

Ex d / Ex de - Explosion Proof Motors

Cast Iron Frame

Improved Efficiency EFF2

Standard Features:

- Three-phase, multivoltage, IP55, TEFC
- Output: 0.55 up to 315kW
- Frames: 90 up to 355M/L
- Voltage: 220-240/380-415V (up to 100L)
380-415/660V (from 112M and up)
- Class "F" insulation ($\Delta T=80K$)
- Continuous duty: S1
- Design N
- Ambient temperature: 40°C, at 1000 m.a.s.l.
- Squirrel cage rotor/Aluminium die cast
- Stainless steel nameplate AISI 316
- Dimensions according to IEC-72
- Performance characteristics according to IEC 34
- Regreasing nipple from frame 225S/M and above
- Metric threaded cable entries on the terminal box
- Thermistors (1 per phase) fitted in frame 160M and above
- Suitable for inverter duty applications
- Color: RAL 5010

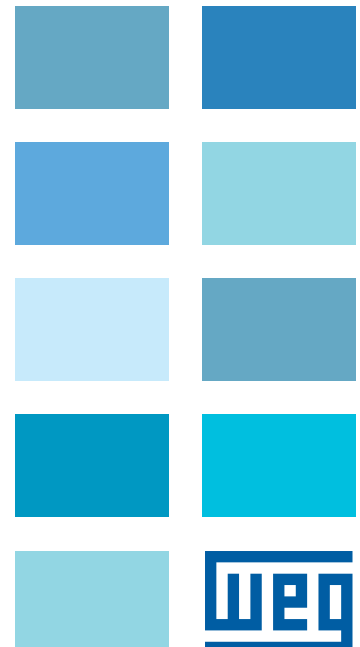
- Thermal protection:
 - Thermistors: frame 132M and below
 - Thermostats
 - RTD-PT 100
- Space heaters
- Design H
- Class "H" insulation
- Roller bearings for frame 160M and above
More options available, on request

Typical Applications:

- Pumps
- Fans
- Crushers
- Conveyor belts
- Mills
- Centrifugal machines
- Presses
- Elevators
- Packaging equipment
- Grinders and others.

Options Available:

- Degree of Protection: IP56, IP65 or IP66 (W)
- Bearing seals:
 - Lip seal
 - Oil seal
 - Labyrinth taconite seal and W3seal for frames 90S and above



Features and Benefits

Fan
WEG has designed the fan and fan cover having in mind the lowest noise level. The efficient cooling ensures low motor temperature rise. This minimizes winding losses, thus increasing motor efficiency. The W21 line is supplied with anti-static polypropylene fans from 90 up to 315S/M frames and aluminium for 355M/L frame. Alternatively, cast iron or aluminium fans can be supplied on request for all frames.

Fan Cover
Made of steel plate for frames 90 up to 132M and of cast iron for frames 160M and above. It offers a superior mechanical rigidity, corrosion-resistance and extended lifetime.

Bearings
WEG motors are fitted with the highest quality bearings selected from the best manufacturers in the world and designed to ensure long life of the motor even under heavy operating conditions.

Frame
WEG motors are made of FC-200 high-grade cast iron. The frames are provided with fins aiming at improving the heat dissipation and adequately spaced to minimize air blockage due to build up of dirt. Motor designed to ensure that surface temperature is lower than ignition temperature of the gas that is present in the environment. Mechanical components are designed to withstand an explosion inside the motor without causing any risk to outside areas since there is no flame propagation through flame path. The motors can be mounted in any position, horizontal and vertical, withstanding the maximum axial and radial thrusts.

Terminal Box
Made of cast iron made with plenty of internal space. The terminal box can be rotated in 90° intervals, having one or two threaded holes to connect the power supply cables. Power supply connection components are certified, then reducing short-circuit inside the terminal box. The grounding system is placed inside and outside of the terminal box for improved safety.
* Available as top or side mounted.

Winding
The wire is enameled with class H. Supplied with patented WISE (WEG Insulation System Evolution), which allows three times longer motor lifetime designed to work in environments with excess of moisture and suitable for VFD application. The winding is designed to obtain the smallest Joule losses and temperature rise.

Rotor
High pressure die cast rotor dynamically balanced, thus reducing vibrations. Built with premium electrical grade steel lamination to improve efficiency.

Shaft
WEG uses SAE/AISI 1040/45 steel as standard, which provides high mechanical strength, preventing bending under load and minimizes fatigue which extends lifetime. Specially designed to withstand torques caused during motor acceleration and deceleration. It's size is larger than the standard motor and, upon special design, motor can have second shaft end.

Stator
Built with premium electrical grade steel lamination to reduce electrical losses and operating temperature.

Seals
WEG Explosion Proof Motors are fitted with either Lip seal or Labyrinth Tachonite as standard (see standard features list) to provide the best possible protection.

Endshields
Made of cast iron, they are provided with external fins for better temperature dissipation, thus increasing bearing life.

Nameplate
Stainless steel nameplate ensuring a permanent record of all motor data.

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Output		IEC Frame	Full load torque C _n (Nm)	Locked rotor current I _r /I _n	Locked rotor torque T _r /T _n	Break-down torque T _b /T _n	Inertia J kgm ²	Allowable locked rotor time Hot/Cold (s)	Weight (kg)	Sound dB (A)	Rated speed (rpm)	400 V						Full load current I _n (A)
												% of full load						
												Efficiency η			Power Factor (Cos φ)			
kW	HP										50	75	100	50	75	100		
II Pole - 3000 rpm																		
0.75	1	90S	2.44	7	2.8	3.3	0.00181	25/55	31.7	64	2880	72	76.1	78.2	0.69	0.79	0.84	1.65
1.1	1.5	90S	3.67	7.2	2.9	2.9	0.00181	15/33	31.7	64	2870	76	79	80	0.71	0.81	0.87	2.28
1.5	2	90S	4.95	6.5	2.4	2.8	0.00181	12/26	31.7	64	2840	79.6	82	82.2	0.72	0.81	0.87	3.03
2.2	3	90L	7.42	6.6	2.8	3	0.00242	9/20	33.7	64	2840	82.2	83.7	83.4	0.69	0.8	0.85	4.48
3	4	100L	9.76	7.2	2.6	2.8	0.00616	9/20	45.5	67	2880	83.2	85.7	85.6	0.77	0.85	0.88	5.75
4	5.5	112M	13.37	7.6	2.7	3.1	0.00842	15/33	59.9	64	2890	85	87.5	87.5	0.76	0.84	0.88	7.5
5.5	7.5	132S	17.95	8	2.7	3.2	0.02056	18/40	85.3	68	2935	84	87.1	88.3	0.73	0.82	0.87	10.3
7.5	10	132S	24.05	7.3	2.4	2.9	0.02056	10/22	85.4	68	2920	86	87.5	88	0.76	0.84	0.88	14
11	15	160M	35.78	8.3	2.6	3.1	0.04706	12/26	144.8	70	2945	87.8	90.1	90.3	0.77	0.85	0.88	20
15	20	160M	47.7	7.8	2.5	3.2	0.05295	10/22	151.6	70	2945	89.6	91.1	91.2	0.76	0.84	0.88	27
18.5	25	160L	59.63	8.2	2.6	3.3	0.06471	10/22	168.9	70	2945	90.4	91.9	91.7	0.75	0.84	0.88	33.1
22	30	180M	71.43	8.2	2.8	3.1	0.11351	13/29	218.5	70	2950	90.5	92	92.1	0.78	0.86	0.89	38.7
30	40	200L	94.76	7.5	2.8	2.8	0.2063	19/42	289.6	74	2965	90	92	92.7	0.77	0.85	0.88	53.1
37	50	200L	118.45	7.6	2.9	2.9	0.22424	19/42	305	74	2965	91.3	92.8	93	0.75	0.84	0.88	65.3
45	60	225S/M	142.14	7.9	2.6	3.5	0.44846	24/53	460.3	82	2965	91.6	93.3	93.6	0.85	0.89	0.91	76.3
55	75	250S/M	177.67	8.5	2.8	3	0.50227	15/33	513.9	82	2965	91.8	93.5	93.8	0.84	0.89	0.91	93
75	100	280S/M	236.1	7.5	2.4	2.8	1.08256	44/97	782.9	83	2975	91.4	93.6	94.2	0.81	0.87	0.89	129
90	125	280S/M	295.12	8.1	2.3	2.8	1.27083	35/77	845.4	83	2975	92	94.1	94.5	0.79	0.87	0.9	153
110	150	315S/M	354.15	7.6	2.3	2.8	1.41204	40/88	972.8	84	2975	93	94.4	94.9	0.79	0.85	0.89	188
132	175	315S/M	413.87	7.5	2.3	2.8	1.64738	31/68	1034.3	84	2970	93.2	94.8	95	0.82	0.88	0.9	223
160	220	315S/M	520.29	7.3	2.2	2.5	2.11806	25/55	1164.6	84	2970	94.1	95	95.4	0.85	0.89	0.9	269
200	270	355M/L	635.33	7.2	1.8	2.6	4.82631	70/154	1830	81	2985	93.5	95	95.4	0.89	0.91	0.92	329
250	340	355M/L	800.05	7.8	2.2	2.5	5.74561	65/143	1972	81	2985	94.4	95.8	96	0.88	0.91	0.92	409
HIGH-OUTPUT DESIGN																		
75	100	250S/M	236.9	8.3	3	3.4	0.55609	10/22	570	82	2965	92.5	93.6	93.6	0.83	0.88	0.9	129
110	150	280S/M	354.15	7.6	2.3	2.8	1.41204	40/88	878	83	2975	93	94.4	94.9	0.79	0.85	0.89	188
IV Pole - 1500 rpm																		
0.55	0.75	90S	3.7	6.4	2.7	2.8	0.00392	17/37	31.6	49	1425	69	73	75	0.6	0.72	0.78	1.36
0.75	1	90S	4.91	6.5	2.7	2.8	0.00392	14/31	31.7	49	1430	71	74.4	74.4	0.58	0.71	0.79	1.84
1.1	1.5	90S	7.53	5.5	2.4	2.5	0.00392	9/20	31.8	49	1400	72.5	76.2	76.2	0.61	0.75	0.82	2.54
1.5	2	90L	9.96	6.4	2.7	2.5	0.0056	9/20	34.6	49	1410	75	78.6	78.6	0.63	0.75	0.82	3.36
2.2	3	100L	14.84	6.7	2.7	2.9	0.00842	14/31	45.1	53	1420	81	82.3	83	0.65	0.78	0.83	4.61
3	4	100L	20	6.7	2.5	2.6	0.00918	8/18	46.6	53	1405	81.5	82.6	82.6	0.68	0.78	0.84	6.24
4	5.5	112M	27.02	6.9	2.6	2.8	0.01607	10/22	62.3	56	1430	83	84.3	84.2	0.67	0.78	0.84	8.16
5.5	7.5	132S	35.96	8	2.4	3	0.04264	10/22	83.6	60	1465	85.2	87.5	88	0.65	0.78	0.84	10.7
7.5	10	132M	47.95	8	2.5	2.8	0.05427	8/18	95.1	60	1465	86.4	88.4	88.6	0.7	0.8	0.86	14.2
11	15	160M	72.41	6	2.3	2.5	0.08029	16/35	142.8	67	1455	87.6	89.4	89.9	0.7	0.79	0.84	21
15	20	160L	96.55	6	2.3	2.4	0.10539	13/29	162.7	67	1455	89	90.4	90.6	0.69	0.79	0.84	28.4
18.5	25	180M	119.46	7	2.7	2.8	0.17939	18/40	212.4	64	1470	89.8	91.5	92.1	0.68	0.79	0.84	34.5
22	30	180L	143.35	7.5	2.8	2.8	0.21528	14/31	229.9	64	1470	91	92.2	92.4	0.67	0.78	0.83	41.4
30	40	200L	190.48	6.5	2.2	2.5	0.33095	17/37	289.7	69	1475	91.8	93	93	0.75	0.82	0.85	54.8
37	50	225S/M	237.3	7.2	2.3	2.7	0.62988	20/44	404.6	70	1480	91.2	92.2	92.8	0.76	0.85	0.88	65.4
45	60	225S/M	285.72	7	2.3	2.7	0.76985	16/35	433.8	70	1475	91	92.9	93.5	0.76	0.85	0.88	78.9
55	75	250S/M	357.15	7	2.3	2.6	0.97981	16/35	508.8	70	1475	93	93.5	93.7	0.78	0.86	0.89	95.2
75	100	280S/M	472.99	6.7	2.1	2.4	1.84681	31/68	777.5	76	1485	92	93.6	94	0.79	0.85	0.88	131
90	125	280S/M	591.24	7.1	2.4	2.5	2.56947	31/68	869	76	1485	92.3	93.9	94.2	0.8	0.86	0.88	157
110	150	315S/M	709.49	7.1	2.3	2.6	2.81036	27/59	1036.1	77	1485	92.8	94.4	94.4	0.78	0.85	0.88	191
132	175	315S/M	827.74	7.5	2.3	2.6	3.37243	13/29	1121.1	77	1485	93	94	94.6	0.78	0.85	0.88	229
160	220	315S/M	1044.1	7	2.4	2.7	3.77391	22/48	1189.9	77	1480	93.3	95.1	95.5	0.75	0.83	0.87	278
200	270	355M/L	1272.8	6.6	2.3	2.2	6.34151	44/97	1808.1	79	1490	94.8	95.2	95.4	0.78	0.85	0.87	348
250	340	355M/L	1602.78	6.9	2.2	2.5	7.57882	36/79	1921.6	79	1490	94.3	95.2	95.8	0.8	0.86	0.88	428
280	380	355M/L	1791.35	7.1	2.2	2.4	9.0224	39/86	1770	79	1490	95	95.7	95.8	0.81	0.87	0.88	479
315	430	355M/L	2027.05	6.7	2.2	2.4	9.92464	42/92	2198.5	79	1490	94.8	95.9	96.2	0.79	0.86	0.88	537
HIGH-OUTPUT DESIGN																		
75	100	250S/M	476.2	7.2	2.4	2.6	1.15478	12/26	556	70	1475	92.5	93.6	93.7	0.77	0.85	0.87	133
110	150	280S/M	709.49	7.1	2.3	2.6	2.81036	27/59	935.2	76	1485	92.8	94.4	94.4	0.78	0.85	0.88	191

Notes:
 *Class "F" insulation with ΔT105K
 Standard voltage, connection and frequency: 220-240V Δ 50Hz
 380-415V Y 50Hz
 380-415V Y 50Hz
 380-415V Δ 50Hz
 660-690V Y 50Hz
 The values shown are subject to change without prior notice. To obtain guaranteed values please access our website.

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Output		380 V								415 V							
		Rated speed (rpm)	% of full load						Full load current I _n (A)	Rated speed (rpm)	% of full load						Full load current I _n (A)
			Efficiency η			Power Factor (Cos φ)					Efficiency η			Power Factor (Cos φ)			
kW	HP	50	75	100	50	75	100	50	75	100	50	75	100	50	75	100	
II Pole - 3000 rpm																	
0.75	1	2870	72.5	76	77.8	0.73	0.81	0.86	1.7	2890	71.5	76	78.4	0.66	0.77	0.82	1.62
1.1	1.5	2850	76.5	78.8	79.5	0.75	0.84	0.89	2.36	2880	75.5	78.9	80.2	0.68	0.79	0.85	2.24
1.5	2	2830	80	81.5	81.2	0.75	0.84	0.89	3.15	2850	79.1	82.2	82.5	0.68	0.79	0.85	2.98
2.2	3	2820	82.8	83.6	83.3	0.75	0.84	0.87	4.61	2850	81.5	83.6	84.3	0.64	0.76	0.83	4.37
3	4	2870	83.5	85.6	85.1	0.8	0.86	0.89	6.02	2890	82.8	85.6	85.6	0.74	0.84	0.87	5.6
4	5.5	2880	85.5	87.5	87.2	0.8	0.86	0.89	7.83	2900	84.5	87.4	88.2	0.72	0.82	0.87	7.25
5.5	7.5	2930	84.5	87.5	88.2	0.77	0.85	0.89	10.6	2940	83.5	86.8	88.2	0.69	0.8	0.85	10.2
7.5	10	2910	86.5	87.5	87.5	0.8	0.87	0.9	14.5	2925	85.5	87.4	88.1	0.71	0.81	0.86	13.8
11	15	2940	88.3	90.1	90.2	0.8	0.86	0.89	20.8	2950	87.3	90	90.4	0.74	0.83	0.87	19.5
15	20	2935	90.1	91.2	91	0.81	0.87	0.89	28.1	2950	89.1	91	91.2	0.72	0.81	0.87	26.3
18.5	25	2940	90.7	92	91.5	0.78	0.86	0.89	34.5	2950	90.1	91.8	92	0.73	0.83	0.86	32.5
22	30	2945	91	92.1	92	0.82	0.88	0.9	40.4	2955	90	91.9	92.1	0.75	0.84	0.87	38.2
30	40	2960	90.5	92.1	92.6	0.8	0.87	0.89	55.3	2970	89.5	91.8	92.7	0.73	0.83	0.87	51.8
37	50	2960	91.7	93	93	0.8	0.87	0.89	67.9	2965	90.8	92.6	93	0.7	0.81	0.86	64.4
45	60	2960	91.9	93.4	93.5	0.86	0.9	0.92	79.5	2970	91.5	93.3	93.9	0.84	0.88	0.9	74.1
55	75	2965	91.8	93.2	93.5	0.86	0.91	0.92	97.1	2970	91.6	93.5	94	0.82	0.88	0.91	89.5
75	100	2970	91.9	93.6	94.3	0.84	0.88	0.9	134	2980	91	93.6	94.2	0.78	0.85	0.88	126
90	125	2970	92.3	93.9	94.5	0.82	0.88	0.9	161	2975	91.5	94.1	94.5	0.77	0.86	0.89	149
110	150	2970	93.1	94.4	94.9	0.81	0.87	0.9	196	2975	92.2	94.4	94.8	0.75	0.83	0.88	183
132	175	2965	93.5	94.7	94.8	0.84	0.89	0.91	232	2970	93	94.8	95.2	0.8	0.87	0.9	214
160	220	2970	94.2	95	95.3	0.86	0.9	0.91	280	2975	94	95	95.4	0.83	0.88	0.89	262
200	270	2980	93.7	95	95.3	0.9	0.92	0.92	347	2985	93.3	94.9	95.4	0.88	0.9	0.91	321
250	340	2980	94.5	95.8	96	0.9	0.92	0.93	425	2985	94.3	95.8	96.1	0.87	0.91	0.92	393
HIGH-OUTPUT DESIGN																	
75	100	2960	92.6	93.3	93.3	0.85	0.89	0.91	134	2965	92.5	93.7	94.2	0.81	0.87	0.9	123
110	150	2970	93.1	94.4	94.9	0.81	0.87	0.9	196	2975	92.2	94.4	94.8	0.75	0.83	0.88	183
IV Pole - 1500 rpm																	
0.55	0.75	1420	70.2	74.8	75	0.64	0.75	0.8	1.39	1430	68	73.8	75	0.55	0.68	0.75	1.36
0.75	1	1415	72	74.6	74	0.62	0.74	0.81	1.9	1440	70	74.4	74.4	0.54	0.68	0.77	1.82
1.1	1.5	1390	73.5	76.4	75.5	0.67	0.8	0.85	2.6	1410	70.5	76.2	76.2	0.56	0.71	0.8	2.51
1.5	2	1390	76.5	78.7	77.8	0.67	0.79	0.85	3.45	1420	73.5	78.5	78.8	0.58	0.72	0.8	3.31
2.2	3	1410	81.5	82	81.7	0.69	0.81	0.85	4.81	1430	80.5	82.3	83	0.61	0.75	0.81	4.55
3	4	1390	82	82.3	82	0.7	0.8	0.86	6.46	1415	80.5	82.5	82.7	0.65	0.75	0.82	6.15
4	5.5	1420	84	84.5	84	0.72	0.81	0.86	8.41	1440	82	84.2	84.2	0.62	0.74	0.82	8.06
5.5	7.5	1460	86.5	88.1	88	0.72	0.82	0.86	11	1470	84	86.8	87.8	0.6	0.74	0.82	10.6
7.5	10	1465	87	88.6	88.4	0.75	0.84	0.88	14.6	1470	85.6	88	88.6	0.65	0.77	0.83	14.2
11	15	1450	88.3	89.6	89.2	0.74	0.82	0.85	22	1460	86.8	89	89.8	0.65	0.76	0.82	20.8
15	20	1450	89.5	90.5	90.1	0.73	0.82	0.86	29.4	1460	88.4	90.3	90.6	0.67	0.78	0.83	27.8
18.5	25	1465	90.3	91.7	91.7	0.72	0.81	0.85	36.1	1470	89.3	91.3	92.1	0.65	0.76	0.82	34.1
22	30	1465	91.5	92.4	92.3	0.72	0.81	0.85	42.6	1475	90.5	92	92.5	0.63	0.75	0.81	40.8
30	40	1470	92.2	93	92.6	0.78	0.84	0.86	57.2	1480	91.5	93	93.2	0.72	0.8	0.84	53.3
37	50	1475	91.6	92.4	92.5	0.79	0.86	0.89	68.3	1480	90.8	92.1	92.9	0.72	0.83	0.87	63.7
45	60	1475	91.3	92.8	93.5	0.8	0.87	0.89	82.2	1480	91	92.9	93.5	0.72	0.83	0.87	77
55	75	1475	92.8	93.5	93.4	0.83	0.88	0.91	98.3	1480	92.5	93.4	93.6	0.77	0.85	0.89	91.9
75	100	1480	92.1	93.4	93.6	0.82	0.87	0.89	137	1485	91.5	93.6	94	0.76	0.84	0.87	128
90	125	1480	92.6	94.1	94.2	0.82	0.87	0.89	163	1485	92	93.9	94.2	0.78	0.85	0.88	151
110	150	1480	92.8	93.6	94.2	0.8	0.86	0.88	202	1485	92.8	94.4	94.5	0.76	0.83	0.87	186
132	175	1480	93	93.5	94.3	0.81	0.86	0.89	241	1485	92.2	94.7	94.7	0.76	0.84	0.87	223
160	220	1480	93	95	95.4	0.78	0.85	0.88	290	1485	94.2	95.1	95.5	0.73	0.82	0.86	271
200	270	1485	94.8	95	95.2	0.8	0.86	0.88	363	1490	94.5	95.1	95.3	0.76	0.84	0.86	339
250	340	1485	94.5	95.2	95.7	0.82	0.87	0.89	446	1490	94.1	95	95.7	0.77	0.85	0.87	418
280	380	1485	95.1	95.6	95.7	0.83	0.88	0.89	499	1490	95	95.6	95.8	0.79	0.86	0.87	467
315	430	1485	95	95.8	96.1	0.83	0.87	0.89	560	1490	94.5	95.8	96.2	0.76	0.84	0.87	524
HIGH-OUTPUT DESIGN																	
75	100	1475	92.6	93.4	93.5	0.8	0.86	0.88	138	1480	92.6	93.7	93.6	0.74	0.84	0.87	128
110	150	1480	92.8	93.6	94.2	0.8	0.86	0.88	202	1485	92.8	94.4	94.5	0.76	0.83	0.87	186

Ex d / Ex de - Explosion Proof Motors - Cast Iron Frame

Improved Efficiency EFF2

Output		IEC Frame	Full load torque C _n (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 Hot/Cold (s)	Weight (kg)	Sound dB (A)	Rated speed (rpm)	400 V						Full load current I _n (A)
												% of full load			Power Factor (Cos φ)			
kW	HP											Efficiency η			Power Factor (Cos φ)			
												50	75	100	50	75	100	
VI Pole - 1000 rpm																		
0.75	1	90L	7.63	4.8	2.1	2.1	0.00504	16/35	33.3	45	920	70	72.6	72.4	0.54	0.67	0.76	1.97
1.1	1.5	90L	11.51	4.5	2.3	2.3	0.0056	12/26	34.5	45	915	68	71	72.9	0.48	0.62	0.72	3.02
1.5	2	100L	14.94	4.8	2.2	2.5	0.01121	18/40	43.1	44	940	74	77.3	77.5	0.53	0.66	0.74	3.78
2.2	3	112M	22.42	5	2.2	2.3	0.01682	14/31	56.5	48	940	77.5	80.5	80.1	0.53	0.66	0.74	5.36
3	4	132S	29.27	5.3	2	2.2	0.03489	20/44	77.2	52	960	80	82.7	82.5	0.58	0.7	0.77	6.82
4	5.5	132M	40.24	6	2.1	2.3	0.05039	18/40	91.4	52	960	83.6	85.5	85.8	0.59	0.7	0.77	8.74
5.5	7.5	132M	54.87	6.4	2.3	2.4	0.06202	14/31	99.5	52	960	84	85.8	85.8	0.54	0.66	0.74	12.5
7.5	10	160M	72.41	6.1	2.3	2.6	0.12209	17/37	145	56	970	87	88.2	88	0.62	0.74	0.81	15.2
9.2	12.5	160L	90.51	6.5	2.3	2.8	0.14364	12/26	115	56	970	86.5	88	87.6	0.61	0.74	0.81	18.7
11	15	160L	108.62	6.6	2.4	2.9	0.17595	13/29	170.2	56	970	87.2	88.3	88.3	0.62	0.75	0.82	21.9
15	20	180L	145.57	7.5	2.5	2.6	0.30338	9/20	217.9	56	965	89.1	90.1	89.8	0.8	0.88	0.91	26.5
18.5	25	200L	180.1	6	2.1	2.3	0.3767	15/33	270.1	58	975	89.7	90.7	90.2	0.74	0.82	0.86	34.4
22	30	200L	216.12	6	2.3	2.4	0.41258	14/31	280.4	58	975	89	90.9	91.3	0.7	0.79	0.84	41.4
30	40	225S/M	285.24	7.2	2.6	2.7	0.98842	20/44	422.8	61	985	90.5	91.8	91.8	0.77	0.84	0.87	54.2
37	50	250S/M	358.37	7.5	2.7	2.6	1.22377	18/40	490.5	61	980	90.2	92.4	92.5	0.77	0.85	0.87	66.4
45	60	280S/M	427.86	6.8	2.4	2.6	2.29824	24/53	735.8	66	985	90.5	92.3	92.6	0.68	0.78	0.83	84.5
55	75	280S/M	534.82	6.5	2.3	2.5	2.64298	23/51	774.6	66	985	91.6	93.2	93.5	0.71	0.82	0.85	100
75	100	315S/M	713.09	6.7	2.3	2.5	3.44737	20/44	963.1	69	985	91.6	93.5	93.7	0.71	0.81	0.85	136
90	125	315S/M	891.37	6.3	2.1	2.3	3.67719	18/40	993.1	69	985	92.5	94	93.9	0.71	0.81	0.85	163
110	150	315S/M	1069.64	6.4	2.3	2.4	5.28596	18/40	1169.3	69	985	93.4	94.4	94.5	0.71	0.8	0.84	200
132	175	355M/L	1241.61	6.1	2	2.3	8.10159	90/198	1685.3	73	990	92.5	94.7	94.7	0.65	0.75	0.8	251
160	220	355M/L	1560.88	6.2	1.9	2.1	9.53128	72/158	1730	73	990	93	95	95.3	0.67	0.77	0.82	295
200	270	355M/L	1915.63	6.3	2.1	2.3	12.39067	85/187	1910	73	990	93.5	94.5	94.8	0.7	0.78	0.81	376
250	340	355M/L	2400.15	6.1	2.2	2.2	14.77349	64/141	2185	73	995	94	95.1	95.6	0.7	0.79	0.82	460
280	380	355M/L	2696.07	6	2.1	2.2	14.77349	54/119	2185	73	990	94.3	95.2	95.4	0.68	0.77	0.8	530
HIGH-OUTPUT DESIGN																		
45	60	250S/M	430.04	8	2.8	2.8	1.55324	18/40	544.9	61	980	91	92.3	92.6	0.76	0.84	0.87	79.7
75	100	280S/M	713.09	6.7	2.3	2.5	3.44737	20/44	800	66	985	91.6	93.5	93.7	0.71	0.81	0.85	136
VIII Pole - 750 rpm																		
0.37	0.5	90L	5.05	3.5	2.1	2.1	0.00448	29/64	30	43	695	51	59	61	0.43	0.53	0.64	1.37
0.55	0.75	90L	7.63	3.7	2.1	2.1	0.0056	18/40	34.1	43	690	51.6	60	64	0.4	0.5	0.6	2.07
0.75	1	100L	9.96	4.2	2	2.1	0.00952	30/66	41.1	50	705	65	70	71	0.42	0.54	0.63	2.42
1.1	1.5	100L	15.05	4.1	1.7	2.1	0.01289	23/51	44.8	50	700	66	71.5	72.2	0.43	0.56	0.65	3.38
1.5	2	112M	20.07	4.6	2.4	2.4	0.02243	19/42	60.9	46	700	74	75.5	76.3	0.46	0.6	0.68	4.17
2.2	3	132S	29.68	5.3	2.1	2.3	0.0552	19/42	81.9	48	710	78.5	79.3	79.4	0.51	0.64	0.72	5.55
3	4	132M	39.57	5.9	2.5	2.6	0.07527	16/35	94.9	48	710	79	82	82.5	0.52	0.64	0.72	7.29
4	5.5	160M	52.92	5.2	2.2	2.7	0.12209	33/73	144.7	51	730	81.3	84.3	86	0.47	0.6	0.69	9.73
5.5	7.5	160M	72.16	5.2	2.3	2.7	0.14364	23/51	157	51	730	81.5	84.1	85.2	0.46	0.59	0.69	13.5
7.5	10	160L	96.88	4.9	2	2.5	0.16518	15/33	165.8	51	725	83.5	85.7	85.5	0.51	0.63	0.72	17.6
11	15	180L	145.32	6.8	2.3	2.5	0.2758	11/24	208.1	51	725	87	88.5	88.3	0.68	0.79	0.84	21.4
15	20	200L	192.44	4.6	2	2.1	0.3767	23/51	269.8	53	730	86.5	88.6	89	0.56	0.68	0.75	32.4
18.5	25	225S/M	240.55	6.9	2.1	2.8	0.84722	17/37	393.4	56	730	88.5	90.1	90	0.72	0.8	0.85	34.9
22	30	225S/M	288.66	7.5	2.2	2.7	0.98842	19/42	419.3	56	730	89	91	91	0.73	0.82	0.85	41.1
30	40	250S/M	384.87	7.9	2.3	2.9	1.22377	17/37	486.6	56	730	89.5	91.2	91.6	0.7	0.79	0.84	56.3
37	50	280S/M	474.59	6.5	1.9	2.3	2.29824	29/64	700	59	740	90.5	92.2	92.3	0.67	0.77	0.81	71.4
45	60	280S/M	569.51	6.5	2	2.4	2.64298	26/57	765	59	740	90.5	92.1	92.3	0.65	0.75	0.8	88
55	75	315S/M	711.89	6.5	1.9	2.2	3.10263	27/59	845	62	740	91.2	93.1	93	0.69	0.78	0.82	104
75	100	315S/M	949.18	6.6	1.9	2.2	4.36666	20/44	1062	62	740	92	93.4	93.5	0.67	0.79	0.82	141
90	125	315S/M	1186.48	6.8	2.1	2.4	5.28596	23/51	1220	62	740	92.5	93.8	94.2	0.7	0.78	0.83	166
110	150	355M/L	1423.78	6.4	1.5	2.2	11.9324	41/90	1750	70	740	92.5	94.1	94.5	0.63	0.74	0.8	210
132	175	355M/L	1661.07	6.5	1.6	2.2	13.18845	47/103	1800	70	740	93	94.5	94.8	0.63	0.73	0.79	254
160	220	355M/L	2088.2	6.6	1.6	2.2	16.32856	42/92	1710	70	740	93.3	94.7	94.7	0.64	0.75	0.8	305
200	270	355M/L	2562.8	6.8	1.6	2.1	19.46866	37/81	1900	70	740	93.3	94.6	95.2	0.6	0.72	0.79	384
HIGH-OUTPUT DESIGN																		
37	50	250S/M	481.09	8.2	2.3	2.8	1.55324	13/29	540	56	730	89	91.5	91.5	0.68	0.78	0.84	69.5

Notes:
 *Class "F" insulation with ΔT105K
 Standard voltage, connection and frequency: 220-240V Δ 50Hz
 380-415V Y 50Hz
 380-415V Δ 50Hz
 660-690V Y 50Hz
 The values shown are subject to change without prior notice. To obtain guaranteed values please access our website.

Ex d / Ex de - Explosion Proof Motors - Cast Iron Frame

Improved Efficiency EFF2

Output		380 V								415 V							
		Rated speed (rpm)	% of full load						Full load current I _n (A)	Rated speed (rpm)	% of full load						Full load current I _n (A)
			Efficiency η			Power Factor (Cos φ)					Efficiency η			Power Factor (Cos φ)			
kW	HP	50	75	100	50	75	100	50	75	100	50	75	100	50	75	100	
VI Pole - 1000 rpm																	
0.75	1	910	71.5	72.8	71.5	0.58	0.71	0.79	2.02	930	68.5	72.4	72.4	0.5	0.64	0.73	1.97
1.1	1.5	905	71	72	72.9	0.52	0.66	0.76	3.02	925	65	70.5	73	0.45	0.58	0.68	3.08
1.5	2	930	75	77.5	77	0.58	0.7	0.76	3.89	950	73	77.3	77.6	0.5	0.63	0.71	3.79
2.2	3	930	79	80.8	79.7	0.58	0.7	0.76	5.52	950	76	80.3	80.5	0.5	0.63	0.72	5.28
3	4	955	81	83	82	0.61	0.72	0.79	7.04	965	79	82.5	82.6	0.53	0.66	0.74	6.83
4	5.5	955	84.5	85.7	85.4	0.61	0.72	0.79	9.01	965	82.6	85.3	85.9	0.56	0.67	0.75	8.64
5.5	7.5	955	85	86.1	85.6	0.58	0.7	0.77	12.7	965	83	85.5	86	0.5	0.62	0.71	12.5
7.5	10	965	87.5	88.4	87.5	0.66	0.78	0.83	15.7	970	86.5	88	88	0.58	0.71	0.79	15
9.2	12.5	970	87.5	88.2	87.5	0.65	0.76	0.82	19.5	975	85.5	87.8	87.5	0.56	0.71	0.79	18.5
11	15	970	88	88.5	88	0.67	0.78	0.84	22.6	975	86.5	88	88.3	0.58	0.72	0.8	21.7
15	20	960	89	90	89.5	0.82	0.89	0.91	28	970	89	90.5	90.5	0.78	0.87	0.9	25.6
18.5	25	970	90	90.5	89.8	0.76	0.84	0.87	36	980	89.3	90.5	90.5	0.72	0.8	0.84	33.9
22	30	970	89.6	91	91.2	0.74	0.82	0.85	43.1	980	88.4	90.7	91.3	0.66	0.76	0.82	40.9
30	40	980	91	91.8	91.6	0.8	0.86	0.88	56.5	985	90	91.8	92.2	0.73	0.81	0.86	52.6
37	50	980	90.5	92.5	92.4	0.8	0.86	0.88	69.1	985	89.5	92.4	92.6	0.73	0.82	0.86	64.6
45	60	985	91	92.3	92.6	0.72	0.81	0.85	86.9	990	90	92.3	92.7	0.64	0.76	0.82	82.4
55	75	985	92	93.2	93.4	0.74	0.84	0.87	103	990	91.2	93.2	93.6	0.68	0.8	0.84	97.3
75	100	985	92	93.5	93.5	0.74	0.82	0.86	142	990	91.2	93.5	93.8	0.69	0.8	0.84	132
90	125	985	92.8	93.9	93.6	0.74	0.83	0.86	170	990	92.2	93.9	93.9	0.69	0.79	0.84	159
110	150	985	93.6	94.3	94.3	0.74	0.82	0.85	208	985	93.2	94.5	94.6	0.69	0.79	0.83	195
132	175	990	93	94.7	94.5	0.7	0.8	0.82	259	995	92	94.7	94.7	0.6	0.7	0.77	252
160	220	990	93.5	95.2	95.2	0.73	0.8	0.84	304	990	92.5	94.9	95.4	0.63	0.74	0.8	292
200	270	990	94	94.7	94.8	0.74	0.81	0.83	386	990	93	94.3	94.8	0.66	0.75	0.79	372
250	340	995	94.3	95.2	95.5	0.74	0.81	0.83	479	995	93.7	95	95.8	0.67	0.77	0.81	448
280	380	985	94.7	95.3	95.4	0.73	0.8	0.81	551	990	93.9	95.1	95.3	0.64	0.74	0.79	517
HIGH-OUTPUT DESIGN																	
45	60	980	91.5	92.3	92.5	0.79	0.86	0.88	83	985	90.5	92.3	92.7	0.73	0.82	0.86	77.6
75	100	985	92	93.5	93.5	0.74	0.82	0.86	142	990	91.2	93.5	93.8	0.69	0.8	0.84	132
VIII Pole - 750 rpm																	
0.37	0.5	685	54	61	62	0.46	0.56	0.67	1.35	700	48	57	60	0.4	0.5	0.6	1.43
0.55	0.75	680	54	61	64.7	0.44	0.55	0.64	2.02	700	48.5	57.2	62.5	0.38	0.47	0.56	2.19
0.75	1	695	67	71	70.5	0.46	0.58	0.66	2.45	710	63	69	70.5	0.38	0.5	0.6	2.47
1.1	1.5	690	68	72	72	0.47	0.6	0.68	3.41	710	64	70.5	72.2	0.4	0.52	0.62	3.42
1.5	2	695	75	76	76	0.5	0.63	0.7	4.28	705	73	75	76.3	0.43	0.57	0.66	4.14
2.2	3	700	79	79.5	79	0.56	0.68	0.75	5.64	715	78	79	79.5	0.48	0.61	0.7	5.5
3	4	700	80	82.5	82	0.54	0.66	0.74	7.51	715	78	81.5	82.5	0.5	0.62	0.7	7.23
4	5.5	725	82.6	84.8	85.9	0.51	0.64	0.72	9.83	730	80	83.7	86	0.44	0.57	0.66	9.8
5.5	7.5	725	82.5	84.7	85.2	0.5	0.63	0.72	13.6	730	80.5	83.5	85	0.42	0.55	0.66	13.6
7.5	10	720	84.5	86	85.3	0.54	0.66	0.74	18.1	730	82.5	85.5	85.5	0.48	0.6	0.7	17.4
11	15	720	87.5	88.3	87.8	0.71	0.81	0.85	22.4	730	86.5	88.6	88.5	0.65	0.77	0.83	20.8
15	20	725	87.5	88.9	88.9	0.61	0.72	0.77	33.3	730	85.5	88.3	88.9	0.5	0.64	0.72	32.6
18.5	25	730	88.8	90	89.8	0.75	0.83	0.86	36.4	735	88.2	90.3	90.2	0.68	0.78	0.84	34
22	30	730	89.4	90.9	90.5	0.76	0.84	0.86	42.9	735	88.6	91	91.2	0.71	0.8	0.84	40
30	40	730	90	91.3	91.3	0.73	0.81	0.85	58.7	735	89	91.1	91.8	0.66	0.77	0.83	54.8
37	50	735	91	92.2	92.1	0.7	0.79	0.82	74.4	740	90	92.2	92.4	0.64	0.75	0.79	70.5
45	60	735	91	92.2	92	0.7	0.77	0.82	90.6	740	90	92	92.3	0.6	0.72	0.78	87
55	75	735	91.6	93.2	92.8	0.72	0.8	0.83	108	740	90.7	93	93	0.65	0.76	0.8	103
75	100	735	92.4	93.3	93.3	0.7	0.8	0.83	147	740	91.6	93.4	93.4	0.64	0.78	0.81	138
90	125	735	92.9	93.9	94	0.73	0.81	0.84	173	740	92.1	93.7	94.2	0.67	0.75	0.81	164
110	150	740	93	94.2	94.5	0.66	0.77	0.82	216	745	92	94.1	94.5	0.6	0.71	0.78	208
132	175	740	93.5	94.6	94.8	0.66	0.75	0.81	261	745	92.5	94.4	94.8	0.6	0.71	0.77	252
160	220	740	93.8	94.8	94.8	0.68	0.77	0.81	317	745	92.8	94.7	94.7	0.6	0.72	0.79	298
200	270	740	93.8	94.8	95.1	0.65	0.75	0.81	394	745	92.8	94.4	95.2	0.56	0.69	0.77	380
HIGH-OUTPUT DESIGN																	
37	50	730	89.5	91.5	91	0.72	0.82	0.86	71.8	735	88.5	91.5	91.5	0.64	0.76	0.82	68.6

Ex d / Ex de - Explosion Proof Motors

Cast Iron Frame

Premium Efficiency EFF1

Standard Features:

- Three-phase, multivoltage, IP55, TEFC
- Output: 0.26 up to 315kW
- Frames: 90S/L up to 355M/L
- Voltage: 220-240/380-415V (up to 100L)
380-415/660V (from 112M and up)
- Class "F" insulation ($\Delta T=80K$)
- Continuous duty: S1
- Design N
- Ambient temperature: 40°C, at 1000 m.a.s.l.
- Squirrel cage rotor/Aluminium die cast
- Stainless steel nameplate AISI 316
- Dimensions according to IEC-72
- Performance characteristics according to IEC 34
- Regreasing nipple from frame 225S/M and above
- Metric threaded cable entries on the terminal box
- Thermistors (1 per phase) fitted in frame 160M and above
- Suitable for inverter duty applications
- Color: RAL 5009
- Thermal protection:
 - Thermistors: frame 132M and below
 - Thermostats
 - RTD-PT 100
- Space heaters
- Design H
- Class "H" insulation
- Roller bearings for frame 160M and above

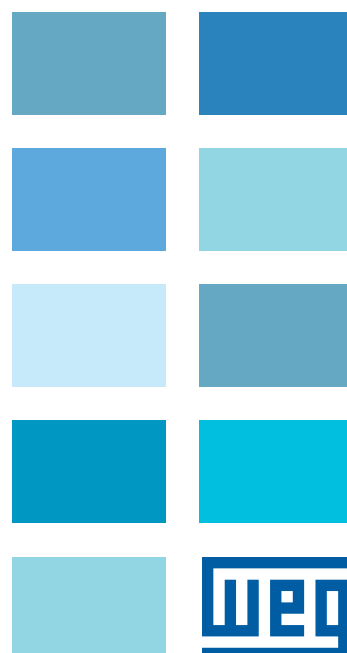
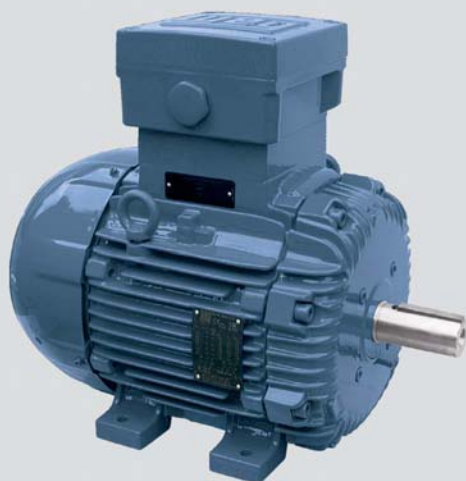
More options available, on request

Typical Applications:

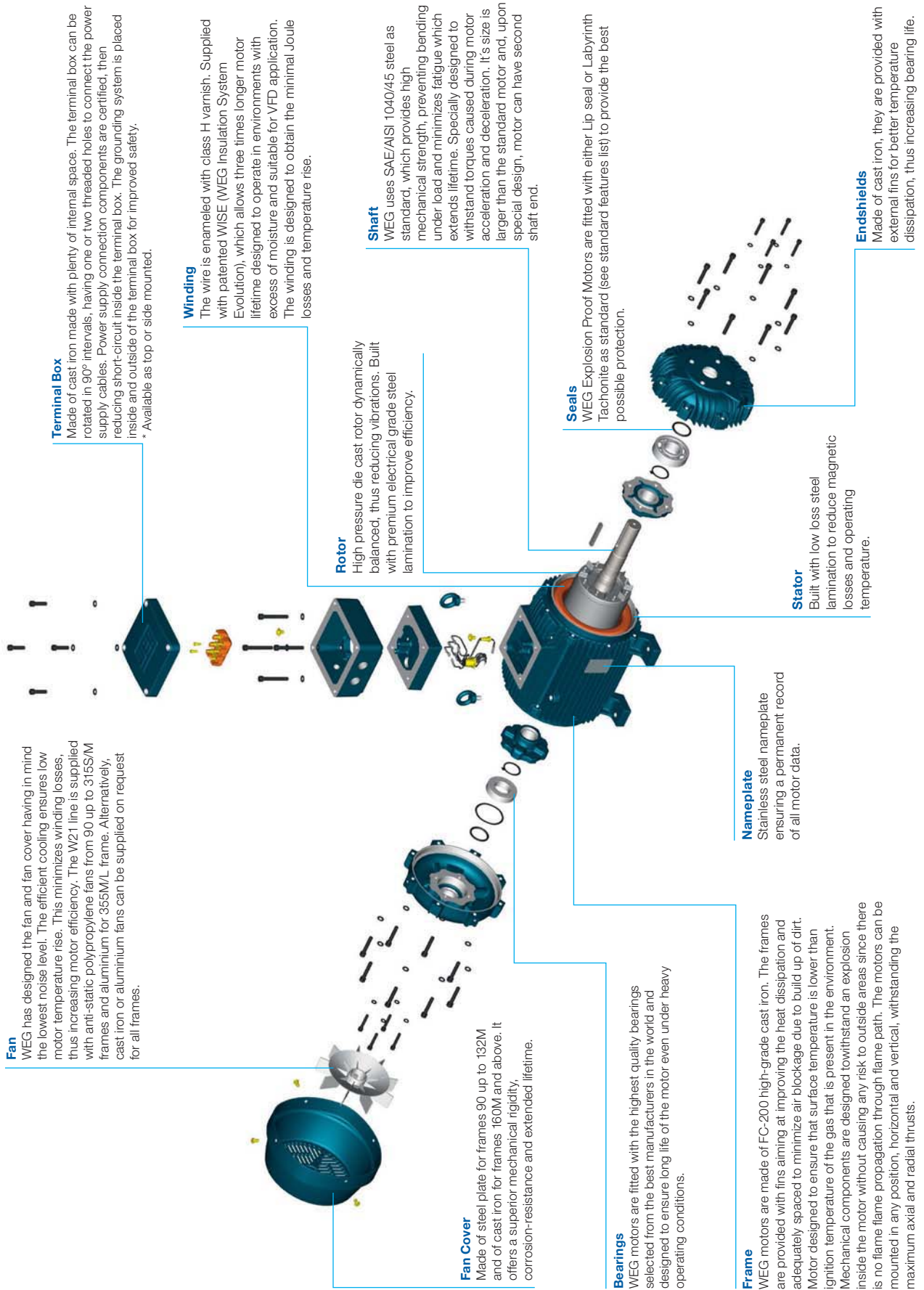
- Pumps
- Fans
- Crushers
- Conveyor belts
- Mills
- Centrifugal machines
- Presses
- Elevators
- Packaging equipment
- Grinders and others.

Options Available:

- Degree of Protection: IP56, IP65 or IP66 (W)
- Bearing seals:
 - Lip seal
 - Oil seal
- Labyrinth taconite seal and W3seal for frames 90S and above



Features and Benefits



Ex d / Ex de - Explosion Proof Motors - Cast Iron Frame

Premium Efficiency EFF1

Output		IEC Frame	Full load torque C _n (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 Hot/Cold (s)	Weight (kg)	Sound dB (A)	Rated speed (rpm)	400 V						Full load current I _n (A)
												% of full load			Power Factor (Cos φ)			
kW	HP											50	75	100	50	75	100	
II Pole - 3000 rpm																		
5.5	7.5	132S	1.83	8	2.7	3.2	0.02056	19/42	85.4	67	2935	88.5	90	90.1	0.71	0.81	0.86	10.2
7.5	10	132S	2.45	7.3	2.5	3	0.02056	10/22	81.3	67	2925	87.3	88.4	89.5	0.67	0.79	0.85	14.2
9.2	12.5	160M	3.03	8.5	2.5	3.2	0.04706	15/33	144.8	70	2955	87.5	90.5	91	0.72	0.82	0.86	17
11	15	160M	3.64	8.5	2.8	3.3	0.05295	14/31	151.5	70	2950	90	91.9	92.3	0.7	0.8	0.85	20.2
15	20	160M	4.86	7.8	2.5	3.2	0.05295	10/22	151.5	70	2945	90.4	91.7	91.8	0.74	0.83	0.87	27.1
18.5	25	160L	6.08	8.2	2.6	3.3	0.06471	10/22	169	70	2945	91.2	92.4	92.3	0.75	0.84	0.87	33.3
22	30	180M	7.28	8.5	2.8	3.1	0.11351	13/29	217.7	70	2950	91.8	93	93	0.76	0.85	0.88	38.8
30	40	200L	9.68	7.4	2.7	2.8	0.2063	31/68	293.6	74	2960	92.8	93.7	94	0.77	0.84	0.87	52.9
37	50	200L	12.09	7.6	2.7	2.7	0.22424	25/55	260	74	2960	93.2	94	94.6	0.76	0.84	0.87	64.9
45	60	225S/M	14.46	8.5	2.4	2.9	0.44846	18/40	461	82	2970	93.6	94.5	94.7	0.82	0.88	0.9	76.2
55	75	250S/M	18.11	8.9	2.6	3.4	0.50227	15/33	513	82	2965	94	95	95	0.85	0.89	0.91	91.8
75	100	280S/M	24.07	7.7	2.2	2.9	1.27083	51/112	841	83	2975	93.2	94.4	95.6	0.83	0.87	0.89	127
90	125	280S/M	30.08	8.2	2.2	2.8	1.41204	42/92	877	83	2975	94.1	95.5	95.8	0.82	0.88	0.9	151
110	150	315S/M	36.1	8	2.3	2.8	1.50617	38/84	1000	83	2975	94.4	95.3	95.8	0.82	0.87	0.89	186
132	175	315S/M	42.12	7.8	2.2	2.7	1.74151	32/70	1060	83	2975	94.3	95.5	96	0.82	0.88	0.89	223
160	220	315S/M	53.04	7.8	2.2	2.5	2.11806	33/73	1164	83	2970	95	96	96.2	0.85	0.89	0.9	267
200	270	355M/L	64.76	7.2	1.8	2.6	4.82631	70/154	1830	81	2985	93.5	95	95.4	0.89	0.91	0.92	329
250	340	355M/L	81.55	7.8	1.7	2.5	5.74561	65/143	1972	81	2985	95.5	96.3	96.4	0.87	0.91	0.92	407
HIGH-OUTPUT DESIGN																		
75	100	250S/M	24.15	8.5	3	3.4	0.55609	10/22	570	82	2965	93	94.3	94.6	0.83	0.88	0.9	127
110	150	280S/M	36.1	8	2.3	2.8	1.50617	38/84	890	83	2975	94.4	95.3	95.8	0.82	0.87	0.89	186
IV Pole - 1500 rpm																		
5.5	7.5	132S	3.67	8	2.4	3	0.04264	10/22	83.6	56	1465	86.5	89.1	89.2	0.64	0.76	0.83	10.7
7.5	10	132M	4.89	8.2	2.5	3	0.05815	9/20	99.3	56	1465	88.5	90	90.2	0.7	0.81	0.86	14
11	15	160M	7.33	6	2.5	2.6	0.10037	19/42	155	67	1465	90.3	91.4	91.2	0.68	0.78	0.83	21
15	20	160L	9.77	6.1	2.5	2.6	0.11542	17/37	165	67	1465	90.5	91.9	91.8	0.66	0.77	0.83	28.4
18.5	25	180M	12.18	8	2.9	2.9	0.19733	12/26	222	64	1470	91.6	93	93.4	0.65	0.76	0.82	34.9
22	30	180L	14.61	7.5	2.7	2.9	0.19733	14/31	216.8	64	1470	92	92.9	93.1	0.65	0.77	0.82	41.6
30	40	200L	19.42	7	2.5	2.6	0.33095	18/40	290	69	1475	93	94	93.9	0.67	0.78	0.83	55.6
37	50	225S/M	24.19	7.2	2.2	2.7	0.69987	16/35	411	70	1480	93	94	94.1	0.76	0.84	0.87	65.2
45	60	225S/M	29.03	7.4	2.4	3	0.83984	15/33	440	70	1480	94	94.5	94.5	0.76	0.83	0.88	78.1
55	75	250S/M	36.41	7.2	2.5	2.8	1.15478	17/37	556	70	1475	94.1	94.7	94.6	0.77	0.86	0.89	94.3
75	100	280S/M	48.22	7.2	2.2	2.6	2.16799	38/84	840	70	1485	93.9	95.1	95.2	0.79	0.85	0.88	129
90	125	280S/M	60.27	7.8	2.4	2.6	2.81036	25/55	934.4	70	1485	94.3	95.1	95.3	0.79	0.85	0.88	155
110	150	315S/M	72.32	7.6	2.4	2.6	3.21184	29/64	1100	72	1485	94.5	95.2	95.6	0.8	0.86	0.88	189
132	175	315S/M	84.38	7.8	2.4	2.6	3.77391	25/55	1190	72	1485	94.8	95.4	95.7	0.78	0.85	0.88	226
160	220	315S/M	106.07	7.6	2.4	2.6	3.77391	20/44	1210	72	1485	94.7	95.7	95.9	0.76	0.84	0.87	277
185	250	355M/L	120.13	7.2	2.2	2.6	6.34151	53/117	1415	79	1490	94.8	95.6	95.9	0.78	0.85	0.87	320
200	270	355M/L	129.75	6.6	2.1	2.3	6.85703	49/108	1817	79	1490	95.3	95.8	96	0.8	0.86	0.88	342
250	340	355M/L	163.38	6.9	2.2	2.5	8.12016	36/79	1921	79	1490	95.3	96.3	96.5	0.8	0.86	0.88	425
315	430	355M/L	206.63	6.5	2.2	2.4	11.18495	42/92	2197	79	1490	95.8	96.3	96.6	0.79	0.86	0.89	529
HIGH-OUTPUT DESIGN																		
110	150	280S/M	72.32	7.6	2.4	2.6	3.21184	29/64	1065	70	1485	94.5	95.2	95.6	0.8	0.86	0.88	189

Notes:

*Class "F" insulation with ΔT105K

Standard voltage, connection and frequency: 220-240V Δ 50Hz

380-415V Y 50Hz

380-415V Δ 50Hz

660-690V Y 50Hz

The values shown are subject to change without prior notice. To obtain guaranteed values please access our website.

Ex d / Ex de - Explosion Proof Motors - Cast Iron Frame

Premium Efficiency EFF1

Output		380 V									415 V								
		Rated speed (rpm)	% of full load						Full load current I _n (A)	Rated speed (rpm)	% of full load						Full load current I _n (A)		
			Efficiency η			Power Factor (Cos φ)					Efficiency η			Power Factor (Cos φ)					
kW	HP	50	75	100	50	75	100	50	75	100	50	75	100	50	75	100			
II Pole - 3000 rpm																			
5.5	7.5	2930	89	90.3	90.2	0.75	0.83	0.87	10.6	2940	88	89.8	90	0.68	0.78	0.84	10.1		
7.5	10	2915	88	88.7	89.3	0.73	0.83	0.87	14.7	2930	86.5	88	89.5	0.62	0.75	0.82	14.2		
9.2	12.5	2950	88	90.5	90.8	0.76	0.84	0.87	17.7	2960	87	90.4	91	0.69	0.8	0.84	16.7		
11	15	2945	90.5	92	92.2	0.74	0.83	0.87	20.8	2955	89.5	91.8	92.2	0.66	0.77	0.83	20		
15	20	2935	90.9	91.8	91.6	0.79	0.86	0.88	28.3	3950	89.9	91.6	91.9	0.71	0.8	0.86	26.4		
18.5	25	2940	91.6	92.5	92.1	0.8	0.86	0.88	34.7	2950	90.8	92.3	92.4	0.72	0.82	0.85	32.8		
22	30	2945	92.1	93	92.9	0.8	0.87	0.89	40.4	2955	91.5	92.9	93	0.73	0.83	0.86	38.3		
30	40	2955	93	93.7	93.8	0.81	0.86	0.88	55.2	2965	92.6	93.7	94.1	0.74	0.82	0.86	51.6		
37	50	2955	93.4	94	94.4	0.8	0.86	0.88	67.7	2965	93	94	94.6	0.72	0.82	0.86	63.3		
45	60	2965	93.9	94.5	94.5	0.84	0.89	0.91	79.5	2970	93.3	94.5	94.6	0.8	0.87	0.89	74.4		
55	75	2960	94.2	94.7	94.7	0.87	0.9	0.92	95.9	2970	93.8	95	95	0.83	0.88	0.9	89.5		
75	100	2970	93.4	94.4	95.4	0.85	0.88	0.9	133	2975	93	94.4	95.5	0.81	0.86	0.88	124		
90	125	2975	94.3	95.5	95.8	0.84	0.89	0.9	159	2980	93.9	95.5	95.8	0.8	0.87	0.89	147		
110	150	2970	94.6	95.4	95.7	0.84	0.88	0.9	194	2975	94.2	95.2	95.8	0.8	0.86	0.88	182		
132	175	2970	94.5	95.5	96	0.84	0.89	0.9	232	2975	94.1	95.4	96	0.8	0.87	0.89	215		
160	220	2965	95	95.9	96.1	0.86	0.9	0.91	278	2975	94.9	96	96.2	0.83	0.88	0.89	260		
200	270	2980	93.7	95	95.3	0.9	0.92	0.92	347	2985	93.3	94.9	95.4	0.88	0.9	0.91	321		
250	340	2980	95.5	96.3	96.4	0.89	0.92	0.93	424	2985	95.4	96.3	96.4	0.86	0.91	0.92	392		
HIGH-OUTPUT DESIGN																			
75	100	2960	93.2	94.3	94.3	0.85	0.89	0.91	133	2965	92.8	94.3	94.6	0.81	0.87	0.9	123		
110	150	2970	94.6	95.4	95.7	0.84	0.88	0.9	194	2975	94.2	95.2	95.8	0.8	0.86	0.88	182		
IV Pole - 1500 rpm																			
5.5	7.5	1460	87.5	89.3	89	0.7	0.8	0.85	11	1465	85.5	88.9	89.2	0.59	0.72	0.81	10.6		
7.5	10	1460	89	90	89.8	0.74	0.83	0.87	14.6	1465	88	89.5	90.3	0.65	0.78	0.84	13.8		
11	15	1460	90.6	91.5	91	0.72	0.81	0.85	21.6	1470	90	91.3	91.3	0.64	0.75	0.81	20.7		
15	20	1460	90.9	91.9	91.5	0.7	0.8	0.85	29.3	1470	90.1	91.9	91.8	0.62	0.74	0.81	28.1		
18.5	25	1465	91.8	93	93.3	0.7	0.8	0.84	35.9	1475	91.3	92.9	93.3	0.6	0.73	0.8	34.5		
22	30	1465	92.5	93	92.9	0.7	0.8	0.84	42.8	1475	91.5	92.8	93.1	0.61	0.74	0.8	41.1		
30	40	1475	93.5	94.1	93.7	0.71	0.81	0.85	57.2	1480	92.5	93.9	93.8	0.63	0.75	0.81	54.9		
37	50	1480	93.4	94	94	0.8	0.86	0.88	68	1485	92.6	93.9	94	0.73	0.82	0.86	63.7		
45	60	1480	94.2	94.4	94.3	0.79	0.85	0.89	81.5	1485	93.8	94.3	94.5	0.73	0.81	0.87	76.1		
55	75	1475	94.2	94.6	94.4	0.8	0.88	0.9	98.4	1480	94	94.7	94.7	0.75	0.85	0.88	91.8		
75	100	1480	94.1	95	95	0.81	0.86	0.88	136	1485	93.7	95	95.2	0.77	0.84	0.87	126		
90	125	1485	94.5	95.1	95.2	0.81	0.87	0.89	161	1485	94.1	95	95.3	0.77	0.84	0.87	151		
110	150	1480	94.7	95.2	95.4	0.82	0.87	0.89	197	1485	94.3	95.1	95.6	0.78	0.85	0.87	184		
132	175	1480	95	95.4	95.6	0.8	0.86	0.89	236	1485	94.6	95.3	95.7	0.76	0.84	0.87	221		
160	220	1480	94.9	95.7	95.8	0.78	0.86	0.88	288	1485	94.5	95.7	95.9	0.74	0.82	0.86	270		
185	250	1490	95	95.6	95.7	0.8	0.86	0.88	334	1490	94.5	95.6	95.9	0.76	0.84	0.86	312		
200	270	1485	95.3	95.6	95.7	0.83	0.87	0.89	357	1490	95	95.8	96	0.78	0.85	0.87	333		
250	340	1485	95.5	96.3	96.4	0.82	0.87	0.89	443	1490	95.1	96.1	96.4	0.77	0.85	0.87	415		
315	430	1485	96	96.4	96.5	0.83	0.87	0.89	557	1490	95.5	96.2	96.6	0.73	0.84	0.88	516		
HIGH-OUTPUT DESIGN																			
110	150	1480	94.7	95.2	95.4	0.82	0.87	0.89	197	1485	94.3	95.1	95.6	0.78	0.85	0.87	184		

Ex d / Ex de - Explosion Proof Motors - Cast Iron Frame

Premium Efficiency EFF1

Output		IEC Frame	Full load torque C _n (Nm)	Locked rotor current I _r /I _n	Locked rotor torque T _r /T _n	Break-down torque T _b /T _n	Inertia J kgm ²	Allowable locked rotor time Hot/Cold (s)	Weight (kg)	Sound dB (A)	Rated speed (rpm)	400 V						Full load current I _n (A)
												% of full load						
												Efficiency η			Power Factor (Cos φ)			
kW	HP		50	75	100	50	75	100										
VI Pole - 1000 rpm																		
3	4	132S	6	2.98	2.1	2.5	0.04264	28/62	81.8	52	960	82	85	86.5	0.53	0.67	0.74	6.76
4	5.5	132M	6.5	4.1	2.2	2.5	0.05039	21/46	91.4	52	960	85	86.6	87.2	0.56	0.69	0.76	8.71
5.5	7.5	132M	6.4	5.59	2.2	2.4	0.06202	14/31	99.5	52	960	84.5	86.7	86.7	0.54	0.67	0.75	12.2
7.5	10	160M	6.6	7.38	2.5	2.9	0.14364	19/42	151	56	970	87.5	89.5	90	0.61	0.74	0.81	14.8
9.2	12.5	160L	6.2	9.23	2.2	2.7	0.16518	15/33	166	56	970	89.4	90.1	90.1	0.6	0.73	0.8	18.4
11	15	160L	7	11.07	2.4	2.7	0.17595	13/29	169.9	56	970	89	90.3	90.3	0.58	0.72	0.79	22.3
15	20	180L	8	14.76	2.7	3	0.28959	9/20	232	56	970	91.2	91.9	91.6	0.72	0.81	0.87	27.2
18.5	25	200L	6.3	18.36	2.3	2.5	0.37671	17/37	279.8	58	975	91.3	92.7	92.9	0.67	0.78	0.82	35.1
22	30	200L	6.2	22.03	2.3	2.6	0.44846	15/33	240	58	975	91.2	92.6	92.9	0.65	0.75	0.82	41.7
30	40	225S/M	7	29.08	2.6	2.6	0.98842	21/46	425	61	985	91.7	93	93.5	0.73	0.81	0.85	54.5
37	50	250S/M	7	36.53	2.5	2.6	1.3179	20/44	500	61	980	91.8	94	94	0.72	0.81	0.84	67.6
45	60	280S/M	6.8	43.61	2.2	2.7	2.29824	27/59	737	66	985	92	93.6	94.2	0.67	0.77	0.82	84.1
55	75	280S/M	6.7	54.52	2.1	2.6	2.64298	21/46	773	66	985	92.5	93.9	94.3	0.67	0.78	0.82	103
75	100	315S/M	6.7	72.69	2.1	2.4	3.44737	20/44	725	69	985	93.7	94.4	94.5	0.72	0.81	0.84	136
90	125	315S/M	6.5	90.86	2.2	2.4	4.02193	16/35	1030	69	985	94	94.8	94.8	0.71	0.8	0.83	165
110	150	315S/M	6.5	109.04	2.2	2.4	5.28596	18/40	1165	69	985	94.5	95.1	95.1	0.69	0.79	0.84	199
132	175	355M/L	6.1	126.57	1.9	2.2	9.05472	90/198	1700	73	990	94.3	95.5	95.8	0.67	0.77	0.81	246
160	220	355M/L	6	159.11	1.9	2.1	9.53128	76/167	1800	73	990	94.2	95.8	96	0.65	0.77	0.81	297
200	270	355M/L	6.1	195.27	2.2	2.3	12.39067	85/187	1910	73	990	94.7	95.5	95.7	0.66	0.76	0.81	372
250	340	355M/L	6.1	245.9	1.9	2.1	14.77349	64/141	2185	73	990	95	96	96.2	0.69	0.78	0.81	463
280	380	355M/L*	6	274.83	2.1	2.2	14.77349	54/119	2185	73	990	94.7	95.7	96	0.68	0.77	0.8	526
VIII Pole - 750 rpm																		
2.2	3	132S	3.03	5.3	2.1	2.3	0.0552	19/42	81.8	48	710	79	79.9	80	0.51	0.64	0.72	5.51
3	4	132M	4.03	5.9	2.5	2.6	0.07527	16/35	94.8	48	710	79.5	82.5	83	0.52	0.64	0.72	7.25
4	5.5	160M	5.43	5.2	2.2	2.8	0.12209	27/59	144.3	51	725	83	85.8	86.6	0.44	0.57	0.66	10.1
5.5	7.5	160M	7.36	5.2	2.3	2.7	0.14364	23/51	157	51	730	82.2	85	86	0.44	0.58	0.68	13.6
7.5	10	160L	9.88	4.9	2	2.5	0.16518	15/33	166	51	725	84.5	86.7	86.5	0.5	0.62	0.71	17.6
9.2	12.5	180M	12.34	7	2.2	2.7	0.262	12/26	207	51	725	87.5	88.3	88.5	0.67	0.77	0.83	18.1
11	15	180L	14.81	7	2.2	2.4	0.26201	9/20	216.8	51	725	88	89	89	0.68	0.78	0.83	21.5
15	20	200L	19.62	5	2	2.2	0.50227	28/62	325	53	730	89.5	90.8	91.5	0.53	0.65	0.71	33.3
18.5	25	225S/M	24.52	7.2	2.1	2.6	0.84722	18/40	393	56	730	90.5	91.5	91.9	0.69	0.79	0.83	35
22	30	225S/M	29.42	7.5	2.2	3	0.98842	18/40	365	56	730	90.8	92.2	92.5	0.67	0.77	0.82	41.9
30	40	250S/M	39.23	7.5	2.1	2.8	1.22377	17/37	485	56	730	91.7	92.5	93	0.69	0.79	0.83	56.1
37	50	280S/M	48.38	6.5	1.9	2.2	2.64298	32/70	765	59	740	92.6	93.5	93.9	0.63	0.74	0.8	71.1
45	60	280S/M	58.05	6.5	2	2.4	3.10263	32/70	825	59	740	92.9	93.7	94	0.62	0.73	0.79	87.5
55	75	315S/M	72.57	6.5	2	2.2	3.44737	32/70	870	62	740	93.5	94.5	94.5	0.63	0.74	0.8	105
75	100	315S/M	96.76	6.6	1.9	2.2	4.36666	20/44	1062	62	740	93.9	94.7	94.9	0.66	0.78	0.81	141
90	125	315S/M	120.95	6.8	1.9	2.4	5.28596	23/51	1220	62	740	93.9	94.7	95	0.67	0.77	0.81	169
110	150	355M/L	145.14	6.4	1.5	2.2	12.56043	41/90	1430	70	740	93.5	95.2	95.2	0.62	0.73	0.79	211
132	175	355M/L	169.32	6.5	1.6	2.2	13.18845	47/103	1800	70	740	94	95.4	95.4	0.63	0.73	0.79	253
160	220	355M/L	212.86	6.6	1.6	2.2	16.32856	42/92	1910	70	740	94.3	95.7	95.7	0.62	0.74	0.79	305
200	270	355M/L	261.24	6.8	1.6	2.1	19.46866	37/81	2185	70	740	94.2	95.1	95.5	0.58	0.71	0.78	388
HIGH OUTPUT DESIGN																		
55	75	280S/M	72.57	6.5	2	2.2	3.44737	32/70	855	62	740	93.5	94.5	94.5	0.63	0.74	0.8	105

Notes:

*Class "F" insulation with ΔT105K

Standard voltage, connection and frequency: 220-240V Δ 50Hz

380-415V Y 50Hz

380-415V Δ 50Hz

660-690V Y 50Hz

The values shown are subject to change without prior notice. To obtain guaranteed values please access our website.

Ex d / Ex de - Explosion Proof Motors - Cast Iron Frame Premium Efficiency EFF1

Output		380 V								415 V							
		Rated speed (rpm)	% of full load						Full load current I _n (A)	Rated speed (rpm)	% of full load						Full load current I _n (A)
			Efficiency η			Power Factor (Cos φ)					Efficiency η			Power Factor (Cos φ)			
kW	HP	50	75	100	50	75	100	50	75	100	50	75	100	50	75	100	
VI Pole - 1000 rpm																	
3	4	955	83	85.2	86	0.57	0.69	0.76	6.97	965	81	84.8	86.5	0.5	0.64	0.72	6.7
4	5.5	955	85.7	86.8	87	0.6	0.72	0.78	8.96	965	84.3	86.4	87.2	0.52	0.66	0.74	8.62
5.5	7.5	955	85.5	87	86.5	0.56	0.7	0.76	12.7	965	83.5	86.4	86.9	0.51	0.64	0.73	12.1
7.5	10	965	88	89.7	89.9	0.65	0.77	0.82	15.5	975	87	89.3	90	0.58	0.71	0.79	14.7
9.2	12.5	970	90	90.3	90	0.64	0.75	0.81	19.2	975	88.7	89.9	90	0.55	0.71	0.79	18
11	15	970	89.5	90.5	90.2	0.62	0.76	0.81	22.9	975	88.5	90	90.3	0.54	0.68	0.76	22.3
15	20	970	91.4	91.8	91.4	0.75	0.83	0.89	28	975	91	91.8	91.6	0.7	0.8	0.85	26.8
18.5	25	970	91.8	92.6	92.7	0.72	0.81	0.84	36.1	980	90.8	92.6	92.9	0.64	0.75	0.8	34.6
22	30	970	92	92.9	92.9	0.7	0.78	0.84	42.8	980	90.4	92.2	92.9	0.6	0.72	0.8	41.2
30	40	980	92	93	93.4	0.76	0.84	0.86	56.7	985	91.4	93	93.5	0.7	0.79	0.84	53.1
37	50	980	92	94	93.9	0.75	0.83	0.86	69.6	985	91.6	94	94	0.69	0.79	0.82	66.8
45	60	985	92.5	93.7	94.1	0.71	0.79	0.84	86.5	985	91.5	93.5	94.1	0.64	0.75	0.8	83.2
55	75	985	92.8	93.9	94.2	0.71	0.8	0.83	107	985	92.2	93.9	94.2	0.64	0.75	0.81	100
75	100	985	94	94.4	94.4	0.75	0.83	0.85	142	985	93.4	94.4	94.5	0.69	0.79	0.83	133
90	125	985	94.3	94.8	94.7	0.74	0.82	0.84	172	985	93.7	94.8	94.8	0.68	0.78	0.82	161
110	150	985	94.7	95	95	0.73	0.81	0.85	207	985	94.3	95.1	95.2	0.66	0.77	0.83	194
132	175	990	94.5	95.5	95.7	0.72	0.79	0.82	256	990	94.1	95.5	95.8	0.64	0.75	0.8	240
160	220	990	94.5	95.9	96	0.7	0.8	0.82	309	990	93.9	95.8	96	0.6	0.74	0.8	290
200	270	990	95	95.6	95.7	0.7	0.79	0.82	387	990	94.4	95.4	95.7	0.62	0.73	0.79	368
250	340	990	95.3	96	96.1	0.73	0.8	0.82	482	990	94.7	95.9	96.2	0.66	0.76	0.8	452
280	380	985	95	95.8	96	0.73	0.8	0.81	547	990	94.4	95.5	96	0.64	0.74	0.79	514
VIII Pole - 750 rpm																	
2.2	3	700	79.5	80	79.5	0.56	0.68	0.75	5.61	715	78.5	79.8	80.1	0.48	0.61	0.7	5.46
3	4	700	80.5	83	82.5	0.54	0.66	0.74	7.47	715	78.5	82	83	0.5	0.62	0.7	7.18
4	5.5	725	84	86.2	86.6	0.48	0.61	0.7	10	730	82	85.4	86.6	0.41	0.53	0.63	10.2
5.5	7.5	725	83.2	85.5	86	0.48	0.62	0.71	13.7	730	81.2	84.5	86	0.4	0.54	0.65	13.7
7.5	10	720	85.5	87	86.3	0.53	0.65	0.73	18.1	730	83.5	86.5	86.5	0.47	0.59	0.69	17.5
9.2	12.5	725	87.8	88.3	88	0.71	0.81	0.85	18.7	730	87.2	88.3	88.6	0.63	0.75	0.81	17.8
11	15	725	88.2	89	88.8	0.73	0.81	0.85	22.1	730	87.8	89	89	0.65	0.75	0.81	21.2
15	20	730	90	91	91.2	0.56	0.67	0.73	34.2	735	89	90.6	91.3	0.5	0.63	0.69	33.1
18.5	25	725	90.8	91.5	91.5	0.73	0.81	0.84	36.6	730	90.2	91.5	91.9	0.65	0.77	0.82	34.2
22	30	730	91.1	92.2	92.2	0.71	0.8	0.83	43.7	735	90.5	92.1	92.5	0.63	0.74	0.81	40.8
30	40	725	92	92.5	92.6	0.73	0.81	0.84	58.6	730	91.3	92.5	93	0.65	0.77	0.82	54.7
37	50	735	92.9	93.5	93.8	0.68	0.76	0.81	74	740	92.1	93.4	93.8	0.6	0.72	0.79	69.5
45	60	735	93.3	93.9	94	0.66	0.77	0.81	89.8	740	92.5	93.5	94.1	0.58	0.7	0.77	86.4
55	75	735	93.8	94.5	94.4	0.69	0.78	0.81	109	740	93.1	94.5	94.6	0.61	0.73	0.79	102
75	100	735	94.1	94.7	94.8	0.69	0.8	0.82	147	740	93.7	94.7	94.9	0.63	0.76	0.8	137
90	125	735	94.2	94.8	95	0.71	0.79	0.83	173	740	93.6	94.6	95.1	0.63	0.75	0.8	165
110	150	740	94	95.2	95.1	0.65	0.76	0.81	217	745	93	95.2	95.2	0.59	0.77	0.77	209
132	175	740	94.5	95.4	95.3	0.66	0.75	0.81	260	745	93.5	95.4	95.4	0.6	0.71	0.77	250
160	220	740	94.8	95.7	95.5	0.66	0.76	0.8	318	745	93.8	95.7	95.7	0.58	0.71	0.78	298
200	270	740	94.4	95.2	95.4	0.63	0.74	0.8	398	745	94	95	95.5	0.54	0.68	0.76	383
HIGH OUTPUT DESIGN																	
55	75	735	93.8	94.5	94.4	0.69	0.78	0.81	109	740	93.1	94.5	94.6	0.61	0.73	0.79	102

Ex d / Ex de - Explosion Proof Motors - Cast Iron Frame

Two speed - Premium Efficiency EFF1

Constant torque IV/II Pole - Dahlander Winding

Output		IEC Frame	Full load torque C_n (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 Hot/Cold (s)	Weight (kg)	Sound dB (A)	Rated speed (rpm)	400 V						Full load current I_n (A)
												% of full load			Power Factor (Cos φ)			
kW	HP											Efficiency η			Power Factor (Cos φ)			
												50	75	100	50	75	100	
IV/II Pole - 1500/3000 rpm																		
0.7	0.95		0.48	5.2	1.8	2	0.00392	10/22	29.5	49	1405	68.4	72.2	71.2	0.56	0.7	0.81	1.752
0.85	1.15	90S	0.29	5	2.1	2.3		10/22		64	2800	60.9	66.3	66.8	0.69	0.8	0.87	2.111
1.1	1.5		0.77	5	2.1	2.2	0.00504	7/15	32	49	1400	71	73.5	74	0.66	0.78	0.84	2.55
1.4	1.9	90L	0.49	6	2.2	2.2		6/13		64	2750	68	72	73	0.7	0.81	0.9	3.08
1.5	2		1	7.2	2.6	3	0.00842	16/35	45.6	53	1435	80	82	81.5	0.61	0.74	0.81	3.28
1.9	2.6	100L	0.64	8.5	2.7	3.1		9/20		67	2890	74	78	79	0.75	0.84	0.89	3.9
2	2.7		1.37	6.5	2.2	2.5	0.00842	12/26	45.6	53	1415	80	81.5	81	0.67	0.79	0.84	4.243
2.4	3.3	100L	0.82	7.9	2.5	2.7		7/15		67	2870	74	78	79	0.73	0.84	0.9	4.872
2.6	3.5		1.74	6.5	2.1	2.3	0.01607	11/24	60	56	1440	80.5	81.5	82	0.69	0.8	0.85	5.384
3.1	4.2	112M	1.04	8	2.2	2.5		6/13		64	2890	74	78.5	81.5	0.73	0.84	0.89	6.169
3.7	5		2.45	7	1.9	2.3	0.04264	10/22	85.4	60	1460	84	85	84.5	0.74	0.84	0.89	7.101
4.4	5.9	132S	1.45	7.5	2.4	2.8		7/15		68	2910	76.5	80	80.5	0.81	0.89	0.92	8.575
4.9	6.6		3.26	6.5	1.7	2	0.04264	8/18	88	60	1450	82	83	83	0.78	0.86	0.89	9.57
5.9	7.9	132M	1.96	6.5	2	2.3		6/13		68	2890	77.5	78.5	79	0.82	0.89	0.92	11.7
6.8	9.2		4.51	5.6	2	2.3	0.08028	20/44	144.8	67	1460	84.5	86.5	86.7	0.67	0.78	0.83	13.639
8	11	160M	2.69	7.1	2.4	2.8		10/22		70	2930	78	82	82.5	0.74	0.83	0.88	15.905
9.5	12.9		6.35	5	1.9	2.1	0.09034	15/33	151.5	67	1455	87	88	87	0.69	0.79	0.83	18.989
11	15	160M	3.68	6.5	2.3	2.9		7/15		70	2920	82	83	84	0.74	0.83	0.88	21.479
12	16.3		8.02	5.1	1.9	2.1	0.11041	12/26	169	67	1455	88	89	88	0.69	0.79	0.83	23.714
15	20	160L	4.9	6.5	2.3	2.8		6/13		70	2920	83	84.5	85.5	0.75	0.85	0.89	28.452
15	20		9.77	6.7	2.5	2.7	0.1794	10/22	217.7	64	1465	89	90	89.5	0.68	0.79	0.83	29.145
18	24.5	180M	5.98	8.3	2.7	3		6/13		70	2935	85.5	88	88	0.71	0.82	0.87	33.935
18	24.5		11.97	7	2.6	2.6	0.21528	10/22	230	64	1465	89.5	90.5	90	0.69	0.79	0.83	34.78
21.5	29	180L	7.07	8.9	2.8	3		6/13		70	2935	86.5	88.5	89	0.73	0.83	0.88	39.623
26	35		16.99	6.2	2	2.2	0.35853	22/48	310	69	1475	89	90	90.5	0.69	0.79	0.84	49.4
33	45	200L	10.92	8	2.2	2.5		8/18		74	2950	85.5	88	88.8	0.83	0.89	0.91	58.9
32	43.5		21.04	8.1	2.6	3.3	0.69987	11/24	410	70	1480	89	90.1	90.6	0.76	0.83	0.88	57.9
38	52	225S/M	12.58	8.7	2.6	3.3		8/18		82	2960	84.6	87.3	88.5	0.83	0.87	0.89	69.6
38	52		25.16	7.8	2.3	2.6	0.76985	12/26	430	70	1480	89	90.4	91	0.75	0.83	0.88	68.5
45	60	225S/M	14.51	8.3	2.5	2.8		7/15		82	2960	85	87.9	89	0.77	0.84	0.87	83.9
46	63		30.69	8	2.3	2.6	0.97981	7/15	510	70	1470	89.2	90.8	91.4	0.76	0.83	0.88	82.5
55	75	250S/M	18.27	8.6	2.2	2.8		6/13		82	2940	85.5	88.4	89.5	0.82	0.87	0.9	98.6
63	86		41.61	6.8	2	2.5	2.16799	30/66	841	76	1480	92	92.5	93	0.8	0.86	0.88	111
75	100	280S/M	24.11	8.4	1.9	2.8		16/35		83	2970	87.5	89.5	90.5	0.82	0.88	0.9	133
73	99		48.22	6.6	1.7	1.9	2.32858	12/26	870	76	1470	92	93	93	0.83	0.87	0.88	129
87	118	280S/M	28.64	8	1.9	2.1		8/18		83	2950	89	90.5	91	0.88	0.91	0.92	150
85	115		55.82	7	1.9	1.9	2.81036	11/24	1036	77	1475	92.5	93	93.2	0.77	0.84	0.86	153
100	136	315S/M	32.9	8.5	2.1	2.4		7/15		84	2960	90	91	91.5	0.89	0.92	0.93	170
100	136		65.79	5.7	1.9	1.9	3.77391	14/31	1190	77	1480	92	93	93.5	0.8	0.85	0.86	180
120	160	315S/M	38.64	8.5	2.4	2.7		8/18		84	2965	91	92	93	0.89	0.91	0.92	202

Notes:

- The motors can also operate at 60Hz supply. The change in performance data can be obtained directly from the local WEG distributor.
- The values shown herewith are subjected to change without prior notice.

I_l/I_n = Locked rotor current
 T_l/T_n = Locked rotor torque
 I_n = Full load current

Ex d / Ex de - Explosion Proof Motors - Cast Iron Frame

Two speed - Premium Efficiency EFF1

Constant torque VIII/IV Pole - Dahlander Winding

Output		IEC Frame	Full load torque C _n (Nm)	Locked rotor current I _r /I _n	Locked rotor torque T _r /T _n	Break-down torque T _b /T _n	Inertia J kgm ²	Allowable locked rotor time Hot/Cold (s)	Weight (kg)	Sound dB (A)	Rated speed (rpm)	400 V						Full load current I _n (A)
												% of full load						
												Efficiency η			Power Factor (Cos φ)			
kW	HP	50	75	100	50	75	100											
VIII / IV Pole - 750/1500 rpm																		
0.27	0.37	90S	0.38	2.5	1.7	1.7	0.0042	35/77	31.6	43	690	43.2	50.2	52.1	0.45	0.55	0.65	1.15
0.4	0.55		0.28	4.5	1.6	1.9		35/77		49	1395	70.5	72	71.5	0.67	0.79	0.85	0.95
0.4	0.55	90L	0.56	3.2	2	2	0.00504	13/29	32	43	700	40	50	53	0.42	0.52	0.6	1.82
0.7	0.95		0.49	5	1.8	2		8/18		49	1400	71.5	73	73	0.68	0.8	0.86	1.61
0.52	0.7	100L	0.72	3.7	2.8	2.7	0.00766	30/66	43.1	50	700	46.8	55.3	59.3	0.35	0.44	0.53	2.38
0.9	1.22		0.62	5.9	1.8	2.4		30/66		53	1420	77	79.3	78.6	0.69	0.81	0.86	1.92
0.7	0.95	100L	0.96	4.2	1.9	2.2	0.01121	13/29	43.1	50	710	60	66	68	0.42	0.53	0.64	2.32
1.1	1.5		0.75	5.8	2	2.4		6/13		53	1440	71	75	75	0.61	0.74	0.82	2.58
1.1	1.5	100L	1.53	4.2	1.9	2.3	0.01289	12/26	46	50	700	62	67	68.5	0.44	0.56	0.66	3.51
1.8	2.45		1.23	5.5	2.1	2.4		6/13		53	1430	70	75	75	0.64	0.75	0.82	4.22
1.5	2	112M	2.03	4.7	2.9	2.2	0.02244	20/44	62	46	705	67	71.9	72.9	0.43	0.55	0.65	4.569
2.5	3.4		1.72	6.6	2.3	2.2		15/33		56	1415	80	81	80	0.74	0.84	0.89	5.068
1.9	2.6	132M	2.59	6.3	2.6	2.6	0.07527	7/15	97	48	720	70	74.5	76	0.44	0.57	0.67	5.39
3.7	5		2.5	7	2.4	2.4		6/13		60	1430	79.2	80.1	82	0.78	0.87	0.9	7.24
3.3	4.5	160M	4.41	5.2	2.1	2.7	0.12208	20/44	144.7	51	730	76.5	80.5	81.5	0.45	0.58	0.68	8.595
5.5	7.5		3.68	7	2	2.7		12/26		67	1460	84	85	85.2	0.8	0.88	0.91	10.23
3.7	5	160M	4.9	5.4	2.3	2.8	0.12927	10/22	146	51	730	72.5	77.5	79.5	0.43	0.55	0.65	10.3
7	9.5		4.69	6.5	2.2	2.6		6/13		67	1450	83.5	84.2	84.5	0.79	0.87	0.9	13.3
5.5	7.5	160M	7.46	5	2.1	2.4	0.14364	15/33	151	51	720	74	77.5	79.6	0.48	0.6	0.7	14.2
8.8	12		5.93	6.5	2.1	2.4		7/15		67	1450	83.2	84.3	84.5	0.79	0.86	0.88	17.1
7	9.5	160L	9.38	5	2.3	2.4	0.16518	12/26	166	51	725	75	79.5	80.5	0.46	0.58	0.68	18.5
11	15		7.38	6.5	2.2	2.6		6/13		67	1455	84	85	85	0.77	0.86	0.89	21
11	15	180L	14.71	7.3	2.3	2.5	0.30337	6/13	216.8	51	730	82	82.6	84	0.5	0.63	0.7	27
18	24.5		12.02	8.5	2.2	2.4		6/13		64	1460	85.8	86.3	87	0.81	0.88	0.9	33.2
17	23	200L	22.41	4.5	2	2.2	0.50227	26/57	325	53	735	84.5	86.5	87.2	0.54	0.67	0.74	38
27	37		18.08	6	2	2.4		10/22		69	1465	88	89	89.5	0.85	0.89	0.91	47.8
22	30	225S/M	29.42	7.5	2	2.3	1.22377	9/20	465	56	730	86.5	87.5	88	0.65	0.76	0.82	44
32	43.5		21.26	8.5	2	2.5		6/13		70	1465	87.5	88.5	89	0.89	0.93	0.94	55.2
26	35	250S/M	34.57	7.5	2	2.3	1.36497	7/15	511	56	725	86.2	87.3	88	0.67	0.78	0.82	52
37	50		24.69	8.8	2	2.3		6/13		70	1450	87.2	88.1	88.7	0.85	0.89	0.91	66.2
33	45	250S/M	44.14	7.2	1.9	2.2	1.55324	6/13	540	56	730	87	88.3	89	0.67	0.78	0.82	65.3
47	64		31.39	9	2.2	2.4		6/13		70	1460	87.5	88.4	90	0.86	0.9	0.92	81.9
38	52	280S/M	50.31	5	1.8	2.2	3.33245	25/55	865	59	740	87.8	89.5	90.5	0.53	0.63	0.69	87.8
56	76		36.64	7	1.8	2.2		12/26		76	1485	89.5	90.5	91	0.83	0.86	0.88	101
46	63	280S/M	61.37	4.5	1.7	2	2.5692	30/66	885	59	735	89	90	90.2	0.53	0.63	0.7	105
67	91		43.88	7	2	2.2		15/33		76	1485	90.5	91.4	91.8	0.84	0.88	0.89	118
56	76	315S/M	74.04	5.5	1.8	2.1	3.21158	25/55	1050	62	735	89.5	90.5	91	0.58	0.7	0.75	118
83	113		54.67	7.2	2	2.5		11/24		77	1480	90.5	91.5	92	0.84	0.88	0.9	145
78	106	315S/M	102.56	7	1.8	2.2	5.28596	10/22	1150	62	740	88.6	90.6	91.1	0.64	0.74	0.78	158
115	156		75.22	8.4	2	2.3		6/13		77	1485	88	90	91.2	0.88	0.9	0.92	198

Ex d / Ex de - Explosion Proof Motors - Cast Iron Frame

Two speed - Premium Efficiency EFF1

Constant torque IV/II Pole - Independent Winding

Output		IEC Frame	Full load torque C _n (Nm)	Locked rotor current I _r /I _n	Locked rotor torque T _r /T _n	Break-down torque T _b /T _n	Inertia J kgm ²	Allowable locked rotor time Hot/Cold (s)	Weight (kg)	Sound dB (A)	Rated speed (rpm)	400 V						Full load current I _n (A)
												% of full load						
												Efficiency η			Power Factor (Cos φ)			
kW	HP										50	75	100	50	75	100		
VI/IV Pole - 1000/1500 rpm																		
0.26	0.36	90S	0.27	3.8	2.4	3.2	0.0042	12/26	30	45	965	40	50	55	0.37	0.46	0.54	1.26
0.4	0.55		0.27	5	1.7	2.5		8/18		49	1440	53	62	65	0.54	0.65	0.75	1.18
0.38	0.52	90L	0.38	6.2	2.4	3.3	0.0056	6/13	16	45	970	48	58	63.7	0.4	0.5	0.59	1.46
0.65	0.88		0.43	6.4	2	2.9		5/11		49	1460	61.5	68	72.3	0.52	0.64	0.74	1.75
0.55	0.75	100L	0.56	5	2	2.6	0.00766	12/26	40	44	965	58	65	67	0.45	0.57	0.67	1.77
0.9	1.22		0.61	6.5	2	2.5		6/13		53	1440	70	75	76	0.6	0.72	0.8	2.14
0.9	1.22	100L	0.92	4.7	2.2	2.4	0.01121	9/20	21	44	945	59	65	67.7	0.51	0.62	0.71	2.7
1.3	1.75		0.87	5.8	1.8	2.4		8/18		53	1440	69.5	72	72.4	0.61	0.72	0.81	3.2
1.1	1.5	112M	1.11	5.8	2.6	2.9	0.01339	9/20	25	48	965	61.5	68	71.5	0.44	0.57	0.67	3.31
1.7	2.3		1.12	6.7	2	3.4		5/11		56	1465	64.5	71	74	0.5	0.63	0.73	4.54
1.5	2	112M	1.49	6	2.6	2.8	0.01607	8/18	36	48	960	67	72	73.3	0.46	0.6	0.7	4.22
2.3	3.1		1.52	7	2.1	3.6		5/11		56	1465	67	73	76	0.5	0.63	0.73	5.98
1.8	2.45	132S	1.79	6.3	2.4	3.1	0.04265	9/20	68	52	980	62	69	72.5	0.43	0.54	0.63	5.69
2.7	3.7		1.81	7.2	2.2	2.5		12/26		60	1460	81.5	83.8	84.5	0.61	0.74	0.81	5.69
2	2.7	132M	1.96	6.2	2.8	3.2	0.05072	9/20	68	52	985	63	70	73	0.45	0.57	0.66	5.99
3.1	4.2		2.06	7.8	2.2	2.9		12/26		60	1460	82	84	84.2	0.64	0.75	0.83	6.4
2.8	3.8	160M	2.79	6	2	2.6	0.11492	11/24	79	56	975	77.2	80.3	80.7	0.59	0.72	0.8	6.26
4.3	5.8		2.83	7.5	2	2.9		6/13		67	1470	77	82	83	0.68	0.8	0.86	8.7
4.3	5.8	160L	4.26	5.5	2	2.6	0.11565	8/18	96	56	975	79	80	81	0.59	0.74	0.82	9.34
6.6	9		4.37	6.9	2	3		5/11		67	1475	76	80	82	0.6	0.75	0.84	13.8
5.7	7.7	160L	5.65	5.7	2	2.6	0.14456	7/15	127	56	975	80.5	81.5	82.6	0.6	0.75	0.83	12
8.7	11.8		5.75	6	1.9	3		6/13		67	1470	79.2	82.5	83.4	0.67	0.8	0.87	17.3
7.4	9.9	180M	7.23	6.7	1.7	2.5	0.27581	6/13	211.6	56	980	84.5	85	84.5	0.76	0.85	0.89	14.2
11.4	15.5		7.55	8.1	1.7	2.7		6/13		64	1470	86.5	87	87	0.85	0.91	0.93	20.3
9.5	13	180L	9.5	8.4	2.5	2.9	0.30532	5/11	179	56	980	86	86.5	87	0.78	0.86	0.87	18.1
14	19		9.25	8.6	2.1	3		5/11		64	1470	86.5	87	87.2	0.88	0.91	0.92	25.2
11	15	200M	10.9	7.5	2.9	3.2	0.40676	10/22	200	58	985	86	88	89	0.6	0.72	0.79	22.6
16.5	22.5		10.89	7.8	2.3	3.4		8/18		69	1480	84.5	87.5	88.5	0.65	0.76	0.83	32.4
13.2	18	200L	13.02	7.9	2.8	3	0.46939	6/13	280	58	990	88	89.5	90	0.6	0.72	0.79	26.8
20	27		13.06	8.3	2.6	2.8		5/11		69	1480	89	89.5	90	0.78	0.86	0.89	36
16	21.7	225S/M	15.69	7.2	2.8	2.9	0.76989	10/22	280	61	990	83	86	88	0.46	0.59	0.69	38
24	32.6		15.72	7.5	2.3	3		8/18		70	1485	88	89	89.5	0.71	0.81	0.86	45
21	28.5	225S/M	20.61	7	2.8	3	0.77479	7/15	379	61	990	84	87	88.3	0.55	0.68	0.78	44
31	42		20.18	7.7	2.5	3.3		7/15		70	1490	85	87.5	88.5	0.7	0.8	0.86	58.8
25	34	250S/M	24.59	7	2.9	3.2	0.91566	7/15	469	61	990	85	87	88	0.52	0.66	0.74	55.4
37	50		24.19	8.1	2.4	3.2		7/15		70	1480	90.5	91	91.5	0.76	0.85	0.88	66.3
32	43.5	250S/M	31.46	6.8	2.7	3.4	1.16219	6/13	520	61	990	86.3	88	89	0.57	0.69	0.77	67.4
47	64		30.86	8.6	2.6	3.4		7/15		70	1485	90	91.5	92	0.76	0.85	0.88	83.8
45	60	280S/M	43.18	7.1	2.9	2.4	2.58594	11/24	685	66	995	87	89	90	0.6	0.7	0.75	96.2
66	90		43.39	8.5	2.3	3		11/24		76	1485	89	91	92	0.72	0.82	0.86	120
54	73	280S/M	52.8	7.1	3	2.5	3.07081	14/31	810	66	990	89	90.3	91	0.58	0.7	0.75	114
80	109		52.55	8.4	2.6	3.1		10/22		76	1485	91	92.2	92.5	0.71	0.81	0.86	145
62	84	315S/M	60.75	7.7	3	3.3	3.39405	11/24	898	69	990	85	88.5	90	0.56	0.67	0.72	138
92	126		60.75	8.5	2.8	2.9		9/20		77	1485	88	90.5	91.5	0.8	0.86	0.87	169
75	100	315S/M*	72.32	7	2.9	2.8	3.79811	5/11	1005	69	990	86	89	90	0.6	0.69	0.75	160
110	150		72.57	6.6	2.2	2.4		5/11		77	1480	89	91	92	0.81	0.86	0.88	196

Notes:

- The motors can also operate at 60Hz supply. The change in performance data can be obtained directly from the local WEG distributor.
- The values shown herewith are subjected to change without prior notice.

I_r/I_n = Locked rotor current
 T_r/T_n = Locked rotor torque
 I_n = Full load current

Ex d / Ex de - Explosion Proof Motors - Cast Iron Frame

Two speed - Premium Efficiency EFF1

Variable torque IV/II Pole - Dahlander Winding

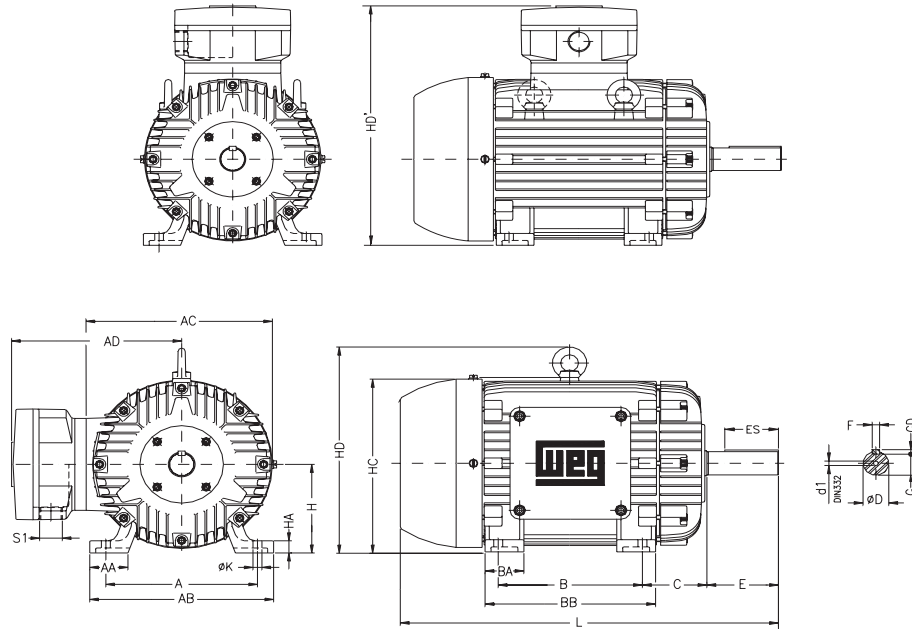
Output		IEC Frame	Full load torque C _n (Nm)	Locked rotor current I _r /I _n	Locked rotor torque T _r /T _n	Break-down torque T _b /T _n	Inertia J kgm ²	Allowable locked rotor time Hot/Cold (s)	Weight (kg)	Sound dB (A)	Rated speed (rpm)	400 V						Full load current I _n (A)
												% of full load						
												Efficiency η			Power Factor (Cos φ)			
kW	HP										50	75	100	50	75	100		
IV/II Pole - 1500/3000 rpm																		
0.37	0.5	90L	4.5	0.25	2	2.1	0.00476	18/40	20	49	1435	62.3	67.4	68.8	0.45	0.54	0.62	1.25
1.5	2		6.5	0.49	2.5	3		6/13		64	2900	68	75	76.4	0.62	0.73	0.8	3.54
0.65	0.88	100L	4.5	0.44	2.1	2.2	0.00765	22/48	30	53	1435	72	76.5	77.5	0.56	0.67	0.73	1.66
2.5	3.4		6.5	0.84	2.3	2.8		6/13		67	2890	78	80	81	0.7	0.81	0.86	5.18
1.1	1.5	132S	5	0.73	2.1	3	0.01741	60/132	43	60	1470	69	75	78	0.5	0.6	0.69	2.95
4.4	5.9		9	1.44	2.8	3.3		7/15		68	2940	78.5	82.5	84	0.7	0.81	0.87	8.69
3	4	160M	6	1.95	2	2.4	0.05294	28/62	118	67	1470	80	83	84	0.5	0.63	0.71	7.26
12	16		8.5	3.88	2.5	2.9		6/13		70	2950	83	85	86	0.71	0.81	0.87	23.1
5.5	7.5	180M	4.7	3.67	1.6	2.7	0.11352	40/88	160	64	1465	84.5	87	87	0.54	0.65	0.72	12.7
20	27.2		9.2	6.59	2.7	3.5		6/13		70	2955	87.5	89.5	90	0.76	0.84	0.89	36
6.3	8.6	180L	4.7	4.2	1.6	2.4	0.21527	35/77	180	64	1465	86.5	88	88.5	0.54	0.65	0.72	14.3
25	34		8.9	8.25	2.7	3.4		6/13		70	2950	90	90.7	91	0.76	0.85	0.89	44.6
8.5	11.5	200L	4.2	5.6	2	2	0.22426	50/110	242	69	1470	88.5	89.5	90	0.58	0.69	0.74	18.4
33	44.8		8.2	10.84	3.2	2.8		10/22		74	2960	89.5	91	91.2	0.8	0.87	0.89	58.7
9	12.2	225S/M	6.1	5.88	2.3	2.6	0.39467	28/62	366	70	1485	85	88	88.5	0.55	0.65	0.72	20.4
37	50		8.7	12.05	2.6	3		6/13		82	2970	88.5	90	90.5	0.81	0.87	0.9	65.6
12	16.3	225S/M	6.3	7.94	2.2	2.4	0.76985	23/51	385	70	1470	86	87	88.2	0.57	0.67	0.73	26.9
46	63		8.8	15.24	2.4	2.8		6/13		82	2960	85	88	90.6	0.76	0.84	0.9	81.4
15	20	250S/M	5.2	9.68	1.9	2.2	1.08479	32/70	450	70	1480	88.5	89.7	90.5	0.64	0.73	0.76	31.5
55	75		8.5	18.08	2.3	2.7		6/13		82	2970	89.8	90.8	91	0.85	0.89	0.91	95.9
20	27	280S/M	5.5	13.15	2	2.1	2.16799	60/132	705	76	1470	89.3	91	91.8	0.56	0.66	0.72	43.7
75	100		8.8	24.11	2.5	2.7		7/15		83	2970	89.5	91.2	92	0.72	0.8	0.84	140
24	32.6	280S/M	5.5	15.72	2	2.1	2.40888	55/121	775	76	1485	89.2	90.9	91.8	0.56	0.66	0.72	52.4
90	125		9	30.03	2.5	3.3		11/24		83	2980	89.8	91.4	92.3	0.78	0.85	0.88	160
27	37	315S/M	5.4	18.02	2	2	3.21184	62/136	820	77	1470	89.3	91	92	0.57	0.67	0.72	58.8
110	150		9	36.16	2.6	2.7		7/15		84	2970	90	91.9	92.8	0.73	0.82	0.85	201
33	45	315S/M	6	21.92	2	2.1	3.61332	50/110	865	77	1470	89.4	91.2	92.5	0.57	0.67	0.71	72.5
132	180		9.3	43.32	2.5	2.8		6/13		84	2975	90.3	92.4	93.3	0.75	0.82	0.86	237

Variable torque IV/II Pole - Dahlander Winding

Output		IEC Frame	Full load torque C _n (Nm)	Locked rotor current I _r /I _n	Locked rotor torque T _r /T _n	Break-down torque T _b /T _n	Inertia J kgm ²	Allowable locked rotor time Hot/Cold (s)	Weight (kg)	Sound dB (A)	Rated speed (rpm)	400 V						Full load current I _n (A)
												% of full load						
												Efficiency η			Power Factor (Cos φ)			
kW	HP										50	75	100	50	75	100		
VIII/IV Pole - 750/1500 rpm																		
1.8	2.45	160M	2.4	5.2	2.1	2.8	0.12208	30/66	110	51	730	75.8	80	81.2	0.46	0.58	0.67	4.776
7.2	9.8		4.77	8.5	2.5	3.6		7/15		67	1470	82	85	85.8	0.65	0.77	0.84	14.42
3	4	160L	3.95	4.3	1.7	2.1	0.14364	30/66	119	51	725	81	82	82.5	0.54	0.67	0.75	7
11	15		7.38	7	2.4	2.7		6/13		67	1455	84	85.5	86	0.71	0.83	0.88	21
4.3	5.8	180L	5.69	4	1.7	2	0.19734	20/44	162	51	730	80	83	84.2	0.39	0.5	0.58	12.7
17	23		11.16	8	2.4	2.8		7/15		64	1475	88.6	89.5	89.5	0.62	0.75	0.82	33.4
6.5	8.8	200L	8.57	3.6	1.9	2	0.38609	20/44	235	53	735	83.5	86.5	87	0.43	0.54	0.6	18
28	38		18.38	7.4	2.6	2.8		8/18		69	1480	90.5	91.5	91.5	0.71	0.81	0.85	52
9.2	12.5	225S/M	12.09	5.5	2.8	3.1	0.75686	18/40	360	56	740	81	85	87	0.43	0.53	0.6	25.4
37	50		24.11	9.5	3.1	4.2		6/13		70	1485	86.5	89	90	0.62	0.74	0.8	74.2
9.2	12.5	250S/M	12.09	5.5	2.8	3.1	0.75686	18/40	360	56	740	81	85	87	0.43	0.53	0.6	25.4
37	50		24.11	9.5	3.1	4.2		6/13		70	1485	86.5	89	90	0.62	0.74	0.8	74.2
11	15	225S/M	14.51	5	2.2	2.2	1.12963	20/44	425	56	740	83	86	87	0.47	0.58	0.67	27.2
44	59.7		28.88	8	2.4	3		8/18		70	1480	89	90.5	91	0.73	0.83	0.87	80.2
17	23	280S/M	22.25	4.2	1.5	1.6	3.33245	20/44	650	59	740	83.2	86.4	88.6	0.47	0.57	0.63	44
68	92.3		44.5	8	2.5	2.5		10/22		76	1485	85.1	89	90	0.76	0.83	0.86	127
20	27	280S/M	26.12	4.2	1.6	1.6	3.67719	20/44	690	59	740	83.9	87.3	89	0.46	0.57	0.61	53.2
80	109		52.55	8.6	2.7	2.8		10/22		76	1485	86.5	89	90.3	0.76	0.81	0.84	152
27	37	315S/M	35.8	4	1.7	1.7	4.82631	40/88	890	62	740	85	87	88.5	0.4	0.5	0.58	76
110	150		72.32	8.5	2.6	2.7		10/22		77	1485	88	90.2	91.3	0.69	0.78	0.82	212

Ex d / Ex de - Explosion Proof Motors - Cast Iron Frame

Mechanical Data



FRAME	A	AA	AB	AC	AD	B	BA	BB	C	SHAFT DIMENSIONS						H	HA	HC	HD	HD'	K	L	S1	d1	BEARINGS		
										D	E	ES	F	G	GD										D.E.	O.D.E.	
90S	140	38	164	179	214	100	42	131	56	24j6	50	36		20		90	12	177	-	304	10	316	M25 x 1.5	DM8	6205-ZZ	6204-ZZ	
90L						125		156				8		7		100	15	200		324		341		DM10	6206-ZZ	6205-ZZ	
100L	160	44	188	199	224		50	173	63	28j6	60	45		24	112	17	237	222	355	12	384	M32 x 1.5	DM10	6307-ZZ	6206-ZZ		
112M	190	48	220	223	243	140		183	70						112	17	237	222	355	12	394		DM12	6308-ZZ	6207-ZZ		
132S	216	51	248	270	271		55	188	89	38k6	80	63	10	33	132	19.5	282	330	403		451		DM12	6308-ZZ	6207-ZZ		
132M						178		226						8							489						
160M	254	64	308	312	322	210	65	254	108	42k6			12	37	160	22	315	370	482	14.5	598	2 x M40 x 1.5	DM16	6309-C3	6209-Z-C3		
160L						254		298													652						
180M	279	80	350	358	342	241	75	294	121	48k6			14	42.5	9	180	28	367	422	522	664	M40 x 1.5	DM16	6311-C3	6211-Z-C3		
180L						279		332													702						
200M	318	82	385	399	370	267	85	332	133	55m6			16	49	10	200	30	403	477	570	729	2 x M50 x 1.5		DM16	6312-C3	6212-Z-C3	
200L						305		370													817						
225S/M	356	80	436			286	105	391	149	55m6*		100			225	34	475	550	638	18.5	847	M50 x 1.5					
				472	413	311				60m6				53													
250S/M	406		506			349	138	445	168	60m6*			18	11	250	42	500	575	663	24	923	M63 x 1.5		M20	6314-C3	6314-C3	
		100				368				65m6*				58													
280S/M	457		557			419	142	510	190	65m6*			20	67.5	12	280	600	693	831		1036	2 x M63 x 1.5					
				610		406				75m6			18	58	11												
315S/M	508	120	628			457	152	558	216	65m6*			20	67.5	12	315	52	640	728	888	1126						
						560				80m6	170	160	22	71	14							1156					
355M/L	610	140	750	780	672	630	200	760	254	75m6*	140	125	20	67.5	12	355	50	755	864	1027	1399						
										100m6	210	200	18	90	16							1469			M24	6322-C3	6319-C3

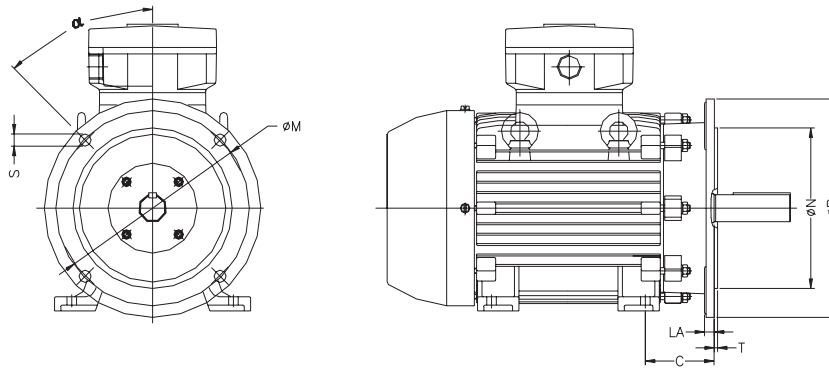
* This data apply to EEx d - Explosion Multivoltage Motors / EEx de - Explosion Multivoltage Motors with Increased Safety terminal box - Improved Efficiency - EFF2, Premium Efficiency - EFF1.

- All the dimensions are in millimeters
- The data for frame 355M/L shown above are for horizontal mounting applications under standard coupling loads
- The customer must indicate when application is vertical or under special coupling loads
- Motors with second shaft end under request
- The values shown are subject to change without prior notice
- * Shaft dimensions for II pole motors, only for direct coupling

Ex d / Ex de - Explosion Proof Motors - Cast Iron Frame

Mechanical Data

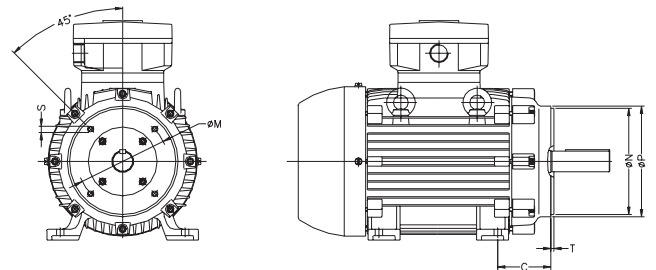
“FF” Flange



FRAME	"FF" FLANGE DIMENSIONS									n° of Holes
	Flange	C	LA	M	N	P	T	S	α	
90S/L	FF-165	56	10	165	130	200	3.5	12	45°	4
100L	FF-215	63	11	215	180	250	4	15		
112M		70								
132S/M	FF-265	89	12	265	230	300	5	19		
160M/L	FF-300	108	13	300	250	350				
180M/L		121	14							
200M/L	FF-350	133	18	350	300	400				
225S/M	FF-400	149		400	350	450				
250S/M	FF-500	168		500	450	550				
280S/M		190	22	600	550	660	6	24	22°30'	8
315S/M	FF-600	216		740	680	800				
355M/L	FF-740	254								

“C” Din Flange

FRAME	"C" DIN FLANGE DIMENSIONS							n° of Holes
	Flange	C	M	N	P	S	T	
90S/L	C-140	56	115	95	140	M8	3	4
100L	C-160	63	130	110	160		3.5	
112M		70						
132S/M	C-200	89	165	130	200	M10		



Ex d - Explosion Proof Multivoltage Motors With Brake - Cast Iron Frame Improved Efficiency EFF2

Standard Features:

- Three-phase, multivoltage, IP55, TEFC
- Output: 2.2 up to 18,5kW
- Frames: 132S up to 160L
- Voltage: 220-240/380-415V (up to 100L)
380-415/660V (from 112M and up)
- Class "F" insulation ($\Delta T=80K$)
- Continuous duty: S1
- Design N
- Class of temperature: T3 or T4
- Thermal protection:
 - Thermistors 130°C/T4 and 155°C/T3
 - Thermostat 140°C - brake
- Ambient temperature: 40°C, at 1000 m.a.s.l.
- Squirrel cage rotor/Aluminium die cast
- Reinforced set screws
- Internal DE and NDE bearing cap to prevent flame propagation
- Machined metal to metal surfaces between frame and terminal box
- Ground lug inside the terminal box
- Stainless steel nameplate identifying: standards, classification, temperature code and certification number
- Epoxy based painting plan 202
- Color: RAL 5010

Options Available:

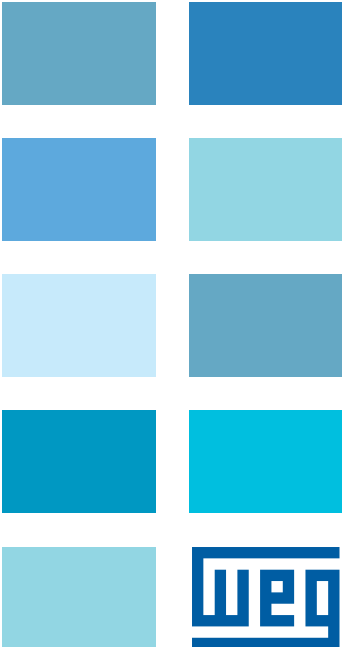
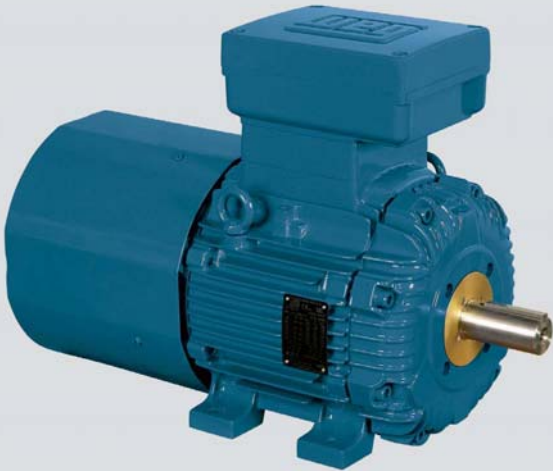
- Degree of Protection: IP56 or IP66
- Bearing seals:
 - Lip seal
 - Oil seal
 - Labyrinth taconite seal and W3seal for frames 90S and above

More options available, on request

Typical Applications:

WEG explosion proof motors meet ATEX Directive 94/9/EC and are designed to operate in areas that require quick stop and/or time saving during operation in application that require explosion proof motors like:

- Machine tools
- Looms
- Packing machines
- Conveyor belts
- Wash and bottling machines
- Cranes



Features and Benefits

Fan Cover

Made of steel plate for frames 90 up to 132M and of cast iron for frames 160M and above. It offers a superior mechanical rigidity, corrosion-resistance and extended lifetime. With a design incorporating the braking system, the fan cover guarantees proper fan cover to the upper brake allowing operation in severe environments. In addition, it offers quality and performance requirements of the motors such as noise level.

Terminal Box

Made of cast iron made with plenty of internal space. The terminal box can be rotated in 90° intervals, having one or two threaded holes to connect the power supply cables. Power supply connection components are certified, then reducing short-circuit inside the terminal box. The grounding system is placed inside and outside of the terminal box for improved safety. Suitable to take the additional connection of the brake as well as bridge rectifier which is fixed internally without affecting the motor degree of protection.

*Available as top or side mounted.

Bearings

WEG motors are fitted with the highest quality bearings selected from the best manufacturers in the world and designed to ensure long life of the motor even under heavy operating conditions.

Winding

The wire is enameled with class H. Supplied with patented WISE (WEG Insulation System Evolution), which allows three times longer motor lifetime designed to work in environments with excess of moisture and suitable for VFD application. The winding is designed to obtain the smallest Joule losses and temperature rise.

Rotor

High pressure die cast rotor dynamically balanced, thus reducing vibrations. Built with premium electrical grade steel lamination to improve efficiency.

Shaft

WEG uses SAE/AISI 1040/45 steel as standard, which provides high mechanical strength, preventing bending under load and minimizes fatigue which extends lifetime. Specially designed to withstand torques caused during motor acceleration and deceleration. It's size is larger than the standard motor and, upon special design, motor can have second shaft end.

Fan

WEG has designed the fan and fan cover having in mind the lowest noise level. The efficient cooling ensures low motor temperature rise. This minimizes winding losses, thus increasing motor efficiency. The W21 line is supplied with anti-static polypropylene fans from 90 up to 315S/M frames and aluminium for 355M/L frame. Alternatively, cast iron or aluminium fans can be supplied on request for all frames.

Brake

The electromagnetic brake is of sturdy construction offering high performance for its low number of movable components and versatility on the application, resulting in extended lifetime and low maintenance. The possibility of having several torques and several power supply voltages makes this set a versatile component.

Frame

WEG motors are made of FC-200 high-grade cast iron. The frames are provided with fins aiming at improving the heat dissipation and adequately spaced to minimize air blockage due to build up of dirt. Motor designed to ensure that surface temperature is lower than ignition temperature of the gas that is present in the environment. Mechanical components are designed to withstand an explosion inside the motor without causing any risk to outside areas since there is no flame propagation through flame path. The motors can be mounted in any position, horizontal and vertical, withstanding the maximum axial and radial thrusts.

Nameplate

Stainless steel nameplate ensuring a permanent record of all motor data.

Endshields

Made of cast iron, they are provided with external fins for better temperature dissipation, thus increasing bearing life.

Stator

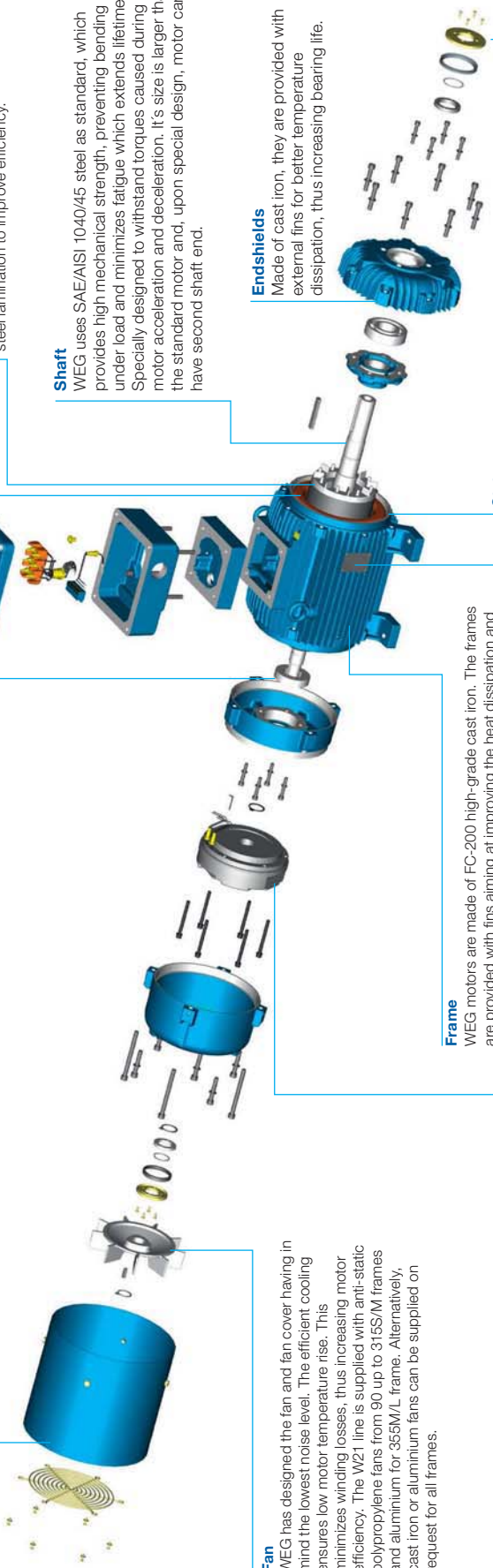
Built with premium electrical grade steel lamination to reduce electrical losses and operating temperature.

Seals

WEG Explosion Proof Motors are fitted with either Lip seal or Labyrinth Tachonite as standard (see standard features list) to provide the best possible protection.

W3Seal

Exclusive WEG sealing system (tachonite + v-ring + o-ring) guarantee maximum protection against the ingress of solid and liquid contaminating



Ex d - Explosion Proof Multivoltage Motors With Brake - Cast Iron Frame Improved Efficiency EFF2

Output		IEC Frame	Full load torque C _n (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 Hot/Cold (s)	Weight (kg)	Sound dB (A)	Rated speed (rpm)	400 V						Full load current I _n (A)
												% of full load			Power Factor (Cos φ)			
kW	HP											Efficiency η			Power Factor (Cos φ)			
												50	75	100	50	75	100	
II Pole - 3000 rpm																		
5.5	7.5	132S	17.95	8	2.7	3.2	0.02056	18/40	68.5	68	2935	84	87.1	88.3	0.73	0.82	0.87	10.3
7.5	10	132S	24.05	7.3	2.4	2.9	0.02056	10/22	90.5	68	2920	86	87.5	88	0.76	0.84	0.88	14
9.2	12.5	160M	29.81	7.8	2.6	3.1	0.04706	12/26	116	70	2945	86.5	89	89.5	0.76	0.84	0.88	16.86
11	15	160M	35.78	8.3	2.6	3.1	0.04706	12/26	116	70	2945	87.8	90.1	90.3	0.77	0.85	0.88	20
15	20	160M	47.7	7.8	2.5	3.2	0.05295	10/22	123	70	2945	89.6	91.1	91.2	0.76	0.84	0.88	27
18.5	25	160L	59.63	8.2	2.6	3.3	0.06471	10/22	138	70	2945	90.4	91.9	91.7	0.75	0.84	0.88	33.1
IV Pole - 1500 rpm																		
5.5	7.5	132S	8	35.96	2.4	3	0.04264	10/22	90	60	1465	85.2	87.5	88	0.65	0.78	0.84	10.7
7.5	10	132M	8	47.95	2.5	2.8	0.05427	8/18	76	60	1465	86.4	88.4	88.6	0.7	0.8	0.86	14.2
9.2	12.5	160M	6.2	60.14	2.2	2.4	0.08029	16/35	122	67	1460	86	87.7	88.8	0.69	0.79	0.84	17.8
11	15	160M	6	72.41	2.3	2.5	0.08029	16/35	117	67	1455	87.6	89.4	89.9	0.7	0.79	0.84	21
15	20	160L	6	96.55	2.3	2.4	0.10539	13/29	133	67	1455	89	90.4	90.6	0.69	0.79	0.84	28.4
VI Pole - 1000 rpm																		
3	4	132S	29.27	5.3	2	2.2	0.03489	20/44	63	52	960	80	82.7	82.5	0.58	0.7	0.77	6.82
4	5.5	132M	40.24	6	2.1	2.3	0.05039	18/40	73	52	960	83.6	85.5	85.8	0.59	0.7	0.77	8.74
5.5	7.5	132M	54.87	6.4	2.3	2.4	0.06202	14/31	81	52	960	84	85.8	85.8	0.54	0.66	0.74	12.5
7.5	10	160M	72.41	6.1	2.3	2.6	0.12209	17/37	115	56	970	87	88.2	88	0.62	0.74	0.81	15.2
9.2	12.5	160L	90.51	6.5	2.3	2.8	0.14364	12/26	127	56	970	86.5	88	87.6	0.61	0.74	0.81	18.7
11	15	160L	108.62	6.6	2.4	2.9	0.17595	13/29	141	56	970	87.2	88.3	88.3	0.62	0.75	0.82	21.9
VIII Pole - 750 rpm																		
2.2	3	132S	29.68	5.3	2.1	2.3	0.0552	19/42	98	48	710	78.5	79.3	79.4	0.51	0.64	0.72	5.55
3	4	132M	39.57	5.9	2.5	2.6	0.07527	16/35	134	48	710	79	82	82.5	0.52	0.64	0.72	7.29
4	5.5	160M	52.92	5.2	2.2	2.7	0.12209	33/73	117	51	730	81.3	84.3	86	0.47	0.6	0.69	9.73
5.5	7.5	160M	72.16	5.2	2.3	2.7	0.14364	23/51	126	51	730	81.5	84.1	85.2	0.46	0.59	0.69	13.5
7.5	10	160L	96.88	4.9	2	2.5	0.16518	15/33	139	51	725	83.5	85.7	85.5	0.51	0.63	0.72	17.6

Notes:

*Class "F" insulation with ΔT105K

Standard voltage, connection and frequency: 220-240V Δ 50Hz

380-415V Y 50Hz

380-415V Δ 50Hz

660-690V Y 50Hz

The values shown are subject to change without prior notice. To obtain guaranteed values please access our website.

Ex d - Explosion Proof Multivoltage Motors With Brake - Cast Iron Frame Improved Efficiency EFF2

Output		380 V								415 V							
		Rated speed (rpm)	% of full load						Full load current I _n (A)	Rated speed (rpm)	% of full load						Full load current I _n (A)
			Efficiency η			Power Factor (Cos φ)					Efficiency η			Power Factor (Cos φ)			
kW	HP	50	75	100	50	75	100	50	75	100	50	75	100	50	75	100	
II Pole - 3000 rpm																	
5.5	7.5	2930	84.5	87.5	88.2	0.77	0.85	0.89	10.6	2940	83.5	86.8	88.2	0.69	0.8	0.85	10.2
7.5	10	2910	86.5	87.5	87.5	0.8	0.87	0.9	14.5	2925	85.5	87.4	88.1	0.71	0.81	0.86	13.8
9.2	12.5	2940	87	88.5	89	0.79	0.86	0.89	17.647	2950	86.7	89	89.5	0.74	0.83	0.87	16.438
11	15	2940	88.3	90.1	90.2	0.8	0.86	0.89	20.8	2950	87.3	90	90.4	0.74	0.83	0.87	19.5
15	20	2935	90.1	91.2	91	0.81	0.87	0.89	28.1	2950	89.1	91	91.2	0.72	0.81	0.87	26.3
18.5	25	2940	90.7	92	91.5	0.78	0.86	0.89	34.5	2950	90.1	91.8	92	0.73	0.83	0.86	32.5
IV Pole - 1500 rpm																	
5.5	7.5	1460	86.5	88.1	88	0.72	0.82	0.86	11	1470	84	86.8	87.8	0.6	0.74	0.82	10.6
7.5	10	1465	87	88.6	88.4	0.75	0.84	0.88	14.6	1470	85.6	88	88.6	0.65	0.77	0.83	14.2
9.2	12.5	1455	86.5	87.7	88.4	0.73	0.82	0.86	18.4	1465	85.5	87.6	88.9	0.66	0.77	0.82	17.6
11	15	1450	88.3	89.6	89.2	0.74	0.82	0.85	22	1460	86.8	89	89.8	0.65	0.76	0.82	20.8
15	20	1450	89.5	90.5	90.1	0.73	0.82	0.86	29.4	1460	88.4	90.3	90.6	0.67	0.78	0.83	27.8
VI Pole - 1000 rpm																	
3	4	955	81	83	82	0.61	0.72	0.79	7.04	965	79	82.5	82.6	0.53	0.66	0.74	6.83
4	5.5	955	84.5	85.7	85.4	0.61	0.72	0.79	9.01	965	82.6	85.3	85.9	0.56	0.67	0.75	8.64
5.5	7.5	955	85	86.1	85.6	0.58	0.7	0.77	12.7	965	83	85.5	86	0.5	0.62	0.71	12.5
7.5	10	965	87.5	88.4	87.5	0.66	0.78	0.83	15.7	970	86.5	88	88	0.58	0.71	0.79	15
9.2	12.5	970	87.5	88.2	87.5	0.65	0.76	0.82	19.5	975	85.5	87.8	87.5	0.56	0.71	0.79	18.5
11	15	970	88	88.5	88	0.67	0.78	0.84	22.6	975	86.5	88	88.3	0.58	0.72	0.8	21.7
VIII Pole - 750 rpm																	
2.2	3	700	79	79.5	79	0.56	0.68	0.75	5.64	715	78	79	79.5	0.48	0.61	0.7	5.5
3	4	700	80	82.5	82	0.54	0.66	0.74	7.51	715	78	81.5	82.5	0.5	0.62	0.7	7.23
4	5.5	725	82.6	84.8	85.9	0.51	0.64	0.72	9.83	730	80	83.7	86	0.44	0.57	0.66	9.8
5.5	7.5	725	82.5	84.7	85.2	0.5	0.63	0.72	13.6	730	80.5	83.5	85	0.42	0.55	0.66	13.6
7.5	10	720	84.5	86	85.3	0.54	0.66	0.74	18.1	730	82.5	85.5	85.5	0.48	0.6	0.7	17.4

Notes:

- The motors can also operate at 60Hz supply. The change in performance data can be obtained directly from the local WEG representative.
- The values shown herewith are subjected to change without prior notice.