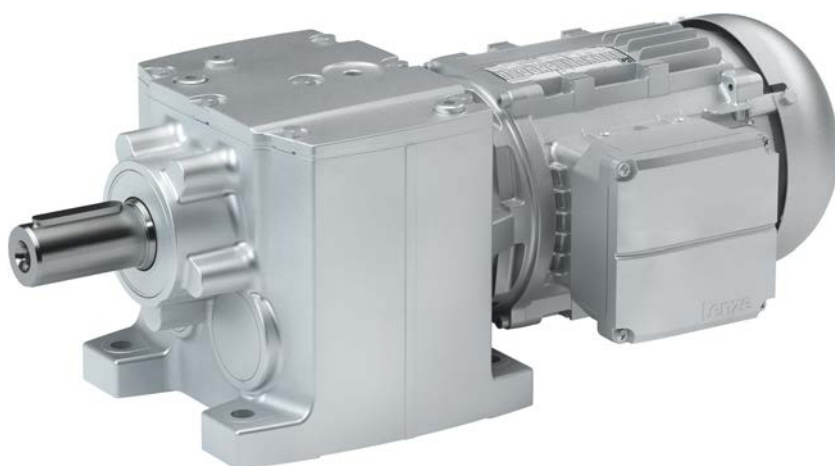


g500-H + m500 helical geared motors



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1 About this document

1.1 Document description

This document addresses to all persons who want to carry out any configurations with the products described.

The data and information compiled in this document serve to support you in the dimensioning and selection processes and in carrying out the electrical and mechanical installation. You will receive information regarding product extensions and accessories.

- The document includes safety instructions which must be observed.
- All persons working on and with the drives must have the documentation at hand during work and observe the information and notes relevant for it.
- The documentation must always be complete and in a perfectly readable state.



1.2 Further documents



Information and tools with regard to the Lenze products can be found on the Internet:

www.Lenze.com → Downloads



1.3 Notations and conventions

Conventions are used in this document to distinguish between different types of information.

Numeric notation		
Decimal separator	Point	Generally shown as a decimal point. Example: 1 234.56
Warnings		
UL Warnings	UL	Are used in English and French.
UR warnings	UR	
Text		
Engineering Tools	" "	Software Example: "EASY Starter", "PLC Designer"
Icons		
Page reference		Reference to another page with additional information. Example:  16 = see page 16
Documentation reference		Reference to other documentation with additional information. Example:  EDKxxx = see documentation EDKxxx

Layout of the safety instructions

DANGER!

Indicates an extremely hazardous situation. Failure to comply with this instruction will result in severe irreparable injury and even death.

WARNING!

Indicates an extremely hazardous situation. Failure to comply with this instruction may result in severe irreparable injury and even death.

CAUTION!

Indicates a hazardous situation. Failure to comply with this instruction may result in slight to medium injury.

NOTICE

Indicates a material hazard. Failure to comply with this instruction may result in material damage.



2 Product information

2.1 Product description

When used in combination with three-phase AC motors, our helical gearboxes form a compact, powerful drive unit. Numerous options at the input and output end provide for the drive to be exactly adapted to your application.

The robust helical gearboxes are characterized by high permissible radial forces, closely stepped ratios and a low backlash. They are available in a 2-, 3- and 4-stage design with an output torque of up to 3000 Nm and a ratio of up to $i = 3529$.

Versions

- Fine-scaling of size/torque provides for an optimum machine adaptation
- Market standard shaft dimensions and standardized flanges for easy machine integration
- High efficiency

Three-phase motors for mains and inverter operation

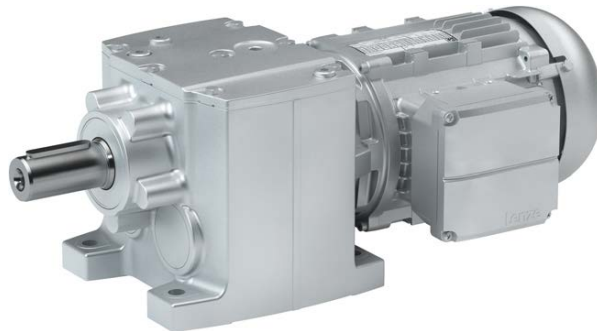
In a power range from 0.12 to 22 kW, Lenze offers inverter-compatible three-phase motors for more extensive tasks.

These motors differ in terms of efficiency class and can be used for the versions required for controlled or regulated inverter operation.

- Efficiency class IE2 in the power range 0.12 ... 0.55 kW
- Efficiency class IE3 in the power range 0.75 ... 22 kW

Customer benefit

- Different efficiency classes for the greatest economic benefit
- Space saving thanks to compact direct mounting on Lenze gearboxes
- Market-oriented modular system enables universal use for extensive machine tasks
- Standard market connectors ensure fast connection, even when servicing is required



g500-H450 gearbox with three-phase AC motor m550-P80/M4



Flexible in motor mounting

For motor mounting, Lenze offers a scalable modular system of gearboxes with adapters.

Power is transmitted between the motor and gearbox via a flexible jaw coupling or a plug-in hollow shaft. The shaft holders are available for motor shafts with or without featherkey, depending on the design.

Customer benefit

- Can be used universally for a wide range of machine tasks due to the market-oriented modular system
- Simple plug-in motor mounting
- Mounting motors according to IEC 72/DIN 42948
- Mounting motors according to NEMA C/TC
- Mounting servo motors with square flange according to IEC 72/DIN 42948
- Torsional vibration damping power transmission of the coupling
- Motor shaft connection, low backlash or backlash-free, depending on version

More information can be found under:

► [Gearbox data](#)  55

► [Gearboxes with adapter](#)  70



g500-H helical gearbox with adapter for IEC standard motors



2.2 Identification of the products

Gearbox product name

Gearbox type	Product series		Type	Rated torque Nm	Gearbox
Helical gearbox	g500	-	H	45	g500-H45
				100	g500-H100
				140	g500-H140
				210	g500-H210
				320	g500-H320
				450	g500-H450
				600	g500-H600
				850	g500-H850
				1500	g500-H1500
				3000	g500-H3000

Three-phase AC motor product name

Example		m550	-	P	80	supply	S	4
Meaning	Variant	Product name						
Product family		m550						
Efficiency class	IE2			H				
	IE3			P				
Size					63 71 80 90 100 112 132 160 180			
Motor length	Short						S	
	Medium						M	
	Long						L	
Number of pole pairs	4-pole							4



2.3 Features

The following figure provides an overview of the elements and connections on the product. Their position, size and appearance may vary.

Ventilation

(depending on the mounting position)

Oil filler plug

(depending on the mounting position)

Oil control plug

(depending on the mounting position)

Output shaft

Output flange

Housing type

Temperature monitoring

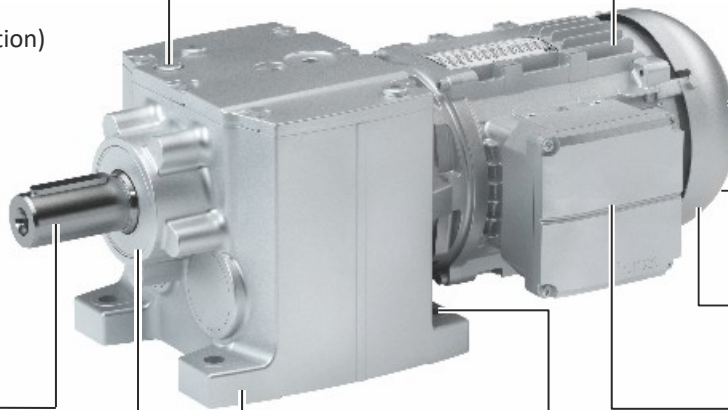
Cooling

Feedback

Brake

Motor connection

Oil drain plug
(depending on the mounting position)





2.4 The modular system



Values printed in bold are standard designs. Values that are not printed in bold are potential extensions, some of them including a surcharge.



Geared motors up to 450 Nm

Gearbox		g500-H45	g500-H100	g500-H140	g500-H210	g500-H320	g500-H450
Min. motor assignment		m550-H63	m550-H63	m550-H63	m550-H63	m550-H63	m550-H63
Max. motor assignment		m550-H71	m550-P90	m550-P90	m550-P100	m550-P112	m550-P132
Technical data							
Max. output torque	Nm	45	100	140	210	320	450
Min. drive power at 50 Hz	kW	0.12	0.12	0.12	0.12	0.12	0.12
Max. drive power at 50 Hz	kW	0.55	1.5	1.5	3.0	4.0	7.5
Mounting position							
Standard		M1, M2, M3, M4, M5, M6 (ABCDEF)					
Combined		M1-M6 (A-F)	M1/5/6 (AEF)				
Temperature package							
Standard		Ambient temperature: 0 °C ... +40 °C					
Deep-freeze		Ambient temperature: -30 °C ... +10 °C					
Wide range		Ambient temperature: -30 °C ... +40 °C					
Color		Unpainted Primed/RAL colors					
Surface and corrosion protection		Without OKS Different types of OKS					
Output shaft							
Solid shaft with featherkey	mm	14 x 28 20 x 40	20 x 40	25 x 50	25 x 50	30 x 60	30 x 60 35 x 70
Solid shaft without keyway	mm	20 x 40	20 x 40	25 x 50	25 x 50	30 x 60	35 x 70
Shaft material		Steel Stainless steel					
Output shaft bearing		Normal Reinforced					
Gearbox version							
		With foot (VBR)					
			With foot and centering (VAR)	With foot and centering (VAR)	With foot and centering (VAR)	With foot and centering (VAR)	With foot and centering (VAR)
			With foot and output flange (VAK)	With foot and output flange (VAK)	With foot and output flange (VAK)	With foot and output flange (VAK)	With foot and output flange (VAK)
		With centering (VCR)					
		With output flange (VCK)					
			With output flange (VCP)	With output flange (VCP)	With output flange (VCP)	With output flange (VCP)	With output flange (VCP)
Output flange	mm	120/140/160	120/140/160	120/140/160	120/140 160/200	160/200	160/200/250
Ventilation		Without				Vent valve	
Cooling		Integral fan Blower Heavy-Duty fan					
Product extensions							
Connection method		Y/Δ					
Connection type		Terminal box ICN connector HAN connector M12 connector					
Spring-applied brake		Without Holding brake Application brake Application brake with safety function					
Feedback		Without Resolver Incremental encoder Incremental encoder with safety functions Absolute value encoder					
Temperature monitoring		TKO thermal contact PT1000 temperature sensor					



Gearbox		g500-H45	g500-H100	g500-H140	g500-H210	g500-H320	g500-H450
Min. motor assignment		m550-H63	m550-H63	m550-H63	m550-H63	m550-H63	m550-H63
Max. motor assignment		m550-H71	m550-P90	m550-P90	m550-P100	m550-P112	m550-P132
Integral fan		Protection cover 2. Shaft end/hand wheel					
Blower		Protection cover					



Geared motors 600 Nm to 3000 Nm

Gearboxes		g500-H600	g500-H850	g500-H1500	g500-H3000
Min. motor assignment		m550-H63	m550-H63	m550-H63	m550-H63
Max. motor assignment		m550-P132	m550-P132	m550-P180	m550-P180
Technical data					
Max. output torque	Nm	600	850	1500	3000
Min. drive power at 50 Hz	kW	0.12	0.12	0.12	0.12
Max. drive power at 50 Hz	kW	7.5	7.5	18.5	22.0
Mounting position					
Default		M1, M2, M3, M4, M5, M6 (ABCDEF)			
Combined					
Temperature range					
Standard		Ambient temperature: 0 °C ... +40 °C			
Deep-freeze		Ambient temperature: -30 °C ... +10 °C			
Wide range		Ambient temperature: -30 °C ... +40 °C			
Colour		Primed Painted in RAL colours			
Surface and corrosion protection		OKS-S (surface and corrosion protection system S) Different types of OKS			
Output shaft					
Solid shaft with featherkey	mm	35 x 70 40 x 80	40 x 80	50 x 100	60 x 120
Solid shaft without keyway	mm	35 x 70	40 x 80	50 x 100	60 x 120
Shaft material		Steel Stainless steel			
Output shaft bearing		Normal Reinforced			
Gearbox design		With foot (VBR) With foot and centering (VAR) With foot and output flange (VAK) With centering (VCR) With output flange (VCK)			
Output flange	mm	200/250	250/300	250/300/350	300/350/450
Ventilation		Vent valve Oil compensation reservoir			
Cooling		Integral fan Blower Heavy-duty fan			
Product extensions					
Connection method		Y/Δ			
Connection type		Terminal box ICN connector HAN connector M12 connector			
Spring-applied brake		Without Holding brake Application brake Application brake with safety function			
Feedback		Without Resolvers Incremental encoders Incremental encoder with safety functions Absolute value encoders			
Temperature monitoring		Thermal contact TCO Thermal detectors PT1000			
Integral fan		Protection cover 2. shaft end/hand wheel			
Blower		Protection cover			



2.4.1 Designs

Gearbox designs

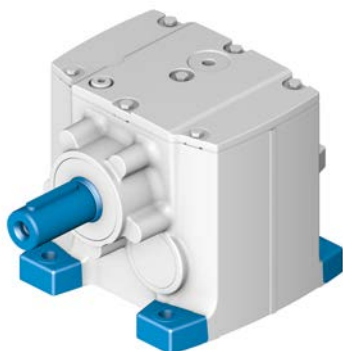


Observe the available gearbox designs!

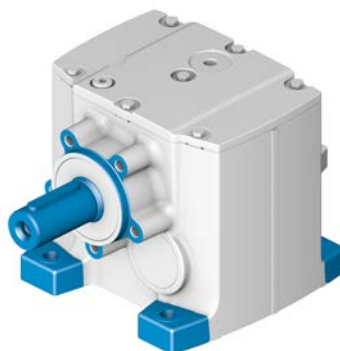
► [The modular system](#) 14

The VCP design (reinforced flange) is suitable for absorbing high radial and axial forces 74 .

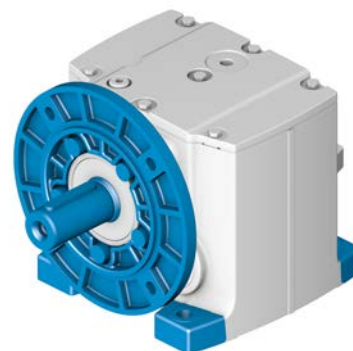
Solid shaft, with foot



Without centring (VBR)



With centring (VAR)



Flange with through holes (VAK)

Solid shaft, without foot



With centering (VCR)



Flange with through holes (VCK)



Reinforced flange with through holes (VCP)

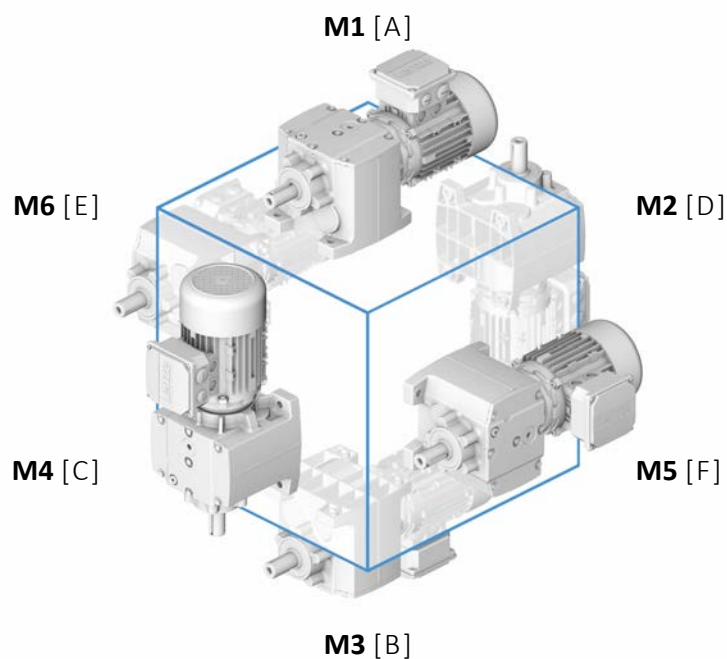


2.4.2 Mounting positions

Details of the mounting position are needed to ensure the corresponding lubricant amount, position of the ventilation, oil checks and oil drain plug on the gearbox.



The gearmotors can be swiveled by 5° to 45° in all mounting positions.

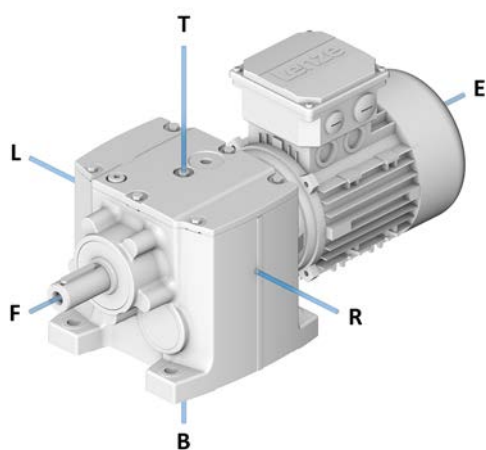


Defined positions on the geared motor

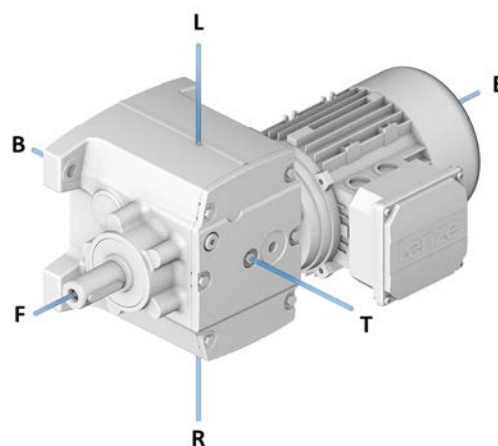
All of the defined positions refer to the areas on the geared motor in mounting position **M1 (A)**.

Position of the built-on accessories with T, L, R, B, F, E (Top, Left, Right, Bottom, Front and End)

If the geared motor is rotated into a different mounting position M2 ... M6 (B...F), the defined positions on the geared motor are retained.

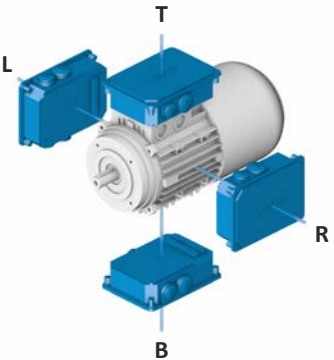
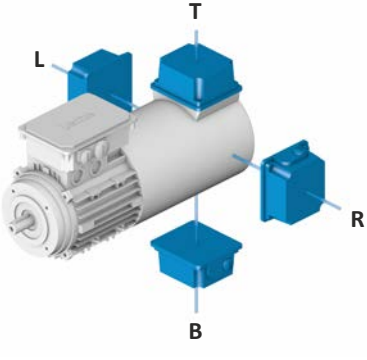
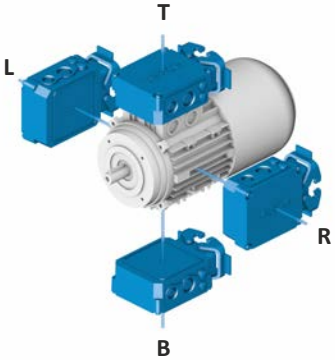


Example: Mounting position M5 (F)

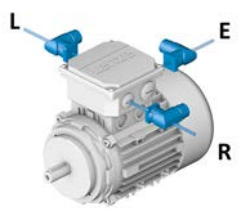
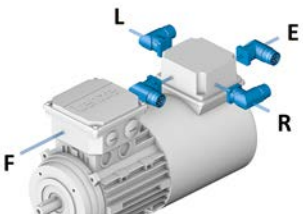
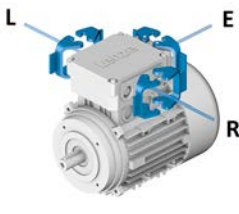




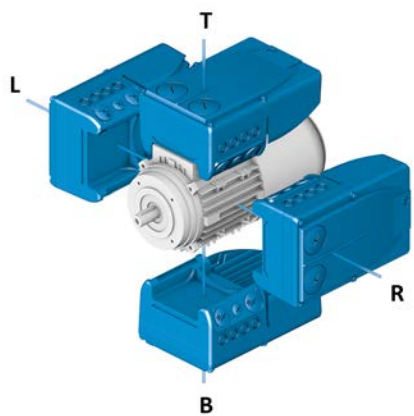
Positions of the terminal boxes/connectors

Power terminal box	Blower terminal box	Han connector
with/without M23 connector	with/without M23 connector	
		

Positions of the connections

Power terminal box	Blower terminal box	Han connector
M23 cable glands/connectors	M23 cable glands/connectors	
		

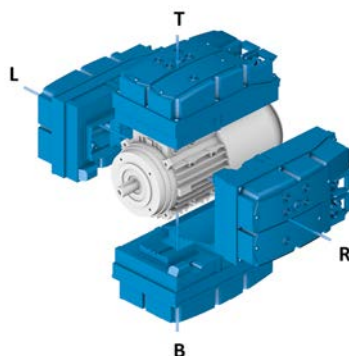
Positions of the i550/8400 motec frequency inverters

Positions of i550/8400 motec	Positions of the connectors
	8400 motec I/O connection
	



Positions of the i550/i650 motec frequency inverters

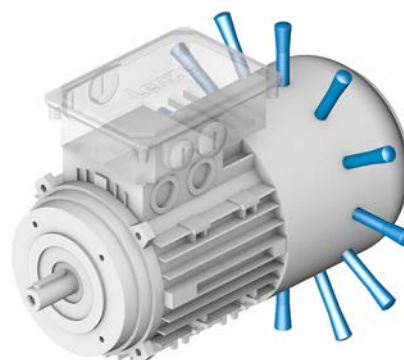
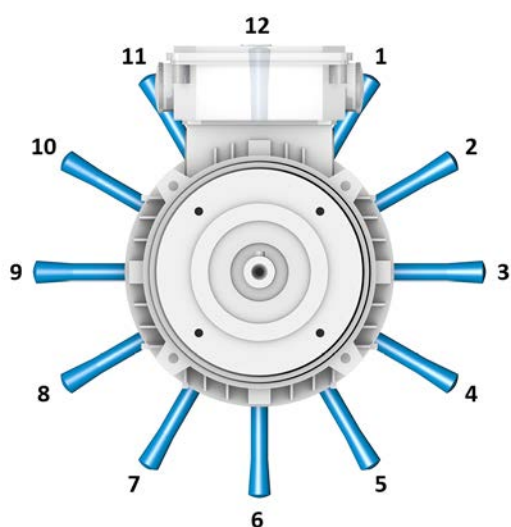
Positions of the i550/i650 motec



Position of the manual release lever



Only positions T, R, B and L are available for the spring-applied holding brake.





3 Safety instructions

3.1 Basic safety instructions

Disregarding the following basic safety instructions and safety information may lead to severe personal injury and damage to property!

- Only use the product as directed.
- Never commission the product in the event of visible damage.
- Never modify the product technically.
- Never commission the product before assembly has been completed.
- Never operate the product without the required covers.
- Connect/disconnect all pluggable connections only in deenergized condition!
- Only remove the product from the installation in the deenergized state.
- The product can – depending on their degree of protection – have live, movable or rotating parts during or after operation. Surfaces can be hot.
- Observe the specifications of the corresponding documentation. This is the condition for safe and trouble-free operation and the achievement of the specified product features.
- The procedural notes and circuit details given in the associated documentation are suggestions and their transferability to the respective application has to be checked. The manufacturer of the product does not take responsibility for the suitability of the process and circuit proposals.
- All work with and on the product may only be carried out by qualified personnel. IEC 60364 and CENELEC HD 384 define the qualifications of these persons:
 - They are familiar with installing, mounting, commissioning, and operating the product.
 - They have the corresponding qualifications for their work.
 - They know and can apply all regulations for the prevention of accidents, directives, and laws applicable at the place of use.

Please observe the specific safety information in the other sections!



3.2 Application as directed

- The product is a professional equipment intended for use by trades, specific professions or industry and not for sale to the general public. IEC 60050 [IEV 161-05-05]
- To prevent personal injury and damage to property, higher-level safety and protection systems must be used!
- All transport locks must be removed.
- Mounted eye bolts on the motor are not suitable for transporting geared motors.
- The product may only be operated under the specified operating conditions and in the specified mounting positions.
- The product may be operated on the mains or on the inverter.
- Only certified application brakes may be used as safety brakes for functional safety.
- The product must not be operated in private areas, in potentially explosive atmospheres and in areas with harmful gases, oils, acids and radiation.



3.3 Foreseeable misuse

- Use in potentially explosive areas
- Use in aggressive environments
- Use under water
- Use under radiation
- Use in generator mode



3.4 Residual hazards

Even if notes given are taken into consideration and protective measures are implemented, the occurrence of residual risks cannot be fully prevented.

The user must take the residual hazards mentioned into consideration in the risk assessment for his/her machine/system.

If the above is disregarded, this can lead to severe injuries to persons and damage to property!

The user must take the residual hazards mentioned into consideration in the risk assessment for his/her machine/system.

If the above is disregarded, this may result in injuries to persons and material damage!

Product

Observe the warning labels on the product!



Dangerous electrical voltage:

Before working on the product, make sure there is no voltage applied to the power terminals!
After mains disconnection, the power terminals will still carry the hazardous electrical voltage for the time given next to the symbol!



Electrostatic sensitive devices:

Before working on the product, the staff must ensure to be free of electrostatic charge!



High leakage current:

Carry out fixed installation and PE connection in compliance with:
EN 61800-5-1 / EN 60204-1



Hot surface:

Use personal protective equipment or wait until the device has cooled down!

Protection of persons

- The power terminals may carry voltage in the switched-off state or when the motor is stopped.
 - Before working, check whether all power terminals are deenergized.
- Voltages may occur on the drive components (e.g. capacitive, caused by inverter supply).
 - Careful earthing in the marked positions of the components must be carried out.
- There is a risk of burns from hot surfaces.
 - Provide protection against accidental contact.
 - Use personal protective equipment or wait until the device has cooled down.
 - Prevent contact with flammable substances.
- There is a risk of injury due to rotating parts.
 - Before working on the drive system, ensure that the motor is at a standstill.
- There is a risk of accidental start-up or electric shock.



Gearbox protection

- Excessive vibration accelerations and resonances will damage the gearbox.
 - Do not operate the gearbox at vibration accelerations $> 2 \text{ g}$ (20 m/s^2) of the machine.
 - Do not operate the gearbox in the resonance range of the machine.
- Excessive torques will damage the gearboxes.
 - Do not exceed the output torques specified on the nameplate.
- Excessive input speeds lead to increased temperatures.
 - Do not exceed the input speeds specified on the nameplate.
- Avoid excessive lateral forces on the gearbox shaft.
 - Align the shafts of the gearbox and driven machine exactly with each other.
- Machine elements can be damaged by a lack of lubricant.
 - Mount the gearbox only in the mounting position indicated on the nameplate.
 - When changing the lubricant, use the lubricant type and quantity specified on the nameplate.

Motor protection

- Installed temperature contacts are not full protection for the machine.
 - If necessary, limit the maximum current. Parameterize the inverter so that it will be switched off after some seconds of operation with $I > I_{\text{rated}}$, especially if there is a risk of blocking.
 - Integrated overload protection does not prevent overloading under all conditions.
- The fuses are no motor protection.
 - Use a current-dependent motor protection switch.
 - Use the built-in temperature contacts.



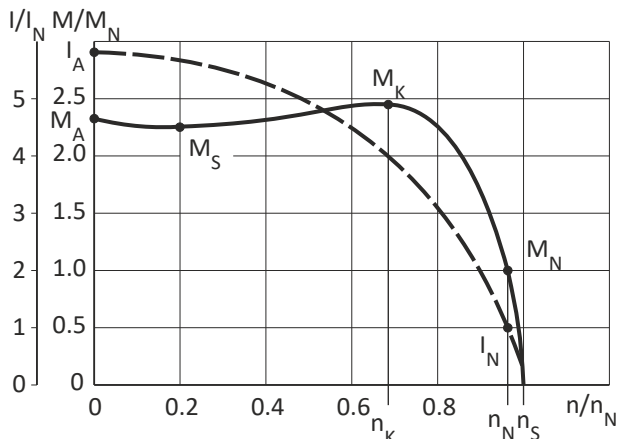
4 Information on project planning

4.1 General information

Operation with mains power

If operated with mains power, the three-phase AC motor starts up in accordance with the speed-torque characteristic when switched on. It follows this characteristic until it reaches its stable operating point. The operating point is reached when the load or rated torque (M_N) is smaller than the starting torque (M_A) and pull-up torque (M_S). The rated speed (n_N) of the drive is always less than the arithmetic synchronous speed (n_S).

The difference between rated and synchronous speed relative to the synchronous speed is called the slip.



Supplementary explanation of the service factor:

A motor wound to 50 Hz and 400 V can be operated on 60 Hz mains under rated operating conditions in accordance with the NEMA MG1-2011 standard **for a short time** with 1.15 times the load without suffering damage.

The service factor 1.15 is specified on the nameplate for 60 Hz operation.



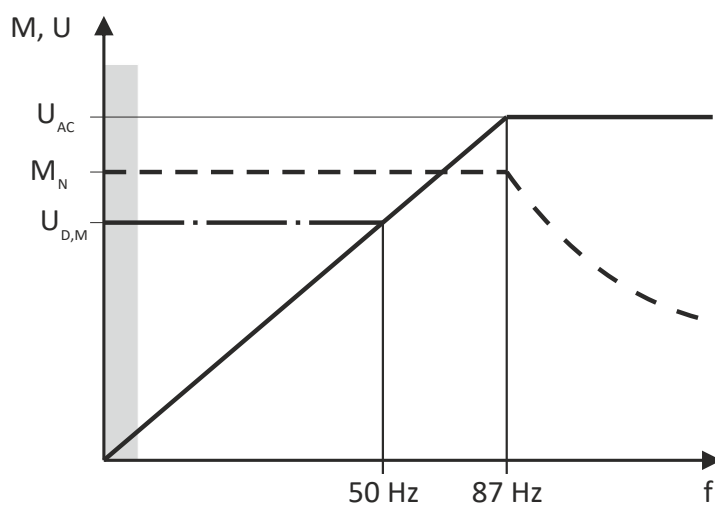
Operation on the frequency inverter

Standard setting

The frequency inverter is set for easy operation on a three-phase AC motor with vector control by default. The rated torque of the motor is available in a setting range up to 50 Hz in this mode of operation.

Extended setting range up to 87 Hz

If the frequency inverter's U/f reference point is set to 87 Hz, the rated torque can be taken into account in an extended setting range. A 230/400 V motor is used here, for example, and operated in delta on a 400 V frequency inverter. The setting range is increased by 40 %. The inverter must be dimensioned for a rated motor current of 230 V.



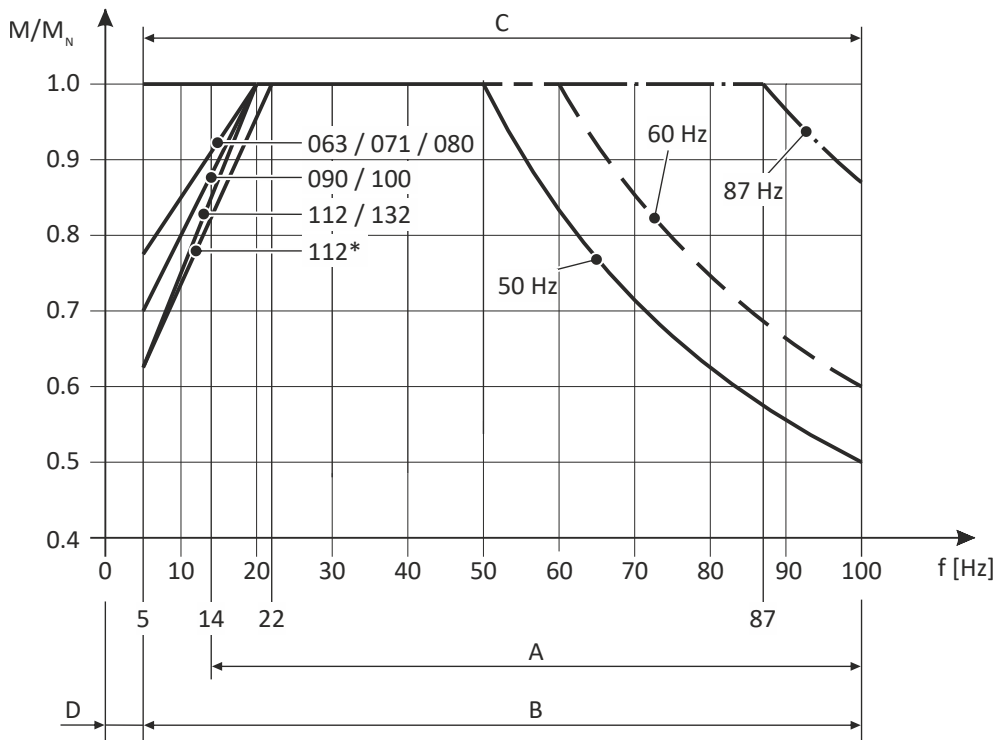
Torque reduction at low motor frequencies

At low motor frequencies (usually < 20 Hz) and with an integral fan, the motor is not cooled sufficiently at the rated torque. The motor can be operated from 5 Hz by reducing the torque accordingly.

Constant cooling takes place over the entire speed range in motors with a blower. This means that they can be used with their rated torque from 5 Hz.



The diagram shows the torque reduction depending on the motor frame size for self-ventilated motors taking into account the thermal behavior during inverter operation.



- A Operation with integral fan and brake
- B Operation with integral fan and brake with wide-range voltage DC 180 ... 205 V or AC 400 ... 460 V
Operation with integral fan and brake control, holding current reduction
- C Operation with blower
- D Operation is possible below 5 Hz depending on the application and control mode.
The application case must be checked by Lenze.
- 112* Motor mounting of i550 motec or i650 motec

Thermal power limit

The thermal power limit, defined by the heat balance, limits the permissible continuous gearbox power. It is affected by

- the churning losses in the lubricant. These are determined by the mounting position and the circumferential speed of the gears
- the load and the speed spectrum.
- the ambient conditions: temperature, air circulation, input or dissipation of heat via shafts and the foundations.

NOTICE

A thermal check using the EASY System Designer (ESD) or consultation with your Lenze representative is required if

- the input speed $n_1 > 1860$ rpm is exceeded with the gearbox ratios listed below.
- the input speeds specified below are exceeded depending on the mounting position. For short periods of up to 5 minutes, speeds 30% higher than this are permissible.
- the ambient temperature is predominantly above +3 0°C.

Gearbox	Ratio i
g500-H850 ... H3000	≤ 10



Motor	Mounting position M1	Mounting position M3, M5, M6	Mounting position M2, M4
m550-H63 ... H71	4000 rpm	3500 rpm	3000 rpm
m550-P80 ... P100	4000 rpm	3500 rpm	3000 rpm
m550-P112 ... P132	3000 rpm	2600 rpm	1500 rpm
m550-P160 ... P180	2000 rpm	1500 rpm	1500 rpm

Possible measures for expanding the scope of application

- Shaft sealing rings made of FKM material/Viton (optional)
- Reduction of lubricant quantity (in consultation with Lenze)
- Cooling of the gearmotor by air convection on the machine/system
- A version with a inch shaft is available on request.



4.2 Drive dimensioning

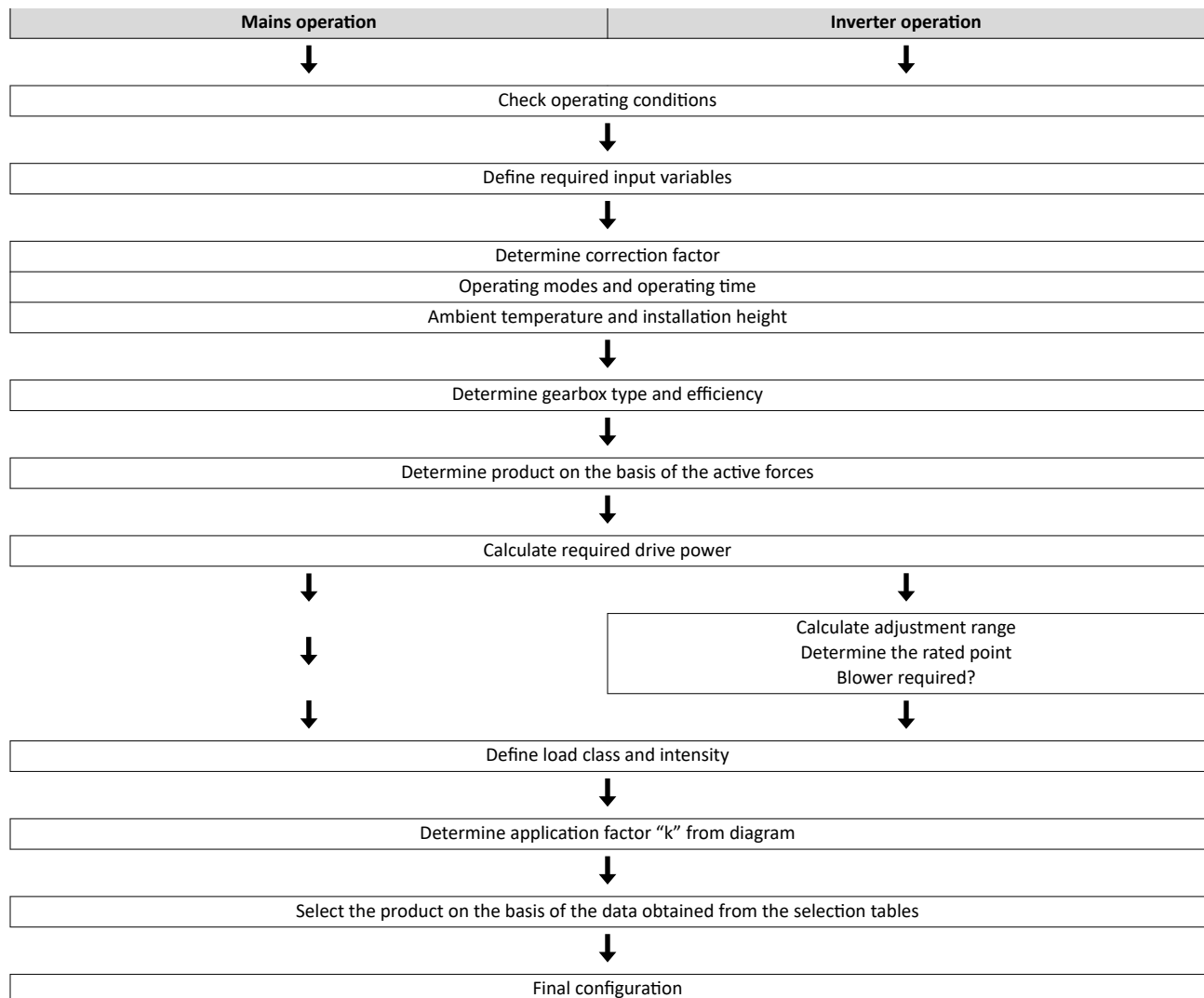
In order to carry out an accurate drive dimensioning process, you can use our configuring software, the »EASY System Designer«.

With the »EASY System Designer«, you can design the drive both quickly and to a high quality. The software contains profound and proven expertise with regard to drive applications and mechatronic drive components.

Please get in touch with your Lenze representative.

Order information	Example
Gearmotor	
Gearbox	g500-H45
Motor	m550-H63/S4
Gearbox ratio i	10466
Number of stages	2

Operation chart





Check operating conditions

Check
Approvals
Conformities
Supply voltage
Degree of protection
Ambient temperature
Surface protection

► Standards and operating conditions [52](#)

► Surface and corrosion protection [37](#)

Define required input variables

Necessary input variables	Note	Symbol	Unit
Operating time / day		OD	
Ambient temperature		T_V	°C
Site altitude amsl		H	m
Radial force		F_{rad}	N
Axial force		F_{ax}	N
Transmission element at the output Effective diameter of the transmission element	Gear wheels, sprockets ...	d_w	mm
Load torque	For short-term load peaks	$M_{L,max}$	Nm
	In rated operation	M_L	Nm
	In mains operation, $M_{L,max}/M_L$ should be < 2.0 to guarantee a safe start of the motor		
Load speed		$n_{L,max}$	rpm
	In inverter operation	$n_{L,min}$	rpm
Runtime for $M_{L,max}$	In inverter operation		%
External moments of inertia		J_{ext}	kgcm ²
Switching operations per hour		S_H	1/h

Determine correction factor

Operating modes S1, S2, S3, S6, and operating time							
Operating mode S1		Operating mode S2		Operating mode S3		Operating mode S6	
ED	k_L	ED	k_L	ED	k_L	ED	k_L
%		min		%		%	
100	1.0	10	1.4 - 1.5	15	1.4 - 1.5	15	1.5 - 1.6
		30	1.15 - 1.2	25	1.3 - 1.4	25	1.4 - 1.5
		60	1.07 - 1.1	40	1.15 - 1.2	40	1.3 - 1.4
		90	1.0 - 1.05	60	1.05 - 1.1	60	1.15 - 1.2

► Operating modes of the motor [267](#)

Installation height amsl			
≤ 1000 m	≤ 2000 m	≤ 3000 m	≤ 4000 m
Correction factor			
k_H	k_H	k_H	k_H
1	0.95	.90	.85

Ambient temperature		
≤ 40 °C	≤ 45 °C	≤ 50 °C
Correction factor		
k_{TU}	k_{TU}	k_{TU}
1	0.95	0.90



Mounting position						
Gearbox	Mounting position					
	M1	M2	M3	M4	M5	M6
	Correction factor					
	k_E	k_E	k_E	k_E	k_E	k_E
g500-H	1.00	0.70	0.80	0.80	1.00	1.00

► Selection tables 79

Gearbox efficiency

Gearboxes	Gearbox efficiency	
	η_{c1}	
g500-H		
2-stage	0.96	
3-stage	0.95	
4-stage	0.94	

Determine product on the basis of the forces

Transmission element			Gear wheels	Sprockets	Toothed belt pulleys (depending on the pretension)	Narrow V-belt (depending on the pretension)
Additional radial force factor	f_z		≥ 17 teeth: 1.0	≥ 20 teeth: 1.0	With belt tightener: 2.0 – 2.5	1.5 – 2.0
			< 17 teeth: 1.15	< 20 teeth: 1.25	Without belt tightener: 2.5 – 3.0	
				< 13 teeth: 1.4		
			Calculation		Check	
Radial force	F_{rad}	N	$F_{rad} = 2000 \times \frac{M_{L,max} \times f_z}{dw}$		$F_{rad} \leq f_w \times F_{rad,max}$	
Axial force	F_{ax}	N			$F_{ax} \leq F_{rad,max} \times 0.5$	

dw Effective diameter of transmission element in mm

f_w Additional load factor

► Radial forces and axial forces 74

Calculate drive power

Required Drive power	kW	$P_1 = \frac{M_L \times \eta_{L,max}}{9549 \times k_L \times k_H \times k_{TU} \times \eta_g}$	
----------------------	----	--	--

k_L Correction factor - operating mode

k_{TU} Correction factor - ambient temperature

k_H Correction factor - site altitude

η_g Gearbox efficiency

Intensity and load class for mains operation

		Calculation	
Intensity	F_I	$F_I = \frac{\frac{J_L}{i^2} + J_M + J_B + J_Z}{J_M + J_B + J_Z}$	

i Ratio of gearbox

J_B Moment of inertia of brake

J_L Load moment of inertia

J_Z Additional moment of inertia (handwheel, 2nd shaft end ...)

J_M Motor moment of inertia

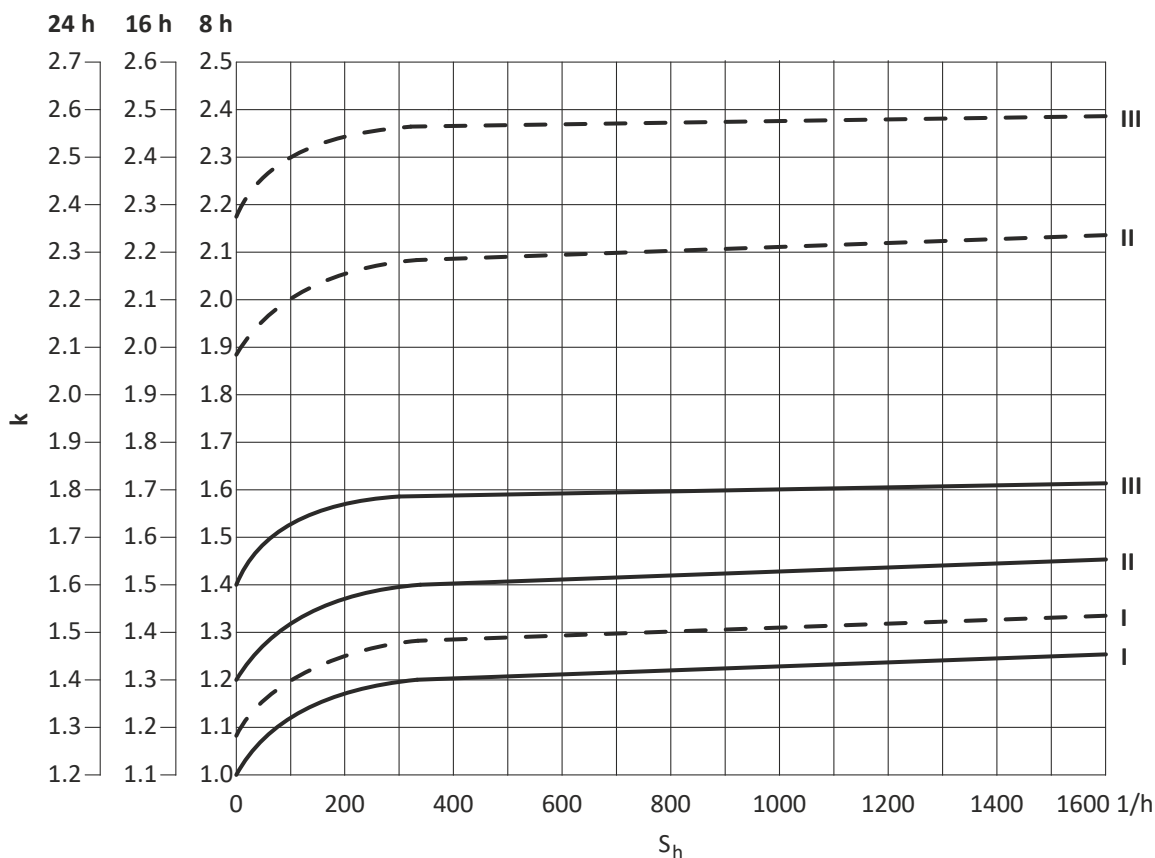
Intensity	Load type	Load class
$F_I \leq 1.25$	Smooth operation, small or light jolts	I
$1.25 < F_I \leq 4$	Uneven operation, average jolts	II
$F_I > 4$	Uneven operation, severe jolts and/or alternating load	III



Intensity and load class for inverter operation

	Calculation	
Intensity	$M_I = \frac{M_{L,max}}{M_L}$	For alternating load, select load class III!
Intensity	Load type	Load class
$M_I \leq 1.5$	Smooth operation, small or light jolts	I
$1.5 < M_I \leq 2$	Uneven operation, average jolts	II
$2 < M_I \leq 2.5$	Uneven operation, severe jolts and/or alternating load	III

Application factor k



- k Application factor
 S_h Switching rate
 — Ratio of motor stalling torque/rated torque < 2.5
 - - - Ratio of motor stalling torque/rated torque ≥ 2.5

Stalling/rated motor torque [▶ Rated data](#) [252](#)

Check and select product

Data [▶ Selection tables](#) [79](#)

Mains operation

Selection table	Screening	Unit	Note
Rated frequency	50	Hz	
Rated power	$P_{rated} \geq P_1$	kW	
Output torque	$M_2 \geq M_L$	Nm	The geared motor must be able to provide enough torque for $M_{L,max}$.
Output speed	$n_2 \approx n_{L,max}$	rpm	
Load factor	$c \geq k$		



Inverter operation

Selection table	Check	Unit	Note
Rated frequency	50/87	Hz	
Rated power	$P_{\text{rated}} \geq P_1$	kW	
Output torque	$M_2 \geq M_L$	Nm	The geared motor must be able to provide enough torque for $M_{L,\text{max}}$.
Max. Output speed	$n_2 \approx n_{L,\text{max}}$	rpm	
Min. Output speed			
Self-ventilated	$n_{21} \approx n_{L,\text{min}}$	rpm	Adjustment ranges ≤ 2.5 (50 Hz) Adjustment ranges ≤ 4.35 (87 Hz)
Forced-ventilated			
Self-ventilated (Output torque reduced)	$n_{22} \approx n_{L,\text{min}}$	rpm	Adjustment ranges ≤ 10 (50 Hz) Adjustment ranges ≤ 17.4 (87 Hz)
Load factor	$c \geq k$		



4.3 Final configuration

	Screening
Connection dimensions	Output shaft Output flange/foot
Mounting position	Geared motor Connector/terminal box Driven shaft/output flange
Product extensions	Torque plate Shaft cover Connector/terminal box Brake Feedback Blower Temperature monitoring Second shaft end Handwheel Protection cover ...

More information about the final configuration:

► [The modular system](#) 14

► [Product extensions](#) 173



4.3.1 Surface and corrosion protection

Depending on the ambient conditions, the surface and corrosion protection system (called OKS) offers tailor-made solutions for optimum protection.

Various surface coatings ensure reliable functioning even at high air humidity, in outdoor installations, or in the presence of atmospheric contamination. Any color from the "RAL Classic" collection can be chosen for the top coat.

For indoor installation in buildings and if no special corrosion protection is required, the products are also available unpainted (without surface and corrosion protection system).



Without OKS (unpainted):

The aluminum parts are uncoated and cast iron parts primed with gray paint. Slight color differences between the components are possible.

Surface and corrosion protection	Applications	Product	
		g500-H45 ... H450 g500-S130 ... S660 g500-B45 ... B450	g500-H600 ... H1500 g500-S950 ... S4500 g500-B600 ... B1500
Without OKS (unpainted)	- Indoor installation, no special corrosion protection necessary - Painting by customer	Default	-
OKS-G (primed)	Dependent on subsequent top coat applied	Optionally	Optionally
OKS-S (small)	- Standard applications - Indoor installation in heated buildings - Air humidity up to 90 %		Default
OKS-M (medium)	- Indoor installation in unheated buildings - Covered, protected outdoor installation - Air humidity up to 95 %		Optionally
OKS-L (large)	- Outdoor installation - Chemical industrial plants - Food industry - Air humidity above 95 %		

Surface and corrosion protection	Corrosivity category	Surface coating	Color	Coating thickness
	DIN EN ISO 12944-2	Design		
Without OKS (unpainted)	-	Dip priming of the gray cast iron parts	-	30 ... 50 µm
OKS-G (primed)	-	- Dip priming of the gray cast iron parts 2K PUR priming coat	-	80 ... 120 µm
OKS-S (small)	Comparable to C1	- Dip priming of the gray cast iron parts 2K-PUR top coat	- Standard: RAL 7012 - Optional: According to RAL Classic possible	80 ... 120 µm
OKS-M (medium)	Comparable to C2	Dip priming of the gray cast iron parts		110 ... 160 µm
OKS-L (large)	Comparable to C3	2K PUR priming coat 2K-PUR top coat		140 ... 200 µm



4.3.2 Temperature ranges

Temperature ranges

The following temperature ranges are available matched to your ambient conditions:

- Default
- Deep-freeze
- Wide range



Specify the temperature package and lubricant when ordering.

Observe the specified notes on the temperature packages!

In case of ambient temperatures < -30 °C or > +40 °C, please get in touch with your Lenze representative

Temperature ranges	
Standard	
Ambient temperature	0 °C ... +40 °C
Lubricant	Mineral oil • CLP 460 Synthetic oil • CLP HC 220 Food-compatible oil • CLP HC 220 NSF H1
Note	At an ambient temperature generally over +30 °C: • The application case must be checked by Lenze.
Low-temperature	
Ambient temperature	-30 °C ... +10 °C
Lubricant	Food-compatible oil • CLP HC 46 NSF H1
Note	When starting a cold motor at below -20 °C, increased starting torques are to be expected due to the higher viscosity of the roller bearing grease. • During project planning, allow a motor starting torque reserve of about 20%. Commissioning at over +10 °C: • Operate the drive at max. 50% of the rated torque to avoid a reduction in service life.
Wide range	
Ambient temperature	-30 °C ... +40 °C
Lubricant	Synthetic oil • CLP HC 220
Note	When starting a cold motor at below -20 °C, increased starting torques are to be expected due to the higher viscosity of the roller bearing grease. • During project planning, allow a motor starting torque reserve of about 30%. At an ambient temperature generally over +30 °C: • The application case must be checked by Lenze. At a constant temperature between -30 °C and -25 °C, the service life is up to 20% lower than with the low-temperature range.



4.3.3 Lubricants

The following gearboxes are lubricated for life:

- g500-H45
- g500-H100
- g500-H140

Recommended lubricants:

Lubricant	CLP 220	CLP 460	CLP HC 220	CLP HC 320
Ambient temperature	0 ... +40 °C		-30 ... +40 °C	-20 ... +50 °C
Specification	Mineral oil with EP additives		Synthetic oil (polyalfaolefins basis)	
Changing interval				
Operating hours	16000		25000	
Not later than after	3 years		4 years	
At an oil temperature of	70 °C		70 °C	
FUCHS	Renolin CLP 220	Renolin CLP 460	Renolin Unisyn XT 220	Renolin Unisyn XT 320
KLÜBER	Klüberoil GEM 1-220 N	Klüberoil GEM 1-460 N	Klübersynth GEM 4-220 N	Klübersynth GEM 4-320 N
SHELL	Shell Omala S2 GX 220	Shell Omala S2 GX 460	Shell Omala S4 GXV 220	Shell Omala S4 GXV 320

Lubricant	CLP HC 46 NSF H1	CLP PG 100 NSF H1	CLP HC 220 NSF H1	CLP PG 460 NSF H1
Ambient temperature	-30 ... +10 °C		-20 ... +40 °C	
Specification	Synthetic oil (polyalfaolefins basis)	Synthetic oil (polyglycol basis)	Synthetic oil (polyalfaolefins basis)	Synthetic oil (polyglycol basis)
Changing interval				
Operating hours	16000			
Not later than after	3 years			
At an oil temperature of	70 °C			
FUCHS			Cassida Fluid GL 220	Cassida Fluid WG 460
KLÜBER	Klüberoil Summit HYSYN FG-46	Klübersynth UH1 6-100	Klüberoil 4 UH1-220 N	Klübersynth UH1 6-460
Castrol				Optileb GT 1800/460

Lubricant amounts for stocking

All lubricant amounts are reference values for a change of lubricant. They serve stocking purposes, for example. The specified values may vary if the unit is installed in a tilted position.

The exact values can be found on the nameplate.

Mounting position		M1 (A)	M2 (D)	M3 (B)	M4 (C)	M5 (F)	M6 (E)	M1-M6 (A-F)	M1, M5, M6 (AEF)
Gearbox									
g500-H45	I	0.2	0.2	0.2	0.2	0.2	0.2	0.2	-
g500-H100	I	0.5	0.7	0.8	0.7	0.5	0.7	-	0.7
g500-H140	I	0.5	0.8	0.9	0.7	0.5	0.8	-	0.8
g500-H210	I	0.8	1.1	1.2	1.3	0.9	1.2	-	1.2
g500-H320	I	0.8	1.2	1.3	1.3	1.0	1.2	-	1.2
g500-H450	I	1.1	1.6	1.7	1.8	1.4	1.6	-	1.6
g500-H600	I	1.7	2.6	2.4	3.0	1.9	2.3	-	-
g500-H850	I	2.3	3.5	3.0	4.0	2.5	3.2	-	-
g500-H1500	I	4.6	7.0	6.0	7.7	5.0	6.0	-	-
g500-H3000	I	8.0	12.6	10.0	13.2	9.5	9.8	-	-
Pre-stage	I	0.4							

► Gearbox with pre-stage [164](#)



4.3.4 Ventilation



No ventilation is required for the gearboxes g500-H45 ...H210.
The gearbox g500-H210 can optionally be fitted with ventilation units.
From g500-H320onwards, the gearboxes are supplied with ventilation units as standard.

To reduce the number of different versions, the following gearboxes can also be ordered with combined mounting positions:

- g500-H45 in mounting position M1-M6 (A-F)
- g500-H100 ... H450 in mounting position M1/5/6 (AEF)



In these gearboxes, the lubricant amount has been optimised for the use in different mounting positions. If required, the breather elements are loosely enclosed and must be mounted before commissioning depending on the mounting position.

NOTICE

► For gearboxes with ventilation, a gap of at least 30 mm has to be observed to the machine wall on the corresponding gearbox side.

g500-H210

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M4 (C)	M5 (F)	M6 (E)

Ventilation Change oil Fill oil Oil level



g500-H320

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6

⚙ Ventilation

🔄 Change oil

⬇ Fill oil

📏 Oil level

g500-H450

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6

⚙ Ventilation

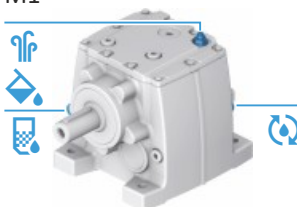
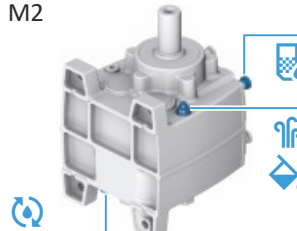
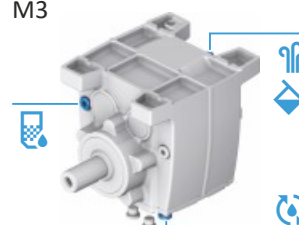
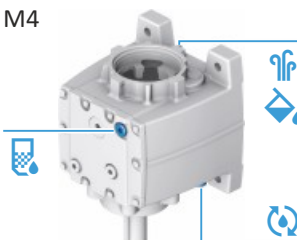
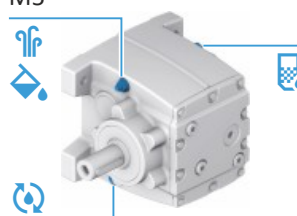
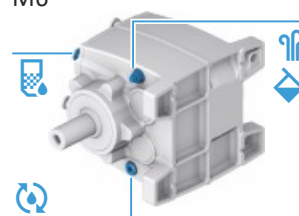
🔄 Change oil

⬇ Fill oil

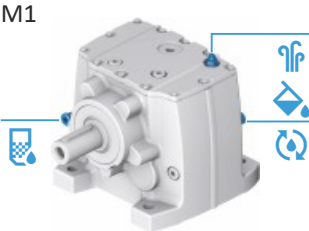
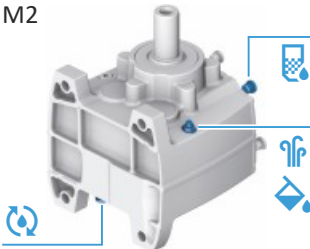
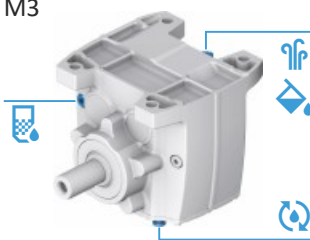
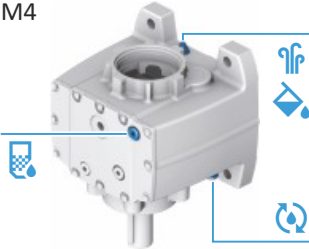
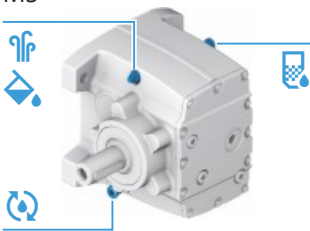
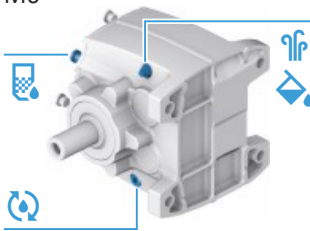
📏 Oil level



g500-H600

Mounting position			
M1 (A)	M2 (D)	M3 (B)	
M1 	M2 	M3 	
M4 (C)	M5 (F)	M6 (E)	
M4 	M5 	M6 	
 Ventilation	 Change oil	 Fill oil	 Oil level

g500-H850

Mounting position			
M1 (A)	M2 (D)	M3 (B)	
M1 	M2 	M3 	
M4 (C)	M5 (F)	M6 (E)	
M4 	M5 	M6 	
 Ventilation	 Change oil	 Fill oil	 Oil level



g500-H1500

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6

🌀 Ventilation

🔄 Change oil

⬇️ Fill oil

📏 Oil level

g500-H3000

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6

🌀 Ventilation

🔄 Change oil

⬇️ Fill oil

📏 Oil level



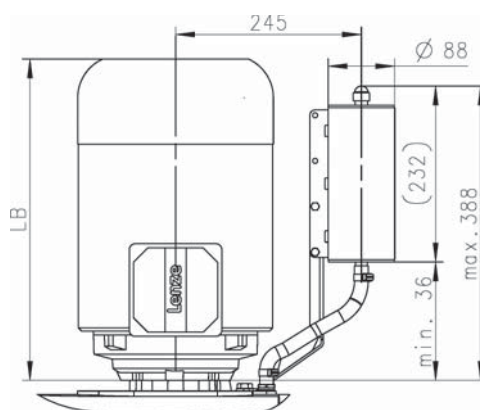
Gearbox with oil compensation reservoir for mounting position M4 (C)

In order to guarantee a reliable lubrication of the toothed parts in mounting position M4 (C) (motor is on the gearbox vertical from the top), a high filling level is required in the gearbox. As a result of the reduced volume of air in the gearbox, this may lead to oil escaping from the ventilation at higher input speeds. The oil compensation reservoir increases the expansion space for the lubricant.

The oil compensation reservoir can be ordered as a mounting set for fastening to the gearbox.

If insufficient space is available, the oil compensation reservoir can also be mounted over the gearbox hose connection on nearby system parts.

Dimensions of the oil compensation reservoir



8800783-00

For the following gearboxes in mounting position M4 (C), which exceed the specified min. input speed, an oil expansion reservoir is required depending on the specified gear ratio:

g500-H1500		g500-H3000	
Gearbox ratio	Min. input speed	Gearbox ratio	Min. input speed
	rpm		rpm
3.743	2000	4.496	2000
4.758	2000	5.902	2000
5.400	2000	6.344	2000
6.245	2000	6.968	2000
6.864	2000	8.327	2000
7.592	2000	9.146	2000
9.010	2000	10.005	2000
10.267	2000	11.619	2000
11.356	2000	12.762	2000
12.362	3000	14.233	2000
13.673	3000	15.633	2000
15.156	3000	18.752	3000
16.763	3000	20.596	3000
20.533	3000	23.044	3000
22.711	3000	25.311	3000
24.933	3000	29.822	3000
27.578	3000	32.756	3000
32.267	4000	36.193	4000
35.689	4000	39.753	4000
39.160	4000	45.750	4000
43.313	4000	50.250	4000
49.500	4000		
54.750	4000		



5 Mechanical installation

5.1 Important notes

- Install the product according to the information in the chapter "Standards and operating conditions".
 - ▶ [Standards and operating conditions](#)  52
- The technical data and the data regarding the supply conditions can be found on the nameplate and in this documentation.
- Ambient media – especially chemically aggressive ones – may damage shaft sealing rings, lacquers and plastics.
- Lenze offers special surface and corrosion protection in this case.



5.2 Transport

CAUTION!

Danger from tipping and falling loads!

Standing beneath suspended loads is prohibited!

Possible consequences: Minor or moderate injuries.

- ▶ To achieve a load direction that is as vertical as possible (maximum load-bearing capacity), use additional, suitable load carriers if necessary. Secure the load carrier against slipping!
- ▶ Screw in the transport aids completely. They must lie flat and over the entire surface!
- ▶ Load the transport aids vertically in the direction of the screw axis! Inclined or lateral tension reduces the load-bearing capacity! Observe the specifications in the DIN 580!

NOTICE

Eye bolts or lifting eyes on the motor are not suitable for transporting geared motors.

Only use these for mounting/dismounting the motor on the gearbox.

Possible consequences: Damage to the geared motor.

- ▶ Only use the threads provided on the gearbox for eye bolts or lifting eyes for transporting the geared motor.

Preconditions

- Ensure appropriate handling.
- Make sure that all component parts are securely mounted. Secure or remove loose component parts.
- Only use safely fixed transport aids (e.g., eye bolts or support plates).
- Do not damage any components during transport.
- Avoid electrostatic discharges on electronic components and contacts.
- Avoid impacts.
- Check the carrying capacity of the hoists and load handling devices. The weights can be found in the shipping documents.
- Secure the load against tipping and falling down.
- Standing beneath suspended loads is prohibited.



The eye bolt is not included in the scope of supply!

Position of the eye bolt

Geared motor		
	Eye bolt on the shaft	Eye bolt on the housing
G50AH045Mxxxxxx	M5 ... M6	-
G50BH110Mxxxxxx	M6	-
G50BH114Mxxxxxx	M10	-
G50BH121Mxxxxxx	-	M8
G50BH132Mxxxxxx	-	M10
G50BH145Mxxxxxx	-	M12
G50BH160Mxxxxxx	-	M12
G50BH185Mxxxxxx	-	M16
G50BH215Mxxxxxx	-	M16
G50BH230Mxxxxxx	-	M20
G50BH250Mxxxxxx	-	M20
G50BH280Mxxxxxx	-	M24
G50BH314Mxxxxxx	-	M24



5.3 Installation

Ventilation elements

Gearboxes that are supplied with a pre-assembled ventilation element:

- The ventilation element is identified by a sign on the gearbox.
- Remove the transport lock from the ventilation element before initial commissioning.

Gearboxes that are supplied with a loosely attached ventilation element:

- Before commissioning for the first time, install the ventilation element according to the mounting position.

Mounting surfaces

- The mounting surfaces must be plane, torsionally rigid and free from vibrations.
- The mounting areas must be suited to absorb the forces and torques generated during operation.
- Ensure an unhindered ventilation.
- For versions with a fan, keep a minimum distance of 10 % from the outside diameter of the fan cover in intake direction.



6 Electrical installation

6.1 Important notes

DANGER!

Risk of injury and risk of burns from dangerous voltage

Power terminals may also carry voltage in the switched-off state or when the motor is stopped and may cause life-threatening cardiac arrhythmia and serious burns.

- ▶ Disconnect the product from the mains.
- ▶ Check that the power terminals are deenergized before starting work.

-
- When working on energized products, comply with the applicable national accident prevention regulations.
 - The electrical installation must be carried out according to the appropriate regulations (e.g. cable cross-sections, fuses, PE connection).
 - The manufacturer of the system or machine is responsible for adherence to the limits required in connection with EMC legislation.

Connection for high leakage current

If the leakage current is greater than 3.5 mA for alternating current or greater than 10 mA for direct current, the standard EN 61800-5-1 requires that at least one or more of the following measures be met:

- The minimum PE conductor cross-section is 10 mm² with Cu or 16 mm² with Al.
- Attachment of an additional protective grounding conductor with the same cross-section as the original protective grounding conductor.
 - Do not place the additional terminal on the same terminal.
- Provide automatic disconnection of the mains in case of interruption of the protective conductor.

▶ [Connection options](#)  173

Operation on an external inverter

A max. pulse voltage amplitude of $U_{pk} = 1560 \text{ V}$ at the motor terminals must not be exceeded.

Here, the minimum pulse rise time must be $t_r = 0.1 \text{ } \mu\text{s}$.

If it cannot be ruled out that the permissible voltage peaks will be exceeded or that the minimum pulse rise time will not be reached, the following measures must be initiated:

- Reduction of the DC-bus voltage (threshold for brake chopper voltage)
- Use of filters, chokes
- Use of special motor cables



6.2 Preparation

EMC-compliant wiring



The EMC-compliant wiring is described in detail in the documentation of the Lenze inverters.



7 Technical data

7.1 Notes regarding the given data

Catalog data

The power values, torques and speeds specified in the configuration are rounded values and apply to:

- Operating time per day = 8 hrs (100 % ED)
- Duty class up to 10 switching operations per hour
- Ambient temperature = -30 ... +40 °C
- Site altitude ≤ 1000 m above mean sea level
- The selection tables indicate the mechanically permissible power levels and torques.
- The ratings apply to the operating mode S1 (acc. to EN 60034-1).

NOTICE

In case of other operating conditions, the achievable values can differ for those mentioned.

► In case of extreme operating conditions, please get in touch with your Lenze representative.



7.2 Standards and operating conditions

7.2.1 Conformities and approvals

More information and certificates of approval can be found under

[g500 + m500 helical geared motors \(Lenze.com\)](https://www.lenze.com/en/g500-m500-helical-geared-motors)

Europe					
Country	Conformity/ approval	Law/standard	Description	Special feature	Product representation
European Union	CE	(EU) 2019/1781	Regulation laying down ecodesign requirements for electric motors and speed control	-	CE mark
		2006/42/EC	Machinery Directive	Only for safety-relevant components	
		2011/65/EU	RoHS	-	
		2014/30/EU	EMC Directive		
		2014/35/EU	Low-Voltage Directive		
Great Britain	UKCA	S.I. 2008/1597	The Supply of Machinery (Safety) Regulations 2008	Only for safety-relevant components	UKCA mark
		S.I. 2012/3032	The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012	-	
		S.I. 2016/1091	The Electromagnetic Compatibility Regulations 2016		
		S.I. 2016/1101	The Electrical Equipment (Safety) Regulations 2016		
		S.I. 2021/745	The Ecodesign for Energy-Related Products and Energy Information Regulations 2021		

America					
Country	Conformity/ approval	Law/standard	Description	Special feature	Product representation
Brazil	INMETRO	ABNT NBR 17094-1	Rotating electrical machines - Part 1: Induction motors three-phase - Requirements	Approved products	INMETRO mark
		Portaria n.º 1, 2017	MEPS		
Canada	CSA	CSA 22.1 No. 100	CSA Standard for Motors and Generators	-	cULus mark
	NrCAN	SOR/2016-311 (Division 12 - Subdivision A)	Energy Efficiency Regulations		UL Energy mark
USA	DOE	10 CFR Part 431 - Subpart B	Energy Efficiency Program for Certain Commercial and Industrial Equipment		UL Energy mark + CC number
	UL	UL 1004-1	UL Standard for Rotating Electrical Machines		cULus mark



Asia					
Country	Conformity/ approval	Law/standard	Description	Special feature	Product representation
China	-	GB 18613	Minimum allowable values of energy efficiency and energy efficiency grades for small and medium three-phase asynchronous motors	-	CEL mark
		GB/T 26572	Requirements on concentration limits for certain restricted substances in electrical and electronic products		EFUP mark
	CCC	GB 12350	Safety requirements of small power motors		CCC mark
Singapore	NEA	Energy Conservation Act 2013	Energy Conservation Act (Cap. 92C) - MEPS	-	-
		IEC 60034-2-1	Rotating electrical machines - Part 2-1: Standard methods for determining losses and efficiency from tests		
South Korea	KEA	KS C IEC 60034-2-1			KEL mark incl. KC mark
		MOTIE Notification No. 2017-61MOTIE Notification No. 2020-225	Regulation on energy Efficiency Labeling & Standards - MEPS		

7.2.2 Protection of persons and device protection

Degree of protection			
EN	EN IEC 60529,EN IEC 60034-5	IP54	Information applies to the mounted and ready-for-use state
		IP55	
		IP65	
		IP66	
Temperature class			
-	EN IEC 60034-1	F (155 °C)	Insulation system
Utilization		B (130 °C)	Utilization
Permissible voltage			
-	IEC 60034-18-41	IVIC C	At 500 V

7.2.3 EMC data

Noise emission		
-	EN IEC 60034-1	A final overall assessment of the drive system is indispensable
Interference immunity		
-	EN IEC 60034-1	A final overall assessment of the drive system is indispensable



7.2.4 Environmental conditions

Energy efficiency			
Efficiency level	EN IEC 60034-30-1	Energy efficiency class IE2	according to REGULATION (EU) 2019/1781
		Energy efficiency class IE3	
Climate			
Storage	EN 60721-3-1:1997	1K3 (-25 ... +60 °C)	
Transport	EN 60721-3-2:1997	2K3 (-25 ... +70 °C)	
Operation	EN 60721-3-3:1995 + A2:1997	3K3 (0 ... +40 °C)	
	-	-30 ... +10 °C	Depending on the temperature package!
		-30 ... +40 °C	Observe ambient temperature on the nameplate!
Installation altitude			
0 ... 1000 m amsl	-	Without current derating	
1000 ... 4000 m amsl		Reduce power by 5 %/1000 m	
Air humidity			
-	-	Average relative humidity 85%	Without condensation



7.3 Gearbox data

The following tables contain the most important data of the gearbox for attachable motors of a geared motor.

The data given for speed, torque and power are valid if the

- input speed $n_1 = 1400$ rpm
- Application factor $c = 1.0$

In order to calculate the exact ratio, the number of teeth z_g (driven) can be divided by the number of teeth z_t (driving).

g500-H45, 2-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
n_2	$M_{2, \max}$	i	z_g	z_t	Standard
rpm	Nm				'
978	18.0	2.597	896	345	41
744	19.0	3.413	256	75	39
582	21.0	4.368	1376	315	38
478	27.0	5.312	1344	253	28
426	29.0	5.965	686	115	28
364	30.0	6.982	384	55	27
324	32.0	7.840	196	25	27
284	33.0	8.935	688	77	27
253	35.0	10.033	301	30	26
222	35.0	11.429	80	7	26
198	38.0	12.833	77	6	26
171	39.0	14.836	816	55	26
153	41.0	16.660	833	50	25
134	42.0	19.013	1464	77	26
119	44.0	21.350	427	20	25
103	45.0	24.595	2976	121	25
91.8	45.0	27.618	1519	55	25
79.2	45.0	32.000	32	1	26
70.3	45.0	35.933	539	15	25
60.9	45.0	41.455	456	11	25
54.2	45.0	46.550	931	20	25
47.7	45.0	52.909	582	11	25
42.5	45.0	59.413	4753	80	25



g500-H100, 2-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
1221	49.0	2.108	120	253	30
768	62.0	3.354	161	48	29
560	72.0	4.600	23	5	27
498	75.0	5.167	31	6	24
437	81.0	5.887	989	168	27
400	83.0	6.440	161	25	27
363	86.0	7.086	248	35	23
314	92.0	8.214	115	14	27
284	96.0	9.068	1333	147	23
256	99.0	10.063	161	16	27
227	100	11.360	284	25	22
204	100	12.653	620	49	23
178	100	14.490	710	49	22
166	100	15.500	31	2	23
145	100	17.750	71	4	22
132	100	19.486	682	35	23
115	100	22.314	781	35	22
102	100	25.095	527	21	23
89.3	100	28.738	1207	42	21
79.7	100	31.805	2449	77	22
69.6	100	36.422	5609	154	21
63.6	100	39.857	279	7	22
55.5	100	45.643	639	14	21
48.1	72.0	52.510	2573	49	22
42.0	82.0	60.133	5893	98	21

g500-H100, 3-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n ₂	M _{2, max}	i	z _g	z _t	
rpm	Nm				'
48.9	100	51.962	5456	105	23
42.6	100	59.505	6248	105	22
38.1	100	66.499	29326	441	23
34.8	100	72.747	5456	75	23
30.4	100	83.307	6248	75	22
27.2	100	92.789	13640	147	23
23.8	100	106.259	15620	147	22
22.2	100	113.667	341	3	23
19.4	100	130.167	781	6	22
17.7	100	142.895	15004	105	23
15.4	100	163.638	17182	105	21
14.6	100	173.423	30349	175	22
12.7	100	198.597	69509	350	21
11.3	100	223.348	46903	210	22
9.9	100	255.769	107423	420	21



g500-H140, 2-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	'
rpm	Nm				
1257	63.0	2.053	75	154	27
886	83.0	2.912	125	364	26
788	82.0	3.267	49	15	25
575	94.0	4.480	112	25	24
449	103	5.733	86	15	23
411	105	6.272	784	125	23
354	106	7.269	189	26	18
322	117	8.000	8	1	23
285	117	9.029	316	35	18
263	125	9.800	49	5	23
223	128	11.554	3397	294	18
204	132	12.640	316	25	18
185	136	13.957	4536	325	17
160	140	16.122	790	49	18
145	140	17.802	1620	91	17
130	140	19.750	79	4	18
118	140	21.808	567	26	17
103	140	24.829	869	35	18
93.6	140	27.415	1782	65	17
80.2	140	31.976	1343	42	18
72.6	140	35.308	459	13	17
62.6	140	40.526	6241	154	17
56.7	140	44.748	6399	143	16
49.9	133	50.786	711	14	17
45.2	140	56.077	729	13	16
37.7	92.0	66.908	6557	98	17
34.2	101	73.879	6723	91	16

g500-H140, 3-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n ₂	M _{2, max}	i	z _g	z _t	
rpm	Nm				'
44.1	140	57.582	12956	225	18
39.9	140	63.582	20664	325	17
34.6	140	73.447	32390	441	18
29.9	140	84.732	37367	441	18
27.3	140	92.693	6952	75	18
24.8	140	102.351	33264	325	17
21.4	140	118.231	17380	147	18
19.3	140	130.549	11880	91	17
17.4	140	144.833	869	6	18
15.8	140	159.923	2079	13	17
13.9	140	182.076	19118	105	18
12.6	140	201.046	13068	65	17
11.4	140	220.974	77341	350	18
10.3	140	243.997	79299	325	17
8.9	140	284.588	119527	420	18
8.0	140	314.238	40851	130	17
7.0	140	360.681	555449	1540	18



g500-H210, 2-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
761	126	3.389	61	18	22
555	143	4.648	488	105	22
462	159	5.583	67	12	18
413	158	6.250	25	4	17
337	172	7.657	268	35	18
301	171	8.571	60	7	17
263	182	9.799	2881	294	18
241	189	10.720	268	25	18
215	186	12.000	12	1	17
189	201	13.673	670	49	17
169	200	15.306	750	49	17
154	210	16.750	67	4	17
138	210	18.750	75	4	16
118	210	21.802	2747	126	17
106	210	24.405	1025	42	16
95.0	210	27.119	1139	42	17
84.8	210	30.357	425	14	16
73.1	210	35.095	737	21	17
65.3	210	39.286	275	7	16
60.2	183	42.593	5963	140	16
53.8	206	47.679	1335	28	16
46.6	137	54.438	871	16	16
41.6	155	60.938	975	16	16

g500-H210, 3-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
59.1	210	43.390	4556	105	17
52.8	210	48.571	340	7	16
46.2	210	55.529	48977	882	17
41.3	210	62.160	18275	294	16
36.1	210	71.026	62645	882	16
32.3	210	79.507	23375	294	16
27.5	210	92.205	19363	210	16
24.6	210	103.214	1445	14	16
21.5	210	118.162	69479	588	16
19.2	210	132.270	25925	196	15
16.6	210	152.853	35309	231	16
14.8	210	171.104	13175	77	15
12.7	210	198.873	12529	63	16
11.3	210	222.619	4675	21	15
9.8	210	257.631	21641	84	16
8.8	210	288.393	8075	28	15
7.7	190	328.818	110483	336	16
6.9	210	368.080	41225	112	15



g500-H210, 4-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n ₂	M _{2, max}	i	z _g	z _t	
rpm	Nm				'
7.9	210	318.197	100232	315	17
7.1	210	356.190	7480	21	16
6.2	210	407.216	538747	1323	17
5.5	210	455.839	201025	441	16
5.1	210	494.212	4358953	8820	17

g500-H320, 2-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
761	165	3.389	61	18	20
555	189	4.648	488	105	20
424	227	6.083	73	12	16
373	218	6.910	539	78	15
309	249	8.343	292	35	16
272	238	9.477	616	65	15
242	265	10.677	3139	294	15
221	271	11.680	292	25	15
213	254	12.128	473	39	15
195	262	13.268	4312	325	15
173	294	14.898	730	49	15
153	281	16.923	220	13	14
141	313	18.250	73	4	15
125	299	20.731	539	26	14
108	320	23.754	2993	126	15
95.4	320	26.983	3157	117	14
87.1	320	29.548	1241	42	15
76.7	320	33.564	1309	39	14
67.1	251	38.238	803	21	15
59.1	285	43.436	1694	39	14
55.3	218	46.407	6497	140	14
48.7	248	52.715	6853	130	14



g500-H320, 3-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
54.3	320	47.276	4964	105	15
47.8	320	53.703	10472	195	14
42.4	320	60.502	53363	882	15
37.3	320	68.726	8041	117	14
33.1	320	77.387	68255	882	15
29.2	320	87.906	10285	117	14
25.5	320	100.462	21097	210	15
22.5	320	114.118	22253	195	14
19.7	320	128.743	75701	588	15
17.3	320	146.244	11407	78	14
15.2	320	166.541	38471	231	15
13.4	320	189.179	7378	39	14
11.7	315	216.683	13651	63	15
10.3	320	246.137	28798	117	14
9.0	269	280.702	23579	84	15
7.9	305	318.859	24871	78	14

g500-H320, 4-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
7.3	320	346.692	109208	315	15
6.4	320	393.819	230384	585	14
5.7	320	443.683	586993	1323	15
5.0	320	503.994	176902	351	14
4.4	320	567.502	750805	1323	15
3.9	320	644.644	226270	351	14
3.4	320	736.721	232067	315	15
3.0	320	836.865	489566	585	14



g500-H450, 2-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
752	256	3.444	31	9	19
548	293	4.724	496	105	17
456	315	5.678	511	90	15
428	323	6.045	2666	441	17
392	334	6.613	496	75	17
333	354	7.787	584	75	14
294	370	8.800	44	5	13
260	384	9.965	3139	315	14
230	400	11.262	473	42	13
210	411	12.320	308	25	13
186	426	13.905	292	21	13
165	441	15.714	110	7	13
152	450	17.033	511	30	13
135	448	19.250	77	4	13
116	450	22.170	2993	135	13
103	450	25.056	451	18	13
93.6	450	27.578	1241	45	13
82.8	450	31.167	187	6	13
72.2	450	35.689	1606	45	13
63.8	450	40.333	121	3	12
59.5	322	43.313	6497	150	13
52.6	366	48.950	979	20	12
46.8	273	54.750	219	4	13
41.5	307	61.875	495	8	12

g500-H450, 3-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n ₂	M _{2, max}	i	z _g	z _t	
rpm	Nm				'
58.4	450	44.124	9928	225	14
51.6	450	49.867	748	15	13
45.6	450	56.469	53363	945	14
41.7	450	61.774	69496	1125	14
36.9	450	69.813	5236	75	13
32.7	450	78.794	4964	63	14
28.9	450	89.048	1870	21	13
26.7	450	96.522	8687	90	14
23.6	450	109.083	1309	12	13
21.1	450	121.342	27302	225	14
18.7	450	137.133	2057	15	13
16.4	450	156.274	21097	135	14
14.5	450	176.611	3179	18	13
12.8	450	198.059	98039	495	13
11.3	450	223.833	1343	6	13
10.2	450	248.200	1241	5	13
9.0	450	280.500	561	2	13
7.7	430	326.994	103003	315	13
6.8	450	369.548	15521	42	13



g500-H450, 4-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
7.8	450	323.579	218416	675	13
6.9	450	365.689	16456	45	14
6.1	450	414.104	1173986	2835	14
5.6	450	453.011	1528912	3375	14
4.9	450	511.964	115192	225	13
4.4	450	577.820	109208	189	14
3.9	450	653.016	41140	63	13
3.6	450	707.830	95557	135	14
3.2	450	799.944	14399	18	13
2.8	450	889.843	600644	675	14
2.5	450	1005.644	45254	45	13
2.2	450	1146.010	464134	405	14

g500-H600, 2-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
888	220	2.917	12	35	18
793	240	3.267	49	15	17
578	297	4.480	112	25	15
452	339	5.733	86	15	15
401	404	6.456	581	90	13
357	435	7.250	29	4	13
293	487	8.853	664	75	12
261	510	9.943	348	35	12
229	537	11.330	3569	315	12
209	553	12.395	4648	375	12
186	578	13.920	348	25	12
164	600	15.810	332	21	12
146	600	17.755	870	49	12
134	600	19.367	581	30	12
119	600	21.750	87	4	11
102	600	25.207	3403	135	12
91.1	600	28.310	1189	42	11
82.3	600	31.356	1411	45	12
73.3	600	35.214	493	14	11
63.5	558	40.578	1826	45	11
56.5	600	45.571	319	7	11
52.3	456	49.247	7387	150	11
46.6	513	55.307	7743	140	11
41.2	371	62.250	249	4	11
36.7	418	69.911	3915	56	11



g500-H600, 3-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
82.7	600	31.197	49136	1575	13
73.6	600	35.037	8584	245	12
64.6	600	39.925	264106	6615	13
59.1	600	43.676	49136	1125	12
52.6	600	49.051	8584	175	12
46.3	600	55.710	24568	441	12
41.2	600	62.566	21460	343	12
37.8	600	68.244	3071	45	12
33.7	600	76.643	1073	14	12
29.0	600	88.826	251822	2835	12
25.8	600	99.757	43993	441	12
23.3	600	110.491	104414	945	12
20.8	600	124.088	18241	147	12
17.9	600	142.988	135124	945	12
16.0	600	160.585	23606	147	12
14.8	600	173.536	273319	1575	12
13.2	600	194.892	95497	490	12
11.4	600	221.794	39923	180	12
10.2	600	249.089	13949	56	12

g500-H600, 4-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n ₂	M _{2, max}	i	z _g	z _t	
rpm	Nm				'
12.9	600	198.970	2014576	10125	13
11.5	600	223.457	351944	1575	12
10.0	600	253.789	1007288	3969	13
8.9	600	285.021	879860	3087	12
7.9	600	320.294	1080992	3375	12
7.0	600	359.710	188848	525	12
6.2	600	408.538	540496	1323	12
5.5	600	458.814	472120	1029	12
5.1	600	500.459	67562	135	12
4.5	600	562.048	11803	21	12
3.9	600	651.391	5540084	8505	12
3.5	600	731.554	967846	1323	12
3.1	600	810.267	2297108	2835	12
2.8	600	909.982	401302	441	12
2.4	600	1048.581	2972728	2835	12
2.1	600	1177.624	519332	441	12
2.0	600	1272.596	6013018	4725	12
1.8	600	1429.207	1050467	735	12
1.6	600	1544.469	24325391	15750	12



g500-H850, 2-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
823	306	3.147	1734	551	15
594	378	4.362	663	152	15
483	429	5.368	102	19	14
436	551	5.946	1207	203	13
390	578	6.644	578	87	12
314	615	8.241	923	112	12
281	649	9.208	221	24	12
255	667	10.143	71	7	12
228	696	11.360	284	25	12
204	725	12.693	952	75	11
179	758	14.490	710	49	11
160	792	16.190	340	21	11
146	814	17.750	71	4	11
131	833	19.833	119	6	11
112	850	23.103	2911	126	11
100	850	25.815	697	27	11
91.1	850	28.315	4757	168	11
81.5	850	31.639	1139	36	11
69.4	850	37.190	781	21	11
62.1	850	41.556	374	9	11
57.2	850	45.136	6319	140	11
51.2	850	50.433	1513	30	11

g500-H850, 3-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
87.7	850	29.536	3692	125	12
78.5	850	33.003	12376	375	12
68.5	850	37.799	39689	1050	12
62.6	850	41.350	25844	625	12
56.1	850	46.204	86632	1875	12
48.9	850	52.743	1846	35	12
43.8	850	58.933	884	15	12
39.9	850	64.610	6461	100	12
35.7	850	72.193	10829	150	12
30.7	850	84.096	37843	450	12
27.5	850	93.966	63427	675	12
24.7	850	104.607	15691	150	12
22.1	850	116.884	26299	225	12
19.0	850	135.373	10153	75	12
17.0	850	151.262	34034	225	12
15.7	850	164.294	82147	500	12
14.0	850	183.577	137683	750	12
12.4	850	207.675	8307	40	12
11.1	850	232.050	4641	20	12



g500-H850, 4-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
12.2	850	210.484	3551912	16875	12
11.0	850	234.319	439348	1875	12
9.8	850	261.821	1472744	5625	12
8.7	850	294.334	264901	900	12
7.8	850	328.881	443989	1350	12
6.9	850	368.019	1150058	3125	12
6.2	850	411.213	3855124	9375	12
5.4	850	473.807	71071	150	12
4.8	850	529.418	119119	225	12
4.4	850	575.029	575029	1000	12
4.1	850	616.701	416273	675	12
3.7	850	689.083	1395394	2025	12
3.3	850	767.116	172601	225	12
2.9	850	857.153	578578	675	12
2.5	850	992.738	223366	225	12
2.3	850	1109.256	748748	675	12
2.1	850	1204.823	903617	750	12
1.9	850	1346.234	1514513	1125	12
1.7	850	1462.217	7311083	5000	12
1.5	850	1633.838	12253787	7500	12
1.4	850	1868.844	7475377	4000	12
1.2	850	2088.192	12529153	6000	12

g500-H1500, 2-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
693	775	3.743	1647	440	14
545	924	4.758	2379	500	13
481	1021	5.400	27	5	10
416	1098	6.245	2623	420	13
378	1157	6.864	858	125	10
342	1217	7.592	949	125	10
288	1320	9.010	946	105	10
253	1380	10.267	154	15	10
229	1400	11.356	511	45	9
210	1420	12.362	1298	105	10
190	1430	13.673	4307	315	9
171	1440	15.156	682	45	10
155	1450	16.763	2263	135	9
126	1500	20.533	308	15	10
114	1500	22.711	1022	45	9
104	1500	24.933	374	15	9
93.9	1500	27.578	1241	45	9
80.0	1484	32.267	484	15	9
72.3	1500	35.689	1606	45	9
65.9	1500	39.160	979	25	9
59.6	1500	43.313	6497	150	9
52.1	1250	49.500	99	2	9
47.1	1382	54.750	219	4	9



g500-H1500, 3-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
63.9	1500	40.517	2431	60	10
57.8	1500	44.814	16133	360	10
51.9	1500	49.867	748	15	10
46.4	1500	55.851	20944	375	10
41.9	1500	61.774	69496	1125	10
36.4	1500	71.238	1496	21	10
32.9	1500	78.794	4964	63	10
29.7	1500	87.267	1309	15	10
26.7	1500	96.522	8687	90	10
22.7	1500	113.585	15334	135	10
20.5	1500	125.632	50881	405	10
18.5	1500	139.211	12529	90	10
16.8	1500	153.976	83147	540	10
14.1	1500	182.844	8228	45	10
12.8	1500	202.237	27302	135	10
11.6	1500	221.907	16643	75	10
10.5	1500	245.442	110449	450	10
9.2	1500	280.500	561	2	10
8.3	1500	310.250	1241	4	10



g500-H1500, 4-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
12.7	1500	203.537	29920	147	10
11.4	1500	225.125	99280	441	10
10.1	1500	254.431	858704	3375	10
9.2	1500	281.416	2849336	10125	10
8.1	1500	316.487	356048	1125	10
7.4	1500	350.054	1181432	3375	10
6.5	1500	397.548	53669	135	10
5.7	1500	446.497	84388	189	10
5.2	1500	494.511	22253	45	10
4.5	1500	572.324	2086121	3645	10
4.0	1500	634.184	513689	810	10
3.6	1500	701.446	3409027	4860	10
3.2	1500	788.863	212993	270	10
2.9	1500	872.530	1413499	1620	10
2.8	1500	921.302	1119382	1215	10
2.5	1500	1020.881	137819	135	10
2.2	1500	1129.157	914617	810	10
1.9	1500	1340.859	181016	135	10
1.7	1500	1483.072	600644	405	10
1.6	1500	1627.316	366146	225	10
1.4	1500	1799.910	1214939	675	10
1.3	1500	1974.969	1481227	750	10
1.2	1500	2184.436	9829961	4500	10
1.0	1500	2524.188	1514513	600	10
0.9	1500	2791.905	10050859	3600	10
0.8	1500	3190.688	51051	16	10
0.7	1500	3529.094	112931	32	10



g500-H3000, 2-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
577	1360	4.496	1911	425	12
440	1610	5.902	301	51	12
409	1910	6.344	793	125	9
372	2025	6.968	871	125	9
312	2155	8.327	2623	315	9
284	2225	9.146	2881	315	9
259	2300	10.005	3752	375	9
223	2400	11.619	244	21	9
203	2475	12.762	268	21	9
182	2530	14.233	427	30	8
166	2610	15.633	469	30	8
138	2750	18.752	5063	270	8
126	2815	20.596	5561	270	8
113	2900	23.044	1037	45	8
103	2965	25.311	1139	45	8
86.8	3000	29.822	1342	45	8
79.1	3000	32.756	1474	45	8
71.6	3000	36.193	5429	150	8
65.2	3000	39.753	5963	150	8
56.4	1765	45.750	183	4	8
51.3	1938	50.250	201	4	8

g500-H3000, 3-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
55.0	2830	47.186	44591	945	9
50.1	2910	51.828	48977	945	9
48.3	2950	53.770	7259	135	9
43.9	3000	59.059	7973	135	9
40.1	3000	64.744	61183	945	9
36.5	3000	71.112	67201	945	9
32.7	3000	79.375	32147	405	9
29.8	3000	87.183	35309	405	9
24.1	3000	107.541	14518	135	9
21.9	3000	118.119	15946	135	9
19.8	3000	130.585	17629	135	9
18.1	3000	143.430	19363	135	9
15.3	3000	168.993	22814	135	9
13.9	3000	185.615	25058	135	9
12.6	3000	205.096	92293	450	9
11.5	3000	225.269	101371	450	9
10.0	3000	259.250	1037	4	9
9.1	3000	284.750	1139	4	9



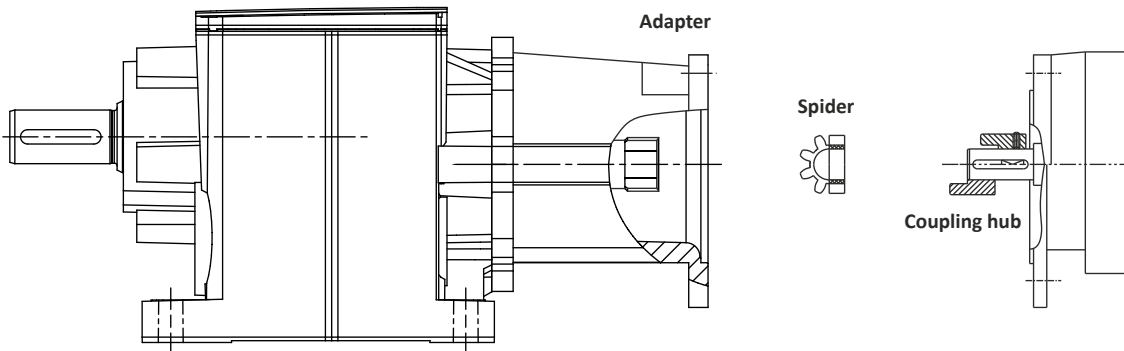
g500-H3000, 4-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
12.7	2850	203.178	268804	1323	9
11.4	2650	226.604	61183	270	9
10.4	2950	248.893	67201	270	9
8.8	3000	292.511	987224	3375	9
8.0	3000	321.282	1084328	3375	9
6.9	3000	376.393	50813	135	9
6.2	3000	413.415	55811	135	9
5.6	3000	457.048	123403	270	9
5.3	3000	489.908	595238	1215	9
4.8	3000	538.095	653786	1215	9
4.3	3000	594.888	722789	1215	9
3.9	3000	653.402	793883	1215	9
3.5	3000	739.983	299693	405	9
3.3	3000	788.632	319396	405	9
3.0	3000	866.202	350812	405	9
2.7	3000	957.625	387838	405	9
2.4	3000	1051.817	425986	405	9
2.1	3000	1239.279	501908	405	9
1.9	3000	1361.175	551276	405	9
1.7	3000	1504.034	1015223	675	9
1.5	3000	1651.972	1115081	675	9
1.4	3000	1825.350	8214077	4500	9
1.3	3000	2004.893	9022019	4500	9
1.1	3000	2332.962	8398663	3600	9
1.0	3000	2562.434	9224761	3600	9
0.9	3000	2948.969	94367	32	9
0.8	3000	3239.031	103649	32	9



7.4 Gearboxes with adapter

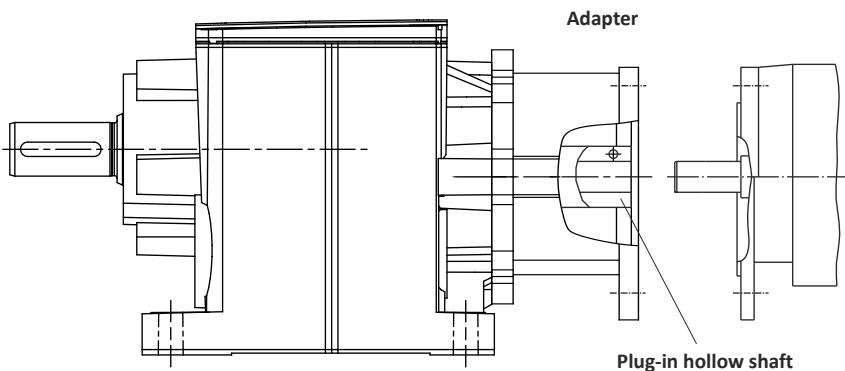
Versions with flexible coupling



Power is transmitted between the motor and gearbox via a flexible coupling. The gearbox shaft is designed as a claw on the motor side. The counterpart, the coupling hub, is placed on the motor shaft and secured axially. A spider is arranged between the two claws, which can absorb shocks and ensures torsional vibration-damping power transmission.

- Coupling hub with keyway
 - Positive power transmission
 - Suitable for normal operation
- Clamping hub with tangential terminal screw and keyway
 - Positive and non-positive power transmission
 - Suitable for reversing duty
- Tension ring hub without keyway
 - Non-positive power transmission
 - Suitable for reversing duty

Versions with servo adapter

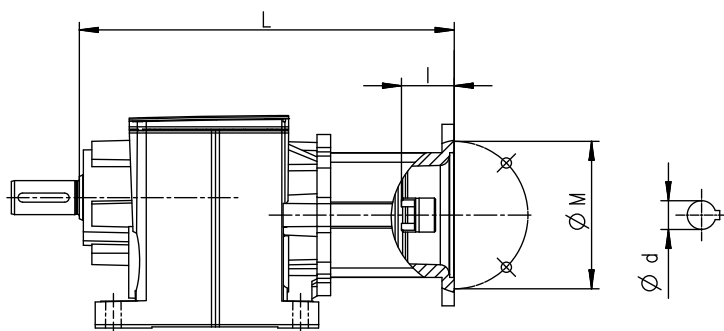


The adapters are designed shorter in these versions. Power is transmitted between the motor and gearbox without a clutch. The motor shaft can be inserted into the hollow shaft without any further assembly work. A lateral opening in the adapter is used to lock the previously aligned tangential clamping screw.

- Shaft clamping hub without keyway with tangential clamping screw
 - Non-positive power transmission
 - Suitable for reversing duty



Dimensions of gearbox with adapter for IEC standard motors



Gearbox dimensions ► [Basic dimensions](#) 129

Versions with flexible coupling

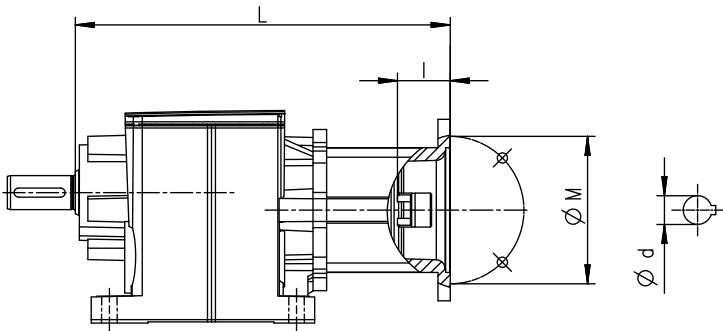
Motor				Adapter		Gearbox g500									
	Size	Shaft			Size	-H45	-H100	-H140	-H210	-H320	-H450	-H600	-H850	-H1500	-H3000
P ₁		d	l	M		L	L	L	L	L	L	L	L	L	L
kW		mm	mm	mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
0.12 0.18	63	11	23	FF75	N1A	164	218	231	255	270	285	-	-	-	-
					N2B	-	218	231	255	270	285	-	-	-	-
				FF130	N6C	-	234	248	272	287	285	306	317	-	-
0.25 0.37	71	14	30	FF85	N1B	-	235	248	272	287	302	323	334	386	-
					N3C	-	235	248	272	287	302	323	334	386	-
				FF100	N4C	-	235	248	272	287	302	323	334	386	-
				FF130	N2C	-	235	248	272	287	302	323	334	386	-
0.55 0.75	80	19	40	FF100	N7C	-	235	248	272	287	302	323	334	386	-
				FF130	N1C	-	235	248	272	287	302	323	334	386	-
					N2D	-	264	277	301	316	331	352	363	415	455
					N3E	-	-	-	301	316	331	352	363	415	-
1.1 1.5	90	24	50	FF130	N1D	-	264	277	301	316	331	352	363	415	455
					N2E	-	-	-	301	316	331	352	363	415	455
					N2F	-	-	-	-	-	-	352	363	415	455
				FT165	N4E	-	-	-	321	336	351	372	383	435	475
					N3F	-	-	-	-	-	-	372	383	435	475
2.2 3.0 4.0	100	28	60	FF130	N1E	-	-	-	301	316	331	352	363	415	455
					N1F	-	-	-	-	-	-	352	363	415	455
				FF215	N2G	-	-	-	-	-	-	416	427	479	519
5.5 7.5	132	38	80	FF215	N3G	-	-	-	-	-	-	436	447	499	539
				FF265	N1G	-	-	-	-	-	-	436	447	499	539
					N3H	-	-	-	-	-	-	-	-	539	579
11.0 15.0	160	42	110	FF300	N1H	-	-	-	-	-	-	-	-	569	609
18.5 22.0	180	48	110	FF300	N2H	-	-	-	-	-	-	-	-	569	609

The N6C adapter is only available with clamping hub.

The N1D adapter is only available with standard and clamping hub.



Dimensions of gearbox with adapter for NEMA motors



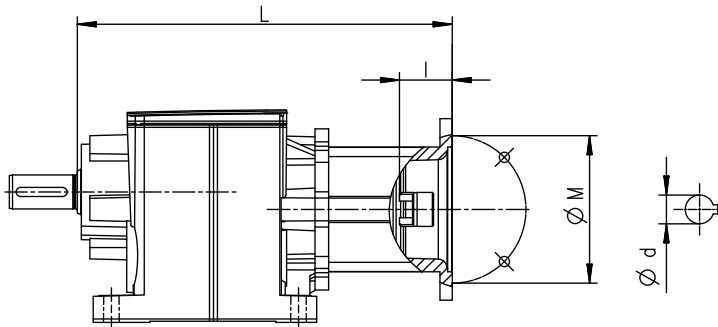
Gearbox dimensions ▶ [Basic dimensions](#)  129

Versions with flexible coupling

Motor			Adapter		Gearbox g500								
Size	Shaft			Size	-H100	-H140	-H210	-H320	-H450	-H600	-H850	-H1500	-H3000
	d	l	M		L	L	L	L	L	L	L	L	L
	inch	inch	inch		mm	mm	mm	mm	mm	mm	mm	mm	mm
56 C	0.625	1.875	5.875	A5C	250	263	287	302	317	338	349	401	-
143/145 TC	0.875	2.250	5.875	A5D	288	301	325	340	355	376	387	439	479
182/184 TC	1.125	2.750	7.252	A5E	-	-	343	358	372	394	405	457	497
213/215 TC	1.375	3.375	7.252	A5G	-	-	-	-	-	462	473	525	565
254/256 TC	1.625	4.000	7.252	A5H	-	-	-	-	-	-	-	564	604
284/286 TC	1.875	4.625	9.000	A6H	-	-	-	-	-	-	-	574	614



Dimensions of gearboxes with adapter for servo motors



Gearbox dimensions ▶ [Basic dimensions](#) 129

Versions with servo adapter

Motor			Adapter		Gearbox g500								
M	Shaft		M	Size	-H100	-H140	-H210	-H320	-H450	-H600	-H850	-H1500	-H3000
mm	d	l	mm		L	L	L	L	L	L	L	L	L
mm	mm	mm	mm		mm	mm	mm	mm	mm	mm	mm	mm	mm
75	11	23	FT75	S2B	174	187	211	226	241	262	273	-	-
	14	30		S3B	174	187	211	226	241	262	273	-	-
100	14	30	FF100	S4C	189	202	226	241	256	277	288	340	-
	19	40		S7C	189	202	226	241	256	277	288	340	-
	16	40		S8C	189	202	226	241	256	277	288	340	-
115	19	50	FF115	S3D	206	219	243	258	273	294	305	357	397
	24	50		S4D	206	219	243	258	273	294	305	357	397
130	19	50	FF130	S2D	206	219	243	258	273	294	305	357	397
	24	50		S1D	206	219	243	258	273	294	305	357	397
	24	60		S2E	-	-	243	258	273	294	305	357	397
	28	60		S1E	-	-	243	258	273	294	305	357	397
165	24	50	FF165	S4E	-	-	243	258	273	294	305	357	397
	32	58		S6E	-	-	243	258	273	294	305	357	397
	28	60		S7E	-	-	243	258	273	294	305	357	397



7.5 Radial forces and axial forces

Permissible radial force

The calculation of the permissible radial force must take account of the additional load factor f_w .

$$F_{\text{rad, perm}} = f_w \times F_{\text{rad, max}}$$

If the direction of action α and the direction of rotation (R/L) at the output shaft are known, the following can be calculated taking into account the direction of action factor f_α (see following diagrams) higher radial forces than the values given in the tables are permissible:

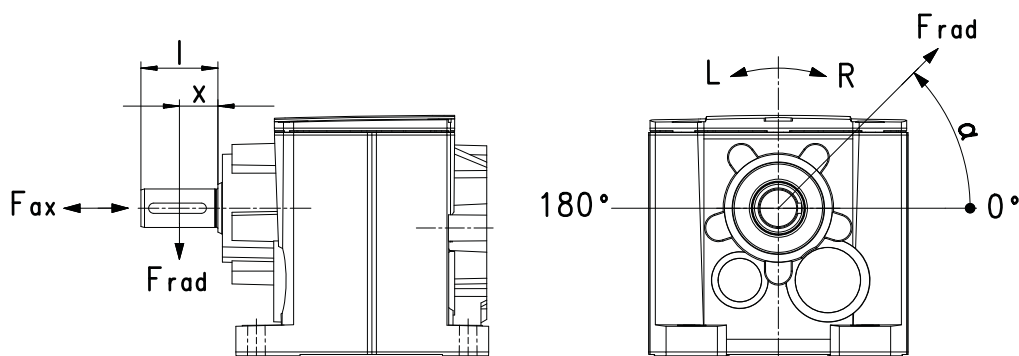
$$F_{\text{rad, perm}} = f_w \times f_\alpha \times F_{\text{rad, max}}$$

Permissible axial force

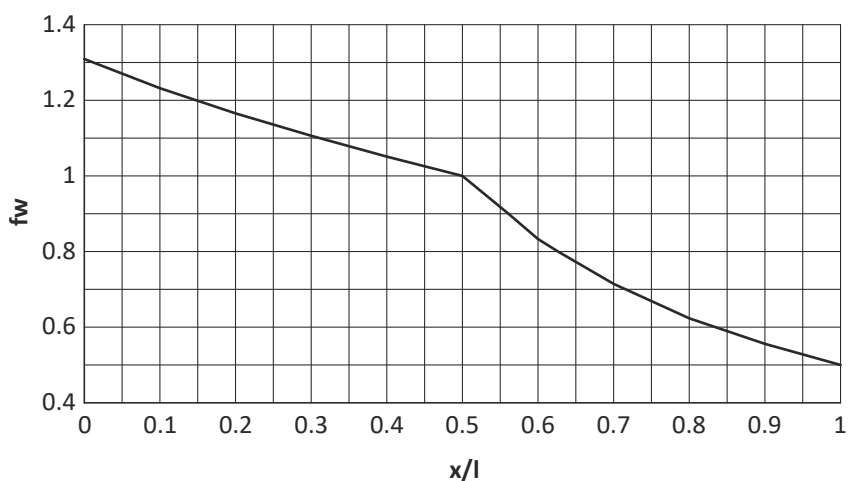
If there is no radial force, the maximum axial force is 50% of the value in the table $F_{\text{rad, max}}$

$$F_{\text{ax, zul}} = 0.5 \times F_{\text{rad, max}}$$

Application of forces



Additional load factor f_w on the drive shaft





The values given in the tables refer to the centre shaft end force application point and are minimum values calculated according to the most unfavourable conditions (force application angle, mounting position, direction of rotation). The values were calculated with a load capacity of $c = 1.3$ and an input speed of 1400 rpm.



In case of different operating conditions, considerably higher forces can be transmitted. Please get in touch with your Lenze representative

Max. radial force, gearbox with foot (VBR)

Getriebe	Output speed n_2 [rpm]									
	1000	630	400	250	160	100	63	40	25	16
	Max. radial force $F_{rad,max}$ [rated]									
g500-H45	300	400	600	700	800	900	1100	1400	1500	1500
g500-H100	800	1000	1200	1500	1800	2100	2600	2700	2700	2700
g500-H140	1000	1440	1800	2200	2500	3000	3300	3700	4100	4200
g500-H210	1100	1600	2000	2400	2800	3400	3900	4100	4400	4800
g500-H320	1760	2090	2480	3000	3520	4190	5000	5700	5700	5700
g500-H450	2440	2820	3340	4020	4660	5540	6500	7100	7100	7100
g500-H600	3820	4480	5250	6100	7260	8450	9500	9500	9500	9500
g500-H850	4700	5510	6430	7500	8860	10400	11500	11500	11500	11500
g500-H1500	6300	7440	8790	10300	12200	14500	17000	17000	17000	17000
g500-H3000	7510	8880	10100	12400	14600	17200	20000	20000	20000	20000

Reinforced bearings

Getriebe	Output speed n_2 [rpm]									
	1000	630	400	250	160	100	63	40	25	16
	Max. radial force $F_{rad,max}$ [rated]									
g500-H100	1000	1200	1500	1800	2200	2700	3200	3300	3300	3300
g500-H140	1300	1800	2300	2700	3100	3700	4100	4600	5100	5300
g500-H210	1400	2000	2500	3000	3500	4200	4900	5100	5500	6000
g500-H320	2380	3250	4380	5600	6800	7100	7100	7100	7100	7100
g500-H450	4030	5100	6870	8650	8900	8900	8900	8900	8900	8900
g500-H600	7180	8710	9860	11300	12000	12000	12000	12000	12000	12000
g500-H850	9520	10500	11900	13300	15400	15600	15600	15600	15600	15600
g500-H1500	12600	14600	16500	19100	21000	21000	21000	21000	21000	21000
g500-H3000	16100	18000	20200	23600	25000	25000	25000	25000	25000	25000



Max. radial force, gearbox with/without foot with threaded pitch circle (V□R/V□K)

Getriebe	Output speed n_2 [rpm]									
	1000	630	400	250	160	100	63	40	25	16
	Max. radial force $F_{rad,max}$ [rated]									
g500-H45	300	400	600	700	800	900	1100	1400	1500	1500
g500-H100	800	1000	1200	1500	1700	1700	1700	1700	1700	1700
g500-H140	1000	1400	1800	2200	2500	2600	2600	2600	2600	2600
g500-H210	1100	1600	2000	2400	2800	3000	3000	3000	3000	3000
g500-H320	1760	2090	2480	3000	3520	3600	3600	3600	3600	3600
g500-H450	2440	2820	3340	4020	4400	4400	4400	4400	4400	4400
g500-H600	3820	4480	5250	6100	7260	8450	8500	8500	8500	8500
g500-H850	4700	5510	6430	7500	8860	10000	10000	10000	10000	10000
g500-H1500	6300	7440	8790	10300	12200	14000	14000	14000	14000	14000
g500-H3000	7510	8880	10100	12400	14600	17000	17000	17000	17000	17000

Reinforced bearings

Getriebe	Output speed n_2 [rpm]									
	1000	630	400	250	160	100	63	40	25	16
	Max. radial force $F_{rad,max}$ [rated]									
g500-H100	1000	1200	1500	1700	1700	1700	1700	1700	1700	1700
g500-H140	1300	1800	2300	2600	2600	2600	2600	2600	2600	2600
g500-H210	1400	2000	2500	3000	3000	3000	3000	3000	3000	3000
g500-H320	2380	3250	3600	3600	3600	3600	3600	3600	3600	3600
g500-H450	4030	4400	4400	4400	4400	4400	4400	4400	4400	4400
g500-H600	7180	8500	8500	8500	8500	8500	8500	8500	8500	8500
g500-H850	9250	10000	10000	10000	10000	10000	10000	10000	10000	10000
g500-H1500	12600	14000	14000	14000	14000	14000	14000	14000	14000	14000
g500-H3000	16100	17000	17000	17000	17000	17000	17000	17000	17000	17000

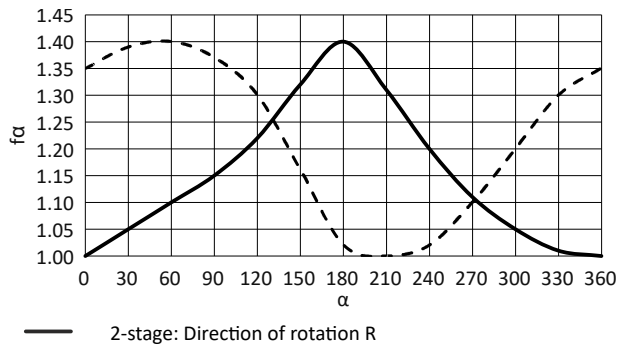
Max. radial force, gearbox with reinforced flange (VCP)

Getriebe	Output speed n_2 [rpm]									
	1000	630	400	250	160	100	63	40	25	16
	Max. radial force $F_{rad,max}$ [rated]									
g500-H100	1900	2400	2900	3330	3650	3890	4060	4160	4240	4280
g500-H140	3000	3500	4000	5510	5950	6270	6480	6620	6710	6770
g500-H210	3400	4000	5000	6170	6670	7060	7330	7500	7620	7700
g500-H320	3900	4500	6000	7040	7690	8210	8570	8810	8970	9080
g500-H450	4300	5200	6400	7810	8550	9160	9590	9880	10100	10200

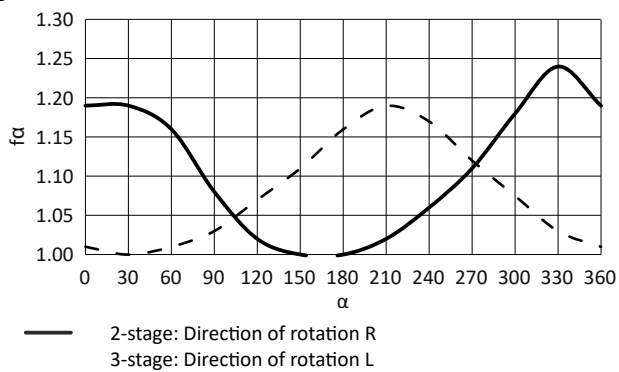


Effective direction factor f_α on the output shaft

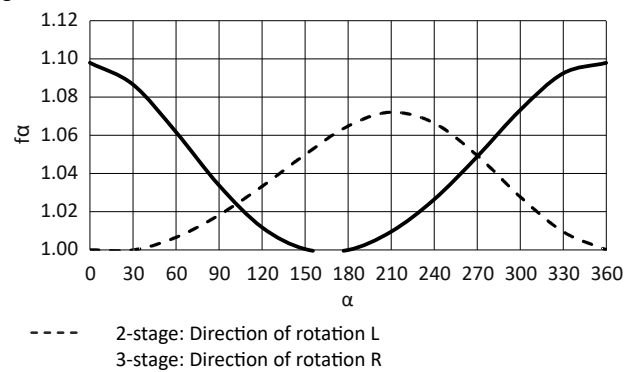
g500-H45



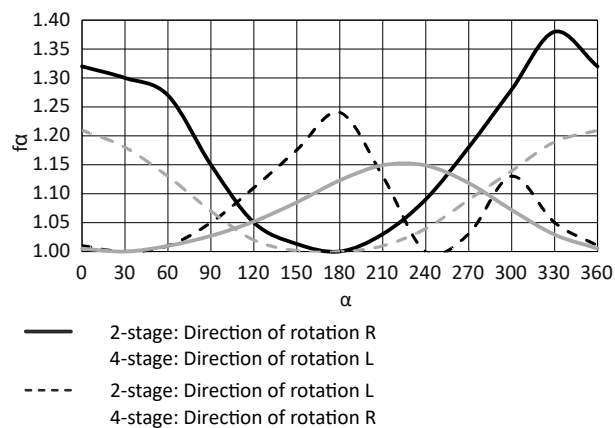
g500-H100



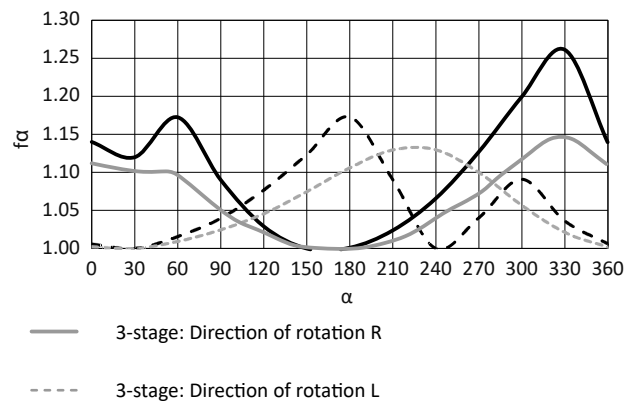
g500-H140



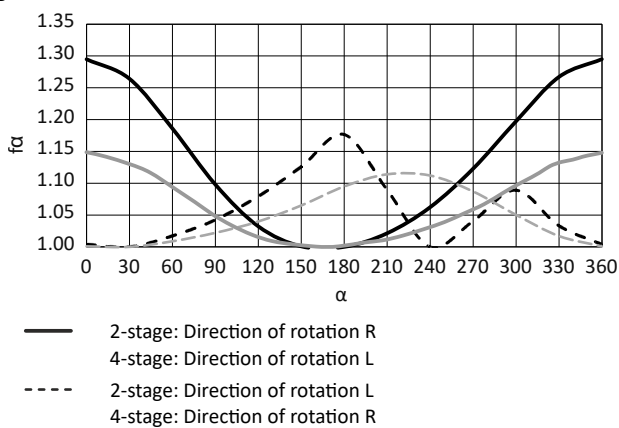
g500-H210



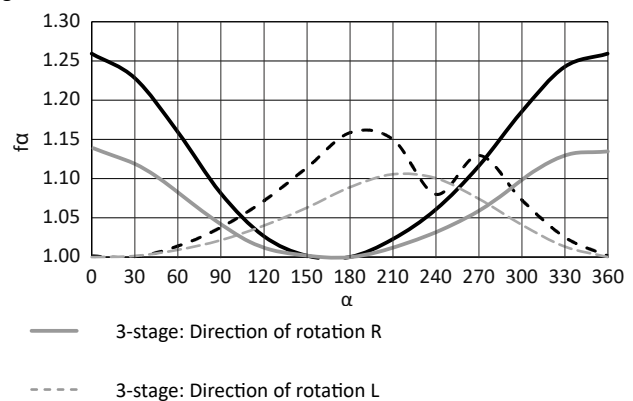
g500-H320



g500-H450

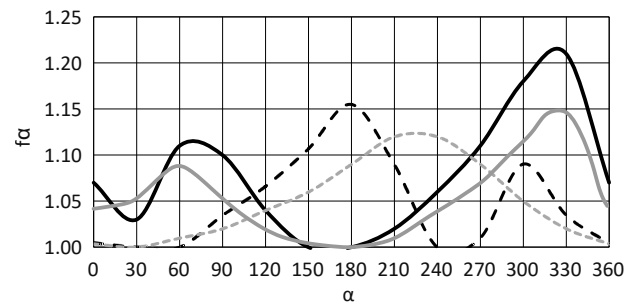


g500-H600



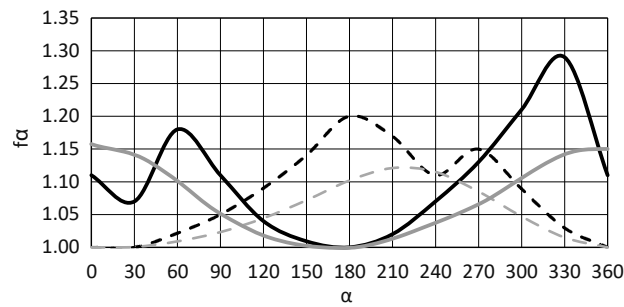


g500-H850



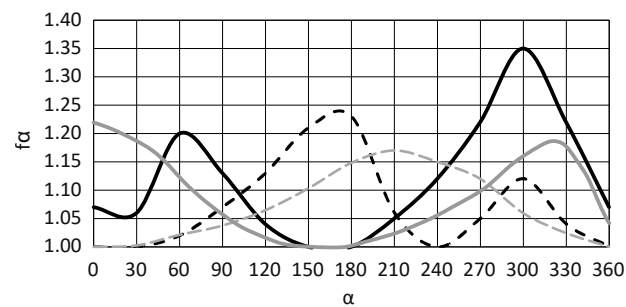
— 2-stage: Direction of rotation R
— 4-stage: Direction of rotation L
- - - 2-stage: Direction of rotation L
- - - 4-stage: Direction of rotation R

g500-H1500



— 3-stage: Direction of rotation R
— 3-stage: Direction of rotation L
- - - 3-stage: Direction of rotation L
- - - 3-stage: Direction of rotation R

g500-H3000



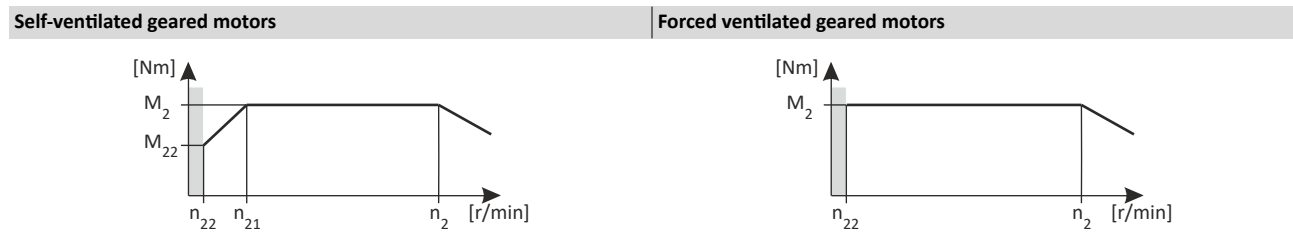
— 2-stage: Direction of rotation R
— 4-stage: Direction of rotation L
- - - 2-stage: Direction of rotation L
- - - 4-stage: Direction of rotation R

— 3-stage: Direction of rotation R
— 3-stage: Direction of rotation L
- - - 3-stage: Direction of rotation L
- - - 3-stage: Direction of rotation R



7.6 Selection tables

Torque characteristic with inverter operation



20 Hz to 50 or 87 Hz: Operation at constant torque.
Below 20 Hz (n_{21}): Derating without separate fan.
Below 5 Hz (n_{22}): Verification of the application by Lenze required.

5 Hz to 50 or 87 Hz: Operation at constant torque.
Below 5 Hz (n_{22}): Verification of the application by Lenze required.

Notes on the selection tables

The selection tables represent the available combinations of gearbox, number of stages, ratio and motor for the mounting position M1. They only serve as a rough overview.

The following legend shows the layout of the selection tables:

Example	Explanation
50 Hz: $P_N = 0.12$ kW	Rated motor power at a rated frequency of 50 Hz
87 Hz: $P_N = 0.21$ kW	Rated motor power at a frequency of 87 Hz

Inverter operation										Geared motor					
				Mains operation											
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)								
n_{22}	M_{22}	n_{21}	M_2	n_2	M_2	c	n_2	M_2	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
18.1	4.3	76.5	6.0	181	6.0	5.2	322	6.0	4.5	1.819	7.840	g500-H45	m550-H63/S4	2	5.8
12.4	6.3	52.5	9.0	124	9.0	3.9	221	9.0	3.3	1.759	11.429	g500-H45	m550-H63/S4	2	5.8
11.1	7.1	46.8	10.0	110	10.0	3.8	197	10.0	3.2	1.757	12.833	g500-H45	m550-H63/S4	2	5.8

Basic weight Number of gear stages Motor product name Gearbox product name Ratio Moment of inertia without brake	Data at 87 Hz
	Data at 50 Hz n_2 = Output speed - M_2 = Output torque c = the load capacity of the gearbox is the ratio of the permissible rated torque of the gearbox to the rated torque of the motor (converted to the output shaft). c must always be greater than the application factor determined for the application. k $c = \frac{M_{2,zul}}{M_{1,N} \times i \times \eta_{Getr}} > k$
	Data at 20 Hz n_{21} = Output speed - M_2 = Output torque
	Data at 5 Hz n_{22} = Output speed - M_{22} = Output torque (Externally cooled motors can deliver the torque M_2 over the entire adjustment range)



50 Hz: 0.12 kW

87 Hz: 0.21 kW

Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)								
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
15.9	4.9	67.2	7.0	158	7.0	4.7	283	7.0	4.0	2.489	8.935	g500-H45	m550-H63/S4	2	5.8
14.2	5.5	59.8	8.0	141	8.0	4.4	252	8.0	3.8	2.486	10.033	g500-H45	m550-H63/S4	2	5.8
12.4	6.3	52.5	9.0	124	9.0	3.9	221	9.0	3.3	2.459	11.429	g500-H45	m550-H63/S4	2	5.8
11.1	7.1	46.8	10.0	110	10.0	3.8	197	10.0	3.2	2.457	12.833	g500-H45	m550-H63/S4	2	5.8
9.6	8.2	40.4	12.0	95.4	12.0	3.3	170	11.0	2.9	2.441	14.836	g500-H45	m550-H63/S4	2	5.8
8.5	9.2	36.0	13.0	84.9	13.0	3.1	152	13.0	3.1	2.440	16.660	g500-H45	m550-H63/S4	2	5.8
7.5	10.5	31.6	15.0	74.4	15.0	2.8	133	15.0	2.7	2.428	19.013	g500-H45	m550-H63/S4	2	5.8
6.7	11.7	28.1	17.0	66.3	17.0	2.6	118	16.0	2.6	2.427	21.350	g500-H45	m550-H63/S4	2	5.8
5.8	13.5	24.4	19.0	57.5	19.0	2.3	103	19.0	2.3	2.419	24.595	g500-H45	m550-H63/S4	2	5.8
5.7	13.8	23.9	20.0	56.4	20.0	4.6	101	19.0	3.9	2.448	25.095	g500-H100	m550-H63/S4	2	7.8
5.1	15.2	21.7	22.0	51.2	22.0	2.1	91.4	21.0	2.0	2.419	27.618	g500-H45	m550-H63/S4	2	5.8
4.9	15.8	20.9	23.0	49.2	23.0	4.4	87.9	22.0	4.3	2.447	28.738	g500-H100	m550-H63/S4	2	7.8
4.5	17.5	18.9	25.0	44.5	25.0	4.0	79.4	25.0	3.9	2.432	31.805	g500-H100	m550-H63/S4	2	7.8
4.4	17.6	18.8	25.0	44.3	25.0	4.6	79.0	25.0	4.4	2.453	31.976	g500-H140	m550-H63/S4	2	8.9
4.4	17.6	18.8	25.0	44.2	25.0	1.8	78.9	25.0	1.7	2.412	32.000	g500-H45	m550-H63/S4	2	5.8
4.0	19.3	17.1	28.0	40.3	28.0	4.6	71.9	27.0	4.4	2.485	35.095	g500-H210	m550-H63/S4	2	10
4.0	19.4	17.0	28.0	40.1	28.0	4.6	71.5	27.0	4.4	2.451	35.308	g500-H140	m550-H63/S4	2	8.9
4.0	19.8	16.7	28.0	39.4	28.0	1.6	70.3	28.0	1.6	2.412	35.933	g500-H45	m550-H63/S4	2	5.8
3.9	20.0	16.5	29.0	38.9	29.0	3.5	69.3	28.0	3.4	2.431	36.422	g500-H100	m550-H63/S4	2	7.8
3.7	21.0	15.7	30.0	37.0	30.0	4.6	66.0	29.0	4.4	2.495	38.238	g500-H320	m550-H63/S4	2	12
3.6	21.6	15.3	31.0	36.0	31.0	4.6	64.3	30.0	4.4	2.483	39.286	g500-H210	m550-H63/S4	2	10
3.6	21.9	15.1	31.0	35.5	31.0	3.2	63.4	31.0	3.1	2.422	39.857	g500-H100	m550-H63/S4	2	7.8
3.5	22.3	14.8	32.0	34.9	32.0	4.0	62.3	31.0	4.1	2.435	40.526	g500-H140	m550-H63/S4	2	8.9
3.4	22.8	14.5	33.0	34.1	33.0	1.4	60.9	32.0	1.4	2.408	41.455	g500-H45	m550-H63/S4	2	5.8
3.3	23.4	14.1	33.0	33.2	33.0	4.0	59.3	33.0	4.1	2.462	42.593	g500-H210	m550-H63/S4	2	10
3.3	23.9	13.8	34.0	32.6	34.0	4.6	58.1	33.0	4.7	2.492	43.436	g500-H320	m550-H63/S4	2	12
3.2	24.6	13.4	35.0	31.6	35.0	4.0	56.4	34.0	4.1	2.434	44.748	g500-H140	m550-H63/S4	2	8.9
3.1	25.1	13.1	36.0	31.0	36.0	2.8	55.3	35.0	2.8	2.422	45.643	g500-H100	m550-H63/S4	2	7.8
3.1	25.5	12.9	36.0	30.5	36.0	4.0	54.4	36.0	4.1	2.470	46.407	g500-H320	m550-H63/S4	2	12
3.1	25.6	12.9	37.0	30.4	37.0	1.2	54.2	36.0	1.3	2.408	46.550	g500-H45	m550-H63/S4	2	5.8
3.0	26.2	12.6	37.0	29.7	37.0	4.0	53.0	37.0	4.1	2.461	47.679	g500-H210	m550-H63/S4	2	10
2.8	27.9	11.8	40.0	27.9	40.0	3.2	49.7	39.0	3.3	2.424	50.786	g500-H140	m550-H63/S4	2	8.9
2.7	28.2	11.5	40.0	27.2	40.0	2.5	48.6	39.0	2.4	2.494	51.962	g500-H100	m550-H63/S4	3	11
2.7	28.9	11.4	41.0	26.9	41.0	1.7	48.1	40.0	1.7	2.414	52.510	g500-H100	m550-H63/S4	2	7.8
2.7	29.0	11.4	41.0	26.8	41.0	4.0	47.9	41.0	4.1	2.467	52.715	g500-H320	m550-H63/S4	2	12
2.7	29.1	11.3	42.0	26.7	42.0	1.1	47.7	41.0	1.1	2.405	52.909	g500-H45	m550-H63/S4	2	5.8
2.6	29.9	11.0	43.0	26.0	43.0	3.1	46.4	42.0	3.1	2.440	54.438	g500-H210	m550-H63/S4	2	10
2.6	30.1	10.8	43.0	25.5	43.0	4.9	45.5	42.0	4.8	2.488	55.529	g500-H210	m550-H63/S4	3	11
2.5	30.8	10.7	44.0	25.2	44.0	3.2	45.0	43.0	3.2	2.424	56.077	g500-H140	m550-H63/S4	2	8.9
2.4	32.2	10.1	46.0	23.8	46.0	2.2	42.4	45.0	2.1	2.493	59.505	g500-H100	m550-H63/S4	3	11
2.4	32.7	10.1	47.0	23.8	47.0	1.0	42.5	46.0	1.0	2.405	59.413	g500-H45	m550-H63/S4	2	5.8
2.4	33.1	10.0	47.0	23.5	47.0	1.7	42.0	46.0	1.7	2.413	60.133	g500-H100	m550-H63/S4	2	7.8
2.3	33.5	9.8	48.0	23.2	48.0	3.1	41.4	47.0	3.1	2.439	60.938	g500-H210	m550-H63/S4	2	10
2.3	33.7	9.7	48.0	22.8	48.0	4.4	40.6	47.0	4.3	2.488	62.160	g500-H210	m550-H63/S4	3	11
2.1	36.0	9.0	51.0	21.3	51.0	1.9	38.0	50.0	1.9	2.492	66.499	g500-H100	m550-H63/S4	3	11
2.1	36.8	9.0	53.0	21.1	53.0	1.7	37.7	52.0	1.7	2.415	66.908	g500-H140	m550-H63/S4	2	8.9
2.0	38.5	8.4	55.0	19.9	55.0	3.8	35.6	54.0	3.7	2.460	71.026	g500-H210	m550-H63/S4	3	11
2.0	39.4	8.2	56.0	19.5	56.0	1.8	34.7	55.0	1.7	2.492	72.747	g500-H100	m550-H63/S4	3	11
1.9	40.6	8.1	58.0	19.2	58.0	1.7	34.2	57.0	1.7	2.414	73.879	g500-H140	m550-H63/S4	2	8.9
1.8	43.1	7.5	62.0	17.8	62.0	3.4	31.8	60.0	3.3	2.459	79.507	g500-H210	m550-H63/S4	3	11



Technical data

Selection tables

Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
1.7	45.1	7.2	64.0	17.0	64.0	1.6	30.3	63.0	1.6	2.492	83.307	g500-H100	m550-H63/S4	3	11
1.7	45.9	7.1	66.0	16.7	66.0	2.1	29.8	64.0	2.2	2.493	84.732	g500-H140	m550-H63/S4	3	12
1.6	47.6	6.8	68.0	16.1	68.0	4.7	28.7	67.0	4.8	2.461	87.906	g500-H320	m550-H63/S4	3	12
1.5	50.0	6.5	71.0	15.3	71.0	2.9	27.4	70.0	3.0	2.442	92.205	g500-H210	m550-H63/S4	3	11
1.5	50.2	6.5	72.0	15.3	72.0	2.0	27.2	70.0	2.0	2.492	92.693	g500-H140	m550-H63/S4	3	12
1.5	50.3	6.5	72.0	15.2	72.0	1.4	27.2	70.0	1.4	2.491	92.789	g500-H100	m550-H63/S4	3	11
1.4	54.4	6.0	78.0	14.1	78.0	4.1	25.1	76.0	4.2	2.444	100.462	g500-H320	m550-H63/S4	3	12
1.4	55.5	5.9	79.0	13.8	79.0	1.8	24.7	78.0	1.8	2.492	102.351	g500-H140	m550-H63/S4	3	12
1.4	55.9	5.8	80.0	13.7	80.0	2.6	24.5	78.0	2.7	2.442	103.214	g500-H210	m550-H63/S4	3	11
1.3	57.6	5.6	82.0	13.3	82.0	1.2	23.8	81.0	1.2	2.491	106.259	g500-H100	m550-H63/S4	3	11
1.2	61.6	5.3	88.0	12.4	88.0	1.1	22.2	86.0	1.2	2.490	113.667	g500-H100	m550-H63/S4	3	11
1.2	61.8	5.3	88.0	12.4	88.0	3.6	22.1	87.0	3.7	2.443	114.118	g500-H320	m550-H63/S4	3	12
1.2	64.0	5.1	91.0	12.0	91.0	2.3	21.4	90.0	2.3	2.429	118.162	g500-H210	m550-H63/S4	3	11
1.2	64.1	5.1	92.0	12.0	92.0	1.5	21.4	90.0	1.6	2.491	118.231	g500-H140	m550-H63/S4	3	12
1.2	65.8	4.9	94.0	11.7	94.0	4.8	20.8	92.0	4.9	2.479	121.342	g500-H450	m550-H63/S4	3	16
1.1	69.8	4.7	100	11.0	100	3.2	19.6	98.0	3.3	2.430	128.743	g500-H320	m550-H63/S4	3	12
1.1	70.5	4.6	101	10.9	101	1.0	19.4	99.0	1.0	2.490	130.167	g500-H100	m550-H63/S4	3	11
1.1	70.7	4.6	101	10.8	101	1.4	19.3	99.0	1.4	2.491	130.549	g500-H140	m550-H63/S4	3	12
1.1	71.7	4.5	102	10.7	102	2.1	19.1	100	2.1	2.429	132.270	g500-H210	m550-H63/S4	3	11
1.0	74.3	4.4	106	10.3	106	4.2	18.4	104	4.3	2.478	137.133	g500-H450	m550-H63/S4	3	16
1.0	77.4	4.2	111	9.9	111	0.9	17.7	108	0.9	2.490	142.895	g500-H100	m550-H63/S4	3	11
1.0	77.5	4.2	111	9.9	111	4.6	17.7	109	4.7	2.498	142.988	g500-H600	m550-H63/S4	3	28
1.0	78.5	4.1	112	9.8	112	1.3	17.4	110	1.3	2.491	144.833	g500-H140	m550-H63/S4	3	12
1.0	79.2	4.1	113	9.7	113	2.8	17.3	111	2.9	2.430	146.244	g500-H320	m550-H63/S4	3	12
0.9	82.8	3.9	118	9.3	118	1.8	16.5	116	1.8	2.420	152.853	g500-H210	m550-H63/S4	3	11
0.9	84.7	3.8	121	9.1	121	3.7	16.2	119	3.8	2.454	156.274	g500-H450	m550-H63/S4	3	16
0.9	86.7	3.8	124	8.8	124	1.1	15.8	121	1.2	2.490	159.923	g500-H140	m550-H63/S4	3	12
0.9	87.0	3.7	124	8.8	124	4.6	15.7	122	4.7	2.498	160.585	g500-H600	m550-H63/S4	3	28
0.9	90.2	3.6	129	8.5	129	2.5	15.2	126	2.5	2.421	166.541	g500-H320	m550-H63/S4	3	12
0.8	92.7	3.5	132	8.3	132	1.6	14.8	130	1.6	2.420	171.104	g500-H210	m550-H63/S4	3	11
0.8	94.0	3.5	134	8.2	134	4.0	14.6	132	4.1	2.472	173.536	g500-H600	m550-H63/S4	3	28
0.8	95.7	3.4	137	8.0	137	3.3	14.3	134	3.4	2.454	176.611	g500-H450	m550-H63/S4	3	16
0.8	98.7	3.3	141	7.8	141	1.0	13.9	138	1.0	2.490	182.076	g500-H140	m550-H63/S4	3	12
0.8	103	3.2	146	7.5	146	2.2	13.3	144	2.2	2.420	189.179	g500-H320	m550-H63/S4	3	12
0.7	106	3.1	151	7.3	151	4.0	13.0	148	4.1	2.471	194.892	g500-H600	m550-H63/S4	3	28
0.7	107	3.0	153	7.1	153	2.9	12.7	150	3.0	2.436	198.059	g500-H450	m550-H63/S4	3	16
0.7	108	3.0	154	7.1	154	1.4	12.7	151	1.4	2.414	198.873	g500-H210	m550-H63/S4	3	11
0.7	109	3.0	156	7.0	156	0.9	12.6	153	0.9	2.490	201.046	g500-H140	m550-H63/S4	3	12
0.7	117	2.8	168	6.5	168	1.9	11.7	164	1.9	2.414	216.683	g500-H320	m550-H63/S4	3	12
0.6	120	2.7	171	6.4	171	0.8	11.4	168	0.8	2.466	220.974	g500-H140	m550-H63/S4	3	12
0.6	121	2.7	172	6.4	172	1.2	11.3	169	1.2	2.413	222.619	g500-H210	m550-H63/S4	3	11
0.6	120	2.7	172	6.4	172	3.1	11.4	168	3.1	2.446	221.794	g500-H600	m550-H63/S4	3	28
0.6	121	2.7	173	6.3	173	2.6	11.3	170	2.7	2.435	223.833	g500-H450	m550-H63/S4	3	16
0.6	133	2.4	191	5.7	191	1.7	10.3	187	1.7	2.414	246.137	g500-H320	m550-H63/S4	3	12
0.6	135	2.4	192	5.7	192	2.3	10.2	188	2.4	2.425	248.200	g500-H450	m550-H63/S4	3	16
0.6	135	2.4	193	5.7	193	3.1	10.1	189	3.1	2.445	249.089	g500-H600	m550-H63/S4	3	28
0.6	140	2.3	199	5.5	199	1.1	9.8	195	1.1	2.403	257.631	g500-H210	m550-H63/S4	3	11
0.5	152	2.1	217	5.0	217	1.2	9.0	213	1.3	2.403	280.702	g500-H320	m550-H63/S4	3	12
0.5	152	2.1	217	5.0	217	2.1	9.0	213	2.1	2.425	280.500	g500-H450	m550-H63/S4	3	16
0.5	156	2.1	223	4.9	223	0.9	8.8	219	1.0	2.403	288.393	g500-H210	m550-H63/S4	3	11
0.4	170	1.9	243	4.4	243	0.9	7.9	238	0.9	2.491	318.197	g500-H210	m550-H63/S4	4	14
0.4	171	1.9	244	4.4	244	2.5	7.9	239	2.5	2.501	320.294	g500-H600	m550-H63/S4	4	31



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
0.4	173	1.9	247	4.4	247	1.2	7.9	242	1.3	2.403	318.859	g500-H320	m550-H63/S4	3	12
0.4	173	1.9	247	4.4	247	1.8	7.8	242	1.9	2.495	323.579	g500-H450	m550-H63/S4	4	19
0.4	177	1.8	253	4.3	253	1.7	7.7	248	1.7	2.415	326.994	g500-H450	m550-H63/S4	3	16
0.4	185	1.7	264	4.1	264	1.2	7.3	259	1.2	2.491	346.692	g500-H320	m550-H63/S4	4	15
0.4	192	1.7	274	3.9	274	2.2	7.0	269	2.2	2.501	359.710	g500-H600	m550-H63/S4	4	31
0.4	195	1.6	279	3.9	279	1.6	6.9	273	1.7	2.495	365.689	g500-H450	m550-H63/S4	4	19
0.4	196	1.6	281	3.8	281	3.0	6.9	275	3.1	2.484	368.019	g500-H850	m550-H63/S4	4	40
0.4	200	1.6	286	3.8	286	1.6	6.8	280	1.6	2.415	369.548	g500-H450	m550-H63/S4	3	16
0.4	210	1.5	300	3.6	300	1.1	6.4	294	1.1	2.491	393.819	g500-H320	m550-H63/S4	4	15
0.3	218	1.5	312	3.5	312	1.9	6.2	305	2.0	2.497	408.538	g500-H600	m550-H63/S4	4	31
0.3	220	1.5	314	3.4	314	2.7	6.1	307	2.8	2.484	411.213	g500-H850	m550-H63/S4	4	40
0.3	221	1.4	316	3.4	316	1.4	6.1	310	1.5	2.493	414.104	g500-H450	m550-H63/S4	4	19
0.3	237	1.4	338	3.2	338	1.0	5.7	332	1.0	2.490	443.683	g500-H320	m550-H63/S4	4	15
0.3	242	1.3	345	3.1	345	1.3	5.6	339	1.3	2.492	453.011	g500-H450	m550-H63/S4	4	19
0.3	245	1.3	350	3.1	350	1.7	5.5	343	1.8	2.497	458.814	g500-H600	m550-H63/S4	4	31
0.3	253	1.3	361	3.0	361	2.4	5.3	354	2.4	2.504	473.807	g500-H850	m550-H63/S4	4	40
0.3	267	1.2	382	2.8	382	1.6	5.0	374	1.6	2.495	500.459	g500-H600	m550-H63/S4	4	31
0.3	269	1.2	384	2.8	384	0.8	5.0	377	0.9	2.490	503.994	g500-H320	m550-H63/S4	4	15
0.3	273	1.2	390	2.8	390	1.2	4.9	383	1.2	2.492	511.964	g500-H450	m550-H63/S4	4	19
0.3	283	1.1	404	2.7	404	2.1	4.8	396	2.2	2.504	529.418	g500-H850	m550-H63/S4	4	40
0.3	300	1.1	429	2.5	429	1.4	4.5	420	1.4	2.495	562.048	g500-H600	m550-H63/S4	4	31
0.2	307	1.0	438	2.5	438	1.9	4.4	430	2.0	2.475	575.029	g500-H850	m550-H63/S4	4	40
0.2	308	1.0	441	2.4	441	1.0	4.4	432	1.0	2.491	577.820	g500-H450	m550-H63/S4	4	19
0.2	329	1.0	470	2.3	470	1.8	4.1	461	1.8	2.499	616.701	g500-H850	m550-H63/S4	4	40
0.2	348	0.9	497	2.2	497	1.2	3.9	487	1.2	2.492	651.391	g500-H600	m550-H63/S4	4	31
0.2	349	0.9	498	2.2	498	0.9	3.9	488	0.9	2.491	653.016	g500-H450	m550-H63/S4	4	19
0.2	368	0.9	525	2.1	525	1.6	3.7	515	1.7	2.499	689.083	g500-H850	m550-H63/S4	4	40
0.2	378	0.8	540	2.0	540	0.8	3.6	529	0.9	2.491	707.830	g500-H450	m550-H63/S4	4	19
0.2	391	0.8	558	1.9	558	1.1	3.5	547	1.1	2.492	731.554	g500-H600	m550-H63/S4	4	31
0.2	409	0.8	585	1.8	585	1.5	3.3	573	1.5	2.496	767.116	g500-H850	m550-H63/S4	4	40
0.2	421	0.8	601	1.8	601	4.6	3.2	589	4.7	2.571	788.632	g500-H3000	m550-H63/S4	4	115
0.2	433	0.7	618	1.7	618	1.0	3.1	606	1.0	2.491	810.267	g500-H600	m550-H63/S4	4	31
0.2	458	0.7	654	1.7	654	1.3	2.9	641	1.3	2.496	857.153	g500-H850	m550-H63/S4	4	40
0.2	462	0.7	660	1.6	660	4.5	2.9	647	4.6	2.571	866.202	g500-H3000	m550-H63/S4	4	115
0.2	486	0.7	694	1.6	694	0.9	2.8	680	0.9	2.491	909.982	g500-H600	m550-H63/S4	4	31
0.2	492	0.7	702	1.5	702	2.1	2.7	689	2.2	2.514	921.302	g500-H1500	m550-H63/S4	4	70
0.1	511	0.6	730	1.5	730	4.1	2.6	716	4.2	2.551	957.625	g500-H3000	m550-H63/S4	4	115
0.1	530	0.6	757	1.4	757	1.1	2.5	742	1.2	2.493	992.738	g500-H850	m550-H63/S4	4	40
0.1	545	0.6	778	1.4	778	1.9	2.5	763	2.0	2.508	1020.881	g500-H1500	m550-H63/S4	4	70
0.1	561	0.6	802	1.3	802	3.7	2.4	786	3.8	2.551	1051.817	g500-H3000	m550-H63/S4	4	115
0.1	592	0.5	846	1.3	846	1.0	2.3	829	1.0	2.493	1109.256	g500-H850	m550-H63/S4	4	40
0.1	603	0.5	861	1.3	861	1.7	2.2	844	1.8	2.508	1129.157	g500-H1500	m550-H63/S4	4	70
0.1	643	0.5	919	1.2	919	0.9	2.1	901	0.9	2.468	1204.823	g500-H850	m550-H63/S4	4	40
0.1	662	0.5	945	1.1	945	3.2	2.0	926	3.2	2.530	1239.279	g500-H3000	m550-H63/S4	4	115
0.1	716	0.4	1022	1.1	1022	1.5	1.9	1002	1.5	2.501	1340.859	g500-H1500	m550-H63/S4	4	70
0.1	719	0.4	1026	1.1	1026	0.8	1.9	1006	0.8	2.468	1346.234	g500-H850	m550-H63/S4	4	40
0.1	727	0.4	1038	1.0	1038	2.9	1.9	1017	3.0	2.530	1361.175	g500-H3000	m550-H63/S4	4	115
0.1	792	0.4	1131	1.0	1131	1.3	1.7	1108	1.4	2.501	1483.072	g500-H1500	m550-H63/S4	4	70
0.1	803	0.4	1147	0.9	1147	2.6	1.7	1124	2.7	2.493	1504.034	g500-H3000	m550-H63/S4	4	115
0.1	869	0.4	1241	0.9	1241	1.2	1.6	1216	1.2	2.473	1627.316	g500-H1500	m550-H63/S4	4	70
0.1	882	0.4	1260	0.9	1260	2.4	1.5	1235	2.4	2.493	1651.972	g500-H3000	m550-H63/S4	4	115
0.1	961	0.3	1372	0.8	1372	1.1	1.4	1345	1.1	2.473	1799.910	g500-H1500	m550-H63/S4	4	70



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
0.1	974	0.3	1392	0.8	1392	2.2	1.4	1364	2.2	2.485	1825.350	g500-H3000	m550-H63/S4	4	115
0.1	1054	0.3	1506	0.7	1506	1.0	1.3	1476	1.0	2.471	1974.969	g500-H1500	m550-H63/S4	4	70
0.1	1070	0.3	1529	0.7	1529	2.0	1.3	1498	2.0	2.485	2004.893	g500-H3000	m550-H63/S4	4	115
0.1	1166	0.3	1666	0.6	1666	0.9	1.2	1633	0.9	2.471	2184.436	g500-H1500	m550-H63/S4	4	70
0.1	1245	0.3	1779	0.6	1779	1.7	1.1	1744	1.7	2.454	2332.962	g500-H3000	m550-H63/S4	4	115
0.1	1368	0.2	1954	0.6	1954	1.5	1.0	1915	1.6	2.454	2562.434	g500-H3000	m550-H63/S4	4	115
0.0	1574	0.2	2249	0.5	2249	1.3	0.9	2204	1.4	2.450	2948.969	g500-H3000	m550-H63/S4	4	115
0.0	1729	0.2	2470	0.4	2470	1.2	0.8	2421	1.2	2.450	3239.031	g500-H3000	m550-H63/S4	4	115



50 Hz: 0.18 kW

87 Hz: 0.33 kW

Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)			J	i			z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
53.9	2.2	231	3.0	539	3.0	4.8	965	3.0	3.9	3.160	2.597	g500-H45	m550-H63/M4	2	6.3
41.0	2.8	176	4.0	410	4.0	4.6	734	4.0	3.8	3.069	3.413	g500-H45	m550-H63/M4	2	6.3
32.0	3.6	137	5.0	321	5.0	4.0	574	5.0	3.3	3.017	4.368	g500-H45	m550-H63/M4	2	6.3
26.4	4.4	113	6.0	264	6.0	4.3	472	6.0	3.5	3.079	5.312	g500-H45	m550-H63/M4	2	6.3
23.5	5.0	101	7.0	235	7.0	4.1	420	7.0	3.4	3.073	5.965	g500-H45	m550-H63/M4	2	6.3
22.3	5.2	95.7	7.0	223	7.0	4.6	399	8.0	3.8	3.209	6.272	g500-H140	m550-H63/M4	2	9.4
21.7	5.4	93.2	8.0	217	8.0	4.6	389	8.0	3.8	3.107	6.440	g500-H100	m550-H63/M4	2	8.3
20.1	5.8	85.9	8.0	201	8.0	3.6	359	9.0	3.0	3.022	6.982	g500-H45	m550-H63/M4	2	6.3
17.9	6.5	76.5	9.0	179	9.0	3.4	320	10.0	2.8	3.019	7.840	g500-H45	m550-H63/M4	2	6.3
17.5	6.7	75.0	10.0	175	10.0	4.2	313	10.0	3.5	3.111	8.000	g500-H140	m550-H63/M4	2	9.4
17.0	6.8	73.0	10.0	170	10.0	4.2	305	10.0	3.5	3.048	8.214	g500-H100	m550-H63/M4	2	8.3
15.7	7.4	67.2	11.0	157	11.0	3.1	280	11.0	2.6	2.989	8.935	g500-H45	m550-H63/M4	2	6.3
14.0	8.4	59.8	12.0	140	12.0	2.9	250	12.0	2.4	2.986	10.033	g500-H45	m550-H63/M4	2	6.3
12.3	9.5	52.8	14.0	123	14.0	4.6	221	14.0	3.8	3.075	11.360	g500-H100	m550-H63/M4	2	8.3
12.3	9.5	52.5	14.0	123	14.0	2.6	219	14.0	2.1	2.959	11.429	g500-H45	m550-H63/M4	2	6.3
11.1	10.5	47.5	15.0	111	15.0	4.6	198	15.0	3.8	3.110	12.640	g500-H140	m550-H63/M4	2	9.4
11.1	10.5	47.4	15.0	111	15.0	4.2	198	15.0	3.5	3.032	12.653	g500-H100	m550-H63/M4	2	8.3
10.9	10.7	46.8	15.0	109	15.0	2.5	195	16.0	2.0	2.957	12.833	g500-H45	m550-H63/M4	2	6.3
10.0	11.6	43.0	17.0	100	17.0	4.6	180	17.0	3.8	3.101	13.957	g500-H140	m550-H63/M4	2	9.4
9.7	12.1	41.4	17.0	96.6	17.0	4.2	173	18.0	3.5	3.029	14.490	g500-H100	m550-H63/M4	2	8.3
9.4	12.4	40.4	18.0	94.4	18.0	2.2	169	18.0	1.8	2.941	14.836	g500-H45	m550-H63/M4	2	6.3
8.7	13.4	37.2	19.0	86.8	19.0	4.2	155	20.0	3.5	3.050	16.122	g500-H140	m550-H63/M4	2	9.4
8.4	13.9	36.0	20.0	84.0	20.0	2.1	150	20.0	1.9	2.940	16.660	g500-H45	m550-H63/M4	2	6.3
7.9	14.8	33.7	21.0	78.6	21.0	4.2	141	22.0	3.5	3.045	17.802	g500-H140	m550-H63/M4	2	9.4
7.4	15.8	31.6	23.0	73.6	23.0	1.9	132	23.0	1.7	2.928	19.013	g500-H45	m550-H63/M4	2	6.3
7.2	16.2	30.8	23.0	71.8	23.0	3.6	129	24.0	3.0	2.969	19.486	g500-H100	m550-H63/M4	2	8.3
6.6	17.8	28.1	25.0	65.6	25.0	1.7	117	26.0	1.6	2.927	21.350	g500-H45	m550-H63/M4	2	6.3
6.3	18.6	26.9	27.0	62.7	27.0	3.6	112	27.0	3.0	2.967	22.314	g500-H100	m550-H63/M4	2	8.3
5.7	20.5	24.4	29.0	56.9	29.0	1.5	102	30.0	1.4	2.919	24.595	g500-H45	m550-H63/M4	2	6.3
5.6	20.7	24.2	30.0	56.4	30.0	3.6	101	30.0	3.0	2.977	24.829	g500-H140	m550-H63/M4	2	9.4
5.6	20.9	23.9	30.0	55.8	30.0	3.0	99.8	31.0	2.5	2.948	25.095	g500-H100	m550-H63/M4	2	8.3
5.1	22.8	21.9	33.0	51.1	33.0	3.6	91.4	34.0	3.4	2.974	27.415	g500-H140	m550-H63/M4	2	9.4
5.1	23.0	21.7	33.0	50.7	33.0	1.4	90.7	34.0	1.3	2.919	27.618	g500-H45	m550-H63/M4	2	6.3
4.9	24.0	20.9	34.0	48.7	34.0	2.9	87.2	35.0	2.7	2.947	28.738	g500-H100	m550-H63/M4	2	8.3
4.4	26.5	18.9	38.0	44.0	38.0	2.6	78.8	39.0	2.5	2.932	31.805	g500-H100	m550-H63/M4	2	8.3
4.4	26.7	18.8	38.0	43.8	38.0	1.2	78.3	39.0	1.1	2.912	32.000	g500-H45	m550-H63/M4	2	6.3
4.4	26.6	18.8	38.0	43.8	38.0	3.0	78.3	39.0	2.8	2.953	31.976	g500-H140	m550-H63/M4	2	9.4
4.0	29.2	17.1	42.0	39.9	42.0	3.0	71.4	43.0	2.8	2.985	35.095	g500-H210	m550-H63/M4	2	11
4.0	29.4	17.0	42.0	39.7	42.0	3.0	70.9	43.0	2.8	2.951	35.308	g500-H140	m550-H63/M4	2	9.4
3.9	29.9	16.7	43.0	39.0	43.0	1.1	69.7	44.0	1.0	2.912	35.933	g500-H45	m550-H63/M4	2	6.3
3.8	30.4	16.5	43.0	38.4	43.0	2.3	68.8	45.0	2.2	2.931	36.422	g500-H100	m550-H63/M4	2	8.3
3.7	31.9	15.7	46.0	36.6	46.0	3.0	65.5	47.0	2.8	2.995	38.238	g500-H320	m550-H63/M4	2	13
3.6	32.7	15.3	47.0	35.6	47.0	3.0	63.8	48.0	2.8	2.983	39.286	g500-H210	m550-H63/M4	2	11
3.5	33.2	15.1	48.0	35.1	48.0	2.1	62.8	49.0	2.0	2.922	39.857	g500-H100	m550-H63/M4	2	8.3
3.5	33.8	14.8	48.0	34.5	48.0	2.6	61.8	50.0	2.6	2.935	40.526	g500-H140	m550-H63/M4	2	9.4
3.4	34.5	14.5	49.0	33.8	49.0	0.9	60.4	51.0	0.9	2.908	41.455	g500-H45	m550-H63/M4	2	6.3
3.3	35.5	14.1	51.0	32.9	51.0	2.6	58.8	52.0	2.6	2.962	42.593	g500-H210	m550-H63/M4	2	11
3.2	35.6	13.8	51.0	32.3	51.0	4.1	57.7	52.0	3.4	3.027	43.390	g500-H210	m550-H63/M4	3	11
3.2	36.2	13.8	52.0	32.2	52.0	3.0	57.7	53.0	2.9	2.992	43.436	g500-H320	m550-H63/M4	2	13
3.1	37.3	13.4	53.0	31.3	53.0	2.6	56.0	55.0	2.6	2.934	44.748	g500-H140	m550-H63/M4	2	9.4



Technical data

Selection tables

Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
3.1	38.0	13.1	54.0	30.7	54.0	1.8	54.9	56.0	1.8	2.922	45.643	g500-H100	m550-H63/M4	2	8.3
3.0	38.7	12.9	55.0	30.2	55.0	2.6	54.0	57.0	2.6	2.970	46.407	g500-H320	m550-H63/M4	2	13
3.0	38.8	12.9	56.0	30.1	56.0	0.8	53.8	57.0	0.8	2.908	46.550	g500-H45	m550-H63/M4	2	6.3
3.0	38.8	12.7	56.0	29.6	56.0	4.6	53.0	57.0	4.3	3.034	47.276	g500-H320	m550-H63/M4	3	13
2.9	39.7	12.6	57.0	29.4	57.0	2.6	52.5	58.0	2.6	2.961	47.679	g500-H210	m550-H63/M4	2	11
2.9	39.9	12.4	57.0	28.8	57.0	3.7	51.6	58.0	3.4	3.026	48.571	g500-H210	m550-H63/M4	3	11
2.8	42.3	11.8	61.0	27.6	61.0	2.1	49.3	62.0	2.1	2.924	50.786	g500-H140	m550-H63/M4	2	9.4
2.7	42.7	11.5	61.0	26.9	61.0	1.6	48.2	63.0	1.5	2.994	51.962	g500-H100	m550-H63/M4	3	11
2.7	43.8	11.4	63.0	26.7	63.0	1.1	47.7	64.0	1.1	2.914	52.510	g500-H100	m550-H63/M4	2	8.3
2.7	43.9	11.4	63.0	26.6	63.0	2.6	47.5	64.0	2.6	2.967	52.715	g500-H320	m550-H63/M4	2	13
2.6	44.1	11.2	63.0	26.1	63.0	4.6	46.6	65.0	4.3	3.031	53.703	g500-H320	m550-H63/M4	3	13
2.6	45.4	11.0	65.0	25.7	65.0	2.0	46.0	67.0	2.0	2.940	54.438	g500-H210	m550-H63/M4	2	11
2.5	45.6	10.8	65.0	25.2	65.0	3.2	45.1	67.0	3.0	2.988	55.529	g500-H210	m550-H63/M4	3	11
2.5	46.7	10.7	67.0	25.0	67.0	2.1	44.7	69.0	2.0	2.924	56.077	g500-H140	m550-H63/M4	2	9.4
2.4	48.8	10.1	70.0	23.5	70.0	1.4	42.1	72.0	1.3	2.993	59.505	g500-H100	m550-H63/M4	3	11
2.3	49.7	9.9	71.0	23.1	71.0	4.2	41.4	73.0	4.0	2.993	60.502	g500-H320	m550-H63/M4	3	13
2.3	50.1	10.0	72.0	23.3	72.0	1.1	41.7	74.0	1.1	2.913	60.133	g500-H100	m550-H63/M4	2	8.3
2.3	50.8	9.8	73.0	23.0	73.0	2.0	41.1	74.0	2.0	2.939	60.938	g500-H210	m550-H63/M4	2	11
2.3	50.7	9.7	73.0	22.7	73.0	4.6	40.6	74.0	4.3	3.119	61.774	g500-H450	m550-H63/M4	3	16
2.3	51.0	9.7	73.0	22.5	73.0	2.9	40.3	75.0	2.7	2.988	62.160	g500-H210	m550-H63/M4	3	11
2.1	54.6	9.0	78.0	21.1	78.0	1.3	37.7	80.0	1.2	2.992	66.499	g500-H100	m550-H63/M4	3	11
2.1	55.8	9.0	80.0	20.9	80.0	1.1	37.4	82.0	1.1	2.915	66.908	g500-H140	m550-H63/M4	2	9.4
2.0	56.4	8.7	81.0	20.4	81.0	4.0	36.4	83.0	3.7	2.991	68.726	g500-H320	m550-H63/M4	3	13
2.0	57.3	8.6	82.0	20.1	82.0	4.6	35.9	84.0	4.3	3.117	69.813	g500-H450	m550-H63/M4	3	16
2.0	58.3	8.4	83.0	19.7	83.0	2.5	35.3	86.0	2.4	2.960	71.026	g500-H210	m550-H63/M4	3	11
1.9	59.7	8.2	86.0	19.2	86.0	1.2	34.4	88.0	1.1	2.992	72.747	g500-H100	m550-H63/M4	3	11
1.9	61.6	8.1	88.0	18.9	88.0	1.1	33.9	90.0	1.1	2.914	73.879	g500-H140	m550-H63/M4	2	9.4
1.8	63.5	7.8	91.0	18.1	91.0	3.5	32.4	93.0	3.3	2.962	77.387	g500-H320	m550-H63/M4	3	13
1.8	64.7	7.6	93.0	17.8	93.0	4.2	31.8	95.0	4.0	3.056	78.794	g500-H450	m550-H63/M4	3	16
1.8	65.3	7.5	93.0	17.6	93.0	2.3	31.5	96.0	2.1	2.959	79.507	g500-H210	m550-H63/M4	3	11
1.7	68.4	7.2	98.0	16.8	98.0	1.0	30.1	100	1.0	2.992	83.307	g500-H100	m550-H63/M4	3	11
1.7	69.6	7.1	100	16.5	100	1.4	29.6	102	1.4	2.993	84.732	g500-H140	m550-H63/M4	3	12
1.6	72.2	6.8	103	15.9	103	3.1	28.5	106	3.0	2.961	87.906	g500-H320	m550-H63/M4	3	13
1.6	73.1	6.7	105	15.7	105	4.2	28.1	107	4.1	3.055	89.048	g500-H450	m550-H63/M4	3	16
1.5	75.7	6.5	108	15.2	108	1.9	27.2	111	1.9	2.942	92.205	g500-H210	m550-H63/M4	3	11
1.5	76.2	6.5	109	15.1	109	0.9	27.0	112	0.9	2.991	92.789	g500-H100	m550-H63/M4	3	11
1.5	76.1	6.5	109	15.1	109	1.3	27.0	112	1.3	2.992	92.693	g500-H140	m550-H63/M4	3	12
1.4	82.5	6.0	118	13.9	118	2.7	24.9	121	2.7	2.944	100.462	g500-H320	m550-H63/M4	3	13
1.4	84.0	5.9	120	13.7	120	1.2	24.5	123	1.1	2.992	102.351	g500-H140	m550-H63/M4	3	12
1.4	84.7	5.8	121	13.6	121	1.7	24.3	124	1.7	2.942	103.214	g500-H210	m550-H63/M4	3	11
1.3	87.2	5.6	125	13.2	125	0.8	23.6	128	0.8	2.991	106.259	g500-H100	m550-H63/M4	3	11
1.2	93.7	5.3	134	12.3	134	2.4	22.0	137	2.3	2.943	114.118	g500-H320	m550-H63/M4	3	13
1.2	97.1	5.1	139	11.8	139	1.0	21.2	142	1.0	2.991	118.231	g500-H140	m550-H63/M4	3	12
1.2	97.0	5.1	139	11.8	139	1.5	21.2	142	1.5	2.929	118.162	g500-H210	m550-H63/M4	3	11
1.2	99.6	4.9	143	11.5	143	3.2	20.6	146	3.1	2.979	121.342	g500-H450	m550-H63/M4	3	16
1.1	106	4.7	151	10.9	151	2.1	19.5	155	2.1	2.930	128.743	g500-H320	m550-H63/M4	3	13
1.1	107	4.6	153	10.7	153	0.9	19.2	157	0.9	2.991	130.549	g500-H140	m550-H63/M4	3	12
1.1	109	4.5	155	10.6	155	1.4	18.9	159	1.3	2.929	132.270	g500-H210	m550-H63/M4	3	11
1.0	113	4.4	161	10.2	161	2.8	18.3	165	2.7	2.978	137.133	g500-H450	m550-H63/M4	3	16
1.0	117	4.2	168	9.8	168	3.0	17.5	172	2.9	2.998	142.988	g500-H600	m550-H63/M4	3	28
1.0	119	4.1	170	9.7	170	0.8	17.3	174	0.8	2.991	144.833	g500-H140	m550-H63/M4	3	12
1.0	120	4.1	172	9.6	172	1.9	17.1	176	1.8	2.930	146.244	g500-H320	m550-H63/M4	3	13



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
0.9	126	3.9	180	9.2	180	1.2	16.4	184	1.1	2.920	152.853	g500-H210	m550-H63/M4	3	11
0.9	128	3.8	184	9.0	184	2.5	16.0	188	2.4	2.954	156.274	g500-H450	m550-H63/M4	3	16
0.9	132	3.7	189	8.7	189	3.0	15.6	193	2.9	2.998	160.585	g500-H600	m550-H63/M4	3	28
0.8	137	3.6	196	8.4	196	1.6	15.0	201	1.6	2.921	166.541	g500-H320	m550-H63/M4	3	13
0.8	141	3.5	201	8.2	201	1.0	14.6	206	1.0	2.920	171.104	g500-H210	m550-H63/M4	3	11
0.8	143	3.5	204	8.1	204	2.6	14.4	209	2.6	2.972	173.536	g500-H600	m550-H63/M4	3	28
0.8	145	3.4	208	7.9	208	2.2	14.2	213	2.1	2.954	176.611	g500-H450	m550-H63/M4	3	16
0.7	155	3.2	222	7.4	222	1.4	13.2	228	1.4	2.920	189.179	g500-H320	m550-H63/M4	3	13
0.7	160	3.1	229	7.2	229	2.6	12.9	235	2.6	2.971	194.892	g500-H600	m550-H63/M4	3	28
0.7	163	3.0	233	7.1	233	1.9	12.6	238	1.9	2.936	198.059	g500-H450	m550-H63/M4	3	16
0.7	163	3.0	234	7.0	234	0.9	12.6	239	0.9	2.914	198.873	g500-H210	m550-H63/M4	3	11
0.6	178	2.8	255	6.5	255	1.2	11.6	261	1.2	2.914	216.683	g500-H320	m550-H63/M4	3	13
0.6	182	2.7	261	6.3	261	2.0	11.3	267	2.0	2.946	221.794	g500-H600	m550-H63/M4	3	28
0.6	183	2.7	262	6.3	262	0.8	11.3	268	0.8	2.913	222.619	g500-H210	m550-H63/M4	3	11
0.6	184	2.7	263	6.3	263	1.7	11.2	270	1.7	2.935	223.833	g500-H450	m550-H63/M4	3	16
0.6	202	2.4	289	5.7	289	1.1	10.2	296	1.1	2.914	246.137	g500-H320	m550-H63/M4	3	13
0.6	204	2.4	292	5.6	292	1.5	10.1	299	1.5	2.925	248.200	g500-H450	m550-H63/M4	3	16
0.6	205	2.4	293	5.6	293	2.0	10.1	300	2.0	2.945	249.089	g500-H600	m550-H63/M4	3	28
0.5	230	2.1	330	5.0	330	0.8	8.9	338	0.8	2.903	280.702	g500-H320	m550-H63/M4	3	13
0.5	230	2.1	330	5.0	330	1.4	8.9	338	1.3	2.925	280.500	g500-H450	m550-H63/M4	3	16
0.4	259	1.9	371	4.4	371	1.6	7.8	380	1.6	3.001	320.294	g500-H600	m550-H63/M4	4	31
0.4	262	1.9	375	4.4	375	0.8	7.9	384	0.8	2.903	318.859	g500-H320	m550-H63/M4	3	13
0.4	262	1.9	375	4.3	375	1.2	7.7	384	1.2	2.995	323.579	g500-H450	m550-H63/M4	4	19
0.4	268	1.8	384	4.3	384	1.1	7.7	394	1.1	2.915	326.994	g500-H450	m550-H63/M4	3	16
0.4	280	1.7	401	4.0	401	0.8	7.2	411	0.8	2.991	346.692	g500-H320	m550-H63/M4	4	16
0.4	291	1.7	416	3.9	416	1.4	7.0	427	1.4	3.001	359.710	g500-H600	m550-H63/M4	4	31
0.4	296	1.6	423	3.8	423	1.1	6.9	434	1.0	2.995	365.689	g500-H450	m550-H63/M4	4	19
0.4	298	1.6	426	3.8	426	2.0	6.8	437	2.0	2.984	368.019	g500-H850	m550-H63/M4	4	40
0.4	303	1.6	434	3.8	434	1.0	6.8	445	1.0	2.915	369.548	g500-H450	m550-H63/M4	3	16
0.3	330	1.5	473	3.4	473	1.3	6.1	485	1.2	2.997	408.538	g500-H600	m550-H63/M4	4	31
0.3	333	1.5	476	3.4	476	1.8	6.1	488	1.7	2.984	411.213	g500-H850	m550-H63/M4	4	40
0.3	335	1.4	479	3.4	479	0.9	6.0	491	0.9	2.993	414.104	g500-H450	m550-H63/M4	4	19
0.3	366	1.3	525	3.1	525	0.9	5.5	537	0.8	2.992	453.011	g500-H450	m550-H63/M4	4	19
0.3	371	1.3	531	3.1	531	1.1	5.5	544	1.1	2.997	458.814	g500-H600	m550-H63/M4	4	31
0.3	383	1.3	549	3.0	549	1.6	5.3	562	1.5	3.004	473.807	g500-H850	m550-H63/M4	4	40
0.3	405	1.2	579	2.8	579	1.0	5.0	594	1.0	2.995	500.459	g500-H600	m550-H63/M4	4	31
0.3	428	1.1	613	2.6	613	1.4	4.7	628	1.4	3.004	529.418	g500-H850	m550-H63/M4	4	40
0.2	455	1.1	651	2.5	651	0.9	4.5	667	0.9	2.995	562.048	g500-H600	m550-H63/M4	4	31
0.2	465	1.0	666	2.4	666	1.3	4.4	682	1.3	2.975	575.029	g500-H850	m550-H63/M4	4	40
0.2	499	1.0	714	2.3	714	1.2	4.1	731	1.2	2.999	616.701	g500-H850	m550-H63/M4	4	40
0.2	527	0.9	754	2.1	754	0.8	3.8	773	0.8	2.992	651.391	g500-H600	m550-H63/M4	4	31
0.2	557	0.9	798	2.0	798	1.1	3.6	817	1.0	2.999	689.083	g500-H850	m550-H63/M4	4	40
0.2	620	0.8	888	1.8	888	1.0	3.3	910	0.9	2.996	767.116	g500-H850	m550-H63/M4	4	40
0.2	638	0.8	913	1.8	913	3.0	3.2	935	2.9	3.071	788.632	g500-H3000	m550-H63/M4	4	116
0.2	693	0.7	992	1.6	992	0.9	2.9	1017	0.8	2.996	857.153	g500-H850	m550-H63/M4	4	40
0.2	700	0.7	1003	1.6	1003	3.0	2.9	1027	2.9	3.071	866.202	g500-H3000	m550-H63/M4	4	116
0.2	745	0.7	1067	1.5	1067	1.4	2.7	1093	1.4	3.014	921.302	g500-H1500	m550-H63/M4	4	71
0.1	774	0.6	1109	1.5	1109	2.7	2.6	1136	2.6	3.051	957.625	g500-H3000	m550-H63/M4	4	116
0.1	826	0.6	1182	1.4	1182	1.3	2.5	1211	1.2	3.008	1020.881	g500-H1500	m550-H63/M4	4	71
0.1	851	0.6	1218	1.3	1218	2.5	2.4	1248	2.4	3.051	1051.817	g500-H3000	m550-H63/M4	4	116
0.1	913	0.5	1307	1.2	1307	1.2	2.2	1339	1.1	3.008	1129.157	g500-H1500	m550-H63/M4	4	71
0.1	1002	0.5	1435	1.1	1435	2.1	2.0	1470	2.0	3.030	1239.279	g500-H3000	m550-H63/M4	4	116



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
0.1	1084	0.4	1553	1.0	1553	1.0	1.9	1590	0.9	3.001	1340.859	g500-H1500	m550-H63/M4	4	71
0.1	1101	0.4	1576	1.0	1576	1.9	1.8	1614	1.9	3.030	1361.175	g500-H3000	m550-H63/M4	4	116
0.1	1199	0.4	1717	0.9	1717	0.9	1.7	1759	0.9	3.001	1483.072	g500-H1500	m550-H63/M4	4	71
0.1	1216	0.4	1741	0.9	1741	1.7	1.7	1784	1.7	2.993	1504.034	g500-H3000	m550-H63/M4	4	116
0.1	1316	0.4	1884	0.9	1884	0.8	1.5	1930	0.8	2.973	1627.316	g500-H1500	m550-H63/M4	4	71
0.1	1336	0.4	1913	0.8	1913	1.6	1.5	1959	1.5	2.993	1651.972	g500-H3000	m550-H63/M4	4	116
0.1	1476	0.3	2113	0.8	2113	1.4	1.4	2165	1.4	2.985	1825.350	g500-H3000	m550-H63/M4	4	116
0.1	1621	0.3	2321	0.7	2321	1.3	1.2	2378	1.3	2.985	2004.893	g500-H3000	m550-H63/M4	4	116
0.1	1887	0.3	2701	0.6	2701	1.1	1.1	2767	1.1	2.954	2332.962	g500-H3000	m550-H63/M4	4	116
0.1	2072	0.2	2967	0.5	2967	1.0	1.0	3039	1.0	2.954	2562.434	g500-H3000	m550-H63/M4	4	116
0.0	2385	0.2	3414	0.5	3414	0.9	0.8	3498	0.9	2.950	2948.969	g500-H3000	m550-H63/M4	4	116
0.0	2619	0.2	3750	0.4	3750	0.8	0.8	3842	0.8	2.950	3239.031	g500-H3000	m550-H63/M4	4	116



50 Hz: 0.25 kW

87 Hz: 0.45 kW

Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)								
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
53.5	3.0	231	4.3	535	4.3	4.2	963	4.3	3.5	3.960	2.597	g500-H45	m550-H63/L4	2	7.3
40.7	4.0	176	5.7	407	5.7	3.3	732	5.7	2.8	3.869	3.413	g500-H45	m550-H63/L4	2	7.3
31.8	5.1	137	7.3	318	7.3	2.9	572	7.3	2.4	3.817	4.368	g500-H45	m550-H63/L4	2	7.3
26.2	6.2	113	8.9	262	8.9	3.1	471	8.9	2.6	3.879	5.312	g500-H45	m550-H63/L4	2	7.3
23.3	6.9	101	10.0	233	10.0	2.9	419	10.0	2.5	3.873	5.965	g500-H45	m550-H63/L4	2	7.3
19.9	8.1	85.9	12.0	199	12.0	2.6	358	12.0	2.2	3.822	6.982	g500-H45	m550-H63/L4	2	7.3
17.7	9.1	76.5	13.0	177	13.0	2.5	319	13.0	2.1	3.819	7.840	g500-H45	m550-H63/L4	2	7.3
17.4	9.3	75.0	13.0	174	13.0	4.9	313	13.0	4.1	3.911	8.000	g500-H140	m550-H63/L4	2	10
16.9	9.6	73.0	14.0	169	14.0	4.9	304	14.0	4.1	3.848	8.214	g500-H100	m550-H63/L4	2	9.3
15.6	10.4	67.2	15.0	156	15.0	2.2	280	15.0	1.9	3.789	8.935	g500-H45	m550-H63/L4	2	7.3
14.2	11.4	61.2	16.0	142	16.0	4.4	255	16.0	3.7	3.855	9.800	g500-H140	m550-H63/L4	2	10
13.9	11.7	59.8	17.0	139	17.0	2.1	249	17.0	1.8	3.786	10.033	g500-H45	m550-H63/L4	2	7.3
13.8	11.7	59.6	17.0	138	17.0	4.4	248	17.0	3.7	3.813	10.063	g500-H100	m550-H63/L4	2	9.3
12.2	13.3	52.5	19.0	122	19.0	1.8	219	19.0	1.6	3.759	11.429	g500-H45	m550-H63/L4	2	7.3
11.0	14.7	47.4	21.0	110	21.0	4.7	198	21.0	4.0	3.832	12.653	g500-H100	m550-H63/L4	2	9.3
10.8	14.9	46.8	21.0	108	21.0	1.8	195	21.0	1.5	3.757	12.833	g500-H45	m550-H63/L4	2	7.3
9.6	16.9	41.4	24.0	95.9	24.0	4.1	173	24.0	3.5	3.829	14.490	g500-H100	m550-H63/L4	2	9.3
9.4	17.3	40.4	25.0	93.7	25.0	1.6	169	25.0	1.3	3.741	14.836	g500-H45	m550-H63/L4	2	7.3
9.0	18.0	38.7	26.0	89.7	26.0	3.9	161	26.0	3.3	3.802	15.500	g500-H100	m550-H63/L4	2	9.3
8.6	18.8	37.2	27.0	86.2	27.0	4.9	155	27.0	4.1	3.850	16.122	g500-H140	m550-H63/L4	2	10
8.3	19.4	36.0	28.0	83.4	28.0	1.5	150	28.0	1.4	3.740	16.660	g500-H45	m550-H63/L4	2	7.3
7.8	20.7	33.8	30.0	78.3	30.0	3.4	141	30.0	2.9	3.800	17.750	g500-H100	m550-H63/L4	2	9.3
7.8	20.7	33.7	30.0	78.1	30.0	4.7	140	30.0	4.0	3.845	17.802	g500-H140	m550-H63/L4	2	10
7.3	22.1	31.6	32.0	73.1	32.0	1.3	132	32.0	1.3	3.728	19.013	g500-H45	m550-H63/L4	2	7.3
7.1	22.7	30.8	33.0	71.3	33.0	3.1	128	33.0	2.6	3.769	19.486	g500-H100	m550-H63/L4	2	9.3
7.0	23.0	30.4	33.0	70.4	33.0	4.3	127	33.0	3.6	3.814	19.750	g500-H140	m550-H63/L4	2	10
6.5	24.9	28.1	36.0	65.1	36.0	1.2	117	36.0	1.2	3.727	21.350	g500-H45	m550-H63/L4	2	7.3
6.4	25.4	27.5	36.0	63.8	36.0	4.4	115	36.0	3.7	3.882	21.802	g500-H210	m550-H63/L4	2	12
6.4	25.4	27.5	36.0	63.7	36.0	3.9	115	36.0	3.2	3.811	21.808	g500-H140	m550-H63/L4	2	10
6.2	26.0	26.9	37.0	62.3	37.0	2.7	112	37.0	2.3	3.767	22.314	g500-H100	m550-H63/L4	2	9.3
5.9	27.7	25.3	40.0	58.5	40.0	4.4	105	40.0	3.7	3.909	23.754	g500-H320	m550-H63/L4	2	14
5.7	28.4	24.6	41.0	57.0	41.0	4.4	102	41.0	3.7	3.879	24.405	g500-H210	m550-H63/L4	2	12
5.7	28.6	24.4	41.0	56.5	41.0	1.1	102	41.0	1.1	3.719	24.595	g500-H45	m550-H63/L4	2	7.3
5.6	28.9	24.2	41.0	56.0	41.0	3.4	101	41.0	2.9	3.777	24.829	g500-H140	m550-H63/L4	2	10
5.5	29.2	23.9	42.0	55.4	42.0	2.4	99.6	42.0	2.0	3.748	25.095	g500-H100	m550-H63/L4	2	9.3
5.2	31.4	22.2	45.0	51.5	45.0	4.4	92.7	45.0	4.2	3.900	26.983	g500-H320	m550-H63/L4	2	14
5.1	31.6	22.1	45.0	51.3	45.0	3.7	92.2	45.0	3.5	3.834	27.119	g500-H210	m550-H63/L4	2	12
5.1	31.9	21.9	46.0	50.7	46.0	3.1	91.2	46.0	2.9	3.774	27.415	g500-H140	m550-H63/L4	2	10
5.0	32.2	21.7	46.0	50.3	46.0	1.0	90.5	46.0	0.9	3.719	27.618	g500-H45	m550-H63/L4	2	7.3
4.8	33.5	20.9	48.0	48.4	48.0	2.1	87.0	48.0	2.0	3.747	28.738	g500-H100	m550-H63/L4	2	9.3
4.7	34.4	20.3	49.0	47.0	49.0	3.7	84.6	49.0	3.5	3.852	29.548	g500-H320	m550-H63/L4	2	14
4.6	35.3	19.8	51.0	45.8	51.0	3.7	82.4	51.0	3.5	3.832	30.357	g500-H210	m550-H63/L4	2	12
4.4	37.0	18.9	53.0	43.7	53.0	1.9	78.6	53.0	1.8	3.732	31.805	g500-H100	m550-H63/L4	2	9.3
4.3	37.2	18.8	53.0	43.5	53.0	2.6	78.2	53.0	2.5	3.753	31.976	g500-H140	m550-H63/L4	2	10
4.3	37.3	18.8	53.0	43.4	53.0	0.8	78.1	53.0	0.8	3.712	32.000	g500-H45	m550-H63/L4	2	7.3
4.1	39.1	17.9	56.0	41.4	56.0	3.7	74.5	56.0	3.5	3.846	33.564	g500-H320	m550-H63/L4	2	14
4.0	40.9	17.1	59.0	39.6	59.0	3.3	71.2	59.0	3.2	3.785	35.095	g500-H210	m550-H63/L4	2	12
3.9	41.1	17.0	59.0	39.4	59.0	2.4	70.8	59.0	2.3	3.751	35.308	g500-H140	m550-H63/L4	2	10
3.9	41.6	16.8	60.0	38.9	60.0	3.7	70.0	60.0	3.5	3.944	35.689	g500-H450	m550-H63/L4	2	17
3.8	42.4	16.5	61.0	38.2	61.0	1.7	68.6	61.0	1.6	3.731	36.422	g500-H100	m550-H63/L4	2	9.3



Technical data

Selection tables

Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)								
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
3.6	44.5	15.7	64.0	36.4	64.0	3.3	65.4	64.0	3.2	3.795	38.238	g500-H320	m550-H63/L4	2	14
3.5	45.7	15.3	66.0	35.4	66.0	3.2	63.6	66.0	3.1	3.783	39.286	g500-H210	m550-H63/L4	2	12
3.5	46.4	15.1	67.0	34.9	67.0	1.2	62.7	67.0	1.2	3.722	39.857	g500-H100	m550-H63/L4	2	9.3
3.4	47.0	14.9	67.0	34.5	67.0	3.7	62.0	67.0	3.7	3.938	40.333	g500-H450	m550-H63/L4	2	17
3.4	47.2	14.8	68.0	34.3	68.0	2.1	61.7	68.0	2.1	3.735	40.526	g500-H140	m550-H63/L4	2	10
3.4	47.2	14.8	68.0	34.3	68.0	3.7	61.6	68.0	3.7	3.964	40.578	g500-H600	m550-H63/L4	2	28
3.3	49.6	14.1	71.0	32.6	71.0	2.6	58.7	71.0	2.6	3.762	42.593	g500-H210	m550-H63/L4	2	12
3.2	49.8	13.8	71.0	32.0	71.0	2.9	57.6	71.0	2.5	3.827	43.390	g500-H210	m550-H63/L4	3	12
3.2	50.4	13.9	72.0	32.1	72.0	3.2	57.7	72.0	3.2	3.879	43.313	g500-H450	m550-H63/L4	2	17
3.2	50.6	13.8	72.0	32.0	72.0	3.3	57.6	72.0	3.3	3.792	43.436	g500-H320	m550-H63/L4	2	14
3.1	52.1	13.4	75.0	31.1	75.0	1.9	55.9	75.0	1.9	3.734	44.748	g500-H140	m550-H63/L4	2	10
3.0	53.1	13.1	76.0	30.5	76.0	1.2	54.8	76.0	1.2	3.722	45.643	g500-H100	m550-H63/L4	2	9.3
3.1	53.1	13.2	76.0	30.5	76.0	3.7	54.9	76.0	3.7	3.955	45.571	g500-H600	m550-H63/L4	2	28
3.0	54.0	12.9	77.0	30.0	77.0	2.8	53.9	77.0	2.8	3.770	46.407	g500-H320	m550-H63/L4	2	14
2.9	54.2	12.7	78.0	29.4	78.0	4.1	52.9	78.0	4.0	3.834	47.276	g500-H320	m550-H63/L4	3	14
2.9	55.5	12.6	80.0	29.2	80.0	2.6	52.4	80.0	2.6	3.761	47.679	g500-H210	m550-H63/L4	2	12
2.9	55.7	12.4	80.0	28.6	80.0	2.6	51.5	80.0	2.5	3.826	48.571	g500-H210	m550-H63/L4	3	12
2.8	57.0	12.3	82.0	28.4	82.0	3.2	51.1	82.0	3.2	3.875	48.950	g500-H450	m550-H63/L4	2	17
2.8	57.3	12.2	82.0	28.2	82.0	3.2	50.8	82.0	3.2	3.893	49.247	g500-H600	m550-H63/L4	2	28
2.7	59.1	11.8	85.0	27.4	85.0	1.2	49.2	85.0	1.2	3.724	50.786	g500-H140	m550-H63/L4	2	10
2.7	59.6	11.5	85.0	26.8	85.0	1.2	48.1	85.0	1.1	3.794	51.962	g500-H100	m550-H63/L4	3	12
2.6	61.4	11.4	88.0	26.4	88.0	2.8	47.4	88.0	2.8	3.767	52.715	g500-H320	m550-H63/L4	2	14
2.6	61.6	11.2	88.0	25.9	88.0	3.6	46.6	88.0	3.5	3.831	53.703	g500-H320	m550-H63/L4	3	14
2.6	63.4	11.0	91.0	25.5	91.0	1.4	45.9	91.0	1.4	3.740	54.438	g500-H210	m550-H63/L4	2	12
2.5	63.7	11.0	91.0	25.4	91.0	2.6	45.7	91.0	2.6	3.816	54.750	g500-H450	m550-H63/L4	2	17
2.5	63.7	10.8	91.0	25.0	91.0	2.3	45.0	91.0	2.2	3.788	55.529	g500-H210	m550-H63/L4	3	12
2.5	64.4	10.8	92.0	25.1	92.0	3.2	45.2	92.0	3.2	3.887	55.307	g500-H600	m550-H63/L4	2	28
2.5	64.8	10.6	93.0	24.6	93.0	4.9	44.3	93.0	4.7	3.951	56.469	g500-H450	m550-H63/L4	3	17
2.5	65.3	10.7	94.0	24.8	94.0	1.2	44.6	94.0	1.2	3.724	56.077	g500-H140	m550-H63/L4	2	10
2.4	66.0	10.4	95.0	24.1	95.0	1.5	43.4	95.0	1.4	3.902	57.582	g500-H140	m550-H63/L4	3	13
2.3	68.2	10.1	98.0	23.4	98.0	1.0	42.0	98.0	1.0	3.793	59.505	g500-H100	m550-H63/L4	3	12
2.3	69.4	9.9	99.0	23.0	99.0	3.2	41.3	99.0	3.1	3.793	60.502	g500-H320	m550-H63/L4	3	14
2.3	70.9	9.8	102	22.8	102	1.4	41.0	102	1.4	3.739	60.938	g500-H210	m550-H63/L4	2	12
2.3	70.8	9.7	102	22.5	102	4.4	40.5	102	4.3	3.919	61.774	g500-H450	m550-H63/L4	3	17
2.2	71.3	9.7	102	22.4	102	2.1	40.2	102	2.0	3.788	62.160	g500-H210	m550-H63/L4	3	12
2.2	72.0	9.7	103	22.5	103	2.6	40.4	103	2.6	3.814	61.875	g500-H450	m550-H63/L4	2	17
2.2	72.5	9.6	104	22.3	104	2.6	40.2	104	2.6	3.825	62.250	g500-H600	m550-H63/L4	2	28
2.2	72.9	9.4	105	21.9	105	1.3	39.3	105	1.3	3.901	63.582	g500-H140	m550-H63/L4	3	13
2.1	76.3	9.0	109	20.9	109	0.9	37.6	109	0.9	3.792	66.499	g500-H100	m550-H63/L4	3	12
2.0	78.8	8.7	113	20.2	113	2.8	36.4	113	2.7	3.791	68.726	g500-H320	m550-H63/L4	3	14
2.0	80.1	8.6	115	19.9	115	3.9	35.8	115	3.8	3.917	69.813	g500-H450	m550-H63/L4	3	17
2.0	81.4	8.6	117	19.9	117	2.6	35.8	117	2.6	3.821	69.911	g500-H600	m550-H63/L4	2	28
2.0	81.5	8.4	117	19.6	117	1.8	35.2	117	1.7	3.760	71.026	g500-H210	m550-H63/L4	3	12
1.9	83.4	8.2	120	19.1	120	0.8	34.4	120	0.8	3.792	72.747	g500-H100	m550-H63/L4	3	12
1.9	84.2	8.2	121	18.9	121	1.2	34.0	121	1.1	3.899	73.447	g500-H140	m550-H63/L4	3	13
1.8	88.7	7.8	127	18.0	127	2.5	32.3	127	2.4	3.762	77.387	g500-H320	m550-H63/L4	3	14
1.8	90.4	7.6	130	17.6	130	3.5	31.7	130	3.3	3.856	78.794	g500-H450	m550-H63/L4	3	17
1.7	91.2	7.5	131	17.5	131	1.6	31.4	131	1.5	3.759	79.507	g500-H210	m550-H63/L4	3	12
1.6	97.2	7.1	139	16.4	139	1.0	29.5	139	1.0	3.793	84.732	g500-H140	m550-H63/L4	3	13
1.6	101	6.8	144	15.8	144	2.2	28.4	144	2.2	3.761	87.906	g500-H320	m550-H63/L4	3	14
1.6	102	6.7	146	15.6	146	3.1	28.1	146	3.1	3.855	89.048	g500-H450	m550-H63/L4	3	17
1.6	102	6.8	146	15.6	146	4.1	28.1	146	4.1	3.917	88.826	g500-H600	m550-H63/L4	3	29



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
1.5	106	6.5	152	15.1	152	1.4	27.1	152	1.4	3.742	92.205	g500-H210	m550-H63/L4	3	12
1.5	106	6.5	152	15.0	152	0.9	27.0	152	0.9	3.792	92.693	g500-H140	m550-H63/L4	3	13
1.4	111	6.2	159	14.4	159	2.8	25.9	159	2.8	3.818	96.522	g500-H450	m550-H63/L4	3	17
1.4	114	6.0	164	13.9	164	3.7	25.1	164	3.7	3.916	99.757	g500-H600	m550-H63/L4	3	29
1.4	115	6.0	165	13.8	165	1.9	24.9	165	1.9	3.744	100.462	g500-H320	m550-H63/L4	3	14
1.4	117	5.9	168	13.6	168	0.8	24.4	168	0.8	3.792	102.351	g500-H140	m550-H63/L4	3	13
1.3	118	5.8	170	13.5	170	1.2	24.2	170	1.2	3.742	103.214	g500-H210	m550-H63/L4	3	12
1.3	125	5.5	179	12.7	179	2.5	22.9	179	2.5	3.817	109.083	g500-H450	m550-H63/L4	3	17
1.3	127	5.4	182	12.6	182	3.3	22.6	182	3.3	3.857	110.491	g500-H600	m550-H63/L4	3	29
1.2	131	5.3	188	12.2	188	1.7	21.9	188	1.7	3.743	114.118	g500-H320	m550-H63/L4	3	14
1.2	136	5.1	194	11.8	194	1.1	21.2	194	1.1	3.729	118.162	g500-H210	m550-H63/L4	3	12
1.1	139	4.9	199	11.5	199	2.3	20.6	199	2.3	3.779	121.342	g500-H450	m550-H63/L4	3	17
1.1	142	4.8	204	11.2	204	2.9	20.1	204	2.9	3.856	124.088	g500-H600	m550-H63/L4	3	29
1.1	148	4.7	212	10.8	212	1.5	19.4	212	1.5	3.730	128.743	g500-H320	m550-H63/L4	3	14
1.1	152	4.5	217	10.5	217	1.0	18.9	217	1.0	3.729	132.270	g500-H210	m550-H63/L4	3	12
1.0	155	4.4	223	10.3	223	3.7	18.5	223	3.7	3.953	135.373	g500-H850	m550-H63/L4	3	38
1.0	157	4.4	225	10.1	225	2.0	18.2	225	2.0	3.778	137.133	g500-H450	m550-H63/L4	3	17
1.0	164	4.2	235	9.7	235	2.6	17.5	235	2.6	3.798	142.988	g500-H600	m550-H63/L4	3	29
1.0	168	4.1	240	9.5	240	1.3	17.1	240	1.3	3.730	146.244	g500-H320	m550-H63/L4	3	14
0.9	174	4.0	249	9.2	249	3.4	16.5	249	3.4	3.952	151.262	g500-H850	m550-H63/L4	3	38
0.9	175	3.9	251	9.1	251	0.8	16.4	251	0.8	3.720	152.853	g500-H210	m550-H63/L4	3	12
0.9	179	3.8	257	8.9	257	1.8	16.0	257	1.8	3.754	156.274	g500-H450	m550-H63/L4	3	17
0.9	184	3.7	264	8.7	264	2.3	15.6	264	2.3	3.798	160.585	g500-H600	m550-H63/L4	3	29
0.8	188	3.7	270	8.5	270	3.2	15.2	270	3.2	3.886	164.294	g500-H850	m550-H63/L4	3	38
0.8	191	3.6	274	8.3	274	1.2	15.0	274	1.2	3.721	166.541	g500-H320	m550-H63/L4	3	14
0.8	199	3.5	285	8.0	285	2.1	14.4	285	2.1	3.772	173.536	g500-H600	m550-H63/L4	3	29
0.8	203	3.4	290	7.9	290	1.6	14.2	290	1.6	3.754	176.611	g500-H450	m550-H63/L4	3	17
0.8	211	3.3	302	7.6	302	2.8	13.6	302	2.8	3.885	183.577	g500-H850	m550-H63/L4	3	38
0.7	217	3.2	311	7.3	311	1.0	13.2	311	1.0	3.720	189.179	g500-H320	m550-H63/L4	3	14
0.7	224	3.1	320	7.1	320	1.9	12.8	320	1.9	3.771	194.892	g500-H600	m550-H63/L4	3	29
0.7	225	3.0	322	7.0	322	1.9	12.6	322	1.9	3.924	198.970	g500-H600	m550-H63/L4	4	32
0.7	227	3.0	326	7.0	326	1.4	12.6	326	1.4	3.736	198.059	g500-H450	m550-H63/L4	3	17
0.7	230	2.9	330	6.8	330	4.6	12.3	330	4.6	4.423	203.537	g500-H1500	m550-H63/L4	4	72
0.7	238	2.9	341	6.7	341	2.5	12.0	341	2.5	3.820	207.675	g500-H850	m550-H63/L4	3	38
0.7	238	2.9	341	6.6	341	2.5	11.9	341	2.5	3.964	210.484	g500-H850	m550-H63/L4	4	41
0.6	249	2.8	356	6.4	356	0.9	11.5	356	0.9	3.714	216.683	g500-H320	m550-H63/L4	3	14
0.6	252	2.7	362	6.2	362	1.7	11.2	362	1.7	3.923	223.457	g500-H600	m550-H63/L4	4	32
0.6	254	2.7	364	6.2	364	4.1	11.1	364	4.1	4.422	225.125	g500-H1500	m550-H63/L4	4	72
0.6	254	2.7	365	6.3	365	1.4	11.3	365	1.4	3.746	221.794	g500-H600	m550-H63/L4	3	29
0.6	257	2.7	368	6.2	368	1.2	11.2	368	1.2	3.735	223.833	g500-H450	m550-H63/L4	3	17
0.6	265	2.6	379	5.9	379	2.2	10.7	379	2.2	3.888	234.319	g500-H850	m550-H63/L4	4	41
0.6	266	2.6	381	6.0	381	2.2	10.8	381	2.2	3.820	232.050	g500-H850	m550-H63/L4	3	38
0.6	285	2.4	408	5.6	408	1.1	10.1	408	1.1	3.725	248.200	g500-H450	m550-H63/L4	3	17
0.6	286	2.4	409	5.6	409	1.4	10.0	409	1.4	3.745	249.089	g500-H600	m550-H63/L4	3	29
0.5	287	2.4	411	5.5	411	1.5	9.9	411	1.5	3.914	253.789	g500-H600	m550-H63/L4	4	32
0.5	287	2.4	412	5.5	412	3.6	9.8	412	3.6	4.066	254.431	g500-H1500	m550-H63/L4	4	72
0.5	296	2.3	424	5.3	424	2.0	9.5	424	2.0	3.887	261.821	g500-H850	m550-H63/L4	4	41
0.5	318	2.1	456	4.9	456	3.3	8.9	456	3.3	4.066	281.416	g500-H1500	m550-H63/L4	4	72
0.5	322	2.1	461	5.0	461	1.0	8.9	461	1.0	3.725	280.500	g500-H450	m550-H63/L4	3	17
0.5	322	2.1	461	4.9	461	1.3	8.8	461	1.3	3.914	285.021	g500-H600	m550-H63/L4	4	32
0.5	333	2.0	477	4.7	477	1.8	8.5	477	1.8	3.932	294.334	g500-H850	m550-H63/L4	4	41
0.4	358	1.9	512	4.4	512	2.9	7.9	512	2.9	3.953	316.487	g500-H1500	m550-H63/L4	4	72



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
0.4	362	1.9	519	4.3	519	1.2	7.8	519	1.2	3.801	320.294	g500-H600	m550-H63/L4	4	32
0.4	366	1.9	524	4.3	524	0.9	7.7	524	0.9	3.795	323.579	g500-H450	m550-H63/L4	4	20
0.4	372	1.8	532	4.2	532	1.6	7.6	532	1.6	3.931	328.881	g500-H850	m550-H63/L4	4	41
0.4	395	1.7	567	4.0	567	2.7	7.1	567	2.7	3.953	350.054	g500-H1500	m550-H63/L4	4	72
0.4	406	1.7	582	3.9	582	1.0	7.0	582	1.0	3.801	359.710	g500-H600	m550-H63/L4	4	32
0.4	416	1.6	596	3.8	596	1.4	6.8	596	1.4	3.784	368.019	g500-H850	m550-H63/L4	4	41
0.3	449	1.5	644	3.5	644	2.3	6.3	644	2.3	3.990	397.548	g500-H1500	m550-H63/L4	4	72
0.3	462	1.5	661	3.4	661	0.9	6.1	661	0.9	3.797	408.538	g500-H600	m550-H63/L4	4	32
0.3	465	1.5	666	3.4	666	1.3	6.1	666	1.3	3.784	411.213	g500-H850	m550-H63/L4	4	41
0.3	504	1.3	723	3.1	723	2.1	5.6	723	2.1	3.922	446.497	g500-H1500	m550-H63/L4	4	72
0.3	518	1.3	743	3.0	743	0.8	5.4	743	0.8	3.797	458.814	g500-H600	m550-H63/L4	4	32
0.3	535	1.3	767	2.9	767	1.1	5.3	767	1.1	3.804	473.807	g500-H850	m550-H63/L4	4	41
0.3	553	1.2	793	2.8	793	3.8	5.1	793	3.8	4.106	489.908	g500-H3000	m550-H63/L4	4	117
0.3	559	1.2	801	2.8	801	1.9	5.1	801	1.9	3.904	494.511	g500-H1500	m550-H63/L4	4	72
0.3	598	1.1	857	2.6	857	1.0	4.7	857	1.0	3.804	529.418	g500-H850	m550-H63/L4	4	41
0.3	608	1.1	871	2.6	871	3.4	4.6	871	3.4	4.105	538.095	g500-H3000	m550-H63/L4	4	117
0.2	647	1.0	927	2.4	927	1.6	4.4	927	1.6	3.958	572.324	g500-H1500	m550-H63/L4	4	72
0.2	650	1.0	931	2.4	931	0.9	4.3	931	0.9	3.775	575.029	g500-H850	m550-H63/L4	4	41
0.2	672	1.0	963	2.3	963	3.1	4.2	963	3.1	4.053	594.888	g500-H3000	m550-H63/L4	4	117
0.2	697	1.0	998	2.3	998	0.9	4.1	998	0.9	3.799	616.701	g500-H850	m550-H63/L4	4	41
0.2	716	0.9	1027	2.2	1027	1.5	3.9	1027	1.5	3.942	634.184	g500-H1500	m550-H63/L4	4	72
0.2	738	0.9	1058	2.1	1058	2.8	3.8	1058	2.8	4.053	653.402	g500-H3000	m550-H63/L4	4	117
0.2	792	0.9	1136	2.0	1136	1.3	3.6	1136	1.3	3.941	701.446	g500-H1500	m550-H63/L4	4	72
0.2	836	0.8	1198	1.9	1198	2.5	3.4	1198	2.5	3.944	739.983	g500-H3000	m550-H63/L4	4	117
0.2	891	0.8	1277	1.8	1277	1.2	3.2	1277	1.2	3.872	788.863	g500-H1500	m550-H63/L4	4	72
0.2	891	0.8	1277	1.8	1277	2.4	3.2	1277	2.4	3.871	788.632	g500-H3000	m550-H63/L4	4	117
0.2	979	0.7	1402	1.6	1402	2.1	2.9	1402	2.1	3.871	866.202	g500-H3000	m550-H63/L4	4	117
0.2	986	0.7	1413	1.6	1413	1.1	2.9	1413	1.1	3.872	872.530	g500-H1500	m550-H63/L4	4	72
0.2	1041	0.7	1492	1.5	1492	1.0	2.7	1492	1.0	3.814	921.302	g500-H1500	m550-H63/L4	4	72
0.1	1082	0.6	1550	1.5	1550	1.9	2.6	1550	1.9	3.851	957.625	g500-H3000	m550-H63/L4	4	117
0.1	1153	0.6	1653	1.4	1653	0.9	2.4	1653	0.9	3.808	1020.881	g500-H1500	m550-H63/L4	4	72
0.1	1188	0.6	1703	1.3	1703	1.8	2.4	1703	1.8	3.851	1051.817	g500-H3000	m550-H63/L4	4	117
0.1	1276	0.5	1828	1.2	1828	0.8	2.2	1828	0.8	3.808	1129.157	g500-H1500	m550-H63/L4	4	72
0.1	1400	0.5	2007	1.1	2007	1.5	2.0	2007	1.5	3.830	1239.279	g500-H3000	m550-H63/L4	4	117
0.1	1538	0.4	2204	1.0	2204	1.4	1.8	2204	1.4	3.830	1361.175	g500-H3000	m550-H63/L4	4	117
0.1	1699	0.4	2435	0.9	2435	1.2	1.7	2435	1.2	3.793	1504.034	g500-H3000	m550-H63/L4	4	117
0.1	1866	0.4	2675	0.8	2675	1.1	1.5	2675	1.1	3.793	1651.972	g500-H3000	m550-H63/L4	4	117
0.1	2062	0.3	2955	0.8	2955	1.0	1.4	2955	1.0	3.785	1825.350	g500-H3000	m550-H63/L4	4	117
0.1	2265	0.3	3246	0.7	3246	0.9	1.2	3246	0.9	3.785	2004.893	g500-H3000	m550-H63/L4	4	117



50 Hz: 0.37 kW

87 Hz: 0.66 kW

Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)			J	i			z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
55.1	4.4	231	6.0	549	6.0	2.9	976	6.0	2.4	9.360	2.597	g500-H45	m550-H71/M4	2	9.3
43.8	5.5	184	8.0	436	8.0	4.9	776	8.0	4.1	10.002	3.267	g500-H140	m550-H71/M4	2	12
42.6	5.7	179	8.0	425	8.0	4.9	756	8.0	4.1	9.625	3.354	g500-H100	m550-H71/M4	2	11
41.9	5.8	176	8.0	418	8.0	2.3	743	8.0	1.9	9.269	3.413	g500-H45	m550-H71/M4	2	9.3
32.7	7.4	137	11.0	326	11.0	2.0	580	11.0	1.7	9.217	4.368	g500-H45	m550-H71/M4	2	9.3
31.9	7.6	134	11.0	318	11.0	4.9	566	11.0	4.1	9.636	4.480	g500-H140	m550-H71/M4	2	12
31.1	7.8	130	11.0	310	11.0	4.9	551	11.0	4.1	9.435	4.600	g500-H100	m550-H71/M4	2	11
27.7	8.7	116	12.0	276	12.0	4.9	491	12.0	4.1	9.529	5.167	g500-H100	m550-H71/M4	2	11
26.9	9.0	113	13.0	268	13.0	2.1	477	13.0	1.8	9.279	5.312	g500-H45	m550-H71/M4	2	9.3
24.9	9.7	105	14.0	249	14.0	4.6	442	14.0	3.8	9.459	5.733	g500-H140	m550-H71/M4	2	12
24.3	9.9	102	14.0	242	14.0	4.6	431	14.0	3.8	9.336	5.887	g500-H100	m550-H71/M4	2	11
24.0	10.1	101	14.0	239	14.0	2.0	425	14.0	1.7	9.273	5.965	g500-H45	m550-H71/M4	2	9.3
22.8	10.6	95.7	15.0	227	15.0	4.6	404	15.0	3.8	9.409	6.272	g500-H140	m550-H71/M4	2	12
22.2	10.9	93.2	15.0	221	15.0	4.6	394	16.0	3.8	9.307	6.440	g500-H100	m550-H71/M4	2	11
20.5	11.8	85.9	17.0	204	17.0	1.8	363	17.0	1.5	9.222	6.982	g500-H45	m550-H71/M4	2	9.3
20.2	12.0	84.7	17.0	201	17.0	4.9	358	17.0	4.1	9.385	7.086	g500-H100	m550-H71/M4	2	11
19.7	12.3	82.5	17.0	196	17.0	4.9	349	18.0	4.1	9.605	7.269	g500-H140	m550-H71/M4	2	12
18.2	13.2	76.5	19.0	182	19.0	1.7	323	19.0	1.4	9.219	7.840	g500-H45	m550-H71/M4	2	9.3
17.9	13.5	75.0	19.0	178	19.0	4.2	317	19.0	3.5	9.311	8.000	g500-H140	m550-H71/M4	2	12
17.4	13.9	73.0	20.0	174	20.0	4.2	309	20.0	3.5	9.248	8.214	g500-H100	m550-H71/M4	2	11
16.0	15.1	67.2	21.0	160	21.0	1.5	284	22.0	1.3	9.189	8.935	g500-H45	m550-H71/M4	2	9.3
15.8	15.2	66.5	22.0	158	22.0	4.9	281	22.0	4.1	9.442	9.029	g500-H140	m550-H71/M4	2	12
15.8	15.3	66.2	22.0	157	22.0	4.4	280	22.0	3.7	9.305	9.068	g500-H100	m550-H71/M4	2	11
14.6	16.5	61.2	24.0	145	24.0	3.8	259	24.0	3.2	9.255	9.800	g500-H140	m550-H71/M4	2	12
14.3	16.9	59.8	24.0	142	24.0	1.5	253	24.0	1.2	9.186	10.033	g500-H45	m550-H71/M4	2	9.3
14.2	17.0	59.6	24.0	142	24.0	3.8	252	24.0	3.2	9.213	10.063	g500-H100	m550-H71/M4	2	11
13.3	18.1	56.0	26.0	133	26.0	4.9	237	26.0	4.1	9.613	10.720	g500-H210	m550-H71/M4	2	14
12.6	19.2	52.8	27.0	125	27.0	3.7	223	27.0	3.1	9.275	11.360	g500-H100	m550-H71/M4	2	11
12.5	19.3	52.5	27.0	125	27.0	1.3	222	28.0	1.1	9.159	11.429	g500-H45	m550-H71/M4	2	9.3
12.4	19.5	51.9	28.0	123	28.0	4.6	219	28.0	3.8	9.340	11.554	g500-H140	m550-H71/M4	2	12
12.2	19.7	51.4	28.0	122	28.0	4.9	217	28.0	4.1	9.725	11.680	g500-H320	m550-H71/M4	2	16
11.9	20.3	50.0	29.0	119	29.0	4.9	211	29.0	4.1	9.597	12.000	g500-H210	m550-H71/M4	2	14
11.3	21.3	47.5	30.0	113	30.0	4.3	201	31.0	3.6	9.310	12.640	g500-H140	m550-H71/M4	2	12
11.3	21.4	47.4	30.0	113	30.0	3.3	200	31.0	2.8	9.232	12.653	g500-H100	m550-H71/M4	2	11
11.1	21.7	46.8	31.0	111	31.0	1.2	198	31.0	1.0	9.157	12.833	g500-H45	m550-H71/M4	2	9.3
10.8	22.4	45.2	32.0	107	32.0	4.9	191	32.0	4.1	9.686	13.268	g500-H320	m550-H71/M4	2	16
10.5	23.1	43.9	33.0	104	33.0	4.6	185	33.0	3.8	9.475	13.673	g500-H210	m550-H71/M4	2	14
10.2	23.6	43.0	34.0	102	34.0	4.1	182	34.0	3.4	9.301	13.957	g500-H140	m550-H71/M4	2	12
9.9	24.5	41.4	35.0	98.3	35.0	2.9	175	35.0	2.4	9.229	14.490	g500-H100	m550-H71/M4	2	11
9.6	25.0	40.4	36.0	96.0	36.0	1.1	171	36.0	0.9	9.141	14.836	g500-H45	m550-H71/M4	2	9.3
9.6	25.2	40.3	36.0	95.7	36.0	4.6	170	36.0	3.8	9.544	14.898	g500-H320	m550-H71/M4	2	16
9.3	25.8	39.2	37.0	93.1	37.0	4.6	166	37.0	3.8	9.465	15.306	g500-H210	m550-H71/M4	2	14
9.2	26.2	38.7	37.0	91.9	37.0	2.7	164	37.0	2.2	9.202	15.500	g500-H100	m550-H71/M4	2	11
8.9	27.2	37.2	39.0	88.4	39.0	3.6	157	39.0	3.0	9.250	16.122	g500-H140	m550-H71/M4	2	12
8.6	28.1	36.0	40.0	85.5	40.0	1.0	152	40.0	1.0	9.140	16.660	g500-H45	m550-H71/M4	2	9.3
8.4	28.6	35.5	41.0	84.2	41.0	4.6	150	41.0	3.8	9.520	16.923	g500-H320	m550-H71/M4	2	16
8.1	30.0	33.8	43.0	80.3	43.0	2.3	143	43.0	2.0	9.200	17.750	g500-H100	m550-H71/M4	2	11
8.0	30.1	33.7	43.0	80.0	43.0	3.3	142	43.0	2.7	9.245	17.802	g500-H140	m550-H71/M4	2	12
7.5	32.1	31.6	46.0	74.9	46.0	0.9	133	46.0	0.9	9.128	19.013	g500-H45	m550-H71/M4	2	9.3
7.3	32.9	30.8	47.0	73.1	47.0	2.1	130	47.0	1.8	9.169	19.486	g500-H100	m550-H71/M4	2	11



Technical data

Selection tables

Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
7.2	33.3	30.4	48.0	72.2	48.0	3.0	128	48.0	2.5	9.214	19.750	g500-H140	m550-H71/M4	2	12
6.7	36.0	28.1	51.0	66.7	51.0	0.9	119	52.0	0.8	9.127	21.350	g500-H45	m550-H71/M4	2	9.3
6.6	36.8	27.5	52.0	65.4	52.0	3.8	116	53.0	3.2	9.282	21.802	g500-H210	m550-H71/M4	2	14
6.6	36.8	27.5	52.0	65.3	52.0	2.7	116	53.0	2.2	9.211	21.808	g500-H140	m550-H71/M4	2	12
6.4	37.7	26.9	54.0	63.9	54.0	1.9	114	54.0	1.6	9.167	22.314	g500-H100	m550-H71/M4	2	11
6.0	40.1	25.3	57.0	60.0	57.0	3.8	107	57.0	3.2	9.309	23.754	g500-H320	m550-H71/M4	2	16
5.9	41.2	24.6	59.0	58.4	59.0	3.6	104	59.0	3.0	9.279	24.405	g500-H210	m550-H71/M4	2	14
5.8	41.9	24.2	60.0	57.4	60.0	2.3	102	60.0	2.0	9.177	24.829	g500-H140	m550-H71/M4	2	12
5.7	42.4	23.9	60.0	56.8	60.0	1.7	101	61.0	1.4	9.148	25.095	g500-H100	m550-H71/M4	2	11
5.3	45.6	22.2	65.0	52.8	65.0	3.8	93.9	65.0	3.6	9.300	26.983	g500-H320	m550-H71/M4	2	16
5.3	45.8	22.1	65.0	52.5	65.0	3.2	93.5	66.0	3.1	9.234	27.119	g500-H210	m550-H71/M4	2	14
5.2	46.3	21.9	66.0	52.0	66.0	2.1	92.5	66.0	2.0	9.174	27.415	g500-H140	m550-H71/M4	2	12
5.0	48.5	20.9	69.0	49.6	69.0	1.5	88.2	69.0	1.4	9.147	28.738	g500-H100	m550-H71/M4	2	11
4.8	49.9	20.3	71.0	48.2	71.0	3.2	85.8	71.0	3.1	9.252	29.548	g500-H320	m550-H71/M4	2	16
4.7	51.2	19.8	73.0	46.9	73.0	2.9	83.5	73.0	2.7	9.232	30.357	g500-H210	m550-H71/M4	2	14
4.5	53.7	18.9	77.0	44.8	77.0	1.3	79.7	77.0	1.2	9.132	31.805	g500-H100	m550-H71/M4	2	11
4.5	54.0	18.8	77.0	44.6	77.0	1.8	79.3	77.0	1.7	9.153	31.976	g500-H140	m550-H71/M4	2	12
4.3	56.7	17.9	81.0	42.5	81.0	3.2	75.5	81.0	3.1	9.246	33.564	g500-H320	m550-H71/M4	2	16
4.1	59.2	17.1	84.0	40.6	84.0	2.5	72.2	85.0	2.4	9.185	35.095	g500-H210	m550-H71/M4	2	14
4.1	59.6	17.0	85.0	40.4	85.0	1.7	71.8	85.0	1.6	9.151	35.308	g500-H140	m550-H71/M4	2	12
4.0	60.2	16.8	86.0	39.9	86.0	3.2	71.0	86.0	3.1	9.344	35.689	g500-H450	m550-H71/M4	2	19
3.9	61.5	16.5	88.0	39.1	88.0	1.1	69.6	88.0	1.1	9.131	36.422	g500-H100	m550-H71/M4	2	11
3.7	64.6	15.7	92.0	37.3	92.0	2.7	66.3	92.0	2.6	9.195	38.238	g500-H320	m550-H71/M4	2	16
3.6	66.3	15.3	95.0	36.3	95.0	2.2	64.5	95.0	2.1	9.183	39.286	g500-H210	m550-H71/M4	2	14
3.6	67.3	15.1	96.0	35.8	96.0	1.0	63.6	96.0	1.0	9.122	39.857	g500-H100	m550-H71/M4	2	11
3.5	68.1	14.9	97.0	35.3	97.0	3.2	62.9	97.0	3.2	9.338	40.333	g500-H450	m550-H71/M4	2	19
3.5	68.4	14.8	98.0	35.2	98.0	1.4	62.6	98.0	1.4	9.135	40.526	g500-H140	m550-H71/M4	2	12
3.5	68.5	14.8	98.0	35.1	98.0	3.2	62.5	98.0	3.2	9.364	40.578	g500-H600	m550-H71/M4	2	30
3.4	71.9	14.1	102	33.5	102	1.8	59.5	103	1.8	9.162	42.593	g500-H210	m550-H71/M4	2	14
3.3	72.2	13.8	103	32.8	103	2.0	58.4	103	1.7	9.227	43.390	g500-H210	m550-H71/M4	3	14
3.3	73.1	13.9	104	32.9	104	2.8	58.5	105	2.8	9.279	43.313	g500-H450	m550-H71/M4	2	19
3.3	72.6	13.7	104	32.6	104	4.9	58.0	104	4.1	9.758	43.676	g500-H600	m550-H71/M4	3	31
3.3	73.3	13.8	105	32.8	105	2.7	58.4	105	2.7	9.192	43.436	g500-H320	m550-H71/M4	2	16
3.2	73.4	13.6	105	32.3	105	4.3	57.5	105	3.6	9.460	44.124	g500-H450	m550-H71/M4	3	19
3.2	75.5	13.4	108	31.8	108	1.3	56.7	108	1.3	9.134	44.748	g500-H140	m550-H71/M4	2	12
3.1	76.9	13.2	110	31.3	110	3.2	55.6	110	3.2	9.355	45.571	g500-H600	m550-H71/M4	2	30
3.1	77.1	13.1	110	31.2	110	0.9	55.5	110	0.9	9.122	45.643	g500-H100	m550-H71/M4	2	11
3.1	78.3	12.9	112	30.7	112	2.0	54.6	112	1.9	9.170	46.407	g500-H320	m550-H71/M4	2	16
3.0	78.6	12.7	112	30.1	112	2.9	53.6	112	2.7	9.234	47.276	g500-H320	m550-H71/M4	3	16
3.0	80.5	12.6	115	29.9	115	1.8	53.2	115	1.8	9.161	47.679	g500-H210	m550-H71/M4	2	14
2.9	80.8	12.4	115	29.3	115	1.8	52.2	116	1.7	9.226	48.571	g500-H210	m550-H71/M4	3	14
2.9	81.6	12.2	116	29.1	116	4.9	51.7	117	4.7	9.750	49.051	g500-H600	m550-H71/M4	3	31
2.9	82.6	12.3	118	29.1	118	2.8	51.8	118	2.8	9.275	48.950	g500-H450	m550-H71/M4	2	19
2.9	83.1	12.2	118	28.9	118	2.8	51.5	119	2.8	9.293	49.247	g500-H600	m550-H71/M4	2	30
2.9	82.9	12.0	118	28.6	118	3.8	50.8	119	3.6	9.456	49.867	g500-H450	m550-H71/M4	3	19
2.8	85.7	11.8	122	28.1	122	1.1	49.9	123	1.1	9.124	50.786	g500-H140	m550-H71/M4	2	12
2.8	86.4	11.5	123	27.4	123	0.8	48.8	124	0.8	9.194	51.962	g500-H100	m550-H71/M4	3	14
2.7	89.0	11.4	127	27.0	127	2.0	48.1	127	1.9	9.167	52.715	g500-H320	m550-H71/M4	2	16
2.7	89.3	11.2	127	26.5	127	2.5	47.2	128	2.4	9.231	53.703	g500-H320	m550-H71/M4	3	16
2.6	91.9	11.0	131	26.2	131	1.1	46.6	132	1.0	9.140	54.438	g500-H210	m550-H71/M4	2	14
2.6	92.4	11.0	132	26.0	132	2.1	46.3	132	2.1	9.216	54.750	g500-H450	m550-H71/M4	2	19
2.6	92.3	10.8	132	25.7	132	1.6	45.7	132	1.5	9.188	55.529	g500-H210	m550-H71/M4	3	14



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
2.6	92.6	10.8	132	25.6	132	4.5	45.5	133	4.3	9.564	55.710	g500-H600	m550-H71/M4	3	31
2.6	93.4	10.8	133	25.8	133	2.8	45.8	134	2.8	9.287	55.307	g500-H600	m550-H71/M4	2	30
2.5	93.9	10.6	134	25.2	134	3.4	44.9	134	3.2	9.351	56.469	g500-H450	m550-H71/M4	3	19
2.6	94.7	10.7	135	25.4	135	1.0	45.2	135	1.0	9.124	56.077	g500-H140	m550-H71/M4	2	12
2.5	95.8	10.4	136	24.7	136	1.0	44.0	137	1.0	9.302	57.582	g500-H140	m550-H71/M4	3	15
2.4	101	9.9	143	23.6	143	2.2	41.9	144	2.1	9.193	60.502	g500-H320	m550-H71/M4	3	16
2.3	103	9.7	146	23.1	146	3.1	41.0	147	2.9	9.319	61.774	g500-H450	m550-H71/M4	3	19
2.3	103	9.8	147	23.4	147	1.1	41.6	147	1.1	9.139	60.938	g500-H210	m550-H71/M4	2	14
2.3	103	9.7	147	22.9	147	1.4	40.8	148	1.4	9.188	62.160	g500-H210	m550-H71/M4	3	14
2.3	104	9.6	148	22.8	148	4.1	40.5	149	3.8	9.559	62.566	g500-H600	m550-H71/M4	3	31
2.3	105	9.7	149	23.0	149	2.1	41.0	149	2.1	9.214	61.875	g500-H450	m550-H71/M4	2	19
2.3	105	9.6	150	22.9	150	2.3	40.7	150	2.3	9.225	62.250	g500-H600	m550-H71/M4	2	30
2.2	106	9.4	151	22.4	151	0.9	39.9	151	0.9	9.301	63.582	g500-H140	m550-H71/M4	3	15
2.1	114	8.7	163	20.7	163	2.0	36.9	164	1.9	9.191	68.726	g500-H320	m550-H71/M4	3	16
2.0	116	8.6	165	20.4	165	2.7	36.3	166	2.6	9.317	69.813	g500-H450	m550-H71/M4	3	19
2.0	118	8.6	168	20.4	168	2.3	36.3	169	2.3	9.221	69.911	g500-H600	m550-H71/M4	2	30
2.0	118	8.4	168	20.1	168	1.3	35.7	169	1.2	9.160	71.026	g500-H210	m550-H71/M4	3	14
1.9	122	8.2	174	19.4	174	0.8	34.5	175	0.8	9.299	73.447	g500-H140	m550-H71/M4	3	15
1.8	129	7.8	183	18.4	183	1.7	32.8	184	1.7	9.162	77.387	g500-H320	m550-H71/M4	3	16
1.8	131	7.6	187	18.1	187	2.4	32.2	187	2.3	9.256	78.794	g500-H450	m550-H71/M4	3	19
1.8	132	7.5	188	17.9	188	1.1	31.9	189	1.1	9.159	79.507	g500-H210	m550-H71/M4	3	14
1.6	146	6.8	208	16.2	208	1.5	28.8	209	1.5	9.161	87.906	g500-H320	m550-H71/M4	3	16
1.6	148	6.7	211	16.0	211	2.1	28.5	212	2.1	9.255	89.048	g500-H450	m550-H71/M4	3	19
1.6	148	6.8	211	16.0	211	2.9	28.5	211	2.8	9.317	88.826	g500-H600	m550-H71/M4	3	31
1.6	153	6.5	219	15.5	219	1.0	27.5	219	1.0	9.142	92.205	g500-H210	m550-H71/M4	3	14
1.5	161	6.2	229	14.8	229	2.0	26.3	230	2.0	9.218	96.522	g500-H450	m550-H71/M4	3	19
1.4	166	6.0	236	14.3	236	2.5	25.4	237	2.5	9.316	99.757	g500-H600	m550-H71/M4	3	31
1.4	167	6.0	238	14.2	238	1.3	25.2	239	1.3	9.144	100.462	g500-H320	m550-H71/M4	3	16
1.4	172	5.8	245	13.8	245	0.9	24.6	246	0.9	9.142	103.214	g500-H210	m550-H71/M4	3	14
1.3	181	5.5	259	13.1	259	1.7	23.2	260	1.7	9.217	109.083	g500-H450	m550-H71/M4	3	19
1.3	184	5.4	262	12.9	262	2.3	22.9	263	2.3	9.257	110.491	g500-H600	m550-H71/M4	3	31
1.3	190	5.3	270	12.5	270	1.2	22.2	272	1.2	9.143	114.118	g500-H320	m550-H71/M4	3	16
1.2	202	4.9	288	11.7	288	1.6	20.9	289	1.6	9.179	121.342	g500-H450	m550-H71/M4	3	19
1.2	206	4.8	294	11.5	294	2.0	20.4	295	2.0	9.256	124.088	g500-H600	m550-H71/M4	3	31
1.1	214	4.7	305	11.1	305	1.1	19.7	306	1.0	9.130	128.743	g500-H320	m550-H71/M4	3	16
1.1	225	4.4	321	10.5	321	2.7	18.7	322	2.6	9.353	135.373	g500-H850	m550-H71/M4	3	40
1.0	228	4.4	325	10.4	325	1.4	18.5	326	1.4	9.178	137.133	g500-H450	m550-H71/M4	3	19
1.0	238	4.2	339	10.0	339	1.8	17.7	340	1.8	9.198	142.988	g500-H600	m550-H71/M4	3	31
1.0	243	4.1	347	9.7	347	0.9	17.3	348	0.9	9.130	146.244	g500-H320	m550-H71/M4	3	16
0.9	252	4.0	359	9.4	359	2.4	16.8	360	2.4	9.352	151.262	g500-H850	m550-H71/M4	3	40
0.9	260	3.8	370	9.1	370	1.2	16.2	372	1.2	9.154	156.274	g500-H450	m550-H71/M4	3	19
0.9	267	3.7	381	8.9	381	1.6	15.8	382	1.6	9.198	160.585	g500-H600	m550-H71/M4	3	31
0.9	273	3.7	389	8.7	389	2.2	15.4	391	2.2	9.286	164.294	g500-H850	m550-H71/M4	3	40
0.9	277	3.6	395	8.6	395	0.8	15.2	396	0.8	9.121	166.541	g500-H320	m550-H71/M4	3	16
0.8	289	3.5	411	8.2	411	1.5	14.6	413	1.5	9.172	173.536	g500-H600	m550-H71/M4	3	31
0.8	294	3.4	419	8.1	419	1.1	14.4	420	1.1	9.154	176.611	g500-H450	m550-H71/M4	3	19
0.8	305	3.3	435	7.8	435	2.0	13.8	437	2.0	9.285	183.577	g500-H850	m550-H71/M4	3	40
0.7	324	3.1	462	7.3	462	1.3	13.0	464	1.3	9.171	194.892	g500-H600	m550-H71/M4	3	31
0.7	326	3.0	464	7.2	464	1.3	12.7	466	1.3	9.324	198.970	g500-H600	m550-H71/M4	4	34
0.7	329	3.0	469	7.2	469	1.0	12.8	471	1.0	9.136	198.059	g500-H450	m550-H71/M4	3	19
0.7	333	3.0	474	7.0	474	4.6	12.5	476	4.6	10.613	203.178	g500-H3000	m550-H71/M4	4	119
0.7	333	2.9	475	7.0	475	3.2	12.5	477	3.1	9.823	203.537	g500-H1500	m550-H71/M4	4	74



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
0.7	345	2.9	491	6.8	491	1.7	12.0	493	1.7	9.364	210.484	g500-H850	m550-H71/M4	4	43
0.7	345	2.9	492	6.9	492	1.7	12.2	494	1.7	9.220	207.675	g500-H850	m550-H71/M4	3	40
0.6	366	2.7	522	6.4	522	1.2	11.3	524	1.2	9.323	223.457	g500-H600	m550-H71/M4	4	34
0.6	369	2.7	526	6.4	526	1.1	11.4	528	1.1	9.146	221.794	g500-H600	m550-H71/M4	3	31
0.6	369	2.7	526	6.3	526	2.9	11.3	528	2.8	9.822	225.125	g500-H1500	m550-H71/M4	4	74
0.6	372	2.7	530	6.4	530	0.9	11.3	533	0.8	9.135	223.833	g500-H450	m550-H71/M4	3	19
0.6	384	2.6	547	6.1	547	1.6	10.8	549	1.6	9.288	234.319	g500-H850	m550-H71/M4	4	43
0.6	386	2.6	550	6.1	550	1.6	10.9	552	1.5	9.220	232.050	g500-H850	m550-H71/M4	3	40
0.6	414	2.4	590	5.7	590	1.0	10.2	593	1.0	9.145	249.089	g500-H600	m550-H71/M4	3	31
0.6	416	2.4	592	5.6	592	1.0	10.0	595	1.0	9.314	253.789	g500-H600	m550-H71/M4	4	34
0.6	417	2.4	594	5.6	594	2.5	10.0	596	2.5	9.466	254.431	g500-H1500	m550-H71/M4	4	74
0.5	429	2.3	611	5.4	611	1.4	9.7	614	1.4	9.287	261.821	g500-H850	m550-H71/M4	4	43
0.5	461	2.1	657	5.1	657	2.3	9.0	660	2.3	9.466	281.416	g500-H1500	m550-H71/M4	4	74
0.5	467	2.1	665	5.0	665	0.9	8.9	668	0.9	9.314	285.021	g500-H600	m550-H71/M4	4	34
0.5	479	2.1	683	4.9	683	4.4	8.7	686	4.4	10.319	292.511	g500-H3000	m550-H71/M4	4	119
0.5	482	2.0	687	4.8	687	1.2	8.6	690	1.2	9.332	294.334	g500-H850	m550-H71/M4	4	43
0.5	518	1.9	739	4.5	739	2.0	8.0	742	2.0	9.353	316.487	g500-H1500	m550-H71/M4	4	74
0.4	525	1.9	748	4.4	748	0.8	7.9	751	0.8	9.201	320.294	g500-H600	m550-H71/M4	4	34
0.4	526	1.9	750	4.4	750	4.0	7.9	753	4.0	10.318	321.282	g500-H3000	m550-H71/M4	4	119
0.4	539	1.8	768	4.3	768	1.1	7.7	771	1.1	9.331	328.881	g500-H850	m550-H71/M4	4	43
0.4	573	1.7	817	4.1	817	1.8	7.2	821	1.8	9.353	350.054	g500-H1500	m550-H71/M4	4	74
0.4	603	1.6	859	3.9	859	1.0	6.9	863	1.0	9.184	368.019	g500-H850	m550-H71/M4	4	43
0.4	651	1.5	928	3.6	928	1.6	6.4	932	1.6	9.390	397.548	g500-H1500	m550-H71/M4	4	74
0.3	674	1.5	960	3.5	960	0.9	6.2	964	0.9	9.184	411.213	g500-H850	m550-H71/M4	4	43
0.3	731	1.3	1042	3.2	1042	1.4	5.7	1047	1.4	9.322	446.497	g500-H1500	m550-H71/M4	4	74
0.3	802	1.2	1144	2.9	1144	2.6	5.2	1148	2.6	9.506	489.908	g500-H3000	m550-H71/M4	4	119
0.3	810	1.2	1154	2.9	1154	1.3	5.1	1159	1.3	9.304	494.511	g500-H1500	m550-H71/M4	4	74
0.3	881	1.1	1256	2.6	1256	2.4	4.7	1261	2.4	9.505	538.095	g500-H3000	m550-H71/M4	4	119
0.2	937	1.0	1336	2.5	1336	1.1	4.4	1341	1.1	9.358	572.324	g500-H1500	m550-H71/M4	4	74
0.2	974	1.0	1389	2.4	1389	2.2	4.3	1394	2.2	9.453	594.888	g500-H3000	m550-H71/M4	4	119
0.2	1039	0.9	1481	2.2	1481	1.0	4.0	1486	1.0	9.342	634.184	g500-H1500	m550-H71/M4	4	74
0.2	1070	0.9	1525	2.2	1525	2.0	3.9	1532	2.0	9.453	653.402	g500-H3000	m550-H71/M4	4	119
0.2	1149	0.9	1638	2.0	1638	0.9	3.6	1644	0.9	9.341	701.446	g500-H1500	m550-H71/M4	4	74
0.2	1212	0.8	1728	1.9	1728	1.7	3.4	1734	1.7	9.344	739.983	g500-H3000	m550-H71/M4	4	119
0.2	1292	0.8	1841	1.8	1841	1.6	3.2	1848	1.6	9.271	788.632	g500-H3000	m550-H71/M4	4	119
0.2	1292	0.8	1842	1.8	1842	0.8	3.2	1849	0.8	9.272	788.863	g500-H1500	m550-H71/M4	4	74
0.2	1419	0.7	2022	1.6	2022	1.5	2.9	2030	1.5	9.271	866.202	g500-H3000	m550-H71/M4	4	119
0.1	1569	0.6	2236	1.5	2236	1.3	2.6	2245	1.3	9.251	957.625	g500-H3000	m550-H71/M4	4	119
0.1	1723	0.6	2455	1.4	2455	1.2	2.4	2465	1.2	9.251	1051.817	g500-H3000	m550-H71/M4	4	119
0.1	2030	0.5	2893	1.1	2893	1.0	2.0	2905	1.0	9.230	1239.279	g500-H3000	m550-H71/M4	4	119
0.1	2230	0.4	3178	1.0	3178	0.9	1.9	3190	0.9	9.230	1361.175	g500-H3000	m550-H71/M4	4	119
0.1	2464	0.4	3511	0.9	3511	0.9	1.7	3525	0.9	9.193	1504.034	g500-H3000	m550-H71/M4	4	119



50 Hz: 0.55 kW

87 Hz: 1 kW

Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)			J	i			z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
55.1	6.5	231	9.2	551	9.2	2.0	978	9.5	1.6	13.560	2.597	g500-H45	m550-H71/L4	2	10
43.8	8.1	184	12.0	438	12.0	4.6	778	12.0	3.8	14.202	3.267	g500-H140	m550-H71/L4	2	14
42.6	8.4	179	12.0	426	12.0	4.6	757	12.0	3.8	13.825	3.354	g500-H100	m550-H71/L4	2	12
41.9	8.5	176	12.0	419	12.0	1.6	744	12.0	1.3	13.469	3.413	g500-H45	m550-H71/L4	2	10
32.7	10.9	137	16.0	327	16.0	1.4	582	16.0	1.1	13.417	4.368	g500-H45	m550-H71/L4	2	10
31.9	11.2	134	16.0	319	16.0	4.6	567	16.0	3.8	13.836	4.480	g500-H140	m550-H71/L4	2	14
31.1	11.5	130	16.0	311	16.0	4.4	552	17.0	3.6	13.635	4.600	g500-H100	m550-H71/L4	2	12
27.7	12.9	116	18.0	277	18.0	4.1	492	19.0	3.3	13.729	5.167	g500-H100	m550-H71/L4	2	12
26.9	13.2	113	19.0	269	19.0	1.4	478	19.0	1.2	13.479	5.312	g500-H45	m550-H71/L4	2	10
24.9	14.3	105	20.0	249	20.0	4.3	443	21.0	3.5	13.659	5.733	g500-H140	m550-H71/L4	2	14
24.3	14.7	102	21.0	243	21.0	3.9	432	21.0	3.2	13.536	5.887	g500-H100	m550-H71/L4	2	12
24.0	14.9	101	21.0	240	21.0	1.4	426	22.0	1.1	13.473	5.965	g500-H45	m550-H71/L4	2	10
22.8	15.6	95.7	22.0	228	22.0	4.3	405	23.0	3.5	13.609	6.272	g500-H140	m550-H71/L4	2	14
22.2	16.1	93.2	23.0	222	23.0	3.6	394	23.0	3.0	13.507	6.440	g500-H100	m550-H71/L4	2	12
20.5	17.4	85.9	25.0	205	25.0	1.2	364	25.0	1.0	13.422	6.982	g500-H45	m550-H71/L4	2	10
20.2	17.7	84.7	25.0	202	25.0	3.4	359	26.0	2.8	13.585	7.086	g500-H100	m550-H71/L4	2	12
19.7	18.1	82.5	26.0	197	26.0	4.1	349	27.0	3.4	13.805	7.269	g500-H140	m550-H71/L4	2	14
18.2	19.5	76.5	28.0	182	28.0	1.2	324	29.0	0.9	13.419	7.840	g500-H45	m550-H71/L4	2	10
17.9	19.9	75.0	28.0	179	28.0	3.9	318	29.0	3.2	13.511	8.000	g500-H140	m550-H71/L4	2	14
17.4	20.5	73.0	29.0	174	29.0	3.2	309	30.0	2.6	13.448	8.214	g500-H100	m550-H71/L4	2	12
16.0	22.3	67.2	32.0	160	32.0	1.0	284	33.0	0.9	13.389	8.935	g500-H45	m550-H71/L4	2	10
15.8	22.5	66.5	32.0	158	32.0	3.6	281	33.0	3.0	13.642	9.029	g500-H140	m550-H71/L4	2	14
15.8	22.6	66.2	32.0	158	32.0	3.0	280	33.0	2.4	13.505	9.068	g500-H100	m550-H71/L4	2	12
14.6	24.4	61.2	35.0	146	35.0	3.5	259	36.0	2.8	13.455	9.800	g500-H140	m550-H71/L4	2	14
14.6	24.4	61.2	35.0	146	35.0	4.6	259	36.0	3.8	13.889	9.799	g500-H210	m550-H71/L4	2	15
14.3	25.0	59.8	36.0	143	36.0	1.0	253	37.0	0.8	13.386	10.033	g500-H45	m550-H71/L4	2	10
14.2	25.1	59.6	36.0	142	36.0	2.8	252	37.0	2.3	13.413	10.063	g500-H100	m550-H71/L4	2	12
13.4	26.6	56.2	38.0	134	38.0	4.6	238	39.0	3.8	14.023	10.677	g500-H320	m550-H71/L4	2	17
13.3	26.7	56.0	38.0	133	38.0	4.6	237	39.0	3.8	13.813	10.720	g500-H210	m550-H71/L4	2	15
12.6	28.3	52.8	40.0	126	40.0	2.5	224	41.0	2.0	13.475	11.360	g500-H100	m550-H71/L4	2	12
12.5	28.5	52.5	41.0	125	41.0	0.9	222	42.0	0.7	13.359	11.429	g500-H45	m550-H71/L4	2	10
12.4	28.8	51.9	41.0	124	41.0	3.1	220	42.0	2.6	13.540	11.554	g500-H140	m550-H71/L4	2	14
12.2	29.1	51.4	42.0	122	42.0	4.6	218	43.0	3.8	13.925	11.680	g500-H320	m550-H71/L4	2	17
11.9	29.9	50.0	43.0	119	43.0	4.4	212	44.0	3.6	13.797	12.000	g500-H210	m550-H71/L4	2	15
11.8	30.2	49.5	43.0	118	43.0	4.6	209	44.0	3.8	13.976	12.128	g500-H320	m550-H71/L4	2	17
11.3	31.5	47.5	45.0	113	45.0	2.9	201	46.0	2.4	13.510	12.640	g500-H140	m550-H71/L4	2	14
11.3	31.6	47.4	45.0	113	45.0	2.2	201	46.0	1.8	13.432	12.653	g500-H100	m550-H71/L4	2	12
11.1	32.0	46.8	46.0	111	46.0	0.8	198	47.0	0.7	13.357	12.833	g500-H45	m550-H71/L4	2	10
10.8	33.1	45.2	47.0	108	47.0	4.6	191	48.0	3.8	13.886	13.268	g500-H320	m550-H71/L4	2	17
10.5	34.1	43.9	49.0	105	49.0	4.1	186	50.0	3.4	13.675	13.673	g500-H210	m550-H71/L4	2	15
10.3	34.7	43.2	50.0	103	50.0	4.6	183	51.0	3.8	14.506	13.905	g500-H450	m550-H71/L4	2	20
10.2	34.8	43.0	50.0	103	50.0	2.7	182	51.0	2.2	13.501	13.957	g500-H140	m550-H71/L4	2	14
9.9	36.1	41.4	52.0	98.7	52.0	1.9	175	53.0	1.6	13.429	14.490	g500-H100	m550-H71/L4	2	12
9.6	37.1	40.3	53.0	96.0	53.0	4.3	171	54.0	3.5	13.744	14.898	g500-H320	m550-H71/L4	2	17
9.3	38.2	39.2	55.0	93.4	55.0	3.7	166	56.0	3.0	13.665	15.306	g500-H210	m550-H71/L4	2	15
9.2	38.6	38.7	55.0	92.3	55.0	1.8	164	57.0	1.5	13.402	15.500	g500-H100	m550-H71/L4	2	12
9.1	39.2	38.2	56.0	91.0	56.0	4.6	162	57.0	3.8	14.469	15.714	g500-H450	m550-H71/L4	2	20
9.0	39.4	38.0	56.0	90.5	56.0	4.6	161	58.0	3.8	14.640	15.810	g500-H600	m550-H71/L4	2	31
8.9	40.2	37.2	57.0	88.7	57.0	2.4	158	59.0	2.0	13.450	16.122	g500-H140	m550-H71/L4	2	14
8.5	41.8	35.8	60.0	85.4	60.0	3.5	152	61.0	2.9	13.592	16.750	g500-H210	m550-H71/L4	2	15



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)								
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
8.4	42.2	35.5	60.0	84.5	60.0	4.3	150	62.0	3.5	13.720	16.923	g500-H320	m550-H71/L4	2	17
8.1	44.3	33.8	63.0	80.6	63.0	1.6	143	65.0	1.3	13.400	17.750	g500-H100	m550-H71/L4	2	12
8.1	44.3	33.8	63.0	80.5	63.0	4.6	143	65.0	3.8	14.583	17.755	g500-H600	m550-H71/L4	2	31
8.0	44.4	33.7	63.0	80.3	63.0	2.2	143	65.0	1.8	13.445	17.802	g500-H140	m550-H71/L4	2	14
7.8	45.5	32.9	65.0	78.4	65.0	3.8	139	67.0	3.1	13.638	18.250	g500-H320	m550-H71/L4	2	17
7.6	46.8	32.0	67.0	76.3	67.0	3.2	136	68.0	2.6	13.585	18.750	g500-H210	m550-H71/L4	2	15
7.3	48.6	30.8	69.0	73.4	69.0	1.4	130	71.0	1.2	13.369	19.486	g500-H100	m550-H71/L4	2	12
7.2	49.2	30.4	70.0	72.4	70.0	2.0	129	72.0	1.6	13.414	19.750	g500-H140	m550-H71/L4	2	14
6.9	51.7	28.9	74.0	69.0	74.0	3.8	123	76.0	3.1	13.621	20.731	g500-H320	m550-H71/L4	2	17
6.6	54.4	27.5	78.0	65.6	78.0	1.8	117	80.0	1.5	13.411	21.808	g500-H140	m550-H71/L4	2	14
6.6	54.4	27.5	78.0	65.6	78.0	2.7	117	80.0	2.2	13.482	21.802	g500-H210	m550-H71/L4	2	15
6.5	55.3	27.1	79.0	64.5	79.0	3.8	115	81.0	3.1	13.827	22.170	g500-H450	m550-H71/L4	2	20
6.4	55.6	26.9	79.0	64.1	79.0	1.3	114	81.0	1.0	13.367	22.314	g500-H100	m550-H71/L4	2	12
6.0	59.2	25.3	85.0	60.2	85.0	3.5	107	87.0	2.8	13.509	23.754	g500-H320	m550-H71/L4	2	17
5.9	60.9	24.6	87.0	58.6	87.0	2.4	104	89.0	2.0	13.479	24.405	g500-H210	m550-H71/L4	2	15
5.8	61.9	24.2	88.0	57.6	88.0	1.6	102	91.0	1.3	13.377	24.829	g500-H140	m550-H71/L4	2	14
5.7	62.5	23.9	89.0	57.1	89.0	3.8	101	91.0	3.1	13.812	25.056	g500-H450	m550-H71/L4	2	20
5.7	62.6	23.9	89.0	57.0	89.0	1.1	101	92.0	0.9	13.348	25.095	g500-H100	m550-H71/L4	2	12
5.7	62.9	23.8	90.0	56.7	90.0	3.8	101	92.0	3.1	13.879	25.207	g500-H600	m550-H71/L4	2	31
5.3	67.3	22.2	96.0	53.0	96.0	3.3	94.1	98.0	3.1	13.500	26.983	g500-H320	m550-H71/L4	2	17
5.3	67.6	22.1	97.0	52.7	97.0	2.2	93.7	99.0	2.0	13.434	27.119	g500-H210	m550-H71/L4	2	15
5.2	68.4	21.9	98.0	52.2	98.0	1.4	92.6	100	1.3	13.374	27.415	g500-H140	m550-H71/L4	2	14
5.2	68.8	21.8	98.0	51.9	98.0	3.2	92.1	101	3.0	13.689	27.578	g500-H450	m550-H71/L4	2	20
5.1	70.6	21.2	101	50.5	101	3.8	89.7	103	3.6	13.857	28.310	g500-H600	m550-H71/L4	2	31
5.0	71.7	20.9	102	49.8	102	1.0	88.4	105	0.9	13.347	28.738	g500-H100	m550-H71/L4	2	12
4.8	73.7	20.3	105	48.4	105	2.9	86.0	108	2.7	13.452	29.548	g500-H320	m550-H71/L4	2	17
4.7	75.7	19.8	108	47.1	108	1.9	83.7	111	1.8	13.432	30.357	g500-H210	m550-H71/L4	2	15
4.6	77.7	19.3	111	45.9	111	3.2	81.5	114	3.0	13.679	31.167	g500-H450	m550-H71/L4	2	20
4.6	78.2	19.1	112	45.6	112	3.2	81.0	114	3.0	13.723	31.356	g500-H600	m550-H71/L4	2	31
4.5	79.7	18.8	114	44.7	114	1.2	79.4	117	1.1	13.353	31.976	g500-H140	m550-H71/L4	2	14
4.3	83.7	17.9	120	42.6	120	2.7	75.7	122	2.5	13.446	33.564	g500-H320	m550-H71/L4	2	17
4.1	87.5	17.1	125	40.7	125	1.7	72.4	128	1.6	13.385	35.095	g500-H210	m550-H71/L4	2	15
4.1	87.8	17.0	125	40.6	125	3.2	72.1	128	3.0	13.708	35.214	g500-H600	m550-H71/L4	2	31
4.1	88.0	17.0	126	40.5	126	1.1	71.9	129	1.0	13.351	35.308	g500-H140	m550-H71/L4	2	14
4.0	89.0	16.8	127	40.1	127	2.9	71.2	130	2.7	13.544	35.689	g500-H450	m550-H71/L4	2	20
3.8	92.7	16.1	132	38.5	132	3.2	68.3	136	3.0	14.019	37.190	g500-H850	m550-H71/L4	2	40
3.7	95.3	15.7	136	37.4	136	1.8	66.4	139	1.7	13.395	38.238	g500-H320	m550-H71/L4	2	17
3.6	98.0	15.3	140	36.4	140	1.5	64.7	143	1.4	13.383	39.286	g500-H210	m550-H71/L4	2	15
3.6	98.1	15.0	140	35.8	140	4.3	63.6	143	3.5	14.062	39.925	g500-H600	m550-H71/L4	3	32
3.5	101	14.9	144	35.5	144	2.9	63.0	147	2.9	13.538	40.333	g500-H450	m550-H71/L4	2	20
3.5	101	14.8	144	35.2	144	2.9	62.6	148	2.9	13.564	40.578	g500-H600	m550-H71/L4	2	31
3.4	104	14.4	148	34.4	148	3.2	61.1	152	3.1	14.004	41.556	g500-H850	m550-H71/L4	2	40
3.4	106	14.1	152	33.6	152	1.2	59.6	155	1.2	13.362	42.593	g500-H210	m550-H71/L4	2	15
3.3	107	13.8	152	33.0	152	1.4	58.5	156	1.1	13.427	43.390	g500-H210	m550-H71/L4	3	15
3.3	107	13.7	153	32.7	153	3.9	58.2	157	3.2	13.958	43.676	g500-H600	m550-H71/L4	3	32
3.3	108	13.9	154	33.0	154	2.1	58.6	158	2.0	13.479	43.313	g500-H450	m550-H71/L4	2	20
3.3	108	13.8	155	32.9	155	1.8	58.5	158	1.8	13.392	43.436	g500-H320	m550-H71/L4	2	17
3.2	108	13.6	155	32.4	155	2.9	57.6	159	2.4	13.660	44.124	g500-H450	m550-H71/L4	3	21
3.2	113	13.3	161	31.7	161	2.8	56.3	165	2.8	13.831	45.136	g500-H850	m550-H71/L4	2	40
3.1	114	13.2	162	31.4	162	2.9	55.7	166	2.9	13.555	45.571	g500-H600	m550-H71/L4	2	31
3.1	116	12.9	165	30.8	165	1.3	54.7	169	1.3	13.370	46.407	g500-H320	m550-H71/L4	2	17
3.0	116	12.7	166	30.2	166	1.9	53.7	170	1.8	13.434	47.276	g500-H320	m550-H71/L4	3	17



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
3.0	119	12.6	170	30.0	170	1.2	53.3	174	1.2	13.361	47.679	g500-H210	m550-H71/L4	2	15
2.9	119	12.4	170	29.4	170	1.2	52.3	175	1.2	13.426	48.571	g500-H210	m550-H71/L4	3	15
2.9	121	12.2	172	29.2	172	3.5	51.8	176	3.2	13.950	49.051	g500-H600	m550-H71/L4	3	32
2.9	122	12.3	174	29.2	174	2.1	51.9	179	2.1	13.475	48.950	g500-H450	m550-H71/L4	2	20
2.9	123	12.2	175	29.0	175	2.4	51.6	180	2.4	13.493	49.247	g500-H600	m550-H71/L4	2	31
2.9	123	12.0	175	28.7	175	2.6	50.9	179	2.4	13.656	49.867	g500-H450	m550-H71/L4	3	21
2.8	126	11.9	180	28.4	180	2.8	50.4	184	2.8	13.822	50.433	g500-H850	m550-H71/L4	2	40
2.7	130	11.4	185	27.1	185	4.6	48.2	190	4.3	14.569	52.743	g500-H850	m550-H71/L4	3	41
2.7	131	11.4	188	27.1	188	1.3	48.2	192	1.3	13.367	52.715	g500-H320	m550-H71/L4	2	17
2.7	132	11.2	188	26.6	188	1.7	47.3	193	1.6	13.431	53.703	g500-H320	m550-H71/L4	3	17
2.6	137	11.0	195	26.1	195	1.4	46.4	200	1.4	13.416	54.750	g500-H450	m550-H71/L4	2	20
2.6	136	10.8	195	25.8	195	1.1	45.7	200	1.0	13.388	55.529	g500-H210	m550-H71/L4	3	15
2.6	137	10.8	195	25.7	195	3.1	45.6	200	2.9	13.764	55.710	g500-H600	m550-H71/L4	3	32
2.6	138	10.8	197	25.9	197	2.4	45.9	202	2.4	13.487	55.307	g500-H600	m550-H71/L4	2	31
2.5	139	10.6	198	25.3	198	2.3	45.0	203	2.1	13.551	56.469	g500-H450	m550-H71/L4	3	21
2.4	145	10.2	207	24.3	207	4.1	43.1	212	3.8	14.563	58.933	g500-H850	m550-H71/L4	3	41
2.4	149	9.9	212	23.6	212	1.5	42.0	217	1.4	13.393	60.502	g500-H320	m550-H71/L4	3	17
2.3	152	9.7	217	23.1	217	2.1	41.1	222	1.9	13.519	61.774	g500-H450	m550-H71/L4	3	21
2.3	153	9.7	218	23.0	218	1.0	40.9	223	0.9	13.388	62.160	g500-H210	m550-H71/L4	3	15
2.3	154	9.6	219	22.9	219	2.7	40.6	225	2.5	13.759	62.566	g500-H600	m550-H71/L4	3	32
2.3	154	9.7	220	23.1	220	1.4	41.1	226	1.4	13.414	61.875	g500-H450	m550-H71/L4	2	20
2.3	155	9.6	222	23.0	222	1.4	40.8	227	1.4	13.425	62.250	g500-H600	m550-H71/L4	2	31
2.1	168	8.8	239	21.0	239	2.5	37.2	245	2.3	13.651	68.244	g500-H600	m550-H71/L4	3	32
2.1	169	8.7	241	20.8	241	1.3	37.0	247	1.2	13.391	68.726	g500-H320	m550-H71/L4	3	17
2.0	172	8.6	245	20.5	245	1.8	36.4	251	1.7	13.517	69.813	g500-H450	m550-H71/L4	3	21
2.0	174	8.6	249	20.5	249	1.4	36.3	255	1.4	13.421	69.911	g500-H600	m550-H71/L4	2	31
2.0	174	8.4	249	20.1	249	0.8	35.8	255	0.8	13.360	71.026	g500-H210	m550-H71/L4	3	15
1.9	188	7.8	269	18.7	269	2.2	33.1	275	2.1	13.648	76.643	g500-H600	m550-H71/L4	3	32
1.8	190	7.8	271	18.5	271	1.2	32.8	278	1.1	13.362	77.387	g500-H320	m550-H71/L4	3	17
1.8	194	7.6	276	18.1	276	1.6	32.2	283	1.5	13.456	78.794	g500-H450	m550-H71/L4	3	21
1.7	207	7.1	295	17.0	295	2.9	30.2	302	2.8	13.851	84.096	g500-H850	m550-H71/L4	3	41
1.6	216	6.8	308	16.3	308	1.0	28.9	316	1.0	13.361	87.906	g500-H320	m550-H71/L4	3	17
1.6	219	6.7	312	16.1	312	1.4	28.5	320	1.4	13.455	89.048	g500-H450	m550-H71/L4	3	21
1.6	218	6.8	312	16.1	312	1.9	28.6	319	1.9	13.517	88.826	g500-H600	m550-H71/L4	3	32
1.5	231	6.4	330	15.2	330	2.6	27.0	338	2.5	13.849	93.966	g500-H850	m550-H71/L4	3	41
1.5	237	6.2	339	14.8	339	1.3	26.3	347	1.3	13.418	96.522	g500-H450	m550-H71/L4	3	21
1.4	245	6.0	350	14.3	350	1.7	25.5	358	1.7	13.516	99.757	g500-H600	m550-H71/L4	3	32
1.4	247	6.0	352	14.2	352	0.9	25.3	361	0.9	13.344	100.462	g500-H320	m550-H71/L4	3	17
1.4	257	5.7	367	13.7	367	2.3	24.3	376	2.3	13.705	104.607	g500-H850	m550-H71/L4	3	41
1.3	268	5.5	383	13.1	383	1.2	23.3	392	1.2	13.417	109.083	g500-H450	m550-H71/L4	3	21
1.3	271	5.4	388	12.9	388	1.6	23.0	397	1.5	13.457	110.491	g500-H600	m550-H71/L4	3	32
1.3	280	5.3	400	12.5	400	0.8	22.3	410	0.8	13.343	114.118	g500-H320	m550-H71/L4	3	17
1.2	287	5.1	410	12.2	410	2.1	21.7	420	2.0	13.703	116.884	g500-H850	m550-H71/L4	3	41
1.2	298	4.9	426	11.8	426	1.1	20.9	436	1.0	13.379	121.342	g500-H450	m550-H71/L4	3	21
1.2	305	4.8	435	11.5	435	1.4	20.5	446	1.4	13.456	124.088	g500-H600	m550-H71/L4	3	32
1.1	333	4.4	475	10.6	475	1.8	18.8	486	1.8	13.553	135.373	g500-H850	m550-H71/L4	3	41
1.0	337	4.4	481	10.4	481	0.9	18.5	493	0.9	13.378	137.133	g500-H450	m550-H71/L4	3	21
1.0	351	4.2	502	10.0	502	1.2	17.8	514	1.2	13.398	142.988	g500-H600	m550-H71/L4	3	32
0.9	372	4.0	531	9.5	531	1.6	16.8	544	1.6	13.552	151.262	g500-H850	m550-H71/L4	3	41
0.9	384	3.8	548	9.2	548	0.8	16.3	562	0.8	13.354	156.274	g500-H450	m550-H71/L4	3	21
0.9	394	3.7	563	8.9	563	1.1	15.8	577	1.0	13.398	160.585	g500-H600	m550-H71/L4	3	32
0.9	404	3.7	576	8.7	576	1.5	15.5	590	1.4	13.486	164.294	g500-H850	m550-H71/L4	3	41



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
0.8	426	3.5	609	8.2	609	1.0	14.6	624	1.0	13.372	173.536	g500-H600	m550-H71/L4	3	32
0.8	449	3.3	641	7.8	641	2.3	13.9	657	2.3	13.978	182.844	g500-H1500	m550-H71/L4	3	72
0.8	451	3.3	644	7.8	644	1.3	13.8	660	1.3	13.485	183.577	g500-H850	m550-H71/L4	3	41
0.7	479	3.1	684	7.3	684	0.9	13.0	700	0.9	13.371	194.892	g500-H600	m550-H71/L4	3	32
0.7	481	3.0	687	7.2	687	0.9	12.8	704	0.9	13.524	198.970	g500-H600	m550-H71/L4	4	35
0.7	492	3.0	702	7.0	702	4.1	12.5	719	4.0	14.813	203.178	g500-H3000	m550-H71/L4	4	120
0.7	492	2.9	703	7.0	703	2.1	12.5	720	2.1	14.023	203.537	g500-H1500	m550-H71/L4	4	75
0.7	497	3.0	709	7.1	709	2.1	12.6	727	2.1	13.976	202.237	g500-H1500	m550-H71/L4	3	72
0.7	509	2.9	727	6.8	727	1.2	12.1	745	1.1	13.564	210.484	g500-H850	m550-H71/L4	4	44
0.7	510	2.9	728	6.9	728	1.2	12.2	746	1.1	13.420	207.675	g500-H850	m550-H71/L4	3	41
0.6	545	2.7	778	6.4	778	1.9	11.3	797	1.9	14.022	225.125	g500-H1500	m550-H71/L4	4	75
0.6	545	2.7	778	6.4	778	1.9	11.4	797	1.9	13.803	221.907	g500-H1500	m550-H71/L4	3	72
0.6	548	2.6	783	6.3	783	3.4	11.2	802	3.3	14.352	226.604	g500-H3000	m550-H71/L4	4	120
0.6	567	2.6	810	6.1	810	1.1	10.8	829	1.0	13.488	234.319	g500-H850	m550-H71/L4	4	44
0.6	570	2.6	814	6.2	814	1.0	10.9	834	1.0	13.420	232.050	g500-H850	m550-H71/L4	3	41
0.6	602	2.4	860	5.7	860	3.4	10.2	881	3.4	14.350	248.893	g500-H3000	m550-H71/L4	4	120
0.6	603	2.4	861	5.8	861	1.7	10.3	882	1.7	13.803	245.442	g500-H1500	m550-H71/L4	3	72
0.6	616	2.4	879	5.6	879	1.7	10.0	901	1.7	13.666	254.431	g500-H1500	m550-H71/L4	4	75
0.5	633	2.3	905	5.5	905	0.9	9.7	927	0.9	13.487	261.821	g500-H850	m550-H71/L4	4	44
0.5	681	2.1	972	5.1	972	1.5	9.0	996	1.5	13.666	281.416	g500-H1500	m550-H71/L4	4	75
0.5	689	2.1	984	5.1	984	1.5	9.1	1008	1.5	13.625	280.500	g500-H1500	m550-H71/L4	3	72
0.5	708	2.1	1011	4.9	1011	3.0	8.7	1035	2.9	14.519	292.511	g500-H3000	m550-H71/L4	4	120
0.5	712	2.0	1017	4.9	1017	0.8	8.6	1042	0.8	13.532	294.334	g500-H850	m550-H71/L4	4	44
0.5	762	1.9	1088	4.6	1088	1.4	8.2	1115	1.4	13.625	310.250	g500-H1500	m550-H71/L4	3	72
0.5	766	1.9	1093	4.5	1093	1.4	8.0	1120	1.3	13.553	316.487	g500-H1500	m550-H71/L4	4	75
0.4	777	1.9	1110	4.5	1110	2.7	7.9	1137	2.6	14.518	321.282	g500-H3000	m550-H71/L4	4	120
0.4	847	1.7	1209	4.1	1209	1.2	7.3	1239	1.2	13.553	350.054	g500-H1500	m550-H71/L4	4	75
0.4	911	1.6	1300	3.8	1300	2.3	6.7	1332	2.3	13.970	376.393	g500-H3000	m550-H71/L4	4	120
0.4	962	1.5	1373	3.6	1373	1.1	6.4	1407	1.1	13.590	397.548	g500-H1500	m550-H71/L4	4	75
0.3	1000	1.5	1428	3.5	1428	2.1	6.1	1463	2.1	13.969	413.415	g500-H3000	m550-H71/L4	4	120
0.3	1080	1.3	1543	3.2	1543	1.0	5.7	1580	1.0	13.522	446.497	g500-H1500	m550-H71/L4	4	75
0.3	1106	1.3	1579	3.1	1579	1.9	5.6	1618	1.9	13.881	457.048	g500-H3000	m550-H71/L4	4	120
0.3	1185	1.2	1692	2.9	1692	1.8	5.2	1734	1.7	13.706	489.908	g500-H3000	m550-H71/L4	4	120
0.3	1196	1.2	1708	2.9	1708	0.9	5.1	1750	0.9	13.504	494.511	g500-H1500	m550-H71/L4	4	75
0.3	1302	1.1	1859	2.7	1859	1.6	4.7	1905	1.6	13.705	538.095	g500-H3000	m550-H71/L4	4	120
0.2	1439	1.0	2055	2.4	2055	1.5	4.3	2106	1.4	13.653	594.888	g500-H3000	m550-H71/L4	4	120
0.2	1581	0.9	2257	2.2	2257	1.3	3.9	2313	1.3	13.653	653.402	g500-H3000	m550-H71/L4	4	120
0.2	1790	0.8	2556	1.9	2556	1.2	3.4	2619	1.2	13.544	739.983	g500-H3000	m550-H71/L4	4	120
0.2	1908	0.8	2724	1.8	2724	1.1	3.2	2791	1.1	13.471	788.632	g500-H3000	m550-H71/L4	4	120
0.2	2096	0.7	2992	1.7	2992	1.0	2.9	3066	1.0	13.471	866.202	g500-H3000	m550-H71/L4	4	120
0.1	2317	0.6	3308	1.5	3308	0.9	2.7	3389	0.9	13.451	957.625	g500-H3000	m550-H71/L4	4	120
0.1	2545	0.6	3634	1.4	3634	0.8	2.4	3723	0.8	13.451	1051.817	g500-H3000	m550-H71/L4	4	120



50 Hz: 0.75 kW

87 Hz: 1.35 kW

Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)								
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
69.2	7.1	285	10.0	690	10.0	4.9	1217	10.0	4.0	27.800	2.108	g500-H100	m550-P80/M4	2	16
44.7	10.9	184	16.0	445	16.0	4.3	785	16.0	3.5	28.102	3.267	g500-H140	m550-P80/M4	2	17
43.5	11.2	179	16.0	434	16.0	3.9	765	16.0	3.2	27.725	3.354	g500-H100	m550-P80/M4	2	16
43.1	11.3	177	16.0	429	16.0	4.9	757	17.0	4.0	28.730	3.389	g500-H210	m550-P80/M4	2	18
43.1	11.3	177	16.0	429	16.0	4.9	757	17.0	4.0	28.425	3.389	g500-H320	m550-P80/M4	2	20
32.6	15.0	134	21.0	325	21.0	4.3	573	22.0	3.5	27.736	4.480	g500-H140	m550-P80/M4	2	17
31.7	15.4	130	22.0	316	22.0	3.3	558	22.0	2.7	27.535	4.600	g500-H100	m550-P80/M4	2	16
28.3	17.3	116	25.0	282	25.0	3.0	497	25.0	2.5	27.629	5.167	g500-H100	m550-P80/M4	2	16
26.1	18.7	108	27.0	261	27.0	4.9	459	27.0	4.0	28.443	5.583	g500-H210	m550-P80/M4	2	18
25.5	19.2	105	27.0	254	27.0	3.8	447	28.0	3.1	27.559	5.733	g500-H140	m550-P80/M4	2	17
24.8	19.7	102	28.0	247	28.0	2.9	436	29.0	2.4	27.436	5.887	g500-H100	m550-P80/M4	2	16
24.0	20.4	98.6	29.0	239	29.0	4.9	422	30.0	4.0	28.855	6.083	g500-H320	m550-P80/M4	2	20
23.4	20.9	96.0	30.0	233	30.0	4.9	410	31.0	4.0	28.384	6.250	g500-H210	m550-P80/M4	2	18
23.3	21.0	95.7	30.0	232	30.0	3.5	409	31.0	2.9	27.509	6.272	g500-H140	m550-P80/M4	2	17
22.7	21.6	93.2	31.0	226	31.0	2.7	398	31.0	2.2	27.407	6.440	g500-H100	m550-P80/M4	2	16
21.1	23.1	86.8	33.0	211	33.0	4.9	371	34.0	4.0	28.709	6.910	g500-H320	m550-P80/M4	2	20
20.6	23.7	84.7	34.0	205	34.0	2.5	362	35.0	2.1	27.485	7.086	g500-H100	m550-P80/M4	2	16
20.1	24.3	82.5	35.0	200	35.0	3.1	353	35.0	2.5	27.705	7.269	g500-H140	m550-P80/M4	2	17
18.3	26.8	75.0	38.0	182	38.0	3.1	321	39.0	2.5	27.411	8.000	g500-H140	m550-P80/M4	2	17
17.8	27.5	73.0	39.0	177	39.0	2.4	312	40.0	1.9	27.348	8.214	g500-H100	m550-P80/M4	2	16
16.2	30.2	66.5	43.0	161	43.0	2.7	284	44.0	2.2	27.542	9.029	g500-H140	m550-P80/M4	2	17
16.1	30.4	66.2	43.0	161	43.0	2.2	283	44.0	1.8	27.405	9.068	g500-H100	m550-P80/M4	2	16
14.9	32.8	61.2	47.0	149	47.0	2.7	262	48.0	2.2	27.355	9.800	g500-H140	m550-P80/M4	2	17
14.9	32.8	61.2	47.0	149	47.0	3.9	262	48.0	3.2	27.789	9.799	g500-H210	m550-P80/M4	2	18
14.5	33.7	59.6	48.0	145	48.0	2.1	255	49.0	1.7	27.313	10.063	g500-H100	m550-P80/M4	2	16
13.7	35.7	56.2	51.0	136	51.0	4.3	240	52.0	3.5	27.923	10.677	g500-H320	m550-P80/M4	2	20
13.6	35.9	56.0	51.0	136	51.0	3.7	239	52.0	3.0	27.713	10.720	g500-H210	m550-P80/M4	2	18
12.9	38.0	52.8	54.0	128	54.0	1.8	226	55.0	1.5	27.375	11.360	g500-H100	m550-P80/M4	2	16
12.6	38.7	51.9	55.0	126	55.0	2.3	222	56.0	1.9	27.440	11.554	g500-H140	m550-P80/M4	2	17
12.5	39.1	51.4	56.0	125	56.0	4.3	220	57.0	3.5	27.825	11.680	g500-H320	m550-P80/M4	2	20
12.2	40.2	50.0	57.0	121	57.0	3.3	214	59.0	2.7	27.697	12.000	g500-H210	m550-P80/M4	2	18
12.0	40.6	49.5	58.0	120	58.0	4.3	212	59.0	3.5	27.876	12.128	g500-H320	m550-P80/M4	2	20
11.6	42.3	47.5	60.0	115	60.0	2.2	203	62.0	1.8	27.410	12.640	g500-H140	m550-P80/M4	2	17
11.5	42.4	47.4	60.0	115	60.0	1.7	203	62.0	1.4	27.332	12.653	g500-H100	m550-P80/M4	2	16
11.0	44.4	45.2	63.0	110	63.0	4.1	193	65.0	3.4	27.786	13.268	g500-H320	m550-P80/M4	2	20
10.7	45.8	43.9	65.0	106	65.0	3.1	188	67.0	2.5	27.575	13.673	g500-H210	m550-P80/M4	2	18
10.5	46.5	43.2	66.0	105	66.0	4.3	185	68.0	3.5	28.406	13.905	g500-H450	m550-P80/M4	2	24
10.5	46.7	43.0	67.0	104	67.0	2.0	184	68.0	1.7	27.401	13.957	g500-H140	m550-P80/M4	2	17
10.1	48.5	41.4	69.0	100	69.0	1.5	177	71.0	1.2	27.329	14.490	g500-H100	m550-P80/M4	2	16
9.8	49.9	40.3	71.0	97.7	71.0	4.0	172	73.0	3.3	27.644	14.898	g500-H320	m550-P80/M4	2	20
9.5	51.2	39.2	73.0	95.1	73.0	2.7	168	75.0	2.2	27.565	15.306	g500-H210	m550-P80/M4	2	18
9.4	51.9	38.7	74.0	93.9	74.0	1.4	166	76.0	1.1	27.302	15.500	g500-H100	m550-P80/M4	2	16
9.3	52.6	38.2	75.0	92.6	75.0	4.3	163	77.0	3.5	28.369	15.714	g500-H450	m550-P80/M4	2	24
9.2	52.9	38.0	75.0	92.0	75.0	4.3	162	77.0	3.5	28.540	15.810	g500-H600	m550-P80/M4	2	35
9.1	54.0	37.2	77.0	90.2	77.0	1.8	159	79.0	1.5	27.350	16.122	g500-H140	m550-P80/M4	2	17
8.7	56.1	35.8	80.0	86.9	80.0	2.6	153	82.0	2.2	27.492	16.750	g500-H210	m550-P80/M4	2	18
8.6	56.6	35.5	81.0	86.0	81.0	3.5	152	83.0	2.9	27.620	16.923	g500-H320	m550-P80/M4	2	20
8.2	59.4	33.8	85.0	82.0	85.0	1.2	145	87.0	1.0	27.300	17.750	g500-H100	m550-P80/M4	2	16
8.2	59.4	33.8	85.0	81.9	85.0	4.3	145	87.0	3.5	28.483	17.755	g500-H600	m550-P80/M4	2	35
8.2	59.6	33.7	85.0	81.7	85.0	1.7	144	87.0	1.4	27.345	17.802	g500-H140	m550-P80/M4	2	17



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
8.0	61.1	32.9	87.0	79.7	87.0	3.6	141	89.0	2.9	27.538	18.250	g500-H320	m550-P80/M4	2	20
7.8	62.8	32.0	90.0	77.6	90.0	2.4	137	92.0	1.9	27.485	18.750	g500-H210	m550-P80/M4	2	18
7.5	65.2	30.8	93.0	74.7	93.0	1.1	132	95.0	0.9	27.269	19.486	g500-H100	m550-P80/M4	2	16
7.4	66.1	30.4	94.0	73.7	94.0	1.5	130	96.0	1.2	27.314	19.750	g500-H140	m550-P80/M4	2	17
7.0	69.4	28.9	99.0	70.2	99.0	3.0	124	101	2.5	27.521	20.731	g500-H320	m550-P80/M4	2	20
6.7	73.0	27.5	104	66.7	104	1.3	118	106	1.1	27.311	21.808	g500-H140	m550-P80/M4	2	17
6.7	73.0	27.5	104	66.7	104	2.0	118	106	1.7	27.382	21.802	g500-H210	m550-P80/M4	2	18
6.6	74.2	27.1	106	65.6	106	3.6	116	108	2.9	27.727	22.170	g500-H450	m550-P80/M4	2	24
6.5	74.7	26.9	107	65.2	107	0.9	115	109	0.8	27.267	22.314	g500-H100	m550-P80/M4	2	16
6.1	79.5	25.3	113	61.3	113	2.8	108	116	2.3	27.409	23.754	g500-H320	m550-P80/M4	2	20
6.0	81.7	24.6	116	59.6	116	1.8	105	119	1.5	27.379	24.405	g500-H210	m550-P80/M4	2	18
5.9	83.1	24.2	119	58.6	119	1.2	103	121	1.0	27.277	24.829	g500-H140	m550-P80/M4	2	17
5.8	83.9	23.9	120	58.1	120	3.6	102	122	2.9	27.712	25.056	g500-H450	m550-P80/M4	2	24
5.8	84.0	23.9	120	58.0	120	0.8	102	122	0.7	27.248	25.095	g500-H100	m550-P80/M4	2	16
5.8	84.4	23.8	120	57.7	120	3.6	102	123	2.9	27.779	25.207	g500-H600	m550-P80/M4	2	35
5.4	90.3	22.2	129	53.9	129	2.5	95.1	132	2.3	27.400	26.983	g500-H320	m550-P80/M4	2	20
5.4	90.8	22.1	129	53.7	129	1.6	94.6	132	1.5	27.334	27.119	g500-H210	m550-P80/M4	2	18
5.3	91.8	21.9	131	53.1	131	1.1	93.6	134	1.0	27.274	27.415	g500-H140	m550-P80/M4	2	17
5.3	92.3	21.8	132	52.8	132	3.0	93.0	135	2.8	27.589	27.578	g500-H450	m550-P80/M4	2	24
5.2	94.8	21.2	135	51.4	135	3.6	90.6	138	3.3	27.757	28.310	g500-H600	m550-P80/M4	2	35
4.9	98.9	20.3	141	49.2	141	2.3	86.8	144	2.1	27.352	29.548	g500-H320	m550-P80/M4	2	20
4.8	102	19.8	145	47.9	145	1.5	84.5	148	1.4	27.332	30.357	g500-H210	m550-P80/M4	2	18
4.7	104	19.3	149	46.7	149	3.0	82.3	152	2.8	27.579	31.167	g500-H450	m550-P80/M4	2	24
4.7	105	19.1	150	46.4	150	3.0	81.8	153	2.8	27.623	31.356	g500-H600	m550-P80/M4	2	35
4.6	107	18.8	153	45.5	153	0.9	80.2	156	0.9	27.253	31.976	g500-H140	m550-P80/M4	2	17
4.3	112	17.9	160	43.3	160	2.0	76.4	164	1.9	27.346	33.564	g500-H320	m550-P80/M4	2	20
4.2	118	17.1	168	41.5	168	1.3	73.1	171	1.2	27.285	35.095	g500-H210	m550-P80/M4	2	18
4.1	118	17.0	168	41.3	168	3.0	72.8	172	2.8	27.608	35.214	g500-H600	m550-P80/M4	2	35
4.1	118	17.0	169	41.2	169	0.8	72.6	172	0.8	27.251	35.308	g500-H140	m550-P80/M4	2	17
4.1	120	16.8	170	40.8	170	2.6	71.9	174	2.5	27.444	35.689	g500-H450	m550-P80/M4	2	24
3.9	125	16.1	178	39.1	178	3.0	69.0	181	2.8	27.919	37.190	g500-H850	m550-P80/M4	2	44
3.8	128	15.7	183	38.1	183	1.4	67.1	187	1.3	27.295	38.238	g500-H320	m550-P80/M4	2	20
3.7	132	15.3	188	37.0	188	1.1	65.3	192	1.0	27.283	39.286	g500-H210	m550-P80/M4	2	18
3.7	132	15.0	188	36.4	188	3.2	64.2	192	2.6	27.962	39.925	g500-H600	m550-P80/M4	3	36
3.6	135	14.9	193	36.1	193	2.3	63.6	197	2.3	27.438	40.333	g500-H450	m550-P80/M4	2	24
3.6	136	14.8	194	35.9	194	2.7	63.2	198	2.7	27.464	40.578	g500-H600	m550-P80/M4	2	35
3.5	139	14.4	198	35.0	198	3.0	61.7	203	2.9	27.904	41.556	g500-H850	m550-P80/M4	2	44
3.4	143	14.1	203	34.2	203	0.9	60.2	208	0.9	27.262	42.593	g500-H210	m550-P80/M4	2	18
3.4	143	13.8	204	33.5	204	1.0	59.1	209	0.8	27.327	43.390	g500-H210	m550-P80/M4	3	18
3.3	144	13.7	205	33.3	205	2.9	58.7	210	2.4	27.858	43.676	g500-H600	m550-P80/M4	3	36
3.4	145	13.9	207	33.6	207	1.6	59.2	211	1.5	27.379	43.313	g500-H450	m550-P80/M4	2	24
3.4	145	13.8	207	33.5	207	1.4	59.1	212	1.3	27.292	43.436	g500-H320	m550-P80/M4	2	20
3.3	146	13.6	207	33.0	207	2.2	58.1	212	1.8	27.560	44.124	g500-H450	m550-P80/M4	3	24
3.2	151	13.3	215	32.2	215	2.6	56.8	220	2.6	27.731	45.136	g500-H850	m550-P80/M4	2	44
3.2	153	13.2	218	31.9	218	2.7	56.3	222	2.7	27.455	45.571	g500-H600	m550-P80/M4	2	35
3.1	155	12.9	222	31.4	222	1.0	55.3	226	1.0	27.270	46.407	g500-H320	m550-P80/M4	2	20
3.1	156	12.7	222	30.8	222	1.4	54.3	227	1.3	27.334	47.276	g500-H320	m550-P80/M4	3	20
3.1	160	12.6	228	30.5	228	0.9	53.8	233	0.9	27.261	47.679	g500-H210	m550-P80/M4	2	18
3.0	160	12.4	228	30.0	228	0.9	52.8	233	0.9	27.326	48.571	g500-H210	m550-P80/M4	3	18
3.0	162	12.2	231	29.7	231	2.6	52.3	236	2.4	27.850	49.051	g500-H600	m550-P80/M4	3	36
3.0	164	12.3	234	29.7	234	1.6	52.4	239	1.5	27.375	48.950	g500-H450	m550-P80/M4	2	24
2.9	164	12.0	234	29.2	234	1.9	51.4	240	1.8	27.556	49.867	g500-H450	m550-P80/M4	3	24



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
3.0	165	12.2	235	29.5	235	1.9	52.1	240	1.9	27.393	49.247	g500-H600	m550-P80/M4	2	35
2.9	169	11.9	241	28.8	241	2.6	50.9	246	2.6	27.722	50.433	g500-H850	m550-P80/M4	2	44
2.8	174	11.4	248	27.6	248	3.4	48.6	254	3.2	28.469	52.743	g500-H850	m550-P80/M4	3	45
2.8	177	11.4	252	27.6	252	1.0	48.7	257	1.0	27.267	52.715	g500-H320	m550-P80/M4	2	20
2.7	177	11.2	253	27.1	253	1.3	47.8	258	1.2	27.331	53.703	g500-H320	m550-P80/M4	3	20
2.7	183	11.0	261	26.6	261	1.0	46.8	267	1.0	27.316	54.750	g500-H450	m550-P80/M4	2	24
2.6	183	10.8	261	26.2	261	0.8	46.2	267	0.8	27.288	55.529	g500-H210	m550-P80/M4	3	18
2.6	184	10.8	262	26.1	262	2.3	46.0	268	2.1	27.664	55.710	g500-H600	m550-P80/M4	3	36
2.6	185	10.8	264	26.3	264	1.9	46.4	270	1.9	27.387	55.307	g500-H600	m550-P80/M4	2	35
2.6	186	10.6	266	25.8	266	1.7	45.4	271	1.6	27.451	56.469	g500-H450	m550-P80/M4	3	24
2.5	194	10.2	277	24.7	277	3.1	43.5	283	2.9	28.463	58.933	g500-H850	m550-P80/M4	3	45
2.4	200	9.9	284	24.0	284	1.1	42.4	291	1.1	27.293	60.502	g500-H320	m550-P80/M4	3	20
2.4	204	9.7	290	23.6	290	1.6	41.5	297	1.4	27.419	61.774	g500-H450	m550-P80/M4	3	24
2.3	206	9.6	294	23.3	294	2.0	41.0	301	1.9	27.659	62.566	g500-H600	m550-P80/M4	3	36
2.4	207	9.7	295	23.5	295	1.0	41.5	302	1.0	27.314	61.875	g500-H450	m550-P80/M4	2	24
2.3	208	9.6	297	23.4	297	1.3	41.2	304	1.2	27.325	62.250	g500-H600	m550-P80/M4	2	35
2.1	225	8.8	321	21.3	321	1.9	37.6	328	1.7	27.551	68.244	g500-H600	m550-P80/M4	3	36
2.1	227	8.7	323	21.2	323	1.0	37.3	330	0.9	27.291	68.726	g500-H320	m550-P80/M4	3	20
2.1	230	8.6	328	20.8	328	1.4	36.7	336	1.3	27.417	69.813	g500-H450	m550-P80/M4	3	24
2.1	234	8.6	334	20.8	334	1.3	36.7	341	1.2	27.321	69.911	g500-H600	m550-P80/M4	2	35
1.9	253	7.8	360	19.0	360	1.7	33.5	368	1.6	27.548	76.643	g500-H600	m550-P80/M4	3	36
1.9	255	7.8	364	18.8	364	0.9	33.1	372	0.8	27.262	77.387	g500-H320	m550-P80/M4	3	20
1.9	260	7.6	370	18.5	370	1.2	32.6	379	1.1	27.356	78.794	g500-H450	m550-P80/M4	3	24
1.7	277	7.1	395	17.3	395	2.2	30.5	404	2.1	27.751	84.096	g500-H850	m550-P80/M4	3	45
1.6	293	6.8	418	16.4	418	1.4	28.9	427	1.4	27.417	88.826	g500-H600	m550-P80/M4	3	36
1.6	294	6.7	419	16.3	419	1.1	28.8	428	1.1	27.355	89.048	g500-H450	m550-P80/M4	3	24
1.6	310	6.4	442	15.5	442	1.9	27.3	452	1.9	27.749	93.966	g500-H850	m550-P80/M4	3	45
1.5	318	6.2	454	15.1	454	1.0	26.6	464	1.0	27.318	96.522	g500-H450	m550-P80/M4	3	24
1.5	329	6.0	469	14.6	469	1.3	25.7	480	1.3	27.416	99.757	g500-H600	m550-P80/M4	3	36
1.4	345	5.7	492	13.9	492	1.7	24.5	503	1.7	27.605	104.607	g500-H850	m550-P80/M4	3	45
1.3	360	5.5	513	13.3	513	0.9	23.5	524	0.9	27.317	109.083	g500-H450	m550-P80/M4	3	24
1.3	364	5.4	520	13.2	520	1.2	23.2	531	1.1	27.357	110.491	g500-H600	m550-P80/M4	3	36
1.2	385	5.1	550	12.4	550	1.6	21.9	562	1.5	27.603	116.884	g500-H850	m550-P80/M4	3	45
1.2	409	4.8	583	11.7	583	1.0	20.7	596	1.0	27.356	124.088	g500-H600	m550-P80/M4	3	36
1.1	446	4.4	637	10.7	637	1.3	18.9	651	1.3	27.453	135.373	g500-H850	m550-P80/M4	3	45
1.0	471	4.2	672	10.2	672	0.9	17.9	687	0.9	27.298	142.988	g500-H600	m550-P80/M4	3	36
1.0	499	4.0	711	9.6	711	1.2	17.0	727	1.2	27.452	151.262	g500-H850	m550-P80/M4	3	45
0.9	542	3.7	772	8.9	772	1.1	15.6	790	1.1	27.386	164.294	g500-H850	m550-P80/M4	3	45
0.8	603	3.3	860	8.0	860	1.7	14.0	879	1.7	27.878	182.844	g500-H1500	m550-P80/M4	3	75
0.8	605	3.3	863	7.9	863	1.0	14.0	882	1.0	27.385	183.577	g500-H850	m550-P80/M4	3	45
0.7	660	3.0	941	7.2	941	3.0	12.6	962	3.0	28.713	203.178	g500-H3000	m550-P80/M4	4	123
0.7	661	2.9	943	7.1	943	1.6	12.6	964	1.6	27.923	203.537	g500-H1500	m550-P80/M4	4	78
0.7	667	3.0	951	7.2	951	1.6	12.7	972	1.5	27.876	202.237	g500-H1500	m550-P80/M4	3	75
0.7	684	2.9	975	6.9	975	0.9	12.2	997	0.9	27.464	210.484	g500-H850	m550-P80/M4	4	48
0.7	685	2.9	976	7.0	976	0.9	12.4	998	0.9	27.320	207.675	g500-H850	m550-P80/M4	3	45
0.7	732	2.7	1043	6.6	1043	1.4	11.6	1067	1.4	27.703	221.907	g500-H1500	m550-P80/M4	3	75
0.6	731	2.7	1043	6.5	1043	1.4	11.4	1066	1.4	27.922	225.125	g500-H1500	m550-P80/M4	4	78
0.6	736	2.6	1049	6.4	1049	2.5	11.3	1073	2.5	28.252	226.604	g500-H3000	m550-P80/M4	4	123
0.6	808	2.4	1153	5.8	1153	2.6	10.3	1178	2.5	28.250	248.893	g500-H3000	m550-P80/M4	4	123
0.6	809	2.4	1154	5.9	1154	1.3	10.5	1180	1.3	27.703	245.442	g500-H1500	m550-P80/M4	3	75
0.6	826	2.4	1178	5.7	1178	1.3	10.1	1205	1.3	27.566	254.431	g500-H1500	m550-P80/M4	4	78
0.5	914	2.1	1303	5.2	1303	1.2	9.1	1332	1.1	27.566	281.416	g500-H1500	m550-P80/M4	4	78



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
0.5	925	2.1	1319	5.2	1319	1.1	9.1	1348	1.1	27.525	280.500	g500-H1500	m550-P80/M4	3	75
0.5	950	2.1	1355	5.0	1355	2.2	8.8	1385	2.2	28.419	292.511	g500-H3000	m550-P80/M4	4	123
0.5	1023	1.9	1459	4.7	1459	1.0	8.3	1491	1.0	27.525	310.250	g500-H1500	m550-P80/M4	3	75
0.5	1028	1.9	1466	4.6	1466	1.0	8.1	1499	1.0	27.453	316.487	g500-H1500	m550-P80/M4	4	78
0.5	1043	1.9	1488	4.5	1488	2.0	8.0	1521	2.0	28.418	321.282	g500-H3000	m550-P80/M4	4	123
0.4	1137	1.7	1621	4.2	1621	0.9	7.3	1657	0.9	27.453	350.054	g500-H1500	m550-P80/M4	4	78
0.4	1222	1.6	1743	3.9	1743	1.7	6.8	1782	1.7	27.870	376.393	g500-H3000	m550-P80/M4	4	123
0.4	1291	1.5	1841	3.7	1841	0.8	6.5	1882	0.8	27.490	397.548	g500-H1500	m550-P80/M4	4	78
0.4	1343	1.5	1915	3.5	1915	1.6	6.2	1957	1.5	27.869	413.415	g500-H3000	m550-P80/M4	4	123
0.3	1484	1.3	2117	3.2	2117	1.4	5.6	2164	1.4	27.781	457.048	g500-H3000	m550-P80/M4	4	123
0.3	1591	1.2	2269	3.0	2269	1.3	5.2	2320	1.3	27.606	489.908	g500-H3000	m550-P80/M4	4	123
0.3	1748	1.1	2492	2.7	2492	1.2	4.8	2548	1.2	27.605	538.095	g500-H3000	m550-P80/M4	4	123
0.2	1932	1.0	2755	2.4	2755	1.1	4.3	2817	1.1	27.553	594.888	g500-H3000	m550-P80/M4	4	123
0.2	2122	0.9	3026	2.2	3026	1.0	3.9	3094	1.0	27.553	653.402	g500-H3000	m550-P80/M4	4	123
0.2	2403	0.8	3427	2.0	3427	0.9	3.5	3504	0.9	27.444	739.983	g500-H3000	m550-P80/M4	4	123
0.2	2561	0.8	3652	1.8	3652	0.8	3.3	3734	0.8	27.371	788.632	g500-H3000	m550-P80/M4	4	123



50 Hz: 1.1 kW

87 Hz: 1.9 kW

Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)								
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
69.7	10.3	285	15.0	695	15.0	3.3	1221	14.0	2.8	54.400	2.108	g500-H100	m550-P90/M4	2	21
45.0	15.9	184	23.0	449	23.0	3.6	788	22.0	3.1	54.702	3.267	g500-H140	m550-P90/M4	2	22
43.8	16.3	179	23.0	437	23.0	2.7	768	23.0	2.3	54.325	3.354	g500-H100	m550-P90/M4	2	21
32.8	21.8	134	31.0	327	31.0	3.0	575	31.0	2.6	54.336	4.480	g500-H140	m550-P90/M4	2	22
32.0	22.4	130	32.0	319	32.0	2.3	560	31.0	1.9	54.135	4.600	g500-H100	m550-P90/M4	2	21
31.6	22.6	129	32.0	315	32.0	4.4	554	32.0	3.8	54.777	4.648	g500-H210	m550-P90/M4	2	23
28.5	25.2	116	36.0	284	36.0	2.1	498	35.0	1.8	54.229	5.167	g500-H100	m550-P90/M4	2	21
26.3	27.2	108	39.0	262	39.0	4.1	461	38.0	3.5	55.043	5.583	g500-H210	m550-P90/M4	2	23
25.6	27.9	105	40.0	256	40.0	2.6	449	39.0	2.2	54.159	5.733	g500-H140	m550-P90/M4	2	22
25.0	28.7	102	41.0	249	41.0	2.0	437	40.0	1.7	54.036	5.887	g500-H100	m550-P90/M4	2	21
23.5	30.4	96.0	43.0	234	43.0	3.6	412	43.0	3.1	54.984	6.250	g500-H210	m550-P90/M4	2	23
23.4	30.5	95.7	44.0	234	44.0	2.4	411	43.0	2.0	54.109	6.272	g500-H140	m550-P90/M4	2	22
22.8	31.4	93.2	45.0	228	45.0	1.9	400	44.0	1.6	54.007	6.440	g500-H100	m550-P90/M4	2	21
21.3	33.7	86.8	48.0	212	48.0	4.5	373	47.0	3.9	55.309	6.910	g500-H320	m550-P90/M4	2	25
20.7	34.5	84.7	49.0	207	49.0	1.7	363	48.0	1.5	54.085	7.086	g500-H100	m550-P90/M4	2	21
20.2	35.4	82.5	51.0	202	51.0	2.1	354	50.0	1.8	54.305	7.269	g500-H140	m550-P90/M4	2	22
19.2	37.3	78.4	53.0	191	53.0	3.2	336	52.0	2.7	54.625	7.657	g500-H210	m550-P90/M4	2	23
18.4	39.0	75.0	56.0	183	56.0	2.1	322	55.0	1.8	54.011	8.000	g500-H140	m550-P90/M4	2	22
17.9	40.0	73.0	57.0	178	57.0	1.6	314	56.0	1.4	53.948	8.214	g500-H100	m550-P90/M4	2	21
17.6	40.6	71.9	58.0	176	58.0	4.3	309	57.0	3.7	54.844	8.343	g500-H320	m550-P90/M4	2	25
17.1	41.7	70.0	60.0	171	60.0	2.9	300	59.0	2.4	54.593	8.571	g500-H210	m550-P90/M4	2	23
16.3	44.0	66.5	63.0	162	63.0	1.9	285	62.0	1.6	54.142	9.029	g500-H140	m550-P90/M4	2	22
16.2	44.2	66.2	63.0	162	63.0	1.5	284	62.0	1.3	54.005	9.068	g500-H100	m550-P90/M4	2	21
15.5	46.2	63.3	66.0	155	66.0	3.6	272	65.0	3.1	54.766	9.477	g500-H320	m550-P90/M4	2	25
15.0	47.7	61.2	68.0	150	68.0	1.8	263	67.0	1.6	53.955	9.800	g500-H140	m550-P90/M4	2	22
15.0	47.7	61.2	68.0	150	68.0	2.7	263	67.0	2.3	54.389	9.799	g500-H210	m550-P90/M4	2	23
14.6	49.0	59.6	70.0	146	70.0	1.4	256	69.0	1.2	53.913	10.063	g500-H100	m550-P90/M4	2	21
13.8	52.0	56.2	74.0	137	74.0	3.6	241	73.0	3.0	54.523	10.677	g500-H320	m550-P90/M4	2	25
13.7	52.2	56.0	75.0	137	75.0	2.5	240	73.0	2.2	54.313	10.720	g500-H210	m550-P90/M4	2	23
12.9	55.3	52.8	79.0	129	79.0	1.3	227	78.0	1.1	53.975	11.360	g500-H100	m550-P90/M4	2	21
12.7	56.3	51.9	80.0	127	80.0	1.6	223	79.0	1.4	54.040	11.554	g500-H140	m550-P90/M4	2	22
12.6	56.9	51.4	81.0	125	81.0	3.3	221	80.0	2.8	54.425	11.680	g500-H320	m550-P90/M4	2	25
12.3	58.4	50.0	83.0	122	83.0	2.2	215	82.0	1.9	54.297	12.000	g500-H210	m550-P90/M4	2	23
12.1	59.1	49.5	84.0	121	84.0	3.0	212	83.0	2.6	54.476	12.128	g500-H320	m550-P90/M4	2	25
11.9	60.0	48.7	86.0	119	86.0	4.8	209	84.0	4.1	55.363	12.320	g500-H450	m550-P90/M4	2	29
11.6	61.6	47.5	88.0	116	88.0	1.5	204	86.0	1.3	54.010	12.640	g500-H140	m550-P90/M4	2	22
11.6	61.6	47.4	88.0	116	88.0	1.1	204	87.0	1.0	53.932	12.653	g500-H100	m550-P90/M4	2	21
11.1	64.6	45.2	92.0	110	92.0	2.8	194	91.0	2.4	54.386	13.268	g500-H320	m550-P90/M4	2	25
10.8	66.6	43.9	95.0	107	95.0	2.1	188	94.0	1.8	54.175	13.673	g500-H210	m550-P90/M4	2	23
10.6	67.7	43.2	97.0	105	97.0	4.4	185	95.0	3.7	55.006	13.905	g500-H450	m550-P90/M4	2	29
10.5	68.0	43.0	97.0	105	97.0	1.4	185	95.0	1.2	54.001	13.957	g500-H140	m550-P90/M4	2	22
10.1	70.6	41.4	101	101	101	1.0	178	99.0	0.8	53.929	14.490	g500-H100	m550-P90/M4	2	21
9.9	72.6	40.3	104	98.3	104	2.8	173	102	2.4	54.244	14.898	g500-H320	m550-P90/M4	2	25
9.6	74.5	39.2	106	95.7	106	1.9	168	105	1.6	54.165	15.306	g500-H210	m550-P90/M4	2	23
9.5	75.5	38.7	108	94.5	108	0.9	166	106	0.8	53.902	15.500	g500-H100	m550-P90/M4	2	21
9.4	76.5	38.2	109	93.2	109	4.0	164	107	3.4	54.969	15.714	g500-H450	m550-P90/M4	2	29
9.1	78.5	37.2	112	90.9	112	1.3	160	110	1.1	53.950	16.122	g500-H140	m550-P90/M4	2	22
8.8	81.6	35.8	117	87.5	117	1.8	154	115	1.5	54.092	16.750	g500-H210	m550-P90/M4	2	23
8.7	82.4	35.5	118	86.6	118	2.4	152	116	2.0	54.220	16.923	g500-H320	m550-P90/M4	2	25
8.6	83.0	35.2	118	86.0	118	3.8	151	117	3.2	54.749	17.033	g500-H450	m550-P90/M4	2	29



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
8.3	86.5	33.8	123	82.5	123	0.8	145	121	0.7	53.900	17.750	g500-H100	m550-P90/M4	2	21
8.3	86.5	33.8	124	82.5	124	4.9	145	121	4.1	55.083	17.755	g500-H600	m550-P90/M4	2	40
8.3	86.7	33.7	124	82.3	124	1.1	145	122	1.0	53.945	17.802	g500-H140	m550-P90/M4	2	22
8.1	88.9	32.9	127	80.3	127	2.5	141	125	2.1	54.138	18.250	g500-H320	m550-P90/M4	2	25
7.8	91.3	32.0	130	78.1	130	1.6	137	128	1.4	54.085	18.750	g500-H210	m550-P90/M4	2	23
7.6	93.8	31.2	134	76.1	134	3.4	134	132	2.8	54.725	19.250	g500-H450	m550-P90/M4	2	29
7.6	94.3	31.0	135	75.6	135	4.5	133	132	3.8	54.838	19.367	g500-H600	m550-P90/M4	2	40
7.4	96.2	30.4	137	74.2	137	1.0	130	135	0.9	53.914	19.750	g500-H140	m550-P90/M4	2	22
7.1	101	28.9	144	70.7	144	2.1	124	142	1.8	54.121	20.731	g500-H320	m550-P90/M4	2	25
6.8	106	27.6	151	67.4	151	4.0	118	149	3.4	54.800	21.750	g500-H600	m550-P90/M4	2	40
6.7	106	27.5	152	67.2	152	0.9	118	149	0.8	53.911	21.808	g500-H140	m550-P90/M4	2	22
6.7	106	27.5	152	67.2	152	1.4	118	149	1.2	53.982	21.802	g500-H210	m550-P90/M4	2	23
6.6	108	27.1	154	66.1	154	2.9	116	152	2.5	54.327	22.170	g500-H450	m550-P90/M4	2	29
6.4	113	26.0	161	63.4	161	4.9	112	158	4.2	55.453	23.103	g500-H850	m550-P90/M4	2	49
6.2	116	25.3	165	61.7	165	1.9	108	162	1.6	54.009	23.754	g500-H320	m550-P90/M4	2	25
6.0	119	24.6	170	60.0	170	1.2	106	167	1.1	53.979	24.405	g500-H210	m550-P90/M4	2	23
5.9	122	23.9	174	58.5	174	2.6	103	171	2.2	54.312	25.056	g500-H450	m550-P90/M4	2	29
5.8	123	23.8	175	58.1	175	3.4	102	172	2.9	54.379	25.207	g500-H600	m550-P90/M4	2	40
5.7	126	23.2	180	56.8	180	4.7	99.7	177	4.0	55.415	25.815	g500-H850	m550-P90/M4	2	49
5.4	131	22.2	188	54.3	188	1.7	95.4	185	1.7	54.000	26.983	g500-H320	m550-P90/M4	2	25
5.4	132	22.1	189	54.0	189	1.1	95.0	185	1.1	53.934	27.119	g500-H210	m550-P90/M4	2	23
5.3	134	21.8	192	53.1	192	2.4	93.4	189	2.3	54.189	27.578	g500-H450	m550-P90/M4	2	29
5.2	138	21.2	197	51.7	197	3.1	91.0	194	2.9	54.357	28.310	g500-H600	m550-P90/M4	2	40
5.2	138	21.2	197	51.7	197	4.1	90.9	194	3.9	54.941	28.315	g500-H850	m550-P90/M4	2	49
5.0	144	20.3	206	49.6	206	1.6	87.1	202	1.5	53.952	29.548	g500-H320	m550-P90/M4	2	25
4.8	148	19.8	211	48.3	211	1.0	84.8	208	1.0	53.932	30.357	g500-H210	m550-P90/M4	2	23
4.7	150	19.2	214	47.0	214	2.8	82.5	210	2.4	54.908	31.197	g500-H600	m550-P90/M4	3	41
4.7	152	19.3	217	47.0	217	2.1	82.6	213	2.0	54.179	31.167	g500-H450	m550-P90/M4	2	29
4.7	153	19.1	218	46.7	218	2.8	82.1	214	2.7	54.223	31.356	g500-H600	m550-P90/M4	2	40
4.6	154	19.0	220	46.3	220	3.9	81.4	216	3.7	54.916	31.639	g500-H850	m550-P90/M4	2	49
4.6	157	18.6	224	45.4	224	4.1	79.8	221	3.9	56.163	32.267	g500-H1500	m550-P90/M4	2	79
4.4	164	17.9	233	43.6	233	1.4	76.7	230	1.3	53.946	33.564	g500-H320	m550-P90/M4	2	25
4.2	168	17.1	240	41.8	240	2.5	73.5	236	2.1	54.893	35.037	g500-H600	m550-P90/M4	3	41
4.2	172	17.0	245	41.6	245	2.5	73.1	241	2.4	54.208	35.214	g500-H600	m550-P90/M4	2	40
4.1	174	16.8	248	41.0	248	1.8	72.2	244	1.8	54.044	35.689	g500-H450	m550-P90/M4	2	29
4.1	174	16.8	248	41.0	248	4.1	72.2	244	3.9	56.125	35.689	g500-H1500	m550-P90/M4	2	79
4.0	181	16.1	259	39.4	259	3.3	69.2	254	3.2	54.519	37.190	g500-H850	m550-P90/M4	2	49
3.9	181	15.9	259	38.8	259	3.3	68.1	255	2.8	55.732	37.799	g500-H850	m550-P90/M4	3	50
3.8	191	15.3	272	37.4	272	3.6	65.8	268	3.4	55.537	39.160	g500-H1500	m550-P90/M4	2	79
3.7	192	15.0	274	36.7	274	2.2	64.5	269	1.9	54.562	39.925	g500-H600	m550-P90/M4	3	41
3.6	196	14.9	281	36.3	281	1.6	63.8	276	1.6	54.038	40.333	g500-H450	m550-P90/M4	2	29
3.6	198	14.8	282	36.1	282	2.0	63.5	278	2.0	54.064	40.578	g500-H600	m550-P90/M4	2	40
3.6	198	14.5	283	35.4	283	3.0	62.3	279	2.6	55.526	41.350	g500-H850	m550-P90/M4	3	50
3.5	202	14.4	289	35.3	289	2.9	62.0	284	3.0	54.504	41.556	g500-H850	m550-P90/M4	2	49
3.4	210	13.7	299	33.5	299	2.0	59.0	294	1.7	54.458	43.676	g500-H600	m550-P90/M4	3	41
3.4	211	13.9	301	33.8	301	1.1	59.5	296	1.1	53.979	43.313	g500-H450	m550-P90/M4	2	29
3.4	211	13.9	301	33.8	301	3.6	59.5	296	3.6	55.511	43.313	g500-H1500	m550-P90/M4	2	79
3.3	212	13.6	302	33.2	302	1.5	58.4	297	1.3	54.160	44.124	g500-H450	m550-P90/M4	3	29
3.3	220	13.3	314	32.5	314	2.7	57.1	309	2.8	54.331	45.136	g500-H850	m550-P90/M4	2	49
3.2	222	13.2	317	32.1	317	1.9	56.5	312	1.9	54.055	45.571	g500-H600	m550-P90/M4	2	40
3.2	222	13.0	317	31.7	317	2.7	55.7	311	2.6	55.515	46.204	g500-H850	m550-P90/M4	3	50
3.0	235	12.2	336	29.9	336	1.8	52.5	330	1.7	54.450	49.051	g500-H600	m550-P90/M4	3	41



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)			J	i			z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
3.0	238	12.3	341	29.9	341	1.1	52.6	335	1.1	53.975	48.950	g500-H450	m550-P90/M4	2	29
2.9	239	12.0	342	29.4	342	1.3	51.6	336	1.3	54.156	49.867	g500-H450	m550-P90/M4	3	29
3.0	240	12.2	343	29.7	343	1.3	52.3	337	1.4	53.993	49.247	g500-H600	m550-P90/M4	2	40
3.0	241	12.1	344	29.6	344	2.7	52.0	339	2.8	54.950	49.500	g500-H1500	m550-P90/M4	2	79
2.9	246	11.9	351	29.0	351	2.4	51.1	345	2.5	54.322	50.433	g500-H850	m550-P90/M4	2	49
2.8	253	11.4	361	27.8	361	2.4	48.8	355	2.3	55.069	52.743	g500-H850	m550-P90/M4	3	50
2.7	267	11.0	381	26.8	381	2.7	47.0	374	2.8	54.934	54.750	g500-H1500	m550-P90/M4	2	79
2.6	267	10.8	382	26.3	382	1.6	46.2	375	1.5	54.264	55.710	g500-H600	m550-P90/M4	3	41
2.7	269	10.8	385	26.5	385	1.3	46.6	378	1.4	53.987	55.307	g500-H600	m550-P90/M4	2	40
2.6	271	10.6	387	25.9	387	1.2	45.6	380	1.1	54.051	56.469	g500-H450	m550-P90/M4	3	29
2.5	283	10.2	404	24.9	404	2.1	43.7	397	2.0	55.063	58.933	g500-H850	m550-P90/M4	3	50
2.4	296	9.7	423	23.7	423	1.1	41.7	416	1.0	54.019	61.774	g500-H450	m550-P90/M4	3	29
2.3	300	9.6	429	23.4	429	1.4	41.2	422	1.4	54.259	62.566	g500-H600	m550-P90/M4	3	41
2.3	310	9.3	443	22.7	443	1.9	39.9	435	1.9	54.792	64.610	g500-H850	m550-P90/M4	3	50
2.2	327	8.8	468	21.5	468	1.3	37.7	460	1.2	54.151	68.244	g500-H600	m550-P90/M4	3	41
2.1	335	8.6	478	21.0	478	0.9	36.9	470	0.9	54.017	69.813	g500-H450	m550-P90/M4	3	29
2.1	342	8.4	488	20.6	488	3.1	36.1	480	3.0	56.591	71.238	g500-H1500	m550-P90/M4	3	80
2.0	346	8.3	495	20.3	495	1.7	35.7	486	1.7	54.787	72.193	g500-H850	m550-P90/M4	3	50
1.9	368	7.8	525	19.1	525	1.1	33.6	516	1.1	54.148	76.643	g500-H600	m550-P90/M4	3	41
1.9	378	7.6	540	18.6	540	0.8	32.7	531	0.8	53.956	78.794	g500-H450	m550-P90/M4	3	29
1.9	378	7.6	540	18.6	540	2.8	32.7	531	2.7	56.583	78.794	g500-H1500	m550-P90/M4	3	80
1.7	403	7.1	576	17.4	576	1.5	30.6	567	1.5	54.351	84.096	g500-H850	m550-P90/M4	3	50
1.7	426	6.8	609	16.5	609	1.0	29.0	598	1.0	54.017	88.826	g500-H600	m550-P90/M4	3	41
1.6	451	6.4	644	15.6	644	1.3	27.4	633	1.3	54.349	93.966	g500-H850	m550-P90/M4	3	50
1.5	479	6.0	684	14.7	684	0.9	25.8	672	0.9	54.016	99.757	g500-H600	m550-P90/M4	3	41
1.4	502	5.7	717	14.0	717	1.2	24.6	705	1.2	54.205	104.607	g500-H850	m550-P90/M4	3	50
1.3	545	5.3	778	12.9	778	1.9	22.7	765	2.0	55.475	113.585	g500-H1500	m550-P90/M4	3	80
1.3	561	5.1	801	12.5	801	1.1	22.0	788	1.1	54.203	116.884	g500-H850	m550-P90/M4	3	50
1.2	603	4.8	861	11.7	861	1.7	20.5	846	1.8	55.472	125.632	g500-H1500	m550-P90/M4	3	80
1.1	649	4.4	928	10.8	928	0.9	19.0	912	0.9	54.053	135.373	g500-H850	m550-P90/M4	3	50
1.1	668	4.3	954	10.5	954	1.6	18.5	938	1.6	54.870	139.211	g500-H1500	m550-P90/M4	3	80
1.0	726	4.0	1036	9.7	1036	0.8	17.0	1019	0.8	54.052	151.262	g500-H850	m550-P90/M4	3	50
1.0	739	3.9	1055	9.5	1055	1.4	16.7	1037	1.5	54.868	153.976	g500-H1500	m550-P90/M4	3	80
0.9	811	3.6	1158	8.7	1158	2.6	15.2	1139	2.6	56.061	168.993	g500-H3000	m550-P90/M4	3	125
0.8	877	3.3	1253	8.0	1253	1.2	14.1	1232	1.2	54.478	182.844	g500-H1500	m550-P90/M4	3	80
0.8	891	3.2	1272	7.9	1272	2.4	13.9	1251	2.4	56.057	185.615	g500-H3000	m550-P90/M4	3	125
0.7	960	3.0	1371	7.2	1371	2.1	12.7	1348	2.1	55.313	203.178	g500-H3000	m550-P90/M4	4	128
0.7	962	2.9	1374	7.2	1374	1.1	12.7	1351	1.1	54.523	203.537	g500-H1500	m550-P90/M4	4	83
0.7	970	3.0	1386	7.2	1386	1.1	12.7	1363	1.1	54.476	202.237	g500-H1500	m550-P90/M4	3	80
0.7	984	2.9	1405	7.1	1405	2.1	12.6	1382	2.2	55.467	205.096	g500-H3000	m550-P90/M4	3	125
0.7	1064	2.7	1519	6.5	1519	1.0	11.4	1494	1.0	54.522	225.125	g500-H1500	m550-P90/M4	4	83
0.7	1065	2.7	1521	6.6	1521	1.0	11.6	1495	1.0	54.303	221.907	g500-H1500	m550-P90/M4	3	80
0.6	1071	2.6	1529	6.5	1529	1.7	11.4	1504	1.8	54.852	226.604	g500-H3000	m550-P90/M4	4	128
0.7	1081	2.7	1544	6.5	1544	1.9	11.4	1518	2.0	55.465	225.269	g500-H3000	m550-P90/M4	3	125
0.6	1176	2.4	1680	5.9	1680	1.8	10.3	1652	1.8	54.850	248.893	g500-H3000	m550-P90/M4	4	128
0.6	1178	2.4	1682	6.0	1682	0.9	10.5	1654	0.9	54.303	245.442	g500-H1500	m550-P90/M4	3	80
0.6	1202	2.4	1717	5.8	1717	0.9	10.1	1689	0.9	54.166	254.431	g500-H1500	m550-P90/M4	4	83
0.6	1244	2.3	1776	5.7	1776	1.7	9.9	1747	1.7	54.907	259.250	g500-H3000	m550-P90/M4	3	125
0.5	1366	2.1	1951	5.1	1951	1.5	9.0	1918	1.6	54.905	284.750	g500-H3000	m550-P90/M4	3	125
0.5	1382	2.1	1974	5.0	1974	1.5	8.8	1941	1.6	55.019	292.511	g500-H3000	m550-P90/M4	4	128
0.5	1518	1.9	2168	4.6	2168	1.4	8.0	2132	1.4	55.018	321.282	g500-H3000	m550-P90/M4	4	128
0.4	1779	1.6	2540	3.9	2540	1.2	6.8	2498	1.2	54.470	376.393	g500-H3000	m550-P90/M4	4	128



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n_{22}	M_{22}	n_{21}	M_2	n_2	M_2	c	n_2	M_2	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
0.4	1954	1.5	2790	3.5	2790	1.1	6.2	2744	1.1	54.469	413.415	g500-H3000	m550-P90/M4	4	128
0.3	2160	1.3	3085	3.2	3085	1.0	5.6	3033	1.0	54.381	457.048	g500-H3000	m550-P90/M4	4	128
0.3	2315	1.2	3307	3.0	3307	0.9	5.3	3251	0.9	54.206	489.908	g500-H3000	m550-P90/M4	4	128
0.3	2543	1.1	3632	2.7	3632	0.8	4.8	3571	0.8	54.205	538.095	g500-H3000	m550-P90/M4	4	128



50 Hz: 1.5 kW

87 Hz: 2.6 kW

Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)								
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
69.7	14.0	285	20.0	695	20.0	2.5	1221	20.0	2.1	58.900	2.108	g500-H100	m550-P90/L4	2	22
45.0	21.7	184	31.0	449	31.0	2.7	788	31.0	2.2	59.202	3.267	g500-H140	m550-P90/L4	2	23
43.8	22.3	179	32.0	437	32.0	2.0	768	31.0	1.7	58.825	3.354	g500-H100	m550-P90/L4	2	22
43.4	22.5	177	32.0	432	32.0	3.9	760	32.0	3.3	59.830	3.389	g500-H210	m550-P90/L4	2	24
43.4	22.5	177	32.0	432	32.0	4.4	760	32.0	3.7	59.525	3.389	g500-H320	m550-P90/L4	2	26
32.8	29.7	134	43.0	327	43.0	2.2	575	42.0	1.9	58.836	4.480	g500-H140	m550-P90/L4	2	23
32.0	30.5	130	44.0	319	44.0	1.7	560	43.0	1.4	58.635	4.600	g500-H100	m550-P90/L4	2	22
31.6	30.8	129	44.0	315	44.0	3.2	554	43.0	2.8	59.277	4.648	g500-H210	m550-P90/L4	2	24
31.6	30.8	129	44.0	315	44.0	4.3	554	43.0	3.6	59.115	4.648	g500-H320	m550-P90/L4	2	26
28.5	34.3	116	49.0	284	49.0	1.5	498	48.0	1.3	58.729	5.167	g500-H100	m550-P90/L4	2	22
26.3	37.1	108	53.0	262	53.0	3.0	461	52.0	2.5	59.543	5.583	g500-H210	m550-P90/L4	2	24
25.6	38.0	105	54.0	256	54.0	1.9	449	54.0	1.6	58.659	5.733	g500-H140	m550-P90/L4	2	23
25.6	38.0	105	54.0	256	54.0	4.3	449	54.0	3.6	61.166	5.733	g500-H600	m550-P90/L4	2	41
25.0	39.1	102	56.0	249	56.0	1.5	437	55.0	1.2	58.536	5.887	g500-H100	m550-P90/L4	2	22
24.3	40.1	99.2	57.0	242	57.0	4.3	426	57.0	3.6	60.531	6.045	g500-H450	m550-P90/L4	2	30
24.2	40.4	98.6	58.0	241	58.0	3.9	423	57.0	3.3	59.955	6.083	g500-H320	m550-P90/L4	2	26
23.5	41.5	96.0	59.0	234	59.0	2.7	412	58.0	2.3	59.484	6.250	g500-H210	m550-P90/L4	2	24
23.4	41.6	95.7	60.0	234	60.0	1.8	411	59.0	1.5	58.609	6.272	g500-H140	m550-P90/L4	2	23
22.8	42.7	93.2	61.0	228	61.0	1.4	400	60.0	1.2	58.507	6.440	g500-H100	m550-P90/L4	2	22
22.2	43.9	90.7	63.0	222	63.0	4.4	389	62.0	3.7	60.276	6.613	g500-H450	m550-P90/L4	2	30
21.3	45.9	86.8	66.0	212	66.0	3.3	373	65.0	2.8	59.809	6.910	g500-H320	m550-P90/L4	2	26
20.7	47.0	84.7	67.0	207	67.0	1.3	363	66.0	1.1	58.585	7.086	g500-H100	m550-P90/L4	2	22
20.2	48.2	82.5	69.0	202	69.0	1.5	354	68.0	1.3	58.805	7.269	g500-H140	m550-P90/L4	2	23
19.2	50.8	78.4	73.0	191	73.0	2.4	336	72.0	2.0	59.125	7.657	g500-H210	m550-P90/L4	2	24
18.4	53.1	75.0	76.0	183	76.0	1.5	322	75.0	1.3	58.511	8.000	g500-H140	m550-P90/L4	2	23
17.9	54.5	73.0	78.0	178	78.0	1.2	314	77.0	1.0	58.448	8.214	g500-H100	m550-P90/L4	2	22
17.6	55.4	71.9	79.0	176	79.0	3.2	309	78.0	2.7	59.344	8.343	g500-H320	m550-P90/L4	2	26
17.1	56.9	70.0	81.0	171	81.0	2.1	300	80.0	1.8	59.093	8.571	g500-H210	m550-P90/L4	2	24
16.3	59.9	66.5	86.0	162	86.0	1.4	285	84.0	1.2	58.642	9.029	g500-H140	m550-P90/L4	2	23
16.2	60.2	66.2	86.0	162	86.0	1.1	284	85.0	1.0	58.505	9.068	g500-H100	m550-P90/L4	2	22
15.5	62.9	63.3	90.0	155	90.0	2.7	272	89.0	2.2	59.266	9.477	g500-H320	m550-P90/L4	2	26
15.0	65.0	61.2	93.0	150	93.0	1.3	263	92.0	1.1	58.455	9.800	g500-H140	m550-P90/L4	2	23
15.0	65.0	61.2	93.0	150	93.0	2.0	263	92.0	1.7	58.889	9.799	g500-H210	m550-P90/L4	2	24
14.8	66.1	60.2	95.0	147	95.0	4.1	258	93.0	3.5	60.109	9.965	g500-H450	m550-P90/L4	2	30
14.6	66.8	59.6	95.0	146	95.0	1.0	256	94.0	0.9	58.413	10.063	g500-H100	m550-P90/L4	2	22
13.8	70.9	56.2	101	137	101	2.6	241	100	2.2	59.023	10.677	g500-H320	m550-P90/L4	2	26
13.7	71.1	56.0	102	137	102	1.9	240	100	1.6	58.813	10.720	g500-H210	m550-P90/L4	2	24
13.1	74.7	53.3	107	130	107	3.7	229	105	3.2	60.037	11.262	g500-H450	m550-P90/L4	2	30
13.0	75.2	53.0	108	129	108	4.3	227	106	3.6	60.369	11.330	g500-H600	m550-P90/L4	2	41
12.9	75.4	52.8	108	129	108	0.9	227	106	0.8	58.475	11.360	g500-H100	m550-P90/L4	2	22
12.7	76.7	51.9	110	127	110	1.2	223	108	1.0	58.540	11.554	g500-H140	m550-P90/L4	2	23
12.6	77.5	51.4	111	125	111	2.5	221	109	2.1	58.925	11.680	g500-H320	m550-P90/L4	2	26
12.3	79.6	50.0	114	122	114	1.6	215	112	1.4	58.797	12.000	g500-H210	m550-P90/L4	2	24
12.1	80.5	49.5	115	121	115	2.2	212	113	1.9	58.976	12.128	g500-H320	m550-P90/L4	2	26
11.9	81.8	48.7	117	119	117	3.5	209	115	3.0	59.863	12.320	g500-H450	m550-P90/L4	2	30
11.9	82.3	48.4	118	118	118	4.4	208	116	3.7	60.141	12.395	g500-H600	m550-P90/L4	2	41
11.6	83.9	47.5	120	116	120	1.1	204	118	0.9	58.510	12.640	g500-H140	m550-P90/L4	2	23
11.6	84.0	47.4	120	116	120	0.8	204	118	0.7	58.432	12.653	g500-H100	m550-P90/L4	2	22
11.1	88.0	45.2	126	110	126	2.1	194	124	1.8	58.886	13.268	g500-H320	m550-P90/L4	2	26
10.8	90.7	43.9	130	107	130	1.6	188	128	1.3	58.675	13.673	g500-H210	m550-P90/L4	2	24



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
10.6	92.3	43.2	132	105	132	3.2	185	130	2.7	59.506	13.905	g500-H450	m550-P90/L4	2	30
10.6	92.4	43.1	132	105	132	4.4	185	130	3.7	60.047	13.920	g500-H600	m550-P90/L4	2	41
10.5	92.6	43.0	132	105	132	1.0	185	131	0.9	58.501	13.957	g500-H140	m550-P90/L4	2	23
10.1	96.2	41.4	137	101	137	4.3	178	136	3.6	61.361	14.490	g500-H850	m550-P90/L4	2	50
9.9	98.9	40.3	141	98.3	141	2.1	173	139	1.8	58.744	14.898	g500-H320	m550-P90/L4	2	26
9.6	102	39.2	145	95.7	145	1.4	168	143	1.2	58.665	15.306	g500-H210	m550-P90/L4	2	24
9.4	104	38.2	149	93.2	149	3.0	164	147	2.5	59.469	15.714	g500-H450	m550-P90/L4	2	30
9.3	105	38.0	150	92.7	150	4.0	163	148	3.4	59.640	15.810	g500-H600	m550-P90/L4	2	41
9.1	107	37.2	153	90.9	153	0.9	160	151	0.8	58.450	16.122	g500-H140	m550-P90/L4	2	23
9.1	107	37.1	154	90.5	154	4.3	159	151	3.6	61.267	16.190	g500-H850	m550-P90/L4	2	50
8.8	111	35.8	159	87.5	159	1.3	154	157	1.1	58.592	16.750	g500-H210	m550-P90/L4	2	24
8.7	112	35.5	161	86.6	161	1.8	152	158	1.5	58.720	16.923	g500-H320	m550-P90/L4	2	26
8.6	113	35.2	162	86.0	162	2.8	151	159	2.4	59.249	17.033	g500-H450	m550-P90/L4	2	30
8.3	118	33.8	168	82.5	168	3.6	145	166	3.0	59.583	17.755	g500-H600	m550-P90/L4	2	41
8.3	118	33.7	169	82.3	169	0.8	145	167	0.7	58.445	17.802	g500-H140	m550-P90/L4	2	23
8.1	121	32.9	173	80.3	173	1.8	141	171	1.5	58.638	18.250	g500-H320	m550-P90/L4	2	26
7.8	124	32.0	178	78.1	178	1.2	137	175	1.0	58.585	18.750	g500-H210	m550-P90/L4	2	24
7.6	128	31.2	183	76.1	183	2.5	134	180	2.1	59.225	19.250	g500-H450	m550-P90/L4	2	30
7.6	129	31.0	184	75.6	184	3.3	133	181	2.8	59.338	19.367	g500-H600	m550-P90/L4	2	41
7.1	138	28.9	197	70.7	197	1.5	124	194	1.3	58.621	20.731	g500-H320	m550-P90/L4	2	26
6.8	144	27.6	206	67.4	206	2.9	118	203	2.5	59.300	21.750	g500-H600	m550-P90/L4	2	41
6.7	145	27.5	207	67.2	207	1.0	118	204	0.9	58.482	21.802	g500-H210	m550-P90/L4	2	24
6.6	147	27.1	210	66.1	210	2.1	116	207	1.8	58.827	22.170	g500-H450	m550-P90/L4	2	30
6.4	153	26.0	219	63.4	219	3.6	112	216	3.1	59.953	23.103	g500-H850	m550-P90/L4	2	50
6.2	158	25.3	225	61.7	225	1.4	108	222	1.2	58.509	23.754	g500-H320	m550-P90/L4	2	26
6.0	162	24.6	232	60.0	232	0.9	106	228	0.8	58.479	24.405	g500-H210	m550-P90/L4	2	24
5.9	166	23.9	238	58.5	238	1.9	103	234	1.6	58.812	25.056	g500-H450	m550-P90/L4	2	30
5.8	167	23.8	239	58.1	239	2.5	102	236	2.1	58.879	25.207	g500-H600	m550-P90/L4	2	41
5.7	171	23.2	245	56.8	245	3.5	99.7	241	2.9	59.915	25.815	g500-H850	m550-P90/L4	2	50
5.4	179	22.2	256	54.3	256	1.3	95.4	252	1.2	58.500	26.983	g500-H320	m550-P90/L4	2	26
5.4	180	22.1	257	54.0	257	0.8	95.0	254	0.8	58.434	27.119	g500-H210	m550-P90/L4	2	24
5.3	183	21.8	262	53.1	262	1.7	93.4	258	1.7	58.689	27.578	g500-H450	m550-P90/L4	2	30
5.2	188	21.2	269	51.7	269	2.2	91.0	265	2.2	58.857	28.310	g500-H600	m550-P90/L4	2	41
5.2	188	21.2	269	51.7	269	3.0	90.9	265	2.9	59.441	28.315	g500-H850	m550-P90/L4	2	50
5.0	196	20.3	280	49.6	280	1.1	87.1	276	1.1	58.452	29.548	g500-H320	m550-P90/L4	2	26
4.7	204	19.2	292	47.0	292	2.1	82.5	287	1.7	59.408	31.197	g500-H600	m550-P90/L4	3	42
4.7	207	19.3	296	47.0	296	1.5	82.6	292	1.5	58.679	31.167	g500-H450	m550-P90/L4	2	30
4.7	208	19.1	298	46.7	298	2.0	82.1	293	1.9	58.723	31.356	g500-H600	m550-P90/L4	2	41
4.6	210	19.0	300	46.3	300	2.8	81.4	296	2.7	59.416	31.639	g500-H850	m550-P90/L4	2	50
4.6	214	18.6	306	45.4	306	3.0	79.8	302	2.9	60.663	32.267	g500-H1500	m550-P90/L4	2	80
4.4	223	17.9	318	43.6	318	1.0	76.7	314	1.0	58.446	33.564	g500-H320	m550-P90/L4	2	26
4.2	229	17.1	327	41.8	327	1.8	73.5	323	1.6	59.393	35.037	g500-H600	m550-P90/L4	3	42
4.2	234	17.0	334	41.6	334	1.8	73.1	329	1.7	58.708	35.214	g500-H600	m550-P90/L4	2	41
4.1	237	16.8	339	41.0	339	1.3	72.2	334	1.3	58.544	35.689	g500-H450	m550-P90/L4	2	30
4.1	237	16.8	339	41.0	339	3.0	72.2	334	2.9	60.625	35.689	g500-H1500	m550-P90/L4	2	80
4.0	247	16.1	353	39.4	353	2.4	69.2	348	2.3	59.019	37.190	g500-H850	m550-P90/L4	2	50
3.9	247	15.9	353	38.8	353	2.4	68.1	348	2.0	60.232	37.799	g500-H850	m550-P90/L4	3	51
3.8	260	15.3	372	37.4	372	2.6	65.8	366	2.5	60.037	39.160	g500-H1500	m550-P90/L4	2	80
3.7	261	15.0	373	36.7	373	1.6	64.5	368	1.4	59.062	39.925	g500-H600	m550-P90/L4	3	42
3.6	268	14.9	383	36.3	383	1.2	63.8	377	1.2	58.538	40.333	g500-H450	m550-P90/L4	2	30
3.6	269	14.8	385	36.1	385	1.5	63.5	380	1.5	58.564	40.578	g500-H600	m550-P90/L4	2	41
3.6	270	14.5	386	35.4	386	2.2	62.3	381	1.9	60.026	41.350	g500-H850	m550-P90/L4	3	51



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)			J	i			z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
3.5	276	14.4	394	35.3	394	2.2	62.0	389	2.2	59.004	41.556	g500-H850	m550-P90/L4	2	50
3.4	286	13.7	408	33.5	408	1.5	59.0	402	1.3	58.958	43.676	g500-H600	m550-P90/L4	3	42
3.4	287	13.9	411	33.8	411	2.6	59.5	405	2.6	60.011	43.313	g500-H1500	m550-P90/L4	2	80
3.3	288	13.6	412	33.2	412	1.1	58.4	407	0.9	58.660	44.124	g500-H450	m550-P90/L4	3	30
3.3	300	13.3	428	32.5	428	2.0	57.1	422	2.0	58.831	45.136	g500-H850	m550-P90/L4	2	50
3.2	302	13.2	432	32.1	432	1.4	56.5	426	1.4	58.555	45.571	g500-H600	m550-P90/L4	2	41
3.2	302	13.0	432	31.7	432	2.0	55.7	426	1.9	60.015	46.204	g500-H850	m550-P90/L4	3	51
3.0	321	12.2	458	29.9	458	1.3	52.5	452	1.3	58.950	49.051	g500-H600	m550-P90/L4	3	42
2.9	326	12.0	466	29.4	466	1.0	51.6	459	0.9	58.656	49.867	g500-H450	m550-P90/L4	3	30
3.0	327	12.2	467	29.7	467	1.0	52.3	461	1.0	58.493	49.247	g500-H600	m550-P90/L4	2	41
3.0	329	12.1	470	29.6	470	2.0	52.0	463	2.0	59.450	49.500	g500-H1500	m550-P90/L4	2	80
2.9	335	11.9	479	29.0	479	1.8	51.1	472	1.8	58.822	50.433	g500-H850	m550-P90/L4	2	50
2.8	345	11.4	493	27.8	493	1.7	48.8	486	1.7	59.569	52.743	g500-H850	m550-P90/L4	3	51
2.7	363	11.0	520	26.8	520	2.0	47.0	512	2.0	59.434	54.750	g500-H1500	m550-P90/L4	2	80
2.6	364	10.8	521	26.3	521	1.2	46.2	513	1.1	58.764	55.710	g500-H600	m550-P90/L4	3	42
2.7	367	10.8	525	26.5	525	1.0	46.6	517	1.0	58.487	55.307	g500-H600	m550-P90/L4	2	41
2.6	369	10.6	528	25.9	528	0.9	45.6	520	0.8	58.551	56.469	g500-H450	m550-P90/L4	3	30
2.5	385	10.2	551	24.9	551	1.5	43.7	543	1.5	59.563	58.933	g500-H850	m550-P90/L4	3	51
2.3	409	9.6	585	23.4	585	1.0	41.2	576	1.0	58.759	62.566	g500-H600	m550-P90/L4	3	42
2.3	422	9.3	604	22.7	604	1.4	39.9	595	1.4	59.292	64.610	g500-H850	m550-P90/L4	3	51
2.2	446	8.8	638	21.5	638	0.9	37.7	629	0.9	58.651	68.244	g500-H600	m550-P90/L4	3	42
2.1	466	8.4	666	20.6	666	2.3	36.1	656	2.2	61.091	71.238	g500-H1500	m550-P90/L4	3	81
2.0	472	8.3	675	20.3	675	1.3	35.7	665	1.2	59.287	72.193	g500-H850	m550-P90/L4	3	51
1.9	501	7.8	716	19.1	716	0.8	33.6	706	0.8	58.648	76.643	g500-H600	m550-P90/L4	3	42
1.9	515	7.6	736	18.6	736	2.0	32.7	726	2.0	61.083	78.794	g500-H1500	m550-P90/L4	3	81
1.7	550	7.1	786	17.4	786	1.1	30.6	775	1.1	58.851	84.096	g500-H850	m550-P90/L4	3	51
1.6	614	6.4	878	15.6	878	1.0	27.4	866	1.0	58.849	93.966	g500-H850	m550-P90/L4	3	51
1.4	684	5.7	978	14.0	978	0.9	24.6	964	0.9	58.705	104.607	g500-H850	m550-P90/L4	3	51
1.3	743	5.3	1062	12.9	1062	1.4	22.7	1046	1.4	59.975	113.585	g500-H1500	m550-P90/L4	3	81
1.2	821	4.8	1174	11.7	1174	1.3	20.5	1157	1.3	59.972	125.632	g500-H1500	m550-P90/L4	3	81
1.1	910	4.3	1301	10.5	1301	1.2	18.5	1283	1.2	59.370	139.211	g500-H1500	m550-P90/L4	3	81
1.0	1007	3.9	1439	9.5	1439	1.0	16.7	1419	1.1	59.368	153.976	g500-H1500	m550-P90/L4	3	81
0.9	1105	3.6	1579	8.7	1579	1.9	15.2	1557	1.9	60.561	168.993	g500-H3000	m550-P90/L4	3	126
0.8	1195	3.3	1709	8.0	1709	0.9	14.1	1684	0.9	58.978	182.844	g500-H1500	m550-P90/L4	3	81
0.8	1213	3.2	1735	7.9	1735	1.7	13.9	1710	1.8	60.557	185.615	g500-H3000	m550-P90/L4	3	126
0.7	1308	3.0	1871	7.2	1871	1.5	12.7	1844	1.6	59.813	203.178	g500-H3000	m550-P90/L4	4	129
0.7	1311	2.9	1874	7.2	1874	0.8	12.7	1847	0.8	59.023	203.537	g500-H1500	m550-P90/L4	4	84
0.7	1341	2.9	1917	7.1	1917	1.6	12.6	1889	1.6	59.967	205.096	g500-H3000	m550-P90/L4	3	126
0.6	1459	2.6	2086	6.5	2086	1.3	11.4	2056	1.3	59.352	226.604	g500-H3000	m550-P90/L4	4	129
0.7	1473	2.7	2105	6.5	2105	1.4	11.4	2075	1.5	59.965	225.269	g500-H3000	m550-P90/L4	3	126
0.6	1603	2.4	2291	5.9	2291	1.3	10.3	2259	1.3	59.350	248.893	g500-H3000	m550-P90/L4	4	129
0.6	1695	2.3	2423	5.7	2423	1.2	9.9	2388	1.3	59.407	259.250	g500-H3000	m550-P90/L4	3	126
0.5	1861	2.1	2661	5.1	2661	1.1	9.0	2623	1.1	59.405	284.750	g500-H3000	m550-P90/L4	3	126
0.5	1883	2.1	2693	5.0	2693	1.1	8.8	2654	1.1	59.519	292.511	g500-H3000	m550-P90/L4	4	129
0.5	2069	1.9	2958	4.6	2958	1.0	8.0	2915	1.0	59.518	321.282	g500-H3000	m550-P90/L4	4	129
0.4	2424	1.6	3465	3.9	3465	0.9	6.8	3416	0.9	58.970	376.393	g500-H3000	m550-P90/L4	4	129



50 Hz: 2.2 kW

87 Hz: 3.9 kW

Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)			J	i			z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
71.6	19.9	292	28.0	716	28.0	2.2	1257	29.0	1.8	124.100	2.053	g500-H140	m550-P100/M4	2	35
50.5	28.3	206	40.0	505	40.0	2.1	886	41.0	1.7	124.000	2.912	g500-H140	m550-P100/M4	2	35
43.4	32.9	177	47.0	434	47.0	2.7	761	47.0	2.2	124.530	3.389	g500-H210	m550-P100/M4	2	36
43.4	32.9	177	47.0	434	47.0	3.5	761	47.0	2.9	124.225	3.389	g500-H320	m550-P100/M4	2	38
32.8	43.5	134	62.0	328	62.0	4.8	576	63.0	4.0	127.253	4.480	g500-H600	m550-P100/M4	2	53
31.6	45.1	129	64.0	316	64.0	2.2	555	65.0	1.8	123.977	4.648	g500-H210	m550-P100/M4	2	36
31.6	45.1	129	64.0	316	64.0	2.9	555	65.0	2.4	123.815	4.648	g500-H320	m550-P100/M4	2	38
31.1	45.8	127	66.0	311	66.0	4.5	546	66.0	3.7	126.213	4.724	g500-H450	m550-P100/M4	2	42
26.3	54.2	108	77.0	263	77.0	2.1	462	78.0	1.7	124.243	5.583	g500-H210	m550-P100/M4	2	36
25.9	55.1	106	79.0	259	79.0	4.0	454	79.0	3.3	126.643	5.678	g500-H450	m550-P100/M4	2	42
25.6	55.6	105	80.0	256	80.0	4.3	450	80.0	3.5	125.866	5.733	g500-H600	m550-P100/M4	2	53
24.3	58.7	99.2	84.0	243	84.0	3.9	427	84.0	3.2	125.231	6.045	g500-H450	m550-P100/M4	2	42
24.2	59.0	98.6	84.0	242	84.0	2.7	424	85.0	2.2	124.655	6.083	g500-H320	m550-P100/M4	2	38
23.5	60.6	96.0	87.0	235	87.0	1.8	413	87.0	1.5	124.184	6.250	g500-H210	m550-P100/M4	2	36
22.8	62.6	92.9	90.0	228	90.0	4.5	400	90.0	3.7	127.444	6.456	g500-H600	m550-P100/M4	2	53
22.2	64.2	90.7	92.0	222	92.0	3.6	390	92.0	3.0	124.976	6.613	g500-H450	m550-P100/M4	2	42
21.3	67.0	86.8	96.0	213	96.0	2.3	373	97.0	1.9	124.509	6.910	g500-H320	m550-P100/M4	2	38
20.3	70.3	82.8	101	203	101	4.3	356	101	3.6	127.101	7.250	g500-H600	m550-P100/M4	2	53
19.2	74.3	78.4	106	192	106	1.6	337	107	1.3	123.825	7.657	g500-H210	m550-P100/M4	2	36
18.9	75.5	77.1	108	189	108	3.3	331	109	2.7	125.521	7.787	g500-H450	m550-P100/M4	2	42
17.6	80.9	71.9	116	176	116	2.2	309	117	1.8	124.044	8.343	g500-H320	m550-P100/M4	2	38
17.1	83.2	70.0	119	172	119	1.4	301	120	1.2	123.793	8.571	g500-H210	m550-P100/M4	2	36
16.7	85.4	68.2	122	167	122	3.0	293	123	2.5	125.404	8.800	g500-H450	m550-P100/M4	2	42
16.6	85.9	67.8	123	166	123	4.0	291	124	3.3	125.947	8.853	g500-H600	m550-P100/M4	2	53
15.5	91.9	63.3	131	155	131	1.8	272	132	1.5	123.966	9.477	g500-H320	m550-P100/M4	2	38
15.0	95.1	61.2	136	150	136	1.3	263	137	1.1	123.589	9.799	g500-H210	m550-P100/M4	2	36
14.8	96.5	60.3	138	148	138	3.7	260	139	3.1	125.765	9.943	g500-H600	m550-P100/M4	2	53
14.8	96.7	60.2	138	148	138	2.8	259	139	2.3	124.809	9.965	g500-H450	m550-P100/M4	2	42
14.5	98.4	59.2	141	145	141	4.7	254	142	3.9	128.129	10.143	g500-H850	m550-P100/M4	2	62
13.8	104	56.2	148	138	148	1.8	242	149	1.5	123.723	10.677	g500-H320	m550-P100/M4	2	38
13.7	104	56.0	149	137	149	1.3	241	150	1.1	123.513	10.720	g500-H210	m550-P100/M4	2	36
13.1	109	53.3	156	131	156	2.6	229	157	2.1	124.737	11.262	g500-H450	m550-P100/M4	2	42
13.0	110	53.0	157	130	157	3.4	228	158	2.8	125.069	11.330	g500-H600	m550-P100/M4	2	53
12.9	110	52.8	158	129	158	4.4	227	159	3.7	127.223	11.360	g500-H850	m550-P100/M4	2	62
12.6	113	51.4	162	126	162	1.7	221	163	1.4	123.625	11.680	g500-H320	m550-P100/M4	2	38
12.3	116	50.0	166	123	166	1.1	215	168	0.9	123.497	12.000	g500-H210	m550-P100/M4	2	36
12.1	118	49.5	168	121	168	1.5	213	169	1.3	123.676	12.128	g500-H320	m550-P100/M4	2	38
11.9	120	48.7	171	119	171	2.4	209	172	2.0	124.563	12.320	g500-H450	m550-P100/M4	2	42
11.9	120	48.4	172	119	172	3.2	208	173	2.7	124.841	12.395	g500-H600	m550-P100/M4	2	53
11.6	123	47.3	176	116	176	4.1	203	177	3.4	127.069	12.693	g500-H850	m550-P100/M4	2	62
11.1	129	45.2	184	111	184	1.4	195	185	1.2	123.586	13.268	g500-H320	m550-P100/M4	2	38
10.8	133	43.9	190	108	190	1.1	189	191	0.9	123.375	13.673	g500-H210	m550-P100/M4	2	36
10.6	135	43.2	193	106	193	2.2	186	194	1.8	124.206	13.905	g500-H450	m550-P100/M4	2	42
10.6	135	43.1	193	106	193	3.0	185	194	2.5	124.747	13.920	g500-H600	m550-P100/M4	2	53
10.1	141	41.4	201	102	201	3.8	178	202	3.1	126.061	14.490	g500-H850	m550-P100/M4	2	62
9.9	145	40.3	207	98.7	207	1.4	173	208	1.2	123.444	14.898	g500-H320	m550-P100/M4	2	38
9.6	149	39.2	212	96.0	212	0.9	169	214	0.8	123.365	15.306	g500-H210	m550-P100/M4	2	36
9.4	153	38.2	218	93.5	218	2.0	164	220	1.7	124.169	15.714	g500-H450	m550-P100/M4	2	42
9.3	153	38.0	219	93.0	219	2.7	163	221	2.3	124.340	15.810	g500-H600	m550-P100/M4	2	53
9.1	157	37.1	225	90.8	225	3.5	159	226	2.9	125.967	16.190	g500-H850	m550-P100/M4	2	62



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)			J	i			z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
8.8	163	35.8	232	87.8	232	0.9	154	234	0.8	123.292	16.750	g500-H210	m550-P100/M4	2	36
8.7	164	35.5	235	86.9	235	1.2	153	236	1.0	123.420	16.923	g500-H320	m550-P100/M4	2	38
8.6	165	35.2	236	86.3	236	1.9	152	238	1.6	123.949	17.033	g500-H450	m550-P100/M4	2	42
8.3	172	33.8	246	82.8	246	2.4	145	248	2.0	124.283	17.755	g500-H600	m550-P100/M4	2	53
8.3	172	33.8	246	82.8	246	3.3	145	248	2.7	125.387	17.750	g500-H850	m550-P100/M4	2	62
8.1	177	32.9	253	80.5	253	1.2	141	255	1.0	123.338	18.250	g500-H320	m550-P100/M4	2	38
7.8	182	32.0	260	78.4	260	0.8	138	262	0.7	123.285	18.750	g500-H210	m550-P100/M4	2	36
7.6	187	31.2	267	76.4	267	1.7	134	269	1.4	123.925	19.250	g500-H450	m550-P100/M4	2	42
7.6	188	31.0	269	75.9	269	2.2	133	271	1.9	124.038	19.367	g500-H600	m550-P100/M4	2	53
7.4	192	30.3	275	74.1	275	3.0	130	277	2.5	125.324	19.833	g500-H850	m550-P100/M4	2	62
7.2	199	29.2	285	71.6	285	4.1	126	287	3.4	127.860	20.533	g500-H1500	m550-P100/M4	2	92
7.1	201	28.9	288	70.9	288	1.0	125	290	0.9	123.321	20.731	g500-H320	m550-P100/M4	2	38
6.8	211	27.6	302	67.6	302	2.0	119	304	1.7	124.000	21.750	g500-H600	m550-P100/M4	2	53
6.6	215	27.1	308	66.3	308	1.5	116	310	1.2	123.527	22.170	g500-H450	m550-P100/M4	2	42
6.5	220	26.4	315	64.7	315	4.1	114	317	3.4	127.766	22.711	g500-H1500	m550-P100/M4	2	92
6.4	224	26.0	321	63.6	321	2.7	112	323	2.2	124.653	23.103	g500-H850	m550-P100/M4	2	62
5.9	242	24.1	346	59.0	346	3.5	104	348	2.9	126.690	24.933	g500-H1500	m550-P100/M4	2	92
5.9	243	23.9	348	58.7	348	1.3	103	350	1.1	123.512	25.056	g500-H450	m550-P100/M4	2	42
5.8	245	23.8	350	58.3	350	1.7	102	352	1.4	123.579	25.207	g500-H600	m550-P100/M4	2	53
5.7	251	23.2	358	56.9	358	2.4	99.9	361	2.0	124.615	25.815	g500-H850	m550-P100/M4	2	62
5.3	268	21.8	383	53.3	383	1.2	93.6	385	1.1	123.389	27.578	g500-H450	m550-P100/M4	2	42
5.3	268	21.8	383	53.3	383	3.5	93.6	385	3.3	126.627	27.578	g500-H1500	m550-P100/M4	2	92
5.2	275	21.2	393	51.9	393	1.5	91.1	396	1.4	123.557	28.310	g500-H600	m550-P100/M4	2	53
5.2	275	21.2	393	51.9	393	2.2	91.1	396	2.0	124.141	28.315	g500-H850	m550-P100/M4	2	62
5.0	282	20.3	404	49.8	404	2.1	87.4	406	1.8	125.723	29.536	g500-H850	m550-P100/M4	3	63
4.9	289	20.1	414	49.3	414	3.5	86.5	417	3.3	130.304	29.822	g500-H3000	m550-P100/M4	2	133
4.7	298	19.2	426	47.1	426	1.4	82.7	429	1.2	124.108	31.197	g500-H600	m550-P100/M4	3	54
4.7	302	19.3	432	47.2	432	1.0	82.8	435	1.0	123.379	31.167	g500-H450	m550-P100/M4	2	42
4.7	304	19.1	435	46.9	435	1.4	82.3	438	1.3	123.423	31.356	g500-H600	m550-P100/M4	2	53
4.6	307	19.0	439	46.5	439	1.9	81.5	442	1.8	124.116	31.639	g500-H850	m550-P100/M4	2	62
4.6	313	18.6	448	45.6	448	2.8	80.0	451	2.7	125.363	32.267	g500-H1500	m550-P100/M4	2	92
4.5	315	18.2	451	44.5	451	1.9	78.2	454	1.6	125.701	33.003	g500-H850	m550-P100/M4	3	63
4.5	318	18.3	454	44.9	454	3.5	78.8	458	3.3	130.203	32.756	g500-H3000	m550-P100/M4	2	133
4.2	335	17.1	479	42.0	479	1.3	73.6	482	1.0	124.093	35.037	g500-H600	m550-P100/M4	3	54
4.2	342	17.0	489	41.7	489	1.2	73.3	492	1.2	123.408	35.214	g500-H600	m550-P100/M4	2	53
4.1	346	16.8	495	41.2	495	2.8	72.3	499	2.7	125.325	35.689	g500-H1500	m550-P100/M4	2	92
4.1	351	16.6	502	40.6	502	2.9	71.3	506	2.8	128.377	36.193	g500-H3000	m550-P100/M4	2	133
4.0	361	16.1	516	39.5	516	1.7	69.4	520	1.6	123.719	37.190	g500-H850	m550-P100/M4	2	62
3.9	361	15.9	517	38.9	517	1.7	68.3	520	1.4	124.932	37.799	g500-H850	m550-P100/M4	3	63
3.8	380	15.3	543	37.5	543	2.4	65.9	547	2.2	124.737	39.160	g500-H1500	m550-P100/M4	2	92
3.7	382	15.0	546	36.8	546	1.1	64.6	549	0.9	123.762	39.925	g500-H600	m550-P100/M4	3	54
3.7	386	15.1	552	37.0	552	2.9	64.9	555	2.8	128.308	39.753	g500-H3000	m550-P100/M4	2	133
3.6	395	14.5	565	35.5	565	1.5	62.4	569	1.3	124.726	41.350	g500-H850	m550-P100/M4	3	63
3.5	403	14.4	577	35.4	577	1.5	62.1	581	1.5	123.704	41.556	g500-H850	m550-P100/M4	2	62
3.4	417	13.7	597	33.7	597	1.0	59.1	601	0.8	123.658	43.676	g500-H600	m550-P100/M4	3	54
3.4	420	13.9	601	33.9	601	2.4	59.6	605	2.3	124.711	43.313	g500-H1500	m550-P100/M4	2	92
3.3	438	13.3	626	32.6	626	1.4	57.2	631	1.4	123.531	45.136	g500-H850	m550-P100/M4	2	62
3.2	442	13.0	631	31.8	631	1.4	55.8	636	1.3	124.715	46.204	g500-H850	m550-P100/M4	3	63
3.2	444	13.1	635	32.1	635	2.4	56.4	639	2.4	126.543	45.750	g500-H3000	m550-P100/M4	2	133
3.0	469	12.2	670	30.0	670	0.9	52.6	675	0.8	123.650	49.051	g500-H600	m550-P100/M4	3	54
2.9	477	12.0	681	29.5	681	2.2	51.7	686	2.1	127.963	49.867	g500-H1500	m550-P100/M4	3	93
3.0	480	12.1	687	29.7	687	1.8	52.1	692	1.8	124.150	49.500	g500-H1500	m550-P100/M4	2	92



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
2.9	488	11.9	697	29.3	697	2.4	51.3	702	2.4	126.500	50.250	g500-H3000	m550-P100/M4	2	133
2.9	489	11.9	700	29.1	700	1.2	51.2	705	1.2	123.522	50.433	g500-H850	m550-P100/M4	2	62
2.8	504	11.4	721	27.9	721	1.2	48.9	726	1.1	124.269	52.743	g500-H850	m550-P100/M4	3	63
2.7	531	11.0	760	26.8	760	1.8	47.1	765	1.8	124.134	54.750	g500-H1500	m550-P100/M4	2	92
2.6	534	10.7	763	26.3	763	2.0	46.2	769	1.9	127.169	55.851	g500-H1500	m550-P100/M4	3	93
2.5	563	10.2	805	24.9	805	1.1	43.8	811	1.0	124.263	58.933	g500-H850	m550-P100/M4	3	63
2.4	590	9.7	844	23.8	844	1.8	41.8	850	1.7	127.157	61.774	g500-H1500	m550-P100/M4	3	93
2.3	618	9.3	883	22.8	883	1.0	39.9	889	0.9	123.992	64.610	g500-H850	m550-P100/M4	3	63
2.3	619	9.3	885	22.7	885	3.4	39.8	891	3.2	132.627	64.744	g500-H3000	m550-P100/M4	3	138
2.1	680	8.4	972	20.7	972	3.1	36.3	979	2.9	132.606	71.112	g500-H3000	m550-P100/M4	3	138
2.1	681	8.4	974	20.6	974	1.5	36.2	980	1.5	125.791	71.238	g500-H1500	m550-P100/M4	3	93
2.0	690	8.3	987	20.4	987	0.9	35.7	994	0.8	123.987	72.193	g500-H850	m550-P100/M4	3	63
1.9	753	7.6	1077	18.7	1077	1.4	32.7	1084	1.3	125.783	78.794	g500-H1500	m550-P100/M4	3	93
1.7	834	6.9	1193	16.8	1193	1.3	29.6	1201	1.3	125.207	87.267	g500-H1500	m550-P100/M4	3	93
1.5	922	6.2	1319	15.2	1319	1.1	26.7	1328	1.1	125.202	96.522	g500-H1500	m550-P100/M4	3	93
1.4	1028	5.6	1470	13.7	1470	2.0	24.0	1480	2.0	127.608	107.541	g500-H3000	m550-P100/M4	3	138
1.3	1086	5.3	1552	12.9	1552	1.0	22.7	1563	1.0	124.675	113.585	g500-H1500	m550-P100/M4	3	93
1.2	1129	5.1	1614	12.4	1614	1.9	21.8	1626	1.9	127.600	118.119	g500-H3000	m550-P100/M4	3	138
1.2	1201	4.8	1717	11.7	1717	0.9	20.5	1729	0.9	124.672	125.632	g500-H1500	m550-P100/M4	3	93
1.1	1248	4.6	1785	11.3	1785	1.7	19.8	1797	1.7	126.519	130.585	g500-H3000	m550-P100/M4	3	138
1.0	1371	4.2	1960	10.2	1960	1.5	18.0	1974	1.5	126.514	143.430	g500-H3000	m550-P100/M4	3	138
0.9	1615	3.6	2309	8.7	2309	1.3	15.3	2326	1.3	125.261	168.993	g500-H3000	m550-P100/M4	3	138
0.8	1774	3.2	2537	7.9	2537	1.2	13.9	2554	1.2	125.257	185.615	g500-H3000	m550-P100/M4	3	138
0.7	1913	3.0	2735	7.2	2735	1.0	12.7	2754	1.0	124.513	203.178	g500-H3000	m550-P100/M4	4	141
0.7	1960	2.9	2803	7.2	2803	1.1	12.6	2822	1.1	124.667	205.096	g500-H3000	m550-P100/M4	3	138
0.6	2133	2.6	3050	6.5	3050	0.9	11.4	3072	0.9	124.052	226.604	g500-H3000	m550-P100/M4	4	141
0.7	2153	2.7	3079	6.5	3079	1.0	11.5	3100	1.0	124.665	225.269	g500-H3000	m550-P100/M4	3	138
0.6	2343	2.4	3350	5.9	3350	0.9	10.4	3374	0.9	124.050	248.893	g500-H3000	m550-P100/M4	4	141
0.6	2478	2.3	3543	5.7	3543	0.9	10.0	3568	0.8	124.107	259.250	g500-H3000	m550-P100/M4	3	138



50 Hz: 3 kW

87 Hz: 5.2 kW

Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)								
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
71.6	27.1	292	39.0	716	39.0	1.6	1257	38.0	1.4	131.400	2.053	g500-H140	m550-P100/L4	2	36
50.5	38.4	206	55.0	505	55.0	1.5	886	54.0	1.3	131.300	2.912	g500-H140	m550-P100/L4	2	36
45.0	43.1	184	62.0	450	62.0	3.9	790	61.0	3.3	137.200	3.267	g500-H600	m550-P100/L4	2	54
43.4	44.7	177	64.0	434	64.0	2.0	761	63.0	1.7	131.830	3.389	g500-H210	m550-P100/L4	2	38
43.4	44.7	177	64.0	434	64.0	2.6	761	63.0	2.2	131.525	3.389	g500-H320	m550-P100/L4	2	40
42.7	45.4	174	65.0	427	65.0	3.9	749	64.0	3.3	135.243	3.444	g500-H450	m550-P100/L4	2	43
32.8	59.1	134	85.0	328	85.0	3.5	576	83.0	3.0	134.553	4.480	g500-H600	m550-P100/L4	2	54
31.6	61.3	129	88.0	316	88.0	1.6	555	87.0	1.4	131.277	4.648	g500-H210	m550-P100/L4	2	38
31.6	61.3	129	88.0	316	88.0	2.2	555	87.0	1.8	131.115	4.648	g500-H320	m550-P100/L4	2	40
31.1	62.3	127	89.0	311	89.0	3.3	546	88.0	2.8	133.513	4.724	g500-H450	m550-P100/L4	2	43
27.4	70.8	112	102	274	102	4.2	481	100	3.6	136.688	5.368	g500-H850	m550-P100/L4	2	63
26.3	73.7	108	106	263	106	1.5	462	104	1.3	131.543	5.583	g500-H210	m550-P100/L4	2	38
25.9	74.9	106	107	259	107	2.9	454	106	2.5	133.943	5.678	g500-H450	m550-P100/L4	2	43
25.6	75.7	105	108	256	108	3.1	450	107	2.7	133.166	5.733	g500-H600	m550-P100/L4	2	54
24.3	79.8	99.2	114	243	114	2.8	427	113	2.4	132.531	6.045	g500-H450	m550-P100/L4	2	43
24.2	80.3	98.6	115	242	115	2.0	424	113	1.7	131.955	6.083	g500-H320	m550-P100/L4	2	40
23.5	82.5	96.0	118	235	118	1.3	413	116	1.1	131.484	6.250	g500-H210	m550-P100/L4	2	38
22.8	85.2	92.9	122	228	122	3.3	400	120	2.8	134.744	6.456	g500-H600	m550-P100/L4	2	54
22.2	87.3	90.7	125	222	125	2.7	390	123	2.3	132.276	6.613	g500-H450	m550-P100/L4	2	43
21.3	91.2	86.8	131	213	131	1.7	373	129	1.4	131.809	6.910	g500-H320	m550-P100/L4	2	40
20.3	95.7	82.8	137	203	137	3.2	356	135	2.7	134.401	7.250	g500-H600	m550-P100/L4	2	54
19.2	101	78.4	145	192	145	1.2	337	143	1.0	131.125	7.657	g500-H210	m550-P100/L4	2	38
18.9	103	77.1	147	189	147	2.4	331	145	2.0	132.821	7.787	g500-H450	m550-P100/L4	2	43
17.6	110	71.9	158	176	158	1.6	309	155	1.3	131.344	8.343	g500-H320	m550-P100/L4	2	40
17.1	113	70.0	162	172	162	1.1	301	160	0.9	131.093	8.571	g500-H210	m550-P100/L4	2	38
16.7	116	68.2	166	167	166	2.2	293	164	1.9	132.704	8.800	g500-H450	m550-P100/L4	2	43
16.6	117	67.8	167	166	167	2.9	291	165	2.5	133.247	8.853	g500-H600	m550-P100/L4	2	54
15.5	125	63.3	179	155	179	1.3	272	177	1.1	131.266	9.477	g500-H320	m550-P100/L4	2	40
15.0	129	61.2	185	150	185	1.0	263	183	0.8	130.889	9.799	g500-H210	m550-P100/L4	2	38
14.8	131	60.3	188	148	188	2.7	260	185	2.3	133.065	9.943	g500-H600	m550-P100/L4	2	54
14.8	132	60.2	189	148	189	2.0	259	186	1.7	132.109	9.965	g500-H450	m550-P100/L4	2	43
14.5	134	59.2	192	145	192	3.5	254	189	3.0	135.429	10.143	g500-H850	m550-P100/L4	2	63
13.8	141	56.2	202	138	202	1.3	242	199	1.1	131.023	10.677	g500-H320	m550-P100/L4	2	40
13.7	142	56.0	203	137	203	0.9	241	200	0.8	130.813	10.720	g500-H210	m550-P100/L4	2	38
13.1	149	53.3	213	131	213	1.9	229	210	1.6	132.037	11.262	g500-H450	m550-P100/L4	2	43
13.0	150	53.0	214	130	214	2.5	228	211	2.1	132.369	11.330	g500-H600	m550-P100/L4	2	54
12.9	150	52.8	215	129	215	3.2	227	212	2.8	134.523	11.360	g500-H850	m550-P100/L4	2	63
12.6	154	51.4	221	126	221	1.2	221	218	1.0	130.925	11.680	g500-H320	m550-P100/L4	2	40
12.3	158	50.0	227	123	227	0.8	215	224	0.7	130.797	12.000	g500-H210	m550-P100/L4	2	38
12.1	160	49.5	229	121	229	1.1	213	226	0.9	130.976	12.128	g500-H320	m550-P100/L4	2	40
11.9	163	48.7	233	119	233	1.8	209	230	1.5	131.863	12.320	g500-H450	m550-P100/L4	2	43
11.9	163	48.5	234	119	234	4.3	209	230	3.6	140.622	12.362	g500-H1500	m550-P100/L4	2	93
11.9	164	48.4	234	119	234	2.4	208	231	2.0	132.141	12.395	g500-H600	m550-P100/L4	2	54
11.6	168	47.3	240	116	240	3.0	203	236	2.6	134.369	12.693	g500-H850	m550-P100/L4	2	63
11.1	175	45.2	251	111	251	1.0	195	247	0.9	130.886	13.268	g500-H320	m550-P100/L4	2	40
10.8	180	43.9	259	108	259	4.3	189	255	3.6	140.363	13.673	g500-H1500	m550-P100/L4	2	93
10.6	184	43.2	263	106	263	1.6	186	259	1.4	131.506	13.905	g500-H450	m550-P100/L4	2	43
10.6	184	43.1	263	106	263	2.2	185	259	1.9	132.047	13.920	g500-H600	m550-P100/L4	2	54
10.1	191	41.4	274	102	274	2.8	178	270	2.3	133.361	14.490	g500-H850	m550-P100/L4	2	63
9.9	197	40.3	282	98.7	282	1.0	173	278	0.9	130.744	14.898	g500-H320	m550-P100/L4	2	40



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
9.4	207	38.2	297	93.5	297	1.5	164	293	1.3	131.469	15.714	g500-H450	m550-P100/L4	2	43
9.3	209	38.0	299	93.0	299	2.0	163	295	1.7	131.640	15.810	g500-H600	m550-P100/L4	2	54
9.1	214	37.1	306	90.8	306	2.6	159	302	2.2	133.267	16.190	g500-H850	m550-P100/L4	2	63
8.7	223	35.5	320	86.9	320	0.9	153	315	0.7	130.720	16.923	g500-H320	m550-P100/L4	2	40
8.6	225	35.2	322	86.3	322	1.4	152	317	1.2	131.249	17.033	g500-H450	m550-P100/L4	2	43
8.3	234	33.8	336	82.8	336	1.8	145	331	1.5	131.583	17.755	g500-H600	m550-P100/L4	2	54
8.3	234	33.8	336	82.8	336	2.4	145	331	2.1	132.687	17.750	g500-H850	m550-P100/L4	2	63
8.1	241	32.9	345	80.5	345	0.9	141	340	0.8	130.638	18.250	g500-H320	m550-P100/L4	2	40
7.6	254	31.2	364	76.4	364	1.2	134	359	1.0	131.225	19.250	g500-H450	m550-P100/L4	2	43
7.6	256	31.0	366	75.9	366	1.6	133	361	1.4	131.338	19.367	g500-H600	m550-P100/L4	2	54
7.4	262	30.3	375	74.1	375	2.2	130	369	1.9	132.624	19.833	g500-H850	m550-P100/L4	2	63
7.2	271	29.2	388	71.6	388	3.0	126	383	2.6	135.160	20.533	g500-H1500	m550-P100/L4	2	93
6.8	287	27.6	411	67.6	411	1.5	119	405	1.2	131.300	21.750	g500-H600	m550-P100/L4	2	54
6.6	293	27.1	419	66.3	419	1.1	116	413	0.9	130.827	22.170	g500-H450	m550-P100/L4	2	43
6.5	300	26.4	430	64.7	430	3.0	114	423	2.6	135.066	22.711	g500-H1500	m550-P100/L4	2	93
6.4	305	26.0	437	63.6	437	1.9	112	430	1.7	131.953	23.103	g500-H850	m550-P100/L4	2	63
5.9	329	24.1	472	59.0	472	2.6	104	464	2.2	133.990	24.933	g500-H1500	m550-P100/L4	2	93
5.9	331	23.9	474	58.7	474	1.0	103	467	0.8	130.812	25.056	g500-H450	m550-P100/L4	2	43
5.8	333	23.8	477	58.3	477	1.3	102	470	1.1	130.879	25.207	g500-H600	m550-P100/L4	2	54
5.7	341	23.2	488	56.9	488	1.7	99.9	481	1.5	131.915	25.815	g500-H850	m550-P100/L4	2	63
5.3	364	21.8	522	53.3	522	0.9	93.6	514	0.8	130.689	27.578	g500-H450	m550-P100/L4	2	43
5.3	364	21.8	522	53.3	522	2.6	93.6	514	2.5	133.927	27.578	g500-H1500	m550-P100/L4	2	93
5.2	374	21.2	536	51.9	536	1.1	91.1	527	1.1	130.857	28.310	g500-H600	m550-P100/L4	2	54
5.2	374	21.2	536	51.9	536	1.6	91.1	527	1.5	131.441	28.315	g500-H850	m550-P100/L4	2	63
5.0	384	20.3	550	49.8	550	1.5	87.4	542	1.3	133.023	29.536	g500-H850	m550-P100/L4	3	64
4.9	394	20.1	564	49.3	564	2.6	86.5	556	2.5	137.604	29.822	g500-H3000	m550-P100/L4	2	135
4.7	406	19.2	581	47.1	581	1.0	82.7	572	0.9	131.408	31.197	g500-H600	m550-P100/L4	3	55
4.7	414	19.1	593	46.9	593	1.0	82.3	584	1.0	130.723	31.356	g500-H600	m550-P100/L4	2	54
4.6	418	19.0	599	46.5	599	1.4	81.5	589	1.4	131.416	31.639	g500-H850	m550-P100/L4	2	63
4.6	426	18.6	610	45.6	610	2.1	80.0	601	2.0	132.663	32.267	g500-H1500	m550-P100/L4	2	93
4.5	429	18.2	615	44.5	615	1.4	78.2	606	1.2	133.001	33.003	g500-H850	m550-P100/L4	3	64
4.5	432	18.3	620	44.9	620	2.6	78.8	610	2.5	137.503	32.756	g500-H3000	m550-P100/L4	2	135
4.2	455	17.1	653	42.0	653	0.9	73.6	643	0.8	131.393	35.037	g500-H600	m550-P100/L4	3	55
4.2	465	17.0	666	41.7	666	0.9	73.3	656	0.9	130.708	35.214	g500-H600	m550-P100/L4	2	54
4.1	471	16.8	675	41.2	675	2.1	72.3	665	2.0	132.625	35.689	g500-H1500	m550-P100/L4	2	93
4.1	478	16.6	685	40.6	685	2.2	71.3	674	2.1	135.677	36.193	g500-H3000	m550-P100/L4	2	135
4.0	491	16.1	704	39.5	704	1.2	69.4	693	1.2	131.019	37.190	g500-H850	m550-P100/L4	2	63
3.9	491	15.9	704	38.9	704	1.2	68.3	694	1.0	132.232	37.799	g500-H850	m550-P100/L4	3	64
3.8	517	15.3	741	37.5	741	1.7	65.9	729	1.7	132.037	39.160	g500-H1500	m550-P100/L4	2	93
3.7	519	15.0	744	36.8	744	0.8	64.6	733	0.7	131.062	39.925	g500-H600	m550-P100/L4	3	55
3.7	525	15.1	752	37.0	752	2.2	64.9	741	2.1	135.608	39.753	g500-H3000	m550-P100/L4	2	135
3.6	537	14.5	771	35.5	771	1.1	62.4	759	0.9	132.026	41.350	g500-H850	m550-P100/L4	3	64
3.5	548	14.4	786	35.4	786	1.1	62.1	774	1.1	131.004	41.556	g500-H850	m550-P100/L4	2	63
3.4	572	13.9	819	33.9	819	1.7	59.6	807	1.8	132.011	43.313	g500-H1500	m550-P100/L4	2	93
3.3	596	13.3	854	32.6	854	1.0	57.2	841	1.0	130.831	45.136	g500-H850	m550-P100/L4	2	63
3.2	601	13.0	861	31.8	861	1.0	55.8	848	1.0	132.015	46.204	g500-H850	m550-P100/L4	3	64
3.2	604	13.1	866	32.1	866	1.7	56.4	852	1.8	133.843	45.750	g500-H3000	m550-P100/L4	2	135
2.9	648	12.0	929	29.5	929	1.6	51.7	915	1.6	135.263	49.867	g500-H1500	m550-P100/L4	3	95
3.0	653	12.1	937	29.7	937	1.3	52.1	922	1.4	131.450	49.500	g500-H1500	m550-P100/L4	2	93
2.9	663	11.9	951	29.3	951	1.7	51.3	936	1.8	133.800	50.250	g500-H3000	m550-P100/L4	2	135
2.9	666	11.9	954	29.1	954	0.9	51.2	939	0.9	130.822	50.433	g500-H850	m550-P100/L4	2	63
2.8	686	11.4	983	27.9	983	0.9	48.9	968	0.8	131.569	52.743	g500-H850	m550-P100/L4	3	64



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
2.7	722	11.0	1036	26.8	1036	1.3	47.1	1020	1.4	131.434	54.750	g500-H1500	m550-P100/L4	2	93
2.6	726	10.7	1041	26.3	1041	1.4	46.2	1025	1.4	134.469	55.851	g500-H1500	m550-P100/L4	3	95
2.4	803	9.7	1151	23.8	1151	1.3	41.8	1133	1.3	134.457	61.774	g500-H1500	m550-P100/L4	3	95
2.3	842	9.3	1207	22.7	1207	2.5	39.8	1188	2.4	139.927	64.744	g500-H3000	m550-P100/L4	3	140
2.1	924	8.4	1325	20.7	1325	2.3	36.3	1305	2.2	139.906	71.112	g500-H3000	m550-P100/L4	3	140
2.1	926	8.4	1328	20.6	1328	1.1	36.2	1307	1.1	133.091	71.238	g500-H1500	m550-P100/L4	3	95
1.9	1024	7.6	1468	18.7	1468	1.0	32.7	1446	1.0	133.083	78.794	g500-H1500	m550-P100/L4	3	95
1.7	1134	6.9	1626	16.8	1626	0.9	29.6	1601	0.9	132.507	87.267	g500-H1500	m550-P100/L4	3	95
1.5	1255	6.2	1799	15.2	1799	0.8	26.7	1771	0.9	132.502	96.522	g500-H1500	m550-P100/L4	3	95
1.4	1398	5.6	2004	13.7	2004	1.5	24.0	1973	1.5	134.908	107.541	g500-H3000	m550-P100/L4	3	140
1.2	1535	5.1	2201	12.4	2201	1.4	21.8	2167	1.4	134.900	118.119	g500-H3000	m550-P100/L4	3	140
1.1	1697	4.6	2434	11.3	2434	1.2	19.8	2396	1.3	133.819	130.585	g500-H3000	m550-P100/L4	3	140
1.0	1864	4.2	2673	10.2	2673	1.1	18.0	2632	1.1	133.814	143.430	g500-H3000	m550-P100/L4	3	140
0.9	2196	3.6	3149	8.7	3149	1.0	15.3	3101	1.0	132.561	168.993	g500-H3000	m550-P100/L4	3	140
0.8	2413	3.2	3459	7.9	3459	0.9	13.9	3406	0.9	132.557	185.615	g500-H3000	m550-P100/L4	3	140



50 Hz: 4 kW

87 Hz: 7.35 kW

Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)			J	i			z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
50.4	51.5	206	74.0	504	74.0	3.0	885	77.0	2.4	206.000	2.917	g500-H600	m550-P112/M4	2	63
46.7	55.6	191	79.0	467	79.0	3.9	820	83.0	3.1	212.097	3.147	g500-H850	m550-P112/M4	2	72
45.0	57.7	184	82.0	450	82.0	2.9	790	86.0	2.3	204.900	3.267	g500-H600	m550-P112/M4	2	63
43.4	59.8	177	85.0	434	85.0	1.9	761	89.0	1.5	199.225	3.389	g500-H320	m550-P112/M4	2	48
42.7	60.8	174	87.0	427	87.0	3.0	749	91.0	2.4	202.943	3.444	g500-H450	m550-P112/M4	2	52
33.7	77.0	138	110	337	110	3.4	592	115	2.7	206.786	4.362	g500-H850	m550-P112/M4	2	72
32.8	79.1	134	113	328	113	2.6	576	118	2.1	202.253	4.480	g500-H600	m550-P112/M4	2	63
31.6	82.1	129	117	316	117	1.6	555	123	1.3	198.815	4.648	g500-H320	m550-P112/M4	2	48
31.1	83.4	127	119	311	119	2.5	546	125	2.0	201.213	4.724	g500-H450	m550-P112/M4	2	52
27.4	94.8	112	135	274	135	3.2	481	142	2.5	204.388	5.368	g500-H850	m550-P112/M4	2	72
25.9	100	106	143	259	143	2.2	454	150	1.8	201.643	5.678	g500-H450	m550-P112/M4	2	52
25.6	101	105	145	256	145	2.3	450	151	1.9	200.866	5.733	g500-H600	m550-P112/M4	2	63
24.7	105	101	150	247	150	3.7	434	157	2.9	208.432	5.946	g500-H850	m550-P112/M4	2	72
24.3	107	99.2	152	243	152	2.1	427	160	1.7	200.231	6.045	g500-H450	m550-P112/M4	2	52
24.2	107	98.6	153	242	153	1.5	424	161	1.2	199.655	6.083	g500-H320	m550-P112/M4	2	48
23.5	110	96.1	158	235	158	4.8	413	165	3.8	216.863	6.245	g500-H1500	m550-P112/M4	2	102
22.8	114	92.9	163	228	163	2.5	400	170	2.0	202.444	6.456	g500-H600	m550-P112/M4	2	63
22.2	117	90.7	167	222	167	2.0	390	175	1.6	199.976	6.613	g500-H450	m550-P112/M4	2	52
22.1	117	90.3	168	221	168	3.5	388	175	2.8	207.869	6.644	g500-H850	m550-P112/M4	2	72
21.3	122	86.8	174	213	174	1.3	373	182	1.0	199.509	6.910	g500-H320	m550-P112/M4	2	48
20.3	128	82.8	183	203	183	2.4	356	191	1.9	202.101	7.250	g500-H600	m550-P112/M4	2	63
18.9	138	77.1	196	189	196	1.8	331	205	1.4	200.521	7.787	g500-H450	m550-P112/M4	2	52
17.8	146	72.8	208	178	208	3.0	313	217	2.4	204.878	8.241	g500-H850	m550-P112/M4	2	72
17.6	147	71.9	210	176	210	1.2	309	220	0.9	199.044	8.343	g500-H320	m550-P112/M4	2	48
16.7	155	68.2	222	167	222	1.7	293	232	1.3	200.404	8.800	g500-H450	m550-P112/M4	2	52
16.6	156	67.8	223	166	223	2.2	291	234	1.7	200.947	8.853	g500-H600	m550-P112/M4	2	63
16.3	159	66.6	227	163	227	4.8	286	238	3.8	215.050	9.010	g500-H1500	m550-P112/M4	2	102
16.0	163	65.2	232	160	232	2.8	280	243	2.2	204.585	9.208	g500-H850	m550-P112/M4	2	72
15.5	167	63.3	239	155	239	1.0	272	250	0.8	198.966	9.477	g500-H320	m550-P112/M4	2	48
14.8	176	60.3	251	148	251	2.0	260	262	1.6	200.765	9.943	g500-H600	m550-P112/M4	2	63
14.8	176	60.2	251	148	251	1.5	259	263	1.2	199.809	9.965	g500-H450	m550-P112/M4	2	52
14.5	179	59.2	256	145	256	2.6	254	268	2.1	203.129	10.143	g500-H850	m550-P112/M4	2	72
14.3	181	58.4	259	143	259	4.4	251	271	3.5	211.182	10.267	g500-H1500	m550-P112/M4	2	102
13.8	189	56.2	269	138	269	1.0	242	282	0.8	198.723	10.677	g500-H320	m550-P112/M4	2	48
13.1	199	53.3	284	131	284	1.4	229	297	1.1	199.737	11.262	g500-H450	m550-P112/M4	2	52
13.0	200	53.0	286	130	286	1.9	228	299	1.5	200.069	11.330	g500-H600	m550-P112/M4	2	63
12.9	201	52.8	286	130	286	4.4	227	300	3.5	210.806	11.356	g500-H1500	m550-P112/M4	2	102
12.9	201	52.8	287	129	287	2.4	227	300	1.9	202.223	11.360	g500-H850	m550-P112/M4	2	72
12.7	205	51.6	293	127	293	4.8	222	307	3.8	228.315	11.619	g500-H3000	m550-P112/M4	2	143
12.6	206	51.4	295	126	295	0.9	221	308	0.7	198.625	11.680	g500-H320	m550-P112/M4	2	48
12.1	214	49.5	306	121	306	0.8	213	320	0.7	198.676	12.128	g500-H320	m550-P112/M4	2	48
11.9	218	48.7	311	119	311	1.3	209	325	1.1	199.563	12.320	g500-H450	m550-P112/M4	2	52
11.9	218	48.5	312	119	312	3.9	209	326	3.1	208.322	12.362	g500-H1500	m550-P112/M4	2	102
11.9	219	48.4	313	119	313	1.8	208	327	1.4	199.841	12.395	g500-H600	m550-P112/M4	2	63
11.6	224	47.3	320	116	320	2.3	203	335	1.8	202.069	12.693	g500-H850	m550-P112/M4	2	72
11.5	225	47.0	322	115	322	4.8	202	337	3.8	227.649	12.762	g500-H3000	m550-P112/M4	2	143
10.8	241	43.9	345	108	345	3.9	189	361	3.1	208.063	13.673	g500-H1500	m550-P112/M4	2	102
10.6	246	43.2	351	106	351	1.2	186	367	1.0	199.206	13.905	g500-H450	m550-P112/M4	2	52
10.6	246	43.1	351	106	351	1.7	185	367	1.3	199.747	13.920	g500-H600	m550-P112/M4	2	63
10.1	256	41.4	366	102	366	2.1	178	382	1.7	201.061	14.490	g500-H850	m550-P112/M4	2	72



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
9.7	268	39.6	382	97.0	382	3.3	170	400	2.6	206.006	15.156	g500-H1500	m550-P112/M4	2	102
9.4	278	38.2	396	93.5	396	1.1	164	415	0.9	199.169	15.714	g500-H450	m550-P112/M4	2	52
9.3	279	38.0	399	93.0	399	1.5	163	417	1.2	199.340	15.810	g500-H600	m550-P112/M4	2	63
9.1	286	37.1	408	90.8	408	1.9	159	427	1.6	200.967	16.190	g500-H850	m550-P112/M4	2	72
8.8	296	35.8	423	87.7	423	3.3	154	442	2.6	205.834	16.763	g500-H1500	m550-P112/M4	2	102
8.6	301	35.2	430	86.3	430	1.1	152	450	0.8	198.949	17.033	g500-H450	m550-P112/M4	2	52
8.3	314	33.8	448	82.8	448	1.3	145	469	1.1	199.283	17.755	g500-H600	m550-P112/M4	2	63
8.3	313	33.8	448	82.8	448	1.8	145	468	1.5	200.387	17.750	g500-H850	m550-P112/M4	2	72
7.8	331	32.0	473	78.4	473	3.3	138	495	2.6	213.200	18.752	g500-H3000	m550-P112/M4	2	143
7.6	340	31.2	486	76.4	486	0.9	134	508	0.7	198.925	19.250	g500-H450	m550-P112/M4	2	52
7.6	342	31.0	489	75.9	489	1.2	133	511	1.0	199.038	19.367	g500-H600	m550-P112/M4	2	63
7.4	350	30.3	500	74.1	500	1.7	130	523	1.3	200.324	19.833	g500-H850	m550-P112/M4	2	72
7.2	363	29.2	518	71.6	518	2.6	126	542	2.1	202.860	20.533	g500-H1500	m550-P112/M4	2	102
7.1	364	29.1	520	71.4	520	3.3	125	544	2.6	212.945	20.596	g500-H3000	m550-P112/M4	2	143
6.8	384	27.6	549	67.6	549	1.1	119	574	0.9	199.000	21.750	g500-H600	m550-P112/M4	2	63
6.6	392	27.1	559	66.3	559	0.8	116	585	0.6	198.527	22.170	g500-H450	m550-P112/M4	2	52
6.5	401	26.4	573	64.7	573	2.6	114	599	2.1	202.766	22.711	g500-H1500	m550-P112/M4	2	102
6.4	407	26.0	581	63.8	581	2.8	112	608	2.2	209.350	23.044	g500-H3000	m550-P112/M4	2	143
6.4	408	26.0	583	63.6	583	1.5	112	610	1.2	199.653	23.103	g500-H850	m550-P112/M4	2	72
5.9	440	24.1	629	59.0	629	2.2	104	658	1.8	201.690	24.933	g500-H1500	m550-P112/M4	2	102
5.8	445	23.8	636	58.3	636	0.9	102	665	0.8	198.579	25.207	g500-H600	m550-P112/M4	2	63
5.8	447	23.7	638	58.1	638	2.8	102	668	2.2	209.181	25.311	g500-H3000	m550-P112/M4	2	143
5.7	456	23.2	651	56.9	651	1.3	99.9	681	1.0	199.615	25.815	g500-H850	m550-P112/M4	2	72
5.3	487	21.8	696	53.3	696	2.2	93.6	728	2.0	201.627	27.578	g500-H1500	m550-P112/M4	2	102
5.2	500	21.2	714	51.9	714	0.8	91.1	747	0.8	198.557	28.310	g500-H600	m550-P112/M4	2	63
5.2	500	21.2	714	51.9	714	1.2	91.1	747	1.1	199.141	28.315	g500-H850	m550-P112/M4	2	72
5.0	514	20.3	734	49.8	734	1.2	87.4	768	0.9	200.723	29.536	g500-H850	m550-P112/M4	3	73
4.9	527	20.1	752	49.3	752	2.2	86.5	787	2.0	205.304	29.822	g500-H3000	m550-P112/M4	2	143
4.6	559	19.0	798	46.5	798	1.1	81.5	835	1.0	199.116	31.639	g500-H850	m550-P112/M4	2	72
4.6	570	18.6	814	45.6	814	1.8	80.0	852	1.6	200.363	32.267	g500-H1500	m550-P112/M4	2	102
4.5	574	18.2	820	44.5	820	1.0	78.2	858	0.8	200.701	33.003	g500-H850	m550-P112/M4	3	73
4.5	578	18.3	826	44.9	826	2.2	78.8	864	2.0	205.203	32.756	g500-H3000	m550-P112/M4	2	143
4.1	630	16.8	900	41.2	900	1.7	72.3	942	1.5	200.325	35.689	g500-H1500	m550-P112/M4	2	102
4.1	639	16.6	913	40.6	913	1.9	71.3	955	1.7	203.377	36.193	g500-H3000	m550-P112/M4	2	143
3.9	657	15.9	939	38.9	939	0.9	68.3	983	0.7	199.932	37.799	g500-H850	m550-P112/M4	3	73
3.8	692	15.3	988	37.5	988	1.5	65.9	1033	1.3	199.737	39.160	g500-H1500	m550-P112/M4	2	102
3.7	702	15.1	1003	37.0	1003	1.9	64.9	1049	1.7	203.308	39.753	g500-H3000	m550-P112/M4	2	143
3.6	705	14.8	1007	36.3	1007	1.5	63.7	1053	1.2	204.428	40.517	g500-H1500	m550-P112/M4	3	103
3.6	719	14.5	1027	35.5	1027	0.8	62.4	1075	0.7	199.726	41.350	g500-H850	m550-P112/M4	3	73
3.4	765	13.9	1093	33.9	1093	1.4	59.6	1143	1.3	199.711	43.313	g500-H1500	m550-P112/M4	2	102
3.3	780	13.4	1114	32.8	1114	1.4	57.6	1165	1.1	204.404	44.814	g500-H1500	m550-P112/M4	3	103
3.2	808	13.1	1154	32.1	1154	1.5	56.4	1207	1.4	201.543	45.750	g500-H3000	m550-P112/M4	2	143
3.1	821	12.7	1172	31.2	1172	2.4	54.7	1227	2.2	213.742	47.186	g500-H3000	m550-P112/M4	3	148
2.9	867	12.0	1239	29.5	1239	1.2	51.7	1296	1.1	202.963	49.867	g500-H1500	m550-P112/M4	3	103
2.9	887	11.9	1268	29.3	1268	1.5	51.3	1326	1.4	201.500	50.250	g500-H3000	m550-P112/M4	2	143
2.8	901	11.6	1288	28.4	1288	2.3	49.8	1347	2.1	213.702	51.828	g500-H3000	m550-P112/M4	3	148
2.7	935	11.2	1336	27.3	1336	2.2	48.0	1398	2.0	210.174	53.770	g500-H3000	m550-P112/M4	3	148
2.6	971	10.7	1388	26.3	1388	1.1	46.2	1452	1.0	202.169	55.851	g500-H1500	m550-P112/M4	3	103
2.5	1027	10.2	1467	24.9	1467	2.0	43.7	1535	1.9	210.143	59.059	g500-H3000	m550-P112/M4	3	148
2.4	1075	9.7	1535	23.8	1535	1.0	41.8	1606	0.9	202.157	61.774	g500-H1500	m550-P112/M4	3	103
2.3	1126	9.3	1609	22.7	1609	1.9	39.8	1683	1.7	207.627	64.744	g500-H3000	m550-P112/M4	3	148
2.1	1237	8.4	1767	20.7	1767	1.7	36.3	1849	1.5	207.606	71.112	g500-H3000	m550-P112/M4	3	148



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
2.1	1239	8.4	1770	20.6	1770	0.9	36.2	1852	0.8	200.791	71.238	g500-H1500	m550-P112/M4	3	103
1.9	1381	7.6	1972	18.5	1972	1.5	32.5	2063	1.4	205.544	79.375	g500-H3000	m550-P112/M4	3	148
1.7	1516	6.9	2166	16.9	2166	1.4	29.6	2266	1.3	205.530	87.183	g500-H3000	m550-P112/M4	3	148
1.4	1871	5.6	2672	13.7	2672	1.1	24.0	2795	1.1	202.608	107.541	g500-H3000	m550-P112/M4	3	148
1.2	2055	5.1	2935	12.4	2935	1.0	21.8	3070	1.0	202.600	118.119	g500-H3000	m550-P112/M4	3	148
1.1	2271	4.6	3245	11.3	3245	0.9	19.8	3394	0.9	201.519	130.585	g500-H3000	m550-P112/M4	3	148
1.0	2495	4.2	3564	10.2	3564	0.8	18.0	3728	0.8	201.514	143.430	g500-H3000	m550-P112/M4	3	148



50 Hz: 5.5 kW

87 Hz: 9.6 kW

Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)			J	i			z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
50.7	70.2	206	100	507	100	2.2	888	100	1.8	478.600	2.917	g500-H600	m550-P132/M4	2	84
47.0	75.7	191	108	470	108	2.8	823	108	2.4	484.697	3.147	g500-H850	m550-P132/M4	2	93
45.3	78.6	184	113	453	113	2.1	793	112	1.8	477.500	3.267	g500-H600	m550-P132/M4	2	84
43.0	82.9	174	119	430	119	2.2	752	118	1.8	475.543	3.444	g500-H450	m550-P132/M4	2	73
33.9	105	138	150	339	150	2.5	594	150	2.1	479.386	4.362	g500-H850	m550-P132/M4	2	93
33.0	108	134	154	330	154	1.9	578	154	1.6	474.853	4.480	g500-H600	m550-P132/M4	2	84
31.3	114	127	163	313	163	1.8	548	162	1.5	473.813	4.724	g500-H450	m550-P132/M4	2	73
27.6	129	112	185	276	185	2.3	483	184	1.9	476.988	5.368	g500-H850	m550-P132/M4	2	93
26.1	137	106	196	261	196	1.6	456	195	1.4	474.243	5.678	g500-H450	m550-P132/M4	2	73
25.8	138	105	197	258	197	1.7	452	197	1.4	473.466	5.733	g500-H600	m550-P132/M4	2	84
24.9	143	101	205	249	205	2.7	436	204	2.3	481.032	5.946	g500-H850	m550-P132/M4	2	93
24.5	146	99.2	208	245	208	1.6	428	208	1.3	472.831	6.045	g500-H450	m550-P132/M4	2	73
22.9	155	92.9	222	229	222	1.8	401	222	1.5	475.044	6.456	g500-H600	m550-P132/M4	2	84
22.4	159	90.7	228	224	228	1.5	392	227	1.2	472.576	6.613	g500-H450	m550-P132/M4	2	73
22.3	160	90.3	229	223	229	2.5	390	228	2.1	480.469	6.644	g500-H850	m550-P132/M4	2	93
21.6	165	87.4	236	216	236	4.9	377	236	4.1	495.165	6.864	g500-H1500	m550-P132/M4	2	123
20.4	174	82.8	250	204	250	1.7	357	249	1.5	474.701	7.250	g500-H600	m550-P132/M4	2	84
19.5	183	79.0	261	195	261	4.7	341	261	3.9	494.324	7.592	g500-H1500	m550-P132/M4	2	123
19.0	187	77.1	268	190	268	1.3	333	267	1.1	473.121	7.787	g500-H450	m550-P132/M4	2	73
18.0	198	72.8	284	180	284	2.2	314	283	1.8	477.478	8.241	g500-H850	m550-P132/M4	2	93
16.8	212	68.2	303	168	303	1.2	294	302	1.0	473.004	8.800	g500-H450	m550-P132/M4	2	73
16.7	213	67.8	305	167	305	1.6	293	304	1.3	473.547	8.853	g500-H600	m550-P132/M4	2	84
16.4	217	66.6	310	164	310	4.3	288	309	3.6	487.650	9.010	g500-H1500	m550-P132/M4	2	123
16.1	222	65.2	317	161	317	2.1	281	316	1.7	477.185	9.208	g500-H850	m550-P132/M4	2	93
14.9	239	60.3	342	149	342	1.5	261	341	1.2	473.365	9.943	g500-H600	m550-P132/M4	2	84
14.9	240	60.2	343	149	343	1.1	260	342	0.9	472.409	9.965	g500-H450	m550-P132/M4	2	73
14.6	244	59.2	349	146	349	1.9	255	348	1.6	475.729	10.143	g500-H850	m550-P132/M4	2	93
14.4	247	58.4	354	144	354	3.9	252	353	3.3	483.782	10.267	g500-H1500	m550-P132/M4	2	123
13.1	271	53.3	388	131	388	1.0	230	387	0.9	472.337	11.262	g500-H450	m550-P132/M4	2	73
13.1	273	53.0	390	131	390	1.4	229	389	1.2	472.669	11.330	g500-H600	m550-P132/M4	2	84
13.0	273	52.8	391	130	391	1.8	228	390	1.5	474.823	11.360	g500-H850	m550-P132/M4	2	93
13.0	273	52.8	391	130	391	3.6	228	390	3.0	483.406	11.356	g500-H1500	m550-P132/M4	2	123
12.0	296	48.7	424	120	424	1.0	210	423	0.8	472.163	12.320	g500-H450	m550-P132/M4	2	73
12.0	297	48.5	426	120	426	3.3	210	425	2.8	480.922	12.362	g500-H1500	m550-P132/M4	2	123
11.9	298	48.4	427	119	427	1.3	209	426	1.1	472.441	12.395	g500-H600	m550-P132/M4	2	84
11.7	305	47.3	437	117	437	1.7	204	436	1.4	474.669	12.693	g500-H850	m550-P132/M4	2	93
10.8	329	43.9	471	108	471	3.0	189	470	2.5	480.663	13.673	g500-H1500	m550-P132/M4	2	123
10.6	335	43.2	479	106	479	0.9	186	478	0.7	471.806	13.905	g500-H450	m550-P132/M4	2	73
10.6	335	43.1	479	106	479	1.2	186	478	1.0	472.347	13.920	g500-H600	m550-P132/M4	2	84
10.2	349	41.4	499	102	499	1.5	179	498	1.3	473.661	14.490	g500-H850	m550-P132/M4	2	93
9.8	365	39.6	522	97.7	522	2.8	171	521	2.3	478.606	15.156	g500-H1500	m550-P132/M4	2	123
9.5	376	38.4	538	94.7	538	4.9	166	537	4.1	493.692	15.633	g500-H3000	m550-P132/M4	2	165
9.4	378	38.2	541	94.2	541	0.8	165	540	0.7	471.769	15.714	g500-H450	m550-P132/M4	2	73
9.4	380	38.0	545	93.6	545	1.1	164	543	0.9	471.940	15.810	g500-H600	m550-P132/M4	2	84
9.1	390	37.1	558	91.4	558	1.4	160	556	1.2	473.567	16.190	g500-H850	m550-P132/M4	2	93
8.8	403	35.8	577	88.3	577	2.5	155	576	2.1	478.434	16.763	g500-H1500	m550-P132/M4	2	123
8.3	427	33.8	611	83.4	611	1.3	146	610	1.1	472.987	17.750	g500-H850	m550-P132/M4	2	93
8.3	427	33.8	612	83.4	612	1.0	146	610	0.8	471.883	17.755	g500-H600	m550-P132/M4	2	84
7.9	451	32.0	646	78.9	646	4.3	138	644	3.6	485.800	18.752	g500-H3000	m550-P132/M4	2	165
7.6	466	31.0	667	76.4	667	0.9	134	665	0.8	471.638	19.367	g500-H600	m550-P132/M4	2	84



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
7.5	477	30.3	683	74.6	683	1.2	131	681	1.0	472.924	19.833	g500-H850	m550-P132/M4	2	93
7.2	494	29.2	707	72.1	707	2.1	126	705	1.8	475.460	20.533	g500-H1500	m550-P132/M4	2	123
7.2	496	29.1	709	71.9	709	4.0	126	707	3.3	485.545	20.596	g500-H3000	m550-P132/M4	2	165
6.8	523	27.6	749	68.0	749	0.8	119	747	0.7	471.600	21.750	g500-H600	m550-P132/M4	2	84
6.5	547	26.4	782	65.2	782	1.9	114	780	1.6	475.366	22.711	g500-H1500	m550-P132/M4	2	123
6.4	555	26.0	794	64.2	794	3.7	112	791	3.1	481.950	23.044	g500-H3000	m550-P132/M4	2	165
6.4	556	26.0	796	64.1	796	1.1	112	794	0.9	472.253	23.103	g500-H850	m550-P132/M4	2	93
5.9	600	24.1	859	59.4	859	1.8	104	856	1.5	474.290	24.933	g500-H1500	m550-P132/M4	2	123
5.8	609	23.7	872	58.5	872	3.4	102	869	2.8	481.781	25.311	g500-H3000	m550-P132/M4	2	165
5.7	621	23.2	889	57.3	889	1.0	100	887	0.8	472.215	25.815	g500-H850	m550-P132/M4	2	93
5.4	664	21.8	950	53.7	950	1.6	93.9	947	1.5	474.227	27.578	g500-H1500	m550-P132/M4	2	123
5.0	700	20.3	1002	50.1	1002	0.9	87.7	999	0.7	473.323	29.536	g500-H850	m550-P132/M4	3	94
5.0	718	20.1	1027	49.6	1027	2.9	86.8	1024	2.8	477.904	29.822	g500-H3000	m550-P132/M4	2	165
4.5	788	18.3	1128	45.2	1128	2.7	79.1	1125	2.5	477.803	32.756	g500-H3000	m550-P132/M4	2	165
4.1	871	16.6	1247	40.9	1247	2.4	71.6	1243	2.3	475.977	36.193	g500-H3000	m550-P132/M4	2	165
3.7	957	15.1	1369	37.2	1369	2.2	65.2	1365	2.1	475.908	39.753	g500-H3000	m550-P132/M4	2	165
3.7	960	14.8	1375	36.5	1375	1.1	63.9	1371	0.9	477.028	40.517	g500-H1500	m550-P132/M4	3	125
3.3	1062	13.4	1520	33.0	1520	1.0	57.8	1516	0.8	477.004	44.814	g500-H1500	m550-P132/M4	3	125
3.1	1118	12.7	1601	31.4	1601	1.8	54.9	1596	1.7	486.342	47.186	g500-H3000	m550-P132/M4	3	170
3.0	1182	12.0	1692	29.7	1692	0.9	51.9	1687	0.8	475.563	49.867	g500-H1500	m550-P132/M4	3	125
2.9	1228	11.6	1758	28.6	1758	1.7	50.0	1753	1.6	486.302	51.828	g500-H3000	m550-P132/M4	3	170
2.8	1274	11.2	1824	27.5	1824	1.6	48.2	1819	1.5	482.774	53.770	g500-H3000	m550-P132/M4	3	170
2.5	1400	10.2	2004	25.1	2004	1.5	43.9	1998	1.4	482.743	59.059	g500-H3000	m550-P132/M4	3	170
2.3	1535	9.3	2197	22.9	2197	1.4	40.0	2190	1.3	480.227	64.744	g500-H3000	m550-P132/M4	3	170
2.1	1685	8.4	2413	20.8	2413	1.2	36.4	2406	1.2	480.206	71.112	g500-H3000	m550-P132/M4	3	170
1.9	1881	7.6	2693	18.6	2693	1.1	32.6	2685	1.1	478.144	79.375	g500-H3000	m550-P132/M4	3	170
1.7	2066	6.9	2958	17.0	2958	1.0	29.7	2949	1.0	478.130	87.183	g500-H3000	m550-P132/M4	3	170
1.4	2549	5.6	3648	13.8	3648	0.8	24.1	3638	0.8	475.208	107.541	g500-H3000	m550-P132/M4	3	170



50 Hz: 7.5 kW

87 Hz: 13.1 kW

Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)			J	i			z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
50.7	95.9	206	137	507	137	1.6	888	137	1.3	493.900	2.917	g500-H600	m550-P132/L4	2	87
47.0	104	191	148	470	148	2.1	823	147	1.7	499.997	3.147	g500-H850	m550-P132/L4	2	96
45.3	107	184	153	453	153	1.6	793	153	1.3	492.800	3.267	g500-H600	m550-P132/L4	2	87
43.0	113	174	162	430	162	1.6	752	161	1.3	490.843	3.444	g500-H450	m550-P132/L4	2	76
39.5	123	160	176	395	176	4.4	692	175	3.7	523.696	3.743	g500-H1500	m550-P132/L4	2	126
33.9	144	138	205	339	205	1.9	594	204	1.5	494.686	4.362	g500-H850	m550-P132/L4	2	96
33.0	147	134	210	330	210	1.4	578	210	1.2	490.153	4.480	g500-H600	m550-P132/L4	2	87
31.3	155	127	222	313	222	1.3	548	221	1.1	489.113	4.724	g500-H450	m550-P132/L4	2	76
31.1	157	126	223	311	223	4.1	544	223	3.5	513.588	4.758	g500-H1500	m550-P132/L4	2	126
27.6	177	112	252	276	252	1.7	483	252	1.4	492.288	5.368	g500-H850	m550-P132/L4	2	96
27.4	178	111	254	274	254	4.0	480	253	3.4	518.650	5.400	g500-H1500	m550-P132/L4	2	126
26.1	187	106	267	261	267	1.2	456	266	1.0	489.543	5.678	g500-H450	m550-P132/L4	2	76
25.8	189	105	269	258	269	1.3	452	269	1.1	488.766	5.733	g500-H600	m550-P132/L4	2	87
24.9	196	101	279	249	279	2.0	436	279	1.7	496.332	5.946	g500-H850	m550-P132/L4	2	96
24.5	199	99.2	284	245	284	1.1	428	283	1.0	488.131	6.045	g500-H450	m550-P132/L4	2	76
23.7	205	96.1	293	237	293	3.7	415	293	3.1	504.763	6.245	g500-H1500	m550-P132/L4	2	126
22.9	212	92.9	303	229	303	1.3	401	303	1.1	490.344	6.456	g500-H600	m550-P132/L4	2	87
22.4	218	90.7	311	224	311	1.1	392	310	0.9	487.876	6.613	g500-H450	m550-P132/L4	2	76
22.3	219	90.3	312	223	312	1.9	390	311	1.6	495.769	6.644	g500-H850	m550-P132/L4	2	96
21.6	226	87.4	322	216	322	3.6	377	322	3.0	510.465	6.864	g500-H1500	m550-P132/L4	2	126
20.4	239	82.8	340	204	340	1.3	357	340	1.1	490.001	7.250	g500-H600	m550-P132/L4	2	87
19.5	250	79.0	357	195	357	3.4	341	356	2.9	509.624	7.592	g500-H1500	m550-P132/L4	2	126
19.0	256	77.1	366	190	366	1.0	333	365	0.8	488.421	7.787	g500-H450	m550-P132/L4	2	76
18.0	271	72.8	387	180	387	1.6	314	386	1.3	492.778	8.241	g500-H850	m550-P132/L4	2	96
16.8	289	68.2	413	168	413	0.9	294	412	0.8	488.304	8.800	g500-H450	m550-P132/L4	2	76
16.7	291	67.8	416	167	416	1.2	293	415	1.0	488.847	8.853	g500-H600	m550-P132/L4	2	87
16.4	296	66.6	423	164	423	3.1	288	422	2.6	502.950	9.010	g500-H1500	m550-P132/L4	2	126
16.1	303	65.2	432	161	432	1.5	281	432	1.3	492.485	9.208	g500-H850	m550-P132/L4	2	96
14.9	327	60.3	467	149	467	1.1	261	466	0.9	488.665	9.943	g500-H600	m550-P132/L4	2	87
14.9	328	60.2	468	149	468	0.8	260	467	0.7	487.709	9.965	g500-H450	m550-P132/L4	2	76
14.8	329	60.0	470	148	470	4.9	259	469	4.1	526.519	10.005	g500-H3000	m550-P132/L4	2	167
14.6	334	59.2	476	146	476	1.4	255	475	1.2	491.029	10.143	g500-H850	m550-P132/L4	2	96
14.4	338	58.4	482	144	482	2.9	252	481	2.4	499.082	10.267	g500-H1500	m550-P132/L4	2	126
13.1	373	53.0	532	131	532	1.0	229	531	0.8	487.969	11.330	g500-H600	m550-P132/L4	2	87
13.0	374	52.8	533	130	533	1.3	228	532	1.1	490.123	11.360	g500-H850	m550-P132/L4	2	96
13.0	374	52.8	533	130	533	2.6	228	532	2.2	498.706	11.356	g500-H1500	m550-P132/L4	2	126
12.7	382	51.6	546	127	546	4.4	223	544	3.7	516.215	11.619	g500-H3000	m550-P132/L4	2	167
12.0	407	48.5	581	120	581	2.5	210	579	2.0	496.222	12.362	g500-H1500	m550-P132/L4	2	126
11.9	408	48.4	582	119	582	1.0	209	581	0.8	487.741	12.395	g500-H600	m550-P132/L4	2	87
11.7	418	47.3	596	117	596	1.2	204	595	1.0	489.969	12.693	g500-H850	m550-P132/L4	2	96
11.6	420	47.0	599	116	599	4.1	203	598	3.5	515.549	12.762	g500-H3000	m550-P132/L4	2	167
10.8	450	43.9	642	108	642	2.2	189	641	1.9	495.963	13.673	g500-H1500	m550-P132/L4	2	126
10.6	458	43.1	654	106	654	0.9	186	652	0.7	487.647	13.920	g500-H600	m550-P132/L4	2	87
10.4	468	42.2	668	104	668	3.8	182	667	3.2	509.435	14.233	g500-H3000	m550-P132/L4	2	167
10.2	477	41.4	680	102	680	1.1	179	679	0.9	488.961	14.490	g500-H850	m550-P132/L4	2	96
9.8	499	39.6	712	97.7	712	2.0	171	710	1.7	493.906	15.156	g500-H1500	m550-P132/L4	2	126
9.5	514	38.4	734	94.7	734	3.6	166	733	3.0	508.992	15.633	g500-H3000	m550-P132/L4	2	167
9.4	520	38.0	742	93.6	742	0.8	164	741	0.7	487.240	15.810	g500-H600	m550-P132/L4	2	87
9.1	533	37.1	760	91.4	760	1.0	160	759	0.9	488.867	16.190	g500-H850	m550-P132/L4	2	96
8.8	551	35.8	787	88.3	787	1.8	155	786	1.5	493.734	16.763	g500-H1500	m550-P132/L4	2	126



Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
8.3	584	33.8	834	83.4	834	1.0	146	832	0.8	488.287	17.750	g500-H850	m550-P132/L4	2	96
7.9	617	32.0	881	78.9	881	3.1	138	879	2.6	501.100	18.752	g500-H3000	m550-P132/L4	2	167
7.5	652	30.3	931	74.6	931	0.9	131	929	0.8	488.224	19.833	g500-H850	m550-P132/L4	2	96
7.2	675	29.2	964	72.1	964	1.6	126	962	1.3	490.760	20.533	g500-H1500	m550-P132/L4	2	126
7.2	677	29.1	967	71.9	967	2.9	126	965	2.4	500.845	20.596	g500-H3000	m550-P132/L4	2	167
6.5	747	26.4	1066	65.2	1066	1.4	114	1064	1.2	490.666	22.711	g500-H1500	m550-P132/L4	2	126
6.4	758	26.0	1082	64.2	1082	2.7	112	1080	2.2	497.250	23.044	g500-H3000	m550-P132/L4	2	167
5.9	820	24.1	1171	59.4	1171	1.3	104	1168	1.1	489.590	24.933	g500-H1500	m550-P132/L4	2	126
5.8	833	23.7	1189	58.5	1189	2.5	102	1186	2.1	497.081	25.311	g500-H3000	m550-P132/L4	2	167
5.4	907	21.8	1295	53.7	1295	1.2	93.9	1292	1.1	489.527	27.578	g500-H1500	m550-P132/L4	2	126
5.0	981	20.1	1400	49.6	1400	2.1	86.8	1398	2.0	493.204	29.822	g500-H3000	m550-P132/L4	2	167
4.5	1077	18.3	1538	45.2	1538	2.0	79.1	1535	1.9	493.103	32.756	g500-H3000	m550-P132/L4	2	167
4.1	1190	16.6	1700	40.9	1700	1.8	71.6	1696	1.7	491.277	36.193	g500-H3000	m550-P132/L4	2	167
3.7	1308	15.1	1867	37.2	1867	1.6	65.2	1863	1.5	491.208	39.753	g500-H3000	m550-P132/L4	2	167
3.7	1313	14.8	1874	36.5	1874	0.8	63.9	1870	0.7	492.328	40.517	g500-H1500	m550-P132/L4	3	127
3.1	1529	12.7	2183	31.4	2183	1.3	54.9	2178	1.2	501.642	47.186	g500-H3000	m550-P132/L4	3	172
2.9	1679	11.6	2397	28.6	2397	1.2	50.0	2392	1.2	501.602	51.828	g500-H3000	m550-P132/L4	3	172
2.8	1742	11.2	2487	27.5	2487	1.2	48.2	2482	1.1	498.074	53.770	g500-H3000	m550-P132/L4	3	172
2.5	1913	10.2	2732	25.1	2732	1.1	43.9	2726	1.0	498.043	59.059	g500-H3000	m550-P132/L4	3	172
2.3	2098	9.3	2995	22.9	2995	1.0	40.0	2989	1.0	495.527	64.744	g500-H3000	m550-P132/L4	3	172
2.1	2304	8.4	3289	20.8	3289	0.9	36.4	3282	0.9	495.506	71.112	g500-H3000	m550-P132/L4	3	172
1.9	2572	7.6	3671	18.6	3671	0.8	32.6	3664	0.8	493.444	79.375	g500-H3000	m550-P132/L4	3	172



50 Hz: 11 kW

87 Hz: 19.2 kW

Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)								
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
39.8	180	160	257	397	257	3.0	693	257	2.5	1397.796	3.743	g500-H1500	m550-P160/M4	2	230
33.1	216	133	308	330	308	4.4	577	308	3.7	1437.626	4.496	g500-H3000	m550-P160/M4	2	271
31.3	229	126	326	312	326	2.8	545	326	2.4	1387.688	4.758	g500-H1500	m550-P160/M4	2	230
27.6	259	111	370	275	370	2.8	481	370	2.3	1392.750	5.400	g500-H1500	m550-P160/M4	2	230
25.2	283	102	405	252	405	4.0	440	405	3.3	1412.695	5.902	g500-H3000	m550-P160/M4	2	271
23.9	300	96.1	428	238	428	2.6	416	428	2.1	1378.863	6.245	g500-H1500	m550-P160/M4	2	230
23.5	305	94.6	435	234	435	4.4	409	435	3.7	1430.420	6.344	g500-H3000	m550-P160/M4	2	271
21.7	330	87.4	471	216	471	2.5	378	471	2.1	1384.565	6.864	g500-H1500	m550-P160/M4	2	230
21.4	335	86.1	478	213	478	4.2	372	478	3.5	1428.189	6.968	g500-H3000	m550-P160/M4	2	271
19.6	365	79.0	521	196	521	2.3	342	521	2.0	1383.724	7.592	g500-H1500	m550-P160/M4	2	230
17.9	400	72.1	571	178	571	3.8	312	571	3.1	1408.512	8.327	g500-H3000	m550-P160/M4	2	271
16.5	433	66.6	618	165	618	2.1	288	618	1.8	1377.050	9.010	g500-H1500	m550-P160/M4	2	230
16.3	439	65.6	627	162	627	3.6	284	627	3.0	1407.217	9.146	g500-H3000	m550-P160/M4	2	271
14.9	481	60.0	686	148	686	3.4	259	686	2.8	1400.619	10.005	g500-H3000	m550-P160/M4	2	271
14.5	493	58.4	704	145	704	2.0	253	704	1.6	1373.182	10.267	g500-H1500	m550-P160/M4	2	230
13.1	545	52.8	779	131	779	1.8	229	779	1.5	1372.806	11.356	g500-H1500	m550-P160/M4	2	230
12.8	558	51.6	797	128	797	3.0	223	797	2.5	1390.315	11.619	g500-H3000	m550-P160/M4	2	271
12.1	594	48.5	848	120	848	1.7	210	848	1.4	1370.322	12.362	g500-H1500	m550-P160/M4	2	230
11.7	613	47.0	875	116	875	2.8	203	875	2.4	1389.649	12.762	g500-H3000	m550-P160/M4	2	271
10.9	657	43.9	938	109	938	1.5	190	938	1.3	1370.063	13.673	g500-H1500	m550-P160/M4	2	230
10.5	684	42.2	976	104	976	2.6	182	976	2.2	1383.535	14.233	g500-H3000	m550-P160/M4	2	271
9.8	728	39.6	1040	98.0	1040	1.4	171	1040	1.2	1368.006	15.156	g500-H1500	m550-P160/M4	2	230
9.5	751	38.4	1072	95.0	1072	2.4	166	1072	2.0	1383.092	15.633	g500-H3000	m550-P160/M4	2	271
8.9	805	35.8	1150	88.6	1150	1.3	155	1150	1.1	1367.834	16.763	g500-H1500	m550-P160/M4	2	230
7.9	901	32.0	1286	79.2	1286	2.1	138	1286	1.8	1375.200	18.752	g500-H3000	m550-P160/M4	2	271
7.2	989	29.1	1413	72.1	1413	2.0	126	1413	1.7	1374.945	20.596	g500-H3000	m550-P160/M4	2	271
6.5	1107	26.0	1581	64.4	1581	1.8	113	1581	1.5	1371.350	23.044	g500-H3000	m550-P160/M4	2	271
5.9	1216	23.7	1736	58.7	1736	1.7	103	1736	1.4	1371.181	25.311	g500-H3000	m550-P160/M4	2	271
3.2	2232	12.7	3188	31.5	3188	0.9	55.0	3188	0.8	1375.742	47.186	g500-H3000	m550-P160/M4	3	276
2.9	2452	11.6	3502	28.7	3502	0.8	50.1	3502	0.8	1375.702	51.828	g500-H3000	m550-P160/M4	3	276
2.8	2544	11.2	3633	27.6	3633	0.8	48.3	3633	0.8	1372.174	53.770	g500-H3000	m550-P160/M4	3	276



50 Hz: 15 kW

87 Hz: 26.3 kW

Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)								
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
39.8	245	160	350	397	350	2.2	693	352	1.8	1587.796	3.743	g500-H1500	m550-P160/L4	2	245
33.1	295	133	421	330	421	3.2	577	422	2.7	1627.626	4.496	g500-H3000	m550-P160/L4	2	286
31.3	312	126	445	312	445	2.1	545	447	1.7	1577.688	4.758	g500-H1500	m550-P160/L4	2	245
27.6	354	111	506	275	506	2.0	481	507	1.7	1582.750	5.400	g500-H1500	m550-P160/L4	2	245
25.2	387	102	553	252	553	2.9	440	554	2.4	1602.695	5.902	g500-H3000	m550-P160/L4	2	286
23.9	409	96.1	585	238	585	1.9	416	587	1.6	1568.863	6.245	g500-H1500	m550-P160/L4	2	245
23.5	416	94.6	594	234	594	3.2	409	596	2.7	1620.420	6.344	g500-H3000	m550-P160/L4	2	286
21.7	450	87.4	643	216	643	1.8	378	645	1.5	1574.565	6.864	g500-H1500	m550-P160/L4	2	245
21.4	456	86.1	652	213	652	3.1	372	654	2.6	1618.189	6.968	g500-H3000	m550-P160/L4	2	286
19.6	497	79.0	711	196	711	1.7	342	713	1.4	1573.724	7.592	g500-H1500	m550-P160/L4	2	245
17.9	545	72.1	780	178	780	2.8	312	782	2.3	1598.512	8.327	g500-H3000	m550-P160/L4	2	286
16.5	590	66.6	844	165	844	1.6	288	846	1.3	1567.050	9.010	g500-H1500	m550-P160/L4	2	245
16.3	599	65.6	856	162	856	2.6	284	859	2.2	1597.217	9.146	g500-H3000	m550-P160/L4	2	286
14.9	655	60.0	937	148	937	2.5	259	940	2.0	1590.619	10.005	g500-H3000	m550-P160/L4	2	286
14.5	672	58.4	961	145	961	1.4	253	964	1.2	1563.182	10.267	g500-H1500	m550-P160/L4	2	245
13.1	744	52.8	1063	131	1063	1.3	229	1066	1.1	1562.806	11.356	g500-H1500	m550-P160/L4	2	245
12.8	761	51.6	1088	128	1088	2.2	223	1091	1.8	1580.315	11.619	g500-H3000	m550-P160/L4	2	286
12.1	810	48.5	1157	120	1157	1.2	210	1161	1.0	1560.322	12.362	g500-H1500	m550-P160/L4	2	245
11.7	836	47.0	1195	116	1195	2.1	203	1199	1.7	1579.649	12.762	g500-H3000	m550-P160/L4	2	286
10.9	895	43.9	1280	109	1280	1.1	190	1284	0.9	1560.063	13.673	g500-H1500	m550-P160/L4	2	245
10.5	932	42.2	1333	104	1333	1.9	182	1337	1.6	1573.535	14.233	g500-H3000	m550-P160/L4	2	286
9.8	993	39.6	1419	98.0	1419	1.0	171	1423	0.8	1558.006	15.156	g500-H1500	m550-P160/L4	2	245
9.5	1024	38.4	1464	95.0	1464	1.8	166	1468	1.5	1573.092	15.633	g500-H3000	m550-P160/L4	2	286
8.9	1098	35.8	1569	88.6	1569	0.9	155	1574	0.8	1557.834	16.763	g500-H1500	m550-P160/L4	2	245
7.9	1228	32.0	1756	79.2	1756	1.6	138	1761	1.3	1565.200	18.752	g500-H3000	m550-P160/L4	2	286
7.2	1349	29.1	1928	72.1	1928	1.5	126	1934	1.2	1564.945	20.596	g500-H3000	m550-P160/L4	2	286
6.5	1509	26.0	2158	64.4	2158	1.3	113	2164	1.1	1561.350	23.044	g500-H3000	m550-P160/L4	2	286
5.9	1658	23.7	2370	58.7	2370	1.3	103	2377	1.0	1561.181	25.311	g500-H3000	m550-P160/L4	2	286



50 Hz: 18.5 kW

87 Hz: 32.2 kW

Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)								
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
39.8	303	160	432	397	432	1.8	692	432	1.5	2367.796	3.743	g500-H1500	m550-P180/M4	2	306
33.1	363	133	519	330	519	2.6	576	519	2.2	2407.626	4.496	g500-H3000	m550-P180/M4	2	348
31.3	385	126	549	312	549	1.7	544	549	1.4	2357.688	4.758	g500-H1500	m550-P180/M4	2	306
27.6	436	111	623	275	623	1.6	480	623	1.4	2362.750	5.400	g500-H1500	m550-P180/M4	2	306
25.2	477	102	681	252	681	2.4	439	681	2.0	2382.695	5.902	g500-H3000	m550-P180/M4	2	348
23.9	505	96.1	721	238	721	1.5	415	721	1.3	2348.863	6.245	g500-H1500	m550-P180/M4	2	306
23.5	513	94.6	732	234	732	2.6	408	732	2.2	2400.420	6.344	g500-H3000	m550-P180/M4	2	348
21.7	555	87.4	792	216	792	1.5	377	792	1.2	2354.565	6.864	g500-H1500	m550-P180/M4	2	306
21.4	563	86.1	805	213	805	2.5	372	805	2.1	2398.189	6.968	g500-H3000	m550-P180/M4	2	348
19.6	614	79.0	877	196	877	1.4	341	877	1.2	2353.724	7.592	g500-H1500	m550-P180/M4	2	306
17.9	673	72.1	961	178	961	2.2	311	961	1.9	2378.512	8.327	g500-H3000	m550-P180/M4	2	348
16.5	728	66.6	1040	165	1040	1.3	288	1040	1.1	2347.050	9.010	g500-H1500	m550-P180/M4	2	306
16.3	739	65.6	1056	162	1056	2.1	283	1056	1.8	2377.217	9.146	g500-H3000	m550-P180/M4	2	348
14.9	809	60.0	1155	148	1155	2.0	259	1155	1.7	2370.619	10.005	g500-H3000	m550-P180/M4	2	348
14.5	830	58.4	1185	145	1185	1.2	252	1185	1.0	2343.182	10.267	g500-H1500	m550-P180/M4	2	306
13.1	918	52.8	1311	131	1311	1.1	228	1311	0.9	2342.806	11.356	g500-H1500	m550-P180/M4	2	306
12.8	939	51.6	1341	128	1341	1.8	223	1341	1.5	2360.315	11.619	g500-H3000	m550-P180/M4	2	348
12.1	999	48.5	1427	120	1427	1.0	210	1427	0.8	2340.322	12.362	g500-H1500	m550-P180/M4	2	306
11.7	1031	47.0	1473	116	1473	1.7	203	1473	1.4	2359.649	12.762	g500-H3000	m550-P180/M4	2	348
10.9	1105	43.9	1579	109	1579	0.9	189	1579	0.8	2340.063	13.673	g500-H1500	m550-P180/M4	2	306
10.5	1150	42.2	1643	104	1643	1.5	182	1643	1.3	2353.535	14.233	g500-H3000	m550-P180/M4	2	348
9.8	1225	39.6	1750	98.0	1750	0.8	171	1750	0.7	2338.006	15.156	g500-H1500	m550-P180/M4	2	306
9.5	1264	38.4	1805	95.0	1805	1.5	166	1805	1.2	2353.092	15.633	g500-H3000	m550-P180/M4	2	348
7.9	1516	32.0	2165	79.2	2165	1.3	138	2165	1.1	2345.200	18.752	g500-H3000	m550-P180/M4	2	348
7.2	1665	29.1	2378	72.1	2378	1.2	126	2378	1.0	2344.945	20.596	g500-H3000	m550-P180/M4	2	348
6.5	1862	26.0	2661	64.4	2661	1.1	112	2661	0.9	2341.350	23.044	g500-H3000	m550-P180/M4	2	348
5.9	2046	23.7	2922	58.7	2922	1.0	102	2922	0.9	2341.181	25.311	g500-H3000	m550-P180/M4	2	348



50 Hz: 22 kW

87 Hz: 38.5 kW

Inverter operation												Geared motor			
5 Hz -		- 20 Hz		50 Hz (1:10)			87 Hz (1:17.4)								
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	n ₂	M ₂	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		rpm	Nm		kgcm ²					kg
39.5	361	160	516	395	516	1.5	692	516	1.3	2437.796	3.743	g500-H1500	m550-P180/L4	2	317
32.9	434	133	619	329	619	2.2	576	619	1.8	2477.626	4.496	g500-H3000	m550-P180/L4	2	358
31.1	459	126	656	311	656	1.4	544	656	1.2	2427.688	4.758	g500-H1500	m550-P180/L4	2	317
27.4	521	111	744	274	744	1.4	480	744	1.1	2432.750	5.400	g500-H1500	m550-P180/L4	2	317
25.1	569	102	813	251	813	2.0	439	813	1.7	2452.695	5.902	g500-H3000	m550-P180/L4	2	358
23.7	602	96.1	860	237	860	1.3	415	860	1.1	2418.863	6.245	g500-H1500	m550-P180/L4	2	317
23.3	612	94.6	874	233	874	2.2	408	874	1.8	2470.420	6.344	g500-H3000	m550-P180/L4	2	358
21.6	662	87.4	946	216	946	1.2	377	946	1.0	2424.565	6.864	g500-H1500	m550-P180/L4	2	317
21.2	672	86.1	960	212	960	2.1	372	960	1.8	2468.189	6.968	g500-H3000	m550-P180/L4	2	358
19.5	732	79.0	1046	195	1046	1.2	341	1046	1.0	2423.724	7.592	g500-H1500	m550-P180/L4	2	317
17.8	803	72.1	1147	178	1147	1.9	311	1147	1.6	2448.512	8.327	g500-H3000	m550-P180/L4	2	358
16.4	869	66.6	1241	164	1241	1.1	288	1241	0.9	2417.050	9.010	g500-H1500	m550-P180/L4	2	317
16.2	882	65.6	1260	162	1260	1.8	283	1260	1.5	2447.217	9.146	g500-H3000	m550-P180/L4	2	358
14.8	965	60.0	1378	148	1378	1.7	259	1378	1.4	2440.619	10.005	g500-H3000	m550-P180/L4	2	358
14.4	990	58.4	1414	144	1414	1.0	252	1414	0.8	2413.182	10.267	g500-H1500	m550-P180/L4	2	317
13.0	1095	52.8	1564	130	1564	0.9	228	1564	0.8	2412.806	11.356	g500-H1500	m550-P180/L4	2	317
12.7	1121	51.6	1601	127	1601	1.5	223	1601	1.3	2430.315	11.619	g500-H3000	m550-P180/L4	2	358
12.0	1192	48.5	1703	120	1703	0.8	210	1703	0.7	2410.322	12.362	g500-H1500	m550-P180/L4	2	317
11.6	1231	47.0	1758	116	1758	1.4	203	1758	1.2	2429.649	12.762	g500-H3000	m550-P180/L4	2	358
10.4	1373	42.2	1961	104	1961	1.3	182	1961	1.1	2423.535	14.233	g500-H3000	m550-P180/L4	2	358
9.5	1508	38.4	2154	94.7	2154	1.2	166	2154	1.0	2423.092	15.633	g500-H3000	m550-P180/L4	2	358
7.9	1808	32.0	2583	78.9	2583	1.1	138	2583	0.9	2415.200	18.752	g500-H3000	m550-P180/L4	2	358
7.2	1986	29.1	2838	71.9	2838	1.0	126	2838	0.8	2414.945	20.596	g500-H3000	m550-P180/L4	2	358
6.4	2222	26.0	3175	64.2	3175	0.9	112	3175	0.8	2411.350	23.044	g500-H3000	m550-P180/L4	2	358
5.8	2441	23.7	3487	58.5	3487	0.9	102	3487	0.7	2411.181	25.311	g500-H3000	m550-P180/L4	2	358



7.7 Dimensions

Notes on the basic dimensions

Gearbox	Without pre-stage	With pre-stage
g500-H45	2-stage	-
g500-H100 ... g500-H140	2-stage	3-stage
g500-H210 ... g500-H3000	2-/3-stage	4-stage

The ratio range of gearboxes with pre-stage is extended via an additional housing with gear stage between the gearbox and motor.

The basic dimensions are shown without pre-stage and are valid up to the following deviating dimensions for gearbox with pre-stage valid:

- Total length "L"
- Center distance "a" (gearbox output shaft – motor shaft)

Deviating dimensions: ▶ [Gearbox with pre-stage](#) 164

The following legend shows the structure of the dimension tables:

Motor	m550-H		
	63/S4	63/M4	63/L4

Table content		Explanation
Total length	L	Total length of the drive without brake/feedback
Motor length	LB	Length of the motor without brake/feedback
Motor diameter	AC	Motor diameter
Motor/connection distance	AD	Distance from center of motor to terminal box end



The dimensions shown in the dimensional drawings for the solid shafts with featherkey (V□□) also apply for solid shafts without a keyway (G□□).

Please observe the available output shaft designs!

▶ [The modular system](#) 14



If the mounting area (foot support) towards the motor is longer than the gearbox foot, some motors collide with the mounting area!

For an accurate check of the geometrical data, Lenze recommends the use of the »Product Finder« at www.Lenze.com.



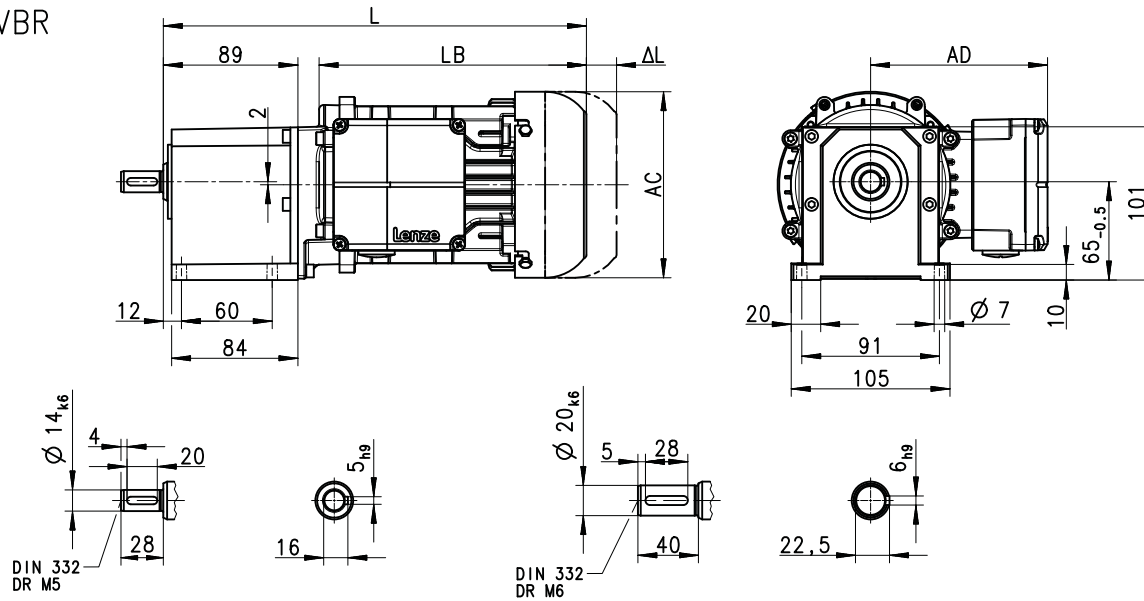
7.7.1 Basic dimensions

g500-H45, 2-stage

Gearbox design: Solid shaft, with foot (VBR)

The dimensions also apply for solid shafts without a keyway $\varnothing 20 \times 40$ (G□□)!

VBR



8801151-00

Motor series			m550-H	
Motor			063S4 063M4 063L4	071M4 071L4
Total length	L	mm	280	315
Motor length	LB	mm	188	217
Motor diameter	AC	mm	123	139
Motor/connection distance	AD	mm	117	129

Δ L ▶ Additional lengths 169

Technical data

Dimensions
Basic dimensions

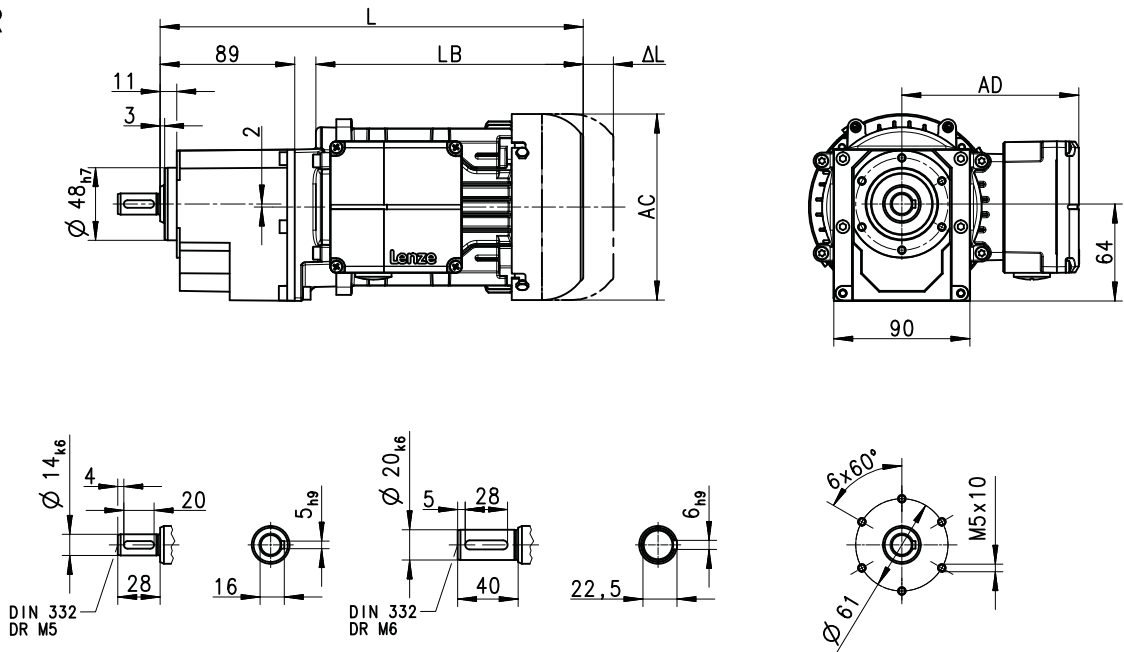


g500-H45, 2-stage

Gearbox design: Solid shaft, with centering (VCR)

The dimensions also apply for solid shafts without a keyway $\varnothing 20 \times 40$ (G□□)!

VCR



8801153-00

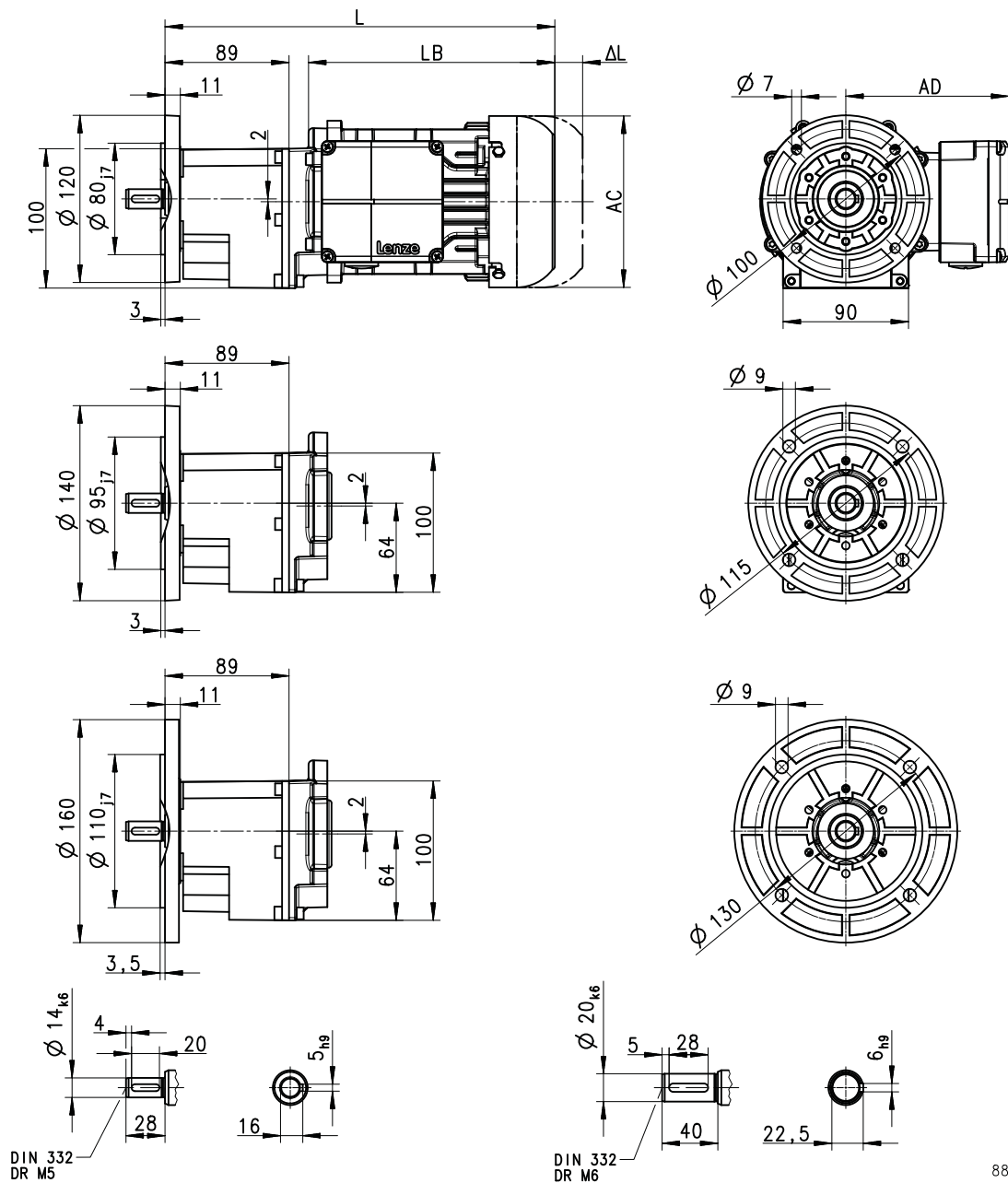
Motor series			m550-H	
Motor			063S4 063M4 063L4	071M4 071L4
Total length	L	mm	280	315
Motor length	LB	mm	188	217
Motor diameter	AC	mm	123	139
Motor/connection distance	AD	mm	117	129

Δ L ▶ Additional lengths 169



The dimensions also apply for solid shafts without a keyway Ø20 x 40 (G□□)!

VCK



Motor series			m550-H	
Motor			063S4 063M4 063L4	071M4 071L4
Total length	L	mm	280	315
Motor length	LB	mm	188	217
Motor diameter	AC	mm	123	139
Motor/connection distance	AD	mm	117	129

Δ L ▶ Additional lengths  169

Technical data

Dimensions
Basic dimensions

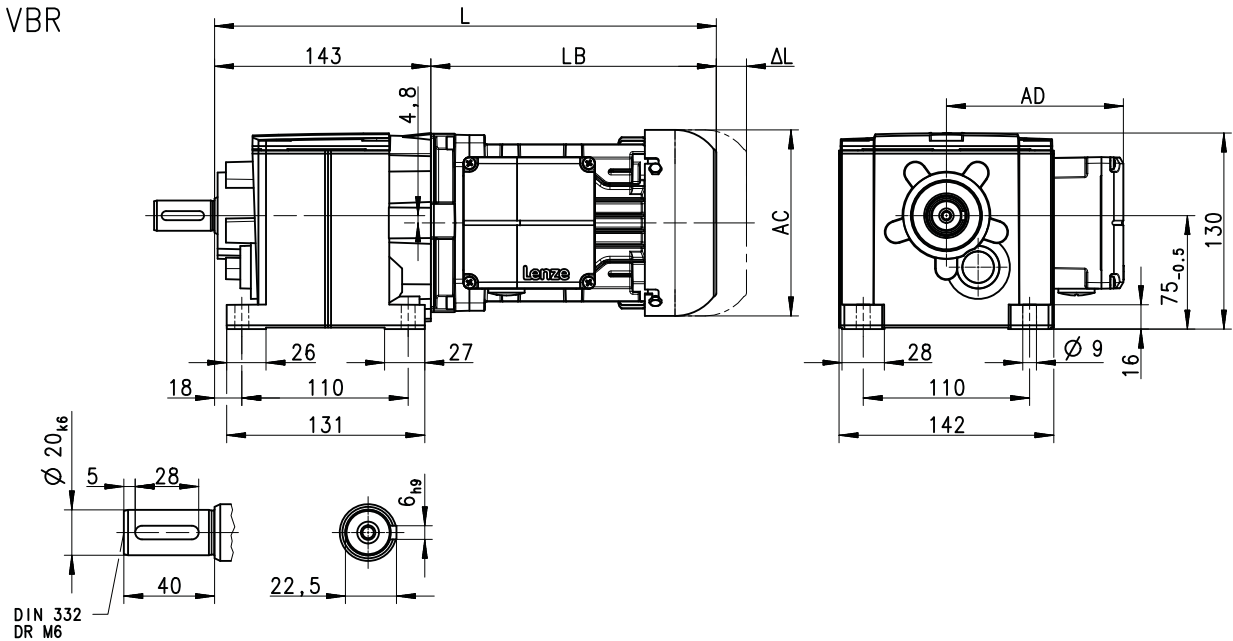


g500-H100, 2-stage

Gearbox design: Solid shaft, with foot (VBR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VBR



8801154-00

Motor series			m550-H		m550-P	
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4
Total length	L	mm	332	361	385	428
Motor length	LB	mm	189	218	242	285
Motor diameter	AC	mm	123	139	156	177
Motor/connection distance	AD	mm	117	129	145	153

ΔL ▶ Additional lengths 169



Dimensions

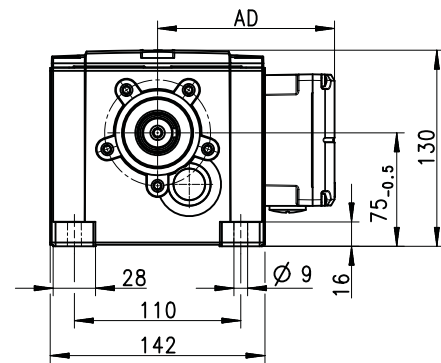
Basic dimensions

g500-H100, 2-stage

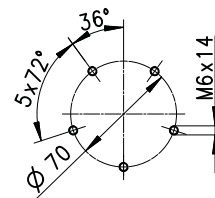
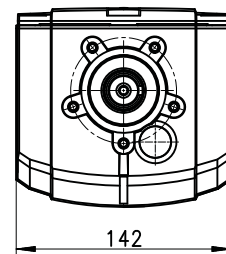
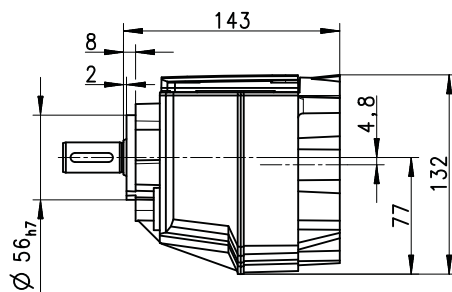
Gearbox design: Solid shaft, with centering (VAR/VCR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VAR



VCR



8801156-00

Motor series			m550-H		m550-P	
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4
Total length	L	mm	332	361	385	428
Motor length	LB	mm	189	218	242	285
Motor diameter	AC	mm	123	139	156	177
Motor/connection distance	AD	mm	117	129	145	153

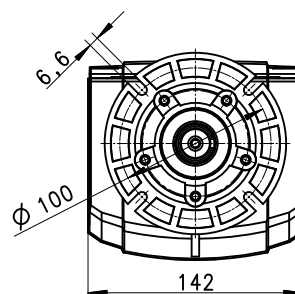
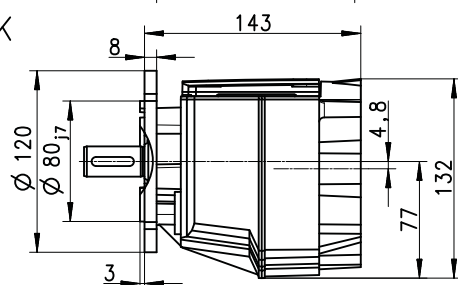
Δ L ▶ Additional lengths 169

Dimensions

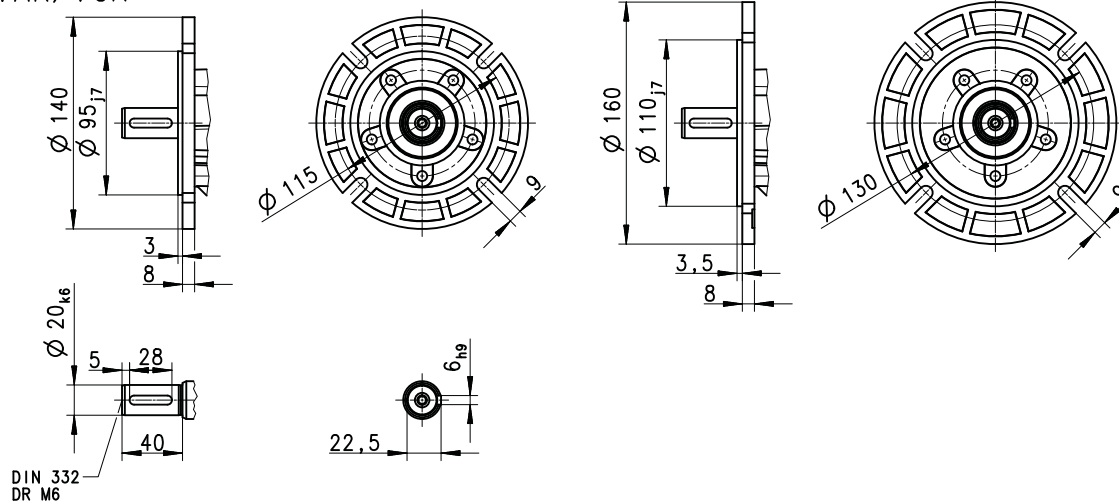
Basic dimensions



The dimensions also apply for solid shafts without a keyway (G□□)!

[illegible]

VAK/VCK



8801155-00

Motor series			m550-H		m550-P	
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4
Total length	L	mm	332	361	385	428
Motor length	LB	mm	189	218	242	285
Motor diameter	AC	mm	123	139	156	177
Motor/connection distance	AD	mm	117	129	145	153

Δ L ▶ Additional lengths 169

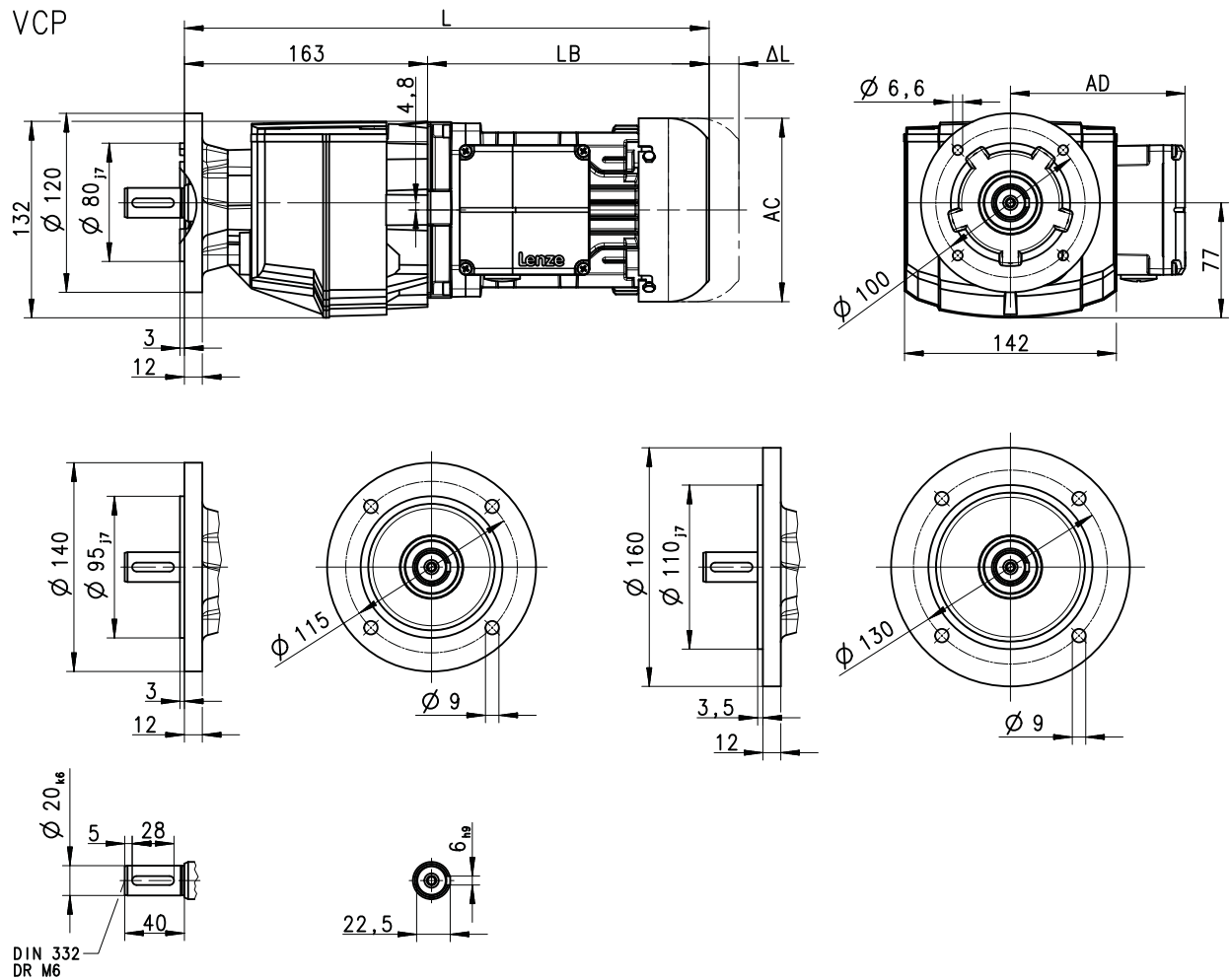


g500-H100, 2-stage

Gearbox design: Solid shaft, with flange in reinforced design (VCP)

The dimensions also apply for solid shafts without a keyway (G□□)!

VCP



8801157-00

Motor series			m550-H		m550-P	
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4
Total length	L	mm	352	381	405	448
Motor length	LB	mm	189	218	242	285
Motor diameter	AC	mm	123	139	156	177
Motor/connection distance	AD	mm	117	129	145	153

ΔL ▶ Additional lengths □ 169

Technical data

Dimensions
Basic dimensions

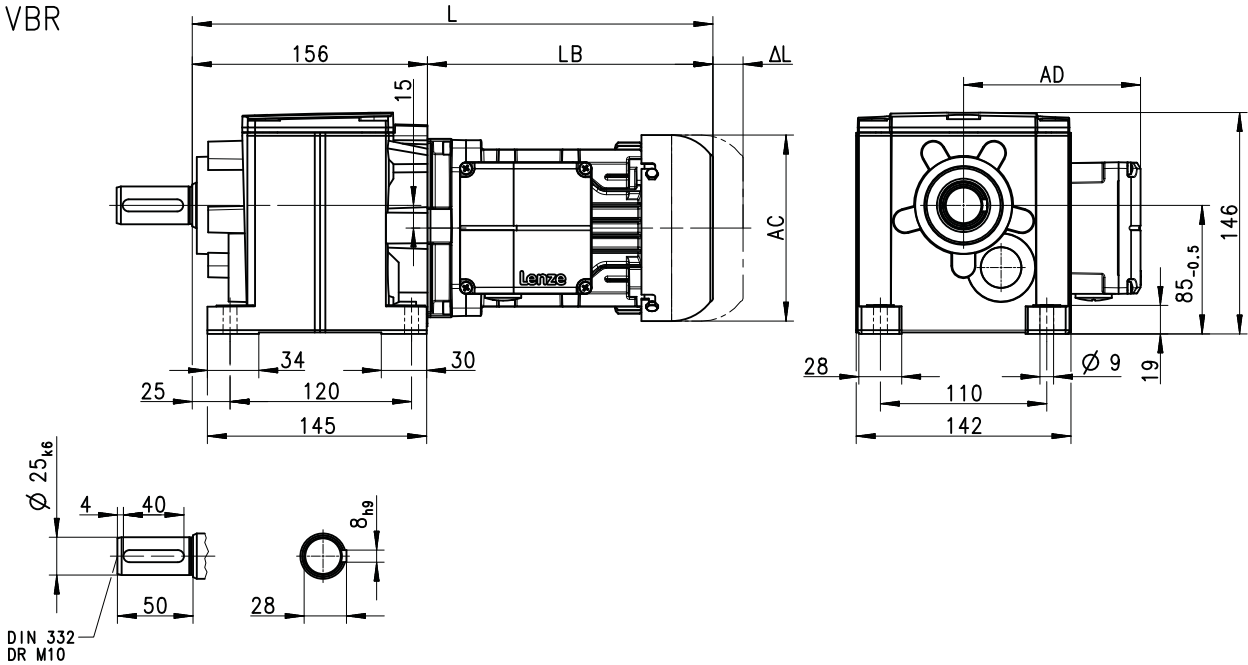


g500-H140, 2-stage

Gearbox design: Solid shaft, with foot (VBR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VBR



8801159-00

Motor series			m550-H		m550-P		
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4
Total length	L	mm	345	374	398	441	504
Motor length	LB	mm	189	218	242	285	348
Motor diameter	AC	mm	123	139	156	177	194
Motor/connection distance	AD	mm	117	129	145	153	164

Δ L ▶ Additional lengths 169



The dimensions also apply for solid shafts without a keyway (G□□)!

The technical drawing shows two views of the Lenz 6000 series motor:

- Front View (Left):** Shows the motor's profile with dimensions: total length L , mounting bracket width ΔL , main body length LB , AC terminal box height AC , and various mounting and shaft dimensions including 11.5, 3, 15, 34, 30, 25, 120, 145, and 63_{H7}.
- Side View (Right):** Shows the motor from the side with dimensions: AD (distance between mounting feet), total height 146, mounting foot height 85_{-0.5}, base width 19, and circular features with diameters $\varnothing 9$ and 28.

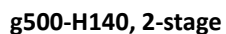
DIN 332-
DR M10

Motor series			m550-H		m550-P		
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4
Total length	L	mm	345	374	398	441	504
Motor length	LB	mm	189	218	242	285	348
Motor diameter	AC	mm	123	139	156	177	194
Motor/connection distance	AD	mm	117	129	145	153	164

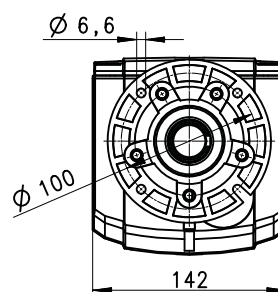
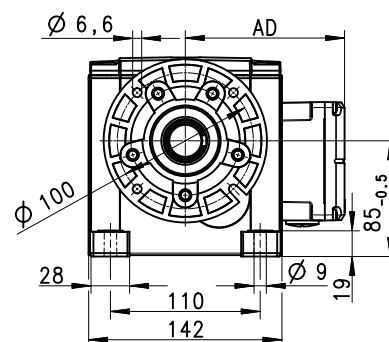
137

Dimensions

Basic dimensions



The dimensions also apply for solid shafts without a keyway (G□□)!

[illegible]

AK/VCK

Technical drawing of a circular plate with 12 holes. The drawing includes three views: a side view, a top view, and a detail view of a hole.

Side View Dimensions:

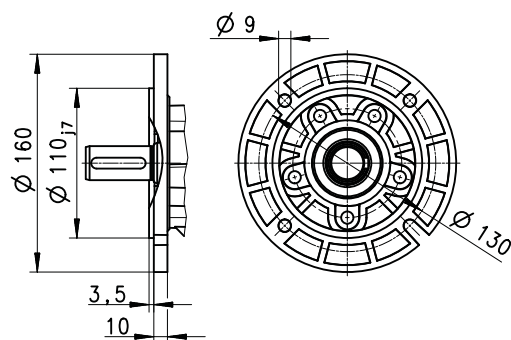
- Overall diameter: $\varnothing 140$
- Inner diameter of the central hole: $\varnothing 95_{+17}^{+17}$
- Thickness of the plate: 3
- Distance from the bottom edge to the center of the hole: 10

Top View Dimensions:

- Outer diameter: $\varnothing 115$
- Distance from the center to the center of a hole: $\varnothing 9$

Detail View Dimensions:

- Overall diameter: $\varnothing 25_{+6}^{+6}$
- Distance from the center to the center of a hole: 4
- Distance from the center to the center of a hole: 40
- Distance from the center to the center of a hole: 50
- Distance from the center to the center of a hole: 8_{h9}
- Distance from the center to the center of a hole: 28



DIN 332
DR M10

8801160-00

Motor series			m550-H		m550-P		
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4
Total length	L	mm	345	374	398	441	504
Motor length	LB	mm	189	218	242	285	348
Motor diameter	AC	mm	123	139	156	177	194
Motor/connection distance	AD	mm	117	129	145	153	164

Δ L ▶ Additional lengths 169

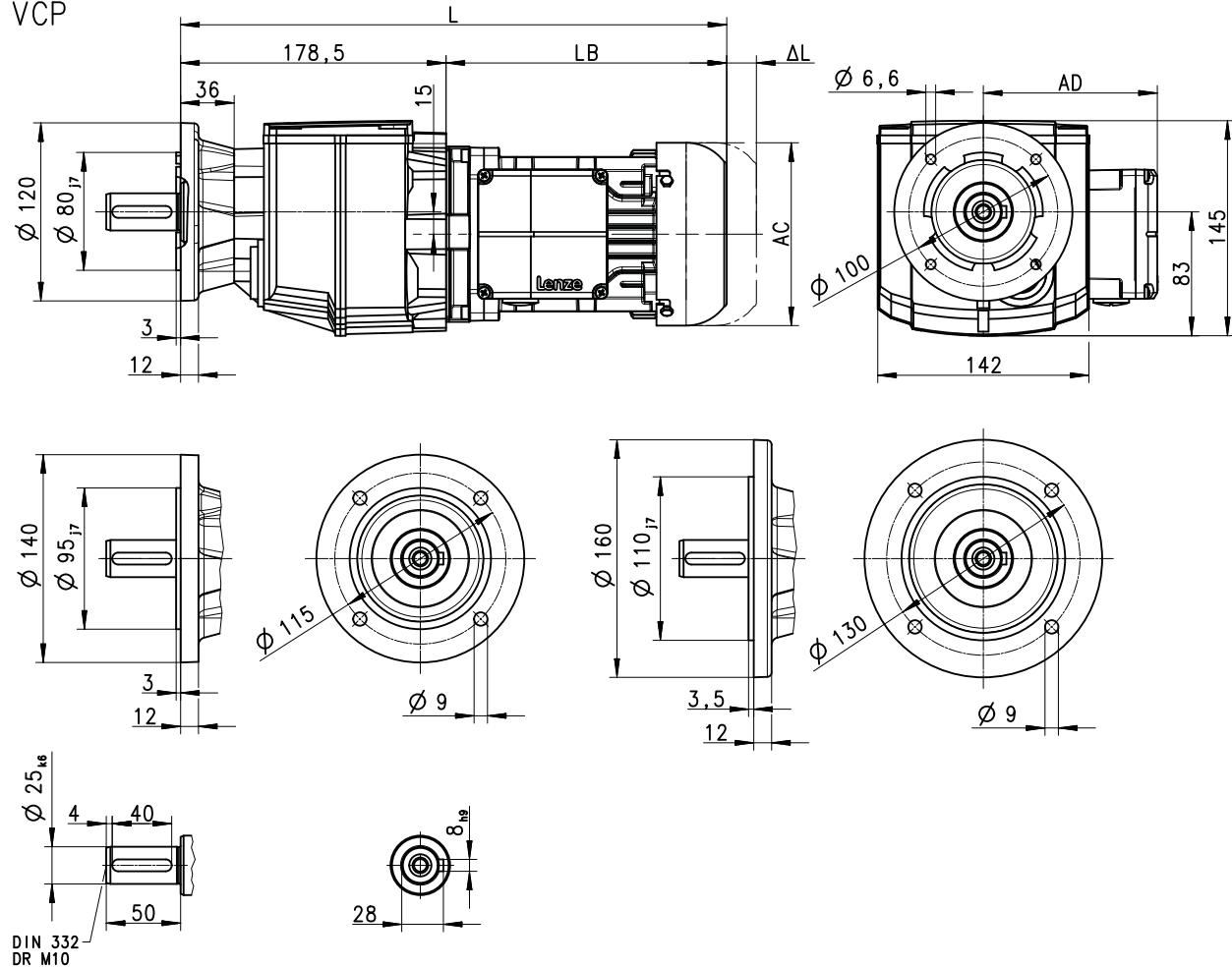


g500-H140, 2-stage

Gearbox design: Solid shaft, with flange in reinforced design (VCP)

The dimensions also apply for solid shafts without a keyway (G□□)!

VCP



DIN 332
DR M10

8801162-00

Motor series			m550-H		m550-P		
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4
Total length	L	mm	367	397	421	463	527
Motor length	LB	mm	189	218	242	285	348
Motor diameter	AC	mm	123	139	156	177	194
Motor/connection distance	AD	mm	117	129	145	153	164

ΔL ▶ Additional lengths 169

Technical data

Dimensions
Basic dimensions

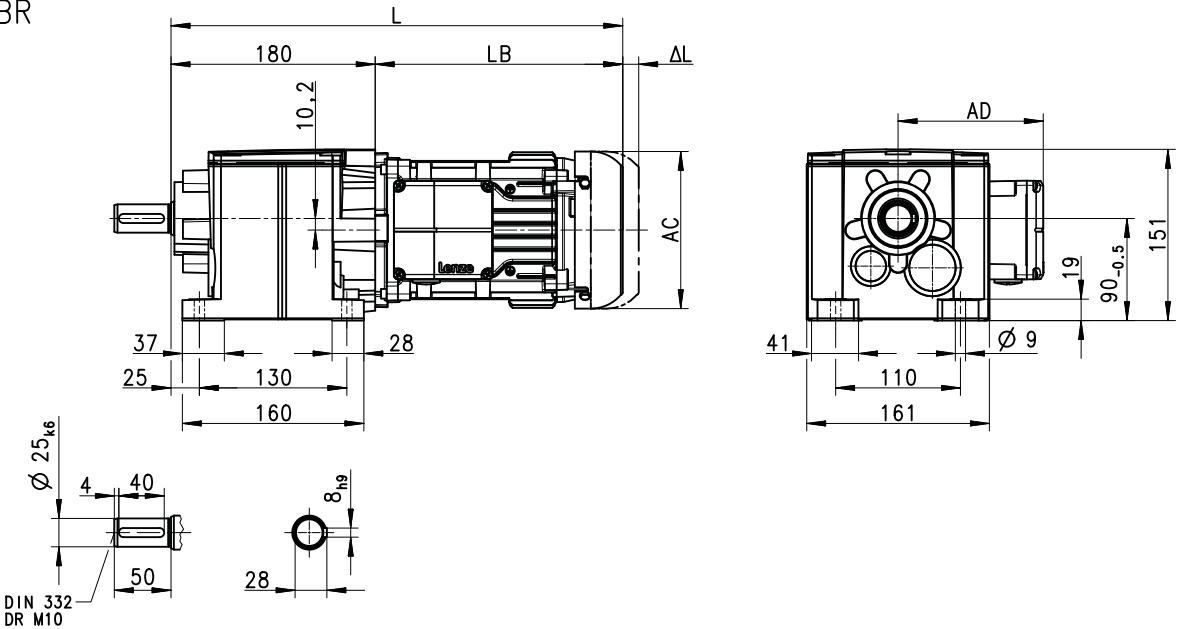


g500-H210, 2-/3-stage

Gearbox design: Solid shaft, with foot (VBR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VBR



8801163-00

Motor series			m550-H		m550-P		
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4
Total length	L	mm	369	398	422	465	528
Motor length	LB	mm	189	218	242	285	348
Motor diameter	AC	mm	123	139	156	177	194
Motor/connection distance	AD	mm	117	129	145	153	164

Δ L ▶ Additional lengths 169

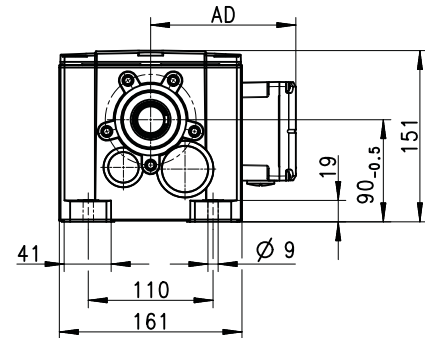
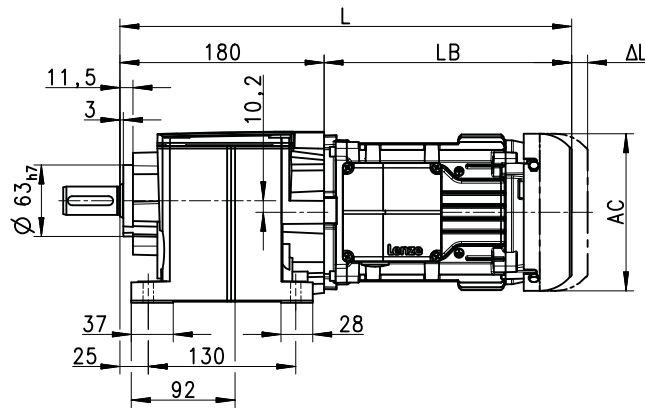


g500-H210, 2-/3-stage

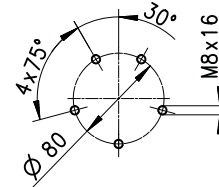
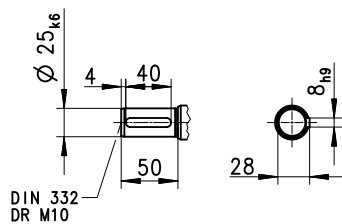
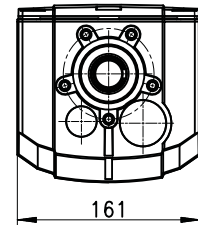
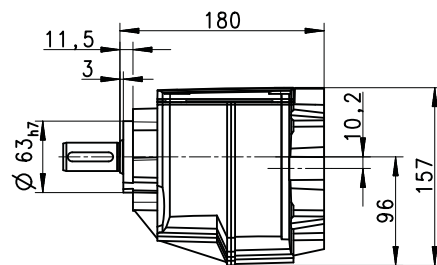
Gearbox design: Solid shaft, with centering (VAR/VCR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VAR



VCR



8801165-00

Motor series			m550-H		m550-P		
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4
Total length	L	mm	369	398	422	465	528
Motor length	LB	mm	189	218	242	285	348
Motor diameter	AC	mm	123	139	156	177	194
Motor/connection distance	AD	mm	117	129	145	153	164

Δ L ▶ Additional lengths 169

Technical data

Dimensions
Basic dimensions

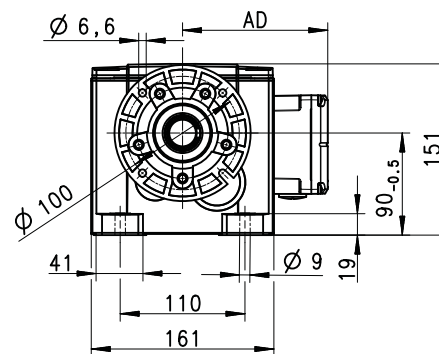
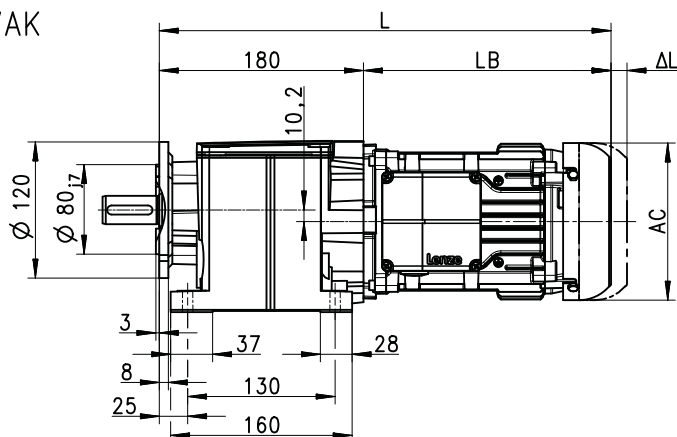


g500-H210, 2-/3-stage

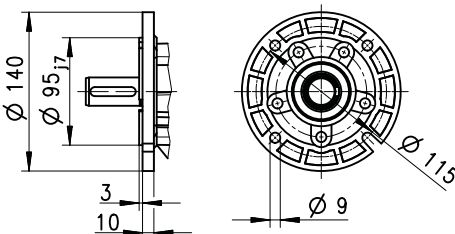
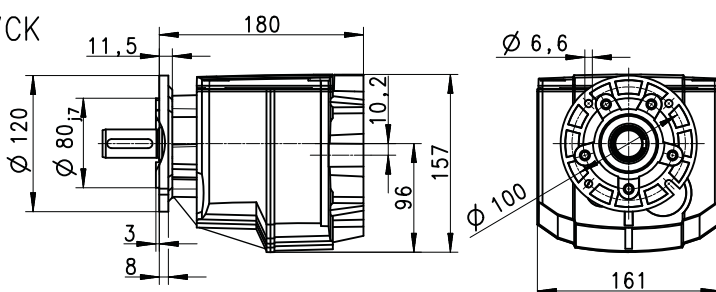
Gearbox design: Solid shaft, with flange (VAK/VCK)

The dimensions are also valid for solid shafts without a keyway (G□□)!

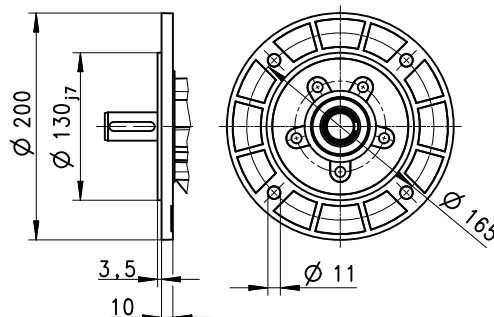
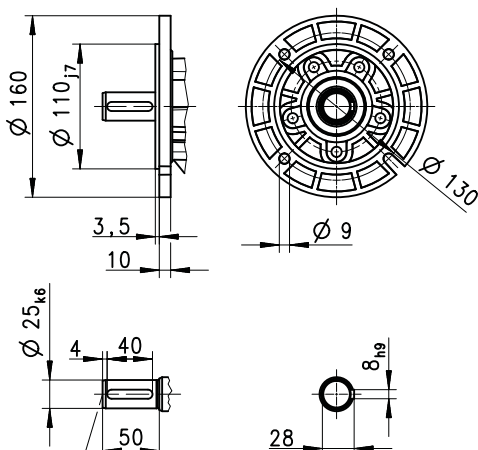
VAK



VCK



VAK/VCK



DIN 332
DR M10

8801164-00

Motor series			m550-H		m550-P		
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4
Total length	L	mm	369	398	422	465	528
Motor length	LB	mm	189	218	242	285	348
Motor diameter	AC	mm	123	139	156	177	194
Motor/connection distance	AD	mm	117	129	145	153	164

Δ L ▶ Additional lengths □ 169

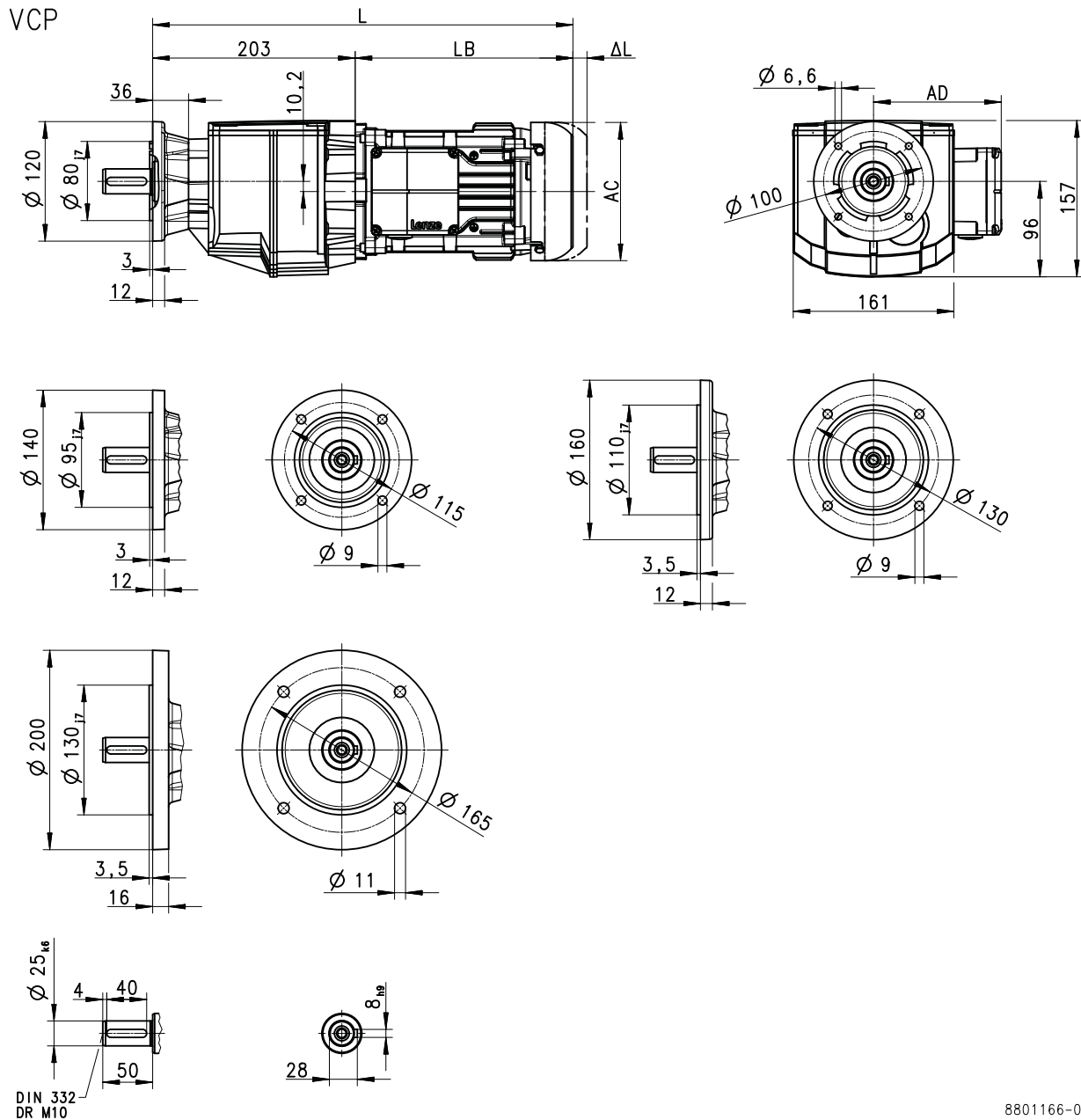


g500-H210, 2-/3-stage

Gearbox design: Solid shaft, with flange in reinforced design (VCP)

The dimensions also apply for solid shafts without a keyway (G□□)!

VCP



8801166-00

Motor series			m550-H		m550-P		
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4
Total length	L	mm	392	421	445	488	551
Motor length	LB	mm	189	218	242	285	348
Motor diameter	AC	mm	123	139	156	177	194
Motor/connection distance	AD	mm	117	129	145	153	164

ΔL ▶ Additional lengths □ 169

Technical data

Dimensions
Basic dimensions

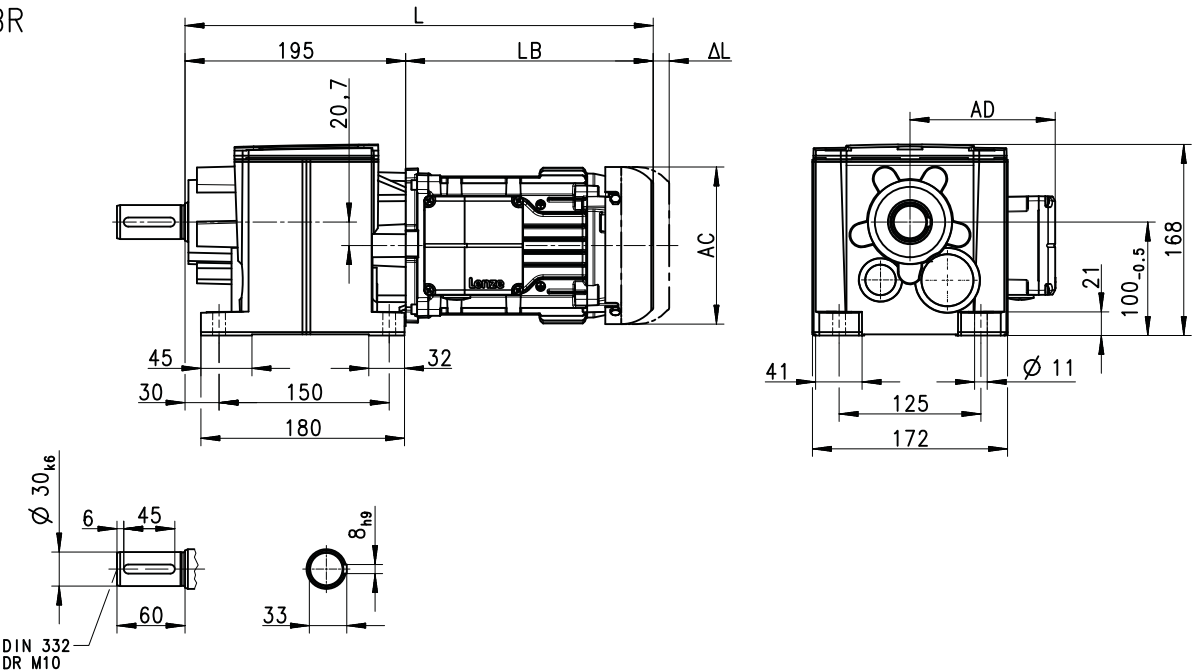


g500-H320, 2-/3-stage

Gearbox design: Solid shaft, with foot (VBR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VBR



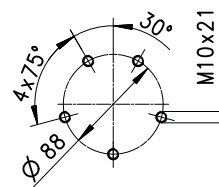
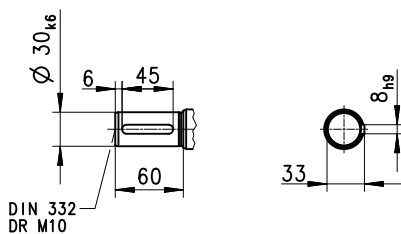
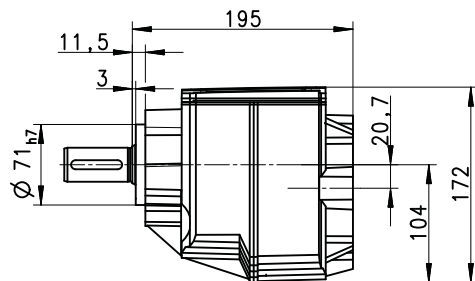
8801167-00

Motor series			m550-H		m550-P			
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4	112M4
Total length	L	mm	384	413	437	480	543	556
Motor length	LB	mm	189	218	242	285	348	361
Motor diameter	AC	mm	123	139	156	177	194	220
Motor/connection distance	AD	mm	117	129	145	153	164	169

ΔL ▶ Additional lengths 169



The dimensions also apply for solid shafts without a keyway (G□□)!

[illegible]

Motor series			m550-H		m550-P			
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4	112M4
Total length	L	mm	384	413	437	480	543	556
Motor length	LB	mm	189	218	242	285	348	361
Motor diameter	AC	mm	123	139	156	177	194	220
Motor/connection distance	AD	mm	117	129	145	153	164	169

145

Technical data

Dimensions
Basic dimensions

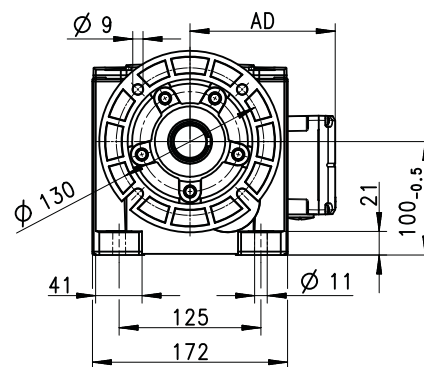
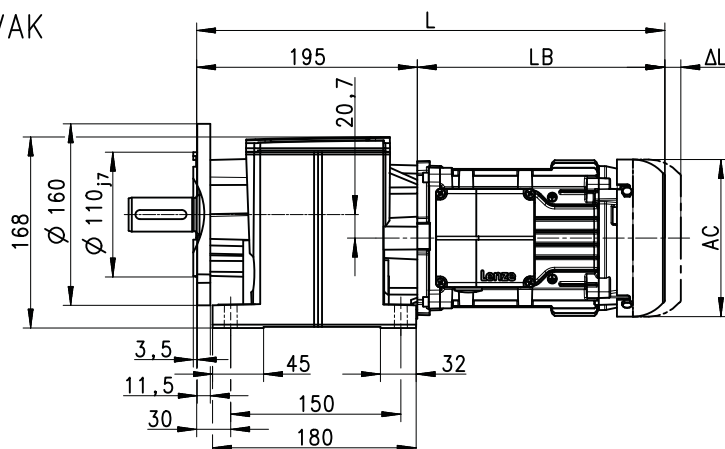


g500-H320, 2-/3-stage

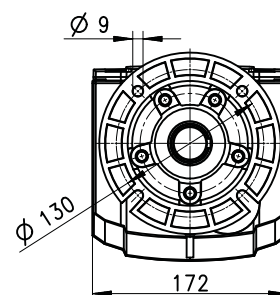
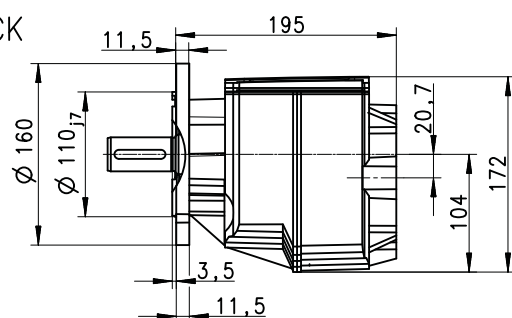
Gearbox design: Solid shaft, with flange (VAK/VCK)

The dimensions also apply for solid shafts without a keyway (G□□)!

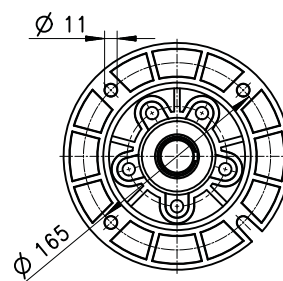
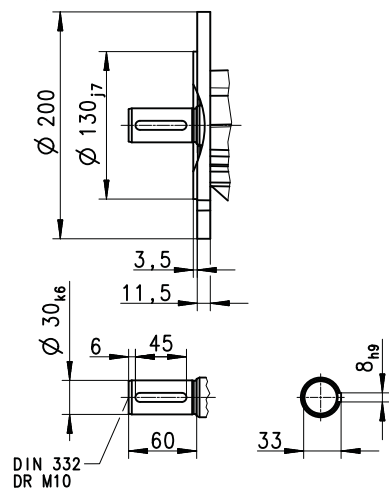
VAK



VCK



VAK/VCK



8801168-00

Motor series			m550-H		m550-P			
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4	112M4
Total length	L	mm	384	413	437	480	543	556
Motor length	LB	mm	189	218	242	285	348	361
Motor diameter	AC	mm	123	139	156	177	194	220
Motor/connection distance	AD	mm	117	129	145	153	164	169

Δ L ▶ Additional lengths □ 169

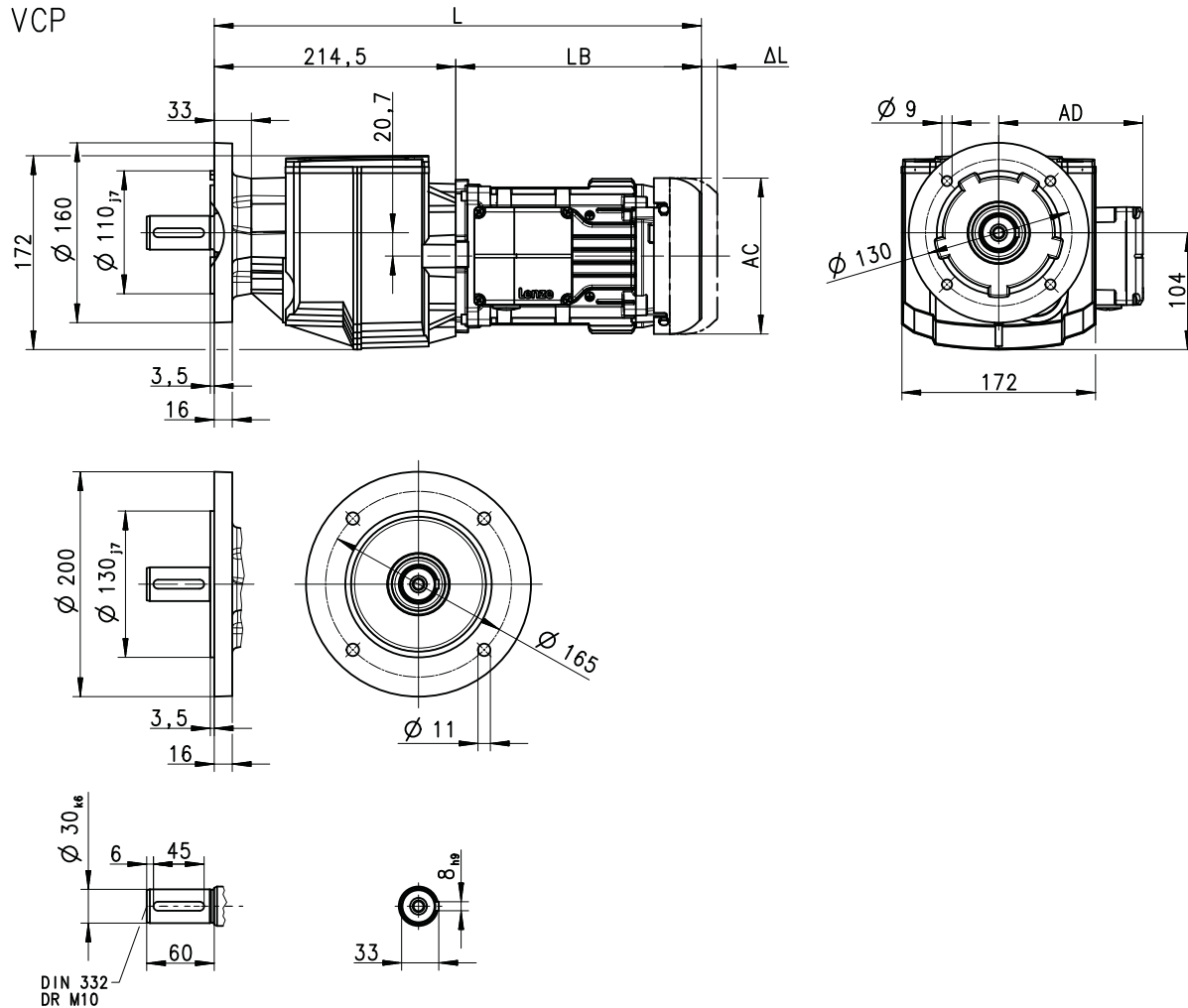


g500-H320, 2-/3-stage

Gearbox design: Solid shaft, with flange in reinforced design (VCP)

The dimensions also apply for solid shafts without a keyway (G□□)!

VCP



8801170-00

Motor series			m550-H		m550-P			
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4	112M4
Total length	L	mm	403	433	457	499	563	575
Motor length	LB	mm	189	218	242	285	348	361
Motor diameter	AC	mm	123	139	156	177	194	220
Motor/connection distance	AD	mm	117	129	145	153	164	169

ΔL ▶ Additional lengths 169

Technical data

Dimensions
Basic dimensions

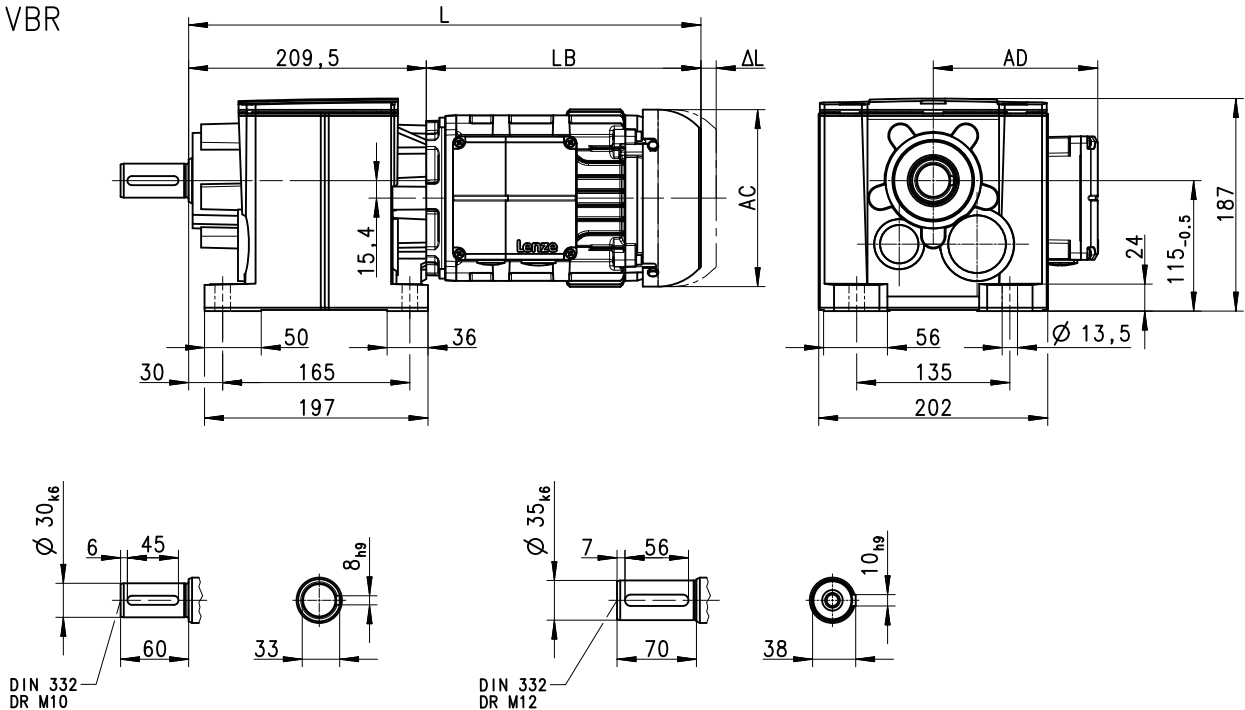


g500-H450, 2-/3-stage

Gearbox design: Solid shaft, with foot (VBR)

The dimensions also apply for solid shafts without a keyway $\varnothing 35 \times 70$ (G□□)!

VBR



8801171-00

Motor series			m550-H		m550-P				
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4	112M4	132M4 132L4
Total length	L	mm	398	428	452	494	558	570	634
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

ΔL ▶ Additional lengths 169

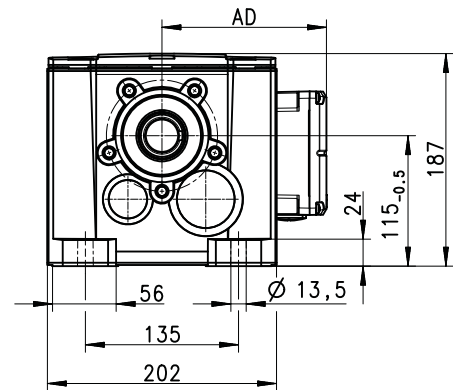
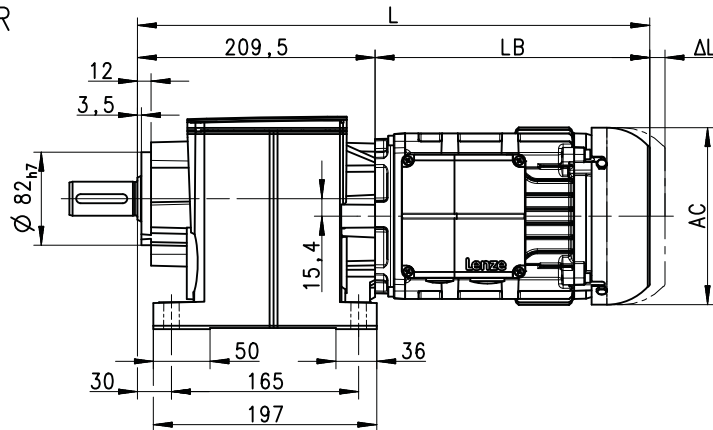


g500-H450, 2-/3-stage

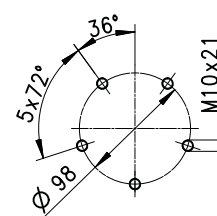
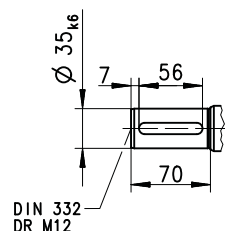
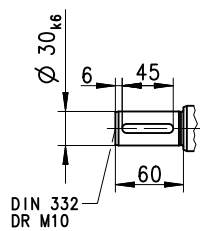
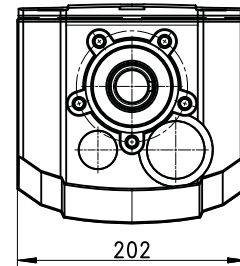
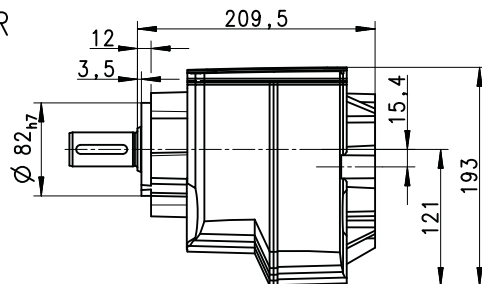
Gearbox design: Solid shaft, with centering (VAR/VCR)

The dimensions also apply for solid shafts without a keyway $\varnothing 35 \times 70$ (G□□)!

VAR



VCR



8801173-00

Motor series			m550-H		m550-P				
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4	112M4	132M4 132L4
Total length	L	mm	398	428	452	494	558	570	634
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

ΔL ▶ Additional lengths □ 169

Technical data

Dimensions
Basic dimensions

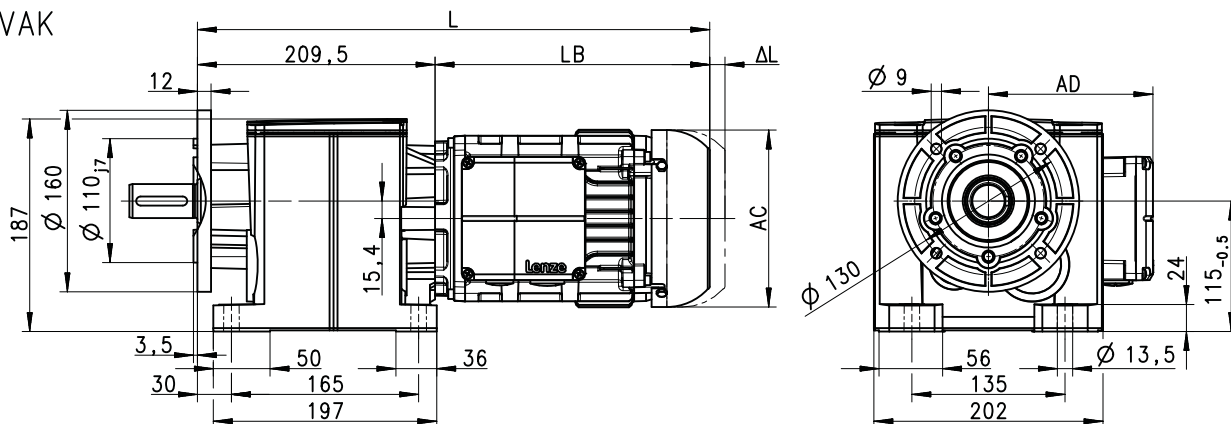


g500-H450, 2-/3-stage

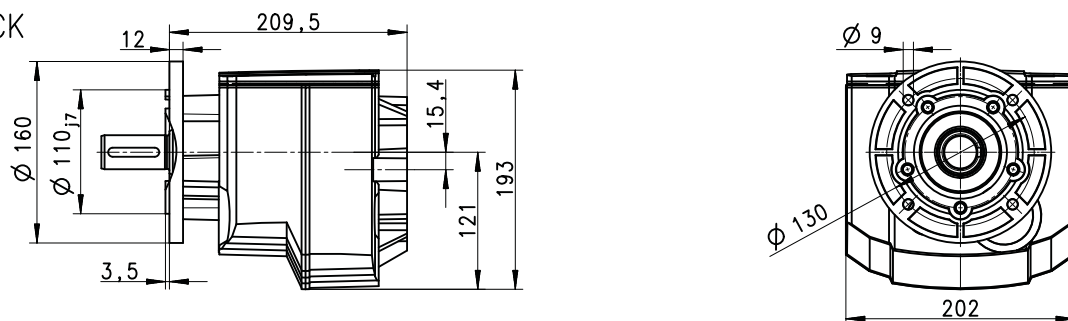
Gearbox design: Solid shaft, with flange (VAK/VCK)

The dimensions also apply for solid shafts without a keyway $\varnothing 35 \times 70$ (G□□)!

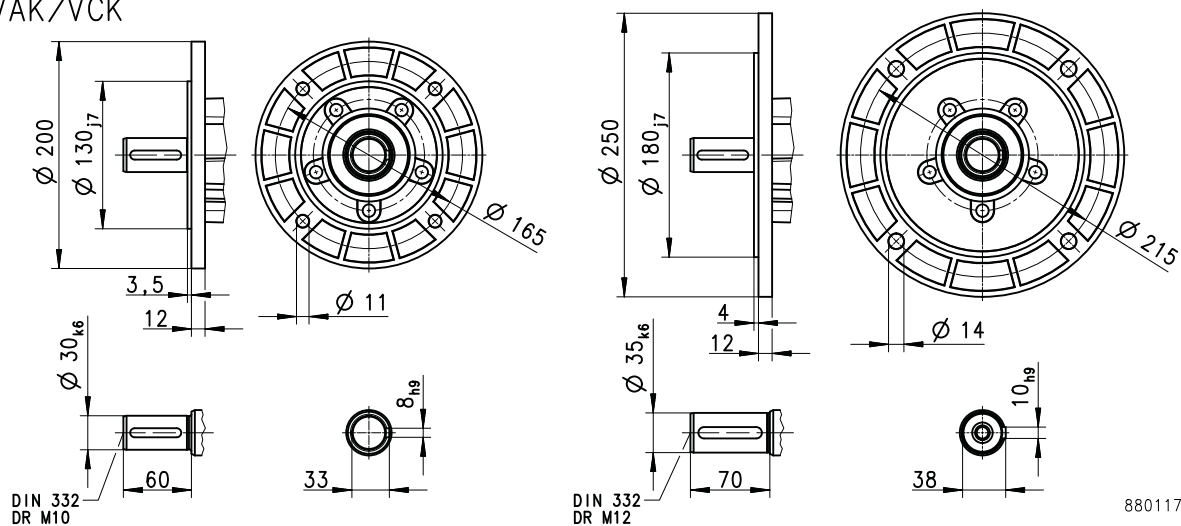
VAK



VCK



VAK/VCK



8801172-00

Motor series			m550-H		m550-P				
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4	112M4	132M4 132L4
Total length	L	mm	398	428	452	494	558	570	634
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

Δ L ▶ Additional lengths 169



Technical data

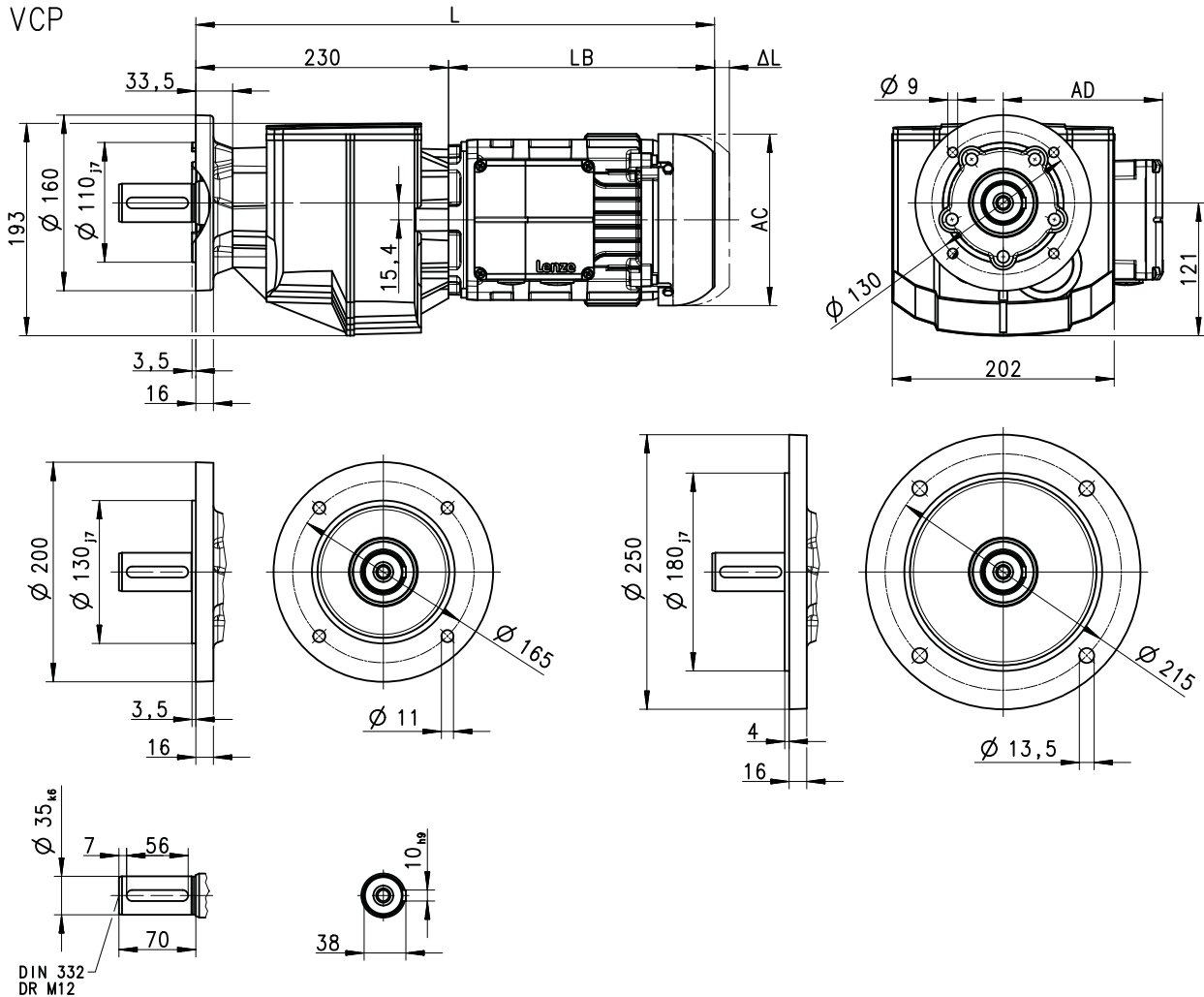
Dimensions
Basic dimensions

g500-H450, 2-/3-stage

Gearbox design: Solid shaft, with flange in reinforced design (VCP)

The dimensions also apply for solid shafts without a keyway $\varnothing 35 \times 70$ (G□□)!

VCP



8801174-00

Motor series			m550-H		m550-P				
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4	112M4	132M4 132L4
Total length	L	mm	419	448	472	515	578	591	655
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

ΔL ▶ Additional lengths □ 169

Technical data

Dimensions
Basic dimensions

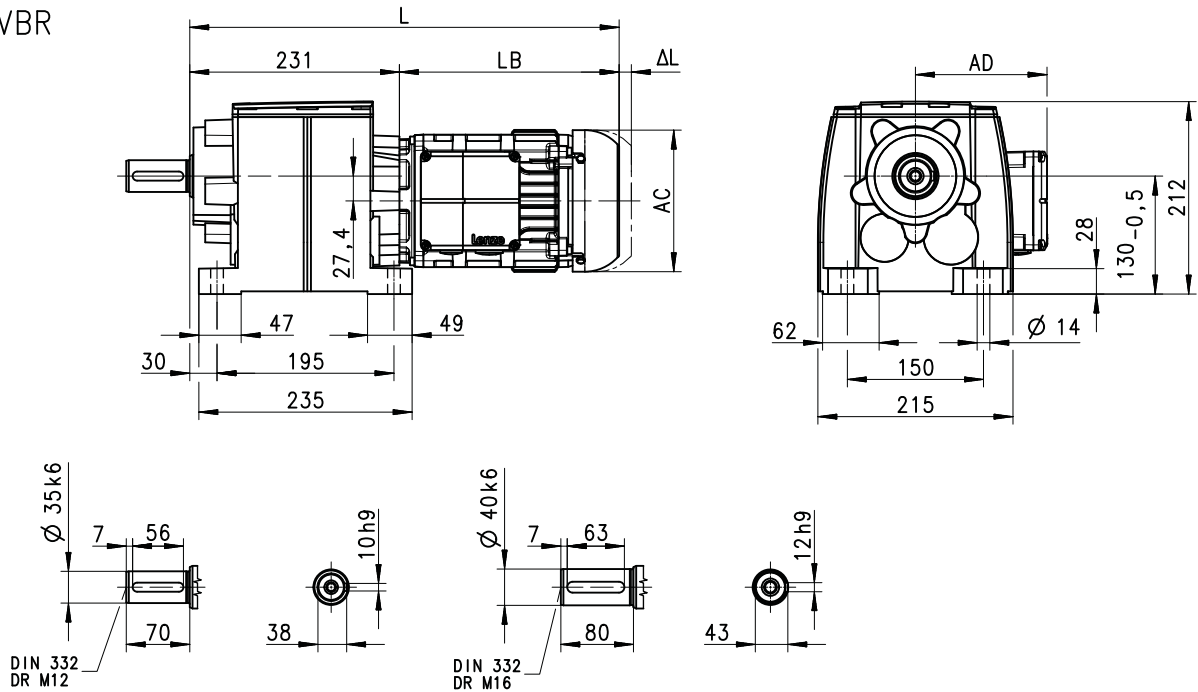


g500-H600, 2-/3-stage

Gearbox design: Solid shaft, with foot (VBR)

The dimensions also apply for solid shafts without a keyway $\varnothing 35 \times 70$ (G□□)!

VBR



8801175-00

Motor series			m550-H		m550-P				
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4	112M4	132M4 132L4
Total length	L	mm	420	449	473	516	579	592	656
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

ΔL ▶ Additional lengths 169

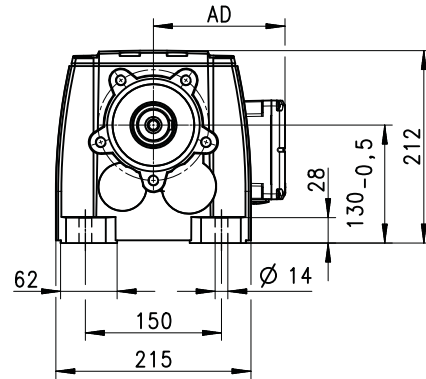
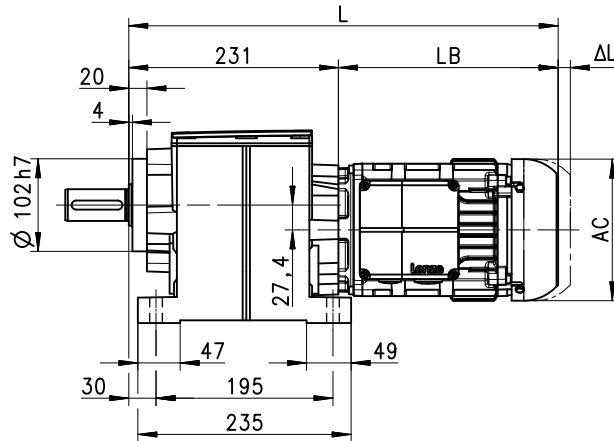


g500-H600, 2-/3-stage

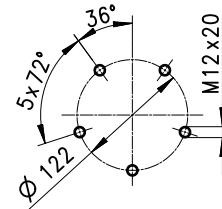
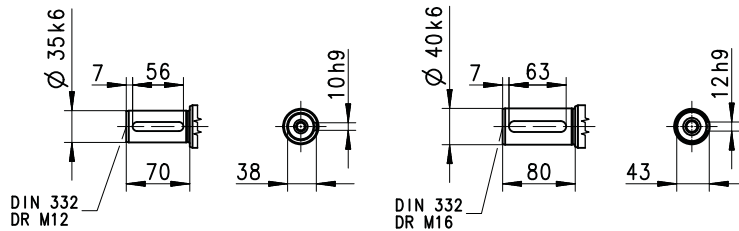
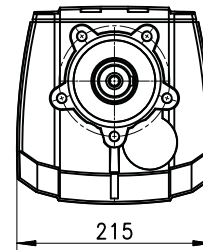
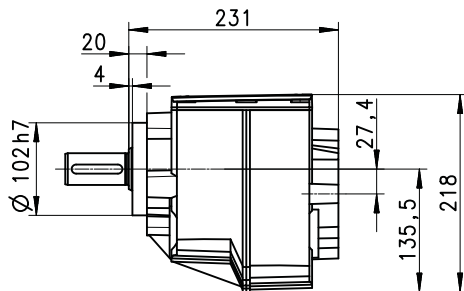
Gearbox design: Solid shaft, with centering (VAR/VCR)

The dimensions also apply for solid shafts without a keyway $\varnothing 35 \times 70$ (G□□)!

VAR



VCR



8801176-00

Motor series			m550-H		m550-P				
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4	112M4	132M4 132L4
Total length	L	mm	420	449	473	516	579	592	656
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

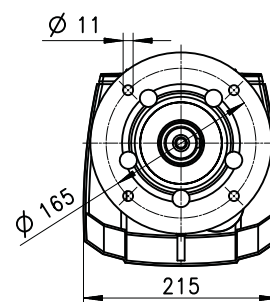
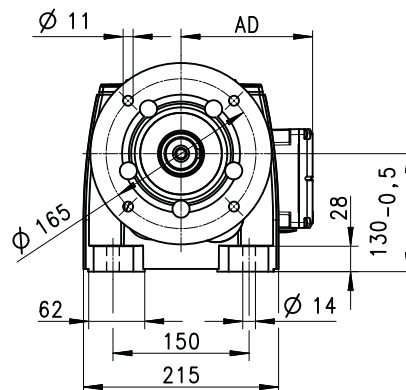
ΔL ▶ Additional lengths 169

Dimensions

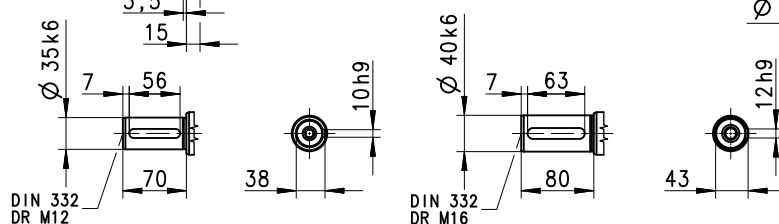
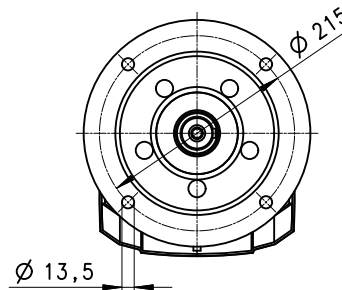
Basic dimensions



The dimensions also apply for solid shafts without a keyway $\varnothing 35 \times 70$ (G□□)!

[illegible]

Technical drawing of a shaft-hub assembly. The shaft has a diameter of $\varnothing 3,5$ and a length of 15. The hub has an outer diameter of $\varnothing 250$ and an inner diameter of $\varnothing 180 j7$. The assembly is shown in a cross-sectional view.



8801177-00

Motor series			m550-H		m550-P				
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4	112M4	132M4 132L4
Total length	L	mm	420	449	473	516	579	592	656
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

Δ L ▶ Additional lengths  169

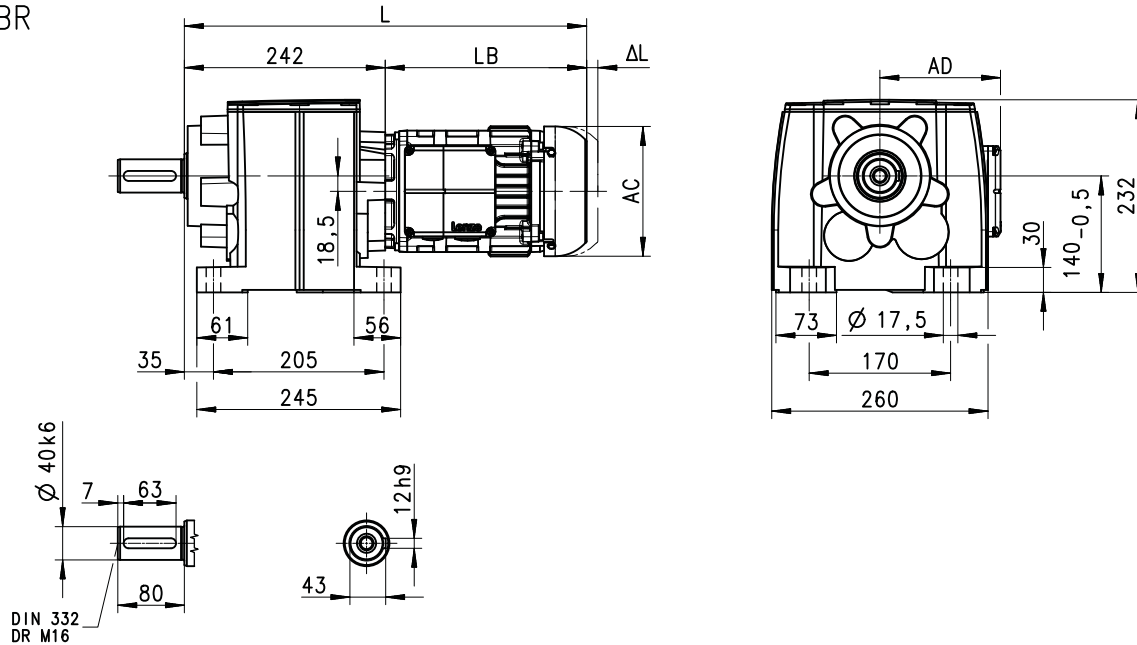


g500-H850, 2-/3-stage

Gearbox design: Solid shaft, with foot (VBR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VBR



8801178-00

Motor series			m550-H		m550-P				
Motor			063L4 063S4 063M4	071M4 071L4	080M4	090M4 090L4	100M4 100L4	112M4	132M4 132L4
Total length	L	mm	431	460	484	527	590	603	667
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

Δ L ▶ Additional lengths 169

Technical data

Dimensions
Basic dimensions

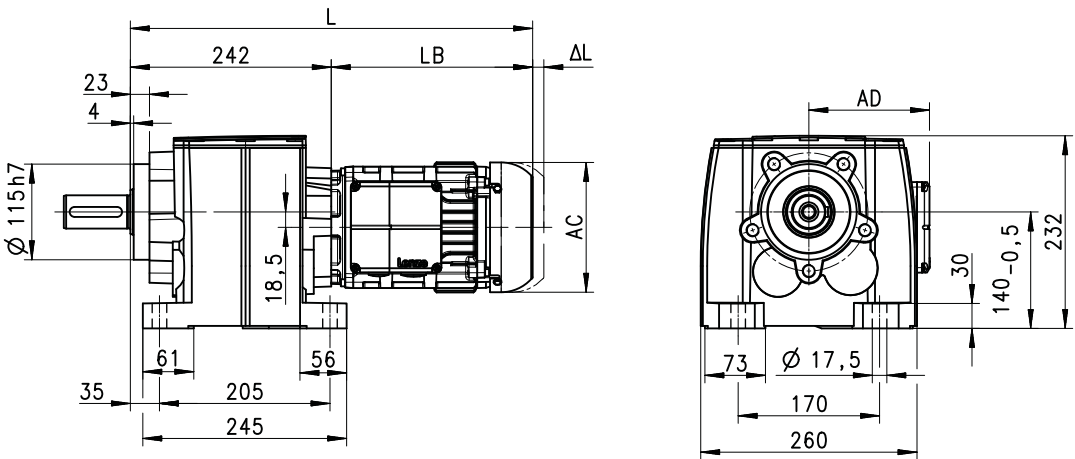


g500-H850, 2-/3-stage

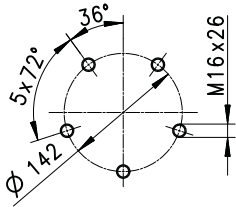
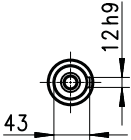
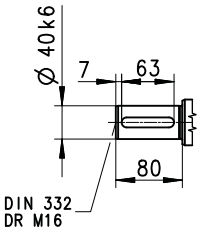
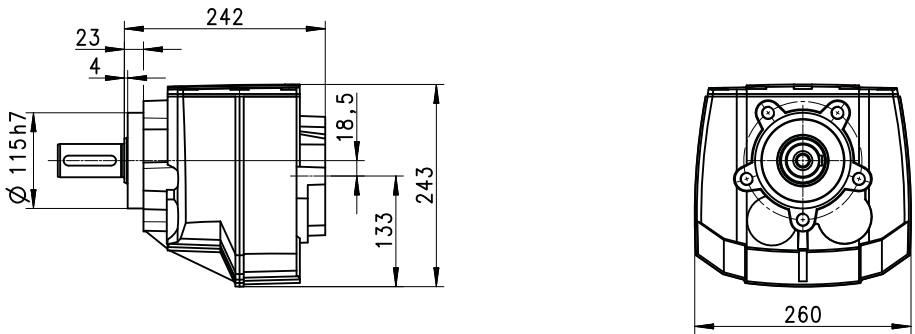
Gearbox design: Solid shaft, with centering (VAR/VCR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VAR



VCR



8801179-00

Motor series			m550-H		m550-P				
Motor			063L4 063S4 063M4	071M4 071L4	080M4	090M4 090L4	100M4 100L4	112M4	132M4 132L4
Total length	L	mm	431	460	484	527	590	603	667
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

Δ L ▶ Additional lengths 169

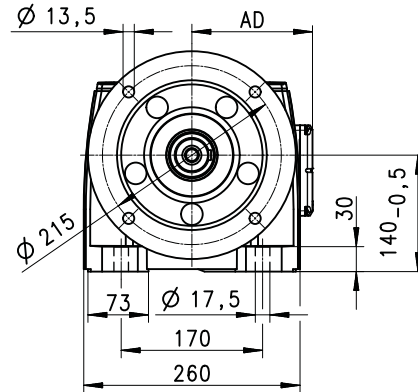
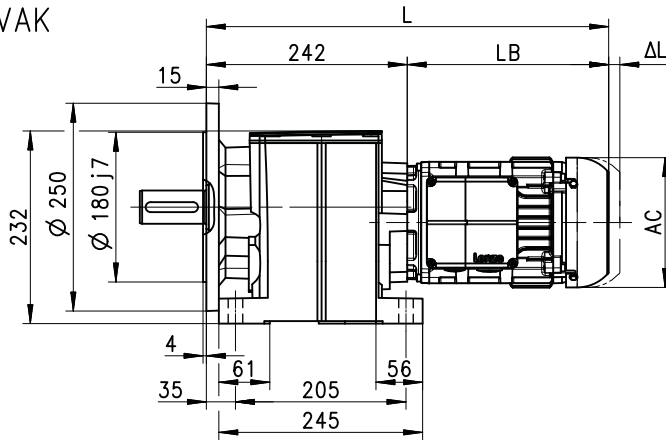


g500-H850, 2-/3-stage

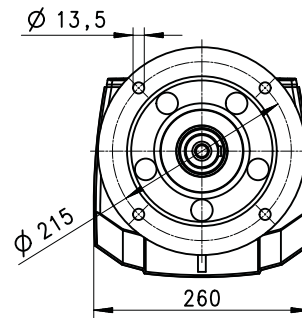
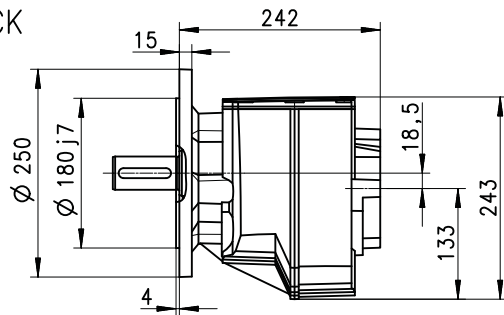
Gearbox design: Solid shaft, with flange (VAK/VCK)

The dimensions also apply for solid shafts without a keyway (G□□)!

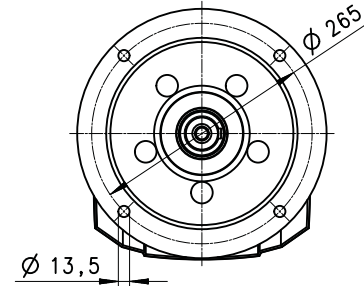
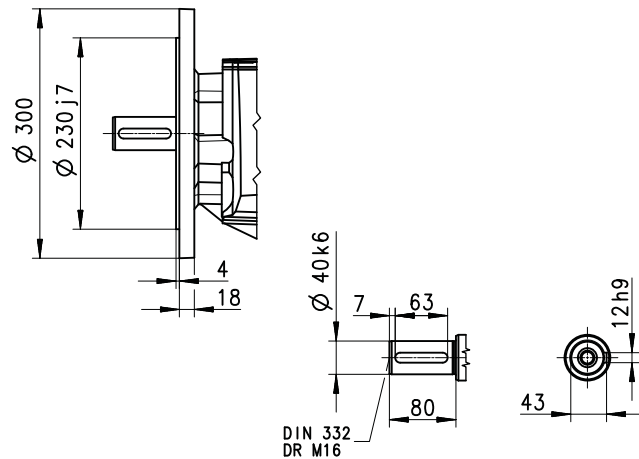
VAK



VCK



VAK/VCK



8801180-00

Motor series			m550-H		m550-P				
Motor			063L4 063S4 063M4	071M4 071L4	080M4	090M4 090L4	100M4 100L4	112M4	132M4 132L4
Total length	L	mm	431	460	484	527	590	603	667
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

Δ L ▶ Additional lengths 169

Technical data

Dimensions
Basic dimensions

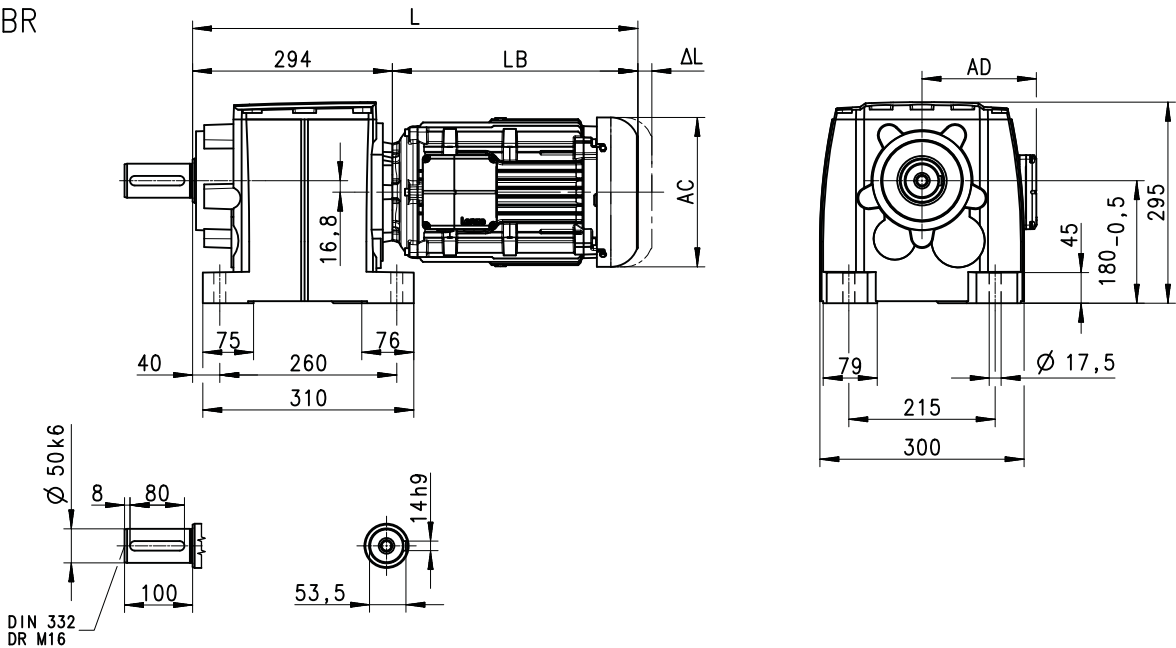


g500-H1500, 2-/3-stage

Gearbox design: Solid shaft, with foot (VBR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VBR



8801181-00

Motor series			m550-H		m550-P						
Motor			063S4 063M4 063L4	071L4 071M4	080M4	090M4 090L4	100M4 100L4	112M4	132M4 132L4	160M4 160L4	180M4 180L4
Total length	L	mm	483	512	536	579	642	655	719	830	908
Motor length	LB	mm	189	218	242	285	348	361	425	536	614
Motor diameter	AC	mm	123	139	156	177	194	220	258	309	349
Motor/connection distance	AD	mm	117	129	145	153	164	169	197	250	272

Δ L ▶ Additional lengths 169



Technical data

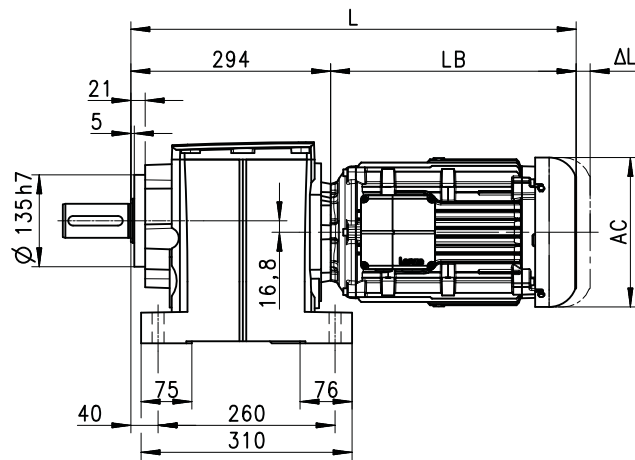
Dimensions
Basic dimensions

g500-H1500, 2-/3-stage

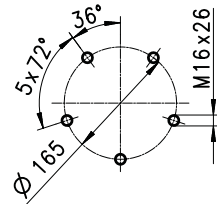
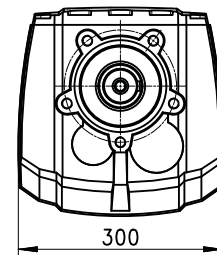
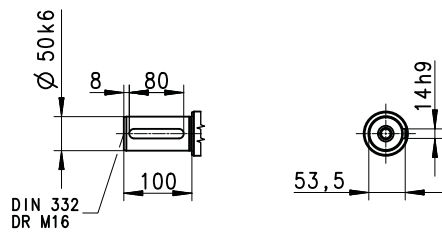
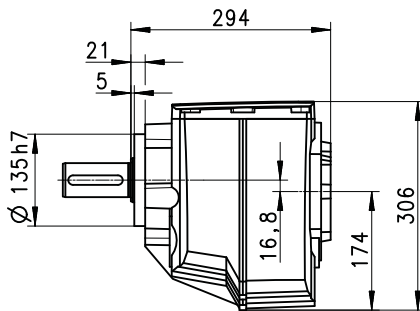
Gearbox design: Solid shaft, with centering (VAR/VCR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VAR



VCR



8801182-00

Motor series			m550-H		m550-P						
Motor			063S4 063M4 063L4	071L4 071M4	080M4	090M4 090L4	100M4 100L4	112M4	132M4 132L4	160M4 160L4	180M4 180L4
Total length	L	mm	483	512	536	579	642	655	719	830	908
Motor length	LB	mm	189	218	242	285	348	361	425	536	614
Motor diameter	AC	mm	123	139	156	177	194	220	258	309	349
Motor/connection distance	AD	mm	117	129	145	153	164	169	197	250	272

Δ L ▶ Additional lengths 169

Technical data

Dimensions
Basic dimensions

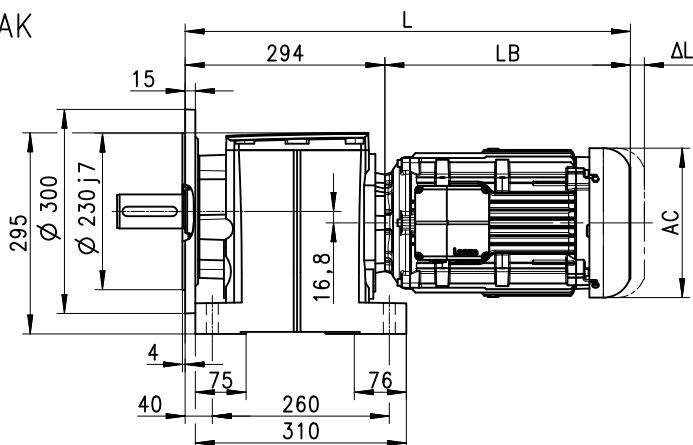


g500-H1500, 2-/3-stage

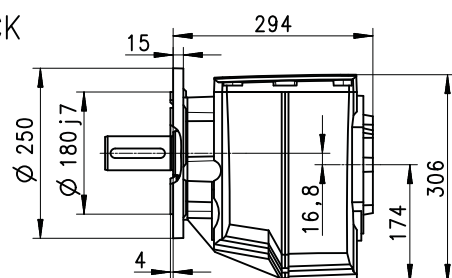
Gearbox design: Solid shaft, with flange (VAK/VCK)

The dimensions also apply for solid shafts without a keyway (G□□)!

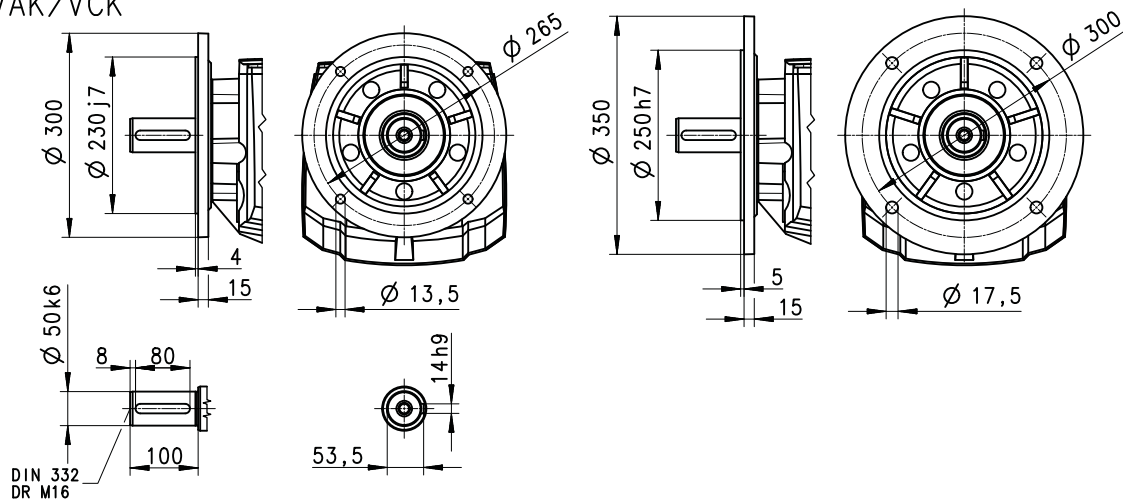
VAK



VCK



VAK/VCK



8801183-00

Motor series			m550-H		m550-P						
Motor			063S4 063M4 063L4	071L4 071M4	080M4	090M4 090L4	100M4 100L4	112M4	132M4 132L4	160M4 160L4	180M4 180L4
Total length	L	mm	483	512	536	579	642	655	719	830	908
Motor length	LB	mm	189	218	242	285	348	361	425	536	614
Motor diameter	AC	mm	123	139	156	177	194	220	258	309	349
Motor/connection distance	AD	mm	117	129	145	153	164	169	197	250	272

Δ L ▶ Additional lengths 169

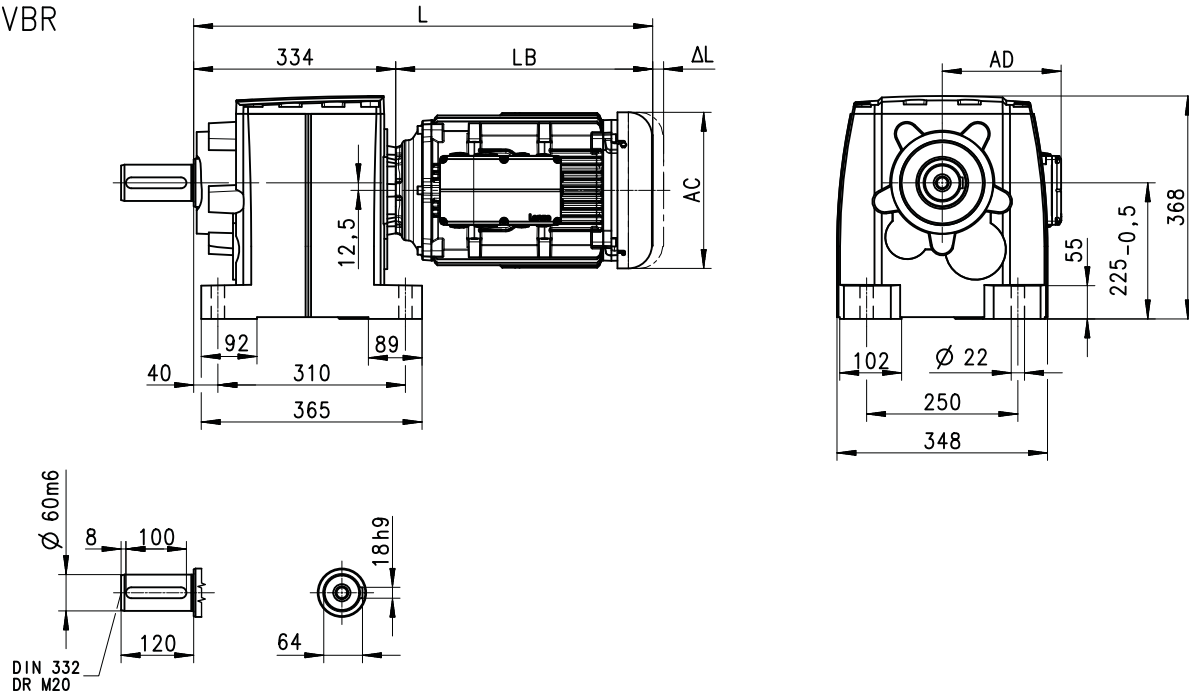


g500-H3000, 2-/3-stage

Gearbox design: Solid shaft, with foot (VBR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VBR



8801184-00

Motor series			m550-H		m550-P						
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4	112M4	132M4 132L4	160M4 160L4	180M4 180L4
Total length	L	mm	523	552	576	619	682	695	759	870	948
Motor length	LB	mm	189	218	242	285	348	361	425	536	614
Motor diameter	AC	mm	123	139	156	177	194	220	258	309	349
Motor/connection distance	AD	mm	117	129	145	153	164	169	197	250	272

Δ L ▶ Additional lengths 169

Technical data

Dimensions
Basic dimensions

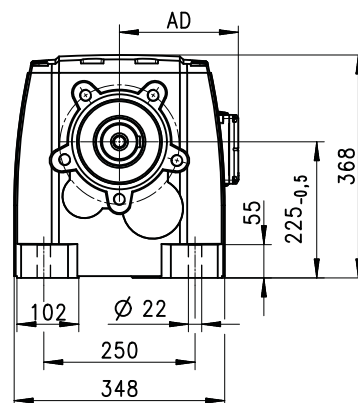
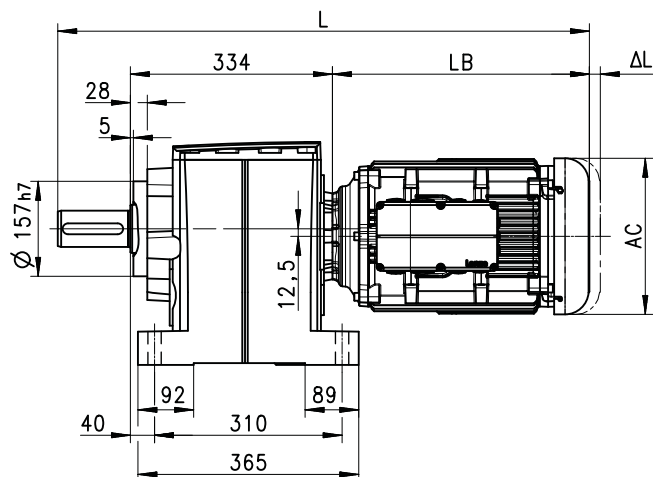


g500-H3000, 2-/3-stage

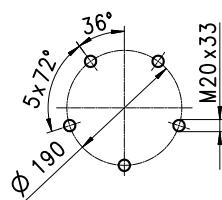
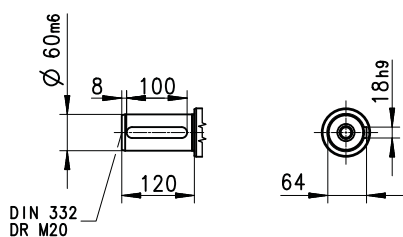
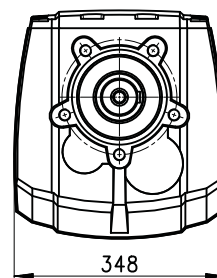
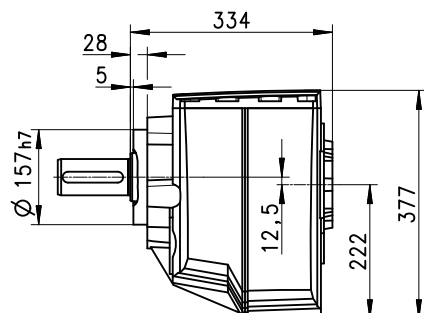
Gearbox design: Solid shaft, with centering (VAR/VCR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VAR



VCR



8801185-00

Motor series			m550-H				m550-P				
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4	112M4	132M4 132L4	160M4 160L4	180M4 180L4
Total length	L	mm	523	552	576	619	682	695	759	870	948
Motor length	LB	mm	189	218	242	285	348	361	425	536	614
Motor diameter	AC	mm	123	139	156	177	194	220	258	309	349
Motor/connection distance	AD	mm	117	129	145	153	164	169	197	250	272

Δ L ▶ Additional lengths 169



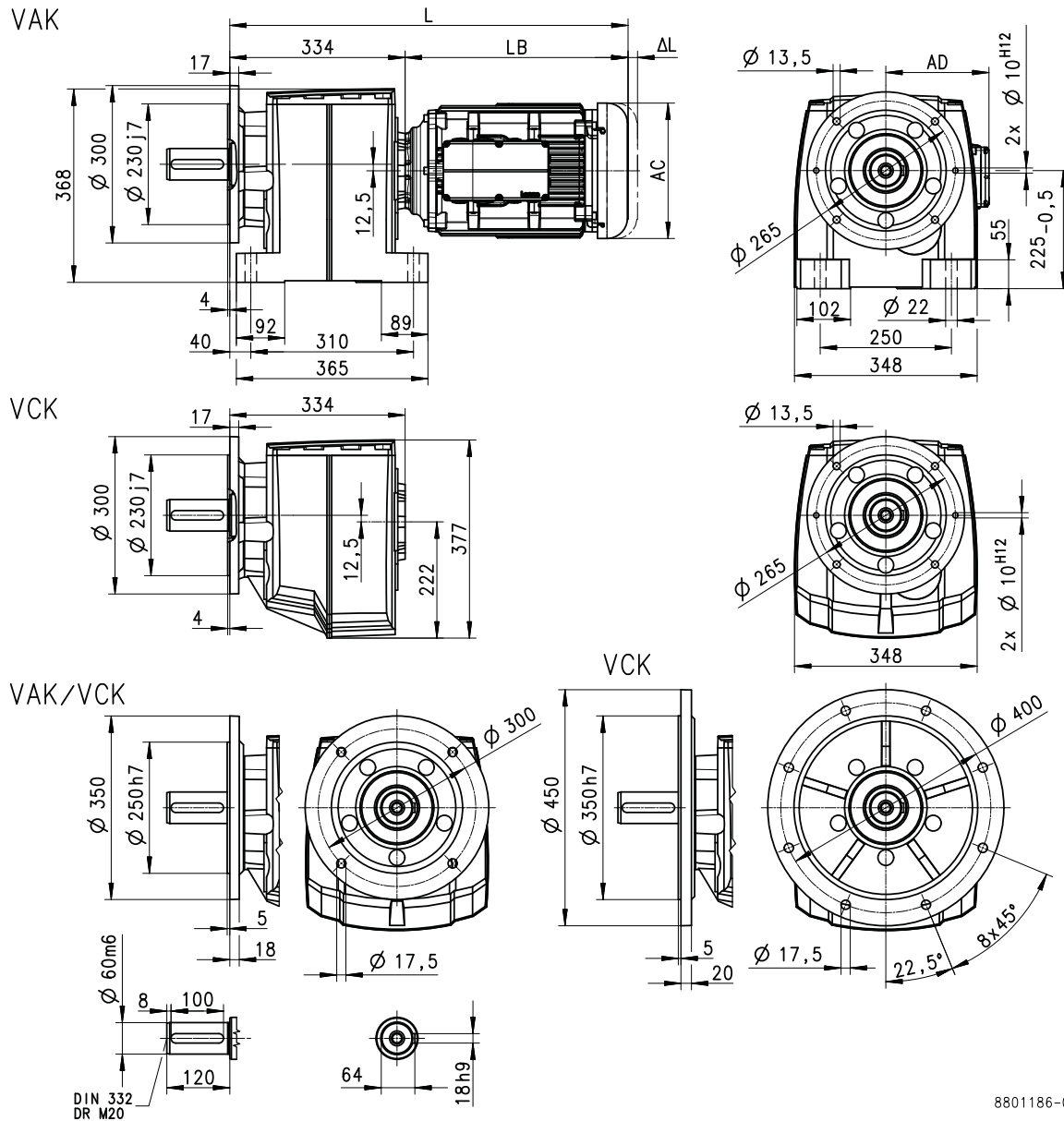
g500-H3000, 2-/3-stage

Gearbox design: Solid shaft with flange (VAK/VCK)

The dimensions are also valid for solid shaft without keyway (G□□)!

NOTICE

► Additionally secure the $\varnothing 300$ output flange with two spiral pins.



Motor series			m550-H		m550-P						
Motor			063S4 063M4 063L4	071M4 071L4	080M4	090M4 090L4	100M4 100L4	112M4	132M4 132L4	160M4 160L4	180M4 180L4
Total length	L	mm	523	552	576	619	682	695	759	870	948
Motor length	LB	mm	189	218	242	285	348	361	425	536	614
Motor diameter	AC	mm	123	139	156	177	194	220	258	309	349
Motor/connection distance	AD	mm	117	129	145	153	164	169	197	250	272

Δ L ► Additional lengths 169



7.7.2 Gearbox with pre-stage

g500-H100 ... H140, 3-stage

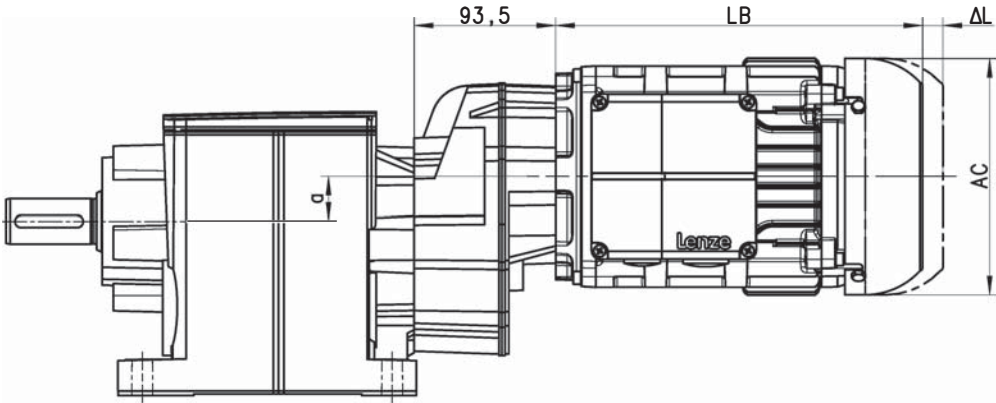
g500-H210 ... H3000, 4-stage

The geared motor dimensions can be found in the basic dimensions, except the total length "L" and the center distance "a".

► [Basic dimensions](#) 129

The total length "L" in the basic dimensions is extended by the 93.5 mm of the pre-stage.

Observe the altered center distance "a" between the gearbox and motor shaft.



8801279-00

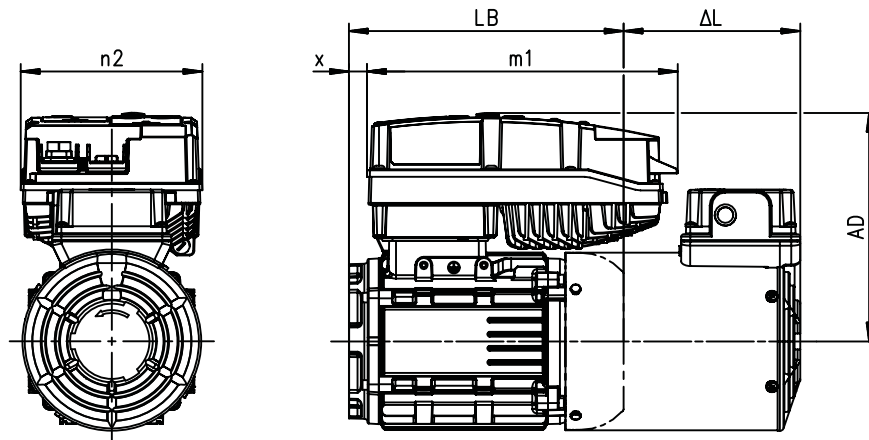
Gearboxes			g500-H100	g500-H140	g500-H210	g500-H320	g500-H450	g500-H600	g500-H850	g500-H1500	g500-H3000
			3-stage		4-stage						
Center distance	a	mm	40.2	30	34.8	24.3	29.6	17.6	26.5	28.2	32.5



7.7.3 Integrated inverters

i550/i650 motec

Supply voltage 3x 230/240 V



8801670-1

Rated frequency 50/60 Hz

Motor	i550 motec	AD	m1	n2	x
		g_1	m_1	n_2	x
		mm	mm	mm	mm
m550-H63/L4	i550-M0.37/230-3	179	265	159	11
m550-H71/M4	i550-M0.37/230-3	190	265	159	21
m550-H71/L4	i550-M0.55/230-3	190	265	159	21
m550-P80/M4	i550-M0.75/230-3	203	265	159	25
m550-P90/M4	i550-M1.1/230-3	211	265	159	44
m550-P90/L4	i550-M1.5/230-3	229	265	159	44
m550-P100/M4	i550-M2.2/230-3	239	265	159	34
m550-P100/L4	i550-M3.0/230-3	239	265	159	34
m550-P112/M4	i550-M4.0/230-3	269	359	211	39
m550-P132/M4	i550-M5.5/230-3	289	359	211	48
m550-P132/L4	i550-M7.5/230-3	341	443	280	13

Motor	i650 motec	AD	m1	n2	x
		g_1	m_1	n_2	x
		mm	mm	mm	mm
m550-H63/L4	i650-M0.37/230-3	179	265	159	11
m550-H71/M4	i650-M0.37/230-3	190	265	159	21
m550-H71/L4	i650-M0.55/230-3	190	265	159	21
m550-P80/M4	i650-M0.75/230-3	203	265	159	25
m550-P90/M4	i650-M1.1/230-3	211	265	159	44
m550-P90/L4	i650-M1.5/230-3	229	265	159	44
m550-P100/M4	i650-M2.2/230-3	239	265	159	34
m550-P100/L4	i650-M3.0/230-3	239	265	159	34
m550-P112/M4	i650-M4.0/230-3	269	359	211	39
m550-P132/M4	i650-M5.5/230-3	289	359	211	48
m550-P132/L4	i650-M7.5/230-3	341	443	280	13

Dimensions LB and ΔL ▶ [Basic dimensions](#) 129

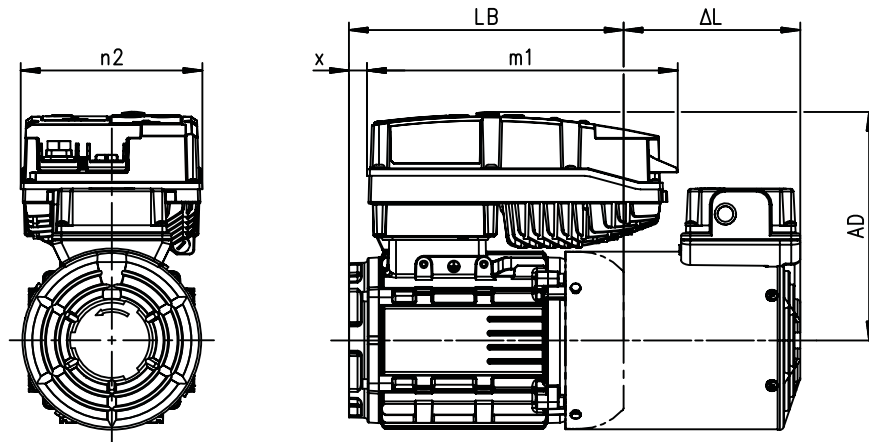
Technical data

Dimensions
Integrated inverters



i550/i650 motec

Supply voltage 3x 400/480 V



8801670-1

Rated frequency 50/60 Hz

Motor	i550 motec	AD	m1	n2	x
		g_1	m_1	n_2	x
		mm	mm	mm	mm
m550-H63/L4	i550-M0.37/400-3	179	265	159	11
m550-H71/M4	i550-M0.37/400-3	190	265	159	21
m550-H71/L4	i550-M0.55/400-3	190	265	159	21
m550-P80/M4	i550-M0.75/400-3	203	265	159	25
m550-P90/M4	i550-M1.1/400-3	211	265	159	44
m550-P90/L4	i550-M1.5/400-3	211	265	159	44
m550-P100/M4	i550-M2.2/400-3	221	265	159	34
m550-P100/L4	i550-M3.0/400-3	239	265	159	34
m550-P112/M4	i550-M4.0/400-3	244	265	159	50
m550-P132/M4	i550-M5.5/400-3	264	265	159	59
m550-P132/L4	i550-M7.5/400-3	289	359	211	48

Motor	i650 motec	AD	m1	n2	x
		g_1	m_1	n_2	x
		mm	mm	mm	mm
m550-H63/L4	i650-M0.37/400-3	179	265	159	11
m550-H71/M4	i650-M0.37/400-3	190	265	159	21
m550-H71/L4	i650-M0.55/400-3	190	265	159	21
m550-P80/M4	i650-M0.75/400-3	203	265	159	25
m550-P90/M4	i650-M1.1/400-3	211	265	159	44
m550-P90/L4	i650-M1.5/400-3	211	265	159	44
m550-P100/M4	i650-M2.2/400-3	221	265	159	34
m550-P100/L4	i650-M3.0/400-3	239	265	159	34
m550-P112/M4	i650-M4.0/400-3	244	265	159	50
m550-P132/M4	i650-M5.5/400-3	264	265	159	59
m550-P132/L4	i650-M7.5/400-3	289	359	211	48



Rated frequency 87 Hz

Motor	i550 motec	AD	m1	n2	x
		g_1	m_1	n_2	x
		mm	mm	mm	mm
m550-H63/S4	i550-M0.37/400-3	179	265	159	11
m550-H63/M4	i550-M0.37/400-3	179	265	159	11
m550-H63/L4	i550-M0.55/400-3	179	265	159	11
m550-H71/M4	i550-M0.75/400-3	190	265	159	21
m550-H71/L4	i550-M1.1/400-3	190	265	159	21
m550-P80/M4	i550-M1.5/400-3	203	265	159	25
m550-P90/M4	i550-M2.2/400-3	211	265	159	44
m550-P90/L4	i550-M3.0/400-3	229	265	159	44
m550-P100/M4	i550-M4.0/400-3	239	265	159	34
m550-P100/L4	i550-M5.5/400-3	239	265	159	34
m550-P112/M4	i550-M7.5/400-3	269	359	211	39
m550-P132/M4	i550-M11/400-3	-	-	-	-
m550-P132/L4	i550-M15/400-3	-	-	-	-

Motor	i650 motec	AD	m1	n2	x
		g_1	m_1	n_2	x
		mm	mm	mm	mm
m550-H63/S4	i650-M0.37/400-3	179	265	159	11
m550-H63/M4	i650-M0.37/400-3	179	265	159	11
m550-H63/L4	i650-M0.55/400-3	179	265	159	11
m550-H71/M4	i650-M0.75/400-3	190	265	159	21
m550-H71/L4	i650-M1.1/400-3	190	265	159	21
m550-P80/M4	i650-M1.5/400-3	203	265	159	25
m550-P90/M4	i650-M2.2/400-3	211	265	159	44
m550-P90/L4	i650-M3.0/400-3	229	265	159	44
m550-P100/M4	i650-M4.0/400-3	239	265	159	34
m550-P100/L4	i650-M5.5/400-3	239	265	159	34
m550-P112/M4	i650-M7.5/400-3	269	359	211	39
m550-P132/M4	i650-M11/400-3	-	-	-	-
m550-P132/L4	i650-M15/400-3	-	-	-	-

Dimensions LB and ΔL ▶ [Basic dimensions](#) 129

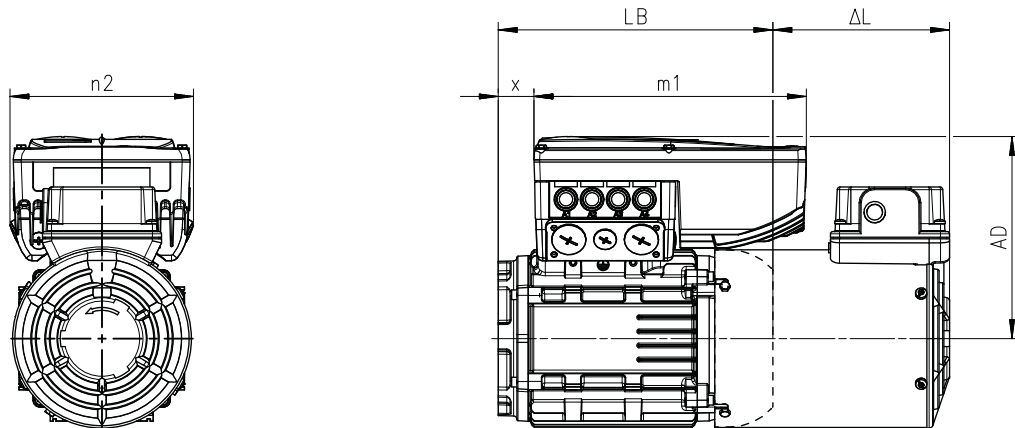
Technical data

Dimensions
Integrated inverters



8400 motec

Supply voltage 3x 400/480 V



8801071_00

Rated frequency 50/60 Hz

Motor	8400 motec	AD	m1	n2	x
		g_1	m_1	n_2	x
		mm	mm	mm	mm
m550-H63/L4	E84DVB□3714S□□□2□	151	240	161	32
m550-H71/M4	E84DVB□3714S□□□2□	172	240	161	41
m550-H71/L4	E84DVB□5514S□□□2□	172	240	161	41
m550-P80/M4	E84DVB□7514S□□□2□	178	240	161	45
m550-P90/M4	E84DVB□1124S□□□2□	186	240	161	64
m550-P90/L4	E84DVB□1524S□□□2□	186	240	161	64
m550-P100/M4	E84DVB□2224S□□□2□	225	260	176	46
m550-P100/L4	E84DVB□3024S□□□2□	225	260	176	46
m550-P112/M4	E84DVB□4024S□□□2□	284	325	195	50
m550-P132/M4	E84DVB□5524S□□□2□	304	325	195	59
m550-P132/L4	E84DVB□7524S□□□2□	304	325	195	59

Rated frequency 87 Hz

Motor	8400 motec	AD	m1	n2	x
		g_1	m_1	n_2	x
		mm	mm	mm	mm
m550-H63/S4	E84DVB□3714S□□□2□	151	240	161	32
m550-H63/M4	E84DVB□3714S□□□2□	151	240	161	32
m550-H63/L4	E84DVB□5514S□□□2□	151	240	161	32
m550-H71/M4	E84DVB□7514S□□□2□	172	240	161	41
m550-H71/L4	E84DVB□1124S□□□2□	172	240	161	41
m550-P80/M4	E84DVB□1524S□□□2□	178	240	161	45
m550-P90/M4	E84DVB□2224S□□□2□	186	260	176	56
m550-P90/L4	E84DVB□3024S□□□2□	186	260	176	56
m550-P100/M4	E84DVB□4024S□□□2□	279	325	195	34
m550-P100/L4	E84DVB□5524S□□□2□	279	325	195	34
m550-P112/M4	E84DVB□7524S□□□2□	284	325	195	50

Dimensions LB and Δ L ▶ [Basic dimensions](#) 129



7.7.4 Additional lengths

Self-ventilated motors

Motor			m550-H		m550-P						
			63/S4	71/M4	80/M4	90/M4	100/M4	112/M4	132/M4	160/M4	180/M4
			63/M4	71/L4		90/L4	100/L4		132/L4	160/L4	180/L4
			63/L4								
Without feedback/brake											
IP54/IP55 protection	Δ L	mm	0	0	0	0	0	0	0	0	0
IP65/IP66 protection	Δ L	mm	23	9	7	7	13	0	9	14	9
With integrated feedback											
IP54/IP55 protection	Δ L	mm	23	9	7	7	13	0	9	14	9
IP65/IP66 protection	Δ L	mm	23	9	7	7	13	0	9	14	9
With mounted feedback											
IP54/IP55 protection	Δ L	mm	85	75	68	63	74	77	91	109	118
IP65/IP66 protection	Δ L	mm	85	75	68	63	74	77	91	109	118
With spring-applied brake											
IP54/IP55 protection	Δ L	mm	61	60	68	63	74	77	91	109	118
IP65/IP66 protection	Δ L	mm	135	128	136	131	145	-	-	-	-
With spring-applied brake and integrated feedback											
IP54/IP55 protection	Δ L	mm	61	60	68	63	74	77	91	109	118
IP65/IP66 protection	Δ L	mm	135	128	136	131	145	-	-	-	-
With spring-applied brake and mounted feedback											
IP54/IP55 protection	Δ L	mm	135	128	136	131	145	148	162	195	195
IP65/IP66 protection	Δ L	mm	135	128	136	131	145	-	-	-	-
With spring-applied double brake											
IP54/IP55 protection	Δ L	mm	-	-	-	-	-	-	-	298	313
With spring-applied double brake and mounted feedback											
IP54/IP55 protection	Δ L	mm	-	-	-	-	-	-	-	298	313

► Protection cover 246

► Second shaft end 248

► Handwheel 249

Technical data

Dimensions
Additional lengths



Forced ventilated motors

Motor			m550-H		m550-P						
			63/S4	71/M4	80/M4	90/M4	100/M4	112/M4	132/M4	160/M4	180/M4
			63/M4	71/L4		90/L4	100/L4		132/L4	160/L4	180/L4
			63/L4								
Without feedback/brake											
IP54/IP55 protection	Δ L	mm	110	102	98	104	105	92	121	158	149
IP65/IP66 protection	Δ L	mm	110	102	98	104	105	92	121	158	149
With integrated feedback											
IP54/IP55 protection	Δ L	mm	110	102	98	104	105	92	121	158	149
IP65/IP66 protection	Δ L	mm	110	102	98	104	105	92	121	158	149
With mounted feedback											
IP54/IP55 protection	Δ L	mm	171	167	156	159	166	169	202	252	257
IP65/IP66 protection	Δ L	mm	171	167	156	159	166	169	202	252	257
With spring-applied brake											
IP54/IP55 protection	Δ L	mm	171	152	156	159	166	169	202	252	257
IP65/IP66 protection	Δ L	mm	217	221	216	227	236	-	-	-	-
With spring-applied brake and integrated feedback											
IP54/IP55 protection	Δ L	mm	171	152	156	159	166	169	202	252	257
IP65/IP66 protection	Δ L	mm	217	221	216	227	236	-	-	-	-
With spring-applied brake and mounted feedback											
IP54/IP55 protection	Δ L	mm	217	221	216	227	236	245	283	343	342
IP65/IP66 protection	Δ L	mm	217	221	216	227	236	-	-	-	-
With spring-applied double brake											
IP54/IP55 protection	Δ L	mm	-	-	-	-	-	-	-	446	460
With spring-applied double brake and mounted feedback											
IP54/IP55 protection	Δ L	mm	-	-	-	-	-	-	-	446	460

► Protection cover 246



7.8 Weights

7.8.1 Basic weights



The basic weights are listed in the selection tables.

Weights with lubricant for mounting position M1, all data approximate values. The exact values can be found in the delivery documents

► [Selection tables](#)  79

Observe ► [Additional weights](#)  172!



7.8.2 Additional weights



Add the individual additional weights to the basic weight depending on the design.

Gearbox

Gearbox			g500-H45	g500-H100	g500-H140	g500-H210	g500-H320	g500-H450
Foot	m	kg	0.1	0.1	0.2	0.1	0.1	0.2
Flange	m	kg	0.3	0.4	0.6	0.6	0.8	0.9
Flange (VCP)	m	kg		2.0	3.9	3.9	4.1	6.1

Gearbox			g500-H600	g500-H850	g500-H1500	g500-H3000
Foot	m	kg	2.0	2.8	4.3	5.8
Flange	m	kg	4.3	7.6	8.3	20
Flange (VCP)	m	kg				

Motors

Motor			m550-H		m550-P						
			63/S4	71/M4	80/M4	90/M4	100/M4	112/M4	132/M4	160/M4	180/M4
			63/M4	71/L4							
Self-ventilated fan cover											
Prepared for product extension											
Spring-applied brake Feedback 2. Shaft end/hand wheel	m	kg	0.4	0.4	0.5	0.6	0.7	0.8	1.0	1.8	2.0
Spring-applied double brake Spring-applied double brake with feedback	m	kg	-	-	-	-	-	-	-	2.7	3.2
Blower											
Without product extension	m	kg	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	1.0
Prepared for product extension											
Spring-applied brake Feedback	m	kg	0.6	0.6	0.7	0.8	0.9	1.0	1.3	1.8	3.3
Spring-applied double brake Spring-applied double brake with feedback	m	kg	-	-	-	-	-	-	-	2.9	4.8
Spring-applied brake											
06	m	kg	1.5	1.5							
08	m	kg		2.2	2.2	2.2					
10	m	kg				3.9	3.9				
12	m	kg					5.6	5.6			
14	m	kg						8.5	8.5		
16	m	kg							13.1	13.1	
18	m	kg								19.1	19.1
20	m	kg									25.7
Brake release lever	m	kg	0.1	0.1	0.2	0.2	0.2	0.4	0.5	0.9	1.4
Spring-applied double brake											
18	m	kg	-	-	-	-	-	-	-	33.2	33.2
20	m	kg	-	-	-	-	-	-	-	-	52.2
Brake release lever	m	kg	-	-	-	-	-	-	-	0.4	0.5
Feedback	m	kg	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Protection cover	m	kg	0.2	0.3	0.3	0.4	0.5	0.7	1.3	1.6	2.0
2nd shaft end	m	kg	0.2	0.3	0.3	0.3	0.4	0.4	0.6	-	-
Handwheel	m	kg	0.3	0.7	0.7	0.7	0.8	0.8	1.0	-	-



8 Product extensions

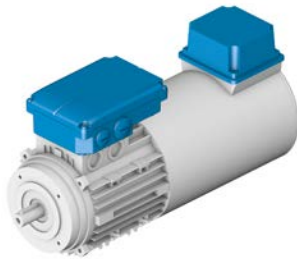
8.1 Motor connection

8.1.1 Connection options

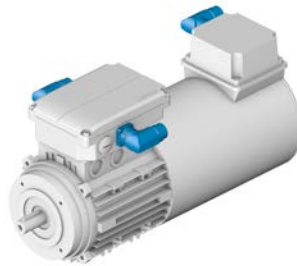


The motor are equipped with a terminal box by default.

Alternatively, different connectors can be selected for fast commissioning or maintenance.



Terminal box with cable gland



Terminal box with M23 connector



Han connector

The three-phase AC motors are intended for operation on constant mains and an inverter.

Mains operation

For mains operation, the motors are available in the following mains voltages:

Mains frequency	Mains voltage	Mains voltage range	Circuit
Hz	V	V	
50	400	380 ... 420	Y
	230	220 ... 240	Δ
60	460	440 ... 480	Y

The motors are rated for the specified mains voltage range.

According to EN 60034-1, the motors operate reliably in continuous operation at $\pm 5\%$ of the line voltage range. This ensures reliable operation in the recommended range $\pm 10\%$ of the IEC standard voltages 230 V, 400 V and 460 V.

Frequency inverter operation

The base frequencies for frequency inverter operation have been set to the following rated voltages:

Rated frequency	Rated voltage	Circuit
Hz	V	
50	400	Y
	230	Δ
87	400	Δ

Product extensions

Motor connection
Connection options

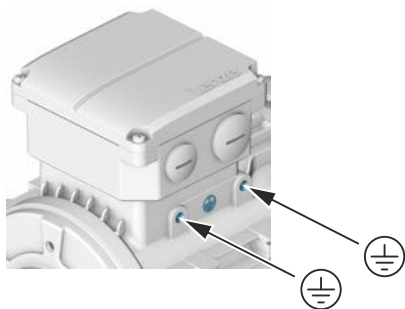


Second ground connection on the motor

According to the EN 61800-5-1 standard, additional measures are required for the protective earth connection if the leakage current is greater than 3.5 mA for alternating current or greater than 10 mA for direct current.

► [Important notes](#) 49

A possible measure is the execution via a second ground connection.



Scope of delivery when a second ground connection is selected:

- Toothed lock washer
- Washer
- Fixing screw



An additional grounding cable is not included in the scope of delivery.

The dimensioning of the grounding is done by the customer.



8.1.2 Assignment of the terminal boxes

Depending on the product extension of the motor, different terminal box sizes (S, M or L) are used.

The M23 and M12 connectors are mounted on the terminal boxes (S,M and L) in the positions described. The connector for the separate fan connection is located on the separate fan terminal box.



When brake monitoring is selected, the motor is always supplied with the L terminal box.

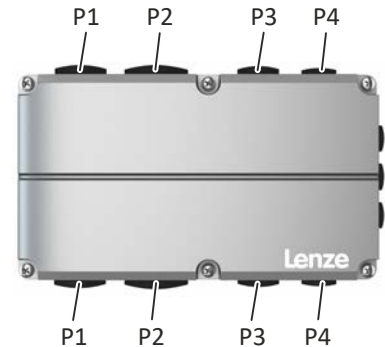
Terminal box S



Terminal box M



Terminal box L



Motor	m550-H		m550-P						
	63/S4 63/M4 63/L4	71/M4 71/L4	80/M4	90/M4 90/L4	100/M4 100/L4	112/M4	132/M4 132/L4	160/M4 160/L4	180/M4 180/L4
Without product extensions									
Terminal box	S	S	S	S	S	S	L	L	L
Power: M23 connector	P1	P1	P1	P1	P1	P1	P1	-	-
Product extension - brake									
Terminal box	M	M	M	M	M	M	L	L	L
Power + brake: M23 connector	P2	P2	P1	P1	P1	P1	P1	-	-
Product extension - feedback									
Terminal box	M	M	M	M	M	M	L	L	L
Power: M23 connector	P2	P2	P1	P1	P1	P1	P1	-	-
Feedback: M23 connector	P2	P2	P2	P2	P2	P2	P3	P3	P3
Feedback: M12 connector	P1	P1	P2	P2	P2	P2	P4	P4	P4
Product extension - brake + feedback									
Terminal box	L	L	L	L	L	L	L	L	L
Power + brake: M23 connector	P1	P1	P1	P1	P1	P1	P1	-	-
Feedback: M23 connector	P3	P3	P3	P3	P3	P3	P3	P3	P3
Feedback: M12 connector	P4	P4	P4	P4	P4	P4	P4	P4	P4
Product extension - separate fan									
M17 connector	•	•	•	•	•	•	•	•	•

Product extensions

Motor connection
Assignment of the terminal boxes

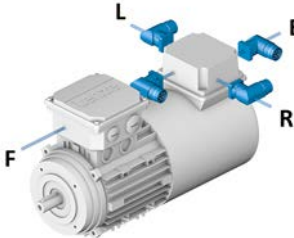


Connection positions

Positions on the motor terminal box



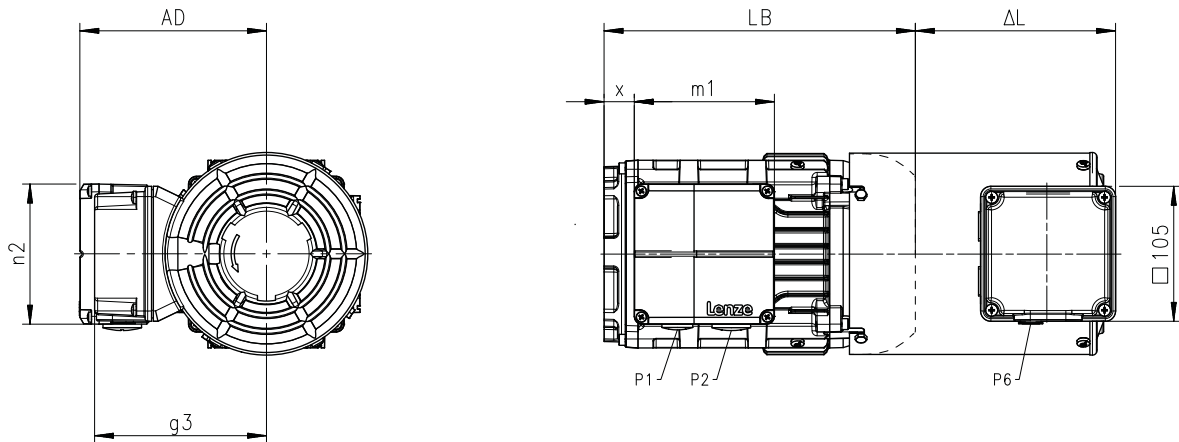
Positions on the blower terminal box



Terminal box	Positions	Note
Motor terminal box S		
Cable glands	L, E or R	
M23 connector: Power	L, E or R	
Motor terminal box M		
Cable glands	L and R	The feedback connector is on the opposite side to the power connector.
M23 connector: Power/brake Feedback	L or R R or L	
M12 connector: Feedback	R or L	
Motor terminal box L		
Cable glands	L and R	The connectors for power/brake and feedback can be arranged on the same or on the opposite side
M23 connector: Power/brake Feedback	L or R L or R	
M12 connector: Feedback	L or R	
Blower terminal box		
Cable glands	L, E or R	
M23 connector	L, E or R	



Power terminal box "S" dimensions



8801072_00

Motor		m550-H		m550-P			
		63/S4 63/M4 63/L4	71/M4 71/L4	80/M4	90/M4 90/L4	100/M4 100/L4	112/M4
Motor terminal box							
AD	mm	117	128	145	153	163	168
x	mm	22	17	24	30	39	45
m ₁	mm	87	87	109	109	109	109
n ₂	mm	87	87	109	109	109	109
P ₁	mm	M20x1.5	M20x1.5	M20x1.5	M20x1.5	M20x1.5	M20x1.5
P ₂	mm	-	-	M25x1.5	M25x1.5	M25x1.5	M25x1.5
Blower terminal box							
G ₃	mm	118	124	134	143	152	164
P ₆	mm	M16x1.5	M16x1.5	M16x1.5	M16x1.5	M16x1.5	M16x1.5

Dimensions LB ▶ [Basic dimensions](#) 129

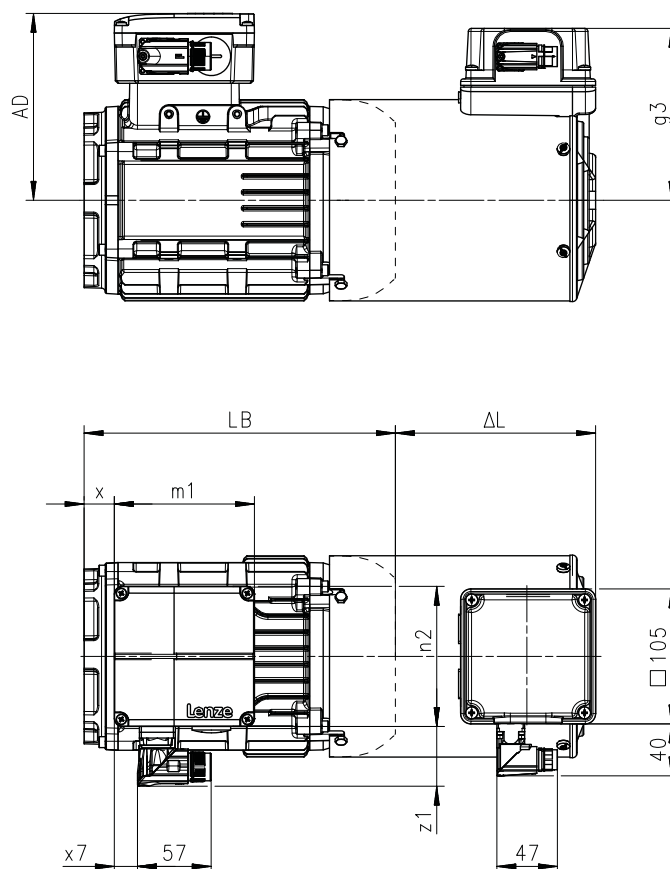
Dimensions Δ L ▶ [Additional lengths](#) 169

Product extensions

Motor connection
Assignment of the terminal boxes



Power terminal box "S" dimensions with M23 connector



8801075_00

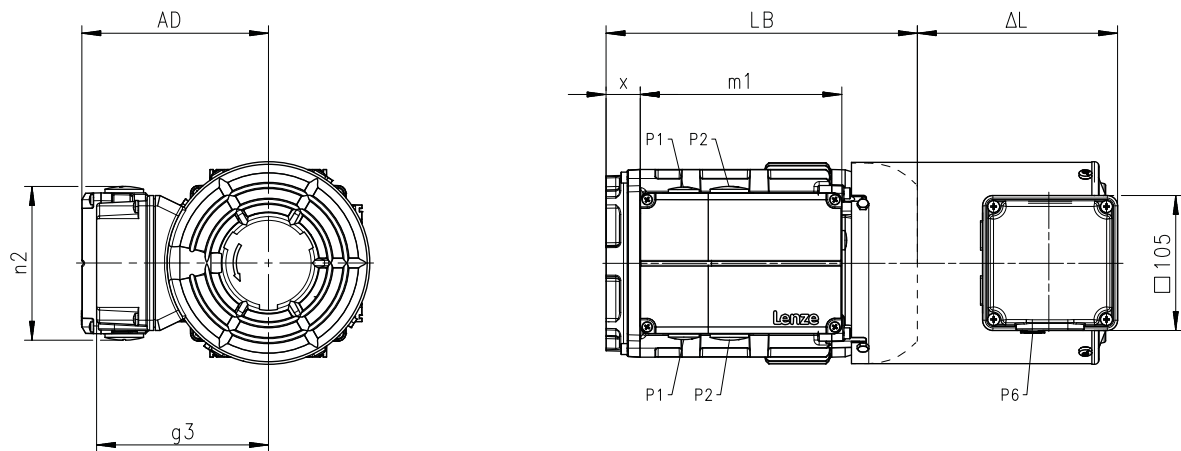
Motor		m550-H		m550-P			
		63/S4 63/M4 63/L4	71/M4 71/L4	80/M4	90/M4 90/L4	100/M4 100/L4	112/M4
Motor terminal box							
AD	mm	117	128	145	153	163	168
x	mm	22	17	24	30	39	45
m ₁	mm	87	87	109	109	109	109
n ₂	mm	87	87	109	109	109	109
M23 connector							
Power							
x ₇	mm	13	13	18	18	18	18
z ₁	mm	42	42	42	42	42	42
Blower terminal box							
G ₃	mm	118	124	134	143	152	164

Dimensions LB ▶ [Basic dimensions](#) 129

Dimensions Δ L ▶ [Additional lengths](#) 169



Power terminal box "M" dimensions



8801073_00

Motor		m550-H		m550-P			
		63/S4 63/M4 63/L4	71/M4 71/L4	80/M4	90/M4 90/L4	100/M4 100/L4	112/M4
Motor terminal box							
AD	mm	113	124	145	153	163	168
x	mm	21	16	27	34	43	49
m ₁	mm	141	141	157	157	157	157
n ₂	mm	110	110	110	110	110	110
P ₁	mm	M16x1.5	M16x1.5	M20x1.5	M20x1.5	M20x1.5	M20x1.5
P ₂	mm	M20x1.5	M20x1.5	M25x1.5	M25x1.5	M25x1.5	M25x1.5
Blower terminal box							
G ₃	mm	118	124	134	143	152	164
P ₆	mm	M16x1.5	M16x1.5	M16x1.5	M16x1.5	M16x1.5	M16x1.5

Dimensions LB ► [Basic dimensions](#) 129

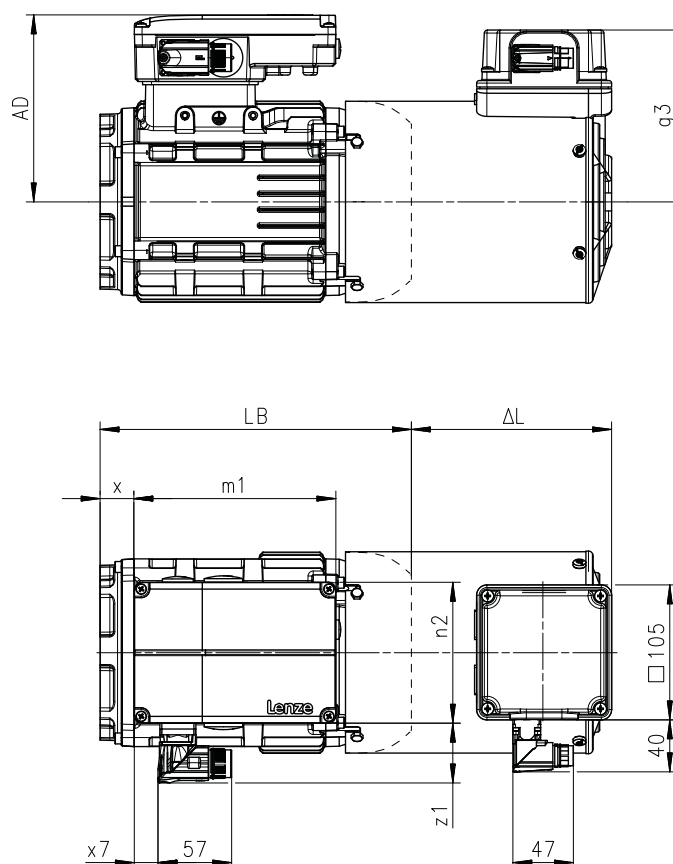
Dimensions Δ L ► [Additional lengths](#) 169

Product extensions

Motor connection
Assignment of the terminal boxes



Power terminal box "M" dimensions with M23 connector



8801076_00

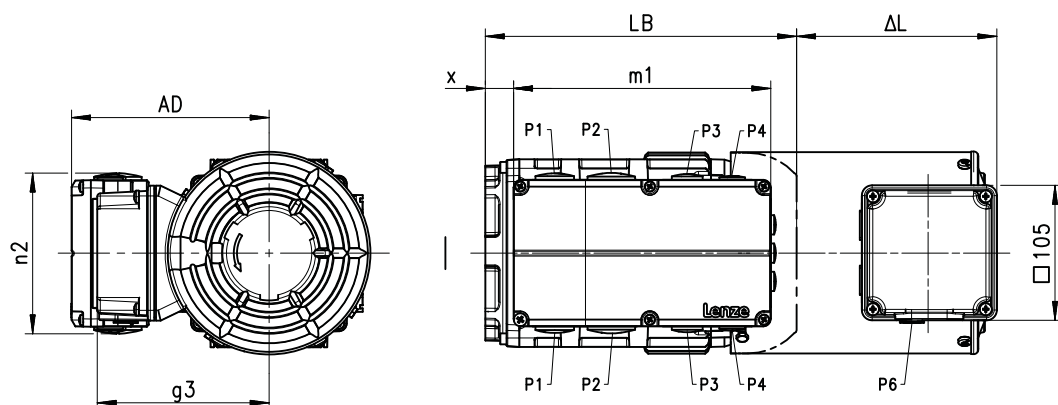
Motor		m550-H		m550-P			
		63/S4 63/M4 63/L4	71/M4 71/L4	80/M4	90/M4 90/L4	100/M4 100/L4	112/M4
Motor terminal box							
AD	mm	113	124	145	153	163	168
x	mm	21	16	27	34	43	49
m ₁	mm	141	141	157	157	157	157
n ₂	mm	110	110	110	110	110	110
M23 connector Power/brake							
x ₇	mm	45.3	45.3	18	18	18	18
z ₁	mm	42	42	42	42	42	42
M23 connector Feedback							
x ₇	mm	45.3	45.3	53.5	53.5	53.5	53.5
z ₁	mm	42	42	46	46	46	46
Blower terminal box							
G ₃	mm	118	124	134	143	152	164

Dimensions LB ▶ [Basic dimensions](#) 129

Dimensions Δ L ▶ [Additional lengths](#) 169



Power terminal box "L" dimensions



8801074-02

Motor		m550-H		m550-P						
		63/S4 63/M4 63/L4	71/M4 71/L4	80/M4	90/M4 90/L4	100/M4 100/L4	112/M4	132/M4 132/L4	160/M4 160/L4	180/M4 180/L4
Motor terminal box										
AD	mm	113	141	154	162	172	177	197	251	271
x	mm	9	4	22	29	39	44	73	111	139
m ₁	mm	141	200	200	200	200	200	200	253	253
n ₂	mm	110	114	114	114	114	114	114	143	143
P ₁	mm	M25x1.5	M25x1.5	M25x1.5	M25x1.5	M25x1.5	M25x1.5	M25x1.5	M50x1.5	M50x1.5
P ₂	mm	M32x1.5	M32x1.5	M32x1.5	M32x1.5	M32x1.5	M32x1.5	M32x1.5	M40x1.5	M40x1.5
P ₃	mm	M20x1.5	M20x1.5	M20x1.5	M20x1.5	M20x1.5	M20x1.5	M20x1.5	M20x1.5	M20x1.5
P ₄	mm	M16x1.5	M16x1.5	M16x1.5	M16x1.5	M16x1.5	M16x1.5	M16x1.5	M16x1.5	M16x1.5
Blower terminal box										
G ₃	mm	118	124	134	143	152	164	185	211	211
P ₆	mm	M16x1.5	M16x1.5	M16x1.5	M16x1.5	M16x1.5	M16x1.5	M16x1.5	M16x1.5	M16x1.5

Dimensions LB ▶ [Basic dimensions](#) 129

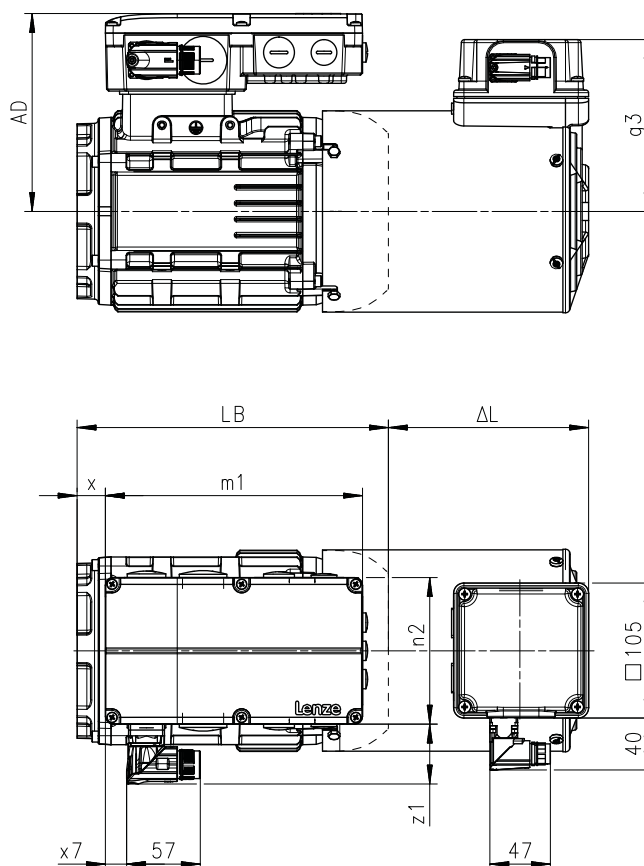
Dimensions Δ L ▶ [Additional lengths](#) 169

Product extensions

Motor connection
Assignment of the terminal boxes



Power terminal box "L" dimensions with M23 connector



8801077_00

Motor		m550-H		m550-P						
		63/S4 63/M4 63/L4	71/M4 71/L4	80/M4	90/M4 90/L4	100/M4 100/L4	112/M4	132/M4 132/L4	160/M4 160/L4	180/M4 180/L4
Motor terminal box										
AD	mm	113	141	154	162	172	177	197	251	271
x	mm	9	4	22	29	39	44	73	111	139
m ₁	mm	141	200	200	200	200	200	200	253	253
n ₂	mm	110	114	114	114	114	114	114	143	143
M23 connector Power/brake										
x ₇	mm	16	16	16	16	16	16	16	-	-
z ₁	mm	46	46	46	46	46	46	46	-	-
M23 connector Feedback										
x ₇	mm	120	120	120	120	120	120	120	168	168
z ₁	mm	42	42	42	42	42	42	42	42	42
Blower terminal box										
g ₃	mm	118	124	134	143	152	164	185	211	211

Dimensions LB ▶ [Basic dimensions](#) 129

Dimensions Δ L ▶ [Additional lengths](#) 169



8.1.3 Assignment of the connectors Han

The power, brake and temperature monitoring can be connected in the Han connector.

The designs Han 10E or Han modular with two power modules (16 A or 40 A) are available.



The Han 10E connector is only available for motors with the connection method Y/ Δ .

An additional rectifier can be connected with Han modular.



Feedback in conjunction with the Han plug connector or the integrated i550 motec and 8400 motec is only available with the IG128-24V-H add-on incremental encoder (with 0.5 m cable and M12 plug connector).

Motor	m550-H				m550-P				
	63/S4 63/M4 63/L4	71/M4 71/L4	80/S4 80/M4	90/M4 90/L4	100/M4 100/L4	112/M4	132/M4 132/L4	160/M4 160/L4	180/M4 180/L4
HAN 10E connector									
Connection: • Power • Brake • Temperature monitoring TK0 or PT1000	•	•	•	•	•	•	-	-	-
HAN modular connector									
Connection: • Power • Brake • Temperature monitoring TK0 or PT1000	•	•	•	•	•	•	•	-	-

Positions of the connectors

Positions of the Han connector

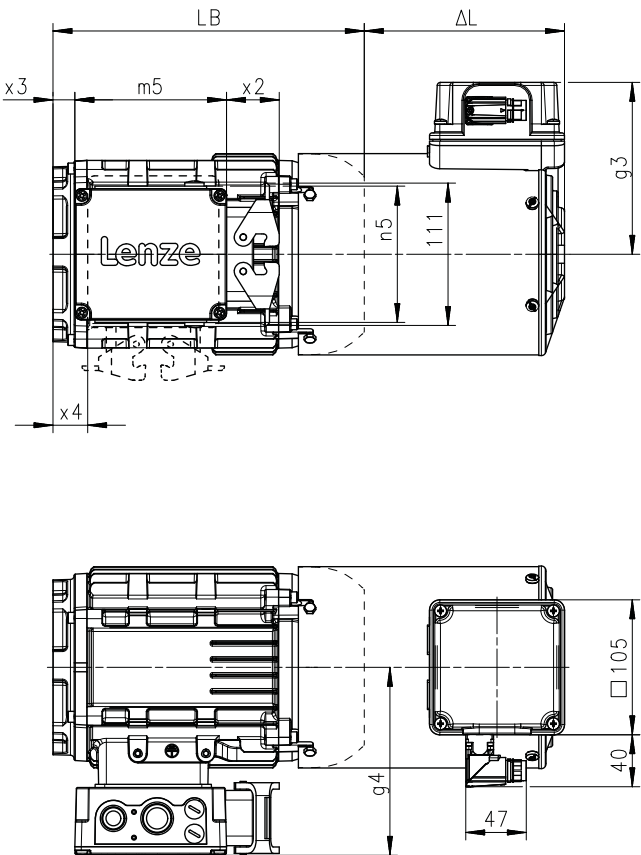


Product extensions

Motor connection
Assignment of the connectors Han



Dimensions of Han connector



8801078_00

Motor		m550-H		m550-P				
		63/S4 63/M4 63/L4	71/M4 71/L4	80/S4 80/M4 80/L4	90/M4 90/L4	100/M4 100/L4	112/M4	132/M4 132/L4
Han connector								
Power/brake								
G ₄	mm	123	134	147	155	165	170	237
x ₂	mm	41	41	41	41	41	41	47
x ₃	mm	6	1	19	25	34.5	40	39
m ₅	mm	118	118	118	118	118	118	120
x ₄	mm	7	2	20	26	35.5	41	9
n ₅	mm	106	106	106	106	106	106	180
Blower terminal box								
G ₃	mm	118	124	134	143	152	164	185

Dimensions LB ▶ [Basic dimensions](#) 129

Dimensions Δ L ▶ [Additional lengths](#) 169



8.1.4 Connection via terminal box

Cable glands



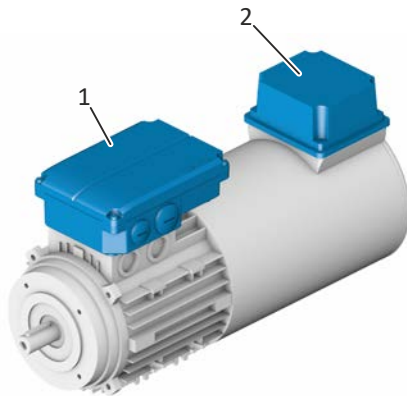
The opening cutouts for the cable glands are closed with plugs.

As the cable glands are only arranged on one side of the motor terminal box "S", the position of the cable glands must be specified.

The motor terminal box "M" and "L" have openings on both sides.

The cable glands on the blower terminal box are only arranged on one side. If required, the terminal box can be rotated step by step by 90 ° after loosening the screws in the terminal box.

Position of the connections



Position	Meaning	Note
1	Power connection Brake connection PE connection Feedback connection Connection of temperature monitoring	For the "S" terminal box, specify the position of the "L", "R" or "E" line connections.
2	Blower connection	When ordering, specify the mounting position of the terminal box: • Shown here: "T" • "L", "R" or "B" If required, the terminal box can be rotated step by step by 90 ° after loosening the screws in the terminal box.

Product extensions

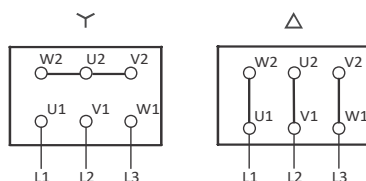
Motor connection
Connection via terminal box



Power connection

Bridge arrangement

Y/Δ circuit

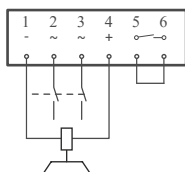


Terminal box, power		
Contact	Name	Meaning
U1	L1	Motor winding phase
V1	L2	
PE	PE	PE conductor
W1	L3	Motor winding phase

DC brake connection

Contact	Name	Meaning
BD1	+	Brake +
BD2	-	Brake -

Connection of brake AC



Connection via rectifiers		
Contact	Name	Meaning
~	L1	Mains
~	N	
+	+	Holding brake (factory-wired)
-	-	
		Switching contact - DC switching

Feedback connection

Resolver		
Contact	Name	Meaning
B1	+Ref	Transformer windings (reference windings)
B2	-Ref	
B3	+VCC ETS	Power supply: electronic nameplate (Only for model with electronic nameplate ETS)
B4	+COS	Cosine stator winding
B5	-COS	
B6	+SIN	Sine stator winding
B7	-SIN	
B8		Not assigned



Product extensions

Motor connection
Connection via terminal box

Incremental encoder HTL/TTL		
Contact	Name	Meaning
+	+ UB	Supply +
-	GND	Mass
A	A/+COS	Track A / + COS
A ⁻	A ⁻ /Ref COS	Track A inverse / - COS
B	B/+SIN	Track B / + SIN
B ⁻	B ⁻ /Ref SIN	Track B inverse/-SIN
0	0	Zero track / + RS485
0 ⁻	0 ⁻	Zero track inverse / - RS485

Incremental encoder SinCos absolute value encoder with Hiperface®		
Contact	Designation	Meaning
B1	+ UB	Supply +
B2	GND	Mass
B3	A	Track A/+COS
B4	A ⁻	Track A inverse/-COS
B5	B	Track B/+SIN
B6	B ⁻	Track B inverse/-SIN
B7	Z	Zero track/+RS485
B8	Z ⁻	Zero track inverse/-RS485
B10		Incremental encoder shield

Connection of temperature monitoring

Contact	Name	Meaning
TB1		Thermal contact TCO
TB2		
1TP1		PTC thermistor 150
1TP2		
2TP1		PTC thermistor 130
2TP2		
R1	+	Thermal detectors PT1000 +
R2	-	Thermal detectors PT1000 -

Blower connection

1-phase			
Contact	Name	Meaning	
PE	PE	PE conductor	
U1	L1	Mains connection	
U2	N		

three-phase			
Contact	Name	Meaning	Note
PE	PE	PE conductor	
U1	L1	Mains connection	Pay attention to the direction of rotation! Swap L1 and L2 if the direction of rotation is incorrect.
V1	L2		
W1	L3		



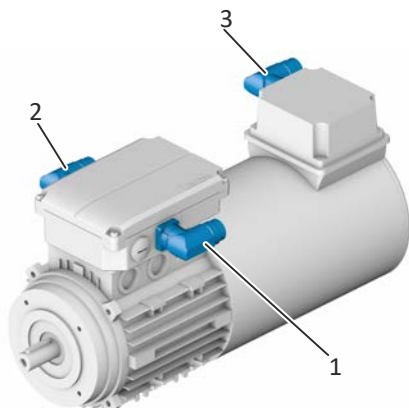
8.1.5 Connection via connector



Preassembled Lenze system cables are available for fast and error-free connection of Lenze motors to Lenze inverters.

Details and data can be found in the "Accessories" brochure on the Internet.

Position of the connections



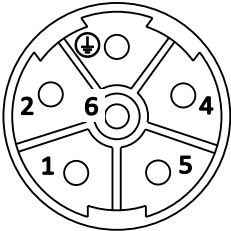
Position	Meaning	Note
1	M23 6-pin connector • Power connection • Brake connection • PE connection	Indicate the mounting position of connectors in the order: • Shown "R" • On the opposite side "L"
	Additionally for M23 8-pin connector: • Thermal contact temperature monitoring connection	Caution: Max. Brake connection voltage ≤ 230 V
2	M23 connector • Feedback connection • PT1000 temperature sensor connection	The mounting position for the feedback connector is on the opposite side to the power connection (position L/R).
3	M17 connector • Blower connection	Indicate the mounting position of terminal boxes in the order: • Shown "T" • L, R or B If required, the terminal box cover can be gradually rotated by 90° after loosening the screws on the terminal box.



Power and brake connection

ICN-M23 connector assignment

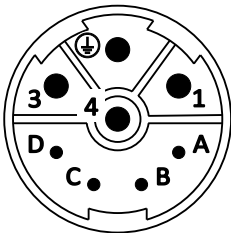
6-pole



M23 6-pole		
Contact	Name	Meaning
1	BD1	DC +/AC brake
2	BD2	DC -/AC brake
4	U	Power phase U
5	V	Power phase V
6	W	Power phase W
PE	PE	PE conductor

M23 connector assignment

8-pole



M23 8-pole		
Contact	Name	Meaning
D	BD2 / BA2	Brake DC-/AC ≤ 230V
PE	PE	PE conductor
B	TB2	Temperature monitoring: TCO
A	TB1	Temperature monitoring: TCO
C	BD1 / BA1	Brake DC +/AC ≤ 230 V
1	U	Power phase U
3	W	Power phase W
4	V	Power phase V

Product extensions

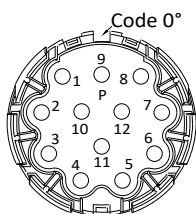
Motor connection
Connection via connector



Feedback and temperature monitoring connection

ICN-M23 connector assignment

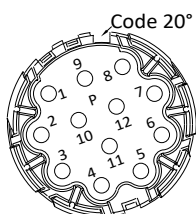
Resolver



M23 for resolvers		
Contact	Name	Meaning
1	+Ref	Transformer windings
2	-Ref	Transformer windings
3	+VCC ETS	Supply: Electronic nameplate (Only for motors and inverters that support this function)
4	+COS	Cosine stator windings
5	-COS	Cosine stator windings
6	+SIN	Sine stator windings
7	-SIN	Sine stator windings
8		Not assigned
9		Not assigned
10		Not assigned
11	+	Temperature monitoring: PT1000
12	-	Temperature monitoring: PT1000

ICN-M23 connector assignment

Incremental and SinCos absolute value encoder Hiperface®

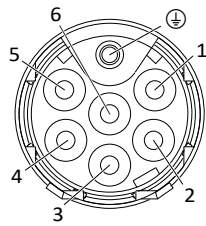


ICN M23 for encoders		
Contact	Name	Meaning
1	B	Track B / +SIN
2	A ⁻	Track A inverse / -COS
3	A	Track A / + COS
4	+UB	Supply +
5	GND	Mass
6	Z ⁻	Zero track inverse / -RS485
7	Z	Zero track / + RS485
8		Not assigned
9	B ⁻	Track B inverse/-SIN
10		Not assigned
11	+	Temperature monitoring: PT1000
12	-	Temperature monitoring: PT1000



Blower

Pin assignment ICN-M17



M17 for blowers 1-ph		
Contact	Name	Meaning
1	U1	Fan
2	U2	Fan
3		Not assigned
4		Not assigned
5		Not assigned
6		Not assigned
PE	PE	PE conductor

M17 for blowers 3-ph		
Contact	Name	Meaning
1	U	Power phase U
2		Not assigned
3	V	Power phase V
4		Not assigned
5		Not assigned
6	W	Power phase W
PE	PE	PE conductor

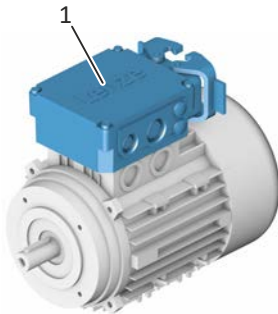
Product extensions

Motor connection
Connection via Han connector



8.1.6 Connection via Han connector

Position of the connections



Position	Meaning
1	Power connection Brake connection PE connection Temperature monitoring connection
	Additionally for the Han-Modular: Rectifier connection

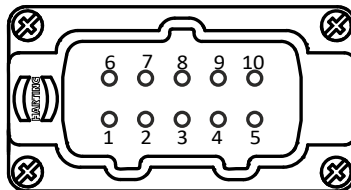
HAN 10E connector



The motor connection is specified in the counter plug.

The connector is only suitable for motors with the connection method Y/ Δ .

HAN 10E connector assignment



Bridge arrangement in the HAN 10E mating connector		
Contact	Name	Meaning
6-7-8	Y	Connection
1-6	Δ	
2-7		
3-8		

Han 10 E		
Contact	Name	Meaning
1	U1	Motor winding phase
2	V1	
3	W1	
4	+/-AC	Brake
5	-/-AC	
6	W2	Motor winding phase
7	U2	
8	V2	
9	TKO/+PT1000	Temperature monitoring
10	TKO/-PT1000	

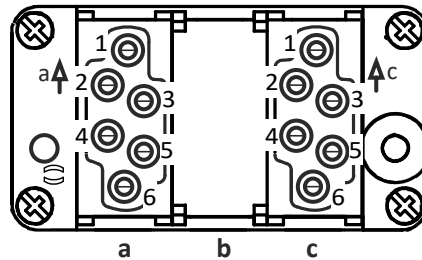


Han-Modular connector



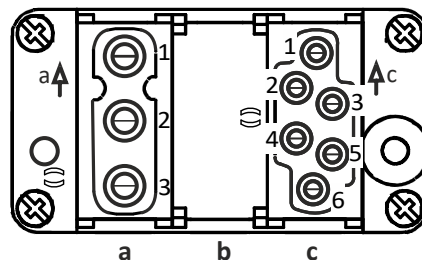
The motor circuit is defined in the terminal box.

Han-Modular 16 A connector assignment



Han-modular 16 A			
Module	Contact	Name	Meaning
a	1	U1	Motor winding phase
	2	V1	
	3	W1	
b			Blank module
c	1	TKO	Temperature monitoring
	2	+/-AC	Brake
	3	-/-AC	
	4	Schaltkontakt	Rectifier
	5		
	6	TKO	Temperature monitoring

Han-Modular 40 A connector assignment



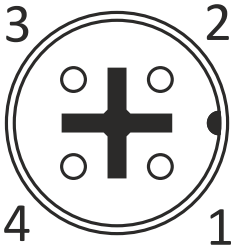
Han-modular 40 A			
Module	Contact	Name	Meaning
a	1	U1	Motor winding phase
	2	V1	
	3	W1	
b			Blank module
c	1	TKO	Temperature monitoring
	2	+/-AC	Brake
	3	-/-AC	
	4	Schaltkontakt	Rectifier
	5		
	6	TKO	Temperature monitoring



8.1.7 Connection via M12 connector

M12 pin assignment

Incr. encoder IG128-24V-H



ICN M12		
Contact	Name	Meaning
1	+UB	Supply +
2	B	Track B
3	GND	Mass
4	A	Track A



8.2 Spring-applied brakes

The motors can be ordered with a spring-applied brake to allow stopping or deceleration of the moving masses. The spring-applied brake operates according to the closed-circuit principle. In the deenergized state, the brake is closed. The spring-applied brakes can be used as holding brakes, application brakes or safety brakes.

Overview

The following table shows the possible versions of the spring-applied brakes.

Versions	Holding brake	Application brake		
	Single brake IP54/55	Single brake IP65/66	Single brake IP54/55	Double brake IP54/55
Standard	•	•	•	•
LongLife			•	
Supply voltages				
DC supply				
DC 24 V $\pm 10\%$	•	•	•	•
DC 180 V $\pm 10\%$		•	•	•
DC 205 V $\pm 10\%$		•	•	•
DC 180 V ... 205 V $\pm 10\%$	•	•	•	•
AC supply via rectifier in the terminal box				
AC 115 V $\pm 10\%$		•	•	•
AC 230 V $\pm 10\%$	•	•	•	•
AC 400 V $\pm 10\%$		•	•	•
AC 460 V $\pm 10\%$		•	•	•
AC 400 V ... 460 V $\pm 10\%$	•	•	•	•
Friction lining				
Standard	•	•	•	•
Low-wear		•	•	•
Options				
Manual release	•	•	•	•
UL/CSA-approved	•	•	•	•
Low noise during operation (noise-reduced rotor)	•	•	•	•
Low noise during operation and switching on (noise-reduced rotor and armature plate)		•	•	•
Cover ring	•	•	•	•
Air gap control (from brake size ABR 12)			•	
Wear control (from brake size ABR 12)			•	
Cold-Brake		•	•	•
Overexcitation of brake coil		•	•	•



8.2.1 Information on project planning

Important notes

DANGER!

Malfunction of the brake

Even small amounts of oil or grease on the friction surfaces reduce the braking torque considerably.

Possible consequences: Death or severe injuries

► Always keep the friction surfaces free of oil and grease.

Emergency stops

A maximum of 100 emergency stops are possible from $n = 2700$ rpm.



Connection

NOTICE

If used as a service brake, the braking torques are dependent on the motor speed to be braked.

- During braking from a high speed and in the event of emergency stops, the braking torque is significantly reduced.

Connection of the spring-applied brake

The spring-applied brakes can be ordered for connection to AC or DC voltage.

Connection to AC voltage

- A rectifier is required to convert the AC voltage into a DC voltage.
- The rectifier is included in the scope of supply. It is mounted in the terminal box of the motor.
- Available rectifiers:
 - Half-wave rectifier, 6-pole
 - Bridge rectifier, 6-pole
 - Bridge/half-wave rectifier, 6-pole

With the holding current reduction or overexcitation option

Connection to DC voltage

- No rectifier is required.
- A freewheeling diode or a spark suppressor must be used to prevent high induction peaks.

Motor supply cables

If long motor supply cables are used, pay attention to the ohmic voltage drop along the cable and compensate for it with a higher voltage at the input end of the cable.

The following applies to Lenze system cables:

$U[V] = U_B[V] + 0.08 \frac{[V]}{[A] \times [m]} \times I_{Lg}[m] \times I_B[A]$	U	V	Resulting supply voltage
	U_B	V	Rated voltage of the brake
	I_{Lg}	m	Cable length
	I_B	A	Rated current of the brake

AC or DC voltage switching

Brakes can be switched both before the rectifier (AC voltage switching) as well as after the rectifier (DC voltage switching). The choice of control system influences the engagement time of the armature plate, inter alia.

AC switching increases the engagement time by a factor of 5 to 10 compared to DC switching. This is to be observed taken into account when choosing the control system. DC switching is possible by simply removing a bridge and using the switching contact connection. However, this calls for two additional cores in the control cabinet.

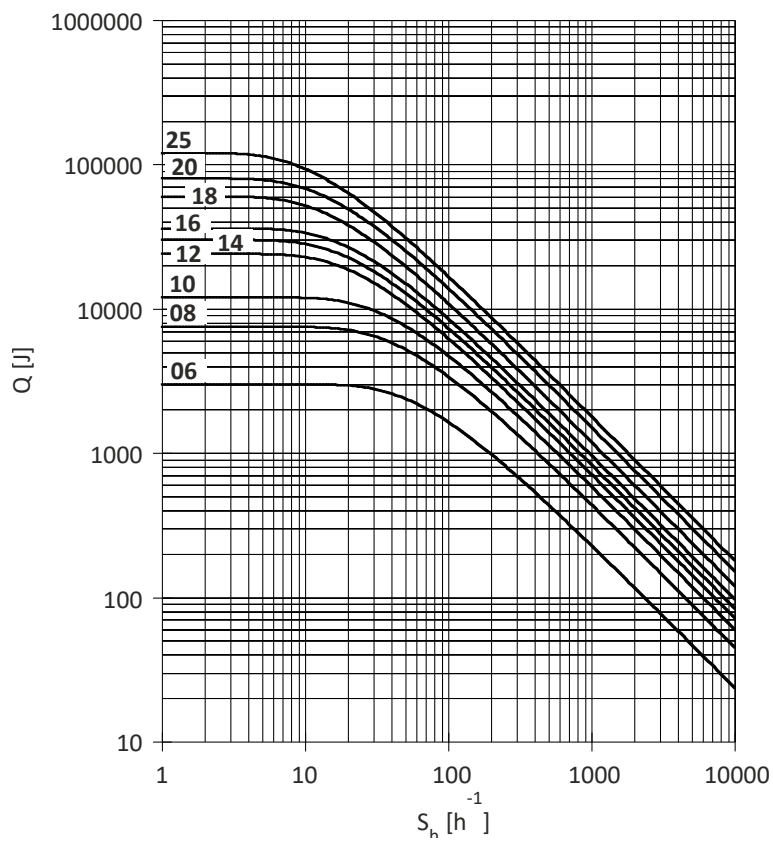
DC switching is particularly expedient for lifting applications because a short engagement time is necessary here to guarantee a secure hold without any prior slipping of the load.

Product extensions

Spring-applied brakes
Information on project planning



Permissible friction energy



Q Switching energy per switching cycle

S_h Switching rate

06 ... 25 Brake size



Product extensions

Spring-applied brakes
Spring-applied holding brake
Assignment of braking torques

8.2.2 Spring-applied holding brake

8.2.2.1 Assignment of braking torques

For optimum adaptation of the brake motor to the application, spring-applied brakes with several braking torques are available for each motor frame size.

Motor	Single brake								
	HBR 06	HBR 08	HBR 10	HBR 12	HBR 14	HBR 16	HBR 18		
	Nm	Nm	Nm	Nm	Nm	Nm	Nm		
m550-H63/S4	4								
m550-H63/M4									
m550-H63/L4									
m550-H71/M4									
m550-H71/L4									
m550-P80/M4		8							
m550-P90/M4									
m550-P90/L4		16							
m550-P100/M4		23							
m550-P100/L4									
m550-P112/M4				32					
m550-P132/M4									60
m550-P132/L4									
m550-P160/M4					80				
m550-P160/L4									
m550-P180/M4				150					
m550-P180/L4									

8.2.2.2 Rated data

Holding brake		HBR 06	HBR 08	HBR 10	HBR 10	HBR 12	HBR 14	HBR 16	HBR 18
Moment of inertia	kgcm ²	0.128	0.401	2	2	4.5	6.3	15	29
Power input									
DC 24 V	W	20	25	30	30	40	50	55	85
DC 180 V ... 205 V	W	20	25	30	30	40	53	56	85
AC 230 V	W	20	25	30	30	40	53	56	85
AC 400 V ... 460 V	W	20	25	30	30	40	53	56	85
Braking torque is static	Nm	4	8	16	23	32	60	80	150
Min. static braking torque tolerance	%	0	0	0	0	0	0	0	0
Max. static braking torque tolerance	%	80	80	80	80	80	80	80	80
Reversing cycles		1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000
Repetitive cycles		1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000
Maximum switching energy	J	3000	7500	12000	12000	24000	30000	36000	60000

Product extensions

Spring-applied brakes
Spring-applied holding brake

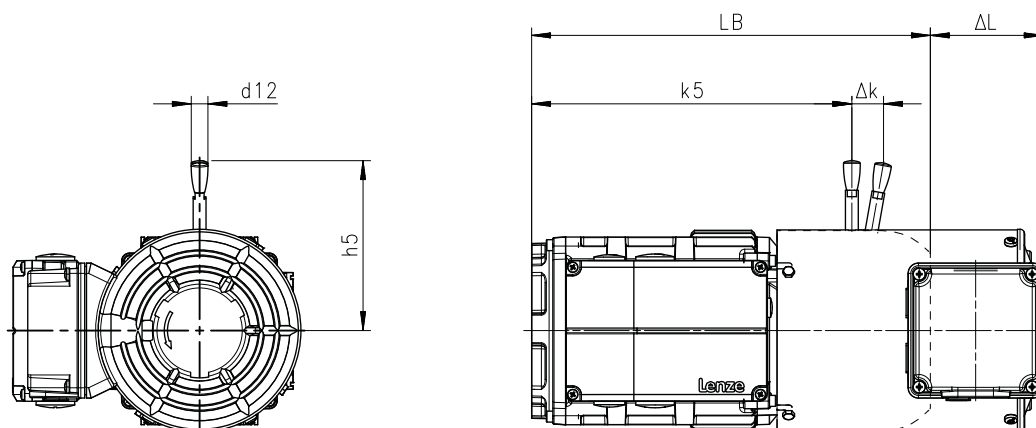


Option: Manual release

The brake can be ordered with a manual release lever to facilitate positioning and maintenance work. The brake can be released manually in deenergized mode by actuating the manual release lever.

A lockable manual release lever can be ordered as an option. This is equipped with a clamping device to hold the brake in the released position.

Dimensions of the manual release lever



8801081_00

Motor	Brake	Dimensions			
		k_5	Δk	H_5	d_{12}
		mm	mm	mm	mm
m550-H63/S4 m550-H63/M4 m550-H63/L4	HBR 06	193	25	107	13
m550-H71/M4 m550-H71/L4	HBR 06	211	25	107	13
m550-P80/M4	HBR 08	231	27	116	13
m550-P90/M4	HBR 08	270	27	116	13
m550-P90/L4	HBR 10	286	23	131	13
m550-P100/M4 m550-P100/L4	HBR 10	344	23	131	13
m550-P112/M4	HBR 12	345	37	161	13
m550-P132/M4 m550-P132/L4	HBR 14	408	53	229	20
m550-P160/M4	HBR 16	556	67	267	20
m550-P160/L4	HBR 18		100	347	25
m550-P180/M4 m550-P180/L4	HBR 18	627	100	347	25

Dimensions LB ▶ [Basic dimensions](#) 129

Dimensions ΔL ▶ [Additional lengths](#) 169



Product extensions

Spring-applied brakes
Spring-applied application brake, IP54/IP55 single brake
Assignment of braking torques

8.2.3 Spring-applied application brake, IP54/IP55 single brake

The spring-applied brakes can be used as service brakes or holding brakes. Emergency stops are possible.

8.2.3.1 Assignment of braking torques

For optimum adaptation of the brake motor to the application, spring-applied brakes with several braking torques are available for each motor frame size.

Motor	Single brake								
	ABR 06	ABR 08	ABR 10	ABR 12	ABR 14	ABR 16	ABR 18	ABR 20	
	Nm	Nm	Nm	Nm	Nm	Nm	Nm	Nm	
m550-H63/S4	2.5 4								
m550-H63/M4									
m550-H63/L4									
m550-H71/M4									
m550-H71/L4									
m550-P80/M4		3.5	16						
m550-P90/M4		8							
m550-P90/L4		8	16 23						32
m550-P100/M4				46	14 32	35 60	80 100		
m550-P100/L4									
m550-P112/M4									
m550-P132/M4									
m550-P132/L4									
m550-P160/M4								60 80	150
m550-P160/L4									80 150 200
m550-P180/M4									80
m550-P180/L4		150	315						

Product extensions

Spring-applied brakes

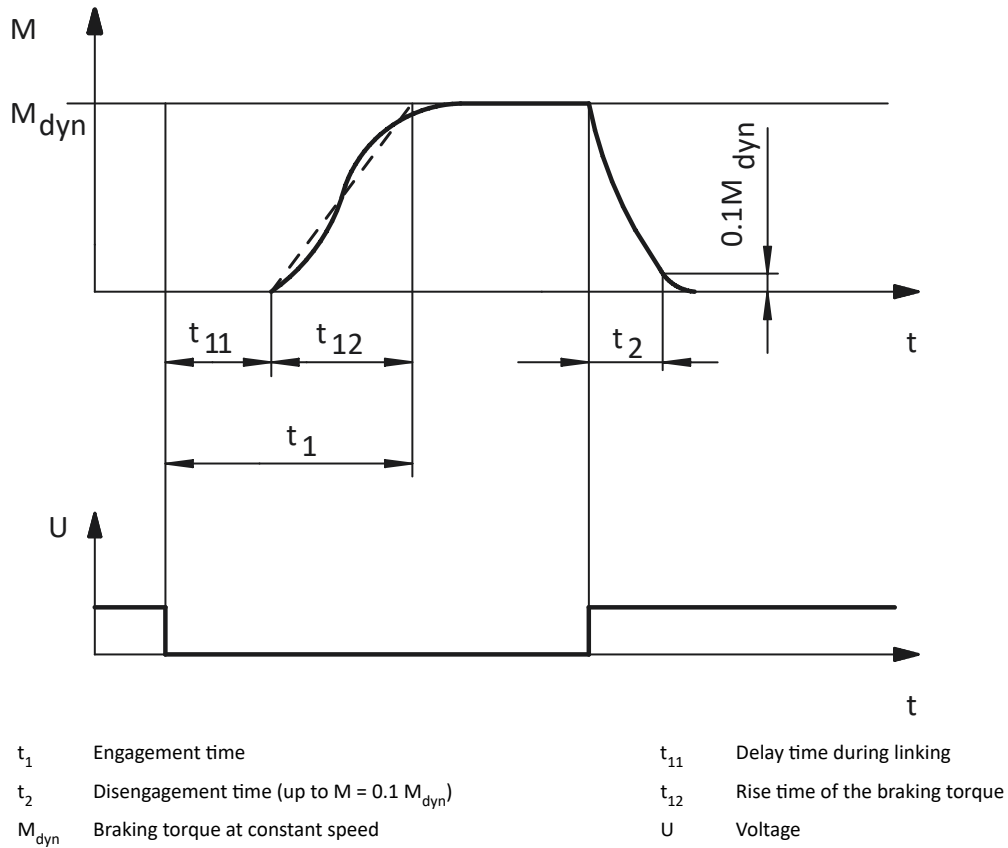
Spring-applied application brake, IP54/IP55 single brake

Rated data



8.2.3.2 Rated data

Switching times of the spring-applied brakes





Product extensions

Spring-applied brakes
Spring-applied application brake, IP54/IP55 single brake
Rated data

Rated data, Single brake, IP54/55

Application brake ABR 06, ABR 08

Application brake		ABR 06				ABR 08			
Braking torque									
Standard friction lining	Nm	2.5		4		3.5		8	
Low-wear friction lining	Nm		2.5		4		3.5		8
Power input									
DC 24 V	W	20	20	20	20	25	25	25	25
DC 180 V	W	20	20	20	20	25	25	25	25
DC 205 V	W	20	20	20	20	25	25	25	25
DC 180 V ... 205 V	W	20	20	20	20	25	25	25	25
AC 115 V	W	20	20	20	20	25	25	25	25
AC 230 V	W	20	20	20	20	25	25	25	25
AC 400 V	W	20	20	20	20	25	25	25	25
AC 460 V	W	20	20	20	20	25	25	25	25
AC 400 V ... 460 V	W	20	20	20	20	25	25	25	25
Cold Brake AC 230V	W	20	20	20	20	25	25	25	25
Cold Brake AC 400V	W	23	23	23	23	27	27	27	27
Overexcitation AC 230 V	W	20	20	20	20	25	25	25	25
Overexcitation AC 400 V	W	20	20	20	20	25	25	25	25
Moment of inertia	kgcm ²	0.15	0.15	0.15	0.15	0.61	0.61	0.61	0.61
Braking torque is static	Nm	2.5	2.5	4	4	3.5	3.5	8	8
Min. static braking torque tolerance	%	-25	-25	-25	-25	-25	-25	-25	-25
Max. static braking torque tolerance	%	35	35	35	35	35	35	35	35
Dynamic braking torque									
100 rpm	Nm	2.5	2.5	4.0	4.0	3.5	3.5	8.0	8.0
1000 rpm	Nm	2.3	2.3	3.7	3.7	3.1	3.1	7.1	7.1
1200 rpm	Nm	2.3	2.3	3.6	3.6	3.0	3.0	7.0	7.0
1500 rpm	Nm	2.2	2.2	3.5	3.5	3.0	3.0	6.8	6.8
1800 rpm	Nm	2.2	2.2	3.4	3.4	2.9	2.9	6.6	6.6
2500 rpm	Nm	2.1	2.1	3.3	3.3	2.8	2.8	6.4	6.4
3000 rpm	Nm	2.0	2.0	3.2	3.2	2.7	2.7	6.2	6.2
3600 rpm	Nm	2.0	2.0	3.2	3.2	2.7	2.7	6.1	6.1
Min. dynamic braking torque tolerance	%	-25	-25	-25	-25	-25	-25	-25	-25
Max. dynamic braking torque tolerance	%	35	35	35	35	35	35	35	35
Friction energy									
100 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
1000 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
1200 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
1500 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
1800 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
2500 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
3000 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
3600 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
Maximum speed - operation	rpm	6000	3600	6000	3600	5000	3600	5000	3600
Maximum speed - idle state	rpm	10000	10000	10000	10000	10000	10000	10000	10000

Product extensions

Spring-applied brakes

Spring-applied application brake, IP54/IP55 single brake

Rated data



Rated data, Single brake, IP54/55

Application brake ABR 06, ABR 08

Application brake		ABR 06				ABR 08			
Braking torque									
Standard friction lining	Nm	2.5		4		3.5		8	
Low-wear friction lining	Nm		2.5		4		3.5		8
Delay time t11									
DC voltage	ms	25	25	15	15	14	14	15	15
AC mains voltage	ms	25	25	15	15	14	14	15	15
Cold Brake AC 230V	ms	24	24	16	16	22	22	25	25
Cold Brake AC 400V	ms	27	27	19	19	28	28	28	28
Overexcitation AC 230 V	ms	31	31	20	20	33	33	31	31
Overexcitation AC 400 V	ms	31	31	20	20	33	33	31	31
Rise time t12									
DC voltage	ms	13	13	13	13	10	10	16	16
AC mains voltage	ms	13	13	13	13	10	10	16	16
Cold Brake AC 230V	ms	12	12	14	14	16	16	27	27
Cold Brake AC 400V	ms	14	14	16	16	20	20	30	30
Overexcitation AC 230 V	ms	16	16	17	17	24	24	33	33
Overexcitation AC 400 V	ms	16	16	17	17	24	24	33	33
Engagement time t1									
DC voltage	ms	38	38	28	28	24	24	31	31
AC mains voltage	ms	38	38	28	28	24	24	31	31
Cold Brake AC 230V	ms	36	36	30	30	38	38	52	52
Cold Brake AC 400V	ms	41	41	35	35	48	48	58	58
Overexcitation AC 230 V	ms	47	47	37	37	57	57	64	64
Overexcitation AC 400 V	ms	47	47	37	37	57	57	64	64
Disengagement time t2									
DC voltage	ms	30	30	45	45	37	37	57	57
AC mains voltage	ms	30	30	45	45	37	37	57	57
Cold Brake AC 230V	ms	30	30	45	45	37	37	57	57
Cold Brake AC 400V	ms	21	21	30	30	24	24	36	36
Overexcitation AC 230 V	ms	17	17	22	22	18	18	26	26
Overexcitation AC 400 V	ms	17	17	22	22	18	18	26	26
Overexcitation time									
Cold Brake AC 230V	ms	300	300	300	300	300	300	300	300
Cold Brake AC 400V	ms	300	300	300	300	300	300	300	300
Overexcitation AC 230 V	ms	300	300	300	300	300	300	300	300
Overexcitation AC 400 V	ms	300	300	300	300	300	300	300	300
Friction energy QBW									
DC voltage	MJ	56.5	113.1	42.4	84.8	92.1	210.4	69.1	157.8
AC mains voltage	MJ	56.5	113.1	42.4	84.8	92.1	210.4	69.1	157.8
Cold Brake AC 230V	MJ	56.5	113.1	42.4	84.8	92.1	210.4	69.1	157.8
Cold Brake AC 400V	MJ	56.5	113.1	56.5	113.1	92.1	210.4	92.1	210.4
Overexcitation AC 230 V	MJ	56.5	113.1	56.5	113.1	92.1	210.4	92.1	210.4
Overexcitation AC 400 V	MJ	56.5	113.1	56.5	113.1	92.1	210.4	92.1	210.4
Reversing cycles		1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶
Repetitive cycles		1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶



Product extensions

Spring-applied brakes
Spring-applied application brake, IP54/IP55 single brake
Rated data

Rated data, Single brake, IP54/55

Application brake ABR 10, ABR 12

Application brake		ABR 10				ABR 12					
Braking torque											
Standard friction lining	Nm	16		23		14		32		46	
Low-wear friction lining	Nm		16		23		14		32		46
Power input											
DC 24 V	W	30	30	30	30	40	40	40	40	40	40
DC 180 V	W	32	32	32	32	40	40	40	40	40	40
DC 205 V	W	33	33	33	33	40	40	40	40	40	40
DC 180 V ... 205 V	W	33	33	33	33	40	40	40	40	40	40
AC 115 V	W	32	32	32	32	40	40	40	40	40	40
AC 230 V	W	33	33	33	33	40	40	40	40	40	40
AC 400 V	W	32	32	32	32	40	40	40	40	40	40
AC 460 V	W	33	33	33	33	40	40	40	40	40	40
AC 400 V ... 460 V	W	33	33	33	33	40	40	40	40	40	40
Cold Brake AC 230V	W	33	33	33	33	40	40	40	40	40	40
Cold Brake AC 400V	W	30	30	30	30	42	42	42	42	42	42
Overexcitation AC 230 V	W	32	32	32	32	40	40	40	40	40	40
Overexcitation AC 400 V	W	32	32	32	32	40	40	40	40	40	40
Moment of inertia	kgcm ²	2	2	2	2	4.5	4.5	4.5	4.5	4.5	4.5
Braking torque is static	Nm	16	16	23	23	14	14	32	32	46	46
Min. static braking torque tolerance	%	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
Max. static braking torque tolerance	%	35	35	35	35	35	35	35	35	35	35
Dynamic braking torque											
100 rpm	Nm	16	16	23	23	14	14	32	32	46	46
1000 rpm	Nm	14	14	20	20	12	12	28	28	40	40
1200 rpm	Nm	14	14	20	20	12	12	27	27	39	39
1500 rpm	Nm	13	13	19	19	11	11	26	26	38	38
1800 rpm	Nm	13	13	19	19	11	11	26	26	37	37
2500 rpm	Nm	12	12	18	18	11	11	24	24	35	35
3000 rpm	Nm	12	12	17	17	11	11	24	24	35	35
3600 rpm	Nm	12	12	17	17	10	10	23	23	34	34
Min. dynamic braking torque tolerance	%	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
Max. dynamic braking torque tolerance	%	35	35	35	35	35	35	35	35	35	35
Friction energy											
100 rpm	kJ	12	12	12	12	24	24	24	24	24	24
1000 rpm	kJ	12	12	12	12	24	24	24	24	24	24
1200 rpm	kJ	12	12	12	12	24	24	24	24	24	24
1500 rpm	kJ	12	12	12	12	24	24	24	24	24	24
1800 rpm	kJ	12	12	12	12	24	24	24	24	24	24
2500 rpm	kJ	12	12	12	12	24	24	24	24	24	24
3000 rpm	kJ	12	12	12	12	24	24	24	24	24	24
3600 rpm	kJ	12	12	12	12	24	7	24	7	24	7
Maximum speed - operation	rpm	4000	3600	4000	3600	3600	3600	3600	3600	3600	3600
Maximum speed - idle state	rpm	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000

Product extensions

Spring-applied brakes

Spring-applied application brake, IP54/IP55 single brake

Rated data



Rated data, Single brake, IP54/55

Application brake ABR 10, ABR 12

Application brake		ABR 10				ABR 12					
Braking torque											
Standard friction lining	Nm	16		23		14		32		46	
Low-wear friction lining	Nm		16		23		14		32		46
Delay time t11											
DC voltage	ms	28	28	10	10	21	21	28	28	16	16
AC mains voltage	ms	28	28	10	10	21	21	28	28	16	16
Cold Brake AC 230V	ms	31	31	24	24	49	49	48	48	27	27
Cold Brake AC 400V	ms	34	34	27	27	64	64	55	55	42	42
Overexcitation AC 230 V	ms	44	44	29	29	73	73	62	62	54	54
Overexcitation AC 400 V	ms	44	44	29	29	73	73	62	62	54	54
Rise time t12											
DC voltage	ms	19	19	19	19	19	19	25	25	25	25
AC mains voltage	ms	19	19	19	19	19	19	25	25	25	25
Cold Brake AC 230V	ms	21	21	46	46	44	44	43	43	42	42
Cold Brake AC 400V	ms	23	23	51	51	58	58	49	49	66	66
Overexcitation AC 230 V	ms	30	30	55	55	66	66	55	55	84	84
Overexcitation AC 400 V	ms	30	30	55	55	66	66	55	55	84	84
Engagement time t1											
DC voltage	ms	47	47	29	29	40	40	53	53	41	41
AC mains voltage	ms	47	47	29	29	40	40	53	53	41	41
Cold Brake AC 230V	ms	52	52	70	70	93	93	91	91	69	69
Cold Brake AC 400V	ms	57	57	78	78	122	122	104	104	108	108
Overexcitation AC 230 V	ms	74	74	84	84	139	139	117	117	138	138
Overexcitation AC 400 V	ms	74	74	84	84	139	139	117	117	138	138
Disengagement time t2											
DC voltage	ms	76	76	109	109	65	65	115	115	193	193
AC mains voltage	ms	76	76	109	109	65	65	115	115	193	193
Cold Brake AC 230V	ms	76	76	109	109	65	65	115	115	193	193
Cold Brake AC 400V	ms	53	53	72	72	48	48	78	78	114	114
Overexcitation AC 230 V	ms	41	41	53	53	38	38	59	59	81	81
Overexcitation AC 400 V	ms	41	41	53	53	38	38	59	59	81	81
Overexcitation time											
Cold Brake AC 230V	ms	300	300	300	300	300	300	300	300	300	300
Cold Brake AC 400V	ms	300	300	300	300	300	300	300	300	300	300
Overexcitation AC 230 V	ms	300	300	300	300	300	300	300	300	300	300
Overexcitation AC 400 V	ms	300	300	300	300	300	300	300	300	300	300
Friction energy QBW											
DC voltage	MJ	98	264	50.3	198	236.4	706.2	177.3	529.6	75.7	353.1
AC mains voltage	MJ	98	264	50.3	198	236.4	706.2	177.3	529.6	75.7	353.1
Cold Brake AC 230V	MJ	98	264	50.3	198	236.4	706.2	177.3	529.6	75.7	353.1
Cold Brake AC 400V	MJ	98	264	67.1	264	236.4	706.2	236.4	706.2	151.4	706.2
Overexcitation AC 230 V	MJ	98	264	67.1	264	236.4	706.2	236.4	706.2	151.4	706.2
Overexcitation AC 400 V	MJ	98	264	67.1	264	236.4	706.2	236.4	706.2	151.4	706.2
Reversing cycles		1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶
Repetitive cycles		1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶



Product extensions

Spring-applied brakes
Spring-applied application brake, IP54/IP55 single brake
Rated data

Rated data, Single brake, IP54/55

Application brake ABR 14, ABR 16

Application brake		ABR 14				ABR 16					
Braking torque											
Standard friction lining	Nm	35		60		60		80		100	
Low-wear friction lining	Nm		35		60		60		80		100
Power input											
DC 24 V	W	50	50	50	50	55	55	55	55	55	55
DC 180 V	W	53	53	53	53	55	55	55	55	55	55
DC 205 V	W	53	53	53	53	56	56	56	56	56	56
DC 180 V ... 205 V	W	53	53	53	53	56	56	56	56	56	56
AC 115 V	W	53	53	53	53	56	56	56	56	56	56
AC 230 V	W	53	53	53	53	56	56	56	56	56	56
AC 400 V	W	53	53	53	53	55	55	55	55	55	55
AC 460 V	W	53	53	53	53	56	56	56	56	56	56
AC 400 V ... 460 V	W	53	53	53	53	56	56	56	56	56	56
Cold Brake AC 230V	W	53	53	53	53	56	56	56	56	56	56
Cold Brake AC 400V	W	54	54	54	54	55	55	55	55	55	55
Overexcitation AC 230 V	W	53	53	53	53	56	56	56	56	56	56
Overexcitation AC 400 V	W	53	53	53	53	55	55	55	55	55	55
Moment of inertia	kgcm ²	6.3	6.3	6.3	6.3	15	15	15	15	15	15
Braking torque is static	Nm	35	35	60	60	60	60	80	80	100	100
Min. static braking torque tolerance	%	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
Max. static braking torque tolerance	%	35	35	35	35	35	35	35	35	35	35
Dynamic braking torque											
100 rpm	Nm	35	35	60	60	60	60	80	80	100	100
1000 rpm	Nm	30	30	51	51	50	50	66	66	83	83
1200 rpm	Nm	29	29	50	50	49	49	65	65	81	81
1500 rpm	Nm	28	28	49	49	47	47	63	62	78	78
1800 rpm	Nm	28	28	47	47	46	46	62	62	77	77
2500 rpm	Nm	26	26	45	45	44	44	58	58	73	73
3000 rpm	Nm	26	26	44	44	43	43	57	57	71	71
3600 rpm	Nm	25	-	43	-	42	-	56	-	70	-
Min. dynamic braking torque tolerance	%	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
Max. dynamic braking torque tolerance	%	35	35	35	35	35	35	35	35	35	35
Friction energy											
100 rpm	kJ	30	30	30	30	36	36	36	36	36	36
1000 rpm	kJ	30	30	30	30	36	36	36	36	36	36
1200 rpm	kJ	30	30	30	30	36	36	36	36	36	36
1500 rpm	kJ	30	30	30	30	36	36	36	36	36	36
1800 rpm	kJ	30	30	30	30	36	36	36	36	36	36
2500 rpm	kJ	30	30	30	30	36	36	36	36	36	36
3000 rpm	kJ	30	18	30	18	36	11	36	11	36	11
3600 rpm	kJ	30	-	30	-	36	-	36	-	36	-
Maximum speed - operation	rpm	3600	3000	3600	3000	3600	3000	3600	3000	3600	3000
Maximum speed - idle state	rpm	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000

Product extensions

Spring-applied brakes

Spring-applied application brake, IP54/IP55 single brake

Rated data



Rated data, Single brake, IP54/55

Application brake ABR 14, ABR 16

Application brake		ABR 14				ABR 16					
Braking torque											
Standard friction lining	Nm	35		60		60		80		100	
Low-wear friction lining	Nm		35		60		60		80		100
Delay time t11											
DC voltage	ms	37	37	17	17	53	53	27	27	22	22
AC mains voltage	ms	37	37	17	17	53	53	27	27	22	22
Cold Brake AC 230V	ms	61	61	33	33	114	114	58	58	41	41
Cold Brake AC 400V	ms	69	69	43	43	133	133	74	74	56	56
Overexcitation AC 230 V	ms	76	76	47	47	145	145	89	89	70	70
Overexcitation AC 400 V	ms	76	76	47	47	145	145	89	89	70	70
Rise time t12											
DC voltage	ms	22	22	25	25	30	30	30	30	30	30
AC mains voltage	ms	22	22	25	25	30	30	30	30	30	30
Cold Brake AC 230V	ms	36	36	47	47	65	65	64	64	56	56
Cold Brake AC 400V	ms	41	41	63	63	75	75	82	82	76	76
Overexcitation AC 230 V	ms	45	45	69	69	82	82	99	99	95	95
Overexcitation AC 400 V	ms	45	45	69	69	82	82	99	99	95	95
Engagement time t1											
DC voltage	ms	59	59	42	42	83	83	57	57	52	52
AC mains voltage	ms	59	59	42	42	83	83	57	57	52	52
Cold Brake AC 230V	ms	97	97	80	80	179	179	122	122	97	97
Cold Brake AC 400V	ms	110	110	106	106	208	208	156	156	132	132
Overexcitation AC 230 V	ms	121	121	116	116	227	227	188	188	165	165
Overexcitation AC 400 V	ms	121	121	116	116	227	227	188	188	165	165
Disengagement time t2											
DC voltage	ms	148	148	210	210	169	169	220	220	297	297
AC mains voltage	ms	148	148	210	210	169	169	220	220	297	297
Cold Brake AC 230V	ms	148	148	210	210	169	169	220	220	297	297
Cold Brake AC 400V	ms	98	98	131	131	125	125	154	154	191	191
Overexcitation AC 230 V	ms	71	71	92	92	100	100	119	119	141	141
Overexcitation AC 400 V	ms	71	71	92	92	100	100	119	119	141	141
Overexcitation time											
Cold Brake AC 230V	ms	300	300	300	300	1300	1300	1300	1300	1300	1300
Cold Brake AC 400V	ms	300	300	300	300	300	300	300	300	300	300
Overexcitation AC 230 V	ms	300	300	300	300	300	300	300	300	300	300
Overexcitation AC 400 V	ms	300	300	300	300	300	300	300	300	300	300
Friction energy QBW											
DC voltage	MJ	238.2	761.4	178.7	571	257.9	965.7	257.9	965.7	120.5	643.8
AC mains voltage	MJ	238.2	761.4	178.7	571	257.9	965.7	257.9	965.7	120.5	643.8
Cold Brake AC 230V	MJ	238.2	761.4	178.7	571	257.9	965.7	257.9	965.7	120.5	643.8
Cold Brake AC 400V	MJ	238.2	761.4	238.2	761.4	257.9	965.7	257.9	965.7	180.8	965.7
Overexcitation AC 230 V	MJ	238.2	761.4	238.2	761.4	257.9	965.7	257.9	965.7	180.8	965.7
Overexcitation AC 400 V	MJ	238.2	761.4	238.2	761.4	257.9	965.7	257.9	965.7	180.8	965.7
Reversing cycles		1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶
Repetitive cycles		1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶



Product extensions

Spring-applied brakes
Spring-applied application brake, IP54/IP55 single brake
Rated data

Rated data, Single brake, IP54/55

Application brake ABR 18, ABR 20

Application brake		ABR 18						ABR 20			
Braking torque											
Standard friction lining	Nm	80		150		200		260		315	
Low-wear friction lining	Nm		80		150		200		260		315
Power input											
DC 24 V	W	85	85	85	85	85	85	100	100	100	100
DC 180 V	W	85	85	85	85	85	85	100	100	100	100
DC 205 V	W	85	85	85	85	85	85	100	100	100	100
DC 180 V ... 205 V	W	85	85	85	85	85	85	100	100	100	100
AC 115 V	W	85	85	85	85	85	85	100	100	100	100
AC 230 V	W	85	85	85	85	85	85	100	100	100	100
AC 400 V	W	85	85	85	85	85	85	100	100	100	100
AC 460 V	W	85	85	85	85	85	85	100	100	100	100
AC 400 V ... 460 V	W	85	85	85	85	85	85	100	100	100	100
Cold Brake AC 230V	W	85	85	85	85	85	85	100	100	100	100
Cold Brake AC 400V	W	85	85	85	85	85	85	100	100	100	100
Overexcitation AC 230 V	W	85	85	85	85	85	85	100	100	100	100
Overexcitation AC 400 V	W	85	85	85	85	85	85	100	100	100	100
Moment of inertia	kgcm ²	29	29	29	29	29	29	73	73	73	73
Braking torque is static	Nm	80	80	150	150	200	200	260	260	315	315
Min. static braking torque tolerance	%	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
Max. static braking torque tolerance	%	35	35	35	35	35	35	35	35	35	35
Dynamic braking torque											
100 rpm	Nm	80	80	150	150	200	200	260	260	315	315
1000 rpm	Nm	65	65	122	122	162	162	205	205	249	249
1200 rpm	Nm	63	63	119	119	158	158	200	200	243	243
1500 rpm	Nm	62	62	116	116	154	154	195	195	236	236
1800 rpm	Nm	60	60	113	113	150	150	190	-	230	-
2500 rpm	Nm	58	-	108	-	144	-	182	-	221	-
3000 rpm	Nm	56	-	105	-	140	-	177	-	214	-
3600 rpm	Nm	54	-	102	-	136	-	172	-	208	-
Min. dynamic braking torque tolerance	%	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
Max. dynamic braking torque tolerance	%	35	35	35	35	35	35	35	35	35	35
Friction energy											
100 rpm	kJ	60	60	60	60	60	60	80	80	80	80
1000 rpm	kJ	60	60	60	60	60	60	80	80	80	80
1200 rpm	kJ	60	60	60	60	60	60	80	80	80	80
1500 rpm	kJ	60	60	60	60	60	60	80	24	80	24
1800 rpm	kJ	60	36	60	36	60	36	80	-	80	-
2500 rpm	kJ	60	-	60	-	60	-	80	-	80	-
3000 rpm	kJ	60	-	60	-	60	-	80	-	80	-
3600 rpm	kJ	60	-	60	-	60	-	80	-	80	-
Maximum speed - operation	rpm	3600	1800	3600	1800	3600	1800	3600	1500	3600	1500
Maximum speed - idle state	rpm	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000

Product extensions

Spring-applied brakes
Spring-applied application brake, IP54/IP55 single brake
Rated data



Rated data, Single brake, IP54/55

Application brake ABR 18, ABR 20

Application brake		ABR 18						ABR 20			
Braking torque											
Standard friction lining	Nm	80		150		200		260		315	
Low-wear friction lining	Nm		80		150		200		260		315
Delay time t11											
DC voltage	ms	77	77	33	33	24	24	65	65	46	46
AC mains voltage	ms	77	77	33	33	24	24	65	65	46	46
Cold Brake AC 230V	ms	145	145	80	80	60	60	102	102	69	69
Cold Brake AC 400V	ms	160	160	93	93	72	72	121	121	88	88
Overexcitation AC 230 V	ms	174	174	108	108	86	86	133	133	103	103
Overexcitation AC 400 V	ms	174	174	108	108	86	86	133	133	103	103
Rise time t12											
DC voltage	ms	20	20	45	45	45	45	100	100	100	100
AC mains voltage	ms	20	20	45	45	45	45	100	100	100	100
Cold Brake AC 230V	ms	38	38	109	109	113	113	157	157	150	150
Cold Brake AC 400V	ms	42	42	127	127	135	135	186	186	191	191
Overexcitation AC 230 V	ms	45	45	147	147	161	161	205	205	224	224
Overexcitation AC 400 V	ms	45	45	147	147	161	161	205	205	224	224
Engagement time t1											
DC voltage	ms	97	97	78	78	69	69	165	165	146	146
AC mains voltage	ms	97	97	78	78	69	69	165	165	146	146
Cold Brake AC 230V	ms	183	183	189	189	173	173	259	259	219	219
Cold Brake AC 400V	ms	202	202	220	220	207	207	307	307	279	279
Overexcitation AC 230 V	ms	219	219	255	255	247	247	338	338	327	327
Overexcitation AC 400 V	ms	219	219	255	255	247	247	338	338	327	327
Disengagement time t2											
DC voltage	ms	179	179	270	270	356	356	340	340	378	378
AC mains voltage	ms	179	179	270	270	356	356	340	340	378	378
Cold Brake AC 230V	ms	179	179	270	270	356	356	340	340	378	378
Cold Brake AC 400V	ms	129	129	179	179	215	215	218	218	229	229
Overexcitation AC 230 V	ms	101	101	132	132	151	151	157	157	160	160
Overexcitation AC 400 V	ms	101	101	132	132	151	151	157	157	160	160
Overexcitation time											
Cold Brake AC 230V	ms	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300
Cold Brake AC 400V	ms	300	300	300	300	300	300	300	300	300	300
Overexcitation AC 230 V	ms	300	300	300	300	300	300	300	300	300	300
Overexcitation AC 400 V	ms	300	300	300	300	300	300	300	300	300	300
Friction energy QBW											
DC voltage	MJ	358.2	1542.1	358.2	1542.1	81.9	578.3	474.7	2322.1	246.6	1741.6
AC mains voltage	MJ	358.2	1542.1	358.2	1542.1	81.9	578.3	474.7	2322.1	246.6	1741.6
Cold Brake AC 230V	MJ	358.2	1542.1	358.2	1542.1	81.9	578.3	474.7	2322.1	246.6	1741.6
Cold Brake AC 400V	MJ	358.2	1542.1	358.2	1542.1	218.3	1542.1	474.7	2322.1	328.8	2322.1
Overexcitation AC 230 V	MJ	358.2	1542.1	358.2	1542.1	218.3	1542.1	474.7	2322.1	328.8	2322.1
Overexcitation AC 400 V	MJ	358.2	1542.1	358.2	1542.1	218.3	1542.1	474.7	2322.1	328.8	2322.1
Reversing cycles		1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶
Repetitive cycles		1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶



Option: Friction lining

Friction linings are available for the application brake in standard or low-wear versions.

Standard friction lining

- Can be used as a holding brake or service brake in highly dynamic applications
- Short run-in process
- Wide speed range

Low-wear friction lining

- Can be used as a holding brake or service brake in applications with low but frequent loads of approx. 5 ... 10 % Q_E
- Short run-in process
- Higher friction work until the brake is replaced
- Lower maximum speed during operation

Option: Reduction of the holding current (cold brake)

By reducing the holding current, the bridge/half-wave rectifier reduces the power consumption of the open brake. As the brake heats up less, this control is referred to as a "Cold Brake". This is necessary at low speeds in order to counteract impermissible heating. This means that no blower is required even with a speed setting range below 14 Hz. In addition, only a quarter of the braking power is required, thus saving energy.

Option: Short-time overexcitation of the brake coil

The disengagement time can be reduced by triggering the brake coil with twice the rated voltage for an overexcitation time. The brake releases much faster and the wear on the friction lining decreases. As a result of these features, this control variant is particularly ideal for hoist applications.

Option: Brake monitoring

The application brake is optionally available with a microswitch to monitor the air gap or wear. It is connected in the motor terminal box.

Wear control

A microswitch monitors the wear at the friction lining. If the wear limit is exceeded, the microswitch opens, the motor contactor is not triggered and the motor does not start.

Monitoring of the air gap

A microswitch monitors the air gap between the armature plate and the stator.

If the microswitch is activated, it e.g. triggers a motor contactor and the motor starts up.

If the brake is switched off, the microswitch opens, the motor contactor is not triggered and the motor does not start up.

This is used for machines and aggregates that require a precisely defined start-up and brake reaction and for the error monitoring of defective rectifiers, broken connecting cables, defective coils, and an excessively large air gap.

Product extensions

Spring-applied brakes

Spring-applied application brake, IP54/IP55 single brake



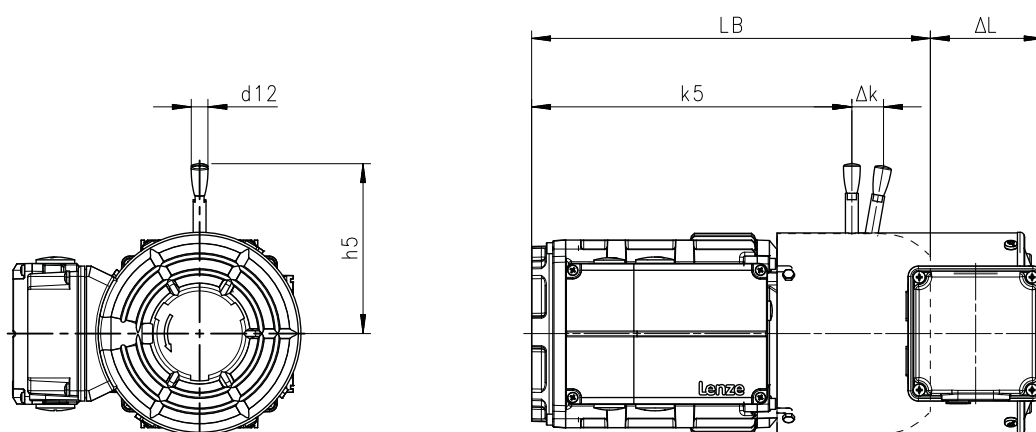
Option: Manual release

The brake can be ordered with a manual release lever to facilitate positioning and maintenance work. The brake can be released manually in deenergized mode by actuating the manual release lever.

A lockable manual release lever can be ordered as an option. This is equipped with a clamping device to hold the brake in the released position.

Dimensions of the manual release lever

Standard design, degree of protection IP54/55



8801081_00

Motor	Brake	Dimensions			
		k_5	Δk	H_5	d_{12}
		mm	mm	mm	mm
m550-H63/S4 m550-H63/M4 m550-H63/L4	ABR 06	193	25	107	13
m550-H71/M4 m550-H71/L4	ABR 06	211	25	107	13
	ABR 08	212	27	116	13
m550-P80/M4	ABR 08	231	27	116	13
	ABR 10	242	30	132	13
m550-P90/M4 m550-P90/L4	ABR 08	270	27	116	13
	ABR 10	281	30	132	13
m550-P100/M4 m550-P100/L4	ABR 10	346	30	132	13
	ABR 12	348	37	161	13
m550-P112/M4	ABR 12	345	37	161	13
	ABR 14	350	45	195	24
m550-P132/M4 m550-P132/L4	ABR 14	416	45	195	24
	ABR 16	419	55	240	24
m550-P160/M4	ABR 16	551	55	240	24
	ABR 18	565	64	279	24
m550-P160/L4	ABR 18	565	64	279	24
m550-P180/M4 m550-P180/L4	ABR 18	626	64	279	24
	ABR 20	632	74	319	24

Dimensions LB ▶ [Basic dimensions](#) 129

Dimensions ΔL ▶ [Additional lengths](#) 169



Product extensions

Spring-applied brakes
Spring-applied application brake, IP65/IP66 single brake
Assignment of braking torques

8.2.4 Spring-applied application brake, IP65/IP66 single brake

The spring-applied brakes with increased protection class can be used as service brakes or holding brakes. Emergency stops are possible.

8.2.4.1 Assignment of braking torques

For optimum adaptation of the brake motor to the application, spring-applied brakes with several braking torques are available for each motor frame size.

Motor	Single brake				
	ABR 06	ABR 08	ABR 10	ABR 12	
	Nm	Nm	Nm	Nm	
m550-H63/S4	2.5 4				
m550-H63/M4					
m550-H63/L4					
m550-H71/M4		8			
m550-H71/L4					
m550-P80/M4		3.5	16		
m550-P90/M4		8			
m550-P90/L4		8	16 23		
m550-P100/M4					32
m550-P100/L4					46

Product extensions

Spring-applied brakes

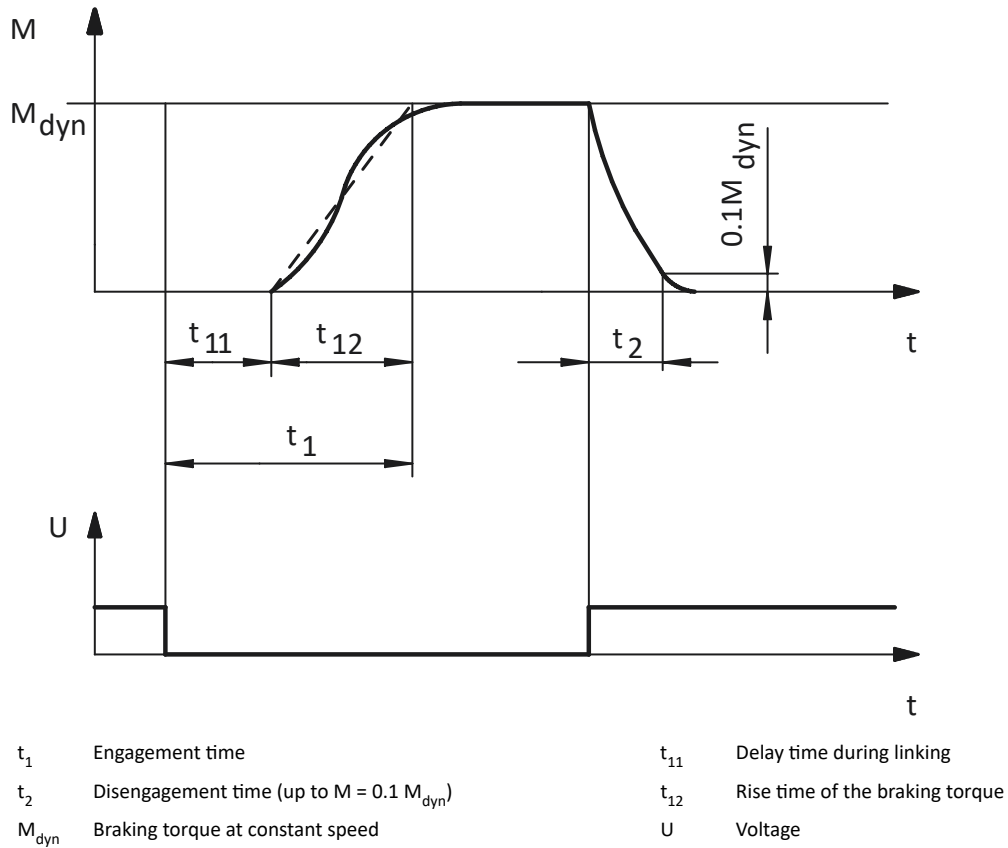
Spring-applied application brake, IP65/IP66 single brake

Rated data



8.2.4.2 Rated data

Switching times of the spring-applied brakes





Product extensions

Spring-applied brakes
Spring-applied application brake, IP65/IP66 single brake
Rated data

Rated data, Single brake, IP65/66

Application brake ABR 06, ABR 08

Application brake		ABR 06				ABR 08			
Braking torque									
Standard friction lining	Nm	2.5		4		3.5		8	
Low-wear friction lining	Nm		2.5		4		3.5		8
Power input									
DC 24 V	W	20	20	20	20	25	25	25	25
DC 180 V	W	20	20	20	20	25	25	25	25
DC 205 V	W	20	20	20	20	25	25	25	25
DC 180 V ... 205 V	W	20	20	20	20	25	25	25	25
AC 115 V	W	20	20	20	20	25	25	25	25
AC 230 V	W	20	20	20	20	25	25	25	25
AC 400 V	W	20	20	20	20	25	25	25	25
AC 460 V	W	20	20	20	20	25	25	25	25
AC 400 V ... 460 V	W	20	20	20	20	25	25	25	25
Cold Brake AC 230V	W	20	20	20	20	25	25	25	25
Cold Brake AC 400V	W	23	23	23	23	27	27	27	27
Overexcitation AC 230 V	W	20	20	20	20	25	25	25	25
Overexcitation AC 400 V	W	20	20	20	20	25	25	25	25
Moment of inertia	kgcm²	0.15	0.15	0.15	0.15	0.61	0.61	0.61	0.61
Braking torque is static	Nm	2.5	2.5	4	4	3.5	3.5	8	8
Min. static braking torque tolerance	%	-25	-25	-25	-25	-25	-25	-25	-25
Max. static braking torque tolerance	%	35	35	35	35	35	35	35	35
Dynamic braking torque									
100 rpm	Nm	2.5	2.5	4.0	4.0	3.5	3.5	8.0	8.0
1000 rpm	Nm	2.3	2.3	3.7	3.7	3.1	3.1	7.1	7.1
1200 rpm	Nm	2.3	2.3	3.6	3.6	3.0	3.0	7.0	7.0
1500 rpm	Nm	2.2	2.2	3.5	3.5	3.0	3.0	6.8	6.8
1800 rpm	Nm	2.2	2.2	3.4	3.4	2.9	2.9	6.6	6.6
2500 rpm	Nm	2.1	2.1	3.3	3.3	2.8	2.8	6.4	6.4
3000 rpm	Nm	2.0	2.0	3.2	3.2	2.7	2.7	6.2	6.2
3600 rpm	Nm	2.0	2.0	3.2	3.2	2.7	2.7	6.1	6.1
Min. dynamic braking torque tolerance	%	-25	-25	-25	-25	-25	-25	-25	-25
Max. dynamic braking torque tolerance	%	35	35	35	35	35	35	35	35
Friction energy									
100 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
1000 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
1200 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
1500 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
1800 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
2500 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
3000 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
3600 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
Maximum speed - operation	rpm	6000	3600	6000	3600	5000	3600	5000	3600
Maximum speed - idle state	rpm	10000	10000	10000	10000	10000	10000	10000	10000

Product extensions

Spring-applied brakes

Spring-applied application brake, IP65/IP66 single brake

Rated data



Rated data, Single brake, IP65/66

Application brake ABR 06, ABR 08

Application brake		ABR 06				ABR 08			
Braking torque									
Standard friction lining	Nm	2.5		4		3.5		8	
Low-wear friction lining	Nm		2.5		4		3.5		8
Delay time t11									
DC voltage	ms	24	24	16	16	38	38	30	30
AC mains voltage	ms	24	24	16	16	38	38	30	30
Cold Brake AC 230V	ms	26	26	17	17	41	41	32	32
Cold Brake AC 400V	ms	28	28	18	18	44	44	34	34
Overexcitation AC 230 V	ms	29	29	19	19	46	46	36	36
Overexcitation AC 400 V	ms	29	29	19	19	46	46	36	36
Rise time t12									
DC voltage	ms	34	34	25	25	46	46	26	26
AC mains voltage	ms	34	34	25	25	46	46	26	26
Cold Brake AC 230V	ms	43	43	31	31	58	58	33	33
Cold Brake AC 400V	ms	43	43	31	31	58	58	33	33
Overexcitation AC 230 V	ms	43	43	31	31	58	58	33	33
Overexcitation AC 400 V	ms	43	43	31	31	58	58	33	33
Engagement time t1									
DC voltage	ms	58	58	41	41	84	84	56	56
AC mains voltage	ms	58	58	41	41	84	84	56	56
Cold Brake AC 230V	ms	69	69	48	48	99	99	65	65
Cold Brake AC 400V	ms	71	71	49	49	102	102	67	67
Overexcitation AC 230 V	ms	72	72	50	50	104	104	69	69
Overexcitation AC 400 V	ms	72	72	50	50	104	104	69	69
Disengagement time t2									
DC voltage	ms	30	30	32	32	32	32	52	52
AC mains voltage	ms	30	30	32	32	32	32	52	52
Cold Brake AC 230V	ms	30	30	32	32	32	32	52	52
Cold Brake AC 400V	ms	20	20	21	21	21	21	35	35
Overexcitation AC 230 V	ms	15	15	16	16	16	16	26	26
Overexcitation AC 400 V	ms	15	15	16	16	16	16	26	26
Overexcitation time									
Cold Brake AC 230V	ms	300	300	300	300	300	300	300	300
Cold Brake AC 400V	ms	300	300	300	300	300	300	300	300
Overexcitation AC 230 V	ms	300	300	300	300	300	300	300	300
Overexcitation AC 400 V	ms	300	300	300	300	300	300	300	300
Friction energy QBW									
DC voltage	MJ	56.5	113.1	42.4	84.8	92.1	210.4	69.1	157.8
AC mains voltage	MJ	56.5	113.1	42.4	84.8	92.1	210.4	69.1	157.8
Cold Brake AC 230V	MJ	56.5	113.1	42.4	84.8	92.1	210.4	69.1	157.8
Cold Brake AC 400V	MJ	56.5	113.1	56.5	113.1	92.1	210.4	92.1	210.4
Overexcitation AC 230 V	MJ	56.5	113.1	56.5	113.1	92.1	210.4	92.1	210.4
Overexcitation AC 400 V	MJ	56.5	113.1	56.5	113.1	92.1	210.4	92.1	210.4
Reversing cycles		2x 10 ⁶	2x 10 ⁶	2x 10 ⁶	2x 10 ⁶	2x 10 ⁶	2x 10 ⁶	2x 10 ⁶	2x 10 ⁶
Repetitive cycles		2x 10 ⁶	2x 10 ⁶	2x 10 ⁶	2x 10 ⁶	2x 10 ⁶	2x 10 ⁶	2x 10 ⁶	2x 10 ⁶



Product extensions

Spring-applied brakes
Spring-applied application brake, IP65/IP66 single brake
Rated data

Rated data, Single brake, IP65/66

Application brake ABR 10, ABR 12

Application brake		ABR 10				ABR 12			
Braking torque									
Standard friction lining	Nm	16		23		32		46	
Low-wear friction lining	Nm		16		23		32		46
Power input									
DC 24 V	W	30	30	30	30	40	40	40	40
DC 180 V	W	32	32	32	32	40	40	40	40
DC 205 V	W	33	33	33	33	40	40	40	40
DC 180 V ... 205 V	W	33	33	33	33	40	40	40	40
AC 115 V	W	32	32	32	32	40	40	40	40
AC 230 V	W	33	33	33	33	40	40	40	40
AC 400 V	W	32	32	32	32	40	40	40	40
AC 460 V	W	33	33	33	33	40	40	40	40
AC 400 V ... 460 V	W	33	33	33	33	40	40	40	40
Cold Brake AC 230V	W	33	33	33	33	40	40	40	40
Cold Brake AC 400V	W	30	30	30	30	42	42	42	42
Overexcitation AC 230 V	W	32	32	32	32	40	40	40	40
Overexcitation AC 400 V	W	32	32	32	32	40	40	40	40
Moment of inertia	kgcm²	2	2	2	2	4.5	4.5	4.5	4.5
Braking torque is static	Nm	16	16	23	23	32	32	46	46
Min. static braking torque tolerance	%	-25	-25	-25	-25	-25	-25	-25	-25
Max. static braking torque tolerance	%	35	35	35	35	35	35	35	35
Dynamic braking torque									
100 rpm	Nm	16	16	23	23	32	32	46	46
1000 rpm	Nm	14	14	20	20	28	28	40	40
1200 rpm	Nm	14	14	20	20	27	27	39	39
1500 rpm	Nm	13	13	19	19	26	26	38	38
1800 rpm	Nm	13	13	19	19	26	26	37	37
2500 rpm	Nm	12	12	18	18	24	24	35	35
3000 rpm	Nm	12	12	17	17	24	24	35	35
3600 rpm	Nm	12	12	17	17	23	23	34	34
Min. dynamic braking torque tolerance	%	-25	-25	-25	-25	-25	-25	-25	-25
Max. dynamic braking torque tolerance	%	35	35	35	35	35	35	35	35
Friction energy									
100 rpm	kJ	12	12	12	12	24	24	24	24
1000 rpm	kJ	12	12	12	12	24	24	24	24
1200 rpm	kJ	12	12	12	12	24	24	24	24
1500 rpm	kJ	12	12	12	12	24	24	24	24
1800 rpm	kJ	12	12	12	12	24	24	24	24
2500 rpm	kJ	12	12	12	12	24	24	24	24
3000 rpm	kJ	12	12	12	12	24	24	24	24
3600 rpm	kJ	12	12	12	12	24	7	24	7
Maximum speed - operation	rpm	4000	3600	4000	3600	3600	3600	3600	3600
Maximum speed - idle state	rpm	10000	10000	10000	10000	10000	10000	10000	10000

Product extensions

Spring-applied brakes

Spring-applied application brake, IP65/IP66 single brake

Rated data



Rated data, Single brake, IP65/66

Application brake ABR 10, ABR 12

Application brake		ABR 10				ABR 12			
Braking torque									
Standard friction lining	Nm	16		23		32		46	
Low-wear friction lining	Nm		16		23		32		46
Delay time t11									
DC voltage	ms	40	40	23	23	47	47	65	65
AC mains voltage	ms	40	40	23	23	47	47	65	65
Cold Brake AC 230V	ms	43	43	25	25	50	50	70	70
Cold Brake AC 400V	ms	46	46	27	27	53	53	74	74
Overexcitation AC 230 V	ms	48	48	28	28	56	56	78	78
Overexcitation AC 400 V	ms	48	48	28	28	56	56	78	78
Rise time t12									
DC voltage	ms	46	46	46	46	34	34	34	34
AC mains voltage	ms	46	46	46	46	34	34	34	34
Cold Brake AC 230V	ms	58	58	58	58	43	43	43	43
Cold Brake AC 400V	ms	58	58	58	58	43	43	43	43
Overexcitation AC 230 V	ms	58	58	58	58	43	43	43	43
Overexcitation AC 400 V	ms	58	58	58	58	43	43	43	43
Engagement time t1									
DC voltage	ms	86	86	69	69	81	81	99	99
AC mains voltage	ms	86	86	69	69	81	81	99	99
Cold Brake AC 230V	ms	101	101	83	83	93	93	113	113
Cold Brake AC 400V	ms	104	104	85	85	96	96	117	117
Overexcitation AC 230 V	ms	106	106	86	86	99	99	121	121
Overexcitation AC 400 V	ms	106	106	86	86	99	99	121	121
Disengagement time t2									
DC voltage	ms	107	107	154	154	121	121	135	135
AC mains voltage	ms	107	107	154	154	121	121	135	135
Cold Brake AC 230V	ms	107	107	154	154	121	121	135	135
Cold Brake AC 400V	ms	71	71	103	103	81	81	90	90
Overexcitation AC 230 V	ms	54	54	77	77	61	61	68	68
Overexcitation AC 400 V	ms	54	54	77	77	61	61	68	68
Overexcitation time									
Cold Brake AC 230V	ms	300	300	300	300	300	300	300	300
Cold Brake AC 400V	ms	300	300	300	300	300	300	300	300
Overexcitation AC 230 V	ms	300	300	300	300	300	300	300	300
Overexcitation AC 400 V	ms	300	300	300	300	300	300	300	300
Friction energy QBW									
DC voltage	MJ	73.5	198	30.7	121	118.2	353.1	64.1	298.8
AC mains voltage	MJ	73.5	198	30.7	121	118.2	353.1	64.1	298.8
Cold Brake AC 230V	MJ	73.5	198	30.7	121	118.2	353.1	64.1	298.8
Cold Brake AC 400V	MJ	98	264	62.9	247.5	216.7	647.3	134	624.7
Overexcitation AC 230 V	MJ	98	264	67.1	264	216.7	647.3	138.8	647.3
Overexcitation AC 400 V	MJ	98	264	67.1	264	216.7	647.3	138.8	647.3
Reversing cycles		2x 10 ⁶	2x 10 ⁶	2x 10 ⁶	2x 10 ⁶	2x 10 ⁶	2x 10 ⁶	2x 10 ⁶	2x 10 ⁶
Repetitive cycles		2x 10 ⁶	2x 10 ⁶	2x 10 ⁶	2x 10 ⁶	2x 10 ⁶	2x 10 ⁶	2x 10 ⁶	2x 10 ⁶



Product extensions

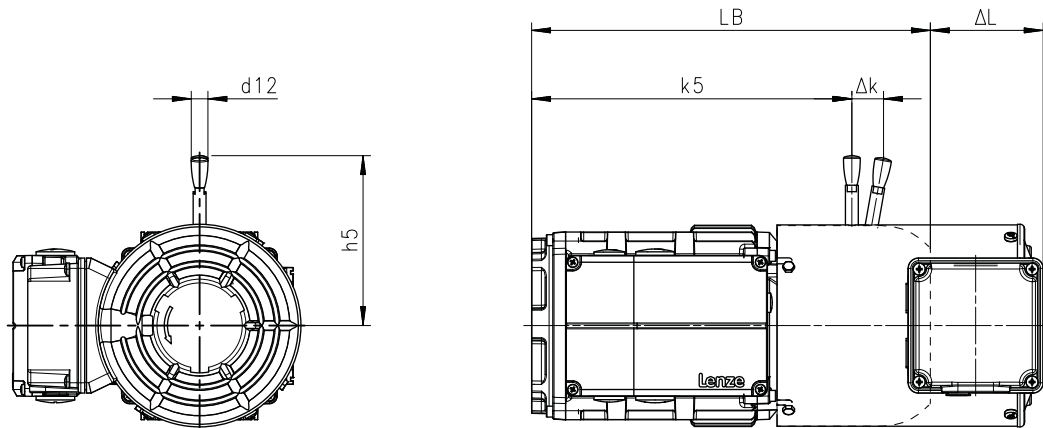
Spring-applied brakes
Spring-applied application brake, IP65/IP66 single brake

Option: Manual release

The brake can be ordered with a manual release lever to facilitate positioning and maintenance work. The brake can be released manually in deenergized mode by actuating the manual release lever.

A lockable manual release lever can be ordered as an option. This is equipped with a clamping device to hold the brake in the released position.

Standard design, degree of protection IP65/66



8801081_00

Motor	Brake	Dimensions			
		k_5	Δk	H_5	d_{12}
		mm	mm	mm	mm
m550-H63/S4 m550-H63/M4 m550-H63/L4	ABR 06	200	22	112	8
m550-H71/M4 m550-H71/L4	ABR 06	218	22	112	8
	ABR 08	223	23	120	8
m550-P80/M4	ABR 08	242	23	120	8
	ABR 10	244	20	143	10
m550-P90/M4 m550-P90/L4	ABR 08	281	23	120	8
	ABR 10	283	20	143	10
m550-P100/M4 m550-P100/L4	ABR 10	348	25	143	10
	ABR 12	352	34	175	12

Dimensions LB ▶ [Basic dimensions](#) 129

Dimensions ΔL ▶ [Additional lengths](#) 169

Product extensions

Spring-applied brakes

Spring-applied application brake, IP54/IP55 single brake LongLife

Assignment of braking torques



8.2.5 Spring-applied application brake, IP54/IP55 single brake LongLife

The spring-applied brakes can be used as service brakes or holding brakes. Emergency stops are possible.

The spring-applied brake is available as a LongLife version for applications with very high switching frequencies.

The brake mechanism is reinforced. Up to 10 million repetitive or 15 million reversing switching cycles are possible.

8.2.5.1 Assignment of braking torques

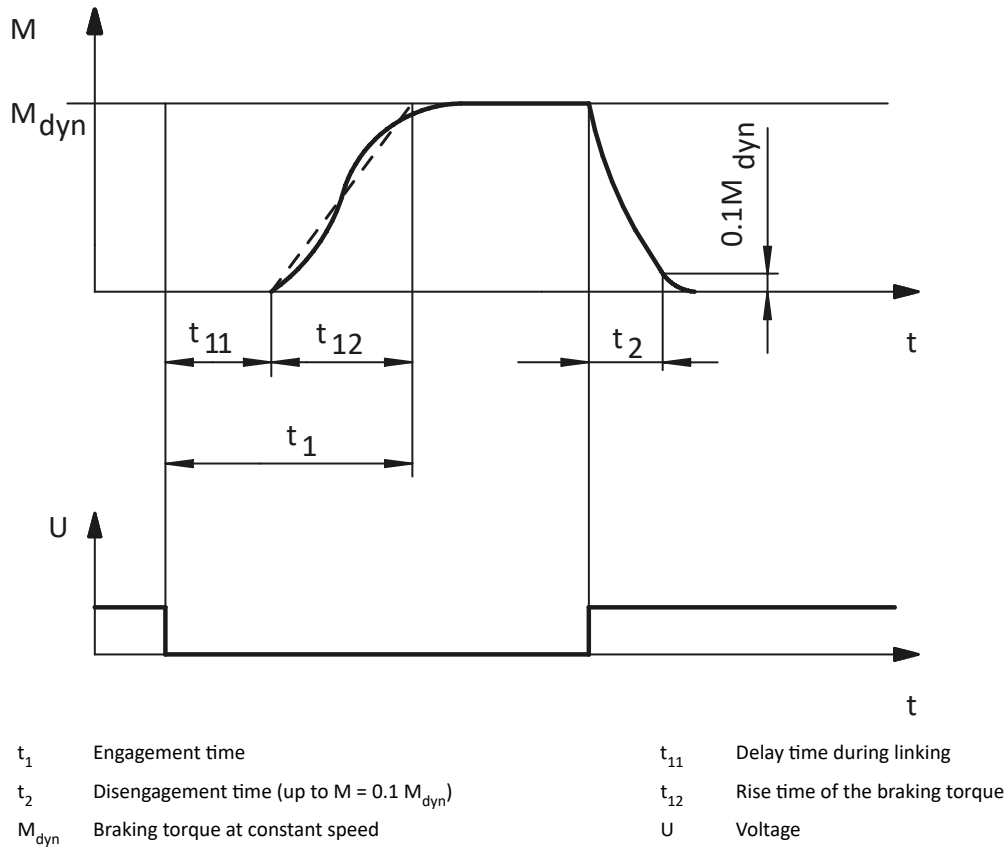
For optimum adaptation of the brake motor to the application, spring-applied brakes with several braking torques are available for each motor frame size.

Motor	Single brake LongLife				
	ABR 06	ABR 08	ABR 10	ABR 12	
	Nm	Nm	Nm	Nm	
m550-H63/S4	2.5 4				
m550-H63/M4					
m550-H63/L4					
m550-H71/M4					
m550-H71/L4					
m550-P80/M4		3.5	16		
m550-P90/M4		8			
m550-P90/L4		8			
m550-P100/M4					32
m550-P100/L4					
m550-P112/M4				14 32	



8.2.5.2 Rated data

Switching times of the spring-applied brakes



Product extensions

Spring-applied brakes
Spring-applied application brake, IP54/IP55 single brake LongLife
Rated data



Rated data, Single brake LongLife, IP54/55

Application brake ABR 06, ABR 08

Application brake		ABR 06				ABR 08			
Braking torque									
Standard friction lining	Nm	2.5		4		3.5		8	
Low-wear friction lining	Nm		2.5		4		3.5		8
Power input									
DC 24 V	W	20	20	20	20	25	25	25	25
DC 180 V	W	20	20	20	20	25	25	25	25
DC 205 V	W	20	20	20	20	25	25	25	25
DC 180 V ... 205 V	W	20	20	20	20	25	25	25	25
AC 115 V	W	20	20	20	20	25	25	25	25
AC 230 V	W	20	20	20	20	25	25	25	25
AC 400 V	W	20	20	20	20	25	25	25	25
AC 460 V	W	20	20	20	20	25	25	25	25
AC 400 V ... 460 V	W	20	20	20	20	25	25	25	25
Cold Brake AC 230V	W	20	20	20	20	25	25	25	25
Cold Brake AC 400V	W	23	23	23	23	27	27	27	27
Overexcitation AC 230 V	W	20	20	20	20	25	25	25	25
Overexcitation AC 400 V	W	20	20	20	20	25	25	25	25
Moment of inertia	kgcm ²	0.15	0.15	0.15	0.15	0.61	0.61	0.61	0.61
Braking torque is static	Nm	2.5	2.5	4	4	3.5	3.5	8	8
Min. static braking torque tolerance	%	-25	-25	-25	-25	-25	-25	-25	-25
Max. static braking torque tolerance	%	35	35	35	35	35	35	35	35
Dynamic braking torque									
100 rpm	Nm	2.5	2.5	4.0	4.0	3.5	3.5	8.0	8.0
1000 rpm	Nm	2.3	2.3	3.7	3.7	3.1	3.1	7.1	7.1
1200 rpm	Nm	2.3	2.3	3.6	3.6	3.0	3.0	7.0	7.0
1500 rpm	Nm	2.2	2.2	3.5	3.5	3.0	3.0	6.8	6.8
1800 rpm	Nm	2.2	2.2	3.4	3.4	2.9	2.9	6.6	6.6
2500 rpm	Nm	2.1	2.1	3.3	3.3	2.8	2.8	6.4	6.4
3000 rpm	Nm	2.0	2.0	3.2	3.2	2.7	2.7	6.2	6.2
3600 rpm	Nm	2.0	2.0	3.2	3.2	2.7	2.7	6.1	6.1
Min. dynamic braking torque tolerance	%	-25	-25	-25	-25	-25	-25	-25	-25
Max. dynamic braking torque tolerance	%	35	35	35	35	35	35	35	35
Friction energy									
100 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
1000 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
1200 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
1500 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
1800 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
2500 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
3000 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
3600 rpm	kJ	3	3	3	3	7.5	7.5	7.5	7.5
Maximum speed - operation	rpm	6000	3600	6000	3600	5000	3600	5000	3600
Maximum speed - idle state	rpm	10000	10000	10000	10000	10000	10000	10000	10000



Product extensions

Spring-applied brakes
Spring-applied application brake, IP54/IP55 single brake LongLife
Rated data

Rated data, Single brake LongLife, IP54/55

Application brake ABR 06, ABR 08

Application brake		ABR 06				ABR 08			
Braking torque									
Standard friction lining	Nm	2.5		4		3.5		8	
Low-wear friction lining	Nm		2.5		4		3.5		8
Delay time t11									
DC voltage	ms	25	25	15	15	14	14	15	15
AC mains voltage	ms	25	25	15	15	14	14	15	15
Cold Brake AC 230V	ms	24	24	16	16	22	22	25	25
Cold Brake AC 400V	ms	27	27	19	19	28	28	28	28
Overexcitation AC 230 V	ms	31	31	20	20	33	33	31	31
Overexcitation AC 400 V	ms	31	31	20	20	33	33	31	31
Rise time t12									
DC voltage	ms	13	13	13	13	10	10	16	16
AC mains voltage	ms	13	13	13	13	10	10	16	16
Cold Brake AC 230V	ms	12	12	14	14	16	16	27	27
Cold Brake AC 400V	ms	14	14	16	16	20	20	30	30
Overexcitation AC 230 V	ms	16	16	17	17	24	24	33	33
Overexcitation AC 400 V	ms	16	16	17	17	24	24	33	33
Engagement time t1									
DC voltage	ms	38	38	28	28	24	24	31	31
AC mains voltage	ms	38	38	28	28	24	24	31	31
Cold Brake AC 230V	ms	36	36	30	30	38	38	52	52
Cold Brake AC 400V	ms	41	41	35	35	48	48	58	58
Overexcitation AC 230 V	ms	47	47	37	37	57	57	64	64
Overexcitation AC 400 V	ms	47	47	37	37	57	57	64	64
Disengagement time t2									
DC voltage	ms	30	30	45	45	37	37	57	57
AC mains voltage	ms	30	30	45	45	37	37	57	57
Cold Brake AC 230V	ms	30	30	45	45	37	37	57	57
Cold Brake AC 400V	ms	21	21	30	30	24	24	36	36
Overexcitation AC 230 V	ms	17	17	22	22	18	18	26	26
Overexcitation AC 400 V	ms	17	17	22	22	18	18	26	26
Overexcitation time									
Cold Brake AC 230V	ms	300	300	300	300	300	300	300	300
Cold Brake AC 400V	ms	300	300	300	300	300	300	300	300
Overexcitation AC 230 V	ms	300	300	300	300	300	300	300	300
Overexcitation AC 400 V	ms	300	300	300	300	300	300	300	300
Friction energy QBW									
DC voltage	MJ	56.5	113.1	42.4	84.8	92.1	210.4	69.1	157.8
AC mains voltage	MJ	56.5	113.1	42.4	84.8	92.1	210.4	69.1	157.8
Cold Brake AC 230V	MJ	56.5	113.1	42.4	84.8	92.1	210.4	69.1	157.8
Cold Brake AC 400V	MJ	56.5	113.1	56.5	113.1	92.1	210.4	92.1	210.4
Overexcitation AC 230 V	MJ	56.5	113.1	56.5	113.1	92.1	210.4	92.1	210.4
Overexcitation AC 400 V	MJ	56.5	113.1	56.5	113.1	92.1	210.4	92.1	210.4
Reversing cycles		15x 10 ⁶	15x 10 ⁶	15x 10 ⁶	15x 10 ⁶	15x 10 ⁶	15x 10 ⁶	15x 10 ⁶	15x 10 ⁶
Repetitive cycles		10x 10 ⁶	10x 10 ⁶	10x 10 ⁶	10x 10 ⁶	10x 10 ⁶	10x 10 ⁶	10x 10 ⁶	10x 10 ⁶

Product extensions

Spring-applied brakes
Spring-applied application brake, IP54/IP55 single brake LongLife
Rated data



Rated data, Single brake LongLife, IP54/55

Application brake ABR 10, ABR 12

Application brake		ABR 10		ABR 12			
Braking torque							
Standard friction lining	Nm	16		14		32	
Low-wear friction lining	Nm		16		14		32
Power input							
DC 24 V	W	30	30	40	40	40	40
DC 180 V	W	32	32	40	40	40	40
DC 205 V	W	33	33	40	40	40	40
DC 180 V ... 205 V	W	33	33	40	40	40	40
AC 115 V	W	32	32	40	40	40	40
AC 230 V	W	33	33	40	40	40	40
AC 400 V	W	32	32	40	40	40	40
AC 460 V	W	33	33	40	40	40	40
AC 400 V ... 460 V	W	33	33	40	40	40	40
Cold Brake AC 230V	W	33	33	40	40	40	40
Cold Brake AC 400V	W	30	30	42	42	42	42
Overexcitation AC 230 V	W	32	32	40	40	40	40
Overexcitation AC 400 V	W	32	32	40	40	40	40
Moment of inertia	kgcm ²	2	2	4.5	4.5	4.5	4.5
Braking torque is static	Nm	16	16	14	14	32	32
Min. static braking torque tolerance	%	-25	-25	-25	-25	-25	-25
Max. static braking torque tolerance	%	35	35	35	35	35	35
Dynamic braking torque							
100 rpm	Nm	16	16	14	14	32	32
1000 rpm	Nm	14	14	12	12	28	28
1200 rpm	Nm	14	14	12	12	27	27
1500 rpm	Nm	13	13	11	11	26	26
1800 rpm	Nm	13	13	11	11	26	26
2500 rpm	Nm	12	12	11	11	24	24
3000 rpm	Nm	12	12	11	11	24	24
3600 rpm	Nm	12	12	10	10	23	23
Min. dynamic braking torque tolerance	%	-25	-25	-25	-25	-25	-25
Max. dynamic braking torque tolerance	%	35	35	35	35	35	35
Friction energy							
100 rpm	kJ	12	12	24	24	24	24
1000 rpm	kJ	12	12	24	24	24	24
1200 rpm	kJ	12	12	24	24	24	24
1500 rpm	kJ	12	12	24	24	24	24
1800 rpm	kJ	12	12	24	24	24	24
2500 rpm	kJ	12	12	24	24	24	24
3000 rpm	kJ	12	12	24	24	24	24
3600 rpm	kJ	12	12	24	7	24	7
Maximum speed - operation	rpm	4000	3600	3600	3600	3600	3600
Maximum speed - idle state	rpm	10000	10000	10000	10000	10000	10000



Product extensions

Spring-applied brakes
Spring-applied application brake, IP54/IP55 single brake LongLife
Rated data

Rated data, Single brake LongLife, IP54/55

Application brake ABR 10, ABR 12

Application brake		ABR 10		ABR 12			
Braking torque							
Standard friction lining	Nm	16		14		32	
Low-wear friction lining	Nm		16		14		32
Delay time t11							
DC voltage	ms	28	28	21	21	28	28
AC mains voltage	ms	28	28	21	21	28	28
Cold Brake AC 230V	ms	31	31	49	49	48	48
Cold Brake AC 400V	ms	34	34	64	64	55	55
Overexcitation AC 230 V	ms	44	44	73	73	62	62
Overexcitation AC 400 V	ms	44	44	73	73	62	62
Rise time t12							
DC voltage	ms	19	19	19	19	25	25
AC mains voltage	ms	19	19	19	19	25	25
Cold Brake AC 230V	ms	21	21	44	44	43	43
Cold Brake AC 400V	ms	23	23	58	58	49	49
Overexcitation AC 230 V	ms	30	30	66	66	55	55
Overexcitation AC 400 V	ms	30	30	66	66	55	55
Engagement time t1							
DC voltage	ms	47	47	40	40	53	53
AC mains voltage	ms	47	47	40	40	53	53
Cold Brake AC 230V	ms	52	52	93	93	91	91
Cold Brake AC 400V	ms	57	57	122	122	104	104
Overexcitation AC 230 V	ms	74	74	139	139	117	117
Overexcitation AC 400 V	ms	74	74	139	139	117	117
Disengagement time t2							
DC voltage	ms	76	76	65	65	115	115
AC mains voltage	ms	76	76	65	65	115	115
Cold Brake AC 230V	ms	76	76	65	65	115	115
Cold Brake AC 400V	ms	53	53	48	48	78	78
Overexcitation AC 230 V	ms	41	41	38	38	59	59
Overexcitation AC 400 V	ms	41	41	38	38	59	59
Overexcitation time							
Cold Brake AC 230V	ms	300	300	300	300	300	300
Cold Brake AC 400V	ms	300	300	300	300	300	300
Overexcitation AC 230 V	ms	300	300	300	300	300	300
Overexcitation AC 400 V	ms	300	300	300	300	300	300
Friction energy QBW							
DC voltage	MJ	98	264	236.4	706.2	177.3	529.6
AC mains voltage	MJ	98	264	236.4	706.2	177.3	529.6
Cold Brake AC 230V	MJ	98	264	236.4	706.2	177.3	529.6
Cold Brake AC 400V	MJ	98	264	236.4	706.2	236.4	706.2
Overexcitation AC 230 V	MJ	98	264	236.4	706.2	236.4	706.2
Overexcitation AC 400 V	MJ	98	264	236.4	706.2	236.4	706.2
Reversing cycles		15x 10 ⁶	15x 10 ⁶	15x 10 ⁶	15x 10 ⁶	15x 10 ⁶	15x 10 ⁶
Repetitive cycles		10x 10 ⁶	10x 10 ⁶	10x 10 ⁶	10x 10 ⁶	10x 10 ⁶	10x 10 ⁶

Product extensions

Spring-applied brakes
Spring-applied application brake, IP54/IP55 single brake LongLife

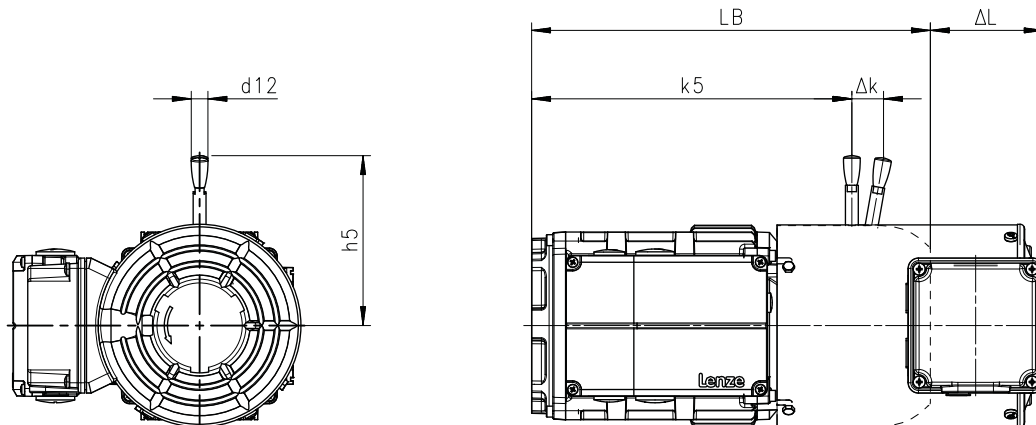


Option: Manual release

The brake can be ordered with a manual release lever to facilitate positioning and maintenance work. The brake can be released manually in deenergized mode by actuating the manual release lever.

A lockable manual release lever can be ordered as an option. This is equipped with a clamping device to hold the brake in the released position.

Longlife design, degree of protection IP54/55



8801081_00

Motor	Brake	Dimensions			
		k_5	Δk	H_5	d_{12}
		mm	mm	mm	mm
m550-H63/S4 m550-H63/M4 m550-H63/L4	ABR 06	198	25	107	13
m550-H71/M4 m550-H71/L4	ABR 06	216	25	107	13
	ABR 08	217	27	116	13
m550-P80/M4	ABR 08	236	27	116	13
	ABR 10	250	30	132	13
m550-P90/M4 m550-P90/L4	ABR 08	275	27	116	13
	ABR 10	289	30	132	13
m550-P100/M4 m550-P100/L4	ABR 10	354	30	132	13
	ABR 12	355	37	161	13
m550-P112/M4	ABR 12	353	37	161	13

Dimensions LB ▶ [Basic dimensions](#) 129

Dimensions ΔL ▶ [Additional lengths](#) 169



Product extensions

Spring-applied brakes
Spring-applied application brake, IP54/IP55 double brake
Assignment of braking torques

8.2.6 Spring-applied application brake, IP54/IP55 double brake

Double brake

With the double brake, two application brakes are arranged one behind the other.

8.2.6.1 Assignment of braking torques

For optimum adaptation of the brake motor to the application, spring-applied brakes with several braking torques are available for each motor frame size.

Motor	Double brake		
	ABR 16	ABR 18	ABR 20
	Nm	Nm	Nm
m550-P160/M4	90	130	
m550-P160/L4	110	160	
m550-P180/M4		130	230
m550-P180/L4		200	

Product extensions

Spring-applied brakes

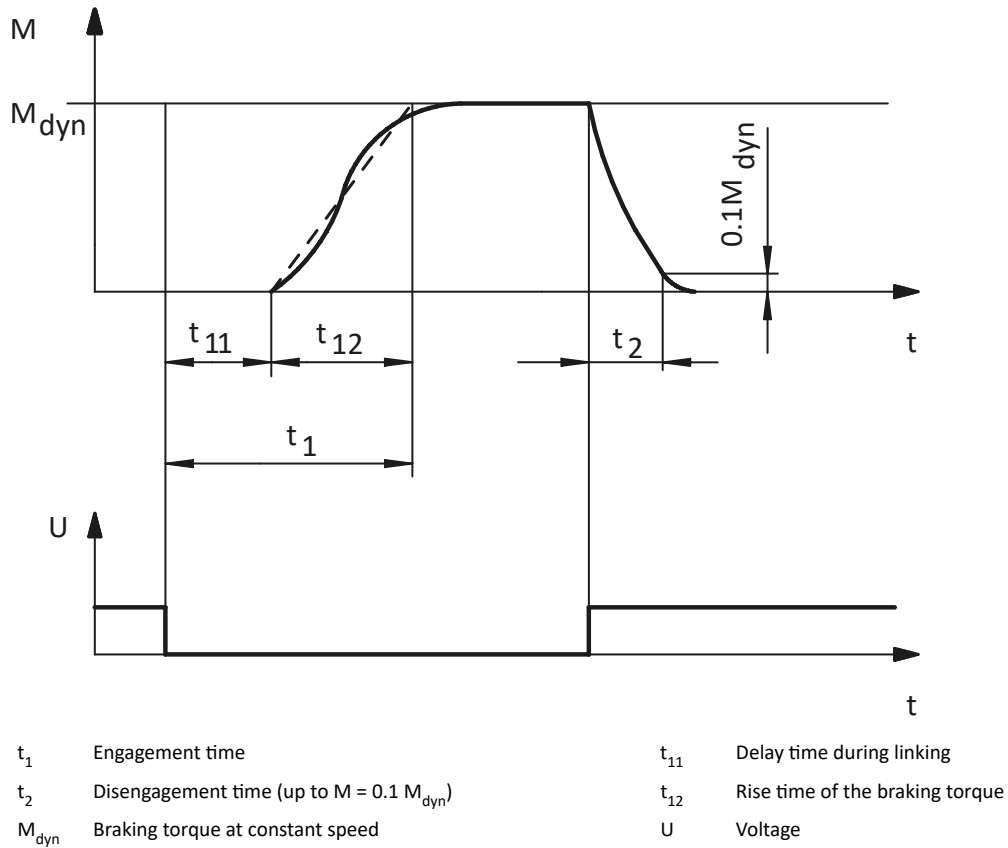
Spring-applied application brake, IP54/IP55 double brake

Rated data



8.2.6.2 Rated data

Switching times of the spring-applied brakes





Product extensions

Spring-applied brakes
Spring-applied application brake, IP54/IP55 double brake
Rated data

Rated data, Double brake, IP54/55

Application brake ABR 16, ABR 18

Application brake		ABR 16				ABR 18					
Braking torque											
Standard friction lining	Nm	90		110		130		160		200	
Low-wear friction lining	Nm		90		110		130		160		200
Power input											
DC 24 V	W	110	110	110	110	170	170	170	170	170	170
DC 180 V	W	110	110	110	110	170	170	170	170	170	170
DC 205 V	W	112	112	112	112	170	170	170	170	170	170
DC 180 V ... 205 V	W	112	112	112	112	170	170	170	170	170	170
AC 115 V	W	112	112	112	112	170	170	170	170	170	170
AC 230 V	W	112	112	112	112	170	170	170	170	170	170
AC 400 V	W	110	110	110	110	170	170	170	170	170	170
AC 460 V	W	112	112	112	112	170	170	170	170	170	170
AC 400 V ... 460 V	W	112	112	112	112	170	170	170	170	170	170
Cold Brake AC 230V	W	112	112	112	112	170	170	170	170	170	170
Cold Brake AC 400V	W	110	110	110	110	170	170	170	170	170	170
Overexcitation AC 230 V	W	112	112	112	112	170	170	170	170	170	170
Overexcitation AC 400 V	W	110	110	110	110	170	170	170	170	170	170
Moment of inertia	kgcm ²	30	30	30	30	58	58	58	58	58	58
Braking torque is static	Nm	90	90	110	110	130	130	160	160	200	200
Min. static braking torque tolerance	%	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
Max. static braking torque tolerance	%	35	35	35	35	35	35	35	35	35	35
Dynamic braking torque											
100 rpm	Nm	90	90	110	110	130	130	160	160	200	200
1000 rpm	Nm	75	75	91	91	105	105	130	130	162	162
1200 rpm	Nm	73	73	89	89	103	103	126	126	158	158
1500 rpm	Nm	70	70	86	86	100	100	123	123	154	154
1800 rpm	Nm	69	69	85	85	98	98	120	120	150	150
2500 rpm	Nm	66	66	80	80	94	-	115	-	144	-
3000 rpm	Nm	64	64	78	78	91	-	112	-	140	-
3600 rpm	Nm	63	-	77	77	88	-	109	-	136	-
Min. dynamic braking torque tolerance	%	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
Max. dynamic braking torque tolerance	%	35	35	35	35	35	35	35	35	35	35
Friction energy											
100 rpm	kJ	72	72	72	72	120	120	120	120	120	120
1000 rpm	kJ	72	72	72	72	120	120	120	120	120	120
1200 rpm	kJ	72	72	72	72	120	120	120	120	120	120
1500 rpm	kJ	72	72	72	72	120	120	120	120	120	120
1800 rpm	kJ	72	72	72	72	120	72	120	72	120	72
2500 rpm	kJ	72	72	72	72	120	-	120	-	120	-
3000 rpm	kJ	72	22	72	22	120	-	120	-	120	-
3600 rpm	kJ	72	-	72	22	120	-	120	-	120	-
Maximum speed - operation	rpm	3600	3000	3600	3000	3600	1800	3600	1800	3600	1800
Maximum speed - idle state	rpm	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000

Product extensions

Spring-applied brakes

Spring-applied application brake, IP54/IP55 double brake

Rated data



Rated data, Double brake, IP54/55

Application brake ABR 16, ABR 18

Application brake		ABR 16				ABR 18					
Braking torque											
Standard friction lining	Nm	90		110		130		160		200	
Low-wear friction lining	Nm		90		110		130		160		200
Delay time t11											
DC voltage	ms	72	72	59	59	35	35	77	77	64	64
AC mains voltage	ms	72	72	59	59	35	35	77	77	64	64
Cold Brake AC 230V	ms	157	157	129	129	101	101	145	145	126	126
Cold Brake AC 400V	ms	178	178	148	148	120	120	160	160	141	141
Overexcitation AC 230 V	ms	186	186	159	159	136	136	174	174	156	156
Overexcitation AC 400 V	ms	186	186	159	159	136	136	174	174	156	156
Rise time t12											
DC voltage	ms	25	25	30	30	35	35	20	20	45	45
AC mains voltage	ms	25	25	30	30	35	35	20	20	45	45
Cold Brake AC 230V	ms	55	55	66	66	101	101	38	38	89	89
Cold Brake AC 400V	ms	62	62	75	75	120	120	42	42	99	99
Overexcitation AC 230 V	ms	65	65	81	81	136	136	45	45	110	110
Overexcitation AC 400 V	ms	65	65	81	81	136	136	45	45	110	110
Engagement time t1											
DC voltage	ms	97	97	89	89	70	70	97	97	109	109
AC mains voltage	ms	97	97	89	89	70	70	97	97	109	109
Cold Brake AC 230V	ms	212	212	195	195	202	202	183	183	215	215
Cold Brake AC 400V	ms	240	240	223	223	240	240	202	202	240	240
Overexcitation AC 230 V	ms	251	251	240	240	272	272	219	219	266	266
Overexcitation AC 400 V	ms	251	251	240	240	272	272	219	219	266	266
Disengagement time t2											
DC voltage	ms	135	135	158	158	205	205	179	179	203	203
AC mains voltage	ms	135	135	158	158	205	205	179	179	203	203
Cold Brake AC 230V	ms	135	135	158	158	205	205	179	179	203	203
Cold Brake AC 400V	ms	104	104	118	118	139	139	129	129	143	143
Overexcitation AC 230 V	ms	86	86	95	95	103	103	101	101	110	110
Overexcitation AC 400 V	ms	86	86	95	95	103	103	101	101	110	110
Overexcitation time											
Cold Brake AC 230V	ms	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300
Cold Brake AC 400V	ms	300	300	300	300	300	300	300	300	300	300
Overexcitation AC 230 V	ms	300	300	300	300	300	300	300	300	300	300
Overexcitation AC 400 V	ms	300	300	300	300	300	300	300	300	300	300
Friction energy QBW											
DC voltage	MJ	515.8	1931.4	515.8	1931.4	716.4	3084.2	716.4	3084.2	716.4	3084.2
AC mains voltage	MJ	515.8	1931.4	515.8	1931.4	716.4	3084.2	716.4	3084.2	716.4	3084.2
Cold Brake AC 230V	MJ	515.8	1931.4	515.8	1931.4	716.4	3084.2	716.4	3084.2	716.4	3084.2
Cold Brake AC 400V	MJ	515.8	1931.4	515.8	1931.4	716.4	3084.2	716.4	3084.2	716.4	3084.2
Overexcitation AC 230 V	MJ	515.8	1931.4	515.8	1931.4	716.4	3084.2	716.4	3084.2	716.4	3084.2
Overexcitation AC 400 V	MJ	515.8	1931.4	515.8	1931.4	716.4	3084.2	716.4	3084.2	716.4	3084.2
Wear limit of brake pad	MJ	3000	11260	3000	11260	2680	11560	2680	11560	2680	11560
Reversing cycles		1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶
Repetitive cycles		1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶	1x 10 ⁶



Product extensions

Spring-applied brakes
Spring-applied application brake, IP54/IP55 double brake
Rated data

Rated data, Double brake, IP54/55

Application brake ABR 20

Application brake		ABR 20	
Braking torque			
Standard friction lining	Nm	230	
Low-wear friction lining	Nm		230
Power input			
DC 24 V	W	200	200
DC 180 V	W	200	200
DC 205 V	W	200	200
DC 180 V ... 205 V	W	200	200
AC 115 V	W	200	200
AC 230 V	W	200	200
AC 400 V	W	200	200
AC 460 V	W	200	200
AC 400 V ... 460 V	W	200	200
Cold Brake AC 230V	W	200	200
Cold Brake AC 400V	W	200	200
Overexcitation AC 230 V	W	200	200
Overexcitation AC 400 V	W	200	200
Moment of inertia	kgcm ²	146	146
Braking torque is static	Nm	230	230
Min. static braking torque tolerance	%	-25	-25
Max. static braking torque tolerance	%	35	35
Dynamic braking torque			
100 rpm	Nm	230	230
1000 rpm	Nm	182	182
1200 rpm	Nm	177	177
1500 rpm	Nm	173	173
1800 rpm	Nm	168	-
2500 rpm	Nm	161	-
3000 rpm	Nm	156	-
3600 rpm	Nm	152	-
Min. dynamic braking torque tolerance	%	-25	-25
Max. dynamic braking torque tolerance	%	35	35
Friction energy			
100 rpm	kJ	160	160
1000 rpm	kJ	160	160
1200 rpm	kJ	160	160
1500 rpm	kJ	160	48
1800 rpm	kJ	160	-
2500 rpm	kJ	160	-
3000 rpm	kJ	160	-
3600 rpm	kJ	160	-
Maximum speed - operation	rpm	3600	1500
Maximum speed - idle state	rpm	10000	10000

Product extensions

Spring-applied brakes

Spring-applied application brake, IP54/IP55 double brake

Rated data



Rated data, Double brake, IP54/55

Application brake ABR 20

Application brake		ABR 20	
Braking torque			
Standard friction lining	Nm	230	
Low-wear friction lining	Nm		230
Delay time t11			
DC voltage	ms	53	53
AC mains voltage	ms	53	53
Cold Brake AC 230V	ms	151	151
Cold Brake AC 400V	ms	173	173
Overexcitation AC 230 V	ms	195	195
Overexcitation AC 400 V	ms	195	195
Rise time t12			
DC voltage	ms	100	100
AC mains voltage	ms	100	100
Cold Brake AC 230V	ms	285	285
Cold Brake AC 400V	ms	326	326
Overexcitation AC 230 V	ms	368	368
Overexcitation AC 400 V	ms	368	368
Engagement time t1			
DC voltage	ms	153	153
AC mains voltage	ms	153	153
Cold Brake AC 230V	ms	436	436
Cold Brake AC 400V	ms	499	499
Overexcitation AC 230 V	ms	563	563
Overexcitation AC 400 V	ms	563	563
Disengagement time t2			
DC voltage	ms	181	181
AC mains voltage	ms	181	181
Cold Brake AC 230V	ms	181	181
Cold Brake AC 400V	ms	124	124
Overexcitation AC 230 V	ms	93	93
Overexcitation AC 400 V	ms	93	93
Overexcitation time			
Cold Brake AC 230V	ms	1300	1300
Cold Brake AC 400V	ms	300	300
Overexcitation AC 230 V	ms	300	300
Overexcitation AC 400 V	ms	300	300
Friction energy QBW			
DC voltage	MJ	949.4	4644.2
AC mains voltage	MJ	949.4	4644.2
Cold Brake AC 230V	MJ	949.4	4644.2
Cold Brake AC 400V	MJ	949.4	4644.2
Overexcitation AC 230 V	MJ	949.4	4644.2
Overexcitation AC 400 V	MJ	949.4	4644.2
Wear limit of brake pad	MJ	4740	23220
Reversing cycles		1x 10 ⁶	1x 10 ⁶
Repetitive cycles		1x 10 ⁶	1x 10 ⁶

Option: Reduction of the holding current (cold brake)

By reducing the holding current, the bridge/half-wave rectifier reduces the power consumption of the open brake. As the brake heats up less, this control is referred to as a "Cold Brake". This is necessary at low speeds in order to counteract impermissible heating. This means that no blower is required even with a speed setting range below 14 Hz. In addition, only a quarter of the braking power is required, thus saving energy.



Product extensions

Spring-applied brakes
Spring-applied application brake, IP54/IP55 double brake

Option: Short-time overexcitation of the brake coil

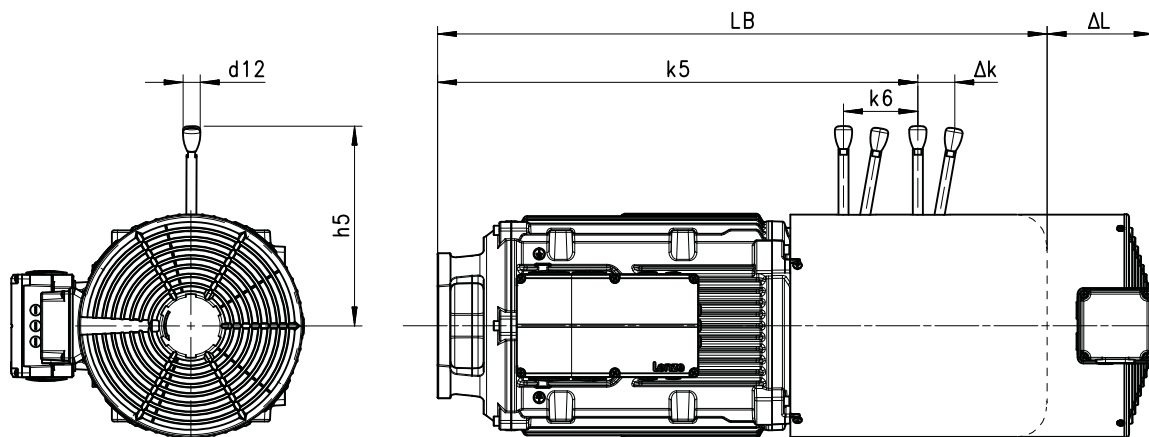
The disengagement time can be reduced by triggering the brake coil with twice the rated voltage for an overexcitation time. The brake releases much faster and the wear on the friction lining decreases. As a result of these features, this control variant is particularly ideal for hoist applications.

Option: Manual release

The brake can be ordered with a manual release lever to facilitate positioning and maintenance work. The brake can be released manually in deenergized mode by actuating the manual release lever.

A lockable manual release lever can be ordered as an option. This is equipped with a clamping device to hold the brake in the released position.

Double brake, degree of protection IP54/55



Motor	Brake	Dimensions				
		k_5	k_6	Δk	h_5	d_{12}
		mm	mm	mm	mm	mm
m550-P160/M4	ABR 16	560	93	45	240	24
	ABR 18	565	104	50	279	24
m550-P160/L4	ABR 18	565	104	50	279	24
m550-P180/M4	ABR 18	626	104	50	279	24
m550-P180/L4	ABR 20	632	118	58	319	24

Dimensions LB ► [Basic dimensions](#) 129

Dimensions ΔL ► [Additional lengths](#) 169



8.2.7 Spring-applied safety brake, IP54/IP55 single brake

The spring-applied brakes are application brakes for use in safety applications.

ABRS1 spring-applied safety brakes achieve safety level SIL 1. These can be used together with the Safe Brake Control (SBC) function.

Preconditions

It should be noted that the safety brake is selected so that 80 % of the characteristic torque is sufficient for the safety-related function.

General information:

- The microswitch option is not protected
- The permissible ambient temperature is -20 to +40°C
- The relative humidity during operation must be < 85 % and must not be condensing
- Maintenance of these brakes must be carried out by Lenze Service



For detailed information on the safety brake, please contact your Lenze representative.



8.2.8 Spring-applied safety brake, IP54/IP55 double brake

The spring-applied brakes are application brakes for use in safety applications.

ABRS2 double brakes achieve safety level SIL1 or SIL2. These can be used together with the Safe Brake Control (SBC) function.

Preconditions

It should be noted that the safety brake is selected so that 80 % of the characteristic torque is sufficient for the safety-related function.

General information:

- The microswitch option is not protected
- The permissible ambient temperature is -20 to +40°C
- The relative humidity during operation must be < 85 % and must not be condensing
- Maintenance of these brakes must be carried out by Lenze Service



For detailed information on the safety brake, please contact your Lenze representative.



8.3 Feedback

A resolver, incremental encoder and SinCos absolute value encoder are optionally available to evaluate the speed and position of the motor shaft.

The resolver can be used to measure an absolute value within one revolution of the rotor. A SinCos absolute value encoder is used if not only the angle within one revolution is to be made available immediately but also the revolution within a set range. The SinCos absolute value encoder detects not only the speed and rotor position but also the position of the machine. It consists of a speed sensor system, for example TTL, and an absolute value information recorder, for example Hyperface.

The HTL incremental encoder is used in the frequency inverter range for less dynamic applications.

The TTL incremental encoder can generate a higher number of pulses. It is used for dynamic applications with very high requirements regarding accuracy. If the absolute angular position of the drive is required directly after the system is switched on without performing additional homing, this can be realized via a resolver or SinCos absolute value encoder.



Resolver, absolute encoder and the IG128-24V-H add-on incremental encoder are mounted behind the B-bearing shield under the fan cover.

All other incremental encoders are integrated in the B-bearing shield, which usually makes the drive shorter.

Feedbacks in the environment of functional safety

Motors can perform speed-dependent safety functions for safe speed and/or safe relative position monitoring in a drive system by Lenze inverters or Controllers. In case of inverters, these functions are implemented by integrable safety modules and in case of Controllers by the additionally required Safety Controller.

When planning systems/installations of this kind, always observe the following:

- When using just one single feedback system in the environment of these safety applications, the applicable safety engineering standard EN 61800-5-2 (adjustable speed electrical power drive systems - Part: 5-2: Safety requirements - Functional) stipulates special requirements for the connection between feedback system and motor shaft.
- This is due to the fact that two-channel safety systems at this point in the mechanical system are actually designed as single-channel systems. If this mechanical connection is designed with considerable overdimensioning, the standard permits exclusion of the fault "encoder-shaft breakage" or "encoder-shaft slip". As such, the permissible angular acceleration limit values must not be exceeded for the individual drive solutions.

You can find the limit values in the corresponding feedback data of the individual motor ranges.

Speed-dependent safety functions

Examples of speed-dependent safety functions:

- Safe stop 1 (SS1)
- Safe operational stop (SOS)
- Safely limited speed (SLS)
- Safe maximum speed (SMS)
- Safe direction (SDI)
- Operation mode selector (OMS) with confirmation (ES)
- Safe speed monitor (SSM)
- Safely limited increment (SLI)



8.3.1 Resolver

The stator-supplied, 2-pole resolver with two stator windings shifted by 90 degrees and a rotor winding with a transformer winding can record both the speed and the rotor position, just like a single-turn absolute value encoder. The rotor position can be determined within one mechanical motor revolution after a voltage failure.

Feedback type			Resolver
Feedback			RS1
Speed-dependent safety functions			Nein
Design			Mounting
Resolution - angle		'	0.8
Min. accuracy		'	-10
Max. accuracy		'	10
Absolute positioning			1 revolution
Max. speed	$n_{\max}$	rpm	8000
Max. DC input voltage	$V_{\text{in,max}}$	V	10
Max. input frequency	$f_{\text{in,max}}$	kHz	4
Ratio stator/rotor			0.3
Min ratio tolerance		%	-5
Max ratio tolerance		%	5
Rotor impedance	Z_{ro}	Ω	51+j90
Stator impedance	Z_{so}	Ω	102+j150
Impedance	Z_{rs}	Ω	44+j76
Min. insulation resistance at DC 500 V	R_{min}	M Ω	10
Number of pole pairs			1
Max. angle error Min		'	-10
Max. angle error Max		'	10



8.3.2 Incremental encoder

Incremental encoders can be used for speed measurement. Homing is required in order to enable positioning later.

Incremental HTL encoder



Feedback in conjunction with the HAN plug connector or the integrated i550 motec and 8400 motec is only available with the IG128-24V-H add-on incremental encoder (with 0.5 m cable and M12 plug connector).

Feedback type			Encoder			
Feedback			IG128-24V-H		IG1024-24V-H	IG2048-24V-H
Design			Mounting	integrated	integrated	integrated
Pulses			128	128	1024	2048
Output signals			HTL	HTL	HTL	HTL
Interfaces			A, B	A, B	A, B; N; Ai, Bi; Ni	A, B; N; Ai, Bi; Ni
Absolute revolution			0	0	0	0
Min. accuracy		'	-22.5	-2	-2	-2
Max. accuracy		'	22.5	2	2	2
Min. DC input voltage	$V_{in,min}$	V	8	10	10	10
Max. DC input voltage	$V_{in,max}$	V	26	30	30	30
Max. current consumption	I_{max}	A	0.04	0.15	0.15	0.15
Cut-off frequency	f_{max}	kHz	30	200	200	200

TTL incremental encoder

Feedback type			Encoder	
Feedback			IG1024-5V-T	IG2048-5V-T
Design			integrated	
Pulses			1024	2048
Output signals			TTL	TTL
Interfaces			A, B; N; Ai, Bi; Ni	A, B; N; Ai, Bi; Ni
Absolute revolution			0	0
Min. accuracy		'	-2	-2
Max. accuracy		'	2	2
Min. DC input voltage	$V_{in,min}$	V	4.75	4.75
Max. DC input voltage	$V_{in,max}$	V	5.5	5.5
Max. current consumption	I_{max}	A	0.15	0.15
Cut-off frequency	f_{max}	kHz	300	300



SinCos-incremental encoder with safety functions



The connection of the safety sensors to the terminal box is only available in conjunction with a M23 connector.

Feedback type			Encoder	
Feedback			IG2048-5V-V2	IG2048-5V-V3
Design			Mounting	
Pulses			2048	2048
Output signals			SinCos 1 Vss	SinCos 1 Vss
Interfaces			SinCos	SinCos
Absolute revolution			0	0
Min. accuracy			-	-
Max. accuracy			-	-
Min. DC input voltage	$V_{in,min}$	V	4.75	4.75
Max. DC input voltage	$V_{in,max}$	V	5.25	5.25
Max. current consumption	I_{max}	A	0.07	0.07
Cut-off frequency	f_{max}	kHz	400	400
Max. Safety Integrity Level			SIL 2	SIL 3
Max. Safety Performance Level			d	e

8.3.3 Absolute value encoder

Absolute value encoders can detect the speed, the rotor position, and the machine position with a very high resolution. They are used for the positioning of dynamic applications and do not require homing.

SinCos absolute value encoder

Feedback type			SinCos absolute value encoder
Feedback			AM1024-8V-H
Speed-dependent safety functions			Nein
Design			Mounting
Encoder type			Multi-turn
Resolution		bit	-
Pulses			1024
Output signals			SinCos 1 Vss
Interfaces			Hiperface
Absolute revolution			4096
Resolution - angle			0.4
Min. accuracy		'	-0.8
Max. accuracy		'	0.8
Fehlergrenze Positionswert			
System accuracy			-
Integral nonlinearity			-
Min. DC input voltage	$V_{in,min}$	V	7
Max. DC input voltage	$V_{in,max}$	V	12
Max. current consumption	I_{max}	A	0.08
Cut-off frequency	f_{max}	kHz	200



8.4 Blower

The motor is optionally available with a blower for operation with the rated torque and low motor speeds or a higher switching frequency.

The blower cools the motor independent of the motor speed.

If a blower is used, the torque does not have to be reduced if operated below 20 Hz.



A higher powered motor with simultaneous derating can be used in many cases instead of a blower.

Torque reduction at low motor frequencies ► [General information](#)  27



8.4.1 Standard version

Rated data 50Hz, 230/400V

Motor series			m550-H						m550-P		
Size			063			071			080		
Number of phases			1	3	3	1	3	3	1	3	3
Wiring			-	Delta	Star	-	Delta	Star	-	Delta	Star
Rated voltage	V _{rated}	V	230	230	400	230	230	400	230	230	400
Rated power	P _{rated}	kW	0.034	0.015	0.015	0.035	0.016	0.016	0.036	0.02	0.02
Rated current	I _{rated}	A	0.15	0.08	0.05	0.15	0.08	0.05	0.16	0.09	0.05

Motor series			m550-P								
Size			090			100			112		
Number of phases			1	3	3	1	3	3	1	3	3
Wiring			-	Delta	Star	-	Delta	Star	-	Delta	Star
Rated voltage	V _{rated}	V	230	230	400	230	230	400	230	230	400
Rated power	P _{rated}	kW	0.038	0.036	0.036	0.044	0.043	0.043	0.05	0.054	0.054
Rated current	I _{rated}	A	0.19	0.19	0.11	0.2	0.19	0.11	0.23	0.20	0.11

Motor series			m550-P								
Size			132			160			180		
Number of phases			1	3	3	1	3	3	1	3	3
Wiring			-	Delta	Star	-	Delta	Star	-	Delta	Star
Rated voltage	V _{rated}	V	230	230	400	230	230	400	230	230	400
Rated power	P _{rated}	kW	0.089	0.082	0.082	0.210	0.205	0.205	0.210	0.205	0.205
Rated current	I _{rated}	A	0.39	0.34	0.19	0.92	0.70	0.40	0.92	0.70	0.40

Rated data 50Hz, 115/200V

Motor series			m550-H						m550-P		
Size			063			071			080		
Number of phases			1	3	3	1	3	3	1	3	3
Wiring			-	Delta	Star	-	Delta	Star	-	Delta	Star
Rated voltage	V _{rated}	V	115	115	200	115	115	200	115	115	200
Rated power	P _{rated}	kW	0.047	0.040	0.040	0.047	0.042	0.042	0.048	0.046	0.046
Rated current	I _{rated}	A	0.68	0.67	0.38	0.65	0.67	0.37	0.65	0.66	0.38

Motor series			m550-P								
Size			090			100			112		
Number of phases			1	3	3	1	3	3	1	3	3
Wiring			-	Delta	Star	-	Delta	Star	-	Delta	Star
Rated voltage	V _{rated}	V	115	115	200	115	115	200	115	115	200
Rated power	P _{rated}	kW	0.051	0.053	0.053	0.057	0.062	0.062	0.063	0.074	0.074
Rated current	I _{rated}	A	0.63	0.64	0.37	0.66	0.65	0.38	0.67	0.64	0.37

Product extensions

Blower
Standard version



Rated data 60Hz, 115/200V

Motor series			m550-H						m550-P		
Size			063			071			080		
Number of phases			1	3	3	1	3	3	1	3	3
Wiring			-	Delta	Star	-	Delta	Star	-	Delta	Star
Rated voltage	V _{rated}	V	115	115	200	115	115	200	115	115	200
Rated power	P _{rated}	kW	0.036	0.031	0.031	0.04	0.036	0.036	0.044	0.040	0.04
Rated current	I _{rated}	A	0.42	0.47	0.27	0.43	0.46	0.27	0.45	0.47	0.27

Motor series			m550-P								
Size			090			100			112		
Number of phases			1	3	3	1	3	3	1	3	3
Wiring			-	Delta	Star	-	Delta	Star	-	Delta	Star
Rated voltage	V _{rated}	V	115	115	200	115	115	200	115	115	200
Rated power	P _{rated}	kW	0.051	0.051	0.051	0.063	0.067	0.067	0.078	0.079	0.079
Rated current	I _{rated}	A	0.49	0.49	0.28	0.59	0.53	0.31	0.71	0.55	0.32

Rated data 60Hz, 265/460V

Motor series			m550-H						m550-P		
Size			063			071			080		
Number of phases			1	3	3	1	3	3	1	3	3
Wiring			-	Delta	Star	-	Delta	Star	-	Delta	Star
Rated voltage	V _{rated}	V	265	265	460	265	265	460	265	265	460
Rated power	P _{rated}	kW	0.05	0.018	0.018	0.052	0.02	0.02	0.055	0.028	0.028
Rated current	I _{rated}	A	0.19	0.08	0.05	0.2	0.08	0.05	0.21	0.09	0.05

Motor series			m550-P								
Size			090			100			112		
Number of phases			1	3	3	1	3	3	1	3	3
Wiring			-	Delta	Star	-	Delta	Star	-	Delta	Star
Rated voltage	V _{rated}	V	265	265	460	265	265	460	265	265	460
Rated power	P _{rated}	kW	0.058	0.047	0.047	0.069	0.059	0.059	0.085	0.074	0.074
Rated current	I _{rated}	A	0.22	0.19	0.11	0.26	0.20	0.11	0.32	0.21	0.12

Motor series			m550-P								
Size			132			160			180		
Number of phases			1	3	3	1	3	3	1	3	3
Wiring			-	Delta	Star	-	Delta	Star	-	Delta	Star
Rated voltage	V _{rated}	V	265	265	460	265	265	460	265	265	460
Rated power	P _{rated}	kW	0.144	0.118	0.118	0.359	0.308	0.308	0.359	0.308	0.308
Rated current	I _{rated}	A	0.55	0.36	0.21	1.36	0.81	0.47	1.36	0.81	0.47



8.4.2 Heavy-duty blower

The heavy-duty blower is an optional fan design for operation in environments with higher dust and fiber contamination, e.g. in the textile industry.



Heavy-duty blowers have the same electrical data and dimensions as the standard design.



8.5 Temperature monitoring



The thermal sensors are integrated in the windings. We recommend the use of an additional motor protection switch.



Only one temperature monitoring device can be connected with the M23 8-pin and Han 10E/modular connectors.

The following temperature monitoring systems are available to protect the motor from overheating:

Connection via cable gland in the terminal box

- TCO thermal contact
- TCO thermal contact and PT1000 temperature sensor

Connection via M23 or Han connector

- TCO thermal contact
- Thermal detectors PT1000

8.5.1 Thermal contacts TCO

The TCO thermal contact (thermal break contact) is a bimetallic switch. The thermal contact monitors the motor winding temperature; e.g., at excessively high temperatures, it switches the upstream motor relay. The motor is disconnected from the line voltage and coasts down via the relay.

Functional principle			Normally-closed contact
Operating temperature		°C	150
Min. switching temperature		°C	145
Max. switching temperature		°C	155
Min. reset temperature		°C	90
Max. reset temperature		°C	135
Max. AC switching current		A	2.5
Max. AC switching voltage		V	250
Max. DC switching current		A	2.5
Max. DC switching voltage		V	12



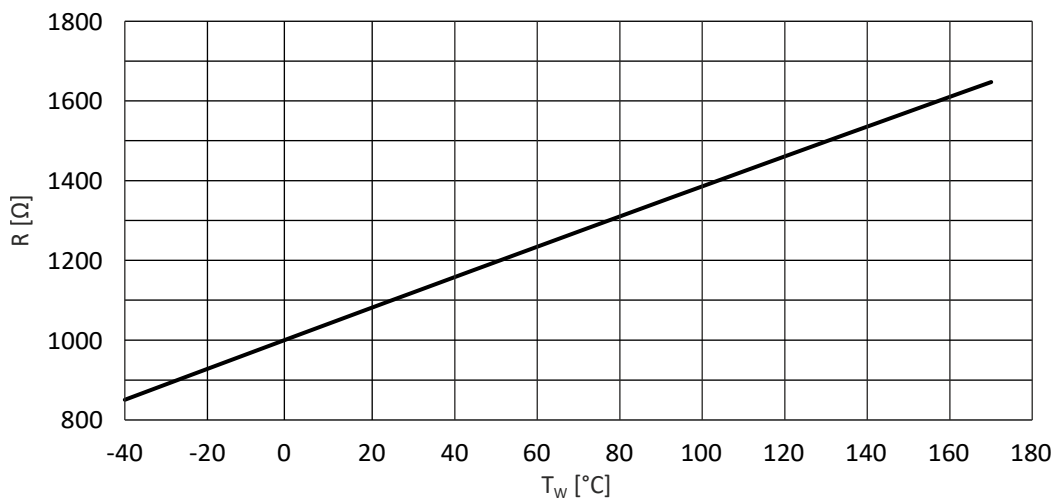
8.5.2 Thermal detectors PT1000

The thermal detector used continuously monitors the motor temperature. The temperature information is transferred to the inverter using the system cable of the feedback system. **This is not a full motor protection!**

This makes it possible to determine the motor temperature in the permissible operating range with great accuracy.



When supplying the thermal sensors with a measurement current of 1 mA, the relationship between the temperature and the resistance measured applies.



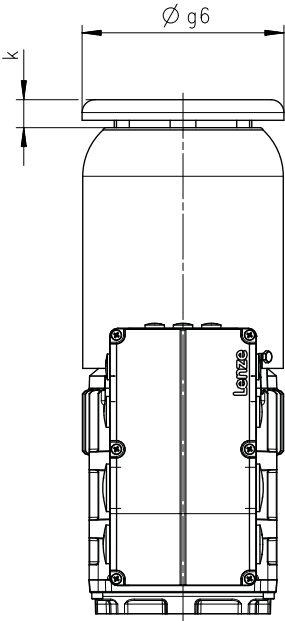
R Resistance
 T_w Winding temperature



8.6 Protection cover

If the motor is installed vertically with the shaft end pointing down, a protection cover is recommended for the fan cover to prevent any foreign bodies falling into the fan.

Protection cover for self-ventilated motors

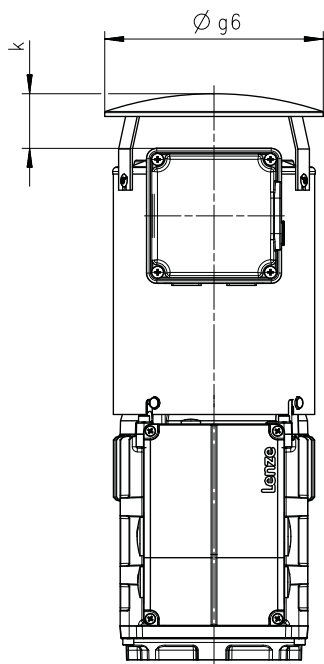


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Motor series			m550-H		m550-P						
Motor			63/S4 63/M4 63/L4	71/M4 71/L4	80/M4	90/M4 90/L4	100/M4 100/L4	112/M4	132/M4 132/L4	160/M4 160/L4	180/M4 180/L4
Additional length	k	mm	25	25	25	25	30	30	30	35	35
Diameter	g ₆	mm	124	138	157	177	196	218	260	310	348



Protection cover for forced ventilation motors



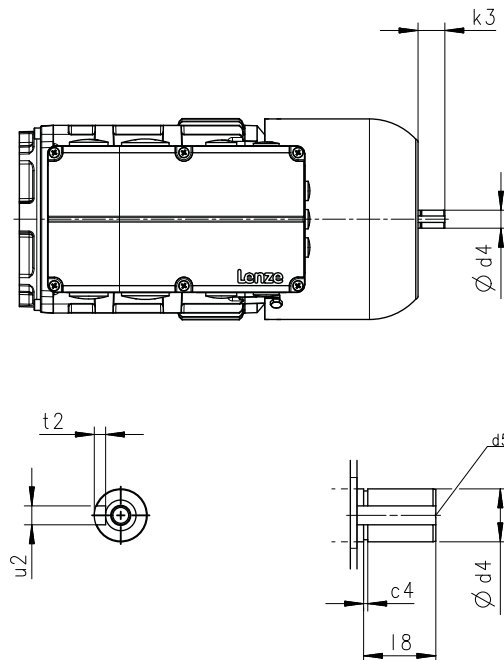
8801083_00

Motor series			m550-H		m550-P						
Motor			63/S4 63/M4 63/L4	71/M4 71/L4	80/M4	90/M4 90/L4	100/M4 100/L4	112/M4	132/M4 132/L4	160/M4 160/L4	180/M4 180/L4
Additional length	k	mm	32	32	32	32	32	42	56	56	56
Diameter	g ₆	mm	133	150	170	188	210	249	300	338	338



8.7 Second shaft end

The second motor shaft end on the drive side is intended for customer applications (e.g. further feedback systems).



8801082_00

Motor series			m550-H		m550-P				
Motor			63/S4 63/M4 63/L4	71/M4 71/L4	80/M4	90/M4 90/L4	100/M4 100/L4	112/M4	132/M4 132/L4
Shaft length	k_3	mm	18	18	20.5	24	28	28	32.5
Shaft diameter	d_4	mm	14	14	14	14	14	14	25
	l_8	mm	15	15	19	19	23	23	27
	c_4	mm	1.1	1.1	1.1	1.1	1.1	1.1	
Keyway width	u_2	mm	5	5	5	5	5	5	8
Keyway depth	t_2	mm	3	3	3	3	3	3	4.5
	d_5		M5	M5	M5	M5	M5	M5	M10



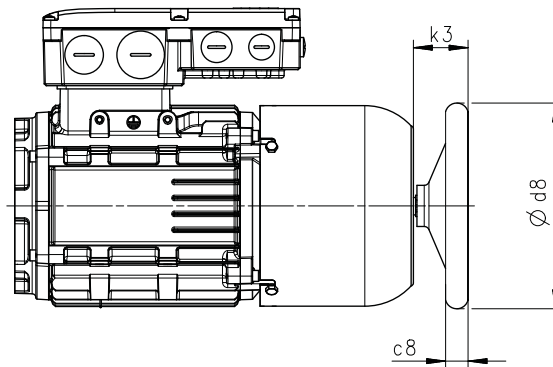
8.8 Handwheel

In a deenergized state or during emergency operation, the motor shaft can be rotated with the hand wheel and the machine can be set up.

The hand wheel is made of a light alloy and has a smooth surface.



Pay attention to the higher moment of inertia during configuration! With frequent switching operations, in particular when changing the direction of rotation, please contact your Lenze representative.



8801080_00

Motor		m550-H		m550-P				
		63/S4 63/M4 63/L4	71/M4 71/L4	80/M4	90/M4 90/L4	100/M4 100/L4	112/M4	132/M4 132/L4
Dimensions								
k ₃	mm	29	40	40	40	45	45	50
d ₈	mm	80	160	160	160	200	200	250
c ₈	mm	14	18	18	18	22	22	26
Moment of inertia								
J	kgcm ²	0.6	18.5	18.5	18.5	25.8	25.8	155.4



9 Product codes

Gearbox product code

Example		G	50	A	H	045	M	V	C	R	2	C	1A
Product type	Gearboxes	G											
Product family			50										
Generation				A B									
Gearbox type	Helical gearbox				H								
Output torque	45 Nm					045							
	100 Nm					110							
	140 Nm					114							
	210 Nm					121							
	320 Nm					132							
	450 Nm					145							
	600 Nm					160							
	850 Nm					185							
	1500 Nm					215							
	3000 Nm					230							
	5000 Nm					250							
	8000 Nm					280							
	14000 Nm					314							
Type of construction	Geared motor						M						
	Gearboxes						N						
Shaft type	Solid shaft with featherkey							V					
	Solid shaft without featherkey							G					
Housing type	Foot mounting + centering								A				
	Foot mounting								B				
	With centering								C				
Flange mounting	Without flange									R			
	Flange with through holes									K			
	Reinforced flange with through holes									P			
Number of stages	2-stage										2		
	3-stage										3		
	4-stage										4		
Motor mounting	Integrated motor											C	
	IEC adapter with jaw coupling											N U	
	IEC adapter with plug-in hollow shaft											H	
	NEMA adapter with jaw coupling											A	
	NEMA adapter with plug-in hollow shaft											B	
	Servomotor adapter with plug-in hollow shaft											S	
	Servomotor adapter with jaw coupling											E D G	
Drive size													1A ... □H 08 ... 82



Motor product code

Example		M	55	B	H	063	S	04	5	E	0	0	C	C
Product type	Motor	M												
Product family			55											
Version				B										
Efficiency class	IE2				H									
	IE3				P									
Size						063 071 080 090 100 112 132 160 180								
Overall length	Short						S							
	Medium						M							
	Long						L							
Number of poles	4-pole							04						
Degree of protection	IP54/IP55								5					
	IP65/IP66								6					
Cooling	Self-ventilation									E				
	Forced ventilation									F				
Brake	Without										0			
	Spring-applied brakes										F			
Feedback	Without											0		
	Absolute value encoder											A		
	Incremental encoder											E		
	Resolver											R		
Approvals	None												N	
	CE												C	
	CE, CCC												3	
	CE, cULus												L	
	CE, cULus, CCC												5	
	CE, cURus												U	
	CE, cURus, CCC												W	
Design type	Internal key													C

Motor data

Rated data
Rated data 50 Hz



10 Motor data

10.1 Rated data

10.1.1 Rated data 50 Hz

Motor			m550-H				
			63/S4	63/M4	63/L4	71/M4	71/L4
Rated power	P_{rated}	kW	0.12	0.18	0.25	0.37	0.55
Rated speed	n_{rated}	rpm	1415	1400	1390	1425	1430
Max. speed	n_{max}	rpm	4500	4500	4500	4500	4500
Max. torque	M_{max}	Nm	3.20	4.90	6.90	9.90	14.7
Rated voltage							
Delta	$V_{N, \Delta}$	V	230	230	230	230	230
Star	$V_{N, Y}$	V	400	400	400	400	400
Rated current							
230 V	$I_{N, \Delta}$	A	0.710	1.07	1.18	1.71	2.34
400 V	$I_{N, Y}$	A	0.410	0.620	0.680	0.990	1.35
Starting current	I_a	A	1.40	1.94	2.60	4.23	6.32
Rated torque	M_{rated}	Nm	0.810	1.23	1.72	2.48	3.67
Starting torque	M_a	Nm	1.54	2.46	3.44	4.45	6.95
Stalling torque	M_b	Nm	1.94	2.83	3.78	6.92	11.3
Power factor	$\cos \phi$		0.67	0.65	0.72	0.70	0.71
Efficiency							
at 50% P_{rated}	η		0.549	0.625	0.695	0.695	0.758
at 75% P_{rated}	η		0.591	0.647	0.685	0.727	0.771
at 100% P_{rated}	η		0.591	0.647	0.685	0.727	0.771
Moment of inertia	J	kgcm ²	2.4	2.9	3.7	9.1	13.3
Weight	m	kg	4.4	4.8	5.8	7.8	9



Motor data

Rated data
Rated data 50 Hz

Motor			m550-P				
			80/M4	90/M4	90/L4	100/M4	100/L4
Rated power	P_{rated}	kW	0.75	1.1	1.5	2.2	3
Rated speed	n_{rated}	rpm	1455	1465	1465	1470	1470
Max. speed	n_{max}	rpm	4500	4500	4500	4500	4500
Max. torque	M_{max}	Nm	19.7	28.7	39.1	57.2	78.0
Rated voltage							
Delta	$V_{N, \Delta}$	V	230	230	230	230	230
Star	$V_{N, Y}$	V	400	400	400	400	400
Rated current							
230 V	$I_{N, \Delta}$	A	2.77	4.00	5.51	7.72	10.6
400 V	$I_{N, Y}$	A	1.60	2.31	3.18	4.46	6.10
Starting current	I_a	A	8.91	16.4	22.5	35.8	47.1
Rated torque	M_{rated}	Nm	4.92	7.17	9.78	14.3	19.5
Starting torque	M_a	Nm	7.38	14.4	20.6	31.3	43.1
Stalling torque	M_b	Nm	16.2	25.2	34.3	49.8	66.6
Power factor	$\cos \phi$		0.77	0.79	0.78	0.77	0.79
Efficiency							
at 50% P_{rated}	η		0.826	0.844	0.851	0.879	0.883
at 75% P_{rated}	η		0.825	0.841	0.853	0.867	0.877
at 100% P_{rated}	η		0.825	0.841	0.853	0.867	0.877
Moment of inertia	J	kgcm ²	27.2	53.8	58.3	123	130.3
Weight	m	kg	12.3	17.4	18.5	31	32

Motor			m550-P				
			112/M4	132/M4	132/L4	160/M4	160/L4
Rated power	P_{rated}	kW	4	5.5	7.5	11	15
Rated speed	n_{rated}	rpm	1470	1480	1480	1485	1485
Max. speed	n_{max}	rpm	4500	4500	4500	4500	4500
Max. torque	M_{max}	Nm	104	142	194	283	386
Rated voltage							
Delta	$V_{N, \Delta}$	V	230	230	230	230	230
Star	$V_{N, Y}$	V	400	400	400	400	400
Rated current							
230 V	$I_{N, \Delta}$	A	13.5	18.3	25.4	36.0	49.2
400 V	$I_{N, Y}$	A	7.82	10.6	14.6	20.8	28.4
Starting current	I_a	A	58.3	84.9	117	163	228
Rated torque	M_{rated}	Nm	26.0	35.5	48.4	70.7	96.5
Starting torque	M_a	Nm	44.1	53.3	77.6	98.9	144
Stalling torque	M_b	Nm	83.1	131	179	226	308
Power factor	$\cos \phi$		0.82	0.82	0.82	0.82	0.84
Efficiency							
at 50% P_{rated}	η		0.898	0.903	0.908	0.920	0.928
at 75% P_{rated}	η		0.886	0.896	0.904	0.914	0.921
at 100% P_{rated}	η		0.886	0.896	0.904	0.914	0.921
Moment of inertia	J	kgcm ²	198	470.6	485.9	1360	1550
Weight	m	kg	41	62	65	169	184

Motor data

Rated data

Rated data 50 Hz



Motor			m550-P	
			180/M4	180/L4
Rated power	P_{rated}	kW	18.5	22
Rated speed	n_{rated}	rpm	1485	1480
Max. speed	n_{max}	rpm	4500	4500
Max. torque	M_{max}	Nm	476	568
Rated voltage				
Delta	$V_{N, \Delta}$	V	230	230
Star	$V_{N, Y}$	V	400	400
Rated current				
230 V	$I_{N, \Delta}$	A	57.6	67.2
400 V	$I_{N, Y}$	A	33.3	38.8
Starting current	I_a	A	315	312
Rated torque	M_{rated}	Nm	119	142
Starting torque	M_a	Nm	251	241
Stalling torque	M_b	Nm	465	467
Power factor	$\cos \phi$		0.88	0.88
Efficiency				
at 50% P_{rated}	η		0.932	0.937
at 75% P_{rated}	η		0.926	0.930
at 100% P_{rated}	η		0.926	0.930
Moment of inertia	J	kgcm ²	2330	2400
Weight	m	kg	250	260



Motor data

Rated data
Rated data 60 Hz

10.1.2 Rated data 60 Hz

Motor			m550-H				
			63/S4	63/M4	63/L4	71/M4	71/L4
Rated power	P_{rated}	kW	0.12	0.18	0.25	0.37	0.55
Rated speed	n_{rated}	rpm	1725	1715	1710	1735	1740
Max. speed	n_{max}	rpm	4500	4500	4500	4500	4500
Max. torque	M_{max}	Nm	3.20	4.90	6.90	9.90	14.7
Rated voltage							
Star	$V_{N, Y}$	V	460	460	460	460	460
Rated current							
460 V	$I_{N, Y}$	A	0.370	0.560	0.600	0.880	1.21
Starting current	I_a	A	1.47	2.07	2.68	4.28	6.32
Rated torque	M_{rated}	Nm	0.700	1.00	1.40	2.00	3.00
Starting torque	M_a	Nm	1.54	2.32	3.08	3.88	5.74
Stalling torque	M_b	Nm	2.01	2.83	3.78	6.94	10.9
Power factor	$\cos \phi$		0.60	0.58	0.66	0.65	0.67
Efficiency							
at 50% P_{rated}	η		0.564	0.640	0.704	0.708	0.762
at 75% P_{rated}	η		0.637	0.680	0.700	0.720	0.755
at 100% P_{rated}	η		0.640	0.680	0.700	0.720	0.755
Moment of inertia	J	kgcm ²	2.4	2.9	3.7	9.1	13.3
Weight	m	kg	4.4	4.8	5.8	7.8	9

Motor data

Rated data

Rated data 60 Hz



Motor			m550-P				
			80/M4	90/M4	90/L4	100/M4	100/L4
Rated power	P_{rated}	kW	0.75	1.1	1.5	2.2	3
Rated speed	n_{rated}	rpm	1760	1770	1770	1775	1770
Max. speed	n_{max}	rpm	4500	4500	4500	4500	4500
Max. torque	M_{max}	Nm	19.7	28.7	39.1	57.2	78.0
Rated voltage							
Star	$V_{N, Y}$	V	460	460	460	460	460
Rated current							
460 V	$I_{N, Y}$	A	1.40	2.02	2.78	3.93	5.31
Starting current	I_a	A	8.71	16.2	22.0	35.6	46.1
Rated torque	M_{rated}	Nm	4.10	5.90	8.10	11.8	16.2
Starting torque	M_a	Nm	6.09	12.5	17.8	27.3	37.1
Stalling torque	M_b	Nm	15.8	23.8	32.4	46.2	62.9
Power factor	$\cos \phi$		0.74	0.77	0.76	0.75	0.77
Efficiency							
at 50% P_{rated}	η		0.831	0.846	0.855	0.880	0.885
at 75% P_{rated}	η		0.852	0.865	0.865	0.895	0.895
at 100% P_{rated}	η		0.855	0.865	0.865	0.895	0.895
Moment of inertia	J	kgcm ²	27.2	53.8	58.3	123	130.3
Weight	m	kg	12.3	17.4	18.5	31	32

Motor			m550-P				
			112/M4	132/M4	132/L4	160/M4	160/L4
Rated power	P_{rated}	kW	4	5.5	7.5	11	15
Rated speed	n_{rated}	rpm	1775	1780	1780	1785	1785
Max. speed	n_{max}	rpm	4500	4500	4500	4500	4500
Max. torque	M_{max}	Nm	104	142	194	283	386
Rated voltage							
Star	$V_{N, Y}$	V	460	460	460	460	460
Rated current							
460 V	$I_{N, Y}$	A	6.82	9.26	12.8	18.2	24.7
Starting current	I_a	A	57.2	81.3	112	156	216
Rated torque	M_{rated}	Nm	21.5	29.5	40.2	58.8	80.2
Starting torque	M_a	Nm	38.7	44.2	64.5	82.1	120
Stalling torque	M_b	Nm	79.6	121	169	205	281
Power factor	$\cos \phi$		0.81	0.81	0.81	0.81	0.83
Efficiency							
at 50% P_{rated}	η		0.901	0.902	0.909	0.919	0.926
at 75% P_{rated}	η		0.895	0.914	0.917	0.924	0.930
at 100% P_{rated}	η		0.895	0.917	0.917	0.924	0.930
Moment of inertia	J	kgcm ²	198	470.6	485.9	1360	1550
Weight	m	kg	41	62	65	169	184



Motor data

Rated data
Rated data 60 Hz

Motor			m550-P	
			180/M4	180/L4
Rated power	P_{rated}	kW	18.5	22
Rated speed	n_{rated}	rpm	1785	1780
Max. speed	n_{max}	rpm	4500	4500
Max. torque	M_{max}	Nm	476	568
Rated voltage				
Star	$V_{N, Y}$	V	460	460
Rated current				
460 V	$I_{N, Y}$	A	29.0	33.8
Starting current	I_a	A	305	304
Rated torque	M_{rated}	Nm	99.0	118
Starting torque	M_a	Nm	208	212
Stalling torque	M_b	Nm	425	423
Power factor	$\cos \phi$		0.87	0.88
Efficiency				
at 50% P_{rated}	η		0.929	0.936
at 75% P_{rated}	η		0.936	0.936
at 100% P_{rated}	η		0.936	0.936
Moment of inertia	J	kgcm ²	2330	2400
Weight	m	kg	250	260

Motor data

Rated data

Rated data 87 Hz



10.1.3 Rated data 87 Hz

Motor			m550-H				
			63/S4	63/M4	63/L4	71/M4	71/L4
Rated power	P_{rated}	kW	0.21	0.33	0.45	0.66	1
Rated speed	n_{rated}	rpm	2525	2505	2500	2535	2540
Max. speed	n_{max}	rpm	4500	4500	4500	4500	4500
Max. torque	M_{max}	Nm	3.20	4.90	6.90	9.90	14.7
Rated voltage							
Delta	$V_{N, \Delta}$	V	400	400	400	400	400
Rated current							
400 V	$I_{N, \Delta}$	A	0.740	1.11	1.19	1.75	2.42
Rated torque	M_{rated}	Nm	0.794	1.26	1.72	2.49	3.76
Power factor	$\cos \phi$		0.6	0.6	0.72	0.7	0.74
Efficiency							
at 50% P_{rated}	η		0.598	0.675	0.729	0.730	0.781
at 75% P_{rated}	η		0.670	0.726	0.768	0.777	0.816
at 100% P_{rated}	η		0.702	0.744	0.776	0.792	0.826
Moment of inertia	J	kgcm ²	2.4	2.9	3.7	9.1	13.3
Weight	m	kg	4.4	4.8	5.8	7.8	9



Motor data

Rated data
Rated data 87 Hz

Motor			m550-P				
			80/M4	90/M4	90/L4	100/M4	100/L4
Rated power	P_{rated}	kW	1.35	1.9	2.6	3.9	5.2
Rated speed	n_{rated}	rpm	2565	2575	2575	2580	2580
Max. speed	n_{max}	rpm	4500	4500	4500	4500	4500
Max. torque	M_{max}	Nm	19.7	28.7	39.1	57.2	78.0
Rated voltage							
Delta	$V_{N, \Delta}$	V	400	400	400	400	400
Rated current							
400 V	$I_{N, \Delta}$	A	2.82	3.94	5.48	7.83	10.4
Rated torque	M_{rated}	Nm	5.03	7.05	9.64	14.4	19.2
Power factor	$\cos \phi$		0.83	0.82	0.8	0.83	0.82
Efficiency							
at 50% P_{rated}	η		0.845	0.855	0.864	0.889	0.893
at 75% P_{rated}	η		0.865	0.878	0.883	0.904	0.906
at 100% P_{rated}	η		0.868	0.882	0.886	0.906	0.907
Moment of inertia	J	kgcm ²	27.2	53.8	58.3	123	130.3
Weight	m	kg	12.3	17.4	18.5	31	32

Motor			m550-P				
			112/M4	132/M4	132/L4	160/M4	160/L4
Rated power	P_{rated}	kW	7.35	9.6	13.1	19.2	26.3
Rated speed	n_{rated}	rpm	2580	2590	2590	2595	2595
Max. speed	n_{max}	rpm	4500	4500	4500	4500	4500
Max. torque	M_{max}	Nm	104	142	194	283	386
Rated voltage							
Delta	$V_{N, \Delta}$	V	400	400	400	400	400
Rated current							
400 V	$I_{N, \Delta}$	A	14.1	18.4	25.4	36.1	49.2
Rated torque	M_{rated}	Nm	27.2	35.4	48.3	70.7	96.8
Power factor	$\cos \phi$		0.86	0.85	0.84	0.85	0.847
Efficiency							
at 50% P_{rated}	η		0.909	0.908	0.914	0.922	0.929
at 75% P_{rated}	η		0.917	0.920	0.925	0.934	0.939
at 100% P_{rated}	η		0.913	0.922	0.925	0.935	0.940
Moment of inertia	J	kgcm ²	198	470.6	485.9	1360	1550
Weight	m	kg	41	62	65	169	184

Motor data

Rated data

Rated data 87 Hz



Motor			m550-P	
			180/M4	180/L4
Rated power	P_{rated}	kW	32.2	38.5
Rated speed	n_{rated}	rpm	2590	2590
Max. speed	n_{max}	rpm	4500	4500
Max. torque	M_{max}	Nm	476	568
Rated voltage				
Delta	$V_{N, \Delta}$	V	400	400
Rated current				
400 V	$I_{N, \Delta}$	A	57.5	67.6
Rated torque	M_{rated}	Nm	119	142
Power factor	$\cos \phi$		0.892	0.906
Efficiency				
at 50% P_{rated}	η		0.932	0.939
at 75% P_{rated}	η		0.941	0.945
at 100% P_{rated}	η		0.942	0.944
Moment of inertia	J	kgcm ²	2330	2400
Weight	m	kg	250	260



10.2 Ecodesign Directive

Product information acc. to REGULATION (EU) 2019/1781 (ANNEX I, Section 2)

Legend

Efficiency (η_{rated} , η) The efficiency refers to the rated voltage and an ambient reference temperature of 25 °C.

Operating points (n; M) n = Speed as a percentage of the rated speed n_{rated} ; M= Torque as a percentage of the rated torque M_{rated}

Power losses P_V (n; M) Power losses as a percentage of the rated output power P_{rated} for the operating points (n; M).

Rated efficiency at full load	η_{rated}	%	59.1	64	64.7	68	68.5	70	72.7	72
Efficiency at 75 % rated load	η	%	59.1	63.7	64.7	68	68.5	70	72.7	72
Efficiency at 50 % rated load	η	%	54.9	56.4	62.5	64	69.5	70.4	69.5	70.8
Efficiency level			IE2							
Manufacturer's name			Lenze SE · Hans-Lenze-Str. 1 · 31855 Aerzen · GERMANY							
Commercial register number			Hannover HRB 204803							
Product's model identifier			M55BH063S04		M55BH063M04		M55BH063L04		M55BH071M04	
Number of poles of the motor			4							
Rated output power	P_{rated}	kW	0.12		0.18		0.25		0.37	
Rated input frequency	f_{rated}	Hz	50	60	50	60	50	60	50	60
Rated voltage	V_{rated}	V	400	460	400	460	400	460	400	460
Rated speed	n_{rated}	rpm	1415	1725	1400	1715	1390	1710	1425	1735
Number of motor phases			Three-phase motor							
Altitudes above sea level		m	0 ... 1000							
Ambient air temperature		°C	-30 ... +40							
Maximum operating temperature		°C	155							
Potentially explosive atmospheres			Operation in explosive atmospheres not permitted							
Power losses										
25; 25	P_V (n; M)	%	31.7	32.5	27.8	28.8	16.8	16.8	14.9	14.8
25; 100	P_V (n; M)	%	45	38.5	41.1	34.8	36.8	28.3	27	21.6
50; 25	P_V (n; M)	%	34.2	36.2	31.1	33.4	17.6	18.4	14.9	15.6
50; 50	P_V (n; M)	%	34.2	35.3	31.1	32.4	20	19.5	15.9	15.8
50; 100	P_V (n; M)	%	46.7	41.8	42.8	38.2	35.6	28.6	27.6	22.6
90; 50	P_V (n; M)	%	41.7	46.5	38.3	42.7	24	26.4	20	23.1
90; 100	P_V (n; M)	%	54.2	53.4	49.4	48.6	38.8	35.6	31.1	29



Rated efficiency at full load	η_{rated}	%	77.1	75.5	82.5	85.5	84.1	86.5	85.3	86.5
Efficiency at 75 % rated load	η	%	77.1	75.5	82.5	85.2	84.1	86.5	85.3	86.5
Efficiency at 50 % rated load	η	%	75.8	76.2	82.6	83.1	84.4	84.6	85.1	85.5
Efficiency level			IE2		IE3					
Manufacturer's name			Lenze SE · Hans-Lenze-Str. 1 · 31855 Aerzen · GERMANY							
Commercial register number			Hannover HRB 204803							
Product's model identifier			M55BH071L04		M55BP080M04		M55BP090M04		M55BP090L04	
Number of poles of the motor			4							
Rated output power	P_{rated}	kW	0.55		0.75		1.1		1.5	
Rated input frequency	f_{rated}	Hz	50	60	50	60	50	60	50	60
Rated voltage	V_{rated}	V	400	460	400	460	400	460	400	460
Rated speed	n_{rated}	rpm	1430	1740	1455	1760	1465	1770	1465	1770
Number of motor phases			Three-phase motor							
Altitudes above sea level		m	0 ... 1000							
Ambient air temperature		°C	-30 ... +40							
Maximum operating temperature		°C	155							
Potentially explosive atmospheres			Operation in explosive atmospheres not permitted							
Power losses										
25; 25	$P_V(n; M)$	%	9.1	9.1	5.9	5.7	4.5	4.4	4.9	4.9
25; 100	$P_V(n; M)$	%	20	15.9	17.3	13.1	13.1	10	13.8	10.6
50; 25	$P_V(n; M)$	%	10	10.6	6.3	6.5	5.1	5.4	5.4	5.7
50; 50	$P_V(n; M)$	%	11.6	11.5	8.1	7.7	6.5	6.3	6.8	6.5
50; 100	$P_V(n; M)$	%	21.1	17.5	17.2	13.5	13.5	10.8	14.1	11.3
90; 50	$P_V(n; M)$	%	15.1	16.9	10.3	11.2	8.7	9.7	9	10
90; 100	$P_V(n; M)$	%	24.4	22.5	18.9	16.8	15.6	14.3	16.3	14.8



Rated efficiency at full load	η_{rated}	%	86.7	89.5	87.7	89.5	88.6	89.5	89.6	91.7
Efficiency at 75 % rated load	η	%	86.7	89.5	87.7	89.5	88.6	89.5	89.6	91.4
Efficiency at 50 % rated load	η	%	87.9	88	88.3	88.5	89.8	90.1	90.3	90.2
Efficiency level			IE3							
Manufacturer's name			Lenze SE · Hans-Lenze-Str. 1 · 31855 Aerzen · GERMANY							
Commercial register number			Hannover HRB 204803							
Product's model identifier			M55BP100M04		M55BP100L04		M55BP112M04		M55BP132M04	
Number of poles of the motor			4							
Rated output power	P_{rated}	kW	2.2		3		4		5.5	
Rated input frequency	f_{rated}	Hz	50	60	50	60	50	60	50	60
Rated voltage	V_{rated}	V	400	460	400	460	400	460	400	460
Rated speed	n_{rated}	rpm	1470	1775	1470	1770	1470	1775	1480	1780
Number of motor phases			Three-phase motor							
Altitudes above sea level		m	0 ... 1000							
Ambient air temperature		°C	-30 ... +40							
Maximum operating temperature		°C	155							
Potentially explosive atmospheres			Operation in explosive atmospheres not permitted							
Power losses										
25; 25	$P_V(n; M)$	%	3.1	3.1	3.4	3.3	2.7	2.7	1.6	1.7
25; 100	$P_V(n; M)$	%	9.2	7.2	10.7	8.2	11	8	6.2	4.8
50; 25	$P_V(n; M)$	%	3.8	4.1	4	4.2	3.2	3.4	2.2	2.4
50; 50	$P_V(n; M)$	%	4.9	4.8	5.3	5.1	4.5	4.2	3.1	3
50; 100	$P_V(n; M)$	%	10	8.2	11.2	9	10.9	8.4	6.8	5.6
90; 50	$P_V(n; M)$	%	6.9	7.7	7.1	7.7	6	6.4	4.4	4.8
90; 100	$P_V(n; M)$	%	12	11.1	13	11.8	12.3	10.8	8.2	7.4



Rated efficiency at full load	η_{rated}	%	90.4	91.7	91.4	92.4	92.1	93	92.6	93.6
Efficiency at 75 % rated load	η	%	90.4	91.7	91.4	92.4	92.1	93	92.6	93.6
Efficiency at 50 % rated load	η	%	90.8	90.9	92	91.9	92.8	92.6	93.2	92.9
Efficiency level			IE3							
Manufacturer's name			Lenze SE · Hans-Lenze-Str. 1 · 31855 Aerzen · GERMANY							
Commercial register number			Hannover HRB 204803							
Product's model identifier			M55BP132L04		M55BP160M04		M55BP160L04		M55BP180M04	
Number of poles of the motor			4							
Rated output power	P_{rated}	kW	7.5		11		15		18.5	
Rated input frequency	f_{rated}	Hz	50	60	50	60	50	60	50	60
Rated voltage	V_{rated}	V	400	460	400	460	400	460	400	460
Rated speed	n_{rated}	rpm	1480	1780	1485	1785	1485	1785	1485	1785
Number of motor phases			Three-phase motor							
Altitudes above sea level		m	0 ... 1000							
Ambient air temperature		°C	-30 ... +40							
Maximum operating temperature		°C	155							
Potentially explosive atmospheres			Operation in explosive atmospheres not permitted							
Power losses										
25; 25	$P_V(n; M)$	%	1.8	1.8	1.1	1.1	0.9	0.9	0.9	0.9
25; 100	$P_V(n; M)$	%	7	5.2	4.2	3.2	4.4	3.2	4.3	3.2
50; 25	$P_V(n; M)$	%	2.3	2.5	1.6	1.8	1.3	1.5	1.4	1.6
50; 50	$P_V(n; M)$	%	3.2	3	2.2	2.2	1.9	1.9	2	2
50; 100	$P_V(n; M)$	%	7.3	5.8	4.5	3.8	4.8	3.8	4.7	3.9
90; 50	$P_V(n; M)$	%	4.4	4.6	3.4	3.8	2.9	3.2	3.2	3.6
90; 100	$P_V(n; M)$	%	8.8	7.9	6.2	6.1	6.1	5.5	6.2	5.8



Rated efficiency at full load	η_{rated}	%	93	93.6
Efficiency at 75 % rated load	η	%	93	93.6
Efficiency at 50 % rated load	η	%	93.7	93.6
Efficiency level			IE3	
Manufacturer's name			Lenze SE · Hans-Lenze-Str. 1 · 31855 Aerzen · GERMANY	
Commercial register number			Hannover HRB 204803	
Product's model identifier			M55BP180L04	
Number of poles of the motor			4	
Rated output power	P_{rated}	kW	22	
Rated input frequency	f_{rated}	Hz	50	60
Rated voltage	V_{rated}	V	400	460
Rated speed	n_{rated}	rpm	1480	1780
Number of motor phases			Three-phase motor	
Altitudes above sea level		m	0 ... 1000	
Ambient air temperature		°C	-30 ... +40	
Maximum operating temperature		°C	155	
Potentially explosive atmospheres			Operation in explosive atmospheres not permitted	
Power losses				
25; 25	$P_V(n; M)$	%	0.8	0.9
25; 100	$P_V(n; M)$	%	4.4	3.2
50; 25	$P_V(n; M)$	%	1.3	1.5
50; 50	$P_V(n; M)$	%	1.9	1.9
50; 100	$P_V(n; M)$	%	4.8	3.8
90; 50	$P_V(n; M)$	%	3	3.3
90; 100	$P_V(n; M)$	%	6	5.5



11 Environmental notes and recycling

Lenze products are intended for use by companies in industrial environments. This means that they are also subject to requirements regarding recycling and disposal. Both mechanical and electrical components such as electric motors, gearboxes, and inverters contain valuable raw materials that can be recycled and reused. Proper recycling is important and sensible from both an economic and ecological perspective.

For information on the proper disposal and legal requirements of our products, please refer to the information on the respective product page on the Internet:

<https://www.lenze.com/en-de/products>

If you require support, please contact your local branch:

<https://www.lenze.com/en-de/company/global-presence>

Note: By disposing of devices and packaging properly, you are helping us to protect the environment and conserve resources.



Further information on Lenze's environmental and climate responsibility and on the topic of energy efficiency can be found on the Internet:

<https://www.lenze.com/en-de/company/sustainability>



12 Appendix

12.1 Good to know

12.1.1 Operating modes of the motor

Operating modes S1 ... S10 as specified by EN 60034-1 describe the basic stress of an electrical machine.

In continuous operation a motor reaches its permissible temperature limit if it outputs the rated power dimensioned for continuous operation. However, if the motor is only subjected to load for a short time, the power output by the motor may be greater without the motor reaching its permissible temperature limit. This behaviour is referred to as overload capacity.

Depending on the duration of the load and the resulting temperature rise, the required motor can be selected reduced by the overload capacity.

The most important operating modes

Continuous operation S1	Short-time operation S2
Operation with a constant load until the motor reaches the thermal steady state. The motor may be actuated continuously with its rated power.	Operation with constant load; however, the motor does not reach the thermal steady state. During the following standstill, the motor winding cools down to the ambient temperature again. The increase in power depends on the load duration.



Intermittent operation S3	Non-intermittent periodic operation S6
Sequence of identical duty cycles comprising operation with a constant load and subsequent standstill. Start-up and braking processes do not have an impact on the winding temperature. The steady-state is not reached. The guide values apply to a cycle duration of 10 minutes. The power increase depends on the cycle duration and on the load period/downtime ratio.	Sequence of identical duty cycles comprising operation with a constant load and subsequent no-load operation. The motor cools down during the no-load phase. Start-up and braking processes do not have an impact on the winding temperature. The steady-state is not reached. The guide values apply to a cycle duration of 10 minutes. The power increase depends on the cycle duration and on the load period/idle time ratio.
P Power t Time t_L Idle time θ Temperature	P_V Power loss t_B Load period t_S Cycle duration

12.1.2 Enclosures

The protection class indicates the suitability of a product for specific ambient conditions with regard to humidity as well as the protection against contact and the ingress of foreign particles. The protection classes are classified in the EN IEC 60034-5/EN IEC 60529.

The first code number after the code letters IP indicates the protection against the ingress of foreign particles and dust. The second code number refers to the protection against the ingress of humidity.

Code number 1	Degree of protection	Code number 2	Degree of protection
0	No protection	0	No protection
1	Protection against the ingress of foreign particles $d > 50$ mm. No protection in case of deliberate access.	1	Protection against vertically dripping water (dripping water).
2	Protection against medium-sized foreign particles, $d > 12$ mm, keeping away fingers or the like.	2	Protection against diagonally falling water (dripping water), 15° compared to normal service position.
3	Protection against small foreign particles $d > 2.5$ mm. Keeping away tools, wires or the like.	3	Protection against spraying water, up to 60° from vertical.
4	Protection against granular foreign particles, $d > 1$ mm, keeping away tools, wire or the like.	4	Protection against spraying water from all directions.
5	Protection against dust deposits (dust-protected), complete protection against contact.	5	Protection against water jets from all directions.
6	Protection against the ingress of dust (dust-proof), complete protection against contact.	6	Protection against choppy seas or heavy water jets (flood protection).

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