

Permanent Magnet Motors Drive System - Cast Iron Frame

Standard Features:

- Three-phase, multivoltage, IP55, TEFC
- Output: 11 up to 160kW
- Frames: 132S up to 250S/M
- Voltage: 400V
- 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

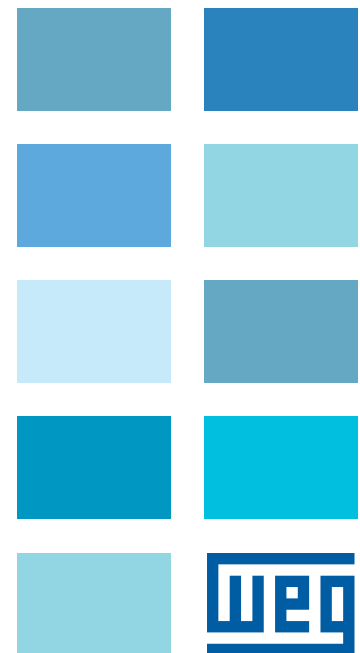
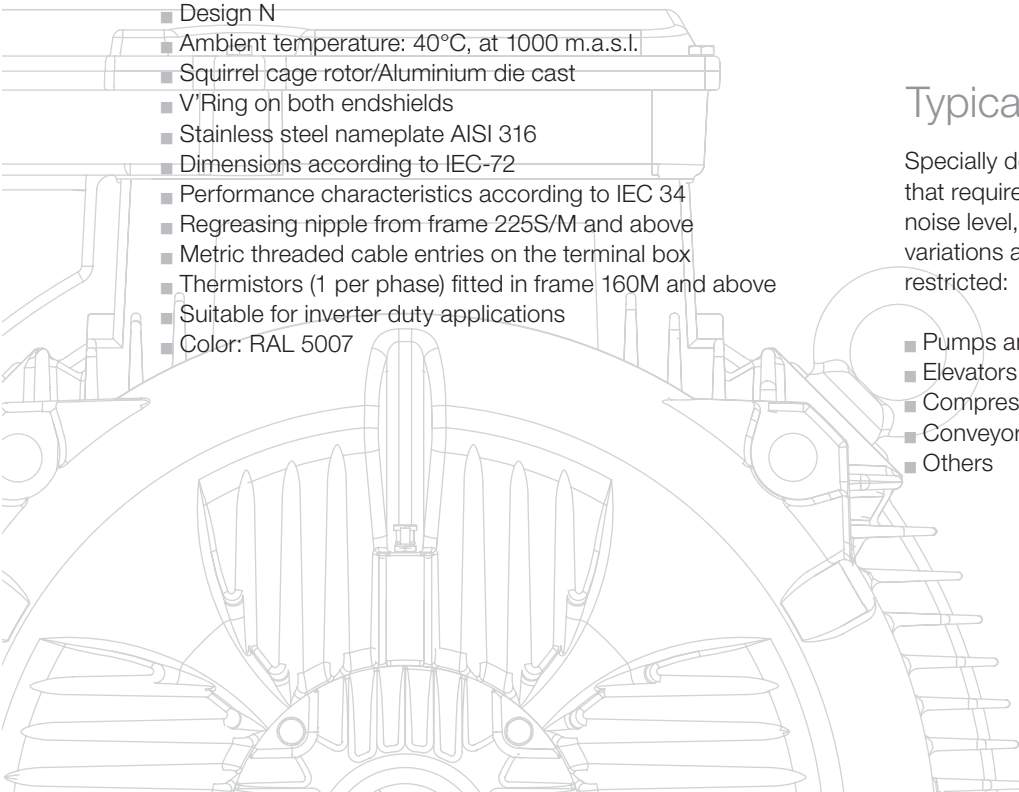
Options Available:

- Mounting: B3, B5, B14, B34, V1, V5, etc
 - Degree of Protection: IP56, IP65, IP66 or IPW
 - Canopy
 - Aluminium, Bronze or Cast Iron Fan
 - Space Heaters
- More options available, on request*

Typical Applications:

Specially designed to operate in areas that require reduced vibrations and noise level, maximum efficiency in all speed variations and where the space is restricted:

- Pumps and Ventilation Systems
- Elevators
- Compressors
- Conveyor belts
- Others



Features and Benefits

Bearings

WEG Permanent Magnet Motors are fitted with the highest quality bearings selected among the best manufactures in the world and designed to ensure long life to the motor even under heavy operating conditions.
* All Motors are supplied with grease nipples.

Fan Cover

Made of steel or cast iron*, the fan cover offers a superior mechanical strength, corrosion-resistance and extended lifetime.
* Check for material availability.

Fan

WEG has designed the fan having in mind the lowest noise level. The efficient cooling ensures low motor temperature rise. This minimizes winding losses, thus increasing motor efficiency. Fan is designed with special materials to ensure suitable motor performance in reference to noise level and cooling. The W21 range is supplied with anti-static polypropylene fans from 63 up to 200 frames. Alternatively, 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 aiming at improving the heat dissipation and properly spaced to minimize air blockage due to accumulation of dirt. The motors can be mounted in either horizontal or vertical positions.

Terminal Box

Cast iron made with plenty of internal space. The terminal box can be rotated in 90° intervals, having one or two threaded holes to connect the power supply cables.
* Available as top or side mounting.

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

Wimagnet has high-energy magnets inside the rotor, in a configuration specially designed to minimize vibrations and noise and maximize efficiency in all speed variations.

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. Specially designed to withstand torques caused during motor acceleration and deceleration.

Endshields

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

Seals

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

Nameplate

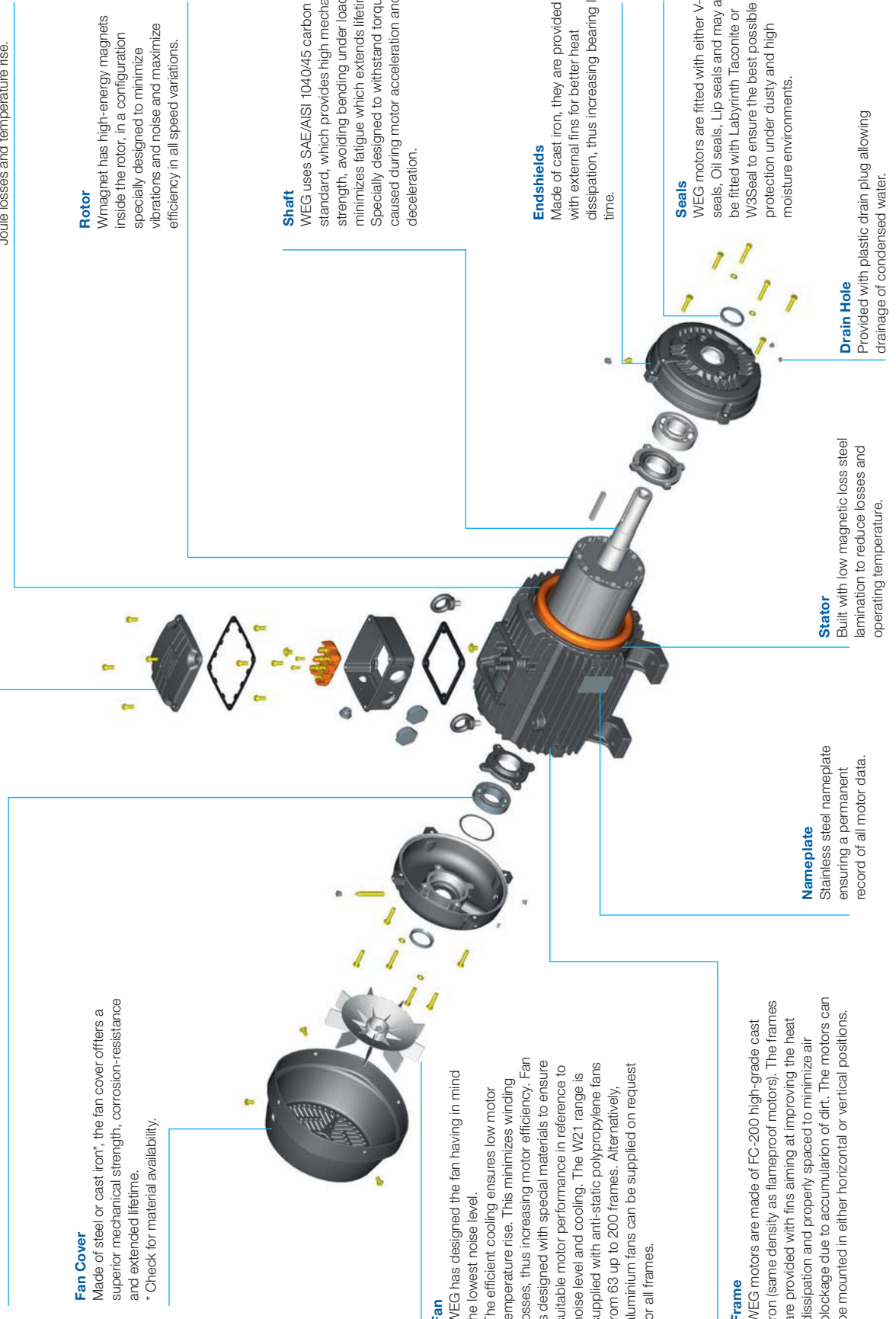
Stainless steel nameplate ensuring a permanent record of all motor data.

Stator

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

Drain Hole

Provided with plastic drain plug allowing drainage of condensed water.



Permanent Magnet Motors Drive System

3000 rpm											
Motor								Drive			
Output		Frame	Torque [Nm]	Rated current at 400V [A]	Efficiency [%]	sound pressure level [dB(A)]	Approx motor weight [kg]	Drive	Drive dimensions [mm] HxWxD	Approx drive weight [kg]	
kW	HP										
15	20	132S	47.7	24.3	95.8	72	63	CFW09PM030	390x223x274	19	
18.5	25	132M	58.9	29.9	95.8	72	74	CFW09PM030*	390x223x274	19	
22	30	160M	70.0	36.4	95.8	75	141	CFW09PM038	475x250x274	22.5	
30	40	180M	95.5	48.7	96.2	75	201	CFW09PM060	550x335x274	41	
37	50	180L	118	57.4	96.4	75	218	CFW09PM060*	550x335x274	41	
45	60	200M	143	73.3	96.6	81	281	CFW09PM086	675x335x300	55	
55	75	225S/M	175	88.6	96.6	85	392	CFW09PM105	675x335x300	55	
75	100	225S/M	239	116.4	96.9	85	464	CFW09PM142	835x335x300	70	
90	125	225S/M	286	139.7	97.1	85	503	CFW09PM142*	835x335x300	70	
110	150	250S/M	350	168.8	97.3	85	546	CFW09PM0240	975x410x370	100	
132	175	250S/M	420	216.4	97.4	85	570	CFW09PM0312	1020x688x492	216	
160	220	250S/M	477	251.3	97.5	85	595	CFW09PM0361	1085x700x492	259	

1500 rpm											
Motor								Drive			
Output		Frame	Torque [Nm]	Rated current at 400V [A]	Efficiency [%]	sound pressure level [dB(A)]	Approx motor weight [kg]	Drive	Drive dimensions [mm] HxWxD	Approx drive weight [kg]	
kW	HP										
11	15	132S	70.0	20.2	93.6	72	63	CFW09PM0024	290x182x196	6	
15	20	132M	95.5	26.1	94.0	72	75	CFW09PM0030	390x223x274	19	
18.5	25	160L	118	30.2	94.4	75	148	CFW09PM0030	390x223x274	19	
22	30	180M	140	35.3	94.9	75	201	CFW09PM0038*	475x250x274	22.5	
30	40	180L	191	47.9	94.9	75	219	CFW09PM0060	550x335x274	41	
37	50	200M	235	60.5	95.9	81	281	CFW09PM0060*	550x335x274	41	
45	60	200L	287	71.9	96	81	304	CFW09PM0086	675x335x300	55	
55	75	225S/M	350	89.2	96.1	85	458	CFW09PM0105	675x335x300	55	
75	100	250S/M	477	118.7	96.7	85	569	CFW09PM0142	835x335x300	70	
90	125	250S/M	573	145.2	96.7	85	595	CFW09PM0180	975x410x370	100	

Performance figures do not consider the VFD unit.

