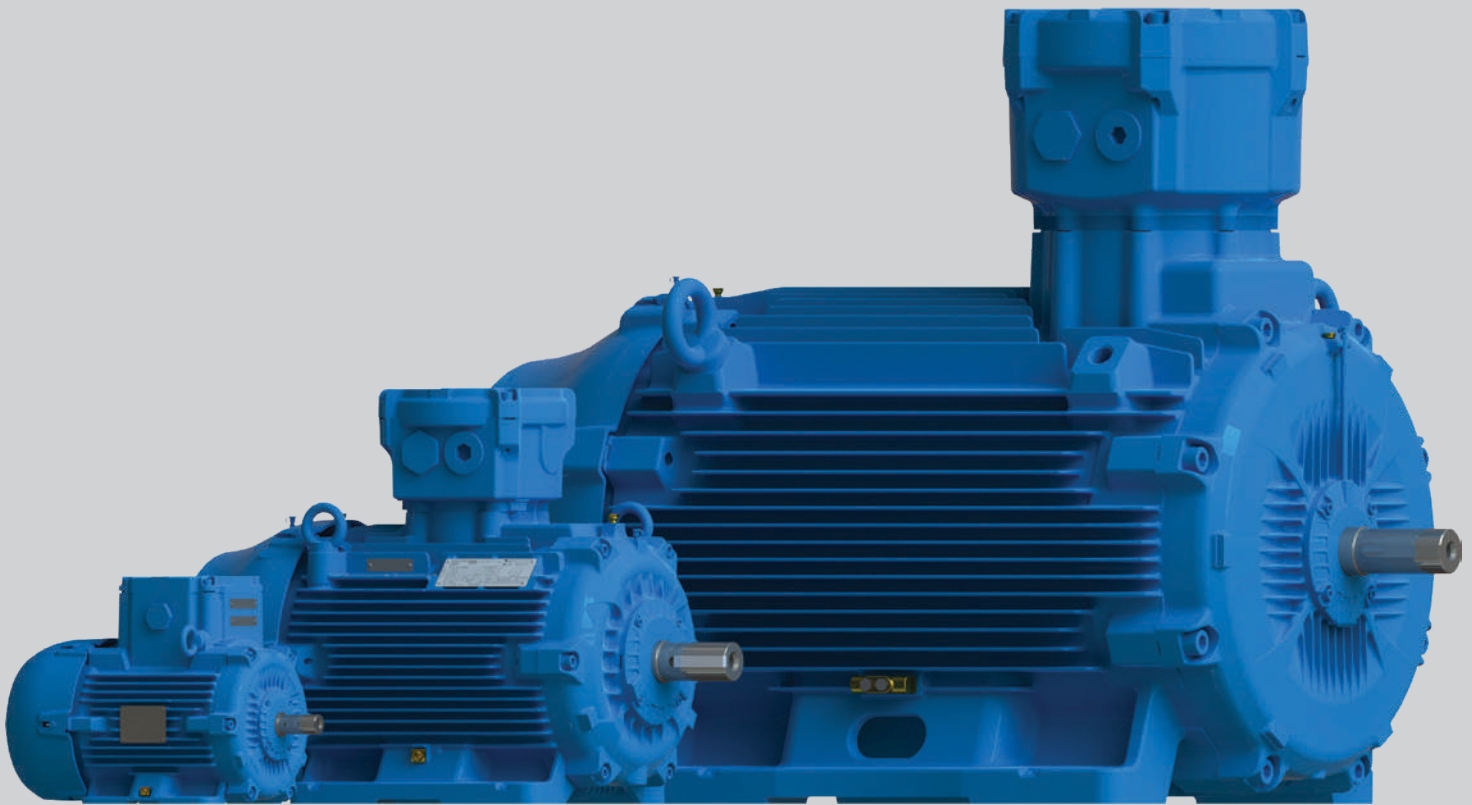


W22Xdb Flameproof Motors

High Efficiency Low Voltage
IEC Frame Sizes 71 to 355

Technical Catalogue
European Market



Motors | Automation | Energy | Transmission & Distribution | Coatings

W22Xdb Flameproof Motors

The W22Xdb line represents all that is modern in rotating equipment for explosive atmospheres.

As a result of intense research and development, WEG launches its new flameproof motor line, the W22Xdb. Incorporating the same innovative concepts of the W22 general purpose motors, the W22Xdb line is an evolution in the market of classified area products offering high efficiency levels, energy saving, low operational costs, extended lifetime, low maintenance and assured safety!

Learn more about the W22Xdb line including the benefits and advantages for your plant.



Standards and Classification of Explosive Atmospheres


ATEX Directives

The ATEX Directives were adopted by the European Union (EU) to simplify free trade between member states whilst aligning the technical and legal requirements for products utilised in potentially explosive atmospheres.

The ATEX Product Directive 2014/34/EU ("ATEX 114"), effective from 20th April 2016 (and replacing the former 94/9/EC or "ATEX 95"), places responsibilities on the equipment manufacturer, whereas the Worker Protection Directive 1999/92/EC - "ATEX 153" (formerly "ATEX 137") places obligations on the end user.

Manufacturers' products must comply with the Essential Health and Safety Requirements for equipment intended for use in potentially explosive atmospheres, and follow a Conformity Assessment Procedure.

This Procedure requires the manufacturer to obtain from a Notified Body ("Ex NB") an EC Type Examination Certificate for the relevant product(s), a Production Quality Assurance Notification (assessed and periodically audited by an ExNB) and the internal production control by the manufacturer to guarantee the products are in compliance with the ATEX Directive.

ATEX compliant products can be easily recognised by the explosion protection symbol  and the **CE** mark certifying conformity with the Product Directive. Directive 1999/92/EC ("ATEX 153") lays down the minimum requirements for improving the safety and health protection of workers at risk from explosive atmospheres, and also classifies the environment into zones and outlines which category of equipment can be used in each zone.

Further, the Directive highlights the responsibilities of End Users to assess potential risks of their workplaces and equipment, prepare an Explosion Protection Document and provide suitable warning signage for areas where explosive atmospheres may occur.

IECEx System

According to its website, www.iecex.com, the objective of the IECEx System is defined as the means "to facilitate international trade in equipment and services utilised in potentially explosive atmospheres, whilst maintaining the required level of safety".

The IECEx System is based on the use of International Electrotechnical Commission (IEC) standards, and is a certification system which verifies compliance to those standards associated with the safe use of equipment in installations where a potential risk of fire or explosion may exist.

Whilst it is voluntary, and differs for example from ATEX (where compliance is mandatory for equipment installed within the European Economic Area), the IECEx System is now accepted in many Countries around the globe, and aims to be the world approval system for electrical equipment intended for installation in potentially explosive atmospheres. Product Certification under the IECEx Scheme requires the involvement of an IECEx Approved Certification Body ("ExCB") to test products and samples according to IEC standards and issue the IECEx Test Report ("ExTR"). Additionally, it is mandatory to comply with a Quality Management System previously assessed to be in conformity with ISO 9001, following the specific Ex requirements of ISO/IEC80079-34.

An IECEx Quality Assessment Report ("QAR") is provided once the results of an on-site assessment of the manufacturer's quality management system has been conducted by the ExCB, and found to be in compliance with the requirements of the IECEx Certified Equipment Scheme and, most importantly, the document IECEx OD 005.

Thereafter, the ExCB will review and endorse the ExTR and QAR and then issue the IECEx Certificate of Conformity ("CoC").

IECEx certificates are issued electronically and are all available for viewing or printing on the IECEx public access website.



Hazardous Areas

According to the IEC 60079-10-1 and IEC 60079-10-2 standards, the definition of an Explosive Atmosphere is a “mixture with air, under atmospheric conditions, of flammable substances in the form of gas, vapors, dust, fibers, or flyings which, after ignition, permits self-sustaining propagation”.

A Hazardous Area is “an area in which an explosive atmosphere is or may be expected to be present, in quantities such as to require special precautions for the construction, installation and use of equipment”.

Explosions may occur either due to the transfer of flames or through overheating. For this reason, motors with flameproof protection are constructed in such a way as to prevent propagation of an internal explosion in to the hazardous area in which they are installed.

Hazardous areas are classified through Zones, Groups and Temperature Classes. The classifications according to the International Electrotechnical Commission (IEC) are shown below:

Classification per Zones: based upon the frequency of the occurrence and duration of an explosive atmosphere and based on the type of flammable material (gases/vapors or dusts):

- **IEC Zone 0 (gases/vapours) or 20 (dusts)**
An explosive atmosphere with continuous grade of release
- **IEC Zone 1 (gases/vapours) or 21 (dusts)**
An explosive atmosphere with primary grade of release
- **IEC Zone 2 (gases/vapours) or 22 (dusts)**
An explosive atmosphere with secondary grade of release

Zone 2/22: area in which an explosive atmosphere is not likely to occur in normal operation but, if it does occur, will persist for a short period only

Zone 1/21: area in which an explosive atmosphere is likely to occur in normal operation occasionally

Zone 0/20: area in which an explosive atmosphere is present continuously or for long periods or frequently

(not applicable for motors and generators)

Classification per Groups: subdivision according to the type of flammable material present.

IEC Group I: gases present in underground coal mines (example: methane)

IEC Group II: gases present in other explosive atmospheres. Group II subdivisions:

- **IEC Group IIA:** example: Propane
- **IEC Group IIB:** example: Ethylene
- **IEC Group IIC:** example: Hydrogen

IEC Group III: dusts

Group III subdivisions:

- **IEC Group IIIA:** solid particles, larger than 500 µm suspended - combustible dusts
- **IEC Group IIIB:** non-conductive dust, equal or smaller than 500 µm, with electrical resistivity less than or equal to 10³ Ω.m - grime
- **IEC Group IIIC:** conductive dust, equal or smaller than 500 µm, with electrical resistivity less than or equal to 10³ Ω.m - metallic dust

Classification per Temperature Classes: according to the temperature limitation, related to the ignition temperature of the flammable material present, IEC 60079-0 defines the limits for electrical equipment surface temperature for Groups I, II and III.

Group I - Underground Coal Mines (Methane and Coal Dust)

Conditions	Maximum surface temperature (°C)*
Where coal dust is not likely to form a layer	450
Where coal dust can form a layer	150

*On any surface of the enclosure.

Group II - Gases & Vapours

Temperature class	Maximum surface temperature (°C)
IEC	
T1	450
T2	300
T3	200
T4	135
T5	100
T6	85

Group III - Conductive Dusts

Conditions	Maximum surface temperature (°C)*
With dust layers	Maximum surface temperature of the apparatus must be determined for a given depth of dust layer
Without dust layers	Maximum surface temperature of the apparatus shall not exceed the assigned value. For W22Xdb motors the standard assigned temperature is T125 °C.

*On any surface of the enclosure.

Equipment Protection Levels - EPL

In addition to the traditional hazardous area classification of the IEC 60079-10-1 and IEC 60079-10-2, which considers the possibility of an explosion occurring, IEC 60079-0, has introduced a new risk assessment approach known as the “Equipment Protection Level” that considers, besides the hazardous location itself, the consequences of a possible explosion. The primary intent of the EPL is to allow flexibility in the use of equipment in the various zones. For example it may be appropriate to use Gc equipment in a Zone 1 area where the amount of flammable gas / vapour is small and the location is unmanned virtually all of the time. Conversely Gb equipment may be selected in Zone 2 to allow this equipment to be used in the event of a persistent emergency condition. IEC 60079-14 explains in detail how to use EPLs in a risk assessment.

The EPL designations are defined as follows:

First Indices

- M** - Mines
- G** - Gas
- D** - Dust

Second Indices

- a** - Equipment having a very high level of protection
- b** - Equipment having a high level of protection
- c** - Equipment having an enhanced high level of protection

Relationship between Groups, Zones and EPLs are detailed in the table below:

Group	Zone	EPL
Group I	-	Ma
		Mb
Group II	0	Ga
	1	Gb
	2	Gc
Group III	20	Da
	21	Db
	22	Dc

Protection

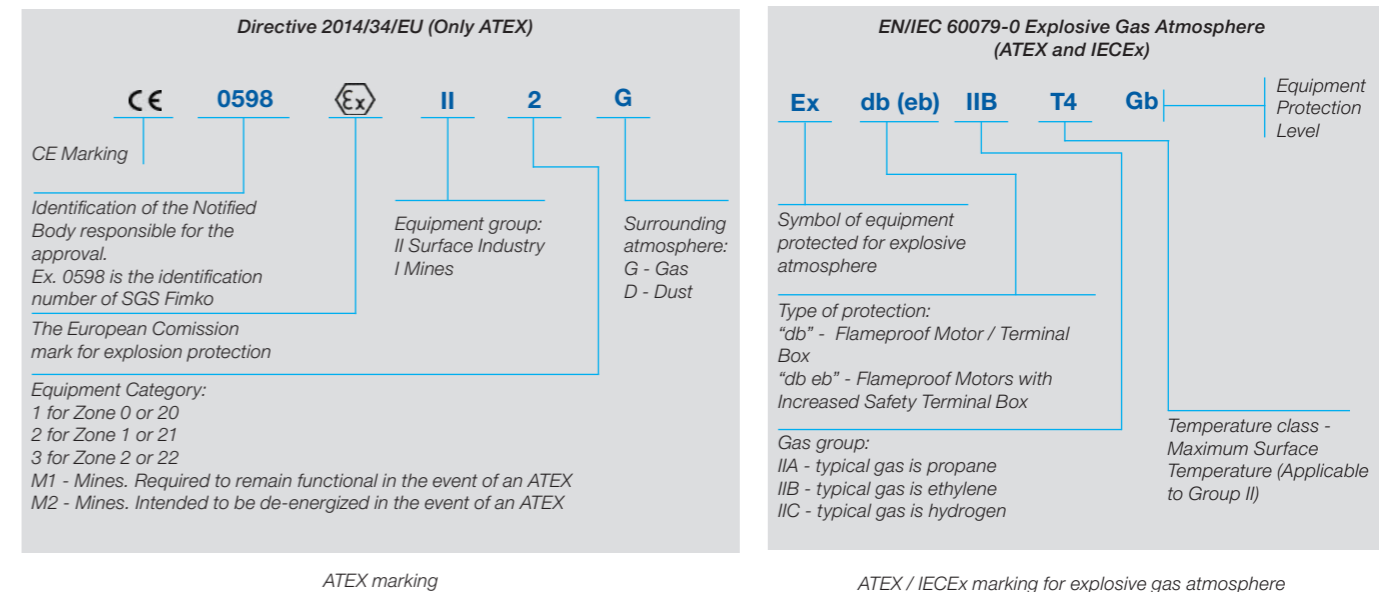
As standard the W22Xdb range was designed for operation in hazardous areas classified as IEC Zones 1 and 2, Groups IIA and IIB or IIA, IIB and IIC, Temperature Classification T4 and EPL Gb.

The W22Xdb also offers added protection against combustible dusts, for operation in hazardous areas classified as Zones 21 and 22, Groups IIIA, IIIB and IIIC and EPL Db.

Further, W22Xdb is prepared for operation in underground coal mines, Group I, Category M2 and EPL Mb.

Markings

The marking of Equipment meets the ATEX Directives and IECEx Scheme.



Features and Benefits

Concept

The mechanical design of the W22Xdb line is based on the highly successful W22 general purpose motor range, with the incorporation of some innovative new features, including: modern frame design with new fins and feet to ensure higher mechanical stiffness and excellent heat dissipation; redesigned endshields to reduce bearing operating temperatures thus increasing the re-lubrication intervals; and an advanced cooling system to reduce noise levels and significantly improve heat dissipation.

Energy Efficiency

Besides relying on the safe operation of the product, users of W22Xdb motors can also reduce their energy consumption and CO₂ emissions due to the technology employed and the levels of performance achieved.

The W22Xdb motor line was designed to meet the efficiency levels defined in IEC 60034-30-1. As standard the motors meet the IE2 High Efficiency level, with IE3 Premium and IE4 Super Premium Efficiency available as an option.

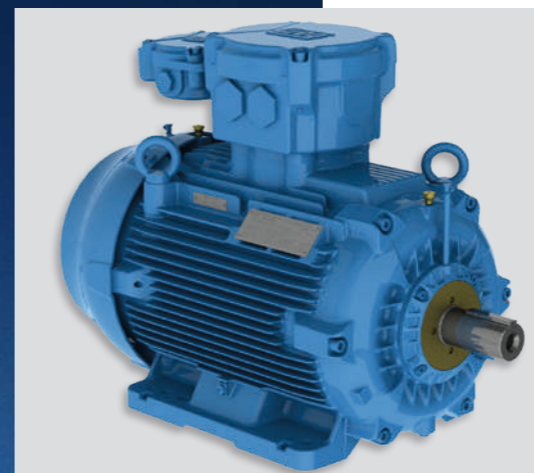
The ratios between rated power, speed and frame size of the new W22Xdb line follow the applicable parts of the IEC Standards 60034 and 60072. This ensures interchangeability with the existing WEG W21 flameproof line and, where replacing lower efficiency motors, offers users the means to achieve a rapid return on their investment.

Careful Construction

In designing the W22Xdb line, special consideration was given to the needs of Industry to reduce their operating costs.

Aside from the energy saving aspects afforded by these machines, a variety of carefully chosen features were incorporated as standard to ensure maximum performance and durability:

- IP56 degree of protection: an enhanced protection against the ingress of liquid contaminant agents into the motor enclosure.
- Space heaters: prevent accumulation of condensation inside the motor and maintain the winding insulation resistance within acceptable levels, thus prolonging the life of the motor.
- Eyebolts: ensuring safety to operators, offering easy handling, shipment and storage, and allowing the motors to meet specific local standards and directives regarding product lifting.
- Thermal protection: winding thermistors fitted as standard to protect the motor winding in case of overload.
- Paint finish: high performance polyurethane coating (respecting the C3 Medium criteria of the ISO 12944 standard) protects the motor surface even in the harshest of environments.



Versatility

The W22Xdb line incorporates a comprehensive range of options and accessories, enabling them to fulfil a variety of customer specifications without losing the primary focus on the safety of the application.

Among the most widely used accessories are winding or bearing thermal protections, additional terminal boxes for accessories, higher degrees of protection (up to IP66), sintered drain plugs for removal of condensed water, stainless steel shafts / hardware and enhanced painting systems.

W22Xdb motors can be supplied for mounting with feet, flanges or both, in horizontal or vertical orientations. Specifically for axial fan applications, they can be supplied without cooling fans and fan covers, and with loose leads in lieu of a terminal box.

Easy Installation and Simplified Maintenance

The W22Xdb concept also focuses on the provision of easier and safer installation and maintenance procedures. Integrally cast feet provide higher mechanical stiffness particularly suited to heavy duty applications, and frames 90 and above feature double drilled holes in order to simplify the replacement and retrofitting of existing motors. Extended lubrication intervals for W22Xdb motors are achieved due to the reduced bearing temperatures, a benefit obtained with the revolutionary motor cooling system, realized in this case by the endshield designs. To further extend bearing lifetime, motors in frame sizes 160 and above are supplied with grease fittings to permit re-lubrication. For all frame sizes, flat areas for placement of accelerometers are provided in both the vertical and horizontal planes, thus permitting easier monitoring of vibration levels. Additionally for motor frame sizes 160 and above, SPM nipples/adaptors are provided as standard.

Variable Frequency Drives Operation

The use of VFD's is recognized as one of the major driving forces behind energy saving due to their ability to adjust the motor's output to best suit load requirements.

For this reason, W22Xdb motors are equipped with the WISE[®] insulation (WEG Insulation System Evolution) which permits them to operate with variable frequency drives (VFD's) at voltages up to 690V.

To further enhance their use with VFD's, Insulated Bearings and Shaft Grounding Rings are available. Additionally, for operation at low frequencies the W22Xdb line can be produced in TEBC versions (with forced ventilation) or fitted with an Encoder¹ for applications which require precise positioning operations.

Due to their outstanding performance, W22Xdb motors are capable of maintaining the T4 temperature class even when driven by a VFD².

¹) Encoder must be compatible with the hazardous location.

²) For VFD operation, output power derating must be considered.



W22Xd Products for Hazardous Areas

Standard Version

- **W22Xdb** - Flameproof motors (Ex db) - suitable for Zones 1 and 2, Gas groups IIA and IIB
- Temperature class: T4
- Certifying body: BASEEFA or INERIS
- Directives / Standards: ATEX / IECEx
- Efficiency level: High Efficiency - IE2 according standard IEC 60034-30-1
- Rated outputs: 0.12 to 370 kW
- Suitable for variable frequency drive operation*
- Ambient temperature: -20 °C to +40 °C

**For the application of hazardous atmosphere motors with frequency inverters please contact the nearest WEG office.*

Optional Versions / Features on Request:

- Flameproof motors with increased safety terminal box (Ex db eb) - suitable for Zones 1 & 2, Gas groups IIA and IIB
- Flameproof / Dust Ignition Proof motors (Ex db / Ex tb) - suitable for Zones 1 & 2 / 21 & 22, Gas / Dust groups IIA, IIB / IIIA, IIIB, IIIC
- Flameproof / Dust Ignition Proof motors with increased safety terminal box (Ex db eb / Ex tb) - suitable for Zones 1 & 2 / 21 & 22, Gas / Dust groups IIA, IIB / IIIA, IIIB, IIIC
- Flameproof motors (Ex db) - suitable for Zones 1 & 2, Gas groups IIA, IIB, IIC
- Flameproof motors with increased safety terminal box (Ex db eb) - suitable for Zones 1 & 2, Gas groups IIA, IIB, IIC
- Flameproof / Dust Ignition Proof motors (Ex db / Ex tb) - suitable for Zones 1 & 2 / 21 & 22, Gas / Dust groups IIA, IIB, IIC / IIIA, IIIB, IIIC
- Flameproof / Dust Ignition Proof motors with increased safety terminal box (Ex db eb / Ex tb) - suitable for Zones 1 & 2 / 21 & 22, Groups IIA, IIB, IIC / IIIA, IIIB, IIIC
- Flameproof motors (Ex db) - suitable for Group I mining
- Flameproof motors with increased safety terminal box (Ex db eb) - suitable for Group I mining
- Temperature class: T5 or T6
- Efficiency levels: Super Premium Efficiency - IE4
Premium Efficiency - IE3
Standard Efficiency - IE1
- Ambient temperature: -55 °C to +80 °C
- Certification according TR/CU (EAC Ex), INMETRO, ANZEx, CERTEX, PESO/CCoE, SONCAP, SASO, MASC.

Meet the Other Members of the W22X Family

W22Xeb

Increased safety Level of protection "eb" motors (Ex eb machines)
For use in areas classified as Zone 1 and 2
Power ratings 0.18 kW to 250 kW
Frames: 63 to 355M/L
Voltage: up to 690 V

W22Xec

Increased safety level of protection "ec" motors/dust ignition proof motors (Ex ec/Ex tc machines)
For use in areas classified as Zone 2 and 22
Power ratings 0.12 kW to 450 kW
Frames 63 to 355A/B
Voltage: up to 690 V

Other WEG Industrial Motors for Hazardous Locations

Pressurized Motors (Ex p machines)

For use in areas classified as Zone 1 and 2
Power ratings up to 50,000 kW (other outputs upon request)
Frames 280 to 1800
Voltages: up to 13,800 V

W22Xtb

Dust ignition proof motors (Ex tb machines)
For use in areas classified as Zone 2
Power ratings 0.12 kW to 450 kW
Frames 63 to 355A/B
Voltage: up to 690 V

W22Xdb High Voltage

Flameproof motors (Ex db/Ex db eb machines)
For use in areas classified as Zone 1 and 2
Power ratings 75 kW to 9,000 kW
Frames 315 to 1000
Voltage: up to 11,000 V

HGF Ex ec

Increased safety level of protection "ec" (Ex ec machines)
For use in areas classified as Zone 2
Power ratings 75 kW to 3150 kW
Frames: 315L/A/B to 630
Voltage: up to 11,000 V

Please visit us at www.weg.net to find out more about WEG hazardous area products.

Construction Features

Frame		71	80	90S/L	100L	112M	132S/M	
General features								
Certification		ATEX, IECEx						
Nameplate marking		Ex db IIB T4 Gb or Ex db IIC T4 Gb						
Ambient temperature range		-20°C up to +40°C						
Temperature class		T4						
Mechanical features								
Mounting form		Horizontal Foot (IM B3T)						
Frame Material		FC-200 (EN GJL 200) Cast iron						
Degree of protection		IP56						
Grounding		Double grounding - one inside the terminal box and one on the frame						
Cooling method		Totally enclosed fan cooled - IC411						
Fan material		Aluminum						
Fan cover material		FC-200 (EN GJL 200) Cast iron						
Endshields material		FC-200 (EN GJL 200) Cast iron						
Bearings	Drive end side	2p 4 - 12p	6202-ZZ	6204-ZZ	6205-ZZ	6206-ZZ	6207-ZZ	6308-ZZ
	Non drive end side	2p 4 - 12p		6203-ZZ	6204-ZZ	6205-ZZ	6206-ZZ	6207-ZZ
Locking		Fixed at DE with spring washer at NDE		Fixed at DE with external bearing cap and spring washer at NDE				
Shaft Seal		Nitrile rubber Oil Seal at DE / Lip Seal at NDE						
Joints seal		Lumomoly						
Lubrication	Type of grease	Mobil Polyrex EM						
	Grease fitting	Without grease fitting						
Terminal block		BMC 6 terminals						
Terminal box material		FC-200 (EN GJL 200) Cast iron						
Cable entries	Main	Size	M25x1.5		M32x1.5			
	Threaded plug		Plastic					
	Accessory	Size	2xM20x1.5 lateral holes (with certified threaded plugs)					
Shaft	Material		AISI 1040/45					
	DE Threaded hole	2p 4 - 12p	M5	M6	M8	M10	M12	
	Key type		A					
	Direction of rotation		Bidirectional					
Vibration level		Grade A						
Balance	2p	Without		With half key				
	4 - 12p	Without	With half key					
Nameplate material		Stainless steel AISI 304						
Painting	Type	205P						
	Performance	C3 Medium criteria of the ISO 12944 Standards						
	Colour	IE2 and IE3 Motors: RAL 5009 IE4 Motors: RAL 6002						
Electrical features								
Design		N						
Voltage / Frequency	IE2 and IE3	220-240/380-415 // 460 V (50 // 60Hz)			380-415/660-690 // 460 V (50//60Hz)			
	IE4	NA			400/690 // 460 V (50//60Hz)			
Winding	Impregnation	Dip and bake						
	Insulation class	F (DT 80K)						
Service factor		1.00						
Rotor		Aluminium die cast						
Thermal protection		Thermistor PTC, 1 per phase, for tripping at 150°C						
Space Heater	Voltage	200-240 V						
	Output	7,5 W	11 W	22 W	30 W			

Frame		160M/L	180M/L	200M/L	225S/M	250S/M	280S/M	315S/M	315L	355M/L	
General features											
Certification		ATEX, IECEx									
Nameplate marking		Ex db IIB T4 Gb or Ex db IIC T4 Gb									
Ambient temperature range		-20°C up to +40°C									
Temperature class		T4									
Mechanical features											
Mounting form		Horizontal Foot (IM B3T)									
Frame material		FC-200 (EN GJL 200) Cast iron									
Degree of protection		IP56									
Grounding		Double grounding - one inside the terminal box and one on the frame									
Cooling method		Totally enclosed fan cooled - IC411									
Fan material		Aluminum									
Fan cover material		FC-200 (EN GJL 200) Cast iron									
Endshields material		FC-200 (EN GJL 200) Cast iron									
Bearings	Drive end side	2p 4 - 12p	6309-C3	6311-C3	6312-C3	6314-C3	6314-C3	6314-C3	6314-C3	6314-C3	6316-C3
	Non drive end side	2p 4 - 12p	6308-C3	6309-C3	6212-C3			6316-C3	6319-C3	6319-C3	6314-C3
Locking		Fixed at DE with external bearing cap and spring washer at NDE			Fixed at DE with external and internal bearing cap and spring washer at NDE						
Shaft Seal		Nitrile rubber Oil Seal at DE / Lip Seal at NDE			Viton Oil Seal						
Joints seal		Lumomoly									
Lubrication	Type of grease	Mobil Polyrex EM									
	Grease fitting	With grease fitting									
Terminal block		BMC 6 terminals			Ex d bushing isolator						
Terminal box material		FC-200 (EN GJL 200) Cast iron									
Cable entries	Main	Size	2xM40x1.5		2xM50x1.5		2 x M63 x 1.5				
	Threaded plug		1xPlastic + 1xCertified								
	Accessory	Size	2 x M20 x 1.5 lateral holes (with certified threaded plugs)								
Shaft	Material		AISI 1040/45						AISI 4140		
	DE Threaded hole	2p 4 - 12p	M16	M16	M20	M20	M20	M20	M20	M20	M20
	Key type		A			B					
	Direction of rotation		Bidirectional								
Vibration level		Grade A									
Balance	2p	Without		With half key							
	4 - 12p	Without	With half key								
Nameplate material		Stainless steel AISI 304									
Painting	Type	205P									
	Performance	C3 Medium criteria of the ISO 12944 Standards									
	Colour	IE2 and IE3 Motors: RAL 5009 IE4 Motors: RAL 6002									
Electrical features											
Design		N									
Voltage / Frequency	IE2 and IE3	380-415/660-690 // 460 V (50//60Hz)			400/690 // 460 V (50//60Hz)						
	IE4	NA			400/690 // 460 V (50//60Hz)						
Winding	Impregnation	Dip and bake			Continuous flow						
	Insulation class	F (DT 80K)									
Service factor		1.00									
Rotor		Aluminium die cast									
Thermal protection		Thermistor PTC, 1 per phase, for tripping at 150°C									
Space Heater	Voltage	200-240 V									
	Output	30 W	38 W	56 W	140 W			174 W			

Optional Features

Frame	71	80	90S/L	100L	112M	132S/M
General features						
Nameplate marking						
Ex db eb IIB T4 Gb	NA	NA	0	0	0	0
Ex db eb IIC T4 Gb	NA	NA	0	0	0	0
Ex db I Mb	0	0	0	0	0	0
Ex db eb I Mb	NA	NA	0	0	0	0
Ex tb IIC T125°C Db IP6X	0	0	0	0	0	0
Ambient temperature design						
-20°C to -40°C	0	0	0	0	0	0
-40°C to -55°C	0	0	0	0	0	0
-20°C to +50°C	0	0	0	0	0	0
-20°C to +60°C	0	0	0	0	0	0
-20°C to +70°C	0	0	0	0	0	0
-20°C to +80°C	0	0	0	0	0	0
Temperature Class						
T5	0	0	0	0	0	0
T6	0	0	0	0	0	0
Certifications						
EAC Ex	0	0	0	0	0	0
INMETRO	0	0	0	0	0	0
PESO / CCOE	0	0	0	0	0	0
ANZEx	0	0	0	0	0	0
SASO	0	0	0	0	0	0
SONCAP	0	0	0	0	0	0
MASC	0	0	0	0	0	0
VIK Execution	0	0	0	0	0	0
Mechanical options						
Terminal box						
Auxiliary terminal box (thermal protection)	NA	NA	0	0	0	0
Terminal block						
Ex db eb Increased Safety terminal block	NA	NA	0	0	0	0
Ex db eb increased safety bushing isolator	NA	NA	NA	NA	NA	NA
Cable glands						
Ex db / Ex db eb cable glands (brass)	0	0	0	0	0	0
Mounting						
Flange FF (IEC)	0	0	0	0	0	0
Flange FF (IEC) - superior	0	0	0	0	0	0
Flange FF (IEC) - inferior	NA	NA	0	0	0	0
Flange C-DIN (IEC)	0	0	0	0	0	0
Flange C-DIN (IEC) - superior	0	0	0	0	0	0
Flange C-DIN (IEC) - inferior	0	0	0	0	0	0
Flange C (NEMA)	0	0	0	0	0	0
Flange D (NEMA)	NA	0	0	0	0	0
Dowel pins	NA	NA	0	0	0	0
Cooling fan						
Cast iron	0	0	0	0	0	0
Bronze	0	0	0	0	0	0
Bearings						
2RS ball bearings at both ends	0	0	0	0	0	0
ZZ ball bearings at both ends	S	S	S	S	S	S
Shaft sealing						
Viton seal (IP56)	0	0	0	0	0	0
Lip seal for low temperature	0	0	0	0	0	0
Oil seal for low temperature	0	0	0	0	0	0
Taconite labyrinth (IP65, IP56)	NA	NA	0	0	0	0
W3 Seal (IP65, IP56, IP66)	NA	NA	0	0	0	0
Joints / Bolts sealing						
Molykote DC 33 (joint sealing)	0	0	0	0	0	0
Lumomoly (bolt sealing)	0	0	0	0	0	0

S (Standard) / NA (Not available) / O (Optional)

Frame	160M/L	180M/L	200M/L	225S/M	250S/M	280S/M	315S/M	315L	355M/L
General features									
Nameplate marking									
Ex db eb IIB T4 Gb	0	0	0	0	0	0	0	0	0
Ex db eb IIC T4 Gb	0	0	0	0	0	0	0	0	0
Ex db I Mb	0	0	0	0	0	0	0	0	0
Ex db eb I Mb	0	0	0	0	0	0	0	0	0
Ex tb IIC T125°C Db IP6X	0	0	0	0	0	0	0	0	0
Ambient temperature design									
-20°C to -40°C	0	0	0	0*	0*	0*	0*	0*	0*
-40°C to -55°C	0	0	0	0*	0*	0*	0*	0*	0*
-20°C to +50°C	0	0	0	0	0	0	0	0	0
-20°C to +60°C	0	0	0	0	0	0	0	0	0
-20°C to +70°C	0	0	0	0	0	0	0	0	0
-20°C to +80°C	0	0	0	0	0	0	0	0	0
Temperature Class									
T5	0	0	0	0	0	0	0	0	0
T6	0	0	0	0	0	0	0	0	0
Certifications									
EAC Ex	0	0	0	0	0	NA	NA	NA	NA
INMETRO	0	0	0	0	0	0	0	0	0
PESO / CCOE	0	0	0	0	0	NA	NA	NA	NA
ANZEx	0	0	0	0	0	NA	NA	NA	NA
SASO	0	0	0	0	0	0	0	0	0
SONCAP	0	0	0	0	0	0	0	0	0
MASC	0	0	0	NA	NA	NA	NA	NA	NA
VIK Execution	0	0	0	0	0	0	0	0	0
Mechanical options									
Terminal box									
Auxiliary terminal box (thermal protection)	0	0	0	0	0	0	0	0	0
Terminal block									
Ex db eb Increased Safety terminal block	0	0	0	0	0	NA	NA	NA	NA
Ex db eb increased safety bushing isolator	NA	NA	NA	NA	NA	0	0	0	0
Cable glands									
Ex db / Ex db eb cable glands (brass)	0	0	0	0	0	0	0	0	0
Mounting									
Flange FF (IEC)	0	0	0	0	0	0	0	0	0
Flange FF (IEC) - superior	0	0	0	0	0	0	NA	NA	NA
Flange FF (IEC) - inferior	0	0	0	0	0	0	0	0	0
Flange C-DIN (IEC)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Flange C-DIN (IEC) - superior	NA	NA	NA	NA	NA	NA	NA	NA	NA
Flange C-DIN (IEC) - inferior	NA	NA	NA	NA	NA	NA	NA	NA	NA
Flange C (NEMA)	0	0	0	0	0	0	0	0	0
Flange D (NEMA)	0	0	0	0	0	0	0	0	0
Dowel pins	0	0	0	0	0	0	0	0	0
Cooling fan									
Cast iron	0	0	0	0	0	0	0	0	0
Bronze	0	0	0	0	0	0	0	0	0
Bearings									
2RS ball bearings at both ends	0	0	0	NA	NA	NA	NA	NA	NA
ZZ ball bearings at both ends	0	0	0	NA	NA	NA	NA	NA	NA
Shaft sealing									
Viton seal (IP56)	0	0	0	0	0	0	0	0	0
Lip seal for low temperature	0	0	0	0	0	0	0	0	0
Oil seal for low temperature	0	0	0	0	0	NA	NA	NA	NA
Taconite labyrinth (IP65, IP56)	0	0	0	0	0	0	0	0	0
W3 Seal (IP65, IP56, IP66)	0	0	0	0	0	0	0	0	0
Joints / Bolts sealing									
Molykote DC 33 (joint sealing)	0	0	0	0	0	0	0	0	0
Lumomoly (bolt sealing)	0	0	0	0	0	0	0	0	0

* Refer to WEG for IIB designs in frames 280-355 and IIC designs in frames 225-355.

Frame	71	80	90S/L	100L	112M	132S/M
Shaft						
AISI 1040/45	S	S	S	S	S	S
AISI 4140	0	0	0	0	0	0
AISI 304 (Stainless Steel)	0	0	0	0	0	0
AISI 316 (Stainless Steel)	0	0	0	0	0	0
AISI 420 (Stainless Steel)	0	0	0	0	0	0
Shaft Locking Device	NA	NA	NA	NA	NA	0
Second Shaft End	0	0	0	0	0	0
Degree of protection						
IP65	0	0	0	0	0	0
IP66	0	0	0	0	0	0
IPW56	0	0	0	0	0	0
IPW65	0	0	0	0	0	0
IPW66	0	0	0	0	0	0
Grease / lubrication						
Grease Aeroshell 22	0	0	0	0	0	0
Grease Aeroshell 7	0	0	0	0	0	0
Grease Isoflex NBU 15	0	0	0	0	0	0
Carbon steel grease nipple	NA	NA	0	0	0	0
Carbon steel grease nipple (extended)	NA	NA	NA	NA	NA	NA
Stainless steel grease nipple	NA	NA	0	0	0	0
Stainless steel grease nipple (extended)	NA	NA	NA	NA	NA	NA
Painting and protection*						
211E (epoxy) - Meets atmospheric corrosive categories C5 (I and M) as indicated in DIN EN ISO 12944-2	0	0	0	0	0	0
211P (polyurethane) - Meets atmospheric corrosive categories C5 (I and M) as indicated in DIN EN ISO 12944-2	0	0	0	0	0	0
212E (epoxy) - Meets atmospheric corrosive categories C5 (I and M) as indicated in DIN EN ISO 12944-2	0	0	0	0	0	0
212P (polyurethane) - Meets atmospheric corrosive categories C5 (I and M) as indicated in DIN EN ISO 12944-2	0	0	0	0	0	0
214P (polyurethane) - Meets atmospheric corrosive categories C5 (I and M) as indicated in DIN EN ISO 12944-2	0	0	0	0	0	0
Inside of terminal box painted	0	0	0	0	0	0
Internal tropical protection - complete	0	0	0	0	0	0
Balance and Vibration						
Vibration level grade B	0	0	0	0	0	0
Provision for vibration detector SPM	0	0	0	0	0	0
Balance without key	NA	0	0	0	0	0
Balance with full key	NA	0	0	0	0	0
Key type C	0	0	0	0	0	0
Special foot flatness (0,127 mm)	0	0	0	0	0	0
Drain						
Certified Ex d drain plugs (not Ex d l)	0	0	0	0	0	0
Grounding						
Double grounding + accessory (1 in terminal box + 2 on frame)	0	0	0	0	0	0
Larger Grounding	0	0	0	0	0	0
Nameplates						
VSD rating plate	0	0	0	0	0	0
Direction of Rotation plate	0	0	0	0	0	0
Additional / Tag plate	0	0	0	0	0	0
Second main nameplate (loose)	0	0	0	0	0	0

S (Standard) / NA (Not available) / O (Optional)

*For IIC and painting >250 µm, beware of risk of electrostatic discharge. Refer to WEG Instruction Manual.

Frame	160M/L	180M/L	200M/L	225S/M	250S/M	280S/M	315S/M	315L	355M/L
Shaft									
AISI 1040/45	S	S	S	S	S	S	0	0	0
AISI 4140	0	0	0	0	0	0	S	S	S
AISI 304 (Stainless Steel)	0	0	0	0	0	0	0	0	0
AISI 316 (Stainless Steel)	0	0	0	0	0	0	0	0	0
AISI 420 (Stainless Steel)	0	0	0	0	0	0	0	0	0
Shaft Locking Device	0	0	0	0	0	0	0	0	0
Second Shaft End	0	0	0	0	0	0	0	0	0
Degree of protection									
IP65	0	0	0	0	0	0	0	0	0
IP66	0	0	0	0	0	0	0	0	0
IPW56	0	0	0	0	0	0	0	0	0
IPW65	0	0	0	0	0	0	0	0	0
IPW66	0	0	0	0	0	0	0	0	0
Grease / lubrication									
Grease Aeroshell 22	0	0	0	0	0	0	0	0	0
Grease Aeroshell 7	0	0	0	0	0	0	0	0	0
Grease Isoflex NBU 15	0	0	0	0	0	0	0	0	0
Carbon steel grease nipple	S	S	S	S	S	S	S	S	S
Carbon steel grease nipple (extended)	NA	NA	NA	0	0	0	0	0	0
Stainless steel grease nipple	0	0	0	0	0	0	0	0	0
Stainless steel grease nipple (extended)	NA	NA	NA	0	0	0	0	0	0
Painting and protection*									
211E (epoxy) - Meets atmospheric corrosive categories C5 (I and M) as indicated in DIN EN ISO 12944-2	0	0	0	0	0	0	0	0	0
211P (polyurethane) - Meets atmospheric corrosive categories C5 (I and M) as indicated in DIN EN ISO 12944-2	0	0	0	0	0	0	0	0	0
212E (epoxy) - Meets atmospheric corrosive categories C5 (I and M) as indicated in DIN EN ISO 12944-2	0	0	0	0	0	0	0	0	0
212P (polyurethane) - Meets atmospheric corrosive categories C5 (I and M) as indicated in DIN EN ISO 12944-2	0	0	0	0	0	0	0	0	0
214P (polyurethane) - Meets atmospheric corrosive categories C5 (I and M) as indicated in DIN EN ISO 12944-2	0	0	0	0	0	0	0	0	0
Inside of terminal box painted	0	0	0	0	0	0	0	0	0
Internal tropical protection - complete	0	0	0	0	0	0	0	0	0
Balance and Vibration									
Vibration level grade B	0	0	0	0	0	0	0	0	0
Provision for vibration detector SPM	S	S	S	S	S	S	S	S	S
Balance without key	0	0	0	0	0	0	0	0	0
Balance with full key	0	0	0	0	0	0	0	0	0
Key type C	0	0	0	0	0	0	0	0	0
Special foot flatness (0,127 mm)	0	0	0	0	0	0	0	0	0
Drain									
Certified Ex d drain plugs (not Ex d l)	0	0	0	0	0	0	0	0	0
Grounding									
Double grounding + accessory (1 in terminal box + 2 on frame)	0	0	0	0	0	0	NA	NA	NA
Larger Grounding	0	0	0	0	0	0	NA	NA	NA
Nameplates									
VSD rating plate	0	0	0	0	0	0	0	0	0
Direction of Rotation plate	0	0	0	0	0	0	0	0	0
Additional / Tag plate	0	0	0	0	0	0	0	0	0
Second main nameplate (loose)	0	0	0	0	0	0	0	0	0

Frame	71	80	90S/L	100L	112M	132S/M
Other mechanical options						
Stainless steel hardware (nuts & bolts)	0	0	0	0	0	0
Stainless steel fan cover	0	0	0	0	0	0
Canopy (mandatory for vertical shaft down applications and all Group I machines)	0	0	0	0	0	0
Slinger (vertical shaft up applications)	0	0	0	0	0	0
Grease outlet through the endshield	NA	NA	0	0	0	0
Grease outlet by plastic plug	NA	NA	0	0	0	0
Without cooling fan - IC 418 (TEAO)	0	0	0	0	0	0
Without cooling fan - IC 410 (TENV)	0	0	0	0	0	0
Electrical options						
Winding thermal protection						
Thermostat - alarm / trip (NO or NC)	0	0	0	0	0	0
PT100 two wires, one per phase	NA	NA	0	0	0	0
PT100 two wires, two per phase	NA	NA	0	0	0	0
PT100 three wires, one per phase	NA	NA	0	0	0	0
PT100 three wires, two per phase	NA	NA	0	0	0	0
PTC thermistors (alarm)	0	0	0	0	0	0
Thermocouple - alarm / trip	0	0	0	0	0	0
KTY 84 sensor	0	0	0	0	0	0
Bearing thermal protection						
PTC thermistor	0	0	0	0	0	0
PT100 two wires, one per bearing	0	0	0	0	0	0
PT100 three wires, one per bearing	0	0	0	0	0	0
Space heaters						
110-127 V	0	0	0	0	0	0
200-240 V	S	S	S	S	S	S
110-127 / 220-240 V	0	0	0	0	0	0
380-480 V	0	0	0	0	0	0
Service factor						
1.15	0	0	0	0	0	0
1.25	0	0	0	0	0	0
Insulation class						
H	0	0	0	0	0	0
Variable Speed Options						
Insulated DE or NDE bearing	NA	NA	NA	NA	NA	NA
Forced ventilation kit with encoder provision	0	0	0	0	0	0
Forced ventilation kit without encoder provision	0	0	0	0	0	0
Encoder	0	0	0	0	0	0
Drive end shaft grounding ring	NA	NA	0	0	0	0
Non drive end shaft grounding ring	NA	NA	0	0	0	0

S (Standard) / NA (Not available) / O (Optional)

Frame	160M/L	180M/L	200M/L	225S/M	250S/M	280S/M	315S/M	315L	355M/L
Other mechanical options									
Stainless steel hardware (nuts & bolts)	0	0	0	0	0	0	0	0	0
Stainless steel fan cover	0	0	0	0	0	0	0	0	0
Canopy (mandatory for vertical shaft down applications and all Group I machines)	0	0	0	0	0	0	0	0	0
Slinger (vertical shaft up applications)	0	0	0	0	0	0	0	0	0
Grease outlet through the endshield	0	0	0	0	0	0	0	0	0
Grease outlet by plastic plug	0	0	0	NA	NA	NA	NA	NA	NA
Without cooling fan - IC 418 (TEAO)	0	0	0	0	0	0	0	0	0
Without cooling fan - IC 410 (TENV)	0	0	0	0	0	0	0	0	0
Electrical options									
Winding thermal protection									
Thermostat - alarm / trip (NO or NC)	0	0	0	0	0	0	0	0	0
PT100 two wires, one per phase	0	0	0	0	0	0	0	0	0
PT100 two wires, two per phase	0	0	0	0	0	0	0	0	0
PT100 three wires, one per phase	0	0	0	0	0	0	0	0	0
PT100 three wires, two per phase	0	0	0	0	0	0	0	0	0
PTC thermistors (alarm)	0	0	0	0	0	0	0	0	0
Thermocouple - alarm / trip	0	0	0	0	0	0	0	0	0
KTY 84 sensor	0	0	0	0	0	0	0	0	0
Bearing thermal protection									
PTC thermistor	0	0	0	0	0	0	0	0	0
PT100 two wires, one per bearing	0	0	0	0	0	0	0	0	0
PT100 three wires, one per bearing	0	0	0	0	0	0	0	0	0
Space heaters									
110-127 V	0	0	0	0	0	0	0	0	0
200-240 V	S	S	S	S	S	S	S	S	S
110-127 / 220-240 V	0	NA	NA	NA	NA	NA	NA	NA	NA
380-480 V	0	0	0	0	0	0	0	0	0
Service factor									
1.15	0	0	0	0	0	0	0	0	0
1.25	0	0	0	0	0	0	0	0	0
Insulation class									
H	0	0	0	0	0	0	0	0	0
Variable Speed Options									
Insulated DE or NDE bearing	0	0	0	0	0	0	0	0	0
Forced ventilation kit with encoder provision	0	0	0	0	0	0	0	0	0
Forced ventilation kit without encoder provision	0	0	0	0	0	0	0	0	0
Encoder	0	0	0	0	0	0	0	0	0
Drive end shaft grounding ring	0	NA	0	0	0	0	0	0	0
Non drive end shaft grounding ring	0	0	0	0	0	0	0	0	0



Electrical Data
W22Xdb - High Efficiency - IE2

Output		Frame	Full load torque (Nm)	Locked rotor current I _L /I _n	Locked rotor torque T _L /T _n	Break-down torque T _b /T _n	Inertia J (kgm ²)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	Rated speed (rpm)	400 V						Full load current I _n (A)
								% of full load					Efficiency			Power factor			
								Hot	Cold				50	75	100	50	75	100	
0,37	0,5	71	1,25	5,8	2,5	2,6	0,0004	12	26	18,4	56,0	2830	68,0	70,0	71,0	0,60	0,75	0,84	0,895
0,55	0,75	71	1,89	5,8	2,4	2,4	0,0005	9	20	19,5	56,0	2780	73,0	74,1	74,1	0,68	0,82	0,88	1,22
0,75	1	80	2,53	6,5	2,7	2,7	0,0008	14	31	23,0	59,0	2830	76,0	78,5	79,5	0,65	0,78	0,85	1,60
1,1	1,5	80	3,72	6,0	2,8	2,7	0,0009	10	22	24,0	59,0	2825	78,0	79,5	79,6	0,60	0,74	0,83	2,40
1,5	2	90S/L	4,98	7,0	2,5	2,8	0,0021	7	15	44,0	64,0	2880	80,0	82,0	82,0	0,63	0,76	0,83	3,18
2,2	3	90S/L	7,40	6,6	3,0	3,0	0,0022	9	20	45,0	64,0	2840	83,0	83,6	83,6	0,63	0,76	0,83	4,58
3	4	100L	9,85	8,0	2,5	3,5	0,0064	7	15	52,0	67,0	2910	84,0	85,0	85,0	0,70	0,81	0,86	5,92
4	5,5	112M	13,2	7,0	2,3	2,8	0,0088	10	22	68,0	64,0	2895	86,0	86,0	86,0	0,73	0,83	0,88	7,63
5,5	7,5	132S/M	17,9	6,8	2,2	3,0	0,0197	17	37	99,4	67,0	2930	85,0	87,0	87,2	0,68	0,79	0,85	10,7
7,5	10	132S/M	24,6	6,8	2,2	2,9	0,0252	13	29	99,0	67,0	2910	88,0	88,5	88,5	0,72	0,82	0,87	14,1
9,2	12,5	132S/M	30,2	7,6	2,5	3,2	0,0234	7	15	97,0	67,0	2915	88,5	89,0	89,0	0,70	0,81	0,86	17,3
11	15	160M/L	35,7	7,5	2,5	3,3	0,0446	13	29	180	67,0	2945	90,0	90,6	90,5	0,71	0,82	0,86	20,4
15	20	160M/L	48,8	7,4	2,6	3,1	0,0517	9	20	188	67,0	2940	91,0	91,3	91,3	0,71	0,81	0,86	27,6
18,5	25	160M/L	60,0	8,5	3,1	3,7	0,0625	8	18	176	67,0	2945	91,3	92,0	92,0	0,70	0,80	0,86	33,7
22	30	180M/L	71,4	7,3	2,2	3,0	0,0975	9	20	228	67,0	2945	92,0	92,4	92,2	0,76	0,84	0,88	39,1
30	40	200M/L	97,0	6,8	2,7	2,7	0,1625	17	37	287	72,0	2955	92,5	93,0	92,9	0,75	0,83	0,87	53,6
37	50	200M/L	120	6,8	2,6	2,6	0,1950	16	35	310	72,0	2955	93,0	93,4	93,3	0,76	0,84	0,87	65,8
45	60	225S/M	145	8,0	2,4	3,1	0,2490	12	26	478	75,0	2970	93,3	93,6	93,6	0,75	0,84	0,88	78,9
55	75	250S/M	178	7,6	2,5	3,0	0,3736	14	31	605	75,0	2960	92,8	93,5	93,9	0,79	0,86	0,89	95,0
75	100	280S/M	241	7,0	2,0	2,7	0,8541	28	62	837	77,0	2975	93,4	94,3	94,3	0,79	0,86	0,89	129
90	125	280S/M	289	7,0	2,0	2,8	0,9386	25	55	866	77,0	2975	94,0	94,6	94,6	0,79	0,85	0,88	156
110	150	315S/M	353	7,5	2,0	3,0	1,67	24	53	1108	77,0	2980	94,3	94,9	94,9	0,77	0,85	0,87	192
132	175	315S/M	423	7,3	2,0	2,9	1,96	21	46	1176	77,0	2980	94,5	95,1	95,1	0,79	0,86	0,89	225
132	180	315S/M	423	7,3	2,0	2,9	1,96	21	46	1176	77,0	2980	94,5	95,1	95,1	0,80	0,87	0,90	223
150	200	315S/M	481	7,5	2,1	3,1	2,11	20	44	1210	77,0	2980	94,6	95,0	95,0	0,79	0,86	0,88	259
160	220	315S/M	513	7,5	2,2	2,9	2,24	23	51	1244	77,0	2980	94,8	95,3	95,3	0,80	0,87	0,89	272
185	250	315S/M	593	7,6	2,2	3,1	2,46	16	35	1295	77,0	2980	94,9	95,5	95,4	0,80	0,86	0,89	314
200	270	315L	641	7,5	2,3	2,8	2,68	21	46	1387	78,0	2980	95,0	95,5	95,4	0,82	0,88	0,90	336
220	300	315L	705	7,8	2,4	2,8	2,98	14	31	1450	78,0	2980	95,0	95,5	95,5	0,81	0,87	0,90	369
250	340	315L	802	7,8	2,4	2,8	3,42	17	37	1545	78,0	2980	95,1	95,6	95,5	0,84	0,89	0,91	415
260	350	315L	834	7,6	2,5	3,0	3,95	18	40	1656	78,0	2980	95,0	95,6	95,6	0,84	0,89	0,91	431
280	380	315L	898	7,9	2,3	2,8	4,17	12	26	1703	78,0	2980	95,2	95,6	95,6	0,85	0,89	0,91	465
300	400	355M/L	960	8,0	2,5	2,6	5,60	23	51	2219	80,0	2985	95,2	95,6	95,6	0,87	0,91	0,92	492
315	430	355M/L	1008	7,8	2,1	2,6	5,60	23	51	2219	80,0	2985	95,2	95,6	95,6	0,87	0,91	0,92	517
330	450	355M/L	1056	7,0	2,4	2,4	6,03	20	44	2303	80,0	2985	95,3	95,6	95,6	0,88	0,90	0,90	554

Optional frames

0,75	1	71	2,58	5,8	3,3	2,8	0,0005	14	31	19,8	56,0	2780	77,0	77,5	77,6	0,67	0,80	0,87	1,60
0,75	1	90S/L	2,51	6,5	2,7	2,8	0,0012	25	55	39,5	64,0	2850	77,0	79,0	79,0	0,61	0,73	0,80	1,71
1,1	1,5	90S/L	3,71	6,1	2,5	2,6	0,0014	16	35	40,5	64,0	2835	80,0	80,5	80,5	0,65	0,77	0,83	2,38
1,5	2	80	5,17	6,5	3,1	3,0	0,0009	15	33	24,0	59,0	2770	80,0	81,0	81,5	0,65	0,78	0,85	3,13
2,2	3	100L	7,22	7,5	2,4	3,4	0,0053	15	33	49,0	67,0	2910	82,5	83,6	83,6	0,66	0,78	0,85	4,47
4	5,5	100L	13,2	7,8	3,3	3,5	0,0064	10	22	52,0	67,0	2900	85,2	85,8	85,8	0,67	0,80	0,86	7,82
5,5	7,5	112M	18,3	7,3	2,7	3,0	0,0087	11	24	68,0	64,0	2880	86,5	87,0	87,0	0,72	0,82	0,87	10,5
7,5	10	112M	25,0	7,9	3,0	3,4	0,0109	10	22	73,0	64,0	2870	87,3	88,1	88,1	0,67	0,79	0,85	14,5
11	15	132S/M	36,2	7,2	2,4	2,9	0,0285	11	24	104	67,0	2905	89,3	89,6	89,6	0,75	0,84	0,88	20,1
18,5	25	180M/L	60,0	7,2	2,3	2,9	0,0867	10	22	225	67,0	2945	91,4	92,0	91,8	0,75	0,84	0,88	33,1
22	30	160M/L	71,5	7,9	3,0	3,4	0,0813	10	22	195	67,0	2940	91,2	91,6	91,6	0,75	0,84	0,89	39,0
30	40	180M/L	97,5	8,2	2,2	2,9	0,1301	8	18	255	67,0	2940	91,5	92,0	92,0	0,78	0,86	0,89	52,9
45	60	200M/L	145	7,5	3,1	2,9	0,2204	15	33	326	72,0	2965	92,5	92,9	92,9	0,74	0,82	0,86	81,3
55	75	225S/M	178	7,0	2,0	2,6	0,3238	11	24	523	75,0	2960	92,8	93,2	93,2	0,81	0,87	0,90	94,6
75	100	250S/M	242	7,7	2,7	3,3	0,5038	14	31	643	75,0	2960	93,5	94,3	94,3	0,78	0,86	0,89	129
110	150	280S/M	353	7,6	2,3	3,0	1,18	21	46	925	77,0	2975	94,5	94,9	94,9	0,78	0,86	0,89	188
132	175	280S/M	424	7,3	1,8	2,7	1,33	18	40	998	77,0	2975	94,5	94,8	94,8	0,80	0,87	0,89	226
200	270	315S/M	641	7,5	2,3	2,8	2,68	21	46	1346	77,0	2980	95,0	95,5	95,4	0,82	0,88	0,90	336
200	270	355M/L	640	8,0	2,5	2,7	3,99	22	48	1902	80,0	2984	94,8	95,5	95,5	0,83	0,88	0,90	336
220	300	355M/L	704	7,8	2,3	2,5	4,42	21	46	1987	80,0	2987	95,1	95,6	95,5	0,84	0,89	0,90	369
250	340	355M/L	800	7,9	2,2	2,8	4,85	20	44	2071	80,0	2985	95,2	95,6	95,6	0,86	0,89	0,91	415
260	350	355M/L	832	7,9	2,2	2,8	4,85	20	44	2071	80,0	2985	95,2	95,6	95,6	0,86	0,89	0,91	431
280	380	355M/L	898	7,7	1,9	2,6	5,06	17	37	2113	80,0	2980	95,2	95,6	95,6	0,86	0,89	0,91	465

Ex db / Ex db eb IIB T4 Gb¹⁾
Ex db / Ex db eb IIC T4 Gb¹⁾

Output		Frame	Full load torque (Nm)	Locked rotor current I _L /I _n	Locked rotor torque T _L /T _n	Break-down torque T _b /T _n	Inertia J (kgm ²)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	Rated speed (rpm)	380 V						415 V						Full load current I _n (A)
								% of full load					Efficiency			Power factor			Efficiency			Power factor			
								Hot	Cold				50	75	100	50	75	100	50	75	100	50	75	100	
0,37	0,5	2805	69,0	70,1	70,3	0,66	0,79	0,87	0,919	2845	66,9	69,7	71,2	0,57	0,72	0,82	0,882								
0,55	0,75	2750	73,0	74,1	74,1	0,73	0,85	0,91	1,24	2795	72,0	74,0	74,1	0,63	0,79	0,86	1,20								
0,75	1	2805	80,5	81,3	79,6	0,70	0,81	0,87	1,65	2845	75,0	78,5	79,5	0,61	0,74	0,83	1,58								
1,1	1,5	2800	78,9	79,2	79,6	0,66	0,79	0,85	2,47	2845	77,1	79,5	79,6	0,56	0,70	0,80	2,40								
1,5	2	2860	80,5	81,6	81,6	0,68	0,79	0,85	3,29	2890	79,3	81,9	82,5	0,58	0,73	0,81	3,12								
2,2	3	2820	83,7	83,5	83,2	0,69	0,80	0,85	4,73	2855	82,2	83,4	83,9	0,59	0,72	0,80	4,56								
3	4	2905																							

W22Xdb - High Efficiency - IE2

400 V motor specifications table with columns for Output (kW, HP), Frame, Full load torque (Nm), Locked rotor current (l/in), Locked rotor torque (Tl/Tn), Break-down torque (Tb/Tn), Inertia J (kgm²), Allowable locked rotor time (s), Weight (kg), Sound dB(A), Rated speed (rpm), % of full load (Efficiency, Power factor), and Full load current In (A).

Optional frames table for 400 V motors, providing detailed specifications for various frame sizes and power ratings.

Ex db / Ex db eb IIB T4 Gb¹⁾
Ex db / Ex db eb IIC T4 Gb¹⁾

380 V and 415 V motor specifications table with columns for Output (kW, HP), Rated speed (rpm), % of full load (Efficiency, Power factor), Full load current In (A), and Full load current ln (A).

Optional frames table for 380 V and 415 V motors, providing detailed specifications for various frame sizes and power ratings.

1) 71/80 frames are available only in Ex db executions.

W22Xdb - High Efficiency - IE2

Output		Frame	Full load torque (Nm)	Locked rotor current I _L /I _n	Locked rotor torque T _L /T _n	Break-down torque T _b /T _n	Inertia J (kgm ²)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	400 V								
								Rated speed (rpm)	% of full load						Full load current I _n (A)					
									Efficiency			Power factor								
kW	HP	Hot		Cold																
VIII poles																				
0,12	0,16	71	1,74	2,3	1,9	2,0	0,0008	172	378	20,0	41,0	660	40,0	48,0	50,0	0,33	0,41	0,50	0,693	
0,18	0,25	80	2,49	3,1	1,9	2,0	0,0024	48	106	23,0	42,0	690	47,0	53,0	55,0	0,44	0,55	0,65	0,727	
0,25	0,33	80	3,51	3,2	2,0	1,9	0,0029	42	92	24,0	42,0	680	49,0	55,0	57,0	0,43	0,55	0,66	0,959	
0,37	0,5	90S/L	4,98	3,5	1,8	2,0	0,0055	20	44	45,5	44,0	710	56,0	62,0	62,0	0,41	0,52	0,62	1,39	
0,55	0,75	90S/L	7,67	3,5	1,9	2,0	0,0055	31	68	45,5	44,0	685	61,0	64,0	64,0	0,44	0,56	0,66	1,88	
0,75	1	100L	10,1	4,6	2,0	2,4	0,0110	42	92	49,0	50,0	710	71,0	74,0	74,0	0,40	0,52	0,62	2,36	
1,1	1,5	100L	14,9	4,6	2,1	2,3	0,0127	29	64	52,0	50,0	705	70,0	73,5	73,5	0,40	0,53	0,62	3,48	
1,5	2	112M	20,5	4,7	2,4	2,3	0,0202	29	64	66,0	46,0	700	77,0	79,0	79,0	0,44	0,57	0,67	4,09	
2,2	3	132S/M	30,0	5,5	2,2	2,4	0,0592	25	55	94,0	48,0	700	81,0	81,5	81,0	0,52	0,65	0,72	5,44	
3	4	132S/M	40,4	6,2	2,4	2,9	0,0740	19	42	102	48,0	710	82,0	82,5	82,0	0,54	0,65	0,72	7,33	
4	5,5	160M/L	52,7	4,7	2,0	2,2	0,1053	29	64	158	51,0	725	82,5	83,0	83,5	0,52	0,65	0,72	9,60	
5,5	7,5	160M/L	72,5	4,7	2,0	2,2	0,1404	21	46	173	51,0	725	85,0	86,0	85,5	0,52	0,65	0,73	12,7	
7,5	10	160M/L	98,8	4,9	2,2	2,3	0,1756	22	48	188	51,0	725	86,0	87,0	87,0	0,52	0,65	0,73	17,0	
9,2	12,5	180M/L	121	6,0	2,0	2,5	0,2033	11	24	214	52,0	725	88,0	88,0	87,5	0,63	0,75	0,82	18,5	
11	15	180M/L	144	6,5	2,4	2,7	0,2439	11	24	228	52,0	729	88,0	88,5	88,0	0,62	0,72	0,79	22,8	
15	20	200M/L	196	4,5	1,7	2,0	0,4220	30	66	315	56,0	730	90,0	90,5	90,0	0,58	0,70	0,76	31,7	
18,5	25	225S/M	241	6,7	2,0	2,4	0,6183	17	37	470	56,0	735	89,5	90,0	90,0	0,65	0,75	0,81	36,6	
22	30	225S/M	286	6,1	2,0	2,4	0,7203	16	35	493	56,0	735	91,7	92,0	92,0	0,67	0,78	0,81	42,6	
30	40	250S/M	392	7,4	2,1	2,7	1,06	13	29	585	56,0	732	90,5	91,2	91,2	0,66	0,77	0,82	57,9	
37	50	280S/M	478	5,6	1,8	2,1	2,26	26	57	852	59,0	740	93,0	93,5	93,5	0,64	0,74	0,80	71,4	
45	60	280S/M	581	5,8	1,6	2,1	2,71	23	51	910	59,0	740	91,9	92,0	92,1	0,64	0,74	0,78	90,4	
55	75	315S/M	708	5,8	1,8	2,1	4,03	32	70	1108	62,0	742	90,8	91,0	91,0	0,66	0,76	0,80	109	
75	100	315S/M	967	5,8	1,8	2,0	5,31	30	66	1227	62,0	741	91,5	91,9	92,4	0,66	0,76	0,80	146	
90	125	315S/M	1162	5,8	1,8	2,1	6,22	26	57	1320	62,0	740	92,2	92,7	93,2	0,66	0,76	0,80	174	
110	150	315L	1420	6,0	1,9	2,1	7,84	28	62	1498	68,0	740	94,6	94,8	94,8	0,67	0,76	0,80	209	
132	175	315L	1704	6,3	2,0	2,3	9,30	20	44	1624	68,0	740	94,8	95,1	95,1	0,64	0,75	0,80	250	
150	200	355M/L	1926	7,2	1,6	2,3	14,3	36	79	2113	70,0	744	93,5	95,0	95,0	0,62	0,73	0,79	288	
160	220	355M/L	2058	6,0	1,2	1,9	14,4	54	119	2113	70,0	743	94,5	95,0	95,0	0,63	0,74	0,80	304	
185	250	355M/L	2373	6,1	1,5	2,3	16,5	48	106	2261	70,0	745	95,2	95,6	95,6	0,62	0,72	0,78	358	
200	270	355M/L	2565	6,3	1,6	2,3	18,4	48	106	2387	70,0	745	95,3	95,6	95,6	0,63	0,74	0,80	377	
220	300	355M/L	2822	6,3	1,5	2,3	19,9	48	106	2493	70,0	745	95,4	95,7	95,7	0,63	0,74	0,79	420	
Optional frames																				
37	50	250S/M	484	7,5	2,1	2,6	1,66	12	26	693	56,0	730	91,0	91,5	91,7	0,66	0,77	0,82	71,0	
55	75	280S/M	712	5,4	1,5	1,9	3,16	20	44	969	59,0	738	91,3	91,8	92,3	0,64	0,75	0,79	109	
110	150	315S/M	1420	6,0	1,9	2,1	7,84	28	62	1465	62,0	740	94,6	94,8	94,8	0,67	0,76	0,80	209	
110	150	355M/L	1409	6,4	1,6	2,7	10,4	48	106	1839	70,0	746	93,0	95,0	95,2	0,63	0,74	0,79	211	
132	175	355M/L	1693	6,5	1,3	2,2	12,6	50	110	1987	70,0	745	94,5	95,5	95,4	0,64	0,75	0,80	250	

**Ex db / Ex db eb IIB T4 Gb¹⁾
Ex db / Ex db eb IIC T4 Gb¹⁾**

Output		Frame	Full load torque (Nm)	Locked rotor current I _L /I _n	Locked rotor torque T _L /T _n	Break-down torque T _b /T _n	Inertia J (kgm ²)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	380 V									415 V					
								Rated speed (rpm)	% of full load						Full load current I _n (A)	Rated speed (rpm)	% of full load						Full load current I _n (A)			
									Efficiency			Power factor					Efficiency			Power factor						
kW	HP	Hot		Cold																						
VIII poles																										
0,12	0,16	650	42,9	50,1	50,8	0,35	0,44	0,53	0,677	670	37,1	45,7	48,8	0,31	0,38	0,47	0,728									
0,18	0,25	680	49,3	54,4	54,9	0,47	0,59	0,69	0,722	695	45,0	51,8	54,5	0,42	0,53	0,62	0,741									
0,25	0,33	670	51,1	56,2	56,8	0,47	0,59	0,70	0,955	685	47,0	53,8	56,8	0,42	0,53	0,63	0,972									
0,37	0,5	705	59,5	63,8	62,4	0,44	0,56	0,66	1,36	715	53,1	59,9	60,9	0,39	0,49	0,59	1,43									
0,55	0,75	675	63,3	65,1	63,5	0,47	0,61	0,70	1,88	690	58,5	62,8	63,9	0,41	0,53	0,63	1,90									
0,75	1	705	73,0	75,0	73,9	0,44	0,57	0,65	2,37	715	69,2	73,0	73,7	0,38	0,49	0,59	2,40									
1,1	1,5	700	72,6	73,4	73,4	0,45	0,57	0,66	3,45	705	67,8	73,0	73,0	0,37	0,49	0,59	3,55									
1,5	2	695	78,8	79,6	78,5	0,49	0,61	0,70	4,15	705	75,3	78,2	78,9	0,41	0,53	0,63	4,20									
2,2	3	695	81,8	81,5	79,9	0,57	0,69	0,75	5,58	705	80,1	81,4	81,4	0,49	0,62	0,70	5,37									
3	4	705	82,7	82,4	80,8	0,57	0,68	0,75	7,52	715	81,1	82,4	82,5	0,50	0,62	0,70	7,23									
4	5,5	720	82,5	83,0	83,5	0,56	0,68	0,74	9,84	730	82,5	83,0	83,5	0,49	0,62	0,70	9,52									
5,5	7,5	720	85,8	86,0	84,9	0,56	0,68	0,75	13,1	725	84,2	85,7	85,7	0,49	0,62	0,71	12,6									
7,5	10	720	86,8	87,2	86,6	0,56	0,69	0,76	17,3	725	85,1	86,7	87,1	0,49	0,62	0,71	16,9									
9,2	12,5	720	88,5	87,9	86,8	0,67	0,78	0,84	19,2	725	87,4	87,9	87,8	0,59	0,72	0,80	18,2									
11	15	725	88,4	88,3	87,2	0,65	0,75	0,80	24,0	730	87,5	88,5	88,4	0,58	0,69	0,76	22,8									
15	20	725	90,5	90,4	89,4	0,62	0,73	0,78	32,7	730	89,4	90,4	90,2	0,55	0,67	0,74	31,3									
18,5	25	730	89,5	90,0	90,0	0,66	0,77	0,82	38,1	735	89,5	90,0	90,0	0,60	0,73	0,79	36,2									
22	30	730	91,9	91,8	91,4	0,70	0,81	0,83	44,1	735	91,4	92,0	92,2	0,64	0,76	0,80	41,5									
30	40	730	90,5	91,2	91,2	0,71	0,80	0,84	59,5	733	90,5	91,2	91,2	0,64	0,76	0,81	56,5									
37	50	735	93,3	93,4	93,1	0,68	0,77	0,82	73,6	740	92,6	93,4	93,6	0,61	0,72	0,78	70,5									
45	60	735	91,9	92,0	92,1	0,66	0,77	0,79	94,0	740	91,9	92,0	92,1	0,58	0,70	0,77	88,3									
55	75	740	90,8	91,0	91,0	0,70	0,79	0,82	112	742	90,8	91,0	91,0	0,62	0,73	0,78	108									
75	100	739	91,3	91,7	92,1	0,70	0,79	0,81	153	741	91,6	92,1	92,6	0,63	0,74	0,79	143									
90	125	740	92,0	92,5	93,0	0,70	0,79	0,81	182	742	92,5	93,0	93,3	0,62	0,73	0,78	172									
110	150	740	94,8	94,7	94,5	0,71	0,79	0,81	218	740	94,3	94,7	94,9	0,64	0,74	0,79	204									
132	175	740	94,6	95,2	95,1	0,68	0,78	0,82	257	740	94,5	95,0	95,1	0,61	0,72	0,78	248									
150	200	743	94,5	95,2	95,4	0,64	0,75	0,79	302	745	93,5	95,0	95,0	0,57	0,69	0,75	293									
160	220	742	94,5	95,0	95,0	0,68	0,78	0,82	312	744	94,2	95,4	95,6	0,59	0,71	0,78	299									
185	250	745	95,6	95,8	95,6	0,67	0,76	0,81	363	745	94,7	95,3	95,4	0,57	0,68	0,75	360									
200	270	745	95,7	95,7	95,6	0,68	0,78	0,83	383	745	94,9	95,4	95,5	0,59	0,71	0,78	374									
220	300	745	95,8	95,																						

W22Xdb - Premium Efficiency - IE3

Output		Frame	Full load torque (Nm)	Locked rotor current I _L /I _n	Locked rotor torque T _L /T _n	Break-down torque T _b /T _n	Inertia J (kgm ²)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	400 V						Full load current I _n (A)	
								Rated speed (rpm)	% of full load										
									Efficiency			Power factor							
kW	HP							Hot	Cold			50	75	100	50	75	100		
II poles																			
0,25	0,33	71	0,840	6,5	3,3	3,2	0,0004	42	92	10,0	56,0	2838	72,0	73,5	73,5	0,66	0,77	0,84	0,584
0,37	0,5	71	1,25	6,0	2,5	2,5	0,0004	12	26	19,1	56,0	2820	73,0	73,8	73,8	0,66	0,79	0,85	0,851
0,55	0,75	71	1,90	5,9	3,0	3,0	0,0005	18	40	19,5	56,0	2770	75,0	76,0	77,8	0,68	0,81	0,86	1,19
0,75	1	80	2,54	7,5	3,5	3,5	0,0008	25	55	23,0	59,0	2825	80,0	82,0	81,0	0,63	0,76	0,82	1,63
1,1	1,5	80	3,71	7,4	3,6	3,6	0,0009	23	51	24,0	59,0	2830	81,0	83,5	83,0	0,63	0,76	0,82	2,33
1,5	2	90S/L	4,99	7,6	3,3	3,3	0,0020	15	33	43,5	62,0	2875	83,0	85,0	84,5	0,64	0,76	0,83	3,09
2,2	3	90S/L	7,32	7,5	3,1	3,4	0,0026	12	26	46,5	62,0	2870	86,0	86,5	86,3	0,65	0,77	0,83	4,43
3	4	100L	9,85	8,5	3,3	3,9	0,0064	15	33	52,0	67,0	2910	85,0	86,5	87,3	0,69	0,81	0,86	5,77
4	5,5	112M	13,2	7,7	2,9	3,5	0,0080	22	48	66,0	62,0	2900	88,0	88,4	88,4	0,69	0,80	0,86	7,59
5,5	7,5	132S/M	17,9	7,9	2,4	3,5	0,0180	12	26	89,0	63,0	2940	86,9	88,7	89,4	0,66	0,78	0,84	10,6
7,5	10	132S/M	24,4	8,5	3,0	3,6	0,0234	10	22	97,0	63,0	2935	88,5	89,8	90,3	0,68	0,80	0,85	14,1
9,2	12,5	132S/M	30,0	8,5	2,8	3,1	0,0306	16	35	107	63,0	2935	90,4	91,1	90,7	0,75	0,84	0,88	16,6
11	15	160M/L	35,6	8,0	2,6	3,4	0,0482	12	26	184	67,0	2950	90,3	91,4	91,4	0,71	0,82	0,87	20,0
15	20	160M/L	48,7	8,3	2,8	3,6	0,0551	8	18	191	67,0	2945	90,9	91,8	92,1	0,67	0,79	0,85	27,7
18,5	25	160M/L	60,0	8,6	3,1	3,7	0,0663	6	13	180	67,0	2945	91,5	92,3	92,6	0,69	0,80	0,85	33,9
22	30	180M/L	71,3	8,3	2,7	3,6	0,0968	6	13	228	67,0	2950	92,3	93,0	92,9	0,69	0,80	0,86	39,7
30	40	200M/L	96,7	7,7	3,0	3,0	0,1703	16	35	293	72,0	2965	92,2	93,2	93,5	0,69	0,80	0,85	54,5
37	50	200M/L	119	7,7	3,1	3,0	0,1881	13	29	304	72,0	2960	92,6	93,4	93,8	0,69	0,79	0,84	67,8
45	60	225S/M	145	7,7	2,5	3,1	0,2861	13	29	501	74,0	2960	93,5	93,9	94,1	0,78	0,85	0,88	78,4
55	75	250S/M	177	8,0	2,8	3,3	0,3736	19	42	576	74,0	2965	93,5	94,0	94,4	0,77	0,84	0,87	96,7
75	100	280S/M	241	7,5	2,0	3,1	0,9386	36	79	866	77,0	2975	93,7	94,8	94,9	0,78	0,85	0,88	130
90	125	280S/M	289	7,6	2,1	2,9	1,12	27	59	925	77,0	2976	94,3	95,2	95,2	0,81	0,87	0,89	153
110	150	315S/M	353	7,5	1,9	3,0	1,66	38	84	1108	77,0	2980	94,3	95,3	95,4	0,78	0,85	0,88	189
132	175	315S/M	423	7,6	2,2	3,1	1,96	34	75	1176	77,0	2980	94,5	95,4	95,6	0,78	0,86	0,89	224
150	200	315S/M	481	7,5	2,3	3,0	2,18	20	44	1227	77,0	2979	95,0	95,6	95,6	0,80	0,86	0,89	254
160	220	315S/M	513	7,4	2,0	2,9	2,24	28	62	1244	77,0	2980	95,1	95,8	95,8	0,79	0,86	0,89	271
185	250	315S/M	594	7,6	2,3	3,1	2,46	22	48	1295	77,0	2978	95,4	95,8	95,8	0,79	0,86	0,88	317
200	270	315L	642	7,6	2,3	2,9	2,68	23	51	1387	78,0	2975	95,7	96,2	96,0	0,82	0,88	0,90	334
220	300	315L	705	8,5	2,7	3,3	3,13	23	51	1482	78,0	2980	95,9	96,5	96,0	0,81	0,88	0,90	368
250	340	315L	802	7,8	2,7	2,9	3,57	21	46	1577	78,0	2980	96,3	96,7	96,0	0,85	0,90	0,91	413
260	350	315L	835	7,8	2,4	2,5	3,57	21	46	1577	78,0	2975	96,3	96,0	96,0	0,85	0,90	0,91	430
280	380	315L	898	7,5	2,5	2,7	4,17	20	44	1703	78,0	2980	95,4	95,8	96,0	0,84	0,89	0,91	463
300	400	355M/L	960	8,0	2,5	2,9	5,58	22	48	2219	80,0	2985	95,4	95,8	96,0	0,84	0,89	0,91	496
315	430	355M/L	1009	7,7	2,6	2,7	6,01	18	40	2303	80,0	2983	95,4	96,0	96,0	0,87	0,90	0,91	520
330	450	355M/L	1058	7,7	2,3	2,5	6,01	28	62	2303	80,0	2980	95,2	95,8	96,0	0,87	0,90	0,91	545
Optional frames																			
0,75	1	90S/L	2,47	8,2	3,3	3,4	0,0015	24	53	41,0	62,0	2900	79,0	82,5	81,5	0,63	0,75	0,82	1,62
1,1	1,5	90S/L	3,65	7,8	3,3	3,3	0,0018	19	42	42,5	62,0	2880	82,0	84,2	83,5	0,63	0,75	0,82	2,32
2,2	3	100L	7,22	8,5	3,2	3,3	0,0059	22	48	51,0	67,0	2910	85,0	86,6	86,6	0,71	0,82	0,87	4,21
4	5,5	132S/M	13,0	7,5	2,3	3,1	0,0180	24	53	89,0	63,0	2930	86,9	88,7	88,6	0,73	0,82	0,87	7,49
11	15	132S/M	35,9	8,2	2,7	3,0	0,0306	11	24	107	63,0	2925	90,6	91,1	91,3	0,75	0,85	0,89	19,5
18,5	25	180M/L	60,0	7,6	2,3	3,1	0,0973	11	24	228	67,0	2945	91,5	92,0	92,6	0,77	0,85	0,88	32,8
75	100	250S/M	242	7,6	3,0	2,8	0,5132	11	24	643	74,0	2965	95,0	95,3	94,9	0,83	0,87	0,89	128
110	150	280S/M	353	7,5	2,1	3,0	1,33	20	44	998	77,0	2975	95,0	95,5	95,4	0,80	0,87	0,89	187
200	270	355M/L	640	7,9	2,5	2,8	4,31	30	66	1818	80,0	2985	95,0	95,6	96,0	0,80	0,87	0,90	334
220	300	355M/L	705	7,3	1,9	2,3	4,52	35	77	1944	80,0	2981	95,0	95,6	96,0	0,85	0,89	0,91	363
250	340	355M/L	800	7,7	2,4	2,7	4,93	30	66	2092	80,0	2985	95,0	95,6	96,0	0,85	0,89	0,91	413
260	350	355M/L	832	7,7	2,4	2,7	4,93	30	66	2092	80,0	2985	95,0	95,6	96,0	0,85	0,89	0,91	430
280	380	355M/L	896	8,4	2,3	2,9	5,17	25	55	2134	80,0	2985	95,4	95,8	96,0	0,82	0,88	0,90	468

Ex db / Ex db eb IIB T4 Gb¹⁾
Ex db / Ex db eb IIC T4 Gb¹⁾

Output		Rated speed (rpm)	380 V						Full load current I _n (A)	415 V						Full load current I _n (A)	
			% of full load														
			Efficiency			Power factor											
kW	HP		50	75	100	50	75	100		50	75	100	50	75	100		
II poles																	
0,25	0,33	2821	72,0	73,5	73,5	0,70	0,80	0,87	0,594	2853	72,0	73,5	73,5	0,62	0,74	0,82	0,577
0,37	0,5	2795	73,6	74,3	73,8	0,71	0,82	0,87	0,876	2825	72,4	73,8	73,8	0,63	0,76	0,83	0,840
0,55	0,75	2740	75,6	75,7	77,8	0,73	0,84	0,88	1,22	2790	74,4	76,0	77,8	0,65	0,78	0,84	1,17
0,75	1	2805	80,0	80,5	80,7	0,68	0,80	0,85	1,66	2835	79,1	81,0	81,1	0,59	0,72	0,79	1,63
1,1	1,5	2810	82,0	83,7	83,1	0,69	0,80	0,85	2,37	2840	80,0	83,0	83,4	0,58	0,72	0,79	2,32
1,5	2	2860	83,7	85,0	84,4	0,69	0,80	0,85	3,18	2885	82,2	84,8	85,2	0,59	0,72	0,80	3,06
2,2	3	2855	86,5	86,4	85,9	0,70	0,81	0,86	4,52	2880	85,3	86,4	86,5	0,61	0,74	0,81	4,37
3	4	2900	85,5	86,5	87,1	0,75	0,84	0,88	5,95	2915	84,5	86,5	87,4	0,66	0,78	0,84	5,68
4	5,5	2890	88,0	88,2	88,2	0,73	0,83	0,88	7,83	2905	87,5	88,0	88,4	0,65	0,77	0,84	7,49
5,5	7,5	2935	87,6	88,9	89,2	0,71	0,82	0,87	10,8	2945	86,1	88,3	89,2	0,61	0,74	0,81	10,6
7,5	10	2925	89,2	90,1	90,1	0,73	0,83	0,88	14,4	2940	87,9	89,7	90,3	0,63	0,76	0,83	13,9
9,2	12,5	2925	90,7	91,0	90,8	0,79	0,87	0,90	17,1	2935	90,1	91,0	91,3	0,71	0,82	0,87	16,1
11	15	2940	90,7	91,2	91,2	0,75	0,84	0,88	20,8	2950	89,9	91,3	91,4	0,68	0,79	0,85	19,7
15	20	2940	91,0	91,6	91,9	0,72	0,82	0,87	28,5	2950	90,3	91,6	91,9	0,63	0,76	0,82	27,7
18,5	25	2945	92,0	92,3	92,4	0,74	0,83	0,88	34,6	2950	91,0	92,2	92,4	0,64	0,77	0,83	33,6
22	30	2945	92,4	92,7	92,7	0,74	0,83	0,87	41,4	2955	92,0	92,8	92,7	0,66	0,78	0,84	39,3
30	40	2960	92,6	93,2	93,3	0,75	0,83</										

W22Xdb - Premium Efficiency - IE3

Output		Frame	Full load torque (Nm)	Locked rotor current I/In	Locked rotor torque Tl/Tn	Break-down torque Td/Tn	Inertia J (kgm²)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	400 V								
								Rated speed (rpm)	% of full load						Full load current In (A)					
									Efficiency			Power factor								
kW	HP			Hot	Cold															
IV poles																				
0,25	0,33	71	1,69	4,8	2,4	2,4	0,0009	30	66	20,5	43,0	1410	69,0	72,0	73,5	0,52	0,62	0,72	0,682	
0,37	0,5	71	2,55	4,8	2,8	2,9	0,0008	30	66	21,0	43,0	1385	73,0	75,0	77,3	0,50	0,62	0,70	0,987	
0,55	0,75	80	3,66	6,6	2,9	3,2	0,0027	20	44	23,5	44,0	1435	77,0	79,0	80,8	0,61	0,74	0,80	1,23	
0,75	1	80	5,01	7,0	3,2	3,4	0,0032	18	40	25,0	44,0	1430	78,0	81,0	82,5	0,54	0,68	0,78	1,68	
1,1	1,5	90S/L	7,25	7,6	2,5	2,9	0,0055	15	33	45,5	49,0	1450	83,0	84,5	84,5	0,59	0,72	0,80	2,35	
1,5	2	90S/L	9,92	7,4	2,6	3,0	0,0066	13	29	48,0	49,0	1445	84,0	85,0	85,5	0,58	0,72	0,79	3,21	
2,2	3	100L	14,7	7,8	3,6	3,5	0,0090	18	40	52,0	53,0	1435	86,5	87,0	87,0	0,59	0,72	0,79	4,62	
3	4	100L	19,9	7,8	3,9	3,2	0,0120	15	33	61,6	53,0	1440	87,0	88,0	88,0	0,60	0,73	0,80	6,15	
4	5,5	112M	26,4	7,0	2,6	3,1	0,0182	15	33	71,0	56,0	1450	88,7	89,1	88,8	0,60	0,72	0,78	8,34	
5,5	7,5	132S/M	36,0	8,3	2,1	3,3	0,0453	12	26	94,0	56,0	1460	89,0	89,6	89,7	0,69	0,80	0,85	10,4	
7,5	10	132S/M	49,1	8,3	2,4	3,5	0,0566	7	15	102	56,0	1460	90,5	90,8	90,6	0,69	0,80	0,86	13,9	
9,2	12,5	132S/M	60,0	8,6	2,8	3,5	0,0698	10	22	115	56,0	1465	90,3	91,0	91,0	0,64	0,76	0,82	17,4	
11	15	160M/L	71,5	7,5	2,8	3,2	0,1191	11	24	176	61,0	1470	91,1	91,8	91,6	0,65	0,77	0,83	20,9	
15	20	160M/L	97,8	7,2	2,8	3,1	0,1534	8	18	195	61,0	1465	92,2	92,5	92,3	0,67	0,78	0,84	27,9	
18,5	25	180M/L	120	7,4	3,0	3,2	0,1740	13	29	237	61,0	1470	92,2	92,8	92,8	0,64	0,76	0,82	35,1	
22	30	180M/L	143	7,3	3,4	3,4	0,2097	11	24	255	61,0	1470	92,3	93,0	93,2	0,66	0,77	0,83	41,0	
30	40	200M/L	194	7,5	2,8	3,1	0,3202	12	26	315	63,0	1480	92,9	93,6	93,7	0,63	0,75	0,81	57,1	
37	50	225S/M	239	7,7	2,8	3,3	0,5177	13	29	493	63,0	1480	93,4	94,0	94,1	0,70	0,80	0,85	66,8	
45	60	225S/M	291	7,5	2,8	3,1	0,6143	12	26	523	63,0	1480	93,9	94,3	94,4	0,71	0,81	0,85	80,9	
55	75	250S/M	355	7,5	2,8	3,0	0,9412	14	31	626	64,0	1480	94,3	94,7	94,7	0,69	0,80	0,85	98,6	
75	100	280S/M	483	7,5	2,2	2,6	1,94	31	68	925	69,0	1485	94,5	95,1	95,2	0,72	0,82	0,85	134	
90	125	280S/M	579	7,0	2,2	2,7	2,17	31	68	969	69,0	1485	94,9	95,4	95,4	0,75	0,83	0,86	158	
110	150	315S/M	705	7,4	2,2	2,6	2,89	33	73	1176	71,0	1490	94,7	95,5	95,6	0,74	0,82	0,86	193	
132	175	315S/M	846	7,5	2,3	2,7	3,44	30	66	1261	71,0	1490	95,1	95,7	95,8	0,74	0,82	0,86	231	
150	200	315S/M	962	7,8	2,7	2,7	3,77	27	59	1312	71,0	1490	95,4	95,8	95,9	0,71	0,81	0,85	266	
160	220	315S/M	1026	7,7	2,6	2,7	3,99	28	62	1346	71,0	1490	95,2	95,9	96,0	0,74	0,82	0,86	280	
185	250	315S/M	1186	7,8	2,9	2,9	4,42	25	55	1414	71,0	1491	95,5	96,1	96,0	0,71	0,80	0,85	327	
200	270	315L	1284	6,7	2,4	2,4	4,75	21	46	1498	73,0	1488	96,0	96,3	96,0	0,78	0,85	0,87	346	
220	300	315L	1411	7,9	2,8	2,8	5,30	12	26	1577	73,0	1490	95,8	96,1	96,2	0,72	0,81	0,85	388	
250	340	315L	1603	7,9	2,9	2,7	7,70	19	42	1640	73,0	1490	96,0	96,2	96,2	0,73	0,82	0,86	436	
260	350	315L	1667	7,9	2,9	2,7	6,41	19	42	1640	73,0	1490	96,0	96,2	96,2	0,73	0,82	0,86	454	
280	380	315L	1796	7,0	2,5	2,7	6,31	15	33	1719	73,0	1490	95,8	96,0	96,2	0,76	0,84	0,87	483	
300	400	315L	1924	7,6	2,7	3,0	6,54	12	26	1750	73,0	1490	95,8	96,0	96,2	0,74	0,82	0,86	523	
315	430	355M/L	2020	7,9	2,5	2,6	9,47	17	37	2240	74,0	1490	96,1	96,3	96,3	0,72	0,81	0,85	555	
330	450	355M/L	2116	7,1	2,6	2,4	10,7	20	44	2387	74,0	1490	95,8	96,0	96,2	0,71	0,82	0,85	583	
355	480	355M/L	2277	7,2	2,4	2,5	11,6	15	33	2493	74,0	1490	96,5	96,8	96,5	0,74	0,83	0,86	617	

Optional frames																			
0,75	1	90S/L	4,91	7,8	2,7	3,4	0,0049	21	46	44,0	49,0	1460	82,5	84,0	84,5	0,54	0,68	0,77	1,66
1,5	2	100L	9,95	7,7	3,1	3,4	0,0082	25	55	51,0	53,0	1440	85,5	86,0	86,0	0,61	0,73	0,80	3,15
2,2	3	112M	14,5	7,3	2,3	3,0	0,0143	31	68	66,0	56,0	1455	87,5	88,2	88,2	0,60	0,73	0,80	4,50
3	4	112M	19,8	7,0	2,3	2,9	0,0169	25	55	69,0	56,0	1450	87,0	88,0	88,0	0,62	0,74	0,81	6,07
4	5,5	132S/M	26,0	8,5	2,4	3,7	0,0528	6	13	99,0	56,0	1470	86,0	87,8	88,8	0,61	0,74	0,82	7,93
9,2	12,5	160M/L	59,8	7,2	2,5	3,0	0,1118	16	35	173	61,0	1470	90,0	91,4	91,3	0,66	0,77	0,83	17,5
15	20	180M/L	97,5	7,0	2,5	3,0	0,1744	23	51	237	61,0	1470	91,9	92,5	92,3	0,66	0,77	0,83	28,3
37	50	200M/L	239	7,5	2,9	3,0	0,3994	14	31	349	63,0	1478	93,1	93,6	94,1	0,64	0,76	0,82	69,2
75	100	250S/M	484	8,0	3,0	3,2	1,22	8	18	693	64,0	1480	94,5	94,8	95,0	0,73	0,83	0,87	131
90	125	315S/M	577	7,8	2,7	3,1	2,66	30	66	1142	71,0	1490	94,5	95,0	95,4	0,67	0,78	0,84	162
110	150	280S/M	708	7,7	2,5	2,9	3,25	19	42	1174	69,0	1485	95,3	95,6	95,6	0,73	0,82	0,86	193
185	250	355M/L	1184	7,7	2,7	2,8	6,80	27	59	1923	74,0	1493	95,8	96,0	96,2	0,69	0,79	0,83	334
200	270	355M/L	1281	7,6	2,3	2,5	7,01	22	48	1944	74,0	1492	95,9	96,5	96,2	0,72	0,81	0,85	353
220	300	355M/L	1410	7,4	2,2	2,5	7,52	20	44	1987	74,0	1491	96,0	96,6	96,2	0,72	0,80	0,85	388
250	340	355M/L	1603	7,3	2,3	2,2	8,59	26	57	2029	74,0	1490	95,9	96,6	96,2	0,74	0,82	0,86	436
260	350	355M/L	1666	7,3	2,3	2,5	8,59	26	57	2029	74,0	1491	95,9	96,6	96,2	0,74	0,82	0,86	454
280	380	355M/L	1793	7,5	2,7	2,9	8,95	26	57	1660	74,0	1492	95,5	96,0	96,0	0,69	0,79	0,83	507
300	400	355M/L	1924	7,6	2,3	2,5	8,95	19	42	2176	74,0	1490	95,8	96,0	96,2	0,71	0,80	0,85	530

Ex db / Ex db eb IIB T4 Gb¹⁾
Ex db / Ex db eb IIC T4 Gb¹⁾

Output		Frame	Full load torque (Nm)	Locked rotor current I/In	Locked rotor torque Tl/Tn	Break-down torque Td/Tn	Inertia J (kgm²)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	380 V									415 V						
								Rated speed (rpm)	% of full load						Full load current In (A)	Rated speed (rpm)	% of full load						Full load current In (A)				
									Efficiency			Power factor					Efficiency			Power factor							
kW	HP			Hot	Cold																						
IV poles																											
0,25	0,33	71	1,69	4,8	2,4	2,4	0,0009	30	66	20,5	43,0	1410	69,0	72,0	73,5	0,52	0,62	0,72	0,682	1420	65,1	68,6	73,4	0,50	0,62	0,69	0,687
0,37	0,5	71	2,55	4,8	2,8	2,9	0,0008	30	66	21,0	43,0	1385	73,0	75,0	77,3	0,50	0,62	0,70	0,987	1395	73,0	75,0	77,3	0,47	0,59	0,68	0,979
0,55	0,75	80	3,66	6,6	2,9	3,2	0,0027	20	44	23,5	44,0	1435	77,0	79,0	80,8	0,61	0,74	0,80	1,23	1440	76,0	78,9	80,8	0,57	0,71	0,77	1,23
0,75	1	80	5,01	7,0	3,2	3,4	0,0032	18	40	25,0	44,0	1430	78,0	81,0	82,5	0,54	0,68	0,78	1,68	1435	77,0	81,0	82,5	0,50	0,65	0,76	1,66
1,1	1,5	90S/L	7,25	7,6	2,5	2,9	0,0055	15	33	45,5	49,0	1450	83,0	84,5	84,5	0,59	0,72	0,80	2,35	1455	82,0	84,1	84,8	0,55	0,69	0,77	2,34
1,5	2	90S/L	9,92	7,4	2,6	3,0	0,0066	13	29	48,0	49,0	1445	84,0	85,0	85,5	0,58	0,72	0,79	3,21	1450	83,1	85,0	85,7	0,54	0,68	0,77	3,16
2,2	3	100L	14,7	7,8	3,6	3,5	0,0090	18	40	52,0	53,0	1435	86,5	87,0	87,0	0,59	0,72	0,79	4,62	1440	85,7	86,8	87,2	0,55	0,68	0,77	4,56
3	4	100L	19,9	7,8	3,9	3,2	0,0120	15	33	61,6																	

W22Xdb - Premium Efficiency - IE3

Output		Frame	Full load torque (Nm)	Locked rotor current I/In	Locked rotor torque Tl/Tn	Break-down torque Td/Tn	Inertia J (kgm ²)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	400 V							
								Rated speed (rpm)	% of full load						Full load current In (A)				
									Efficiency			Power factor							
kW	HP							Hot	Cold			50	75	100	50	75	100		
VI poles																			
0,18	0,25	71	1,91	3,2	2,0	2,1	0,0009	30	66	20,5	43,0	900	56,0	62,0	63,9	0,38	0,48	0,57	0,713
0,25	0,33	80	2,50	4,3	2,0	2,4	0,0029	25	55	22,0	43,0	955	63,6	68,5	68,8	0,47	0,60	0,69	0,760
0,37	0,5	80	3,82	4,5	2,1	2,1	0,0025	25	55	23,5	43,0	925	66,0	69,5	73,5	0,51	0,65	0,74	0,982
0,55	0,75	90S/L	5,47	5,5	2,3	2,8	0,0055	35	77	45,5	45,0	960	77,0	77,2	77,5	0,48	0,62	0,71	1,44
0,75	1	90S/L	7,54	5,2	2,5	2,8	0,0060	31	68	46,5	45,0	950	76,5	79,0	79,0	0,49	0,62	0,71	1,93
1,1	1,5	100L	11,1	4,9	2,0	2,4	0,0110	32	70	49,0	44,0	945	80,5	81,0	81,0	0,51	0,65	0,73	2,69
1,5	2	100L	15,0	5,5	2,7	2,7	0,0143	31	68	54,0	44,0	955	81,5	82,5	82,5	0,49	0,62	0,71	3,70
2,2	3	112M	21,9	6,5	2,7	2,7	0,0257	26	57	71,0	49,0	960	83,0	84,5	84,5	0,48	0,61	0,71	5,29
3	4	132S/M	29,6	6,1	1,9	2,4	0,0416	40	88	97,0	53,0	970	85,0	85,6	85,6	0,53	0,66	0,73	6,93
4	5,5	132S/M	39,6	6,5	2,1	2,6	0,0492	20	44	97,0	53,0	965	86,0	86,8	86,8	0,53	0,66	0,73	9,11
5,5	7,5	132S/M	54,2	7,3	2,6	2,8	0,0755	26	57	115	53,0	970	86,5	88,0	88,0	0,50	0,64	0,70	12,9
7,5	10	160M/L	73,5	6,3	2,2	2,7	0,1404	16	35	173	57,0	975	88,5	89,3	89,3	0,64	0,76	0,82	14,8
9,2	12,5	160M/L	90,2	6,5	2,3	2,9	0,1756	18	40	188	57,0	975	90,0	90,6	90,0	0,64	0,75	0,81	18,2
11	15	160M/L	108	7,1	2,7	2,9	0,1931	12	26	195	57,0	975	89,0	90,1	90,5	0,60	0,73	0,80	21,9
15	20	180M/L	147	8,2	2,8	3,2	0,2970	8	18	246	56,0	978	91,5	91,5	91,4	0,65	0,77	0,84	28,2
18,5	25	200M/L	180	6,3	2,4	2,8	0,3510	16	35	293	60,0	980	91,0	91,7	91,9	0,63	0,75	0,81	35,9
22	30	200M/L	215	6,4	2,4	2,8	0,4212	15	33	315	60,0	980	91,4	92,0	92,4	0,64	0,76	0,81	42,4
30	40	225S/M	291	7,5	2,4	2,8	0,8194	15	33	516	63,0	985	93,0	93,4	93,1	0,67	0,78	0,83	56,0
37	50	250S/M	359	7,2	2,4	2,7	1,24	30	66	618	64,0	985	93,7	93,9	93,5	0,72	0,81	0,85	67,2
45	60	280S/M	435	6,4	2,1	2,5	2,35	25	55	866	65,0	988	93,9	93,9	93,9	0,67	0,77	0,82	84,4
55	75	280S/M	532	6,8	2,2	2,5	2,69	24	53	910	65,0	988	94,2	94,7	94,3	0,66	0,77	0,82	103
75	100	315S/M	722	6,3	2,0	2,5	4,35	39	86	1142	67,0	992	94,6	94,9	94,9	0,67	0,77	0,82	139
90	125	315S/M	869	6,4	2,2	2,5	5,42	35	77	1244	67,0	990	95,1	95,5	95,1	0,68	0,78	0,83	165
110	150	315S/M	1062	6,2	2,1	2,4	6,15	31	68	1312	67,0	990	95,4	95,6	95,3	0,70	0,80	0,83	201
132	175	315S/M	1271	7,0	2,4	2,7	7,23	25	55	1414	67,0	992	95,4	95,8	95,6	0,67	0,77	0,82	243
150	200	315L	1448	6,5	2,3	2,5	9,40	25	55	1513	68,0	990	95,4	95,8	95,7	0,67	0,78	0,83	273
160	220	315L	1544	7,5	2,7	2,8	8,68	22	48	1575	68,0	990	95,6	95,6	95,8	0,67	0,77	0,82	294
185	250	315L	1786	7,1	2,4	2,6	9,22	20	44	1620	68,0	990	95,0	95,8	95,8	0,65	0,76	0,81	344
200	270	355M/L	1930	6,1	2,0	2,1	10,4	41	90	2071	73,0	990	95,5	96,0	95,9	0,66	0,76	0,80	376
220	300	355M/L	2113	6,5	2,0	2,2	12,5	36	79	2219	73,0	995	95,5	96,1	96,0	0,63	0,74	0,80	413
250	340	355M/L	2401	6,5	2,1	2,2	13,9	38	84	2387	73,0	995	95,5	96,1	96,0	0,64	0,75	0,80	470
260	350	355M/L	2497	6,5	2,1	2,2	15,0	38	84	2387	73,0	995	95,5	96,1	96,0	0,64	0,75	0,80	489
280	380	355M/L	2689	6,0	1,9	2,2	15,0	38	84	2493	73,0	995	95,1	95,1	96,0	0,64	0,75	0,80	526
300	400	355M/L	2895	5,8	1,9	2,0	15,0	25	55	2493	73,0	990	95,8	96,0	96,0	0,63	0,74	0,80	564
315	430	355M/L	3034	6,1	2,1	2,1	15,0	25	55	2493	73,0	992	95,2	95,8	95,8	0,66	0,76	0,80	593
Optional frames																			
1,1	1,5	112M	11,0	6,2	2,3	2,8	0,0220	28	62	68,0	49,0	960	80,0	81,0	82,0	0,52	0,64	0,70	2,77
1,5	2	112M	14,9	6,7	2,8	3,0	0,0202	28	62	68,0	49,0	965	84,5	85,5	85,5	0,51	0,62	0,70	3,62
2,2	3	132S/M	21,7	5,7	1,8	2,7	0,0491	30	66	97,0	53,0	970	86,0	87,5	87,5	0,52	0,64	0,72	5,04
5,5	7,5	160M/L	53,8	6,5	2,4	2,9	0,1229	31	68	112	57,0	977	87,5	88,0	88,0	0,58	0,71	0,79	11,4
45	60	250S/M	437	8,0	2,8	2,8	1,43	18	40	652	64,0	985	92,4	93,9	93,9	0,76	0,84	0,87	79,5
75	100	280S/M	724	7,7	3,0	3,5	4,48	8	18	1145	65,0	990	94,8	95,3	94,9	0,63	0,75	0,80	143
150	200	315S/M	1448	6,5	2,3	2,5	9,40	20	44	1482	67,0	990	95,4	95,8	95,7	0,67	0,78	0,83	273
150	200	355M/L	1440	6,3	2,3	2,7	11,3	83	183	1640	73,0	995	95,0	95,7	95,7	0,61	0,72	0,78	290
160	220	355M/L	1538	6,5	1,9	2,3	8,80	33	73	1923	73,0	994	94,9	95,6	95,8	0,63	0,74	0,79	305
185	250	355M/L	1786	6,6	2,0	2,2	9,26	34	75	1965	73,0	990	94,9	95,6	95,8	0,64	0,74	0,79	353

**Ex db / Ex db eb IIB T4 Gb¹⁾
Ex db / Ex db eb IIC T4 Gb¹⁾**

Output		Frame	Full load torque (Nm)	Locked rotor current I/In	Locked rotor torque Tl/Tn	Break-down torque Td/Tn	Inertia J (kgm ²)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	380 V							415 V						
								Rated speed (rpm)	% of full load						Full load current In (A)	Rated speed (rpm)	% of full load						Full load current In (A)		
									Efficiency			Power factor					Efficiency			Power factor					
kW	HP							Hot	Cold			50	75	100	50	75	100	50	75	100	50	75	100		
VI poles																									
0,18	0,25	885	57,7	62,8	63,9	0,43	0,55	0,64	0,669	910	54,5	61,2	63,9	0,38	0,48	0,57	0,688								
0,25	0,33	950	65,9	68,0	68,6	0,51	0,64	0,73	0,758	960	61,7	68,2	68,8	0,45	0,57	0,66	0,766								
0,37	0,5	915	67,6	69,9	73,5	0,55	0,69	0,77	0,993	930	64,3	68,8	73,5	0,48	0,62	0,72	0,973								
0,55	0,75	950	76,0	77,0	77,2	0,52	0,66	0,74	1,46	960	77,2	77,5	77,6	0,45	0,59	0,68	1,45								
0,75	1	945	77,5	79,2	78,9	0,53	0,66	0,74	1,95	955	75,3	78,6	79,1	0,46	0,59	0,69	1,91								
1,1	1,5	940	80,8	80,9	81,0	0,55	0,68	0,75	2,75	950	79,9	80,9	81,5	0,48	0,62	0,70	2,68								
1,5	2	950	82,3	82,6	82,5	0,53	0,66	0,74	3,73	960	80,6	82,3	82,8	0,46	0,59	0,68	3,71								
2,2	3	955	83,6	84,4	84,3	0,52	0,65	0,73	5,43	965	82,3	84,3	84,7	0,45	0,58	0,69	5,24								
3	4	965	85,0	85,6	85,6	0,57	0,69	0,76	7,01	975	85,2	85,8	85,6	0,49	0,63	0,71	6,87								
4	5,5	960	86,3	86,8	86,8	0,57	0,70	0,76	9,21	970	85,4	86,5	86,8	0,49	0,62	0,71	9,03								
5,5	7,5	965	87,4	88,3	88,0	0,55	0,68	0,75	12,7	975	85,8	87,7	88,0	0,47	0,60	0,67	13,0								
7,5	10	970	88,9	89,0	89,1	0,68	0,79	0,84	15,2	980	88,0	89,0	89,1	0,61	0,73	0,80	14,6								
9,2	12,5	970	89,5	90,0	90,0	0,68	0,78	0,83	18,7	975	89,6	90,0	90,0	0,61	0,73	0,79	18,0								
11	15	975	89,7	90,3	90,3	0,65	0,77	0,82	22,6	980	88,3	89,8	90,5	0,57	0,70	0,78	21,7								
15	20	975	90,7	91,0	91,2	0,68	0,80	0,86	29,1	980	91,3	91,6	91,6	0,62	0,75	0,82	27,8								
18,5	25	980	91,0	91,7	91,7	0,68	0,78	0,83	36,9	985	90,3	91,4	91,7	0,59	0,72	0,78	36,0								
22	30	980	92,0	92,2	92,2	0,69	0,79	0,84	43,2	980	90,8	91,8	92,2	0,60	0,72	0,79	42,0								
30	40	985	93,3	93,3	92,9	0,71	0,80	0,85	57,7	985	92,8	93,4	93,0	0,64	0,75	0,82	54,7								
37	50	980	93,3	93,3	93,3	0,75	0,83	0,87	69,3	985	93,3	93,5	93,5	0,69	0,80	0,84	65,5								
45	60	985	93,7	93,8	93,8	0,70	0,80	0,83	87,8	990	93,7	94,0	94,0	0,64	0,75	0,81	82,2								
55	75	9																							

W22Xdb - Premium Efficiency - IE3

Output kW HP		Frame	Full load torque (Nm)	Locked rotor current I _L /I _n	Locked rotor torque T _L /T _n	Break-down torque T _b /T _n	Inertia J (kgm ²)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	Rated speed (rpm)	400 V						Full load current I _n (A)
								% of full load					% of full load						
								Hot	Cold				Efficiency			Power factor			
VIII poles																			
0,12	0,16	71	1,76	2,4	1,8	1,9	0,0009	30	66	20,5	41,0	650	44,0	50,0	52,5	0,35	0,43	0,50	0,660
0,18	0,25	80	2,53	3,3	2,0	2,2	0,0029	30	66	24,0	42,0	680	51,0	57,0	58,7	0,45	0,55	0,65	0,681
0,25	0,33	80	3,44	3,5	2,0	2,2	0,0034	30	66	25,5	42,0	695	53,0	60,0	64,1	0,42	0,52	0,63	0,894
0,37	0,5	90S/L	4,98	3,7	2,0	2,3	0,0055	30	66	40,0	44,0	710	61,0	66,0	69,3	0,41	0,53	0,62	1,24
0,55	0,75	90S/L	7,56	3,8	1,9	2,2	0,0066	29	64	40,0	44,0	695	65,0	70,0	73,0	0,44	0,57	0,67	1,62
0,75	1	100L	10,1	4,3	1,8	2,1	0,0127	30	66	52,0	50,0	710	72,5	75,5	75,5	0,41	0,53	0,62	2,31
1,1	1,5	100L	14,8	4,6	1,9	2,0	0,0143	30	66	54,0	50,0	710	73,0	76,0	77,7	0,41	0,53	0,62	3,30
1,5	2	112M	20,3	5,0	2,5	2,8	0,0238	28	62	69,0	46,0	705	79,0	79,5	79,9	0,45	0,59	0,68	3,98
2,2	3	132S/M	29,6	6,2	2,3	2,5	0,0690	27	59	99,0	48,0	710	81,5	82,0	82,1	0,51	0,65	0,72	5,37
3	4	132S/M	40,4	6,4	2,4	2,6	0,0838	21	46	107	48,0	710	82,5	83,5	83,5	0,51	0,64	0,72	7,20
4	5,5	160M/L	52,4	5,0	2,1	2,3	0,1229	34	75	165	51,0	730	85,0	86,0	86,0	0,47	0,61	0,68	9,87
5,5	7,5	160M/L	72,5	5,0	2,1	2,3	0,1492	28	62	176	51,0	725	86,0	87,3	87,3	0,52	0,65	0,73	12,5
7,5	10	160M/L	98,0	5,5	2,2	2,5	0,2199	22	48	207	51,0	731	86,5	88,0	88,4	0,46	0,59	0,68	18,0
9,2	12,5	180M/L	121	6,0	2,0	2,6	0,2575	15	33	233	52,0	725	89,0	89,3	89,6	0,63	0,75	0,82	18,1
11	15	180M/L	144	6,5	2,3	2,7	0,2846	12	26	242	52,0	730	88,7	89,2	89,7	0,55	0,68	0,76	23,3
15	20	200M/L	196	4,9	1,8	2,0	0,4571	33	73	326	56,0	730	89,8	89,9	90,0	0,56	0,68	0,74	32,5
18,5	25	225S/M	241	6,5	1,7	2,5	0,8219	28	62	516	56,0	735	91,5	92,0	91,6	0,63	0,75	0,81	36,0
22	30	225S/M	286	6,5	1,8	2,5	0,9574	22	48	546	56,0	735	91,5	92,3	92,1	0,63	0,75	0,81	42,6
30	40	250S/M	390	7,4	1,9	2,8	1,43	18	40	652	56,0	735	92,7	93,0	92,8	0,66	0,77	0,83	56,2
37	50	280S/M	478	6,0	1,8	2,3	2,82	32	70	925	59,0	740	93,2	93,9	93,7	0,63	0,73	0,79	72,1
45	60	280S/M	581	6,0	1,8	2,2	3,49	30	66	1013	59,0	740	93,8	94,0	93,8	0,63	0,73	0,79	87,7
55	75	315S/M	710	6,0	1,7	2,2	5,11	40	88	1210	62,0	740	94,0	94,2	94,2	0,65	0,75	0,80	105
75	100	315S/M	968	6,0	1,8	2,2	6,56	40	88	1346	62,0	740	93,5	93,6	93,7	0,65	0,75	0,80	144
90	125	315S/M	1162	6,0	1,9	2,2	7,84	40	88	1465	62,0	740	94,6	95,0	94,8	0,65	0,75	0,80	171
110	150	315L	1420	6,0	1,9	2,2	9,46	35	77	1640	68,0	740	95,0	95,1	95,1	0,64	0,74	0,79	211
132	175	355M/L	1693	6,2	1,3	2,3	14,1	48	106	2092	70,0	745	93,5	95,3	95,3	0,64	0,74	0,79	253
150	200	355M/L	1924	7,2	1,8	2,5	16,5	40	88	2261	70,0	745	94,5	95,2	95,5	0,62	0,73	0,79	287
160	220	355M/L	2052	6,4	1,3	2,3	17,4	56	123	2324	70,0	745	95,4	95,6	95,6	0,64	0,75	0,80	302
185	250	355M/L	2373	6,3	1,3	2,3	18,0	56	123	2387	70,0	745	95,5	95,7	95,7	0,64	0,75	0,80	349
200	270	355M/L	2565	6,2	1,3	2,3	18,9	56	123	2430	70,0	745	95,6	95,8	95,8	0,65	0,76	0,80	377
220	300	355M/L	2825	7,0	1,8	2,6	19,8	30	66	2493	70,0	744	94,8	95,1	95,2	0,60	0,72	0,77	433
Optional frames																			
37	50	250S/M	481	8,5	2,8	3,3	1,61	12	26	685	56,0	735	93,0	93,4	93,4	0,60	0,72	0,79	72,4
55	75	280S/M	710	7,0	2,0	2,5	3,38	26	57	998	59,0	740	94,0	94,1	94,1	0,60	0,71	0,77	110
110	150	315S/M	1420	6,0	1,9	2,2	9,46	35	77	1618	62,0	740	95,0	95,1	95,1	0,64	0,74	0,79	211
110	150	355M/L	1411	6,2	1,3	2,3	14,0	56	123	2071	70,0	745	95,0	95,1	95,1	0,62	0,74	0,79	211
132	175	315L	1704	6,0	2,0	2,3	11,3	34	75	1798	68,0	740	95,0	95,3	95,3	0,64	0,74	0,79	253

Ex db / Ex db eb IIB T4 Gb¹⁾
Ex db / Ex db eb IIC T4 Gb¹⁾

Output kW HP		Frame	Full load torque (Nm)	Locked rotor current I _L /I _n	Locked rotor torque T _L /T _n	Break-down torque T _b /T _n	Inertia J (kgm ²)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	Rated speed (rpm)	380 V						415 V						Full load current I _n (A)
								% of full load					% of full load						% of full load						
								Hot	Cold				Efficiency			Power factor			Full load current I _n (A)	Rated speed (rpm)	Efficiency			Power factor	
VIII poles																									
0,12	0,16	640	46,6	51,7	52,9	0,38	0,46	0,54	0,638	655	41,8	48,2	51,4	0,34	0,41	0,48	0,677								
0,18	0,25	670	52,8	58,0	58,7	0,48	0,59	0,69	0,675	685	49,3	56,0	58,7	0,43	0,53	0,62	0,688								
0,25	0,33	685	54,0	60,0	64,1	0,44	0,57	0,67	0,884	705	56,0	62,0	64,3	0,39	0,50	0,60	0,902								
0,37	0,5	705	61,0	66,0	69,3	0,44	0,56	0,66	1,23	715	62,0	67,0	69,5	0,38	0,50	0,59	1,26								
0,55	0,75	690	65,0	70,0	73,0	0,49	0,62	0,70	1,64	705	65,0	70,0	73,0	0,42	0,55	0,64	1,64								
0,75	1	705	73,9	76,1	75,1	0,44	0,57	0,64	2,37	715	71,1	74,8	75,5	0,38	0,50	0,59	2,34								
1,1	1,5	700	74,9	76,8	77,7	0,45	0,58	0,66	3,26	710	71,1	76,0	77,7	0,38	0,50	0,59	3,34								
1,5	2	700	79,0	79,5	79,7	0,49	0,63	0,71	4,03	710	77,9	79,7	79,9	0,42	0,56	0,65	4,02								
2,2	3	705	81,5	81,9	81,9	0,57	0,68	0,76	5,37	715	81,0	82,0	82,2	0,48	0,62	0,70	5,32								
3	4	705	83,4	83,7	83,5	0,56	0,68	0,75	7,28	715	81,5	83,2	83,7	0,48	0,61	0,70	7,12								
4	5,5	725	85,6	86,8	86,1	0,51	0,64	0,70	10,1	735	84,4	86,6	86,8	0,44	0,58	0,66	9,71								
5,5	7,5	720	86,7	87,3	87,2	0,56	0,68	0,76	12,6	730	85,2	87,0	87,8	0,49	0,62	0,71	12,3								
7,5	10	728	87,0	88,0	88,3	0,50	0,63	0,71	18,2	732	86,0	88,0	88,5	0,44	0,56	0,65	18,1								
9,2	12,5	720	89,2	89,1	88,9	0,67	0,78	0,84	18,7	730	88,6	89,3	90,0	0,60	0,73	0,80	17,8								
11	15	725	88,5	89,0	89,5	0,59	0,71	0,77	24,3	731	89,0	89,5	90,0	0,52	0,65	0,74	23,0								
15	20	730	89,4	89,5	89,6	0,60	0,71	0,76	33,5	730	89,4	90,1	90,2	0,53	0,65	0,72	32,1								
18,5	25	730	89,8	90,1	90,1	0,67	0,78	0,83	37,6	735	89,8	90,3	90,3	0,60	0,73	0,80	35,6								
22	30	730	90,3	90,6	90,6	0,67	0,78	0,83	44,5	735	90,3	90,8	90,8	0,60	0,73	0,79	42,7								
30	40	730	91,0	91,3	91,3	0,70	0,80	0,85	58,7	735	91,0	91,5	91,5	0,63	0,75	0,85	53,7								
37	50	740	91,5	91,8	91,8	0,67	0,76	0,81	75,6	740	91,5	92,0	92,0	0,60	0,71	0,77	72,7								
45	60	740	91,9	92,2	92,2	0,67	0,76	0,80	92,7	740	91,9	92,4	92,4	0,60	0,71	0,78	86,9								
55	75	740	92,2	92,5	92,5	0,69	0,77	0,81	112	740	92,2	92,7	92,7	0,62	0,73	0,79	104								
75	100	740	92,8	93,1	93,1	0,69	0,77	0,81	151	740	92,8	93,3	93,3	0,62	0,73	0,79	142								
90	125	740	93,1	93,4	93,4	0,69	0,77	0,81	181	740	93,1	93,6	93,6	0,62	0,73	0,79	169								
110	150	740	93,4	93,7	93,7	0,68	0,77	0,81	220	740	93,4	93,9	93,9	0,61	0,72	0,78	209								
132	175	744	93,7	94,0	94,0	0,66	0,75	0,81	263	745	93,5	94,2	94,2	0,60	0,71	0,77	253								
150	200	745	93,8	94,0	94,3	0,62	0,73	0,78	310	745	93,8	94,0	94,3	0,55	0,68	0,75	295								
160	220	745	94,0	94,3	94,3	0,68	0,78	0,82	314	745	94,0	94,5	94,5	0,61	0,73	0,79	298								
185	250	745	94,0	94,6	94,6	0,68	0,78	0,82	362	745	94,4	94,8	94,8	0,60	0,72	0,78	348								
200	270	745	94,3	94,6	94,6	0,69	0,79	0,82	392	745	94,3	94,8	94,8	0,61	0,73	0,78	376								
220	300	743	94,8	95,1	95,2	0,65	0,75	0,79	444	745	94,8	95,1	95,2	0,58	0,73	0,75	429								

W22Xdb - Super Premium Efficiency - IE4

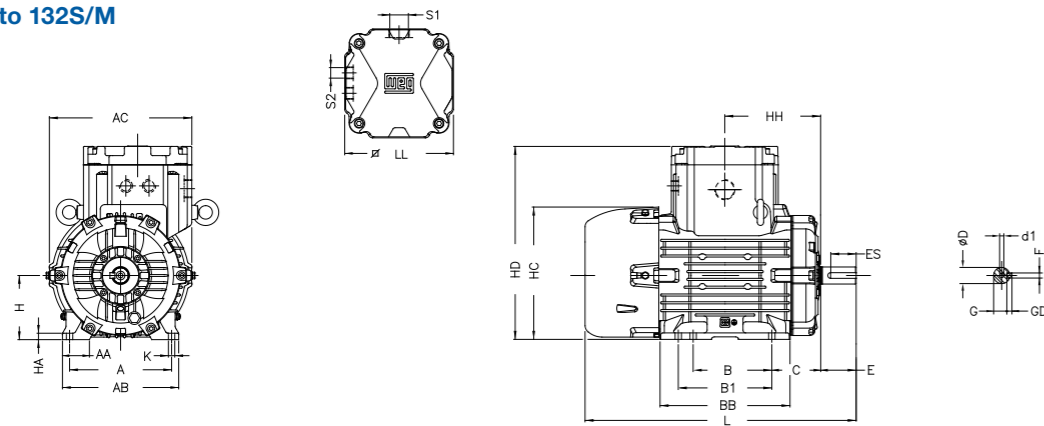
Ex db / Ex db eb IIB T4 Gb

Ex db / Ex db eb IIC T4 Gb¹⁾

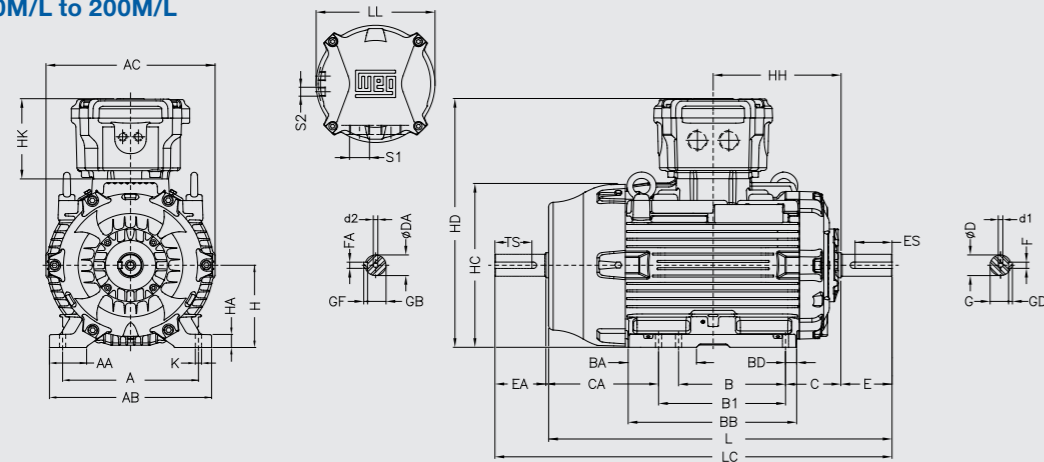
Output		Frame	Full load torque (Nm)	Locked rotor current II/In	Locked rotor torque TI/Tn	Break-down torque Tb/Tn	Inertia J (kgm²)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	400 V						Full load current In (A)	
								Hot	Cold			Rated speed (rpm)	% of full load			Power factor			
kW	HP													50	75	100	50	75	100
II poles																			
5,5	7,5	132S/M	17,9	7,9	2,6	3,4	0,0252	27	59	99,0	63	2940	89,0	90,6	90,9	0,71	0,81	0,86	10,2
7,5	10	132S/M	24,4	8,7	3,1	3,9	0,0285	16	35	104	63	2940	90,3	91,5	91,7	0,69	0,80	0,86	13,7
9,2	12,5	160M/L	29,7	8,0	2,9	3,7	0,0514	20	44	150	67	2960	91,0	91,9	92,1	0,68	0,79	0,85	17,0
11	15	160M/L	35,6	8,5	2,9	3,5	0,0588	14	31	173	67	2955	91,1	92,3	92,8	0,69	0,80	0,86	19,9
15	20	160M/L	48,5	8,2	2,9	3,5	0,0698	11	24	184	67	2955	92,1	93,0	93,3	0,70	0,81	0,86	27,0
18,5	25	180M/L	59,7	8,3	2,7	3,5	0,1022	14	31	220	67	2960	92,8	93,4	93,7	0,70	0,80	0,86	33,1
22	30	180M/L	71,1	8,2	2,7	3,4	0,1183	8	18	246	67	2955	93,3	93,8	94,0	0,73	0,82	0,87	38,8
30	40	200M/L	96,5	8,2	3,7	3,5	0,2119	16	35	321	72	2970	93,0	94,1	94,5	0,70	0,80	0,85	53,9
37	50	200M/L	119	8,1	3,4	3	0,2373	14	31	338	72	2970	93,6	94,5	94,8	0,72	0,82	0,86	65,5
45	60	225S/M	145	8,7	3,1	3,8	0,3641	17	37	546	74	2970	93,9	94,5	95,0	0,75	0,84	0,88	77,7
55	75	250S/M	177	8,2	3	3,1	0,6068	28	62	693	74	2970	94,6	95,3	95,5	0,81	0,88	0,90	92,4
75	100	280S/M	240	7,9	2,4	3,1	1,47	50	110	1042	77	2980	95,1	96,0	96,3	0,80	0,87	0,90	125
90	125	280S/M	289	7,8	2,4	2,9	1,64	45	99	1101	77	2980	95,5	96,2	96,5	0,82	0,88	0,90	150
110	150	315S/M	353	7,8	2,3	3	2,32	42	92	1261	77	2980	94,9	95,9	96,5	0,79	0,86	0,89	185
132	175	315S/M	423	7,4	2,3	2,8	2,92	36	79	1363	77	2980	95,6	96,2	96,6	0,83	0,89	0,91	217
150	200	315S/M	481	7,6	2,4	2,9	3,20	42	92	1465	77	2980	96,0	96,6	96,8	0,82	0,88	0,90	249
160	220	315S/M	513	7,6	2,4	2,9	3,20	42	92	1465	77	2980	96,0	96,6	96,8	0,82	0,88	0,90	265
185	250	315L	593	7,9	2,6	2,8	3,50	29	64	1561	77	2980	95,9	96,5	96,8	0,84	0,89	0,91	303
200	270	315L	641	8,2	2,7	2,9	3,72	32	70	1608	78	2980	96,3	96,8	97,0	0,83	0,89	0,91	327
220	300	315L	705	8,1	2,7	2,7	3,95	25	55	1656	78	2980	96,3	96,7	96,9	0,85	0,90	0,92	356
250	340	315L	803	7,5	2,6	2,6	4,15	20	44	1703	78	2975	96,7	96,9	96,9	0,85	0,90	0,92	405
260	350	315L	835	7,5	2,6	2,6	4,15	20	44	1703	78	2975	96,7	96,9	96,9	0,85	0,90	0,92	421
280	380	355M/L	896	8,4	2,1	2,9	5,36	32	70	2176	80	2985	96,2	96,8	97,0	0,83	0,89	0,91	458
300	400	355M/L	960	7,5	2	2,6	5,68	32	70	2240	80	2985	96,5	96,9	97,0	0,86	0,91	0,92	485
315	430	355M/L	1008	8,2	2,4	2,7	6,01	23	51	2303	80	2985	96,5	96,9	97,0	0,86	0,91	0,92	509
IV poles																			
5,5	7,5	132S/M	35,6	10,0	2,9	3,5	0,0638	16	35	107	56	1475	90,8	91,8	91,9	0,63	0,75	0,82	10,5
7,5	10	160M/L	48,4	8,7	3	3,4	0,1258	20	44	160	61	1480	91,4	92,3	92,6	0,60	0,73	0,80	14,6
9,2	12,5	160M/L	59,4	8,6	3	3,3	0,1397	16	35	188	61	1480	91,9	92,9	93,0	0,61	0,74	0,81	17,6
11	15	160M/L	71,3	8,2	3	3,5	0,1537	14	31	195	61	1475	92,0	93,0	93,3	0,61	0,73	0,81	21,0
15	20	160M/L	97,2	7,2	3	3,2	0,1813	28	62	211	61	1475	92,7	93,6	93,9	0,63	0,75	0,81	28,5
18,5	25	180M/L	120	8,7	3,2	3,8	0,2291	16	35	267	61	1479	93,6	94,2	94,2	0,64	0,76	0,83	34,2
22	30	200M/L	141	7,7	3,2	3,5	0,3448	25	55	310	63	1487	93,7	94,3	94,5	0,61	0,72	0,80	42,0
30	40	200M/L	193	7,4	2,8	3,2	0,3979	18	40	349	63	1485	93,9	94,7	94,9	0,60	0,73	0,81	56,3
37	50	225S/M	238	7,9	2,8	3,2	0,7346	21	46	561	63	1485	94,6	95,1	95,2	0,67	0,78	0,84	66,8
45	60	225S/M	290	8,3	2,9	3,3	0,7346	15	33	561	63	1485	94,2	95,0	95,4	0,62	0,74	0,82	83,0
55	75	250S/M	354	8,3	3	3,4	1,21	17	37	693	64	1485	94,9	95,4	95,7	0,66	0,78	0,83	100
75	100	280S/M	481	7,9	2,9	2,9	2,78	40	88	1086	69	1490	95,5	96,1	96,2	0,72	0,81	0,85	132
90	125	280S/M	579	7,9	3	3,5	3,40	40	88	1204	69	1485	95,9	96,3	96,4	0,67	0,79	0,84	160
110	150	315S/M	705	7,4	2,7	2,7	4,42	54	119	1414	71	1490	95,8	96,4	96,8	0,73	0,82	0,86	191
132	175	315S/M	846	7,5	2,8	2,7	5,29	50	110	1550	71	1490	96,1	96,7	96,9	0,73	0,82	0,86	229
150	200	315L	961	7,7	3,2	3,1	5,73	40	88	1640	72	1492	96,3	96,8	96,9	0,74	0,83	0,86	260
160	220	315L	1026	7,7	3	2,6	5,73	40	88	1640	73	1490	96,3	96,8	96,9	0,74	0,83	0,86	277
185	250	315L	1186	7,7	3	2,6	6,17	32	70	1703	73	1490	96,4	96,8	96,9	0,74	0,83	0,86	320
200	270	315L	1283	7,9	3	2,7	6,51	31	68	1750	73	1490	96,4	96,9	97,0	0,74	0,83	0,86	346
220	300	355M/L	1411	7,9	2,6	2,8	8,95	36	79	2176	74	1490	95,9	96,6	96,9	0,72	0,81	0,85	386
250	340	355M/L	1603	8,2	2,7	2,8	10,0	33	73	2303	74	1490	96,1	96,7	97,0	0,72	0,81	0,85	438
260	350	355M/L	1667	8,2	2,7	2,8	10,0	33	73	2303	74	1490	96,1	96,7	97,0	0,72	0,81	0,85	455
280	380	355M/L	1796	7,9	2,7	2,7	10,5	28	62	2366	74	1490	96,3	96,8	97,0	0,72	0,81	0,85	490
300	400	355M/L	1924	7,8	2,7	2,6	11,1	24	53	2430	74	1490	96,4	96,8	97,0	0,73	0,82	0,86	519
315	430	355M/L	2020	7,8	2,9	2,6	11,6	27	59	2493	74	1490	96,5	96,9	97,0	0,73	0,82	0,86	545
VI poles																			
3	4	132S/M	29,4	6,3	2,3	2,6	0,0568	48	106	102	53	975	88,0	89,3	88,6	0,53	0,66	0,73	6,69
4	5,5	132S/M	39,4	6,6	2	2,6	0,0643	35	77	107	53	970	88,5	89,6	89,5	0,53	0,66	0,73	8,84
5,5	7,5	160M/L	53,6	6,9	2,5	3	0,1668	30	66	175	57	980	88,7	90,1	90,5	0,61	0,74	0,80	11,0
7,5	10	160M/L	73,1	6,8	2,6	2,9	0,1931	21	46	195	57	980	90,6	91,5	91,3	0,60	0,73	0,80	14,8
9,2	12,5	180M/L	89,2	8,4	2,8	3,5	0,2958	21	46	240	56	985	91,0	91,6	91,8	0,61	0,74	0,81	17,9
11	15	180M/L	107	8,4	2,8	3,5	0,3361	18	40	250	56	980	90,3	91,5	92,3	0,61	0,74	0,81	21,2
15	20	180M/L	146	8,2	2,8	3,4	0,3765	13	29	274	56	980	92,0	92,6	92,9	0,63	0,75	0,82	28,4
18,5	25	200M/L	180	6,6	2,4	2,7	0,4896	23	51	338	60	980	92,7	93,2	93,4	0,63	0,75	0,81	35,3
22	30	200M/L	213	7,0	2,6	2,9	0,5246	18	40	349	60	985	92,4	93,2	93,7	0,59	0,72	0,79	42,9
30	40	225S/M	291	7,4	2,4	2,8	1,02	23	51	561	63	985	93,7	94,1	94,2	0,69	0,80	0,84	54,7
37	50	250S/M	359	7,3	2,6	2,8	1,65	30	66	693	64	985	94,3	94,7	94,5	0,70	0,81	0,85	66,5
45	60	280S/M	434	7,0	2,3	2,8	3,25	35	77	984	65	990	94,4	95,0	95,2	0,65	0,76	0,82	83,2
55	75	280S/M	531	7,2	2,6	3	3,92	36	79	1072	65	990	94,6	95,3	95,4	0,64	0,75	0,81	103
75	100	315S/M	724	6,8	2,3	2,7	7,25	60	132	1414	67	990	95,3	96,0	96,2	0,67	0,77	0,82	137
90	125	315S/M	869	6,7	2,2	2,4	7,96	48	106	1482	67	990	95,7	96,1	96,2	0,69	0,79	0,83	163
110	150	315L	1062	6,9	2,5	2,6	9,04	44	97	1608	68	990	95,7	96,2	96,3	0,67	0,77	0,82	201
132	175	315L	1274	7,2	2,6	2,7	9,94	36	79	1687	68	990	95,9	96,3	96,4	0,67	0,77	0,82	241
150	200	315L	1448	7,2	2,7	2,6	11,0	30	66	1782									

Mechanical Data (Standard)

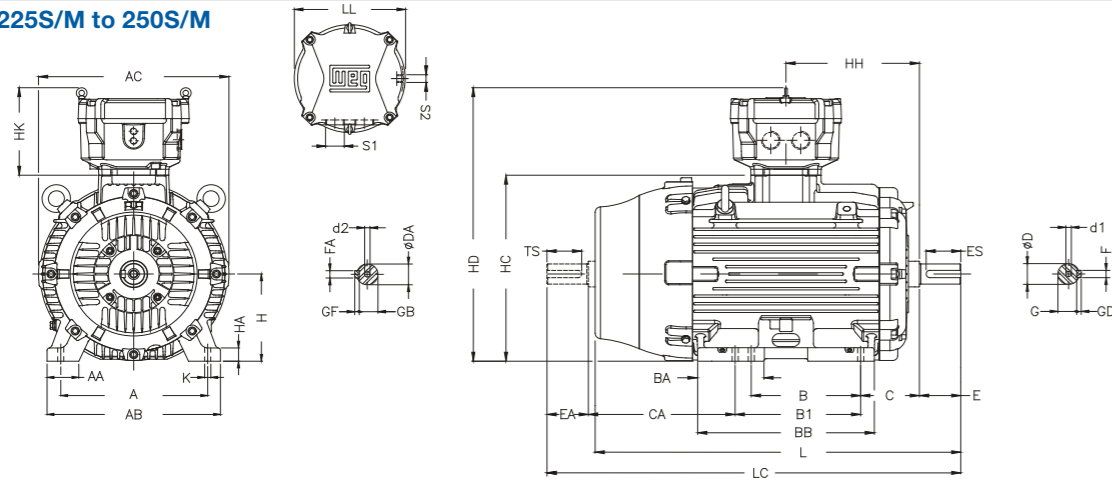
Frames 71 to 132S/M



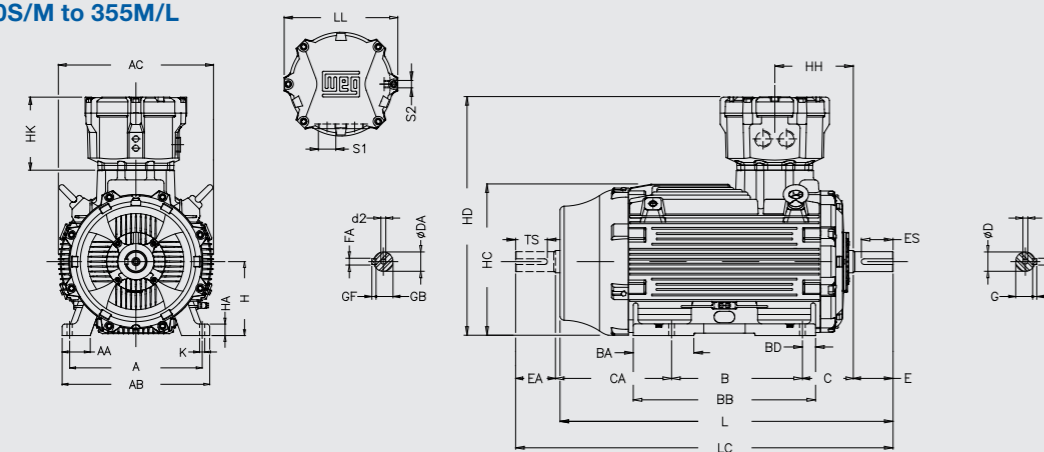
Frames 160M/L to 200M/L



Frames 225S/M to 250S/M



Frames 280S/M to 355M/L



Frame size	A	AA	AB	AC	B	B1	BA	BB	BD	C*	CA	D	DA	E	EA	ES	F	FA	G
71	112	32	132	155,5	90	110	48	132	11	45	125/105	14j6	11j6	30	23	18	5	4	11
80	125	37	149	180	100	121	53	143	11	50	127/106	19j6	14j6	40	30	28	6	5	15,5
90S/L	140	38	164	200	100	125	89	183	12,5	56	157,5/124,5	24j6	16j6	50	40	36	8	6	20
100L	160	46	188	232	140	183	82	211	14	63	178,5/135,5	28j6	22j6	60	50	45	8	6	24
112M	190	48	220	252	140	186	79	213,5	14	70	191/145	28j6	24j6	60	50	45	8	8	33
132S/M	216	45	248	296	140	178	104	243	20	89	222/184	38k6	28j6	80	60	63	10	8	37
160M/L	254	64	308	347	210	254	150	353	26	108	291/247	42k6	24j6	110	50	80	12	14	42,5
180M/L	279	80	350	371	241	279	148	367	26	121	287/249	48k6	24j6	110	50	80	14	14	49
200M/L	318	82	385	411	267	305	149	410	31	133	311/276	55m6	48j6	110	110	110	16	14	49
225S/M	356	80	436	465	286	311	167	445	41	149	381/356	55m6**	55m6**	110**	110**	100**	16**	16**	49**
												60m6	60m6	140	125	18	53		
250S/M	406	100	506	493	311	349	176	486	47	168	395/357	60m6**	60m6**	140	140	125	18	18	53**
												65m6	60m6						58
												65m6**	60m6**						58**
280S/M	457	100	557	620	368	419	208	570	41	190	385/334	75m6	65m6	140	140	125	20	18	67,5
												65m6**	60m6**						58**
315S/M	508	120	630	663	406	457	242	665	54	216	494/443	65m6**	60m6**	140**	140	125**	18**	18**	58**
												80m6	65m6	170					160
315L	508	120	630	721	508	-	257	775	59	216	497	65m6**	60m6**	140**	140	125**	18**	18**	58**
												80m6	65m6	170					160
355M/L	610	140	750	744	560	630	237	805	67,5	254	483/413	75m6**	60m6**	140**	140**	125**	20**	18**	67,5**
												100m6	80m6	210	170	200	28	22	90

Frame size	GB	GD	GF	TS	H	HA	HC	HD	HH	HK	K	L*	LC	LL	S1	S2	d1	d2	
71	8,5	5	4	14	71		147	222,5	100		7	285	313	130			M5	M4	
80	11	6	5	18	80	9	165	243,5	111		10	310	347		M25x1,5		M6	M5	
90S/L	13	7	5	28	90		186,5	272,5	135			384	430	151			M8	M5	
100L	18,5	7	6		100	10	207	295,5	155			438	491,5		M32x1,5		M10	M8	
112M	18,5	7	7	36	112		234	320,5	163		12	456	511	171			M10	M8	
132S/M	24	8	7	45	132	15	274	361	191			524	591				M12	M10	
160M/L	20	8	7		160	22	326	509,5	258,5		14,5	717	769		2xM40x1,5		M16	M8	
180M/L	20	9	7	36	180	28	362	549,5	278,5	174,5		752	809	256			M16	M8	
200M/L	42,5	10	9	80	200	30	400	594,5	306,5			821	934					M16	
225S/M	49**	10**	10**	100**	225	34	457	738	330,5	258	18,5	921**	1001,5**		2xM50x1,5	2xM20x1,5			
250S/M	53	11	11	125	250	42	497	783	363	313	24	1009	1089	400					
280S/M	53**	11**	11**	125	280	43	576	953	319,5			1135,5	1226					M20	
315S/M	58	14	14	125	315	49	647	1018	335	313	28	1282**	1381**	470	2xM63x1,5				
315L	53**	11**	11**	125**	315	49	647	1018	335	313	28	1392**	1491**	470					
355M/L	53**	12**	11**	160	355	51,5	727	1058	339			1488,5**	1587,5**	470					

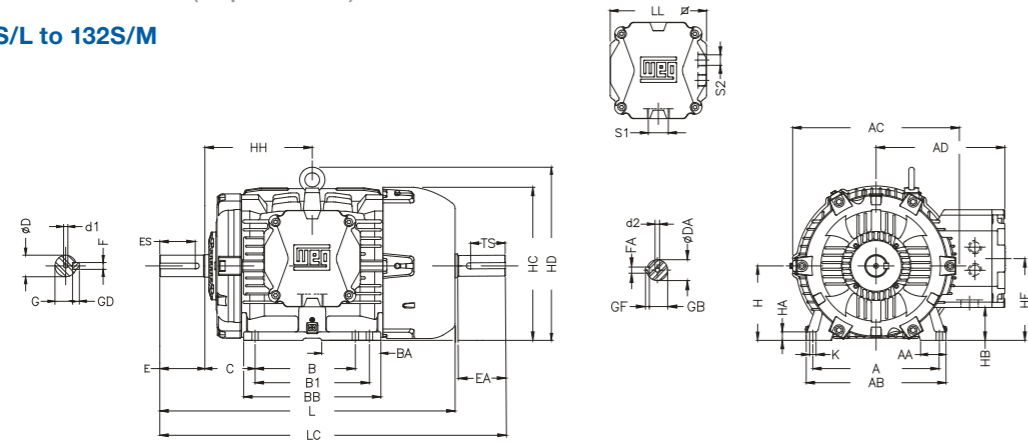
* For 71 frame foot mounted motors with FF flange, the dimensions "C" and "L" will be 70 mm and 310 mm respectively.

** Dimensions for 2-pole motors.

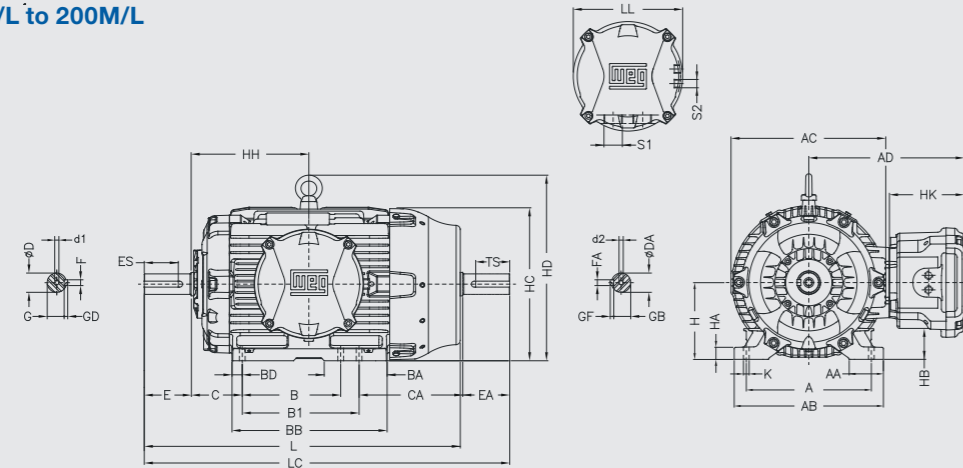


Mechanical Data (Optional)

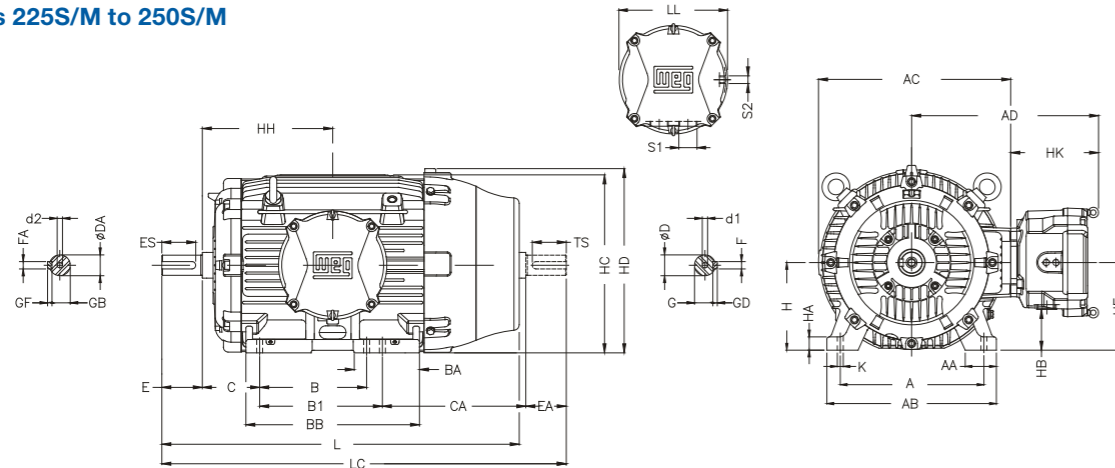
Frames 90S/L to 132S/M



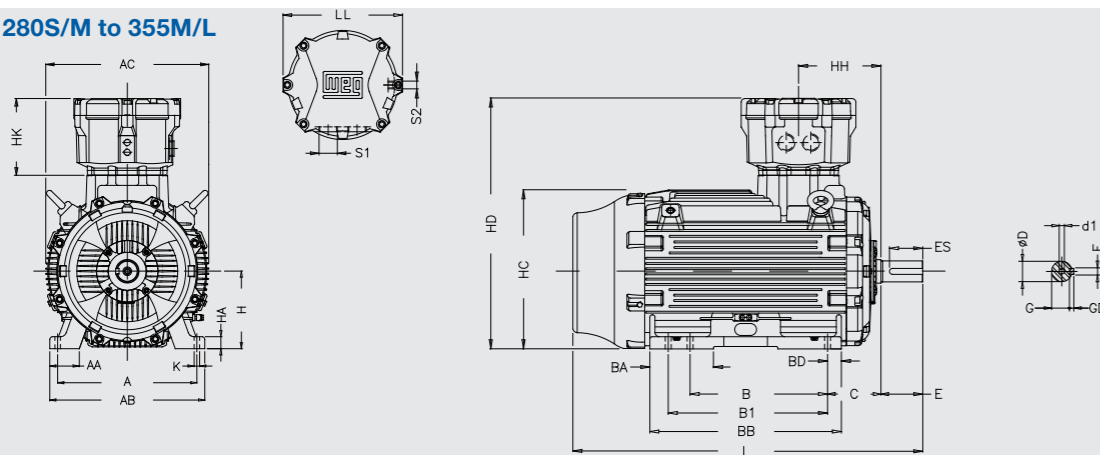
Frames 160M/L to 200M/L



Frames 225S/M to 250S/M



Frames 280S/M to 355M/L



Frame size	A	AA	AB	AC	AD	B	B1	BA	BB	BD	C*	CA	D	DA	E	EA	ES	F	FA	G
90S/L	140	38	164	200	182,5	100	125	89	183	12,5	56	157,5/124,5	24j6	16j6	50	40	36	8	5	20
100L	160	46	188	232	195,5	140	183	82	211	14	63	178,5/135,5	28j6	22j6	60	50	45	8	6	24
112M	190	48	220	252	208,5	140	186	79	213,5	14	70	191/145	28j6	24j6	60	50	45	8	8	33
132S/M	216	45	248	296	229	140	178	104	243	20	89	222/184	38k6	28j6	80	60	63	10	8	37
160M/L	254	64	308	347	349,5	210	254	150	353	26	108	291/247	42k6	24j6	110	50	80	12	14	42,5
180M/L	279	80	350	371	369,5	241	279	148	367	26	121	287/249	48k6	24j6	110	50	80	14	14	49
200M/L	318	82	385	411	394,5	267	305	149	410	31	133	311/276	55m6	48j6	110	110	110	16	14	49
225S/M	356	80	436	465	513	286	311	167	445	41	149	381/356	55m6**	55m6**	110**	110*	100**	16**	16**	49**
													60m6	60m6	140	125	18	53		
250S/M	406	100	506	493	533	311	349	176	486	47	168	395/357	60m6**	60m6**	140	140	125	18	18**	58
													65m6	60m6						
280S/M	457	100	557	620	673	368	419	208	570	41	190	385/334	65m6**	60m6**	140	140	125	18**	18**	58**
													75m6	65m6						
315S/M	508	120	630	663	703	406	457	242	665	54	216	494/443	65m6**	60m6**	140**	140	125**	18**	18**	58**
													80m6	65m6	170					
315L	508	120	630	721	703	508	-	257	775	59	216	497	65m6**	60m6**	140**	140	125**	18**	18**	58**
													80m6	65m6	170					
355M/L	610	140	750	744	703	560	630	237	805	67,5	254	483/413	75m6**	60m6**	140**	140**	125**	20**	18**	67,5**
													100m6	80m6	210	170	200	28	22	90

Frame size	GB	GD	GF	TS	H	HA	HB	HC	HD	HF	HH	HK	K	L*	LC	LL	S1	S2	d1	d2	
90S/L	13	7	5	28	90	9	38,5	186,5	219	114	135	-	12	384	430	151	M25x1,5	2xM20x1,5	M8	M5	
100L	18,5	7	6	36	100	10	42,5	207	239	118	155			14,5	438	491,5	171		M32x1,5	M10	M8
112M	18,5	7	7		112	15	50,5	234	276	136	163				17,5	456					
132S/M	24	8	7	45	132	15	59,5	274	307	145	191			18,5		524	591		400	2xM50x1,5	M16
160M/L	20	8	7	36	160	22	63	326	400	171	258,5	258	717		769	470	2xM63x1,5	M20			
180M/L	20	9	7		180	28	73	362	435	180	278,5		313	752	809				470	2xM63x1,5	M20
200M/L	42,5	10	9	80	200	30	93	400	479	200	306,5	313		821	934	470	2xM63x1,5	M20			
225S/M	49**	10**	10**	100**	225	34	70	457	490	225	330,5		313	921**	1001,5**				470	2xM63x1,5	M20
250S/M	53	11	11	125	250	42	95	497	532	250	363	313		951	1031,5	470	2xM63x1,5	M20			
280S/M	53**	11**			280	43	92	576	585,5	280	319,5		313	313	1135,5				1226	470	2xM63x1,5
315S/M	53**	11**	11**	125	315	49	130	647	655,5	315	335	313			1282**	1381**	470	2xM63x1,5	M20		
	315L	58	14										14	1312	1411						
355M/L	53**	11**	11**	125**	315	49	130	647	655,5	315	335	313	1392**	1491**	470	2xM63x1,5	M20	M20			
	58	14	14										1422	1521							
355M/L	53**	12**	11**	125**	355	51,5	170	727	739,5	355	339	313	1488,5**	1587,5**	470	2xM63x1,5	M20	M20			
	71	16	14	160	1558,5	1657,5															

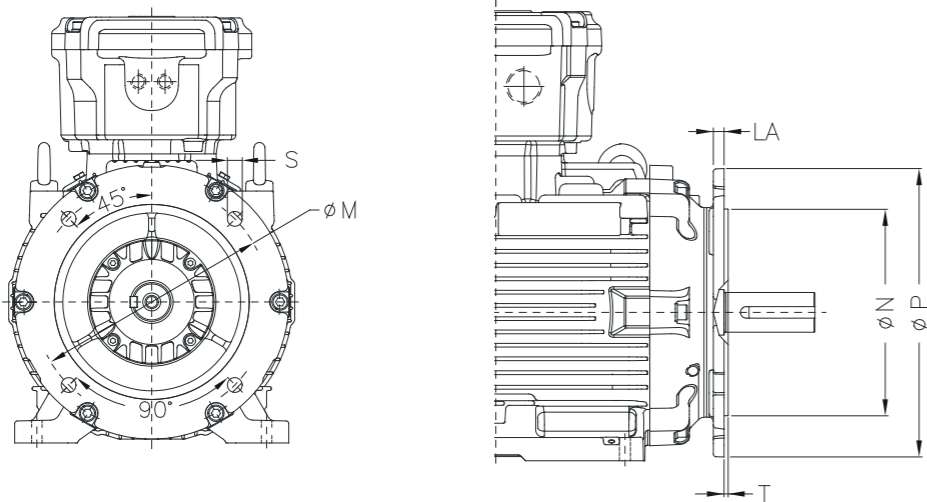
Note: Side mounted terminal box not available for frames 71/80.

** Dimensions for 2-pole motors.



Flange Mounted Motors

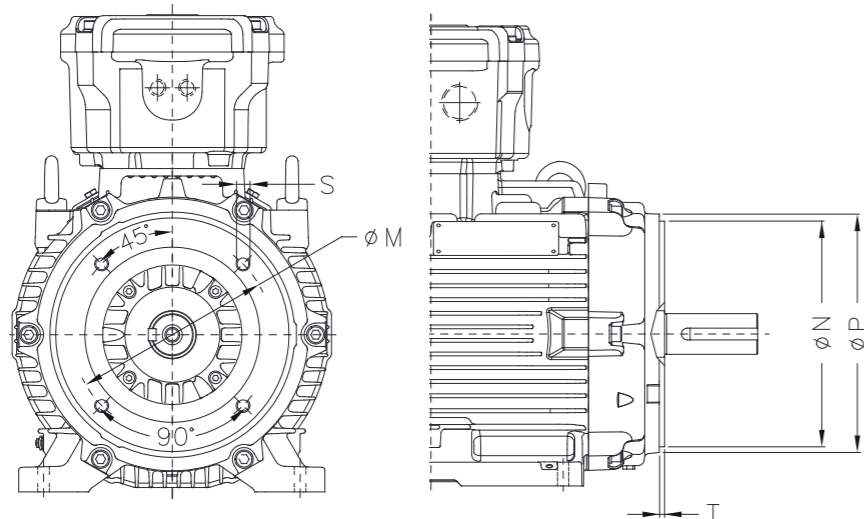
“FF” Flange



Frame size	Flange	LA	M	N	P	S	T	α	N° of holes
71	FF-130	7	130	110	160	10	3.5	45°	4
80	FF-165		165	130	200	12			
90	FF-215	11	215	180	250	15			
100							15		
112	4								
132	FF-265	12	265	230	300	19	5		
160	FF-300	13	300	250	350				
180	FF-350	16	400	350	445	550			
200	FF-400						5		
225	FF-500	18	500	450	546	24	6		
250	FF-600	20	600	550	660				
280	FF-740	22	740	680	800				

* Note: For 71 frame foot mounted motors with FF flange, the dimensions “C” and “L” will be 70mm and 310 mm respectively.

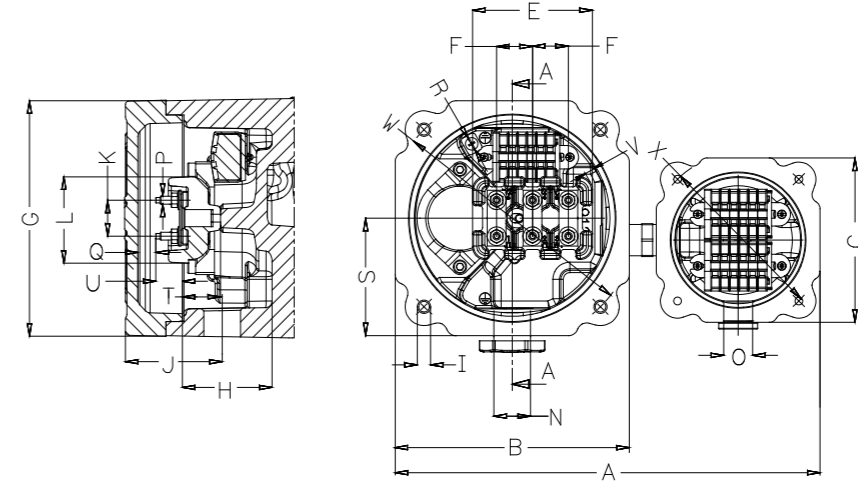
“C-DIN” Flange



Frame size	Flange	M	N	P	S	T	α	N° of holes
71	C-105	85	70	105	M6	2.5	45°	4
80	C-120	100	80	120		3		
90	C-140	115	95	140	M8	3.5		
100	C-160	130	110	165				
112	C-200	165	130	200	M10	3.5		
132								

Terminal Box Drawings

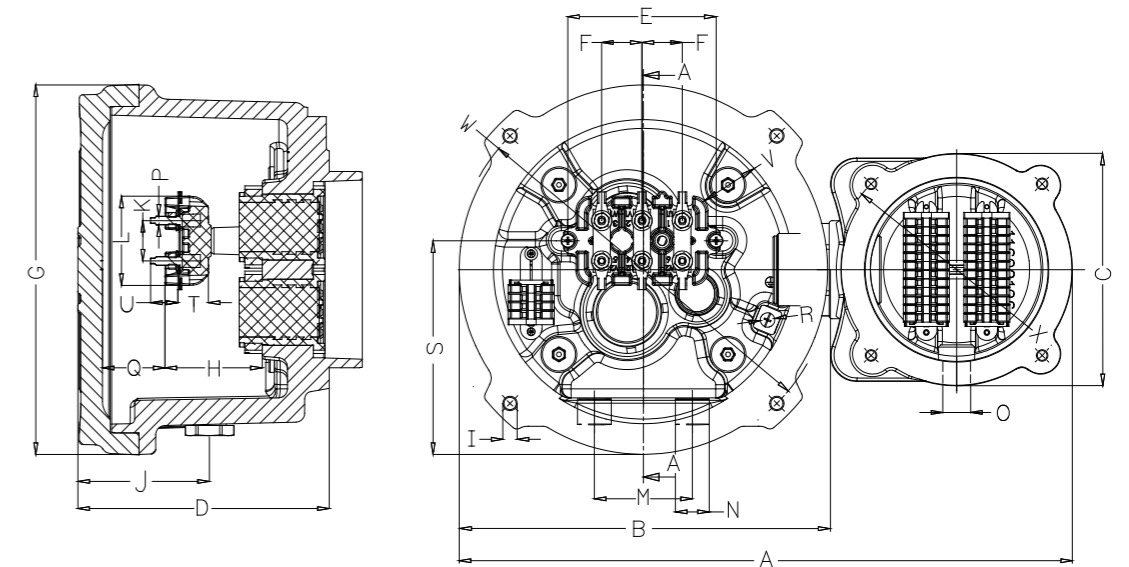
Main and Accessory Terminal Boxes - Frames 71 to 132M/L



Frame size	A	B	C	E	F	G	H	I	J	K	L
71	-	-	-	53	16	131	44	M6x1.0	36	16	35
80	274	152	106	76	23	151	56	M8x1.25	62	23	53
90											
100											
112	288	166				171	70		65		
132											

Frame size	N	O	P	Q	R	S	T	U	V	W	X
71	M25x1.5	-	M4x0,7	11.5	M4x0,7	62,5	23.5	10	6,5	140	-
80						75		18	7	160	
90						85		12	12	184	
100	M32x1.5	M20x1.5	M5x0,8		M5x0,8						110
112											
132											

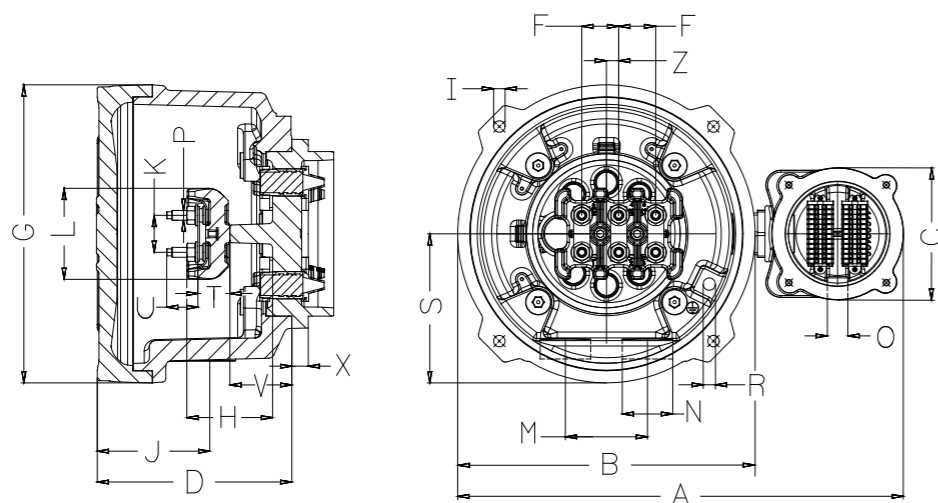
Main and Accessory Terminal Boxes - Frames 160M/L to 200M/L



Frame size	A	B	C	D	E	F	G	H	I	J	K	L
160	435	257	160	174	103	28	256	67.5	M10x1.5	90.5	28	62
180					112	35		70.5			35	76
200												

Frame size	M	N	O	P	Q	R	S	T	U	V	W	X
160	68	2xM40x1,5	M20x1,5	M6x1,0	43.5	M6x1,0	140	19.5	20.5	40	262	168
180				M8x1,25	40.5	M8x1,25		22	24	29		
200												

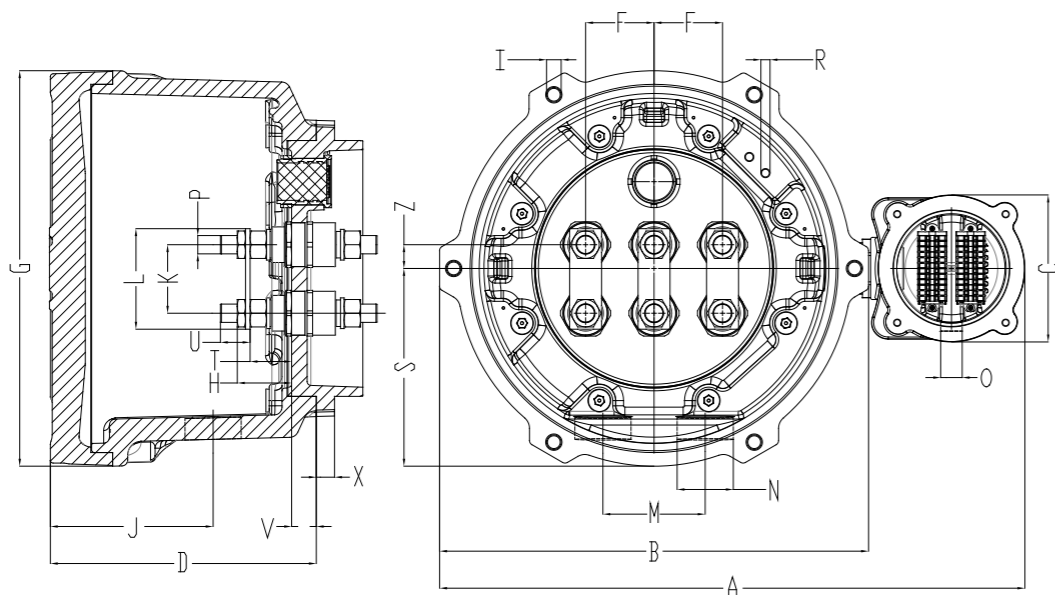
Main and Accessory Terminal Boxes - Frames 225S/M to 250S/M



Frame size	A	B	C	D	F	G	H	I	J	K	L
225	543	362.5	161	237	45	362	104.5	M16x2	137	45	111
250											

Frame size	M	N	O	P	R	S	T	U	V	Z
225	100	2xM50x1,5	2xM20x1,5	M12x1,75	M10x1,5	181	39	38	75.5	15
250		2xM63x1,5								

Main and Accessory Terminal Boxes - Frames 280S/M to 355M/L



Frame size	A	B	C	D	F	G	H	I	J	K	L
280	641	470	161	291	60	433	57	M16x2.0	168	60	85
315					65		63			75	105
355					75		67.5			110	

Frame size	M	N	O	P	R	S	T	U	V	X	Z
280	112	2xM63x1.5	2xM20x1.5	M12x2.0	2xM10x1.5	216	46	23	27	20	10
315				M16x2.0			51.5	28			26.5
355				M20x2.5			54.5	25			26

Drip Cover Data

Utilization of a drip cover / impact canopy increases the total length of the motor. The additional land length can be seen in table 2 below.

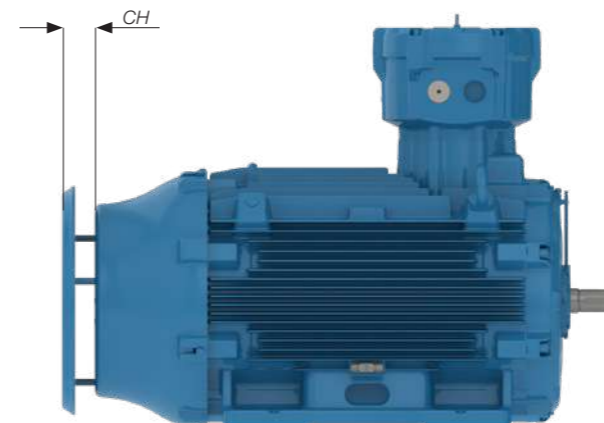


Figure 1 - Motor with drip cover

Frame	Dimension CH (increase motor length (mm))
71	
80	34
90	30
100	44
112	
132	47
160	48
180	59
200	69
225	80,5
250	80
280	98,5
315	
355	99
315L	

Table 2 - Additional length with rain drip cover.

Packaging

Frames 71 to 112

W22Xdb motors in frames 71 to 112 are packaged in cardboard boxes (see figure 2), following the dimensions, weights and volumes of the tables 3 and 4.



Figure 2: Cardboard box

Frame	External height (m)	External width (m)	External length (m)	Weight (kg)	Volume (m³)
71	0,32	0,27	0,43	1,34	0,037
80	0,32	0,27	0,43	1,34	0,037
90	0,37	0,30	0,47	2,36	0,053
100	0,42	0,34	0,59	3,61	0,080
112	0,42	0,34	0,59	3,61	0,080

Table 3 - Cardboard box dimensions, weights and volumes for top mounting.

Frame	External height (m)	External width (m)	External length (m)	Weight (kg)	Volume (m³)
90	0,32	0,38	0,47	2,59	0,095
100	0,35	0,41	0,59	4,29	0,085
112	0,35	0,41	0,59	4,29	0,085

Note: Values to be added to the net motor weight.

Table 4 - Cardboard box dimensions, weights and volumes for side mounting.

Frames 132 to 355M/L

For frames 132 to 355M/L, the motors are packaged in wooden crates (see figure 3). Dimensions, weights and volumes are in tables 5 and 6.

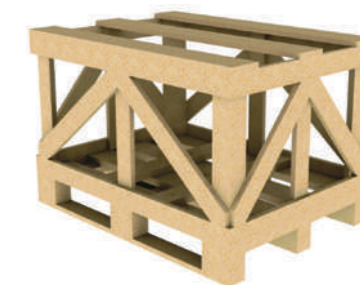


Figure 3: Wooden crates

Frame	External height (m)	External width (m)	External length (m)	Weight (kg)	Volume (m³)
132	0,45	0,38	0,64	8,25	0,109
160	0,59	0,44	0,88	13,9	0,230
180	0,64	0,47	0,92	14,7	0,278
200	0,70	0,54	0,98	16,9	0,373
225	1,08	0,85	1,25	58,3	1,148
250	1,08	0,85	1,35	62,8	1,239
280	1,30	0,85	1,40	80,7	1,547
315S/M	1,30	0,85	1,55	82,9	1,713
315L	1,30	0,95	1,65	99,3	2,038
355M/L	1,52	1,00	1,80	200	2,738

Table 5 - Wooden crates dimensions, weights and volumes for top mounting.

Frame	External height (m)	External width (m)	External length (m)	Weight (kg)	Volume (m³)
132	0,38	0,49	0,64	9,52	0,119
160	0,45	0,64	0,88	18,4	0,255
180	0,47	0,68	0,92	18,5	0,296
200	0,53	0,72	0,98	19,6	0,376
225	0,78	1,05	1,25	52,9	0,942
250	0,78	1,05	1,25	52,9	0,942
280	0,95	1,10	1,40	76,1	1,463
315S/M	0,95	1,25	1,55	82,8	1,840
315L	1,09	1,24	1,65	101	2,230
355M/L	1,17	1,40	1,85	190	3,030

Note: Values to be added to the net motor weight.

Table 6 - Wooden crates dimensions, weights and volumes for side mounting.