Ex nA - Non Sparking Motors
Cast Iron Frame
Improved Efficiency EFF2

Standard Features:

- Three-phase, multivoltage, IP55, TEFC
- Output: 0.12 up to 250kW
- Frames: 63 up to 355M/L
- Voltage: 220-240/380-415V (up to 100L)
  380-415/660V (from 112M and up)
- Class “F” insulation (ΔT=80K)
- Continuous duty: S1
- Design N
- Ambient temperature: 40°C, at 1000 m.a.s.l.
- Squirrel cage rotor/Aluminium die cast
- V’Ring seal
- Temperature classification:
  - Zone 2: class of temperature T3
  - Zone 22: maximum motor guaranteed external surface temperature T125°C.
  Temperature limitation due to the presence of dust clouds (for materials with ignition temperature above 125° C) and presence of dust layers (up to 5mm).
  Note: On VFD Application, motor temperature class is ΔT = 160° C, marking: CE Ex II 3D T160°C
- Fan: Conductive plastic (63-315 frames)
  Aluminium (355 frames)
- Grease fitting from frame 160
- Plastic thread plug
- Increased safety terminal box
- Ground lug inside the terminal box
- Color: RAL 5010

Options Available:

Options Available:

- Degree of Protection: IP56, IP65 or IP66(W)
- Sealed Bearings on frames 160 up to 200
- Cable glands
- Other paint options

More options available, on request

Typical Applications:

Typical Applications:
These motors are used in environment where an explosive atmosphere will probably not be present under normal operating conditions and, if any, this will be for short periods of time:

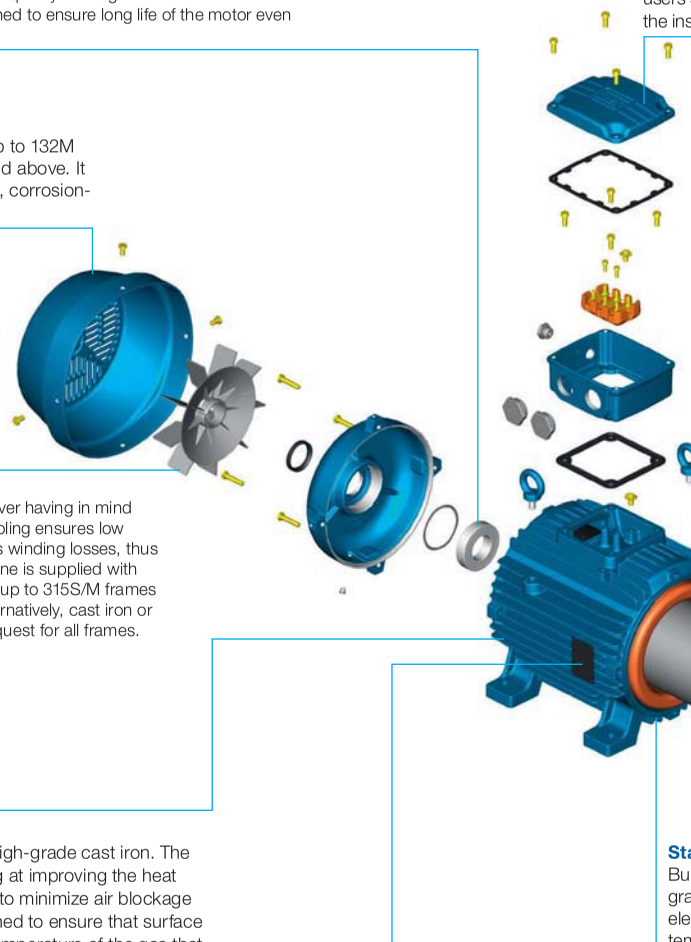
- Pumps
- Fans
- Conveyor belts
- Machine tools
- Mills
- Centrifugal machines
- Presses
- Elevators
- Looms
- Grinders
- Woodworking
- Cooling
- Packaging equipment
- Other severe duty applications where the environments are classified as Zone 2, groups IIA, IIB and IIC.

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. Designed in such a way that the energized components remain at a minimum safe distance from grounded components parts. In order to allow end users safety, the Ex "n" motors are designed with grounding lug inside and outside of the terminal box, with the inside grounding lugs duly connected from the factory. * 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.

Fan Cover
Made of steel plate for frames 63 up to 132M and of cast iron for frames 160M and above. It offers a superior mechanical rigidity, corrosion-resistance and extended lifetime.

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. Designed to meet performance and surface temperature standard requirements (as long as it is kept below the ignition temperature of the possible present gas).

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 63 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.

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

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 towithstand an explosion inside the motor without causing any risk to outside areas since there is no flame flame propagation through flame path. The motors can be mounted in any position, horizontal and vertical, withstanding the maximum axial and radial thrusts.

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.

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

Drain Hole
Provided with plastic drain plug allowing drainage of condensed water.

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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 kgm²	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																		
0.12	0.16	63	0.41	5	2.8	3	0.000	25/55	7.7	52	2760	58	64.8	65.5	0.51	0.64	0.74	0.357
0.18	0.25	63	0.64	4.4	2.5	2.5	0.000	30/66	7.7	52	2730	63.5	68.5	69.5	0.62	0.76	0.81	0.462
0.25	0.33	63	0.85	4.5	2.5	2.5	0.000	18/40	8.2	52	2730	64	68.5	71.2	0.58	0.71	0.8	0.634
0.37	0.5	71	1.25	5.5	3	3.2	0.000	23/51	10.9	56	2810	69	73.8	74.5	0.63	0.77	0.85	0.843
0.55	0.75	71	1.89	5.7	2.7	2.7	0.000	16/35	11.6	56	2790	72.5	76.6	76.7	0.68	0.8	0.86	1.2
0.75	1	80	2.51	6.8	3.1	3.1	0.001	20/44	15.2	59	2795	76.5	80.5	80.5	0.73	0.82	0.86	1.56
1.1	1.5	80	3.74	7.8	3.4	3.4	0.001	15/33	16.4	59	2820	81	83	83.6	0.64	0.76	0.84	2.26
1.5	2	90S	4.91	7.3	2.8	2.8	0.002	14/31	20.2	62	2860	83.2	84.9	84.5	0.68	0.8	0.85	3.01
2.2	3	90L	7.35	8.4	3.7	3.5	0.003	9/20	22.5	62	2865	84	86	86.6	0.64	0.76	0.83	4.42
3	4	100L	9.7	8.9	3	3.1	0.007	12/26	32.2	67	2895	84.5	87	88.3	0.73	0.83	0.87	5.64
4	5.5	112M	13.32	8.2	2.7	3.4	0.008	17/37	42.7	64	2900	87	88.4	88.6	0.72	0.83	0.87	7.49
5.5	7.5	132S	17.95	8	2.7	3.2	0.021	19/42	61	67	2935	88.5	90	90.1	0.71	0.81	0.86	10.2
7.5	10	132S	24.01	8	2.5	2.9	0.024	13/29	66	67	2925	88.5	90.6	90.8	0.72	0.82	0.87	13.7
9.2	12.5	132M	29.91	8.5	2.8	3.1	0.028	11/24	74	67	2935	88.5	90.9	91	0.7	0.81	0.87	16.8
11	15	160M	35.72	8.5	2.8	3.3	0.053	14/31	117.9	70	2950	90	91.9	92.3	0.7	0.8	0.85	20.2
15	20	160M	47.7	8.2	2.4	3.3	0.059	12/26	130.5	70	2945	91	92	92.5	0.74	0.82	0.86	27.2
18.5	25	160L	59.63	8.8	2.5	3.2	0.068	10/22	135.2	70	2945	91.9	92.8	93.1	0.73	0.82	0.85	33.7
22	30	180M	71.43	8.6	2.7	3.3	0.119	14/31	193.7	70	2950	92.5	93.5	93.7	0.76	0.84	0.87	39
30	40	200L	94.92	7.4	2.7	2.8	0.206	31/68	248	74	2960	92.8	93.7	94	0.77	0.84	0.87	52.9
37	50	200L	118.65	7.6	2.7	2.7	0.224	25/55	260	74	2960	93.2	94	94.6	0.76	0.84	0.87	64.9
45	60	225S/M	141.9	8.5	2.4	2.9	0.448	18/40	414	82	2970	93.6	94.5	94.7	0.82	0.88	0.9	76.2
55	75	250S/M	177.67	8.9	2.6	3.4	0.502	15/33	460.8	82	2965	94	95	95	0.85	0.89	0.91	91.8
75	100	280S/M	236.1	7.7	2.2	2.9	1.271	51/112	740	83	2975	93.2	94.4	95.6	0.83	0.87	0.89	127
90	125	280S/M	295.12	8.2	2.2	2.8	1.412	42/92	780	83	2975	94.1	95.5	95.8	0.82	0.88	0.9	151
110	150	315S/M	354.15	8	2.3	2.8	1.506	38/84	830	83	2975	94.4	95.3	95.8	0.82	0.87	0.89	186
132	175	315S/M	413.17	7.8	2.2	2.7	1.742	32/70	900	83	2975	94.3	95.5	96	0.82	0.88	0.89	223
150	200	315S/M	472.99	7.9	2.2	2.7	2.118	31/68	1010	83	2970	95	95.8	96.2	0.84	0.89	0.9	250
160	220	315S/M	520.29	7.8	2.2	2.5	2.118	33/73	1010	83	2970	95	96	96.2	0.85	0.89	0.9	267
185	250	315S/M	590.25	8.2	2.4	2.8	2.118	28/62	1010	83	2975	95	95.9	96.2	0.8	0.86	0.88	315
200	270	355M/L	635.33	7.2	1.8	2.6	4.826	70/154	1490	81	2985	93.7	95.2	95.6	0.89	0.91	0.92	328
220	300	355M/L	705.93	8.5	2.2	3	5.171	65/143	1650	81	2985	95.2	96.1	96.4	0.85	0.9	0.92	358
250	340	355M/L	800.05	7.8	1.7	2.5	5.746	65/143	1750	81	2985	95.5	96.3	96.4	0.87	0.91	0.92	407
HIGH-OUTPUT DESIGN																		
75	100	250S/M	236.9	8.5	3	3.4	0.55609	10/22	490	82	2965	93	94.3	94.6	0.83	0.88	0.9	127
110	150	280S/M	354.15	8	2.3	2.8	1.50617	38/84	830	83	2975	94.4	95.3	95.8	0.82	0.87	0.89	186
IV Pole - 1500 rpm																		
0.12	0.16	63	0.79	4.2	2.4	2.5	0.00045	20/44	7	44	1415	45	54	58.5	0.46	0.56	0.67	0.442
0.18	0.25	63	1.25	4	2.2	2.5	0.00056	23/51	8.6	44	1400	53.8	59.5	62	0.52	0.63	0.72	0.582
0.25	0.33	71	1.64	5	3	3.1	0.00079	48/106	11.7	43	1410	68.5	71.5	73	0.5	0.61	0.7	0.706
0.37	0.5	71	2.52	4.4	2.7	2.8	0.00079	37/81	11.8	43	1395	68	72	73.5	0.48	0.6	0.7	1.04
0.55	0.75	80	3.68	6	2.6	2.8	0.00242	17/37	16.3	44	1430	69	73	75	0.56	0.69	0.78	1.36
0.75	1	80	4.96	5.5	2.4	2.6	0.00294	14/31	16.1	44	1415	73.5	76.2	76.2	0.62	0.74	0.83	1.71
1.1	1.5	90S	7.37	6.5	3	3	0.00504	13/29	21.7	49	1430	76	80	80.6	0.57	0.69	0.78	2.53
1.5	2	90L	9.89	6.2	2.7	2.7	0.00672	12/26	24.4	49	1420	80.3	82	81.7	0.64	0.77	0.83	3.19
2.2	3	100L	14.84	6.7	2.7	2.9	0.00842	14/31	30.2	53	1420	81	82.3	83	0.65	0.78	0.83	4.61
3	4	100L	19.93	6.5	2.7	2.7	0.00995	10/22	32.8	53	1410	83.6	85	84.7	0.68	0.79	0.86	5.94
4	5.5	112M	27.02	7.5	2.7	2.8	0.01875	12/26	46.7	56	1430	86	87.4	87.1	0.7	0.81	0.87	7.62
5.5	7.5	132S	35.96	8	2.4	3	0.04652	11/24	61.7	60	1465	85.4	87.7	88.5	0.68	0.79	0.85	10.6
7.5	10	132M	47.95	8	2.5	2.8	0.05427	8/18	64.7	60	1465	86.4	88.4	88.6	0.7	0.8	0.86	14.2
9.2	12.5	160M	60.34	6	2.2	2.4	0.06524	15/33	95	67	1455	86	87.7	88.8	0.69	0.79	0.84	17.8
11	15	160M	72.41	6	2.3	2.5	0.08029	16/35	107.8	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	126.5	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	183.2	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	189.5	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	247.5	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	353	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	382.2	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	451.4	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	2.32858	44/97	735	76	1485	92.4	93.8	94.3	0.81	0.86	0.88	130
90	125	280S/M	591.24	7.1	2.4	2.5	2.56947	31/68	736.9	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	866.1	77	1485	92.8	94.4	94.4	0.78	0.85	0.88	191
132	175	315S/M	827.74	7.3	2.5	2.6	3.77391	31/68	1010	77	1485	93.3	94.7	95.1	0.78	0.85	0.88	228
160	220	315S/M	1044.1	7	2.4	2.7	3.77391	22/48	1010	77	1480	93.3	95.1	95.5	0.75	0.83	0.87	278
200	270	315B	1277.08	6.8	1.9	2.9	4.0216	33/73	1240	79	1485	93.8	95	95	0.68	0.77	0.81	375
200	270	355M/L	1272.8	6.6	2.3	2.2	6.34151	44/97	1525	79	1490	94.8	95.2	95.4	0.78	0.85	0.87	348
250	340	315B	1613.61	6.2	1.8	2.6	5.1713	29/64	1330	79	1480	94.5	95.2	95.2	0.72	0.8	0.83	457
250	340	355M/L	1602.78	6.9	2.2	2.5	7.57882	36/79	1615	79	1490	94.3	95.2	95.8	0.8	0.86	0.88	428
HIGH OUTPUT DESIGN																		
75	100	250S/M	474.59	7.2	2.4	2.6	1.15478	12/26	510	70	1480	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	865	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 Δ 50Hz
380-415V Y 50Hz
660-690V Y 50Hz
The values shown are subject to change without prior notice. To obtain guaranteed values please access our website.

Ex nA - Non Sparking 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	
II Pole - 3000 rpm																	
0,12	0,16	2730	60	66	67	0,56	0,69	0,79	0,344	2790	55	63	63	0,48	0,61	0,71	0,373
0,18	0,25	2700	65	69	69	0,66	0,79	0,83	0,478	2760	62	68	70	0,58	0,73	0,78	0,459
0,25	0,33	2700	65,5	69,5	70	0,62	0,75	0,83	0,654	2755	62,5	67,5	71,9	0,55	0,68	0,77	0,628
0,37	0,5	2790	70,5	73,8	74,3	0,68	0,8	0,88	0,86	2825	67,5	73,8	74,5	0,6	0,74	0,82	0,843
0,55	0,75	2760	73,5	76,7	76,5	0,73	0,82	0,88	1,24	2810	71,5	76,5	76,7	0,64	0,77	0,84	1,19
0,75	1	2770	77	80,5	79,8	0,76	0,85	0,88	1,62	2805	76	80,5	80,5	0,7	0,79	0,84	1,54
1,1	1,5	2800	82	83,2	82,8	0,69	0,8	0,86	2,35	2835	80	82,5	83,5	0,58	0,72	0,81	2,26
1,5	2	2845	83,6	84,8	84,3	0,73	0,83	0,87	3,11	2870	82,8	84,8	84,6	0,64	0,77	0,83	2,97
2,2	3	2855	84,5	86	86	0,69	0,8	0,86	4,52	2875	83,5	86	86,6	0,58	0,72	0,8	4,42
3	4	2890	85	86,7	87,5	0,77	0,85	0,88	5,92	2900	84	86,7	88	0,69	0,81	0,86	5,51
4	5,5	2890	87,5	88,3	88,3	0,77	0,85	0,89	7,73	2910	86,5	88,3	88,5	0,68	0,81	0,86	7,31
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	2920	89	90,5	90,6	0,75	0,84	0,88	14,3	2930	88	90,6	90,9	0,7	0,8	0,86	13,3
9,2	12,5	2930	89	91	91	0,76	0,85	0,89	17,3	2940	88	90,8	91	0,66	0,77	0,85	16,5
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	2940	91,5	92	92,4	0,78	0,85	0,87	28,4	2950	90,5	91,9	92,4	0,7	0,8	0,85	26,6
18,5	25	2940	92,1	92,8	93	0,76	0,84	0,87	34,7	2950	91,7	92,7	93	0,7	0,8	0,83	33,3
22	30	2945	92,8	93,5	93,5	0,79	0,86	0,89	40,2	2955	92,2	93,5	93,7	0,73	0,82	0,85	38,4
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
150	200	2970	95	95,8	96,1	0,86	0,9	0,91	261	2975	95	95,8	96,2	0,82	0,88	0,9	241
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
185	250	2970	95,2	95,9	96,2	0,82	0,89	0,89	328	2975	94,8	95,8	96,2	0,78	0,84	0,87	308
200	270	2980	93,9	95,2	95,5	0,9	0,92	0,92	346	2985	93,5	95,1	95,6	0,88	0,9	0,91	320
220	300	2985	95,5	96,2	96,4	0,87	0,91	0,92	377	2990	95	96	96,3	0,83	0,89	0,91	349
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																	
0.12	0.16	1405	47	55	59	0.49	0.6	0.7	0.441	1425	42	52	58	0.43	0.52	0.63	0.457
0.18	0.25	1385	55.8	60.5	62.5	0.55	0.67	0.76	0.576	1410	51	57.5	61	0.48	0.59	0.69	0.595
0.25	0.33	1400	70	72	72.5	0.53	0.65	0.72	0.728	1420	67	71	73	0.47	0.58	0.68	0.701
0.37	0.5	1385	70	73	73.6	0.52	0.65	0.73	1.05	1405	65	71	73.2	0.44	0.56	0.67	1.05
0.55	0.75	1420	70	73.5	75	0.61	0.73	0.81	1.38	1440	67	72.5	74.6	0.53	0.66	0.75	1.37
0.75	1	1400	75	76.5	76	0.66	0.78	0.85	1.76	1430	72	76	76.2	0.59	0.71	0.81	1.69
1.1	1.5	1415	77.5	80.5	80.5	0.63	0.74	0.81	2.56	1435	74.5	79	80.3	0.53	0.64	0.74	2.58
1.5	2	1410	81.2	82.2	81	0.68	0.8	0.85	3.31	1430	79.3	81.5	81.8	0.61	0.74	0.81	3.15
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	1400	84	84.9	84.2	0.72	0.82	0.87	6.22	1420	83.2	85.1	84.9	0.65	0.77	0.84	5.85
4	5.5	1420	86.5	87.5	86.7	0.74	0.84	0.89	7.88	1440	85.2	87.2	86.7	0.67	0.78	0.84	7.64
5.5	7.5	1460	86.7	88.3	88.3	0.73	0.82	0.87	10.9	1470	84.2	87	88.4	0.64	0.75	0.83	10.4
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	1450	86.5	87.8	88.2	0.73	0.82	0.85	18.6	1460	85.5	87.4	88.8	0.64	0.76	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
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	92.8	93.9	94.2	0.83	0.87	0.88	137	1485	92.2	93.8	94.3	0.8	0.85	0.87	127
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	93.5	94.9	95.1	0.81	0.86	0.89	237	1485	93.3	94.7	95.1	0.76	0.84	0.87	222
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	1480	94.2	95.1	95	0.72	0.8	0.82	390	1485	93.4	94.8	95	0.64	0.74	0.8	366
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	1480	95	95.4	95.2	0.76	0.83	0.85	469	1485	94	95	95.1	0.67	0.77	0.81	452
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
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 nA - Non Sparking 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 kgm²	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																		
0.12	0.16	63	1.25	3.5	2.0	1.9	0.00067	41/90	8	43	910	42.0	50.0	54.5	0.46	0.55	0.65	0.49
0.18	0.25	71	1.96	3.3	1.9	2.0	0.00079	50/110	11	43	905	46.0	54.0	57.0	0.46	0.55	0.62	0.74
0.25	0.33	71	2.60	3.5	2.0	2.0	0.00096	43/95	12	43	900	53.0	60.5	64.0	0.40	0.50	0.57	0.99
0.37	0.5	80	3.82	4.5	2.2	2.2	0.00242	12/26	14	43	930	54.0	62.5	65.0	0.45	0.57	0.67	1.23
0.55	0.75	80	5.73	4.5	2.0	2.0	0.00311	10/22	16	43	930	60.0	65.0	67.0	0.50	0.63	0.73	1.62
0.75	1	90S	7.72	4.8	1.9	1.9	0.00504	16/35	21	45	920	70.0	72.6	72.4	0.54	0.67	0.76	1.97
1.1	1.5	90L	11.5	4.8	2.1	2.0	0.00672	14/31	23	45	925	71.0	75.2	75.2	0.50	0.64	0.75	2.82
1.5	2	100L	15.1	4.8	2.0	2.2	0.01121	18/40	29	44	940	74.0	77.3	77.5	0.53	0.66	0.74	3.78
2.2	3	112M	22.7	5.0	2.0	2.1	0.01682	14/31	35	48	940	77.5	80.5	80.1	0.53	0.66	0.74	5.36
3	4	132S	29.4	5.3	1.8	2.0	0.03489	20/44	55	52	960	80.0	82.7	82.5	0.58	0.70	0.77	6.82
4	5.5	132M	40.5	6.0	1.9	2.1	0.05039	18/40	65	52	960	83.6	85.5	85.8	0.59	0.70	0.77	8.74
5.5	7.5	132M	55.2	6.4	2.0	2.2	0.06202	14/31	73	52	960	84.0	85.8	85.8	0.56	0.68	0.76	12.2
7.5	10	160M	72.8	6.1	2.0	2.4	0.12209	17/37	103	56	970	87.0	88.2	88.0	0.62	0.74	0.81	15.2
11	15	160L	109	6.6	2.2	2.6	0.17595	13/29	129	56	970	87.2	88.3	88.3	0.62	0.75	0.82	21.9
15	20	180L	146	7.5	2.3	2.4	0.30337	11/24	181	56	965	89.1	90.1	89.8	0.82	0.88	0.91	26.5
18.5	25	200L	181	6.0	2.1	2.3	0.37670	33/73	219	58	975	89.3	90.5	89.9	0.70	0.79	0.84	35.4
22	30	200L	217	6.0	2.1	2.2	0.41258	33/73	228	58	975	89.0	90.9	91.3	0.70	0.79	0.84	41.4
30	40	225S/M	287	7.2	2.4	2.5	0.98842	20/44	366	61	985	90.5	91.8	91.8	0.77	0.84	0.87	54.2
37	50	250S/M	358	7.5	2.5	2.4	1.22377	18/40	440	61	980	90.0	92.4	92.5	0.76	0.84	0.87	66.4
45	60	280S/M	428	6.8	2.2	2.4	2.29824	24/53	610	66	985	90.5	92.3	92.6	0.68	0.78	0.83	84.5
55	75	280S/M	535	6.5	2.1	2.3	2.64298	23/51	655	66	985	91.6	93.2	93.5	0.71	0.82	0.85	100
75	100	315S/M	713	6.7	2.1	2.3	3.44737	20/44	775	69	985	91.6	93.5	93.7	0.71	0.81	0.85	136
90	125	315S/M	891	6.3	1.9	2.1	3.67719	18/40	818	69	985	92.5	94.0	93.9	0.73	0.81	0.85	163
110	150	315S/M	1070	6.4	2.1	2.2	5.28596	18/40	990	69	985	93.4	94.5	94.6	0.71	0.80	0.84	200
132	175	355M/L	1242	6.1	1.8	2.1	8.10159	90/198	1385	73	990	92.5	94.7	94.7	0.65	0.75	0.80	251
160	220	315B	1561	7.0	1.7	2.2	7.10000	25/55	1350	69	990	93.5	94.9	94.9	0.68	0.78	0.82	297
160	220	355M/L	1561	6.2	1.7	1.9	9.53128	72/158	1485	73	990	93.0	95.0	95.4	0.67	0.77	0.82	295
200	270	315B	1916	6.6	1.8	2.3	8.60380	19/42	1419	69	990	94.8	95.2	95.0	0.71	0.80	0.84	362
200	270	355M/L	1916	6.3	1.9	2.1	12.39067	85/187	1700	73	990	93.5	94.5	94.8	0.70	0.78	0.81	376
250	340	355M/L	2400	6.1	2.0	2.0	14.77349	64/141	1830	73	995	94.0	95.1	95.6	0.70	0.79	0.82	460
HIGH OUTPUT DESIGN																		
45	60	250S/M	430.04	8	2.8	2.8	1.55324	18/40	490	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	775	66	985	91.6	93.5	93.7	0.71	0.81	0.85	136
VIII Pole - 750 rpm																		
0.12	0.16	71	2.5	1.64	1.9	2.1	0.00079	44/97	12.1	41	685	36	44.2	47.2	0.4	0.49	0.56	0.655
0.18	0.25	80	3.1	2.51	1.9	2.1	0.00242	16/35	13.7	42	700	40	49	54.2	0.43	0.53	0.62	0.773
0.25	0.33	80	3	3.41	1.8	1.8	0.00294	21/46	14.8	42	680	47.5	55	57	0.45	0.56	0.65	0.974
0.37	0.5	90S	3.5	5.05	2.1	2.1	0.00448	29/64	18	43	695	51	59	61	0.43	0.53	0.64	1.37
0.55	0.75	90L	3.5	7.63	2.1	2.1	0.00616	21/46	21.5	43	690	57	63	65	0.45	0.56	0.65	1.88
0.75	1	100L	4.2	9.96	2	2.1	0.00952	30/66	27.5	50	705	65	70	71	0.42	0.54	0.63	2.42
1.1	1.5	100L	4.1	15.05	1.7	2.1	0.01289	23/51	30.5	50	700	66	71.5	72.2	0.43	0.56	0.65	3.38
1.5	2	112M	4.6	19.79	2.5	2.7	0.0243	32/70	43	46	710	76.5	77.8	78	0.48	0.6	0.69	4.02
2.2	3	132S	6.2	29.47	2.4	2.7	0.07527	23/51	70	48	715	78.5	81.5	82.5	0.53	0.65	0.73	5.27
3	4	132M	5.8	39.57	2.4	2.7	0.08531	22/48	75	48	710	78	82.7	83.5	0.52	0.64	0.72	7.2
4	5.5	160M	5.2	52.92	2.2	2.7	0.12209	33/73	105	51	730	81.3	84.3	86	0.47	0.6	0.69	9.73
5.5	7.5	160M	5.2	72.16	2.3	2.7	0.14364	23/51	114	51	730	81.5	84.1	85.2	0.46	0.59	0.69	13.5
7.5	10	160L	4.9	96.88	2	2.5	0.16518	15/33	127	51	725	83.5	85.7	85.5	0.51	0.63	0.72	17.6
9.2	12.5	180M	6.7	120.27	2.2	2.9	0.23443	11/24	163	51	730	83	86	85.9	0.64	0.75	0.81	19.1
11	15	180L	6.8	145.32	2.3	2.5	0.2758	11/24	167.6	51	725	87	88.5	88.3	0.68	0.79	0.84	21.4
15	20	200L	4.6	192.44	2	2.1	0.3767	23/51	225.4	53	730	86.5	88.6	89	0.56	0.68	0.75	32.4
18.5	25	225S/M	6.9	240.55	2.1	2.8	0.84722	17/37	341	56	730	88.5	90.1	90	0.72	0.8	0.85	34.9
22	30	225S/M	7.5	288.66	2.2	2.7	0.98842	19/42	364.8	56	730	89	91	91	0.73	0.82	0.85	41.1
30	40	250S/M	7.9	384.87	2.3	2.9	1.22377	17/37	440	56	730	89.5	91.2	91.6	0.7	0.79	0.84	56.3
37	50	280S/M	6.5	474.59	1.9	2.3	2.29824	29/64	590	59	740	90.5	92.2	92.3	0.67	0.77	0.81	71.4
45	60	280S/M	6.5	569.51	2	2.4	2.64298	26/57	643	59	740	90.5	92.1	92.3	0.65	0.75	0.8	88
55	75	315S/M	6.5	711.89	1.9	2.2	3.10263	27/59	745	62	740	91.2	93.1	93	0.69	0.78	0.82	104
75	100	315S/M	6.6	949.18	1.9	2.2	4.36666	20/44	876	62	740	92	93.4	93.5	0.67	0.79	0.82	141
90	125	315S/M	6.8	1186.48	2.1	2.4	5.28596	23/51	970	62	740	92.5	93.8	94.2	0.7	0.78	0.83	166
110	150	355M/L	6.4	1423.78	1.5	2.2	11.9324	41/90	1390	70	740	92.5	94.1	94.5	0.63	0.74	0.8	210
132	175	315B	6.9	1661.07	1.9	2.6	7.7650	20/44	1399	62	740	94	94.5	94.4	0.63	0.74	0.79	255
132	175	355M/L	6.5	1661.07	1.6	2.2	13.18845	47/103	1445	70	740	93	94.5	94.8	0.63	0.73	0.79	254
160	220	315B	7.3	2088.2	2.1	2.8	9.75032	18/40	1534	62	740	93.1	94.7	94.7	0.6	0.72	0.77	317
160	220	355M/L	6.6	2088.2	1.6	2.2	16.32856	42/92	1620	70	740	93.3	94.7	94.7	0.64	0.75	0.8	305
200	270	355M/L	6.8	2562.8	1.6	2.1	19.46866	37/81	1830	70	740	93.3	94.6	95.2	0.6	0.72	0.79	384
HIGH OUTPUT DESIGN																		
55	75	280S/M	6.5	711.89	1.9	2.2	3.10263	27/59	745	59	740	91.2	93.1	93	0.69	0.78	0.82	104

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

Ex nA - Non Sparking 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	
VI Pole - 1000 rpm																	
0.12	0.16	900	45	52	55.5	0.49	0.58	0.68	0.483	915	39	48	53	0.43	0.52	0.62	0.508
0.18	0.25	895	49	55.5	57.5	0.49	0.59	0.65	0.732	910	43	52	56.5	0.44	0.52	0.59	0.751
0.25	0.33	890	56	63	65.3	0.44	0.55	0.61	0.954	905	50	58	62.5	0.37	0.46	0.54	1.03
0.37	0.5	920	56	64	66	0.49	0.62	0.72	1.18	935	52	61	64	0.42	0.54	0.64	1.26
0.55	0.75	920	62	65.8	68	0.54	0.67	0.77	1.6	935	58	64	66	0.47	0.59	0.68	1.7
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	915	72	75.5	74.8	0.55	0.69	0.78	2.86	935	70	75.2	75.2	0.46	0.61	0.72	2.83
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
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	94	94.9	94.7	0.72	0.81	0.84	306	990	93	94.9	94.9	0.64	0.75	0.8	293
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	95.1	95.3	94.9	0.75	0.82	0.85	377	990	94.4	95.1	95	0.67	0.78	0.83	353
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
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																	
0.12	0.16	675	40	48	50	0.44	0.52	0.6	0.608	695	32	40.5	45	0.37	0.47	0.53	0.7
0.18	0.25	690	43	52	54.5	0.45	0.56	0.65	0.772	710	37	46	53	0.41	0.5	0.59	0.801
0.25	0.33	670	50.5	56.5	56.5	0.48	0.59	0.69	0.974	690	45	53.5	56.5	0.42	0.53	0.61	1.01
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	59	64.5	65.5	0.48	0.59	0.69	1.85	700	55	61.5	64.5	0.41	0.52	0.61	1.94
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	700	77.5	78	77.7	0.52	0.63	0.7	4.19	715	74.5	77	78.1	0.46	0.58	0.66	4.05
2.2	3	710	79.5	81.8	82.1	0.56	0.68	0.75	5.43	720	77.5	81.2	82.6	0.5	0.62	0.71	5.22
3	4	705	79.5	83	83	0.54	0.66	0.74	7.42	715	76.5	82.4	83.5	0.5	0.62	0.7	7.14
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
9.2	12.5	725	84	86.1	85.5	0.69	0.79	0.84	19.5	730	82	85.9	85.9	0.59	0.72	0.79	18.9
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	94.6	94.8	94.3	0.68	0.77	0.81	263	745	93.4	94.2	94.4	0.59	0.71	0.77	253
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	93.6	94.9	94.6	0.66	0.75	0.79	325	745	92.5	94.7	94.7	0.56	0.68	0.75	313
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																	
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

Ex nA - Non Sparking Motors
Cast Iron Frame
Premium Efficiency EFF1

Standard Features:

- Three-phase, multivoltage, IP55, TEFC
- Output: 0.12 up to 250kW
- Frames: 63 up to 355M/L
- Voltage: 220-240/380-415V (up to 100L)
  380-415/660V (from 112M and up)
- Class “F” insulation (ΔT=80K)
- Continuous duty: S1
- Design N
- Ambient temperature: 40°C, at 1000 m.a.s.l.
- Squirrel cage rotor/Aluminium die cast
- V’Ring seal
- Temperature classification:
  - Zone 2: class of temperature T3
  - Zone 22: maximum motor guaranteed external surface temperature T125°C.
  Temperature limitation due to the presence of dust clouds (for materials with ignition temperature above 125° C) and presence of dust layers (up to 5mm).
  Note: On VFD Application, motor temperature class is ΔT = 160° C, marking: CE Ex II 3D T160°C
- Fan: Conductive plastic (63-315 frames) Aluminium (355 frames)
- Grease fitting from frame 160
- Plastic thread plug
- Increased safety terminal box
- Ground lug inside the terminal box
- Color: RAL 5009

Options Available:

Options Available:
- Degree of Protection: IP56, IP65 or IP66(W)
- Sealed Bearings on frames 160 up to 200
- Cable glands
- Other paint options

More options available, on request

Typical Applications:

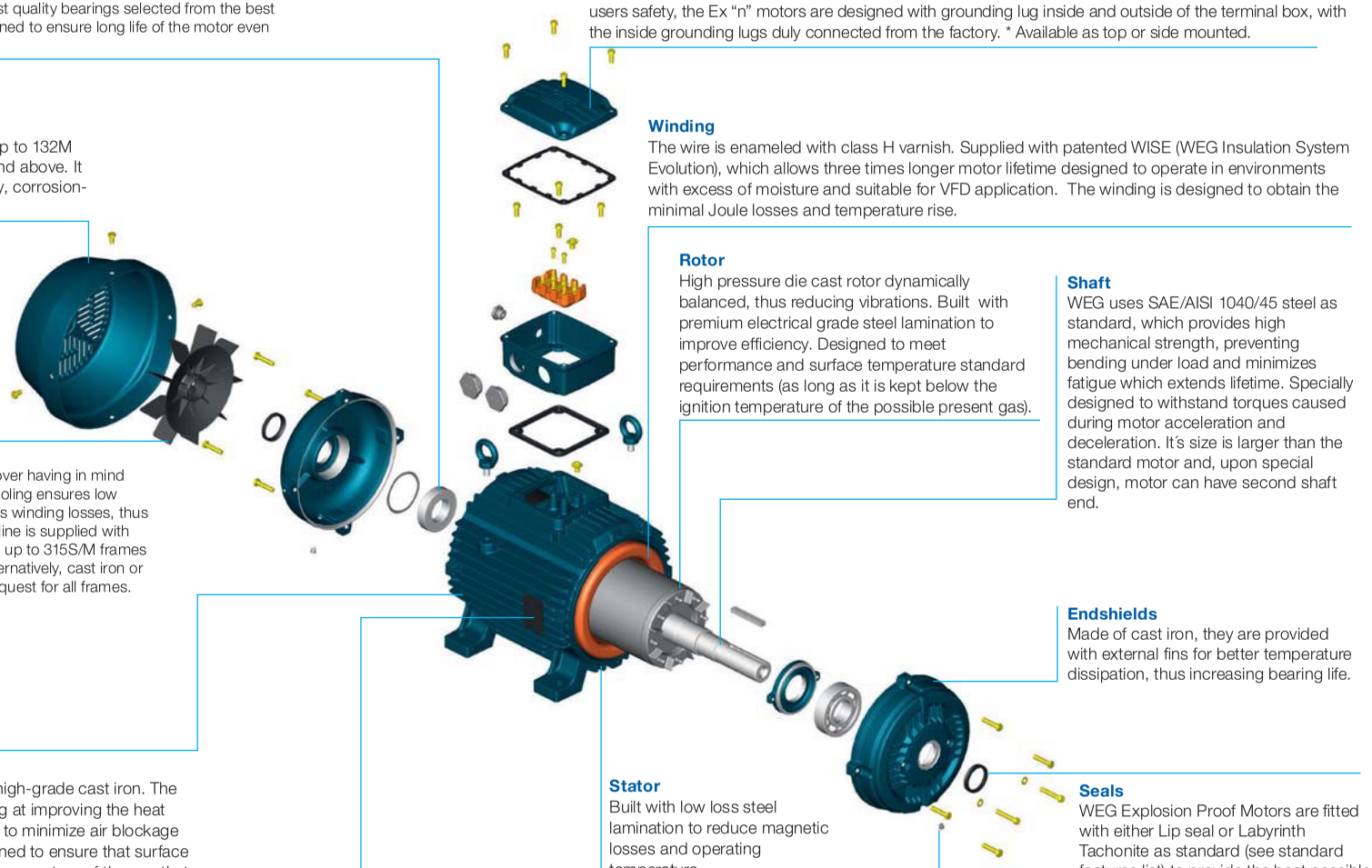
Typical Applications:
These motors are used in environment where an explosive atmosphere will probably not be present under normal operating conditions and, if any, this will be for short periods of time:
- Pumps
- Fans
- Conveyor belts
- Machine tools
- Mills
- Centrifugal machines
- Presses
- Elevators
- Looms
- Grinders
- Woodworking
- Cooling
- Packaging equipment
- Other severe duty applications where the environments are classified as Zone 2, groups IIA, IIB and IIC.

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. Designed in such a way that the energized components remain at a minimum safe distance from grounded components parts. In order to allow end users safety, the Ex "n" motors are designed with grounding lug inside and outside of the terminal box, with the inside grounding lugs duly connected from the factory. * 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.

Fan Cover
Made of steel plate for frames 63 up to 132M and of cast iron for frames 160M and above. It offers a superior mechanical rigidity, corrosion-resistance and extended lifetime.

Winding
The wire is enameled with class H varnish. Supplied with patented WISE (WEG Insulation System Evolution), which allows three times longer motor lifetime designed to operate in environments with excess of moisture and suitable for VFD application. The winding is designed to obtain the minimal 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. Designed to meet performance and surface temperature standard requirements (as long as it is kept below the ignition temperature of the possible present gas).

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 63 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.

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

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 towithstand an explosion inside the motor without causing any risk to outside areas since there is no flame flame propagation through flame path. The motors can be mounted in any position, horizontal and vertical, withstanding the maximum axial and radial thrusts.

Stator
Built with low loss steel lamination to reduce magnetic 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.

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

Drain Hole
Provided with plastic drain plug allowing drainage of condensed water.

Ex nA - Non Sparking 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 kgm²	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																		
0.12	0.16	63	0.41	5.0	2.5	2.7	0.00012	25/55	7	52	2760	58.0	64.8	65.5	0.51	0.64	0.74	0.36
0.18	0.25	63	0.65	4.4	2.2	2.2	0.00012	30/66	7	52	2730	63.5	68.5	69.5	0.62	0.76	0.81	0.46
0.25	0.33	63	0.86	4.5	2.2	2.2	0.00016	18/40	7	52	2730	64.0	68.5	71.2	0.58	0.71	0.80	0.63
0.37	0.5	71	1.26	5.5	2.7	2.9	0.00037	23/51	11	56	2810	69.0	73.8	74.5	0.63	0.77	0.85	0.84
0.55	0.75	71	1.91	5.7	2.5	2.5	0.00045	16/35	11	56	2790	72.5	76.6	76.7	0.68	0.80	0.86	1.20
0.75	1	80	2.54	6.8	2.8	2.8	0.00079	20/44	14	59	2795	76.5	80.5	80.5	0.73	0.82	0.86	1.56
1.1	1.5	80	3.76	7.8	3.0	3.0	0.00096	15/33	15	59	2820	81.0	83.0	83.6	0.64	0.76	0.84	2.26
1.5	2	90S	4.94	7.3	2.5	2.5	0.00205	14/31	20	65	2860	83.2	84.9	84.5	0.68	0.80	0.85	3.01
2.2	3	90L	7.38	8.4	3.3	3.1	0.00266	9/20	23	68	2865	84.0	86.0	86.6	0.64	0.76	0.83	4.42
3	4	100L	9.72	8.9	2.7	2.8	0.00672	10/22	33	67	2895	84.5	87.0	88.3	0.73	0.83	0.87	5.64
4	5.5	112M	13.4	8.2	2.4	3.0	0.00842	17/37	42	64	2900	87.0	88.4	88.6	0.72	0.83	0.87	7.49
5.5	7.5	132S	18.0	8.0	2.4	2.9	0.02056	19/42	61	68	2935	88.5	90.0	90.1	0.71	0.81	0.86	10.2
7.5	10	132S	24.1	8.0	2.2	2.7	0.02430	13/29	67	68	2925	88.5	90.6	90.8	0.72	0.82	0.87	13.7
11	15	160M	35.8	8.5	2.5	3.0	0.05295	14/31	110	70	2950	90.0	91.9	92.3	0.70	0.80	0.85	20.2
15	20	160M	47.8	8.2	2.2	3.0	0.05883	11/24	115	70	2945	91.0	92.0	92.5	0.74	0.82	0.86	27.2
18.5	25	160L	59.7	8.8	2.2	2.9	0.06766	10/22	136	70	2945	91.9	92.8	93.1	0.73	0.82	0.85	33.7
22	30	180M	71.6	8.6	2.5	3.0	0.11919	14/31	180	70	2950	92.5	93.5	93.7	0.76	0.84	0.87	39.0
30	40	200L	95.1	7.4	2.5	2.6	0.20630	31/68	245	74	2960	92.8	93.7	94.0	0.77	0.84	0.87	52.9
37	50	200L	119	7.6	2.5	2.5	0.22424	25/55	260	74	2960	93.2	94.0	94.6	0.76	0.84	0.87	64.9
45	60	225S/M	142	8.5	2.2	2.7	0.44846	18/40	411	78	2970	93.6	94.5	94.7	0.82	0.88	0.90	76.2
55	75	250S/M	178	8.9	2.4	3.1	0.50227	15/33	490	78	2965	94.0	95.0	95.0	0.85	0.89	0.91	91.8
75	100	280S/M	237	7.7	2.0	2.7	1.27083	51/112	740	79	2975	93.2	94.4	95.6	0.83	0.87	0.89	127
90	125	280S/M	295	8.2	2.0	2.5	1.41204	42/92	780	79	2975	94.1	95.5	95.8	0.82	0.88	0.90	151
110	150	315S/M	355	8.0	2.0	2.5	1.50617	38/84	830	81	2975	94.4	95.3	95.8	0.82	0.87	0.89	186
132	175	315S/M	414	7.8	2.0	2.4	1.74151	32/70	900	81	2975	94.3	95.5	96.0	0.84	0.88	0.89	223
160	220	315S/M	521	7.8	2.0	2.3	2.11806	33/73	1010	81	2970	95.0	96.0	96.2	0.85	0.89	0.90	267
200	270	355M/L	636	7.2	1.6	2.4	4.82631	70/154	1490	91	2985	93.5	95.0	95.4	0.89	0.91	0.92	329
250	340	355M/L	801	7.8	1.5	2.3	5.74561	65/143	1750	91	2985	95.5	96.3	96.4	0.87	0.91	0.92	407
HIGH OUTPUT DESIGN																		
75	100	250S/M	236.9	8.5	3	3.4	0.55609	10/22	490	82	2965	93	94.3	94.6	0.83	0.88	0.9	127
110	150	280S/M	354.15	8	2.3	2.8	1.50617	38/84	830	83	2975	94.4	95.3	95.8	0.82	0.87	0.89	186
IV Pole - 1500 rpm																		
0.12	0.16	63	0.79	4.5	2.6	2.7	0.00045	20/44	8.1	44	1415	56.5	62.5	64.5	0.43	0.55	0.65	0.413
0.18	0.25	63	1.25	4.6	2.6	2.7	0.00056	27/59	8.7	44	1400	58	64	67.5	0.44	0.55	0.66	0.583
0.25	0.33	71	1.66	5	3	3.1	0.00079	48/106	11.9	43	1400	69	73	75	0.5	0.61	0.69	0.697
0.37	0.5	71	2.52	5	2.7	2.8	0.00079	37/81	12	43	1395	69	74	75.5	0.47	0.59	0.69	1.03
0.55	0.75	80	3.68	6	2.6	2.8	0.00242	17/37	15	44	1430	72	77	78	0.56	0.69	0.78	1.3
0.75	1	80	4.95	6	2.6	2.6	0.00328	16/35	16.9	44	1420	76	78.6	80.1	0.62	0.75	0.82	1.65
1.1	1.5	90S	7.29	7	2.6	3	0.0056	14/31	22.2	49	1445	80	83.8	83.8	0.59	0.72	0.8	2.37
1.5	2	90L	9.69	7.5	2.8	3.3	0.00672	12/26	24.6	49	1450	80.5	84.6	85.2	0.54	0.68	0.77	3.3
2.2	3	100L	14.79	7.4	3	3	0.01072	17/37	34.2	53	1425	85.3	86.4	86.4	0.65	0.77	0.83	4.43
3	4	100L	19.65	7.8	2.9	3.3	0.01225	12/26	40.2	53	1430	84.5	86.5	87.5	0.64	0.76	0.83	5.96
4	5.5	112M	26.73	6.6	2.1	2.6	0.01875	12/26	46.4	56	1445	87.1	88.3	88.6	0.66	0.77	0.83	7.85
5.5	7.5	132S	35.96	8.5	2.4	3.1	0.05427	12/26	66.9	56	1465	88	89.6	90.1	0.69	0.79	0.85	10.4
7.5	10	132M	47.95	8.2	2.5	3	0.0659	9/20	77.1	56	1465	89	90	90.4	0.71	0.81	0.86	13.9
9.2	12.5	160M	60.14	5.6	2.3	2.3	0.08029	27/59	110	67	1460	89.6	91	91	0.7	0.8	0.84	17.4
11	15	160M	71.92	6	2.5	2.6	0.10037	19/42	120.5	67	1465	90.3	91.4	91.2	0.68	0.78	0.83	21
15	20	160L	95.89	6.1	2.5	2.6	0.11542	17/37	139.7	67	1465	90.5	91.9	91.8	0.66	0.77	0.83	28.4
18.5	25	180M	119.46	8	2.9	2.9	0.19733	12/26	184.9	64	1470	91.6	93	93.4	0.65	0.76	0.82	34.9
22	30	180L	142.86	7.9	2.8	2.9	0.23321	16/35	199.6	64	1475	92.5	93.5	93.7	0.71	0.81	0.86	39.4
30	40	200L	190.48	7	2.5	2.6	0.33095	18/40	245	69	1475	93	94	93.9	0.67	0.78	0.83	55.6
37	50	225S/M	237.3	7.2	2.2	2.7	0.69987	16/35	369.2	70	1480	93	94	94.1	0.76	0.84	0.87	65.2
45	60	225S/M	284.76	7.4	2.4	3	0.83984	15/33	398.2	70	1480	94	94.5	94.5	0.76	0.83	0.88	78.1
55	75	250S/M	357.15	7.2	2.5	2.8	1.15478	17/37	489.8	70	1475	94.1	94.7	94.6	0.77	0.86	0.89	94.3
75	100	280S/M	472.99	7.2	2.2	2.6	2.16799	38/84	660	70	1485	93.9	95.1	95.2	0.79	0.85	0.88	129
90	125	280S/M	591.24	7.8	2.4	2.6	2.81036	25/55	795	70	1485	94.3	95.1	95.3	0.79	0.85	0.88	155
110	150	315S/M	709.49	7.6	2.4	2.6	3.21184	29/64	860	72	1485	94.5	95.2	95.6	0.8	0.86	0.88	189
132	175	315S/M	827.74	7.8	2.4	2.6	3.77391	25/55	995	72	1485	94.8	95.4	95.7	0.78	0.85	0.88	226
160	220	315S/M	1040.59	7.6	2.4	2.6	3.77391	20/44	1005	72	1485	94.7	95.7	95.9	0.76	0.84	0.87	277
200	270	355M/L	1272.8	6.6	2.1	2.3	6.85703	49/108	1525	79	1490	95.3	95.8	96	0.8	0.86	0.88	342
250	340	355M/L	1602.78	6.9	2.2	2.5	8.12016	36/79	1615	79	1490	95.3	96.3	96.5	0.8	0.86	0.88	425

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

Ex nA - Non Sparking 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	
II Pole - 3000 rpm																	
0.12	0.16	2730	60	66	67	0.56	0.69	0.79	0.344	2790	55	63	63	0.48	0.61	0.71	0.373
0.18	0.25	2700	65	69	69	0.66	0.79	0.83	0.478	2760	62	68	70	0.58	0.73	0.78	0.459
0.25	0.33	2700	65.5	69.5	70	0.62	0.75	0.83	0.654	2755	62.5	67.5	71.9	0.55	0.68	0.77	0.628
0.37	0.5	2790	70.5	73.8	74.3	0.68	0.8	0.88	0.86	2825	67.5	73.8	74.5	0.6	0.74	0.82	0.843
0.55	0.75	2760	73.5	76.7	76.5	0.73	0.82	0.88	1.24	2810	71.5	76.5	76.7	0.64	0.77	0.84	1.19
0.75	1	2770	77	80.5	79.8	0.76	0.85	0.88	1.62	2805	76	80.5	80.5	0.7	0.79	0.84	1.54
1.1	1.5	2800	82	83.2	82.8	0.69	0.8	0.86	2.35	2835	80	82.5	83.5	0.58	0.72	0.81	2.26
1.5	2	2845	83.6	84.8	84.3	0.73	0.83	0.87	3.11	2870	82.8	84.8	84.6	0.64	0.77	0.83	2.97
2.2	3	2855	84.5	86	86	0.69	0.8	0.86	4.52	2875	83.5	86	86.6	0.58	0.72	0.8	4.42
3	4	2890	85	86.7	87.5	0.77	0.85	0.88	5.92	2900	84	86.7	88	0.69	0.81	0.86	5.51
4	5.5	2890	87.5	88.3	88.3	0.77	0.85	0.89	7.73	2910	86.5	88.3	88.5	0.68	0.81	0.86	7.31
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	2920	89	90.5	90.6	0.75	0.84	0.88	14.3	2930	88	90.6	90.9	0.7	0.8	0.86	13.3
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	2940	91.5	92	92.4	0.78	0.85	0.87	28.4	2950	90.5	91.9	92.4	0.7	0.8	0.85	26.6
18.5	25	2940	92.1	92.8	93	0.76	0.84	0.87	34.7	2950	91.7	92.7	93	0.7	0.8	0.83	33.3
22	30	2945	92.8	93.5	93.5	0.79	0.86	0.89	40.2	2955	92.2	93.5	93.7	0.73	0.82	0.85	38.4
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																	
0.12	0.16	1405	59	64	65	0.46	0.59	0.69	0.407	1425	54	60.5	63	0.4	0.51	0.61	0.43
0.18	0.25	1390	60	65	67	0.47	0.57	0.68	0.6	1410	56	63	67	0.41	0.53	0.64	0.58
0.25	0.33	1385	70	73.5	74.5	0.54	0.65	0.73	0.698	1415	68	72.5	75.5	0.46	0.58	0.66	0.69
0.37	0.5	1385	71	74.5	75.5	0.51	0.63	0.72	1.03	1405	67	73.5	75	0.43	0.55	0.66	1.04
0.55	0.75	1420	73	77.5	77.5	0.59	0.72	0.81	1.33	1435	71	76.5	78	0.53	0.65	0.75	1.31
0.75	1	1410	77	78.7	79.6	0.66	0.78	0.85	1.68	1425	75	78.5	80.1	0.58	0.71	0.79	1.65
1.1	1.5	1440	81.5	83.8	83.6	0.64	0.76	0.83	2.41	1450	78.5	83.8	83.8	0.55	0.69	0.77	2.37
1.5	2	1440	81.5	84.7	85	0.59	0.73	0.8	3.35	1455	79.5	84.5	85	0.5	0.64	0.74	3.32
2.2	3	1420	85.5	86.3	86.2	0.7	0.81	0.86	4.51	1430	85	86.4	86.4	0.62	0.75	0.81	4.37
3	4	1425	85	86.5	87.5	0.68	0.8	0.85	6.13	1435	84	86.5	87.5	0.6	0.73	0.81	5.89
4	5.5	1440	87.5	88.4	88.3	0.7	0.8	0.86	8	1450	86.7	88.2	88.6	0.62	0.74	0.81	7.75
5.5	7.5	1460	88.5	89.6	90	0.72	0.81	0.86	10.8	1470	87.5	89.4	90.1	0.65	0.77	0.83	10.2
7.5	10	1460	89.2	89.8	89.8	0.75	0.84	0.88	14.4	1465	88.7	89.8	90.3	0.68	0.79	0.85	13.6
9.2	12.5	1455	90	91	90.7	0.74	0.82	0.85	18.1	1465	89.2	91	91	0.67	0.78	0.83	16.9
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	1470	92.8	93.4	93.5	0.75	0.83	0.88	40.6	1475	92.2	93.4	93.7	0.68	0.79	0.85	38.4
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	1475	94	94.7	94.7	0.75	0.84	0.87	138	1485	93.7	95	95.2	0.77	0.84	0.87	126
90	125	1480	94.1	95	95	0.81	0.86	0.88	136	1485	94.1	95	95.3	0.77	0.84	0.87	151
110	150	1485	94.5	95.1	95.2	0.81	0.87	0.89	161	1485	94.3	95.1	95.6	0.78	0.85	0.87	184
132	175	1485	94.5	95.4	95.6	0.8	0.86	0.88	199	1485	94.6	95.3	95.7	0.76	0.84	0.87	221
160	220	1480	95	95.4	95.6	0.8	0.86	0.89	236	1485	94.5	95.7	95.9	0.74	0.82	0.86	270
200	270	1480	94.9	95.7	95.8	0.78	0.86	0.88	288	1490	95	95.8	96	0.78	0.85	0.87	333
250	340	1485	95.3	95.6	95.7	0.83	0.87	0.89	357	1490	95.1	96.1	96.4	0.77	0.85	0.87	415

Ex nA - Non Sparking 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 kgm²	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																		
0.18	0.25	71	1.95	3.5	2.1	2.2	0.00079	49/108	11	43	900	49	57	61	0.42	0.51	0.6	0.71
0.25	0.33	71	2.58	3.5	2.1	2.2	0.00096	43/95	12	43	900	53	63	67	0.39	0.48	0.55	0.979
0.37	0.5	80	3.8	4.7	2.1	2.2	0.00242	14/31	15	43	925	62	67.5	70	0.48	0.61	0.7	1.09
0.55	0.75	80	5.73	4.8	2.2	2.4	0.00311	11/24	16	43	920	62	68.5	70.3	0.48	0.63	0.72	1.57
0.75	1	90S	7.63	4.8	2.1	2.2	0.0056	20/44	22	45	920	74	77.7	77.7	0.5	0.63	0.72	1.94
1.1	1.5	90L	11.45	5	2.3	2.4	0.00672	12/26	23	45	920	72	77.7	77.7	0.48	0.61	0.71	2.88
1.5	2	100L	14.87	5.5	2.2	2.5	0.01289	19/42	32	44	945	79	81.5	81.5	0.49	0.6	0.7	3.8
2.2	3	112M	22.18	6.2	2.4	2.6	0.02243	16/35	45	48	950	81.5	84	83.8	0.52	0.64	0.72	5.26
3	4	132S	29.27	6	2.1	2.5	0.04264	28/62	59	52	960	82	85	86.5	0.53	0.67	0.74	6.76
4	5.5	132M	40.24	6.5	2.2	2.5	0.05039	21/46	68	52	960	85	86.6	87.2	0.56	0.69	0.76	8.71
5.5	7.5	132M	54.59	6.8	2.3	2.5	0.0659	17/37	79	52	965	84.5	87.5	87.6	0.53	0.65	0.73	12.4
7.5	10	160M	72.41	6.6	2.5	2.9	0.14364	19/42	106	56	970	87.5	89.5	90	0.61	0.74	0.81	14.8
9.2	12.5	160L	90.51	6.2	2.2	2.7	0.16518	15/33	130	56	970	89.4	90.1	90.1	0.6	0.73	0.8	18.4
11	15	160L	108.62	7	2.4	2.7	0.17595	13/29	136	56	970	89	90.3	90.3	0.58	0.72	0.79	22.3
15	20	180L	144.82	8	2.7	3	0.28959	9/20	189.6	56	970	91.2	91.9	91.6	0.72	0.81	0.87	27.2
18.5	25	200L	180.1	6.3	2.3	2.5	0.37671	17/37	210	58	975	91.3	92.7	92.9	0.67	0.78	0.82	35.1
22	30	200L	216.12	6.2	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	285.24	7	2.6	2.6	0.98842	21/46	366	61	985	91.7	93	93.5	0.73	0.81	0.85	54.5
37	50	250S/M	358.37	7	2.5	2.6	1.3179	20/44	450	61	980	91.8	94	94	0.72	0.81	0.84	67.6
45	60	280S/M	427.86	6.8	2.2	2.7	2.29824	27/59	610	66	985	92	93.6	94.2	0.67	0.77	0.82	84.1
55	75	280S/M	534.82	6.7	2.1	2.6	2.64298	21/46	655	66	985	92.5	93.9	94.3	0.67	0.78	0.82	103
75	100	315S/M	713.09	6.7	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	891.37	6.5	2.2	2.4	4.02193	16/35	810	69	985	94	94.8	94.8	0.71	0.8	0.83	165
110	150	315S/M	1069.64	6.5	2.2	2.4	5.28596	18/40	980	69	985	94.5	95.1	95.1	0.69	0.79	0.84	199
132	175	355M/L	1241.61	6.1	1.9	2.2	9.05472	90/198	1400	73	990	94.3	95.5	95.8	0.67	0.77	0.81	246
160	220	355M/L	1560.88	6	1.9	2.1	9.53128	76/167	1460	73	990	94.2	95.8	96	0.65	0.77	0.81	297
200	270	355M/L	1915.63	6.1	2.2	2.3	12.39067	85/187	1700	73	990	94.7	95.5	95.7	0.66	0.76	0.81	372
250	340	355M/L	2412.27	6.1	1.9	2.1	14.77349	64/141	1890	73	990	95	96	96.2	0.69	0.78	0.81	463
HIGH OUTPUT DESIGN																		
75	100	280S/M	713.09	6.7	2.1	2.4	3.44737	20/44	725	69	985	93.7	94.4	94.5	0.72	0.81	0.84	136
VIII Pole - 750 rpm																		
0.18	0.25	80	2.51	3.1	1.8	2	0.00242	16/35	13.7	42	700	42	51	55.8	0.42	0.52	0.61	0.763
0.25	0.33	80	3.34	3.5	2	2	0.00294	15/33	14.8	42	695	51	60	64.3	0.41	0.52	0.61	0.92
0.37	0.5	90S	5.09	4	2	2	0.00448	21/46	18	43	690	53.5	61.3	64.5	0.39	0.5	0.59	1.4
0.55	0.75	90L	7.63	4	2	2.2	0.00616	21/46	21.5	43	690	59	64	66.3	0.39	0.5	0.6	2
0.75	1	100L	9.89	4.2	1.9	2.2	0.01121	38/84	30.2	50	710	71	74.2	76	0.4	0.53	0.61	2.34
1.1	1.5	100L	15.05	4.2	1.8	2.2	0.01289	31/68	30	50	700	71	74.5	77	0.4	0.52	0.62	3.33
1.5	2	112M	19.79	5.4	2.4	2.7	0.0243	32/70	45	46	710	79	81.3	82	0.43	0.55	0.66	4
2.2	3	132S	29.68	6.2	2.4	2.5	0.07527	25/55	70	48	710	82	84.3	84.2	0.54	0.66	0.73	5.17
3	4	132M	39.57	6	2.4	2.4	0.08531	21/46	72.5	48	710	82.8	84.6	84.5	0.54	0.67	0.75	6.83
4	5.5	160M	53.29	5.2	2.2	2.8	0.12209	27/59	110	51	725	83	85.8	86.6	0.44	0.57	0.66	10.1
5.5	7.5	160M	72.16	5.6	2.5	2.8	0.16518	22/48	130	51	730	83.5	86.4	87	0.42	0.55	0.65	14
7.5	10	160L	96.88	5.2	2	2.4	0.16518	19/42	145	51	725	85.5	88	88.5	0.52	0.64	0.71	17.2
9.2	12.5	180M	121.1	7	2.2	2.7	0.262	12/26	163	51	725	87.5	88.3	88.5	0.67	0.77	0.83	18.1
11	15	180L	145.32	7	2.2	2.4	0.26201	9/20	183	51	725	88	89	89	0.68	0.78	0.83	21.5
15	20	200L	192.44	5	2	2.2	0.50227	28/62	300	53	730	89.5	90.8	91.5	0.53	0.65	0.71	33.3
18.5	25	225S/M	240.55	7.2	2.1	2.6	0.84722	18/40	340	56	730	90.5	91.5	91.9	0.69	0.79	0.83	35
22	30	225S/M	288.66	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	384.87	7.5	2.1	2.8	1.22377	17/37	440	56	730	91.7	92.5	93	0.69	0.79	0.83	56.1
37	50	280S/M	474.59	6.5	1.9	2.2	2.64298	32/70	590	59	740	92.6	93.5	93.9	0.63	0.74	0.8	71.1
45	60	280S/M	569.51	6.5	2	2.4	3.10263	32/70	650	59	740	92.9	93.7	94	0.62	0.73	0.79	87.5
55	75	315S/M	711.89	6.5	2	2.2	3.44737	32/70	730	62	740	93.5	94.5	94.5	0.63	0.74	0.8	105
75	100	315S/M	949.18	6.6	1.9	2.2	4.36666	20/44	876	62	740	93.9	94.7	94.9	0.66	0.78	0.81	141
90	125	315S/M	1186.48	6.8	1.9	2.4	5.28596	23/51	970	62	740	93.9	94.7	95	0.67	0.77	0.81	169
110	150	355M/L	1423.78	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	1661.07	6.5	1.6	2.2	13.18845	47/103	1445	70	740	94	95.4	95.4	0.63	0.73	0.79	253
160	220	355M/L	2088.2	6.6	1.6	2.2	16.32856	42/92	1620	70	740	94.3	95.7	95.7	0.62	0.74	0.79	305
200	270	355M/L	2562.8	6.8	1.6	2.1	19.46866	37/81	1830	70	740	94.2	95.1	95.5	0.58	0.71	0.78	388

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

Ex nA - Non Sparking 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	
VI Pole - 1000 rpm																	
0.18	0.25	890	51	58	61	0.46	0.55	0.63	0.712	910	47	56	61	0.39	0.47	0.57	0.72
0.25	0.33	890	55	64	67	0.4	0.53	0.59	0.961	910	51	62	67	0.37	0.44	0.53	0.979
0.37	0.5	920	64	68.5	70.5	0.52	0.65	0.74	1.08	930	60	66.5	69.5	0.44	0.57	0.66	1.12
0.55	0.75	910	64	69.5	70.5	0.53	0.67	0.76	1.56	930	60	67.5	70	0.44	0.59	0.66	1.66
0.75	1	910	75	77.5	76.8	0.55	0.67	0.74	2.01	930	73	77.7	77.7	0.46	0.6	0.7	1.92
1.1	1.5	910	73	77.5	76.8	0.53	0.65	0.74	2.94	930	71	77.7	77.7	0.44	0.57	0.67	2.94
1.5	2	940	80	81.5	81.5	0.53	0.64	0.72	3.88	950	78	81.5	81.5	0.45	0.57	0.68	3.77
2.2	3	945	82.5	83.5	83.4	0.55	0.67	0.74	5.42	955	80.5	84	84	0.48	0.61	0.7	5.21
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	960	85.5	87.6	87.6	0.58	0.7	0.76	12.6	965	83.5	87.4	87.6	0.48	0.61	0.7	12.5
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	980	92	93.5	93.5	0.76	0.84	0.87	84	985	91.5	93.5	94.1	0.64	0.75	0.8	83.2
55	75	985	92.5	93.7	94.1	0.71	0.79	0.84	86.5	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	94.4	94.4	0.75	0.83	0.85	142	985	93.7	94.8	94.8	0.68	0.78	0.82	161
110	150	985	94.3	94.8	94.7	0.74	0.82	0.84	172	985	94.3	95.1	95.2	0.66	0.77	0.83	194
132	175	985	94.7	95	95	0.73	0.81	0.85	207	990	94.1	95.5	95.8	0.64	0.75	0.8	240
160	220	990	94.5	95.5	95.7	0.72	0.79	0.82	256	990	93.9	95.8	96	0.6	0.74	0.8	290
200	270	990	94.4	95.5	95.7	0.7	0.79	0.82	358	990	94.4	95.4	95.7	0.62	0.73	0.79	368
250	340	990	95	95.6	95.7	0.7	0.79	0.82	387	990	94.7	95.9	96.2	0.66	0.76	0.8	452
HIGH OUTPUT DESIGN																	
75	100	985	92.8	93.9	94.2	0.71	0.8	0.83	107	985	93.4	94.4	94.5	0.69	0.79	0.83	133
VIII Pole - 750 rpm																	
0.18	0.25	685	38	46.2	49	0.38	0.47	0.55	0.677	705	40	49	55.5	0.4	0.49	0.58	0.778
0.25	0.33	690	44	53	56	0.44	0.55	0.64	0.763	700	49	59	63.8	0.4	0.5	0.59	0.924
0.37	0.5	685	53	61	63.8	0.43	0.55	0.63	0.945	695	52	60	64	0.37	0.47	0.56	1.44
0.55	0.75	680	55	62.5	65	0.42	0.54	0.64	1.35	700	57	63	66	0.37	0.47	0.57	2.03
0.75	1	680	61	65	66.5	0.42	0.54	0.64	1.96	715	70	74	76	0.38	0.5	0.58	2.37
1.1	1.5	700	72	74.4	75.5	0.44	0.56	0.64	2.36	710	69.5	73.5	76.9	0.37	0.49	0.59	3.37
1.5	2	690	72.5	75.5	76.9	0.44	0.57	0.65	3.34	715	78.2	81	81.8	0.4	0.51	0.63	4.05
2.2	3	700	79.8	81.6	82	0.47	0.59	0.69	4.03	715	81	84.3	84.3	0.5	0.63	0.71	5.11
3	4	705	83	84.3	84.2	0.58	0.7	0.75	5.29	715	82.5	84.6	84.6	0.51	0.64	0.73	6.76
4	5.5	705	83.2	84.6	84.5	0.58	0.71	0.77	7.01	730	82	85.4	86.6	0.41	0.53	0.63	10.2
5.5	7.5	725	84	86.2	86.6	0.48	0.61	0.7	10	730	83	86.1	87	0.4	0.52	0.62	14.2
7.5	10	725	84	86.7	87	0.46	0.6	0.69	13.9	725	84.5	87.8	88.5	0.48	0.6	0.69	17.1
9.2	12.5	720	86.5	88.2	88.5	0.56	0.68	0.74	17.4	730	87.2	88.3	88.6	0.63	0.75	0.81	17.8
11	15	725	87.8	88.3	88	0.71	0.81	0.85	18.7	730	87.8	89	89	0.65	0.75	0.81	21.2
15	20	725	88.2	89	88.8	0.73	0.81	0.85	22.1	735	89	90.6	91.3	0.5	0.63	0.69	33.1
18.5	25	730	90	91	91.2	0.56	0.67	0.73	34.2	730	90.2	91.5	91.9	0.65	0.77	0.82	34.2
22	30	725	90.8	91.5	91.5	0.73	0.81	0.84	36.6	735	90.5	92.1	92.5	0.63	0.74	0.81	40.8
30	40	730	91.1	92.2	92.2	0.71	0.8	0.83	43.7	730	91.3	92.5	93	0.65	0.77	0.82	54.7
37	50	725	92	92.5	92.6	0.73	0.81	0.84	58.6	740	92.1	93.4	93.8	0.6	0.72	0.79	69.5
45	60	735	92.9	93.5	93.8	0.68	0.76	0.81	74	740	92.5	93.5	94.1	0.58	0.7	0.77	86.4
55	75	735	93.3	93.9	94	0.66	0.77	0.81	89.8	740	93.1	94.5	94.6	0.61	0.73	0.79	102
75	100	740	93.5	94.5	94.5	0.65	0.75	0.8	111	740	93.7	94.7	94.9	0.63	0.76	0.8	137
90	125	735	93.8	94.5	94.4	0.69	0.78	0.81	109	740	93.6	94.6	95.1	0.63	0.75	0.8	165
110	150	735	94.1	94.7	94.8	0.69	0.8	0.82	147	745	93	95.2	95.2	0.59	0.77	0.77	209
132	175	735	94.2	94.8	95	0.71	0.79	0.83	173	745	93.5	95.4	95.4	0.6	0.71	0.77	250
160	220	740	94	95.2	95.1	0.65	0.76	0.81	217	745	93.8	95.7	95.7	0.58	0.71	0.78	298
200	270	740	94	95.4	95.4	0.63	0.73	0.79	266	745	94	95	95.5	0.54	0.68	0.76	383

Ex nA - Non Sparking Motors
Cast Iron Frame
Top Premium Efficiency Exceeds EFF1

Standard Features:

- Three-phase, multivoltage, IP55, TEFC
- Output: 4 up to 315kW
- Frames: 112 up to 355M/L
- Voltage: 220-240/380-415V (up to 100L)
  380-415/660V (from 112M and up)
- Class “F” insulation (ΔT=80K)
- Continuous duty: S1
- Design N
- Ambient temperature: 40°C, at 1000 m.a.s.l.
- Squirrel cage rotor/Aluminium die cast
- V’Ring seal
- Temperature classification:
  - Zone 2: class of temperature T3
  - Zone 22: maximum motor guaranteed external surface temperature T125°C.
  Temperature limitation due to the presence of dust clouds (for materials with ignition temperature above 125° C) and presence of dust layers (up to 5mm).
  Note: On VFD Application, motor temperature class is ΔT = 160° C, marking: CE Ex II 3D T160°C
- Fan: Conductive plastic (63-315 frames)
  Aluminium (355 frames)
- Grease fitting from frame 160
- Plastic thread plug
- Increased safety terminal box
- Ground lug inside the terminal box
- Color: RAL 6021

Options Available:

Options Available:

- Degree of Protection: IP56, IP65 or IP66(W)
- Sealed Bearings on frames 160 up to 200
- Cable glands
- Other paint options

More options available, on request

Typical Applications:

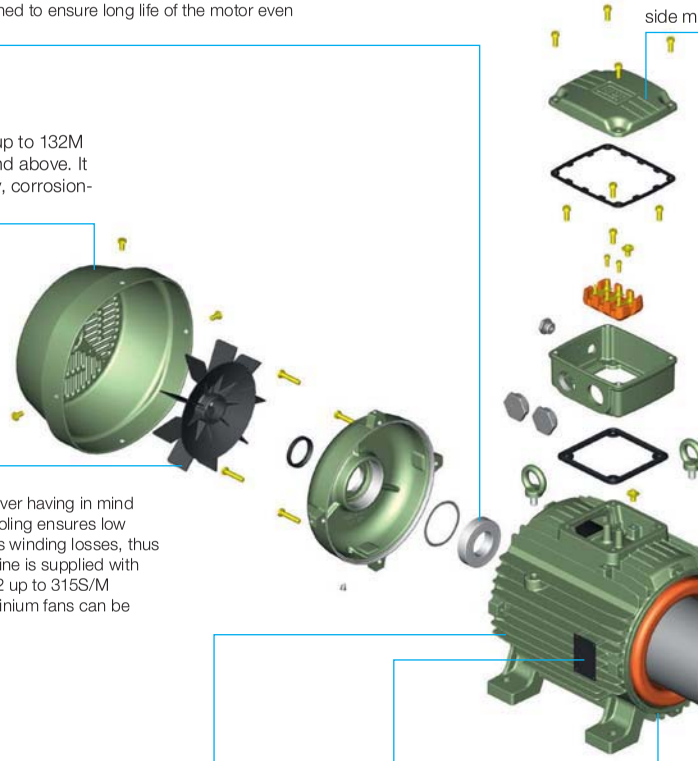
Typical Applications:
These motors are used in environment where an explosive atmosphere will probably not be present under normal operating conditions and, if any, this will be for short periods of time:

- Pumps
- Fans
- Conveyor belts
- Machine tools
- Mills
- Centrifugal machines
- Presses
- Elevators
- Looms
- Grinders
- Woodworking
- Cooling
- Packaging equipment
- Other severe duty applications where the environments are classified as Zone 2, groups IIA, IIB and IIC.

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. Designed in such a way that the energized components remain at a minimum safe distance from grounded components parts. In order to allow end users safety, the Ex "n" motors are designed with grounding lug inside and outside of the terminal box, with the inside grounding lugs duly connected from the factory. * 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.

Fan Cover
Made of steel plate for frames 112 up to 132M and of cast iron for frames 160M and above. It offers a superior mechanical rigidity, corrosion-resistance and extended lifetime.



Winding
The wire is enameled with class H Varnish and are impregnated with dipping and baking process (frames 112 up to 200L) and continuous resin flow process (frames 225S/M up to 315M/L). Supplied with patented WISE (WEG Insulation System Evolution), which allows three times longer motor lifetime designed to operate in environments with excess of moisture and suitable for VFD application. The winding is designed to obtain the minimal 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. Designed to meet performance and surface temperature standard requirements (as long as it is kept below the ignition temperature of the possible present gas).

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 112 up to 315S/M frames. Alternatively, cast iron or aluminium fans can be supplied on request for all frames.

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

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 towithstand an explosion inside the motor without causing any risk to outside areas since there is no flame flame propagation through flame path. The motors can be mounted in any position, horizontal and vertical, withstanding the maximum axial and radial thrusts.

Stator
The stator is built with highest quality of steel lamination and it is thermally and chemically treated to reduce electrical losses and operating temperature. Guarantees high efficiency and extended motor lifetime.

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.

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

Drain Hole
Provided with plastic drain plug allowing drainage of condensed water.

Ex nA - Non Sparking Motors - Cast Iron Frame
Top Premium Efficiency Exceeds 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 kgm²	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																		
4	5.5	112M	13.3	8.5	2.6	3.1	0.00842	21/46	46	64	2900	88.7	89.8	89.8	0.61	0.79	0.85	7.56
5.5	7.5	132S	17.9	8.5	2.5	3.0	0.02056	19/42	62	68	2940	90.1	91.2	91.3	0.70	0.80	0.85	10.2
7.5	10	132S	23.9	8.5	2.7	3.1	0.02804	8/18	75	68	2940	89.0	91.3	91.6	0.72	0.83	0.87	13.6
11	15	160M	35.7	8.6	2.3	3.0	0.05295	12/26	110	70	2950	91.7	93.0	93.0	0.65	0.78	0.83	20.6
15	20	160M	47.7	8.3	2.4	2.9	0.05883	11/24	115	70	2945	92.2	93.3	93.3	0.71	0.81	0.84	27.6
18.5	25	160L	59.6	9.0	2.3	2.7	0.06766	11/24	136	70	2945	92.9	93.8	93.8	0.67	0.79	0.85	33.5
22	30	180M	71.3	8.6	2.8	2.7	0.15082	9/20	180	70	2955	93.2	94.3	94.1	0.75	0.83	0.87	38.8
30	40	200L	95.1	7.6	2.7	2.4	0.20630	35/77	245	74	2955	92.6	93.9	94.2	0.75	0.83	0.86	53.5
37	50	200L	119	8.4	2.6	2.6	0.22424	16/35	260	74	2960	93.3	94.2	94.7	0.76	0.84	0.87	64.8
45	60	225S/M	142	8.5	2.4	2.9	0.52021	20/44	410	78	2965	94.5	95.4	95.4	0.82	0.88	0.90	75.6
55	75	250S/M	178	8.5	2.3	3.0	0.55609	18/40	470	78	2960	94.7	95.5	95.3	0.85	0.89	0.91	91.5
75	100	280S/M	236	7.0	1.6	2.6	1.27083	36/79	700	79	2975	95.2	96.1	96.0	0.83	0.88	0.89	127
90	125	280S/M	295	8.0	2.2	2.8	1.41204	42/92	780	79	2975	94.3	95.6	96.0	0.82	0.88	0.90	150
110	150	315S/M	354	8.0	1.8	2.6	1.50617	25/55	830	81	2975	95.2	96.4	96.4	0.76	0.84	0.88	187
132	175	315S/M	413	7.8	1.9	2.6	1.74151	30/66	900	81	2975	95.5	96.6	96.6	0.79	0.87	0.89	222
160	220	315S/M	519	8.2	1.9	2.6	2.11806	30/66	990	81	2975	95.5	96.6	96.6	0.79	0.86	0.89	269
IV Pole - 1500 rpm																		
4	5.5	112M	26.8	6.6	1.8	2.3	0.01875	8/18	49	55	1445	87.4	89.0	89.3	0.66	0.77	0.83	7.79
5.5	7.5	132S	36.1	8.5	2.1	2.8	0.05427	12/26	65	58	1465	88.5	90.1	90.7	0.69	0.79	0.85	10.3
7.5	10	132M	48.1	8.0	2.2	2.7	0.06590	7/15	85	58	1465	89.0	91.1	91.7	0.71	0.81	0.85	13.9
11	15	160M	71.9	7.5	2.6	2.8	0.11040	12/26	135	62	1470	91.1	92.3	92.6	0.62	0.73	0.80	21.4
15	20	160L	96.2	6.3	1.8	2.1	0.13048	11/24	130	62	1465	91.1	92.4	92.9	0.65	0.76	0.82	28.4
18.5	25	180M	120	8.3	2.5	2.5	0.17939	12/26	175	64	1470	92.1	93.2	93.6	0.70	0.81	0.85	33.6
22	30	180L	143	8.6	2.5	2.6	0.24666	11/24	225	64	1475	92.9	94.0	94.3	0.68	0.78	0.84	40.1
30	40	200L	190	7.3	2.5	2.6	0.38611	19/42	280	67	1480	94.0	94.7	94.5	0.65	0.76	0.82	55.9
37	50	225S/M	238	7.2	2.0	2.4	0.69987	14/31	380	70	1475	93.6	94.7	94.9	0.77	0.85	0.88	63.9
45	60	225S/M	286	7.5	2.1	2.5	0.83984	17/37	400	70	1480	93.9	94.7	94.7	0.78	0.86	0.89	77.1
55	75	250S/M	357	8.0	2.2	2.5	1.15478	9/20	470	70	1475	93.9	94.9	95.2	0.80	0.87	0.89	93.7
75	100	280S/M	475	7.4	2.0	2.2	2.16799	21/46	660	74	1485	94.5	95.5	95.8	0.77	0.85	0.87	130
90	125	280S/M	591	8.1	2.2	2.3	2.81036	22/48	800	74	1485	95.0	95.7	96.0	0.78	0.85	0.88	154
110	150	315S/M	712	8.0	2.2	2.3	3.21184	29/64	860	77	1485	95.0	95.8	96.3	0.75	0.84	0.87	190
132	175	315S/M	831	8.3	2.3	2.3	3.77391	34/75	1000	77	1485	95.6	96.3	96.4	0.76	0.85	0.87	227
160	220	315S/M	1044	8.2	2.2	2.5	3.77391	18/40	1000	77	1485	95.7	96.3	96.5	0.75	0.84	0.87	275
250	340	355M/L	1603	8.3	2.1	2.3	8.38871	8/18	1380	79	1490	95.8	96.6	96.8	0.78	0.85	0.88	424
300	400	355M/L	1886	8.3	2.0	2.0	10.2529	17/37	1750	79	1490	95.7	96.6	96.9	0.78	0.85	0.89	502
315	430	355M/L	2027	6.7	1.9	2.5	11.1850	33/73	1770	79	1490	96.0	96.4	96.7	0.80	0.86	0.89	528

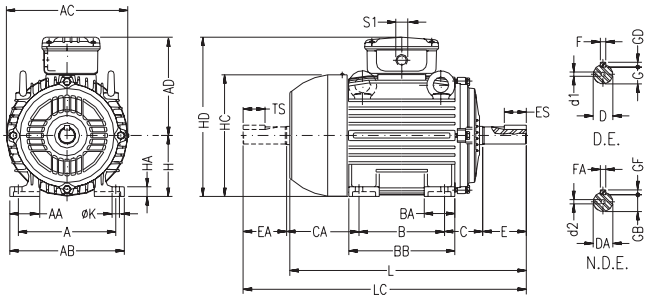
Notes:
**Class "F" insulation with ΔT105K*
Standard voltage, connection and frequency: 220-240V Δ 50Hz *380-415V Δ 50Hz*
380-415V Y 50Hz *660-690V Y 50Hz*
The values shown are subject to change without prior notice. To obtain guaranteed values please access our website.

Ex nA - Non Sparking Motors - Cast Iron Frame
Top Premium Efficiency Exceeds 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	
II Pole - 3000 rpm																	
4	5.5	2885	88.2	89.4	89.6	0.65	0.83	0.88	7.71	2910	88.2	89.6	89.7	0.58	0.75	0.83	7.47
5.5	7.5	2930	90.3	91.3	91.2	0.72	0.82	0.87	10.5	2950	89.8	91.2	91.3	0.66	0.77	0.83	10.1
7.5	10	2930	89.0	91.3	91.5	0.76	0.84	0.88	14.2	2945	89.0	91.3	91.6	0.70	0.80	0.85	13.4
11	15	2945	91.6	92.8	92.8	0.72	0.82	0.85	21.2	2955	91.6	93.0	93.1	0.61	0.74	0.81	20.3
15	20	2940	92.2	93.1	93.1	0.74	0.82	0.85	28.8	2950	92.1	93.2	93.3	0.68	0.80	0.83	26.9
18.5	25	2940	92.9	93.7	93.7	0.70	0.81	0.86	34.9	2950	92.8	93.8	93.8	0.63	0.77	0.84	32.7
22	30	2950	93.3	94.3	94.1	0.78	0.85	0.88	40.4	2955	93.0	94.2	94.0	0.72	0.81	0.86	37.9
30	40	2950	92.5	93.9	94.2	0.76	0.84	0.87	55.6	2960	92.6	93.9	94.2	0.74	0.82	0.85	52.1
37	50	2955	93.5	94.3	94.3	0.81	0.86	0.88	67.7	2960	93.0	94.0	94.4	0.73	0.82	0.86	63.4
45	60	2960	94.6	95.4	95.3	0.84	0.89	0.91	78.8	2970	94.4	95.4	95.4	0.80	0.87	0.89	73.7
55	75	2955	94.3	95.2	95.1	0.86	0.90	0.92	95.5	2960	94.6	95.5	95.4	0.83	0.88	0.90	89.1
75	100	2970	95.0	95.9	95.9	0.84	0.89	0.90	132	2975	95.2	96.2	96.1	0.80	0.86	0.88	123
90	125	2975	94.3	95.6	96.0	0.84	0.89	0.90	158	2980	94.3	95.6	96.0	0.80	0.87	0.89	147
110	150	2970	95.2	96.4	96.4	0.78	0.85	0.89	195	2975	95.0	96.3	96.3	0.72	0.82	0.87	183
132	175	2970	95.5	96.6	96.6	0.81	0.88	0.89	233	2975	95.3	96.5	96.5	0.75	0.86	0.88	216
160	220	2970	95.5	96.4	96.5	0.81	0.87	0.90	280	2975	95.3	96.5	96.6	0.77	0.85	0.88	262
IV Pole - 1500 rpm																	
4	5.5	1440	87.5	88.7	88.9	0.70	0.80	0.85	8.04	1450	87.3	89.0	89.2	0.62	0.74	0.81	7.70
5.5	7.5	1460	89.0	90.0	90.5	0.72	0.81	0.86	10.7	1470	88.0	89.9	90.6	0.65	0.77	0.83	10.2
7.5	10	1460	89.5	91.0	91.5	0.73	0.82	0.86	14.5	1470	88.0	91.0	91.7	0.68	0.80	0.84	13.5
11	15	1465	91.0	92.2	92.5	0.64	0.75	0.82	22.0	1475	91.0	92.2	92.6	0.60	0.70	0.78	21.2
15	20	1460	91.2	92.3	92.8	0.70	0.79	0.84	29.2	1470	91.0	92.3	92.8	0.60	0.73	0.80	28.1
18.5	25	1465	92.0	93.2	93.5	0.73	0.84	0.87	34.6	1475	92.0	93.2	93.6	0.65	0.78	0.84	32.7
22	30	1470	93.0	94.0	94.3	0.70	0.80	0.85	41.7	1475	92.5	93.9	94.3	0.66	0.76	0.83	39.1
30	40	1475	94.1	94.6	94.4	0.69	0.79	0.84	57.5	1480	93.8	94.5	94.5	0.60	0.73	0.80	55.2
37	50	1475	93.5	94.7	94.9	0.78	0.86	0.89	66.6	1480	93.3	94.6	94.8	0.76	0.84	0.87	62.4
45	60	1475	94.0	94.8	94.5	0.79	0.87	0.90	80.4	1480	93.8	94.7	94.8	0.76	0.85	0.88	75.0
55	75	1475	94.0	94.8	95.2	0.81	0.88	0.90	97.5	1480	93.8	94.8	95.1	0.79	0.86	0.88	91.4
75	100	1480	94.6	95.5	95.8	0.79	0.86	0.88	135	1485	94.3	95.5	95.7	0.75	0.84	0.86	127
90	125	1485	95.0	95.6	95.9	0.80	0.86	0.89	160	1485	95.0	95.7	96.0	0.75	0.84	0.87	150
110	150	1480	95.0	95.8	96.2	0.76	0.85	0.88	197	1485	94.8	95.7	96.2	0.73	0.83	0.86	185
132	175	1480	95.5	96.3	96.3	0.78	0.86	0.88	237	1485	95.5	96.2	96.4	0.73	0.84	0.86	222
160	220	1480	95.8	96.3	96.5	0.77	0.85	0.88	286	1485	95.5	96.2	96.5	0.70	0.83	0.85	271
250	340	1490	96.0	96.6	96.8	0.80	0.86	0.89	441	1490	95.5	96.5	96.8	0.75	0.84	0.87	413
300	400	1490	95.8	96.6	96.9	0.80	0.86	0.90	523	1490	95.5	96.6	96.8	0.75	0.84	0.88	490
315	430	1490	96.2	96.5	96.6	0.83	0.87	0.89	557	1490	95.6	96.3	96.7	0.77	0.84	0.88	515

Ex nA - Non Sparking Motors - Cast Iron Frame

Mechanical Data



IEC FRAME	A	AA	AB	AC	AD	B	BA	BB	C	CA	SHAFT DIMENSIONS												H	HA	HC	HD	K	L	LC	S1	d1	d2	BEARINGS	
											D	E	ES	F	G	GD	DA	EA	TS	FA	GB	GF											D.E.	N.D.E.
63	100	21	116	125	119	80	22	95	40	78	11j6	23	14	4	8.5	4	9j6	20	12	3	7.2	3	63	8	124	182	7	216	241		EM4	EM3	6201-ZZ	
71	112	30	132	141	127	90	38	113.5	45	88	14j6	30	18	5	11	5	11j6	23	14	4	8.5	4	71	12	139	198		248	276	2xM20x1.5	DM5	EM4	6203-ZZ	6202-ZZ
80	125	35	149	159	136	100	40	125.5	50	93	19j6	40	28	6	15.5	6	14j6	30	18	5	11	5	80	13	157	216	10	276	313		DM6	DM4	6204-ZZ	6203-ZZ
90S	140	38	164	179	155		42	131	56	104	24j6	50	36	8	20	7	16j6	40	28	5	13		90	15	177	245		304	350	2xM25x1.5	DM8	DM6	6205-ZZ	6204-ZZ
90L						125		156																				329	375					
100L	160	49	188	199	165	140	50	173	63	118	28j6	60	45		24		22j6	50	36	6	18.5	6	100	16	198	265	12	376	431		DM10	DM8	6206-ZZ	6205-ZZ
112M	190	48	220	222	184			177	70	128							24j6			8	20	7	112	18.5	235	296		393	448	2xM32x1.5			6307-ZZ	6206-ZZ
132S	216	51	248	270	212		55	187	89	150	38k6	80	63	10	33	8	28j6	60	45		24		132	20	274	344		452	519		DM12	DM10	6308-ZZ	6207-ZZ
132M						178		225																				490	557					
160M	254	64	308	312	255	210	65	254	108	174	42k6	110	80	12	37	8	42k6	110	80	12	37	8	160	22	317	415	14.5	598	712	2xM40x1.5	DM16		6309-C3	6209-Z-C3
160L						254		298																				642	756					
180M	279	80	350	358	275	241	75	294	121	200	48k6			14	42.5	9	48k6			14	42.5	9	180	28	360	455		664	782				6311-C3	6211-Z-C3
180L						279		332																				702	820					
200M	318	82	385	396	300	267	85	370	133	222	55m6			16	49	10							200	30	402	500	18.5	729	842	2xM50x1.5	M20		6312-C3	6212-Z-C3
200L						305																						767	880					
225S/M	356	80	436	476	373	286	105	391	149	280	55m6*		100				55m6*		100	16	49	10	225	34	466	598		817	935				6314-C3	
						311				255	60m6	140	125	18	53	11	60m6	140	125	18	53	11	250	42	491	623	24	847	995					
250S/M	406	100	506				138	449	168	312	60m6*						60m6*											923	1071					
						349				274	65m6				58		60m6																	
280S/M	457		557	600	468	368	142	510	190	350	65m6*						60m6*						280		578	748		1036	1188					
						419				299	75m6			20	67.5	12	65m6				58												6316-C3	
315S/M	508	120	628		497	406	152	558	216	376	65m6*			18	58	11	60m6*				53		315	52	613	812	28	1126	1274	2xM63x1.5			6314-C3	
						457				325	80m6	170	160	22	71	14	65m6				58							1156	1308				6319-C3	6316-C3
315B		182	630	698	595	630	162	830			75m6*	140	125	20	67,5	12	-							47,5	664	865		1432	-		M20	-	6316-C3	6314-C3
											100m6	210	200	28	90	16												1502			M24		6322-C3	6319-C3
355M/L	610	140	750	816	685	560	200	760	254	458	75m6*	140	125	20	67.5	12	60m6*	140	125	18	53	11	355	50	725	1040		1396	1561		M20		6316-C3	6314-C3
						630				388	100m6	210	200	28	90	16	80m6	170	160	22	71	14						1466	1661		M24	M20	6322-C3	6319-C3

- *All the dimensions are given in millimeters*
- *Certified threaded plugs for EEx e motor line*
- *The values shown are subject to change without prior notice*

** Shaft dimensions for II pole motors, only for direct coupling*
*** For frame 100L, 3 kW, 4 poles, Premium Efficiency motors, the L dimension is 420mm and LC dimension is 475mm.*

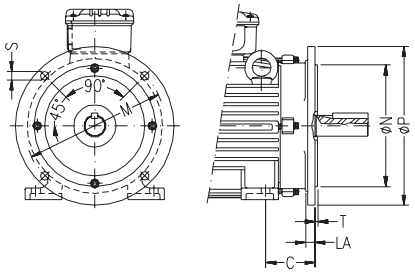
** This data apply to EEx d - Non sparking Multivoltage Motors – Improved Efficiency - EFF2, Premium Efficiency – EFF1, Top Premium Efficiency – Exceeds EFF1*

Ex nA - Non Sparking Motors - Cast Iron Frame

Mechanical Data

"FF" Flange

IEC FRAME	"FF" FLANGE									N° OF HOLES
	FLANGE	C	LA	M	N	P	T	S	α	
63	FF-115	40	9	115	95	140	3	10	45°	4
71	FF-130	45		130	110	160	3.5			
80	FF-165	50	10	165	130	200		12		
90S/L		56								
100L	FF-215	63	11	215	180	250	4	15		
112M		70								
132S/M	FF-265	89	12	265	230	300				
160M/L	FF-300	108	18	300	250	350	5	19		
180M/L		121								
200M/L	FF-350	133		350	300	400				
225S/M	FF-400	149		400	350	450			22°30'	8
250S/M	FF-500	168		500	450	550				
280S/M		190								
315S/M	FF-600	216	22	600	550	660	6	24		
315B										
355M/L	FF-740	254		740	680	800				



"C" Din Flange

IEC FRAME	"C" DIN FLANGE							N° OF HOLES
	FLANGE	C	M	N	P	S	T	
63	C-90	40	75	60	90	M5	2.5	4
71	C-105	45	85	70	105	M6		
80	C-120	50	100	80	120		3	
90S/L	C-140	56	115	95	140	M8		
100L	C-160	63	130	110	160		3.5	
112M		70						
132S/M	C-200	89	165	130	200	M10