

W21 - Cast Iron Frame Motors

Improved Efficiency EFF2

Standard Features:

- Three-phase, multivoltage, IP55, TEFC
- Output: 0.12 up to 355kW
- Frames: 63 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
- V'Ring on both endshields
- 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 5007

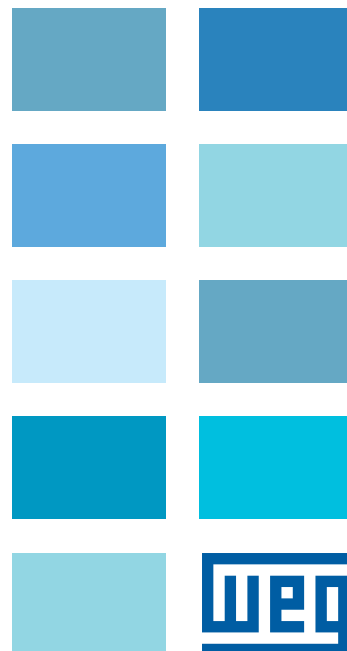
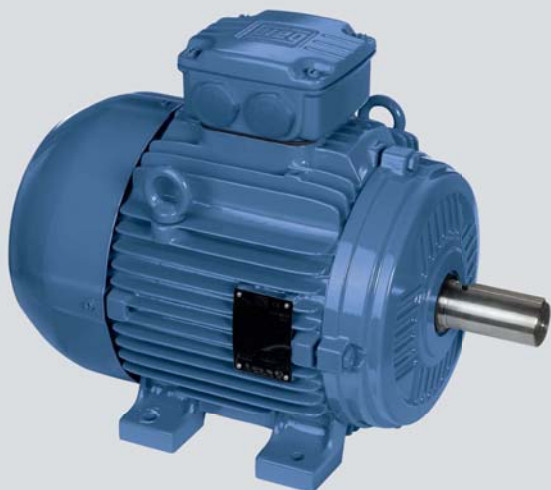
- Thermal protection:
 - Thermistors: frame 132M and below
 - Thermostats
 - RTD-PT 100
 - Space heaters
 - Design H
 - Class "H" insulation
 - Roller bearings for frame 160M and above
- More options available, on request*

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
- Bearing seals:
 - Lip seal
 - Oil seal
 - Labyrinth taconite seal and W3seal for frames 90S and above



Features and Benefits

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 provides higher mechanical strength, corrosion resistance and extended lifetime.

Fan

WEG has designed the fan and fan cover having in mind the lowest noise level. The efficient cooling ensures low motor temperature rise and 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.

Frame

WEG motors are made of FC-200 high-grade cast iron (same density as flameproof motors). The frames are provided with fins aimed at improving the heat dissipation and adequately spaced to minimize air blockage due to accumulation of dirt. The motors can be mounted in horizontal or vertical positions.

Terminal Box

Made of cast iron with plenty of internal space, the terminal box can be rotated at 90° intervals, having one or two threaded holes to connect power supply cables. * Available as top or side mounted.

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.

Rotor

High pressure die cast rotor dynamically balanced, thus reducing vibrations.

Shaft

WEG uses SAE/AISI 1040/45 carbon steel as standard, which provides high mechanical strength, avoiding bending under load and minimizes fatigue which extends lifetime performance. Specially designed to withstand torques caused during motor acceleration and deceleration (brake). Upon special design motor can have a second shaft end.

Endshields

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

Stator

Built with low loss steel lamination to reduce magnetic losses and operating temperature.

Seals

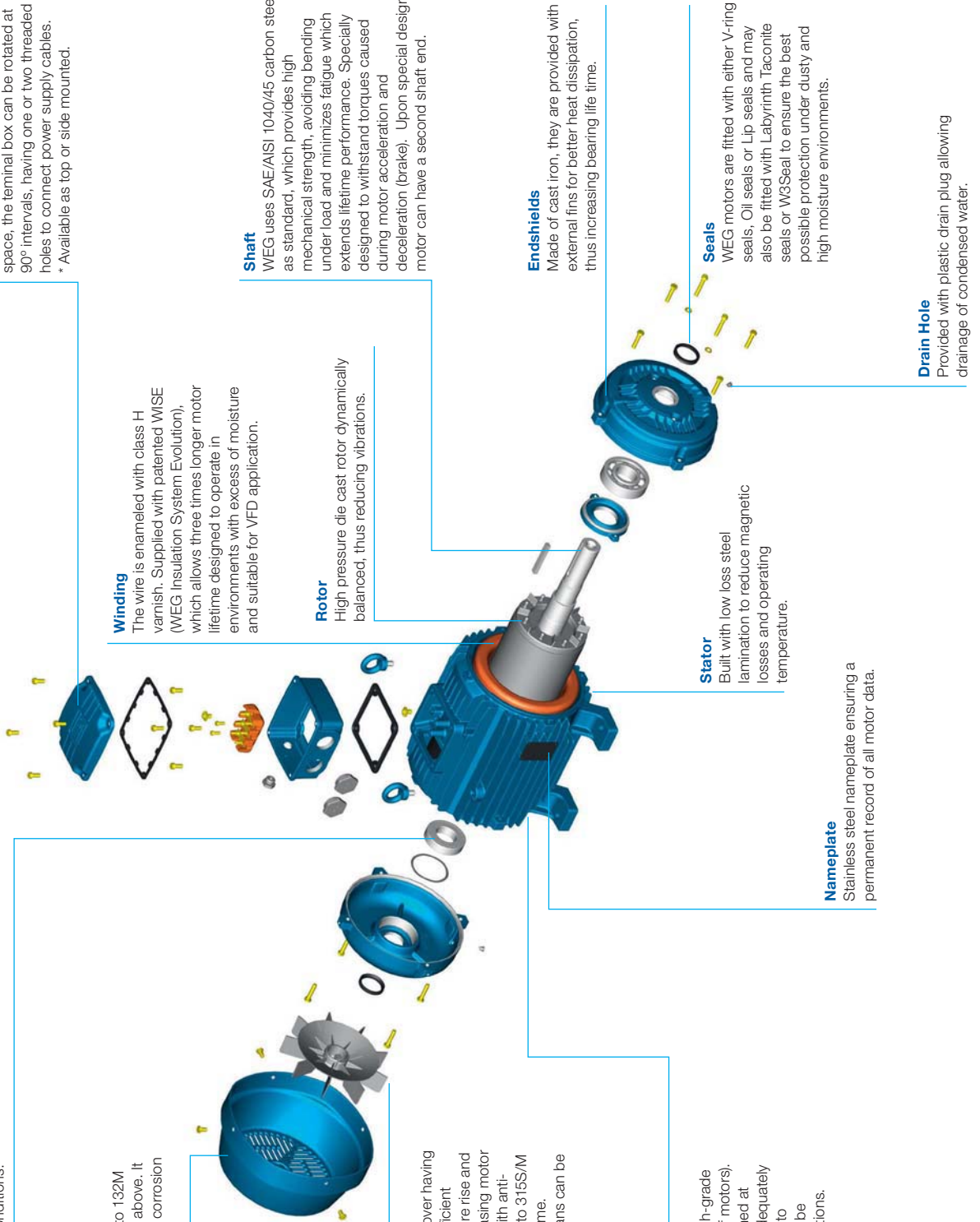
WEG motors are fitted with either V-ring seals, Oil seals or Lip seals and may also be fitted with Labyrinth Taconite seals or W3Seal to ensure the best possible protection under dusty and high moisture environments.

Nameplate

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

Drain Hole

Provided with plastic drain plug allowing drainage of condensed water.



W21 - Cast Iron Frame Motors - Improved Efficiency EFF2

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																		
0.12	0.16	63	0.41	3.8	2.3	2.3	0.00011	27/59	6.7	52	2720	45.5	53.5	56	0.55	0.68	0.8	0.387
0.18	0.25	63	0.64	4.2	2.4	2.3	0.00013	30/66	6.7	52	2730	50.5	56.5	59	0.55	0.69	0.8	0.55
0.25	0.33	63	0.85	4.3	2.5	2.3	0.00016	25/55	7	52	2720	52	57	60	0.5	0.65	0.76	0.791
0.37	0.5	71	1.29	4.3	2.3	2.3	0.00026	23/51	8.8	56	2730	61.2	66	67.6	0.6	0.75	0.85	0.929
0.55	0.75	71	1.94	4.2	2.5	2.7	0.00034	10/22	9.6	56	2710	67.5	70	70	0.65	0.78	0.87	1.3
0.75	1	80	2.54	5	2.4	2.4	0.00057	9/20	12	59	2770	66	72	73	0.59	0.73	0.82	1.81
1.1	1.5	80	3.8	5	2.6	2.6	0.00079	7/15	13.5	59	2770	74	76.5	76.5	0.6	0.75	0.83	2.5
1.5	2	90S	4.95	6.3	2.7	2.6	0.0017	7/15	18.9	64	2840	77	79.5	79.5	0.63	0.76	0.83	3.28
2.2	3	90L	7.5	6.8	2.8	2.9	0.00218	9/20	21.3	64	2810	78	80	81.5	0.63	0.77	0.85	4.584
3	4	100L	9.79	6.7	2.3	2.8	0.00518	9/20	28.6	67	2870	81.3	83	83.5	0.69	0.81	0.87	5.961
4	5.5	112M	13.44	6.8	2.4	3	0.00728	9/20	39	64	2875	82	84	85	0.71	0.82	0.87	7.81
5.5	7.5	132S	18.1	6.5	2.4	3	0.01589	11/24	54.2	68	2910	83.5	86	86.5	0.71	0.81	0.87	10.5
7.5	10	132S	24.22	6.4	2.3	2.6	0.0187	11/24	66.7	68	2900	86	87.5	87.5	0.72	0.82	0.87	14.2
9.2	12.5	132M	30.17	7.5	2.7	3.1	0.02431	8/18	64.4	68	2910	86.5	88.5	88.5	0.7	0.81	0.86	17.4
11	15	160M	35.96	6.5	2	3	0.0353	11/24	98.1	70	2930	87	88.5	88.8	0.7	0.81	0.86	20.8
15	20	160M	47.86	7.4	2.2	3.1	0.04707	9/20	107.9	70	2935	88	90	90.1	0.69	0.8	0.86	27.9
18.5	25	160L	59.83	8	2.5	3.2	0.05589	7/15	129.3	70	2935	89	90.5	90.7	0.67	0.78	0.86	34.2
22	30	180M	71.55	7.3	2.3	3.2	0.09649	11/24	185.1	70	2945	91	92	92	0.74	0.83	0.87	39.7
30	40	200L	94.92	7.3	2.6	2.9	0.1794	13/29	229.8	74	2960	91	92	92.4	0.7	0.8	0.85	55.1
37	50	200L	118.65	7	2.6	2.8	0.2063	12/26	265.5	74	2960	91	92	92.5	0.71	0.8	0.86	67.1
45	60	225S/M	142.38	7	2.3	3.1	0.31392	16/35	351.8	82	2960	91.2	92.4	92.7	0.78	0.85	0.88	79.6
55	75	250S/M	177.67	7.5	2.4	3.2	0.37671	13/29	401.9	82	2965	92	93	93.3	0.77	0.85	0.88	96.7
75	100	280S/M	235.7	8	2.4	3.2	1.08257	22/48	658.2	83	2980	91.6	93.4	93.9	0.76	0.85	0.88	131
90	125	280S/M	294.63	8	2.4	3.2	1.1767	19/42	682.5	83	2980	92	93.6	94.2	0.78	0.85	0.88	157
110	150	315S/M	354.15	7.7	2.4	3	1.41204	21/46	806	84	2975	93	94.2	94.5	0.78	0.85	0.88	191
132	175	315S/M	413.17	7.5	2.4	3	1.64738	18/40	868.5	84	2975	93.6	94.7	94.8	0.8	0.87	0.89	226
160	220	315S/M	519.42	7.5	2.6	3.1	2.11806	17/37	981.2	84	2975	94.3	95	95.1	0.83	0.88	0.9	270
200	270	315B	637.47	6.4	1.8	2.8	2.8101	30/66	1415	92	2975	92	93.4	93.7	0.72	0.82	0.85	362
200	270	355M/L	635.33	7.2	1.8	2.6	4.82631	70/154	1490	81	2985	93.5	95	95.4	0.89	0.91	0.92	329
250	340	315B	804.09	6.5	1.9	2.7	3.212	27/59	1490	92	2970	93	94	94.4	0.75	0.83	0.86	444
250	340	355M/L	800.05	7.8	2.2	2.5	5.74561	65/143	1750	81	2985	94.4	95.8	96	0.88	0.91	0.92	409
315	430	315B*	1016.94	6.7	1.9	2.6	4.0145	19/42	1590	92	2970	93.8	94.6	94.6	0.79	0.86	0.88	546
High-Output Design																		
0.37	0.5	63	1.28	5.2	3.1	2.9	0.00021	14/31	7.9	52	2740	67	71	71.3	0.57	0.7	0.79	0.948
0.75	1	71	2.5	6.2	3.1	3.1	0.00052	8/18	11.1	56	2810	69	73	74	0.65	0.76	0.84	1.74
1.5	2	80	5.07	6	3	2.7	0.00096	10/22	14.9	59	2770	77	78.5	77.7	0.7	0.82	0.87	3.2
2.2	3	90S	7.5	6.8	2.8	2.9	0.00218	9/20	19	64	2810	78	80	81.5	0.63	0.77	0.85	4.584
3	4	90L*	9.93	6.2	3.2	3.1	0.00266	6/13	21.8	64	2830	81	82	82	0.55	0.68	0.78	6.77
4	5.5	100L	13.46	7.5	2.9	3.1	0.00672	7/15	31.1	67	2870	81	82.3	82.5	0.72	0.81	0.86	8.14
5.5	7.5	112M	18.36	7.7	2.5	3	0.00995	10/22	45.8	64	2870	86.5	87.5	87.5	0.8	0.87	0.9	10.1
7.5	10	112M*	24.47	7.6	3	3	0.00995	6/13	46.3	64	2870	86.5	87.5	87.5	0.59	0.72	0.81	15.3
11	15	132M	36.08	8	2.7	3.2	0.02804	8/18	73.6	68	2920	88	89.5	89.5	0.71	0.81	0.86	20.6
22	30	160L*	71.92	7.5	2.5	3	0.06766	6/13	133.3	70	2930	90	90.6	90.7	0.72	0.82	0.86	40.7
30	40	180L*	95.4	8.7	2.5	3.1	0.13622	9/20	191.4	70	2945	92	92.7	92.7	0.74	0.83	0.87	53.7
37	50	200M	118.65	7	2.6	2.8	0.2063	12/26	245	74	2960	91	92	92.5	0.71	0.8	0.86	67.1
55	75	225S/M	177.67	7.5	2.4	3.2	0.37671	13/29	410	82	2965	92	93	93.3	0.77	0.85	0.88	96.7
75	100	250S/M	236.9	8.3	2.6	3	0.50228	10/22	477.7	82	2965	93	93.6	93.6	0.81	0.87	0.9	129
110	150	280S/M	354.15	7.7	2.4	3	1.41204	21/46	748.9	83	2975	93	94.2	94.5	0.78	0.85	0.88	191
132	175	280S/M	413.17	7.5	2.4	3	1.64738	18/40	811.8	83	2975	93.6	94.7	94.8	0.8	0.87	0.89	226
200	270	315S/M	636.4	7.9	2.2	2.9	2.16513	49/108	1010.4	84	2980	95.2	95.8	96.1	0.79	0.84	0.87	345

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.

W21 - Cast Iron Frame Motors - 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																	
0.12	0.16	2690	48	55	58.8	0.59	0.74	0.84	0.369	2735	43	51	53.5	0.52	0.64	0.75	0.416
0.18	0.25	2700	52.5	57.5	59.5	0.6	0.75	0.85	0.541	2750	47.8	54.5	58	0.52	0.64	0.76	0.568
0.25	0.33	2685	54	59	60	0.56	0.71	0.81	0.782	2740	50	55.5	59.9	0.47	0.6	0.72	0.806
0.37	0.5	2700	62.8	66.5	67	0.66	0.81	0.89	0.943	2750	60	65.5	67	0.55	0.7	0.81	0.948
0.55	0.75	2670	68.5	70	69	0.71	0.83	0.9	1.35	2730	65	69	70.1	0.6	0.73	0.84	1.3
0.75	1	2740	69	73	72.5	0.67	0.79	0.86	1.83	2790	63	70.5	72.5	0.51	0.67	0.78	1.85
1.1	1.5	2745	75.5	76.5	76.5	0.68	0.81	0.87	2.51	2790	72	75.5	76.3	0.54	0.7	0.8	2.51
1.5	2	2820	78	80.1	78.9	0.7	0.81	0.87	3.32	2855	75	78.9	79.3	0.57	0.71	0.8	3.29
2.2	3	2790	78.5	80.2	80.8	0.7	0.82	0.88	4.701	2820	77.5	79.8	81.5	0.57	0.72	0.82	4.58
3	4	2855	82.4	83	83	0.75	0.85	0.89	6.17	2880	80.5	82.4	83.5	0.64	0.77	0.84	5.95
4	5.5	2860	83	84.2	84.5	0.77	0.86	0.89	8.08	2885	80.8	83.4	84.8	0.66	0.78	0.85	7.72
5.5	7.5	2895	84.4	86	86	0.77	0.85	0.89	10.9	2915	82.7	85.5	86.5	0.66	0.78	0.84	10.5
7.5	10	2890	86.8	87.5	87	0.78	0.86	0.89	14.7	2910	85	87	87.5	0.66	0.78	0.84	14.2
9.2	12.5	2900	87.4	88.5	88.4	0.76	0.85	0.89	17.8	2915	85.3	88	88.4	0.63	0.76	0.83	17.4
11	15	2915	87.5	88.5	88.5	0.76	0.84	0.87	21.7	2935	85	87.5	88	0.67	0.78	0.84	20.7
15	20	2925	88.5	90	90	0.74	0.83	0.87	29.1	2940	87.5	89.2	89.7	0.64	0.76	0.83	28
18.5	25	2930	89.5	90.5	90.5	0.74	0.83	0.87	35.7	2940	88	90	90.5	0.63	0.75	0.82	34.7
22	30	2935	91.5	92	91.5	0.78	0.85	0.88	41.5	2950	90.5	91.5	92	0.7	0.8	0.85	39.1
30	40	2955	91	92	92.2	0.76	0.84	0.87	56.8	2965	90	91.5	92	0.64	0.76	0.82	55.3
37	50	2950	91	92	92.5	0.76	0.84	0.87	69.9	2960	89	91	92	0.66	0.77	0.83	67.4
45	60	2955	91.4	92.3	92.5	0.79	0.86	0.89	83	2965	91	92.4	92.7	0.76	0.84	0.87	77.6
55	75	2960	92	92.9	93.2	0.79	0.86	0.89	101	2965	91.7	93	93.3	0.73	0.83	0.86	95.4
75	100	2980	91.8	93.4	93.9	0.79	0.86	0.89	136	2980	91.4	93.3	93.8	0.74	0.83	0.87	128
90	125	2975	92.4	93.6	94.1	0.8	0.87	0.89	163	2980	92	93.5	94.2	0.75	0.83	0.87	153
110	150	2975	93.1	94.2	94.4	0.81	0.86	0.89	199	2980	92.9	94.1	94.5	0.76	0.84	0.87	186
132	175	2975	93.8	94.6	94.7	0.83	0.88	0.9	235	2980	93.6	94.7	94.8	0.79	0.86	0.88	220
160	220	2970	94.5	95	95	0.84	0.89	0.9	284	2975	94.3	95	95.1	0.81	0.87	0.89	263
200	270	2970	92.2	93.4	93.6	0.74	0.83	0.86	377	2975	91.9	93.4	93.7	0.7	0.81	0.84	354
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	2970	93.2	94	94.3	0.77	0.84	0.87	463	2975	92.9	94	94.4	0.73	0.82	0.85	433
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
315	430	2970	94	94.5	94.4	0.8	0.87	0.89	570	2975	93.7	94.6	94.6	0.77	0.85	0.87	532
HIGH-OUTPUT DESIGN																	
0.37	0.5	2710	69.5	71.7	71	0.62	0.75	0.83	0.954	2765	65	70	71	0.52	0.66	0.76	0.954
0.75	1	2790	71	74	74	0.7	0.8	0.87	1.77	2830	67	71.5	73.5	0.6	0.71	0.8	1.77
1.5	2	2750	78	78.5	76.5	0.75	0.85	0.89	3.35	2790	76	78.5	78.5	0.65	0.78	0.85	3.13
2.2	3	2790	78.5	80.2	80.8	0.7	0.82	0.88	4.701	2820	77.5	79.8	81.5	0.57	0.72	0.82	4.58
3	4	2800	82	82.5	81.5	0.61	0.74	0.81	6.9	2845	80	81.5	81.5	0.5	0.64	0.74	6.92
4	5.5	2850	81.5	82.5	82	0.77	0.84	0.88	8.42	2890	80.3	82	82.5	0.68	0.78	0.84	8.03
5.5	7.5	2860	87	87.5	87.2	0.83	0.89	0.91	10.5	2880	86	87.5	87.7	0.77	0.85	0.89	9.8
7.5	10	2850	86.5	87	87	0.66	0.79	0.85	15.4	2885	85	87	87	0.53	0.67	0.76	15.8
11	15	2910	88.5	89.5	89	0.76	0.84	0.88	21.3	2930	87.5	89	89.5	0.66	0.77	0.83	20.6
22	30	2925	90.5	90.7	90.5	0.77	0.85	0.88	42	2935	89.5	90.5	90.7	0.68	0.79	0.84	40.2
30	40	2940	92	92.3	92.3	0.78	0.84	0.88	56.1	2950	92	92.7	92.7	0.71	0.8	0.85	53
37	50	2950	91	92	92.5	0.76	0.84	0.87	69.9	2960	89	91	92	0.66	0.77	0.83	67.4
55	75	2960	92	92.9	93.2	0.79	0.86	0.89	101	2965	91.7	93	93.3	0.73	0.83	0.86	95.4
75	100	2960	93.1	93.4	93.4	0.84	0.89	0.91	134	2970	92.7	93.5	93.6	0.77	0.85	0.89	125
110	150	2975	93.1	94.2	94.4	0.81	0.86	0.89	199	2980	92.9	94.1	94.5	0.76	0.84	0.87	186
132	175	2975	93.8	94.6	94.7	0.83	0.88	0.9	235	2980	93.6	94.7	94.8	0.79	0.86	0.88	220
200	270	2975	95.5	96	96.2	0.81	0.86	0.89	355	2980	95	95.6	96	0.73	0.82	0.86	337



W21 - Cast Iron Frame Motors - 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						
												Efficiency η			Power Factor (Cos φ)			
kW	HP											50	75	100	50	75	100	
IV Pole - 1500 rpm																		
0.12	0.16	63	0.82	3.5	2	2.2	0.00034	30/66	6.6	44	1375	45	54	57	0.49	0.61	0.72	0.422
0.18	0.25	63	1.29	3.4	2	2.2	0.00039	23/51	6.9	44	1360	46	54	58	0.49	0.63	0.74	0.605
0.25	0.33	71	1.77	3.5	1.9	2.1	0.00039	21/46	8.7	43	1310	50	55	59	0.5	0.65	0.76	0.805
0.55	0.75	80	3.74	4.7	2.1	2.2	0.0019	17/37	12.7	44	1410	58.5	66.3	68	0.54	0.7	0.82	1.424
0.75	1	80	5.04	5	2.3	2.2	0.00225	14/31	13.6	44	1395	64.5	71	72	0.55	0.7	0.81	1.856
1.1	1.5	90S	7.42	5.6	2.3	2.4	0.00392	8/18	18.7	49	1420	70	76	77	0.55	0.69	0.79	2.61
1.5	2	90L	9.96	5.5	2.3	2.4	0.00476	8/18	20.1	49	1410	76.5	78.5	79	0.58	0.73	0.82	3.342
2.2	3	100L	14.94	5.6	2.4	2.6	0.00651	9/20	25.8	53	1410	80.5	81.5	81.5	0.6	0.74	0.82	4.751
3	4	100L	20.07	6	2.8	3	0.00842	8/18	29.4	53	1400	80	81	82.6	0.57	0.72	0.81	6.472
4	5.5	112M	26.83	6.2	2.1	2.5	0.01473	13/29	41.6	56	1440	83.5	84.6	85	0.65	0.77	0.83	8.18
5.5	7.5	132S	36.33	6.5	2.1	2.5	0.03489	11/24	54.5	60	1450	84.5	85.6	86	0.63	0.77	0.84	11
7.5	10	132M	48.27	6.7	2.1	2.9	0.04652	8/18	69	60	1455	85	86.5	87	0.63	0.77	0.84	14.8
9.2	12.5	132M	60.34	7.5	2.2	2.8	0.05815	6/13	69.5	60	1455	86.5	87.7	87.7	0.64	0.78	0.85	17.8
11	15	160M	72.41	6	2.3	2.6	0.07528	12/26	95.8	67	1455	86.5	88.5	88.5	0.62	0.74	0.81	22.1
15	20	160L	96.22	5.8	2.3	2.4	0.10539	12/26	123.9	67	1460	88.5	90	89.7	0.68	0.79	0.83	29.1
18.5	25	180M	119.46	7	2.5	3	0.16146	11/24	171.5	64	1470	89.5	90.5	90.5	0.67	0.77	0.84	35.1
22	30	180L	143.84	7	2.7	2.9	0.18837	11/24	173	64	1465	90	91.5	91.2	0.69	0.8	0.85	41
30	40	200M	190.48	6.7	2.5	2.8	0.30338	14/31	233	69	1475	90.3	91.5	92	0.68	0.78	0.84	56
37	50	225S/M	238.1	6.7	2.3	2.8	0.5599	17/37	333.9	70	1475	90.6	91.7	92.2	0.71	0.81	0.86	67.4
45	60	225S/M	285.72	7	2.4	3	0.66488	12/26	379.2	70	1475	91.5	92.4	92.6	0.71	0.8	0.86	81.6
55	75	250S/M	357.15	6.8	2.3	2.7	0.87484	14/31	431.3	70	1475	93	93.3	93.6	0.77	0.85	0.89	95.3
55	75	280S/M	354.75	7.3	2.3	2.8	2.32858	40/88	735	76	1485	91.5	93.5	93.7	0.72	0.81	0.85	99.674
75	100	280S/M	472.99	6.7	2	2.7	1.84681	22/48	719.8	76	1485	92.7	93.8	94.1	0.77	0.84	0.87	132
90	125	280S/M	591.24	7.3	2.4	2.8	2.16799	19/42	701.4	76	1485	93.2	94	94.2	0.77	0.85	0.87	159
90	125	315S/M	591.24	7.1	2.4	2.5	2.56947	31/68	802	77	1485	92.3	93.9	94.2	0.8	0.86	0.88	157
110	150	315S/M	709.49	7.3	2.4	2.8	2.56947	17/37	820.9	77	1485	93.8	94.4	94.4	0.75	0.83	0.86	196
132	175	315S/M	827.74	7.7	2.4	2.8	3.21184	17/37	921.3	77	1485	93.9	94.7	94.8	0.74	0.83	0.86	234
160	220	315S/M	1040.59	7.5	2.5	2.8	3.77391	17/37	995.8	77	1485	94	94.8	95	0.76	0.83	0.86	283
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	1392	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	1536.6	79	1490	94.3	95.2	95.8	0.8	0.86	0.88	428
315	430	315B*	2040.75	7.4	2	2.7	5.74514	18/40	1560	79	1480	94.1	95.1	95.2	0.67	0.77	0.82	582
315	430	355M/L	2027.05	6.7	2.2	2.4	9.92464	42/92	1770	79	1490	94.8	95.9	96.2	0.79	0.86	0.88	537
355	482	355M/L*	2272.18	7.9	2.4	2.5	11.6813	28/62	1865	79	1490	95.8	96.3	96.3	0.8	0.87	0.88	605
HIGH-OUTPUT DESIGN																		
0.25	0.33	63	1.64	5	3.1	3.1	0.00067	17/37	8.3	44	1415	52	60	62	0.44	0.54	0.65	0.895
0.37	0.5	71	2.66	3.7	2	2	0.00056	17/37	9.8	43	1320	55	60	62	0.5	0.63	0.76	1.133
0.55	0.75	71	3.8	5	2.8	2.9	0.00096	19/42	11.8	43	1385	66	70.5	72	0.45	0.58	0.68	1.62
1.1	1.5	80	7.61	5	2.3	2.3	0.00328	10/22	16	44	1385	65	68.5	69	0.55	0.7	0.81	2.84
1.5	2	90S	9.96	5.5	2.3	2.4	0.00476	8/18	20.6	49	1410	76.5	78.5	79	0.58	0.73	0.82	3.342
2.2	3	90L	14.94	5.8	2.7	2.5	0.00672	8/18	23.5	49	1410	75	76.5	76.5	0.57	0.71	0.8	5.19
4	5.5	100L*	27.79	6.7	2.6	2.6	0.01072	7/15	34.7	53	1390	81.5	82.2	82	0.64	0.76	0.83	8.483
5.5	7.5	112M*	36.33	6.5	2.5	2.6	0.01875	8/18	46.3	56	1450	84	85.7	85.7	0.54	0.66	0.75	12.4
7.5	10	132S	48.27	6.7	2.1	2.9	0.04652	8/18	62.3	60	1455	85	86.5	87	0.63	0.77	0.84	14.8
11	15	132M/L*	72.41	7.5	2.4	2.7	0.06978	5/11	81.4	60	1455	87	88.4	88	0.7	0.81	0.88	20.5
15	20	160M	96.22	5.8	2.3	2.4	0.10539	12/26	119.3	67	1460	88.5	90	89.7	0.68	0.79	0.83	29.1
18.5	25	160L*	120.69	6	2.4	2.4	0.11542	12/26	130.2	67	1455	88.5	90	90	0.64	0.76	0.82	36.2
22	30	180M	143.84	7	2.7	2.9	0.18837	11/24	197.4	64	1465	90	91.5	91.2	0.69	0.8	0.85	41
30	40	200L	190.48	6.7	2.5	2.8	0.30338	14/31	249.9	69	1475	90.3	91.5	92	0.68	0.78	0.84	56
37	50	200L	238.91	7	2.3	2.5	0.38611	14/31	260	69	1470	91.5	92.5	92.3	0.73	0.82	0.86	67.3
55	75	225S/M	357.15	6.8	2.3	2.7	0.87484	14/31	407.7	70	1475	93	93.3	93.6	0.77	0.85	0.89	95.3
75	100	250S/M	474.59	7.2	2.4	2.6	1.15478	12/26	488	70	1480	92.5	93.6	93.7	0.77	0.85	0.87	133
110	150	280S/M	709.49	7.3	2.4	2.8	2.56947	17/37	755	76	1485	93.8	94.4	94.4	0.75	0.83	0.86	196
132	175	280S/M	827.74	7.7	2.4	2.8	3.21184	17/37	880.6	76	1485	93.9	94.7	94.8	0.74	0.83	0.86	234
200	270	315S/M*	1277.08	7	2.4	2.8	3.77391	10/22	1021.4	77	1485	95	95.4	95.4	0.7	0.8	0.85	356

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.

W21 - Cast Iron Frame Motors - 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	
IV Pole - 1500 rpm																	
0.12	0.16	1360	47	55	57	0.53	0.65	0.76	0.421	1385	42	51	55	0.45	0.57	0.67	0.457
0.18	0.25	1340	46	54	58	0.54	0.67	0.79	0.597	1370	43	52	56	0.45	0.57	0.68	0.658
0.25	0.33	1280	50	55	56	0.55	0.7	0.8	0.848	1320	43	51	55	0.45	0.58	0.7	0.903
0.55	0.75	1400	61	68	68.2	0.61	0.75	0.86	1.425	1415	58.5	66	67.6	0.51	0.67	0.79	1.433
0.75	1	1380	65	71.5	72	0.61	0.75	0.84	1.884	1405	61	68.4	71	0.5	0.64	0.76	1.934
1.1	1.5	1405	73	76	76.5	0.62	0.75	0.83	2.632	1425	67	75	77	0.49	0.64	0.75	2.65
1.5	2	1400	78.5	79	79	0.65	0.78	0.86	3.354	1415	74.5	78	79	0.52	0.67	0.77	3.431
2.2	3	1400	80.5	81	80.5	0.67	0.79	0.85	4.885	1420	79	81	81.5	0.55	0.68	0.78	4.815
3	4	1390	81.5	82	81.9	0.64	0.77	0.84	6.625	1410	78	81	82.6	0.52	0.67	0.78	6.478
4	5.5	1430	84.3	85	84.5	0.71	0.81	0.86	8.36	1445	82	84	85	0.59	0.72	0.8	8.18
5.5	7.5	1445	85.5	86	85.6	0.7	0.81	0.86	11.4	1455	83.2	85	85.7	0.58	0.72	0.81	11
7.5	10	1450	86.5	86.8	86.8	0.71	0.82	0.87	15.1	1455	83.2	85.7	86.7	0.57	0.72	0.8	15
9.2	12.5	1450	87.3	87.8	87.4	0.7	0.82	0.87	18.4	1455	85.3	87.1	87.5	0.59	0.73	0.82	17.8
11	15	1455	87	88.5	88	0.68	0.79	0.83	22.9	1460	85.5	87.5	88	0.57	0.7	0.78	22.3
15	20	1455	89	89.5	89.3	0.72	0.82	0.85	30	1465	88	90	89.7	0.64	0.75	0.82	28.4
18.5	25	1465	90	90.5	90.2	0.71	0.81	0.85	36.7	1470	88.5	90	90.5	0.62	0.74	0.81	35.1
22	30	1460	90.6	91.3	90.7	0.73	0.82	0.86	42.9	1470	89.5	91	91	0.64	0.76	0.82	41
30	40	1470	91	92	91.6	0.73	0.81	0.85	58.5	1475	89.5	91	91.5	0.63	0.75	0.81	56.3
37	50	1470	91	91.8	92.1	0.75	0.83	0.87	70.2	1475	90	91.5	92	0.67	0.77	0.83	67.4
45	60	1475	92	92.4	92.4	0.74	0.83	0.87	85.1	1480	91	92.3	92.5	0.66	0.77	0.83	81.5
55	75	1470	92.9	93	93.2	0.79	0.86	0.9	99.6	1475	92.7	93	93.5	0.75	0.83	0.87	94.1
55	75	1480	91	93	93.5	0.75	0.84	0.87	102.728	1485	91.5	93.6	93.8	0.7	0.8	0.84	97.112
75	100	1480	92.9	93.6	94	0.8	0.86	0.88	138	1485	92.5	93.8	94	0.75	0.83	0.86	129
90	125	1480	93.3	94	94.2	0.8	0.86	0.88	165	1485	93	94	94.3	0.75	0.83	0.86	154
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	93.9	94.2	94.2	0.77	0.85	0.87	204	1485	93.6	94.3	94.4	0.72	0.81	0.85	191
132	175	1485	94.1	94.6	94.7	0.77	0.84	0.87	243	1485	93.8	94.7	94.8	0.71	0.81	0.85	228
160	220	1485	94	94.7	94.8	0.78	0.85	0.87	295	1485	93.7	94.7	94.9	0.73	0.82	0.86	273
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
315	430	1480	94.6	95.3	95.3	0.73	0.81	0.84	598	1485	93.5	94.7	95	0.62	0.73	0.8	577
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
355	482	1490	95.9	96.2	96.2	0.82	0.88	0.89	630	1490	95.7	96.3	96.3	0.78	0.86	0.88	583
HIGH-OUTPUT DESIGN																	
0.25	0.33	1405	54	61	63	0.49	0.6	0.7	0.861	1420	49	58	61	0.41	0.51	0.6	0.95
0.37	0.5	1300	57	60	62	0.52	0.67	0.78	1.162	1340	52	57	60	0.44	0.55	0.68	1.262
0.55	0.75	1370	69	72	72.5	0.51	0.63	0.72	1.6	1400	62	68	71	0.42	0.53	0.64	1.68
1.1	1.5	1370	68	69	69.5	0.61	0.76	0.86	2.8	1400	60	66	67	0.5	0.65	0.76	3.01
1.5	2	1400	78.5	79	79	0.65	0.78	0.86	3.354	1415	74.5	78	79	0.52	0.67	0.77	3.431
2.2	3	1390	76	77	76	0.65	0.75	0.83	5.3	1420	73	76	76.5	0.53	0.66	0.76	5.26
4	5.5	1380	82	82	81	0.69	0.8	0.85	8.827	1400	81	82.1	82.5	0.6	0.73	0.81	8.327
5.5	7.5	1445	85	86	85.7	0.6	0.72	0.79	12.3	1455	82	85.7	85.7	0.49	0.62	0.71	12.6
7.5	10	1450	86.5	86.8	86.8	0.71	0.82	0.87	15.1	1455	83.2	85.7	86.7	0.57	0.72	0.8	15
11	15	1450	87.5	88.4	88	0.75	0.84	0.89	21.4	1460	86.5	88.4	88.4	0.67	0.79	0.86	20.1
15	20	1455	89	89.5	89.3	0.72	0.82	0.85	30	1465	88	90	89.7	0.64	0.75	0.82	28.4
18.5	25	1450	89	90	89.4	0.7	0.8	0.84	37.4	1460	88	90	90	0.6	0.73	0.8	35.7
22	30	1460	90.6	91.3	90.7	0.73	0.82	0.86	42.9	1470	89.5	91	91	0.64	0.76	0.82	41
30	40	1470	91	92	91.6	0.73	0.81	0.85	58.5	1475	89.5	91	91.5	0.63	0.75	0.81	56.3
37	50	1465	92	92.5	92	0.77	0.84	0.87	70.2	1475	91	92.5	92.5	0.69	0.8	0.85	65.5
55	75	1470	92.9	93	93.2	0.79	0.86	0.9	99.6	1475	92.7	93	93.5	0.75	0.83	0.87	94.1
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	93.9	94.2	94.2	0.77	0.85	0.87	204	1485	93.6	94.3	94.4	0.72	0.81	0.85	191
132	175	1485	94.1	94.6	94.7	0.77	0.84	0.87	243	1485	93.8	94.7	94.8	0.71	0.81	0.85	228
200	270	1485	95.1	95.4	95.3	0.74	0.82	0.86	371	1485	94.8	95.3	95.3	0.68	0.78	0.83	352

W21 - Cast Iron Frame Motors - Improved Efficiency EFF2

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)			
												50	75	100	50	75	100	
VI Pole - 1000 rpm																		
0.12	0.16	63	1.31	2.6	1.7	1.6	0.00051	46/101	8.1	43	855	40.7	46.7	45.5	0.49	0.6	0.71	0.536
0.18	0.25	71	1.94	3.3	2	2.2	0.00079	50/110	9.6	43	905	46	54	57	0.46	0.55	0.62	0.735
0.25	0.33	71	2.58	3.5	2.2	2.2	0.00096	43/95	11.3	43	900	53	60.5	64	0.4	0.5	0.57	0.989
0.37	0.5	80	3.88	3.6	1.7	1.7	0.0019	16/35	12.6	43	905	55	60	63	0.5	0.64	0.75	1.13
0.55	0.75	80	5.66	4.5	2.3	2.3	0.00311	10/22	14.8	43	930	60	65	67	0.5	0.63	0.73	1.62
0.75	1	90S	7.72	4.2	1.9	2	0.00448	16/35	19.2	45	910	71	73	72.4	0.55	0.69	0.79	1.89
1.1	1.5	90L	11.39	4.8	2.7	2.7	0.00616	9/20	22.4	45	925	72.5	74	72.5	0.47	0.6	0.72	3.042
1.5	2	100L	15.44	4.1	2	2.2	0.00897	17/37	25.8	44	910	74.5	77.5	76	0.51	0.65	0.73	3.902
2.2	3	112M	22.42	5	2.2	2.3	0.01682	14/31	34.5	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	50.7	52	960	80	82.7	82.5	0.58	0.7	0.77	6.82
4	5.5	132M	40.24	5.8	2.3	2.4	0.04458	19/42	57.3	52	960	81.5	83.6	84.2	0.54	0.66	0.74	9.27
5.5	7.5	132M	54.87	6.4	2.7	2.8	0.05814	15/33	66.6	52	960	82.5	84.8	85.8	0.49	0.62	0.71	13
7.5	10	160M	72.79	5.7	2.2	2.5	0.10773	11/24	99.9	56	965	86	87.5	87	0.64	0.76	0.83	15
9.2	12.5	160L	90.98	6	2	2.6	0.12928	10/22	112.6	56	965	86.5	87.5	87	0.63	0.75	0.82	18.6
11	15	160L	109.18	6	2.2	2.6	0.158	11/24	124.5	56	965	87.5	88.5	88	0.65	0.77	0.83	21.7
15	20	180M	144.08	7.5	2.3	2.7	0.26201	7/15	163	56	975	88	89	89	0.76	0.84	0.88	27.6
18.5	25	200L	180.1	6	2.1	2.5	0.34083	11/24	213	58	975	89	90.5	90.2	0.64	0.76	0.82	36.1
22	30	200L	216.12	6	2.3	2.4	0.41258	14/31	234.6	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	366.8	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	428.5	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	2.06842	24/53	598.3	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	2.41316	23/51	614.3	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	3.21755	20/44	788.4	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	800.1	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	4.82632	18/40	945.3	69	985	93.4	94.4	94.5	0.71	0.8	0.84	200
132	175	315S/M*	1247.91	6.3	2.1	2.2	5.28596	13/29	987.2	69	985	93.5	94.7	94.7	0.72	0.81	0.85	237
160	220	315B	1560.88	7	1.9	2.5	7.10328	25/55	1350	69	990	93.5	94.9	94.9	0.68	0.78	0.82	297
160	220	355M/L	1560.88	6.2	1.9	2.1	9.53128	72/158	1485	73	990	93	95	95.3	0.67	0.77	0.82	295
200	270	315B	1915.63	6.6	2	2.6	8.6038	19/42	1419	69	990	94.8	95.2	95	0.71	0.8	0.84	362
200	270	355M/L	1915.63	6.3	2.1	2.3	12.39067	87/187	1700	73	990	93.5	94.5	94.8	0.7	0.78	0.81	376
250	340	315B*	2412.27	6.8	2.2	2.7	10.707	16/35	1682	69	990	95.1	95.5	95.2	0.73	0.82	0.85	446
250	340	355M/L	2400.15	6.1	2.2	2.2	14.77349	64/141	1830	73	995	94	95.1	95.6	0.7	0.79	0.82	460
280	380	315B*	2696.07	7.4	2.2	2.7	11.472	12/26	1800	69	990	95	95.4	95.4	0.7	0.8	0.84	504
280	380	355M/L	2696.07	6	2.1	2.2	14.77349	54/119	1830	73	990	94.3	95.2	95.4	0.68	0.77	0.8	530
315	430	355M/L*	3050.81	6	1.9	1.9	15.48834	38/84	1950	73	990	94.3	95.8	95.9	0.69	0.78	0.81	585
HIGH-OUTPUT DESIGN																		
3	4	112M	29.27	6.3	2.6	2.6	0.02617	10/22	45.8	48	960	78.5	81.7	84	0.53	0.65	0.73	7.06
4	5.5	132S	40.24	5.8	2.3	2.4	0.04458	19/42	59.4	52	960	81.5	83.6	84.2	0.54	0.66	0.74	9.27
15	20	180L	144.08	7.5	2.3	2.7	0.26201	7/15	161.3	56	975	88	89	89	0.76	0.84	0.88	27.6
18.5	25	200M	180.1	6	2.1	2.5	0.34083	11/24	213	58	975	89	90.5	90.2	0.64	0.76	0.82	36.1
37	50	225S/M	358.37	7.5	2.7	2.6	1.22377	18/40	440	61	980	90.2	92.4	92.5	0.77	0.85	0.87	66.4
45	60	250S/M	430.04	8	2.8	2.8	1.55324	18/40	482.7	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	3.21755	20/44	725.9	66	985	91.6	93.5	93.7	0.71	0.81	0.85	136

Notes:

*Class "F" insulation with ΔT105K

Standard voltage, connection and frequency: 220-240V 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.

W21 - Cast Iron Frame Motors - 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																	
0.12	0.16	845	46.2	50.6	47.6	0.52	0.64	0.76	0.504	860	36.2	42.8	43.2	0.48	0.57	0.67	0.577
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	890	57	62	65	0.54	0.69	0.8	1.08	910	55	60	62	0.47	0.6	0.72	1.15
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	895	70	72	72	0.61	0.75	0.83	1.91	915	70	71	71	0.52	0.66	0.76	1.93
1.1	1.5	915	73.2	76.4	75.6	0.52	0.67	0.77	2.871	930	71.3	71.4	72.5	0.42	0.55	0.67	3.15
1.5	2	900	73.6	78.5	79	0.57	0.7	0.77	3.747	920	74.2	75.9	74.2	0.46	0.6	0.69	4.076
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	960	82.7	84.2	84	0.58	0.73	0.78	9.28	965	80	82.9	83.9	0.52	0.64	0.72	9.21
5.5	7.5	960	84.2	85.5	85.7	0.56	0.69	0.75	13	965	81	83.7	85.4	0.45	0.57	0.66	13.6
7.5	10	960	86	86.5	86	0.69	0.8	0.85	15.6	965	85	86.5	86.5	0.61	0.73	0.8	15.1
9.2	12.5	960	87	87	86.5	0.68	0.79	0.84	19.2	970	86	87.5	87	0.59	0.72	0.8	18.4
11	15	960	88	88	87.5	0.7	0.8	0.85	22.5	970	87	88.6	88.2	0.61	0.74	0.81	21.4
15	20	970	88	88.5	88.5	0.8	0.86	0.89	28.9	975	88	89	89	0.73	0.82	0.87	27
18.5	25	975	89.5	90	90	0.69	0.8	0.84	37.2	980	88	90	90	0.6	0.73	0.8	35.7
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	980	93.7	94.5	94.4	0.75	0.83	0.86	247	985	93.3	94.7	94.7	0.7	0.8	0.84	231
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	990	95.4	95.6	95.1	0.77	0.84	0.87	459	990	94.8	95.4	95.2	0.7	0.8	0.83	440
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	95.4	95.6	95.2	0.75	0.83	0.86	520	990	94.6	95.2	95.3	0.66	0.77	0.82	498
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
315	430	985	94.8	96	95.8	0.73	0.8	0.82	609	990	93.8	95.6	95.8	0.65	0.76	0.8	572
HIGH-OUTPUT DESIGN																	
3	4	955	80	82	83.9	0.59	0.7	0.76	7.15	965	76.5	81.4	84	0.48	0.6	0.69	7.2
4	5.5	960	82.7	84.2	84	0.58	0.73	0.78	9.28	965	80	82.9	83.9	0.52	0.64	0.72	9.21
15	20	970	88	88.5	88.5	0.8	0.86	0.89	28.9	975	88	89	89	0.73	0.82	0.87	27
18.5	25	975	89.5	90	90	0.69	0.8	0.84	37.2	980	88	90	90	0.6	0.73	0.8	35.7
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	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

W21 - Cast Iron Frame Motors - 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	
VIII Pole - 750 rpm																		
0.12	0.16	71	1.7	2.2	2.1	2	0.00079	84/185	10.7	41	660	36.3	43.4	45.6	0.37	0.45	0.53	0.717
0.18	0.25	80	2.53	2.8	2.2	2.4	0.00208	29/64	12.9	42	695	36.2	44.1	48.6	0.45	0.53	0.62	0.862
0.25	0.33	80	3.31	3.5	2.3	2.2	0.00277	24/53	14.5	42	700	46.1	53.6	56.6	0.42	0.52	0.61	1.045
0.37	0.5	90S	5.13	3	1.9	1.8	0.00392	32/70	18.2	43	685	50.6	56.5	57.4	0.44	0.55	0.64	1.454
0.55	0.75	90L	7.8	3.3	1.9	2	0.00561	25/55	21.3	43	675	58	60	60	0.43	0.56	0.66	2.005
0.75	1	100L	9.96	3.5	1.8	2.4	0.00785	33/73	24.2	50	705	62	67.2	67.8	0.42	0.53	0.62	2.575
1.1	1.5	100L	15.05	4	1.7	2.3	0.01177	27/59	30.2	50	700	69.3	72.3	71.2	0.45	0.57	0.66	3.379
1.5	2	112M	20.07	4.2	2.2	2.2	0.01776	26/57	44.4	46	700	73.7	75.4	73.5	0.48	0.61	0.7	4.208
2.2	3	132S	29.68	6.1	2.5	2.8	0.06023	22/48	67.6	48	710	75.8	78	77.1	0.55	0.68	0.77	5.349
3	4	132M	39.57	6.1	2.2	2.6	0.07277	18/40	75.3	48	710	78.5	80.1	79	0.55	0.68	0.76	7.212
4	5.5	160M	53.29	4.7	2.2	2.4	0.10055	18/40	96.6	51	725	80	82	82	0.5	0.63	0.72	9.78
5.5	7.5	160M	72.66	4.8	2.2	2.3	0.12209	18/40	105.7	51	725	81	83	83.5	0.48	0.62	0.71	13.4
7.5	10	160L	96.88	4.7	2.2	2.3	0.15082	16/35	121.2	51	725	83	85	85.5	0.5	0.64	0.73	17.3
9.2	12.5	180M	120.27	6.7	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	145.32	6.8	2.3	2.5	0.2758	11/24	164.9	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	228.7	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	338.7	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	363.9	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	425.2	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	2.06842	29/64	595.5	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	2.52807	26/57	635.4	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	731.9	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	872	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	5.28597	23/51	1020.9	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	1390	70	740	92.5	94.1	94.5	0.63	0.74	0.8	210
132	175	315B	1661.07	6.9	1.9	2.6	7.765	20/44	1399	62	740	94	94.5	94.4	0.63	0.74	0.79	255
132	175	355M/L	1661.07	6.5	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	2088.2	7.3	2.1	2.8	9.75	18/40	1534	62	740	93.1	94.7	94.7	0.6	0.72	0.77	317
160	220	355M/L	2088.2	6.6	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	315B*	2562.8	6.5	1.6	2.3	11.472	18/40	1750	62	740	94.4	94.8	94.4	0.7	0.79	0.82	373
200	270	355M/L	2562.8	6.8	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																		
7.5	10	160M	96.88	4.7	2.2	2.3	0.15082	16/35	123	51	725	83	85	85.5	0.5	0.64	0.73	17.3
30	40	225S/M	384.87	7.9	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	250S/M	481.09	8.2	2.3	2.8	1.55324	13/29	477.3	56	730	89	91.5	91.5	0.68	0.78	0.84	69.5
45	60	250S/M*	577.31	8.3	2.5	3.4	1.69445	8/18	530	56	730	90	91	91.5	0.67	0.78	0.83	85.5
55	75	280S/M	711.89	6.5	1.9	2.2	3.10263	27/59	680.4	59	740	91.2	93.1	93	0.69	0.78	0.82	104
110	150	315S/M*	1423.78	7	1.9	2.2	5.6307	14/31	1031.9	62	740	92.5	94.1	94.8	0.61	0.73	0.79	212

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.

W21 - Cast Iron Frame Motors - 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	
VIII Pole - 750 rpm																	
0.12	0.16	650	41	47.1	47.6	0.39	0.48	0.57	0.672	670	32.7	40.3	43.2	0.36	0.43	0.5	0.773
0.18	0.25	690	40.7	47.7	50.6	0.47	0.57	0.66	0.819	700	32.8	41.2	46.1	0.43	0.51	0.59	0.921
0.25	0.33	690	49	55.6	57.2	0.45	0.56	0.65	1.022	700	43.1	51.7	55.6	0.4	0.5	0.58	1.079
0.37	0.5	680	54.4	59	58.3	0.48	0.6	0.69	1.397	690	46.6	53.8	56.1	0.41	0.51	0.61	1.504
0.55	0.75	665	61.7	62	60	0.47	0.6	0.7	1.99	680	54.8	59	59	0.41	0.52	0.62	2.092
0.75	1	695	65.6	69	68	0.46	0.58	0.66	2.539	710	58.3	64.6	66.7	0.39	0.49	0.58	2.697
1.1	1.5	690	72.1	73.6	70.8	0.5	0.62	0.7	3.372	705	66.2	70.7	70.7	0.41	0.53	0.62	3.491
1.5	2	690	75.9	76.2	73.2	0.52	0.65	0.73	4.265	705	71.6	74.2	73.1	0.44	0.57	0.66	4.325
2.2	3	705	77.1	78.3	76.7	0.6	0.73	0.8	5.447	715	74.7	77.5	77.1	0.52	0.65	0.74	5.364
3	4	705	79.7	80.5	78.6	0.6	0.73	0.8	7.249	715	77.1	79.6	79	0.51	0.64	0.73	7.237
4	5.5	720	81	83	82	0.54	0.67	0.75	9.88	725	78.5	82	82.5	0.46	0.6	0.69	9.78
5.5	7.5	720	82	84	83	0.54	0.67	0.74	13.6	725	80	82.5	83	0.45	0.58	0.68	13.6
7.5	10	715	84	85	85	0.56	0.69	0.76	17.6	725	81	84	85.5	0.47	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	735	94.3	94.7	94.7	0.73	0.81	0.83	387	740	94.1	94.7	94.3	0.67	0.77	0.8	369
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																	
7.5	10	715	84	85	85	0.56	0.69	0.76	17.6	725	81	84	85.5	0.47	0.6	0.7	17.4
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	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
45	60	730	90.5	91	91.2	0.69	0.8	0.85	88.2	735	89.5	91	91.6	0.65	0.76	0.82	83.3
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
110	150	735	93	94.1	94.8	0.66	0.75	0.8	220	740	92	94.1	94.8	0.56	0.71	0.77	210

W21 - Cast Iron Frame Motors

Premium Efficiency EFF1

Standard Features:

- Three-phase, multivoltage, IP55, TEFC
- Output: 0.12 up to 315kW
- Frames: 63 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
- V'Ring on both endshields
- 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

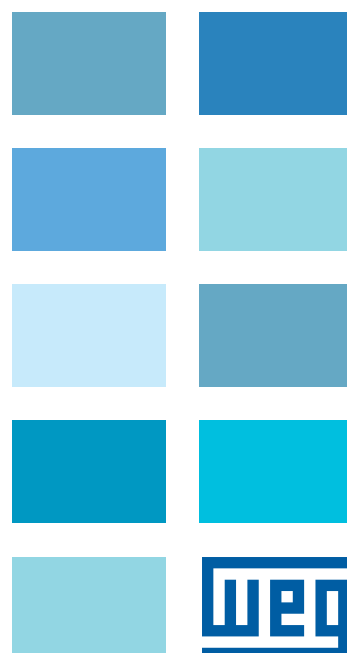
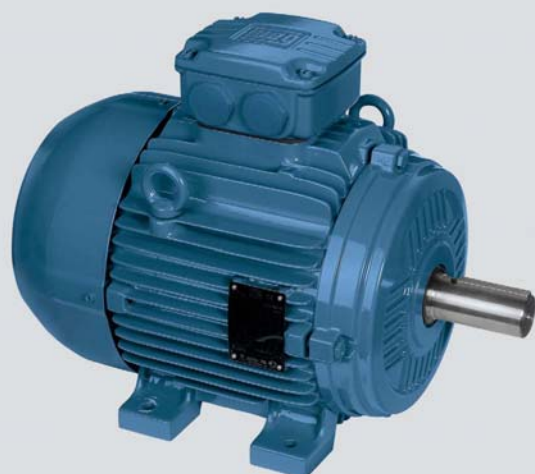
- Thermal protection:
 - Thermistors: frame 132M and below
 - Thermostats
 - RTD-PT 100
 - Space heaters
 - Design H
 - Class "H" insulation
 - Roller bearings for frame 160M and above
- More options available, on request*

Options Available:

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

Typical Applications:

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



Features and Benefits

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 provides higher mechanical strength, corrosion resistance and extended lifetime.

Fan

WEG has designed the fan and fan cover having in mind the lowest noise level. The efficient cooling ensures low motor temperature rise and 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.

Frame

WEG motors are made of FC-200 high-grade cast iron (same density as flameproof motors). The frames are provided with fins aimed at improving the heat dissipation and adequately spaced to minimize air blockage due to accumulation of dirt. The motors can be mounted in horizontal or vertical positions.

Terminal Box

Made of cast iron with plenty of internal space, the terminal box can be rotated at 90° intervals, having one or two threaded holes to connect power supply cables. * Available as top or side mounted.

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.

Shaft

WEG uses SAE/AISI 1040/45 carbon steel as standard, which provides high mechanical strength, avoiding bending under load and minimizes fatigue which extends lifetime performance. Specially designed to withstand torques caused during motor acceleration and deceleration (brake). Upon special design motor can have a second shaft end.

Endshields

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

Stator

Built with low loss steel lamination to reduce magnetic losses and operating temperature.

Seals

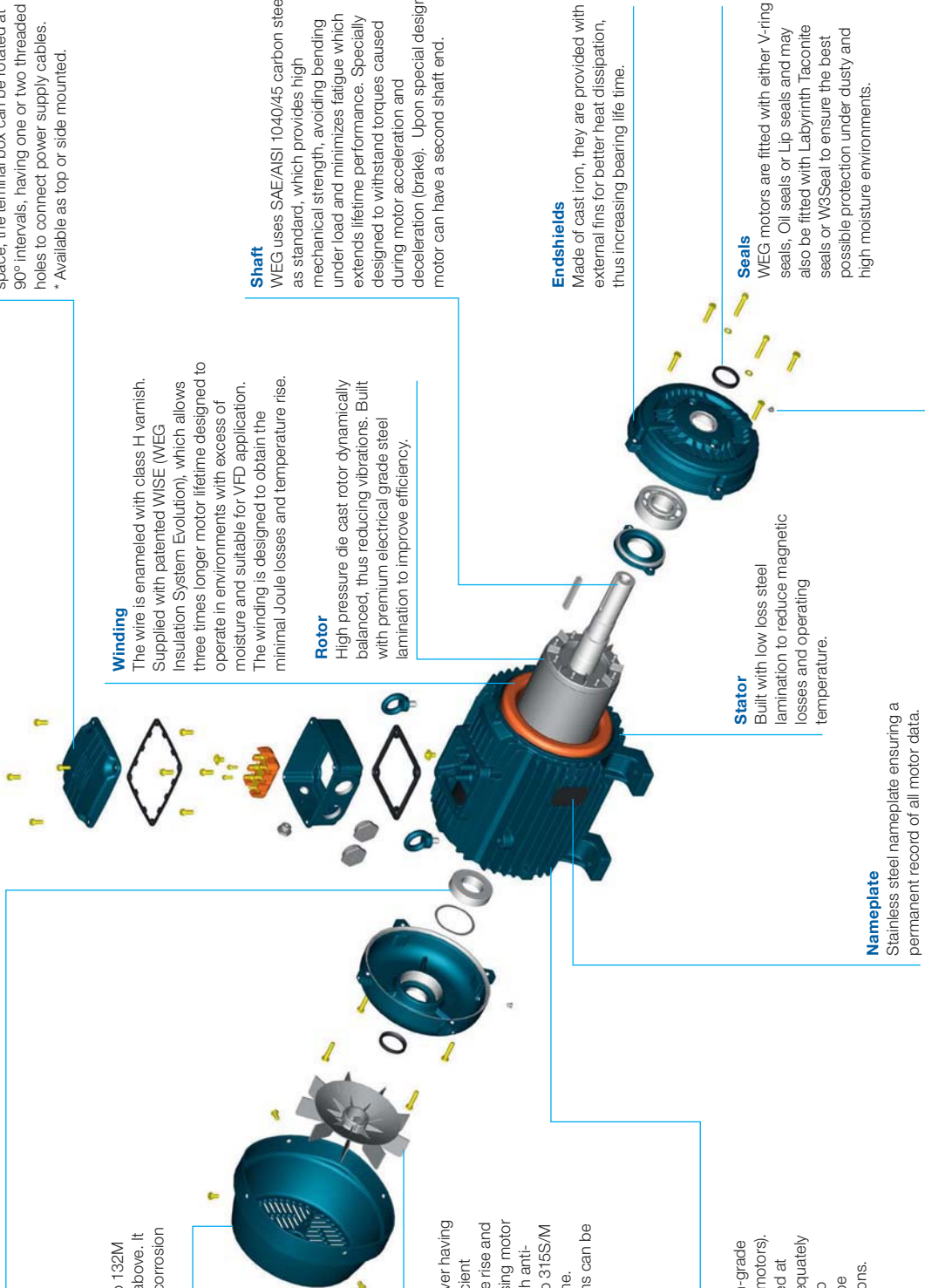
WEG motors are fitted with either V-ring seals, Oil seals or Lip seals and may also be fitted with Labyrinth Taconite seals or W3Seal to ensure the best possible protection under dusty and high moisture environments.

Drain Hole

Provided with plastic drain plug allowing drainage of condensed water.

Nameplate

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



W21 - Cast Iron Frame Motors - 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						
												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	0.00012	25/55	6.8	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	0.00012	30/66	6.9	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	0.00016	18/40	7.3	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	0.00037	23/51	10	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	0.00045	16/35	10.6	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	0.00079	20/44	13.8	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	0.00096	15/33	14.9	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	0.00205	14/31	19.4	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	0.00266	9/20	21.8	62	2865	84	86	86.6	0.64	0.76	0.83	4.42
3	4	100L	9.7	8.9	3	3.1	0.00672	12/26	31.4	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	0.00842	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	0.02056	19/42	60.9	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	0.0243	13/29	66	67	2925	88.5	90.6	90.8	0.72	0.82	0.87	13.7
11	15	160M	35.72	8.5	2.8	3.3	0.05295	14/31	114.7	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	0.05883	12/26	120.5	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	0.06766	10/22	133.7	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	0.11919	14/31	189.4	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	0.2063	31/68	246.7	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	0.22424	25/55	257.9	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	0.44846	18/40	409.8	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	0.50227	15/33	455.4	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	1.27083	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	1.41204	42/92	688.8	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	1.50617	38/84	834.3	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	1.74151	32/70	871	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	2.11806	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	2.11806	33/73	1000.7	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	2.11806	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	4.82631	70/154	1490	81	2985	93.5	95	95.4	0.89	0.91	0.92	329
220	300	355M/L	705.93	8.5	2.2	3	5.17105	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	5.74561	65/143	1750	81	2985	95.5	96.3	96.4	0.87	0.91	0.92	407
HIGH-OUTPUT DESIGN																		
5.5	7.5	112M	18.36	7.7	2.5	3	0.00995	10/22	45	64	2870	87.5	88.5	88.6	0.78	0.86	0.89	10.1
9.2	12.5	132M	29.91	8.5	2.8	3.1	0.02804	11/24	73.8	67	2935	88.5	90.9	91	0.7	0.81	0.87	16.8
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
200	270	315S/M	636.4	7.9	2.2	2.9	2.16513	49/108	1010.4	83	2980	95.6	96.2	96.4	0.77	0.84	0.87	344

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.

W21 - Cast Iron Frame Motors - 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																	
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
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	93.7	95	95.3	0.9	0.92	0.92	347	2985	93.3	94.9	95.4	0.88	0.9	0.91	321
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																	
5.5	7.5	2860	87.7	88.3	88	0.82	0.88	0.9	10.6	2880	87.3	88.5	88.6	0.75	0.84	0.88	9.81
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
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
200	270	2975	95.9	96.2	96.3	0.8	0.86	0.89	355	2980	95.5	96.3	96.5	0.7	0.82	0.86	335

W21 - Cast Iron Frame Motors - 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			Power Factor (Cos φ)			
kW	HP											Efficiency η			Power Factor (Cos φ)			
												50	75	100	50	75	100	
IV Pole - 1500 rpm																		
0.12	0.16	63	0.79	4.5	2.6	2.7	0.00045	20/44	7.3	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	7.8	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	11.1	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	11.1	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	14	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	15.9	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	21.4	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	23.7	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	32.2	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	39.4	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	72.4	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	103.6	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	111.3	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	130	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	188.8	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	195.3	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	243.2	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	370.4	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	400	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	492.2	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	798.7	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	925.2	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	992.6	72	1485	94.8	95.4	95.7	0.78	0.85	0.88	226
150	200	315S/M	945.99	7.5	2.4	2.7	3.77391	20/44	1005	72	1485	94.5	95.7	95.8	0.78	0.84	0.87	260
160	220	315S/M	1040.59	7.6	2.4	2.6	3.77391	20/44	1044.2	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	1607.9	79	1490	95.3	96.3	96.5	0.8	0.86	0.88	425
315	430	355M/L	2027.05	7	2.2	2.4	9.92464	42/92	1797.1	79	1490	95.9	96.3	96.6	0.79	0.86	0.88	535
HIGH-OUTPUT DESIGN																		
2.2	3	90L	14.84	5.8	2.7	2.5	0.00672	8/18	24	49	1420	76.5	79	81	0.55	0.69	0.78	5.026
7.5	10	132S	47.95	8.2	2.5	3	0.05815	9/20	80	56	1465	88.5	90	90.2	0.7	0.81	0.86	14
9.2	12.5	132M	59.93	8	2.5	3	0.06202	7/15	74	56	1465	88	89.5	90.4	0.68	0.8	0.85	17.281
75	100	250S/M	474.59	7.5	2.7	3.2	1.25976	16/35	530	70	1480	94	94.7	94.7	0.74	0.84	0.87	131
110	150	280S/M	709.49	7.6	2.4	2.6	3.21184	29/64	855.5	70	1485	94.5	95.2	95.6	0.8	0.86	0.88	189
200	270	315S/M*	1277.08	8	2.4	2.6	3.9345	17/37	1043.3	72	1485	95.2	95.8	95.8	0.76	0.84	0.87	346

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.

W21 - Cast Iron Frame Motors - 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	
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	0.434
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	0.584
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	0.698
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	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
150	200	1480	94.7	95.7	95.6	0.8	0.86	0.88	271	1485	94.3	95.7	95.8	0.76	0.82	0.86	253
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
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	96.1	96.4	96.5	0.81	0.87	0.89	557	1490	95.5	96.2	96.6	0.76	0.84	0.87	521
HIGH-OUTPUT DESIGN																	
2.2	3	1410	77	79.5	80.5	0.58	0.72	0.8	5.19	1430	75	78	80	0.52	0.66	0.76	5.034
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
9.2	12.5	1460	89	89.5	89.5	0.73	0.83	0.87	17.952	1465	87	89	90.3	0.64	0.76	0.83	17.077
75	100	1475	94	94.3	94.5	0.77	0.85	0.88	137	1480	93.5	94.7	94.7	0.73	0.83	0.86	128.11
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
200	270	1480	95.5	95.7	95.7	0.79	0.86	0.88	361	1485	95	95.8	95.8	0.73	0.82	0.86	337

W21 - Cast Iron Frame Motors - 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						
												Efficiency η			Power Factor (Cos φ)			
												50	75	100	50	75	100	
kW	HP																	
VI pole - 1000rpm																		
0.12	0.16	63	1.23	3.5	2.2	2.1	0.001	41/90	8	43	910	44	52	56.3	0.44	0.53	0.63	0.488
0.18	0.25	71	1.95	3.5	2.1	2.2	0.001	49/108	10.8	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	0.001	43/95	11.7	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	0.002	14/31	13.8	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	0.003	11/24	15.2	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	0.006	20/44	21.6	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	0.007	12/26	23.9	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	0.013	19/42	30.6	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	0.022	16/35	43	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	0.043	28/62	58.9	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	0.050	21/46	66.1	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	0.066	17/37	76	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	0.144	19/42	115.4	56	970	87.5	89.5	90	0.61	0.74	0.81	14.8
11	15	160L	108.62	7	2.4	2.7	0.176	13/29	132.6	56	970	89	90.3	90.3	0.58	0.72	0.79	22.3
15	20	180L	144.82	8	2.7	3	0.290	9/20	171.9	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	0.377	17/37	226.8	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	0.448	15/33	242.5	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	0.988	21/46	360.3	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	1.318	20/44	442.9	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	2.298	27/59	604.1	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	2.643	21/46	633	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	3.447	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	4.022	16/35	834	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	5.286	18/40	995.4	69	985	94.5	95.1	95.1	0.69	0.79	0.84	199
132	175	315S/M	1247.91	6.6	2.2	2.5	5.631	12/26	1050	69	985	94.4	94.8	94.9	0.7	0.79	0.84	239
160	220	355M/L	1560.88	6	1.9	2.1	9.531	76/167	1487.3	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	12.391	85/187	1714.6	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	14.773	64/141	1885	73	990	95	96	96.2	0.69	0.78	0.81	463
315	430	355M/L*	3050.81	6	1.9	1.9	15.488	38/84	1981	73	990	94.8	96.1	96.3	0.69	0.78	0.81	583
HIGH OUTPUT DESIGN																		
9.2	12.5	160L	90.51	6.2	2.2	2.7	0.165	15/33	130	56	970	89.4	90.1	90.1	0.6	0.73	0.8	18.4
37	50	225S/M	358.37	7	2.5	2.6	1.318	20/44	450	61	980	91.8	94		0.72	0.81	0.84	67.6
45	60	250S/M	430.04	8	2.8	2.8	1.553	18/40	484.2	61	980	92	93.5	93.5	0.76	0.84	0.87	79.8
75	100	280S/M	713.09	6.7	2.1	2.4	3.447	20/44	725	69	985	93.7	94.4	94.5	0.72	0.81	0.84	136

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.

W21 - Cast Iron Frame Motors - 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						
			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	I _n (A)
VI pole - 1000rpm																	
0.12	0.16	900	47	54	57	0.47	0.56	0.66	0.485	915	41	50	55	0.41	0.5	0.6	0.506
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
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	985	94.6	94.9	94.8	0.73	0.82	0.85	249	985	94.3	94.8	94.9	0.68	0.77	0.83	233
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
315	430	985	95	96.2	96.2	0.73	0.8	0.82	607	990	94.3	96	96.3	0.65	0.76	0.8	569
HIGH OUTPUT DESIGN																	
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
37	50	980	92	94	93.9	0.75	0.83	0.86	69.6	985	91.6	94	94	0.79	0.82	0.86	66.8
45	60	980	92.5	93.5	93.4	0.8	0.86	0.88	83.2	985	91.5	93.5	93.5	0.73	0.82	0.86	77.9
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

W21 - Cast Iron Frame Motors - 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						
												Efficiency η			Power Factor (Cos φ)			
												50	75	100	50	75	100	
kW	HP																	
VIII Pole - 750 rpm																		
0.12	0.16	71	1.64	2.5	1.9	2.1	0.00079	44/97	11.4	41	685	38	46.2	49	0.38	0.47	0.55	0.643
0.18	0.25	80	2.51	3.1	1.8	2	0.00242	16/35	14.7	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	22.5	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	28.5	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	29.2	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	44.4	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	67.8	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	73.1	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	113.1	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	123.9	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	133.7	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	173.2	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	262.1	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	340.6	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	364.9	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	425.2	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	636.7	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	698	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	788.9	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	982	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
132	180	355M/L	1708.53	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
185	250	355M/L	2372.96	6.5	1.6	2.2	17.27059	30/66	1730	70	740	93.5	95.3	95.6	0.58	0.7	0.78	358
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
220	300	355M/L	2847.55	6.8	1.6	2.2	20.4107	35/77	1930	70	740	94.5	95.2	95.6	0.61	0.73	0.77	431
HIGH-OUTPUT DESIGN																		
55	75	280S/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

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.

W21 - Cast Iron Frame Motors - 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	
VIII Pole - 750 rpm																	
0.12	0.16	675	42	50	52	0.42	0.5	0.59	0.594	695	34	42	46.5	0.35	0.45	0.52	0.69
0.18	0.25	690	44	53	56	0.44	0.55	0.64	0.763	705	40	49	55.5	0.4	0.49	0.58	0.778
0.25	0.33	685	53	61	63.8	0.43	0.55	0.63	0.945	700	49	59	63.8	0.4	0.5	0.59	0.924
0.37	0.5	680	55	62.5	65	0.42	0.54	0.64	1.35	695	52	60	64	0.37	0.47	0.56	1.44
0.55	0.75	680	61	65	66.5	0.42	0.54	0.64	1.96	700	57	63	66	0.37	0.47	0.57	2.03
0.75	1	700	72	74.4	75.5	0.44	0.56	0.64	2.36	715	70	74	76	0.38	0.5	0.58	2.37
1.1	1.5	690	72.5	75.5	76.9	0.44	0.57	0.65	3.34	710	69.5	73.5	76.9	0.37	0.49	0.59	3.37
1.5	2	700	79.8	81.6	82	0.47	0.59	0.69	4.03	715	78.2	81	81.8	0.4	0.51	0.63	4.05
2.2	3	705	83	84.3	84.2	0.58	0.7	0.75	5.29	715	81	84.3	84.3	0.5	0.63	0.71	5.11
3	4	705	83.2	84.6	84.5	0.58	0.71	0.77	7.01	715	82.5	84.6	84.6	0.51	0.64	0.73	6.76
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	84	86.7	87	0.46	0.6	0.69	13.9	730	83	86.1	87	0.4	0.52	0.62	14.2
7.5	10	720	86.5	88.2	88.5	0.56	0.68	0.74	17.4	725	84.5	87.8	88.5	0.48	0.6	0.69	17.1
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
132	180	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
185	250	740	94	95.4	95.6	0.63	0.74	0.8	368	745	93	95.2	95.5	0.53	0.66	0.76	355
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
220	300	740	94.8	95.2	95.4	0.64	0.75	0.79	444	745	94.2	95.2	95.6	0.59	0.71	0.76	421
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

W21 - Cast Iron Frame Motors

Top Premium Efficiency Exceeds EFF1

Standard Features:

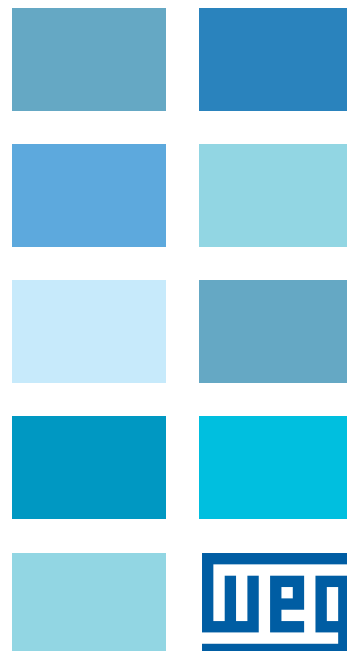
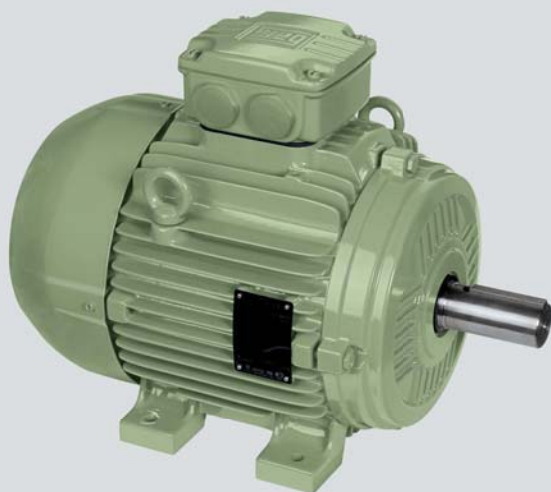
- Three-phase, multivoltage, IP55, TEFC
 - Output: 1.15 up to 315kW
 - Frames: 112M up to 355M/L
 - Voltage: 220-240/380-415V (up to 100L)
380-415/660V (from 112M and up)
 - Class "F" insulation ($\Delta T=80K$)
 - Continuous duty: S1
 - Design N
 - Ambient temperature: 40°C, at 1000 m.a.s.l.
 - Squirrel cage rotor/Aluminium die cast
 - V'Ring on both endshields
 - 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 6021
- 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*

Options Available:

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

Typical Applications:

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



Features and Benefits

Bearings

WEG motors are fitted with the highest quality bearings selected among the best manufacturers in the world and designed to ensure long life to the motor even under heavy operating conditions. WEG also uses the Super-premium Polyrex EM polyurea grease that is specially formulated for electric motor bearings. Its advanced thickener formulation and proprietary manufacturing techniques provide low noise characteristics, improved bearing performance and protection.

Fan Cover

Made of steel plate for frames 112M up to 132M and of cast iron for frames 160M and above. It provides higher mechanical strength, corrosion resistance and extended lifetime.

Fan

WEG has designed the fan and fan cover having in mind the lowest noise level. The efficient cooling ensures low motor temperature rise and minimizes winding losses, thus increasing motor efficiency. The W21 line is supplied with anti-static polypropylene fans from 112M 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.

Frame

WEG motors are made of FC-200 high-grade cast iron (same density as flameproof motors). The frames are provided with fins aimed at improving the heat dissipation and adequately spaced to minimize air blockage due to accumulation of dirt. The motors can be mounted in horizontal or vertical positions.

Terminal Box

Made of cast iron with plenty of internal space, the terminal box can be rotated at 90° intervals, having one or two threaded holes to connect power supply cables.
- Available as top or side mounted.

Winding

The wire is enameled with class H Varnish and are impregnated with dipping and baking process (frames 112M up to 200L) and continuous resin flow process (frames 225S/M up to 355M/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 casting aluminium rotor dynamically balanced reducing vibration. Advantages of aluminium rotors include lower inertia, higher starting torque and higher mechanical stiffness, among others. The steel laminations are thermally and chemically treated to improve efficiency and minimize mechanical stress.

Shaft

WEG uses SAE/AISI 1040/45 carbon steel as standard, which provides high mechanical strength, avoiding bending under load and minimizes fatigue which extends lifetime performance. Specially designed to withstand torques caused during motor acceleration and deceleration (brake). Upon special design motor can have a second shaft end.

Endshields

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

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

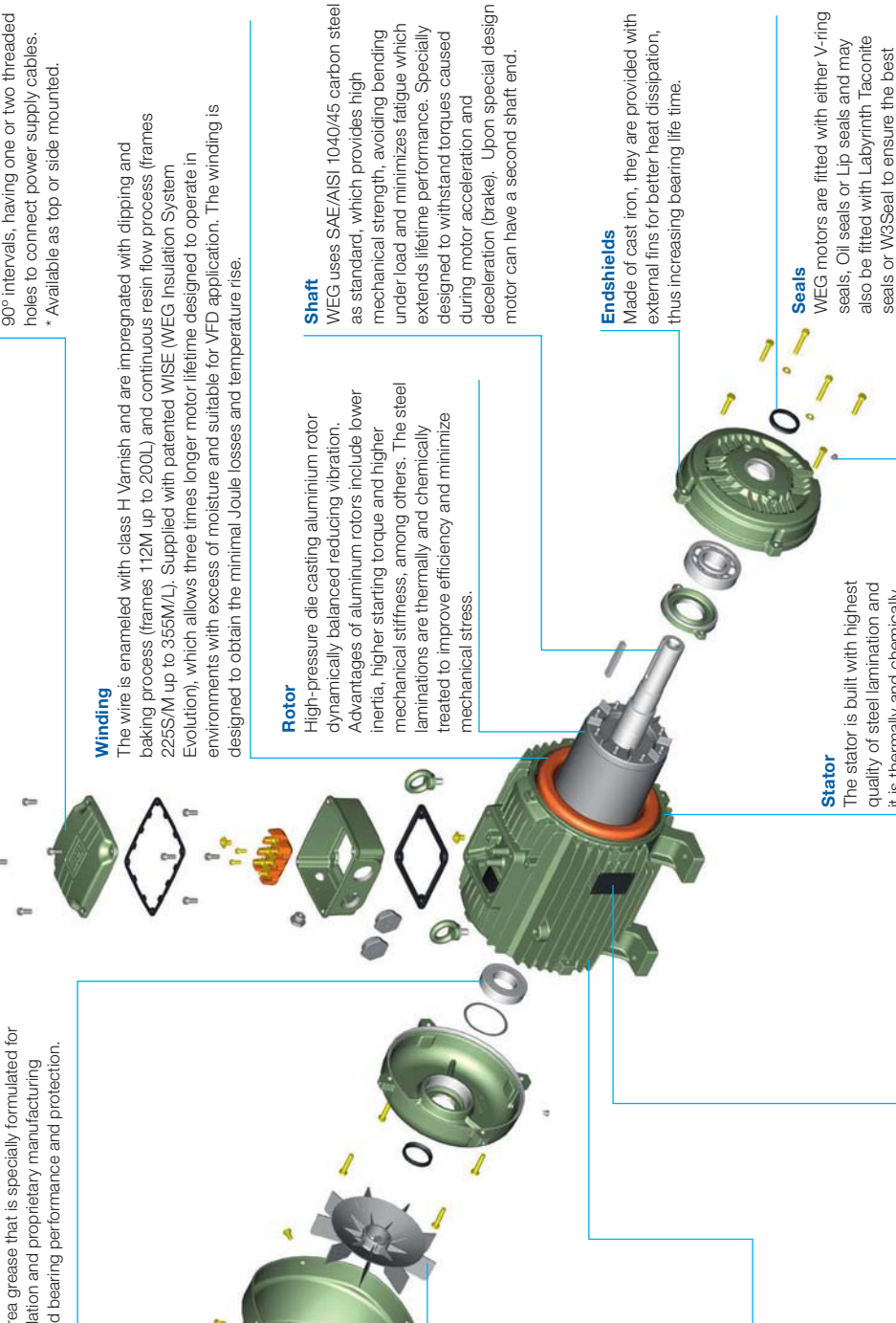
WEG motors are fitted with either V-ring seals, Oil seals or Lip seals and may also be fitted with Labyrinth Taconite seals or W3Seal to ensure the best possible protection under dusty and high moisture environments.

Drain Hole

Provided with plastic drain plug allowing drainage of condensed water.

Nameplate

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



W21 - Cast Iron Frame Motors - 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 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)			
												50	75	100	50	75	100	
II pole - 3000rpm																		
4	5.5	112M	13.32	8.5	2.6	3.1	0.008	21/46	42.6	64	2900	88.7	89.8	89.8	0.61	0.79	0.85	7.56
5.5	7.5	132S	17.92	8.5	2.5	3	0.021	19/42	65.8	67	2940	90.1	91.2	91.3	0.7	0.8	0.85	10.2
7.5	10	132S	23.89	8.5	2.7	3.1	0.028	8/18	70.9	67	2940	89	91.3	91.6	0.72	0.83	0.87	13.6
9.2	12.5	132M	29.97	8.5	2.4	2.9	0.024	8/18	60	67	2930	91.1	92.1	92.3	0.65	0.78	0.85	16.9
11	15	160M	35.72	8.6	2.3	3	0.053	12/26	113.9	70	2950	91.7	93	93	0.65	0.78	0.83	20.6
15	20	160M	47.7	8.3	2.4	2.9	0.059	11/24	120.6	70	2945	92.2	93.3	93.3	0.71	0.81	0.84	27.6
18.5	25	160L	59.63	9	2.3	2.7	0.068	11/24	131.4	70	2945	92.9	93.8	93.8	0.67	0.79	0.85	33.5
22	30	180M	71.31	8.6	2.8	2.7	0.151	9/20	189.4	70	2955	93.2	94.3	94.1	0.75	0.83	0.87	38.8
30	40	200L	95.08	7.6	2.7	2.4	0.206	35/77	246.8	74	2955	92.6	93.9	94.2	0.75	0.83	0.86	53.5
37	50	200L	118.65	8.4	2.6	2.6	0.224	16/35	251.4	74	2960	93.3	94.2	94.7	0.76	0.84	0.87	64.8
45	60	225S/M	142.14	8.5	2.4	2.9	0.520	20/44	439.4	82	2965	94.5	95.4	95.4	0.82	0.88	0.9	75.6
55	75	250S/M	177.97	8.5	2.3	3	0.556	18/40	479.9	82	2960	94.7	95.5	95.3	0.85	0.89	0.91	91.5
75	100	280S/M	236.1	7	1.6	2.6	1.271	36/79	700	83	2975	95.2	96.1	96	0.83	0.88	0.89	127
90	125	280S/M	295.12	8	2.2	2.8	1.412	42/92	744.4	83	2975	94.3	95.6	96	0.82	0.88	0.9	150
110	150	315S/M	354.15	8	1.8	2.6	1.506	25/55	827.8	83	2975	95.2	96.4	96.4	0.76	0.84	0.88	187
132	175	315S/M	413.17	7.8	1.9	2.6	1.742	30/66	900.5	83	2975	95.5	96.6	96.6	0.79	0.87	0.89	222
160	220	315S/M	519.42	8.2	1.9	2.6	2.118	30/66	1001.2	83	2975	95.5	96.6	96.6	0.79	0.86	0.89	269
IV pole - 1500rpm																		
4	5.5	112M	26.73	6.6	2	2.6	0.019	8/18	46.6	56	1445	87.4	89.9	89.9	0.66	0.77	0.83	7.738
5.5	7.5	132S	35.96	8.5	2.4	3.1	0.054	12/26	67.1	56	1465	88.5	90.1	90.7	0.69	0.79	0.85	10.3
7.5	10	132M	47.95	8	2.5	3	0.066	7/15	100.9	56	1465	89	91.1	91.7	0.71	0.81	0.85	13.9
11	15	160M	71.67	7.5	2.8	3	0.110	12/26	123.8	67	1470	91.1	92.3	92.6	0.62	0.73	0.8	21.4
15	20	160L	95.89	6.3	2	2.4	0.130	11/24	138.3	67	1465	91.1	92.4	92.9	0.65	0.76	0.82	28.4
18.5	25	180M	119.46	8.3	2.7	2.8	0.179	12/26	196.7	64	1470	92.1	93.2	93.6	0.7	0.81	0.85	33.6
22	30	180L	142.86	8.6	2.8	2.9	0.247	11/24	200.5	64	1475	92.9	94	94.3	0.68	0.78	0.84	40.1
30	40	200L	189.84	7.3	2.7	2.9	0.386	19/42	268.8	69	1480	94	94.7	94.5	0.65	0.76	0.82	55.9
37	50	225S/M	238.1	7.2	2.2	2.7	0.700	14/31	361.3	70	1475	93.6	94.7	94.9	0.77	0.85	0.88	63.9
45	60	225S/M	284.76	7.5	2.3	2.8	0.840	17/37	394.6	70	1480	93.9	94.7	94.8	0.78	0.86	0.89	77
55	75	250S/M	357.15	8	2.4	2.8	1.155	9/20	487.5	70	1475	93.9	94.9	95.2	0.75	0.83	0.87	95.8
75	100	280S/M	472.99	7.4	2.2	2.4	2.168	21/46	660	70	1485	94.5	95.5	95.8	0.77	0.85	0.87	130
90	125	280S/M	591.24	8.1	2.4	2.6	2.810	22/48	794.3	70	1485	95	95.7	96	0.78	0.85	0.88	154
110	150	315S/M	709.49	8	2.4	2.6	3.212	29/64	919.4	72	1485	95	95.8	96.3	0.75	0.84	0.87	190
132	175	315S/M	827.74	8.3	2.5	2.6	3.774	34/75	1007.7	72	1485	95.6	96.3	96.4	0.76	0.85	0.87	227
160	220	315S/M	1040.59	8.2	2.4	2.7	3.774	18/40	1003.3	72	1485	95.7	96.3	96.5	0.75	0.84	0.87	275
250	320	355M/L	1602.78	8.3	2.3	2.6	8.389	8/18	1380	79	1490	95.8	96.6	96.8	0.78	0.85	0.88	424
315	430	355M/L	2027.05	6.7	2.1	2.7	11.185	33/73	1934.7	79	1490	96	96.4	96.7	0.8	0.86	0.89	528
HIGH OUTPUT DESIGN																		
110	150	280S/M	709.49	8	2.4	2.6	3.212	29/64	860	70	1485	95	95.8	96.3	0.75	0.84	0.87	190

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.

W21 - Cast Iron Frame Motors - 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	50	75	100	
II pole - 3000rpm																	
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	91.3	91.5	0.76	0.84	0.88	14.2	2945	89	91.3	91.6	0.7	0.8	0.85	13.4
9.2	12.5	2920	91	92	92.2	0.7	0.81	0.87	17.4	2940	91	92	92.2	0.63	0.74	0.83	16.7
11	15	2945	91.6	92.8	92.8	0.72	0.82	0.85	21.2	2955	91.6	93	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	0.8	0.83	26.9
18.5	25	2940	92.9	93.7	93.7	0.7	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	94.2	94	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	94	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	0.8	0.87	0.89	73.7
55	75	2955	94.3	95.2	95.1	0.86	0.9	0.92	95.5	2960	94.6	95.5	95.4	0.83	0.88	0.9	89.1
75	100	2970	95	95.9	95.9	0.84	0.89	0.9	132	2975	95.2	96.2	96.1	0.8	0.86	0.88	123
90	125	2975	94.3	95.6	96	0.84	0.89	0.9	158	2980	94.3	95.6	96	0.8	0.87	0.89	147
110	150	2970	95.2	96.4	96.4	0.78	0.85	0.89	195	2975	95	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	0.9	280	2975	95.3	96.5	96.6	0.77	0.85	0.88	262
IV pole - 1500rpm																	
4	5.5	1440	87.5	88.7	88.9	0.7	0.8	0.85	8.043	1450	87.3	89.9	89.9	0.62	0.74	0.81	7.642
5.5	7.5	1460	89	90	90.5	0.72	0.81	0.86	10.7	1470	88	89.9	90.6	0.65	0.77	0.83	10.2
7.5	10	1460	89.5	91	91.5	0.73	0.82	0.86	14.5	1470	88	91	91.7	0.68	0.8	0.84	13.5
11	15	1465	91	92.2	92.5	0.64	0.75	0.82	22	1475	91	92.2	92.6	0.6	0.7	0.78	21.2
15	20	1460	91.2	92.3	92.8	0.7	0.79	0.84	29.2	1470	91	92.3	92.8	0.6	0.73	0.8	28.1
18.5	25	1465	92	93.2	93.5	0.73	0.84	0.87	34.6	1475	92	93.2	93.6	0.65	0.78	0.84	32.7
22	30	1470	93	94	94.3	0.7	0.8	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	0.6	0.73	0.8	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	94.8	94.5	0.79	0.87	0.9	80.4	1480	93.8	94.7	94.8	0.76	0.85	0.88	75
55	75	1475	94	94.8	95.2	0.76	0.84	0.88	100	1480	93.8	94.8	95.1	0.73	0.82	0.86	93.6
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	95.6	95.9	0.8	0.86	0.89	160	1485	95	95.7	96	0.75	0.84	0.87	150
110	150	1480	95	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	0.7	0.83	0.85	271
250	340	1490	96	96.6	96.8	0.8	0.86	0.89	441	1490	95.5	96.5	96.8	0.75	0.84	0.87	413
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
HIGH OUTPUT DESIGN																	
110	150	1480	95	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

W21 - Cast Iron Frame Motors - 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 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 - 1000rpm																		
2.2	3	112M	22.06	6.2	3	2.8	0.022	16	45	48	955	83	85.5	85.5	0.48	0.61	0.69	5.383
3	4	132S	29.11	6	2.1	2.5	0.043	28	59	52	965	85.5	86.9	86.9	0.53	0.66	0.73	6.826
4	5.5	132M	40.03	6.5	2.1	2.4	0.050	21	68	52	965	87	87.9	87.9	0.54	0.67	0.74	8.876
5.5	7.5	132M/L	54.59	6.5	2.2	2.6	0.066	17	79	52	965	88	89.1	89.1	0.54	0.67	0.74	12.04
7.5	10	160M	72.41	6.6	2.5	2.9	0.144	19	106	56	970	87.5	90.1	90.1	0.61	0.74	0.81	14.8
11	15	160L	108.62	7	2.8	3	0.176	13	136	56	970	90	91.2	91.2	0.6	0.73	0.8	21.761
15	20	180L	143.35	8.5	3.2	3.5	0.345	12	208	56	980	91.8	92	92	0.73	0.84	0.89	26.442
18.5	25	200L	180.1	6.3	2.3	2.5	0.377	17	219	58	975	91.3	92.7	93	0.67	0.78	0.82	35.1
22	30	200L	216.12	6.2	2.3	2.6	0.448	15	228	58	975	91.2	92.9	93	0.65	0.75	0.82	41.7
30	40	225S/M	285.24	7	2.6	2.6	0.988	21	366	61	985	91.7	93.6	93.6	0.73	0.81	0.85	54.4
37	50	250S/M	358.37	7	2.5	2.6	1.318	20	450	61	980	91.8	94	94.1	0.72	0.81	0.84	67.6
45	60	280S/M	425.69	6.8	2.1	2.8	2.298	27	610	66	990	94	94.4	94.4	0.67	0.77	0.82	83.909
55	75	280S/M	532.12	7	2.5	3.2	2.643	21	655	66	990	94.1	94.8	94.8	0.64	0.75	0.81	103.383
75	100	280S/M	709.49	7.7	2.9	3.5	3.447	15	725	69	990	94.3	95.2	95.2	0.62	0.73	0.81	140.384
75	100	315S/M	709.49	7.7	2.9	3.5	3.447	15	725	69	990	94.3	95.2	95.2	0.62	0.73	0.81	140.384
90	125	315S/M	886.86	7.8	2.8	3.3	4.022	16	810	69	990	95	95.5	95.5	0.66	0.77	0.82	165.884
110	150	355M/L	1058.89	6.7	2.2	3	9.280	40	1460	69	995	94.2	95.4	95.8	0.59	0.71	0.78	212
132	175	355M/L	1235.37	6.2	2	2.7	10.440	40	1600	73	995	94.7	95.7	96.1	0.63	0.74	0.8	248
150	200	355M/L	1411.85	6.6	2.2	2.8	11.136	60	1650	73	995	94.8	95.7	96.2	0.61	0.73	0.79	285
160	220	355M/L	1553.04	6.2	2	2.6	11.136	60	1570.1	73	995	94.9	95.8	96.2	0.63	0.74	0.8	300
185	250	355M/L	1764.81	6	1.9	2.5	11.600	60	1700	73	995	95.1	96	96.2	0.65	0.76	0.81	343
220	300	355M/L	2117.78	5.7	1.9	2.3	13.456	60	1795	73	995	95.4	96	96.2	0.68	0.77	0.82	403
250	340	355M/L	2412.27	6.1	2.1	2.6	14.383	60	1890	73	990	95.3	96	96.2	0.64	0.74	0.8	469
VIII pole - 750rpm																		
1.5	2	112M	19.65	5.4	2.6	2.9	0.024	32	45	46	715	78.2	81	82.1	0.4	0.51	0.63	4.05
2.2	3	132S	29.47	6.2	2.6	2.7	0.075	25	70	48	715	81	84.3	84.3	0.5	0.63	0.71	5.11
3	4	132M	38.75	6.5	3.7	3.2	0.085	21	78	48	725	81	84.9	84.9	0.5	0.63	0.72	6.828
4	5.5	160M	52.56	5.2	2.8	3	0.122	27	110	51	735	82	85.4	86.7	0.37	0.49	0.58	11.1
5.5	7.5	160M	72.16	5.6	2.7	3	0.165	22	130	51	730	84	86.5	87.7	0.4	0.52	0.62	14.1
7.5	10	160L	96.88	5.2	2.2	2.6	0.165	19	145	51	725	87.5	88.9	88.9	0.5	0.62	0.71	16.5
11	15	180L	144.33	7.5	2.6	2.8	0.303	12	183	51	730	90	90.3	90.3	0.58	0.71	0.78	21.7
15	20	200L	191.13	5	2.2	2.4	0.502	28	300	53	735	89	90.6	91.4	0.5	0.63	0.69	33.1
18.5	25	225S/M	238.91	7.5	2.3	3	0.847	18	340	56	735	90	91.5	92	0.61	0.73	0.8	35
22	30	225S/M	286.69	8.5	2.4	3.2	0.988	18	365	56	735	91.3	92.5	92.6	0.62	0.73	0.8	41.3
30	40	250S/M	382.26	8	2.3	3	1.224	17	440	56	735	91	92.8	93.2	0.58	0.71	0.79	56.7
37	50	280S/M	474.59	6.5	2.1	2.4	2.643	32	590	59	740	92.1	93.4	93.9	0.6	0.72	0.79	69.5
45	60	280S/M	569.51	6.5	2.2	2.6	3.103	32	650	59	740	92.7	93.8	94.2	0.58	0.7	0.77	86.3
55	75	280S/M	711.89	7	2.2	2.9	3.447	32	730	62	740	93.2	94.3	94.6	0.54	0.66	0.74	109
55	75	315S/M	711.89	7	2.2	2.9	3.447	32	730	62	740	93.2	94.3	94.6	0.54	0.66	0.74	109
75	100	315S/M	949.18	7	2.1	2.9	4.367	20	876	62	740	94	95	95.2	0.56	0.69	0.75	146

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

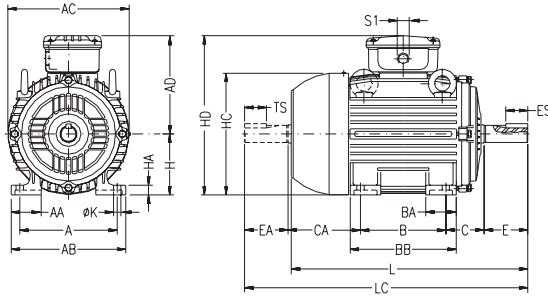
The values shown are subject to change without prior notice. To obtain guaranteed values please access our website.

W21 - Cast Iron Frame Motors - Top Premium Efficiency Exceeds EFF1

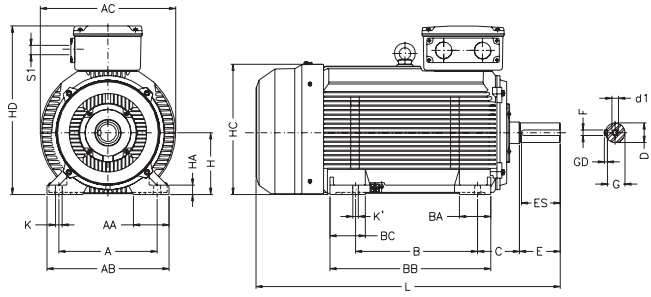
Output		380 V								415 V							
		Rated speed (rpm)	% of full load						Full load current I _n (A)	Rated speed (rpm)	% of full load						Full load current I _n (A)
			Efficiency η			Power Factor (Cos φ)					Efficiency η			Power Factor (Cos φ)			
kW	HP	50	75	100	50	75	100	50	75	100	50	75	100	50	75	100	
VI pole - 1000rpm																	
2.2	3	950	82.5	85	85	0.52	0.64	0.72	5.462	960	82	85	85	0.46	0.6	0.59	6.103
3	4	960	85.5	86.5	86	0.57	0.69	0.75	7.067	970	85	86.9	86.9	0.5	0.64	0.71	6.764
4	5.5	960	87	87.5	87	0.59	0.7	0.77	9.072	965	86.5	87.9	87.9	0.52	0.64	0.72	8.793
5.5	7.5	960	87.5	88.5	88.5	0.59	0.7	0.76	12.424	965	87.5	89	89.1	0.51	0.64	0.72	11.927
7.5	10	965	88	89.7	89.9	0.65	0.77	0.82	15.5	975	87	89.5	90.1	0.58	0.71	0.79	14.7
11	15	970	90.5	91	91	0.65	0.77	0.83	22.127	975	90	91.2	91.2	0.57	0.7	0.78	21.513
15	20	975	91	91.8	91.8	0.77	0.86	0.9	27.584	980	91.5	92.2	92.2	0.7	0.82	0.87	26.016
18.5	25	970	91.8	92.6	92.7	0.72	0.81	0.84	36.1	980	90.8	92.6	93	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	93	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	93.6	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	94.1	0.69	0.79	0.82	66.8
45	60	985	94	94.2	94.2	0.7	0.79	0.83	87.446	990	93.7	94.4	94.4	0.64	0.75	0.8	82.898
55	75	985	94.2	94.6	94.6	0.67	0.77	0.82	107.724	990	93.8	94.8	94.8	0.61	0.72	0.79	102.169
75	100	990	94.5	95	95	0.66	0.77	0.82	146.278	990	94	94.8	95.2	0.58	0.7	0.78	140.514
75	100	990	94.5	95	95	0.66	0.77	0.82	146.278	990	94	94.8	95.2	0.58	0.7	0.78	140.514
90	125	990	95	95.3	95.3	0.7	0.79	0.84	170.815	990	95	95.5	95.5	0.63	0.75	0.81	161.862
110	150	995	94.5	95.5	95.7	0.63	0.74	0.8	218	995	94	95	95.9	0.56	0.68	0.76	210
132	175	990	95	95.5	96	0.66	0.76	0.81	258	995	94.5	95.5	96.2	0.6	0.72	0.78	245
150	200	995	95	95.8	96.1	0.65	0.76	0.81	292	995	94.5	95.6	96.3	0.58	0.71	0.77	282
160	220	995	95.2	95.8	96.1	0.67	0.77	0.82	308	995	94.7	95.7	96.3	0.6	0.72	0.79	293
185	250	995	95.5	96	96.1	0.7	0.78	0.82	356	995	94.9	95.8	96.3	0.6	0.74	0.79	339
220	300	995	95.6	96	96.1	0.71	0.79	0.83	419	995	95.3	96	96.3	0.65	0.75	0.81	393
250	340	990	95.5	96.1	96.1	0.68	0.77	0.82	482	990	95	96	96.3	0.6	0.72	0.78	464
VIII pole - 750rpm																	
1.5	2	700	79.8	81.6	81.8	0.47	0.59	0.69	4.03	715	78.2	81	82.1	0.4	0.51	0.63	4.05
2.2	3	705	83	84.3	84.2	0.58	0.7	0.75	5.29	715	81	84.3	84.3	0.5	0.63	0.71	5.11
3	4	751	83.2	84.6	84.5	0.57	0.7	0.77	7.005	725	81	84.9	84.9	0.5	0.63	0.72	6.828
4	5.5	730	84	86.2	86.6	0.44	0.57	0.66	10.6	735	82	85.4	86.7	0.37	0.49	0.58	11.1
5.5	7.5	725	86	87.7	87.7	0.46	0.6	0.69	13.8	730	84	86.5	87.7	0.4	0.52	0.62	14.1
7.5	10	720	88	88.9	88.7	0.58	0.7	0.76	16.9	725	87.5	88.9	88.9	0.5	0.62	0.71	16.5
11	15	725	90	90.3	90	0.66	0.76	0.81	22.9	730	90	90.3	90.3	0.58	0.71	0.78	21.7
15	20	730	90	91	91.2	0.56	0.67	0.73	34.2	735	89	90.6	91.4	0.5	0.63	0.69	33.1
18.5	25	730	91	91.8	91.8	0.69	0.79	0.84	36.5	735	90	91.5	92	0.61	0.73	0.8	35
22	30	730	91.7	92.4	92.4	0.68	0.78	0.84	43.1	735	91.3	92.5	92.6	0.62	0.73	0.8	41.3
30	40	730	92	93	93	0.66	0.77	0.83	59	735	91	92.8	93.2	0.58	0.71	0.79	56.7
37	50	735	92.9	93.5	93.8	0.68	0.76	0.81	74	740	92.1	93.4	93.9	0.6	0.72	0.79	69.5
45	60	735	93.3	94	94.1	0.66	0.77	0.81	89.7	740	92.7	93.8	94.2	0.58	0.7	0.77	86.3
55	75	740	94	94.6	94.6	0.62	0.72	0.78	113	740	93.2	94.3	94.6	0.54	0.66	0.74	109
55	75	740	94	94.6	94.6	0.62	0.72	0.78	113	740	93.2	94.3	94.6	0.54	0.66	0.74	109
75	100	740	94.5	95.2	95	0.64	0.75	0.79	152	740	94	95	95.2	0.56	0.69	0.75	146

W21 - Cast Iron Frame Motors

Mechanical Data



Standard Frame



315B Frame

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	7	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		11		80	13	157	216	10	276	313		DM6	DM4	6204-ZZ	6203-ZZ		
90S	140	38	164	179	155	125	42	131	56	104	24j6	50	36	8	20	7	16j6	40	28	5	13	5	90	15	177	245	10	304	350	2xM25x1.5	DM8	DM6	6205-ZZ	6204-ZZ		
90L																												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	140	55	187	70	128	28j6	60	45		24		24j6	50	36	8	20	7	112	18.5	235	296	12	393	448		DM10		6307-ZZ	6206-ZZ		
132S	216	51	248	270	212	178	55	187	89	150	38k6	80	63	10	33	8	28j6	60	45	8	24	7	132	20	274	344	12	452	519	2xM32x1.5	DM12	DM10	6308-ZZ	6207-ZZ		
132M																												490	557							
160M	254	64	308	312	255	210	65	254	108	174	42k6	12	37	12	37	8	42k6	12	37	8	160	22	317	415	14.5	598	712	2xM40x1.5	DM16		6309-C3	6209-Z-C3				
160L																																	642	756		
180M	279	80	350	358	275	241	75	294	121	200	48k6	14	42.5	9	14	42.5	48k6	140	125	18	58	11	180	28	360	455	14.5	664	782	2xM40x1.5	DM16		6311-C3	6211-Z-C3		
180L																												702	820							
200M	318	82	385	396	300	267	85	370	133	222	55m6	16	49	10	16	49	55m6*	100	16	49	10	225	34	466	598	18.5	729	842	2xM50x1.5			6312-C3	6212-Z-C3			
200L																											767	880								
225S/M	356	80	436	476	373	311	105	391	149	280	55m6*	18	53	11	18	53	60m6*	140	125	18	58	11	250	42	491	623	24	817	935	2xM50x1.5			6314-C3			
225M																												847	995							
250S/M	406	100	506	576	419	349	138	449	168	312	60m6*	20	67.5	12	65m6	180	60m6*	140	125	18	58	11	280	578	748	24	923	1071	2xM63x1.5			6316-C3				
250M																											1036	1188								
280S/M	457	557	600	468	419	368	142	510	190	274	65m6	20	67.5	12	65m6	180	60m6*	140	125	18	58	11	315	52	613	812	24	1126	1274	2xM63x1.5			6319-C3	6316-C3		
280M																												1036	1188							
315S/M	120	628	497	457	558	216	152	558	216	325	80m6	170	160	22	71	14	65m6	140	125	18	53	11	315	52	613	812	28	1126	1274	2xM63x1.5			6319-C3	6316-C3		
315M																												1156	1308							
315B	182	630	698	595	630	162	830	216	75m6*	140	125	20	67.5	12	60m6*	140	125	18	53	11	355	50	725	1040	28	1432	-	2xM63x1.5			M20	-	6316-C3	6314-C3		
315L																										1502										
355M/L	610	140	750	816	685	200	760	254	458	75m6*	140	125	20	67.5	12	60m6*	140	125	18	53	11	355	50	725	1040	28	1396	1561	2xM63x1.5			M20		6316-C3	6314-C3	
355L																											1466	1661								

- Notes:
- * Shaft dimensions for II pole motors, only for direct coupling.
 - ** For frame 100L, 3kW, 4 poles, Premium Efficiency Line, the L dimension is 420mm and LC dimension is 475mm.
 - All dimensions are in millimeters.
 - Larger and smaller flanges on request.
 - The data for frame 355M/L shown above are for horizontal mounting applications under standard coupling loads. The customer must inform when application is vertical or under special coupling loads.
 - The values shown are subject to change without prior notice.
 - To obtain guaranteed values please contact our nearest sales office.

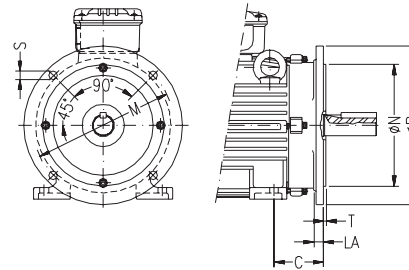
* This data apply to Cast Iron Frame – Improved Efficiency - EFF2, Premium Efficiency - EFF1 and Top Premium Efficiency – Exceeds EFF1.

Cast Iron Frame

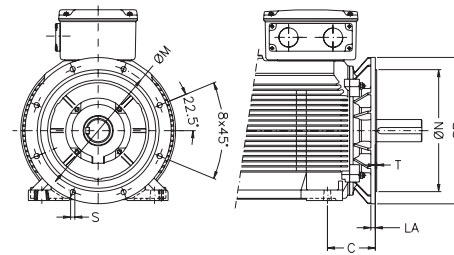
Mechanical Data

“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				
80	FF-165	50	10	165	130	200	3.5	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	5	19		
160M/L	FF-300	108	18	300	250	350				
180M/L		121								
200M/L	FF-350	133	350	300	400					
225S/M	FF-400	149	400	350	450					
250S/M	FF-500	168	18	500	450	550				
280S/M		190								
315S/M	FF-600	216	22	600	550	660			6	24
315B	FF-740	254	22	740	680	800				
355M/L							740	680		



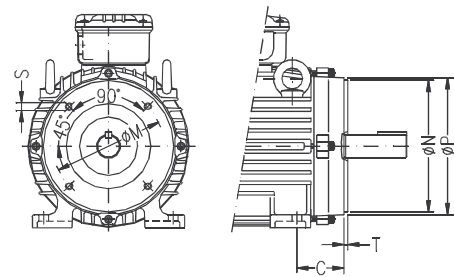
Standard Frame



315B Frame

“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	M8	3	
90S/L	C-140	56	115	95	140			
100L	C-160	63	130	110	160	M8	3.5	
112M		70						
132S/M	C-200	89	165	130	200	M10		



Standard Frame