	M20	X3KS180	170 _{m6}	300	592	179	40 _{h9}	M30	1504
X3K.190	76	5.9	X3K.190	70 _{m6}	140	74.5	20 _{h9}	M20	X3KS190	170 _{m6}	300	592	179	40 _{h9}	M30	1614
X3K.200	102	5.9	X3K.200	80 _{m6}	170	85	22 _{h9}	M20	X3KS200	180 _{m6}	300	612	190	45 _{h9}	M30	2126
X3K.210	102	5.9	X3K.210	80 _{m6}	170	85	22 _{h9}	M20	X3KS210	190 _{m6}	350	662	200	45 _{h9}	M30	2226

X3KA..									X3KH..								
LSS	ø D2	ø EA	OA	T2	U2	WA	ISO 4017 M..		LSS	ø D5	ø D6	ø EH	MD	OH	WH	ISO 4017 M..	
X3KA100	75 ^{H8}	165	173	80.4	22 ^{JS9}	195	M20x60-8.8	253	X3KH100	80 ^{H7}	81 ^{H9}	214	261	173	282	M24x70-8.8	263
X3KA110	85 ^{H8}	175	176	90.4	22 ^{JS9}	197	M24x70-8.8	273	X3KH110	90 ^{H7}	91 ^{H9}	224	265	176	286	M24x70-8.8	283
X3KA120	95 ^{H8}	202	190.5	100.4	25 ^{JS9}	212	M24x70-8.8	380	X3KH120	100 ^{H7}	101 ^{H9}	272	286.5	190.5	308	M24x70-8.8	390
X3KA130	105 ^{H8}	223	194	111.4	28 ^{JS9}	216	M24x70-8.8	425	X3KH130	110 ^{H7}	111 ^{H9}	289	297	194	323	M24x70-8.8	440
X3KA140	115 ^{H8}	223	222	122.4	32 ^{JS9}	244	M24x70-8.8	615	X3KH140	120 ^{H7}	121 ^{H9}	289	329	222	351	M24x70-8.8	640
X3KA150	125 ^{H8}	250	224.5	132.4	32 ^{JS9}	246	M24x70-8.8	640	X3KH150	130 ^{H7}	131 ^{H9}	319	337.5	224.5	359	M24x70-8.8	670
X3KA160	135 ^{H8}	269	256	143.4	36 ^{JS9}	301	M30x90-8.8	977	X3KH160	140 ^{H7}	141 ^{H9}	372	375	256	409	M30x90-8.8	1007
X3KA170	150 ^{H8}	269	256	158.4	36 ^{JS9}	301	M30x90-8.8	1112	X3KH170	150 ^{H7}	151 ^{H9}	372	364	256	409	M30x90-8.8	1167
X3KA180	165 ^{H8}	263	292	174.4	40 ^{JS9}	339	M30x90-8.8	1404	X3KH180	165 ^{H7}	166 ^{H9}	379	400	292	447	M30x60-8.8	1454
X3KA190	165 ^{H8}	263	292	174.4	40 ^{JS9}	339	M30x90-8.8	1514	X3KH190	165 ^{H7}	166 ^{H9}	379	400	292	447	M30x60-8.8	1564
X3KA200	180 ^{H8}	313	319.5	190.4	45 ^{JS9}	371	M30x90-8.8	2041	X3KH200	180 ^{H7}	181 ^{H9}	439	450.5	319.5	501	M30x60-8.8	2111
X3KA210	190 ^{H8}	313	319.5	200.4	45 ^{JS9}	371	M30x90-8.8	2111	X3KH210	190 ^{H7}	191 ^{H9}	439	453.5	319.5	501	M30x60-8.8	2196

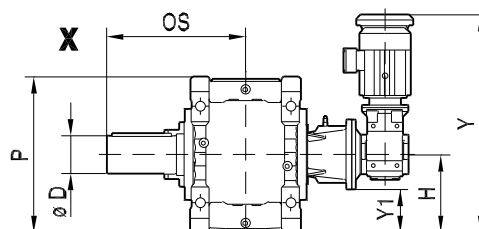
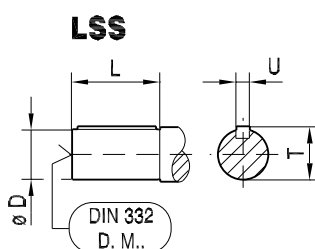
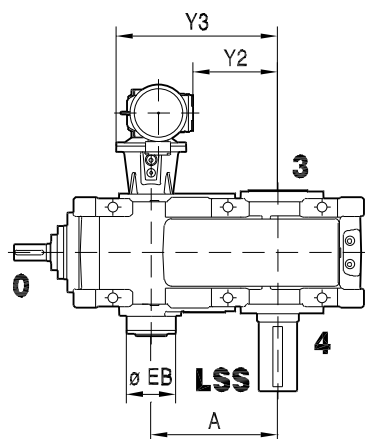
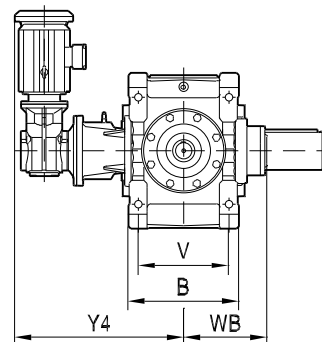
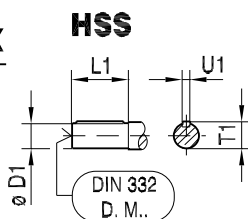
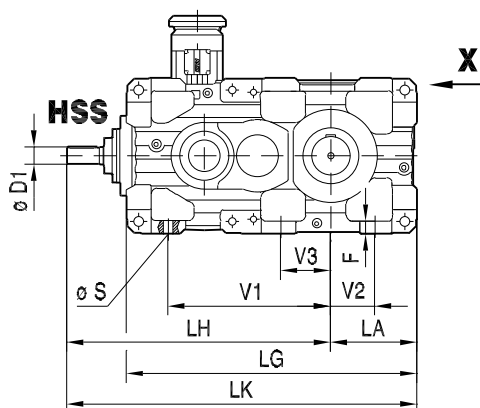


Dimension Sheets for Bevel-Helical Gear Units X3K100 - 210 / full buckets

11.2 X3K100 - 210 / full buckets

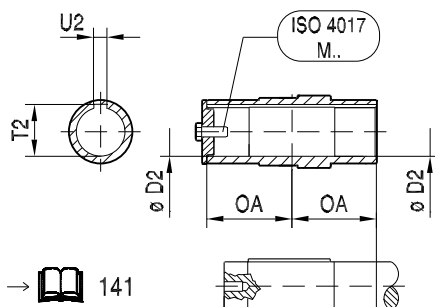
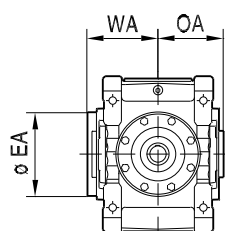
X3KS..

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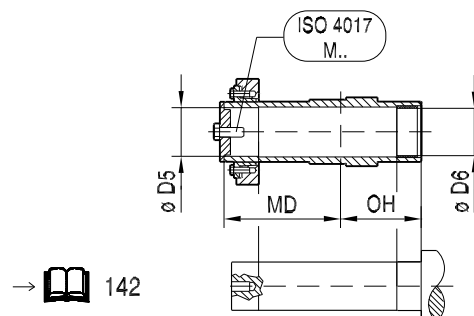
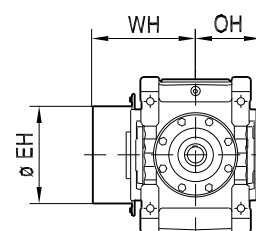


X3KA..

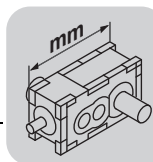
X3KH..



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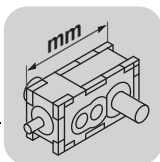
→  142



																						
X3K..	A	B	ø EB	F	H	LA	LG	LH	LK	P	ø S	V	V1	V2	V3	WB		Y	Y1	Y2	Y3	Y4
X3K.100	278	260	133	29	190 _{-0,5}	190 _{-0,5}	658	632	822	380	24 (4x)	210	370	90	-	213	KF57DRE90L4	679	65	146	403	494
X3K.110	298	260	133	29	190 _{-0,5}	215 _{-0,5}	703	652	867	380	24 (4x)	210	390	115	-	213	KF57DRE90L4	679	65	166	423	494
X3K.120	327	300	153	33	225 _{-0,5}	215 _{-0,5}	767	745	960	450	28 (4x)	245	440	105	-	235	KF67DRE100M4	750	100	187	452	535
X3K.130	363	300	153	33	225 _{-0,5}	250 _{-0,5}	838	781	1031	450	28 (4x)	245	475	140	-	235	KF67DRE100M4	750	100	223	488	535
X3K.140	388	360	175	42	265 _{-0,5}	250 _{-0,5}	903	879	1129	530	35 (4x)	290	510	110	-	284	KF77DRE132S4	880	115	208	538	633
X3K.150	430	360	175	42	265 _{-0,5}	295 _{-0,5}	990	921	1216	530	35 (4x)	290	555	155	-	284	KF77DRE132S4	880	115	250	580	633
X3K.160	474	425	190	50	315 _{-0,5}	355 _{-0,5}	1144	1036	1391	630	42 (4x)	340	620	185	-	320	KF87DRE132M4	1030	140	262	649	735
X3K.170	525	425	190	50	315 _{-0,5}	355 _{-0,5}	1195	1087	1442	630	42 (4x)	340	670	185	-	320	KF87DRE132M4	1030	140	313	700	735
X3K.180	544	475	210	55	335 _{-0,5}	370 _{-0,5}	1249	1135	1505	670	42 (6x)	390	710	190	215	360	KF97DRE160M4	1115	110	279	769	860
X3K.190	576	475	210	55	335 _{-0,5}	370 _{-0,5}	1281	1167	1537	670	42 (6x)	390	740	190	215	360	KF97DRE160M4	1115	110	311	801	860
X3K.200	614	515	210	60	375 _{-0,5}	420 _{-0,5}	1409	1286	1706	750	48 (6x)	420	780	205	230	381	KF97DRE180S4	1224	150	349	839	879
X3K.210	650	515	210	60	375 _{-0,5}	420 _{-0,5}	1445	1322	1742	750	48 (6x)	420	815	205	230	381	KF97DRE180S4	1224	150	385	875	879

	M1 	M4 	HSS 	Ø D1	L1	T1	U1	DIN 332 D. M..	LSS 	Ø D	L	OS	T	U	DIN 332 D. M..	
X3K.100	14	3.15	X3K.100	32 _{k6}	80	35	10 _{h9}	M12	X3KS100	80 _{m6}	170	343	85	22 _{h9}	M20	285
X3K.110	15	3.15	X3K.110	32 _{k6}	80	35	10 _{h9}	M12	X3KS110	90 _{m6}	170	346	95	25 _{h9}	M24	305
X3K.120	22	5.9	X3K.120	38 _{k6}	100	41	10 _{h9}	M12	X3KS120	100 _{m6}	210	401	106	28 _{h9}	M24	422
X3K.130	23	5.9	X3K.130	38 _{k6}	100	41	10 _{h9}	M12	X3KS130	110 _{m6}	210	404	116	28 _{h9}	M24	472
X3K.140	35	5.9	X3K.140	50 _{k6}	110	53.5	14 _{h9}	M16	X3KS140	120 _{m6}	210	432	127	32 _{h9}	M24	706
X3K.150	36	5.9	X3K.150	50 _{k6}	110	53.5	14 _{h9}	M16	X3KS150	130 _{m6}	250	475	137	32 _{h9}	M24	746
X3K.160	63	11.9	X3K.160	60 _{m6}	140	64	18 _{h9}	M20	X3KS160	140 _{m6}	250	506	148	36 _{h9}	M30	1141
X3K.170	63	11.9	X3K.170	60 _{m6}	140	64	18 _{h9}	M20	X3KS170	160 _{m6}	300	556	169	40 _{h9}	M30	1286
X3K.180	79	21.5	X3K.180	70 _{m6}	140	74.5	20 _{h9}	M20	X3KS180	170 _{m6}	300	592	179	40 _{h9}	M30	1651
X3K.190	79	21.5	X3K.190	70 _{m6}	140	74.5	20 _{h9}	M20	X3KS190	170 _{m6}	300	592	179	40 _{h9}	M30	1761
X3K.200	105	21.5	X3K.200	80 _{m6}	170	85	22 _{h9}	M20	X3KS200	180 _{m6}	300	612	190	45 _{h9}	M30	2307
X3K.210	105	21.5	X3K.210	80 _{m6}	170	85	22 _{h9}	M20	X3KS210	190 _{m6}	350	662	200	45 _{h9}	M30	2407

X3KA..									X3KH..								
LSS	Ø D2	Ø EA	OA	T2	U2	WA	ISO 4017 M..		LSS	Ø D5	Ø D6	Ø EH	MD	OH	WH	ISO 4017 M..	
X3KA100	75 ^{H8}	165	173	80.4	22 ^{JS9}	195	M20x60-8.8	275	X3KH100	80 ^{H7}	81 ^{H9}	214	261	173	282	M24x70-8.8	285
X3KA110	85 ^{H8}	175	176	90.4	22 ^{JS9}	197	M24x70-8.8	295	X3KH110	90 ^{H7}	91 ^{H9}	224	265	176	286	M24x70-8.8	305
X3KA120	95 ^{H8}	202	190.5	100.4	25 ^{JS9}	212	M24x70-8.8	402	X3KH120	100 ^{H7}	101 ^{H9}	272	286.5	190.5	308	M24x70-8.8	412
X3KA130	105 ^{H8}	223	194	111.4	28 ^{JS9}	216	M24x70-8.8	447	X3KH130	110 ^{H7}	111 ^{H9}	289	297	194	323	M24x70-8.8	462
X3KA140	115 ^{H8}	223	222	122.4	32 ^{JS9}	244	M24x70-8.8	671	X3KH140	120 ^{H7}	121 ^{H9}	289	329	222	351	M24x70-8.8	696
X3KA150	125 ^{H8}	250	224.5	132.4	32 ^{JS9}	246	M24x70-8.8	696	X3KH150	130 ^{H7}	131 ^{H9}	319	337.5	224.5	359	M24x70-8.8	726
X3KA160	135 ^{H8}	269	256	143.4	36 ^{JS9}	301	M30x90-8.8	1071	X3KH160	140 ^{H7}	141 ^{H9}	372	375	256	409	M30x90-8.8	1101
X3KA170	150 ^{H8}	269	256	158.4	36 ^{JS9}	301	M30x90-8.8	1206	X3KH170	150 ^{H7}	151 ^{H9}	372	364	256	409	M30x90-8.8	1261
X3KA180	165 ^{H8}	263	292	174.4	40 ^{JS9}	339	M30x90-8.8	1551	X3KH180	165 ^{H7}	166 ^{H9}	379	400	292	447	M30x60-8.8	1601
X3KA190	165 ^{H8}	263	292	174.4	40 ^{JS9}	339	M30x90-8.8	1661	X3KH190	165 ^{H7}	166 ^{H9}	379	400	292	447	M30x60-8.8	1711
X3KA200	180 ^{H8}	313	319.5	190.4	45 ^{JS9}	371	M30x90-8.8	2222	X3KH200	180 ^{H7}	181 ^{H9}	439	450.5	319.5	501	M30x60-8.8	2292
X3KA210	190 ^{H8}	313	319.5	200.4	45 ^{JS9}	371	M30x90-8.8	2292	X3KH210	190 ^{H7}	191 ^{H9}	439	453.5	319.5	501	M30x60-8.8	2377

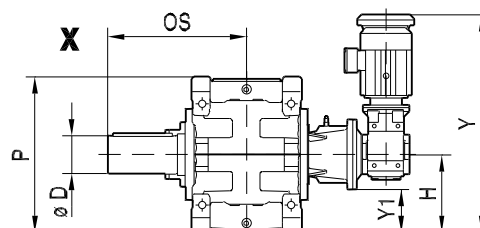
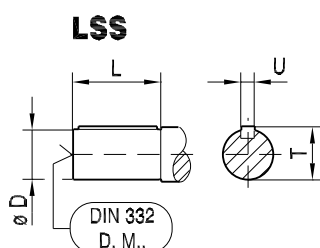
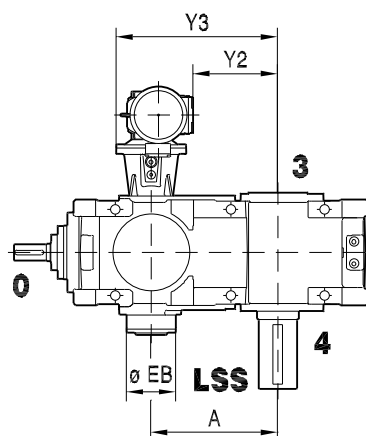
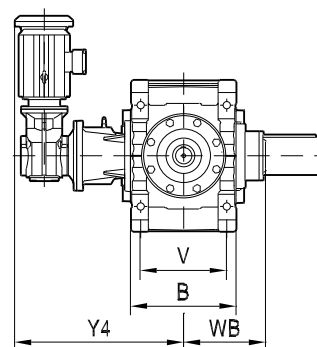
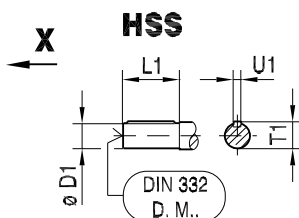
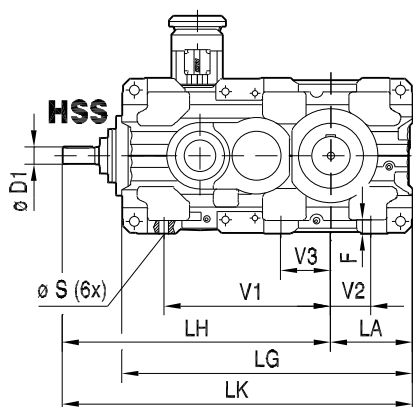


Dimension Sheets for Bevel-Helical Gear Units X3K220 - 250 / empty buckets

11.3 X3K220 - 250 / empty buckets U

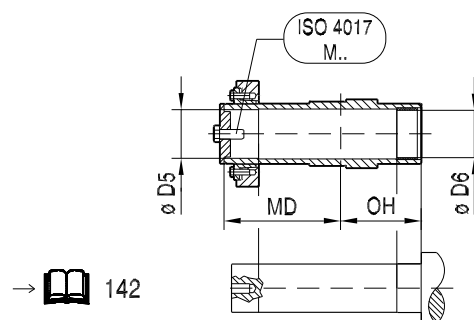
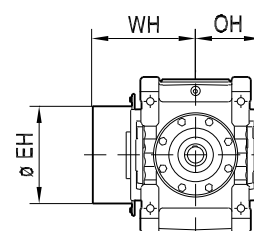
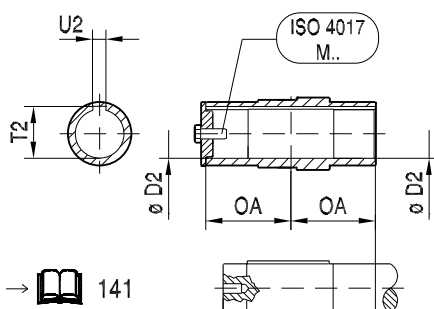
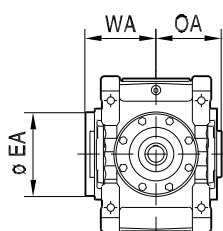
X3KS..

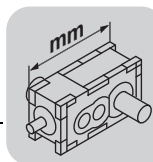
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X3KA..

X3KH..



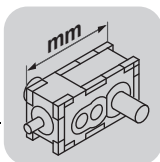


																						
X3K..	A	B	ø EB	F	H	LA	LG	LH	LK	P	ø S (6x)	V	V1	V2	V3	WB		Y	Y1	Y2	Y3	Y4
X3K.220	694	540	245	62	425 _{0.5}	465 _{0.5}	1584	1430	1895	850	48	440	910	250	280	426	KF87DRE132S4	1090	250	482	869	828
X3K.230	734	540	245	62	425 _{0.5}	465 _{0.5}	1624	1470	1935	850	48	440	950	250	280	426	KF87DRE132S4	1090	250	522	909	828
X3K.240	776	625	290	68	450 _{0.5}	495 _{0.5}	1721	1597	2092	900	56	510	990	250	305	472	KF87DRE132M4	1165	275	564	951	872
X3K.250	799	625	290	68	450 _{0.5}	495 _{0.5}	1744	1620	2115	900	56	510	1010	250	305	472	KF87DRE132M4	1165	275	587	974	872

		M1	M4	HSS	ø D1	L1	T1	U1	DIN 332 D. M..	LSS	ø D	L	OS	T	U	DIN 332 D. M..	kg
X3K.220		131	11.9	X3K.220	85 _{m6}	170	90	22 _{h9}	M20	X3KS220	210 _{m6}	350	703	221	50 _{h9}	M30	3036
X3K.230		131	11.9	X3K.230	85 _{m6}	170	90	22 _{h9}	M20	X3KS230	230 _{m6}	410	763	241	50 _{h9}	M36	3206
X3K.240		171	11.9	X3K.240	100 _{m6}	210	106	28 _{h9}	M24	X3KS240	230 _{m6}	410	811	241	50 _{h9}	M36	4066
X3K.250		171	11.9	X3K.250	100 _{m6}	210	106	28 _{h9}	M24	X3KS250	240 _{m6}	410	811	252	56 _{h9}	M36	4196

X3KA..									X3KH..								
LSS	ø D2	ø EA	OA	T2	U2	WA	ISO 4017 M..	kg	LSS	ø D5	ø D6	ø EH	MD	OH	WH	ISO 4017 M..	kg
X3KA220	210 ^{H8}	334	352.5	221.4	50 ^{JS9}	397	M30x90-8.8	2856	X3KH220	210 ^{H7}	211 ^{H9}	482	497.5	352.5	549	M30x90-8.8	2961
X3KA230	210 ^{H8}	334	352.5	221.4	50 ^{JS9}	397	M30x90-8.8	2986	X3KH230	210 ^{H7}	211 ^{H9}	482	497.5	352.5	549	M30x90-8.8	3096
X3KA240	230 ^{H8}	404	400.5	241.4	50 ^{JS9}	457	M36x110-8.8	3781	X3KH240	230 ^{H7}	231 ^{H9}	542	571.5	400.5	628	M36x110-8.8	3946
X3KA250	240 ^{H8}	404	400.5	252.4	56 ^{JS9}	457	M36x110-8.8	3891	X3KH250	240 ^{H7}	241 ^{H9}	542	571.5	400.5	628	M36x110-8.8	4051



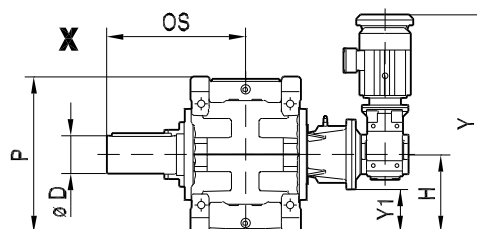
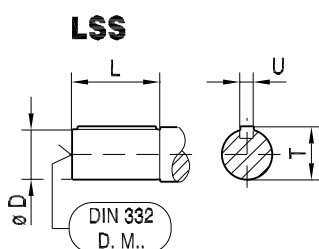
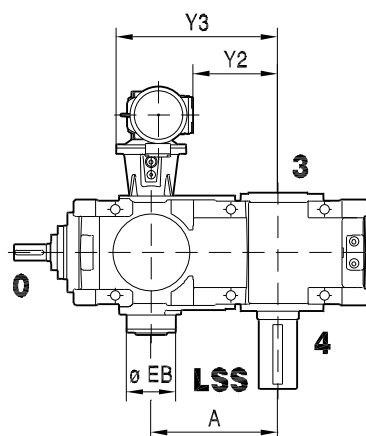
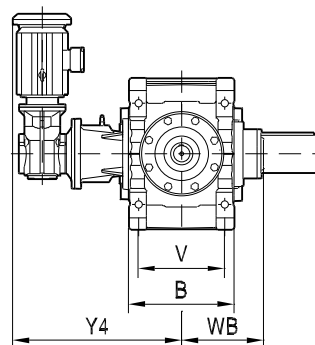
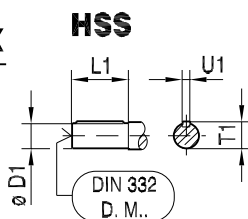
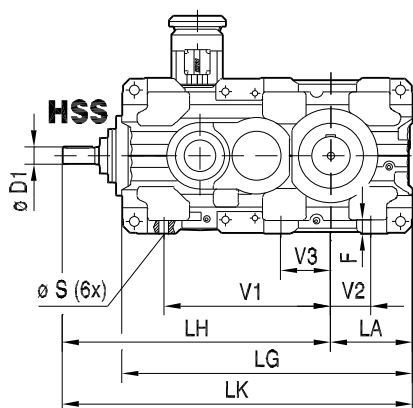


Dimension Sheets for Bevel-Helical Gear Units X3K220 - 250 / full buckets

11.4 X3K220 - 250 / full buckets

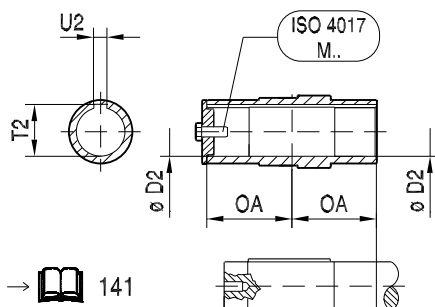
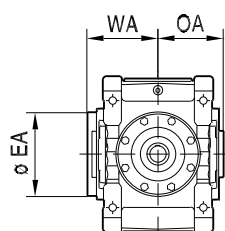
X3KS..

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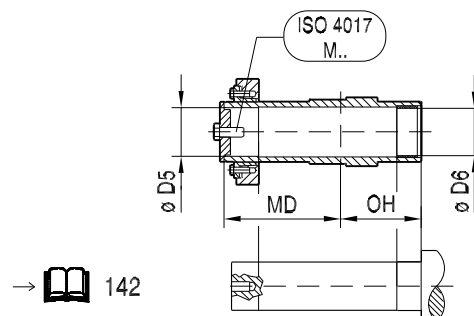
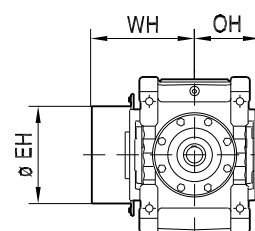


X3KA..

X3KH..



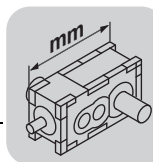
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Dimension Sheets for Bevel-Helical Gear Units

X3K220 - 250 / full buckets



11

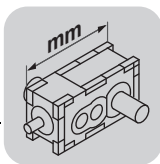
																						
X3K..	A	B	ø EB	F	H	LA	LG	LH	LK	P	ø S (6x)	V	V1	V2	V3	WB		Y	Y1	Y2	Y3	Y4
X3K.220	694	540	245	62	425 _{-0,5}	465 _{-0,5}	1584	1430	1895	850	48	440	910	250	280	426	KF107DRE180L4	1392	200	379	919	983
X3K.230	734	540	245	62	425 _{-0,5}	465 _{-0,5}	1624	1470	1935	850	48	440	950	250	280	426	KF107DRE180L4	1392	200	419	959	983
X3K.240	776	625	290	68	450 _{-0,5}	495 _{-0,5}	1721	1597	2092	900	56	510	990	250	305	472	KF127DRE200L4	1524	175	401	1051	1158
X3K.250	799	625	290	68	450 _{-0,5}	495 _{-0,5}	1744	1620	2115	900	56	510	1010	250	305	472	KF127DRE200L4	1524	175	424	1074	1158

  			HSS						LSS							
M1	M2	M3		ø D1	L1	T1	U1	DIN 332 D. M..		ø D	L	OS	T	U	DIN 332 D. M..	
X3K.220	137	35.1	X3K.220	85 _{m6}	170	90	22 _{h9}	M20	X3KS220	210 _{m6}	350	703	221	50 _{h9}	M30	3317
X3K.230	137	35.1	X3K.230	85 _{m6}	170	90	22 _{h9}	M20	X3KS230	230 _{m6}	410	763	241	50 _{h9}	M36	3487
X3K.240	179	55	X3K.240	100 _{m6}	210	106	28 _{h9}	M24	X3KS240	230 _{m6}	410	811	241	50 _{h9}	M36	4623
X3K.250	179	55	X3K.250	100 _{m6}	210	106	28 _{h9}	M24	X3KS250	240 _{m6}	410	811	252	56 _{h9}	M36	4753

X3KA..									X3KH..								
LSS	Ø D2	Ø EA	OA	T2	U2	WA	ISO 4017 M..		LSS	Ø D5	Ø D6	Ø EH	MD	OH	WH	ISO 4017 M..	
																	
X3KA220	210 ^{H8}	334	352.5	221.4	50 ^{JS9}	397	M30x90-8.8	3137	X3KH220	210 ^{H7}	211 ^{H9}	482	497.5	352.5	549	M30x90-8.8	3242
X3KA230	210 ^{H8}	334	352.5	221.4	50 ^{JS9}	397	M30x90-8.8	3267	X3KH230	210 ^{H7}	211 ^{H9}	482	497.5	352.5	549	M30x90-8.8	3377
X3KA240	230 ^{H8}	404	400.5	241.4	50 ^{JS9}	457	M36x110-8.8	4338	X3KH240	230 ^{H7}	231 ^{H9}	542	571.5	400.5	628	M36x110-8.8	4503
X3KA250	240 ^{H8}	404	400.5	252.4	56 ^{JS9}	457	M36x110-8.8	4448	X3KH250	240 ^{H7}	241 ^{H9}	542	571.5	400.5	628	M36x110-8.8	4608

11



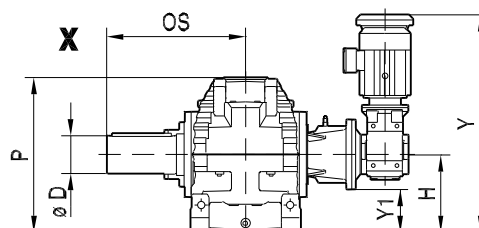
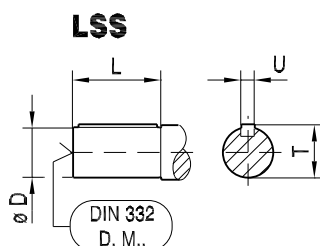
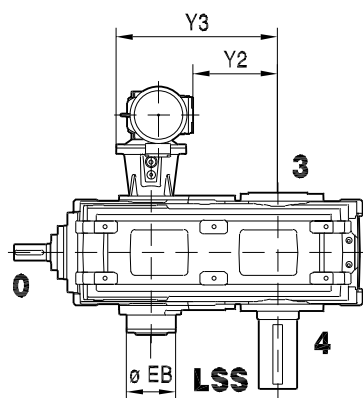
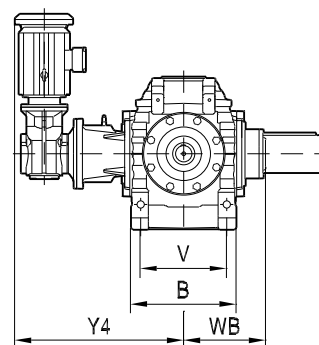
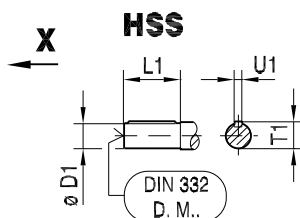
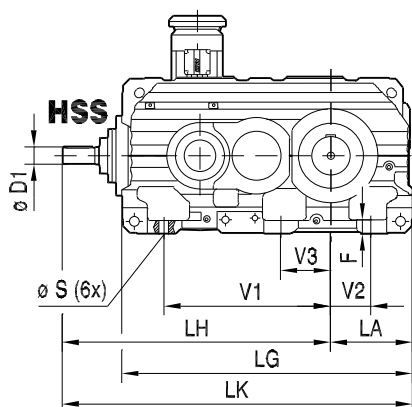


Dimension Sheets for Bevel-Helical Gear Units X3K260 - 280 / empty buckets

11.5 X3K260 - 280 / empty buckets

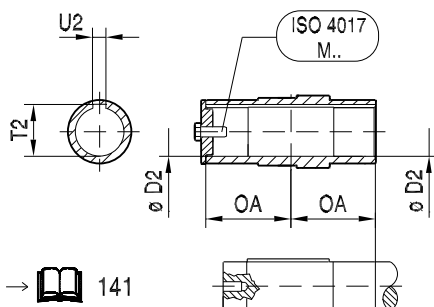
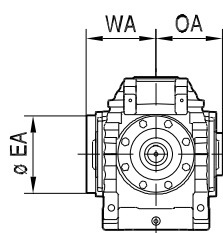
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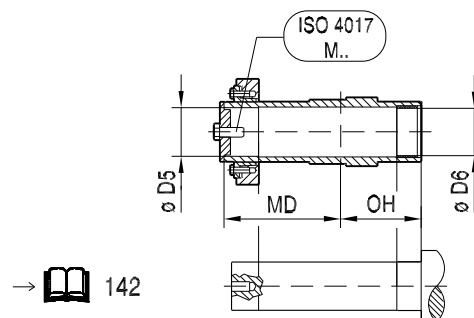
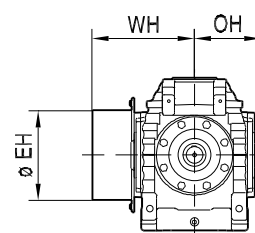


X3KA../HH

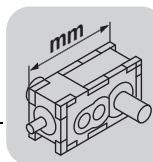
X3KH../HH



→ 141



→ 142

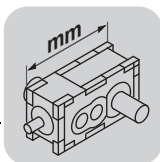


																						
X3K..	A	B	ø EB	F	H	LA	LG	LH	LK	P	ø S (6x)	V	V1	V2	V3	WB		Y	Y1	Y2	Y3	Y4
X3K.260	855	705	288	73	500 _{-0,5}	545 _{-0,5}	1900	1767	2312	1000	56	590	1110	300	350	553	KF87DRE132M4	1215	325	643	1030	951
X3K.270	890	705	288	73	500 _{-0,5}	545 _{-0,5}	1935	1802	2347	1000	56	590	1110	300	350	553	KF87DRE132M4	1215	325	678	1065	951
X3K.280	942	705	288	73	555 _{-0,5}	610 _{-0,5}	2052	1854	2464	1110	56	590	1190	360	380	553	KF87DRE132M4	1270	380	730	1117	951

	M1 	M4 	HSS 	 D1	L1	T1	U1	DIN 332 D. M...	LSS 	 D	L	OS	T	U	DIN 332 D. M...	
X3K.260	257	11.9	X3K.260	110 _{m6}	210	116	28 _{h9}	M24	X3KS260	250 _{m6}	410	847	262	56 _{h9}	M36	4706
X3K.270	257	11.9	X3K.270	110 _{m6}	210	116	28 _{h9}	M24	X3KS270	270 _{m6}	470	920	282	63 _{h9}	M36	5206
X3K.280	327	11.9	X3K.280	110 _{m6}	210	116	28 _{h9}	M24	X3KS280	290 _{m6}	470	920	302	63 _{h9}	M30	5656

X3KA..									X3KH..								
LSS	ø D2	ø EA	OA	T2	U2	WA	ISO 4017 M..	kg	LSS	ø D5	ø D6	ø EH	MD	OH	WH	ISO 4017 M..	kg
X3KA260	240 ^{H8}	404	437	252.4	56 ^{JS9}	497	M36x110-8.8	4256	X3KH260	250 ^{H7}	255 ^{H9}	542	608	437	668	M36x110-8.8	4406
X3KA270	275 ^{H8}	633	450	287.4	63 ^{JS9}	521	M36x110-8.8	4706	X3KH270	280 ^{H7}	285 ^{H9}	633	630	450	706	M36x110-8.8	4956
X3KA280	275 ^{H8}	633	450	287.4	63 ^{JS9}	521	M36x110-8.8	5056	X3KH280	280 ^{H7}	285 ^{H9}	633	630	450	706	M36x110-8.8	4756



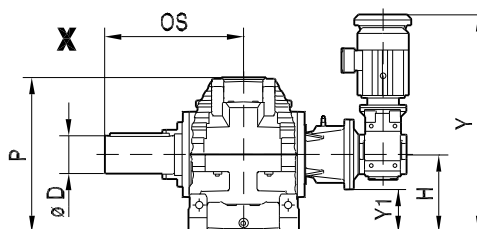
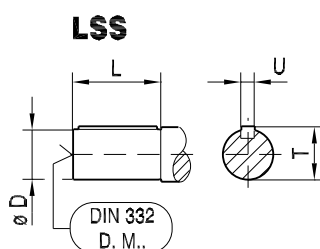
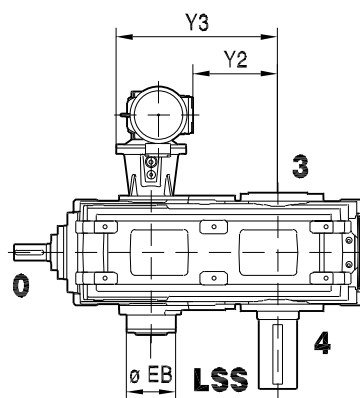
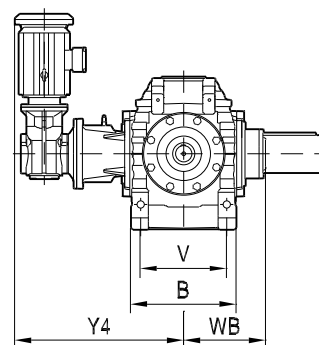
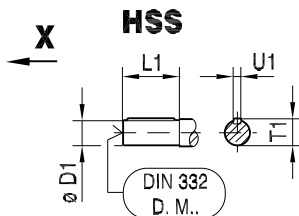
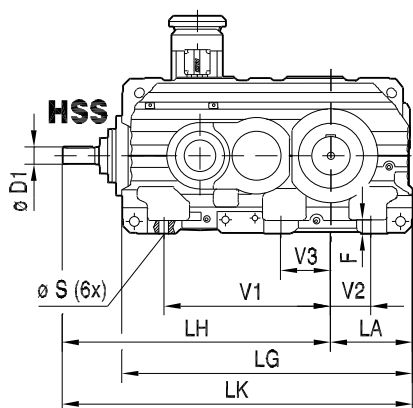


Dimension Sheets for Bevel-Helical Gear Units X3K260 - 280 / full buckets

11.6 X3K260 - 280 / full buckets

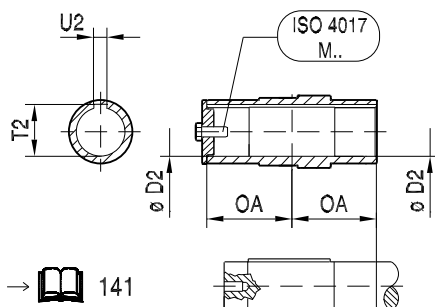
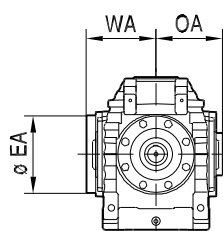
X3KS../HH

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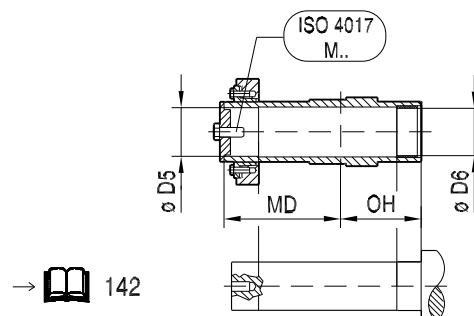
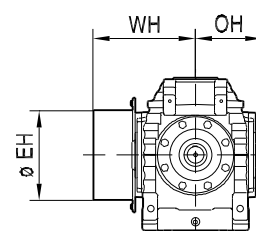


X3KA../HH

X3KH../HH



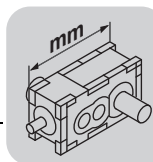
→  141



→  142

Dimension Sheets for Bevel-Helical Gear Units

X3K260 - 280 / full buckets



11

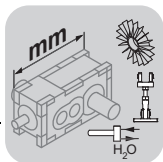
 																						
X3K..	A	B	ø EB	F	H	LA	LG	LH	LK	P	ø S (6x)	V	V1	V2	V3	WB		Y	Y1	Y2	Y3	Y4
X3K.260	855	705	288	73	500 _{-0.5}	545 _{-0.5}	1900	1767	2312	1000	56	590	1110	300	350	553	KF127DRE225S4	1574	225	480	1130	1235
X3K.270	890	705	288	73	500 _{-0.5}	545 _{-0.5}	1935	1802	2347	1000	56	590	1110	300	350	553	KF127DRE225S4	1574	225	515	1165	1235
X3K.280	942	705	288	73	555 _{-0.5}	610 _{-0.5}	2052	1854	2464	1110	56	590	1190	360	380	553	KF127DRE225S4	1629	280	567	1217	1235

																
	M1	M4	HSS	ø D1	L1	T1	U1	DIN 332 D. M..	LSS	ø D	L	OS	T	U	DIN 332 D. M..	kg
X3K.260	267	55	X3K.260	110 _{m6}	210	116	28 _{hg}	M24	X3KS260	250 _{m6}	410	847	262	56 _{hg}	M36	5293
X3K.270	267	55	X3K.270	110 _{m6}	210	116	28 _{hg}	M24	X3KS270	270 _{m6}	470	920	282	63 _{hg}	M36	5793
X3K.280	337	55	X3K.280	110 _{m6}	210	116	28 _{hg}	M24	X3KS280	290 _{m6}	470	920	302	63 _{hg}	M30	6243

X3KA..									X3KH..								
																	
X3KA260	240 ^{H8}	404	437	252.4	56 ^{JS9}	497	M36x110-8.8	4843	X3KH260	250 ^{H7}	255 ^{H9}	542	608	437	668	M36x110-8.8	4993
X3KA270	275 ^{H8}	633	450	287.4	63 ^{JS9}	521	M36x110-8.8	5293	X3KH270	280 ^{H7}	285 ^{H9}	633	630	450	706	M36x110-8.8	5543
X3KA280	275 ^{H8}	633	450	287.4	63 ^{JS9}	521	M36x110-8.8	5643	X3KH280	280 ^{H7}	285 ^{H9}	633	630	450	706	M36x110-8.8	5943

11





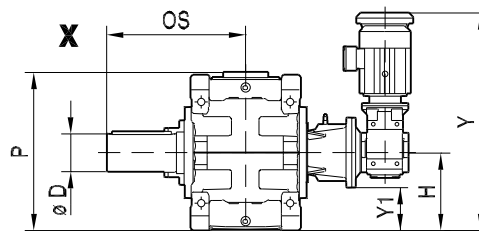
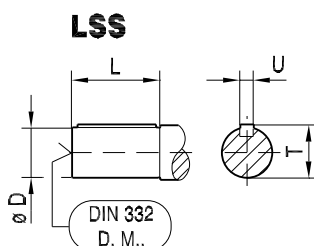
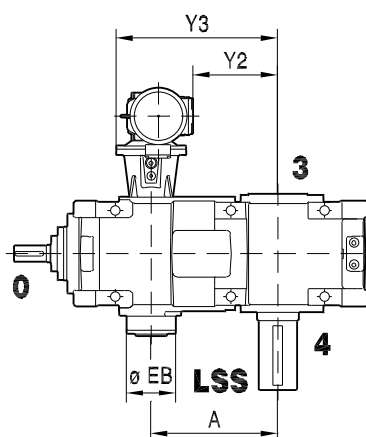
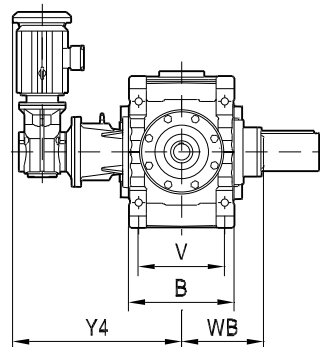
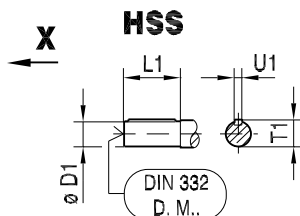
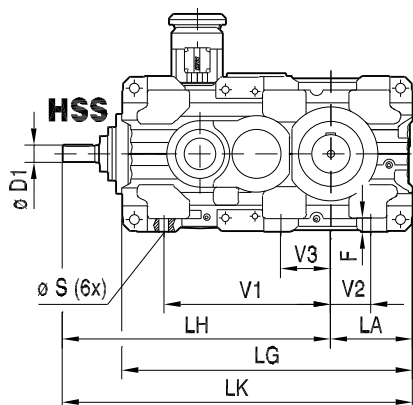
12 Additional Dimension Sheets

12.1 Universal housing /HU

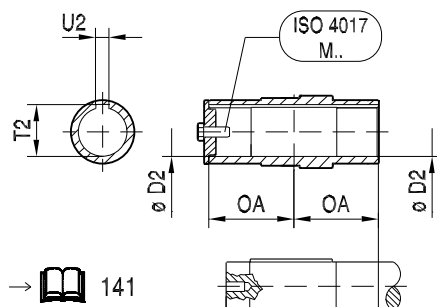
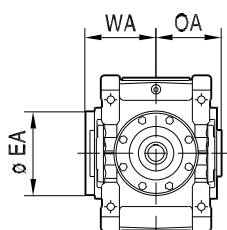
12.1.1 X3K260 - 280 / empty buckets U

X3KS../HU

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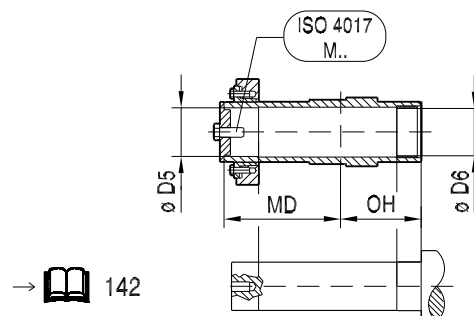
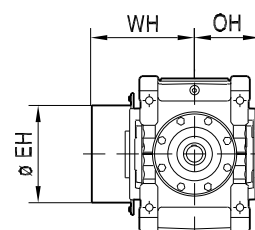


X3KA../HU

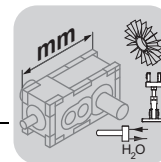


→ 141

X3KH../HU



→ 142

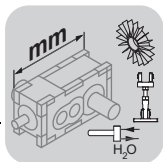


 																						
X3K..	A	B	Ø EB	F	H	LA	LG	LH	LK	P	Ø S (6x)	V	V1	V2	V3	WB		Y	Y1	Y2	Y3	Y4
X3K.260	855	705	288	73	500 _{-0.5}	545 _{-0.5}	1900	1767	2312	1017	56	590	1110	300	350	553	KF87DRE132M4	1215	325	643	1030	951
X3K.270	890	705	288	73	500 _{-0.5}	545 _{-0.5}	1935	1802	2347	1017	56	590	1110	300	350	553	KF87DRE132M4	1215	325	678	1065	951
X3K.280	942	705	288	73	555 _{-0.5}	610 _{-0.5}	2052	1854	2464	1127	56	590	1190	360	380	553	KF87DRE132M4	1270	380	730	1117	951

																
X3K.260	257	11.9	X3K.260	110 _{m6}	210	116	28 _{h9}	M24	X3KS260	250 _{m6}	410	847	262	56 _{h9}	M36	5006
X3K.270	257	11.9	X3K.270	110 _{m6}	210	116	28 _{h9}	M24	X3KS270	270 _{m6}	470	920	282	63 _{h9}	M36	5506
X3K.280	327	11.9	X3K.280	110 _{m6}	210	116	28 _{h9}	M24	X3KS280	290 _{m6}	470	920	302	63 _{h9}	M36	6006

X3KA..									X3KH..								
																	
X3KA260	240 ^{H8}	404	437	252.4	56 ^{JS9}	497	M36x110-8.8	4556	X3KH260	250 ^{H7}	255 ^{H9}	542	608	437	668	M36x110-8.8	4706
X3KA270	275 ^{H8}	633	450	287.4	63 ^{JS9}	521	M36x110-8.8	5006	X3KH270	280 ^{H7}	285 ^{H9}	633	630	450	706	M36x110-8.8	5256
X3KA280	275 ^{H8}	633	450	287.4	63 ^{JS9}	521	M36x110-8.8	5456	X3KH280	280 ^{H7}	285 ^{H9}	633	630	450	706	M36x110-8.8	5106



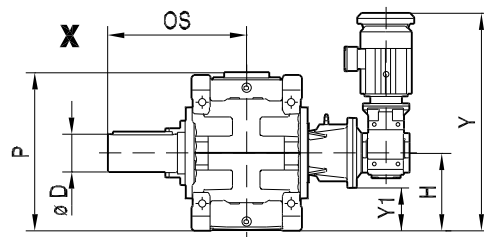
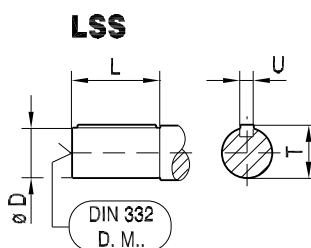
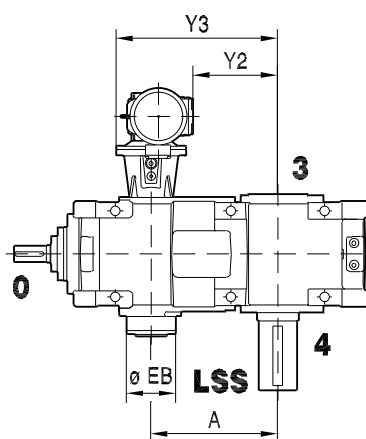
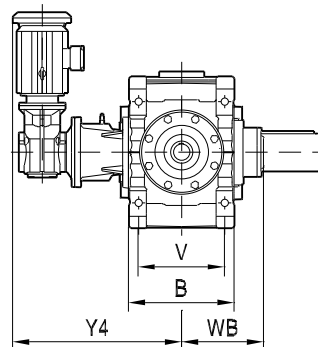
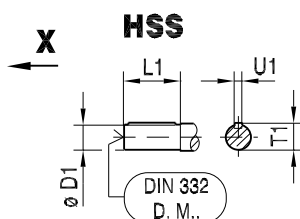
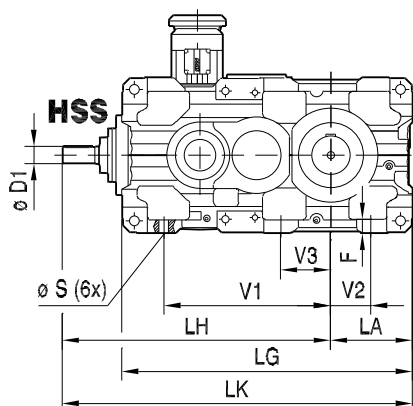


12.1.2 X3K260 - 280 / full buckets



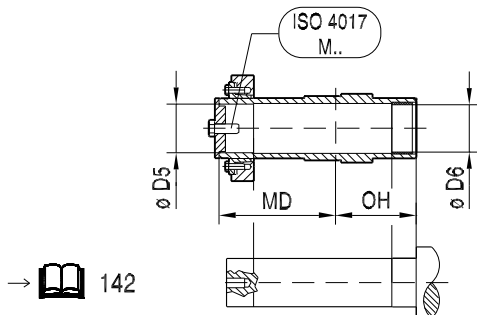
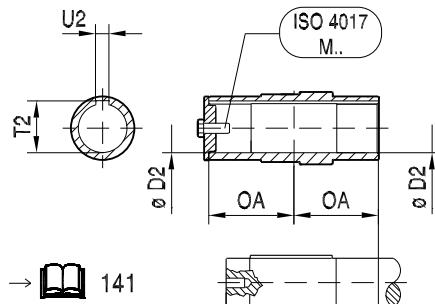
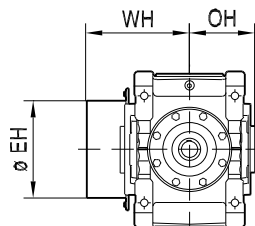
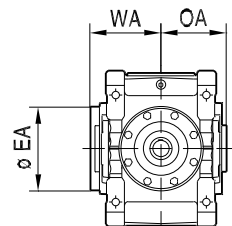
X3KS../HU

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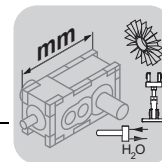
X3KA../HU

X3KH../HU



→ 141

→ 142

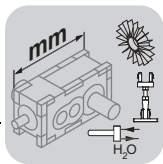


																						
X3K..	A	B	Ø EB	F	H	LA	LG	LH	LK	P	Ø S (6x)	V	V1	V2	V3	WB		Y	Y1	Y2	Y3	Y4
X3K.260	855	705	412	73	500 _{-0.5}	545 _{-0.5}	1900	1767	2312	1017	56	590	1110	300	350	563	KF127DRE225S4	1574	225	480	1130	1235
X3K.270	890	705	412	73	500 _{-0.5}	545 _{-0.5}	1935	1802	2347	1017	56	590	1110	300	350	563	KF127DRE225S4	1574	225	515	1165	1235
X3K.280	942	705	412	73	555 _{-0.5}	610 _{-0.5}	2052	1854	2464	1127	56	590	1190	360	380	563	KF127DRE225S4	1629	280	567	1217	1235

																							
HSS	Ø D1	L1	T1	U1	DIN 332 D. M..																		
X3K.260	110 _{m6}	210	116	28 _{h9}	M24																		
X3K.270	110 _{m6}	210	116	28 _{h9}	M24																		
X3K.280	110 _{m6}	210	116	28 _{h9}	M24																		

X3KA..									X3KH..								
LSS	Ø D2	Ø EA	OA	T2	U2	WA	ISO 4017 M..	kg	LSS	Ø D5	Ø D6	Ø EH	MD	OH	WH	ISO 4017 M..	kg
X3KA260	240 ^{H8}	404	437	252.4	56 ^{JS9}	497	M36x110-8.8	5143	X3KH260	250 ^{H7}	255 ^{H9}	542	608	437	668	M36x110-8.8	5785
X3KA270	275 ^{H8}	633	450	287.4	63 ^{JS9}	521	M36x110-8.8	5593	X3KH270	280 ^{H7}	285 ^{H9}	633	630	450	706	M36x110-8.8	6335
X3KA280	275 ^{H8}	633	450	287.4	63 ^{JS9}	521	M36x110-8.8	6043	X3KH280	280 ^{H7}	285 ^{H9}	633	630	450	706	M36x110-8.8	6835



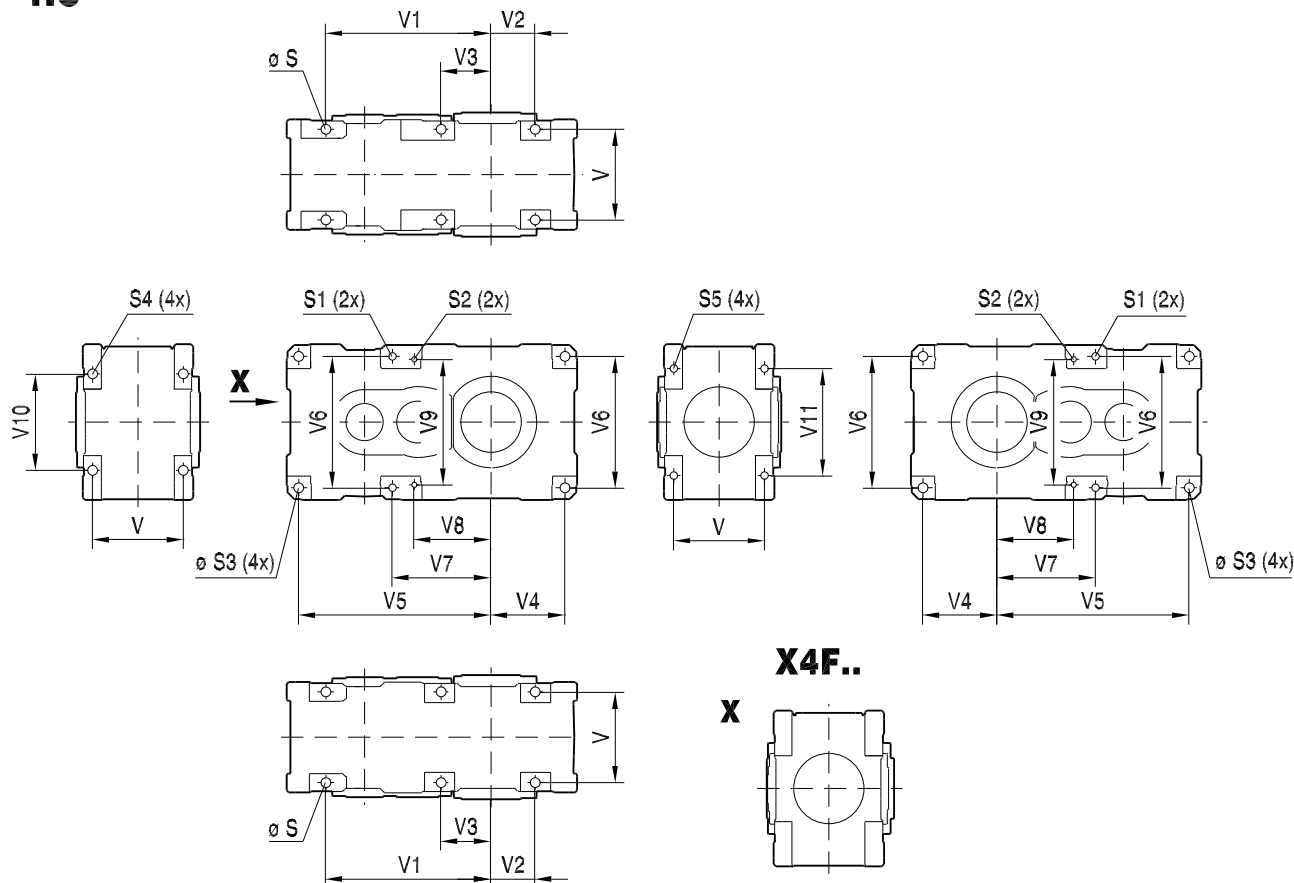


12.2 Housing bores [mm]

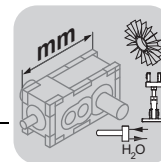
12.2.1 Universal housing /HU

HU

48 041 04 07



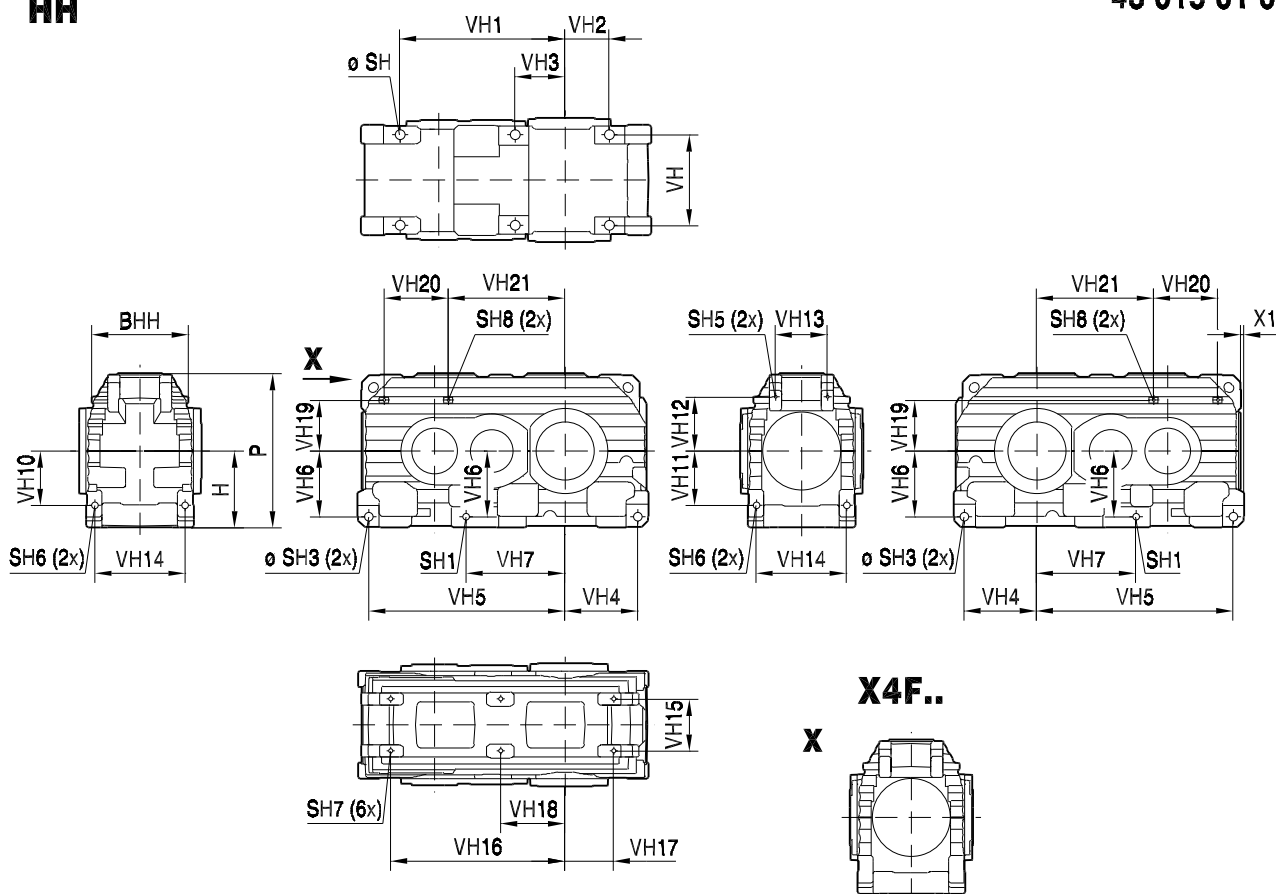
X.K..	Ø S	S1 (2x)	S2 (2x)	Ø S3 (4x)	S4 (4x)	S5 (4x)	V	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11
X..100	24 (4x)	M20	-	24	Ø 24	M20	210	370	90	-	160	441	315	197	-	-	250	250
X..110	24 (4x)	M20	-	24	Ø 24	M20	210	390	115	-	185	461	315	217	-	-	250	250
X..120	28 (4x)	M24	-	28	Ø 28	M24	245	440	105	-	184	521	380	233	-	-	300	310
X..130	28 (4x)	M24	-	28	Ø 28	M24	245	475	140	-	219	557	380	269	-	-	300	310
X..140	35 (4x)	M30	-	35	Ø 35	M30	290	510	110	-	210	613	445	277	-	-	335	350
X..150	35 (4x)	M30	M20	35	Ø 35	M30	290	555	155	-	255	655	445	319	250	430	335	350
X..160	42 (4x)	M36	M24	42	Ø 42	M36	340	620	185	-	303	737	525	348	265	500	400	415
X..170	42 (4x)	M36	M24	42	Ø 42	M36	340	670	185	-	303	788	525	399	265	500	400	415
X..180	42 (6x)	M36	M30	42	Ø 42	M36	390	710	190	215	318	827	565	424	333	546	415	460
X..190	42 (6x)	M36	M30	42	Ø 42	M36	390	740	190	215	318	859	565	456	333	546	415	460
X..200	48 (6x)	M42	M30	48	Ø 48	M42	420	780	205	230	360	930	630	478	350	610	455	510
X..210	48 (6x)	M42	M30	48	Ø 48	M42	420	815	205	230	360	966	630	514	350	610	455	510
X..220	48 (6x)	M42	M36	48	M42x63	M42	440	910	250	280	403	1057	725	531	415	680	610	600
X..230	48 (6x)	M42	M36	48	M42x63	M42	440	950	250	280	403	1097	725	571	415	680	610	600
X..240	56 (6x)	M48	M36	56	M48x72	M48	510	990	250	305	425	1155	760	625	450	740	600	600
X..250	56 (6x)	M48	M36	56	M48x72	M48	510	1010	250	305	425	1178	760	648	450	740	600	600
X..260	56 (6x)	M48	M48	56	M48x72	M48	590	1110	300	350	475	1285	860	683	500	860	710	710
X..270	56 (6x)	M48	M48	56	M48x72	M48	590	1110	300	350	475	1320	860	718	500	860	710	710
X..280	56 (6x)	M48	-	56	M48x72	M48	590	1190	360	380	540	1372	970	569	-	970	710	710



12.2.2 Horizontal housing /HH

HH

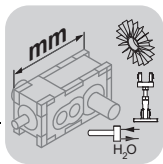
48 015 01 08



X3K..	VH	VH1	VH2	VH3	VH4	VH5	VH6	VH7	VH10	VH11	VH12	VH13	VH14	VH15	VH16	VH17	VH18	VH19	VH20	VH21
X3K.260	590	1110	300	350	475	1285	430	683	355	355	355	340	590	340	1142	318	422	334	420	764
X3K.270	590	1110	300	350	475	1320	430	718	355	355	355	340	590	340	1177	283	457	334	420	799
X3K.280	590	1190	360	380	540	1372	485	569	355	355	355	340	590	340	1235	365	435	377	420	851

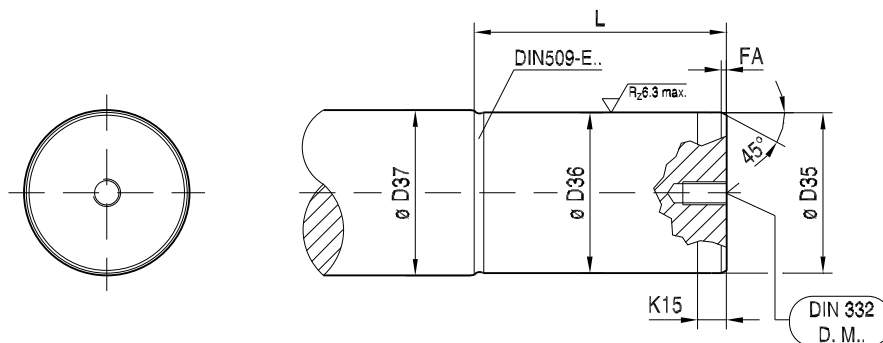
X3K..	ø SH (6x)	SH1	ø SH3 (2x)	SH5 (2x)	SH6 (2x)	SH7 (6x)	SH8 (6x)	BHH	H	P	X1
X3K.260	56	M48	56	M20	M48	M30	M20	632	500	1000	20
X3K.270	56	M48	56	M20	M48	M30	M20	632	500	1000	20
X3K.280	56	M48	56	M20	M48	M30	M20	632	555	1110	20





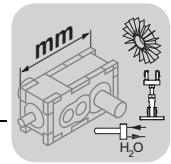
12.3 Smooth solid shaft X..R [mm]

48 003 00 12



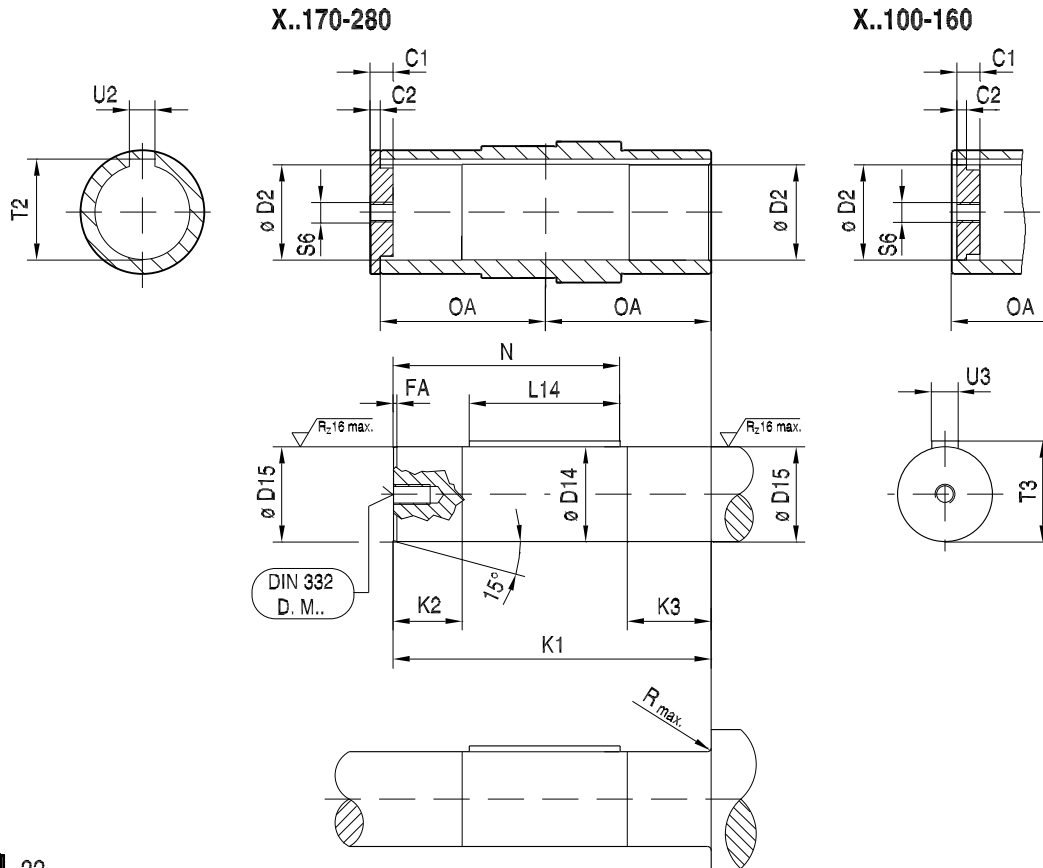
→ 21

X3KR..	Ø D35	Ø D36	Ø D37	FA	K15	L	DIN 332 D.M..	DIN 509
X3KR100	85 _{h9}	85 _{v6}	90	2	9	131	M20	E2.5x0.4
X3KR110	85 _{h9}	85 _{v6}	100	2	9	131	M20	E2.5x0.4
X3KR120	115 _{h9}	115 _{v6}	120	2	9	165	M24	E2.5x0.4
X3KR130	115 _{h9}	115 _{v6}	130	2	9	165	M24	E2.5x0.4
X3KR140	135 _{h9}	135 _{v6}	140	3	11	202	M30	E2.5x0.4
X3KR150	135 _{h9}	135 _{v6}	160	3	11	202	M30	E2.5x0.4
X3KR160	165 _{h9}	165 _{v6}	170	3	11	222	M30	E2.5x0.4
X3KR170	165 _{h9}	165 _{v6}	170	3	11	222	M30	E2.5x0.4
X3KR180	175 _{h9}	175 _{v6}	180	3	14	253	M30	E2.5x0.4
X3KR190	175 _{h9}	175 _{v6}	180	3	14	253	M30	E2.5x0.4
X3KR200	195 _{h9}	195 _{v6}	200	3	14	283	M30	E2.5x0.4
X3KR210	195 _{h9}	195 _{v6}	200	3	14	283	M30	E2.5x0.4
X3KR220	235 _{h9}	235 _{v6}	240	3	14	298	M36	E2.5x0.4
X3KR230	235 _{h9}	235 _{v6}	240	3	14	298	M36	E2.5x0.4
X3KR240	275 _{h9}	275 _{v6}	280	4	14	318	M36	E2.5x0.4
X3KR250	275 _{h9}	275 _{v6}	280	4	14	318	M36	E2.5x0.4
X3KR260	275 _{h9}	275 _{v6}	280	4	14	318	M36	E2.5x0.4
X3KR270	295 _{h9}	295 _{v6}	300	4	19	343	M36	E2.5x0.4
X3KR280	295 _{h9}	295 _{v6}	300	4	19	343	M36	E2.5x0.4



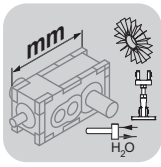
12.4 Hollow shaft with key X..A [mm]

48 004 00 12



X3KA..	C1	C2	Ø D2	Ø D14	Ø D15	FA	K1	K2	K3	L14	N	OA	R _{max.}	S6	T2	T3	U2	U3	DIN 332 D.M..
X3KA100	25	12	75 ^{H8}	75 _{h11}	75 _{js7}	2	312	47.5	81	90	205	173	1.6	M24	80.4	80	20 ^{JS9}	20 _{h9}	M20
X3KA110	30	14	85 ^{H8}	85 _{h11}	85 _{js7}	2	312.5	45	84	100	210	176	1.6	M30	90.4	90	22 ^{JS9}	22 _{h9}	M24
X3KA120	30	14	95 ^{H8}	95 _{h11}	95 _{js7}	2	342	53	92	140	244.5	190.5	1.6	M30	100.4	100	25 ^{JS9}	25 _{h9}	M24
X3KA130	30	14	105 ^{H8}	105 _{h11}	105 _{js7}	2	347	68	109	160	258	194	1.6	M30	111.4	111	28 ^{JS9}	28 _{h9}	M24
X3KA140	30	14	115 ^{H8}	115 _{h11}	115 _{js7}	2	403	61	102	200	306	222	1.6	M30	122.4	122	32 ^{JS9}	32 _{h9}	M24
X3KA150	30	14	125 ^{H8}	125 _{h11}	125 _{js7}	3	408	76	117	200	308.5	224.5	1.6	M30	132.4	132	32 ^{JS9}	32 _{h9}	M24
X3KA160	36	16	135 ^{H8}	135 _{h11}	135 _{js7}	3	465	80	127	250	361	256	1.6	M36	143.4	143	36 ^{JS9}	36 _{h9}	M30
X3KA170	36	17	150 ^{H8}	150 _{h11}	150 _{js7}	3	493	96	115	280	377	256	1.6	M36	158.4	158	36 ^{JS9}	36 _{h9}	M30
X3KA180	36	17	165 ^{H8}	165 _{h11}	165 _{js7}	3	565	109	128	300	423	292	2	M36	174.4	174	40 ^{JS9}	40 _{h9}	M30
X3KA190	36	17	165 ^{H8}	165 _{h11}	165 _{js7}	3	565	109	128	300	423	292	2	M36	174.4	174	40 ^{JS9}	40 _{h9}	M30
X3KA200	36	17	180 ^{H8}	180 _{h11}	180 _{js7}	3	620	130	149	320	460.5	319.5	2	M36	190.4	190	45 ^{JS9}	45 _{h9}	M30
X3KA210	36	17	190 ^{H8}	190 _{h11}	190 _{js7}	3	620	130	149	320	460.5	319.5	2	M36	200.4	200	45 ^{JS9}	45 _{h9}	M30
X3KA220	36	17	210 ^{H8}	210 _{h11}	210 _{js7}	3	686	133	152	370	518.5	352.5	2.5	M36	221.4	221	50 ^{JS9}	50 _{h9}	M30
X3KA230	36	17	210 ^{H8}	210 _{h11}	210 _{js7}	3	686	133	152	370	518.5	352.5	2.5	M36	221.4	221	50 ^{JS9}	50 _{h9}	M30
X3KA240	45	22	230 ^{H8}	230 _{h11}	230 _{js7}	3	778	147	170	370	562.5	400.5	2.5	M42	241.4	241	50 ^{JS9}	50 _{h9}	M36
X3KA250	45	22	240 ^{H8}	240 _{h11}	240 _{js7}	3	778	147	170	370	562.5	400.5	2.5	M42	252.4	252	56 ^{JS9}	56 _{h9}	M36
X3KA260	45	22	240 ^{H8}	240 _{h11}	240 _{js7}	3	851	143	166	450	639	437	2.5	M42	252.4	252	56 ^{JS9}	56 _{h9}	M36
X3KA270	45	22	275 ^{H8}	275 _{h11}	275 _{js7}	4	877	158	181	450	652	450	5	M42	287.4	287	63 ^{JS9}	63 _{h9}	M36
X3KA280	45	22	275 ^{H8}	275 _{h11}	275 _{js7}	4	877	158	181	500	677	450	5	M42	287.4	287	63 ^{JS9}	63 _{h9}	M36



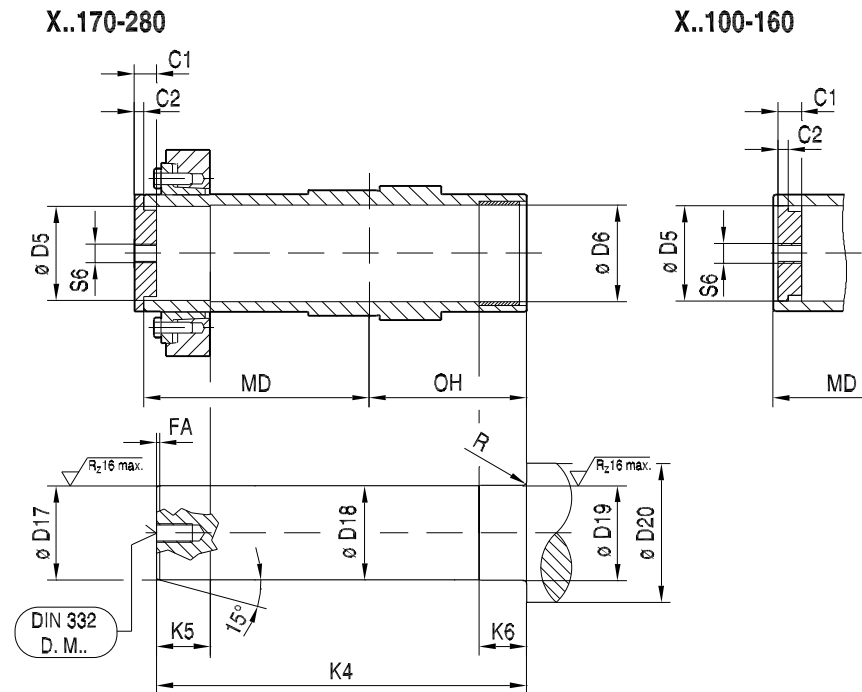


Additional Dimension Sheets

Hollow shaft with shrink disk X..H [mm]

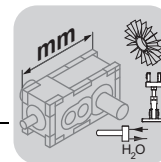
12.5 Hollow shaft with shrink disk X..H [mm]

48 005 00 12



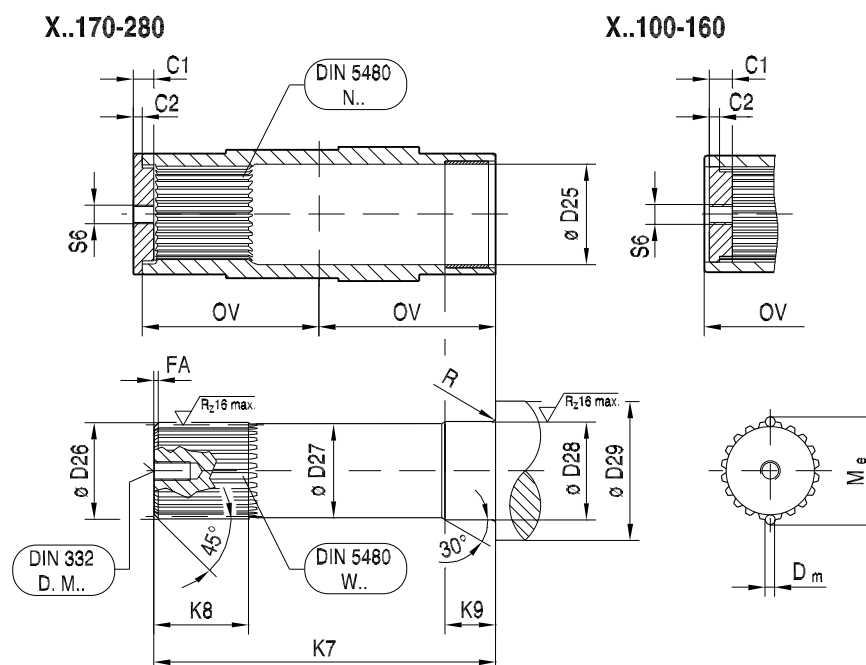
→ 22

X3KH..	C1	C2	Ø D5	Ø D6	Ø D17	Ø D18	Ø D19	Ø D20	FA	K4	K5	K6	MD	OH	R	S6	DIN 332 D.M..
X3KH100	30	14	80 ^{H7}	81 ^{H9}	80 _{h6}	80 _{h11}	81 _{m6}	95	2	394.5 ₋₁	46	42 ₋₁	261	173	3	M30	M24
X3KH110	30	14	90 ^{H7}	91 ^{H9}	90 _{h6}	90 _{h11}	91 _{m6}	105	2	400.5 ₋₁	46	42 ₋₁	265	176	3	M30	M24
X3KH120	30	14	100 ^{H7}	101 ^{H9}	100 _{h6}	100 _{h11}	101 _{m6}	115	2	437 ₋₁	51	52 ₋₁	286.5	190.5	3	M30	M24
X3KH130	30	14	110 ^{H7}	111 ^{H9}	110 _{h6}	110 _{h11}	111 _{m6}	125	2	449 ₋₁	55	52 ₋₁	297	194	3	M30	M24
X3KH140	30	14	120 ^{H7}	121 ^{H9}	120 _{h6}	120 _{h11}	121 _{m6}	135	2	509 ₋₁	59	62 ₋₁	329	222	3	M30	M24
X3KH150	30	14	130 ^{H7}	131 ^{H9}	130 _{h6}	130 _{h11}	131 _{m6}	145	3	520 ₋₁	66	62 ₋₁	337.5	224.5	3	M30	M24
X3KH160	36	16	140 ^{H7}	141 ^{H9}	140 _{h6}	140 _{h11}	141 _{m6}	155	3	583 ₋₁	66	73 ₋₁	375	256	4	M36	M30
X3KH170	36	17	150 ^{H7}	151 ^{H9}	150 _{h6}	150 _{h11}	151 _{m6}	165	3	600 ₋₁	83	73 ₋₁	364	256	4	M36	M30
X3KH180	36	17	165 ^{H7}	166 ^{H9}	165 _{g6}	165 _{h11}	166 _{m6}	180	3	672 ₋₁	83	83 ₋₁	400	292	4	M36	M30
X3KH190	36	17	165 ^{H7}	166 ^{H9}	165 _{g6}	165 _{h11}	166 _{m6}	180	3	672 ₋₁	83	83 ₋₁	400	292	4	M36	M30
X3KH200	36	17	180 ^{H7}	181 ^{H9}	180 _{g6}	180 _{h11}	181 _{m6}	195	3	750 ₋₁	101	83 ₋₁	450.5	319.5	4	M36	M30
X3KH210	36	17	190 ^{H7}	191 ^{H9}	190 _{g6}	190 _{h11}	191 _{m6}	205	3	753 ₋₁	106	83 ₋₁	453.5	319.5	4	M36	M30
X3KH220	36	17	210 ^{H7}	211 ^{H9}	210 _{g6}	210 _{h11}	211 _{m6}	230	3	830 ₋₁	118	108 ₋₁	497.5	352.5	5	M36	M30
X3KH230	36	17	210 ^{H7}	211 ^{H9}	210 _{g6}	210 _{h11}	211 _{m6}	230	3	830 ₋₁	118	108 ₋₁	497.5	352.5	5	M36	M30
X3KH240	45	22	230 ^{H7}	231 ^{H9}	230 _{g6}	230 _{h11}	231 _{m6}	250	3	948 ₋₁	140	108 ₋₁	571.5	400.5	5	M42	M36
X3KH250	45	22	240 ^{H7}	241 ^{H9}	240 _{g6}	240 _{h11}	241 _{m6}	260	3	948 ₋₁	140	108 ₋₁	571.5	400.5	5	M42	M36
X3KH260	45	22	250 ^{H7}	255 ^{H9}	250 _{g6}	250 _{h11}	255 _{m6}	280	4	1021 ₋₁	140	108 ₋₁	608	437	5	M42	M36
X3KH270	45	22	280 ^{H7}	285 ^{H9}	280 _{g6}	280 _{h11}	285 _{m6}	310	4	1056 ₋₁	146	143 ₋₁	630	450	5	M42	M36
X3KH280	45	22	280 ^{H7}	285 ^{H9}	280 _{g6}	280 _{h11}	285 _{m6}	310	4	1056 ₋₁	146	143 ₋₁	630	450	5	M42	M36



12.6 Splined hollow shaft X..V [mm]

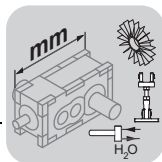
48 006 00 12



→ 23

X3KV..	C1	C2	Ø D25	Ø D26	Ø D27	Ø D28	Ø D29	D _m	FA	K7	K8	K9	M _e	OV	R	S6	DIN 332 D. M..	DIN 5480
X3KV100	30	14	81 ^{H9}	74.4 _{h10}	73	81 _{m6}	95	6	3	306 ₋₁	81	42 ₋₁	81.326 -0.069 -0.125	173	3	M30	M24	W 75x3x30x24x8f N 75x3x30x24x9H
X3KV110	30	14	91 ^{H9}	84.4 _{h10}	83	91 _{m6}	105	6	3	311.5 ₋₁	81	42 ₋₁	91.092 -0.068 -0.123	176	3	M30	M24	W 85x3x30x27x8f N 85x3x30x27x9H
X3KV120	30	14	101 ^{H9}	94.4 _{h10}	93	101 _{m6}	115	6	3	341 ₋₁	91	52 ₋₁	101.141 -0.068 -0.122	190.5	3	M30	M24	W 95x3x30x30x8f N 95x3x30x30x9H
X3KV130	30	14	111 ^{H9}	109.4 _{h10}	108	111 _{m6}	125	6	3	346 ₋₁	86	52 ₋₁	116.076 -0.078 -0.139	194	3	M30	M24	W 110x3x30x35x8f N 110x3x30x35x9H
X3KV140	30	14	121 ^{H9}	119.4 _{h10}	118	121 _{m6}	135	6	3	402 ₋₁	101	62 ₋₁	126.095 -0.078 -0.138	222	3	M30	M24	W 120x3x30x38x8f N 120x3x30x38x9H
X3KV150	30	14	131 ^{H9}	129.4 _{h10}	128	131 _{m6}	145	6	3	407 ₋₁	101	62 ₋₁	136.329 -0.081 -0.144	224.5	3	M30	M24	W 130x3x30x42x8f N 130x3x30x42x9H
X3KV160	36	16	141 ^{H9}	139.4 _{h10}	138	141 _{m6}	155	6	3	464 ₋₁	111	73 ₋₁	146.167 -0.080 -0.143	256	4	M36	M30	W 140x3x30x45x8f N 140x3x30x45x9H
X3KV170	36	17	151 ^{H9}	149.4 _{h10}	148	151 _{m6}	165	6	3	492 ₋₁	121	73 ₋₁	156.172 -0.079 -0.141	256	4	M36	M30	W 150x3x30x48x8f N 150x3x30x48x9H
X3KV180	36	17	166 ^{H9}	159 _{h10}	158	166 _{m6}	180	10	5	564 ₋₁	166	83 ₋₁	170.009 -0.086 -0.152	292	4	M36	M30	W 160x5x30x30x8f N 160x5x30x30x9H
X3KV190	36	17	166 ^{H9}	159 _{h10}	158	166 _{m6}	180	10	5	564 ₋₁	166	83 ₋₁	170.009 -0.086 -0.152	292	4	M36	M30	W 160x5x30x30x8f N 160x5x30x30x9H
X3KV200	36	17	191 ^{H9}	179 _{h10}	178	191 _{m6}	205	10	5	619 ₋₁	176	83 ₋₁	190.090 -0.087 -0.155	319.5	4	M36	M30	W 180x5x30x34x8f N 180x5x30x34x9H
X3KV210	36	17	191 ^{H9}	179 _{h10}	178	191 _{m6}	205	10	5	619 ₋₁	176	83 ₋₁	190.090 -0.087 -0.155	319.5	4	M36	M30	W 180x5x30x34x8f N 180x5x30x34x9H
X3KV220	36	17	211 ^{H9}	199 _{h10}	198	211 _{m6}	230	10	5	685 ₋₁	201	108 ₋₁	210.158 -0.088 -0.157	352.5	5	M36	M30	W 200x5x30x38x8f N 200x5x30x38x9H

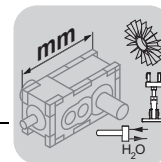




Additional Dimension Sheets

Splined hollow shaft X..V [mm]

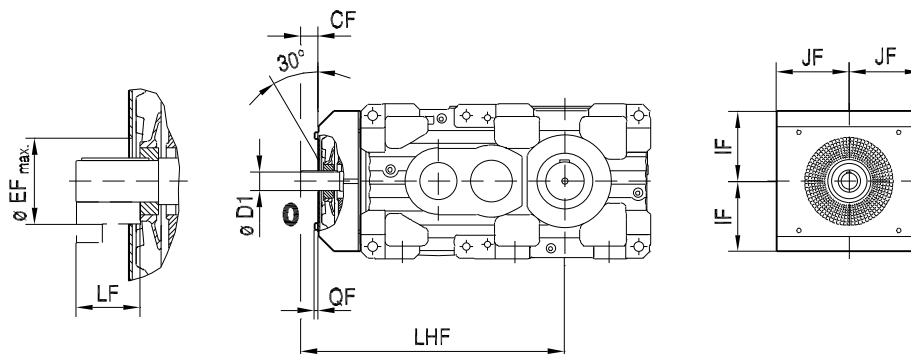
X3KV..	C1	C2	Ø D25	Ø D26	Ø D27	Ø D28	Ø D29	D _m	FA	K7	K8	K9	M _e	OV	R	S6	DIN 332 D.M..	DIN 5480
X3KV230	36	17	211 ^{H9}	199 _{h10}	198	211 _{m6}	230	10	5	685 _{.1}	201	108 _{.1}	210.158 ^{-0.088} _{-0.157}	352.5	5	M36	M30	W 200x5x30x38x8f N 200x5x30x38x9H
X3KV240	45	22	231 ^{H9}	219 _{h10}	218	231 _{m6}	250	10	5	777 _{.1}	216	108 _{.1}	230.215 ^{-0.102} _{-0.179}	400.5	5	M42	M36	W 220x5x30x42x8f N 220x5x30x42x9H
X3KV250	45	22	241 ^{H9}	219 _{h10}	218	241 _{m6}	260	10	5	777 _{.1}	216	108 _{.1}	230.215 ^{-0.102} _{-0.179}	400.5	5	M42	M36	W 220x5x30x42x8f N 220x5x30x42x9H
X3KV260	45	22	255 ^{H9}	239 _{h10}	238	255 _{m6}	275	10	5	850 _{.1}	216	108 _{.1}	250.264 ^{-0.102} _{-0.180}	437	5	M42	M36	W 240x5x30x46x8f N 240x5x30x46x9H
X3KV270	45	22	285 ^{H9}	258.4 _{h10}	258	285 _{m6}	305	16	8	876 _{.1}	248	143 _{.1}	276.230 ^{-0.101} _{-0.177}	450	5	M42	M36	W 260x8x30x31x8f N 260x8x30x31x9H
X3KV280	45	22	285 ^{H9}	258.4 _{h10}	258	285 _{m6}	305	16	8	876 _{.1}	248	143 _{.1}	276.230 ^{-0.101} _{-0.177}	450	5	M42	M36	W 260x8x30x31x8f N 260x8x30x31x9H



12.7 Fan X..K /FAN [mm]

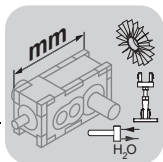
X..K /FAN

48 007 00 12



/FAN								
X3K..	CF	Ø D1	Ø EF _{max.}	IF	JF	LF	LHF	QF
X3K.100	31	32 _{k6}	85	185	165	50	632	11
X3K.110	31	32 _{k6}	85	185	165	50	652	11
X3K.120	46	38 _{k6}	95	220	200	65	745	11
X3K.130	46	38 _{k6}	95	220	200	65	781	11
X3K.140	51	50 _{k6}	130	260	230	70	879	11
X3K.150	51	50 _{k6}	130	260	230	70	921	11
X3K.160	76	60 _{m6}	150	310	270	95	1036	11
X3K.170	76	60 _{m6}	150	310	270	95	1087	11
X3K.180	71	70 _{m6}	190	330	303	90	1135	11
X3K.190	71	70 _{m6}	190	330	303	90	1167	11
X3K.200	96	80 _{m6}	215	370	338	115	1286	11
X3K.210	96	80 _{m6}	215	370	338	115	1322	11
X3K.220	96	85 _{m6}	245	420	350	115	1430	16
X3K.230	96	85 _{m6}	245	420	350	115	1470	16
X3K.240	131	100 _{m6}	245	445	398	150	1597	14
X3K.250	131	100 _{m6}	245	445	398	150	1620	14
X3K.260	124	110 _{m6}	245	495	438	145	1767	14
X3K.270	124	110 _{m6}	245	495	438	145	1802	14
X3K.280	124	110 _{m6}	245	495	438	145	1854	14

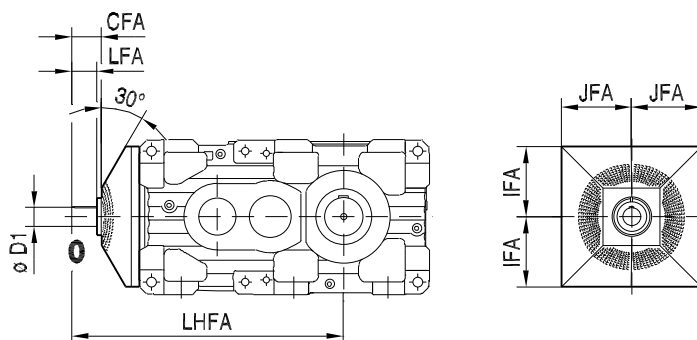




12.8 Fan X..K /FAN-ADV [mm]

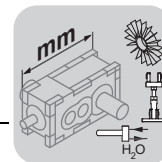
X..K /FAN-ADV

48 008 00 12



→ 62

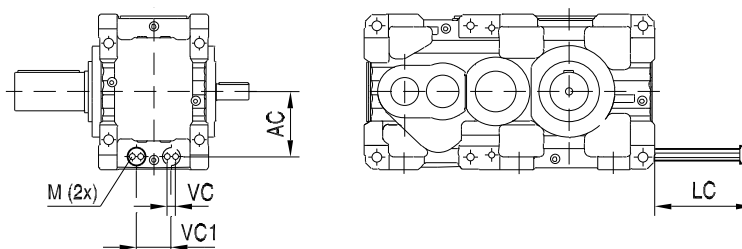
/FAN-ADV						
X3K..	CFA	Ø D1	IFA	JFA	LFA	LHFA
X3K.100	54	32 _{k6}	189	167	50	632
X3K.110	54	32 _{k6}	189	167	50	652
X3K.120	71	38 _{k6}	224	192	65	745
X3K.130	71	38 _{k6}	224	192	65	781
X3K.140	69	50 _{k6}	264	232	65	879
X3K.150	69	50 _{k6}	264	232	65	921
X3K.160	100	60 _{m6}	314	277	95	1036
X3K.170	100	60 _{m6}	314	277	95	1087
X3K.180	91	70 _{m6}	334	304	85	1135
X3K.190	91	70 _{m6}	334	304	85	1167
X3K.200	116	80 _{m6}	374	327	110	1286
X3K.210	116	80 _{m6}	374	327	110	1322
X3K.220	116	85 _{m6}	424	345	110	1430
X3K.230	116	85 _{m6}	424	345	110	1470
X3K.240	146	100 _{m6}	449	392	140	1597
X3K.250	146	100 _{m6}	449	392	140	1620
X3K.260	141	110 _{m6}	499	438	135	1767
X3K.270	141	110 _{m6}	499	438	135	1802
X3K.280	141	110 _{m6}	554	438	135	1854



12.9 Water cooling cartridge /CCT [mm]

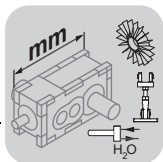
CCT

48 009 00 12

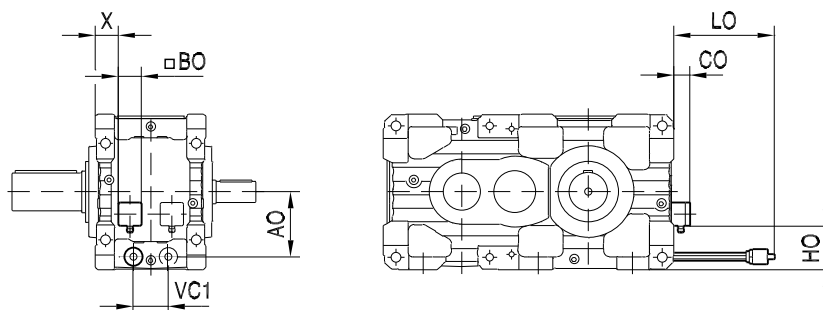


X3K..	AC	LC	M (2x)	VC	VC1	max. 
X3K.140	211	650	G1/4"	24	100	2
X3K.150	211	780	G1/4"	24	100	1
X3K.160	252	900	G1/4"	24	115	2
X3K.170	252	900	G1/4"	24	115	1
X3K.180	280	900	G1/2"	34	150	2
X3K.190	280	950	G1/2"	34	150	1
X3K.200	320	1050	G1/2"	34	150	2
X3K.210	320	1100	G1/2"	34	150	1
X3K.220	362	1300	G1/2"	34	180	2
X3K.230	362	1300	G1/2"	34	180	1
X3K.240	385	1350	G1/2"	34	200	2
X3K.250	385	1400	G1/2"	34	200	1
X3K.260	430	1550	G1/2"	35	280	2
X3K.270	430	1550	G1/2"	35	280	1
X3K.280	485	1700	G1/2"	35	280	1



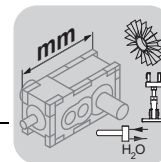


12.10 Oil heater /OH [mm]

OH
48 010 00 12


→ 63

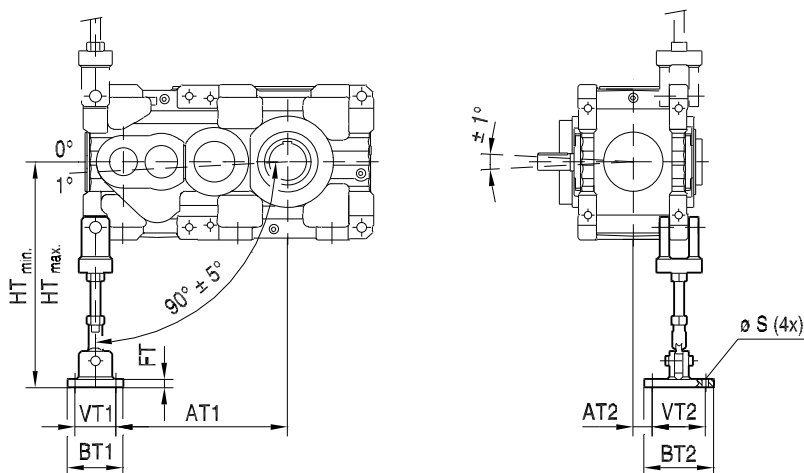
X3K..	AO	BO	CO	HO	LO	VC1	X	max.
X3K.100	151	100	91	57	500	75	20	2
X3K.110	151	100	91	57	500	75	20	1
X3K.120	175	100	90	75	600	90	35	2
X3K.130	175	100	90	75	600	90	35	1
X3K.140	211	100	85	80	700	100	75	2
X3K.150	211	100	85	80	810	100	75	1
X3K.160	252	100	85	115	930	115	90	2
X3K.170	252	100	85	115	930	115	90	1
X3K.180	280	100	82	120	850	150	90	2
X3K.190	280	100	82	120	850	150	90	1
X3K.200	320	100	82	130	1000	150	110	2
X3K.210	320	100	82	130	1000	150	110	1
X3K.220	362	100	82	140	1200	180	110	2
X3K.230	362	100	82	140	1200	180	110	1
X3K.240	380	100	82	150	1200	200	130	2
X3K.250	380	100	82	150	1400	200	130	1
X3K.260	430	100	77	170	1550	280	122.5	2
X3K.270	430	100	77	170	1550	280	122.5	1
X3K.280	485	100	77	170	1700	280	122.5	1



12.11 Torque arm /T [mm]

T

48 011 00 12

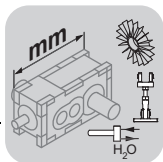


→ 67

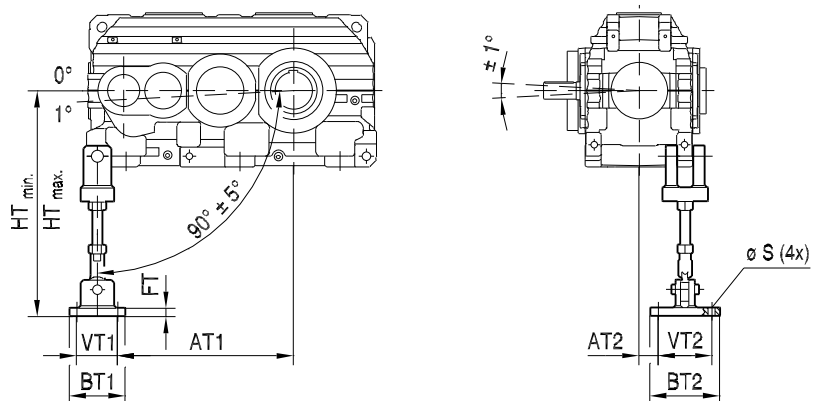
X3K..	AT1	AT1 (X2K)	AT2	AT2 (X2K)	BT1	BT2	FT	HT _{min.}	HT _{max.}	Ø S (4x)	VT1	VT2
X3K.100	406	349	46.5	46.5	120	160	25	435	475	13.5	70	120
X3K.110	426	369	46.5	46.5	120	160	25	435	475	13.5	70	120
X3K.120	486	416	63.5	63.5	120	160	25	509	549	13.5	70	120
X3K.130	522	452	63.5	63.5	120	160	25	509	549	13.5	70	120
X3K.140	578	459	86.5	86.5	120	160	25	547	587	13.5	70	120
X3K.150	620	501	86.5	86.5	120	160	25	547	587	13.5	70	120
X3K.160	672	552	78	78	180	240	30	725	775	22	130	188
X3K.170	723	603	78	78	180	240	30	725	775	22	130	188
X3K.180	762	617	103	103	180	240	30	745	795	22	130	188
X3K.190	794	649	103	103	180	240	30	745	795	22	130	188
X3K.200	865	695	118	118	200	250	30	795	845	22	130	188
X3K.210	901	730	118	118	200	250	30	795	845	22	130	188
X3K.220	992	822	126	161	200	250	30	840	890	22	130	188
X3K.230	1032	862	126	161	200	250	30	840	890	22	130	188
X3K.240	1045	855	150	187.5	300	300	30	920	970	26	220	220
X3K.250	1068	878	150	187.5	300	300	30	920	970	26	220	220
X3K.260	1175	-	190	-	300	300	30	970	1020	26	220	220
X3K.270	1210	-	190	-	300	300	30	970	1020	26	220	220
X3K.280	1262	-	190	-	300	300	30	1025	1075	26	220	220

12



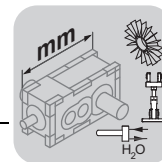


12.12 Torque arm /T-HH [mm]

T-HH
48 012 00 12


→ 67

X3K..	AT1	AT2	BT1	BT2	FT	HT min.	HT max.	Ø S (4x)	VT1	VT2
X3K.260	1175	190	300	300	30	970	1020	26	220	220
X3K.270	1210	190	300	300	30	970	1020	26	220	220
X3K.280	1262	190	300	300	30	1025	1075	26	220	220

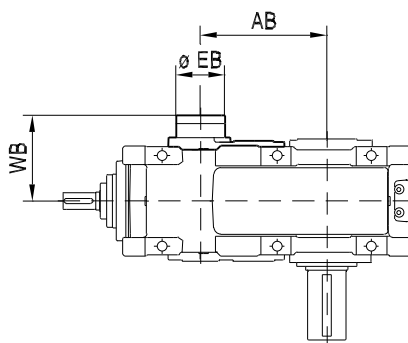


12.13 Backstop X.K.. /BS [mm]

X.K../BS

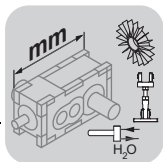
48 013 00 12

Fig. A
extern



X3K..	i _{ges}	Fig	AB	Ø EB	WB
X3K.100	28 - 71	A	278	133	213
X3K.110	31.5 - 90	A	298	133	213
X3K.120	28 - 71	A	327	153	235
X3K.130	31.5 - 90	A	363	153	235
X3K.140	28 - 71	A	388	175	284
X3K.150	31.5 - 90	A	430	175	284
X3K.160	28 - 71	A	474	190	320
X3K.170	31.5 - 90	A	525	190	320
X3K.180	28 - 71	A	544	210	360
X3K.190	28 - 80	A	576	210	360
X3K.200	28 - 71	A	614	210	381
X3K.210	28 - 80	A	650	210	381
X3K.220	28 - 71	A	694	245	426
X3K.230	28 - 80	A	734	245	426
X3K.240	28 - 35.5	A	776	290	472
	40 - 71	A	776	245	470
X3K.250	28 - 80	A	799	290	472
X3K.260	28 - 71	A	855	288	553
X3K.270	28 - 80	A	890	288	553
X3K.280	31.5 - 90	A	942	288	553

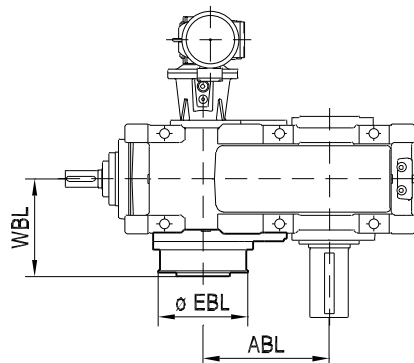




12.14 Torque limited backstop X.K.. /BSL [mm]

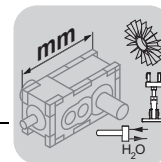
BSL

48 004 01 11



→ 66

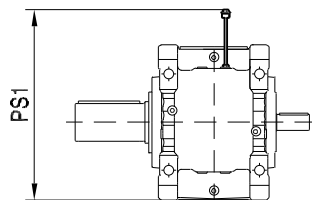
X3K..	i_{total}	ABL	Ø EBL	WBL
X3K.120	28 - 71	327	280	317
X3K.130	31.5 - 90	363	280	317
X3K.140	28 - 71	388	311	352
X3K.150	31.5 - 90	430	311	352
X3K.160	28 - 71	474	345	391
X3K.170	31.5 - 90	525	345	391
X3K.180	28 - 71	544	386	427
X3K.190	28 - 80	576	386	427
X3K.200	28 - 71	614	462	466
X3K.210	28 - 80	650	462	466
X3K.220	28 - 71	694	462	493
X3K.230	28 - 80	734	462	493
X3K.240	28 - 71	776	516	563
X3K.250	28 - 80	799	516	563
X3K.260	28 - 71	855	630	600
X3K.270	28 - 80	890	630	600
X3K.280	31.5 - 90	942	630	600



12.15 Oil dipstick /OD [mm]

OD

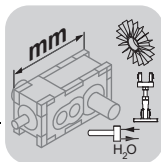
48 005 00 11



→ 61

X3K..	PS1
X3K.100	520
X3K.110	520
X3K.120	620
X3K.130	620
X3K.140	710
X3K.150	710
X3K.160	830
X3K.170	830
X3K.180	890
X3K.190	890
X3K.200	980
X3K.210	980
X3K.220	1120
X3K.230	1120
X3K.240	1150
X3K.250	1150
X3K.260	1300
X3K.270	1300
X3K.280	1470

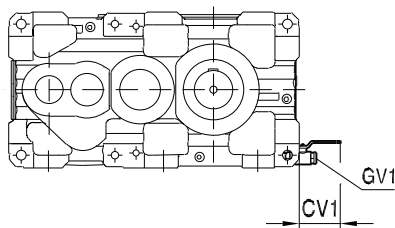




12.16 Oil drain valve /ODV

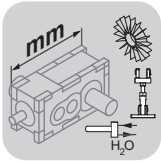
ODV

48 006 00 11



→ 61

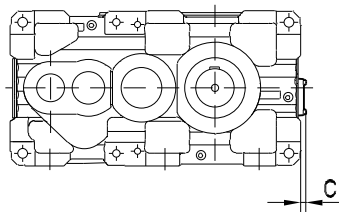
X3K..	CV1	GV1
X3K.100	89	G1/2"
X3K.110	89	G1/2"
X3K.120	89	G1/2"
X3K.130	89	G1/2"
X3K.140	89	G1/2"
X3K.150	89	G1/2"
X3K.160	91	G1"
X3K.170	91	G1"
X3K.180	92	G1"
X3K.190	92	G1"
X3K.200	75	G1"
X3K.210	75	G1"
X3K.220	107	G1 1/4"
X3K.230	107	G1 1/4"
X3K.240	86	G1 1/4"
X3K.250	86	G1 1/4"
X3K.260	85	G1 1/4"
X3K.270	85	G1 1/4"
X3K.280	85	G1 1/4"



12.17 Oil level glass /OLG [mm]

OLG

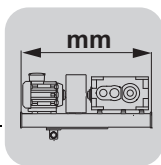
48 014 00 12



→  61

X3K..	C
X3K.180	15
X3K.190	15
X3K.200	15
X3K.210	15
X3K.220	16
X3K.230	16
X3K.240	16
X3K.250	16
X3K.260	13
X3K.270	13
X3K.280	13





Drive Packages on a Steel Frame

X3K.. Swing base with elastic coupling [mm]

13 Drive Packages on a Steel Frame

13.1 X3K.. Swing base with elastic coupling [mm]

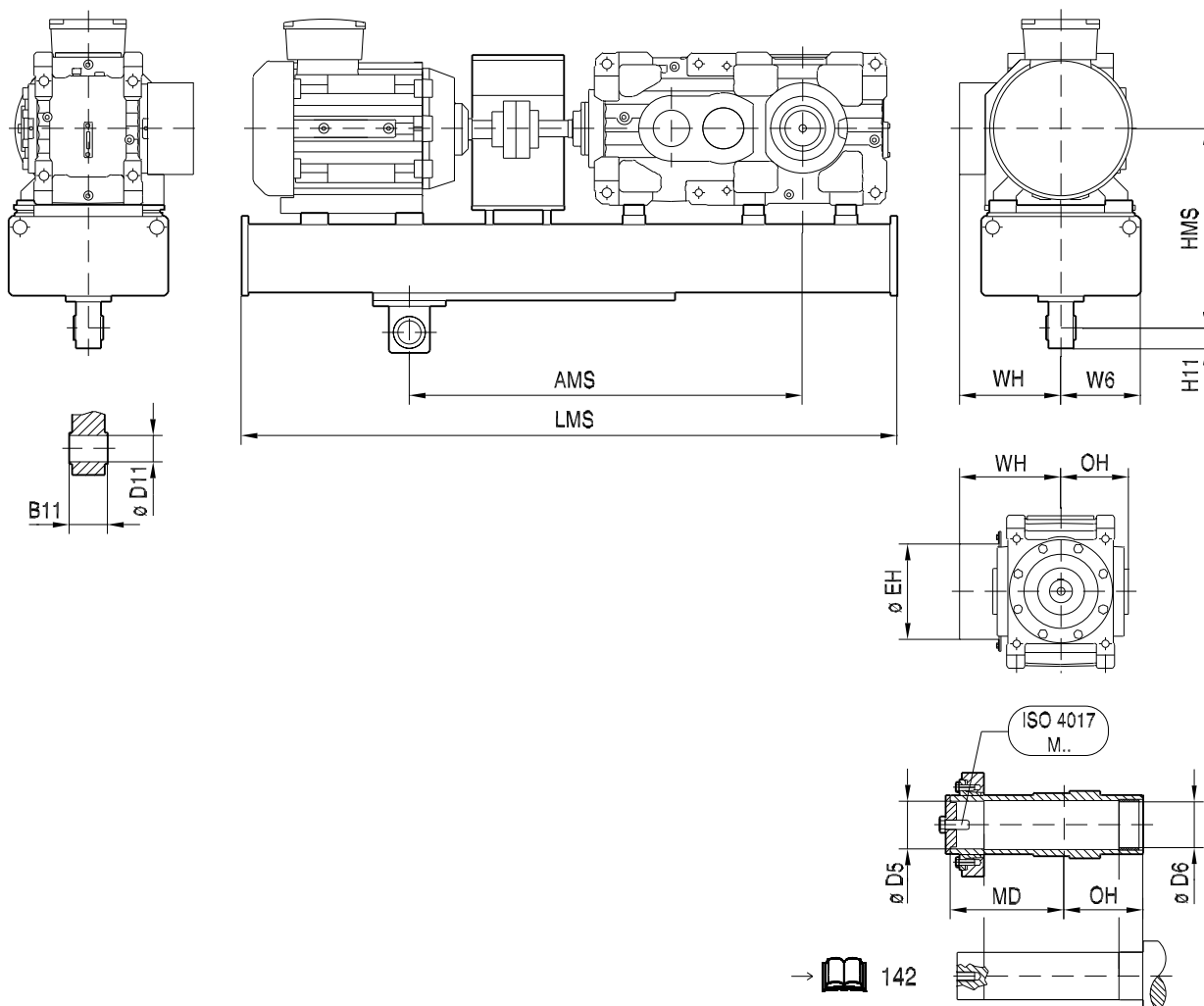
INFORMATION



- The final dimensions are specified by SEW-EURODRIVE depending on the order.
- The weight data in the following tables refer to the steel construction.

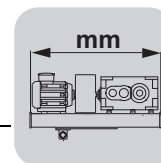
X3KH..

48 015 00 12



Drive Packages on a Steel Frame

X3K.. Swing base with elastic coupling [mm]

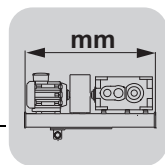


13

X3KH..	Motor	AMS	B11	ø D5	ø D6	ø D11	ø EH	H11	HMS	LMS	MD	OH	W6	WH	ISO 4017 M..	kg
X3KH100	132S	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1500	261	173	250	282	M24x70-8.8	150
	132M	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1500	261	173	250	282	M24x70-8.8	150
	160M	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1600	261	173	250	282	M24x70-8.8	150
	160L	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1600	261	173	250	282	M24x70-8.8	150
	180M	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1700	261	173	250	282	M24x70-8.8	150
	180L	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1700	261	173	250	282	M24x70-8.8	150
	200L	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1800	261	173	250	282	M24x70-8.8	150
X3KH110	132S	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1550	265	176	250	286	M24x70-8.8	150
	132M	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1550	265	176	250	286	M24x70-8.8	150
	160M	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1650	265	176	250	286	M24x70-8.8	150
	160L	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1650	265	176	250	286	M24x70-8.8	150
	180M	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1750	265	176	250	286	M24x70-8.8	150
	180L	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1750	265	176	250	286	M24x70-8.8	150
	200L	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1800	265	176	250	286	M24x70-8.8	150
X3KH120	160M	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	1750	286.5	190.5	250	308	M24x70-8.8	200
	160L	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	1750	286.5	190.5	250	308	M24x70-8.8	200
	180M	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	1850	286.5	190.5	250	308	M24x70-8.8	200
	180L	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	1850	286.5	190.5	250	308	M24x70-8.8	200
	200L	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	1900	286.5	190.5	250	308	M24x70-8.8	200
	225S	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	1950	286.5	190.5	250	308	M24x70-8.8	200
	225M	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	1950	286.5	190.5	250	308	M24x70-8.8	200
	250M	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	2050	286.5	190.5	250	308	M24x70-8.8	200
X3KH130	160M	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	1800	297	194	300	323	M24x70-8.8	200
	160L	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	1800	297	194	300	323	M24x70-8.8	200
	180M	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	1950	297	194	300	323	M24x70-8.8	200
	180L	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	1950	297	194	300	323	M24x70-8.8	200
	200L	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2000	297	194	300	323	M24x70-8.8	200
	225S	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2050	297	194	300	323	M24x70-8.8	200
	225M	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2050	297	194	300	323	M24x70-8.8	200
	250M	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2150	297	194	300	323	M24x70-8.8	200
X3KH140	180M	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2050	329	222	300	351	M24x70-8.8	300
	180L	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2050	329	222	300	351	M24x70-8.8	300
	200L	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2100	329	222	300	351	M24x70-8.8	300
	225S	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2150	329	222	300	351	M24x70-8.8	300
	225M	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2150	329	222	300	351	M24x70-8.8	300
	250M	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2250	329	222	300	351	M24x70-8.8	300
	280S	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2350	329	222	300	351	M24x70-8.8	300
	280M	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2350	329	222	300	351	M24x70-8.8	300
X3KH150	180M	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2150	337.5	224.5	300	359	M24x70-8.8	300
	180L	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2150	337.5	224.5	300	359	M24x70-8.8	300
	200L	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2200	337.5	224.5	300	359	M24x70-8.8	300
	225S	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2250	337.5	224.5	300	359	M24x70-8.8	300
	225M	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2250	337.5	224.5	300	359	M24x70-8.8	300
	250M	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2350	337.5	224.5	300	359	M24x70-8.8	300
	280S	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2450	337.5	224.5	300	359	M24x70-8.8	300
	280M	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2450	337.5	224.5	300	359	M24x70-8.8	300
X3KH160	200L	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2400	375	256	350	409	M30x90-8.8	350
	225S	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2400	375	256	350	409	M30x90-8.8	350
	225M	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2400	375	256	350	409	M30x90-8.8	350
	250M	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2500	375	256	350	409	M30x90-8.8	350
	280S	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2600	375	256	350	409	M30x90-8.8	350
	280M	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2600	375	256	350	409	M30x90-8.8	350
	315S	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2700	375	256	350	409	M30x90-8.8	350
	315M	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2700	375	256	350	409	M30x90-8.8	350
	315L	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2800	375	256	350	409	M30x90-8.8	350

13

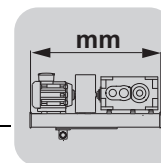




Drive Packages on a Steel Frame

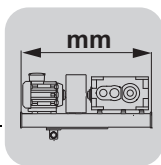
X3K.. Swing base with elastic coupling [mm]

X3KH..	Motor	AMS	B11	ø D5	ø D6	ø D11	ø EH	H11	HMS	LMS	MD	OH	W6	WH	ISO 4017 M..	kg
X3KH170	200L	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2450	364	256	350	409	M30x90-8.8	350
	225S	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2450	364	256	350	409	M30x90-8.8	350
	225M	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2450	364	256	350	409	M30x90-8.8	350
	250M	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2550	364	256	350	409	M30x90-8.8	350
	280S	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2650	364	256	350	409	M30x90-8.8	350
	280M	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2650	364	256	350	409	M30x90-8.8	350
	315S	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2750	364	256	350	409	M30x90-8.8	350
	315M	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2750	364	256	350	409	M30x90-8.8	350
	315L	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2850	364	256	350	409	M30x90-8.8	350
X3KH180	250M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2600	400	292	400	448	M30x90-8.8	550
	280S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2700	400	292	400	448	M30x90-8.8	550
	280M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2700	400	292	400	448	M30x90-8.8	550
	315S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2800	400	292	400	448	M30x90-8.8	550
	315M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2800	400	292	400	448	M30x90-8.8	550
	315L	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2900	400	292	400	448	M30x90-8.8	550
	315ML	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3000	400	292	400	448	M30x90-8.8	550
	315	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3200	400	292	400	448	M30x90-8.8	550
	355S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3450	400	292	400	448	M30x90-8.8	550
X3KH190	250M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2600	400	292	400	448	M30x90-8.8	550
	280S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2700	400	292	400	448	M30x90-8.8	550
	280M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2700	400	292	400	448	M30x90-8.8	550
	315S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2800	400	292	400	448	M30x90-8.8	550
	315M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2800	400	292	400	448	M30x90-8.8	550
	315L	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2900	400	292	400	448	M30x90-8.8	550
	315ML	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3000	400	292	400	448	M30x90-8.8	550
	315	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3200	400	292	400	448	M30x90-8.8	550
	355S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3450	400	292	400	448	M30x90-8.8	550
X3KH200	250M	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	2800	450.5	319.5	400	502	M30x90-8.8	1050
	280S	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	2900	450.5	319.5	400	502	M30x90-8.8	1050
	280M	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	2900	450.5	319.5	400	502	M30x90-8.8	1050
	315S	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3000	450.5	319.5	400	502	M30x90-8.8	1050
	315M	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3000	450.5	319.5	400	502	M30x90-8.8	1050
	315L	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3100	450.5	319.5	400	502	M30x90-8.8	1050
	315ML	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3200	450.5	319.5	400	502	M30x90-8.8	1050
	315	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3400	450.5	319.5	400	502	M30x90-8.8	1050
	355S	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3650	450.5	319.5	400	502	M30x90-8.8	1050
X3KH210	280S	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	2900	453.5	319.5	400	502	M30x90-8.8	1050
	280M	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	2900	453.5	319.5	400	502	M30x90-8.8	1050
	315S	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3000	453.5	319.5	400	502	M30x90-8.8	1050
	315M	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3000	453.5	319.5	400	502	M30x90-8.8	1050
	315L	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3100	453.5	319.5	400	502	M30x90-8.8	1050
	315ML	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3200	453.5	319.5	400	502	M30x90-8.8	1050
	315	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3400	453.5	319.5	400	502	M30x90-8.8	1050
	355S	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3650	453.5	319.5	400	502	M30x90-8.8	1050
	355S	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3650	453.5	319.5	400	502	M30x90-8.8	1050
X3KH220	280S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3050	497.5	352.5	400	549	M30x90-8.8	1100
	280M	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3050	497.5	352.5	400	549	M30x90-8.8	1100
	315S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3150	497.5	352.5	400	549	M30x90-8.8	1100
	315M	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3150	497.5	352.5	400	549	M30x90-8.8	1100
	315L	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3250	497.5	352.5	400	549	M30x90-8.8	1100
	315ML	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3350	497.5	352.5	400	549	M30x90-8.8	1100
	315	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3550	497.5	352.5	400	549	M30x90-8.8	1100
	355S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3800	497.5	352.5	400	549	M30x90-8.8	1100



X3KH..	Motor	AMS	B11	ø D5	ø D6	ø D11	ø EH	H11	HMS	LMS	MD	OH	W6	WH	ISO 4017 M..	
X3KH230	280S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3100	497.5	352.5	400	549	M30x90-8.8	1100
	280M	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3100	497.5	352.5	400	549	M30x90-8.8	1100
	315S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3200	497.5	352.5	400	549	M30x90-8.8	1100
	315M	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3200	497.5	352.5	400	549	M30x90-8.8	1100
	315L	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3300	497.5	352.5	400	549	M30x90-8.8	1100
	315ML	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3400	497.5	352.5	400	549	M30x90-8.8	1100
	315	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3600	497.5	352.5	400	549	M30x90-8.8	1100
	355S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3850	497.5	352.5	400	549	M30x90-8.8	1100
X3KH240	315S	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	3350	571.5	400.5	400	628	M36x110-8.8	1300
	315M	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	3350	571.5	400.5	400	628	M36x110-8.8	1300
	315L	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	3450	571.5	400.5	400	628	M36x110-8.8	1300
	315ML	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	3550	571.5	400.5	400	628	M36x110-8.8	1300
	315	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	3750	571.5	400.5	400	628	M36x110-8.8	1300
	355S	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	4000	571.5	400.5	400	628	M36x110-8.8	1300
X3KH250	315S	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	3400	571.5	400.5	400	628	M36x110-8.8	1300
	315M	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	3400	571.5	400.5	400	628	M36x110-8.8	1300
	315L	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	3500	571.5	400.5	400	628	M36x110-8.8	1300
	315ML	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	3600	571.5	400.5	400	628	M36x110-8.8	1300
	315	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	3800	571.5	400.5	400	628	M36x110-8.8	1300
	355S	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	4050	571.5	400.5	400	628	M36x110-8.8	1300





Drive Packages on a Steel Frame

X3K.. Swing base with elastic coupling and drum brake [mm]

13.2 X3K.. Swing base with elastic coupling and drum brake [mm]

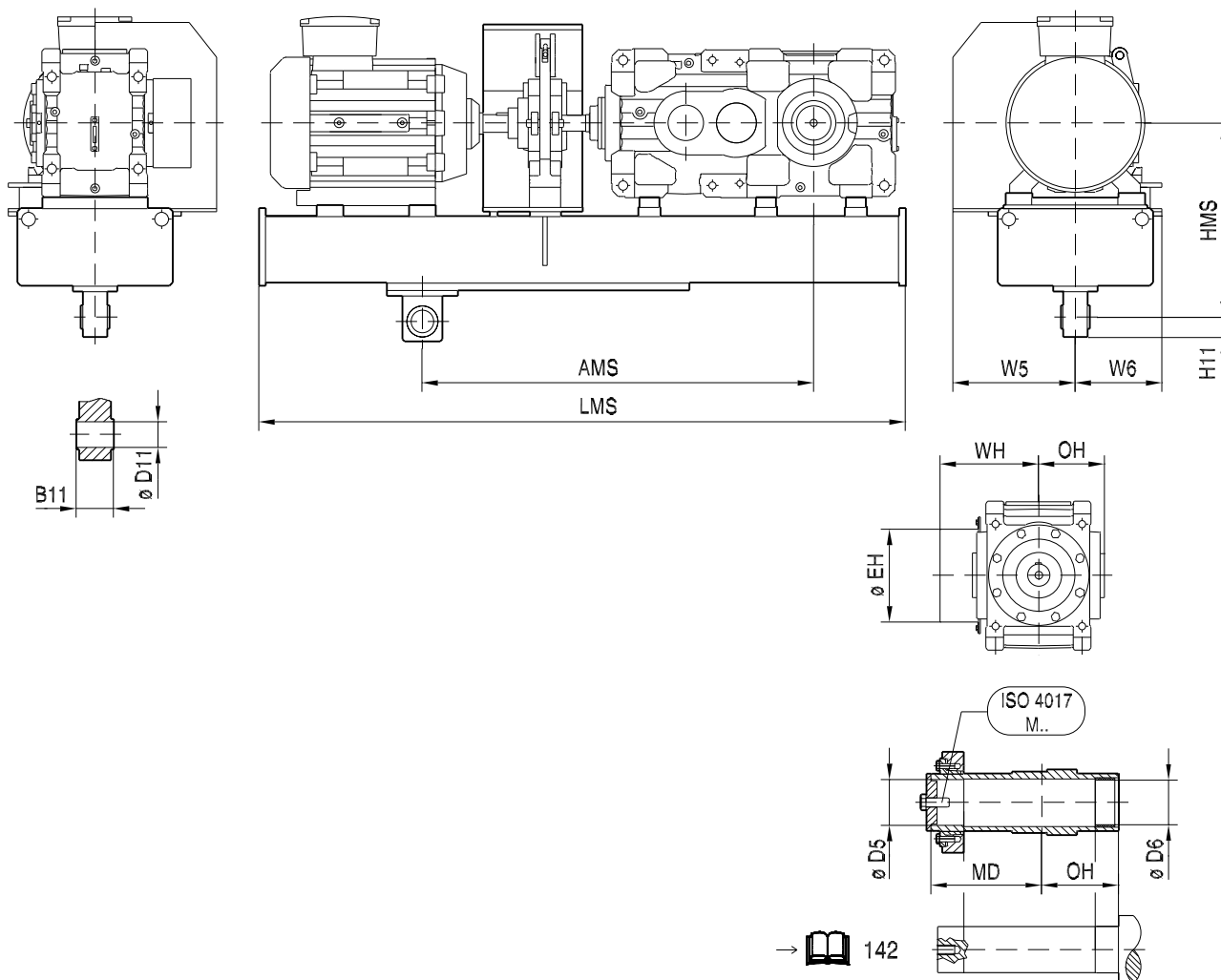
INFORMATION



- The final dimensions are defined by SEW-EURODRIVE depending on the order.
- The weight data in the following tables refer to the steel construction.

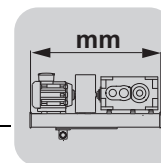
X3KH..

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Drive Packages on a Steel Frame

X3K.. Swing base with elastic copling and drum brake [mm]

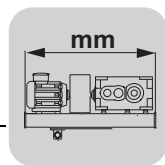


13

X3KH..	Motor	AMS	B11	ø D5	ø D6	ø D11	ø EH	H11	HMS	LMS	MD	OH	W5	W6	WH	ISO 4017 M..	kg
X3KH100	132S	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1550	261	173	520	250	282	M24x70-8.8	170
	132M	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1550	261	173	520	250	282	M24x70-8.8	170
	160M	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1650	261	173	520	250	282	M24x70-8.8	170
	160L	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1650	261	173	520	250	282	M24x70-8.8	170
	180M	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1750	261	173	520	250	282	M24x70-8.8	170
	180L	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1750	261	173	520	250	282	M24x70-8.8	170
	200L	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1850	261	173	620	250	282	M24x70-8.8	170
X3KH110	132S	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1600	265	176	520	250	286	M24x70-8.8	170
	132M	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1600	265	176	520	250	286	M24x70-8.8	170
	160M	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1700	265	176	520	250	286	M24x70-8.8	170
	160L	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1700	265	176	520	250	286	M24x70-8.8	170
	180M	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1800	265	176	520	250	286	M24x70-8.8	170
	180L	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1800	265	176	520	250	286	M24x70-8.8	170
	200L	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1850	265	176	620	250	286	M24x70-8.8	170
X3KH120	160M	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	1800	286.5	190.5	520	250	308	M24x70-8.8	220
	160L	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	1800	286.5	190.5	520	250	308	M24x70-8.8	220
	180M	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	1900	286.5	190.5	520	250	308	M24x70-8.8	220
	180L	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	1900	286.5	190.5	520	250	308	M24x70-8.8	220
	200L	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	1950	286.5	190.5	620	250	308	M24x70-8.8	220
	225S	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	2000	286.5	190.5	770	250	308	M24x70-8.8	220
	225M	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	2000	286.5	190.5	770	250	308	M24x70-8.8	220
	250M	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	2100	286.5	190.5	770	250	308	M24x70-8.8	220
X3KH130	160M	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	1850	297	194	520	300	323	M24x70-8.8	220
	160L	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	1850	297	194	520	300	323	M24x70-8.8	220
	180M	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2000	297	194	520	300	323	M24x70-8.8	220
	180L	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2000	297	194	520	300	323	M24x70-8.8	220
	200L	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2050	297	194	620	300	323	M24x70-8.8	220
	225S	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2100	297	194	720	300	323	M24x70-8.8	220
	225M	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2100	297	194	720	300	323	M24x70-8.8	220
X3KH140	250M	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2200	297	194	720	300	323	M24x70-8.8	220
	180M	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2100	329	222	520	300	351	M24x70-8.8	330
	180L	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2100	329	222	520	300	351	M24x70-8.8	330
	200L	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2150	329	222	620	300	351	M24x70-8.8	330
	225S	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2200	329	222	770	300	351	M24x70-8.8	330
	225M	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2200	329	222	770	300	351	M24x70-8.8	330
	250M	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2300	329	222	770	300	351	M24x70-8.8	330
	280S	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2400	329	222	870	300	351	M24x70-8.8	330
X3KH150	280M	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2400	329	222	870	300	351	M24x70-8.8	330
	180M	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2200	337.5	224.5	520	300	359	M24x70-8.8	330
	180L	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2200	337.5	224.5	520	300	359	M24x70-8.8	330
	200L	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2250	337.5	224.5	620	300	359	M24x70-8.8	330
	225S	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2300	337.5	224.5	770	300	359	M24x70-8.8	330
	225M	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2300	337.5	224.5	770	300	359	M24x70-8.8	330
	250M	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2400	337.5	224.5	770	300	359	M24x70-8.8	330
	280S	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2500	337.5	224.5	870	300	359	M24x70-8.8	330
X3KH160	280M	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2500	337.5	224.5	870	300	359	M24x70-8.8	330
	200L	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2450	375	256	620	350	409	M30x90-8.8	350
	225S	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2450	375	256	770	350	409	M30x90-8.8	350
	225M	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2450	375	256	770	350	409	M30x90-8.8	350
	250M	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2550	375	256	770	350	409	M30x90-8.8	350
	280S	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2650	375	256	870	350	409	M30x90-8.8	350
	280M	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2650	375	256	870	350	409	M30x90-8.8	350
	315S	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2750	375	256	870	350	409	M30x90-8.8	350
	315M	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2750	375	256	870	350	409	M30x90-8.8	350
	315L	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2850	375	256	870	350	409	M30x90-8.8	350

13



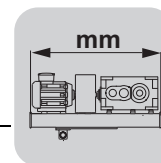


Drive Packages on a Steel Frame

X3K.. Swing base with elastic coupling and drum brake [mm]

X3KH..	Motor	AMS	B11	ø D5	ø D6	ø D11	ø EH	H11	HMS	LMS	MD	OH	W5	W6	WH	ISO 4017 M..	kg
X3KH170	200L	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2500	364	256	620	350	409	M30x90-8.8	350
	225S	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2500	364	256	770	350	409	M30x90-8.8	350
	225M	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2500	364	256	770	350	409	M30x90-8.8	350
	250M	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2600	364	256	770	350	409	M30x90-8.8	350
	280S	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2700	364	256	870	350	409	M30x90-8.8	350
	280M	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2700	364	256	870	350	409	M30x90-8.8	350
	315S	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2800	364	256	870	350	409	M30x90-8.8	350
	315M	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2800	364	256	870	350	409	M30x90-8.8	350
	315L	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2900	364	256	870	350	409	M30x90-8.8	350
X3KH180	250M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2650	400	292	770	400	448	M30x90-8.8	600
	280S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2750	400	292	770	400	448	M30x90-8.8	600
	280M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2750	400	292	770	400	448	M30x90-8.8	600
	315S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2850	400	292	770	400	448	M30x90-8.8	600
	315M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2850	400	292	770	400	448	M30x90-8.8	600
	315L	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3950	400	292	870	400	448	M30x90-8.8	600
	315ML	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3050	400	292	870	400	448	M30x90-8.8	600
	315	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3250	400	292	870	400	448	M30x90-8.8	600
	355S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3500	400	292	870	400	448	M30x90-8.8	600
X3KH190	250M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2650	400	292	770	400	448	M30x90-8.8	600
	280S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2750	400	292	770	400	448	M30x90-8.8	600
	280M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2750	400	292	770	400	448	M30x90-8.8	600
	315S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2850	400	292	770	400	448	M30x90-8.8	600
	315M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2850	400	292	770	400	448	M30x90-8.8	600
	315L	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2950	400	292	870	400	448	M30x90-8.8	600
	315ML	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3050	400	292	870	400	448	M30x90-8.8	600
	315	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3250	400	292	870	400	448	M30x90-8.8	600
	355S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3500	400	292	870	400	448	M30x90-8.8	600
X3KH200	250M	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	2850	450.5	319.5	770	400	502	M30x90-8.8	1100
	280S	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	2950	450.5	319.5	770	400	502	M30x90-8.8	1100
	280M	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	2950	450.5	319.5	770	400	502	M30x90-8.8	1100
	315S	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3050	450.5	319.5	770	400	502	M30x90-8.8	1100
	315M	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3050	450.5	319.5	770	400	502	M30x90-8.8	1100
	315L	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3150	450.5	319.5	870	400	502	M30x90-8.8	1100
	315ML	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3250	450.5	319.5	870	400	502	M30x90-8.8	1100
	315	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3450	450.5	319.5	870	400	502	M30x90-8.8	1100
	355S	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3700	450.5	319.5	870	400	502	M30x90-8.8	1100
X3KH210	280S	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	2950	453.5	319.5	770	400	502	M30x90-8.8	1100
	280M	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	2950	453.5	319.5	770	400	502	M30x90-8.8	1100
	315S	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3050	453.5	319.5	770	400	502	M30x90-8.8	1100
	315M	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3050	453.5	319.5	770	400	502	M30x90-8.8	1100
	315L	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3150	453.5	319.5	870	400	502	M30x90-8.8	1100
	315ML	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3250	453.5	319.5	870	400	502	M30x90-8.8	1100
	315	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3450	453.5	319.5	870	400	502	M30x90-8.8	1100
	355S	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3700	453.5	319.5	870	400	502	M30x90-8.8	1100
	355S	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3700	453.5	319.5	870	400	502	M30x90-8.8	1100
X3KH220	280S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3100	497.5	352.5	770	400	549	M30x90-8.8	1150
	280M	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3100	497.5	352.5	770	400	549	M30x90-8.8	1150
	315S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3200	497.5	352.5	770	400	549	M30x90-8.8	1150
	315M	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3200	497.5	352.5	770	400	549	M30x90-8.8	1150
	315L	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3300	497.5	352.5	870	400	549	M30x90-8.8	1150
	315ML	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3400	497.5	352.5	870	400	549	M30x90-8.8	1150
	315	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3600	497.5	352.5	870	400	549	M30x90-8.8	1150
	355S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3850	497.5	352.5	870	400	549	M30x90-8.8	1150

Drive Packages on a Steel Frame **X3K.. Swing base with elastic copling and drum brake [mm]**

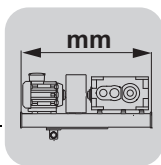


13

X3KH..	Motor	AMS	B11	ø D5	ø D6	ø D11	ø EH	H11	HMS	LMS	MD	OH	W5	W6	WH	ISO 4017 M..	kg
X3KH230	280S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3150	497.5	352.5	770	400	549	M30x90-8.8	1150
	280M	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3150	497.5	352.5	770	400	549	M30x90-8.8	1150
	315S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3250	497.5	352.5	770	400	549	M30x90-8.8	1150
	315M	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3250	497.5	352.5	770	400	549	M30x90-8.8	1150
	315L	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3350	497.5	352.5	870	400	549	M30x90-8.8	1150
	315ML	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3450	497.5	352.5	870	400	549	M30x90-8.8	1150
	315	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3650	497.5	352.5	870	400	549	M30x90-8.8	1150
	355S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3900	497.5	352.5	870	400	549	M30x90-8.8	1150
X3KH240	315S	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	3400	571.5	400.5	770	400	628	M36x110-8.8	1350
	315M	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	3400	571.5	400.5	770	400	628	M36x110-8.8	1350
	315L	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	3500	571.5	400.5	870	400	628	M36x110-8.8	1350
	315ML	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	3600	571.5	400.5	870	400	628	M36x110-8.8	1350
	315	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	3800	571.5	400.5	870	400	628	M36x110-8.8	1350
	355S	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	4050	571.5	400.5	870	400	628	M36x110-8.8	1350
X3KH250	315S	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	3450	571.5	400.5	770	400	628	M36x110-8.8	1350
	315M	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	3450	571.5	400.5	770	400	628	M36x110-8.8	1350
	315L	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	3550	571.5	400.5	870	400	628	M36x110-8.8	1350
	315ML	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	3650	571.5	400.5	870	400	628	M36x110-8.8	1350
	315	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	3850	571.5	400.5	870	400	628	M36x110-8.8	1350
	355S	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	4100	571.5	400.5	870	400	628	M36x110-8.8	1350

13





Drive Packages on a Steel Frame

X3K.. Swing base with hydraulic centrifugal coupling [mm]

13.3 X3K.. Swing base with hydraulic centrifugal coupling [mm]

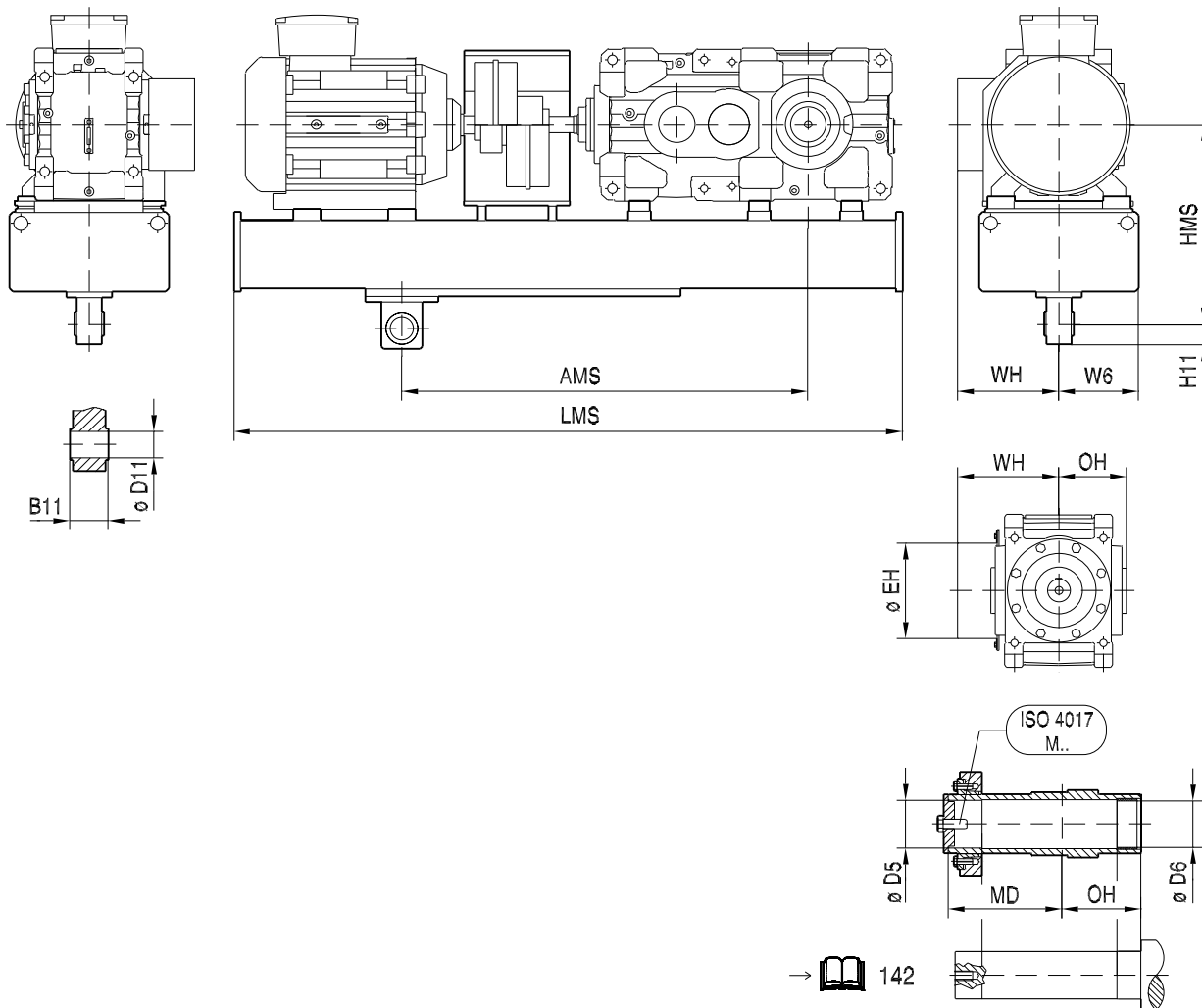
INFORMATION



- The final dimensions are defined by SEW-EURODRIVE depending on the order.
- The weight data in the following tables refer to the steel construction.

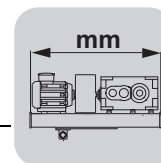
X3KH..

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Drive Packages on a Steel Frame

X3K.. Swing base with hydraulic centrifugal coupling [mm]

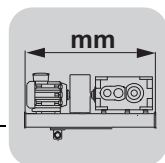


13

X3KH..	Motor	AMS	B11	ø D5	ø D6	ø D11	ø EH	H11	HMS	LMS	MD	OH	W6	WH	ISO 4017 M..	kg
X3KH100	132S	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1700	261	173	250	282	M24x70-8.8	150
	132M	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1700	261	173	250	282	M24x70-8.8	150
	160M	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1850	261	173	250	282	M24x70-8.8	150
	160L	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1800	261	173	250	282	M24x70-8.8	150
	180M	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	2000	261	173	250	282	M24x70-8.8	150
	180L	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	2000	261	173	250	282	M24x70-8.8	150
	200L	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	2050	261	173	250	282	M24x70-8.8	150
X3KH110	132S	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1750	265	176	250	286	M24x70-8.8	150
	132M	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1750	265	176	250	286	M24x70-8.8	150
	160M	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1850	265	176	250	286	M24x70-8.8	150
	160L	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1850	265	176	250	286	M24x70-8.8	150
	180M	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	2050	265	176	250	286	M24x70-8.8	150
	180L	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	2050	265	176	250	286	M24x70-8.8	150
	200L	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	2100	265	176	250	286	M24x70-8.8	150
X3KH120	160M	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	1950	286.5	190.5	250	308	M24x70-8.8	200
	160L	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	1950	286.5	190.5	250	308	M24x70-8.8	200
	180M	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	2150	286.5	190.5	250	308	M24x70-8.8	200
	180L	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	2150	286.5	190.5	250	308	M24x70-8.8	200
	200L	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	2200	286.5	190.5	250	308	M24x70-8.8	200
	225S	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	2200	286.5	190.5	250	308	M24x70-8.8	200
	225M	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	2250	286.5	190.5	250	308	M24x70-8.8	200
	250M	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	2350	286.5	190.5	250	308	M24x70-8.8	200
X3KH130	160M	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2050	297	194	300	323	M24x70-8.8	200
	160L	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2050	297	194	300	323	M24x70-8.8	200
	180M	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2200	297	194	300	323	M24x70-8.8	200
	180L	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2200	297	194	300	323	M24x70-8.8	200
	200L	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2250	297	194	300	323	M24x70-8.8	200
	225S	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2350	297	194	300	323	M24x70-8.8	200
	225M	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2350	297	194	300	323	M24x70-8.8	200
	250M	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2450	297	194	300	323	M24x70-8.8	200
X3KH140	180M	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2300	329	222	300	351	M24x70-8.8	300
	180L	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2300	329	222	300	351	M24x70-8.8	300
	200L	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2350	329	222	300	351	M24x70-8.8	300
	225S	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2450	329	222	300	351	M24x70-8.8	300
	225M	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2450	329	222	300	351	M24x70-8.8	300
	250M	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2450	329	222	300	351	M24x70-8.8	300
	280S	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2700	329	222	300	351	M24x70-8.8	300
	280M	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2700	329	222	300	351	M24x70-8.8	300
X3KH150	180M	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2400	337.5	224.5	300	359	M24x70-8.8	300
	180L	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2400	337.5	224.5	300	359	M24x70-8.8	300
	200L	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2450	337.5	224.5	300	359	M24x70-8.8	300
	225S	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2500	337.5	224.5	300	359	M24x70-8.8	300
	225M	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2500	337.5	224.5	300	359	M24x70-8.8	300
	250M	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2600	337.5	224.5	300	359	M24x70-8.8	300
	280S	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2800	337.5	224.5	300	359	M24x70-8.8	300
	280M	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2800	337.5	224.5	300	359	M24x70-8.8	300
X3KH160	200L	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2600	375	256	350	409	M30x90-8.8	350
	225S	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2700	375	256	350	409	M30x90-8.8	350
	225M	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2700	375	256	350	409	M30x90-8.8	350
	250M	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2800	375	256	350	409	M30x90-8.8	350
	280S	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2950	375	256	350	409	M30x90-8.8	350
	280M	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2950	375	256	350	409	M30x90-8.8	350
	315S	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	3050	375	256	350	409	M30x90-8.8	350
	315M	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	3050	375	256	350	409	M30x90-8.8	350
	315L	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	3200	375	256	350	409	M30x90-8.8	350

13

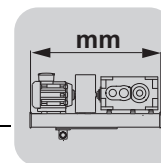




Drive Packages on a Steel Frame

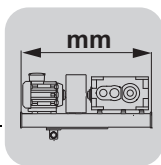
X3K.. Swing base with hydraulic centrifugal coupling [mm]

X3KH..	Motor	AMS	B11	ø D5	ø D6	ø D11	ø EH	H11	HMS	LMS	MD	OH	W6	WH	ISO 4017 M..	kg
X3KH170	200L	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2650	364	256	350	409	M30x90-8.8	350
	225S	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2750	364	256	350	409	M30x90-8.8	350
	225M	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2750	364	256	350	409	M30x90-8.8	350
	250M	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2850	364	256	350	409	M30x90-8.8	350
	280S	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	3000	364	256	350	409	M30x90-8.8	350
	280M	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	3000	364	256	350	409	M30x90-8.8	350
	315S	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	3100	364	256	350	409	M30x90-8.8	350
	315M	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	3100	364	256	350	409	M30x90-8.8	350
	315L	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	3250	364	256	350	409	M30x90-8.8	350
X3KH180	250M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2900	400	292	400	448	M30x90-8.8	400
	280S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3050	400	292	400	448	M30x90-8.8	400
	280M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3050	400	292	400	448	M30x90-8.8	400
	315S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3150	400	292	400	448	M30x90-8.8	400
	315M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3150	400	292	400	448	M30x90-8.8	400
	315L	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3300	400	292	400	448	M30x90-8.8	400
	315ML	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3400	400	292	400	448	M30x90-8.8	400
	315	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3600	400	292	400	448	M30x90-8.8	400
	355S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3850	400	292	400	448	M30x90-8.8	400
X3KH190	250M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2950	400	292	400	448	M30x90-8.8	400
	280S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3100	400	292	400	448	M30x90-8.8	400
	280M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3100	400	292	400	448	M30x90-8.8	400
	315S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3200	400	292	400	448	M30x90-8.8	400
	315M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3200	400	292	400	448	M30x90-8.8	400
	315L	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3350	400	292	400	448	M30x90-8.8	400
	315ML	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3450	400	292	400	448	M30x90-8.8	400
	315	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3650	400	292	400	448	M30x90-8.8	400
	355S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3900	400	292	400	448	M30x90-8.8	400
X3KH200	250M	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3100	450.5	319.5	400	502	M30x90-8.8	980
	280S	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3250	450.5	319.5	400	502	M30x90-8.8	980
	280M	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3250	450.5	319.5	400	502	M30x90-8.8	980
	315S	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3350	450.5	319.5	400	502	M30x90-8.8	980
	315M	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3350	450.5	319.5	400	502	M30x90-8.8	980
	315L	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3500	450.5	319.5	400	502	M30x90-8.8	980
	315ML	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3600	450.5	319.5	400	502	M30x90-8.8	980
	315	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3800	450.5	319.5	400	502	M30x90-8.8	980
	355S	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	4050	450.5	319.5	400	502	M30x90-8.8	980
X3KH210	280S	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3300	453.5	319.5	400	502	M30x90-8.8	980
	280M	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3300	453.5	319.5	400	502	M30x90-8.8	980
	315S	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3400	453.5	319.5	400	502	M30x90-8.8	980
	315M	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3400	453.5	319.5	400	502	M30x90-8.8	980
	315L	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3550	453.5	319.5	400	502	M30x90-8.8	980
	315ML	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3650	453.5	319.5	400	502	M30x90-8.8	980
	315	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3850	453.5	319.5	400	502	M30x90-8.8	980
	355S	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	4100	453.5	319.5	400	502	M30x90-8.8	980
X3KH220	280S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3450	497.5	352.5	400	549	M30x90-8.8	1100
	280M	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3450	497.5	352.5	400	549	M30x90-8.8	1100
	315S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3550	497.5	352.5	400	549	M30x90-8.8	1100
	315M	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3550	497.5	352.5	400	549	M30x90-8.8	1100
	315L	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3700	497.5	352.5	400	549	M30x90-8.8	1100
	315ML	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3800	497.5	352.5	400	549	M30x90-8.8	1100
	315	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	4000	497.5	352.5	400	549	M30x90-8.8	1100
	355S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	4250	497.5	352.5	400	549	M30x90-8.8	1100



X3KH..	Motor	AMS	B11	ø D5	ø D6	ø D11	ø EH	H11	HMS	LMS	MD	OH	W6	WH	ISO 4017 M..	kg
X3KH230	280S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3500	497.5	352.5	400	549	M30x90-8.8	1100
	280M	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3500	497.5	352.5	400	549	M30x90-8.8	1100
	315S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3600	497.5	352.5	400	549	M30x90-8.8	1100
	315M	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3600	497.5	352.5	400	549	M30x90-8.8	1100
	315L	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3750	497.5	352.5	400	549	M30x90-8.8	1100
	315ML	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3850	497.5	352.5	400	549	M30x90-8.8	1100
	315	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	4050	497.5	352.5	400	549	M30x90-8.8	1100
	355S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	4300	497.5	352.5	400	549	M30x90-8.8	1100
X3KH240	315S	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	90	1140	3750	571.5	400.5	400	628	M36x110-8.8	1300
	315M	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	3750	571.5	400.5	400	628	M36x110-8.8	1300
	315L	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	3900	571.5	400.5	400	628	M36x110-8.8	1300
	315ML	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	4000	571.5	400.5	400	628	M36x110-8.8	1300
	315	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	4200	571.5	400.5	400	628	M36x110-8.8	1300
	355S	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	4450	571.5	400.5	400	628	M36x110-8.8	1300
X3KH250	315S	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	3800	571.5	400.5	400	628	M36x110-8.8	1300
	315M	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	3800	571.5	400.5	400	628	M36x110-8.8	1300
	315L	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	3950	571.5	400.5	400	628	M36x110-8.8	1300
	315ML	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	4050	571.5	400.5	400	628	M36x110-8.8	1300
	315	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	4250	571.5	400.5	400	628	M36x110-8.8	1300
	355S	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	4500	571.5	400.5	400	628	M36x110-8.8	1300





Drive Packages on a Steel Frame

X3K.. Swing base with hydraulic centrifugal coupling and drum brake [mm]

13.4 X3K.. Swing base with hydraulic centrifugal coupling and drum brake [mm]

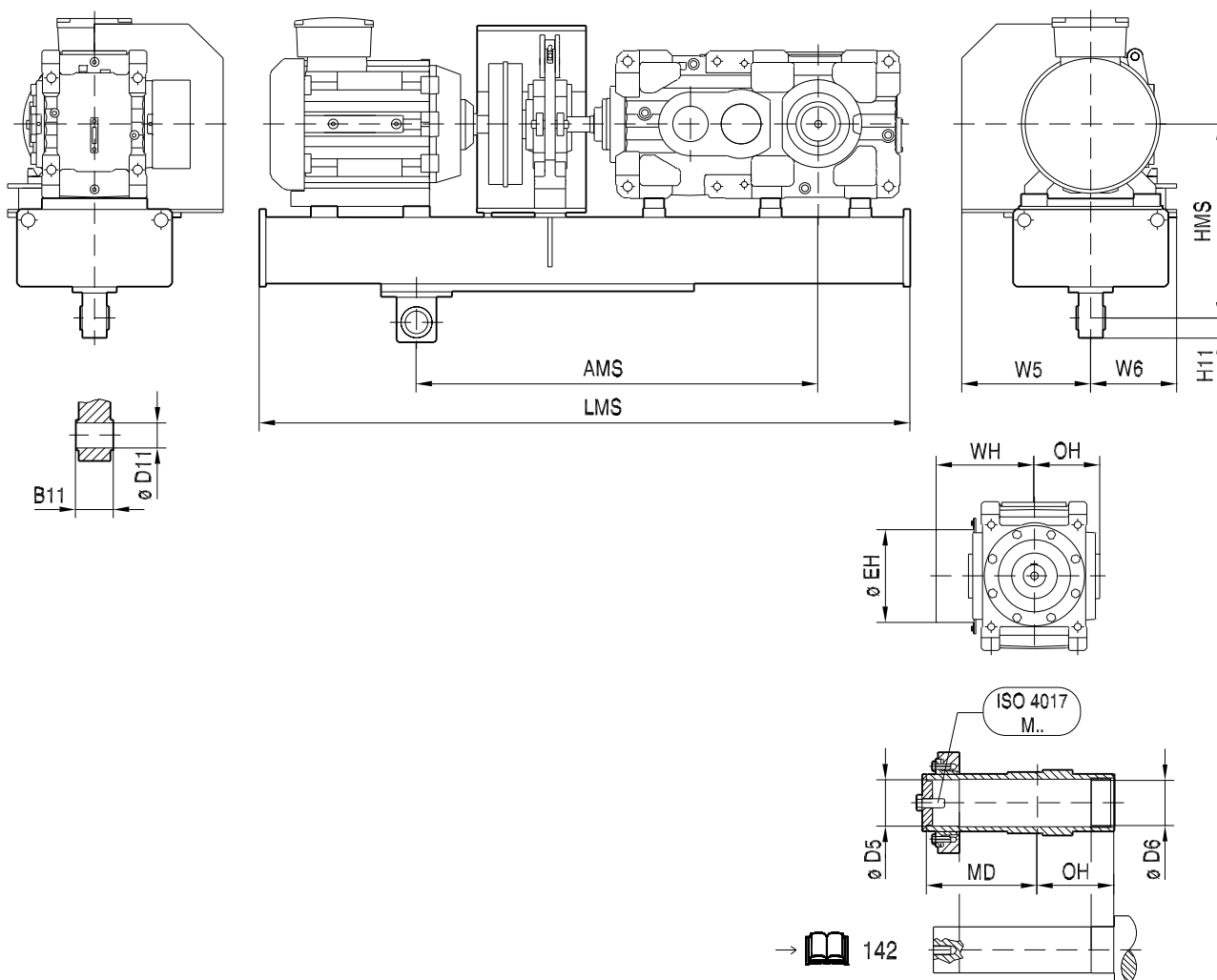
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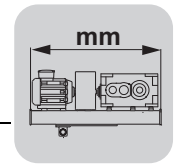


- The final dimensions are defined by SEW-EURODRIVE depending on the order.
- The weight data in the following tables refer to the steel construction.

X3KH..

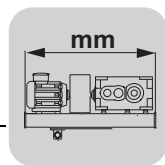
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X3KH..	Motor	AMS	B11	ø D5	ø D6	ø D11	ø EH	H11	HMS	LMS	MD	OH	W5	W6	WH	ISO 4017 M..	kg
X3KH100	132S	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1750	261	173	520	250	282	M24x70-8.8	170
	132M	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1750	261	173	520	250	282	M24x70-8.8	170
	160M	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1900	261	173	520	250	282	M24x70-8.8	170
	160L	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	1850	261	173	520	250	282	M24x70-8.8	170
	180M	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	2050	261	173	520	250	282	M24x70-8.8	170
	180L	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	2050	261	173	520	250	282	M24x70-8.8	170
	200L	1000	56	80 ^{H7}	81 ^{H9}	25 ^{H9}	214	30	420	2100	261	173	620	250	282	M24x70-8.8	170
X3KH110	132S	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1750	265	176	520	250	286	M24x70-8.8	170
	132M	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1750	265	176	520	250	286	M24x70-8.8	170
	160M	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1850	265	176	520	250	286	M24x70-8.8	170
	160L	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	1850	265	176	520	250	286	M24x70-8.8	170
	180M	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	2050	265	176	520	250	286	M24x70-8.8	170
	180L	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	2050	265	176	520	250	286	M24x70-8.8	170
	200L	1000	56	90 ^{H7}	91 ^{H9}	25 ^{H9}	224	30	420	2100	265	176	620	250	286	M24x70-8.8	170
X3KH120	160M	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	2000	286.5	190.5	520	250	308	M24x70-8.8	220
	160L	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	2000	286.5	190.5	520	250	308	M24x70-8.8	220
	180M	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	2200	286.5	190.5	520	250	308	M24x70-8.8	220
	180L	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	2200	286.5	190.5	520	250	308	M24x70-8.8	220
	200L	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	2250	286.5	190.5	620	250	308	M24x70-8.8	220
	225S	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	2250	286.5	190.5	770	250	308	M24x70-8.8	220
	225M	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	2300	286.5	190.5	770	250	308	M24x70-8.8	220
	250M	1000	72	100 ^{H7}	101 ^{H9}	32 ^{H9}	272	40	515	2400	286.5	190.5	770	250	308	M24x70-8.8	220
X3KH130	160M	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2100	297	194	520	300	323	M24x70-8.8	220
	160L	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2100	297	194	520	300	323	M24x70-8.8	220
	180M	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2250	297	194	520	300	323	M24x70-8.8	220
	180L	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2250	297	194	520	300	323	M24x70-8.8	220
	200L	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2300	297	194	620	300	323	M24x70-8.8	220
	225S	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2400	297	194	770	300	323	M24x70-8.8	220
	225M	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2400	297	194	770	300	323	M24x70-8.8	220
	250M	1000	72	110 ^{H7}	111 ^{H9}	32 ^{H9}	289	40	515	2500	297	194	770	300	323	M24x70-8.8	220
X3KH140	180M	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2350	329	222	520	300	351	M24x70-8.8	330
	180L	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2350	329	222	520	300	351	M24x70-8.8	330
	200L	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2400	329	222	620	300	351	M24x70-8.8	330
	225S	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2500	329	222	770	300	351	M24x70-8.8	330
	225M	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2500	329	222	770	300	351	M24x70-8.8	330
	250M	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2500	329	222	770	300	351	M24x70-8.8	330
	280S	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2750	329	222	870	300	351	M24x70-8.8	330
	280M	1200	110	120 ^{H7}	121 ^{H9}	50 ^{H9}	289	90	630	2750	329	222	870	300	351	M24x70-8.8	330
X3KH150	180M	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2450	337.5	224.5	520	300	359	M24x70-8.8	330
	180L	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2450	337.5	224.5	520	300	359	M24x70-8.8	330
	200L	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2500	337.5	224.5	620	300	359	M24x70-8.8	330
	225S	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2550	337.5	224.5	770	300	359	M24x70-8.8	330
	225M	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2550	337.5	224.5	770	300	359	M24x70-8.8	330
	250M	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2650	337.5	224.5	770	300	359	M24x70-8.8	330
	280S	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2850	337.5	224.5	870	300	359	M24x70-8.8	330
	280M	1200	110	130 ^{H7}	131 ^{H9}	50 ^{H9}	319	90	630	2850	337.5	224.5	870	300	359	M24x70-8.8	330
X3KH160	200L	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2650	375	256	620	350	409	M30x90-8.8	350
	225S	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2750	375	256	770	350	409	M30x90-8.8	350
	225M	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2750	375	256	770	350	409	M30x90-8.8	350
	250M	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	2850	375	256	770	350	409	M30x90-8.8	350
	280S	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	3000	375	256	870	350	409	M30x90-8.8	350
	280M	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	3000	375	256	870	350	409	M30x90-8.8	350
	315S	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	3100	375	256	870	350	409	M30x90-8.8	350
	315M	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	3100	375	256	870	350	409	M30x90-8.8	350
	315L	1400	110	140 ^{H7}	141 ^{H9}	50 ^{H9}	372	90	720	3250	375	256	870	350	409	M30x90-8.8	350

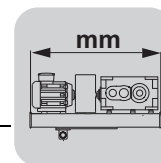




Drive Packages on a Steel Frame

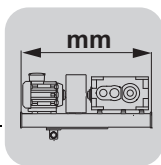
X3K.. Swing base with hydraulic centrifugal coupling and drum brake [mm]

X3KH..	Motor	AMS	B11	ø D5	ø D6	ø D11	ø EH	H11	HMS	LMS	MD	OH	W5	W6	WH	ISO 4017 M..	kg
X3KH170	200L	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2700	364	256	620	350	409	M30x90-8.8	350
	225S	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2800	364	256	770	350	409	M30x90-8.8	350
	225M	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2800	364	256	770	350	409	M30x90-8.8	350
	250M	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	2900	364	256	770	350	409	M30x90-8.8	350
	280S	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	3050	364	256	870	350	409	M30x90-8.8	350
	280M	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	3050	364	256	870	350	409	M30x90-8.8	350
	315S	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	3150	364	256	870	350	409	M30x90-8.8	350
	315M	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	3150	364	256	870	350	409	M30x90-8.8	350
	315L	1400	110	150 ^{H7}	151 ^{H9}	50 ^{H9}	372	90	720	3300	364	256	870	350	409	M30x90-8.8	350
X3KH180	250M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	2950	400	292	770	400	448	M30x90-8.8	450
	280S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3100	400	292	770	400	448	M30x90-8.8	450
	280M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3100	400	292	770	400	448	M30x90-8.8	450
	315S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3200	400	292	770	400	448	M30x90-8.8	450
	315M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3200	400	292	770	400	448	M30x90-8.8	450
	315L	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3350	400	292	870	400	448	M30x90-8.8	450
	315ML	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3450	400	292	870	400	448	M30x90-8.8	450
	315	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3650	400	292	870	400	448	M30x90-8.8	450
	355S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3900	400	292	870	400	448	M30x90-8.8	450
X3KH190	250M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3000	400	292	770	400	448	M30x90-8.8	450
	280S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3150	400	292	770	400	448	M30x90-8.8	450
	280M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3150	400	292	770	400	448	M30x90-8.8	450
	315S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3250	400	292	770	400	448	M30x90-8.8	450
	315M	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3250	400	292	770	400	448	M30x90-8.8	450
	315L	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3400	400	292	870	400	448	M30x90-8.8	450
	315ML	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3500	400	292	870	400	448	M30x90-8.8	450
	315	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3700	400	292	870	400	448	M30x90-8.8	450
	355S	1600	120	165 ^{H7}	166 ^{H9}	100 ^{H9}	379	90	875	3950	400	292	870	400	448	M30x90-8.8	450
X3KH200	250M	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3150	450.5	319.5	770	400	502	M30x90-8.8	1000
	280S	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3300	450.5	319.5	770	400	502	M30x90-8.8	1000
	280M	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3300	450.5	319.5	770	400	502	M30x90-8.8	1000
	315S	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3400	450.5	319.5	770	400	502	M30x90-8.8	1000
	315M	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3400	450.5	319.5	770	400	502	M30x90-8.8	1000
	315L	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3550	450.5	319.5	870	400	502	M30x90-8.8	1000
	315ML	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3650	450.5	319.5	870	400	502	M30x90-8.8	1000
	315	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	3850	450.5	319.5	870	400	502	M30x90-8.8	1000
	355S	1800	120	180 ^{H7}	181 ^{H9}	100 ^{H9}	439	90	1000	4150	450.5	319.5	870	400	502	M30x90-8.8	1000
X3KH210	280S	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3350	453.5	319.5	770	400	502	M30x90-8.8	1000
	280M	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3350	453.5	319.5	770	400	502	M30x90-8.8	1000
	315S	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3450	453.5	319.5	770	400	502	M30x90-8.8	1000
	315M	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3450	453.5	319.5	770	400	502	M30x90-8.8	1000
	315L	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3600	453.5	319.5	870	400	502	M30x90-8.8	1000
	315ML	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3700	453.5	319.5	870	400	502	M30x90-8.8	1000
	315	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	3900	453.5	319.5	870	400	502	M30x90-8.8	1000
	355S	1800	120	190 ^{H7}	191 ^{H9}	100 ^{H9}	439	90	1000	4150	453.5	319.5	870	400	502	M30x90-8.8	1000
X3KH220	280S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3500	497.5	352.5	770	400	549	M30x90-8.8	1150
	280M	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3500	497.5	352.5	770	400	549	M30x90-8.8	1150
	315S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3600	497.5	352.5	770	400	549	M30x90-8.8	1150
	315M	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3600	497.5	352.5	770	400	549	M30x90-8.8	1150
	315L	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3750	497.5	352.5	870	400	549	M30x90-8.8	1150
	315ML	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3850	497.5	352.5	870	400	549	M30x90-8.8	1150
	315	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	4050	497.5	352.5	870	400	549	M30x90-8.8	1150
	355S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	4300	497.5	352.5	870	400	549	M30x90-8.8	1150



X3KH..	Motor	AMS	B11	ø D5	ø D6	ø D11	ø EH	H11	HMS	LMS	MD	OH	W5	W6	WH	ISO 4017 M..	kg
X3KH230	280S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3550	497.5	352.5	770	400	549	M30x90-8.8	1150
	280M	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3550	497.5	352.5	770	400	549	M30x90-8.8	1150
	315S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3650	497.5	352.5	770	400	549	M30x90-8.8	1150
	315M	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3650	497.5	352.5	770	400	549	M30x90-8.8	1150
	315L	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3800	497.5	352.5	870	400	549	M30x90-8.8	1150
	315ML	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	3900	497.5	352.5	870	400	549	M30x90-8.8	1150
	315	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	4100	497.5	352.5	870	400	549	M30x90-8.8	1150
	355S	1900	120	210 ^{H7}	211 ^{H9}	100 ^{H9}	482	90	1050	4350	497.5	352.5	870	400	549	M30x90-8.8	1150
X3KH240	315S	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	3800	571.5	400.5	770	400	628	M36x110-8.8	1350
	315M	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	3800	571.5	400.5	770	400	628	M36x110-8.8	1350
	315L	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	3950	571.5	400.5	870	400	628	M36x110-8.8	1350
	315ML	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	4050	571.5	400.5	870	400	628	M36x110-8.8	1350
	315	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	4250	571.5	400.5	870	400	628	M36x110-8.8	1350
	355S	2000	230	230 ^{H7}	231 ^{H9}	124 ^{H9}	542	110	1140	4500	571.5	400.5	870	400	628	M36x110-8.8	1350
X3KH250	315S	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	3850	571.5	400.5	770	400	628	M36x110-8.8	1350
	315M	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	3850	571.5	400.5	770	400	628	M36x110-8.8	1350
	315L	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	4000	571.5	400.5	870	400	628	M36x110-8.8	1350
	315ML	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	4100	571.5	400.5	870	400	628	M36x110-8.8	1350
	315	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	4300	571.5	400.5	870	400	628	M36x110-8.8	1350
	355S	2000	230	240 ^{H7}	241 ^{H9}	124 ^{H9}	542	110	1140	4550	571.5	400.5	870	400	628	M36x110-8.8	1350





Drive Packages on a Steel Frame

X3K.. Base frame with elastic coupling [mm]

13.5 X3K.. Base frame with elastic coupling [mm]

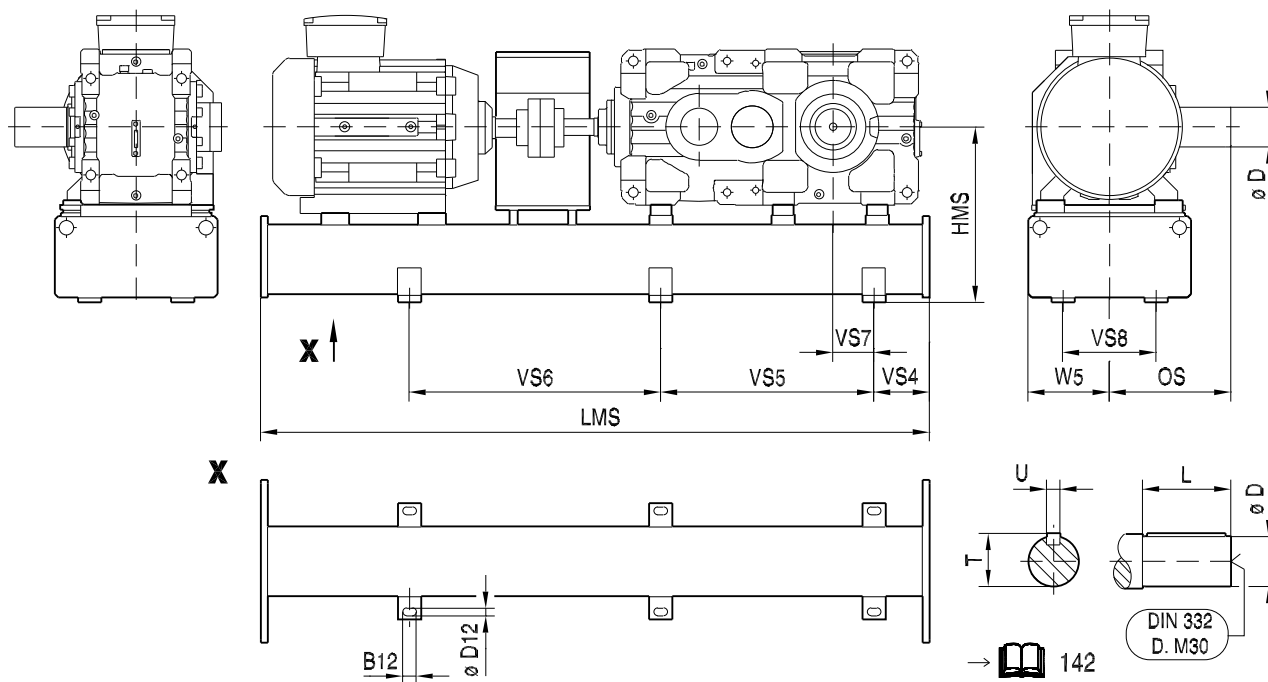
INFORMATION



- The final dimensions are defined by SEW-EURODRIVE depending on the order.
- The weight data in the following tables refer to the steel construction.

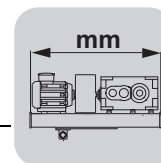
X3KS..

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Drive Packages on a Steel Frame

X3K.. Base frame with elastic coupling [mm]

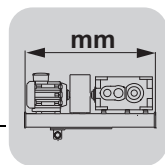


13

X3KS..	Motor	B12	ø D	ø D12	HMS	L	LMS	OS	T	U	W5	VS4	VS5	VS6	VS7	VS8	DIN 332 D.M..	kg
X3KS100	132S	40	80 _{m6}	22	380	170	1650	343	85	22 _{h9}	250	250	810	580	405	230	M20	150
	132M	40	80 _{m6}	22	380	170	1650	343	85	22 _{h9}	250	250	810	580	405	230	M20	150
	160M	40	80 _{m6}	22	380	170	1750	343	85	22 _{h9}	250	250	810	580	405	230	M20	150
	160L	40	80 _{m6}	22	380	170	1750	343	85	22 _{h9}	250	250	810	580	405	230	M20	150
	180M	40	80 _{m6}	22	380	170	1850	343	85	22 _{h9}	250	250	810	580	405	230	M20	150
	180L	40	80 _{m6}	22	380	170	1850	343	85	22 _{h9}	250	250	810	580	405	230	M20	150
	200L	40	80 _{m6}	22	380	170	1900	343	85	22 _{h9}	250	250	810	580	405	230	M20	150
X3KS110	132S	40	90 _{m6}	22	380	170	1650	346	95	25 _{h9}	250	250	810	580	405	230	M24	150
	132M	40	90 _{m6}	22	380	170	1650	346	95	25 _{h9}	250	250	810	580	405	230	M24	150
	160M	40	90 _{m6}	22	380	170	1750	346	95	25 _{h9}	250	250	810	580	405	230	M24	150
	160L	40	90 _{m6}	22	380	170	1750	346	95	25 _{h9}	250	250	810	580	405	230	M24	150
	180M	40	90 _{m6}	22	380	170	1900	346	95	25 _{h9}	250	250	810	580	405	230	M24	150
	180L	40	90 _{m6}	22	380	170	1900	346	95	25 _{h9}	250	250	810	580	405	230	M24	150
	200L	40	90 _{m6}	22	380	170	1950	346	95	25 _{h9}	250	250	810	580	405	230	M24	150
X3KS120	160M	40	100 _{m6}	22	450	210	1850	401	106	28 _{h9}	250	250	810	580	405	250	M24	200
	160L	40	100 _{m6}	22	450	210	1850	401	106	28 _{h9}	250	250	810	580	405	250	M24	200
	180M	40	100 _{m6}	22	450	210	1950	401	106	28 _{h9}	250	250	810	580	405	250	M24	200
	180L	40	100 _{m6}	22	450	210	1950	401	106	28 _{h9}	250	250	810	580	405	250	M24	200
	200L	40	100 _{m6}	22	450	210	2050	401	106	28 _{h9}	250	250	810	580	405	250	M24	200
	225S	40	100 _{m6}	22	450	210	2050	401	106	28 _{h9}	250	250	810	580	405	250	M24	200
	225M	40	100 _{m6}	22	450	210	2050	401	106	28 _{h9}	250	250	810	580	405	250	M24	200
	250M	40	100 _{m6}	22	450	210	2150	401	106	28 _{h9}	250	250	810	580	405	250	M24	200
X3KS130	160M	40	110 _{m6}	22	450	210	1900	404	116	28 _{h9}	300	250	810	580	405	250	M24	200
	160L	40	110 _{m6}	22	450	210	1900	404	116	28 _{h9}	300	250	810	580	405	250	M24	200
	180M	40	110 _{m6}	22	450	210	2000	404	116	28 _{h9}	300	250	810	580	405	250	M24	200
	180L	40	110 _{m6}	22	450	210	2000	404	116	28 _{h9}	300	250	810	580	405	250	M24	200
	200L	40	110 _{m6}	22	450	210	2050	404	116	28 _{h9}	300	250	810	580	405	250	M24	200
	225S	40	110 _{m6}	22	450	210	2100	404	116	28 _{h9}	300	250	810	580	405	250	M24	200
	225M	40	110 _{m6}	22	450	210	2100	404	116	28 _{h9}	300	250	810	580	405	250	M24	200
	250M	40	110 _{m6}	22	450	210	2200	404	116	28 _{h9}	300	250	810	580	405	250	M24	200
X3KS140	180M	40	120 _{m6}	22	540	210	2300	432	127	32 _{h9}	300	300	1140	810	570	300	M24	300
	180L	40	120 _{m6}	22	540	210	2300	432	127	32 _{h9}	300	300	1140	810	570	300	M24	300
	200L	40	120 _{m6}	22	540	210	2350	432	127	32 _{h9}	300	300	1140	810	570	300	M24	300
	225S	40	120 _{m6}	22	540	210	2400	432	127	32 _{h9}	300	300	1140	810	570	300	M24	300
	225M	40	120 _{m6}	22	540	210	2400	432	127	32 _{h9}	300	300	1140	810	570	300	M24	300
	250M	40	120 _{m6}	22	540	210	2500	432	127	32 _{h9}	300	300	1140	810	570	300	M24	300
	280S	40	120 _{m6}	22	540	210	2600	432	127	32 _{h9}	300	300	1140	810	570	300	M24	300
	280M	40	120 _{m6}	22	540	210	2600	432	127	32 _{h9}	300	300	1140	810	570	300	M24	300
X3KS150	180M	40	130 _{m6}	22	540	250	2350	475	137	32 _{h9}	300	300	1140	810	570	300	M24	300
	180L	40	130 _{m6}	22	540	250	2350	475	137	32 _{h9}	300	300	1140	810	570	300	M24	300
	200L	40	130 _{m6}	22	540	250	2450	475	137	32 _{h9}	300	300	1140	810	570	300	M24	300
	225S	40	130 _{m6}	22	540	250	2450	475	137	32 _{h9}	300	300	1140	810	570	300	M24	300
	225M	40	130 _{m6}	22	540	250	2550	475	137	32 _{h9}	300	300	1140	810	570	300	M24	300
	250M	40	130 _{m6}	22	540	250	2550	475	137	32 _{h9}	300	300	1140	810	570	300	M24	300
	280S	40	130 _{m6}	22	540	250	2650	475	137	32 _{h9}	300	300	1140	810	570	300	M24	300
	280M	40	130 _{m6}	22	540	250	2650	475	137	32 _{h9}	300	300	1140	810	570	300	M24	300
X3KS160	200L	40	140 _{m6}	22	630	250	2500	506	148	36 _{h9}	300	350	1140	860	570	350	M30	350
	225S	40	140 _{m6}	22	630	250	2550	506	148	36 _{h9}	300	350	1140	860	570	350	M30	350
	225M	40	140 _{m6}	22	630	250	2550	506	148	36 _{h9}	300	350	1140	860	570	350	M30	350
	250M	40	140 _{m6}	22	630	250	2650	506	148	36 _{h9}	300	350	1140	860	570	350	M30	350
	280S	40	140 _{m6}	22	630	250	2750	506	148	36 _{h9}	300	350	1140	860	570	350	M30	350
	280M	40	140 _{m6}	22	630	250	2750	506	148	36 _{h9}	300	350	1140	860	570	350	M30	350
	315S	40	140 _{m6}	22	630	250	2850	506	148	36 _{h9}	300	350	1140	860	570	350	M30	350
	315M	40	140 _{m6}	22	630	250	2850	506	148	36 _{h9}	300	350	1140	860	570	350	M30	350
	315L	40	140 _{m6}	22	630	250	2950	506	148	36 _{h9}	300	350	1140	860	570	350	M30	350

13

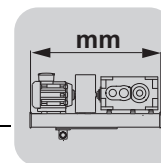




Drive Packages on a Steel Frame

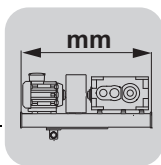
X3K.. Base frame with elastic coupling [mm]

X3KS..	Motor	B12	ø D	ø D12	HMS	L	LMS	OS	T	U	W5	VS4	VS5	VS6	VS7	VS8	DIN 332 D.M..	kg
X3KS170	200L	40	160 _{m6}	22	630	300	2550	556	169	40 _{h9}	300	350	1140	860	570	350	M30	350
	225S	40	160 _{m6}	22	630	300	2600	556	169	40 _{h9}	300	350	1140	860	570	350	M30	350
	225M	40	160 _{m6}	22	630	300	2600	556	169	40 _{h9}	300	350	1140	860	570	350	M30	350
	250M	40	160 _{m6}	22	630	300	2700	556	169	40 _{h9}	300	350	1140	860	570	350	M30	350
	280S	40	160 _{m6}	22	630	300	2800	556	169	40 _{h9}	300	350	1140	860	570	350	M30	350
	280M	40	160 _{m6}	22	630	300	2800	556	169	40 _{h9}	300	350	1140	860	570	350	M30	350
	315S	40	160 _{m6}	22	630	300	2900	556	169	40 _{h9}	300	350	1140	860	570	350	M30	350
	315M	40	160 _{m6}	22	630	300	2900	556	169	40 _{h9}	300	350	1140	860	570	350	M30	350
	315L	40	160 _{m6}	22	630	300	3000	556	169	40 _{h9}	300	350	1140	860	570	350	M30	350
X3KS180	250M	40	170 _{m6}	22	740	300	2700	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	700
	280S	40	170 _{m6}	22	740	300	2800	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	700
	280M	40	170 _{m6}	22	740	300	2800	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	700
	315S	40	170 _{m6}	22	740	300	2900	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	700
	315M	40	170 _{m6}	22	740	300	2900	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	700
	315L	40	170 _{m6}	22	740	300	3000	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	700
	315ML	40	170 _{m6}	22	740	300	3100	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	700
	315	40	170 _{m6}	22	740	300	3300	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	700
	355S	40	170 _{m6}	22	740	300	3550	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	700
X3KS190	250M	40	170 _{m6}	22	740	300	2750	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	700
	280S	40	170 _{m6}	22	740	300	2850	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	700
	280M	40	170 _{m6}	22	740	300	2850	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	700
	315S	40	170 _{m6}	22	740	300	2950	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	700
	315M	40	170 _{m6}	22	740	300	2950	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	700
	315L	40	170 _{m6}	22	740	300	3050	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	700
	315ML	40	170 _{m6}	22	740	300	3150	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	700
	315	40	170 _{m6}	22	740	300	3350	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	700
	355S	40	170 _{m6}	22	740	300	3600	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	700
X3KS200	250M	40	180 _{m6}	22	870	300	2900	612	190	45 _{h9}	400	500	1230	1200	615	450	M30	1000
	280S	40	180 _{m6}	22	870	300	3000	612	190	45 _{h9}	400	500	1230	1200	615	450	M30	1000
	280M	40	180 _{m6}	22	870	300	3000	612	190	45 _{h9}	400	500	1230	1200	615	450	M30	1000
	315S	40	180 _{m6}	22	870	300	3000	612	190	45 _{h9}	400	500	1230	1200	615	450	M30	1000
	315M	40	180 _{m6}	22	870	300	3100	612	190	45 _{h9}	400	500	1230	1200	615	450	M30	1000
	315L	40	180 _{m6}	22	870	300	3200	612	190	45 _{h9}	400	500	1230	1200	615	450	M30	1000
	315ML	40	180 _{m6}	22	870	300	3300	612	190	45 _{h9}	400	500	1230	1200	615	450	M30	1000
	315	40	180 _{m6}	22	870	300	3500	612	190	45 _{h9}	400	500	1230	1200	615	450	M30	1000
	355S	40	180 _{m6}	22	870	300	3750	612	190	45 _{h9}	400	500	1230	1200	615	450	M30	1000
X3KS210	280S	40	190 _{m6}	22	870	350	3050	662	200	45 _{h9}	400	500	1230	1200	615	450	M30	1000
	280M	40	190 _{m6}	22	870	350	3050	662	200	45 _{h9}	400	500	1230	1200	615	450	M30	1000
	315S	40	190 _{m6}	22	870	350	3150	662	200	45 _{h9}	400	500	1230	1200	615	450	M30	1000
	315M	40	190 _{m6}	22	870	350	3150	662	200	45 _{h9}	400	500	1230	1200	615	450	M30	1000
	315L	40	190 _{m6}	22	870	350	3250	662	200	45 _{h9}	400	500	1230	1200	615	450	M30	1000
	315ML	40	190 _{m6}	22	870	350	3350	662	200	45 _{h9}	400	500	1230	1200	615	450	M30	1000
	315	40	190 _{m6}	22	870	350	3550	662	200	45 _{h9}	400	500	1230	1200	615	450	M30	1000
	355S	40	190 _{m6}	22	870	350	3800	662	200	45 _{h9}	400	500	1230	1200	615	450	M30	1000
	315S	40	210 _{m6}	22	910	350	3150	703	221	50 _{h9}	400	545	1280	1250	640	450	M30	1100
X3KS220	280M	40	210 _{m6}	22	910	350	3150	703	221	50 _{h9}	400	545	1280	1250	640	450	M30	1100
	315S	40	210 _{m6}	22	910	350	3250	703	221	50 _{h9}	400	545	1280	1250	640	450	M30	1100
	315M	40	210 _{m6}	22	910	350	3250	703	221	50 _{h9}	400	545	1280	1250	640	450	M30	1100
	315L	40	210 _{m6}	22	910	350	3350	703	221	50 _{h9}	400	545	1280	1250	640	450	M30	1100
	315ML	40	210 _{m6}	22	910	350	3450	703	221	50 _{h9}	400	545	1280	1250	640	450	M30	1100
	315	40	210 _{m6}	22	910	350	3650	703	221	50 _{h9}	400	545	1280	1250	640	450	M30	1100
	355S	40	210 _{m6}	22	910	350	3900	703	221	50 _{h9}	400	545	1280	1250	640	450	M30	1100



X3KS..	Motor	B12	ø D	ø D12	HMS	L	LMS	OS	T	U	W5	VS4	VS5	VS6	VS7	VS8	DIN 332 D.M..	kg
X3KS230	280S	40	230 _{m6}	22	910	410	3200	763	241	50 _{h9}	400	545	1280	1250	640	450	M36	1100
	280M	40	230 _{m6}	22	910	410	3200	763	241	50 _{h9}	400	545	1280	1250	640	450	M36	1100
	315S	40	230 _{m6}	22	910	410	3300	763	241	50 _{h9}	400	545	1280	1250	640	450	M36	1100
	315M	40	230 _{m6}	22	910	410	3400	763	241	50 _{h9}	400	545	1280	1250	640	450	M36	1100
	315L	40	230 _{m6}	22	910	410	3400	763	241	50 _{h9}	400	545	1280	1250	640	450	M36	1100
	315ML	40	230 _{m6}	22	910	410	3500	763	241	50 _{h9}	400	545	1280	1250	640	450	M36	1100
	315	40	230 _{m6}	22	910	410	3700	763	241	50 _{h9}	400	545	1280	1250	640	450	M36	1100
	355S	40	230 _{m6}	22	910	410	4000	763	241	50 _{h9}	400	545	1280	1250	640	450	M36	1100
X3KS240	315S	45	230 _{m6}	26	965	410	3450	811	241	50 _{h9}	400	575	1350	1250	675	500	M36	1300
	315M	45	230 _{m6}	26	965	410	3450	811	241	50 _{h9}	400	575	1350	1250	675	500	M36	1300
	315L	45	230 _{m6}	26	965	410	3550	811	241	50 _{h9}	400	575	1350	1250	675	500	M36	1300
	315ML	45	230 _{m6}	26	965	410	3650	811	241	50 _{h9}	400	575	1350	1250	675	500	M36	1300
	315	45	230 _{m6}	26	965	410	3850	811	241	50 _{h9}	400	575	1350	1250	675	500	M36	1300
	355S	45	230 _{m6}	26	965	410	4100	811	241	50 _{h9}	400	575	1350	1250	675	500	M36	1300
X3KS250	315S	45	240 _{m6}	26	965	410	3500	811	252	56 _{h9}	400	575	1350	1250	675	500	M36	1300
	315M	45	240 _{m6}	26	965	410	3500	811	252	56 _{h9}	400	575	1350	1250	675	500	M36	1300
	315L	45	240 _{m6}	26	965	410	3600	811	252	56 _{h9}	400	575	1350	1250	675	500	M36	1300
	315ML	45	240 _{m6}	26	965	410	3700	811	252	56 _{h9}	400	575	1350	1250	675	500	M36	1300
	315	45	240 _{m6}	26	965	410	3900	811	252	56 _{h9}	400	575	1350	1250	675	500	M36	1300
	355S	45	240 _{m6}	26	965	410	4150	811	252	56 _{h9}	400	575	1350	1250	675	500	M36	1300





Drive Packages on a Steel Frame

X3K.. Base frame with elastic coupling and drum brake [mm]

13.6 X3K.. Base frame with elastic coupling and drum brake [mm]

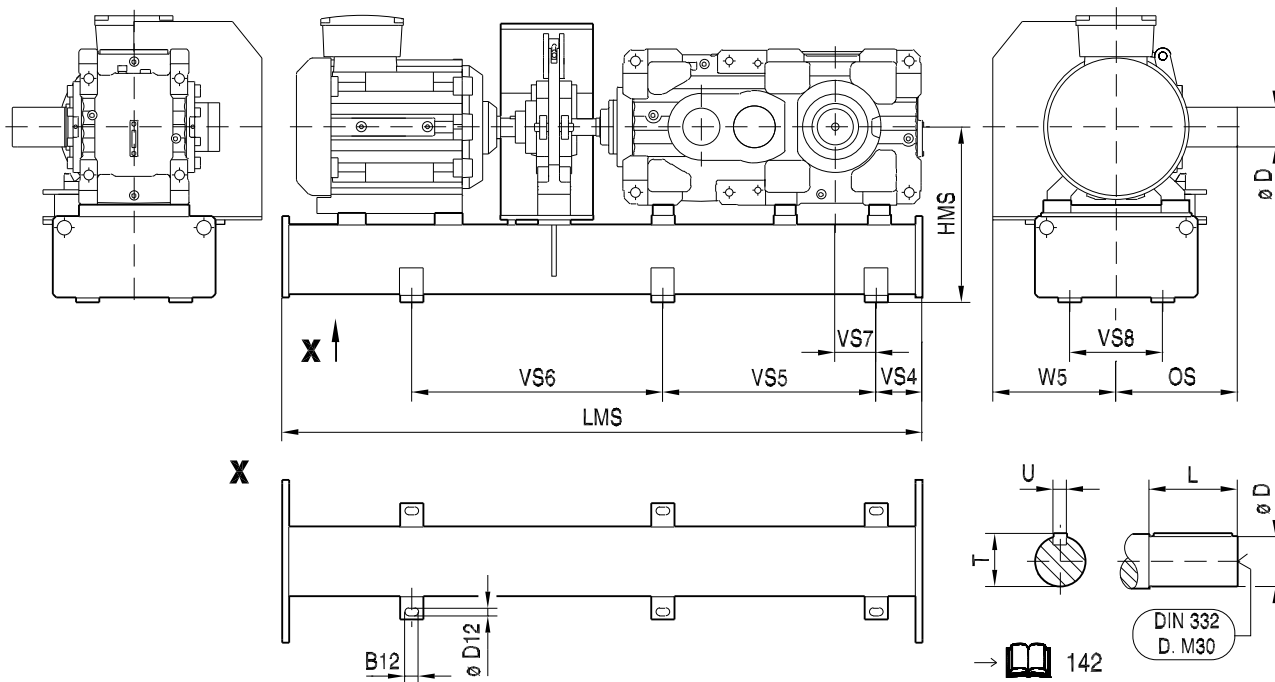
INFORMATION



- The final dimensions are defined by SEW-EURODRIVE depending on the order.
- The weight data in the following tables refer to the steel construction.

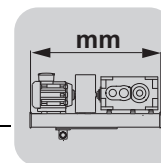
X3KS..

48 020 00 12



Drive Packages on a Steel Frame

X3K.. Base frame with elastic coupling and drum brake [mm]

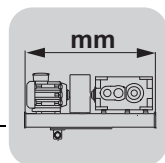


13

X3KS..	Motor	B12	ø D	ø D12	HMS	L	LMS	OS	T	U	W5	VS4	VS5	VS6	VS7	VS8	DIN 332 D.M..	kg
X3KS100	132S	40	80 _{m6}	22	380	170	1700	343	85	22 _{h9}	520	250	810	580	405	230	M20	170
	132M	40	80 _{m6}	22	380	170	1700	343	85	22 _{h9}	520	250	810	580	405	230	M20	170
	160M	40	80 _{m6}	22	380	170	1800	343	85	22 _{h9}	520	250	810	580	405	230	M20	170
	160L	40	80 _{m6}	22	380	170	1800	343	85	22 _{h9}	520	250	810	580	405	230	M20	170
	180M	40	80 _{m6}	22	380	170	1900	343	85	22 _{h9}	520	250	810	580	405	230	M20	170
	180L	40	80 _{m6}	22	380	170	1900	343	85	22 _{h9}	520	250	810	580	405	230	M20	170
	200L	40	80 _{m6}	22	380	170	1950	343	85	22 _{h9}	620	250	810	580	405	230	M20	170
X3KS110	132S	40	90 _{m6}	22	380	170	1700	346	95	25 _{h9}	520	250	810	580	405	230	M24	170
	132M	40	90 _{m6}	22	380	170	1700	346	95	25 _{h9}	520	250	810	580	405	230	M24	170
	160M	40	90 _{m6}	22	380	170	1800	346	95	25 _{h9}	520	250	810	580	405	230	M24	170
	160L	40	90 _{m6}	22	380	170	1800	346	95	25 _{h9}	520	250	810	580	405	230	M24	170
	180M	40	90 _{m6}	22	380	170	1950	346	95	25 _{h9}	520	250	810	580	405	230	M24	170
	180L	40	90 _{m6}	22	380	170	1950	346	95	25 _{h9}	520	250	810	580	405	230	M24	170
	200L	40	90 _{m6}	22	380	170	2000	346	95	25 _{h9}	620	250	810	580	405	230	M24	170
X3KS120	160M	40	100 _{m6}	22	450	210	1900	401	106	28 _{h9}	520	250	810	580	405	250	M24	220
	160L	40	100 _{m6}	22	450	210	1900	401	106	28 _{h9}	520	250	810	580	405	250	M24	220
	180M	40	100 _{m6}	22	450	210	2000	401	106	28 _{h9}	520	250	810	580	405	250	M24	220
	180L	40	100 _{m6}	22	450	210	2000	401	106	28 _{h9}	520	250	810	580	405	250	M24	220
	200L	40	100 _{m6}	22	450	210	2100	401	106	28 _{h9}	620	250	810	580	405	250	M24	220
	225S	40	100 _{m6}	22	450	210	2100	401	106	28 _{h9}	770	250	810	580	405	250	M24	220
	225M	40	100 _{m6}	22	450	210	2100	401	106	28 _{h9}	770	250	810	580	405	250	M24	220
	250M	40	100 _{m6}	22	450	210	2200	401	106	28 _{h9}	770	250	810	580	405	250	M24	220
X3KS130	160M	40	110 _{m6}	22	450	210	1950	404	116	28 _{h9}	520	250	810	580	405	250	M24	220
	160L	40	110 _{m6}	22	450	210	1950	404	116	28 _{h9}	520	250	810	580	405	250	M24	220
	180M	40	110 _{m6}	22	450	210	2050	404	116	28 _{h9}	520	250	810	580	405	250	M24	220
	180L	40	110 _{m6}	22	450	210	2050	404	116	28 _{h9}	520	250	810	580	405	250	M24	220
	200L	40	110 _{m6}	22	450	210	2100	404	116	28 _{h9}	620	250	810	580	405	250	M24	220
	225S	40	110 _{m6}	22	450	210	2150	404	116	28 _{h9}	770	250	810	580	405	250	M24	220
	225M	40	110 _{m6}	22	450	210	2150	404	116	28 _{h9}	770	250	810	580	405	250	M24	220
	250M	40	110 _{m6}	22	450	210	2250	404	116	28 _{h9}	770	250	810	580	405	250	M24	220
X3KS140	180M	40	120 _{m6}	22	540	210	2350	432	127	32 _{h9}	520	300	1140	810	570	300	M24	330
	180L	40	120 _{m6}	22	540	210	2350	432	127	32 _{h9}	520	300	1140	810	570	300	M24	330
	200L	40	120 _{m6}	22	540	210	2400	432	127	32 _{h9}	620	300	1140	810	570	300	M24	330
	225S	40	120 _{m6}	22	540	210	2450	432	127	32 _{h9}	770	300	1140	810	570	300	M24	330
	225M	40	120 _{m6}	22	540	210	2450	432	127	32 _{h9}	770	300	1140	810	570	300	M24	330
	250M	40	120 _{m6}	22	540	210	2550	432	127	32 _{h9}	770	300	1140	810	570	300	M24	330
	280S	40	120 _{m6}	22	540	210	2650	432	127	32 _{h9}	870	300	1140	810	570	300	M24	330
	280M	40	120 _{m6}	22	540	210	2650	432	127	32 _{h9}	870	300	1140	810	570	300	M24	330
X3KS150	180M	40	130 _{m6}	22	540	250	2400	475	137	32 _{h9}	520	300	1140	810	570	300	M24	330
	180L	40	130 _{m6}	22	540	250	2400	475	137	32 _{h9}	520	300	1140	810	570	300	M24	330
	200L	40	130 _{m6}	22	540	250	2500	475	137	32 _{h9}	620	300	1140	810	570	300	M24	330
	225S	40	130 _{m6}	22	540	250	2500	475	137	32 _{h9}	770	300	1140	810	570	300	M24	330
	225M	40	130 _{m6}	22	540	250	2600	475	137	32 _{h9}	770	300	1140	810	570	300	M24	330
	250M	40	130 _{m6}	22	540	250	2600	475	137	32 _{h9}	770	300	1140	810	570	300	M24	330
	280S	40	130 _{m6}	22	540	250	2700	475	137	32 _{h9}	870	300	1140	810	570	300	M24	330
	280M	40	130 _{m6}	22	540	250	2700	475	137	32 _{h9}	870	300	1140	810	570	300	M24	330
X3KS160	200L	40	140 _{m6}	22	630	250	2550	506	148	36 _{h9}	620	350	1140	860	570	350	M30	350
	225S	40	140 _{m6}	22	630	250	2600	506	148	36 _{h9}	770	350	1140	860	570	350	M30	350
	225M	40	140 _{m6}	22	630	250	2600	506	148	36 _{h9}	770	350	1140	860	570	350	M30	350
	250M	40	140 _{m6}	22	630	250	2700	506	148	36 _{h9}	770	350	1140	860	570	350	M30	350
	280S	40	140 _{m6}	22	630	250	2800	506	148	36 _{h9}	870	350	1140	860	570	350	M30	350
	280M	40	140 _{m6}	22	630	250	2800	506	148	36 _{h9}	870	350	1140	860	570	350	M30	350
	315S	40	140 _{m6}	22	630	250	2900	506	148	36 _{h9}	870	350	1140	860	570	350	M30	350
	315M	40	140 _{m6}	22	630	250	2900	506	148	36 _{h9}	870	350	1140	860	570	350	M30	350
	315L	40	140 _{m6}	22	630	250	3000	506	148	36 _{h9}	870	350	1140	860	570	350	M30	350

13

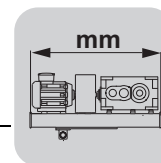




Drive Packages on a Steel Frame

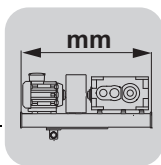
X3K.. Base frame with elastic coupling and drum brake [mm]

X3KS..	Motor	B12	ø D	ø D12	HMS	L	LMS	OS	T	U	W5	VS4	VS5	VS6	VS7	VS8	DIN 332 D.M..	kg
X3KS170	200L	40	160 _{m6}	22	630	300	2600	556	169	40 _{h9}	620	350	1140	860	570	350	M30	350
	225S	40	160 _{m6}	22	630	300	2650	556	169	40 _{h9}	770	350	1140	860	570	350	M30	350
	225M	40	160 _{m6}	22	630	300	2650	556	169	40 _{h9}	770	350	1140	860	570	350	M30	350
	250M	40	160 _{m6}	22	630	300	2750	556	169	40 _{h9}	770	350	1140	860	570	350	M30	350
	280S	40	160 _{m6}	22	630	300	2850	556	169	40 _{h9}	870	350	1140	860	570	350	M30	350
	280M	40	160 _{m6}	22	630	300	2850	556	169	40 _{h9}	870	350	1140	860	570	350	M30	350
	315S	40	160 _{m6}	22	630	300	2950	556	169	40 _{h9}	870	350	1140	860	570	350	M30	350
	315M	40	160 _{m6}	22	630	300	2950	556	169	40 _{h9}	870	350	1140	860	570	350	M30	350
	315L	40	160 _{m6}	22	630	300	3050	556	169	40 _{h9}	870	350	1140	860	570	350	M30	350
X3KS180	250M	40	170 _{m6}	22	740	300	2750	592	179	40 _{h9}	770	450	1180	1015	590	450	M30	450
	280S	40	170 _{m6}	22	740	300	2850	592	179	40 _{h9}	770	450	1180	1015	590	450	M30	450
	280M	40	170 _{m6}	22	740	300	2850	592	179	40 _{h9}	770	450	1180	1015	590	450	M30	450
	315S	40	170 _{m6}	22	740	300	2950	592	179	40 _{h9}	770	450	1180	1015	590	450	M30	450
	315M	40	170 _{m6}	22	740	300	2950	592	179	40 _{h9}	770	450	1180	1015	590	450	M30	450
	315L	40	170 _{m6}	22	740	300	3050	592	179	40 _{h9}	870	450	1180	1015	590	450	M30	450
	315ML	40	170 _{m6}	22	740	300	3150	592	179	40 _{h9}	870	450	1180	1015	590	450	M30	450
	315	40	170 _{m6}	22	740	300	3350	592	179	40 _{h9}	870	450	1180	1015	590	450	M30	450
	355S	40	170 _{m6}	22	740	300	3600	592	179	40 _{h9}	870	450	1180	1015	590	450	M30	450
X3KS190	250M	40	170 _{m6}	22	740	300	2800	592	179	40 _{h9}	770	450	1180	1015	590	450	M30	450
	280S	40	170 _{m6}	22	740	300	2900	592	179	40 _{h9}	770	450	1180	1015	590	450	M30	450
	280M	40	170 _{m6}	22	740	300	2900	592	179	40 _{h9}	770	450	1180	1015	590	450	M30	450
	315S	40	170 _{m6}	22	740	300	3000	592	179	40 _{h9}	770	450	1180	1015	590	450	M30	450
	315M	40	170 _{m6}	22	740	300	3000	592	179	40 _{h9}	770	450	1180	1015	590	450	M30	450
	315L	40	170 _{m6}	22	740	300	3100	592	179	40 _{h9}	870	450	1180	1015	590	450	M30	450
	315ML	40	170 _{m6}	22	740	300	3200	592	179	40 _{h9}	870	450	1180	1015	590	450	M30	450
	315	40	170 _{m6}	22	740	300	3400	592	179	40 _{h9}	870	450	1180	1015	590	450	M30	450
	355S	40	170 _{m6}	22	740	300	3650	592	179	40 _{h9}	870	450	1180	1015	590	450	M30	450
X3KS200	250M	40	180 _{m6}	22	870	300	2950	612	190	45 _{h9}	770	500	1230	1200	615	450	M30	980
	280S	40	180 _{m6}	22	870	300	3050	612	190	45 _{h9}	770	500	1230	1200	615	450	M30	980
	280M	40	180 _{m6}	22	870	300	3050	612	190	45 _{h9}	770	500	1230	1200	615	450	M30	980
	315S	40	180 _{m6}	22	870	300	3050	612	190	45 _{h9}	770	500	1230	1200	615	450	M30	980
	315M	40	180 _{m6}	22	870	300	3150	612	190	45 _{h9}	770	500	1230	1200	615	450	M30	980
	315L	40	180 _{m6}	22	870	300	3250	612	190	45 _{h9}	870	500	1230	1200	615	450	M30	980
	315ML	40	180 _{m6}	22	870	300	3350	612	190	45 _{h9}	870	500	1230	1200	615	450	M30	980
	315	40	180 _{m6}	22	870	300	3550	612	190	45 _{h9}	870	500	1230	1200	615	450	M30	980
	355S	40	180 _{m6}	22	870	300	3800	612	190	45 _{h9}	870	500	1230	1200	615	450	M30	980
X3KS210	280S	40	190 _{m6}	22	870	350	3100	662	200	45 _{h9}	770	500	1230	1200	615	450	M30	980
	280M	40	190 _{m6}	22	870	350	3100	662	200	45 _{h9}	770	500	1230	1200	615	450	M30	980
	315S	40	190 _{m6}	22	870	350	3200	662	200	45 _{h9}	770	500	1230	1200	615	450	M30	980
	315M	40	190 _{m6}	22	870	350	3200	662	200	45 _{h9}	770	500	1230	1200	615	450	M30	980
	315L	40	190 _{m6}	22	870	350	3300	662	200	45 _{h9}	870	500	1230	1200	615	450	M30	980
	315ML	40	190 _{m6}	22	870	350	3400	662	200	45 _{h9}	870	500	1230	1200	615	450	M30	980
	315	40	190 _{m6}	22	870	350	3600	662	200	45 _{h9}	870	500	1230	1200	615	450	M30	980
	355S	40	190 _{m6}	22	870	350	3850	662	200	45 _{h9}	870	500	1230	1200	615	450	M30	980
X3KS220	280S	40	210 _{m6}	22	910	350	3200	703	221	50 _{h9}	770	545	1280	1250	640	450	M30	1050
	280M	40	210 _{m6}	22	910	350	3200	703	221	50 _{h9}	770	545	1280	1250	640	450	M30	1050
	315S	40	210 _{m6}	22	910	350	3300	703	221	50 _{h9}	770	545	1280	1250	640	450	M30	1050
	315M	40	210 _{m6}	22	910	350	3300	703	221	50 _{h9}	770	545	1280	1250	640	450	M30	1050
	315L	40	210 _{m6}	22	910	350	3400	703	221	50 _{h9}	870	545	1280	1250	640	450	M30	1050
	315ML	40	210 _{m6}	22	910	350	3500	703	221	50 _{h9}	870	545	1280	1250	640	450	M30	1050
	315	40	210 _{m6}	22	910	350	3700	703	221	50 _{h9}	870	545	1280	1250	640	450	M30	1050
	355S	40	210 _{m6}	22	910	350	3950	703	221	50 _{h9}	870	545	1280	1250	640	450	M30	1050



X3KS..	Motor	B12	ø D	ø D12	HMS	L	LMS	OS	T	U	W5	VS4	VS5	VS6	VS7	VS8	DIN 332 D.M..	
X3KS230	280S	40	230 _{m6}	22	910	410	3250	763	241	50 _{h9}	770	545	1280	1250	640	450	M36	1050
	280M	40	230 _{m6}	22	910	410	3250	763	241	50 _{h9}	770	545	1280	1250	640	450	M36	1050
	315S	40	230 _{m6}	22	910	410	3350	763	241	50 _{h9}	770	545	1280	1250	640	450	M36	1050
	315M	40	230 _{m6}	22	910	410	3450	763	241	50 _{h9}	770	545	1280	1250	640	450	M36	1050
	315L	40	230 _{m6}	22	910	410	3450	763	241	50 _{h9}	870	545	1280	1250	640	450	M36	1050
	315ML	40	230 _{m6}	22	910	410	3550	763	241	50 _{h9}	870	545	1280	1250	640	450	M36	1050
	315	40	230 _{m6}	22	910	410	3750	763	241	50 _{h9}	870	545	1280	1250	640	450	M36	1050
	355S	40	230 _{m6}	22	910	410	4050	763	241	50 _{h9}	870	545	1280	1250	640	450	M36	1050
X3KS240	315S	45	230 _{m6}	26	965	410	3500	811	241	50 _{h9}	770	575	1350	1250	675	500	M36	1200
	315M	45	230 _{m6}	26	965	410	3500	811	241	50 _{h9}	770	575	1350	1250	675	500	M36	1200
	315L	45	230 _{m6}	26	965	410	3600	811	241	50 _{h9}	870	575	1350	1250	675	500	M36	1200
	315ML	45	230 _{m6}	26	965	410	3700	811	241	50 _{h9}	870	575	1350	1250	675	500	M36	1200
	315	45	230 _{m6}	26	965	410	3900	811	241	50 _{h9}	870	575	1350	1250	675	500	M36	1200
	355S	45	230 _{m6}	26	965	410	4150	811	241	50 _{h9}	870	575	1350	1250	675	500	M36	1200
X3KS250	315S	45	240 _{m6}	26	965	410	3550	811	252	56 _{h9}	770	575	1350	1250	675	500	M36	1200
	315M	45	240 _{m6}	26	965	410	3550	811	252	56 _{h9}	770	575	1350	1250	675	500	M36	1200
	315L	45	240 _{m6}	26	965	410	3650	811	252	56 _{h9}	870	575	1350	1250	675	500	M36	1200
	315ML	45	240 _{m6}	26	965	410	3750	811	252	56 _{h9}	870	575	1350	1250	675	500	M36	1200
	315	45	240 _{m6}	26	965	410	3950	811	252	56 _{h9}	870	575	1350	1250	675	500	M36	1200
	355S	45	240 _{m6}	26	965	410	4200	811	252	56 _{h9}	870	575	1350	1250	675	500	M36	1200





Drive Packages on a Steel Frame

X3K.. Base frame mit hydraulic centrifugal coupling [mm]

13.7 X3K.. Base frame mit hydraulic centrifugal coupling [mm]

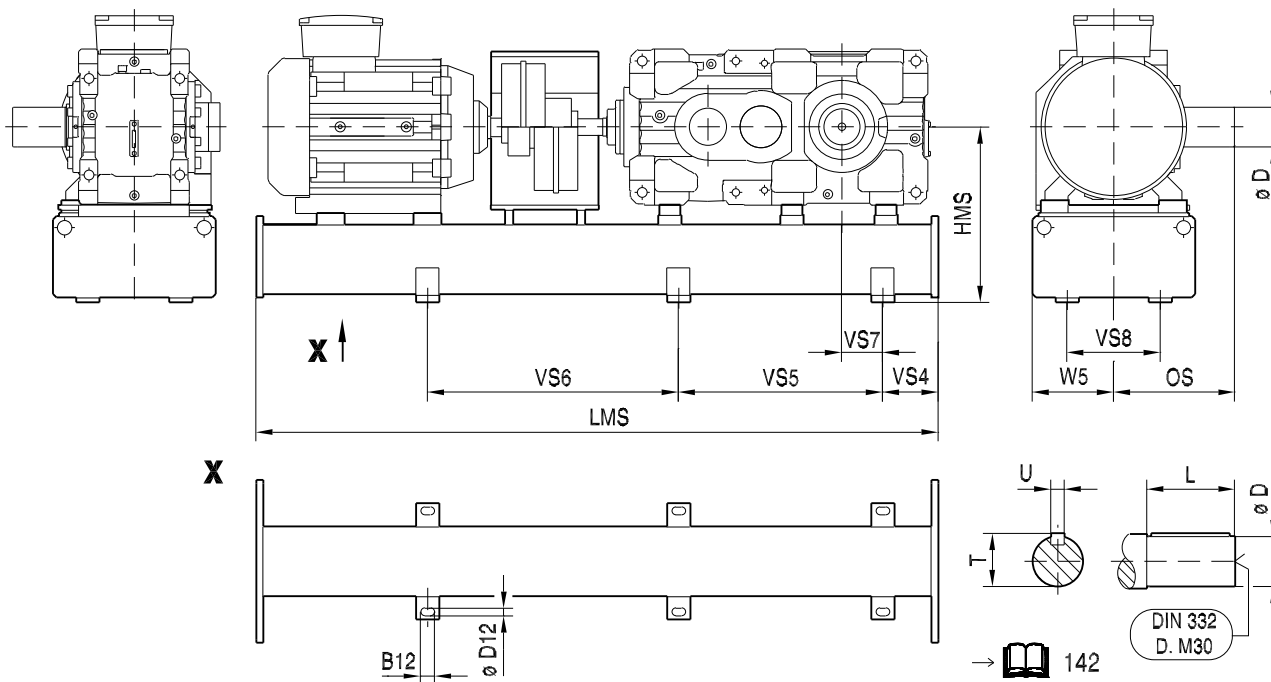
INFORMATION



- The final dimensions are defined by SEW-EURODRIVE depending on the order.
- The weight data in the following tables refer to the steel construction.

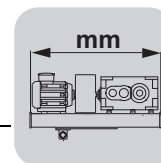
X3KS..

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Drive Packages on a Steel Frame

X3K.. Base frame mit hydraulic centrifugal coupling [mm]

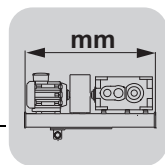


13

X3KS..	Motor	B12	ø D	ø D12	HMS	L	LMS	OS	T	U	W5	VS4	VS5	VS6	VS7	VS8	DIN 332 D.M..	kg
X3KS100	132S	40	80 _{m6}	22	380	170	1850	343	85	22 _{h9}	250	250	810	580	405	230	M20	150
	132M	40	80 _{m6}	22	380	170	1850	343	85	22 _{h9}	250	250	810	580	405	230	M20	150
	160M	40	80 _{m6}	22	380	170	1950	343	85	22 _{h9}	250	250	810	580	405	230	M20	150
	160L	40	80 _{m6}	22	380	170	1950	343	85	22 _{h9}	250	250	810	580	405	230	M20	150
	180M	40	80 _{m6}	22	380	170	2150	343	85	22 _{h9}	250	250	810	580	405	230	M20	150
	180L	40	80 _{m6}	22	380	170	2150	343	85	22 _{h9}	250	250	810	580	405	230	M20	150
	200L	40	80 _{m6}	22	380	170	2200	343	85	22 _{h9}	250	250	810	580	405	230	M20	150
X3KS110	132S	40	90 _{m6}	22	380	170	1850	346	95	25 _{h9}	250	250	810	580	405	230	M24	150
	132M	40	90 _{m6}	22	380	170	1850	346	95	25 _{h9}	250	250	810	580	405	230	M24	150
	160M	40	90 _{m6}	22	380	170	2000	346	95	25 _{h9}	250	250	810	580	405	230	M24	150
	160L	40	90 _{m6}	22	380	170	2000	346	95	25 _{h9}	250	250	810	580	405	230	M24	150
	180M	40	90 _{m6}	22	380	170	2200	346	95	25 _{h9}	250	250	810	580	405	230	M24	150
	180L	40	90 _{m6}	22	380	170	2200	346	95	25 _{h9}	250	250	810	580	405	230	M24	150
	200L	40	90 _{m6}	22	380	170	2200	346	95	25 _{h9}	250	250	810	580	405	230	M24	150
X3KS120	160M	40	100 _{m6}	22	450	210	2100	401	106	28 _{h9}	250	250	810	580	405	250	M24	250
	160L	40	100 _{m6}	22	450	210	2100	401	106	28 _{h9}	250	250	810	580	405	250	M24	250
	180M	40	100 _{m6}	22	450	210	2250	401	106	28 _{h9}	250	250	810	580	405	250	M24	250
	180L	40	100 _{m6}	22	450	210	2250	401	106	28 _{h9}	250	250	810	580	405	250	M24	250
	200L	40	100 _{m6}	22	450	210	2300	401	106	28 _{h9}	250	250	810	580	405	250	M24	250
	225S	40	100 _{m6}	22	450	210	2400	401	106	28 _{h9}	250	250	810	580	405	250	M24	250
	225M	40	100 _{m6}	22	450	210	2400	401	106	28 _{h9}	250	250	810	580	405	250	M24	250
X3KS130	250M	40	100 _{m6}	22	450	210	2500	401	106	28 _{h9}	250	250	810	580	405	250	M24	250
	160M	40	110 _{m6}	22	450	210	2100	404	116	28 _{h9}	300	250	810	580	405	250	M24	250
	160L	40	110 _{m6}	22	450	210	2100	404	116	28 _{h9}	300	250	810	580	405	250	M24	250
	180M	40	110 _{m6}	22	450	210	2300	404	116	28 _{h9}	300	250	810	580	405	250	M24	250
	180L	40	110 _{m6}	22	450	210	2300	404	116	28 _{h9}	300	250	810	580	405	250	M24	250
	200L	40	110 _{m6}	22	450	210	2350	404	116	28 _{h9}	300	250	810	580	405	250	M24	250
	225S	40	110 _{m6}	22	450	210	2400	404	116	28 _{h9}	300	250	810	580	405	250	M24	250
X3KS140	225M	40	110 _{m6}	22	450	210	2400	404	116	28 _{h9}	300	250	810	580	405	250	M24	250
	250M	40	110 _{m6}	22	450	210	2500	404	116	28 _{h9}	300	250	810	580	405	250	M24	250
	180M	40	120 _{m6}	22	540	210	2550	432	127	32 _{h9}	300	300	1140	810	570	300	M24	300
	180L	40	120 _{m6}	22	540	210	2550	432	127	32 _{h9}	300	300	1140	810	570	300	M24	300
	200L	40	120 _{m6}	22	540	210	2600	432	127	32 _{h9}	300	300	1140	810	570	300	M24	300
	225S	40	120 _{m6}	22	540	210	2700	432	127	32 _{h9}	300	300	1140	810	570	300	M24	300
	225M	40	120 _{m6}	22	540	210	2700	432	127	32 _{h9}	300	300	1140	810	570	300	M24	300
X3KS150	250M	40	120 _{m6}	22	540	210	2800	432	127	32 _{h9}	300	300	1140	810	570	300	M24	300
	280S	40	120 _{m6}	22	540	210	3000	432	127	32 _{h9}	300	300	1140	810	570	300	M24	300
	280M	40	120 _{m6}	22	540	210	3000	432	127	32 _{h9}	300	300	1140	810	570	300	M24	300
	180M	40	130 _{m6}	22	540	250	2600	475	137	32 _{h9}	300	300	1140	810	570	300	M24	300
	180L	40	130 _{m6}	22	540	250	2600	475	137	32 _{h9}	300	300	1140	810	570	300	M24	300
	200L	40	130 _{m6}	22	540	250	2650	475	137	32 _{h9}	300	300	1140	810	570	300	M24	300
	225S	40	130 _{m6}	22	540	250	2750	475	137	32 _{h9}	300	300	1140	810	570	300	M24	300
X3KS160	225M	40	130 _{m6}	22	540	250	2750	475	137	32 _{h9}	300	300	1140	810	570	300	M24	300
	250M	40	130 _{m6}	22	540	250	2850	475	137	32 _{h9}	300	300	1140	810	570	300	M24	300
	280S	40	130 _{m6}	22	540	250	3000	475	137	32 _{h9}	300	300	1140	810	570	300	M24	300
	280M	40	130 _{m6}	22	540	250	3000	475	137	32 _{h9}	300	300	1140	810	570	300	M24	300
	200L	40	140 _{m6}	22	630	250	2750	506	148	36 _{h9}	300	350	1140	860	570	350	M30	400
	225S	40	140 _{m6}	22	630	250	2850	506	148	36 _{h9}	300	350	1140	860	570	350	M30	400
	225M	40	140 _{m6}	22	630	250	2850	506	148	36 _{h9}	300	350	1140	860	570	350	M30	400
X3KS160	250M	40	140 _{m6}	22	630	250	2950	506	148	36 _{h9}	300	350	1140	860	570	350	M30	400
	280S	40	140 _{m6}	22	630	250	3100	506	148	36 _{h9}	300	350	1140	860	570	350	M30	400
	280M	40	140 _{m6}	22	630	250	3100	506	148	36 _{h9}	300	350	1140	860	570	350	M30	400
	315S	40	140 _{m6}	22	630	250	3200	506	148	36 _{h9}	300	350	1140	860	570	350	M30	400
	315M	40	140 _{m6}	22	630	250	3200	506	148	36 _{h9}	300	350	1140	860	570	350	M30	400
	315L	40	140 _{m6}	22	630	250	3350	506	148	36 _{h9}	300	350	1140	860	570	350	M30	400

13

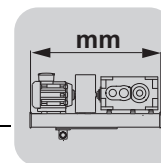




Drive Packages on a Steel Frame

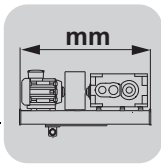
X3K.. Base frame mit hydraulic centrifugal coupling [mm]

X3KS..	Motor	B12	ø D	ø D12	HMS	L	LMS	OS	T	U	W5	VS4	VS5	VS6	VS7	VS8	DIN 332 D.M..	kg
X3KS170	200L	40	160 _{m6}	22	630	300	2800	556	169	40 _{h9}	300	350	1140	860	570	350	M30	400
	225S	40	160 _{m6}	22	630	300	2900	556	169	40 _{h9}	300	350	1140	860	570	350	M30	400
	225M	40	160 _{m6}	22	630	300	2900	556	169	40 _{h9}	300	350	1140	860	570	350	M30	400
	250M	40	160 _{m6}	22	630	300	3000	556	169	40 _{h9}	300	350	1140	860	570	350	M30	400
	280S	40	160 _{m6}	22	630	300	3150	556	169	40 _{h9}	300	350	1140	860	570	350	M30	400
	280M	40	160 _{m6}	22	630	300	3150	556	169	40 _{h9}	300	350	1140	860	570	350	M30	400
	315S	40	160 _{m6}	22	630	300	3250	556	169	40 _{h9}	300	350	1140	860	570	350	M30	400
	315M	40	160 _{m6}	22	630	300	3250	556	169	40 _{h9}	300	350	1140	860	570	350	M30	400
	315L	40	160 _{m6}	22	630	300	3400	556	169	40 _{h9}	300	350	1140	860	570	350	M30	400
X3KS180	250M	40	170 _{m6}	22	740	300	3050	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	400
	280S	40	170 _{m6}	22	740	300	3200	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	400
	280M	40	170 _{m6}	22	740	300	3200	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	400
	315S	40	170 _{m6}	22	740	300	3300	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	400
	315M	40	170 _{m6}	22	740	300	3300	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	400
	315L	40	170 _{m6}	22	740	300	3450	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	400
	315ML	40	170 _{m6}	22	740	300	3550	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	400
	315	40	170 _{m6}	22	740	300	3750	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	400
	355S	40	170 _{m6}	22	740	300	4000	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	400
X3KS190	250M	40	170 _{m6}	22	740	300	3100	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	400
	280S	40	170 _{m6}	22	740	300	3250	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	400
	280M	40	170 _{m6}	22	740	300	3250	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	400
	315S	40	170 _{m6}	22	740	300	3350	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	400
	315M	40	170 _{m6}	22	740	300	3350	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	400
	315L	40	170 _{m6}	22	740	300	3500	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	400
	315ML	40	170 _{m6}	22	740	300	3600	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	400
	315	40	170 _{m6}	22	740	300	3800	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	400
	355S	40	170 _{m6}	22	740	300	4050	592	179	40 _{h9}	350	450	1180	1015	590	450	M30	400
X3KS200	250M	40	180 _{m6}	22	870	300	3250	612	190	45 _{h9}	400	500	1230	1200	615	450	M30	980
	280S	40	180 _{m6}	22	870	300	3400	612	190	45 _{h9}	400	500	1230	1200	615	450	M30	980
	280M	40	180 _{m6}	22	870	300	3400	612	190	45 _{h9}	400	500	1230	1200	615	450	M30	980
	315S	40	180 _{m6}	22	870	300	3500	612	190	45 _{h9}	400	500	1230	1200	615	450	M30	980
	315M	40	180 _{m6}	22	870	300	3500	612	190	45 _{h9}	400	500	1230	1200	615	450	M30	980
	315L	40	180 _{m6}	22	870	300	3650	612	190	45 _{h9}	400	500	1230	1200	615	450	M30	980
	315ML	40	180 _{m6}	22	870	300	3750	612	190	45 _{h9}	400	500	1230	1200	615	450	M30	980
	315	40	180 _{m6}	22	870	300	3650	612	190	45 _{h9}	400	500	1230	1200	615	450	M30	980
	355S	40	180 _{m6}	22	870	300	4200	612	190	45 _{h9}	400	500	1230	1200	615	450	M30	980
X3KS210	280S	40	190 _{m6}	22	870	350	3400	662	200	45 _{h9}	400	500	1230	1200	615	450	M30	980
	280M	40	190 _{m6}	22	870	350	3400	662	200	45 _{h9}	400	500	1230	1200	615	450	M30	980
	315S	40	190 _{m6}	22	870	350	3500	662	200	45 _{h9}	400	500	1230	1200	615	450	M30	980
	315M	40	190 _{m6}	22	870	350	3500	662	200	45 _{h9}	400	500	1230	1200	615	450	M30	980
	315L	40	190 _{m6}	22	870	350	3650	662	200	45 _{h9}	400	500	1230	1200	615	450	M30	980
	315ML	40	190 _{m6}	22	870	350	3750	662	200	45 _{h9}	400	500	1230	1200	615	450	M30	980
	315	40	190 _{m6}	22	870	350	4000	662	200	45 _{h9}	400	500	1230	1200	615	450	M30	980
	355S	40	190 _{m6}	22	870	350	4200	662	200	45 _{h9}	400	500	1230	1200	615	450	M30	980
	315S	40	210 _{m6}	22	910	350	3550	703	221	50 _{h9}	400	545	1280	1250	640	450	M30	1000
X3KS220	280M	40	210 _{m6}	22	910	350	3550	703	221	50 _{h9}	400	545	1280	1250	640	450	M30	1000
	315S	40	210 _{m6}	22	910	350	3650	703	221	50 _{h9}	400	545	1280	1250	640	450	M30	1000
	315M	40	210 _{m6}	22	910	350	3650	703	221	50 _{h9}	400	545	1280	1250	640	450	M30	1000
	315L	40	210 _{m6}	22	910	350	3800	703	221	50 _{h9}	400	545	1280	1250	640	450	M30	1000
	315ML	40	210 _{m6}	22	910	350	3900	703	221	50 _{h9}	400	545	1280	1250	640	450	M30	1000
	315	40	210 _{m6}	22	910	350	4100	703	221	50 _{h9}	400	545	1280	1250	640	450	M30	1000
	355S	40	210 _{m6}	22	910	350	4350	703	221	50 _{h9}	400	545	1280	1250	640	450	M30	1000



X3KS..	Motor	B12	ø D	ø D12	HMS	L	LMS	OS	T	U	W5	VS4	VS5	VS6	VS7	VS8	DIN 332 D.M..	kg
X3KS230	280S	40	230 _{m6}	22	910	410	3600	763	241	50 _{h9}	400	545	1280	1250	640	450	M36	1000
	280M	40	230 _{m6}	22	910	410	3600	763	241	50 _{h9}	400	545	1280	1250	640	450	M36	1000
	315S	40	230 _{m6}	22	910	410	3700	763	241	50 _{h9}	400	545	1280	1250	640	450	M36	1000
	315M	40	230 _{m6}	22	910	410	3700	763	241	50 _{h9}	400	545	1280	1250	640	450	M36	1000
	315L	40	230 _{m6}	22	910	410	3850	763	241	50 _{h9}	400	545	1280	1250	640	450	M36	1000
	315ML	40	230 _{m6}	22	910	410	3950	763	241	50 _{h9}	400	545	1280	1250	640	450	M36	1000
	315	40	230 _{m6}	22	910	410	4150	763	241	50 _{h9}	400	545	1280	1250	640	450	M36	1000
	355S	40	230 _{m6}	22	910	410	4400	763	241	50 _{h9}	400	545	1280	1250	640	450	M36	1000
X3KS240	315S	45	230 _{m6}	26	965	410	3850	811	241	50 _{h9}	400	575	1350	1250	675	500	M36	1100
	315M	45	230 _{m6}	26	965	410	3850	811	241	50 _{h9}	400	575	1350	1250	675	500	M36	1100
	315L	45	230 _{m6}	26	965	410	4000	811	241	50 _{h9}	400	575	1350	1250	675	500	M36	1100
	315ML	45	230 _{m6}	26	965	410	4100	811	241	50 _{h9}	400	575	1350	1250	675	500	M36	1100
	315	45	230 _{m6}	26	965	410	4300	811	241	50 _{h9}	400	575	1350	1250	675	500	M36	1100
	355S	45	230 _{m6}	26	965	410	4550	811	241	50 _{h9}	400	575	1350	1250	675	500	M36	1100
X3KS250	315S	45	240 _{m6}	26	965	410	3900	811	252	56 _{h9}	400	575	1350	1250	675	500	M36	1100
	315M	45	240 _{m6}	26	965	410	3900	811	252	56 _{h9}	400	575	1350	1250	675	500	M36	1100
	315L	45	240 _{m6}	26	965	410	4050	811	252	56 _{h9}	400	575	1350	1250	675	500	M36	1100
	315ML	45	240 _{m6}	26	965	410	4150	811	252	56 _{h9}	400	575	1350	1250	675	500	M36	1100
	315	45	240 _{m6}	26	965	410	4350	811	252	56 _{h9}	400	575	1350	1250	675	500	M36	1100
	355S	45	240 _{m6}	26	965	410	4600	811	252	56 _{h9}	400	575	1350	1250	675	500	M36	1100





Drive Packages on a Steel Frame

X3K.. Base frame with hydraulic centrifugal coupling and drum brake [mm]

13.8 X3K.. Base frame with hydraulic centrifugal coupling and drum brake [mm]

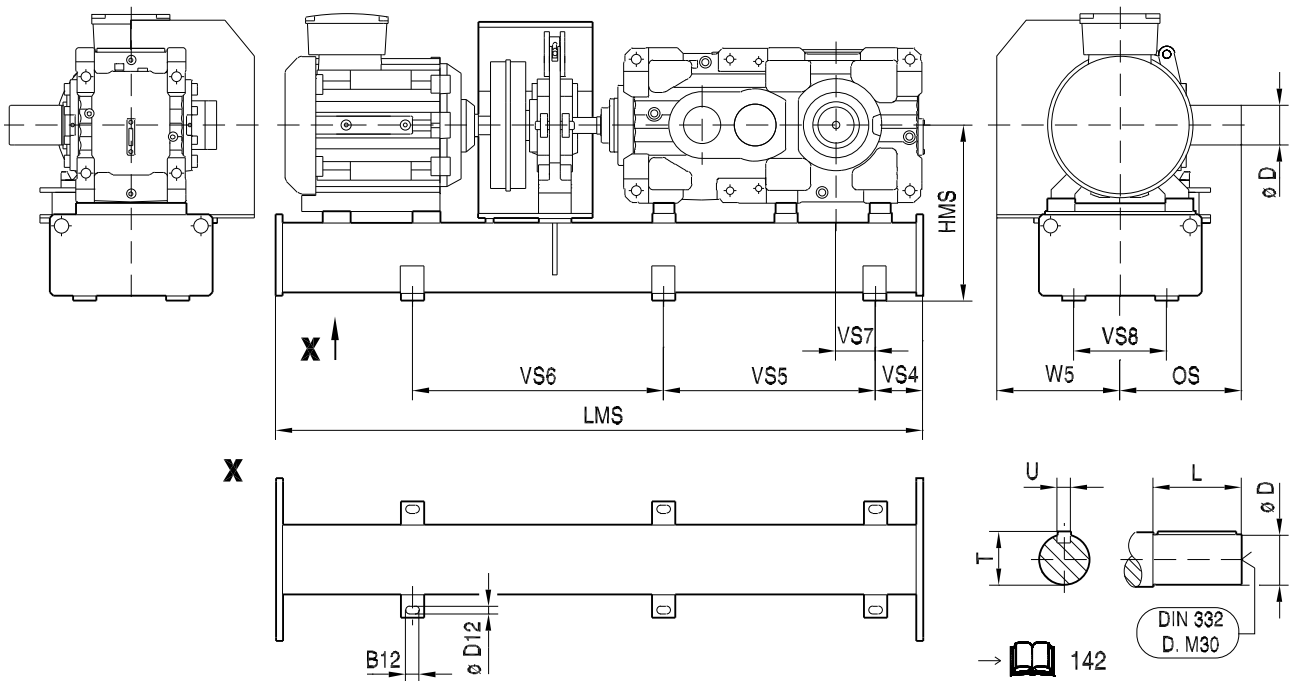
INFORMATION

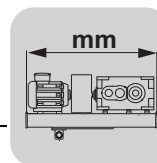


- The final dimensions are defined by SEW-EURODRIVE depending on the order.
- The weight data in the following tables refer to the steel construction.

X3KS..

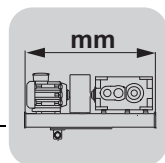
48 022 00 12





X3KS..	Motor	B12	ø D	ø D12	HMS	L	LMS	OS	T	U	W5	VS4	VS5	VS6	VS7	VS8	DIN 332 D.M..	kg
X3KS100	132S	40	80 _{m6}	22	380	170	1900	343	85	22 _{h9}	520	250	810	580	405	230	M20	170
	132M	40	80 _{m6}	22	380	170	1900	343	85	22 _{h9}	520	250	810	580	405	230	M20	170
	160M	40	80 _{m6}	22	380	170	2000	343	85	22 _{h9}	520	250	810	580	405	230	M20	170
	160L	40	80 _{m6}	22	380	170	2000	343	85	22 _{h9}	520	250	810	580	405	230	M20	170
	180M	40	80 _{m6}	22	380	170	2200	343	85	22 _{h9}	520	250	810	580	405	230	M20	170
	180L	40	80 _{m6}	22	380	170	2200	343	85	22 _{h9}	520	250	810	580	405	230	M20	170
	200L	40	80 _{m6}	22	380	170	2250	343	85	22 _{h9}	620	250	810	580	405	230	M20	170
X3KS110	132S	40	90 _{m6}	22	380	170	1900	346	95	25 _{h9}	520	250	810	580	405	230	M24	170
	132M	40	90 _{m6}	22	380	170	1900	346	95	25 _{h9}	520	250	810	580	405	230	M24	170
	160M	40	90 _{m6}	22	380	170	2050	346	95	25 _{h9}	520	250	810	580	405	230	M24	170
	160L	40	90 _{m6}	22	380	170	2050	346	95	25 _{h9}	520	250	810	580	405	230	M24	170
	180M	40	90 _{m6}	22	380	170	2250	346	95	25 _{h9}	520	250	810	580	405	230	M24	170
	180L	40	90 _{m6}	22	380	170	2250	346	95	25 _{h9}	520	250	810	580	405	230	M24	170
	200L	40	90 _{m6}	22	380	170	2250	346	95	25 _{h9}	620	250	810	580	405	230	M24	170
X3KS120	160M	40	100 _{m6}	22	450	210	2150	401	106	28 _{h9}	520	250	810	580	405	250	M24	270
	160L	40	100 _{m6}	22	450	210	2150	401	106	28 _{h9}	520	250	810	580	405	250	M24	270
	180M	40	100 _{m6}	22	450	210	2300	401	106	28 _{h9}	520	250	810	580	405	250	M24	270
	180L	40	100 _{m6}	22	450	210	2300	401	106	28 _{h9}	520	250	810	580	405	250	M24	270
	200L	40	100 _{m6}	22	450	210	2350	401	106	28 _{h9}	620	250	810	580	405	250	M24	270
	225S	40	100 _{m6}	22	450	210	2450	401	106	28 _{h9}	770	250	810	580	405	250	M24	270
	225M	40	100 _{m6}	22	450	210	2450	401	106	28 _{h9}	770	250	810	580	405	250	M24	270
	250M	40	100 _{m6}	22	450	210	2550	401	106	28 _{h9}	770	250	810	580	405	250	M24	270
X3KS130	160M	40	110 _{m6}	22	450	210	2150	404	116	28 _{h9}	520	250	810	580	405	250	M24	270
	160L	40	110 _{m6}	22	450	210	2150	404	116	28 _{h9}	520	250	810	580	405	250	M24	270
	180M	40	110 _{m6}	22	450	210	2350	404	116	28 _{h9}	520	250	810	580	405	250	M24	270
	180L	40	110 _{m6}	22	450	210	2350	404	116	28 _{h9}	520	250	810	580	405	250	M24	270
	200L	40	110 _{m6}	22	450	210	2400	404	116	28 _{h9}	620	250	810	580	405	250	M24	270
	225S	40	110 _{m6}	22	450	210	2450	404	116	28 _{h9}	770	250	810	580	405	250	M24	270
	225M	40	110 _{m6}	22	450	210	2450	404	116	28 _{h9}	770	250	810	580	405	250	M24	270
X3KS140	180M	40	120 _{m6}	22	540	210	2600	432	127	32 _{h9}	520	300	1140	810	570	300	M24	330
	180L	40	120 _{m6}	22	540	210	2600	432	127	32 _{h9}	520	300	1140	810	570	300	M24	330
	200L	40	120 _{m6}	22	540	210	2650	432	127	32 _{h9}	620	300	1140	810	570	300	M24	330
	225S	40	120 _{m6}	22	540	210	2750	432	127	32 _{h9}	770	300	1140	810	570	300	M24	330
	225M	40	120 _{m6}	22	540	210	2750	432	127	32 _{h9}	770	300	1140	810	570	300	M24	330
	250M	40	120 _{m6}	22	540	210	2850	432	127	32 _{h9}	770	300	1140	810	570	300	M24	330
	280S	40	120 _{m6}	22	540	210	3050	432	127	32 _{h9}	870	300	1140	810	570	300	M24	330
	280M	40	120 _{m6}	22	540	210	3050	432	127	32 _{h9}	870	300	1140	810	570	300	M24	330
X3KS150	180M	40	130 _{m6}	22	540	250	2650	475	137	32 _{h9}	520	300	1140	810	570	300	M24	330
	180L	40	130 _{m6}	22	540	250	2650	475	137	32 _{h9}	520	300	1140	810	570	300	M24	330
	200L	40	130 _{m6}	22	540	250	2700	475	137	32 _{h9}	620	300	1140	810	570	300	M24	330
	225S	40	130 _{m6}	22	540	250	2800	475	137	32 _{h9}	770	300	1140	810	570	300	M24	330
	225M	40	130 _{m6}	22	540	250	2800	475	137	32 _{h9}	770	300	1140	810	570	300	M24	330
	250M	40	130 _{m6}	22	540	250	2900	475	137	32 _{h9}	770	300	1140	810	570	300	M24	330
	280S	40	130 _{m6}	22	540	250	3050	475	137	32 _{h9}	870	300	1140	810	570	300	M24	330
	280M	40	130 _{m6}	22	540	250	3050	475	137	32 _{h9}	870	300	1140	810	570	300	M24	330
X3KS160	200L	40	140 _{m6}	22	630	250	2800	506	148	36 _{h9}	620	350	1140	860	570	350	M30	450
	225S	40	140 _{m6}	22	630	250	2900	506	148	36 _{h9}	770	350	1140	860	570	350	M30	450
	225M	40	140 _{m6}	22	630	250	2900	506	148	36 _{h9}	770	350	1140	860	570	350	M30	450
	250M	40	140 _{m6}	22	630	250	3000	506	148	36 _{h9}	770	350	1140	860	570	350	M30	450
	280S	40	140 _{m6}	22	630	250	3150	506	148	36 _{h9}	870	350	1140	860	570	350	M30	450
	280M	40	140 _{m6}	22	630	250	3150	506	148	36 _{h9}	870	350	1140	860	570	350	M30	450
	315S	40	140 _{m6}	22	630	250	3250	506	148	36 _{h9}	870	350	1140	860	570	350	M30	450
	315M	40	140 _{m6}	22	630	250	3250	506	148	36 _{h9}	870	350	1140	860	570	350	M30	450
	315L	40	140 _{m6}	22	630	250	3400	506	148	36 _{h9}	870	350	1140	860	570	350	M30	450

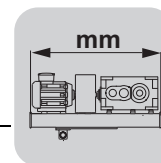




Drive Packages on a Steel Frame

X3K.. Base frame with hydraulic centrifugal coupling and drum brake [mm]

X3KS..	Motor	B12	ø D	ø D12	HMS	L	LMS	OS	T	U	W5	VS4	VS5	VS6	VS7	VS8	DIN 332 D.M..	kg
X3KS170	200L	40	160 _{m6}	22	630	300	2850	556	169	40 _{h9}	620	350	1140	860	570	350	M30	450
	225S	40	160 _{m6}	22	630	300	2950	556	169	40 _{h9}	770	350	1140	860	570	350	M30	450
	225M	40	160 _{m6}	22	630	300	2950	556	169	40 _{h9}	770	350	1140	860	570	350	M30	450
	250M	40	160 _{m6}	22	630	300	3050	556	169	40 _{h9}	770	350	1140	860	570	350	M30	450
	280S	40	160 _{m6}	22	630	300	3200	556	169	40 _{h9}	870	350	1140	860	570	350	M30	450
	280M	40	160 _{m6}	22	630	300	3200	556	169	40 _{h9}	870	350	1140	860	570	350	M30	450
	315S	40	160 _{m6}	22	630	300	3300	556	169	40 _{h9}	870	350	1140	860	570	350	M30	450
	315M	40	160 _{m6}	22	630	300	3300	556	169	40 _{h9}	870	350	1140	860	570	350	M30	450
	315L	40	160 _{m6}	22	630	300	3450	556	169	40 _{h9}	870	350	1140	860	570	350	M30	450
X3KS180	250M	40	170 _{m6}	22	740	300	3100	592	179	40 _{h9}	770	450	1180	1015	590	450	M30	450
	280S	40	170 _{m6}	22	740	300	3250	592	179	40 _{h9}	770	450	1180	1015	590	450	M30	450
	280M	40	170 _{m6}	22	740	300	3250	592	179	40 _{h9}	770	450	1180	1015	590	450	M30	450
	315S	40	170 _{m6}	22	740	300	3350	592	179	40 _{h9}	770	450	1180	1015	590	450	M30	450
	315M	40	170 _{m6}	22	740	300	3350	592	179	40 _{h9}	770	450	1180	1015	590	450	M30	450
	315L	40	170 _{m6}	22	740	300	3500	592	179	40 _{h9}	870	450	1180	1015	590	450	M30	450
	315ML	40	170 _{m6}	22	740	300	3600	592	179	40 _{h9}	870	450	1180	1015	590	450	M30	450
	315	40	170 _{m6}	22	740	300	3800	592	179	40 _{h9}	870	450	1180	1015	590	450	M30	450
	355S	40	170 _{m6}	22	740	300	4050	592	179	40 _{h9}	870	450	1180	1015	590	450	M30	450
X3KS190	250M	40	170 _{m6}	22	740	300	3150	592	179	40 _{h9}	770	450	1180	1015	590	450	M30	450
	280S	40	170 _{m6}	22	740	300	3300	592	179	40 _{h9}	770	450	1180	1015	590	450	M30	450
	280M	40	170 _{m6}	22	740	300	3300	592	179	40 _{h9}	770	450	1180	1015	590	450	M30	450
	315S	40	170 _{m6}	22	740	300	3400	592	179	40 _{h9}	770	450	1180	1015	590	450	M30	450
	315M	40	170 _{m6}	22	740	300	3400	592	179	40 _{h9}	770	450	1180	1015	590	450	M30	450
	315L	40	170 _{m6}	22	740	300	3550	592	179	40 _{h9}	870	450	1180	1015	590	450	M30	450
	315ML	40	170 _{m6}	22	740	300	3650	592	179	40 _{h9}	870	450	1180	1015	590	450	M30	450
	315	40	170 _{m6}	22	740	300	3850	592	179	40 _{h9}	870	450	1180	1015	590	450	M30	450
	355S	40	170 _{m6}	22	740	300	4100	592	179	40 _{h9}	870	450	1180	1015	590	450	M30	450
X3KS200	250M	40	180 _{m6}	22	870	300	3300	612	190	45 _{h9}	770	500	1230	1200	615	450	M30	1000
	280S	40	180 _{m6}	22	870	300	3450	612	190	45 _{h9}	770	500	1230	1200	615	450	M30	1000
	280M	40	180 _{m6}	22	870	300	3450	612	190	45 _{h9}	770	500	1230	1200	615	450	M30	1000
	315S	40	180 _{m6}	22	870	300	3550	612	190	45 _{h9}	770	500	1230	1200	615	450	M30	1000
	315M	40	180 _{m6}	22	870	300	3550	612	190	45 _{h9}	770	500	1230	1200	615	450	M30	1000
	315L	40	180 _{m6}	22	870	300	3700	612	190	45 _{h9}	870	500	1230	1200	615	450	M30	1000
	315ML	40	180 _{m6}	22	870	300	3800	612	190	45 _{h9}	870	500	1230	1200	615	450	M30	1000
	315	40	180 _{m6}	22	870	300	4000	612	190	45 _{h9}	870	500	1230	1200	615	450	M30	1000
	355S	40	180 _{m6}	22	870	300	4250	612	190	45 _{h9}	870	500	1230	1200	615	450	M30	1000
X3KS210	280S	40	190 _{m6}	22	870	350	3450	662	200	45 _{h9}	770	500	1230	1200	615	450	M30	1000
	280M	40	190 _{m6}	22	870	350	3450	662	200	45 _{h9}	770	500	1230	1200	615	450	M30	1000
	315S	40	190 _{m6}	22	870	350	3550	662	200	45 _{h9}	770	500	1230	1200	615	450	M30	1000
	315M	40	190 _{m6}	22	870	350	3550	662	200	45 _{h9}	770	500	1230	1200	615	450	M30	1000
	315L	40	190 _{m6}	22	870	350	3700	662	200	45 _{h9}	870	500	1230	1200	615	450	M30	1000
	315ML	40	190 _{m6}	22	870	350	3800	662	200	45 _{h9}	870	500	1230	1200	615	450	M30	1000
	315	40	190 _{m6}	22	870	350	4050	662	200	45 _{h9}	870	500	1230	1200	615	450	M30	1000
	355S	40	190 _{m6}	22	870	350	4250	662	200	45 _{h9}	870	500	1230	1200	615	450	M30	1000
	355S	40	190 _{m6}	22	870	350	4250	662	200	45 _{h9}	870	500	1230	1200	615	450	M30	1000
X3KS220	280S	40	210 _{m6}	22	910	350	3600	703	221	50 _{h9}	770	545	1280	1250	640	450	M30	1050
	280M	40	210 _{m6}	22	910	350	3600	703	221	50 _{h9}	770	545	1280	1250	640	450	M30	1050
	315S	40	210 _{m6}	22	910	350	3700	703	221	50 _{h9}	770	545	1280	1250	640	450	M30	1050
	315M	40	210 _{m6}	22	910	350	3700	703	221	50 _{h9}	770	545	1280	1250	640	450	M30	1050
	315L	40	210 _{m6}	22	910	350	3850	703	221	50 _{h9}	870	545	1280	1250	640	450	M30	1050
	315ML	40	210 _{m6}	22	910	350	3950	703	221	50 _{h9}	870	545	1280	1250	640	450	M30	1050
	315	40	210 _{m6}	22	910	350	4150	703	221	50 _{h9}	870	545	1280	1250	640	450	M30	1050
	355S	40	210 _{m6}	22	910	350	4400	703	221	50 _{h9}	870	545	1280	1250	640	450	M30	1050



X3KS..	Motor	B12	ø D	ø D12	HMS	L	LMS	OS	T	U	W5	VS4	VS5	VS6	VS7	VS8	DIN 332 D.M..	kg
X3KS230	280S	40	230 _{m6}	22	910	410	3650	763	241	50 _{h9}	770	545	1280	1250	640	450	M36	1050
	280M	40	230 _{m6}	22	910	410	3650	763	241	50 _{h9}	770	545	1280	1250	640	450	M36	1050
	315S	40	230 _{m6}	22	910	410	3750	763	241	50 _{h9}	770	545	1280	1250	640	450	M36	1050
	315M	40	230 _{m6}	22	910	410	3750	763	241	50 _{h9}	770	545	1280	1250	640	450	M36	1050
	315L	40	230 _{m6}	22	910	410	3900	763	241	50 _{h9}	870	545	1280	1250	640	450	M36	1050
	315ML	40	230 _{m6}	22	910	410	4000	763	241	50 _{h9}	870	545	1280	1250	640	450	M36	1050
	315	40	230 _{m6}	22	910	410	4200	763	241	50 _{h9}	870	545	1280	1250	640	450	M36	1050
	355S	40	230 _{m6}	22	910	410	4450	763	241	50 _{h9}	870	545	1280	1250	640	450	M36	1050
X3KS240	315S	45	230 _{m6}	26	965	410	3900	811	241	50 _{h9}	770	575	1350	1250	675	500	M36	1200
	315M	45	230 _{m6}	26	965	410	3900	811	241	50 _{h9}	770	575	1350	1250	675	500	M36	1200
	315L	45	230 _{m6}	26	965	410	4050	811	241	50 _{h9}	870	575	1350	1250	675	500	M36	1200
	315ML	45	230 _{m6}	26	965	410	4150	811	241	50 _{h9}	870	575	1350	1250	675	500	M36	1200
	315	45	230 _{m6}	26	965	410	4350	811	241	50 _{h9}	870	575	1350	1250	675	500	M36	1200
	355S	45	230 _{m6}	26	965	410	4600	811	241	50 _{h9}	870	575	1350	1250	675	500	M36	1200
X3KS250	315S	45	240 _{m6}	26	965	410	3950	811	252	56 _{h9}	770	575	1350	1250	675	500	M36	1200
	315M	45	240 _{m6}	26	965	410	3950	811	252	56 _{h9}	770	575	1350	1250	675	500	M36	1200
	315L	45	240 _{m6}	26	965	410	4100	811	252	56 _{h9}	870	575	1350	1250	675	500	M36	1200
	315ML	45	240 _{m6}	26	965	410	4200	811	252	56 _{h9}	870	575	1350	1250	675	500	M36	1200
	315	45	240 _{m6}	26	965	410	4400	811	252	56 _{h9}	870	575	1350	1250	675	500	M36	1200
	355S	45	240 _{m6}	26	965	410	4650	811	252	56 _{h9}	870	575	1350	1250	675	500	M36	1200





14 Address Directory

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	East	SEW-EURODRIVE GmbH & Co KG Dänkritzer Weg 1 D-08393 Meerane (near Zwickau)	Tel. +49 3764 7606-0 Fax +49 3764 7606-30 sc-ost@sew-eurodrive.de
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	Drive Service Hotline / 24 Hour Service		+49 180 5 SEWHELP +49 180 5 7394357 14 euro cents/min on the German landline network. Max 42 euro cents/ min from a German mobile network. Prices for mobile and international calls may differ.
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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
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Pays de la Loire	SEW-USOCOME Parc d'activités de la forêt 4 rue des Fontenelles F-44140 Le Bignon	Tel. +33 2 40 78 42 03 Fax +33 2 40 78 42 20	
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	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



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Bangladesh			
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Belarus			
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Belgium			
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Service Competence Center	Industrial Gears	SEW-EURODRIVE n.v./s.a. Rue de Parc Industriel, 31 BE-6900 Marche-en-Famenne	Tel. +32 84 219-878 Fax +32 84 219-879 http://www.sew-eurodrive.be service-wallonie@sew-eurodrive.be
Brazil			
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	Vancouver	SEW-EURODRIVE CO. OF CANADA LTD. Tilbury Industrial Park 7188 Honeyman Street Delta, BC V4G 1G1	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 Lasalle, PQ H8N 2V9	Tel. +1 514 367-1124 Fax +1 514 367-3677 a.peluso@sew-eurodrive.ca
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	Ostrava	SEW-EURODRIVE CZ s.r.o. Studentská 6202/17 708 00 Ostrava-Poruba	Tel. +420 597 329 044 jan.kurs@sew-eurodrive.cz
	Klatovy	SEW-EURODRIVE CZ s.r.o. Videňská 841 33901 Klatovy	Tel. +420 376 331 634 Fax +420 376 331 634 viktor.kubernat@sew-eurodrive.cz
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Estonia			
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Gabon			
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Great Britain			
Assembly Sales Service	Normanton	SEW-EURODRIVE Ltd. Beckbridge Industrial Estate 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
		Drive Service Hotline / 24 Hour Service	Tel. 01924 896911
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Greece			
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Iceland			
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India			
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		PT. Agrindo Putra Lestari Jl.Prof.DR.Latumenten no27/A Jakarta 11330	Tel: +62 21 63855588 Fax: +62 21 63853789 aplindo@indosat.net.id
		PT. Sentrateg Adiprestasi Jl. Industri Raya I, Komp. Gunung Sahari 8 Block B-3 Gunung Sahari Utara, Sawah B Jakarta 10720	Tel: +62 21 6398122 Fax: +62 21 6499264 adm_samit@yahoo.co.id roberto_samit@yahoo.co.id
	Medan	PT. Serumpun Indah Lestari Pulau Solor no. 8, Kawasan Industri Medan II Medan 20252	Tel. +62 61 687 1221 Fax +62 61 6871429 / +62 61 6871458 / +62 61 30008041 sil@serumpunindah.com serumpunindah@yahoo.com
	Surabaya	PT. TRIAGRI JAYA ABADI Jl. Sukosemolo No. 63, Galaxi Bumi Permai G6 No. 11 Surabaya 60122	Tel: +62 31 5990128 Fax: +62 31 5962666 triagri@indosat.net.id
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Israel			
Sales	Tel-Aviv	Liraz Handasa Ltd. Ahofer Str 34B / 228 58858 Holon	Tel. +972 3 5599511 Fax +972 3 5599512 http://www.liraz-handasa.co.il office@liraz-handasa.co.il
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Sales	Almaty	TOO "СЕВ-ЕВРОДРАЙВ" пр.Райымбека, 348 050061 г. Алматы Республика Казахстан	Тел. +7 (727) 334 1880 Факс +7 (727) 334 1881 http://www.sew-eurodrive.kz sew@sew-eurodrive.kz
Latvia			
Sales	Riga	SIA Alas-Kuul Katlakalna 11C LV-1073 Riga	Tel. +371 6 7139253 Fax +371 6 7139386 http://www.alas-kuul.com info@alas-kuul.com
Lebanon			
Sales Lebanon	Beirut	Gabriel Acar & Fils sarl B. P. 80484 Bourj Hammoud, Beirut	Tel. +961 1 510 532 Fax +961 1 494 971 ssacar@inco.com.lb
Sales Jordan / Kuwait / Saudi Arabia / Syria	Beirut	Middle East Drives S.A.L. (offshore) Sin El Fil. B. P. 55-378 Beirut	Tel. +961 1 494 786 Fax +961 1 494 971 info@medrives.com http://www.medrives.com
Lithuania			
Sales	Alytus	UAB Irseva Statybininku 106C LT-63431 Alytus	Tel. +370 315 79204 Fax +370 315 56175 irmantas@irseva.lt http://www.sew-eurodrive.lt



Luxembourg			
Assembly Sales Service	Brussels	SEW-EURODRIVE n.v./s.a. Researchpark Haasrode 1060 Evenementenlaan 7 BE-3001 Leuven	Tel. +32 16 386-311 Fax +32 16 386-336 http://www.sew-eurodrive.lu info@sew-eurodrive.be
Macedonia			
Sales	Skopje	Boznos DOOEL Dime Anicin 2A/7A 1000 Skopje	Tel. +389 23256553 Fax +389 23256554 http://www.boznos.mk
Malaysia			
Assembly Sales Service	Johor	SEW-EURODRIVE SDN BHD No. 95, Jalan Seroja 39, Taman Johor Jaya 81000 Johor Bahru, Johor West Malaysia	Tel. +60 7 3549409 Fax +60 7 3541404 sales@sew-eurodrive.com.my
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 sewsa@sew-eurodrive.com.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 sewpg@sew-eurodrive.com.my
Mauritania			
Sales	Zouérat	AFRICOM - SARL En Face Marché Dumez P.B. 88 Zouérate	Tel. +222 45 44 50 19 Fax +222 45 44 03 14 contact@africom-sarl.com
Mexico			
Assembly Sales Service	Quéretaro	SEW-EURODRIVE MEXICO SA DE CV SEM-981118-M93 Tequisquiapan No. 102 Parque Industrial Quéretaro C.P. 76220 Quéretaro, México	Tel. +52 442 1030-300 Fax +52 442 1030-301 http://www.sew-eurodrive.com.mx scmexico@seweurodrive.com.mx
Morocco			
Sales Service	Mohammedia	SEW EURODRIVE SARL Z.I. Sud Ouest - Lot 28 2ème étage Mohammedia 28810	Tel. +212 523 32 27 80/81 Fax +212 523 32 27 89 sew@sew-eurodrive.ma http://www.sew-eurodrive.ma





Netherlands			
Assembly Sales Service	Rotterdam	SEW-EURODRIVE B.V. Industrieweg 175 NL-3044 AS Rotterdam Postbus 10085 NL-3004 AB Rotterdam	Tel. +31 10 4463-700 Fax +31 10 4155-552 Service: 0800-SEWHELP http://www.sew-eurodrive.nl info@sew-eurodrive.nl
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 http://www.sew-eurodrive.co.nz sales@sew-eurodrive.co.nz
	Christchurch	SEW-EURODRIVE NEW ZEALAND LTD. 10 Settlers Crescent, Ferryroad Christchurch	Tel. +64 3 384-6251 Fax +64 3 384-6455 sales@sew-eurodrive.co.nz
Technical Offices	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 24 10 20 Fax +47 69 24 10 40 http://www.sew-eurodrive.no sew@sew-eurodrive.no
Pakistan			
Sales	Karachi	Industrial Power Drives Al-Fatah Chamber A/3, 1st Floor Central Commercial Area, Sultan Ahmed Shah Road, Block 7/8, Karachi	Tel. +92 21 452 9369 Fax +92-21-454 7365 seweurodrive@cyber.net.pk
Peru			
Assembly Sales Service	Lima	SEW DEL PERU MOTORES REDUCTORES S.A.C. Los Calderos, 120-124 Urbanizacion Industrial Vulcano, ATE, Lima	Tel. +51 1 3495280 Fax +51 1 3493002 http://www.sew-eurodrive.com.pe sewperu@sew-eurodrive.com.pe
Philippines			
Sales	Luzon	Totaltech Corporation 5081-B C&L Mansion Filmore Ave. Cor. Fahrenheit St. 1235 Makati City	Tel: +63 2 551-9265 / +63 2 551-9271 / +63 2 551-9378 Fax: +63 2 551-9273 totaltek@info.com.ph
	All Areas	P.T. Cerna Corporation 2166 Primo Rivera St., Brgy. La Paz, Makati City	Tel: +63 2 890 2862 / +63 2 890 2813 Fax: +63 2 890 2802 electrical_controls@ptcerna.com
Poland			
Assembly Sales Service	Lodz	SEW-EURODRIVE Polska Sp.z.o.o. ul. Techniczna 5 PL-92-518 Łódź	Tel. +48 42 676 53 00 Fax +48 42 676 53 49 http://www.sew-eurodrive.pl sew@sew-eurodrive.pl
	Service	Tel. +48 42 6765332 / 42 6765343 Fax +48 42 6765346	Linia serwisowa Hotline 24H Tel. +48 602 739 739 (+48 602 SEW SEW) serwis@sew-eurodrive.pl
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Poland			
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	Poznan	SEW-EURODRIVE Polska Sp.z.o.o. ul. Romana Maya 1 PL-61-371 Poznań	Tel. +48 61 6465500 Fax +48 61 6465519
	Radom	SEW-EURODRIVE Polska Sp.z.o.o. ul. Słowackiego 84 PL-26-600 Radom	Tel. +48 48 365 40 50 Fax +48 48 365 40 52
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
Service Competence Center	Lisboa	SEW-EURODRIVE, LDA. Núcleo Empresarial I de São Julião do Tojal Rua de Entremuros, 54 Fracção I P-2660-533 São Julião do Tojal	Tel. +351 21 958-0198 Fax +351 21 958-0245 esc.lisboa@sew-eurodrive.pt
Technical Office	Porto	SEW-EURODRIVE, LDA. Av. 25 de Abril, 68 4440-502 Valongo	Tel. +351 229 350 383 Fax +351 229 350 384 Tel. +351 9 32559110 esc.porto@sew-eurodrive.pt
Romania			
Sales Service	Bucharest	Sialco Trading SRL str. Madrid nr.4 011785 Bucuresti	Tel. +40 21 230-1328 Fax +40 21 230-7170 sialco@sialco.ro
Russia			
Assembly Sales Service	St. Petersburg	ZAO SEW-EURODRIVE P.O. Box 36 RUS-195220 St. Petersburg	Tel. +7 812 3332522 +7 812 5357142 Fax +7 812 3332523 http://www.sew-eurodrive.ru sew@sew-eurodrive.ru
Technical Office	Yekaterinburg	ZAO SEW-EURODRIVE Kominterna Str. 16 Office 614 RUS-620078 Ekaterinburg	Tel. +7 343 310 3977 Fax +7 343 310 3978 eso@sew-eurodrive.ru
	Irkutsk	ZAO SEW-EURODRIVE 5-Armii Str., 31 RUS-664011 Irkutsk	Tel. +7 3952 25 5880 Fax +7 3952 25 5881 iso@sew-eurodrive.ru
	Moscow	ZAO SEW-EURODRIVE Malaja Semjonovskaja Str. д. 9, корпус 2 RUS-107023 Moskau	Tel. +7 495 9337090 Fax +7 495 9337094 mso@sew-eurodrive.ru
	Novosibirsk	ZAO SEW-EURODRIVE pr. K Marksa 30 RUS-630087 Novosibirsk	Tel. +7 383 3350200 Fax +7 383 3462544 nso@sew-eurodrive.ru
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Sales	Beograd	DIPAR d.o.o. Ustanicka 128a PC Košum, IV sprat SRB-11000 Beograd	Tel. +381 11 347 3244 / +381 11 288 0393 Fax +381 11 347 1337 office@dipar.rs
Singapore			
Assembly Sales Service	Singapore	SEW-EURODRIVE PTE. LTD. No 9, Tuas Drive 2 Jurong Industrial Estate Singapore 638644	Tel. +65 68621701 Fax +65 68612827 http://www.sew-eurodrive.com.sg sewsingapore@sew-eurodrive.com
Slovakia			
Sales	Bratislava	SEW-Eurodrive SK s.r.o. Rybničná 40 SK-831 06 Bratislava	Tel. +421 2 33595 202 Fax +421 2 33595 200 sew@sew-eurodrive.sk http://www.sew-eurodrive.sk
	Žilina	SEW-Eurodrive SK s.r.o. Industry Park - PChZ ulica M.R.Štefánika 71 SK-010 01 Žilina	Tel. +421 41 700 2513 Fax +421 41 700 2514 sew@sew-eurodrive.sk
	Banská Bystrica	SEW-Eurodrive SK s.r.o. Rudlovska cesta 85 SK-974 11 Banská Bystrica	Tel. +421 48 414 6564 Fax +421 48 414 6566 sew@sew-eurodrive.sk
	Košice	SEW-Eurodrive SK s.r.o. Slovenská ulica 26 SK-040 01 Košice	Tel. +421 55 671 2245 Fax +421 55 671 2254 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 http://www.sew.co.za info@sew.co.za
	Cape Town	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 cfoster@sew.co.za



South Africa			
	Durban	SEW-EURODRIVE (PROPRIETARY) LIMITED 2 Monaco Place Pinetown Durban P.O. Box 10433, Ashwood 3605	Tel. +27 31 700-3451 Fax +27 31 700-3847 cdejager@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. 8 Ruan Access Park Old Cape Road Greenbushes 6000 Port Elizabeth	Tel. +27 41 3722246 Fax +27 41 3722247 dtait@sew.co.za
	Richards Bay	SEW-EURODRIVE PTY LTD. 103 Bulion Blvd Richards Bay P.O. Box 458 Richards Bay, 3900	Tel. +27 35 797-3805 Fax +27 35 797-3819 jswart@sew.co.za

South Korea			
Assembly Sales Service	Ansan	SEW-EURODRIVE KOREA CO., LTD. B 601-4, Banweol Industrial Estate #1048-4, Shingil-Dong, Danwon-Gu, Ansan-City, Kyunggi-Do Zip 425-839	Tel. +82 31 492-8051 Fax +82 31 492-8056 http://www.sew-korea.co.kr master.korea@sew-eurodrive.com
	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
Technical Offices	Daegu	SEW-EURODRIVE KOREA Co., Ltd. No.1108 Sungan officetel 87-36, Duryu 2-dong, Dalseo-ku Daegu 704-712	Tel. +82 53 650-7111 Fax +82 53 650-7112
	Daejeon	SEW-EURODRIVE KOREA Co., Ltd. No. 1502, Hongin officetel 536-9, Bongmyung-dong, Yusung-ku Daejeon 305-301	Tel. +82 42 828-6461 Fax +82 42 828-6463
	Gwangju	SEW-EURODRIVE KOREA Co., Ltd. 4fl., Dae-Myeong B/D 96-16 Unam-dong, Buk-ku Kwangju 500-170	Tel. +82 62 511-9172 Fax +82 62 511-9174
	Seoul	SEW-EURODRIVE KOREA Co., Ltd. No.504 Sunkyung officetel 106-4 Kuro 6-dong, Kuro-ku Seoul 152-054	Tel. +82 2 862-8051 Fax +82 2 862-8199

Spain			
Assembly Sales Service	Bilbao	SEW-EURODRIVE ESPAÑA, S.L. Parque Tecnológico, Edificio, 302 E-48170 Zamudio (Vizcaya)	Tel. +34 94 43184-70 Fax +34 94 43184-71 http://www.sew-eurodrive.es sew.spain@sew-eurodrive.es
	Barcelona	Delegación Barcelona Avda. Francesc Macià, 60 – Planta 16, porta 1 Eix Macià – “Torre Milenium” E-08208 Sabadell (Barcelona)	Tel. +34 93 7162200 Fax +34 93 7233007





Spain			
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	Seville	MEB Pólogono Calonge, C/A Nave 2 - C E-41.077 Sevilla	Tel. +34 954 356 361 Fax +34 954 356 274 mebsa.sevilla@mebsa.com
	Valencia	MEB Músico Andreu i Piqueres, 4 E-46.900 Torrente (Valencia)	Tel. +34 961 565 493 Fax +34 961 566 688 mebsa.valencia@mebsa.com
Sri Lanka			
Sales	Colombo	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 jonkoping@sew.se
Sales	Göteborg	SEW-EURODRIVE AB Gustaf Werners gata 8 S-42132 Västra Frölunda	Tel. +46 31 70968 80 Fax +46 31 70968 93 goteborg@sew.se
	Stockholm	SEW-EURODRIVE AB Björkholmsvägen 10 S-14146 Huddinge	Tel. +46 8 44986 80 Fax +46 8 44986 93 stockholm@sew.se
	Malmö	SEW-EURODRIVE AB Borrgatan 5 S-21124 Malmö	Tel. +46 40 68064 80 Fax +46 40 68064 93 malmo@sew.se
	Skellefteå	SEW-EURODRIVE AB Trädgårdsgatan 8 S-93131 Skellefteå	Tel. +46 910 7153 80 Fax +46 910 7153 93 skelleftea@sew.se
Switzerland			
Assembly Sales Service	Basel	Alfred Imhof A.G. Jurastrasse 10 CH-4142 Münchenstein bei Basel	Tel. +41 61 417 1717 Fax +41 61 417 1700 http://www.imhof-sew.ch info@imhof-sew.ch
Technical Offices	Rhaetian Switzerland	André Gerber Es Perreyres CH-1436 Chamblon	Tel. +41 24 445 3850 Fax +41 24 445 4887
	Bern / Solothurn	Rudolf Bühler Muntersweg 5 CH-2540 Grenchen	Tel. +41 32 652 2339 Fax +41 32 652 2331
	Central Switzerland, Aargau	Armin Pfister Stierenweid CH-4950 Huttwill, BE	Tel. +41 62 962 54 55 Fax +41 62 962 54 56
	Zürich, Ticino	Gian-Michele Muletta Fischerstrasse 61 CH-8132 Egg bei Zürich	Tel. +41 44 994 81 15 Fax +41 44 994 81 16
	Bodensee and East Switzerland	Markus Künzle Eichweg 4 CH-9403 Goldach	Tel. +41 71 845 2808 Fax +41 71 845 2809



Taiwan (R.O.C.)			
Sales	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 sewtwn@ms63.hinet.net

Thailand			
Assembly Sales Service	Chonburi	SEW-EURODRIVE (Thailand) Ltd. 700/456, Moo.7, Donhuaroh Muang Chonburi 20000	Tel. +66 38 454281 Fax +66 38 454288 sewthailand@sew-eurodrive.com
	Bangkok	SEW-EURODRIVE (Thailand) Ltd. 6th floor, TPS Building 1023, Phattanakarn Road Suanluang Bangkok, 10250	Tel. +66 2 7178149 Fax +66 2 7178152 sewthailand@sew-eurodrive.com
	Hat Yai	SEW-EURODRIVE (Thailand) Ltd. Hadyai Country Home Condominium 59/101 Soi.17/1 Rachas-Utid Road. Hadyai, Songkhla 90110	Tel. +66 74 359441 Fax +66 74 359442 sewthailand@sew-eurodrive.com
	Khon Kaen	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 sew-thailand@sew-eurodrive.com

Tunisia			
Sales	Tunis	T. M.S. Technic Marketing Service Zone Industrielle Mghira 2 Lot No. 39 2082 Fouchana	Tel. +216 79 40 88 77 Fax +216 79 40 88 66 http://www.tms.com.tn tms@tms.com.tn

Turkey			
Assembly Sales Service	Istanbul	SEW-EURODRIVE Hareket Sistemleri Sanayi Ticaret Limited Şirketi Gebze Organize Sanayi Bölgesi 400.Sokak No:401 TR-41480 Gebze KOCAELİ	Tel. +90-262-9991000-04 Fax +90-262-9991009 http://www.sew-eurodrive.com.tr sew@sew-eurodrive.com.tr
	Adana	SEW-EURODRIVE Hareket Sistemleri San. ve Tic. Ltd. Sti. Kızılay Caddesi 8 Sokak No 6 Daötekin Is Merkezi Kat 4 Daire 2 TR-01170 SEYHAN / ADANA	Tel. +90 322 359 94 15 Fax +90 322 359 94 16
	Ankara	SEW-EURODRIVE Hareket Sistemleri San. ve Tic. Ltd. Sti. Özcelik Is Merkezi, 14. Sok, No. 4/42 TR-06370 Ostim/Ankara	Tel. +90 312 385 33 90 Fax +90 312 385 32 58
	Bursa	SEW-EURODRIVE Hareket Sistemleri San. ve Tic. Ltd. Sti. Üçevler Mah. Bayraktepe Sok. Akay İş Merkezi Kat:3 No: 7/6 TR Nilüfer/Bursa	Tel. +90 224 443 45 60 Fax +90 224 443 45 58





Turkey			
	Izmir	SEW-EURODRIVE Hareket Sistemleri San. ve Tic. Ltd. Sti. 1203/11 Sok. No. 4/613 Hasan Atli Is Merkezi TR-35110 Yenisehir-Izmir	Tel. +90 232 469 62 64 Fax +90 232 433 61 05
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Sales	Kiev	SEW-EURODRIVE GmbH S. Oleynika str. 21 02068 Kiev	Tel. +380 44 503 95 77 Fax +380 44 503 95 78 kso@sew-eurodrive.ua
	Donetsk	SEW-EURODRIVE GmbH 25th anniversary of RKKA av. 1-B, of. 805 Donetsk 83000	Tel. +380 62 38 80 545 Fax +380 62 38 80 533 dso@sew-eurodrive.ua
United Arab Emirates			
Sales Service	Sharjah	Copam Middle East (FZC) Sharjah Airport International Free Zone P.O. Box 120709 Sharjah	Tel. +971 6 5578-488 Fax +971 6 5578-499 copam_me@eim.ae
Uruguay			
Sales	Montevideo	SEW-EURODRIVE Uruguay, S. A. Jose Serrato 3569 Esquina Corumbe CP 12000 Montevideo	Tel. +598 2 21181-89 Fax +598 2 21181-89 sewuy@sew-eurodrive.com.uy
USA			
Production Assembly Sales Service	Southeast Region	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 Manufacturing +1 864 439-9948 Fax Assembly +1 864 439-0566 Fax Confidential/HR +1 864 949-5557 http://www.seweurodrive.com cslyman@seweurodrive.com
Assembly Sales Service	Northeast Region	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
	Midwest Region	SEW-EURODRIVE INC. 2001 West Main Street Troy, Ohio 45373	Tel. +1 937 335-0036 Fax +1 937 332-0038 cstroy@seweurodrive.com
	Southwest Region	SEW-EURODRIVE INC. 3950 Platinum Way Dallas, Texas 75237	Tel. +1 214 330-4824 Fax +1 214 330-4724 csdallas@seweurodrive.com
	Western Region	SEW-EURODRIVE INC. 30599 San Antonio St. Hayward, CA 94544	Tel. +1 510 487-3560 Fax +1 510 487-6433 cshayward@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 http://www.sew-eurodrive.com.ve ventas@sew-eurodrive.com.ve sewfinanzas@cantv.net



Vietnam			
Sales	Ho Chi Minh City	All sectors except for ports, mining and offshore: Nam Trung Co., Ltd 250 Binh Duong Avenue, Thu Dau Mot Town, Binh Duong Province HCM office: 91 Tran Minh Quyen Street District 10, Ho Chi Minh City	Tel. +84 8 8301026 Fax +84 8 8392223 namtrungco@hcm.vnn.vn truongtantam@namtrung.com.vn khanh-nguyen@namtrung.com.vn
		Ports, mining and offshore: DUC VIET INT LTD Industrial Trading and Engineering Services A75/6B/12 Bach Dang Street, Ward 02, Tan Binh District, 70000 Ho Chi Minh City	Tel. +84 8 62969 609 Fax +84 8 62938 842 totien@ducvietint.com
	Hanoi	Nam Trung Co., Ltd R.205B Tung Duc Building 22 Lang ha Street Dong Da District, Hanoi City	Tel. +84 4 37730342 Fax +84 4 37762445 namtrunghn@hn.vnn.vn





15 Abbreviation Key and Index

15.1 Abbreviation key

α	Application angle of the radial load	°
f_1	Altitude factor (= correction factor for calculating the thermal rating of the gear units)	-
F_A	Axial load	kN
F_F	Peak factor	-
F_R	Overhung load	N
F_{R1}	Existing radial load on HSS (distance from shaft shoulder has to be specified)	kN
F_{R2}	Existing radial load on LSS (distance from shaft shoulder has to be specified)	kN
F_S	Service factor = $M_{N2} / M_{K2} = P_{N1} / P_{K1}$	-
$F_{S \min}$	Application-specific service factor	-
F_{start}	Start factor	-
f_z	Transmission element factor	-
η	Efficiency	-
H	Installation altitude above sea level	m
HSS	High speed shaft of the gear unit (normally the input shaft)	-
i	Reduction ratio	-
i_{ex}	Exact gear unit reduction ratio	-
i_N	Nominal gear unit reduction ratio	-
LSS	Low speed shaft of the gear unit (normally the output shaft)	-
$L_{h \min}$	Required bearing lifetime	h
M_{K1}	Input torque (= operating torque on HSS)	kNm
$M_{K1 \max}$	Peak input torque (= peak operating torque on LSS)	kNm
M_{K2}	Output torque (= operating torque on LSS)	kNm
$M_{K2 \max}$	Peak output torque (= peak operating torque on LSS)	kNm
$M_{K2 \text{ zul}}$	Permitted peak torque on the gear unit output	kNm
M_M	Nominal motor torque	kNm
M_{N2}	Nominal gear unit torque	kNm
n_1	Input speed (HSS)	1/min
n_2	Output speed (LSS)	1/min
n_M	Motor speed	1/min
P_{K1}	Operating power on HSS	kW
$P_{K1 \max}$	Peak operating power on HSS	kW
$P_{K1 \text{ zul}}$	Permitted peak operating power on HSS	kW
P_{K2}	Operating power on LSS	kW
P_M	Nominal motor power	kW
P_{N1}	Nominal gear unit power (with reference to HSS)	kW
P_T	Thermal rating of the gear unit at existing ambient conditions	kW
P_{TH}	Thermal rating of the gear unit at defined ambient conditions	kW



15.2 Index

A

Abbreviations	27
Accessories	61
Additional	35
Auxiliary drive	15

B

Backstop	18, 151, 152
Base frame	
<i>Dimension sheet</i>	172
<i>Structure</i>	70
Bath lubrication	54

C

Coating	28
Coating system	28
Condition	71
Cooling	55, 62
Corrosion protection	29

D

Design notes	79
DRE	15
Drive packages on steel frame	156
DRP	15
DRS	15
Dual drive	13
DUO10A diagnostic unit	75
DUV10A diagnostic unit	77

E

Efficiency	39
External conservation	29

F

Fan	62
<i>Dimension sheet</i>	145
Flange coupling	
<i>Dimensioning</i>	80
<i>Structure</i>	68

G

Gear	61
Gear unit mounting	79

H

Heater	53
High Efficiency	15
Hollow shaft gear units	80
Hollow shaft with key	80
Horizontal housing, dimension sheet	139
Housing bores	138

I

IEC motor standard	15
Important information	81
Information on the selection tables	83
Input shaft	20

Internal conservation	29
-----------------------------	----

K

Keyway	
<i>Dimension sheet</i>	141
<i>Structure</i>	22

L

Limit	64
Long-term protection	29
Lubricant	59
Lubricant selection	55
Lubricant table	58
Lubricating greases	60
Lubrication	53

M

Machine shaft for hollow shaft gear units	80
Mineral oil	56
Motor terminal box	34
Mounting	31
Mounting position	31

N

Nameplate	26
Natural	55
Noise	11
Nominal power	10
Notes	10
NTB temperature switch	72

O

Oil aging, diagnostics	75
Oil dipstick	
<i>Dimension sheet</i>	153
<i>Structure</i>	61
Oil drain plug	61
Oil drain valve	
<i>Dimension sheet</i>	154
<i>Structure</i>	61
Oil heater	63
<i>Dimension sheet</i>	148
<i>Function</i>	63
Oil level glass	
<i>Dimension sheet</i>	155
<i>Structure</i>	61
Options	27, 66
Output shaft	20
Overrunning clutch	16

P

Packaging	29
Painting	11
Peak load factor	41
Pivoted mounting position	32
Position	34
Position of greasing points	25





Premium Efficiency	15
Pressure lubrication	54
Product description	10
Product groups	7
Project planning for drives	35
PT100 temperature sensor	71

S

Sealing grease	60
Sealing system	24
Selection tables	84
SEW-EURODRIVE	
<i>group of companies</i>	6
<i>Products</i>	7
<i>Systems</i>	7
Shaft	33
Shaft position	31
Shrink disk	
<i>Dimension sheet</i>	142
<i>Structure</i>	22
Single drive	12
Smooth	21
Smooth shaft, dimension sheet	140
Speed	17, 74
Splash lubrication	54
Splined hollow shaft	
<i>Structure</i>	23
Splined hollow shaft, dimension sheet	143
Standard protection	29
Start factor	41
Step	44
Storage conditions	29, 30
Swing base	69
<i>Dimension sheet</i>	156
<i>Structure</i>	69
Symbols	82
Synthetic oil	56

T

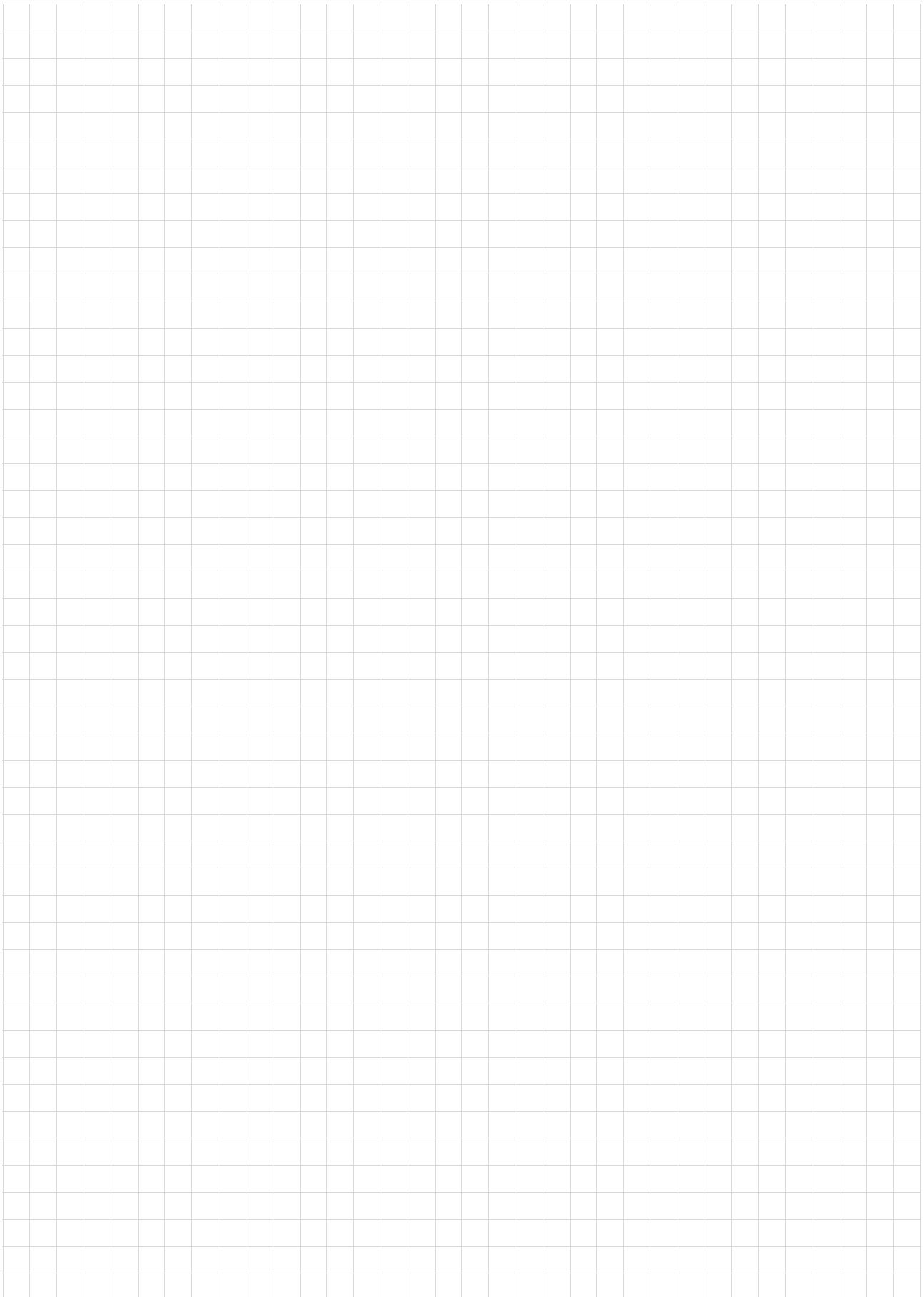
Technical data	19
Tolerances	81
Torque	10, 66, 67
Torque arm	
<i>Dimension sheet</i>	149
Transport conditions	29
Types of lubrication	54

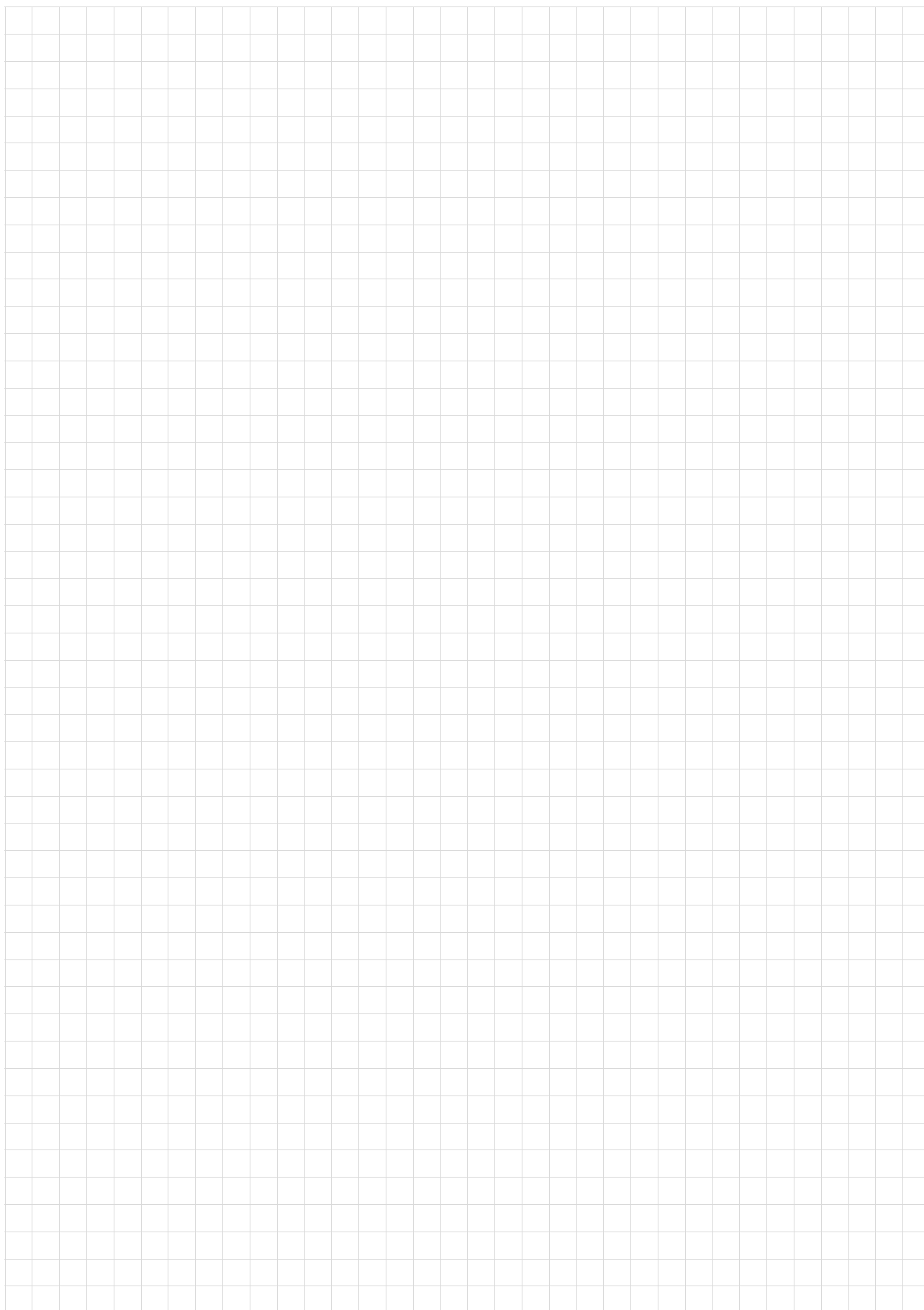
V

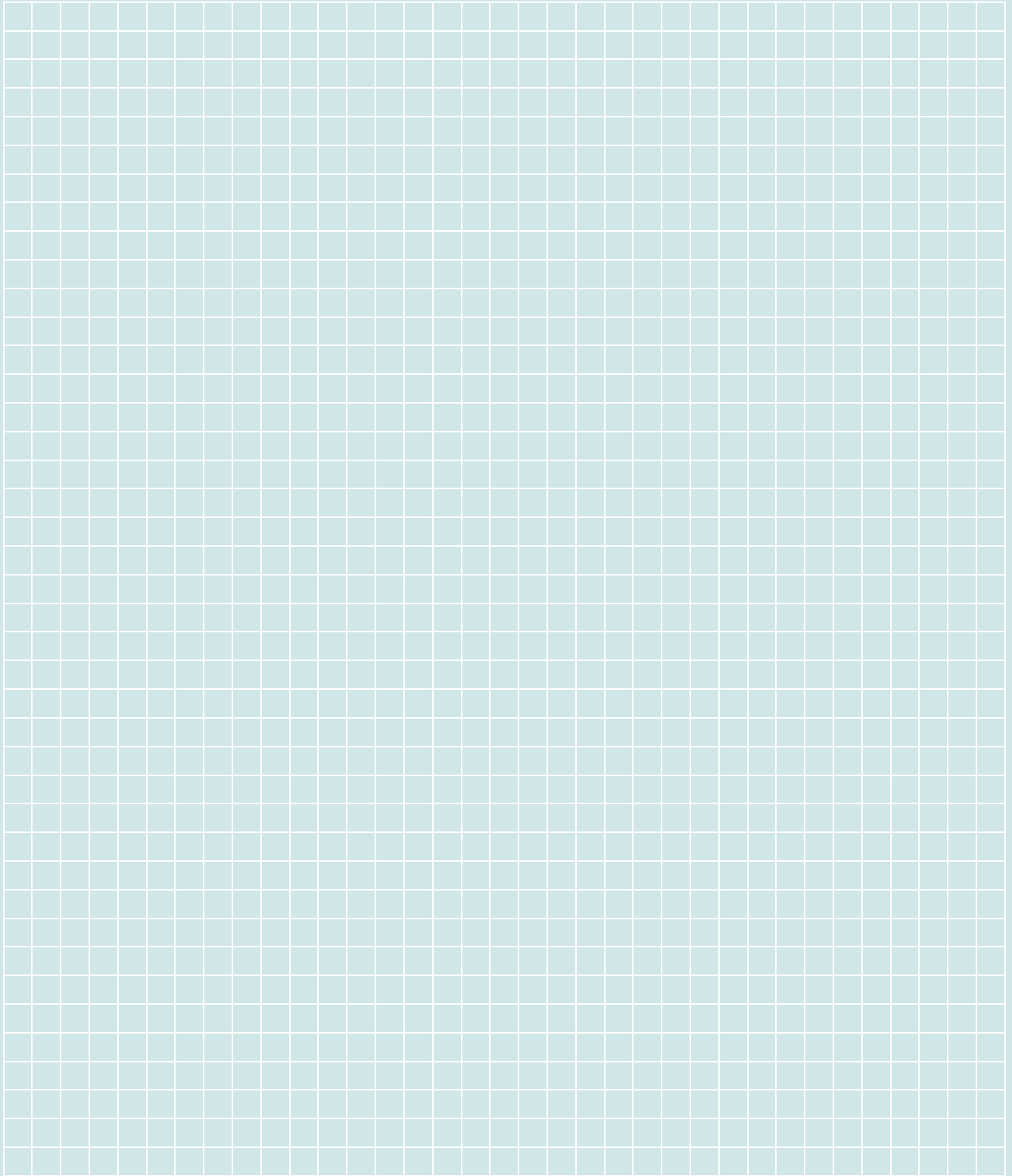
Variable mounting position	32
Vibration diagnostics	77

W

Water cooling cartridge	
<i>Dimension sheet</i>	147









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