



W22 Mining Motor

Designed for tough conditions...



Based on **state-of-the-art technologies** which **reduce carbon foot print** from manufacturing, to installation and on-going use, the W22 range of E3 High Efficiency motors will **reduce your operating, inventory and maintenance costs**, whilst helping you achieve **carbon emission** targets. With the **quietest noise levels** on the market, you will not find a **simpler** and more **economical** way to meet noise level regulations. High torques will keep your **equipment running**, even under severe load conditions. When used with a VSD, our innovative WISE® insulation will deliver years of **reliable operation**. Combined with WEG's CFW11 VSD, the patented Optimal Flux® will provide **savings** never before experienced.

Standard Features

1. FC-200 high density cast iron for tough mining conditions (same density as flameproof motors).
2. Stainless steel nameplate, complete with bearing and re-greasing data.
3. Flush through re-greasing system.
4. Cast iron fan (all frames).
5. Cast iron fan cover (frames 90 to 355).
6. Auxiliary terminal box (frames 160 to 355).
7. Oversized terminal box with removable gland plate (frames 225 to 355).
8. Design suitable for all horizontal and vertical mounting configurations.
9. Paint finish 203A, suitable for normal, protected or unprotected, industrial applications and environments containing SO₂.
10. Roller bearings D.E. (frame 225 to 355) for increased radial load capability.
11. WISE® insulation system providing better materials for VSD capabilities (**W**EG **I**nsulation **S**ystem **E**volution).
12. High tensile steel shaft (frames 225 to 355).
13. High torques, keeping up with the toughest load and voltage oscillations.
14. Drive end shield design promotes excellent heat dissipation via optimised fin positioning and greater bearing hub exposure.
15. SPM sensor measuring points (frames 225 to 355).
16. Maximum heat dissipation through extended frame area.
17. Solid integrated feet for increased mechanical rigidity and easier installation.
18. Flexibility of terminal box mounting positions enabling reduced inventory and quicker modification (frames 225 to 355).
19. Reduced operating temperatures through optimised cooling system.
20. Extended lubrication intervals reducing maintenance costs.
21. Two efficiency levels - **High Efficiency E3** as per AS 1359.5-2004 and **Super High Efficiency E3+** (exceeds HEFF levels, not yet classed by AS 1359.5)
22. IP66 degree of protection in conformance with IEC 60034-5.

W22 Mining - Standard Features

Frame	63-80	90-100	112-132	160-200	225-315	355
MECHANICAL FEATURES						
Mounting	B3R					
Frame & end shield material	Cast iron FC-200					
Degree of protection	IP66					
Grounding	Single grounding (one inside the terminal box)				Triple (one inside the terminal box and two on the frame)	
Cooling method	Totally enclosed fan cooled - IC 411					
Fan material	Cast iron FC-200					
Fan cover material	Steel	Cast iron FC-200				
Shaft material	AISI 1040 / 1045				AISI 4140	
Shaft seal	Oil seal			W3Seal®		
D.E. bearing	Ball bearing				Roller bearing	
Drain hole	Fitted with rubber drain plug					
Lubrication	Type of grease Polyrex® EM 103 (Exxon Mobil)					
	Without grease fitting			With grease fitting		
Terminal block	With terminal block					
Terminal box	Type Diagonal cut design					
	Material Cast iron FC-200					
Accessory terminal box	Type Non-standard			Diagonal cut design		
	Material Non-standard			Cast iron FC-200		
Space heater terminal box	Type Non-standard				Diagonal cut design	
	Material Non-standard				Cast iron FC-200	
Vibration	Grade A					
Balance	With half key					
Painting	Type Primer: one coat of 20 to 55 µm of alkyd primer. Finishing: one coat of 50 to 75 µm of alkyd synthetic enamel					
	Colour Munsell 2.5YR 6/14 (Orange)					
ELECTRICAL FEATURES						
Efficiency	High efficiency E3					
Design	N					
Voltage	240 / 415V			415V		
Winding	Material Copper					
	Insulation class WISE® (WEG Insulation System Evolution), thermal class H (DT 80K)					
Service factor	1.15					
Space heater	Non-standard				200 - 240V	
Rotor	Aluminium die cast					
Thermal protector	Winding	Without thermal protector			Thermistor PTC, 1 per phase tripping at 155°C	Thermistor PTC, 2 per phase, for alarm at 155°C and tripping at 180°C
	Bearing	Without thermal protector				PT-100, one per bearing



Optional Features

- Angular contact bearings
- Shaft earthing brush
- Double shaft end
- Cable glands
- NEMA frames and flanges
- 1000V motors
- Super high efficiency E3+
- Special electrical and mechanical characteristics upon request
- Insulated bearing housing (frames 225 to 355)
- Forced cooling kit
- Anti-condensation heaters
- Oversized and undersized flanges
- Bearing thermistors or RTD's
- Special paint
- Other colours