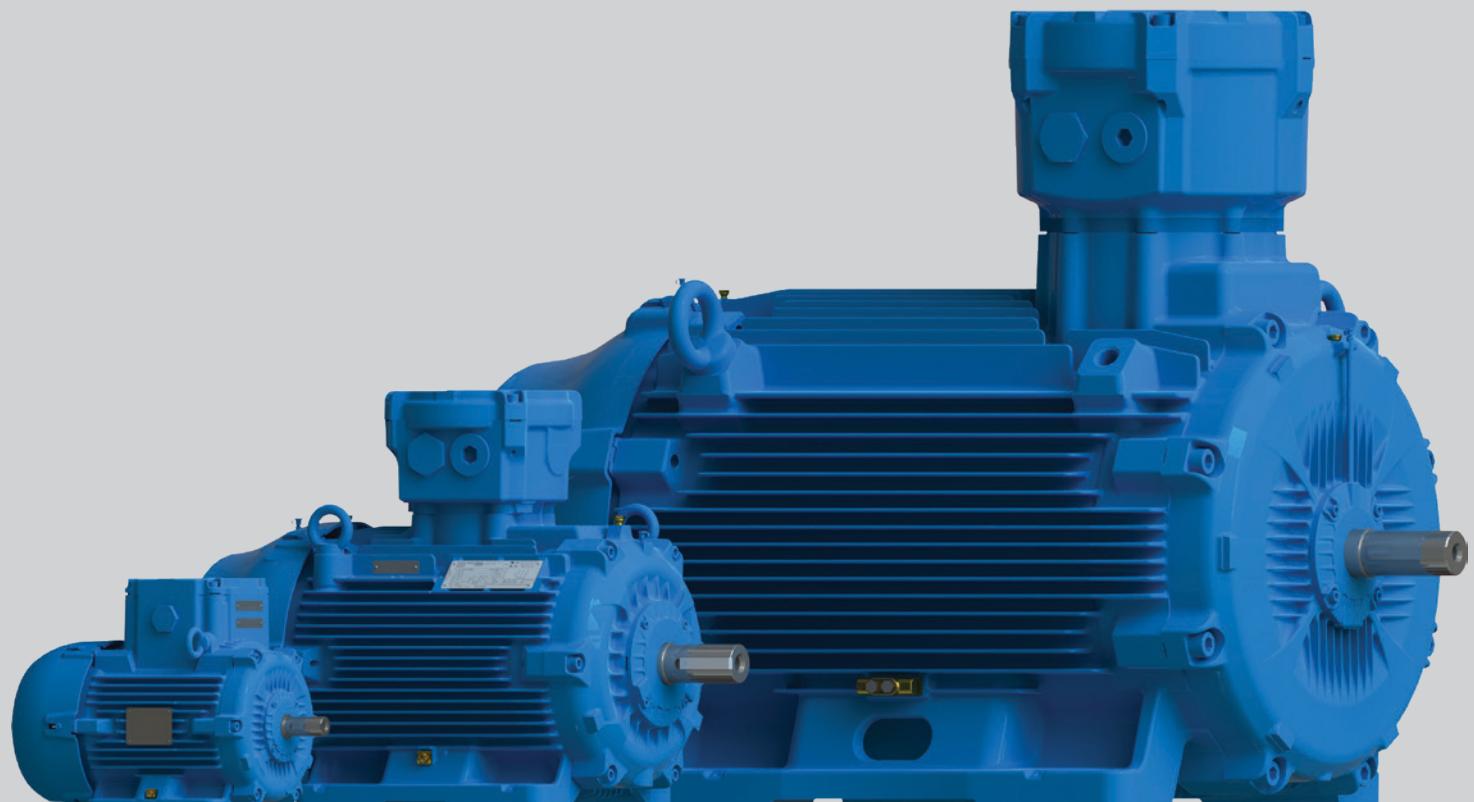


W22Xdb Flameproof Motors

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  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 $10^3 \Omega \cdot m$ - grime
- **IEC Group IIIC:** conductive dust, equal or smaller than 500 µm, with electrical resistivity less than or equal to $10^3 \Omega \cdot m$ - 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 EPL's 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 EPL's are detailed in the table below:

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

Protection

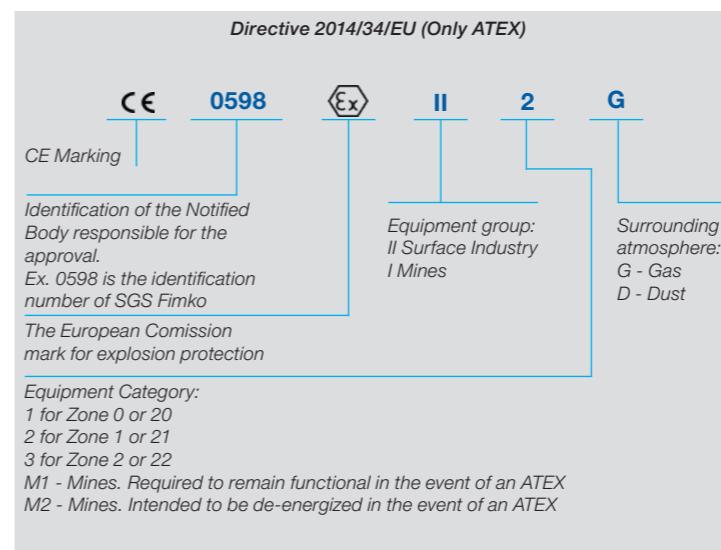
As standard the W22Xdb range was designed for operation in hazardous areas classified as IEC Zones 1 and 2, Groups IIA and IIB or IIA, IIB and IIC, Temperature Classification T4 and EPL Gb.

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.

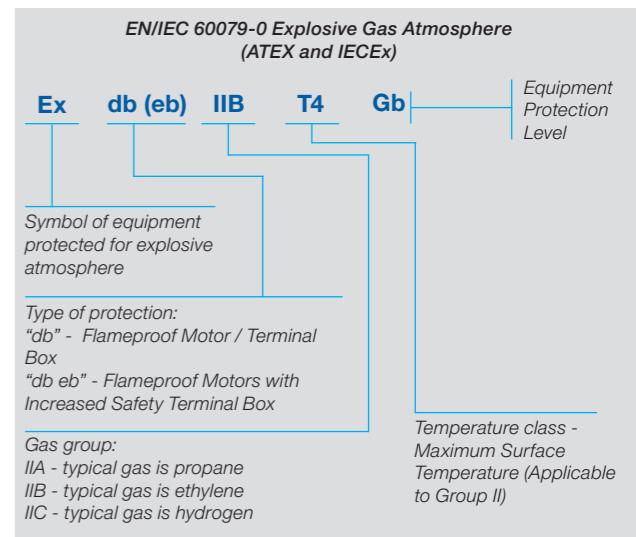
Further, W22Xdb is prepared for operation in underground coal mines, Group I, Category M2 and EPL Mb.

Markings

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



ATEX marking



ATEX / IECEx marking for explosive gas atmosphere

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 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.

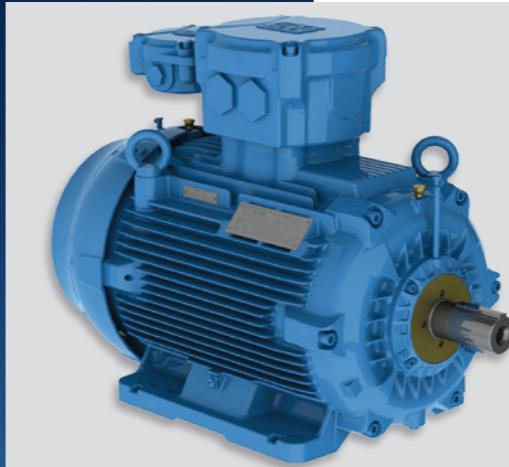
The ratios between rated power, speed and frame size of the new W22Xdb line follow the applicable parts of the IEC Standards 60034 and 60072. This ensures interchangeability with the existing WEG W21 flameproof line and, where replacing lower efficiency motors, offers users the means to achieve a rapid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



W22Xdb 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, IIIC
- Flameproof motors with increased safety terminal box (Ex db eb) - suitable for Zones 1 & 2, Gas groups IIA, IIB, IIIC
- Flameproof / Dust Ignition Proof motors (Ex db / Ex tb) - suitable for Zones 1 & 2 / 21 & 22, Gas / Dust groups IIA, IIB, IIIC / 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, IIIC / 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 21
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											
Lubrication	Joints seal		Lumomoly											
	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	6309-C3	6311-C3	6312-C3	6314-C3	6314-C3	6314-C3	6314-C3	6314-C3	6316-C3															
		4 - 12p						6316-C3	6319-C3	6319-C3	6322-C3															
	Non drive end side	2p	6308-C3	6309-C3	6212-C3			6314-C3	6314-C3	6314-C3	6314-C3															
		4 - 12p						6316-C3	6316-C3	6316-C3	6319-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	M16	M16	M20	M20	M20	M20	M20	M20	M20	M24														
		4 - 12p									B															
	Key type		A		B																					
Direction of rotation			Bidirectional																							
Vibration level			Grade A																							
Balance	2p	With half key																								
		4 - 12p	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)																							
	IE4		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 IIIC 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)

* 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 I)	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	O	O	O
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 I)	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	NA	NA	NA	NA
Larger Grounding	0	0	0	0	0	NA	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	NA	NA	NA						
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	NA	NA	0	0	0	0	0	0	0
Non drive end shaft grounding ring	NA	NA	0	0	0	0	0	0	0

Electrical Data

W22Xdb - High Efficiency - IE2

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								
											Rated speed (rpm)	% of full load			Full load current In (A)				
kW	HP	Hot	Cold	50	75	100	50	75	100	Sound dB(A)		Efficiency	Power factor	Full load current In (A)	Efficiency	Power factor	Full load current In (A)		
II poles																			
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	0,89	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	498
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	0,92	539

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

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W22Xdb - High Efficiency - IE2

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								
											Rated speed (rpm)	% of full load			Full load current In (A)				
KW	HP											Hot	Cold	50	75	100	50	75	100
IV poles																			
0,25	0,33	71	1,71	4,5	2,0	2,2	0,0007	68	150	19,1	43,0	1400	59,0	65,0	68,5	0,49	0,62	0,71	0,742
0,37	0,5	71	2,55	4,3	2,2	2,2	0,0008	40	88	19,8	43,0	1385	63,0	68,0	72,7	0,50	0,62	0,72	1,02
0,55	0,75	80	3,65	5,8	2,1	2,6	0,0029	18	40	24,0	44,0	1440	73,0	76,0	77,1	0,55	0,68	0,75	1,37
0,75	1	80	5,08	6,0	2,6	2,6	0,0029	15	33	24,0	44,0	1410	79,0	79,5	79,6	0,63	0,76	0,81	1,68
1,1	1,5	90S/L	7,20	6,5	2,0	2,8	0,0060	9	20	42,8	49,0	1460	80,0	81,8	81,8	0,53	0,68	0,78	2,49
1,5	2	90S/L	9,88	6,7	2,4	2,8	0,0055	10	22	41,8	49,0	1450	81,5	83,0	83,0	0,57	0,70	0,78	3,34
2,2	3	100L	14,6	7,0	2,8	2,9	0,0105	11	24	57,8	53,0	1440	83,0	84,5	84,5	0,55	0,69	0,78	4,82
3	4	100L	20,2	7,0	3,2	3,0	0,0097	14	31	57,6	53,0	1420	85,0	85,6	85,6	0,60	0,73	0,81	6,25
4	5,5	112M	26,5	6,6	2,0	2,6	0,0156	13	29	68,0	56,0	1440	86,0	86,7	86,7	0,64	0,76	0,82	8,12
5,5	7,5	132S/M	35,9	7,8	1,9	3,0	0,0528	8	18	105	56,0	1465	86,5	87,3	87,7	0,68	0,80	0,86	10,5
7,5	10	132S/M	48,9	7,8	2,1	3,0	0,0528	6	13	108	56,0	1465	88,0	88,7	88,7	0,66	0,79	0,84	14,5
9,2	12,5	132S/M	60,4	7,7	2,2	3,2	0,0604	7	15	104	56,0	1455	89,2	89,5	89,5	0,70	0,81	0,86	17,3
11	15	160M/L	71,5	6,4	2,3	2,8	0,1048	10	22	188	61,0	1470	89,0	90,2	90,2	0,65	0,76	0,83	21,2
15	20	160M/L	97,8	6,7	2,6	3,0	0,1394	10	22	207	61,0	1465	90,6	91,0	91,0	0,66	0,76	0,83	28,7
18,5	25	180M/L	121	6,6	2,4	2,8	0,1657	14	31	250	61,0	1465	91,5	91,8	91,6	0,68	0,78	0,83	35,1
22	30	180M/L	143	6,8	2,6	2,9	0,2006	15	33	267	61,0	1470	92,2	92,5	92,3	0,70	0,80	0,85	40,5
30	40	200M/L	195	6,3	2,2	2,6	0,2906	16	35	332	65,0	1470	92,6	93,0	92,8	0,64	0,75	0,81	57,6
37	50	225S/M	240	7,0	2,2	2,7	0,4438	12	26	470	66,0	1475	93,0	93,2	93,2	0,72	0,81	0,85	67,4
45	60	225S/M	292	7,0	2,6	2,9	0,5177	10	22	493	66,0	1475	92,8	93,0	93,1	0,72	0,81	0,84	83,1
55	75	250S/M	356	6,4	2,2	2,7	0,8118	14	31	593	66,0	1475	93,6	93,9	94,0	0,75	0,84	0,87	97,1
75	100	280S/M	483	7,2	2,0	2,7	1,64	22	48	866	69,0	1485	93,8	94,4	94,4	0,74	0,83	0,86	133
90	125	280S/M	579	7,5	2,3	2,7	1,88	20	44	896	69,0	1484	94,1	94,7	94,7	0,76	0,83	0,85	161
110	150	315S/M	706	6,3	2,0	2,3	2,57	26	57	1125	71,0	1489	94,3	95,0	95,0	0,74	0,83	0,86	194
132	175	315S/M	846	7,0	2,3	2,5	3,12	22	48	1210	71,0	1490	94,6	95,2	95,2	0,76	0,84	0,87	230
132	180	315S/M	846	6,6	2,1	2,4	3,12	22	48	1210	71,0	1490	94,6	95,2	95,2	0,76	0,84	0,87	230
150	200	315S/M	963	6,2	2,2	2,4	3,34	30	66	1244	71,0	1488	95,0	95,4	95,4	0,77	0,84	0,87	261
160	220	315S/M	1027	7,0	2,4	2,5	3,56	20	44	1278	71,0	1489	94,8	95,4	95,4	0,74	0,83	0,86	281
185	250	315S/M	1186	6,8	2,4	2,4	3,99	18	40	1346	71,0	1490	94,9	95,6	95,6	0,75	0,83	0,86	325
200	270	315L	1283	6,7	2,4	2,4	4,43	17	37	1450	74,0	1490	95,0	95,6	95,6	0,77	0,84	0,87	347
220	300	315L	1411	7,3	2,6	2,4	4,89	14	31	1513	74,0	1490	95,2	95,7	95,7	0,76	0,84	0,87	381
250	340	315L	1603	7,0	2,6	2,4	5,44	13	29	1592	74,0	1490	95,3	95,7	95,7	0,77	0,85	0,88	428
260	350	315L	1667	6,8	2,7	2,7	5,76	15	33	1640	74,0	1490	95,8	96,0	96,0	0,76	0,84	0,87	449
280	380	315L	1796	7,2	2,6	2,4	6,20	12	26	1703	74,0	1490	95,4	95,8	95,8	0,76	0,84	0,87	485
300	400	315L	1924	7,6	2,5	2,5	6,51	11	24	1750	74,0	1490	95,4	95,8	95,8	0,72	0,80	0,85	532
315	430	355M/L	2020	7,2	2,4	2,4	8,95	14	31	2176	76,0	1490	95,5	95,8	95,8	0,74	0,82	0,86	552
330	450	355M/L	2115	6,8	2,6	2,5	9,84	17	37	2282	76,0	1491	95,5	95,8	95,8	0,73	0,81	0,84	592
355	480	355M/L	2277	6,9	2,4	2,3	10,7	15	33	2387	76,0	1490	95,5	95,9	95,8	0,75	0,83	0,86</	

W22Xdb - High Efficiency - IE2

Output		Frame	Full load torque (Nm)	Locked rotor current II/I _n	Locked rotor torque TI/T _n	Break-down torque Tb/T _n	Inertia J (kgm ²)	Allowable locked rotor time (s)	Weight (kg)	Sound dB(A)	400 V								
											Rated speed (rpm)	% of full load							
												Efficiency			Power factor				
kW	HP							Hot	Cold		50	75	100	50	75	100			
VI poles																			
0,18	0,25	71	1,93	3,2	2,0	2,0	0,0008	96	211	20,0	43,0	890	52,0	58,0	59,0	0,40	0,51	0,61	0,722
0,25	0,33	71	2,68	3,2	1,9	2,1	0,0008	70	154	20,0	43,0	890	53,0	60,0	61,6	0,37	0,48	0,58	1,01
0,37	0,5	80	3,84	4,1	2,0	2,0	0,0022	27	59	22,5	43,0	920	65,0	67,0	67,6	0,47	0,62	0,72	1,10
0,55	0,75	80	5,65	4,8	2,7	2,5	0,0030	21	46	24,5	43,0	930	65,0	71,0	73,1	0,48	0,62	0,72	1,51
0,75	1	90S/L	7,71	4,5	2,0	2,1	0,0052	23	51	45,0	45,0	930	74,5	76,0	76,0	0,51	0,64	0,73	1,95
1,1	1,5	90S/L	11,4	4,7	2,3	2,2	0,0060	17	37	46,5	45,0	925	76,0	78,1	78,1	0,50	0,63	0,73	2,78
1,5	2	100L	15,3	5,0	2,2	2,4	0,0110	23	51	49,0	44,0	940	79,5	80,0	80,0	0,51	0,64	0,73	3,71
2,2	3	112M	22,0	6,0	2,5	2,6	0,0257	19	42	76,4	49,0	955	81,0	82,5	83,0	0,50	0,63	0,71	5,39
3	4	132S/M	29,7	5,7	2,0	2,4	0,0359	23	51	88,0	53,0	965	82,5	83,6	83,6	0,50	0,63	0,71	7,30
4	5,5	132S/M	39,6	6,0	2,0	2,3	0,0453	21	46	94,0	53,0	965	84,0	84,8	84,8	0,51	0,64	0,72	9,46
5,5	7,5	132S/M	54,5	6,4	2,5	2,8	0,0604	19	42	104	53,0	965	85,5	86,1	86,1	0,51	0,64	0,72	12,8
7,5	10	160M/L	73,9	5,8	2,0	2,6	0,1229	17	37	165	57,0	970	88,3	88,7	88,3	0,64	0,76	0,82	15,0
9,2	12,5	160M/L	90,6	6,0	2,2	2,6	0,1492	14	31	176	57,0	970	88,5	88,9	88,6	0,64	0,76	0,82	18,3
11	15	160M/L	108	6,0	2,3	2,7	0,1664	13	29	184	57,0	970	89,0	89,5	89,2	0,62	0,74	0,81	22,0
15	20	180M/L	147	7,4	2,4	3,0	0,2565	7	15	233	56,0	975	90,3	90,5	90,3	0,68	0,79	0,84	28,5
18,5	25	200M/L	181	5,7	2,1	2,5	0,3517	15	33	293	60,0	975	91,0	91,4	91,2	0,67	0,77	0,82	35,7
22	30	200M/L	216	6,0	2,2	2,7	0,4037	14	31	310	60,0	975	91,4	91,7	91,5	0,65	0,76	0,82	42,3
30	40	225S/M	291	7,0	2,3	2,5	0,7192	12	26	493	63,0	984	92,6	92,7	92,6	0,69	0,79	0,84	55,7
37	50	250S/M	361	6,7	2,2	2,5	1,10	16	35	593	64,0	980	92,8	93,0	93,0	0,73	0,82	0,86	66,8
45	60	280S/M	437	6,2	2,0	2,5	2,02	26	57	822	65,0	985	93,4	93,6	93,4	0,68	0,78	0,82	84,8
55	75	280S/M	532	6,5	2,0	2,4	2,36	22	48	866	65,0	987	93,6	93,9	93,8	0,68	0,79	0,82	103
75	100	315S/M	722	6,2	2,1	2,5	3,83	23	51	1091	67,0	992	93,8	94,3	94,2	0,68	0,77	0,81	142
90	125	315S/M	869	6,0	1,9	2,1	4,54	22	48	1159	67,0	990	94,4	94,6	94,5	0,72	0,80	0,84	164
110	150	315S/M	1062	6,1	2,0	2,2	5,45	20	44	1244	67,0	990	94,5	94,9	94,8	0,72	0,80	0,84	199
132	175	315S/M	1274	6,4	2,2	2,4	6,35	17	37	1329	67,0	990	94,6	95,0	95,0	0,71	0,80	0,84	239
150	200	315L	1448	6,1	2,1	2,4	7,43	22	48	1466	68,0	990	94,6	95,0	95,0	0,69	0,79	0,83	275
160	220	315L	1544	6,6	2,2	2,4	7,61	14	31	1482	68,0	990	94,8	95,2	95,2	0,70	0,80	0,84	289
185	250	315L	1786	6,9	2,3	2,4	8,86	12	26	1592	68,0	990	95,0	95,4	95,4	0,69	0,79	0,83	337
200	270	315L	1926	7,7	2,7	3,0	10,1	12	26	1703	68,0	992	95,1	95,4	95,4	0,65	0,77	0,82	369
220	300	355M/L	2117	6,0	2,0	2,3	11,8	32	70	2198	73,0	993	95,3	95,5	95,5	0,65	0,75	0,80	416
250	340	355M/L	2413	6,0	2,1	2,2	13,9	34	75	2387	73,0	990	95,3	95,5	95,5	0,66	0,76	0,81	466
260	350	355M/L	2509	6,0	2,1	2,2	12,7	34	75	2282	73,0	990	95,3	95,5	95,5	0,66	0,76	0,81	485
280	380	355M/L	2702	6,2	2,2	2,2	13,9	27	59	2387	73,0	990	95,4	95,6	95,6	0,64	0,75	0,80	528
300	400	355M/L	2887	6,2	2,2	2,2	14,3	30	66	2430	73,0	993	95,4	95,7	95,6	0,63	0,74	0,79	573

Optional frames

0,25	0,33	80	2,62	3,9	1,8	2,0	0,0022	27	59	22,5	43,0	910	63,0	67,0	67,0	0,51	0,66	0,76	0,709

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W22Xdb - High Efficiency - IE2

Output		Frame	Full load torque (Nm)	Locked rotor current II/I _n	Locked rotor torque TI/T _n	Break-down torque Tb/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 In (A)				
												Efficiency		Power factor					
kW	HP							Hot	Cold		50	75	100	50	75	100			
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			

W22Xdb - Premium Efficiency - IE3

Output		Frame	Full load torque (Nm)	Locked rotor current II/I _n	Locked rotor torque TI/T _n	Break-down torque Tb/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		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

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</

W22Xdb - Premium Efficiency - IE3

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								
											Rated speed (rpm)	% of full load						Full load current In (A)	
												Efficiency			Power factor				
kW	HP										50	75	100	50	75	100			
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

W22Xdb - Premium Efficiency - IE3

Output		Frame	Full load torque (Nm)	Locked rotor current II/I _n	Locked rotor torque TI/T _n	Break-down torque Tb/T _n	Inertia J (kgm ²)	Allowable locked rotor time (s)	Weight (kg)	Sound dB(A)	400 V								
											Rated speed (rpm)	% of full load							
												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	990	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	992	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

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	0,55	0,70	0

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								
											% of full load								
											Efficiency		Power factor		Full load current In (A)				
kW	HP										50	75	100	50	75	100			
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</							

W22Xdb - Super Premium Efficiency - IE4

Ex db / Ex db eb IIB T4 Gb

Ex db / Ex db eb IIC T4 Gb¹⁾

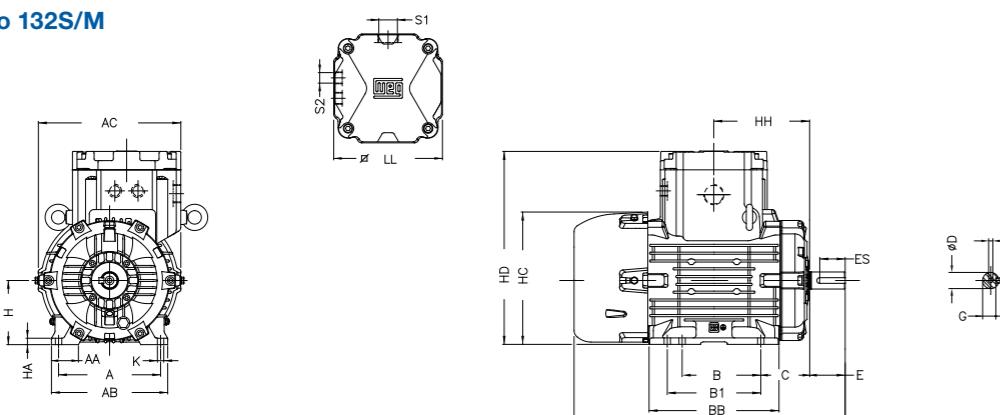
Output	Frame	Full load torque (Nm)	Locked rotor current II/In	Locked rotor torque TI/Tn	Break-down torque Tb/Tn	Inertia J (kgm ²)	Allowable locked rotor time (s)	Weight (kg)	Sound dB(A)	400 V					
										% of full load			Full load current In (A)		
kW	HP	Hot	Cold	Rated speed (rpm)	Efficiency	Power factor	50	75	100	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

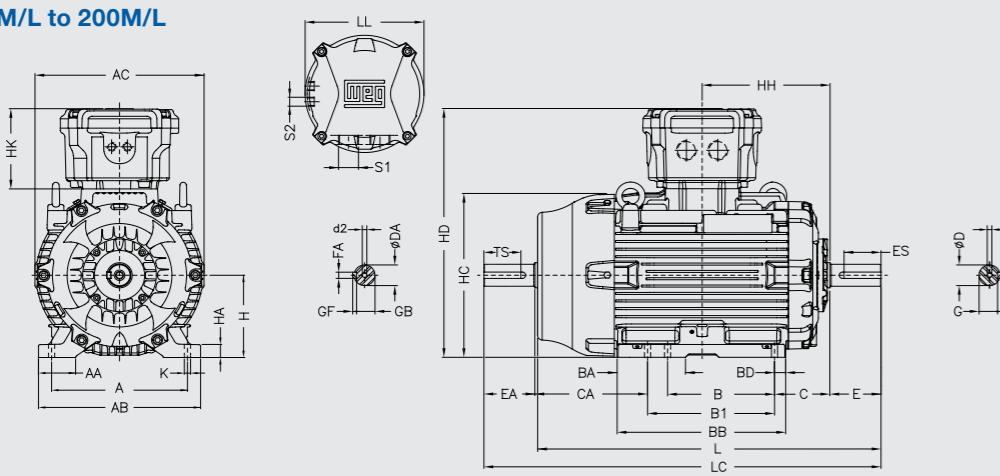
IV poles																			
5,5	7,5	132S/M	35,6	10,0	2,9	3,5	0,0638	16	35	107	56	1475	90,8	91,8	91,9	0,63	0,75	0,82	10,5
7,5	10	160M/L	48,4	8,7	3	3,4	0,1258	20	44	160	61	1480	91,4	92,3	92,6	0,60	0,73	0,80	14,6
9,2	12,5	160M/L	59,4	8,6	3	3,3	0,1397	16	35	188	61	1480	91,9	92,9	93,0	0,61	0,74	0,81	17,6
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</td													

Mechanical Data (Standard)

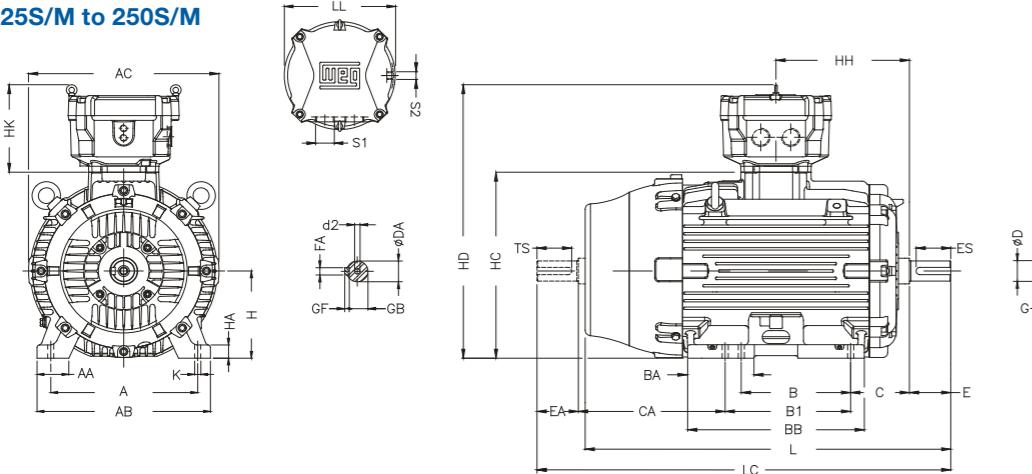
Frames 71 to 132S/M



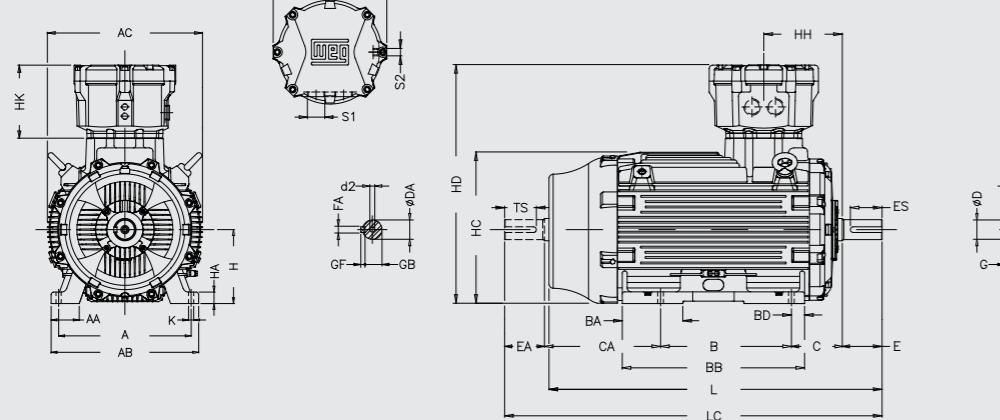
Frames 160M/L to 200M/L



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	5	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	12	37		
160M/L	254	64	308	347	210	254	150	353	26	108	291/247	42k6	24j6	110	50	80	14	16	42,5		
180M/L	279	80	350	371	241	279	148	367		121	287/249	48k6	24j6	110	50						
200M/L	318	82	385	411	267	305	149	410	31	133	311/276	55m6	48j6	110	110	100**	16**	14**	49**		
225S/M	356	80	436	465	286	311	167	445	41	149	381/356	55m6**	55m6**	110**	110*						
250S/M	406	100	506	493	311	349	176	486	47	168	395/357	60m6**	60m6**	140	125	18**	53**	58	58**		
280S/M	457	100	557	620	368	419	208	570	41	190	385/334	65m6**	60m6**								
315S/M	508	120	630	663	406	457	242	665	54	216	494/443	65m6**	60m6**	140**	80m6	65m6	170	125**	18**	71	
315L	508	120	630	721	508	-	257	775	59	216	497	65m6**	60m6**	140**	80m6	65m6	170				
355M/L	610	140	750	744	560	630	237	805	67,5	254	483/413	75m6**	60m6**	140**	100m6	80m6	210	125**	20**	18**	67,5**
												100m6	80m6	200	28	22	28	22	90		

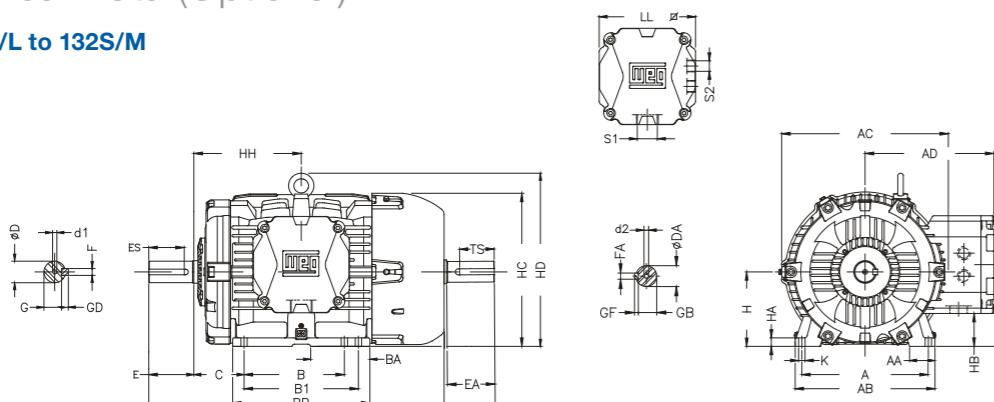
Frame size	GB	GD	GF	TS	H	HA	HC	HD	HH	HK	K	L *	LC	LL	S1	S2	d1	d2	
71	8,5	5	4	14	71		147	222,5	100		7	285	313	130			M5	M4	
80	11	6	5	18	80	9	165	243,5	111		10	310	347		M25x1,5		M6	M5	
90S/L	13	7	5	28	90		186,5	272,5	135			384	430	151			M8	M5	
100L	18,5	7	6		100	10	207	295,5	155			438	491,5		M32x1,5		M10	M8	
112M	18,5	7	7		112		234	320,5	163			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			717	769		2xM40x1,5		M16	M8	
180M/L	20	9	7		180	28	362	549,5	278,5			752	809	256			M16	M8	
200M/L	42,5	10	9	80	200	30	400	594,5	306,5			821	934				M16	M8	
225S/M	49**	10**	10**	100**			225	34	457	738	330,5		921**	1001,5**		2xM50x1,5		M16	M8
250S/M	53	11			250	42	497	783	363			951	1031,5				M16	M8	
280S/M	53**	11**			280	43	576	953	319,5			1009	1089				M20	M20	
315S/M	53**	11**	11**		315	49	647	1018	335			1135,5	1226		2xM20x1,5		M20	M20	
315L	58	14	14									1282**	1381**				M20**		
355M/L	53**	12**	11**	125**	355	51,5	727	1058	339			1312	1411				M24		
	71	16	14	160								1392**	1491**						
												1422	1521						
												1488,5**	1587,5**						
												1558,5	1657,5						

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

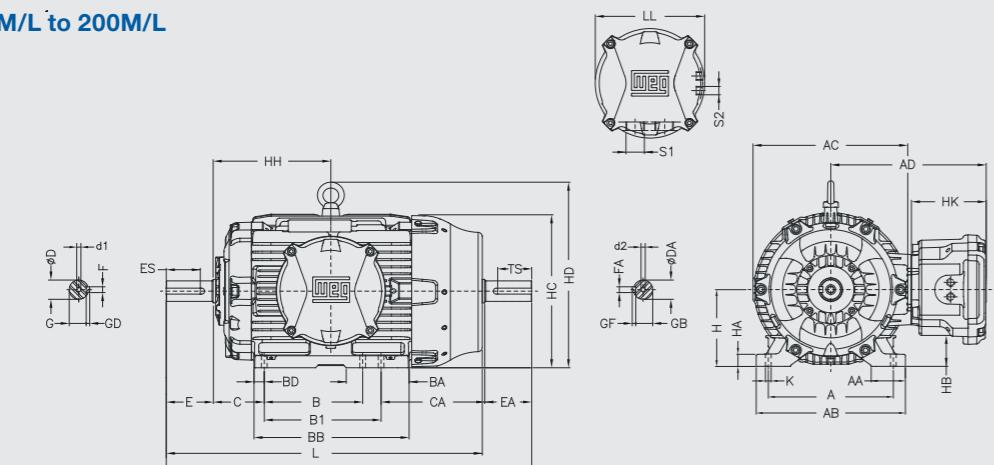
** Dimensions for 2-pole motors.

Mechanical Data (Optional)

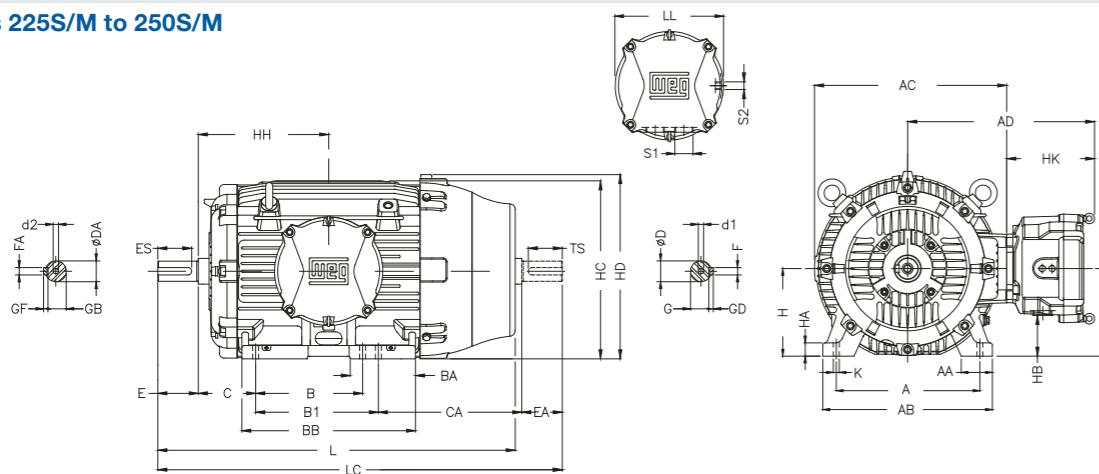
Frames 90S/L to 132S/M



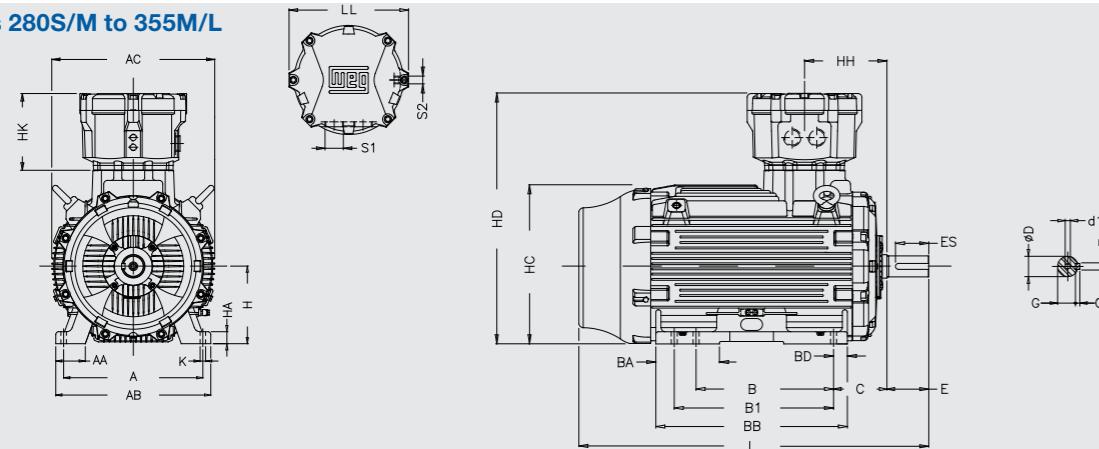
Frames 160M/L to 200M/L



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	157,5/1245	24j6	16j6	50	40	36	8	5	20		
100L	160	46	188	232	195,5	140	183	82	211	14	63	178,5/1355	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	12	42,5		
180M/L	279	80	350	371	369,5	241	279	148	367	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	100	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	125	18	18**	53**	58		
													65m6	60m6			140	20	18**	67,5		
280S/M	457	100	557	620	673	368	419	208	570	41	190	385/334	65m6**	60m6**	140**	125**	18**	125**	58**	71		
													75m6	65m6			160	22		58**		
315S/M	508	120	630	663		406	457	242	665	54	216	494/443	65m6**	60m6**	140**	80m6	65m6	170	160	22	71	
						508	-	257	775	59	216	497	65m6**	60m6**	140**	80m6	65m6	170	160	22	71	
315L	508	120	630	721		560	630	237	805	67,5	254	483/413	75m6**	60m6**	140**	100m6	80m6	210	170	200	22	90
355M/L	610	140	750	744																		

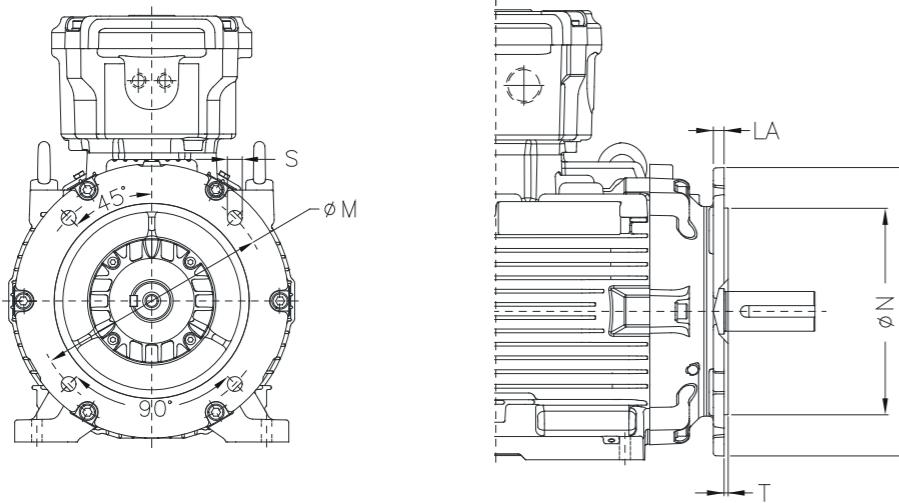
Frame size	GB	GD	GF	TS	H	HA	HB	HC	HD	HF	HH	HK	K	L *	LC	LL	S1	S2	d1	d2
90S/L	13	7	5	28	90	9	38,5	186,5	219	114	135			384	430	151	M25x1,5	M8	M5	
100L	18,5	7	6	36	100	10	42,5	207	239	118	155			438	491,5		M10	M8		
112M	18,5	7	7		112		50,5	234	276	136	163		12	456	511	171	M32x1,5	M12	M10	
132S/M	24	8	7	45	132	15	59,5	274	307	145	191			524	591					
160M/L	20	8	7	36	160	22	63	326	400	171	258,5		14,5	717	769	256	2xM40x1,5	M16	M8	
180M/L	20	9	7		180	28	73	362	435	180	278,5			752	809					
200M/L	42,5	10	9	80	200	30	93	400	479	200	306,5			821	934					
225S/M	49**	10**	10**	100**	225	34	70	457	490	225	330,5		18,5	921**	1001,5**	400	2xM50x1,5	M20	M16	
250S/M	53	11		11	250	42	95	497	532	250	363			951	1031,5					
280S/M	53**	11**			280	43	92	576	585,5	280	319,5		24	1009	1089					
315S/M	53**	11**	11**		315	49	130	647	655,5	315	335		313			470	2xM63x1,5	M20	M20	
315L	53**	11**	11**											1282**	1381**					
	58	14	14											1312	1411					
	53**	12**	11**	125**	355	51,5	170	727	739,5	355	339			1392**	1491**					
	71	16	14	160										1422	1521					
														1488,5**	1587,5**					
														1558,5	1657,5					

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

** Dimensions for 2-pole motors.

Flange Mounted Motors

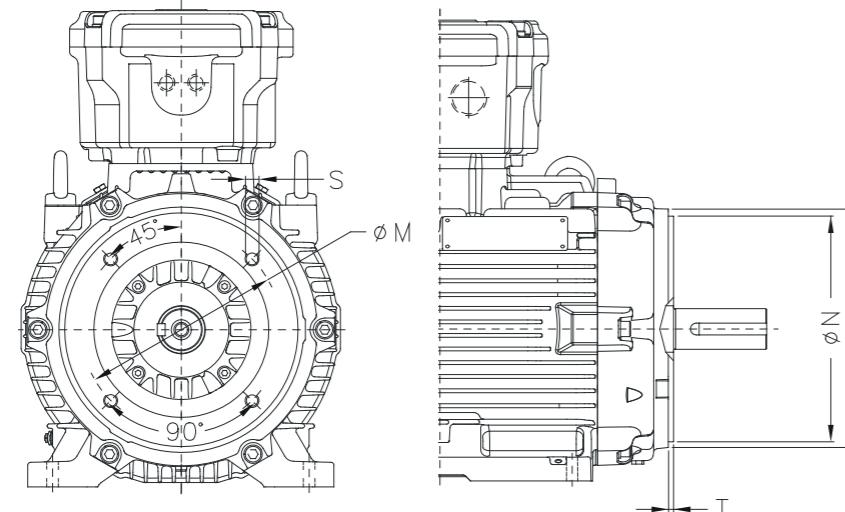
"FF" Flange



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	8	165	130	200	12					
90											
100	FF-215	11	215	180	250	15	4				
112											
132	FF-265	12	265	230	300						
160	FF-300	13	300	250	350	19	5	4	4		
180	FF-350		350	300	400						
200	FF-400	16	400	350	445						
225	FF-400										
250	FF-500	18	500	450	550	24	6	22,5°	8		
280					546						
315	FF-600	20	600	550	660						
355	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.

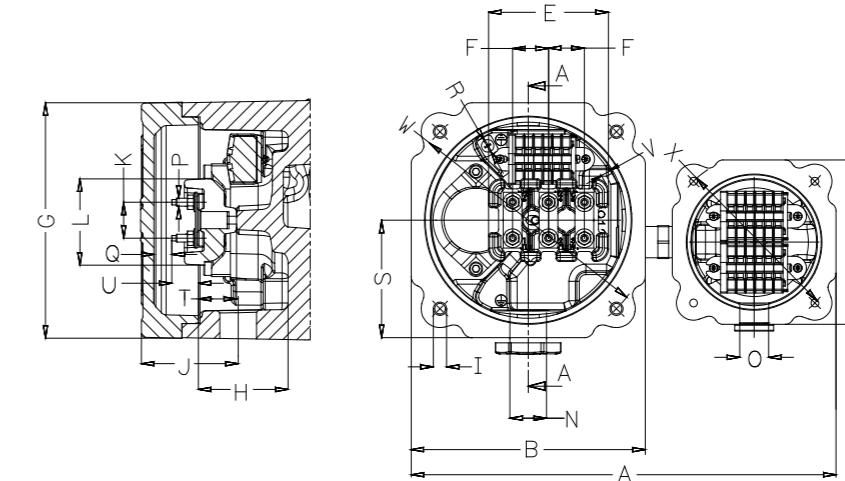
"C-DIN" Flange



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						
90	C-140	115	95	140						
100	C-160	130	110	165	M8	3				
112				160						
132	C-200	165	130	200		3.5				

Terminal Box Drawings

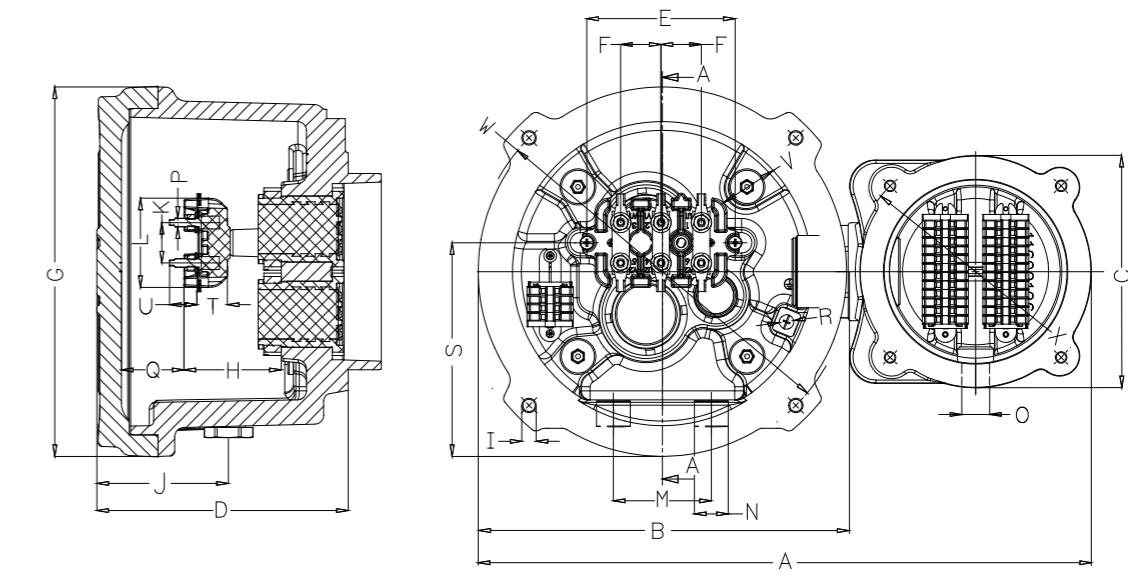
Main and Accessory Terminal Boxes - Frames 71 to 132M/L



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

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											
90						75		18	7	160	110
100											
112	M32x1.5	M20x1.5	M5x0,8	M5x0,8	85	29,5	12	12	184		
132											

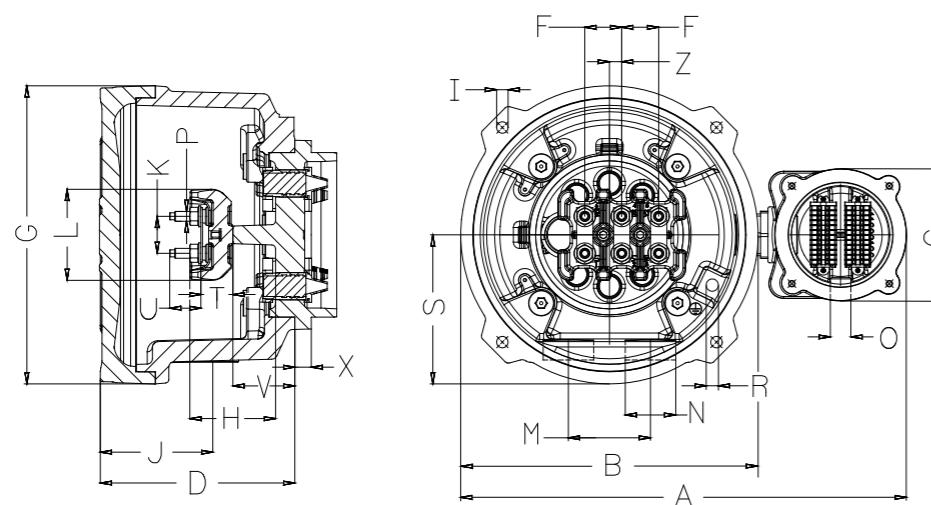
Main and Accessory Terminal Boxes - Frames 160M/L to 200M/L



Frame size	A	B	C	D	E	F	G	H	I	J	K	L
160												
180												
200	435	257	160	174	103	28	256	67,5	M10x1,5	90,5	28	62

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		2xM50x1,5		M8x1,25	40,5	M8x1,25		22	24	29		
200												

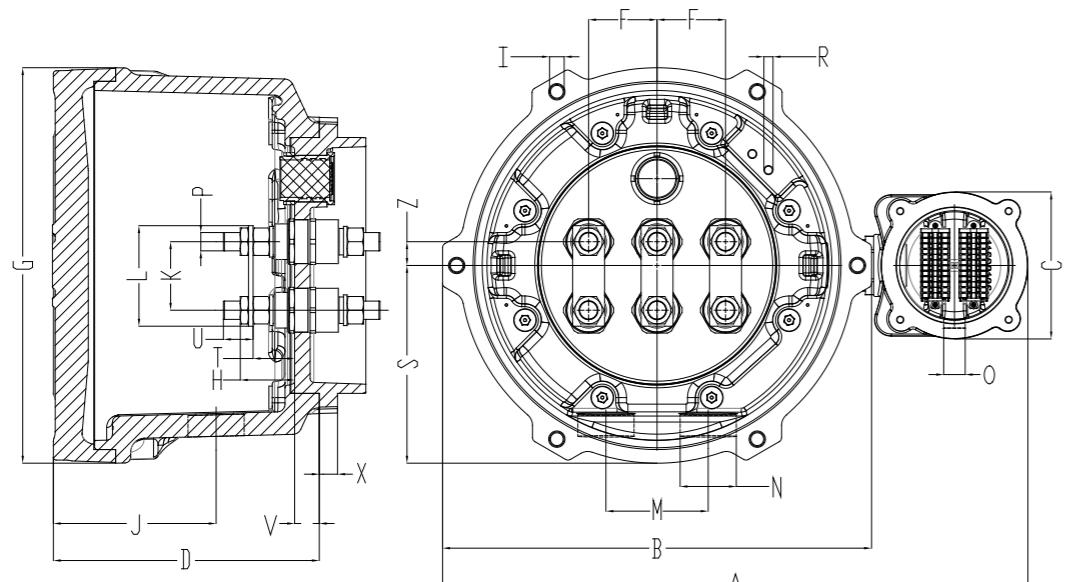
Main and Accessory Terminal Boxes - Frames 225S/M to 250S/M



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	75	85
315					65		63				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.

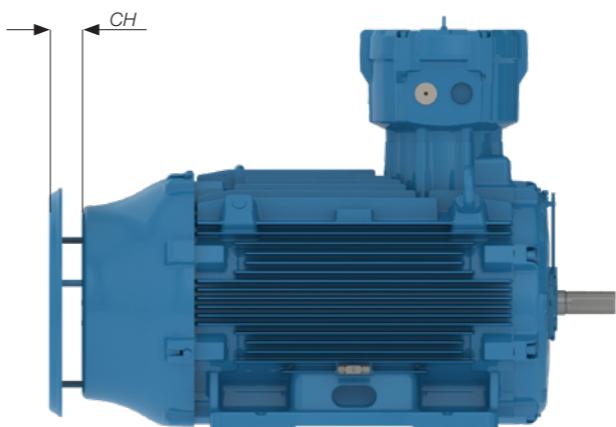


Figure 1 - Motor with drip cover

Frame	Dimension CH (increase motor length (mm))
71	34
80	30
90	44
100	47
112	48
132	59
160	69
180	80.5
200	98.5
225	
250	
280	
315	
355	
315L	99

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.

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The values shown are subject to change without prior notice.
The information contained is reference values.