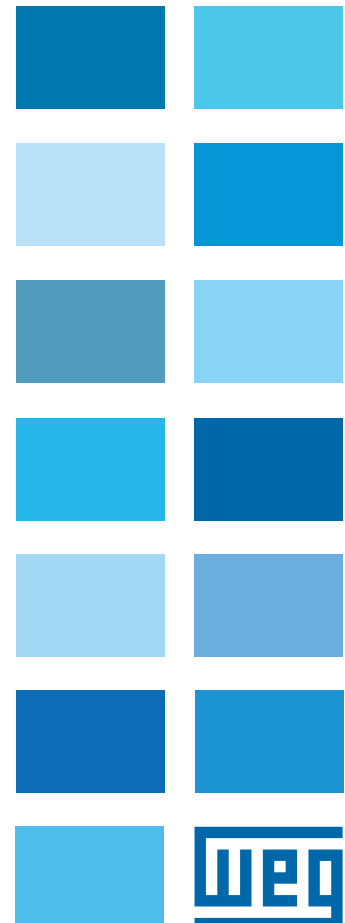


W21

General Purpose 3 Phase Motors

E2 Efficiency (AS/NZS 1359.5-2004)

Technical Catalogue
AUSTRALIA



About Us

Since the foundation of WEG in 1961 the company has accumulated extensive experience in the design, development and manufacture of electric motors, variable speed drives, soft starters, control and switchgear products, and transformers. Today WEG is amongst the world's largest producers of electric motors, manufacturing approximately 68,000 motors per day or a staggering 11.5 million motors per year. With a staff of over 25,000 worldwide, WEG is also one of the largest employers in its industry and is the most vertically integrated company of its type.

WEG's commitment to quality begins with its robust design, heavily influenced by years of research and development and its extensive industry experience in all corners of the globe. The company's philosophy towards a total product integration system is evidenced through its own manufacturing divisions, which includes foundries and die-casting plants, wire drawing and enameling, coating and resins and automated machining centers and assembly lines. These are further complemented by state of the art R&D laboratories and testing facilities and a commitment to total quality management that ensures absolute control at every step of the manufacturing process.

WEG's wide range of products transform energy into solutions throughout a very diverse industry base. Electric motors are available in AC and DC, single and three-phase, squirrel cage or slip-ring design, with ratings from 0.18kW to 50,000kW and voltages from 110V to 13,800V. This impressive scope of electric motors is further complemented by an extensive range of motor control equipment including LV and MV variable speed drives, soft starters, electronic monitoring relays and timers, contactors, overload relays and motor protection circuit breakers, DOL and star delta starters and much more. From the supply transformer to the motor and everything in between, WEG is uniquely positioned to provide a total solution to meet your specific needs.

WEG is an ISO 9001 and ISO 14001 certified company and operates to the highest international standards of quality of manufacture. For more information about WEG, or to obtain an electronic catalogue please contact your nearest WEG dealer or simply visit our website at www.weg.net/au



Headquarters of WEG Australia located in Scoresby, Victoria.

W21 General Purpose Motor

WEG is proud to re-introduce the recently updated W21 General Purpose Motor. The W21 conforms to all applicable Australian standards and directives and meets or exceeds E2 efficiency levels outlined in AS/NZS 1359.5-2004.

Standard Features

- Three-phase, multi voltage, squirrel cage, IP55, TEFC
- Output ratings from 0.18 to 330kW
- IEC frames 63 to 355M/L
 - Aluminium up to 132 frame
 - Cast iron from 160 to 355 frame
- Top mount terminal box (B3T)
- Voltage: Δ 220-240 V / Y 380-415 V 50 Hz (up to 100L)
 - Δ 380-415 V / Y 660-690 V 50 Hz (from 112M frame)
- Continuous duty - S1
- Squirrel cage, aluminium die cast rotor
- Design N
- Insulation Class F up to 355 frames
- Ambient temperature: 40°C, at 1000 m.a.s.l. (ratings at higher ambient temperature and/or altitudes on request)
- Thermistor (1/phase) rated 155°C from frame 160 and above
- Metric thread cable entries on the terminal box
- Ball bearings for all frames (for direct coupling)
- Sealed bearings up to 132 frame
- Re-greasing system from frame 160 and above
- Drain plug in all frames
- V-ring seal for all frames (oil seal on flange mount)
- Stainless steel nameplate
- Paint color: RAL 5007

Options

- Mounting position B3R(E) or B3L(D)
- Cast iron frame from 63 to 132
- Aluminium fan (63-315 frame)
- Roller bearings frames 225 and above
- PTC thermistors or RTD's
- Anti-condensation heaters
- Insulated endshield for 280-355 frame

Typical Applications

- Pumps
- Central air conditioning
- Fans
- Crushers
- Conveyors
- Compressors
- Machine tools
- Milling applications
- Centrifuge
- Presses
- Elevators
- Grinders
- Woodworking
- Other applications

Other options available, on request. Contact your nearest WEG Office.

W21 Features

Fan
WEG's fan and fan cover design are instrumental at providing a low noise electric motor. Our fans are designed to ensure low motor temperature rise, thus minimising winding losses and increasing motor efficiency.

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

Nameplate
Our 316 grade stainless steel nameplate contains a complete and permanent record of all motor data for future reference. This includes motor serial number, electrical data, as well as bearing lubrication information.

Frame
WEG motors are made of aluminium (63 to 132) or high grade cast iron (160 to 355). The frames are designed using finite element analysis tools to improve mechanical strength, heat dissipation and provide high pressure rating.

Rotor
Our die cast aluminium rotors offer lower inertia, higher starting torque, superior mechanical rigidity, cooler rotor temperatures and high speed capability. Thermo-chemically treated low electrical loss magnetic steel laminations yield high operating efficiency and enhanced reliability.

Terminal Box
Cast iron with generous internal space. It can be rotated by 90° intervals, having one or more threaded cable entry points. Available in top (stock) or side mounted configurations upon request.

Terminal Block
Increase safety terminal block to effectively prevent incoming leads from turning and short-circuiting.

Stator
Low loss laminations are used to improve electric characteristics, reducing electric losses and operating temperature.

Winding
WEG has developed an insulation system to withstand voltage surges and transients of modern day applications, making the W21 suitable for inverter duty applications.

Endshields
WEG endshields are made of high-grade cast iron, enhanced with external fins for better heat dissipation providing increased bearing life.

Seals
V-ring seals as standard. Oil seals in flanges.

Drain Hole
Supplied with plastic drain plugs to allow drainage of condensation water.

Bearings
WEG motors (frames 63 to 355) can be mounted in any position, horizontal or vertical, providing the maximum allowable axial & radial thrusts are adhered to (consult WEG for more information). Roller bearings can be easily fitted for pulley couplings in frames 225 and above.

Shaft
WEG motor shafts are manufactured using SAE/AISI 1040/45 steel as standard, providing high mechanical resistance, preventing flexing under load, minimising fatigue for a lifetime of superior performance.

W21 Performance Data - 2 Pole

Part No.	Output kW	IEC Frame	Rated speed (rpm)	Full load current I _L (A)	Locked rotor current I _L /I _L	Full load torque T _L (Nm)	Locked rotor torque T _L /T _L	Break-down torque T _B /T _L	415 V						Sound pressure level dB (A)	Moment of Inertia J (kgm ²)	Max. locked rotor time(s)		Approx Weight (kg)
									% of full load								Cold	Hot	
									Efficiency η			Power factor (Cos φ)							
									50	75	100	50	75	100					
2 Pole - 3000 rpm - 50 Hz - Aluminium Frame																			
K07ALW21	0.18	63	2785	0.53	4.6	0.59	2.9	2.8	54.1	60.9	62.6	0.50	0.64	0.75	52	0.0001	62	28	6.2
K1ALW21	0.25	63	2775	0.73	4.7	0.88	3.2	2.9	55.9	62.7	64.5	0.49	0.63	0.74	52	0.0002	53	24	6.7
K3ALW21	0.37	71	2745	0.88	5.2	1.27	2.8	2.6	68.0	72.5	72.5	0.58	0.72	0.81	52	0.0002	31	14	8.0
K5ALW21	0.55	71	2795	1.23	5.3	1.86	2.7	2.7	68.9	71.7	72.5	0.65	0.79	0.86	56	0.0004	33	15	8.5
K7ALE2W21	0.75	80	2850	1.56	7.0	2.55	3.2	3.7	77.8	82.4	82.4	0.65	0.75	0.81	59	0.0008	44	20	11.0
K9ALE2W21	1.1	80	2835	2.26	7.8	3.72	3.4	3.4	80.2	82.7	83.7	0.58	0.72	0.81	59	0.0010	33	15	13.8
K11ALE2W21	1.5	90S	2865	3.05	7.3	5.00	2.8	2.8	82.8	84.8	84.6	0.60	0.73	0.81	62	0.0021	22	10	15.4
K15ALE2W21	2.2	90L	2875	4.39	8.4	7.35	3.7	3.5	84.0	86.5	87.1	0.58	0.72	0.80	62	0.0027	20	9	18.4
K22ALE2W21	3	100L	2900	5.51	8.9	9.90	3.0	3.1	84.0	86.7	88.0	0.69	0.81	0.86	67	0.0067	22	10	26.4
K192ALE2W21	4	112M	2910	7.27	8.2	13.1	2.7	3.4	87.0	88.8	89.0	0.68	0.81	0.86	64	0.0084	37	17	39.4
K20ALE2W21	5.5	132S	2940	10.1	8.0	17.9	2.7	3.2	88.4	90.2	90.3	0.68	0.78	0.84	67	0.0206	42	19	55.2
K24ALE2W21	7.5	132S	2915	13.8	6.8	24.6	2.2	2.9	87.3	88.3	88.7	0.67	0.79	0.85	67	0.0198	29	13	63.2
K27ALE2W21	9.2	132M	2920	17.1	7.6	30.1	2.5	3.2	87.6	88.6	89.0	0.65	0.77	0.84	67	0.0234	22	10	71.1
2 Pole - 3000 rpm - 50 Hz - Cast Iron Frame																			
K29E2W21	11	160M	2955	19.9	8.5	35.6	2.8	3.3	89.8	92.1	92.5	0.66	0.77	0.83	70	0.053	31	14	110
K31E2W21	15	160M	2950	26.5	8.2	48.6	2.4	3.3	90.8	92.2	92.7	0.70	0.80	0.85	70	0.0588	24	11	115
K33E2W21	18.5	160L	2950	33.3	8.8	60.0	2.5	3.2	91.0	92.0	92.0	0.70	0.80	0.83	70	0.0677	22	10	136
K35E2W21	22	180M	2955	38.3	8.6	71.1	2.7	3.3	92.5	93.8	94.0	0.73	0.82	0.85	70	0.1192	31	14	180
K37E2W21	30	200L	2965	51.9	7.4	96.7	2.7	2.8	93.0	94.2	94.6	0.73	0.81	0.85	74	0.2063	68	31	245
K39E2W21	37	200L	2965	63.3	7.6	120	2.7	2.7	93.0	94.0	94.6	0.72	0.82	0.86	74	0.2242	55	25	260
K41E2W21	45	225S/M	2970	75.1	8.5	145	2.4	2.9	92.5	93.7	93.7	0.80	0.87	0.89	82	0.4485	40	18	411
K43E2W21	55	250S/M	2970	91.5	8.9	177	2.6	3.4	92.8	94.0	94.0	0.80	0.86	0.88	82	0.5023	33	15	490
K45E2W21	75	250S/M	2965	123	8.5	241	3.0	3.4	92.5	94.0	94.5	0.81	0.87	0.90	82	0.5561	22	10	490
K47E2W21	90	280S/M	2980	149	8.2	289	2.2	2.8	93.5	94.8	94.8	0.77	0.85	0.88	83	1.4100	92	42	780
K49E2W21	110	280S/M	2975	182	8.0	353	2.3	2.8	93.8	94.8	95.0	0.80	0.86	0.88	83	1.5100	44	20	830
K61E2W21	132	315S/M	2975	215	7.8	423	2.2	2.7	94.1	95.4	96.0	0.80	0.87	0.89	83	1.7400	70	32	900
K51E2W21	150	315S/M	2975	243	7.9	482	2.2	2.7	94.5	95.4	95.4	0.82	0.88	0.90	83	2.1200	68	31	1010
K162E2W21	160	315S/M	2975	260	7.8	515	2.2	2.5	94.5	95.4	95.4	0.83	0.88	0.89	83	2.1200	73	33	1010
K53E2W21	185	315S/M	2975	308	8.2	594	2.4	2.8	94.4	95.6	95.6	0.78	0.84	0.87	83	2.1200	62	28	1010
K202E2W21	200	315S/M	2980	335	7.9	641	2.2	2.9	95.0	95.6	95.6	0.70	0.82	0.86	83	2.1700	108	49	1045
K55E2W21	220	355M/L	2990	349	8.5	704	2.2	3.0	94.5	95.6	95.6	0.83	0.89	0.91	81	5.1700	143	65	1650
K57E2W21	250	355M/L	2985	392	7.8	800	1.7	2.5	95.4	96.3	96.4	0.86	0.91	0.92	81	5.7500	143	65	1750
High-Output Design - Reduced Frame																			
K29/1ALE2W21	11	132M	2930	19.7	7.6	35.9	2.4	3.2	89.3	90.6	90.6	0.72	0.82	0.86	67	0.0318	29	13	78.5

Mounting Configurations

Part numbers for alternative mounting configurations

K11 ALE2W21 = W21 E2 General Purpose, B3 (Foot Mounted)
M11 ALE2W21 = W21 E2 General Purpose, B5 (Flange Mounted)
L11 ALE2W21 = W21 E2 General Purpose, B35 (Foot & Flange Mounted)

Notes:

- Standard voltage:

	50 Hz	60 Hz
Up to 100 frame	Δ 220-240 V	380-415 V
	Y 380-415 V	440-480 V
From 112 to 355 frame	Δ 380-415 V	440-480 V
	Y 660-690 V	760-830 V
- The values shown are subject to change without prior notice.
To obtain actual values prior to order placement contact your nearest WEG office.
- Efficiency test method B as per AS/NZS 1359.5-2004.
- Noise level is mean sound pressure at 1 meter as per AS 60034.9 standard.

W21 Performance Data - 4 Pole

Part No.	Output kW	IEC Frame	Rated speed (rpm)	Full load current I _L (A)	Locked rotor current I _L /I _L	Full load torque T _L (Nm)	Locked rotor torque T _L /T _L	Break-down torque T _B /T _L	415 V						Sound pressure level dB (A)	Moment of Inertia J (kgm ²)	Max. locked rotor time(s)		Approx Weight (kg)				
									% of full load								Efficiency η	Power factor (Cos φ)			Cold	Hot	
									50			75						100					
									50	75	100	50	75	100				50		75			100
4 Pole - 1500 rpm - 50 Hz - Aluminium Frame																							
K08ALW21	0.18	63	1390	0.55	4.3	1.27	2.2	2.2	57.7	60.6	61.2	0.52	0.65	0.75	44	0.0006	88	40	7.2				
K2ALW21	0.25	71	1410	0.76	4.5	1.67	2.0	2.2	57.8	64.5	66.5	0.46	0.59	0.69	43	0.0006	150	68	7.0				
K4ALW21	0.37	71	1390	1.06	4.3	2.55	2.0	2.0	61.2	64.9	67.9	0.46	0.60	0.71	43	0.0007	106	48	8.0				
K6ALW21	0.55	80	1415	1.25	5.8	3.72	2.4	2.8	73.6	75.9	76.6	0.57	0.71	0.80	44	0.0022	40	18	12.8				
K8ALE2W21	0.75	80	1425	1.61	5.7	5.00	2.6	2.6	75.0	78.5	82.2	0.58	0.71	0.79	44	0.0033	35	16	13.6				
K10ALE2W21	1.1	90S	1444	2.36	6.5	7.25	2.1	2.6	80.1	81.5	82.1	0.58	0.72	0.79	49	0.0049	31	14	17.8				
K12ALE2W21	1.5	90L	1455	3.29	7.5	9.90	2.8	3.3	80.1	85.1	85.6	0.5	0.64	0.74	49	0.0067	22	10	20.6				
K16ALE2W21	2.2	100L	1430	4.37	7.4	14.7	3.0	3.0	85.1	86.5	86.5	0.62	0.75	0.81	53	0.0107	37	17	29.0				
K123ALE2W21	3	100L	1435	5.88	7.8	20.0	2.9	3.3	84.1	87.4	87.6	0.6	0.73	0.81	53	0.0123	24	11	33.0				
K194ALE2W21	4	112M	1450	7.75	6.6	26.5	2.1	2.6	86.7	88.2	88.6	0.62	0.74	0.81	56	0.0188	26	12	40.3				
K21ALE2W21	5.5	132S	1470	10.2	8.5	35.9	2.4	3.1	87.7	89.1	90.3	0.65	0.77	0.83	56	0.0543	26	12	65.7				
K25ALE2W21	7.5	132M	1465	13.6	8.2	48.9	2.5	3.0	88.9	90.0	90.5	0.68	0.79	0.85	56	0.0659	20	9	74.0				
K28ALE2W21	9.2	132M	1465	17.0	8.0	60.0	2.5	3.0	87.0	89.0	90.6	0.64	0.76	0.83	56	0.0620	15	7	74.0				
4 Pole - 1500 rpm - 50 Hz - Cast Iron Frame																							
K30E2W21	11	160M	1470	20.7	6.5	71.6	2.5	2.6	89.5	91.3	91.3	0.62	0.74	0.81	67	0.1004	42	19	125				
K32E2W21	15	160L	1470	28.1	6.5	97.7	2.5	2.6	90.1	91.9	91.8	0.62	0.74	0.81	67	0.1154	37	17	130				
K34E2W21	18.5	180M	1475	34.4	8.0	121	2.9	2.9	91.4	93.0	93.4	0.60	0.73	0.80	64	0.1973	26	12	175				
K36E2W21	22	180L	1470	38.4	7.9	143	2.8	2.9	92.2	93.4	93.7	0.68	0.79	0.85	64	0.2332	35	16	195				
K38E2W21	30	200L	1480	54.9	7.0	194	2.5	2.6	92.5	93.9	93.8	0.63	0.75	0.81	69	0.3310	40	18	240				
K40/1E2W21	37	225S/M	1485	63.7	7.2	239	2.2	2.7	92.2	93.4	93.6	0.73	0.82	0.86	70	0.6999	35	16	365				
K42E2W21	45	225S/M	1480	76.1	7.4	290	2.4	3.0	93.8	94.3	94.5	0.73	0.81	0.87	70	0.8398	33	15	400				
K44E2W21	55	250S/M	1480	92.7	7.2	355	2.5	2.8	94.2	94.9	94.9	0.73	0.83	0.87	70	1.1500	37	17	510				
K46E2W21	75	250S/M	1480	128	8.2	484	3.2	3.2	93.8	95.0	95.0	0.70	0.80	0.86	70	1.2600	35	16	530				
K48E2W21	90	280S/M	1485	152	7.8	578	2.4	2.6	94.4	95.3	95.6	0.76	0.83	0.86	70	2.8100	55	25	795				
K50E2W21	110	280S/M	1485	184	7.6	708	2.4	2.6	94.5	95.8	95.8	0.78	0.85	0.87	70	3.2100	64	29	860				
K62E2W21	132	315S/M	1485	220	7.8	849	2.4	2.6	94.9	95.8	95.8	0.76	0.84	0.87	72	3.7700	55	25	995				
K52E2W21	150	315S/M	1485	253	7.5	964	2.4	2.7	94.3	95.7	95.8	0.76	0.82	0.86	72	3.7700	44	20	1005				
K164E2W21	160	315S/M	1485	270	7.6	1029	2.4	2.6	94.5	95.7	95.9	0.74	0.82	0.86	72	3.7700	44	20	1005				
K54E2W21	185	315S/M	1485	319	7.3	1186	2.4	2.9	94.7	95.8	95.9	0.70	0.79	0.84	72	3.7700	42	19	1005				
K204E2W21	200	315S/M*	1485	337	8.0	1284	2.4	2.6	94.8	95.3	95.5	0.73	0.82	0.86	77	3.9300	37	17	1005				
K56E2W21	220	355M/L	1490	365	7.0	1411	2.1	2.4	94.6	95.8	95.8	0.77	0.84	0.87	79	6.8600	84	38	1620				
K58E2W21	250	355M/L	1490	415	6.9	1597	2.2	2.5	94.7	95.7	95.8	0.77	0.85	0.87	79	8.1200	79	36	1615				
K60E2W21	300	355M/L	1490	495	6.7	1921	2.2	2.4	95.3	95.7	95.8	0.79	0.86	0.88	79	9.9200	103	47	1770				
K64E2W21	330	355M/L	1490	541	6.5	2117	2.3	2.3	95.0	95.7	95.9	0.79	0.86	0.88	79	10.800	70	32	1865				
High-Output Design - Reduced Frame																							
K40E2W21	37	200L	1475	67.9	6.2	240	2.1	2.2	92.0	93.0	93.6	0.67	0.77	0.81	69	0.3861	42	19	260				

Please refer to Mounting Configurations and Notes on page 4.

W21 Performance Data - 6 Pole

Part No.	Output kW	IEC Frame	Rated speed (rpm)	Full load current I _L (A)	Locked rotor current I _L /I _r	Full load torque T _L (Nm)	Locked rotor torque T _L /T _r	Break-down torque T _b /T _r	415 V						Sound pressure level dB (A)	Moment of Inertia J (kgm ²)	Max. locked rotor time(s)		Approx Weight (kg)
									% of full load								Cold	Hot	
									Efficiency η			Power factor (Cos φ)							
									50	75	100	50	75	100					
6 Pole - 1000 rpm - 50 Hz - Aluminium Frame																			
K2AALW21	0.25	71	905	1.08	3.2	2.65	2.2	2.1	50.1	57.8	59.7	0.35	0.45	0.54	43	0.0009	154	70	11.5
K4AALW21	0.37	80	915	1.05	3.9	3.92	1.8	2.0	60.5	65.9	67.1	0.48	0.62	0.73	43	0.0022	59	27	12.6
K6AALW21	0.55	80	915	1.50	4.1	5.78	2.0	2.2	62.5	69.6	70.9	0.47	0.61	0.72	43	0.0030	46	21	14.0
K8AALE2W21	0.75	90S	930	1.92	4.5	7.74	2.0	2.1	73.2	75.6	76.4	0.48	0.61	0.71	45	0.0055	51	23	19.7
K10AALE2W21	1.1	90L	930	2.86	5.0	11.4	2.3	2.4	71.0	77.7	79.9	0.44	0.57	0.67	45	0.0067	22	10	21.6
K12AALE2W21	1.5	100L	950	3.77	5.5	15.2	2.2	2.5	78.0	81.5	82.1	0.45	0.57	0.68	44	0.0129	42	19	27.9
K16AALE2W21	2.2	112M	955	5.19	6.2	22.1	2.4	2.6	80.7	84.2	84.2	0.48	0.61	0.70	52	0.0224	35	16	37.5
K23AALE2W21	3	132S	960	7.34	5.7	29.8	2.0	2.4	81.4	83.1	83.6	0.46	0.59	0.68	52	0.0359	68	31	53.4
K196ALE2W21	4	132M	960	9.50	6.0	39.8	2.1	2.5	83.0	84.4	84.9	0.47	0.61	0.69	52	0.0453	46	21	62.4
K21AALE2W21	5.5	132M	965	12.4	6.8	54.4	2.3	2.5	84.0	87.9	88.1	0.48	0.61	0.70	53	0.0659	37	17	68.3
6 Pole - 1000 rpm - 50 Hz - Cast Iron Frame																			
K25A E2W21	7.5	160M	975	14.6	6.6	73.8	2.5	2.9	87.7	90.0	90.7	0.58	0.71	0.79	56	0.1436	42	19	106
K30A E2W21	11	160L	975	22.2	7.0	109	2.4	2.7	88.8	90.3	90.6	0.54	0.68	0.76	56	0.1760	29	13	136
K32A E2W21	15	180L	975	26.8	8.0	148	2.7	3.0	91.0	91.8	91.6	0.70	0.80	0.85	56	0.2896	20	9	208
K34A E2W21	18.5	200L	980	34.6	6.3	181	2.3	2.5	90.3	91.5	91.5	0.64	0.75	0.80	58	0.3767	37	17	210
K36A E2W21	22	200L	980	41.2	6.2	216	2.3	2.6	90.0	91.7	92.0	0.60	0.72	0.80	58	0.4485	33	15	240
K38A E2W21	30	225S/M	985	53.1	7.0	291	2.6	2.6	90.8	92.4	92.6	0.70	0.79	0.84	61	0.9884	46	21	366
K40A E2W21	37	250S/M	990	67.4	7.0	359	2.5	2.6	91.0	93.1	93.1	0.69	0.79	0.82	61	1.3200	44	20	450
K42A E2W21	45	280S/M	985	83.2	6.8	436	2.2	2.7	91.0	93.1	93.5	0.64	0.75	0.80	66	2.3000	59	27	610
K44A E2W21	55	280S/M	985	100	6.7	533	2.1	2.6	92.2	93.9	94.2	0.64	0.75	0.81	66	2.6400	46	21	655
K46A E2W21	75	315S/M	985	133	6.7	727	2.1	2.4	93.4	94.4	94.5	0.69	0.79	0.83	69	3.4500	44	20	725
K48A E2W21	90	315S/M	985	161	6.5	872	2.2	2.4	93.8	94.9	94.9	0.68	0.78	0.82	69	4.0200	35	16	810
K50A E2W21	110	315S/M	985	194	6.5	1068	2.2	2.4	94.3	95.1	95.2	0.66	0.77	0.83	69	5.2900	40	18	980
K62A E2W21	132	315S/M	985	241	7.5	1284	2.2	2.5	94.3	95.4	95.4	0.65	0.76	0.80	69	5.6300	26	12	1050
K52A E2W21	150	355M/L	990	279	6.0	1450	1.9	2.2	93.9	95.6	95.8	0.60	0.72	0.78	73	9.0500	178	81	1460
K54A E2W21	185	355M/L	990	344	6.0	1784	1.9	2.1	94.0	95.5	95.8	0.60	0.71	0.78	73	10.200	167	76	1530
K56A E2W21	220	355M/L	995	404	6.5	2107	2.0	2.3	93.4	95.0	95.8	0.62	0.74	0.79	73	13.800	158	72	1795
K58A E2W21	250	355M/L	990	452	6.1	2411	1.9	2.1	94.7	95.9	96.2	0.66	0.76	0.80	73	14.800	141	64	1890
K60A E2W21	300	355M/L*	995	565	6.4	2891	2.1	2.1	93.3	95.3	96.0	0.58	0.70	0.77	73	14.800	86	39	1920

Mounting Configurations

Part numbers for alternative mounting configurations

K11 ALE2W21 = W21 E2 General Purpose, B3 (Foot Mounted)
M11 ALE2W21 = W21 E2 General Purpose, B5 (Flange Mounted)
L11 ALE2W21 = W21 E2 General Purpose, B35 (Foot & Flange Mounted)

Notes:

1) Standard voltage: **50 Hz** **60 Hz**
Up to 100 frame Δ 220-240 V 380-415 V
Y 380-415 V 440-480 V
From 112 to 355 frame Δ 380-415 V 440-480 V
Y 660-690 V 760-830 V

2) The values shown are subject to change without prior notice.

To obtain actual values prior to order placement contact your nearest WEG office.

3) Efficiency test method B as per AS/NZS 1359.5-2004.

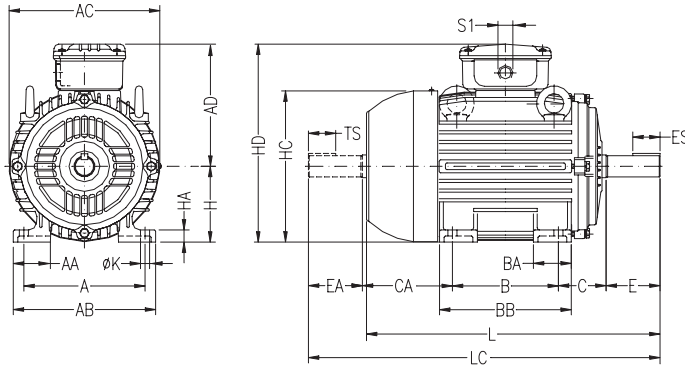
4) Noise level is mean sound pressure at 1 meter as per AS 60034.9 standard.

W21 Performance Data - 8 Pole

Part No.	Output kW	IEC Frame	Rated speed (rpm)	Full load current I _L (A)	Locked rotor current I _L /I _r	Full load torque T _r (Nm)	Locked rotor torque T _L /T _r	Break-down torque T _b /T _r	415 V						Sound pressure level dB (A)	Moment of Inertia J (kgm ²)	Max. locked rotor time(s)		Approx Weight (kg)
									% of full load								Cold	Hot	
									Efficiency η			Power factor (Cos φ)							
									50	75	100	50	75	100					
8 Pole - 750 rpm - 50 Hz - Aluminium Frame																			
K2BALW21	0.25	80	675	0.97	3.2	3.53	1.9	2.1	47.0	53.8	56.8	0.42	0.53	0.63	42	0.0029	92	42	13.5
K4BALW21	0.37	90S	695	1.43	3.5	5.10	2.1	2.1	53.1	59.9	60.9	0.39	0.49	0.59	43	0.0044	81	37	17.1
K6BALW21	0.55	90L	690	1.90	3.5	7.64	1.9	2.0	58.5	62.8	63.9	0.41	0.53	0.63	43	0.0060	68	31	22.0
K8BALE2W21	0.75	100L	715	2.37	4.2	10.1	1.9	2.2	70.0	74.0	76.0	0.38	0.50	0.58	50	0.0112	84	38	25.8
K10BALE2W21	1.1	100L	710	3.37	4.2	15.0	1.8	2.2	69.5	73.5	76.9	0.37	0.49	0.59	50	0.0129	68	31	27.1
K12BALE2W21	1.5	112M	705	4.20	4.7	20.5	2.4	2.3	75.3	78.2	78.9	0.41	0.53	0.63	46	0.0202	64	29	40.7
K16BALE2W21	2.2	132S	715	5.11	6.2	29.6	2.4	2.5	81.0	84.3	84.3	0.50	0.63	0.71	48	0.0753	55	25	60.1
K23BALE2W21	3	132M	705	7.13	5.5	40.9	2.3	2.4	81.1	82.4	82.5	0.50	0.63	0.71	48	0.0740	42	19	62.1
8 Pole - 750 rpm - 50 Hz - Cast Iron Frame																			
K198 E2W21	4	160M	730	10.2	5.2	52.6	2.2	2.8	82.0	85.4	86.6	0.41	0.53	0.63	51	0.1221	59	27	110
K21B E2W21	5.5	160M	730	14.2	5.6	71.9	2.5	2.8	83.0	86.1	87.0	0.40	0.52	0.62	51	0.1652	48	22	130
K25B E2W21	7.5	160L	725	17.1	5.2	99.0	2.0	2.4	84.5	87.8	88.5	0.48	0.60	0.69	51	0.1652	42	19	145
K30B E2W21	11	180L	730	21.5	7.0	145	2.2	2.4	87.8	89.0	89.0	0.64	0.74	0.80	51	0.2620	20	9	183
K32B E2W21	15	200L	735	33.1	5.0	196	2.0	2.2	89.0	90.6	91.3	0.50	0.63	0.69	53	0.5023	73	33	300
K34B E2W21	18.5	225S/M	730	34.2	7.2	242	2.1	2.6	90.2	91.5	91.9	0.65	0.77	0.82	60	0.8472	40	18	340
K36B E2W21	22	225S/M	735	40.8	7.5	288	2.2	3.0	90.5	92.1	92.5	0.63	0.74	0.81	60	0.9884	40	18	365
K38B E2W21	30	250S/M	730	54.7	7.5	392	2.1	2.8	91.3	92.5	93.0	0.65	0.77	0.82	60	1.2200	37	17	440
K40B E2W21	37	280S/M	740	69.5	6.5	477	1.9	2.2	92.1	93.4	93.8	0.60	0.72	0.79	62	2.6400	70	32	590
K42B E2W21	45	280S/M	740	86.4	6.5	580	2.0	2.4	92.5	93.5	94.1	0.58	0.70	0.77	62	3.1000	70	32	650
K44B E2W21	55	280S/M	740	102	6.5	710	2.0	2.2	93.1	94.5	94.6	0.61	0.73	0.79	62	3.4500	70	32	730
K46B E2W21	75	315S/M	740	137	6.6	967	1.9	2.2	93.7	94.7	94.9	0.63	0.76	0.80	62	4.3700	44	20	876
K48B E2W21	90	315S/M	740	165	6.8	1156	1.9	2.4	93.6	94.6	95.1	0.63	0.75	0.80	62	5.2900	51	23	970
K50B E2W21	110	355M/L	745	209	6.4	1421	1.5	2.2	93.0	95.2	95.2	0.59	0.77	0.77	70	12.600	90	41	1430
K62B E2W21	132	355M/L	745	250	6.5	1705	1.6	2.2	93.5	95.4	95.4	0.60	0.71	0.77	70	13.200	103	47	1445
K52B E2W21	150	355M/L	745	287	7.0	1931	1.6	2.2	93.8	95.4	95.7	0.57	0.69	0.76	70	15.900	88	40	1600
K54B E2W21	185	355M/L	745	355	6.5	2372	1.6	2.2	93.0	95.2	95.5	0.53	0.66	0.76	70	17.300	66	30	1730
K56B E2W21	220	355M/L	745	421	6.8	2842	1.6	2.2	94.2	95.2	95.6	0.59	0.71	0.76	70	20.400	77	35	1930

Please refer to Mounting Configurations and Notes on page 6.

W21 Mechanical Data

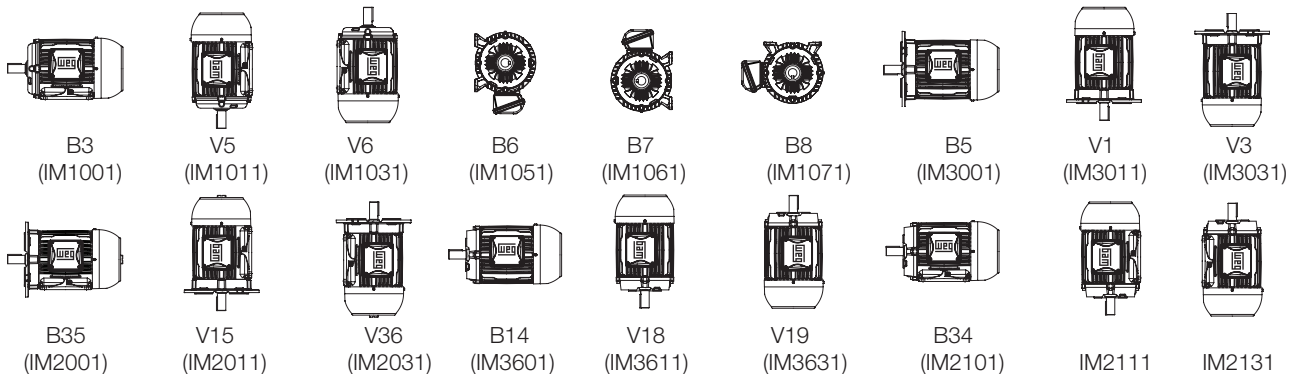


Notes applicable to pages 8 & 9:

- * Shaft dimensions for 2 pole only.
- ** Applicable to 4, 6, 8 pole motors.
- For Frame 100L, 3 kW, 4 pole E2 line, the L dimension is 420 mm and LC dimension is 475 mm.
- All dimensions are given in mm.
- The values shown are for horizontal mounting applications with direct coupling.
- Customers must notify WEG of applications for vertical mounting or with pulleys.
- For certified drawing dimensions, please contact WEG.

IEC Frame	Main Dimensions (mm)																	Bearings		
	A	AA	AB	AC	AD	B	BA	BB	C	CA	H	HA	HC	HD	K	L	LC	S1	D.E.	N.D.E.
63	100	21	116	125	119	80	22	95	40	78	63	8	124	182	7	216	241	M20x 1.5	6201-ZZ	6201-ZZ
71	112	30	132	141	127	90	38	114	45	88	71	12	139	198	7	248	276	M20x 1.5	6203-ZZ	6202-ZZ
80	125	35	149	159	136	100	40	126	50	93	80	13	157	216	10	276	313	M20x 1.5	6204-ZZ	6203-ZZ
90S	140	38	164	179	155	100	42	131	56	104	90	15	177	245	10	304	350	M20x 1.5	6205-ZZ	6204-ZZ
90L	140	38	164	179	155	125	42	156	56	104	90	15	177	245	10	329	375	M20x 1.5	6205-ZZ	6204-ZZ
100L	160	49	188	199	165	140	50	173	63	118	100	16	198	265	12	376	431	M20x 1.5	6206-ZZ	6205-ZZ
112M	190	48	220	222	184	140	50	177	70	128	112	18.5	235	296	12	393	448	M25x 1.5	6307-ZZ	6206-ZZ
132S	216	51	248	270	212	140	55	187	89	150	132	20	274	344	12	452	519	M25x 1.5	6308-ZZ	6207-ZZ
132M	216	51	248	270	212	178	55	225	89	150	132	20	274	344	12	490	557	M25x 1.5	6308-ZZ	6207-ZZ
160M	254	64	308	312	255	210	65	254	108	174	160	22	317	415	14.5	598	712	2x M32x 1.5	6309-C3	6209-C3
160L	254	64	308	312	255	254	65	298	108	174	160	22	317	415	14.5	642	756	2x M32x 1.5	6309-C3	6209-C3
180M	279	80	350	358	275	241	75	294	121	200	180	28	360	455	14.5	664	782	2x M40x 1.5	6311-C3	6211-C3
180L	279	80	350	358	275	279	75	332	121	200	180	28	360	455	14.5	702	820	2x M40x 1.5	6311-C3	6211-C3
200M	318	82	385	396	300	267	85	332	133	222	200	30	402	500	18.5	729	842	2x M50x 1.5	6312-C3	6212-C3
200L	318	82	385	396	300	305	85	370	133	222	200	30	402	500	18.5	767	880	2x M50x 1.5	6312-C3	6212-C3
225S/M 2P*	356	80	436	476	373	286	105	391	149	280	225	34	466	598	18.5	817	966	2x M50x 1.5	6314-C3	6314-C3
225S/M**	356	80	436	476	373	311	105	391	149	255	225	34	466	598	18.5	847	995	2x M50x 1.5	6314-C3	6314-C3
250S/M 2P*	406	100	506	476	373	311	138	449	168	312	250	42	491	623	24	923	1071	2x M63x 1.5	6314-C3	6314-C3
250S/M**	406	100	506	476	373	349	138	449	168	274	250	42	491	623	24	923	1071	2x M63x 1.5	6316-C3	6314-C3
280S/M 2P*	457	100	557	600	468	368	142	510	190	350	280	42	578	748	24	1036	1188	2x M63x 1.5	6314-C3	6314-C3
280S/M**	457	100	557	600	468	419	142	510	190	299	280	42	578	748	24	1066	1218	2x M63x 1.5	6319-C3	6316-C3
315S/M 2P*	508	120	628	600	497	406	152	558	216	376	315	52	613	812	28	1126	1274	2x M63x 1.5	6314-C3	6314-C3
315S/M**	508	120	628	600	497	457	152	558	216	325	315	52	613	812	28	1156	1308	2x M63x 1.5	6319-C3	6316-C3
355M/L 2P*	610	140	750	816	685	560	200	760	254	467	355	50	725	1040	28	1396	1561	2x M63x 1.5	6316-C3	6314-C3
355M/L**	610	140	750	816	685	630	200	760	254	397	355	50	725	1040	28	1466	1661	2x M63x 1.5	6322-C3	6319-C3

Standard Mounting Configurations and Symbols

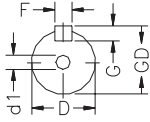


Note: The terminal box can be supplied on top (stock standard), right or left side viewing the motor from the D.E. shaft. This information must be indicated on purchase order

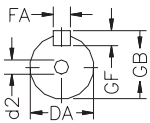
W21 Mechanical Data

Shaft Dimensions

Drive End (D.E.)



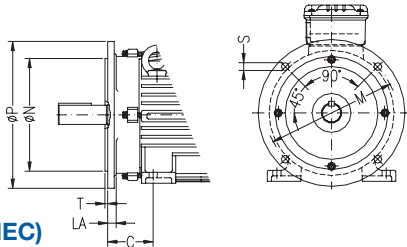
Non Drive End (N.D.E.)



IEC Frame	Shaft Dimensions (mm)													
	D.E. shaft dimensions							N.D.E. shaft dimensions						
	ØD	E	ES	F	G	GD	d1	ØDA	EA	TS	FA	GB	GF	d2
63	11j6	23	14	4	4	8.5	EM4	9j6	20	12	3	7.2	3	EM3
71	14j6	30	18	5	5	11	DM5	11j6	23	14	4	8.5	4	EM4
80	19j6	40	28	6	6	15.5	DM6	14j6	30	18	5	11	5	DM4
90S	24j6	50	36	8	7	20	DM8	16j6	40	28	5	13	5	DM6
90L	24j6	50	36	8	7	20	DM8	16j6	40	28	5	13	5	DM6
100L	28j6	60	45	8	7	24	DM10	22j6	50	36	6	18.5	6	DM8
112M	28j6	60	45	8	7	24	DM10	24j6	50	36	8	20	7	DM8
132S	38k6	80	63	10	8	33	DM12	28j6	60	45	8	24	7	DM10
132M	38k6	80	63	10	8	33	DM12	28j6	60	45	8	24	7	DM10
160M	42k6	110	80	12	8	37	DM16	42k6	110	80	12	37	8	DM16
160L	42k6	110	80	12	8	37	DM16	42k6	110	80	12	37	8	DM16
180M	48k6	110	80	14	9	42.5	DM16	48k6	110	80	14	42.5	9	DM16
180L	48k6	110	80	14	9	42.5	DM16	48k6	110	80	14	42.5	9	DM16
200M	55m6	110	80	16	10	49	M20	48k6	110	80	14	42.5	9	M20
200L	55m6	110	80	16	10	49	M20	48k6	110	80	14	42.5	9	M20
225S/M 2P*	55m6	110	100	16	10	49	M20	55m6	110	100	16	49	10	M20
225S/M**	60m6	140	125	18	11	53	M20	60m6	140	125	18	53	11	M20
250S/M 2P*	60m6	140	125	18	11	53	M20	60m6	140	125	18	53	11	M20
250S/M**	70m6	140	125	20	12	62.5	M20	60m6	140	125	18	53	11	M20
280S/M 2P*	65m6	140	125	18	11	58	M20	60m6	140	125	18	53	11	M20
280S/M**	80m6	170	160	22	14	71	M20	65m6	140	125	18	58	11	M20
315S/M 2P*	65m6	140	125	18	11	58	M20	60m6	140	125	18	53	11	M20
315S/M**	85m6	170	160	22	14	76	M20	65m6	140	125	18	58	11	M20
355M/L 2P*	75m6	140	125	20	12	67.5	M20	60m6	140	125	18	53	11	M20
355M/L**	100m6	210	200	28	16	90	M24	80m6	170	160	22	71	14	M20

FF Flange (IEC)

Mounting configurations B35, B5, V1, V3, V15, V36



FF Flange (IEC)

IEC Frame	"FF" flange dimensions (mm)									No. of holes
	Flange	C	LA	ØM	ØN	ØP	T	S	α	
63	FF-115	40	9	115	95	140	3	10	45°	4
71	FF-130	45	9	130	110	160	3.5	10	45°	4
80	FF-165	50	10	165	130	200	3.5	12	45°	4
90S&L	FF-165	56	10	165	130	200	3.5	12	45°	4
100L	FF-215	63	11	215	180	250	4	15	45°	4
112M	FF-215	70	11	215	180	250	4	15	45°	4
132S&M	FF-265	89	12	265	230	300	4	15	45°	4
160M&L	FF-300	108	18	300	250	350	5	19	45°	4
180M&L	FF-300	121	18	300	250	350	5	19	45°	4
200M&L	FF-350	133	18	350	300	400	5	19	45°	4
225S/M	FF-400	149	18	400	350	450	5	19	22°30'	8
250S/M	FF-500	168	18	500	450	550	5	19	22°30'	8
280S/M	FF-500	190	18	500	450	550	5	19	22°30'	8
315S/M	FF-600	216	22	600	550	660	6	24	22°30'	8
355M/L	FF-740	254	22	740	680	800	6	24	22°30'	8

C-DIN Flange (DIN 42677) (B14A)

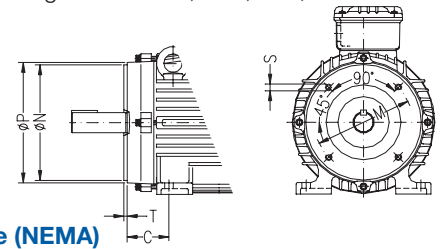
IEC Frame	"C" DIN flange dimensions (mm)							No. of holes
	Flange	C	ØM	ØN	ØP	S	T	
63	C-90	40	75	60	90	M5	2.5	4
71	C-105	45	85	70	105	M6	2.5	4
80	C-120	50	100	80	120	M6	3	4
90S&L	C-140	56	115	95	140	M8	3	4
100L	C-160	63	130	110	160	M8	3.5	4
112M	C-160	70	130	110	160	M8	3.5	4
132S&M	C-200	89	165	130	200	M10	3.5	4
160M&L	C-250	108	215	180	250	M12	4	4

C-DIN Flange "Higher" (DIN 42677) (B14B)

IEC Frame	"B14B" DIN flange dimensions (mm)							No. of holes
	Flange	C	ØM	ØN	ØP	S	T	
63	FG 063CD120GG	40	100	80	120	M6	3	4
71	FG 071CD140GG	45	115	95	140	M8	3	4
80	FG 080CD160GG	50	130	110	160	M8	3.5	4
90	FG 090CD160GG	56	130	110	160	M8	3.5	4
100	FG 100CD200GG	63	165	139	200	M10	3.5	4
112	FG 112CD200GG	70	165	130	200	M10	3.5	4

FC Flange IEC B14A, B14B & NEMA C

Mounting configurations B14, B34, V18, V19

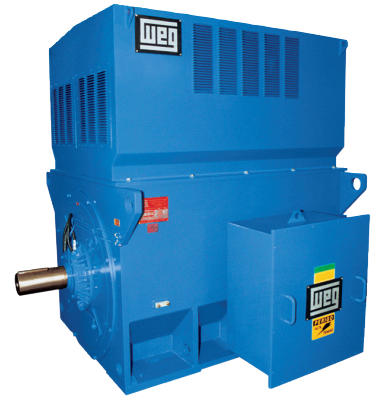
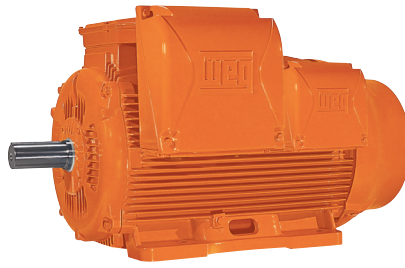


FC Flange (NEMA)

IEC Frame	"FC" flange dimensions (mm)							No. of holes
	Flange	C	ØM	ØN	ØP	S	T	
63	FC-95	40	95.2	76.2	143	UNC 1/4" x20	4	4
71	FC-95	45	95.2	76.2	143	UNC 1/4" x20	4	4
80	FC-95	50	95.2	76.2	143	UNC 1/4" x20	4	4
90S&L	FC-149	56	149.2	114.3	165	UNC 3/8" x16	4	4
100L	FC-149	63	149.2	114.3	165	UNC 3/8" x16	4	4
112M	FC-184	70	184.2	215.9	225	UNC 1/2" x13	6.3	4
132S&M	FC-184	89	184.2	215.9	225	UNC 1/2" x13	6.3	4
160M&L	FC-184	108	184.2	215.9	225	UNC 1/2" x13	6.3	4
180M&L	FC-228	121	228.6	266.7	280	UNC 1/2" x13	6.3	4
200M&L	FC-228	133	228.6	266.7	280	UNC 1/2" x13	6.3	4
225S/M	FC-279	149	279.4	317.5	395	UNC 5/8" x11	6.3	8
250S/M	FC-355	168	355.6	406.4	455	UNC 5/8" x11	6.3	8
280S/M	FC-355	190	355.6	406.4	455	UNC 5/8" x11	6.3	8
315S/M	FC-368	216	368.3	419.1	455	UNC 5/8" x11	6.3	8
355M/L	FC-368	254	368.3	419.1	455	UNC 5/8" x11	6.3	8

Complementary WEG Products

Heavy Duty Motors



Low & High Voltage Mining Motors

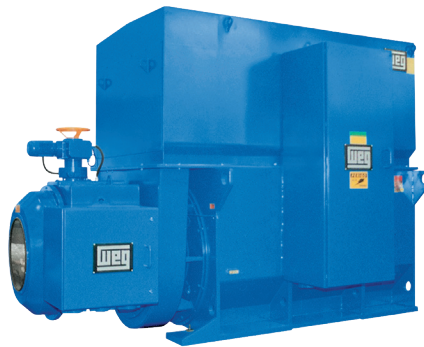
Power ratings up to 50,000kW, voltages up to 15,800V and speed from 300 to 3600 rpm, squirrel cage or slip ring type.

Synchronous Motors/Generators

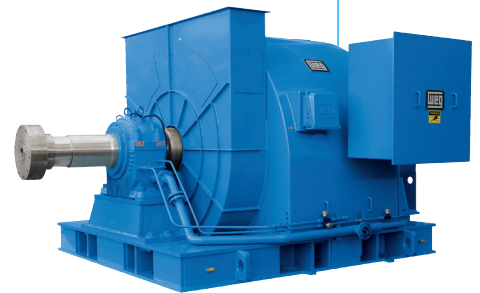
Power ratings up to 60,000kW, voltages up to 15,800V and speed from 180 to 1800 rpm

Water Jacket Cooled Motors

Power ratings up to 3,150kW, voltages up to 6,600V and speed from 750 to 3000rpm

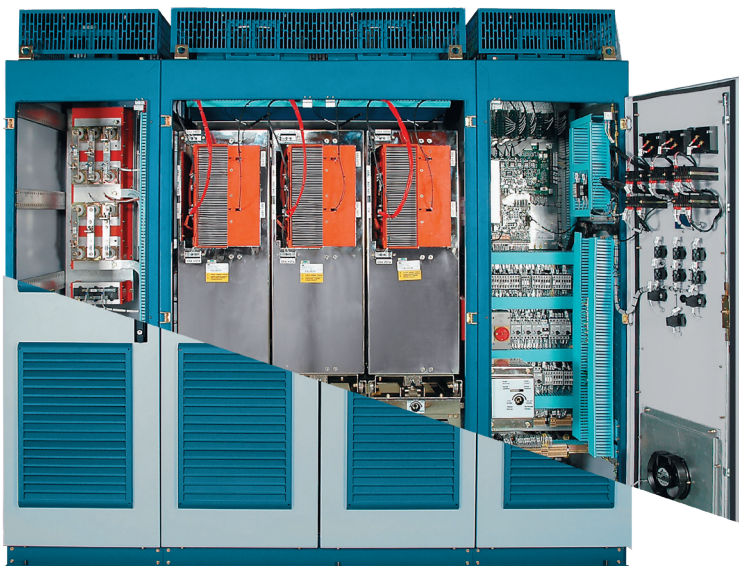


MAF (WRIM) Line to 50,000kW



SEF Synchronous Motor

Variable Frequency Drive



MVW01 Medium Voltage

From 400 to 6,000kW

12, 18, 24 or 36 pulse or regenerative drives

The most efficient medium voltage drive on the market, EFF > 99% at 3.3kV

Built with the newest 6.5KV IGBTs (>30 years design life)

Lowest number of power components yielding the highest reliability and MTBF of all current VSD topologies

Withdrawable power stacks, replaceable within 10 minutes.

Monitoring and protection via the use of temperature, airflow and arc fault sensors

Fibre optic interface for control cards

Complementary WEG Products

VSD's, Relays and Starters



Motor Circuit Breakers

Solution for starting and protection of motors up to 55KW at 415V, with high interruption capacity



SRW01 Smart Relay

Current setting range from 0.5 to 840A. Suitable for various motor starting methods or in "Transparent" mode for motor monitoring, supervision and control



SSW06 Soft Starter

Available range 2.2 to 1950KW, 220 to 690V with Multi-motor start and motor protection features



AFW11 Modular Drive

Power range from 300 to 3000KW, 380 to 690V, available in kits for easy cubicle configuration and assembly

SSW7000 Soft Starter

Power range from 560 to 3300KW, 2.3kV, 4.16kV or 6.9kV, featuring Flexible Torque Control

CFW11 "IP54" Variable Frequency Drive

0.75 to 110KW, 380-480V with Internal PLC functionality (soft PLC) and Optimal Flux

CFW11 "IP20" Variable Frequency Drive

0.75 to 550KW, 380-480V with Internal PLC functionality (soft PLC) and Optimal Flux



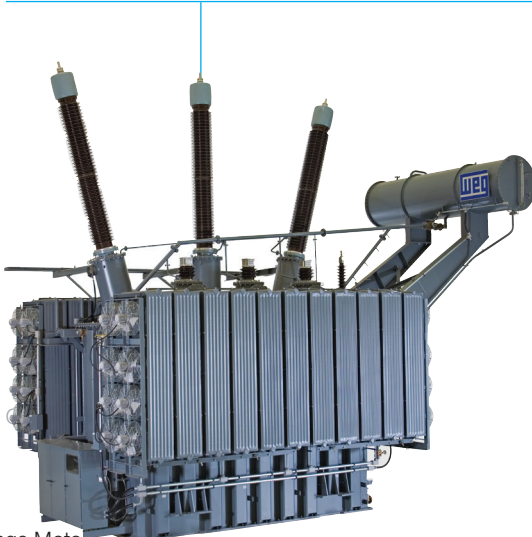
CFW08 "Wash Duty" "IP56" Variable Frequency Drive

0.75 to 15KW, 220-240V and 380-480V with IP66 protection rating

Transformers

Power ratings to 300,000KVA, 550KV ■ Oil-filled or dry-type (15,000KVA)

Phase-shift transformers to suit 12, 18, 24 or 36 pulse VSD's ■ Arc-furnace and rectifier transformers



Dry-Type Transformer

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WEG Worldwide

Founded in 1961 in the state of Santa Catarina, Brazil by Werner Ricardo Voigt, Eggon João da Silva and Geraldo Werninghaus, WEG has amassed great experience in research/development, design, manufacture, testing and commissioning of motors, drives and transformers.

Our motor manufacturing capacity is one of the largest in the world, producing over 68,000 motors per day, equivalent to approximately 12 million per year. We employ over 25,000 people worldwide, with over 3,000 specialist engineers to support our customers from design, development, application, through to commissioning.

With factories, branches and technical services located around the world WEG offers complete solutions from small systems through to complex integrated projects. Offering over 20 state of the art testing laboratories, a large investment in research & development and a genuine focus on sustainability, WEG continually invests in the development of more efficient and environmentally friendly electrical solutions.

Testing and Technical Support

WEG has one of the world's largest testing facilities. We are able to perform full-load tests up to 20,000KW, ensuring accurate results at motor actual load conditions.

WEG tests 100% of its motors, drives and soft starters during production. These are quality control pass-or-fail tests, aimed at detecting any weakness in the materials or processes, hence ensuring the high quality of WEG products.

In addition, every control card on WEG drives and soft starters, undergo a full functional test, and the drive itself a two hour full load test.



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