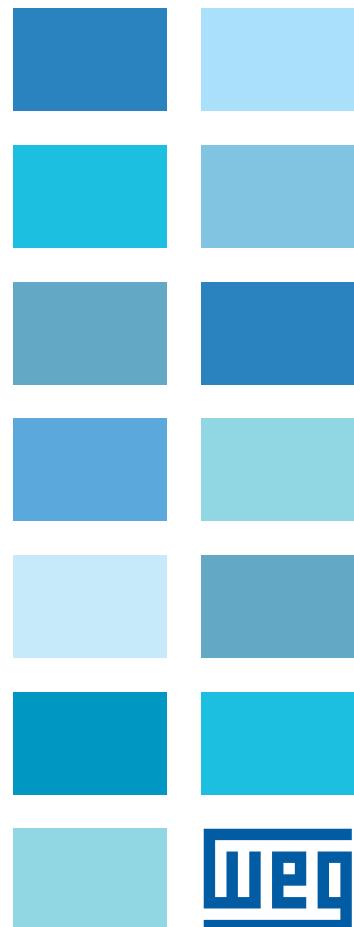
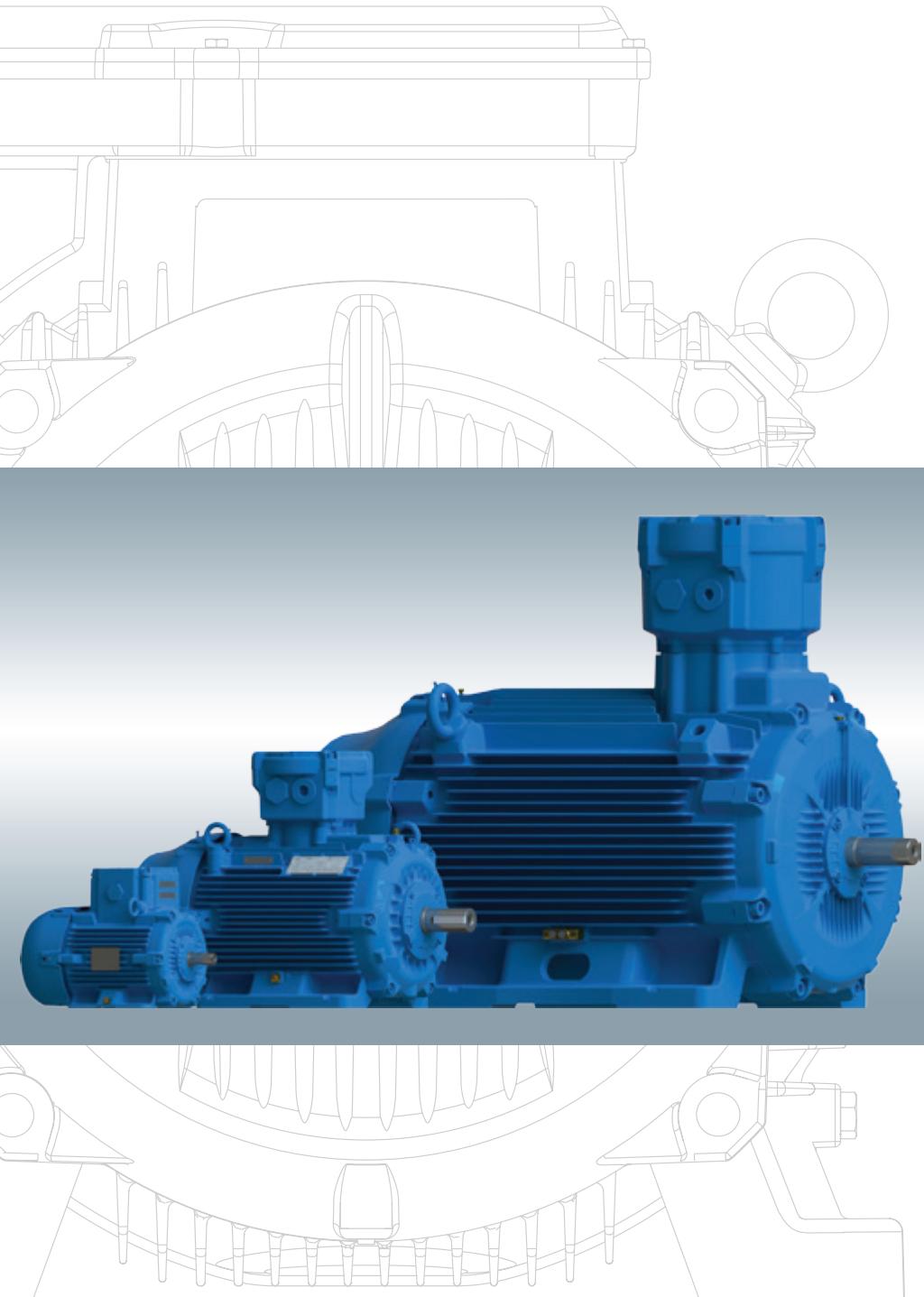


W22Xd

High Efficiency Low Voltage
Flameproof Motors
IEC Frame Sizes 71 to 355

Technical Catalogue
European Market



WEG

W22Xd

The New Generation of Flameproof Motors

The W22Xd line represents all that is most modern in rotating equipment for explosive atmospheres.

As a result of intense research and development, WEG launches its new flameproof motor line, the W22Xd. Incorporating the same innovative concepts of the W22 general purpose motors, the W22Xd 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 W22Xd 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 137") 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/fibres):

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

Group III subdivisions:

- **IEC Group IIIA:** solid particles, larger than 500 µm suspended - combustible fibres
- **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 IEC	Maximum surface temperature (°C)
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 W22Xd 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
Group II	0	Ga
	1	Gb
	2	Gc
Group III	20	Da
	21	Db
	22	Dc

Protection

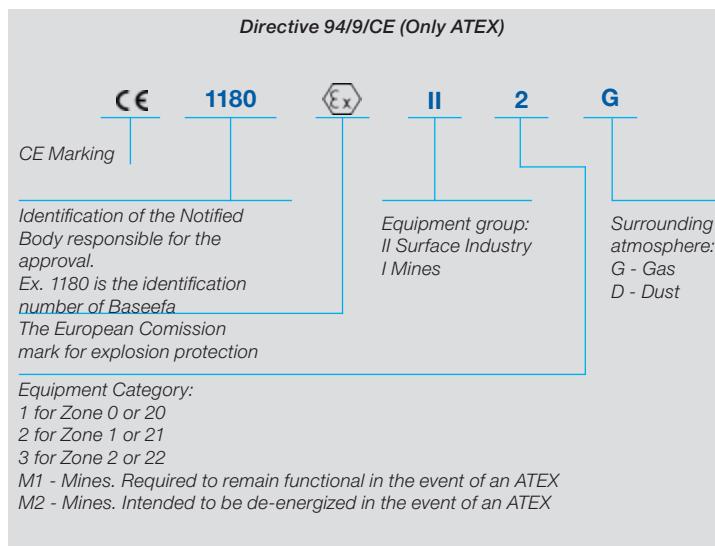
As standard the W22Xd range was designed for operation in hazardous areas classified as IEC Zones 1 and 2, Groups IIA and IIB (W22XdB versions) or IIA, IIB and IIC (W22XdC), Temperature Classification T4 and EPL Gb.

The W22XdBD and W22XdCD versions offer added protection against combustible dusts, for operation in hazardous areas classified as Zones 21 and 22, Groups IIIA, IIIB and IIIC and EPL Db.

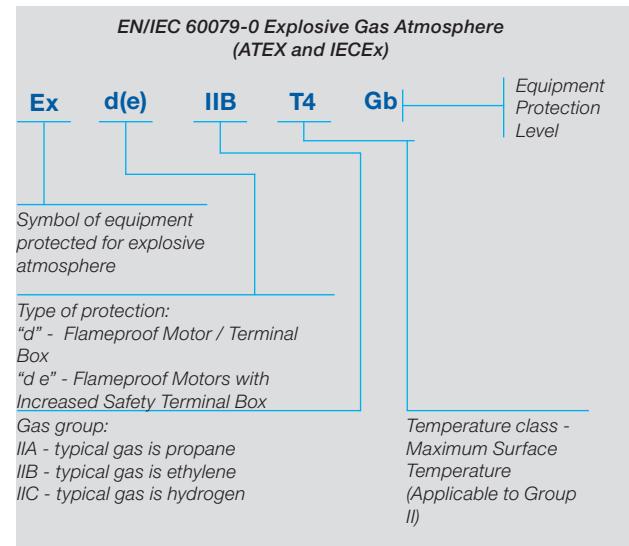
Further, W22Xdm versions are prepared for operation in underground coal mines, Group I, Category M2 and EPL Mb.

Markings

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



ATEX marking



ATEX / IECEEx marking for explosive gas atmosphere

Features and Benefits

New Concept

The mechanical design of the W22Xd 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 W22Xd motors can also reduce their energy consumption and CO₂ emissions due the technology employed and the levels of performance achieved.

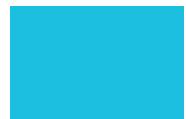
The W22Xd motor line was designed to meet the efficiency levels defined in IEC 60034-30-1. As standard the motors meet the IE2 High Efficiency level, with IE3 Premium and IE4 Super Premium Efficiency available as an option.

The ratios between rated power, speed and frame size of the new W22Xd 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 W22Xd 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 W22Xd 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.

W22Xd 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 W22Xd 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 for frames 90 and above feature double drilled holes in order to simplify the replacement and retrofitting of existing motors. Extended lubrication intervals for W22Xd 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, W22Xd 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 W22Xd 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, W22Xd 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 d) - 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:

- **W22XdBE** - Flameproof motors with increased safety terminal box (Ex de) - suitable for Zones 1 & 2, Gas groups IIA and IIB
- **W22XdBD** - Flameproof / Dust Ignition Proof motors (Ex d / Ex tb) - suitable for Zones 1 & 2 / 21 & 22, Gas / Dust groups IIA, IIB / IIIA, IIIB, IIIC
- **W22XdBED** - Flameproof / Dust Ignition Proof motors with increased safety terminal box (Ex de / Ex tb) - suitable for Zones 1 & 2 / 21 & 22, Gas / Dust groups IIA, IIB / IIIA, IIIB, IIIC
- **W22XdC** - Flameproof motors (Ex d) - suitable for Zones 1 & 2, Gas groups IIA, IIB, IIC
- **W22XdCE** - Flameproof motors with increased safety terminal box (Ex de) - suitable for Zones 1 & 2, Gas groups IIA, IIB, IIC
- **W22XdCD** - Flameproof / Dust Ignition Proof motors (Ex d / Ex tb) - suitable for Zones 1 & 2 / 21 & 22, Gas / Dust groups IIA, IIB, IIC / IIIA, IIIB, IIIC
- **W22XdCED** - Flameproof / Dust Ignition Proof motors with increased safety terminal box (Ex de / Ex tb) - suitable for Zones 1 & 2 / 21 & 22, Groups IIA, IIB, IIC / IIIA, IIIB, IIIC
- **W22XdM** - Flameproof motors (Ex d) - suitable for Group I mining
- **W22XdME** - Flameproof motors with increased safety terminal box (Ex de) - 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, SABS.



Meet the Other Members of the W22X Family

W22Xe

Increased safety motors (Ex e 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

W22XnCD

Non-sparking motors/dust ignition proof motors
(Ex nA/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

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

W22Xd High Voltage

Flameproof motors (Ex d/Ex de 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

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 under request)
Frames 280 to 1800
Voltages: up to 13,800 V

HGF Non-Sparking Motors

Non-sparking motors (Ex nA 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 d IIB T4 Gb or Ex d IIC T4 Gb (W22XdB or W22Xdc designs)																	
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	6202-ZZ	6204-ZZ	6205-ZZ	6206-ZZ	6207-ZZ	6308-ZZ											
		4 - 12p		6203-ZZ	6204-ZZ	6205-ZZ	6206-ZZ	6207-ZZ											
	Non drive end side	2p		6204-ZZ	6205-ZZ	6206-ZZ	6207-ZZ	6207-ZZ											
		4 - 12p	Fixed at DE with 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	M25 x 1.5	M25 x 1.5	M25 x 1.5	M32 x 1.5	M32 x 1.5	M32 x 1.5											
	Threaded plug		Plastic																
	Accessory	Size	2 x M20 x 1.5 lateral holes (with certified threaded plugs)																
Shaft	Material		AISI 1040/45																
	DE Threaded hole	2p	M5	M6	M8	M10	M10	M12											
		4 - 12p																	
	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 d IIIB T4 Gb or Ex d IIC T4 Gb (W22XdB or W22Xdc designs)																		
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	2 x M40 x 1.5	2 x M40 x 1.5	2 x M50 x 1.5	2 x M50 x 1.5	2 x M63 x 1.5	2 x M63 x 1.5	2 x M63 x 1.5	2 x M63 x 1.5	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																		
	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 de IIB T4 Gb	NA	NA	0	0	0	0
Ex de IIC T4 Gb	NA	NA	0	0	0	0
Ex d I Mb	0	0	0	0	0	0
Ex de 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
SABS / CERTEX	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 de Increased Safety terminal block	NA	NA	0	0	0	0
Ex de increased safety bushing isolator	NA	NA	NA	NA	NA	NA
Cable glands						
Ex d / Ex de cable glands (brass)	0	0	0	0	0	0
Ex d / Ex de cable glands (stainless steel)	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	0	0	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	NA	NA	NA	NA
Jacking Screws	NA	NA	NA	NA	NA	NA
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 de IIB T4 Gb	0	0	0	0	0	0	0	0	0
Ex de IIC T4 Gb	0	0	0	0	0	0	0	0	0
Ex d I Mb	0	0	0	0	0	0	0	0	0
Ex de I Mb	0	0	0	0	0	0	0	0	0
Ex tb IIIC 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
SABS / CERTEX	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 de Increased Safety terminal block	0	0	0	0	0	NA	NA	NA	NA
Ex de increased safety bushing isolator	NA	NA	NA	NA	NA	0	0	0	0
Cable glands									
Ex d / Ex de cable glands (brass)	0	0	0	0	0	0	0	0	0
Ex d / Ex de cable glands (stainless steel)	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	0	0	NA
Flange FF (IEC) - inferior	0	0	0	0	0	0	0	0	0
Flange C-DIN (IEC)	NA	NA	NA						
Flange C-DIN (IEC) - superior	NA	NA	NA						
Flange C-DIN (IEC) - inferior	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	NA	0	0						
Jacking Screws	NA	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	0	0	0	0	0	0
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	0	0	0	0
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
216P (novolac) - Meets atmospheric corrosive categories C5 (I and M) as indicated in DIN EN ISO 12944-2	0	0	0	0	0	0
219P (polyurethane) - Meets NORSO M-501	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)

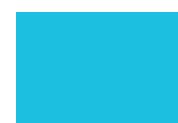
*For IIC and painting >250 µm, beware of risk of electrostatic discharge. Refer to WEG Instruction Manual.

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	S	0	0
AISI 4140	0	0	0	0	0	0	0	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
216P (novolac) - 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
219P (polyurethane) - Meets NORSO M-501	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	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

W22Xd - High Efficiency - IE2

Output		Frame	Full load torque (Nm)	Locked rotor current I/I _n	Locked rotor torque I _{Tn}	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)
											% of full load			Power factor							
kW	HP										Hot	Cold	Efficiency	50	75	100	50	75	100		
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	1.22	
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	1.58	1.58	
0.75	1	80	2.56	6.5	2.8	2.8	0.0008	14	31	23.0	59.0	2800	76.0	78.5	79.5	0.67	0.80	0.86	1.58	1.58	
1.1	1.5	80	3.75	6.5	2.8	2.8	0.0009	10	22	24.0	59.0	2800	78.0	80.0	80.0	0.67	0.79	0.85	2.33	2.33	
1.5	2	90S/L	5.00	7.0	2.6	2.8	0.0021	7	15	44.0	62.0	2865	80.0	82.0	82.0	0.63	0.76	0.83	3.18	3.18	
2.2	3	90S/L	7.40	6.6	3.0	3.0	0.0022	9	20	45.0	62.0	2840	83.0	83.6	83.6	0.63	0.76	0.83	4.58	4.58	
3	4	100L	9.95	8.0	2.4	2.8	0.0064	7	15	52.0	67.0	2880	84.0	85.0	85.0	0.70	0.81	0.86	5.92	5.92	
4	5.5	112M	13.3	7.0	2.0	2.8	0.0088	10	22	68.0	64.0	2880	86.0	86.0	86.0	0.73	0.83	0.88	7.63	7.63	
5.5	7.5	132S/M	18.0	6.8	2.2	3.0	0.0197	17	37	92.0	67.0	2920	85.0	87.0	87.2	0.68	0.79	0.85	10.7	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	14.1	
9.2	12.5	132S/M	30.2	7.6	2.5	3.2	0.0234	10	22	97.0	67.0	2915	88.5	89.0	89.0	0.70	0.81	0.86	17.3	17.3	
11	15	160ML	35.8	7.0	2.3	3.0	0.0446	13	29	158	67.0	2935	90.0	90.6	90.5	0.71	0.82	0.86	20.4	20.4	
15	20	160ML	48.9	7.0	2.3	3.0	0.0517	9	20	165	67.0	2930	91.0	91.3	91.3	0.71	0.81	0.86	27.6	27.6	
18.5	25	160ML	60.1	7.4	2.4	3.1	0.0625	8	18	176	67.0	2940	91.3	92.0	92.0	0.70	0.80	0.86	33.7	33.7	
22	30	180ML	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	39.1	
30	40	200ML	97.0	6.5	2.4	2.7	0.1625	17	37	287	72.0	2955	92.5	93.0	92.9	0.75	0.83	0.87	53.6	53.6	
37	50	200ML	120	6.8	2.4	2.6	0.1950	16	35	310	72.0	2950	93.0	93.4	93.3	0.76	0.84	0.87	65.8	65.8	
45	60	225S/M	145	7.0	2.2	2.8	0.2490	12	26	478	74.0	2960	93.3	93.6	93.6	0.79	0.86	0.89	78.0	78.0	
55	75	250S/M	178	7.0	2.2	2.8	0.3736	14	31	576	74.0	2960	93.6	93.9	93.9	0.79	0.86	0.89	95.0	95.0	
75	100	280S/M	241	7.0	2.0	2.8	0.8541	28	62	837	77.0	2975	93.4	94.3	94.3	0.79	0.86	0.89	129	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	0.86	0.89	154	154	
110	150	315S/M	353	7.3	2.0	2.9	1.67	24	53	1108	77.0	2980	94.3	94.9	94.9	0.79	0.86	0.89	188	188	
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	0.80	0.87	0.90	223	223	
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	223	
150	200	315S/M	481	7.8	2.3	3.1	2.11	20	44	1210	77.0	2980	94.6	95.0	95.0	0.80	0.86	0.89	256	256	
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	0.90	269	269	
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	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	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	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	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	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	465	
300	400	355ML	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	492	
315	430	355ML	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	517	
330	450	355ML	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	554	
Optional frames (high-output design)																					
0.75	1	71	2.59	5.8	2.8	2.8	0.0005	14	31	19.8	56.0	2770	77.0	77.5	77.6	0.67	0.80	0.87	1.60	1.60	
1.5	2	80	5.17	6.5	3.1	3.0	0.0009	15	33	24.0	59.0	2770	80.0	81.5	81.5	0.65	0.78	0.85	3.13	3.13	
4	5.5	100L	13.3	7.8	3.0	3.4	0.0064	10	22	52.0	67.0	2870	85.2	85.8	85.8	0.67	0.80	0.86	7.82	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	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	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	20.1	
22	30	160ML	71.6	7.9	2.5	3.1	0.0813	10	22	195	67.0	2935	91.2	91.6	91.6	0.75	0.84	0.89	39.0	39.0	
30	40	180ML	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	52.9	
45	60	200ML	146	6.6	2.1	2.4	0.2204	15	33	326	72.0	2955	92.5	92.9	92.9	0.76	0.84	0.87	80.4	80.4	
55	75	225S/M	178	7.0	2.0	2.6	0.3238	11	24	523	74.0	2960	92.8	93.2	93.2	0.81	0.87	0.90	94.6	94.6	
75	100	250S/M	242	7.7	2.7	3.3	0.5038	14	31	643	74.0	2960	93.5	94.3	94.3	0.78	0.86	0.89	129	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	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	226	
200	270	315S/M	641	7.5	2.3	2.8	2.68	21	46	1346	77.0	2980	95.0	95.4	95.4	0.82	0.88	0.90	336	336	
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	0.742	
0.37	0.5	71	2.54	4.3	2.1	2.2	0.0														

Ex d / Ex de IIB T4 Gb¹⁾**Ex d / Ex de IIC T4 Gb¹⁾**

Output		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	50	75	100	50	75	100	50	75	100	50	75	100	50	75	100	50	75	100	50	HP
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	2770	77,7	78,0	78,0	0,66	0,81	0,87	1,68	2810	75,0	78,5	79,5	0,64	0,77	0,84	1,56				
1,1	1,5	2775	78,9	79,2	79,6	0,73	0,83	0,87	2,41	2815	77,1	80,2	80,2	0,62	0,75	0,82	2,33				
1,5	2	2840	80,5	81,6	81,6	0,68	0,79	0,85	3,29	2880	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	2865	84,9	85,0	85,0	0,76	0,85	0,88	6,09	2890	83,1	84,6	85,0	0,66	0,78	0,84	5,85				
4	5,5	2865	86,6	86,0	85,8	0,78	0,87	0,90	7,87	2890	85,3	85,9	86,3	0,69	0,80	0,86	7,50				
5,5	7,5	2900	86,5	86,8	87,0	0,74	0,83	0,88	10,9	2915	85,6	87,0	87,3	0,63	0,76	0,83	10,6				
7,5	10	2900	88,4	88,4	88,1	0,77	0,85	0,89	14,5	2915	87,3	88,3	88,7	0,67	0,79	0,85	13,8				
9,2	12,5	2905	89,1	89,0	89,0	0,75	0,85	0,89	17,6	2920	87,6	88,6	89,0	0,65	0,77	0,84	17,1				
11	15	2930	90,3	90,5	90,1	0,75	0,85	0,88	21,1	2940	89,6	90,5	90,6	0,67	0,79	0,84	20,1				
15	20	2945	91,4	91,3	90,9	0,76	0,84	0,88	28,5	2935	90,6	91,2	91,4	0,67	0,78	0,84	27,2				
18,5	25	2930	91,6	91,9	91,6	0,74	0,83	0,88	34,9	2945	91,0	91,9	92,2	0,66	0,77	0,84	33,2				
22	30	2940	92,2	92,2	91,8	0,79	0,86	0,89	40,9	2950	91,8	92,4	92,4	0,73	0,82	0,87	38,1				
30	40	2950	92,7	92,9	92,6	0,79	0,85	0,88	55,9	2960	92,3	93,0	93,0	0,71	0,81	0,86	52,2				
37	50	2945	93,2	93,3	93,0	0,80	0,86	0,88	68,7	2955	92,8	93,4	93,5	0,73	0,82	0,86	64,0				
45	60	2955	93,4	93,5	93,2	0,83	0,88	0,90	81,5	2960	93,1	93,6	93,8	0,76	0,84	0,88	75,8				
55	75	2955	93,8	93,8	93,6	0,83	0,88	0,90	99,2	2960	93,3	93,8	94,0	0,75	0,84	0,88	92,5				
75	100	2970	93,6	94,3	94,1	0,82	0,88	0,90	135	2975	93,2	94,2	94,3	0,76	0,84	0,88	126				
90	125	2970	94,2	94,6	94,4	0,83	0,88	0,90	161	2975	93,8	94,5	94,5	0,76	0,84	0,88	151				
110	150	2975	94,5	94,9	94,8	0,83	0,88	0,90	196	2980	94,1	94,8	94,9	0,76	0,84	0,88	183				
132	175	2975	94,6	95,1	94,9	0,83	0,89	0,91	232	2980	94,4	95,1	95,2	0,78	0,86	0,89	217				
132	180	2975	94,6	95,1	94,9	0,83	0,89	0,91	232	2980	94,4	95,1	95,2	0,78	0,86	0,89	217				
150	200	2975	94,4	95,0	95,0	0,81	0,88	0,90	267	2980	94,3	95,0	95,0	0,76	0,84	0,88	250				
160	220	2975	94,9	95,2	95,2	0,83	0,89	0,91	281	2980	94,7	95,3	95,3	0,78	0,86	0,89	262				
185	250	2975	95,0	95,5	95,3	0,83	0,88	0,90	328	2980	94,8	95,5	95,4	0,78	0,85	0,88	307				
200	270	2975	95,0	95,4	95,2	0,85	0,89	0,91	351	2980	94,9	95,5	95,5	0,80	0,87	0,90	324				
220	300	2975	95,1	95,4	95,3	0,84	0,88	0,91	385	2980	94,9	95,5	95,6	0,79	0,86	0,89	360				
250	340	2980	95,1	95,5	95,3	0,86	0,90	0,91	438	2980	95,0	95,6	95,6	0,82	0,88	0,91	400				
260	350	2980	95,0	95,6	95,6	0,86	0,90	0,92	449	2980	95,0	95,6	95,7	0,82	0,89	0,91	415				
280	380	2975	95,2	95,5	95,4	0,87	0,90	0,91	490	2980	95,2	95,6	95,7	0,83	0,88	0,91	447				
300	400	2980	94,2	95,5	95,4	0,89	0,92	0,92	519	2985	95,2	95,6	95,7	0,86	0,90	0,92	474				
315	430	2980	94,2	95,5	95,4	0,89	0,92	0,92	545	2985	95,2	95,6	95,7	0,86	0,90	0,92	498				
330	450	2980	95,2	95,4	95,4	0,89	0,91	0,91	578	2985	95,3	95,6	95,7	0,87	0,89	0,89	539				

Optional frames (high-output design)

0,75	1	2750	77,0	77,4	77,4	0,73	0,84	0,90	1,64	2890	76,0	77,6	77,6	0,62	0,76	0,85	1,58
1,5	2	2750	81,0	81,5	81,3	0,71	0,83	0,88	3,19	2790	80,0	81,0	81,7	0,59	0,74	0,82	3,11
4	5,5	2860	85,5	85,8	85,8	0,73	0,83	0,88	8,05	2880	85,0	86,0	86,0	0,63	0,76	0,83	7,80
5,5	7,5	2865	87,0	86,9	87,0	0,76	0,86	0,89	10,8	2885	85,9	86,8	87,2	0,67	0,79	0,85	10,3
7,5	10	2860	87,5	88,1	88,1	0,72	0,83	0,88	14,7	2885	87,0	88,1	88,1	0,62	0,75	0,83	14,3
11	15	2895	89,7	89,5	89,6	0,79	0,87	0,89	21,0	2910	88,7	89,4	89,8	0,71	0,81	0,86	19,8
22	30	2930	91,2	91,6	91,5	0,79	0,87	0,90	40,6	2940	91,0	91,6	91,8	0,72	0,82	0,87	38,3
30	40	2935	91,5	92,0	92,0	0,81	0,88	0,90	55,0	2945	91,8	92,3	92,3	0,75	0,84	0,88	51,4
45	60	2950	92,6	92,9	92,9	0,80	0,87	0,89	82,7	2960	92,4	93,0	93,0	0,72	0,82	0,86	78,4
55	75	2955	93,0	93,2	93,2	0,83	0,89	0,91	98,5	2960	92,6	93,2	93,3	0,78	0,86	0,89	92,1
75	100	2955	93,6	94,2	94,3	0,83	0,89	0,91	133	2965	93,5	94,4	94,3	0,78	0,86	0,89	124
110	150	2970	94,7	94,7	94,7	0,82	0,88	0,90	196	2975	94,3	94,8	94,8	0,75	0,84	0,88	220
132	175	2970	95,0	95,2	95,2	0,83	0,88	0,90	235	2975	94,4	95,0	95,0	0,73	0,82	0,86	282
18,5	25	1445	60,0	65,0	68,5	0,53	0,66	0,74	0,749	1410	57,8	64,5	68,5	0,46	0,59	0,69	0,736
37	50	1465	91,0	91,2	91,2	0,71	0,81	0,85	36,3	1470	70,0	72,7	72,7	0,43	0,57	0,69	1,03
55	75	1470	93,0	93,5	93,5	0,73	0,83	0,87	71,3	1472	72,5	73,9	73,9	0,60	0,73	0,79	1,61
75	100	1470	94,3	94,3	94,1	0,78	0,87	0,90	135	1475	93,7	94,2	94,2	0,67	0,77	0,83	224
110	150	1480	94,6	95,1	94,9	0,79	0,85	0,88	200	1485	94,0	94,9	94,9	0,75	0,83	0,86	254
132	175	1480	94,5	94,7	94,7	0,76	0,84	0,87	243	1485	94,1	94,9	94,9	0,74	0,82	0,86	271
185	250	1485	95,1	95,6	95,5</												

W22Xd - High Efficiency - IE2

Output		Frame	Full load torque (Nm)	Locked rotor current I _l /In	Locked rotor torque I _r /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 In (A)
											Rated speed (rpm)		% of full load			Power factor					
KW	HP	Hot	Cold	50	75	100	50	75	100	50	50	75	100	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	3,9	1,8	2,0	0,0022	27	59	22,5	43,0	920	65,0	67,0	67,6	0,51	0,66	0,74	1,07		
0,55	0,75	80	5,77	4,1	2,2	2,4	0,0030	21	46	24,5	43,0	910	65,0	71,0	73,1	0,50	0,65	0,74	1,47		
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	2,0	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	21,8	7,1	3,5	3,9	0,0257	17	37	71,0	52,0	965	80,8	82,7	83,5	0,41	0,54	0,64	5,94		
3	4	132S/M	29,9	5,7	2,0	2,4	0,0359	31	68	88,0	53,0	960	82,5	83,6	83,6	0,50	0,63	0,71	7,30		
4	5,5	132S/M	39,8	6,0	2,1	2,5	0,0453	21	46	94,0	53,0	960	84,0	84,8	84,8	0,51	0,64	0,72	9,46		
5,5	7,5	132S/M	54,7	6,4	2,2	2,7	0,0604	19	42	104	53,0	960	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	56,0	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	56,0	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	56,0	970	89,0	89,5	89,2	0,62	0,74	0,81	22,0		
15	20	180M/L	148	7,0	2,4	3,0	0,2565	7	15	233	56,0	970	90,3	90,5	90,3	0,70	0,81	0,86	27,9		
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	6,8	2,1	2,5	0,7192	12	26	493	63,0	985	92,6	92,7	92,6	0,69	0,79	0,84	55,7		
37	50	250S/M	359	6,7	2,2	2,5	1,10	16	35	593	64,0	985	93,0	93,2	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	534	6,2	2,0	2,4	2,36	22	48	866	65,0	985	93,6	93,8	93,8	0,68	0,79	0,83	102		
75	100	315S/M	724	6,2	1,9	2,2	3,83	23	51	1091	67,0	990	94,0	94,3	94,2	0,69	0,79	0,83	138		
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	1930	7,0	2,4	2,5	10,1	12	26	1703	68,0	990	95,1	95,4	95,4	0,69	0,79	0,83	365		
220	300	315L	2123	6,8	2,3	2,3	11,0	14	31	1782	68,0	990	95,2	95,5	95,5	0,69	0,79	0,83	401		
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	2895	6,2	2,2	2,2	14,3	30	66	2430	73,0	990	95,4	95,7	95,6	0,63	0,74	0,79	573		
Optional frames (high-output design)																					
37	50	225S/M	359	6,8	2,1	2,5	0,8876	11	24	531	63,0	985	93,0	93,2	93,0	0,72	0,81	0,86	66,8		
45	60	250S/M	437	6,4	2,1	2,3	1,29	15	33	626	64,0	985	93,4	93,5	93,4	0,76	0,84	0,87	79,9		
75	100	280S/M	724	6,4	2,0	2,4	3,03	17	37	954	65,0	990	93,9	94,3	94,2	0,69	0,79	0,84	137		
VIII poles																					
0,12	0,16	71	1,76	2,3	1,9	2,0	0,0008	172	378	20,0	41,0	650	40,0	48,0	50,0	0,35	0,43	0,52	0,666		
0,18	0,25	80	2,57	3,1	1,9	2,1	0,0024	48	106	23,0	42,0	670	47,0	53,0	55,0	0,44	0,55	0,65	0,727		
0,25	0,33	80	3,57	3,2	1,9	2,1	0,0029	42	92	24,0	42,0	670	49,0	55,0	57,0	0,43	0,55	0,66	0,959		
0,37	0,5	90S/L	5,12	3,5	1,8	2,0	0,0055	37	81	45,5	43,0	690	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	43,0	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	41,0	5,5	2,3	2,4	0,0740	19	42	102	48,0	700	82,0	82,5	82,0	0,54	0,66	0,73	7,23		
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	51,0	725	88,0	88,0	87,5	0,63	0,75	0,82	18,5		
11	15	180M/L	145	6,0	2,1	2,4	0,2439	11	24	228	51,0	725	88,0	88,5	88,0	0,6					

Ex d / Ex de IIB T4 Gb¹⁾**Ex d / Ex de IIC T4 Gb¹⁾**

Output		380 V										415 V												
		Rated speed (rpm)		% of full load													Rated speed (rpm)		% of full load					
				Efficiency			Power factor					Efficiency			Power factor					Efficiency			Power factor	
kW	HP	50	75	100	50	75	100	50	75	100	50	50,1	56,8	58,6	0,38	0,48	0,58	0,737	50	75	100	50	75	100
VI poles																								
0,18	0,25	875	54,2	59,0	58,7	0,43	0,55	0,65	0,717	900	50,1	56,8	58,6	0,38	0,48	0,58	0,737	50	75	100	50	75	100	
0,25	0,33	875	56,3	60,0	61,6	0,41	0,52	0,62	0,995	900	53,0	60,0	61,6	0,35	0,45	0,54	1,05	50	75	100	50	75	100	
0,37	0,5	895	64,0	67,0	67,6	0,56	0,70	0,76	1,09	915	62,0	67,0	67,6	0,48	0,62	0,72	1,06	50	75	100	50	75	100	
0,55	0,75	910	67,5	71,8	73,1	0,55	0,69	0,79	1,45	915	62,5	69,6	70,9	0,47	0,61	0,72	1,50	50	75	100	50	75	100	
0,75	1	920	75,8	75,9	75,9	0,55	0,68	0,76	1,98	935	73,2	75,6	76,4	0,48	0,61	0,71	1,92	50	75	100	50	75	100	
1,1	1,5	915	77,9	78,5	78,5	0,55	0,67	0,77	2,76	930	74,3	77,3	78,1	0,46	0,59	0,70	2,80	50	75	100	50	75	100	
1,5	2	930	80,7	80,1	79,8	0,55	0,69	0,76	3,76	945	78,3	79,7	80,3	0,48	0,61	0,70	3,71	50	75	100	50	75	100	
2,2	3	960	82,0	83,1	84,2	0,46	0,60	0,68	5,84	970	79,8	83,2	84,4	0,38	0,50	0,60	6,04	50	75	100	50	75	100	
3	4	955	83,4	83,8	83,3	0,54	0,67	0,74	7,39	960	81,4	83,1	83,6	0,46	0,59	0,68	7,34	50	75	100	50	75	100	
4	5,5	955	84,9	85,0	84,6	0,55	0,68	0,74	9,71	960	83,0	84,4	84,9	0,47	0,61	0,69	9,50	50	75	100	50	75	100	
5,5	7,5	955	86,4	86,3	86,0	0,56	0,68	0,75	13,0	965	84,6	85,7	86,2	0,47	0,61	0,69	12,9	50	75	100	50	75	100	
7,5	10	965	88,7	88,6	87,7	0,68	0,79	0,84	15,5	970	87,8	88,6	88,5	0,61	0,73	0,80	14,7	50	75	100	50	75	100	
9,2	12,5	965	88,9	88,8	88,1	0,68	0,79	0,84	18,9	970	88,0	88,8	88,8	0,61	0,73	0,80	18,0	50	75	100	50	75	100	
11	15	965	89,6	89,5	88,8	0,66	0,77	0,83	22,7	970	88,4	89,3	89,3	0,59	0,71	0,79	21,7	50	75	100	50	75	100	
15	20	965	90,6	90,4	89,7	0,74	0,84	0,88	28,9	970	89,9	90,5	90,6	0,67	0,79	0,85	27,1	50	75	100	50	75	100	
18,5	25	970	91,5	91,4	90,8	0,71	0,80	0,84	36,9	975	90,5	91,2	91,3	0,63	0,74	0,80	35,2	50	75	100	50	75	100	
22	30	970	92,0	91,8	91,2	0,70	0,79	0,84	43,6	975	90,8	91,5	91,6	0,61	0,73	0,80	41,8	50	75	100	50	75	100	
30	40	980	92,8	92,5	92,1	0,73	0,81	0,85	58,2	985	92,2	92,6	92,7	0,66	0,77	0,82	54,9	50	75	100	50	75	100	
37	50	980	93,2	93,0	92,6	0,77	0,84	0,87	69,8	985	92,7	93,2	93,2	0,70	0,80	0,85	65,0	50	75	100	50	75	100	
45	60	980	93,7	93,6	93,1	0,72	0,81	0,84	87,4	985	93,1	93,5	93,5	0,65	0,76	0,80	83,7	50	75	100	50	75	100	
55	75	980	93,8	93,8	93,5	0,72	0,82	0,85	105	985	93,3	93,6	93,9	0,65	0,77	0,82	99,4	50	75	100	50	75	100	
75	100	990	94,3	94,3	94,0	0,73	0,82	0,84	144	990	93,7	94,2	94,2	0,66	0,77	0,81	137	50	75	100	50	75	100	
90	125	990	94,6	94,5	94,2	0,76	0,82	0,85	171	990	94,2	94,5	94,6	0,69	0,78	0,83	159	50	75	100	50	75	100	
110	150	990	94,7	94,9	94,5	0,76	0,82	0,85	208	990	94,2	94,8	94,9	0,69	0,78	0,83	194	50	75	100	50	75	100	
132	175	990	94,9	95,0	94,8	0,75	0,83	0,85	249	990	94,3	94,9	95,0	0,68	0,78	0,83	233	50	75	100	50	75	100	
150	200	990	94,7	95,0	95,0	0,71	0,80	0,84	286	990	94,6	95,0	95,0	0,65	0,76	0,82	268	50	75	100	50	75	100	
160	220	990	95,0	95,2	95,0	0,74	0,82	0,85	301	990	94,5	95,1	95,2	0,67	0,78	0,83	282	50	75	100	50	75	100	
185	250	990	95,2	95,4	95,2	0,73	0,82	0,84	351	990	94,7	95,3	95,4	0,66	0,77	0,81	333	50	75	100	50	75	100	
200	270	990	95,3	95,4	95,2	0,73	0,82	0,85	376	990	94,8	95,3	95,4	0,66	0,77	0,82	356	50	75	100	50	75	100	
220	300	985	95,3	95,4	95,2	0,73	0,81	0,84	418	990	95,0	95,5	95,6	0,66	0,77	0,82	390	50	75	100	50	75	100	
250	340	990	95,5	95,5	95,4	0,70	0,79	0,83	480	990	95,1	95,4	95,5	0,62	0,73	0,79	461	50	75	100	50	75	100	
260	350	990	95,5	95,5	95,4	0,70	0,79	0,83	499	990	95,1	95,4	95,5	0,62	0,73	0,79	479	50	75	100	50	75	100	
280	380	990	95,6	95,6	95,5	0,68	0,78	0,82	543	990	95,2	95,5	95,6	0,61	0,72	0,78	522	50	75	100	50	75	100	
300	400	990	95,7	95,7	95,5	0,65	0,75	0,80	597	995	95,2	95,6	95,6	0,60	0,70	0,77	567	50	75	100	50	75	100	
Optional frames (high-output design)																								
37	50	980	93,1	92,9	92,4	0,76	0,83	0,87	69,9	985	92,8	93,2	93,2	0,69	0,79	0,85	65,0	50	75	100	50	75	100	
45	60	980	93,4	93,2	92,8	0,79	0,86	0,88	83,7	985	93,3	93,6	93,6	0,73	0,82	0,86	77,7	50	75	100	50	75	100	
75	100	985	94,1	94,2	93,9	0,73	0,82	0,85	143	990	93,7	94,2	94,3	0,66	0,77	0,83	133	50	75	100	50	75	100	
IV poles																								
0,12	0,16	635	42,9	50,1	50,8	0,37	0,47	0,56	0,641	655	37,1	45,7	48,8	0,34	0,41	0,49	0,698	50	75	100	50	75	100	
0,18	0,25	660	49,3	54,4	54,9	0,47	0,59	0,69	0,722	675	45,0	51,8	54,5	0,42	0,53	0,62	0,741	50	75	100	50	75	100	
0,25	0,33	660	51,1	56,2	56,8	0,47	0,59	0,70	0,955	675	47,0	53,8	56,8	0,42	0,53	0,63	0,972	50	75	100	50	75	100	
0,37	0,5	680	59,5	63,8	62,4	0,44	0,56	0,67	1,34	695	53,1	59,9	60,9	0,39	0,49	0,59	1,43	50	75	100	50	75	100	
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	50	75	100	50	75	100	
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	50	75	100	50	75	100	
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	50	75	100	50	75	100	
1,5	2	695	78,8	79,6	7																			

W22Xd - 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)	
											% of full load							
kW	HP										Efficiency			Power factor				
II poles																		
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
0,55	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
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
1,1	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
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
2,2	3	90S/L	7,32	7,5	3,4	3,5	0,0026	12	26	46,5	62,0	2870	86,0	86,5	86,3	0,65	0,77	0,83
3	4	100L	9,85	8,5	3,4	3,4	0,0064	15	33	52,0	67,0	2910	85,5	87,3	87,3	0,69	0,81	0,86
4	5,5	112M	13,2	7,7	2,9	3,5	0,0080	22	48	66,0	64,0	2900	88,1	89,1	88,4	0,69	0,80	0,86
5,5	7,5	132S/M	17,9	7,9	2,4	3,5	0,0180	16	35	89,0	67,0	2930	86,9	88,7	89,4	0,66	0,78	0,84
7,5	10	132S/M	24,5	8,8	2,7	3,6	0,0234	10	22	97,0	67,0	2930	88,5	89,8	90,3	0,68	0,80	0,85
9,2	12,5	132S/M	30,0	8,5	2,9	3,3	0,0306	16	35	107	67,0	2930	90,4	91,1	90,7	0,75	0,84	0,88
11	15	160M/L	35,7	8,0	2,6	3,4	0,0482	12	26	161	67,0	2945	90,3	91,4	91,4	0,71	0,82	0,87
15	20	160M/L	48,7	8,3	2,8	3,5	0,0551	8	18	169	67,0	2945	90,9	91,8	92,1	0,67	0,79	0,85
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
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
30	40	200M/L	96,8	7,7	3,0	3,0	0,1703	16	35	293	72,0	2960	92,2	93,2	93,5	0,69	0,80	0,85
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
45	60	225S/M	145	7,7	2,4	3,1	0,2861	13	29	501	74,0	2960	94,2	94,5	94,2	0,78	0,86	0,89
55	75	250S/M	178	7,8	2,7	3,3	0,3736	19	42	576	74,0	2960	93,6	94,4	94,4	0,77	0,85	0,88
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
90	125	280S/M	289	7,6	2,2	3,1	1,12	27	59	925	77,0	2975	94,3	95,2	95,2	0,81	0,87	0,90
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
132	175	315S/M	423	7,6	2,1	3,1	1,96	34	75	1176	77,0	2980	94,5	95,4	95,6	0,78	0,86	0,89
150	200	315S/M	481	7,5	2,3	3,1	2,18	20	44	1227	77,0	2980	95,0	95,6	95,6	0,80	0,86	0,89
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
185	250	315S/M	593	7,6	2,3	3,1	2,46	22	48	1295	77,0	2980	95,4	96,0	95,8	0,79	0,86	0,89
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
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
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
260	350	315L	834	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
280	380	315L	896	7,5	2,5	2,7	4,17	20	44	1703	78,0	2985	95,4	95,8	96,0	0,84	0,89	0,91
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
315	430	355M/L	1010	7,7	2,1	2,5	6,01	18	40	2303	80,0	2980	95,4	95,8	96,0	0,87	0,90	0,91
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
Optional frames (high-output design)																		
11	15	132S/M	35,9	8,2	2,7	3,0	0,0306	11	24	107	67,0	2925	90,6	91,1	91,3	0,75	0,85	0,89
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
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
IV Polos																		
0,25	0,33	71	1,72	4,8	2,3	2,3	0,0009	30	66	20,5	43,0	1390	69,0	72,0	73,5	0,52	0,65	0,72
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
0,55	0,75	80	3,70	6,6	2,9	3,2	0,0027	20	44	23,5	44,0	1420	77,0	79,0	80,8	0,61	0,74	0,80
0,75	1	80	5,05	6,7	3,0	3,3	0,0032	18	40	25,0	44,0	1420	80,0	82,0	82,5	0,59	0,72	0,81
1,1	1,5	90S/L	7,22	7,6	2,5	3,3	0,0055	15	33	45,5	49,0	1455	83,0	84,5	84,5	0,59	0,72	0,80
1,5	2	90S/L	9,88	7,4	2,6	3,4	0,0066	13	29	48,0	49,0	1450	84,0	86,0	85,5	0,58	0,72	0,80
2,2	3	100L	14,7	7,4	3,2	3,5	0,0090	18	40	52,0	53,0	1435	86,5	87,0	87,0	0,60	0,73	0,80
3	4	100L	19,9	7,8	3,5	3,7	0,0120	15	33	58,0	53,0	1440	87,0	88,0	88,0	0,60	0,73	0,80
4	5,5	112M	26,4	7,0	2,3	3,1	0,0182	15	33	71,0	56,0	1450	88,7	89,1	88,8	0,62	0,74	0,81
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
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
9,2	12,5	132S/M	60,0	8,6	2,8	3,5	0,0698	10	22	82,0	56,0	1465	90,3	91,0	91,0	0,64	0,76	0,82
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
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
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
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
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
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
45	60	225S/M	292	7,5	2,8	3,1	0,6143	12	26	523	63,0	1475	93,9	94,3	94,4	0,71	0,81	0,85
55	75	250S/M	355	7,5	2,8	3,0	0,9412	14	31	626	64,0	1480	94,3	94,7				

Ex d / Ex de IIB T4 Gb¹⁾**Ex d / Ex de IIC T4 Gb¹⁾**

Output		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	50	75	100	50	75	100	50	75	100	50	75	100	50	75	100	50	75	100	50	75	100
II poles																						
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	0,83	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	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	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	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	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	0,81	4,37				
3	4	2900	86,0	87,4	87,1	0,75	0,84	0,88	5,95	2915	85,0	87,2	87,4	0,66	0,78	0,84	0,84	5,68				
4	5,5	2890	88,6	89,2	89,1	0,73	0,83	0,88	7,75	2905	87,5	89,0	89,6	0,65	0,77	0,84	0,84	7,39				
5,5	7,5	2925	87,6	88,9	89,2	0,71	0,82	0,87	10,8	2935	86,1	88,3	89,2	0,61	0,74	0,81	0,81	10,6				
7,5	10	2926	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	0,83	13,9				
9,2	12,5	2920	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	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	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	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	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	0,84	39,3				
30	40	2960	92,6	93,2	93,3	0,75	0,83	0,87	56,2	2965	91,8	93,0	93,3	0,64	0,76	0,82	0,82	54,6				
37	50	2960	93,0	93,6	93,7	0,75	0,84	0,87	69,0	2965	92,0	93,2	93,7	0,63	0,76	0,82	0,82	67,0				
45	60	2960	93,8	94,0	94,0	0,81	0,88	0,90	80,8	2965	94,0	94,0	94,3	0,75	0,84	0,88	0,88	75,4				
55	75	2960	93,8	94,3	94,3	0,80	0,87	0,90	98,5	2965	93,4	94,3	94,4	0,73	0,83	0,87	0,87	93,2				
75	100	2975	93,9	94,7	94,7	0,81	0,87	0,89	135	2980	93,5	94,7	94,9	0,76	0,84	0,87	0,87	126				
90	125	2975	94,5	95,0	95,0	0,83	0,88	0,90	160	2980	94,2	95,2	95,2	0,78	0,86	0,89	0,89	148				
110	150	2975	94,6	95,4	95,4	0,81	0,87	0,89	197	2980	94,1	95,2	95,4	0,75	0,84	0,87	0,87	184				
132	175	2975	94,7	95,5	95,6	0,81	0,87	0,90	233	2980	94,3	95,4	95,6	0,75	0,84	0,88	0,88	218				
150	200	2975	95,0	95,6	95,6	0,83	0,88	0,90	265	2980	94,7	95,6	95,6	0,78	0,85	0,89	0,89	245				
160	220	2980	95,3	95,8	95,8	0,82	0,88	0,90	282	2980	94,9	95,8	95,8	0,77	0,85	0,88	0,88	264				
185	250	2975	95,5	95,8	95,8	0,82	0,88	0,90	326	2980	95,2	95,8	95,8	0,77	0,85	0,88	0,88	305				
200	270	2975	95,8	96,2	96,0	0,84	0,89	0,91	348	2980	95,6	96,2	96,0	0,80	0,87	0,89	0,89	326				
220	300	2980	96,0	96,0	96,0	0,83	0,89	0,91	383	2980	95,8	96,0	96,0	0,79	0,86	0,89	0,89	358				
250	340	2975	96,4	96,0	96,0	0,87	0,91	0,92	430	2980	96,3	96,0	96,0	0,83	0,89	0,91	0,91	398				
260	350	2975	96,4	96,0	96,0	0,87	0,91	0,92	447	2980	96,3	96,0	96,0	0,83	0,89	0,91	0,91	414				
280	380	2975	96,2	95,8	96,0	0,87	0,91	0,91	487	2980	96,2	95,8	96,0	0,85	0,89	0,90	0,90	451				
300	400	2985	95,5	96,0	96,0	0,88	0,89	0,91	522	2985	95,5	95,8	96,0	0,85	0,90	0,91	0,91	478				
315	430	2980	95,0	96,0	96,0	0,89	0,92	0,92	542	2985	95,2	95,6	95,8	0,86	0,90	0,92	0,92	497				
330	450	2980	95,2	96,0	96,0	0,90	0,91	0,91	574	2985	95,6	96,2	96,2	0,88	0,91	0,92	0,92	519				
Optional frames (high-output design)																						
11	15	2915	90,9	91,0	91,2	0,80	0,87	0,90	20,4	2930	90,2	91,1	91,4	0,72	0,82	0,87	0,87	19,2				
75	100	2960	94,0	94,5	94,7	0,85	0,88	0,90	134	2965	94,0	94,5	94,9	0,81	0,86	0,88	0,88	125				
110	150	2975	95,0	95,2	95,2	0,84	0,89	0,91	193	2980	94,9	95,4	95,4	0,80	0,87	0,90	0,90	178				
IV poles																						
0,25	0,33	1375	67,0	69,1	73,5	0,56	0,69	0,75	0,689	1400	65,1	68,6	73,4	0,50	0,62	0,69	0,687					
0,37	0,5	1370	73,0	75,0	77,3	0,53	0,64	0,72	1,01	1395	73,0	75,0	77,3	0,47	0,59	0,68	0,687					
0,55	0,75	1410	78,0	79,1	80,8	0,65	0,77	0,83	1,25	1430	76,0	78,9	80,8	0,57	0,71	0,77	0,77	1,23				
0,75	1	1410	80,8	82,0	82,5	0,64	0,75	0,83	1,66	1425	79,1	81,8	82,8	0,56	0,69	0,79	0,79	1,60				
1,1	1,5	1450	84,0	84,7	84,3	0,64	0,76	0,83	2,39	1460	82,0	84,1	84,8	0,55	0,69	0,77	0,77	2,34				
1,5	2	1445	85,0	86,2	85,6	0,63	0,76	0,83	3,21	1455	83,1	85,7	86,1	0,54	0,68	0,77	0,77	3,15				
2,2	3	1430	87,2	87,1	86,7	0,65	0,77	0,83	4,64	1440	85,7	86,8	87,2	0,57	0,70	0,78	0,78	4,50				
3	4	1430	87,7	88,0	87,7	0,65	0,77	0,83	6,26	1445	86,3	87,7	88,1	0,56	0,70	0,78	0,78	6,07				
4	5,5	1445	89,3	89,0	88,6	0,67	0,78	0,83	8,26	1455	88,2	88,9	89,3	0,59	0,72	0,79	0,79	7,89				
5,5	7,5	1460	89,0	89,6	89,6	0,73	0,83	0,87	10,7	1465	89,4	89,6	89,8	0,65	0,78	0,84	0,84	10,1				
7,5	10	1460	90,0	90,2	90,4	0,71	0,82	0,87	14,5	1465	89,2	90,3	90,4	0,62	0,75	0,83	0,83	13,9				
9,2	12,5	1460	91,0	91,1	91,0	0,69	0,80	0,85	17,7	1470	89,5	90,6	91,0	0,60	0,73	0,80	0,80	17,2				
11	15	1470	91,7	91,4	91,4	0,69	0,80	0,85	21,5	1475	90,6	91,4	91,5	0,61	0,74	0,81	0,81	20,6				

W22Xd - Premium Efficiency - IE3

Output		Frame	Full load torque (Nm)	Locked rotor current I/in	Locked rotor torque Tl/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)		
											% of full load								
kW	HP										Efficiency	Power factor	50	75	100	50	75	100	
V1 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	1,7	2,4	0,0029	25	55	22,0	43,0	955	63,6	68,5	68,8	0,47	0,60	0,71	0,739
0,37	0,5	80	3,82	4,5	1,9	2,1	0,0025	25	55	23,5	43,0	925	66,0	69,5	73,5	0,51	0,65	0,75	0,969
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	7,62	5,2	2,5	2,8	0,0060	31	68	46,5	45,0	940	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	15,1	5,5	2,3	2,8	0,0143	31	68	54,0	44,0	950	81,5	82,5	82,5	0,49	0,62	0,71	3,70
2,2	3	112M	22,1	6,0	2,5	2,6	0,0257	26	57	71,0	52,0	950	83,0	84,5	84,5	0,53	0,64	0,72	5,22
3	4	132S/M	29,7	5,8	1,8	2,6	0,0416	40	88	92,0	53,0	965	85,0	85,6	85,8	0,53	0,66	0,73	6,91
4	5,5	132S/M	39,6	6,1	1,9	2,7	0,0492	25	55	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	54,5	7,0	2,5	2,8	0,0755	26	57	115	53,0	965	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	56,0	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	56,0	975	90,0	90,6	90,0	0,64	0,75	0,81	18,2
11	15	160M/L	108	7,1	2,8	3,2	0,1931	12	26	195	56,0	975	89,0	90,1	90,5	0,60	0,73	0,80	21,9
15	20	180M/L	147	7,7	2,6	3,2	0,2970	8	18	246	56,0	975	91,5	91,5	91,4	0,71	0,82	0,86	27,5
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	437	6,4	2,1	2,7	2,35	25	55	866	65,0	985	93,9	94,3	93,9	0,67	0,77	0,82	84,4
55	75	280S/M	534	6,8	2,3	2,8	2,69	24	53	910	65,0	985	94,2	94,7	94,3	0,66	0,77	0,82	103
75	100	315S/M	724	6,3	2,0	2,5	4,35	39	86	1142	67,0	990	94,6	95,1	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	1274	7,2	2,6	2,7	7,23	25	55	1414	67,0	990	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	1419	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	1482	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	5,5	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	3040	6,1	2,1	2,1	15,0	25	55	2493	73,0	990	95,2	95,8	95,8	0,66	0,76	0,80	593
Optional frames (high-output design)																			
45	60	250S/M	439	7,7	2,8	2,8	1,43	18	40	652	64,0	980	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
VIII poles																			
0,12	0,16	71	1,76	2,4	1,8	2,0	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	3,49	3,5	2,0	2,2	0,0034	30	66	25,5	42,0	685	53,0	60,0	64,1	0,42	0,52	0,63	0,894
0,37	0,5	90S/L	5,12	3,7	2,0	2,3	0,0055	30	66	40,0	43,0	690	61,0	66,0	69,3	0,41	0,53	0,62	1,24
0,55	0,75	90S/L	7,62	3,8	1,9	2,2	0,0066	29	64	40,0	43,0	690	65,0	70,0	73,0	0,44	0,57	0,67	1,62
0,75	1	100L	10,1	4,6	1,9	2,3	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	14,9	4,6	2,1	2,4	0,0143	30	66	54,0	50,0	705	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	98,2	5,3	2,2	2,5	0,2199	22	48	207	51,0	730	87,0	88,3	88,5	0,52	0,65	0,73	16,8
9,2	12,5	180M/L	121	6,0	2,0	2,6	0,2575	15	33	233	51,0	725	89,0	89,3	89,6	0,63	0,75	0,82	18,1
11	15	180M/L	145	6,5	2,3	2,7	0,2846	12	26	242	51,0	725	89,5	90,0	90,0	0,55	0,68	0,76	23,2
15	20	200M/L	196	4,9	1,9	2,1	0,4571	34	75	326	56,0	730	90,0	91,0	90,8	0,56	0,68	0,74	32,2
18,5	25	225S/M																	

Ex d / Ex de IIB T4 Gb¹⁾**Ex d / Ex de IIC T4 Gb¹⁾**

Output		380 V										415 V										
		Rated speed (rpm)	% of full load									Full load current In (A)	Rated speed (rpm)	% of full load								
			Efficiency			Power factor			Efficiency					Power factor								
kW	HP	50	75	100	50	75	100	50	75	100	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	0,57	0,688				
0,25	0,33	950	65,9	68,0	68,6	0,51	0,64	0,74	0,748	960	61,7	68,2	68,8	0,45	0,57	0,68	0,68	0,743				
0,37	0,5	915	67,6	69,9	73,5	0,55	0,69	0,79	0,968	930	64,3	68,8	73,5	0,48	0,62	0,72	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	0,68	1,45				
0,75	1	930	77,5	79,2	78,9	0,53	0,66	0,74	1,95	945	75,3	78,6	79,1	0,46	0,59	0,69	0,69	1,91				
1,1	1,5	940	81,2	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	0,70	2,68				
1,5	2	945	82,3	82,6	82,5	0,53	0,66	0,74	3,73	955	80,6	82,3	82,8	0,46	0,59	0,68	0,68	3,71				
2,2	3	945	83,6	84,4	84,3	0,57	0,68	0,75	5,29	955	82,3	84,3	84,7	0,50	0,62	0,70	0,70	5,16				
3	4	960	85,0	85,8	85,8	0,57	0,69	0,76	6,99	970	85,2	85,8	86,0	0,49	0,63	0,71	0,71	6,84				
4	5,5	960	86,3	86,8	86,8	0,57	0,70	0,76	9,21	970	85,4	87,0	87,1	0,49	0,62	0,71	0,71	9,00				
5,5	7,5	960	87,4	88,3	88,0	0,55	0,68	0,75	12,7	965	85,8	87,7	88,0	0,47	0,61	0,69	0,69	12,6				
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	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	0,79	18,0				
11	15	975	89,7	90,3	90,3	0,65	0,77	0,83	22,3	980	88,3	89,8	90,3	0,57	0,70	0,78	0,78	21,7				
15	20	975	90,7	91,0	91,2	0,75	0,84	0,88	28,4	980	91,3	91,6	91,2	0,68	0,80	0,86	0,86	26,6				
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	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	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	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	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	0,81	82,2				
55	75	985	94,0	94,2	94,2	0,70	0,79	0,83	107	990	94,0	94,3	94,3	0,63	0,75	0,81	0,81	100				
75	100	990	94,6	94,8	94,8	0,71	0,80	0,83	145	990	95,0	95,1	95,2	0,65	0,76	0,81	0,81	162				
110	150	990	94,8	95,0	95,1	0,74	0,82	0,84	209	990	94,8	95,1	95,1	0,68	0,78	0,82	0,82	196				
132	175	990	95,4	95,8	95,8	0,69	0,79	0,84	250	990	95,4	95,8	95,6	0,65	0,75	0,80	0,80	240				
150	200	990	95,4	95,7	95,7	0,69	0,80	0,85	280	990	95,4	95,5	95,7	0,65	0,76	0,81	0,81	269				
160	220	990	95,5	95,8	95,8	0,71	0,80	0,84	302	990	95,3	95,8	95,8	0,64	0,75	0,81	0,81	287				
185	250	990	95,0	95,4	95,8	0,70	0,79	0,83	353	990	95,0	95,4	95,8	0,62	0,74	0,80	0,80	336				
200	270	990	95,7	96,0	95,8	0,70	0,79	0,82	387	990	95,3	95,9	95,9	0,63	0,74	0,79	0,79	367				
220	300	995	95,5	95,9	96,0	0,65	0,76	0,81	430	995	95,5	96,1	96,1	0,61	0,72	0,77	0,77	414				
250	340	990	95,8	95,8	95,8	0,68	0,77	0,80	496	995	95,5	96,0	96,0	0,61	0,73	0,78	0,78	464				
260	350	990	95,0	95,8	95,8	0,68	0,77	0,80	515	995	95,5	96,0	96,0	0,61	0,73	0,78	0,78	483				
280	380	990	95,7	96,1	96,0	0,68	0,77	0,81	547	995	95,2	96,0	96,1	0,61	0,72	0,78	0,78	520				
300	400	990	95,8	96,0	96,0	0,65	0,76	0,82	579	990	95,8	96,0	96,0	0,61	0,73	0,78	0,78	557				
315	430	991	95,8	96,2	96,0	0,68	0,78	0,81	615	993	95,3	96,0	96,1	0,61	0,73	0,78	0,78	585				
Optional frames (high-output design)																						
45	60	985	92,9	93,9	93,8	0,80	0,86	0,88	82,8	985	91,9	93,9	93,9	0,73	0,82	0,86	0,86	77,5				
75	100	990	94,4	94,6	94,6	0,67	0,78	0,83	145	990	93,8	94,6	94,7	0,60	0,72	0,79	0,79	139				
150	200	990	94,8	95,0	95,8	0,72	0,81	0,84	283	992	94,8	95,0	95,8	0,65	0,76	0,81	0,81	269				
VIII poles																						
0,12	0,16	635	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	695	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	700	61,0	66,0	69,3	0,44	0,56	0,66	1,23	710	62,0	67,0	69,5	0,38	0,50	0,59	1,26					
0,55	0,75	695	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	0,66	2,30	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	79,9	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	82,9	0,56	0,68	0,75	7,33	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	725	87,8	88,5	88,6	0,56	0,69	0,76	16,9	730	86,2</td											

W22Xd - Super Premium Efficiency - IE4
Ex d / Ex de IIB T4 Gb
Ex d / Ex de 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)		
											Rated speed (rpm)		% of full load			Power factor			
kW	HP										Hot	Cold	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	67	2940	89,0	90,6	90,9	0,71	0,81	0,86	10,2
7,5	10	132S/M	24,4	8,3	2,7	3,4	0,0285	16	35	104	67	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	7,9	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	3,4	3,1	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	69	2970	93,6	94,5	94,8	0,72	0,82	0,86	65,5
45	60	225S/M	145	7,4	2,3	2,9	0,3641	17	37	546	74	2965	94,8	95,2	95,2	0,82	0,88	0,91	75,0
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	76	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	76	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	35,7	8,4	2,3	3,5	0,0638	16	35	107	56	1470	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	119	8,2	3	3,4	0,2291	16	35	267	61	1480	93,6	94,2	94,2	0,64	0,76	0,83	34,2
22	30	200M/L	142	7,7	2,9	3,3	0,3448	25	55	310	63	1485	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	962	7,7	3	2,6	5,73	40	88	1640	72	1490	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
V poles																			
3	4	132S/M	29,6	6,3	1,8	2,5	0,0568	48	106	102	52	970	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	52	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	56	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	56	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</													

Mechanical Data

Mounting forms

The mounting configuration for the W22Xd motor lines comply with IEC 60034-7 standard. Standard mounting forms and their variations are shown in table 1. After the designation, a characteristic letter is used to define the terminal box position. So, the mounting code IM B3 can be seen in WEG documents as detailed below (without IM code).

B3L - terminal box on left hand side of the motor frame

B3T - terminal box on top of the motor frame

B3R - terminal box on right hand side of the motor frame

Note:

The terminal box position is defined viewing the motor from the shaft end. Mounting forms and their variations are indicated in table 1 below.

Basic mountings	Other type of mounting				
	IM V5	IM V6	IM B6	IM B7	IM B8
IM B3					
IM 1001	IM 1011	IM 1031	IM 1051	IM 1061	IM 1071
IM B35	IM V15	IM V36	- *)	- *)	- *)
IM 2001	IM 2011	IM 2031	IM 2051	IM 2061	IM 2071
IM B34	IM V17	IM V37	- *)	- *)	- *)
IM 2101	IM 2111	IM 2131	IM 2151	IM 2161	IM 2171
IM B5	IM V1	IM V3			
IM 3001	IM 3011	IM 3031			
IM B14	IM V18	IM V19			
IM 3601	IM 3611	IM 3631			

Table 1 - Mounting forms.

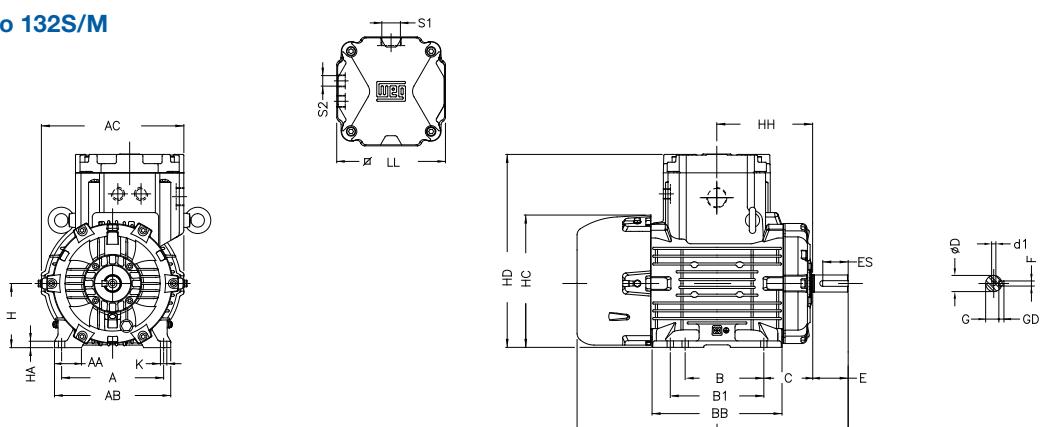
* Non-defined mountings by IEC 60034-7

1. The mountings IM B34 and IM B14 with C-DIN flange, in accordance with DIN standard EN 50347, are limited to frame size 132; C flange in accordance with NEMA MG 1 Part 4 standard is available for frames 71 to 355M/L.
2. All motors classified as Group I (mining) must be equipped with a drip cover / impact canopy. For those motors classified as Group II and utilised in vertical shaft down applications, a drip cover / impact canopy must also be fitted unless it is specifically confirmed by the client that foreign objects will be prevented from falling into the ventilation openings.
3. For vertically shaft up mounted motors installed in environments containing liquids, the use of a rubber slinger is recommended to prevent the ingress of liquid into the motor through the shaft.

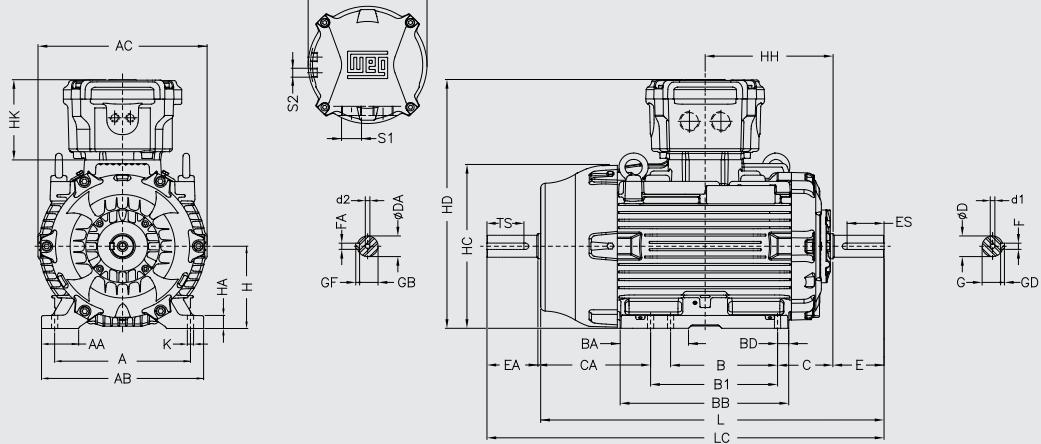
Energy saving performance coupled with low operational costs, extended lifetime, reduced maintenance and assured safety.
These are the values of the WEG W22Xd electric motor.

Mechanical Data (Standard)

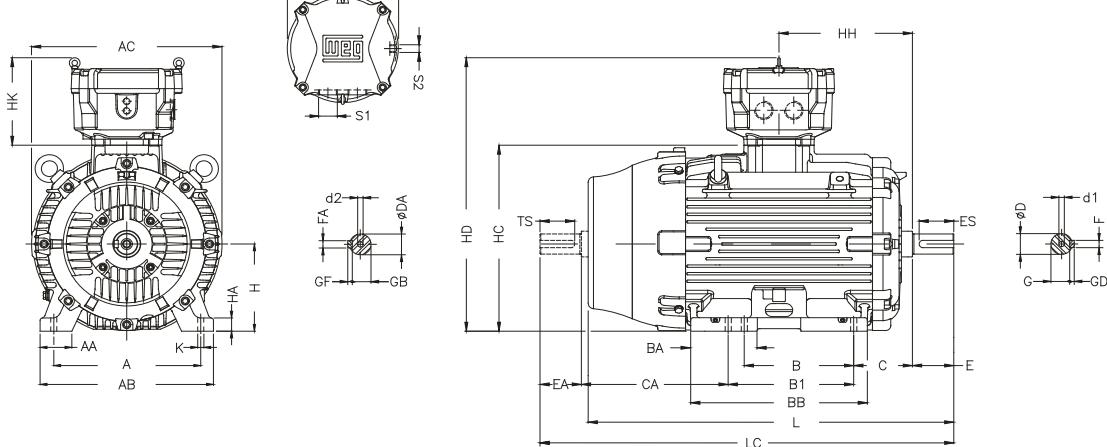
Frames 71 to 132S/M



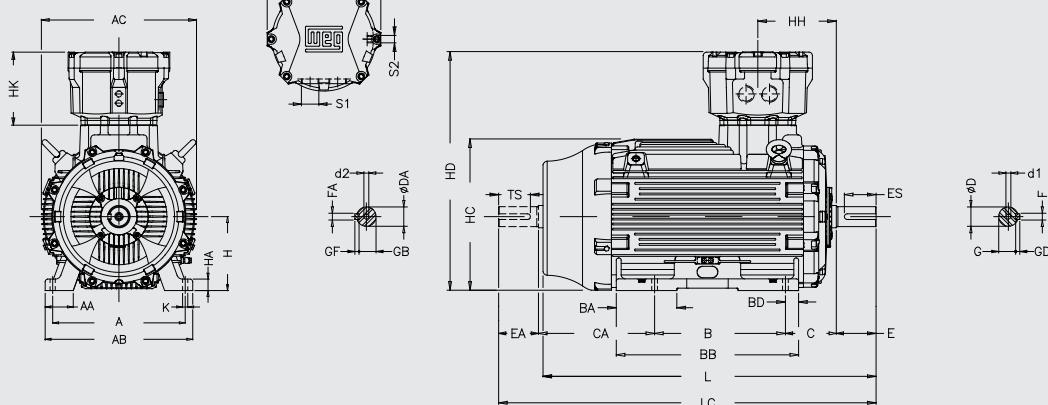
Frames 160M/L to 200M/L



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		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		
132S/M	216	45	248	296	140	178	104	243	20	89	222/184	38k6	28j6	80	60	63	10	8	33
160M/L	254	64	308	347	210	254	150	353	26	108	291/247	42k6	24j6	110	50	12	37		
180M/L	279	80	350	371	241	279	148	367		121	287/249	48k6	24j6	110	50	80	14		42,5
200M/L	318	82	385	411	267	305	149	410	31	133	311/276	55m6	48j6	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**				18		53**
												65m6	60m6			125		58	
280S/M	457	100	557	620	368	419	208	570	41	190	385/334	65m6**	60m6**				18**		58**
												75m6	65m6			140		67,5	
315S/M	508	120	630	663	406	457	242	665	54	216	494/443	65m6**	60m6**	140**		125**	18**		58**
												80m6	65m6	170		160	22		71
315L	508	120	630	721	508	-	257	775	59	216	497	65m6**	60m6**	140**		125**	18**		58**
												80m6	65m6	170		160	22		71
355M/L	610	140	750	744	560	630	237	805	67,5	394	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			M8	M5		
100L	18,5	7	6		100	10	207	295,5	155		12	438	491,5	151			M10	M8	
112M	18,5	7	7		112		234	320,5	163			456	511	171	M32x1,5		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		2xM50x1,5		M16	M8	
225S/M	49**	10**	10**	100**		225	34	457	738	330,5	258		921**	1001,5**		2x M20x1,5			
250S/M		53	11		250	42	497	783	363			951	1031,5			400			
280S/M	53**	11**			280	43	576	953	319,5		24	1009	1089				M20		
315S/M	53**	11**	11**			315	49	647	1018	335	313		1135,5	1226		2xM63x1,5		M20	M20
315L	58	14	14									1282**	1381**						
	53**	11**	11**									1312	1411						
	58	14	14									1392**	1491**						
	53**	11**	11**									1422	1521						
	58	14	14									1488,5**	1587,5**						
	53**	12**	11**	125**	355	51,5	727	1058	339			1558,5	1657,5				M20**		
	71	16	14	160													M24		

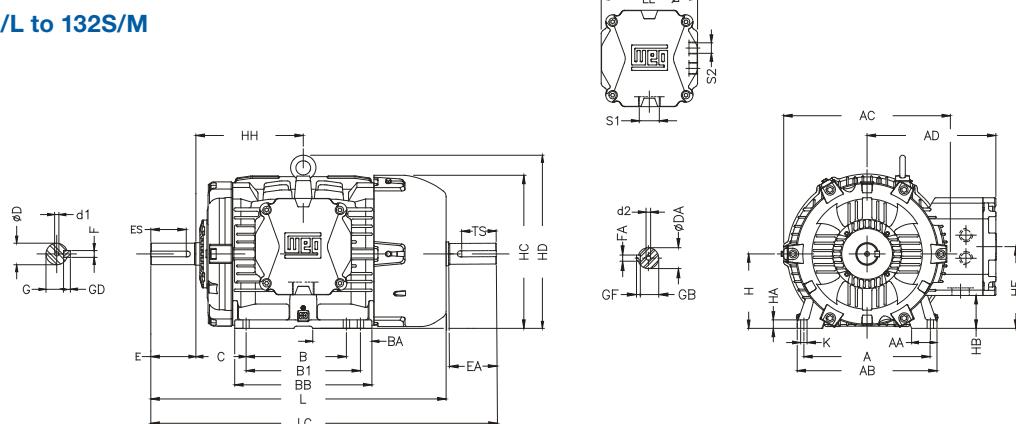
* For 71 frame foot mounted motors with FF flange, the dimensions "C" and "L" will be 70 mm and 310 mm respectively.

** Dimensions for 2-pole motors.

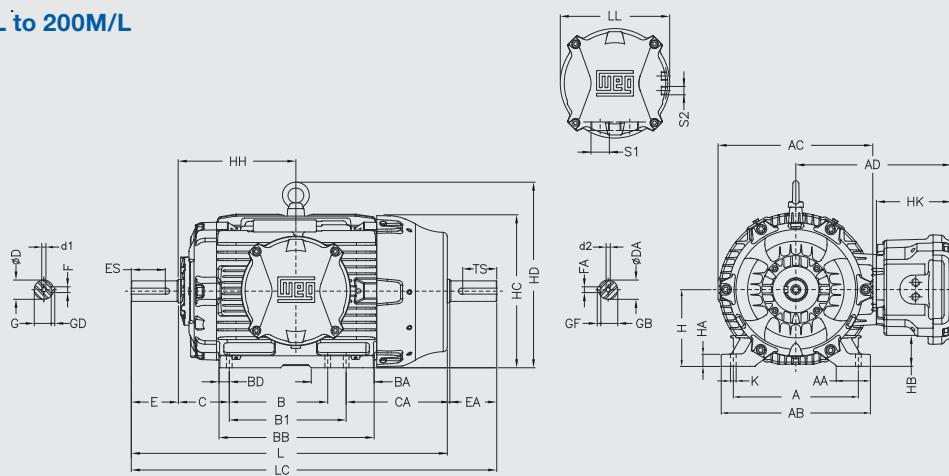


Mechanical Data (Optional)

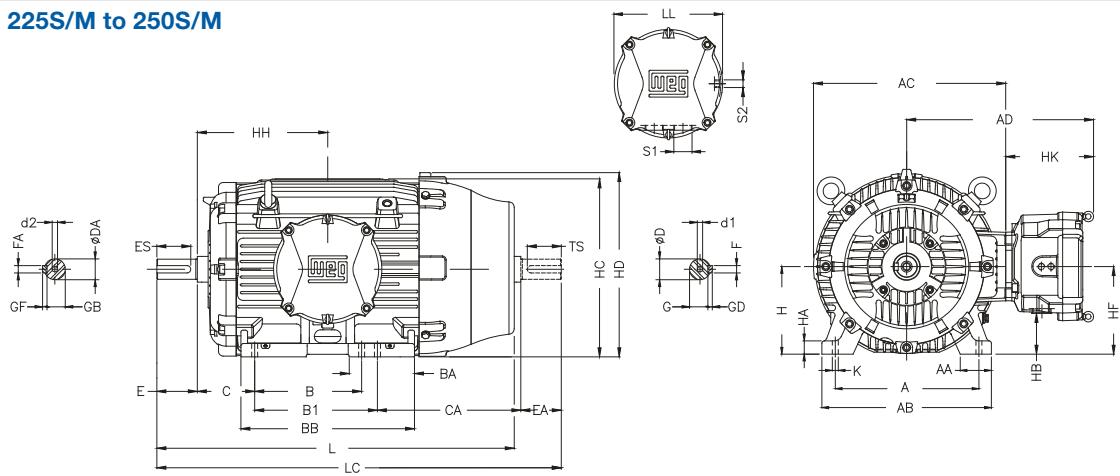
Frames 90S/L to 132S/M



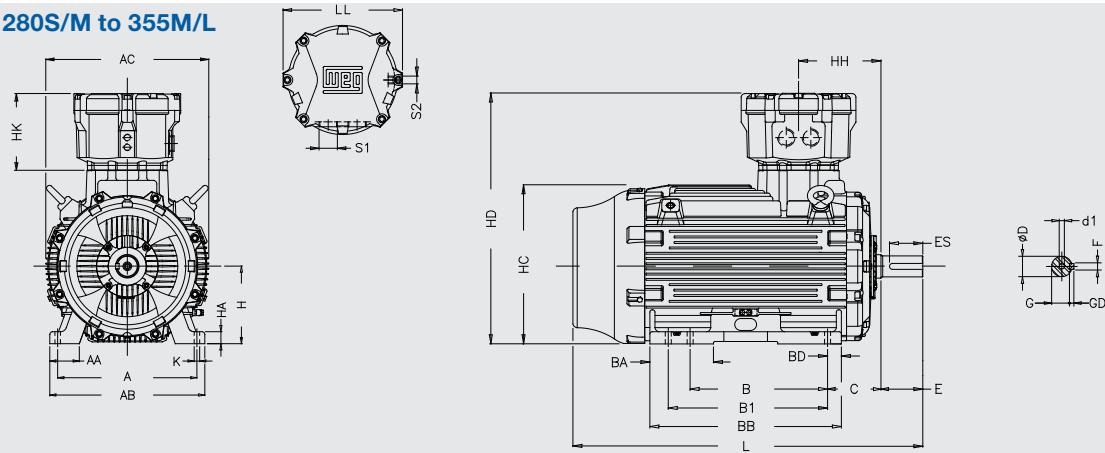
Frames 160M/L to 200M/L



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			
160M/L	254	64	308	347	349,5	210	254	150	353	26	108	291/247	42k6	24j6	110	50	80	12	37	42,5	
180M/L	279	80	350	371	369,5	241	279	148	367		121	287/249	48k6	24j6	110	50		14			
200M/L	318	82	385	411	394,5	267	305	149	410	31	133	311/276	55m6	48j6	110	110	16	14	49	49**	
225S/M	356	80	436	465	513	286	311	167	445	41	149	381/356	55m6**	55m6**	110**	110*		16**	16**		
250S/M	406	100	506	493	533	311	349	176	486	47	168	395/357	60m6**	60m6**	140	140	125	18	53	53**	
280S/M	457	100	557	620	673	368	419	208	570	41	190	385/334	65m6**	60m6**			125	18	58	58**	
315S/M	508	120	630	663	703	406	457	242	665	54	216	494/443	65m6**	60m6**	140**	140	125	20	67,5	58**	
315L	508	120	630	721		508	-	257	775	59	216	497	65m6**	60m6**	140**			125**	18**		
355M/L	610	140	750	744		560	630	237	805	67,5	394	483/413	75m6**	60m6**	140**	140**	125**	20**	18**	67,5**	90
													100m6	80m6	210	170	200	28	22		

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	M32x1,5	M8	M5
100L	18,5	7	6	36	100	10	42,5	207	239	118	155			438	491,5		M32x1,5	M10	M8	M10
112M	18,5	7	7		112		50,5	234	276	136	163			456	511					
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	174,5	14,5	717	769	256	2xM40x1,5	M20x1,5	M16	M8
180M/L	20	9	7		180	28	73	362	435	180	278,5			752	809					
200M/L	42,5	10	9		200	30	93	400	479	200	306,5			821	934		2xM50x1,5	M20x1,5	M16	M16
225S/M	49**	10**	10**	100**	225	34	70	457	490	225	330,5	258	18,5	921**	1001,5**	400	2xM63x1,5	M20	M20	M20
250S/M	53	11	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	28	1009	1089						
315S/M	53**	11**	11**	315	49	130	647	655,5	315	335			313			1135,5	1226	470	2xM63x1,5	M20
315L	58	14	14		58	14	14	355	51,5	170	727	739,5	355	339						
355M/L	53**	12**	11**		125**	51,5	170	727	739,5	355	339	1282**	1381**	M20**	M24					
	71	16	14		160															

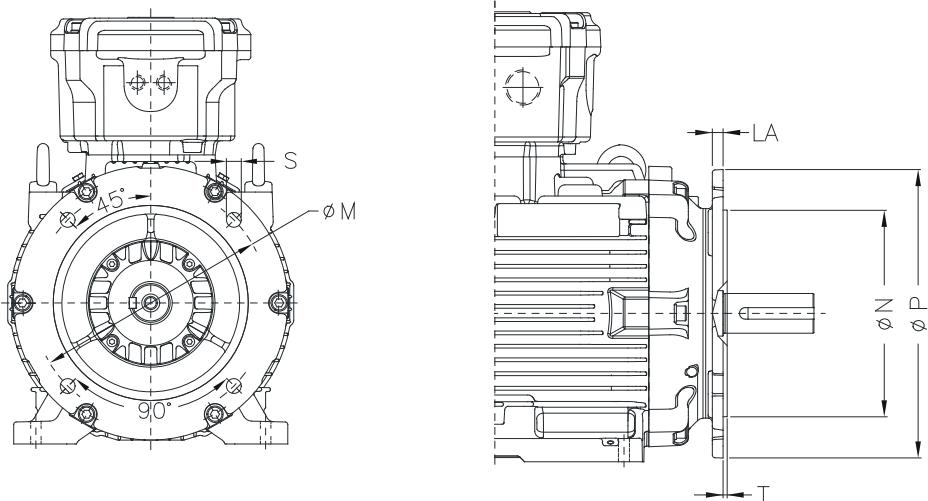
Note: Side mounted terminal box not available for frames 71/80.

** Dimensions for 2-pole motors.



Flange Mounted Motors

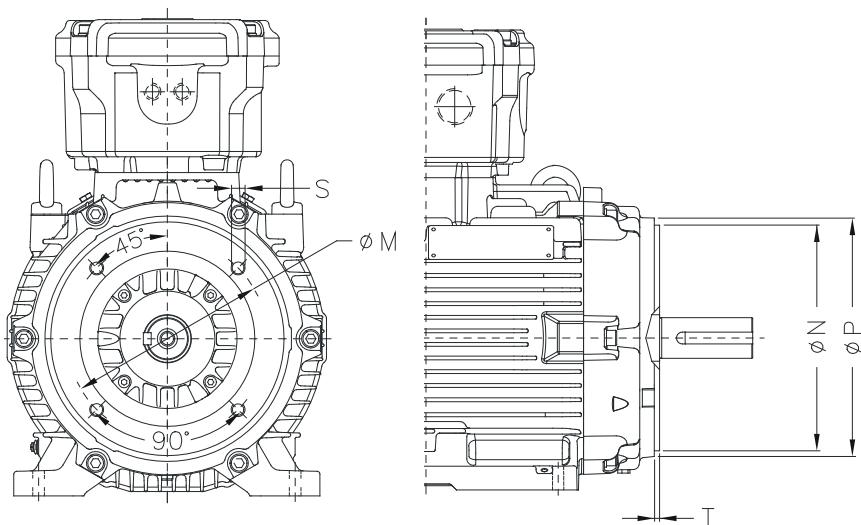
"FF" Flange



Frame size	Flange	LA	M	N	P	S	T	α	Nº of holes
71	FF-130	7	130	110	160	10	3.5	45°	4
80	FF-165		165	130	200	12			
90		8					4	5	8
100	FF-215		215	180	250	15			
112		11				19	22,5°	8	
132	FF-265		265	230	300				300
160		12				5	4	4	
180	FF-300								250
200	FF-350	13	350	300	400	350	24	6	8
225	FF-400		400	350	445				
250		16				450	24	6	8
280	FF-500								
315	FF-600	20	600	550	660	546	6	22,5°	8
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.

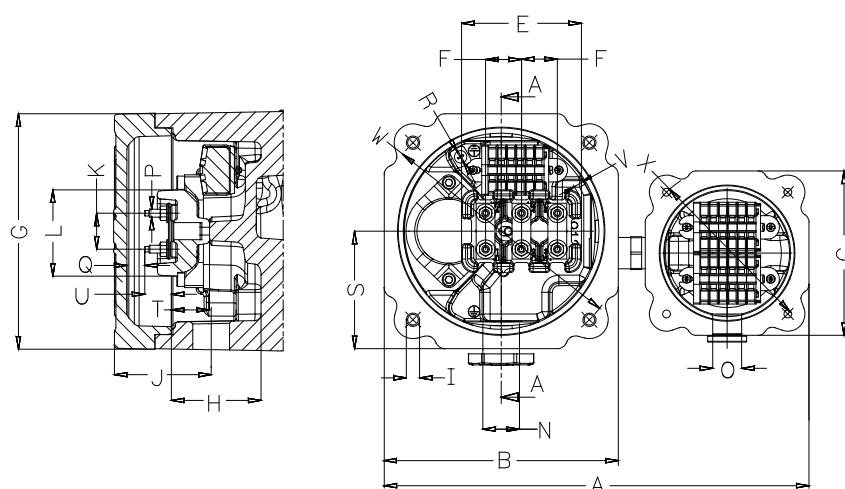
"C-DIN" Flange



Frame size	Flange	M	N	P	S	T	α	Nº 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	45°	4
100	C-160	130	110	160				
112					M10	3.5	45°	4
132	C-200	165	130	200				

Terminal Box Drawings

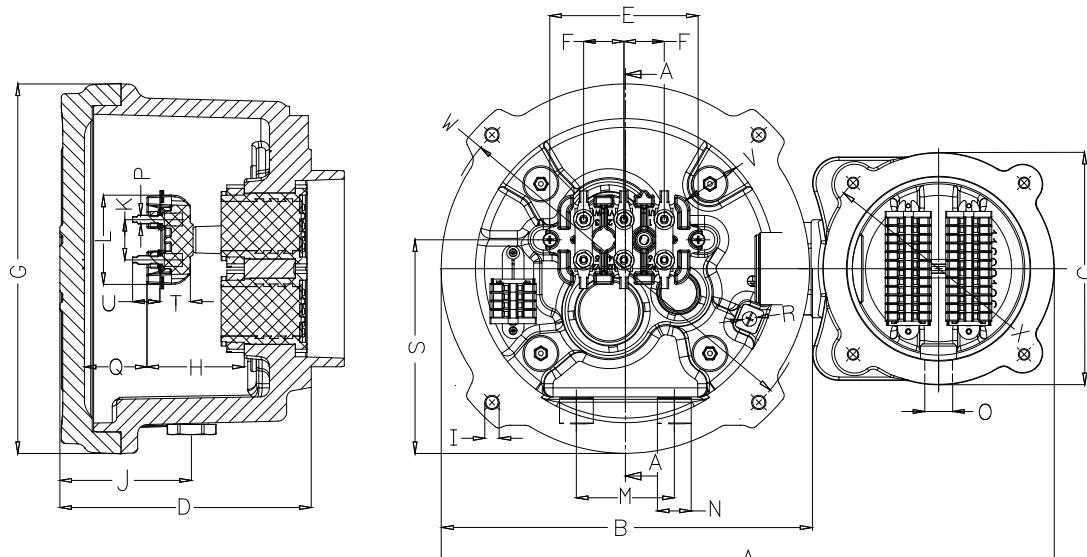
Main and Accessory Terminal Boxes - Frames 71 to 132M/L



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											
100	274	152					151	56		62	
112								M8x1.25		23	
132	288	166		106	76	23	171	70		65	53

Frame size	N	O	P	Q	R	S	T	U	V	W	X
71											
80	M25x1.5	-	M4x0,7					10	6,5	140	-
90											
100								18	7	160	
112											110
132	M32x1.5	M20x1.5	M5x0,8	11,5	M4x0,7	62,5 75	23,5				

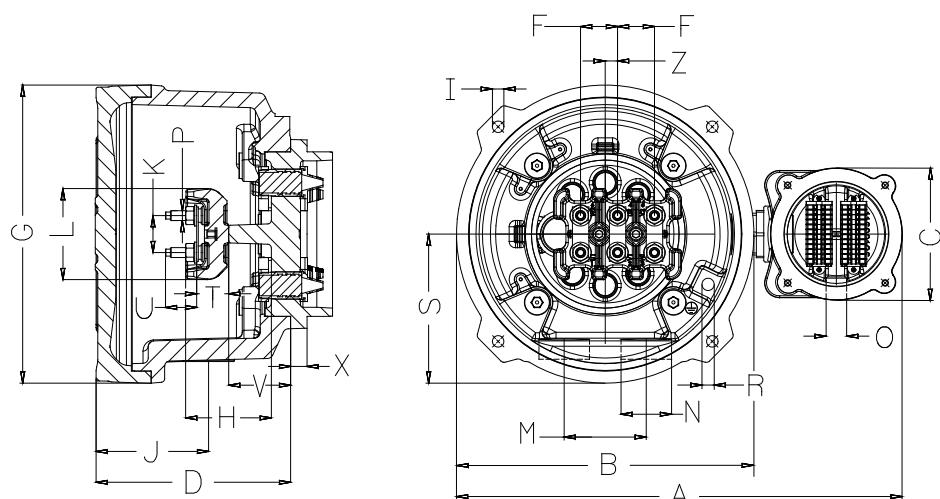
Main and Accessory Terminal Boxes - Frames 160M/L to 200M/L



Frame size	A	B	C	D	E	F	G	H	I	J	K	L
160												
180												
200	435	257	160	174	103 112	28 35	256	67,5 70,5	M10x1,5	90,5	28 35	62 76

Frame size	M	N	O	P	Q	R	S	T	U	V	W	X
160												
180	68	2xM40x1,5		M6x1,0	43,5	M6x1,0		19,5	20,5	40		
200		2xM50x1,5	M20x1,5	M8x1,25	40,5	M8x1,25	140	22	24	29	262	168

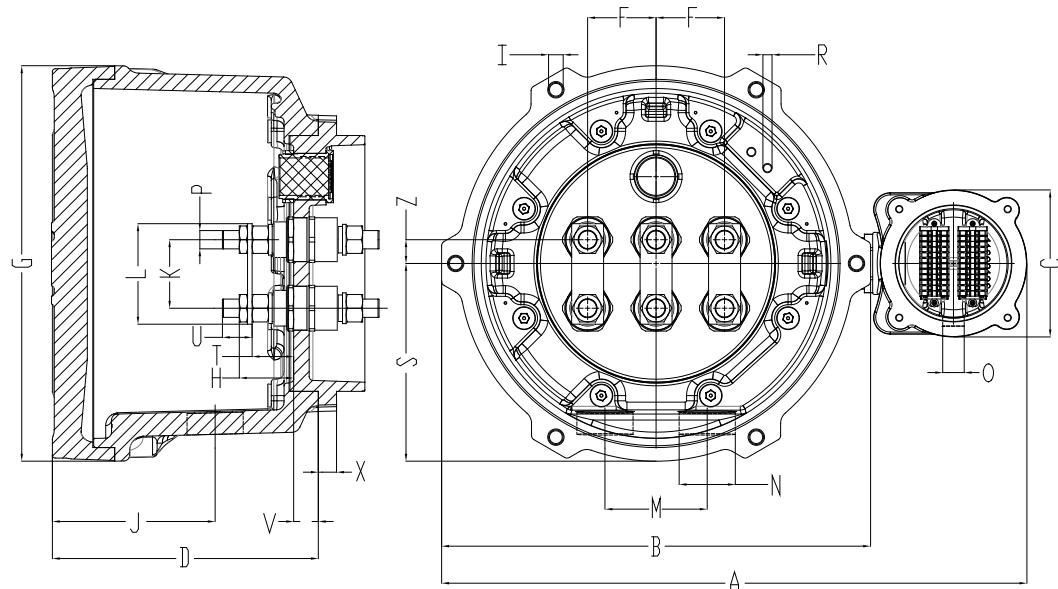
Main and Accessory Terminal Boxes - Frames 225S/M to 250S/M



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
250											111

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	15
250		2xM63x1,5							75.5	

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					60		57			60	85
315					65	433	63		168		105
355					75		67.5			75	110

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

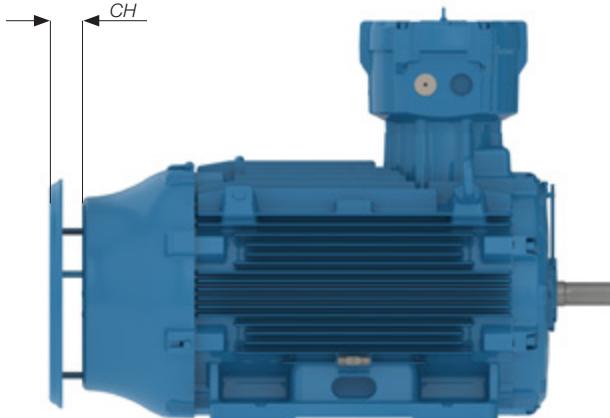


Figure 1 - Motor with drip cover

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	
315L	99

Table 2 - Additional length with rain drip cover.

Packaging

Frames 71 to 112

W22 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.

WEG Worldwide Operations

ARGENTINA

San Francisco - Cordoba
Phone: +54 3564 421484
info-ar@weg.net

Cordoba - Cordoba
Phone: +54 351 4641366
weg-morbe@weg.com.ar

Buenos Aires
Phone: +54 11 42998000
ventas@pulverlux.com.ar

AUSTRALIA

Scoresby - Victoria
Phone: +61 3 97654600
info-au@weg.net

AUSTRIA

Markt Piesting - Wiener Neustadt-Land
Phone: +43 2633 4040
watt@wattdrive.com

BELGIUM

Nivelles - Belgium
Phone: +32 67 888420
info-be@weg.net

BRAZIL

Jaraguá do Sul - Santa Catarina
Phone: +55 47 32764000
info-br@weg.net

CHILE

La Reina - Santiago
Phone: +56 2 27848900
info-cl@weg.net

CHINA

Nantong - Jiangsu
Phone: +86 513 85989333
info-cn@weg.net

Changzhou – Jiangsu
Phone: +86 519 88067692
info-cn@weg.net

COLOMBIA

San Cayetano - Bogota
Phone: +57 1 4160166
info-co@weg.net

ECUADOR

El Batán - Quito
Phone: +593 2 5144339
ceccato@weg.net

FRANCE

Saint-Quentin-Fallavier - Isère
Phone: +33 4 74991135
info-fr@weg.net

GERMANY

Türnich - Kerpen
Phone: +49 2237 92910
info-de@weg.net

BALINGEN

Balingen - Baden-Württemberg
Phone: +49 7433 90410
info@weg-antriebe.de

HOMBERG

Homberg (Efze) - Hesse
Phone: +49 5681 99520
info@akh-antriebstechnik.de

GHANA

Accra
Phone: +233 30 2766490
info@zestghana.com.gh

INDIA

Bangalore - Karnataka
Phone: +91 80 41282007
info-in@weg.net

HOSUR

Hosur - Tamil Nadu
Phone: +91 4344 301577
info-in@weg.net

ITALY

Cinisello Balsamo - Milano
Phone: +39 2 61293535
info-it@weg.net

JAPAN

Yokohama - Kanagawa
Phone: +81 45 5503030
info-jp@weg.net

MALAYSIA

Shah Alam - Selangor
Phone: +60 3 78591626
info@wattdrive.com.my

MEXICO

Huehuetoca - Mexico
Phone: +52 55 53214275
info-mx@weg.net

TIZAYUCA

Hidalgo
Phone: +52 77 97963790

NETHERLANDS

Oldenzaal - Overijssel
Phone: +31 541 571080
info-nl@weg.net

PERU

La Victoria - Lima
Phone: +51 1 2097600
info-pe@weg.net

PORTUGAL

Maia - Porto
Phone: +351 22 9477700
info-pt@weg.net

RUSSIA and CIS

Saint Petersburg
Phone: +7 812 363 2172
sales-wes@weg.net

SOUTH AFRICA

Johannesburg
Phone: +27 11 7236000
info@zest.co.za

SPAIN

Coslada - Madrid
Phone: +34 91 6553008
wegiberia@wegiberia.es

SINGAPORE

Singapore
Phone: +65 68589081
info-sg@weg.net

SINGAPORE

Singapore
Phone: +65 68622220
watteuro@watteuro.com.sg

SCANDINAVIA

Mölnlycke - Sweden
Phone: +46 31 888000
info-se@weg.net

UK

Redditch - Worcestershire
Phone: +44 1527 513800
info-uk@weg.net

UNITED ARAB EMIRATES

Jebel Ali - Dubai
Phone: +971 4 8130800
info-ae@weg.net

USA

Duluth - Georgia
Phone: +1 678 2492000
info-us@weg.net

Minneapolis - Minnesota
Phone: +1 612 3788000

VENEZUELA

Valencia - Carabobo
Phone: +58 241 8210582
info-ve@weg.net

For those countries where there is not a WEG own operation, find our local distributor at www.weg.net.



WEG Group - Motors Business Unit
Jaraguá do Sul - SC - Brazil
Phone: +55 47 3276 4000
motores@weg.net
www.weg.net

