W20

Three Phase
Low Voltage Motors
Technical Catalogue - Asia Market

Motors | Automation | Energy | Transmission & Distribution | Coatings

About WEG

Founded in 1961, WEG is acknowledged today as one of the largest manufacturers of electric motors in the world. More than 37,000 people are employed in the different manufacturing units which cover over 2,500,000 square meters of constructed area.
In support of exports in over 135 countries worldwide, WEG has branch offices located in all five continents and has manufacturing plants in 13 countries supported by more than 1400 service centers around the world.
WEG's great success with export activities is based on the company's willingness to meet worldwide standard requirements, keeping product inventories in strategic locations, personnel training and prompt service.

About WEG (Nantong) Electric Motor Mfg. Co., Ltd

With the expansion of WEG Group's business, in addition to setting up commercial branches around the world, the establishment of factories in
overseas strategic markets has also become a solid backing to support local business growth. WEG Group established the first manufacturing plant in Asia in 2005 in the Nantong Economic and Technological Development Zone, Jiangsu, namely WEG (Nantong) Electrical Motor Manufacturing Co., Ltd. ("WEG Nantong"). The company covers an area of 67,000 square meters, with a construction area of 33,500 square meters, and currently employs 650 people. It is a high-efficiency motor manufacturer integrating R&D, design, production, testing, sales, after-sales service and motor maintenance. The annual production capacity of motors exceeds 3 million kilowatts. The company has a research and development center in collaboration with the headquarters, more than 270 sets of various advanced large and medium-sized production equipment, and a complete and scientific management system. It has successively obtained "ISO9001:2015 Quality Management System Certification" and "ISO14001:2015 Environmental Management System" and "ISO45001-2018 Occupational Health and Safety Management System Certification" provide a strong guarantee for the sustainable development of enterprises. The products sell well in domestic and foreign markets, and are widely used in many industrial segments such as pulp and paper, water treatment, marine, food and beverage, power energy, metallurgy, mining, petroleum and natural gas, urban infrastructure, etc., and are well received by domestic and foreign customers.

About WEG (Jiangsu) Electric Equipment Co., Ltd

Since the establishment of WEG Nantong factory in 2005, WEG brand awareness and market share have been increasing in the Chinese market year by year. WEG Group is optimistic about the development potential and opportunities of the Chinese market. In order to establish a competitive advantage and ensure the sustainable growth of WEG business, the WEG Rugao Greenfield Project with a total investment of US$120 million came into being.
Established in 2015 and located in Jiangsu Rugao Economic and Technological Development Zone, WEG(Jiangsu) Electrical Equipment Co., Ltd. ("WEG Rugao" for short) is the third motor manufacturing plant established by WEG Group in China. Covering a total area of about 180,000 square meters, the second phase of the project has now been completed and officially put into production in 2020. There are about 900 employees, and the products mainly cover small and medium-sized low-voltage motors and reducers. The annual design capacity of industrial motors is 800,000 units and 200,000 sets of parts. WEG Rugao is the motor manufacturing plant with the highest degree of industrial automation in the group. In addition to highly automated intelligent warehousing, a large number of automated production equipment such as robots are equiped to production,
which provides a strong guarantee for the high volume and high quality of products. The ISO9001, ISO14001 and ISO45001 system certifications obtained are also recognition of its scientific and complete management system. In addition to supplying the Chinese market, the products are also exported to Europe, America, Asia and Africa and other countries and regions. They are widely used in various industrial fields, including traditional applications such as fans, pumps and compressors. The company has established a R&D low-voltage center, through the WMS system (WEG manufacturing system), six sigma and other lean production systems to ensure to provide customers with high-quality products and services.

Certifications

WEG China

USA | China | Europe | China | GEMS Australia | France | Russia | Norway & Germany | Saudi Arabia

China | Canada | Custom Federation | South Korea | South Africa | USA | IEC Ex

ISO9001:2015 Quality Management System

ISO45001:2018 Occupational health and safety management

ISO14001:2015 Environmental Management System

Note: For the specific product certification please consult WEG support team.

Table of Contents

W20 Frame 80 to 200 (Aluminum Frame - Standard)

W20 Frame 160 to 200 (Cast Iron - Optional)

W20 Frame W225S 225M 250M W280S 280M (Cast Iron Frame - Standard)

W20 Frame 315S/M 355S/M (Cast Iron Frame)

1. Construction Details

1.1 Frame

Aluminum Frames are made of high quality die cast aluminum, providing a light weight and robust enclosure. Available as standard from 80 to 200 frame size. Frame sizes above 112 are all equipped with eyebolts in order to allow easy handling.

Frame size 80-W160M

Frame size 160-200

Figure 1- Aluminum Frame

The cast iron frame is made of FC-200 cast iron, which is sturdy and durable. Frame sizes from W225S to 280M are designed with one-piece feet.

Frame size 160,180,200,315,355

Frame size W225S,225M,250M,W280S,280M

Figure 2 - Cast Iron Frame

1.2 End shields

W20 motors DE and NDE shields are made of cast iron. This new design ensures robustness for long term operation for a wide range of ambients and temperature.

DE End shield

NDE End Shield

Figure 3 - End shields

1.3 Fan cover

W20's fan cover is made of steel plate.

Figure 3 - Fan cover

1.4 Terminal Box

As the fan cover, W20 motor terminal box is also made of steel. In order to facilitate wiring, there is enough space in the terminal box, which can be rotated 90 degrees, and the installation is very flexible. The hole of the terminal box is the Chinese standard threaded hole, with plastic cover.

Note: users can select or replace the wiring gland to meet the IP55 protection level.

Figure 5 - Terminal Box

Figure 6 - Terminal box switching device

1.5 Terminal Block

The connection wires are in accordance with standard IEC 60034-8 and GB1971-2006, and are matched with appointed terminal block. W20 motors are equipped with BMC terminal block. The picture is as below.

Figure 7 - Terminal block

Figure 8- W225S to 280M Terminal block

1.6 Bearings

WEG motors are equipped with ball bearings and have regreasing nippes for frame 225 and above. WEG cooperate with international recognized bearing suppliers to ensure the motor's high performance and extended bearing life time. If a specific bearing brand was required, please contact WEG support team before placing order.

Note 1: Motor with shaft down mounting position shall considered drip cover.

Note 2: For shaft up outdoor applications, the use of slinger can provide extra protection to the bearing.

Figure 9 - Shaft down mounting & shaft up mounting

1.6.1 Bearings thrusts

62 series bearing

50 Hz - Fr (kN*) - 20,000h						
Frame	DE Bearing	Poles	Radial Load		Axial Load	
			L/2	L	Push	Pull
80	6204	2	0.64	0.58	0.26	0.42
		4	0.72	0.65	0.35	0.56
		6	0.84	0.76	0.45	0.7
		8	0.98	0.79	0.55	0.83
90	6205	2	0.66	0.6	0.37	0.43
		4	0.76	0.69	0.51	0.59
		6	0.9	0.81	0.63	0.71
		8	1.03	0.94	0.76	0.86
100	6206	2	0.94	0.85	0.37	0.59
		4	1.03	0.93	0.5	0.81
		6	1.22	1.1	0.65	1.02
		8	1.4	1.26	0.78	1.19
112	6207	2	1.3	1.2	0.5	0.8
		4	1.5	1.4	0.7	1.1
		6	1.8	1.6	1	1.4
		8	1.9	1.7	1.1	1.5
132	6208	2	1.6	1.8	0.9	1
		4	2.2	2	1.3	1.4
		6	2.3	2.2	1.5	1.6
		8	2.5	2.3	1.6	1.7
W160M	6209	2	1.95	1.75	0.72	1.32
		4	2.25	2.3	0.99	1.81
		6	2.33	2.58	1.22	2.2
		8	2.88	2.6	1.37	2.45
160M/L	6209	2	1.95	1.53	1.85	1.02
		4	2.36	1.89	2.25	1.42
		6	2.8	2.19	2.61	1.8
		8	3.06	2.4	2.88	2.07
180M/L	6211	2	1.49	2	2.34	1.34
		4	3.06	2.5	2.88	1.89
		6	3.58	2.92	3.33	2.34
		8	3.97	3.24	3.74	2.75
200M/L	6212	2	3.03	2.52	2.7	1.62
		4	3.74	3.11	3.38	2.3
		6	4.35	3.62	3.92	2.84
		8	4.71	3.94	4.32	3.24

63 series bearing

50 Hz - Fr (kN*) - 20,000 小时						
Frame	DE Bearing	Poles	Radial Load		Axial Load	
			L/2	L	Push	Pull
112	6307	2	1.66	1.5	0.54	1.14
		4	1.96	1.72	0.73	1.55
		6	2.24	1.76	0.96	1.94
		8	2.58	1.8	1.07	2.15
132	6308	2	1.94	1.75	0.72	1.32
		4	2.25	2.03	0.99	1.81
		6	2.58	2.33	1.22	2.2
		8	2.88	2.6	1.37	2.45
160	6309	2	2.5	2.25	2.4	1.69
		4	2.87	2.58	2.95	2.25
		6	3.2	2.65	3.4	2.7
		8	3.81	2.76	3.85	3.15
180	6311	2	4.27	3.87	3.2	2.3
		4	3.98	3.61	3.9	3
		6	4.7	4.15	4.65	3.75
		8	5.06	4.1	5.2	4.35
200	6312	2	4.01	3.67	3.55	2.55
		4	4.57	4.19	4.45	3.45
		6	5.19	4.75	5.2	4.2
		8	5.81	5.31	6	5

63 series bearing

50 Hz - Fr (kN*) - 20,000h						
Frame	DE Bearing	Poles	Radial Load		Axial Load	
			L/2	L	Push	Pull
225	6314	2	5.23	4.81	4.35	3.55
		4	5.92	5.33	5.5	4.7
		6	6.67	6.01	6.6	5.8
		8	7.54	6.18	7.5	6.7
250	6314	2	5.12	4.66	4.3	3.5
		4	5.52	5.03	5.3	4.45
		6	6.48	5.91	6.4	5.6
		8	7.15	6.51	7.3	6.5
280	6314	2	4.92	4.54	4.15	3.35
	6316	4	6.41	5.91	5.8	5
		6	7.37	6.79	7.2	6.4
		8	7.57	6.98	8.4	7.6
315	6314	2	4.48	4.16	3.65	2.85
	6319	4	7.01	6.42	6.1	5.4
		6	7.83	7.17	7.4	6.6
		8	8.49	7.78	8.5	7.7
355	6316	2	4.03	3.79	3.7	2.95
	6322	4	8.53	7.83	6.6	5.8
		6	9.33	8.56	7.7	7
		8	11.4	10.5	7.7	7

1.7 Nameplate

Nameplates are made of AISI 304 stainless steel. All the information are printed onto the nameplates by laser. Nameplate included main informations of motor, such as: serial number, output, voltage, current, frequency, protection degree, power factor, insulation class, bearings type, grease and regreasing interval, etc. IEC frame up to 200 has vertical nameplate (figure 7) and frame 225 to 355 has horizontal nameplate (figure 8).

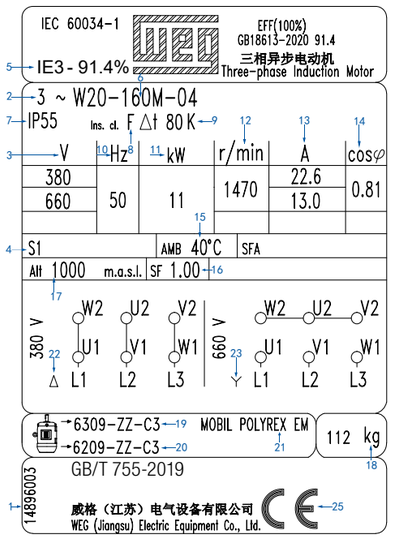


Figure 7 - Nameplate for frame size 80 to 200

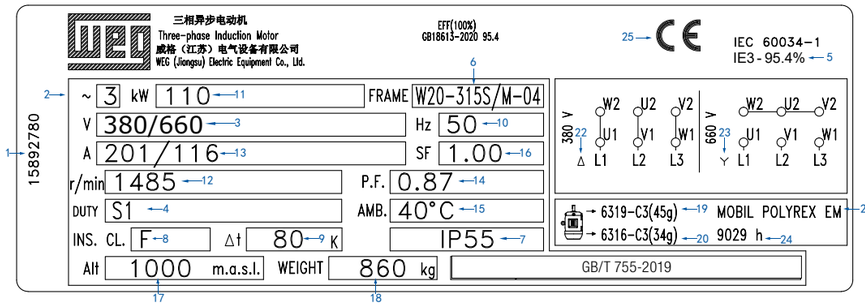


Figure 8 - Nameplate for frame size 225 to 355

Details on Nameplate:

1. Material number
2. Three phase
3. Rated voltage
4. Duty type
5. Efficiency
6. Frame size
7. Degree of protection
8. Insulation class
9. Temperature rise
10. Frequency
11. Rated power
12. Full load speed (RPM)
13. Rated currentPower factor
14. Ambient temperature
15. Service factor
16. Altitude
17. Weight
18. Drive End Bearing type
19. Non Drive End Bearing type
20. Grease
21. △ connection diagram
22. Y connection diagram
23. Regreasing interval
24. Certification
25. Power factor

1.8 Forced ventilation Blower (Optional)

In frequency conversion applications, a blower can be selected according to customer requirements for forced cooling (90 to 355 frames). The position of the terminal box of the blower is at the top by default (view from the shaft end). If you have special requirements for the position of the terminal box of the axial flow fan, please contact related WEG support team for more details.

Figure 12 - W20 motor with axial flow blower

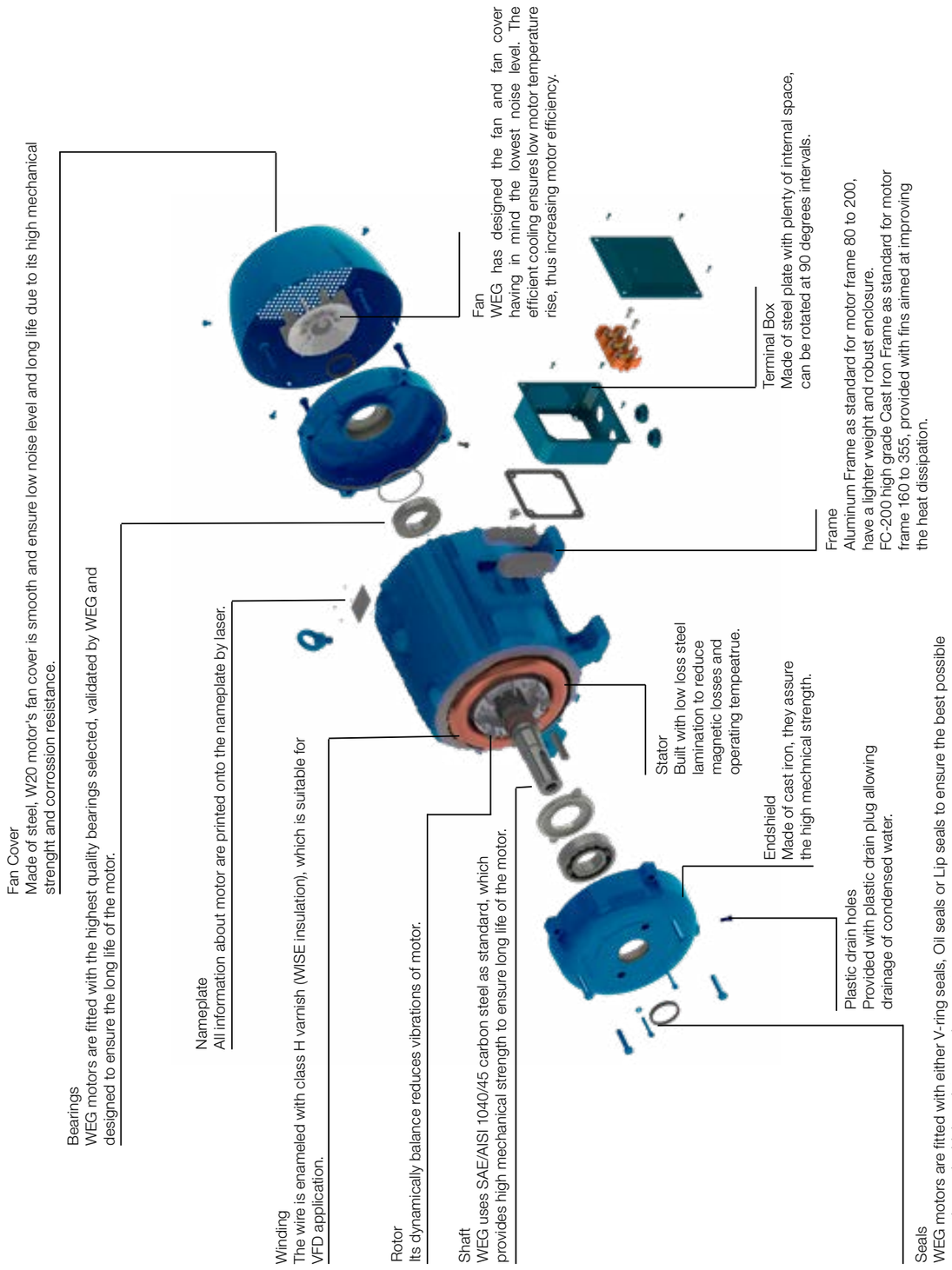
1.9 Packing

W20 motors frame 80 to 132 have carton box as standard packaging (figure 13). Frame 160 to 355, the packaging of motor are carton box or wooden box WEG choose different packaging according to the mounting and frame size of motors). The WEG packaging is under continuous improvement, it is subject to change without previous notifications.

Figure 13 - Carton box

Figure 14 - Crate 1

W20 series motor structure



2. Construction Features

Frame size			80	90S/L	100L	112M	132S	132M	S132S	W160M	160M/L	180M/L	200M/L
Mechanical features													
Marking/logos on nameplate:			CE; IEC 60034										
Certification			CCC*, CEL										
Mounting			B3T										
Frame	Material		Aluminium										
Degree of protection			IP55										
Grounding			Single grounding(Terminal box)										
Cooling method			TEFC										
Fan	Material	2P	Plastic										
		4-8P											
Fan cover	Material		Steel										
Endshields	Material		FC-200 Cast Iron										
Drain plug			Automatic Plastic Drain Plug										
Rolling bearings	Shielded/Clearance DE		ZZ							ZZ-C3			
	Shielded/Clearance NDE		ZZ							ZZ-C3			
	Locking		None							DE bearing locked with inner bearing cap and fitted with wave washer in the NDE bearing			
	Bearing life (h)		20000										
	Drive end side	2P	6204	6205	6206	6207	6208	6208	6208	6209	6209	6211	6212
		4-8P											
	Non drive end side	2P	6203	6204	6205	6206	6207	6207	6207	6207	6209	6211	6212
		4-8P											
Bearing sealing			V'ring										
Lubrication	Grease type		Mobil Polyrex EM										
	Grease fitting		None										
Terminal block			BMC 6 Terminais										
Terminal box	Material		Steel										
Additional temrinal box			None										
Leads inlet	Main	Size	M24x1.5			2xM30x2					2xM36x2		2xM48x2
	Lateral hole	Size	None										
	Additional	Size	None										
	Plug		Plastic plug for transport and storage purposes										
Shaft	Material		45# Steel										
	DE threaded hole	2P	M6	M8	M10	M10	M12	M12	M12	M12	M16		M20
		4 - 8P											
Key			Fitted with "A" type (China key type: B)										
Vibration level			Grade A										
Balancing			With 1/2 key										
Nameplate	Material		Stainless Steel AISI 304										
Painting	Type		201A										
	Color		IE1: RAL 7000 IE2/IE3: RAL 5009										
	Tropicalized		None										
Packaging			Cardboard Box							Crate			
Electrical features													
Desing			N										
Voltage			220/380with 6 terminals			380/660V with 6 terminals							
Winding	Impregnation		Dip and Bake										
	Insulation class		F (DT 80K)										
Service factor			1.00										
Thermal protector			None										
Space heaters			None										
Flying leads			None										
Ambient temperature	Maximum		40°C										
	Minium		-20°C										
Starting method			Direct										

Note: For features out of above table, WEG support team shall be consulted.
**:Rated power≤synchronous speed×1.1kW/1500*
2P:≤2.2kW 4P:≤1.1kW
6P:≤0.75kW 8P:≤0.55kW

2. Construction Features

Frame size			160M	160L	180M	180L	200L	W225S	225M	250M	W280S	280M	315S/M	355M/L
Mechanical features														
Marking/logos on nameplate:			CE; IEC 60034											
Certification			CCC*, CEL											
Mounting			B3T											
Frame	Material		FC-200 Cast Iron											
Degree of protection			IP55											
Grounding			Single grounding(Terminal box)					Double grounding (Terminal box + Outside frame)						
Cooling method			TEFC											
Fan	Material	2P	Plastic											Aluminium
		4-8P												
Fan cover	Material		Steel											
Endshields	Material		FC-200 Cast Iron											
Drain plug			Automatic Plastic Drain Plug											
Rolling bearings	Shielded/Clearance DE		ZZ-C3						C3					
	Shielded/Clearance NDE		ZZ-C3						C3					
	Locking		DE bearing locked with inner bearing cap and fitted with wave washer in the NDE bearing						DE bearing locked with inner and outer bearing caps and fitted with pre-load springs in the NDE bearing					
	Bearing life (h)		20000											
	Drive end side	2P	6309	6309	6311	6311	6312	6312	6314		6314	6314	6314	6316
		4-8P						6314			6316	6316	6319	6322
	Non drive end side	2P	6209	6209	6211	6211	6212	6312			6314	6314	6314	6314
		4-8P						6312			6314	6316	6316	6319
Bearing sealing			V'ring											
Lubrication	Grease type		Mobil Polyrex EM											
	Grease fitting		None						With grease fittings in DE and NDE bearings					
Terminal block			BMC 6 Terminais											
Terminal box	Material		Steel Plate											
Additional temrinal box			None											
Leads inlet	Main	Size	2xM36x2				2xM48x2		2xM64x2					2xM72x2
	Lateral hole	Size	None											
	Additional	Size	None											
	Plug		Plastic plug for transport and storage purposes											
Shaft	Material		45# Steel											42CrMo
	DE threaded hole	2P	M16	M16	M16	M16	M20	M20		M20	M20		M20	M20
		4 - 8P												M24
Key			Fitted with "A" type (China key type: B)					Fitted with "B" type (China key type: C)						
Vibration level			Grade A											
Balancing			With 1/2 key											
Nameplate	Material		Stainless Steel AISI 304											
Painting	Type		201A											
	Color		IE1: RAL 7000 IE2/IE3: RAL 5009											
	Tropicalized		None											
Packaging			Crate											
Electrical features														
Desing			N											
Voltage			380/660V with 6 terminals											
Winding	Impregnation		Dip and Bake						Continuous Resin Flow					
	Insulation class		F (DT 80K)											
Service factor			1.00											
Thermal protector			None											
Space heaters			None											
Flying leads			None											
Ambient temperature	Maximum		40°C											
	Minium		-20°C											
Starting method			Direct											

Note: For features out of above table, WEG support team shall be consulted.
**:Rated power≤synchronous speed×1.1kW/1500*
2P:≤2.2kW 4P:≤1.1kW
6P:≤0.75kW 8P:≤0.55kW

3. Optional Features

Frame	80	90S/L	100L	112M	S132S	132S	132M	W160M	160M	160L	160M/L	180M	180L	180M/L	200L	200M/L	W225S	225M	250M	W280S	280M	315S/M	355M/L
Mechanical Options																							
Flange																							
FF	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
C-DIN	O	O	O	O	O	O	O	O	O	O	O	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C	O	O	O	O	O	O	O	NA	O	O	O	O	O	O	O	O	NA	NA	NA	NA	NA	O	O
Frame Material																							
Aluminum	SD	SD	SD	SD	SD	SD	SD	SD	NA	NA	SD	NA	NA	SD	NA	SD	NA	NA	NA	NA	NA	NA	NA
Cast Iron	E	E	E	E	E	E	E	NA	O	O	NA	O	O	NA	O	NA	SD	SD	SD	SD	SD	SD	SD
Insulation Class																							
F DT 105K	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
H DT 80K	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
H DT105K	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Painting Plan																							
203A	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
207A	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Bearing Seal																							
Lip seal	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Oil seal	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Degree of Protection																							
IP56	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Shaft																							
42CrMo	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	SD
Grounding																							
Single	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	NA	NA	NA	NA	NA	NA	NA
Double	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	SD	SD	SD	SD	SD	SD	SD
Other Mechanical Option																							
Drip Cover	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Electrical Options																							
Winding thermal protection																							
PTC-Alarm	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
PTC-Trip	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Space Heater																							
110-127 V	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
200-240 V	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
110-127 / 220-240 V	NA	NA	NA	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
380-480 V	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Direction of Rotation																							
Clockwise	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Counter clockwise	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Service factor																							
S.F 1.15	E	E	E	E	E	E	E	O	E	E	E	E	E	E	E	E	O	O	O	O	O	E	E

Note: SD = Standard Feature
O = Optional Feature
E = Especial Feature
NA = Not Available

4. Electrical Data

W20 - Aluminum Frame - 80 to 200 Frame- IE1

Output		Frame	Full Load Torque (kgfm)	Locked Rotor Current Il/In	Locked Rotor Torque Tl/Tn	Break-down Torque Tb/Tn	Inertia J (kgm2)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	380 V							
												Rated speed (rpm)	% of full load						Full load current In (A)
													Efficiency			Power Factor			
kW	HP							Hot	Cold				50	75	100	50	75	100	
2P - 3000 RPM - 50Hz																			
0.55	0.75	80	0.191	4.9	2.1	2.4	0.0005	18	40	12.0	59	2805	69.0	70.5	71.0	0.59	0.74	0.83	1.42
0.75	1	80	0.261	5.1	2.2	2.3	0.0006	14	31	11.0	59	2795	69.0	72.0	72.5	0.65	0.79	0.87	1.81
1.1	1.5	80	0.381	5.5	2.5	2.6	0.0008	10	22	13.5	59	2810	74.0	75.0	75.5	0.65	0.78	0.86	2.57
1.5	2	90S/L	0.514	5.4	1.9	2.3	0.0018	8	18	17.0	64	2840	76.0	77.2	77.2	0.70	0.82	0.88	3.35
2.2	3	90S/L	0.752	6.0	2.2	2.6	0.0026	7	15	23.0	64	2850	77.0	78.0	80.0	0.75	0.85	0.89	4.69
3	4	100L*	1.01	7.2	2.3	3.3	0.0056	6	13	25.0	67	2905	75.6	79.6	81.5	0.62	0.76	0.84	6.66
4	5.5	112M	1.35	6.6	2.1	2.7	0.0074	9	20	35.0	64	2880	82.0	83.0	83.1	0.76	0.85	0.90	8.13
5.5	7.5	S132S	1.83	6.0	1.9	2.8	0.0162	12	26	53.0	68	2930	81.7	84.0	84.7	0.70	0.81	0.87	11.3
7.5	10	S132S	2.49	6.9	2.1	2.9	0.0216	8	18	25.0	68	2930	83.7	85.0	86.0	0.70	0.81	0.86	15.4
9.2	12.5	132M	3.05	7.3	2.5	3.3	0.0252	6	13	68.0	68	2940	84.0	86.0	86.9	0.68	0.80	0.85	18.9
11	15	W160M	3.68	7.1	2.7	3	0.0267	12	26	75.0	70	2908	87.6	87.6	87.6	0.74	0.83	0.87	21.9
15	20	160M/L	4.96	8.5	2.8	3.4	0.0534	5	11	127	70	2945	87.2	88.5	88.7	0.71	0.81	0.86	29.9
18.5	25	160M/L	6.11	9.0	3.1	3.7	0.0653	5	11	157	70	2950	88.5	89.5	89.5	0.62	0.75	0.82	38.3
22	30	180M/L	7.24	8.1	2.5	3	0.1138	8	18	185	70	2960	90.0	90.5	90.5	0.76	0.84	0.87	42.5
30	40	200M/L	9.87	7.3	2.3	2.6	0.1865	10	22	240	74	2960	90.0	91.0	91.2	0.71	0.81	0.86	58.1
37	50	200M/L	12.2	7.5	2.3	2.5	0.2289	8	18	295	74	2960	91.0	91.5	91.5	0.75	0.84	0.87	70.6
High-Output Design																			
1.1	1.5	90S/L	0.378	5.1	1.7	2.1	0.0014	9	20	14.5	64	2835	75.4	75.0	75.2	0.70	0.82	0.88	2.53
1.5	2	L80	0.514	6.4	3.1	3.3	0.0012	10	22	19.5	59	2840	76.0	77.0	77.5	0.65	0.78	0.86	3.42
2.2	3	100L	0.740	6.6	2	2.9	0.0043	8	18	23.5	67	2895	73.4	77.4	79.7	0.66	0.79	0.86	4.88
3	4	112M	1.02	5.7	1.7	2.3	0.0059	5	11	38.0	64	2860	80.0	80.5	81.5	0.78	0.86	0.90	6.21
3	4	90S/L	1.04	5.7	2.8	3	0.0025	7	15	24.0	64	2815	80.0	81.0	81.5	0.67	0.79	0.86	6.50
4	5.5	132S	1.33	6.4	2.1	3.2	0.0144	8	18	47.0	68	2940	80.5	82.0	83.1	0.72	0.81	0.87	8.41
4	5.5	L100L	1.34	8.0	2.4	3.6	0.0075	13	29	30.0	67	2915	82.0	83.5	83.5	0.68	0.80	0.87	8.37
4	5.5	S132S	1.33	6.4	2.1	3.2	0.0144	8	18	47.0	68	2940	80.5	82.0	83.1	0.72	0.81	0.87	8.41
5.5	7.5	112M	1.85	7.3	2.5	3.2	0.0094	11	24	45.0	64	2890	85.0	85.0	85.5	0.71	0.82	0.88	11.1
5.5	7.5	132S	1.83	6.0	1.9	2.8	0.0162	12	26	53.0	68	2930	81.7	84.0	84.7	0.70	0.81	0.87	11.3
7.5	10	112M	2.55	6.9	2.8	3.3	0.0094	8	18	48.0	64	2870	85.5	86.0	86.0	0.71	0.82	0.87	15.2
7.5	10	132S	2.49	6.9	2.1	2.9	0.0216	8	18	25.0	68	2930	83.7	85.0	86.0	0.70	0.81	0.86	15.4
11	15	132M	3.66	7.2	2.6	3.1	0.0270	10	22	74.0	68	2925	86.0	87.0	87.6	0.72	0.82	0.87	21.9
4P - 1500 RPM - 50Hz																			
0.37	0.5	80	0.251	5.8	1.8	2.2	0.0019	15	33	11.0	44	1435	57.6	64.0	66.0	0.61	0.74	0.83	1.03
0.55	0.75	80	0.377	6.0	2	2.6	0.0024	8	18	12.0	44	1420	64.0	67.0	70.0	0.60	0.72	0.81	1.47
0.75	1	80	0.516	4.7	1.5	2.1	0.0029	9	20	16.0	44	1415	70.0	71.0	72.1	0.65	0.79	0.87	1.82
1.1	1.5	90S/L	0.747	6.0	2	2.2	0.0044	8	18	18.0	49	1435	73.5	74.0	75.0	0.60	0.74	0.83	2.68
1.5	2	90S/L	1.02	5.1	1.3	2.1	0.0063	7	15	22.0	49	1435	74.0	77.0	77.2	0.66	0.78	0.85	3.47
2.2	3	100L	1.50	5.6	2.1	2.6	0.0075	8	18	22.0	53	1430	79.0	80.0	80.0	0.59	0.73	0.81	5.16
3	4	100L	2.07	5.4	2.1	2.5	0.0097	7	15	30.0	53	1415	79.0	79.5	81.5	0.66	0.78	0.84	6.66
4	5.5	112M	2.71	5.7	1.7	2.4	0.0156	8	18	43.0	56	1440	82.0	83.1	83.1	0.64	0.77	0.82	8.92
5.5	7.5	S132S	3.68	6.1	1.3	2.4	0.0415	7	15	52.5	60	1455	83.0	83.5	84.7	0.72	0.83	0.87	11.3
7.5	10	132M	4.99	6.8	1.6	3	0.0563	5	11	66.0	60	1465	84.6	85.5	85.6	0.64	0.77	0.83	16.0
9.2	12.5	L132M	6.12	7.7	1.9	3.2	0.0679	5	11	79.0	60	1465	85.5	86.5	87.0	0.67	0.79	0.85	18.9
11	15	W160M	7.31	9.1	3	3.8	0.0755	8	18	97.4	67	1466	88.5	89.8	87.6	0.61	0.74	0.82	23.3
15	20	160M/L	9.94	7.2	2.6	2.8	0.1221	8	18	130	67	1470	88.0	88.5	89.0	0.67	0.78	0.83	30.9
18.5	25	180M/L	12.3	7.5	3	3.4	0.1831	7	15	172	64	1470	88.5	89.5	89.5	0.63	0.75	0.82	38.3
22	30	180M/L	14.6	7.2	2.9	3.3	0.1923	7	15	182	64	1470	88.8	90.0	90.0	0.64	0.76	0.83	44.7
30	40	200M/L	19.8	7.0	2.4	2.9	0.3475	8	18	255	69	1475	89.5	90.0	91.0	0.69	0.80	0.85	58.9
High-Output Design																			
0.75	1	90S/L	0.506	4.8	1.2	2.1	0.0036	8	18	14.5	49	1445	71.2	74.0	74.0	0.60	0.74	0.83	1.86
1.1	1.5	80	0.771	6.5	3	2.9	0.0030	8	18	14.0	44	1390	71.0	72.0	72.0	0.60	0.74	0.82	2.83
1.5	2	100L	1.03	5.0	1.7	2.3	0.0052	7	15	20.0	53	1425	76.0	77.2	77.2	0.59	0.73	0.81	3.64
2.2	3	90S/L	1.51	5.5	1.9	2.3	0.0066	10	22	24.0	49	1420	78.0	79.0	80.0	0.68	0.79	0.85	4.92
3	4	112M	2.02	5.4	1.5	2.2	0.0123	9	20	41.0	56	1445	80.0	81.5	81.5	0.63	0.76	0.82	6.82
4	5.5	132S	2.67	6.1	1.3	2.5	0.0340	10	22	49.0	60	1460	82.0	83.2	83.2	0.68	0.80	0.85	8.59
4	5.5	S132S	2.67	6.1	1.3	2.5	0.0340	10	22	49.0	60	1460	82.0	83.2	83.2	0.68	0.80	0.85	8.59
5.5	7.5	112M	3.73	5.9	2.1	2.6	0.0180	8	18	46.0	56	1435	84.0	84.5	84.7	0.62	0.75	0.81	12.2
5.5	7.5	132S	3.68	6.1	1.3	2.4	0.0415	7	15	52.5	60	1455	83.0	83.5	84.7	0.72	0.83	0.87	11.3
11	15	160M/L	7.29	7.0	2.6	2.9	0.0877	6	13	102	67	1470	86.0	87.5	88.0	0.60	0.73	0.81	23.4
11	15	L132M	7.36	7.4	2.2	3	0.0679	7	15	96.5	60	1455	87.0	88.0	88.0	0.76	0.85	0.89	21.3

W20 - Aluminum Frame - 80 to 200 Frame- IE1

Output		Frame	Full Load Torque (kgfm)	Locked Rotor Current Il/In	Locked Rotor Torque Tl/Tn	Break-down Torque Tb/Tn	Inertia J (kgm2)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	380 V							
												Rated speed (rpm)	% of full load						Full load current In (A)
													Efficiency			Power Factor			
kW	HP							Hot	Cold				50	75	100	50	75	100	
6P - 1000 RPM - 50Hz																			
0.37	0.5	80	0.392	3.8	1.7	1.7	0.0027	16	35	13.5	43	920	55.0	60.0	62.0	0.50	0.64	0.73	1.24
0.55	0.75	80	0.576	4.0	1.8	1.8	0.0030	10	22	14.0	43	930	57.0	63.0	65.0	0.51	0.66	0.76	1.69
0.75	1	90S/L	0.803	4.2	1.9	2	0.0041	16	35	19.1	45	910	69.0	70.0	71.0	0.55	0.69	0.79	2.03
1.1	1.5	90S/L	1.16	4.8	2.2	2.1	0.0055	9	20	22.0	45	925	70.0	71.0	73.0	0.53	0.66	0.73	3.14
1.5	2	100L	1.57	4.1	2	2.2	0.0121	17	37	25.0	44	930	72.0	75.5	75.5	0.51	0.65	0.73	4.14
2.2	3	112M	2.28	5.5	2.2	2.3	0.0220	14	31	37.0	49	940	76.0	78.5	78.5	0.53	0.66	0.74	5.75
3	4	S132S	3.06	5.3	2	2.2	0.0378	20	44	60.0	53	955	78.0	80.5	80.5	0.55	0.68	0.75	7.55
4	5.5	132M	4.06	5.8	2.3	2.4	0.0492	19	42	59.0	53	960	80.0	81.5	82.0	0.54	0.66	0.74	10.0
5.5	7.5	132M	5.58	6.4	2.2	2.8	0.0681	15	33	73.0	53	960	81.0	83.0	83.5	0.49	0.62	0.71	14.1
7.5	10	160M/L	7.49	6.0	2	2.6	0.0983	6	13	100	56	975	82.5	84.0	84.7	0.56	0.70	0.78	17.2
11	15	160M/L	11.0	6.1	2.3	2.6	0.1471	9	20	125	56	970	86.5	87.0	87.0	0.63	0.75	0.82	23.4
15	20	180M/L	14.9	8.3	2.3	3.2	0.2705	5	11	163	56	980	87.0	87.7	87.7	0.64	0.77	0.83	31.3
18.5	25	200M/L	18.4	6.2	2.3	2.8	0.4022	11	24	206	58	980	88.6	89.3	89.3	0.57	0.70	0.77	40.9
22	30	200M/L	22.0	6.0	2.3	2.4	0.3510	14	31	235	58	975	88.0	89.0	89.5	0.64	0.75	0.80	46.7
High-Output Design																			
3	4	112M	3.11	6.3	2.6	2.6	0.0220	10	22	46.0	49	940	79.0	80.0	80.0	0.50	0.64	0.71	8.02
3	4	132S	3.06	5.3	2	2.2	0.0378	20	44	60.0	53	955	78.0	80.5	80.5	0.55	0.68	0.75	7.55
8P - 750 RPM - 50Hz																			
0.18	0.25	80	0.252	2.8	2.2	2.4	0.0022	29	64	13.0	42	695	36.2	44.1	48.6	0.45	0.53	0.62	0.908
0.25	0.33	80	0.348	3.5	2.3	2.2	0.0030	24	53	14.2	42	700	46.1	47.0	47.0	0.42	0.52	0.61	1.32
0.37	0.5	90S/L	0.526	3.0	1.9	1.8	0.0041	32	70	15.4	44	685	50.6	55.5	56.0	0.44	0.55	0.64	1.57
0.55	0.75	90S/L	0.794	3.3	1.9	2	0.0058	25	55	22.0	44	675	58.0	60.0	60.0	0.43	0.56	0.66	2.11
0.75	1	100L	1.04	3.5	1.8	2.4	0.0088	33	73	25.0	50	705	65.0	65.5	66.0	0.42	0.53	0.62	2.78
1.1	1.5	100L	1.53	4.0	1.7	2.3	0.0116	27	59	28.5	50	700	69.0	69.5	70.0	0.45	0.57	0.66	3.62
1.5	2	112M	2.09	4.2	2.2	2.2	0.0183	26	57	36.5	46	700	73.7	75.4	73.5	0.48	0.61	0.70	4.43
2.2	3	S132S	3.02	6.1	2.5	2.8	0.0641	22	48	65.0	48	710	75.8	78.0	77.1	0.55	0.68	0.77	5.63
3	4	132M	4.12	6.1	2.2	2.6	0.0789	18	40	66.0	48	710	78.5	80.1	79.0	0.55	0.68	0.76	7.59
4	5.5	W160M	5.52	5.8	2.4	2.8	0.0888	21	46	74.0	53	706	81.6	82.2	79.2	0.51	0.64	0.72	10.7
5.5	7.5	160M/L	7.34	5.4	2.1	3	0.1191	8	18	107	51	730	76.5	79.5	81.4	0.48	0.62	0.71	14.5
7.5	10	160M/L	10.1	5.6	2.4	3	0.1471	12	26	122	51	725	82.0	83.1	83.1	0.51	0.63	0.72	19.0
9.2	12.5	180M/L	12.3	6.5	1.9	2.4	0.2308	8	18	163	51	730	84.5	85.0	85.0	0.63	0.75	0.81	20.3
11	15	180M/L*	14.6	6.9	2.2	2.7	0.2993	8	18	175	51	732	84.5	85.0	85.0	0.59	0.72	0.79	24.9
15	20	200M/L	20.0	4.6	1.8	2.1	0.3672	15	33	217	53	730	86.5	86.8	86.8	0.54	0.66	0.73	36.0
High-Output Design																			
2.2	3	132S	3.02	6.1	2.5	2.8	0.0641	22	48	65.0	48	710	75.8	78.0	77.1	0.55	0.68	0.77	5.63
4	5.5	160M/L	5.34	5.2	2	2.9	0.0980	10	22	97.0	51	730	75.5	78.5	79.2	0.48	0.62	0.71	10.8

Note: IE efficiency value based on IEC60034-2-1 standard, data measured on direct on line starting.
(*) Insulation Class "F", temperature rise as Delta T 105K.
Frame with L in the front means that it uses extended endshield.

W20 - Aluminum Frame - 80 to 200 Frame- IE2

Output		Frame	Full Load Torque (kgfm)	Locked Rotor Current Il/In	Locked Rotor Torque Tl/Tn	Break-down Torque Tb/Tn	Inertia J (kgm2)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	380 V							
												Rated speed (rpm)	% of full load						Full load current In (A)
													Efficiency			Power Factor			
kW	HP							Hot	Cold				50	75	100	50	75	100	
2P - 3000 RPM - 50Hz																			
0.75	1	80	0.260	6.0	2.3	2.5	0.0005	19	42	13.0	59	2810	77.0	77.4	77.4	0.63	0.77	0.84	1.75
1.1	1.5	80	0.381	5.7	2.4	3	0.0008	14	31	14.0	59	2815	78.0	79.0	79.6	0.60	0.74	0.82	2.56
1.5	2	90S/L	0.509	6.4	2	3	0.0018	10	22	21.0	62	2870	79.5	80.6	81.3	0.67	0.75	0.82	3.42
2.2	3	90S/L	0.752	6.1	2	3	0.0022	7	15	23.5	62	2850	81.6	83.2	83.2	0.63	0.76	0.83	4.84
3	4	100L	1.01	7.2	2.2	3	0.0062	6	13	28.0	67	2905	81.0	82.8	84.6	0.63	0.76	0.84	6.41
4	5.5	112M	1.35	7.1	2.3	3.1	0.0077	9	20	33.0	64	2895	83.8	85.4	85.8	0.69	0.80	0.86	8.24
5.5	7.5	S132S	1.82	7.7	2.1	3.2	0.0180	12	26	51.0	67	2940	85.5	86.5	87.0	0.67	0.79	0.85	11.3
7.5	10	S132S	2.48	7.9	2.3	3.3	0.0216	10	22	56.0	67	2940	85.5	87.5	88.1	0.70	0.81	0.86	15.0
9.2	12.5	132M	3.04	8.5	2.6	3.6	0.0234	7	15	63.0	67	2945	86.0	88.0	88.9	0.66	0.78	0.85	18.5
11	15	W160M	3.67	7.8	3.1	3.4	0.0267	11	24	71.0	70	2917	88.4	89.4	89.4	0.68	0.79	0.84	22.3
15	20	160M/L	4.97	8.2	2.8	3.2	0.0534	7	15	105	70	2940	89.3	90.2	90.3	0.73	0.83	0.87	29.0
18.5	25	L160M/L	6.12	9.0	3.1	3.6	0.0674	6	13	120	70	2945	89.0	90.9	90.9	0.69	0.80	0.85	36.4
22	30	180M/L	7.24	7.9	2.3	2.7	0.1138	8	18	170	70	2960	91.0	91.3	91.3	0.70	0.80	0.85	43.1
30	40	200M/L	9.87	6.5	2.1	2.4	0.1618	10	22	190	74	2960	91.4	92.0	92.0	0.77	0.84	0.87	56.9
37	50	200M/L	12.2	7.8	2.4	2.8	0.1958	8	18	242	74	2965	91.7	92.5	92.5	0.69	0.79	0.84	72.3
High-Output Design																			
0.75	1	90S/L	0.253	6.3	2.0	3.0	0.0012	18	40	17.0	62	2890	71.6	75.8	77.4	0.64	0.72	0.80	1.84
1.1	1.5	90S/L	0.373	6.4	2	2.9	0.0015	14	31	20.0	62	2870	76.5	79.4	79.6	0.63	0.76	0.83	2.53
1.5	2	L80	0.526	5.7	3.4	3.1	0.0010	15	33	19.0	59	2775	81.0	81.3	81.3	0.68	0.80	0.86	3.26
2.2	3	100L	0.741	7.2	2.2	2.8	0.0043	9	20	27.0	67	2890	80.3	82.4	83.2	0.68	0.79	0.86	4.67
3	4	L90S/L	1.03	6.4	2.7	3.3	0.0030	8	18	25.0	62	2845	83.6	84.6	84.6	0.64	0.77	0.83	6.49
4	5.5	100L	1.36	7.7	2.9	3.4	0.0064	8	18	36.0	67	2875	85.0	85.8	85.8	0.75	0.85	0.89	7.96
5.5	7.5	132S	1.82	7.7	2.1	3.2	0.0180	12	26	51.0	67	2940	85.5	86.5	87.0	0.67	0.79	0.85	11.3
5.5	7.5	L112M	1.85	7.5	2.4	3.3	0.0116	8	18	51.0	64	2900	86.0	87.0	87.0	0.74	0.84	0.87	11.0
7.5	10	132S	2.48	7.9	2.3	3.3	0.0216	10	22	56.0	67	2940	85.5	87.5	88.1	0.70	0.81	0.86	15.0
7.5	10	L112M	2.53	7.9	3.3	3.8	0.0109	10	22	52.5	64	2890	87.5	88.1	88.1	0.68	0.80	0.83	15.6
11	15	132M	3.66	8.1	2.6	3.2	0.0270	10	22	71.0	67	2930	87.0	88.5	89.4	0.70	0.80	0.86	21.7
4P - 1500 RPM - 50Hz																			
0.55	0.75	80	0.375	5.3	1.7	2.7	0.0024	18	40	12.5	44	1430	72.8	77.1	77.1	0.60	0.74	0.83	1.31
0.75	1	80	0.516	5.4	2.4	2.7	0.0029	14	31	13.0	44	1415	77.2	78.7	79.6	0.60	0.74	0.83	1.72
1.1	1.5	90S/L	0.736	6.1	1.9	2.9	0.0049	12	26	18.5	49	1455	76.3	79.4	81.4	0.55	0.68	0.77	2.67
1.5	2	L90S/L	1.01	6.1	1.7	2.8	0.0071	9	20	20.0	49	1450	81.6	82.8	82.8	0.58	0.73	0.80	3.44
2.2	3	100L	1.49	6.4	2.6	3.1	0.0097	10	22	28.5	53	1440	83.1	84.3	84.3	0.58	0.72	0.80	4.96
3	4	L100L	2.04	7.3	2.1	2.8	0.0119	9	20	35.0	53	1430	82.5	83.8	85.5	0.55	0.68	0.77	6.92
4	5.5	112M	2.69	6.4	1.9	2.8	0.0182	10	22	41.0	56	1450	85.0	86.0	86.6	0.61	0.74	0.80	8.77
5.5	7.5	S132S	3.66	7.1	1.6	2.9	0.0491	7	15	55.0	56	1465	87.5	87.7	87.7	0.67	0.79	0.84	11.3
7.5	10	132M	4.99	7.4	1.8	3.2	0.0638	6	13	65.0	56	1465	88.1	88.7	88.7	0.64	0.77	0.83	15.5
9.2	12.5	132M	6.14	7.7	2.2	3.4	0.0601	7	15	75.0	56	1460	88.0	89.3	89.3	0.65	0.78	0.83	18.9
11	15	160M/L	7.29	6.9	2.5	2.8	0.1071	8	18	119	67	1470	87.0	88.5	89.8	0.61	0.74	0.81	23.0
15	20	160M/L	9.94	7.2	2.6	2.8	0.1318	8	18	130	67	1470	89.9	90.4	90.6	0.67	0.78	0.83	30.3
18.5	25	180M/L	12.3	6.9	2.6	3	0.1923	9	20	167	64	1470	90.9	91.2	91.2	0.68	0.79	0.84	36.7
22	30	180M/L	14.6	7.5	2.9	3	0.2272	10	22	159	64	1470	91.1	91.5	91.6	0.68	0.79	0.84	43.4
30	40	200M/L	19.7	7.0	2.4	2.9	0.3476	8	18	210	69	1480	92.1	92.3	92.3	0.67	0.78	0.84	58.8
37	50	200M/L	24.4	6.5	2.3	2.8	0.3588	12	26	265	69	1475	92.0	92.7	92.7	0.67	0.78	0.83	73.1
High-Output Design																			
0.75	1	90S/L	0.500	6.0	1.9	2.7	0.0038	12	26	17.0	49	1460	78.6	79.6	79.6	0.59	0.73	0.81	1.77
1.1	1.5	L80	0.763	5.9	2.7	2.9	0.0037	18	40	15.5	44	1405	80.0	81.4	81.4	0.66	0.79	0.86	2.39
1.5	2	100L	1.02	5.7	2	2.6	0.0067	8	18	19.5	53	1430	81.5	82.5	82.8	0.62	0.75	0.82	3.36
2.2	3	112M	1.47	6.9	2	3.1	0.0143	8	18	35.5	56	1460	81.8	84.3	84.3	0.56	0.70	0.77	5.15
2.2	3	L90S/L	1.49	6.5	2.4	3	0.0071	12	26	21.0	49	1440	83.0	84.3	84.3	0.57	0.72	0.80	4.96
4	5.5	132S	2.66	7.0	1.6	3	0.0378	12	26	45.0	56	1465	86.0	86.6	86.6	0.63	0.76	0.82	8.56
4	5.5	S132S	2.66	7.0	1.6	3	0.0378	12	26	45.0	56	1465	86.0	86.6	86.6	0.63	0.76	0.82	8.56
5.5	7.5	132S	3.66	7.1	1.6	2.9	0.0491	7	15	55.0	56	1465	87.5	87.7	87.7	0.67	0.79	0.84	11.3
5.5	7.5	L112M	3.73	7.5	2.5	2.8	0.0193	10	22	48.0	56	1435	86.5	87.0	87.7	0.56	0.70	0.78	12.2

W20 - Aluminum Frame - 80 to 200 Frame- IE2

Output		Frame	Full Load Torque (kgfm)	Locked Rotor Current Il/In	Locked Rotor Torque Tl/Tn	Break-down Torque Tb/Tn	Inertia J (kgm2)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	380 V							
												Rated speed (rpm)	% of full load						Full load current In (A)
													Efficiency			Power Factor			
kW	HP							Hot	Cold				50	75	100	50	75	100	
6P - 1000 RPM - 50Hz																			
0.37	0.5	80	0.383	3.9	1.6	2.0	0.0022	15	33	14.0	43	940	63.0	67.0	67.6	0.47	0.62	0.72	1.15
0.55	0.75	80	0.576	4.5	2.3	2.5	0.0034	21	46	15.0	43	930	65.0	71.0	73.1	0.50	0.62	0.72	1.59
0.75	1	90S/L	0.790	4.5	2	2.1	0.0055	23	51	18.0	45	925	74.5	76.0	76.0	0.51	0.64	0.73	2.05
1.1	1.5	90S/L	1.16	4.7	2.3	2.2	0.0066	17	37	20.0	45	925	76.0	78.1	78.1	0.50	0.63	0.73	2.93
1.5	2	100L	1.55	5.0	2	2.4	0.0126	23	51	25.5	44	940	79.5	80.0	80.0	0.51	0.64	0.73	3.90
2.2	3	112M	2.26	6.2	2.6	3	0.0220	17	37	38.0	49	950	80.5	82.7	82.7	0.51	0.64	0.73	5.54
3	4	S132S	3.01	6.0	1.9	2.7	0.0454	19	42	52.0	53	970	82.5	83.6	83.6	0.52	0.65	0.73	7.47
4	5.5	132M	4.04	6.0	2.1	2.5	0.0568	21	46	54.0	53	965	84.0	84.8	84.8	0.51	0.64	0.72	9.95
5.5	7.5	132M	5.58	6.4	2.2	2.7	0.0606	19	42	75.0	53	960	85.5	86.1	86.1	0.51	0.64	0.72	13.5
7.5	10	160M/L	7.49	6.3	2.1	2.7	0.1055	10	22	95.0	56	975	86.5	87.2	87.2	0.60	0.73	0.80	16.3
11	15	160M/L	11.0	6.6	2.5	2.9	0.1622	10	22	130	56	975	88.0	88.7	88.7	0.60	0.73	0.80	23.6
15	20	180M/L	14.9	8.5	2.4	3.2	0.2705	6	13	170	56	980	89.0	89.5	89.7	0.65	0.77	0.84	30.2
18.5	25	200M/L	18.4	7.4	2.3	2.5	0.3335	10	22	210	58	980	89.5	90.4	90.4	0.64	0.75	0.81	38.4
22	30	200M/L	22.0	6.2	2.3	2.6	0.3868	10	22	222	58	975	91.0	91.2	91.2	0.65	0.75	0.82	44.7
High-Output Design																			
3	4	132S	3.01	6.0	1.9	2.7	0.0454	19	42	52.0	53	970	82.5	83.6	83.6	0.52	0.65	0.73	7.47
8P - 750 RPM - 50Hz																			
0.18	0.25	80	0.260	3.1	1.6	1.9	0.0024	30	66	13.0	42	675	37.0	46.0	46.5	0.44	0.55	0.65	0.905
0.25	0.33	80	0.363	3.2	2	2.2	0.0029	42	92	14.3	42	670	49.0	55.0	57.0	0.43	0.55	0.66	1.01
0.37	0.5	90S/L	0.522	3.5	1.6	2	0.0044	20	44	15.5	44	690	45.3	52.4	56.1	0.41	0.52	0.62	1.62
0.55	0.75	90S/L	0.782	3.5	1.9	2	0.0060	31	68	18.0	44	685	61.0	64.0	64.0	0.44	0.56	0.66	1.98
0.75	1	100L	1.03	4.6	2	2.4	0.0116	42	92	30.5	50	710	71.0	74.0	74.0	0.40	0.52	0.62	2.48
1.1	1.5	100L	1.52	4.6	2.1	2.3	0.0127	29	64	32.0	50	705	70.0	73.5	73.5	0.40	0.53	0.62	3.67
1.5	2	112M	2.09	4.7	2.4	2.3	0.0202	29	64	39.0	46	700	77.0	79.0	79.0	0.44	0.57	0.67	4.31
2.2	3	S132S	3.06	5.5	2.2	2.4	0.0592	25	55	66.0	48	700	81.0	81.5	81.0	0.52	0.65	0.72	5.73
3	4	132M	4.17	5.5	2.3	2.4	0.0740	19	42	68.0	48	700	82.0	82.5	82.0	0.54	0.66	0.73	7.61
4	5.5	160M/L	5.34	5.6	2.2	3.2	0.0985	12	26	90.0	51	730	78.0	81.0	81.9	0.45	0.58	0.68	10.9
5.5	7.5	160M/L	7.34	5.7	2.4	3.4	0.1266	9	20	115	51	730	77.0	80.5	83.8	0.42	0.55	0.65	15.3
7.5	10	160M/L	10.1	5.3	2.2	2.8	0.1555	15	33	122	51	725	84.0	85.3	85.3	0.52	0.64	0.72	18.6
9.2	12.5	180M/L	12.3	6.5	1.9	2.5	0.2172	8	18	155	51	730	85.0	86.3	86.3	0.58	0.71	0.78	20.8
11	15	180M/L	14.6	7.0	2.1	2.8	0.2993	7	15	183	51	732	85.0	86.0	86.9	0.57	0.70	0.77	25.0
15	20	200M/L	20.0	5.0	2	2.2	0.4228	18	40	238	53	730	88.0	88.5	89.0	0.53	0.65	0.71	36.1
High-Output Design																			
2.2	3	132S	3.06	5.5	2.2	2.4	0.0592	25	55	66.0	48	700	81.0	81.5	81.0	0.52	0.65	0.72	5.73

W20 - Aluminum Frame - 80 to 200 Frame- IE3

Output		Frame	Full Load Torque (kgfm)	Locked Rotor Current Il/In	Locked Rotor Torque Tl/Tn	Break-down Torque Tb/Tn	Inertia J (kgm2)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	380 V							
												Rated speed (rpm)	% of full load						Full load current In (A)
													Efficiency			Power Factor			
kW	HP							Hot	Cold				50	75	100	50	75	100	
2P - 3000 RPM - 50Hz																			
0.75	1	80	0.257	7.0	1.9	2.3	0.0007	16	35	11.4	59	2840	80.2	80.7	80.7	0.64	0.77	0.84	1.68
1.1	1.5	80	0.380	6.2	3.5	3.4	0.0009	26	57	14.0	59	2820	82.0	82.7	82.7	0.64	0.77	0.84	2.41
1.5	2	90S/L	0.504	8.7	2.2	3	0.0020	8	18	20.0	62	2900	83.6	84.2	84.2	0.62	0.75	0.82	3.30
2.2	3	90S/L	0.751	7.0	3.4	3.4	0.0025	10	22	21.5	62	2855	84.2	85.1	85.9	0.67	0.79	0.85	4.58
3	4	100L	1.01	7.5	2.7	3.3	0.0064	13	29	30.0	67	2885	85.6	87.1	87.1	0.72	0.83	0.88	5.95
4	5.5	112M	1.34	7.7	2.5	3.5	0.0905	12	26	41.0	62	2905	86.1	87.4	88.1	0.69	0.80	0.86	8.02
5.5	7.5	S132S	1.82	7.5	2.1	3.1	0.0270	15	33	61.0	67	2940	86.5	88.4	89.2	0.73	0.83	0.88	10.6
7.5	10	132S	2.48	8.5	2.5	3.5	0.0252	10	22	66.0	63	2945	87.4	89.4	90.1	0.70	0.81	0.86	14.7
9.2	12.5	132M	3.05	8.3	2.7	3.3	0.0303	12	26	70.0	63	2935	88.8	90.0	90.7	0.69	0.80	0.86	17.9
11	15	W160M	3.66	9.1	3.6	4	0.0303	11	24	75.0	70	2931	89.1	90.4	91.2	0.65	0.77	0.83	22.1
15	20	160M/L	4.94	8.1	3.1	4	0.0643	10	22	132	70	2955	90.0	90.9	91.9	0.67	0.79	0.84	29.5
18.5	25	160M/L	6.11	8.4	3.4	4.1	0.0618	12	26	126	70	2947	90.0	91.2	92.4	0.65	0.77	0.83	36.7
22	30	180M/L	7.24	8.2	2.5	3.2	0.1138	9	20	180	70	2960	91.8	92.7	92.7	0.69	0.80	0.85	42.4
30	40	200M/L	9.85	7.0	2.3	2.6	0.2214	17	37	245	74	2965	92.7	93.3	93.3	0.79	0.86	0.88	55.5
37	50	200M/L	12.1	7.2	2.9	3	0.1958	11	24	260	74	2967	92.7	93.6	93.7	0.73	0.82	0.85	70.6
High-Output Design																			
0.75	1	90S/L	0.251	8.8	2.4	2.9	0.0012	14	31	16.0	62	2915	78.9	80.7	80.7	0.60	0.71	0.78	1.81
1.1	1.5	90S/L	0.369	8.4	2	3	0.0014	11	24	16.5	62	2905	81.0	82.7	82.7	0.62	0.75	0.82	2.46
4	5.5	132S	1.33	7.2	2	3.1	0.0216	20	44	57.0	63	2940	85.0	87.1	88.1	0.70	0.81	0.86	8.02
4	5.5	S132S	1.33	7.2	2	3.1	0.0216	20	44	57.0	63	2940	85.0	87.1	88.1	0.70	0.81	0.86	8.02
5.5	7.5	132S	1.82	7.5	2.1	3.1	0.0270	15	33	61.0	67	2940	86.5	88.4	89.2	0.73	0.83	0.88	10.6
7.5	10	S132S	2.49	7.8	2.5	3.2	0.0252	17	37	66.0	63	2930	88.0	89.0	90.1	0.70	0.81	0.86	14.7
11	15	132M	3.66	8.5	2.8	3.4	0.0303	12	26	74.0	63	2930	89.0	90.6	91.2	0.70	0.81	0.86	21.3
4P - 1500 RPM - 50Hz																			
0.55	0.75	80	0.376	6.0	2.6	3.0	0.0026	21	46	13.0	44	1425	79.7	80.8	80.8	0.62	0.75	0.83	1.25
0.75	1	80	0.514	7.0	2.8	3.2	0.0032	17	37	14.0	44	1420	80.0	82.0	82.5	0.56	0.71	0.80	1.73
1.1	1.5	90S/L	0.741	6.9	2.1	2.7	0.0055	16	35	19.5	49	1445	81.5	84.1	84.1	0.58	0.70	0.77	2.58
1.5	2	90S/L	1.01	7.4	2.9	3.6	0.0066	10	22	20.5	49	1450	83.1	85.0	85.3	0.59	0.72	0.80	3.34
2.2	3	100L	1.48	7.3	2.7	3.1	0.0097	18	40	32.0	53	1445	84.7	86.3	86.7	0.57	0.70	0.77	5.01
3	4	L100L	2.04	7.2	3.8	3.8	0.0112	19	42	35.0	53	1435	85.5	86.5	87.7	0.60	0.73	0.80	6.50
4	5.5	112M	2.69	7.5	2.2	2.7	0.0167	17	37	39.0	56	1450	87.8	88.4	88.6	0.58	0.71	0.79	8.68
5.5	7.5	S132S	3.66	8.5	2.2	3.3	0.0528	14	31	56.0	56	1465	89.0	89.6	89.6	0.62	0.74	0.81	11.5
7.5	10	132M	5.00	7.9	2.2	3.4	0.0638	12	26	70.0	56	1460	90.0	90.4	90.4	0.68	0.79	0.85	14.8
11	15	160M/L	7.29	7.7	3.4	3.6	0.1023	13	29	111	67	1470	89.4	90.6	91.2	0.57	0.70	0.78	23.5
15	20	160M/L	9.94	8.0	3	3.4	0.1214	10	22	130	62	1470	90.5	91.5	92.1	0.62	0.74	0.81	30.5
18.5	25	180M/L	12.3	7.5	2.6	3.1	0.2088	22	48	175	64	1470	91.1	92.6	92.6	0.65	0.77	0.83	36.6
22	30	180M/L	14.6	6.9	2.7	3	0.2098	16	35	195	64	1470	92.5	92.9	93.0	0.71	0.81	0.85	42.3
30	40	200M/L	19.7	7.0	2.5	3	0.3342	17	37	260	67	1480	92.0	92.9	93.6	0.68	0.79	0.84	58.0
High-Output Design																			
0.75	1	90S/L	0.500	7.0	2.0	3.2	0.0049	16	35	17.5	49	1460	82.0	82.5	82.5	0.58	0.71	0.79	1.75
1.5	2	100L	1.01	7.6	3	3.6	0.0105	17	37	30.0	53	1450	82.7	84.8	85.3	0.58	0.71	0.79	3.38
2.2	3	112M	1.46	7.3	2	3.3	0.0182	14	31	41.0	56	1465	86.2	86.7	86.7	0.57	0.70	0.78	4.94
3	4	L112M	1.99	7.2	2.1	3.2	0.0195	14	31	42.0	56	1465	86.6	87.7	87.7	0.58	0.71	0.79	6.58
5.5	7.5	132S	3.66	8.5	2.2	3.3	0.0528	14	31	56.0	56	1465	89.0	89.6	89.6	0.62	0.74	0.81	11.5

Note: IE efficiency value based on IEC60034-2-1 standard, data measured on direct on line starting.
(*) Insulation Class "F", temperature rise as Delta T 105K.
Frame with L in the front means that it uses extended endshield.

W20 - Aluminum Frame - 80 to 200 Frame- IE3

Output		Frame	Full Load Torque (kgfm)	Locked Rotor Current Il/In	Locked Rotor Torque Tl/Tn	Break-down Torque Tb/Tn	Inertia J (kgm2)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	380 V							
												Rated speed (rpm)	% of full load						Full load current In (A)
													Efficiency			Power Factor			
kW	HP							Hot	Cold				50	75	100	50	75	100	
6P - 1000 RPM - 50Hz																			
0.25	0.33	80	0.256	4.1	1.6	2.2	0.0019	21	46	12.0	43	950	60.0	65.0	68.6	0.47	0.60	0.69	0.802
0.37	0.5	80	0.390	4.5	1.9	2.1	0.0026	25	55	13.9	43	925	66.0	69.5	73.5	0.51	0.65	0.75	1.02
0.55	0.75	L80	0.567	5.1	2.9	3.1	0.0037	20	44	18.0	43	945	70.5	75.2	77.2	0.45	0.58	0.69	1.57
0.75	1	90S/L	0.777	5.2	2.5	2.8	0.0066	31	68	22.0	45	940	76.5	79.0	79.0	0.49	0.62	0.71	2.03
1.1	1.5	100L	1.13	4.9	2	2.4	0.0110	32	70	25.0	44	945	80.5	81.0	81.0	0.51	0.65	0.73	2.83
1.5	2	100L	1.54	5.5	2.3	2.8	0.0143	31	68	29.0	44	950	81.5	82.5	82.5	0.49	0.62	0.71	3.89
2.2	3	112M	2.23	6.0	2.5	2.6	0.0257	26	57	39.0	49	960	83.0	84.5	84.5	0.53	0.64	0.72	5.49
3	4	132S	3.01	7.3	1.9	2.5	0.0568	28	62	61.0	53	970	85.0	85.8	85.8	0.52	0.65	0.73	7.28
4	5.5	132M	4.06	6.5	2.2	2.5	0.0568	30	66	65.0	53	960	86.0	86.8	86.8	0.53	0.66	0.74	9.46
5.5	7.5	L132M	5.52	7.3	2.1	2.5	0.0795	26	57	72.0	52	970	86.0	87.0	88.0	0.50	0.64	0.72	13.2
7.5	10	160M/L	7.49	6.6	2.4	2.8	0.1614	15	33	127	56	975	86.0	88.5	89.1	0.61	0.73	0.80	16.0
11	15	160M/L	11.0	6.8	2.6	3	0.1891	13	29	136	56	975	89.0	90.0	90.3	0.59	0.72	0.79	23.4
15	20	180M/L	15.0	8.7	2.8	3.4	0.2975	9	20	178	56	977	90.6	91.2	91.2	0.66	0.78	0.84	29.7
22	30	200M/L	22.0	6.2	2.3	2.6	0.4388	15	33	245	58	975	90.4	92.0	92.2	0.65	0.75	0.82	44.2
High-Output Design																			
1.1	1.5	112M	1.12	5.9	2.3	2.8	0.0220	28	62	32.0	49	955	84.0	85.0	85.0	0.52	0.64	0.72	2.73
1.5	2	112M	1.52	6.0	2.1	2.8	0.0257	28	62	35.0	49	960	84.5	85.5	85.5	0.51	0.63	0.71	3.75
2.2	3	132S	2.21	5.7	1.8	2.7	0.0492	30	66	55.0	53	970	86.0	87.5	87.5	0.52	0.64	0.72	5.31
2.2	3	S132S	2.21	5.7	1.8	2.7	0.0492	30	66	55.0	53	970	86.0	87.5	87.5	0.52	0.64	0.72	5.31
8P - 750 RPM - 50Hz																			
0.18	0.25	80	0.258	3.3	2.0	2.2	0.0029	30	66	15.0	42	680	51.0	57.0	58.7	0.45	0.55	0.65	0.717
0.25	0.33	80	0.350	3.5	2	2.2	0.0032	30	66	15.5	42	695	53.0	60.0	64.1	0.42	0.52	0.63	0.941
0.37	0.5	90S/L	0.522	3.7	2.1	2.4	0.0055	30	66	19.0	44	690	61.0	66.0	69.3	0.41	0.53	0.62	1.31
0.55	0.75	90S/L	0.782	3.6	1.8	2.1	0.0066	29	64	23.0	44	685	63.0	72.5	73.0	0.44	0.57	0.67	1.71
0.75	1	100L	1.03	4.6	1.9	2.3	0.0127	30	66	28.5	50	710	72.5	75.5	75.5	0.41	0.53	0.62	2.43
1.1	1.5	100L	1.51	4.6	1.9	2	0.0143	30	66	30.0	50	710	73.0	76.0	77.7	0.41	0.53	0.62	3.47
1.5	2	112M	2.07	5.0	2.5	2.8	0.0238	28	62	37.0	46	705	79.0	80.5	80.5	0.45	0.59	0.68	4.16
2.2	3	S132S	3.02	6.2	2.3	2.5	0.0690	27	59	57.0	48	710	82.0	82.6	82.6	0.51	0.65	0.72	5.62
3	4	132M	4.12	6.4	2.4	2.6	0.0838	21	46	65.0	48	710	82.5	83.5	83.5	0.51	0.64	0.72	7.58
4	5.5	160M/L	5.34	5.4	2	2.9	0.1264	16	35	102	51	730	81.0	83.0	84.8	0.50	0.63	0.72	9.95
5.5	7.5	160M/L	7.39	5.3	2.1	2.8	0.1614	22	48	125	51	725	85.0	86.2	86.2	0.53	0.66	0.73	13.3
7.5	10	160M/L	10.0	5.6	2.3	3	0.1838	19	42	130	51	730	86.0	87.0	87.3	0.52	0.65	0.72	18.1
11	15	180M/L	14.6	7.2	2.2	2.9	0.3129	8	18	180	51	733	87.0	88.0	88.6	0.56	0.69	0.77	24.5
15	20	200M/L	19.9	5.0	2	2.2	0.4932	28	62	250	53	735	89.5	90.5	90.9	0.53	0.65	0.71	35.3
High-Output Design																			
2.2	3	132S	3.02	6.2	2.3	2.5	0.0690	27	59	57.0	48	710	82.0	82.6	82.6	0.51	0.65	0.72	5.62

Note: IE efficiency value based on IEC60034-2-1 standard, data measured on direct on line starting.
(*) Insulation Class "F", temperature rise as Delta T 105K.
Frame with L in the front means that it uses extended endshield.

W20 - Cast Iron Frame - 160 to 355 frame - IE1

Output		Frame	Full Load Torque (kgfm)	Locked Rotor Current Il/In	Locked Rotor Torque Tl/Tn	Break-down Torque Tb/Tn	Inertia J (kgm2)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	380 V							
												Rated speed (rpm)	% of full load						Full load current In (A)
													Efficiency			Power Factor			
kW	HP							Hot	Cold				50	75	100	50	75	100	
2P - 3000 RPM - 50Hz																			
9.2	12.5	160M	3.05	7.1	2.1	2.7	0.0367	8	18	89.5	70	2935	85.5	86.5	86.8	0.75	0.84	0.88	18.3
11	15	160M	3.64	7.7	2.5	3.1	0.0419	7	15	103	70	2940	85.5	87.5	87.6	0.65	0.77	0.84	22.7
15	20	160M	4.96	8.5	2.8	3.4	0.0534	5	11	127	70	2945	87.2	88.5	88.7	0.71	0.81	0.86	29.9
18.5	25	160L	6.11	9.0	3.1	3.7	0.0653	5	11	157	70	2950	88.5	89.5	89.5	0.62	0.75	0.82	38.3
22	30	180M	7.24	8.1	2.5	3	0.1138	8	18	185	70	2960	90.0	90.5	90.5	0.76	0.84	0.87	42.5
30	40	200L	9.87	7.3	2.3	2.6	0.1865	10	22	240	74	2960	90.0	91.0	91.2	0.71	0.81	0.86	58.1
37	50	200L	12.2	7.5	2.3	2.5	0.2289	8	18	295	74	2960	91.0	91.5	91.5	0.75	0.84	0.87	70.6
45	60	225M	14.9	8.2	2.1	2.6	0.2211	11	24	283	75	2945	91.0	91.7	91.7	0.71	0.81	0.86	86.7
55	75	250M	18.1	7.7	2.3	2.9	0.3238	10	22	338	78	2960	91.5	92.1	92.1	0.74	0.83	0.87	104
75	100	W280S	24.6	8.7	2.6	3.2	0.4585	7	15	428	82	2965	92.5	93.0	93.0	0.76	0.85	0.88	139
90	125	280M	29.6	7.2	1.9	2.4	0.8605	10	22	544	83	2965	92.5	93.0	93.0	0.78	0.85	0.88	167
110	150	315S/M	36.0	7.5	1.8	3.2	1.09	20	44	675	84	2975	92.4	93.7	93.8	0.75	0.83	0.87	205
132	175	315S/M	43.2	8.0	2	3.2	1.45	17	37	844	84	2975	93.3	94.0	94.0	0.79	0.86	0.89	240
150	200	315S/M	49.1	7.6	2	3	1.49	16	35	870	84	2975	93.8	94.0	94.2	0.81	0.87	0.90	269
160	220	315S/M	52.4	7.6	1.9	3	1.53	15	33	930	84	2975	93.8	94.0	94.2	0.81	0.87	0.90	287
185	250	315S/M	60.6	6.7	1.7	2.7	1.96	23	51	1010	84	2975	93.7	94.7	94.7	0.84	0.89	0.91	326
200	270	355M/L	65.3	8.5	1.9	3.3	3.91	40	88	1471	81	2985	94.5	94.8	94.9	0.82	0.88	0.90	356
220	300	355M/L	71.8	7.9	1.8	3	4.01	41	90	1512	81	2985	94.0	94.9	94.9	0.85	0.90	0.91	387
250	340	355M/L	81.7	7.1	2	2.5	5.36	37	81	1750	81	2980	94.0	94.9	94.9	0.90	0.92	0.93	430
280	380	355M/L	91.4	8.5	2.6	3.3	5.60	26	57	1820	81	2985	94.5	94.8	94.8	0.87	0.91	0.92	488
300	400	355M/L	98.1	7.2	1.9	2.6	5.93	62	136	1850	81	2980	95.2	95.4	95.4	0.89	0.92	0.92	519
315	430	355M/L	103	6.9	1.9	2.5	5.90	59	130	1850	81	2980	95.2	95.4	95.4	0.89	0.92	0.92	545
330	450	355M/L	108	6.6	1.8	2.4	5.90	62	136	1850	81	2980	95.2	95.4	95.4	0.89	0.92	0.92	571
High-Output Design																			
22	30	L160L	7.26	9.7	3.5	4.0	0.0805	6	13	194	70	2950	89.0	89.5	90.0	0.63	0.75	0.82	45.3
30	40	180L	9.87	9.3	2.8	3.3	0.1345	8	18	220	70	2960	90.5	91.0	91.0	0.64	0.76	0.83	60.3
55	75	225M	18.2	9.5	3.4	3.4	0.3121	9	20	346	82	2945	91.9	92.1	92.1	0.72	0.82	0.86	106
55	75	W280S	18.1	7.6	2	2.7	0.3566	9	20	356	83	2960	92.0	92.1	92.1	0.79	0.86	0.89	102
75	100	250M	24.6	8.8	2.2	2.8	0.4619	8	18	432	82	2965	92.0	92.7	92.7	0.83	0.89	0.91	135
110	150	280M	36.1	8.2	2	2.3	0.9598	8	18	590	83	2965	93.0	93.3	93.3	0.84	0.89	0.91	197
132	175	280M	43.4	8.4	2	2.3	1.19	8	18	701	83	2965	93.0	93.5	93.5	0.85	0.90	0.91	236
200	270	315S/M	65.5	8.0	2.1	3	2.03	15	33	1045	84	2975	93.9	94.7	94.9	0.86	0.90	0.92	348
4P - 1500 RPM - 50Hz																			
9.2	12.5	160M	6.10	6.9	2.4	2.7	0.0732	6	13	95.0	67	1470	86.0	87.0	87.0	0.65	0.77	0.83	19.4
11	15	160M	7.29	7.0	2.6	2.9	0.0877	6	13	102	67	1470	86.0	87.5	88.0	0.60	0.73	0.81	23.4
15	20	160L	9.94	7.2	2.6	2.8	0.1221	8	18	130	67	1470	88.0	88.5	89.0	0.67	0.78	0.83	30.9
18.5	25	180M	12.3	7.5	3	3.4	0.1831	7	15	172	64	1470	88.5	89.5	89.5	0.63	0.75	0.82	38.3
22	30	180L	14.6	7.2	2.9	3.3	0.1923	7	15	182	64	1470	88.8	90.0	90.0	0.64	0.76	0.83	44.7
30	40	200L	19.8	7.0	2.4	2.9	0.3475	8	18	255	69	1475	89.5	90.0	91.0	0.69	0.80	0.85	58.9
37	50	W225S	24.4	8.1	2.6	3	0.4403	7	15	278	69	1480	90.8	91.0	91.2	0.63	0.75	0.82	75.2
45	60	225M	29.6	6.2	2.5	3	0.4947	11	24	297	66	1480	91.0	91.7	91.7	0.74	0.82	0.86	86.7
55	75	250M	36.3	6.3	2.5	2.6	0.7126	11	24	339	70	1475	91.8	92.1	92.1	0.76	0.84	0.87	104
75	100	W280S	49.4	7.2	2.5	2.6	1.04	11	24	447	70	1480	92.5	93.0	93.0	0.69	0.79	0.84	146
90	125	280M	59.0	6.2	2.2	2.5	1.63	10	22	561	76	1485	92.5	93.0	93.0	0.75	0.83	0.86	171
110	150	315S/M	72.1	8.3	2.6	3.3	2.17	22	48	770	77	1485	93.4	93.8	93.8	0.70	0.80	0.84	212
132	175	315S/M	86.6	7.9	2.5	3	2.55	16	35	829	77	1485	93.7	94.2	94.2	0.74	0.83	0.86	248
150	200	315S/M	98.4	8.6	2.8	3.3	2.78	13	29	905	77	1485	93.8	94.5	94.5	0.72	0.81	0.85	284
160	220	315S/M	105	6.9	2.2	2.6	3.09	15	33	930	77	1485	93.8	94.5	94.5	0.80	0.86	0.88	292
185	250	315S/M	121	8.6	2.9	3.2	3.48	11	24	962	77	1485	93.0	94.8	94.8	0.74	0.83	0.86	345
200	270	355M/L	131	6.4	1.8	2.4	5.62	28	62	1525	79	1490	94.6	94.7	94.8	0.79	0.85	0.87	368
220	300	355M/L	144	6.5	1.9	2.3	6.34	26	57	1580	79	1490	94.0	94.7	94.8	0.80	0.86	0.88	401
250	340	355M/L	163	6.6	2	2.9	7.22	17	37	1605	79	1490	94.0	94.7	94.8	0.73	0.82	0.85	471
260	350	355M/L	170	7.5	2.2	2.6	7.58	20	44	1615	79	1490	94.0	94.7	94.8	0.76	0.84	0.87	479
280	380	355M/L	183	6.1	1.9	2.2	8.30	30	66	1770	79	1490	94.0	94.7	94.8	0.82	0.87	0.88	510
300	400	355M/L	196	6.5	2.2	2.3	8.59	23	51	1820	79	1490	94.5	94.8	94.8	0.78	0.85	0.87	553
315	430	355M/L	206	7.1	2.4	2.4	9.92	24	53	1850	79	1490	94.0	94.7	94.8	0.81	0.87	0.88	574
330	450	355M/L	216	6.1	2.2	2.1	10.8	28	62	1880	79	1490	94.2	94.8	94.9	0.84	0.88	0.89	594
355	480	355M/L	232	6.3	2	2.2	11.7	31	68	1900	79	1490	94.5	94.9	95.0	0.82	0.87	0.88	645

W20 - Cast Iron Frame - 160 to 355 frame - IE1

Output		Frame	Full Load Torque (kgfm)	Locked Rotor Current Il/In	Locked Rotor Torque Tl/Tn	Break-down Torque Tb/Tn	Inertia J (kgm2)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	380 V							
												Rated speed (rpm)	% of full load						Full load current In (A)
													Efficiency			Power Factor			
kW	HP							Hot	Cold				50	75	100	50	75	100	
4P - High-Output Design																			
18.5	25	L160L	12.3	6.9	2.6	3.0	0.1416	5	11	151	67	1470	86.2	88.0	89.3	0.58	0.72	0.79	39.8
30	40	L180L	19.8	7.7	3.4	3.9	0.2680	6	13	256	64	1475	88.5	90.0	90.7	0.54	0.68	0.76	66.1
37	50	250M	24.5	6.0	1.9	2.5	0.5090	13	29	243	70	1470	90.5	91.2	91.2	0.77	0.84	0.86	71.7
37	50	L200L	24.4	8.1	2.9	3.4	0.4402	7	15	324	69	1480	90.0	91.0	91.5	0.63	0.75	0.82	74.9
55	75	225M	36.3	7.0	2.4	3	0.5937	10	22	340	70	1475	92.0	92.1	92.1	0.75	0.83	0.86	106
75	100	250M	49.5	7.5	2.8	3.3	1.03	9	20	429	76	1475	92.0	92.7	92.7	0.70	0.80	0.84	146
90	125	315S/M	59.0	7.8	2.4	3.1	1.93	11	24	648	76	1485	93.0	93.6	93.6	0.71	0.81	0.85	172
110	150	280M	72.1	8.2	2.3	2.6	1.87	8	18	624	76	1485	93.0	93.3	93.3	0.72	0.81	0.85	211
132	175	280M	86.6	8.9	2.6	2.8	2.29	8	18	736	76	1485	93.0	93.5	93.5	0.72	0.81	0.86	249
185	250	355M/L	121	6.0	1.8	2.3	5.40	15	33	1415	79	1490	94.5	94.7	94.7	0.78	0.84	0.87	341
200	270	315S/M	132	6.6	2.2	2.4	3.63	33	73	1010	77	1480	94.6	94.7	94.8	0.81	0.87	0.88	364
6P - 1000 RPM - 50Hz																			
7.5	10	160M	7.49	6.0	2.0	2.6	0.0983	6	13	100	56	975	82.5	84.0	84.7	0.56	0.70	0.78	17.2
9.2	12.5	160L	9.19	6.2	2.1	2.7	0.1191	6	13	115	57	975	83.5	85.0	85.6	0.57	0.71	0.79	20.7
11	15	160L	11.0	6.1	2.3	2.6	0.1471	9	20	125	57	970	86.5	87.0	87.0	0.63	0.75	0.82	23.4
15	20	180L	14.9	8.4	2.3	3.2	0.2705	5	11	163	56	980	87.0	87.7	87.7	0.65	0.78	0.84	30.9
18.5	25	200L	18.5	6.0	2.1	2.5	0.2984	11	24	213	58	975	88.0	89.0	89.0	0.64	0.76	0.82	38.5
22	30	200L	22.0	6.0	2.3	2.4	0.3510	14	31	235	58	975	88.0	89.0	89.5	0.64	0.75	0.80	46.7
30	40	225M	29.7	6.9	2	2.7	0.6507	11	24	298	61	985	90.0	90.2	90.2	0.72	0.81	0.85	59.4
37	50	250M	36.8	6.5	1.8	2.3	0.9689	11	24	341	61	980	90.0	90.8	90.8	0.76	0.84	0.87	71.2
45	60	W280S	44.7	7.1	2	2.4	1.25	11	24	419	61	980	91.0	91.4	91.4	0.77	0.85	0.88	85.0
55	75	280M	54.4	5.6	1.6	2.1	1.73	12	26	495	69	985	91.5	91.9	92.0	0.75	0.83	0.86	106
75	100	315S/M	74.2	6.7	2.3	2.5	2.80	20	44	768	69	985	91.0	93.0	93.0	0.71	0.81	0.85	144
90	125	315S/M	89.0	6.3	2.1	2.3	3.35	18	40	818	69	985	92.0	93.1	93.3	0.71	0.80	0.84	174
110	150	315S/M	109	6.4	2.3	2.4	4.14	18	40	942	69	985	93.0	93.8	93.8	0.71	0.80	0.84	212
132	175	315S/M*	131	6.3	2.1	2.2	5.14	13	29	990	69	985	93.0	93.9	93.9	0.72	0.81	0.85	251
150	200	355M/L	147	7.8	2.7	3.2	8.85	30	66	1650	73	995	92.5	94.0	94.0	0.59	0.71	0.78	311
160	220	355M/L	157	6.2	1.9	2.1	9.24	28	62	1485	73	990	93.0	94.0	94.0	0.67	0.77	0.82	315
185	250	355M/L	182	6.0	2	2.4	9.94	19	42	1530	73	990	94.0	94.2	94.2	0.66	0.76	0.80	373
200	270	355M/L	197	6.3	2.1	2.3	12.0	21	46	1700	73	990	93.5	94.5	94.5	0.70	0.78	0.81	397
220	300	355M/L	215	6.6	2.4	2.6	12.8	14	31	1795	73	995	93.4	94.5	94.5	0.65	0.75	0.80	442
250	340	355M/L	245	6.5	2.3	2.6	13.0	18	40	1830	73	995	94.0	94.2	94.5	0.63	0.74	0.79	509
260	350	355M/L	255	6.2	2.2	2.4	13.2	15	33	1830	73	995	94.0	94.9	94.9	0.66	0.76	0.80	520
280	380	355M/L	275	5.7	2	2.2	13.5	18	40	1830	73	990	94.3	94.9	94.9	0.69	0.78	0.81	553
300	400	355M/L*	295	5.8	2.1	2.4	14.3	14	31	1920	73	990	94.0	94.9	94.9	0.65	0.75	0.80	600
315	430	355M/L*	310	5.5	1.9	2.2	15.0	38	84	1950	73	990	94.5	94.8	94.9	0.69	0.78	0.81	623
High-Output Design																			
37	50	225M	36.8	7.0	2.2	2.7	0.7192	11	24	321	61	980	90.4	90.8	90.8	0.68	0.79	0.83	74.6
45	60	250M	44.7	7.5	2	2.5	1.15	9	20	389	61	980	91.0	91.4	91.4	0.75	0.84	0.87	86.0
75	100	280M	74.5	6.2	1.7	2.1	2.12	11	24	574	66	980	92.0	92.6	92.6	0.77	0.84	0.86	143
90	125	280M	89.0	6.6	1.9	2.2	2.59	10	22	670	66	985	92.0	92.9	92.9	0.77	0.83	0.86	171
132	175	355M/L	129	5.8	1.9	2.3	7.42	8	18	1385	73	995	93.5	93.9	93.9	0.66	0.76	0.80	267

W20 - Cast Iron Frame - 160 to 355 frame - IE1

Output		Frame	Full Load Torque (kgfm)	Locked Rotor Current Il/In	Locked Rotor Torque Tl/Tn	Break-down Torque Tb/Tn	Inertia J (kgm2)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	380 V							
												Rated speed (rpm)	% of full load						Full load current In (A)
													Efficiency			Power Factor			
kW	HP							Hot	Cold				50	75	100	50	75	100	
8P - 750 RPM - 50Hz																			
4	5.5	160M	5.34	5.2	2.0	2.9	0.0980	10	22	97.0	53	730	75.5	78.5	79.2	0.48	0.62	0.71	10.8
5.5	7.5	160M	7.34	5.4	2.1	3	0.1191	8	18	107	53	730	76.5	79.5	81.4	0.48	0.62	0.71	14.5
7.5	10	160L	10.1	5.6	2.4	3	0.1471	12	26	122	53	725	82.0	83.1	83.1	0.51	0.63	0.72	19.0
9.2	12.5	180M	12.3	6.7	2.2	2.9	0.2308	11	24	163	51	730	83.0	85.0	85.0	0.64	0.75	0.81	20.3
11	15	180L	14.7	6.9	2.2	2.7	0.2993	8	18	175	51	730	84.5	85.0	85.0	0.58	0.71	0.78	25.2
15	20	200L	20.0	4.6	1.8	2.1	0.3672	15	33	217	56	730	86.5	86.8	86.8	0.54	0.66	0.73	36.0
18.5	25	W225S	24.7	4.5	1.7	2	0.4756	24	53	258	56	730	86.5	87.0	87.0	0.58	0.71	0.76	42.5
22	30	225M	29.2	5.5	1.7	2.3	0.6507	15	33	309	56	735	87.0	87.4	87.4	0.63	0.74	0.79	48.4
30	40	250M	39.8	5.3	1.5	1.9	1.06	18	40	354	56	735	88.0	88.5	88.5	0.67	0.77	0.81	63.6
37	50	W280S	49.4	5.0	1.5	1.8	1.29	15	33	426	56	730	88.0	88.8	88.8	0.70	0.79	0.82	77.2
45	60	280M*	59.6	4.1	1.3	1.7	1.80	15	33	517	62	735	89.0	89.2	89.2	0.60	0.71	0.76	101
55	75	315S/M	72.4	6.5	1.9	2.2	3.05	27	59	745	62	740	90.2	90.5	90.5	0.69	0.78	0.82	113
75	100	315S/M	98.7	6.6	1.9	2.2	4.29	20	44	876	62	740	90.8	91.0	91.0	0.67	0.79	0.82	153
90	125	315S/M	118	5.5	1.9	2.7	5.18	23	51	985	62	740	91.0	91.5	91.5	0.65	0.75	0.79	189
110	150	355M/L	145	6.4	1.5	2.2	9.80	41	90	1390	70	740	91.2	91.6	91.6	0.63	0.74	0.80	228
132	175	355M/L	174	5.5	1.3	2.2	11.3	28	62	1445	70	740	91.5	91.8	91.8	0.68	0.77	0.81	270
150	200	355M/L	197	6.9	1.8	2.8	12.9	36	79	1570	70	740	91.8	92.0	92.0	0.60	0.72	0.78	318
160	220	355M/L	211	5.4	1.2	2.1	13.8	28	62	1620	70	740	91.8	92.0	92.0	0.68	0.77	0.81	326
185	250	355M/L	244	6.2	1.5	2.4	15.9	30	66	1730	70	740	92.0	92.5	92.5	0.67	0.77	0.81	375
200	270	355M/L	263	6.1	1.4	2.4	18.4	37	81	1830	70	740	92.8	93.0	93.0	0.67	0.77	0.81	403
220	300	355M/L	288	7.5	1.9	3	19.9	35	77	1930	70	744	92.8	93.0	93.0	0.59	0.71	0.77	467
High-Output Design																			
18.5	25	250M	24.7	5.1	1.3	1.8	0.6459	20	44	246	60	730	86.0	86.9	86.9	0.66	0.76	0.80	40.4
22	30	250M	29.4	5.3	1.4	1.9	0.7612	16	35	275	60	730	87.0	87.4	87.4	0.66	0.76	0.81	47.2
30	40	225M	39.5	6.5	2.3	2.6	0.9589	15	33	407	60	740	88.0	88.3	88.3	0.55	0.68	0.75	68.8
37	50	250M	49.0	5.5	1.6	2	1.34	13	29	426	60	735	88.0	88.8	88.8	0.67	0.77	0.81	78.2
55	75	280M	72.9	5.5	1.8	2.2	2.66	18	40	691	62	735	89.0	89.7	89.7	0.56	0.68	0.75	124
110	150	315S/M	145	7.0	1.9	2.2	5.53	14	31	970	62	740	91.2	91.6	91.6	0.61	0.73	0.79	231

W20 - Cast Iron Frame - 160 to 355 frame - IE2

Output		Frame	Full Load Torque (kgfm)	Locked Rotor Current Il/In	Locked Rotor Torque Tl/Tn	Break-down Torque Tb/Tn	Inertia J (kgm2)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	380 V							
												Rated speed (rpm)	% of full load						Full load current In (A)
													Efficiency			Power Factor			
kW	HP							Hot	Cold				50	75	100	50	75	100	
2P - 3000 RPM - 50Hz																			
11	15	160M	3.64	7.8	2.5	3.1	0.0450	9	20	100	70	2940	87.9	89.3	89.4	0.72	0.82	0.86	21.7
15	20	160M	4.97	8.2	2.8	3.2	0.0534	7	15	105	70	2940	89.3	90.2	90.3	0.73	0.83	0.87	29.0
18.5	25	L160L	6.12	9.0	3.1	3.6	0.0674	6	13	120	70	2945	89.0	90.9	90.9	0.69	0.80	0.85	36.4
22	30	180M	7.24	7.9	2.3	2.7	0.1138	8	18	170	70	2960	91.0	91.3	91.3	0.70	0.80	0.85	43.1
30	40	200L	9.87	6.5	2.1	2.4	0.1618	10	22	190	74	2960	91.4	92.0	92.0	0.77	0.84	0.87	56.9
37	50	200L	12.2	7.8	2.4	2.8	0.1958	8	18	242	74	2965	91.7	92.5	92.5	0.69	0.79	0.84	72.3
45	60	225M	14.9	7.9	2.1	2.7	0.2359	13	29	290	75	2950	91.5	92.5	92.9	0.77	0.85	0.88	83.6
55	75	250M	18.1	7.7	2.3	2.9	0.3238	10	22	338	78	2960	92.3	93.2	93.2	0.74	0.83	0.87	103
75	100	W280S	24.6	8.8	2.6	3.1	0.4585	7	15	428	82	2965	93.0	93.8	93.8	0.75	0.84	0.88	138
90	125	280M	29.5	7.6	2.1	2.5	0.9267	10	22	563	83	2970	93.2	94.1	94.1	0.79	0.86	0.89	163
110	150	315S/M	36.0	7.6	1.9	3.1	1.16	21	46	741	83	2975	94.0	94.3	94.3	0.79	0.86	0.89	199
132	175	315S/M	43.2	7.2	1.8	2.8	1.42	21	46	830	83	2975	94.0	94.6	94.6	0.83	0.89	0.90	236
150	200	315S/M	49.1	8.0	2	3.1	1.59	18	40	853	83	2975	94.5	94.7	94.7	0.81	0.87	0.90	267
160	220	315S/M	52.4	7.4	1.9	2.8	1.68	18	40	900	83	2975	94.5	94.8	94.8	0.84	0.89	0.91	282
185	250	315S/M	60.6	7.9	2	3.1	1.74	12	26	952	83	2975	94.8	95.0	95.0	0.80	0.87	0.90	329
200	270	355M/L	65.3	8.5	2.1	3.5	3.88	41	90	1278	81	2985	94.8	95.0	95.0	0.80	0.87	0.90	355
220	300	355M/L	71.8	7.9	1.9	2.9	4.31	39	86	1420	81	2985	94.8	95.0	95.0	0.85	0.90	0.92	382
250	340	355M/L	81.7	6.6	1.6	2.4	4.85	44	97	1650	81	2980	94.8	95.0	95.0	0.89	0.92	0.92	435
280	380	355M/L	91.5	6.7	2	2.4	5.06	34	75	1723	81	2980	94.8	95.0	95.0	0.90	0.93	0.93	482
300	400	355M/L	97.9	7.7	2	2.7	5.60	33	73	1906	81	2985	94.8	95.0	95.0	0.89	0.92	0.93	516
315	430	355M/L	103	8.5	2.5	3	5.60	18	40	1906	81	2985	94.8	95.0	95.0	0.86	0.90	0.91	554
330	450	355M/L	108	6.7	1.8	2.3	6.03	34	75	1960	81	2985	94.8	95.0	95.0	0.91	0.93	0.93	567
High-Output Design																			
75	100	250M*	24.6	9.0	2.3	2.8	0.4602	8	18	432	82	2970	93.6	93.8	93.8	0.84	0.88	0.90	135
110	150	280M	36.1	8.2	2.1	2.3	0.9598	9	20	626	83	2965	93.8	94.3	94.3	0.82	0.89	0.91	195
200	270	315S/M	65.5	7.6	2	2.9	1.92	16	35	1004	83	2975	94.8	95.0	95.0	0.82	0.88	0.90	355
4P - 1500 RPM - 50Hz																			
9.2	12.5	160M	6.10	6.6	2.3	2.5	0.0883	8	18	82.0	67	1470	88.0	89.0	89.3	0.68	0.79	0.85	18.4
11	15	160M	7.29	6.9	2.5	2.8	0.1071	8	18	119	67	1470	87.0	88.5	89.8	0.61	0.74	0.81	23.0
15	20	160L	9.94	7.2	2.6	2.8	0.1318	8	18	130	67	1470	89.9	90.4	90.6	0.67	0.78	0.83	30.3
18.5	25	180M	12.3	6.9	2.6	3	0.1923	9	20	167	64	1470	90.9	91.2	91.2	0.68	0.79	0.84	36.7
22	30	180L	14.6	6.8	2.6	2.9	0.2398	9	20	209	64	1470	91.0	91.6	91.6	0.70	0.80	0.85	42.9
30	40	200L	19.7	7.0	2.4	2.9	0.3476	8	18	210	69	1480	92.1	92.3	92.3	0.67	0.78	0.84	58.8
37	50	W225S	24.4	6.8	2.1	2.7	0.3588	10	22	260	69	1475	92.0	92.7	92.7	0.67	0.78	0.83	73.1
45	60	225M	29.7	6.4	2.6	3.2	0.5177	11	24	303	66	1475	92.8	93.1	93.1	0.72	0.81	0.85	86.4
55	75	250M	36.2	6.3	2.5	2.5	0.7126	11	24	346	70	1480	93.0	93.5	93.5	0.74	0.83	0.86	104
75	100	W280S	49.4	7.2	3	3.1	1.04	11	24	447	70	1480	93.6	94.0	94.0	0.69	0.79	0.85	143
90	125	280M	59.0	6.3	2.2	2.6	1.75	10	22	581	76	1485	94.0	94.2	94.2	0.73	0.82	0.85	171
110	150	315S/M	72.1	7.9	2.4	2.9	2.59	20	44	805	72	1485	94.0	94.5	94.5	0.74	0.82	0.86	206
132	175	315S/M	86.6	7.2	2.3	2.7	2.95	18	40	1023	72	1485	94.0	94.7	94.7	0.75	0.82	0.86	246
150	200	315S/M	98.4	7.4	2.4	2.8	3.25	16	35	1030	72	1485	94.5	94.9	94.9	0.76	0.84	0.87	276
160	220	315S/M	105	7.6	2.4	2.9	3.56	15	33	1050	72	1485	94.5	94.9	94.9	0.76	0.84	0.87	294
185	250	315S/M	121	7.9	2.6	3	3.71	14	31	1060	77	1485	94.5	95.1	95.1	0.75	0.83	0.86	344
200	270	355M/L	131	6.3	1.9	2.4	5.94	39	86	1310	79	1490	94.5	95.1	95.1	0.77	0.84	0.86	372
220	300	355M/L	144	6.1	1.8	2.3	6.48	40	88	1350	79	1490	94.5	95.1	95.1	0.78	0.85	0.87	404
250	340	355M/L	163	6.6	2	2.4	7.19	31	68	1405	79	1490	94.5	95.1	95.1	0.77	0.84	0.87	459
260	350	355M/L	170	6.5	2.1	2.3	7.73	29	64	1468	79	1490	94.5	95.1	95.1	0.79	0.86	0.87	477
280	380	355M/L	183	7.4	2.4	2.7	8.05	22	48	1505	79	1490	94.5	95.1	95.1	0.74	0.82	0.86	520
300	400	355M/L*	196	5.6	1.7	2.1	8.59	30	66	1580	79	1490	94.5	95.1	95.1	0.81	0.86	0.87	551
315	430	355M/L	206	6.7	2	2.4	8.95	23	51	1643	79	1490	94.5	95.1	95.1	0.77	0.84	0.87	578
330	450	355M/L	216	6.8	2.3	2.4	9.84	23	51	1769	79	1490	94.5	95.1	95.1	0.79	0.85	0.87	606
High-Output Design																			
37	50	200L	24.4	6.5	2.3	2.8	0.3588	12	26	265	69	1475	92.0	92.7	92.7	0.67	0.78	0.83	73.1
37	50	250M	24.5	6.0	1.8	2.5	0.5090	14	31	275	70	1470	92.5	92.7	92.7	0.73	0.82	0.86	70.5
110	150	280M	72.1	8.1	2.3	2.6	1.87	8	18	708	72	1485	93.9	94.5	94.5	0.71	0.80	0.84	211
185	250	355M/L	121	6.5	1.8	2.4	5.80	11	24	1294	79	1490	94.5	95.1	95.1	0.78	0.85	0.87	340
200	270	315S/M	131	8.6	2.9	3.3	3.71	43	95	1065	77	1485	94.5	95.1	95.1	0.73	0.82	0.86	372

W20 - Cast Iron Frame - 160 to 355 frame - IE2

Output		Frame	Full Load Torque (kgfm)	Locked Rotor Current Il/In	Locked Rotor Torque Tl/Tn	Break-down Torque Tb/Tn	Inertia J (kgm2)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	380 V							
												Rated speed (rpm)	% of full load						Full load current In (A)
													Efficiency			Power Factor			
kW	HP							Hot	Cold				50	75	100	50	75	100	
6P - 1000 RPM - 50Hz																			
5.5	7.5	160M	5.49	6.3	2.1	2.8	0.1191	12	26	110	57	975	84.5	86.0	86.0	0.59	0.72	0.79	12.3
7.5	10	160M	7.49	6.3	2.1	2.7	0.1055	10	22	95.0	57	975	86.5	87.2	87.2	0.60	0.73	0.80	16.3
9.2	12.5	160L	9.19	6.4	2.1	2.7	0.1266	8	18	115	57	975	87.5	88.0	88.3	0.60	0.73	0.80	19.8
11	15	160L	11.0	6.6	2.5	2.9	0.1622	10	22	130	57	975	88.0	88.7	88.7	0.60	0.73	0.80	23.6
15	20	180L	14.9	8.2	2.3	3.2	0.2705	6	13	170	56	980	89.0	89.5	89.7	0.67	0.78	0.84	30.2
18.5	25	200L	18.4	7.4	2.3	2.5	0.3335	10	22	210	58	980	89.5	90.4	90.4	0.64	0.75	0.81	38.4
22	30	200L	22.0	6.2	2.3	2.6	0.3868	10	22	222	58	975	91.0	91.2	91.2	0.65	0.75	0.82	44.7
30	40	225M	29.7	6.7	2	2.6	0.6850	12	26	298	61	985	90.8	91.2	91.7	0.72	0.81	0.85	58.5
37	50	250M	36.8	6.5	1.8	2.3	0.9689	12	26	341	61	980	92.0	92.2	92.2	0.74	0.83	0.86	70.9
45	60	W280S	44.5	7.1	2	2.5	1.25	11	24	419	61	985	92.0	92.7	92.7	0.75	0.84	0.87	84.8
55	75	280M	54.4	6.3	1.7	2	1.74	14	31	505	69	985	92.5	93.0	93.1	0.79	0.85	0.87	103
75	100	315S/M	74.2	6.7	2.1	2.4	3.05	10	22	700	69	985	93.0	93.4	93.7	0.70	0.79	0.83	147
90	125	315S/M	89.0	6.5	2.2	2.4	3.59	12	26	830	69	985	94.0	94.2	94.2	0.71	0.80	0.83	175
110	150	315S/M	109	6.5	2.2	2.4	4.93	12	26	1000	69	985	94.1	94.6	94.6	0.69	0.79	0.84	210
132	175	315S/M	131	6.6	2.2	2.5	5.48	12	26	1050	69	985	94.0	94.5	94.6	0.70	0.79	0.84	252
150	200	355M/L	147	6.0	2.2	2.4	8.82	81	178	1460	73	994	93.5	95.0	95.3	0.65	0.75	0.80	299
160	220	355M/L	157	7.0	2.3	2.9	9.28	76	167	1460	73	995	93.5	94.5	95.0	0.60	0.71	0.77	332
185	250	355M/L	181	6.0	2	2.1	9.94	76	167	1530	73	995	94.2	95.3	95.4	0.65	0.75	0.80	368
200	270	355M/L	197	6.1	2.2	2.3	12.1	28	62	1650	73	990	94.5	95.4	95.4	0.66	0.76	0.81	393
220	300	355M/L	215	6.5	2	2.3	13.5	25	55	1800	73	995	94.5	95.4	95.4	0.64	0.75	0.80	438
250	340	355M/L	246	6.1	1.9	2.1	14.3	64	141	1890	73	990	94.6	95.2	95.4	0.69	0.78	0.81	492
260	350	355M/L	256	5.7	2	2.3	14.3	28	62	1830	73	990	94.6	95.2	95.4	0.66	0.76	0.81	511
280	380	355M/L	275	6.0	2	2.4	14.3	54	119	1890	73	990	94.2	95.3	95.4	0.67	0.76	0.80	557
300	400	355M/L*	295	5.9	2.1	2.4	14.3	29	64	1920	73	990	93.8	95.0	95.5	0.65	0.75	0.80	597
315	430	355M/L*	308	6.5	2.2	2.6	15.0	38	84	1950	73	995	94.2	95.4	95.5	0.61	0.73	0.78	642
High-Output Design																			
37	50	225M	36.6	7.2	2.5	3.0	0.7535	11	24	320	61	985	91.1	92.2	92.2	0.63	0.75	0.81	75.3
45	60	250M	44.7	7.2	2.1	2.8	1.11	9	20	376	61	980	92.2	92.7	92.7	0.71	0.82	0.85	86.8
75	100	280M	74.2	6.7	1.9	2.3	2.21	13	29	601	66	985	93.4	93.7	93.7	0.77	0.84	0.86	141
132	175	355M/L	129	6.1	1.9	2.2	8.78	90	198	1400	73	994	93.4	94.8	95.1	0.67	0.77	0.81	260
8P - 750 RPM - 50Hz																			
4	5.5	160M	5.34	5.6	2.2	3.2	0.0985	12	26	90.0	53	730	78.0	81.0	81.9	0.45	0.58	0.68	10.9
5.5	7.5	160M	7.34	5.7	2.4	3.4	0.1266	9	20	115	53	730	77.0	80.5	83.8	0.42	0.55	0.65	15.3
7.5	10	160L	10.1	5.3	2.2	2.8	0.1555	15	33	122	53	725	84.0	85.3	85.3	0.52	0.64	0.72	18.6
9.2	12.5	180M	12.4	7.0	2.2	2.5	0.2172	10	22	155	51	725	87.0	87.2	87.2	0.67	0.77	0.83	19.3
11	15	180L	14.8	7.0	2.2	2.4	0.2993	9	20	183	51	725	87.5	88.0	88.4	0.68	0.78	0.83	22.8
15	20	200L	20.0	5.0	2	2.2	0.4228	18	40	238	56	730	88.0	88.5	89.0	0.53	0.65	0.71	36.1
18.5	25	W225S	24.7	4.6	1.6	2	0.4756	24	53	258	56	730	88.0	88.6	88.6	0.59	0.71	0.76	41.7
22	30	225M	29.2	5.4	1.7	2.3	0.6507	18	40	309	56	735	88.5	89.1	89.1	0.61	0.72	0.78	48.1
30	40	250M	39.8	5.2	1.5	1.9	1.06	16	35	354	56	735	89.0	89.8	89.8	0.65	0.75	0.80	63.4
37	50	W280S	49.0	5.0	1.4	1.8	1.29	15	33	426	56	735	90.0	90.3	90.3	0.69	0.78	0.82	75.9
45	60	280M*	59.6	4.7	1.4	1.8	2.04	20	44	547	62	735	90.0	90.7	90.7	0.60	0.71	0.77	97.9
55	75	315S/M	72.4	6.5	1.8	2.2	3.17	28	62	680	62	740	91.8	92.0	92.0	0.63	0.74	0.79	115
75	100	315S/M	98.7	6.6	1.9	2.2	4.29	20	44	876	62	740	92.0	92.5	92.5	0.66	0.78	0.81	152
90	125	315S/M	118	6.8	1.9	2.4	5.53	23	51	970	62	740	92.5	93.0	93.0	0.67	0.77	0.81	182
110	150	355M/L	145	6.4	1.5	2.2	10.7	41	90	1430	70	740	93.0	93.2	93.2	0.62	0.73	0.79	227
132	175	355M/L	173	6.5	1.6	2.3	12.9	47	103	1445	70	745	93.2	93.5	93.5	0.63	0.73	0.79	272
160	220	355M/L	209	6.6	1.5	2.4	15.6	42	92	1590	70	745	94.0	94.2	94.2	0.60	0.72	0.78	331
220	300	355M/L	290	6.8	1.6	2.2	19.9	35	77	1930	70	740	94.0	94.3	94.3	0.61	0.73	0.77	460

Note: IE efficiency value based on IEC60034-2-1 standard, data measured on direct on line starting.
(*) Insulation Class "F", temperature rise as Delta T 105K.
Frame with L in the front means that it uses extended endshield.

W20 - Cast Iron Frame - 160 to 355 frame - IE3

Output		Frame	Full Load Torque (kgfm)	Locked Rotor Current Il/In	Locked Rotor Torque Tl/Tn	Break-down Torque Tb/Tn	Inertia J (kgm2)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	380 V							
												Rated speed (rpm)	% of full load						Full load current In (A)
													Efficiency			Power Factor			
kW	HP							Hot	Cold				50	75	100	50	75	100	
2P - 3000 RPM - 50Hz																			
11	15	160M	3.63	8.5	2.8	3.4	0.0618	13	29	120	70	2950	89.5	90.5	91.2	0.75	0.84	0.87	21.1
15	20	160M	4.97	8.0	2.8	3.2	0.0565	14	31	132	70	2940	90.5	91.5	91.9	0.75	0.84	0.87	28.5
18.5	25	L160L	6.11	9.1	3.1	3.6	0.0763	7	15	136	70	2950	90.4	91.0	92.4	0.73	0.83	0.87	35.0
22	30	180M	7.24	8.2	2.5	3.2	0.1138	9	20	180	70	2960	91.8	92.7	92.7	0.69	0.80	0.85	42.4
30	40	200L	9.85	7.0	2.3	2.6	0.2214	17	37	245	74	2965	92.7	93.3	93.3	0.79	0.86	0.88	55.5
37	50	200L	12.1	7.2	2.9	3	0.1958	11	24	260	74	2967	92.7	93.6	93.7	0.73	0.82	0.85	70.6
45	60	225M	14.8	8.8	2.7	3.8	0.2601	12	26	304	75	2960	92.0	93.0	94.0	0.70	0.80	0.85	85.6
55	75	250M	18.0	9.8	2.6	3.2	0.3920	11	24	370	78	2970	93.0	93.9	94.3	0.74	0.82	0.86	103
75	100	W280S	24.6	9.0	2.8	3.2	0.5094	10	22	451	82	2970	94.0	94.7	94.7	0.78	0.86	0.89	135
90	125	280M	29.5	8.1	2.2	2.6	1.06	12	26	605	83	2975	93.6	94.6	95.0	0.81	0.88	0.90	160
110	150	315S/M	36.0	7.8	2	3.3	1.23	25	55	800	83	2980	95.0	95.2	95.2	0.75	0.84	0.88	199
132	175	315S/M	43.2	7.3	1.9	3	1.40	22	48	850	83	2975	95.0	95.4	95.4	0.80	0.87	0.89	236
160	220	315S/M	52.4	9.6	2.3	3.2	1.97	15	33	950	83	2975	95.0	95.6	95.6	0.79	0.86	0.89	286
200	270	355M/L	65.3	9.2	2	2.6	4.63	36	79	1000	81	2985	95.7	95.8	95.8	0.87	0.92	0.93	341
High-Output Design																			
110	150	280M	36.0	9.7	2.4	2.7	1.10	10	22	619	83	2975	93.9	94.8	95.2	0.81	0.88	0.90	195
200	270	315S/M*	65.5	8.3	2.5	2.9	2.03	11	24	1000	83	2975	95.1	95.7	95.8	0.84	0.89	0.91	349
4P - 1500 RPM - 50Hz																			
11	15	L160L	7.29	7.5	2.7	3.0	0.1360	9	20	120	62	1470	88.5	89.8	91.4	0.61	0.74	0.81	22.6
15	20	160L	9.94	8.0	3	3.4	0.1214	10	22	130	62	1470	90.5	91.5	92.1	0.62	0.74	0.81	30.5
18.5	25	180M	12.3	7.5	2.6	3.1	0.2088	22	48	175	64	1470	91.1	92.6	92.6	0.65	0.77	0.83	36.6
22	30	180L	14.6	6.9	2.7	3	0.2098	16	35	195	64	1470	92.5	92.9	93.0	0.71	0.81	0.85	42.3
30	40	200L	19.7	7.0	2.5	3	0.3342	17	37	260	69	1480	92.0	92.9	93.6	0.68	0.79	0.84	58.0
37	50	W225S	24.4	7.8	2.5	3.2	0.3987	14	31	275	69	1480	93.2	93.9	93.9	0.63	0.75	0.81	73.9
45	60	225M	29.6	7.0	2.9	3.4	0.6143	11	24	330	66	1480	93.0	94.0	94.2	0.71	0.81	0.85	85.4
55	75	250M	36.2	7.6	2.7	2.7	0.8822	15	33	377	70	1480	94.0	94.6	94.6	0.71	0.81	0.85	104
75	100	W280S	49.2	8.5	3	3	1.24	10	22	500	70	1485	94.5	95.0	95.0	0.66	0.78	0.83	145
90	125	280M	59.0	6.1	2.2	2.6	1.80	10	22	591	76	1485	94.9	95.2	95.2	0.73	0.82	0.85	169
110	150	315S/M	72.1	7.5	2.3	2.9	2.71	20	44	860	77	1485	95.1	95.4	95.4	0.76	0.84	0.87	201
132	175	315S/M	86.6	7.6	2.4	2.9	3.09	17	37	920	77	1485	95.4	95.6	95.6	0.75	0.83	0.86	244
160	220	315S/M	105	7.6	2.5	2.9	3.40	17	37	990	77	1485	95.4	95.8	95.8	0.76	0.84	0.87	292
200	270	355M/L	131	7.6	2.5	2.9	6.62	26	57	1250	79	1490	95.2	96.0	96.0	0.71	0.80	0.84	377
250	340	355M/L	163	7.3	2.2	2.7	7.70	28	62	1380	79	1490	95.7	96.0	96.0	0.72	0.81	0.85	465
300	400	355M/L	196	7.0	2.1	2.6	8.93	25	55	1440	79	1490	95.8	96.0	96.0	0.75	0.83	0.86	552
315	430	355M/L	206	7.4	2.5	2.6	9.47	20	44	1560	79	1490	95.8	96.0	96.0	0.75	0.83	0.86	580
High-Output Design																			
11	15	160M	7.29	7.7	2.9	3.1	0.1025	12	26	119	62	1470	89.2	90.3	91.4	0.63	0.75	0.81	22.6
110	150	280M	72.1	9.2	2.6	3	2.04	9	20	655	72	1485	94.7	95.3	95.4	0.67	0.78	0.82	214
185	250	315S/M	121	9.2	3.2	3.5	3.71	16	35	1250	72	1488	94.9	95.7	96.0	0.69	0.79	0.83	353
200	270	315S/M*	131	8.8	2.8	3	3.48	10	22	1250	77	1485	95.3	95.6	96.0	0.71	0.80	0.83	381

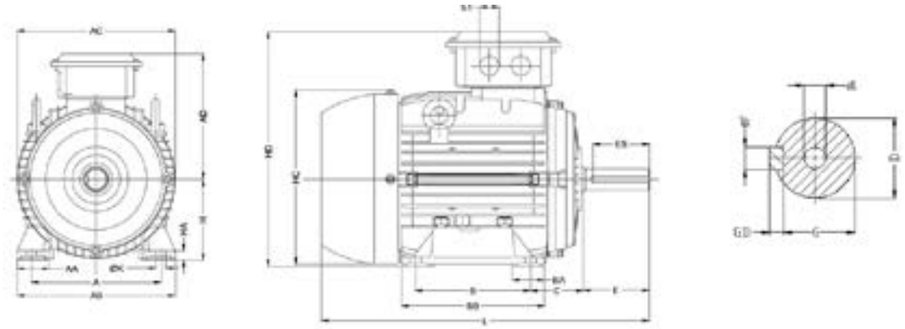
Note: IE efficiency value based on IEC60034-2-1 standard, data measured on direct on line starting.
(*) Insulation Class "F", temperature rise as Delta T 105K.
Frame with L in the front means that it uses extended endshield.

W20 - Cast Iron Frame - 160 to 355 frame - IE3

Output		Frame	Full Load Torque (kgfm)	Locked Rotor Current Il/In	Locked Rotor Torque Tl/Tn	Break-down Torque Tb/Tn	Inertia J (kgm2)	Allowable locked rotor time (s)		Weight (kg)	Sound dB(A)	380 V							
													% of full load						
													Efficiency			Power Factor			Full load current In (A)
kW	HP							Hot	Cold			Rated speed (rpm)	50	75	100	50	75	100	
6P - 1000 RPM - 50Hz																			
7.5	10	160M	7.49	6.6	2.4	2.8	0.1614	15	33	127	56	975	86.0	88.5	89.1	0.61	0.73	0.80	16.0
11	15	160L	11.0	6.8	2.6	3	0.1891	13	29	136	56	975	89.0	90.0	90.3	0.59	0.72	0.79	23.4
15	20	180L	15.0	8.4	2.7	3.2	0.2975	8	18	178	56	975	90.6	91.2	91.2	0.68	0.79	0.84	29.7
18.5	25	200L	18.5	6.3	2.3	2.5	0.3861	17	37	225	58	975	90.5	91.8	92.0	0.65	0.76	0.82	37.3
22	30	200L	22.0	6.2	2.3	2.6	0.4388	15	33	245	58	975	90.4	92.0	92.2	0.65	0.75	0.82	44.2
30	40	225M	29.7	6.6	2	2.7	0.7853	15	33	312	61	985	92.0	92.5	92.9	0.71	0.81	0.85	57.7
37	50	250M	36.8	6.7	1.9	2.5	1.05	14	31	355	61	980	92.8	93.2	93.3	0.69	0.79	0.84	71.7
45	60	W280S	44.5	8.5	2.5	3.2	1.52	12	26	464	61	985	93.0	93.7	93.7	0.68	0.79	0.84	86.9
55	75	280M	54.4	6.6	2	2.6	2.04	14	31	546	69	985	93.0	93.8	94.1	0.67	0.78	0.83	107
75	100	315S/M	73.8	7.7	2.9	3.5	3.59	15	33	725	69	990	93.7	94.3	94.6	0.62	0.73	0.81	149
90	125	315S/M	88.5	7.8	2.8	3.3	5.05	16	35	810	69	990	94.3	94.8	95.0	0.66	0.77	0.82	176
110	150	315S/M	109	6.5	2.2	2.4	5.14	18	40	980	69	985	95.0	95.1	95.1	0.69	0.79	0.84	209
132	175	355M/L	129	6.5	1.9	2.5	10.4	40	88	1600	73	995	93.8	94.8	95.4	0.68	0.77	0.81	260
150	200	355M/L	147	6.3	2.1	2.5	11.1	27	59	1650	73	995	94.4	95.3	95.7	0.66	0.76	0.81	294
160	220	355M/L	157	6.0	2	2.4	11.1	60	132	1650	73	995	94.0	95.0	95.6	0.68	0.78	0.81	314
185	250	355M/L	181	6.3	2.2	2.5	11.6	34	75	1700	73	995	94.7	95.6	95.8	0.66	0.76	0.81	362
220	300	355M/L	215	6.1	2.1	2.4	13.5	31	68	1795	73	995	95.0	95.6	95.8	0.67	0.77	0.81	431
250	340	355M/L	245	6.5	2	2.4	14.4	60	132	1890	73	995	95.5	95.8	95.8	0.68	0.78	0.81	489
High-Output Design																			
75	100	280M	74.2	8.2	2.4	3.0	2.66	13	29	674	66	985	93.9	94.6	94.6	0.65	0.77	0.82	147
110	150	355M/L	108	7.0	2.1	2.7	9.28	40	88	1460	73	995	93.0	94.5	95.1	0.64	0.75	0.80	220
8P - 750 RPM - 50Hz																			
4	5.5	160M	5.34	5.4	2.0	2.9	0.1264	16	35	102	53	730	81.0	83.0	84.8	0.50	0.63	0.72	9.95
5.5	7.5	160M	7.39	5.3	2.1	2.8	0.1614	22	48	125	53	725	85.0	86.2	86.2	0.53	0.66	0.73	13.3
7.5	10	160L	10.0	5.6	2.3	3	0.1838	19	42	130	51	730	86.0	87.0	87.3	0.52	0.65	0.72	18.1
11	15	180L	14.6	7.5	2.4	3.1	0.3129	8	18	180	51	735	87.0	88.0	88.6	0.54	0.68	0.76	24.8
15	20	200L	19.9	5.0	2	2.2	0.4932	28	62	250	56	735	89.5	90.5	90.9	0.53	0.65	0.71	35.3
18.5	25	W225S	24.5	4.9	1.7	2.2	0.5109	28	62	269	56	735	88.7	90.1	90.1	0.57	0.69	0.75	41.6
22	30	225M	29.2	5.6	1.7	2.3	0.7192	25	55	316	56	735	90.0	90.6	90.6	0.62	0.73	0.78	47.3
30	40	250M	39.8	5.6	1.6	2.1	1.15	18	40	369	56	735	90.5	91.3	91.3	0.64	0.75	0.80	62.4
37	50	W280S	49.0	5.4	1.6	2	1.38	15	33	439	56	735	91.0	91.8	91.8	0.67	0.77	0.81	75.6
45	60	280M*	59.6	4.9	1.4	1.9	2.12	18	40	556	62	735	91.2	92.0	92.2	0.60	0.71	0.77	96.3

5. Mechanical Data (Aluminum Frame)

Frame 80-200

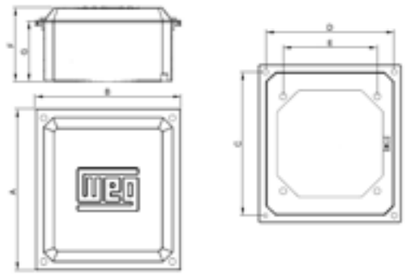


Frame	Shaft					
	D	E	ES	F	G	GD
80	19j6	40	28	6	15.5	6
90S/L	24j6	50	36	8	20	7
100L	28j6	60	45	8	24	7
112M	28j6	60	45	8	24	7
S132S 132S 132M	38k6	80	63	10	33	8
W160M 160M/L	42k6	110	80	12	37	8
180M/L	48k6	110	80	14	42.5	9
200M/L	55m6	110	80	16	49	10

Note:
--(*) refers to shaft dimensions for all II poles motors, only for direct coupling;
--(**)refers to the total length of the motor using the extended NDE endshield. Please refer to the notes under the electrical performance table for the specific motor specifications.
-- All dimensions are in millimeters;
-- The average values are subject to change without prior notice. To obtain guaranteed value, please contact with nearest WEG sales office.

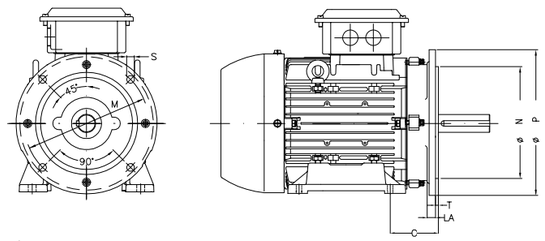
Frame	A	AA	AB	AC	AD	B	BA	BB	C	H	HA	HC	HD	K	L	S1	CG***	d1	Bearing	
																			DE	NDE
80	125	32	155	159	136	100	28	124	50	80	8	157	216	10	276/**325	M24x1.5	10-15	M6	6204-ZZ	6203-ZZ
90S/L	140	35	170	179	146	100 125	49	146	56	90	9	177	236	10	330/**360			DM8	6205-ZZ	6204-ZZ
100L	160	40	196	199	156	140	30	170	63	100	12	198	256	12	376/**418			DM10	6206-ZZ	6205-ZZ
112M	190	46	220	222	179	140	32	170	70	112	12	235	291	12	393/**422			DM10	6207-ZZ	6206-ZZ
S132S	216	44	248	270	212	140	40	170	89	132	12	274	344	12	452	2xM30x2	13-18	DM12	6208-ZZ	6207-ZZ
132S					207	140	32	170							490/**515					
132M					207	178	33	210												
W160M	254	75	305	260	200	210	68	256	108	160	12	266	360	14.5	540/**565	2xM30x2	18-25	DM16	6209-ZZ C3	6207-ZZ C3
160M/L	254	62	308	347	255	210 254	60	298	108	160	18	313	414	14.5	634/**668	2xM36x2		DM16	6209-ZZ C3	6209-ZZ C3
180M/L	279	68	350	306	274	241 279	49	322	121	180	20	354	454		694				6211-ZZ C3	6211-ZZ C3
200M/L	318	73	385	386	300	267 305	60	370	133	200	25	393	500	18.5	758	2xM48x2	25-32	DM20	6212-ZZ C3	6212-ZZ C3

W20 Aluminum - Terminal Box Dimension

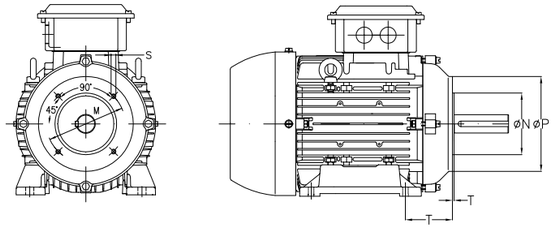


Frame	A	B	C	D	E	F	G
63-100	103.4	103.4	88	88	56	55	45
112-132	126.2	118.2	109	101	70	62	50
160-180	168	160	146	138	110	81	65
200	216	200	190	174	120	100	78.5

W20 Aluminum - Flange dimension



Frame	FF Flange Dimension									Qty of holes
	Flange	C	LA	M	N	P	T	S	a	
80	FF-165	50	10	165	130	200	3.5	12	45°	4
90S/L		56								
100L	FF-215	63	11	215	180	250	4	15		
112M		70								
S132S	FF-265	89	12	265	230	300				
132S/M										
W160M	FF-300	108	18	300	250	350	5	19		
160M/L										
180M/L		121								
200M/L	FF-350	133		350	300	400				

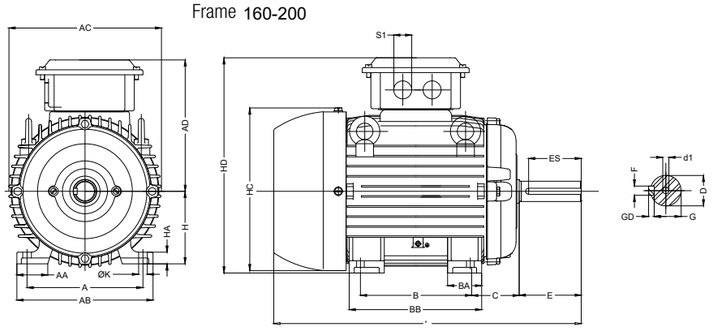


Frame	"C-DIN" Flange Dimension							Qty of holes
	Flange	C	M	N	P	S	T	
80	C-120	50	100	80	120	M6	3	4
90S/L	C-140	56	115	95	140	M8	3.5	
100L	C-160	63	130	110	160			
112M		70						
S132S	C-200	89	165	130	200	M10		
132S/M								
W160M	C-250	108	215	180	250	M12	4	
160M/L								

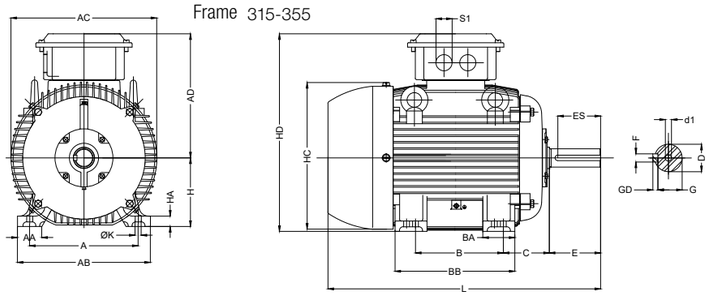
Frame	"C" Flange Dimension							Qty of holes
	Flange	C	M	N	P	S	T	
80	FC-95	50	95.2	76.2	143	1/4"20	4	4
90S/L	FC-149	56	149.2	114.3	165	UNC 3/8"16		
100L		63						
112M	FC-184	70	184.2	215.9	225	UNC 1/2"13	6.3	
S132S		89						
132S/M								
160M/L		108						
180M/L	FC-228	121	228.6	266.7	280			
200M/L		133						
315S/M	FC-368	216	368.3	419.1	455	UNC 5/8"11		8
355M/L		254						

5. Mechanical Data (Cast Iron frame)

Frame 160-200



Frame 315-355



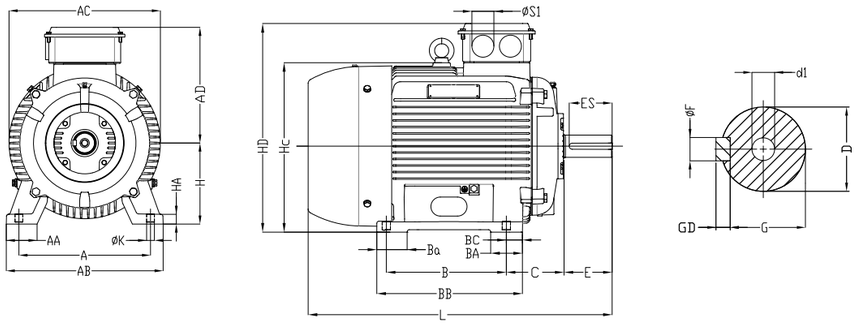
机座	轴伸					
	D	E	ES	F	G	GD
160M 160L	42k6	110	80	12	37	8
180M 180L	48k6	110	80	14	42.5	9
200L	55m6	110	80	16	49	10
W225S	55m6*	110*	100*	16*	49*	10*
	60m6	140	125	18	53	11
225M	55m6*	110*	100*	16*	49*	10*
	60m6	140	125	18	53	11
250M	60m6*	140	125	18	53*	11
	65m6				58	
W280S	65m6*			18*	58*	11*
	75m6			20	67.5	12
280M	65m6*			18*	58*	11*
	75m6			20	67.5	12
315S/M	65m6*	140*	125*	18*	58*	11*
	80m6	170	160	22	71	14
355M/L	75m6*	140*	125*	20*	67.5*	12*
	100m6	210	200	28	90	16

Note:
--(*) refers to shaft dimensions for all II poles motors, only for direct coupling;
--(**)refers to the total length of the motor using the extended NDE endshield. Please refer to the notes under the electrical performance table for the specific motor specifications.
-- All dimensions are in millimeters;
-- The average values are subject to change without prior notice. To obtain guaranteed value, please contact with nearest WEG sales office.

Frame	A	AA	AB	AC	AD	B	BA	BB	C	H	HA	HC	HD	K	L	S1	CG***	d1	Bearings	
																			DE	NDE
160M	254	64	308	312	241	210	65	254	108	160	22	317	401	14.5	590/**615	2xM36x2	18-25	DM16	6309-ZZ-C3	6209-ZZ-C3
160L						254		298							634/**657					
180M	279	80	350	358	261	241	75	294	121	180	28	360	441	14.5	656			DM16	6311-ZZ-C3	6211-ZZ-C3
180L						279		332							694					
200L	318	82	385	396	303	305	85	370	133	200	30	402	503	18.5	759	2xM48x2	25-32	DM20	6312-ZZ-C3	6212-ZZ-C3
315S/M	508	120	628	605	499	406	152	558	216	315	52	613	814	28	1116	2xM64x2	37-44	DM20	*6314-C3	*6314-C3
						457									1146				6319-C3	6316-C3
355M/L	610	140	750	816	676	560	200	760	254	355	50	725	980		1387	2xM72x2	45-53	DM20	*6316-C3	*6314-C3
						630									1457			DM24	6322-C3	6319-C3

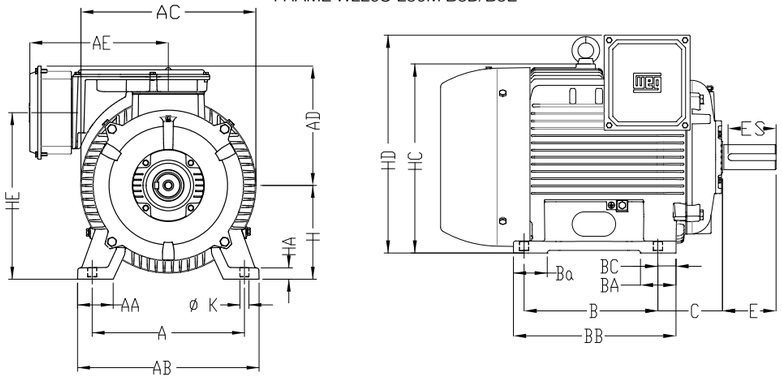
****CG (cable gland) is optional. This is the inner diameter range, in mm. If the cable size exceeds this range, please contact the relevant sales personnel.*

FRAME W225S-280M B3T



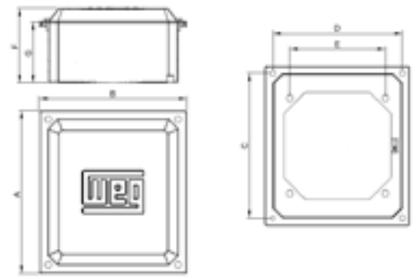
Frame	A	AA	AB	AC	AD	B	BA	BB	BC	C	H	HA	HC	HD	K	L	S1	d1	Bearing	
																			DE	NDE
W225S	356	80	436	391	311	286	80	348	40	149	225	27	433	536	18.5	748	2xM48x2	DM20	6312-ZZ-C3	6212-ZZ-C3
																778			6314-ZZ-C3	
225M	356	85	432	446	351	311	86	362	20.5	149	225	30	462	576	18.5	785	2xM64x2	DM20	6314-C3	6314-C3
																815			6314-C3	6314-C3
250M	406	95	484	468	357	349	93	424	42.5	168	250	30	493	607	24	875		DM20	6314-C3	6314-C3
																			6314-C3	6314-C3
W280S	457	100	542	480	357	368	100	435	37	190	280	32	525	637	24	945		DM20	6314-C3	6314-C3
																			6316-C3	6314-C3
280M	457	108	542	541	399	419	119	499	25	190	280	37	566	679	24	1027		DM20	6314-C3	6314-C3
																			6316-C3	6316-C3

FRAME W225S-280M B3D/B3E



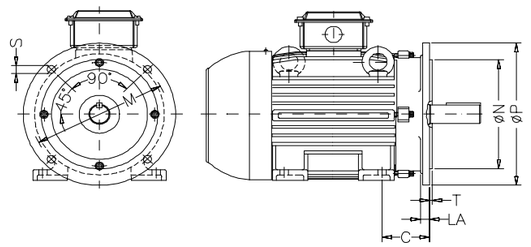
Frame	A	AA	AB	AC	AD	AE	B	BA	BB	BC	C	H	HA	HC	HD	HE	K	L	S1	d1	Bearing	
																					DE	NDE
W225S	356	80	436	391	272	297	286	80	348	40	149	225	27	433	498	391	18.5	748	2xM48x2	DM20	6312-ZZ-C3	6212-ZZ-C3
																		778			6314-ZZ-C3	
225M	356	85	432	446	308	370	311	86	362	20.5	149	225	30	462	533	405	18.5	785	2xM64x2	DM20	6314-C3	6314-C3
																		815			6314-C3	6314-C3
250M	406	95	484	468	314	370	349	93	424	42.5	168	250	30	493	564	436	24	875		DM20	6314-C3	6314-C3
																					6314-C3	6314-C3
W280S	457	100	542	480	316	370	368	100	435	37	190	280	32	525	596	468	24	945		DM20	6314-C3	6314-C3
																					6316-C3	6314-C3
280M	457	108	542	541	376	370	419	119	499	25	190	280	37	566	656	508	24	1027		DM20	6314-C3	6314-C3
																					6316-C3	6316-C3

W20 Cast iron - Terminal box dimension

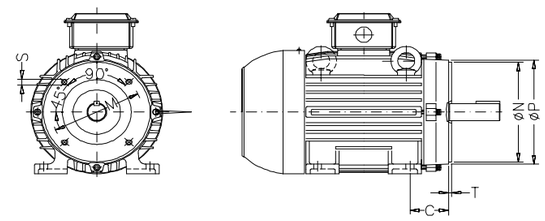


Frame	A	B	C	D	E	F	G
160-180	168	160	146	138	110	81	65
200	216	200	190	174	120	100	78.5
W225S	216	200	190	174	132	100	78
225-250	248	224	222	198	150	109	86
225M-280M	248	224	222	198	152	102	88
280	248	224	222	198	150	111	86
315	342	310	305	273	200	161	128
355	400	362	358	320	260	173	140

W20 Cast iron - Flange Dimension



Frame	FF Flange dimension									Qty of holes
	Flange	C	LA	M	N	P	T	S	a	
160M	FF-300	108	18	300	250	350	5	19	45°	4
160L										
180M		121								
180L										
200L	FF-350	133		350	300	400				
W225S	FF-400	149		400	350	450			22°30'	8
225M										
250M	FF-500	168		500	450	550				
W280S		190								
280M										
315S/M	FF-600	216	22	600	550	660	6	24		
355M/L	FF-740	254		740	680	800				



Frame	"C" Flange dimension							Qty of holes
	Flange	C	M	N	P	S	T	
160M	FC-184	108	184.2	215.9	225	UNC 1/2"13	6.3	4
160L								
180M	FC-228	121	228.6	266.7	280			
180L								
200L		133						
315S/M	FC-368	216	368.3	419.1	455	UNC 5/8"11		8
355M/L		254						

Frame	"C-DIN" Flange dimension							Qty of holes
	Flange	C	M	N	P	S	T	
160M	C-250	108	215	180	250	M12	4	4
160L								

Global presence is essential, as much as understanding your needs.

Global Presence

With approximately 37,000 employees worldwide, WEG is one of the largest electric motors, electronic equipments and systems manufacturers. We are constantly expanding our portfolio of products and services with expertise and market knowledge. We create integrated and customized solutions ranging from innovative products to complete after-sales service.

WEG's know-how guarantees our ***W20 three-phase induction motor*** is the right choice for your application and business, assuring safety, efficiency and reliability.

Availability is to have a global support network

Partnership is to create solutions that suits your needs

Competitive edge is to unite technology and inovation

SERVICE

From our wide Services portfolio, stands out the list of interventions on products from WEG activity areas: Electric Motors, Energy and Automation, being the most common:

	Products		Procedure	
	Automation	Motor	Internal	External
General Repair and overhaul	X	X	X	X
Product repair that may include the replacement of the components by original parts	X	X	X	X
Commissioning and start up	X	X		X
Repair of electrical machines (Ex and Safety)		X	X	X
Inspection and/or replacement of sleeve bearing or bearings		X	X	X
Repair of the sleeve bearings shell		X	X	X
High, Medium and Low Voltage rewinding		X	X	
Stator or rotor core replacement		X	X	
Brushes and brushes holder replacement		X	X	X
Shaft complete replacement or repair of shafts with grinding finishing of complete rotor		X	X	
Dynamic balancing of rotor (Maximum speed 1600 rpm 20T)		X	X	
Field dynamic balancing		X		X
Centring service		X		X
Painting (standard and special plan)		X	X	X
Inspection, tests and technical analysis	X	X	X	X
Energy Efficiency Study	X	X		X
Training of product maintenance	X	X		X

Inspection, Tests and Technical Analyses

From all the inspections, tests and technical analyses we have capacity to offer, we emphasize the following:

- Production and expedition of spare parts to all over the world;
- Application diagnosis on site or in our factory;
- Technical advise on best, reliable and efficient solutions on energy saving.

Automation

- Analysis of application improvements and technical assessment to the client, helping on the choice of the most appropriate equipment, targeting the application/optimizing installation efficiency
- Manufacturing, Installation, Modification, Start-Up and Maintenance of Electrical Panels
- Support on the settings parametrization of Variable Speed Drives and Soft Starters
- Commissioning and Start-Up of applications with Variable Speed Drives
- WEG Products Training

Explosive Atmospheres

Electric Motors

- Commissioning and Start-Up of applications with electric motors
- Alignment applications with electric motors
- Vibration analysis and failures diagnosis
- Dimensional check of Electric Motors and Components/Spare Parts
- Electric Motors maintenance
- Electric Motors Mechanical and Electrical refurbishment:
  - Replacement of bearings / sleeve bearings
  - Recovery of sleeve bearings
  - Rewinding of Electric Motors (stator/rotor) - in Low, Medium and High Voltage (up to 11kV)
  - Recover / Refurbishment / replacement of spare parts
  - Replacement of rotor shafts
  - Repair and replacement of accessories, temperature sensors and anti-condensation heaters and other auxiliaries
- Balancing in factory up to 1600 rpm (20T, Ø Max. 4640 mm)
- Dynamic balancing on site
- Electric Motors modification to new operating conditions (IP protection, cooling system, auxiliaries mounting form, terminal boxes, external loads, etc)
- Painting and finishing recovery
- Customer training on electric motors
- Repair electric machines (Ex and Safety)
- Energy analysis and efficiency of electric motors

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