

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer : MGE
Customer reference : MGE

Product line : W20 Three-Phase Product code : 16850291

Frame	: 90S/L	Locked rotor time	: 28s (cold) 16s (hot)
Output	: 1.1 kW (1.5 HP)	Temperature rise	: 80 K
Poles	: 4	Duty cycle	: S1
Frequency	: 50 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 230/400 V	Altitude	: 1000 m.a.s.l.
Rated current	: 4.26/2.45 A	Protection degree	: IP55
L. R. Amperes	: 29.4/16.9 A	Cooling method	: IC411 - TEFC
LRC	: 6.9	Mounting	: B3T
No load current	: 2.58/1.48 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1445 rpm	Noise level ²	: 49.0 dB(A)
Slip	: 3.67 %	Starting method	: Direct On Line
Rated torque	: 7.27 Nm	Approx. weight ³	: 16.3 kg
Locked rotor torque	: 210 %		
Breakdown torque	: 270 %		
Insulation class	: F		
Service factor	: 1.00		
Moment of inertia (J)	: 0.0055 kgm ²		
Design	: N		

Output	50%	75%	100%	Foundation loads	
Efficiency (%)	81.5	84.1	84.1	Max. traction	: 481 N
Power Factor	0.58	0.70	0.77	Max. compression	: 641 N

Losses at normative operating points (speed;torque), in percentage of rated output power

P1 (0,9;1,0)	P2 (0,5;1,0)	P3 (0,25;1,0)	P4 (0,9;0,5)	P5 (0,5;0,5)	P6 (0,5;0,25)	P7 (0,25;0,25)
18.4	16.8	16.8	9.7	7.3	5.6	4.2

	Drive end	Non drive end
Bearing type	: 6205 ZZ	: 6204 ZZ
Sealing	: V'Ring	: V'Ring
Lubrication interval	: -	: -
Lubricant amount	: -	: -
Lubricant type	: Mobil Polyrex EM	

Notes

This revision replaces and cancel the previous one, which must be eliminated.

- (1) Looking the motor from the shaft end.
- (2) Measured at 1m and with tolerance of +3dB(A).
- (3) Approximate weight subject to changes after manufacturing process.
- (4) At 100% of full load.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in IEC 60034-1.

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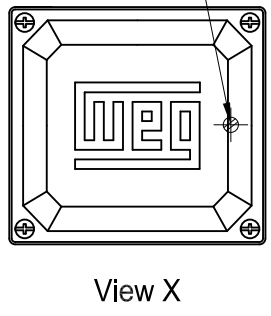
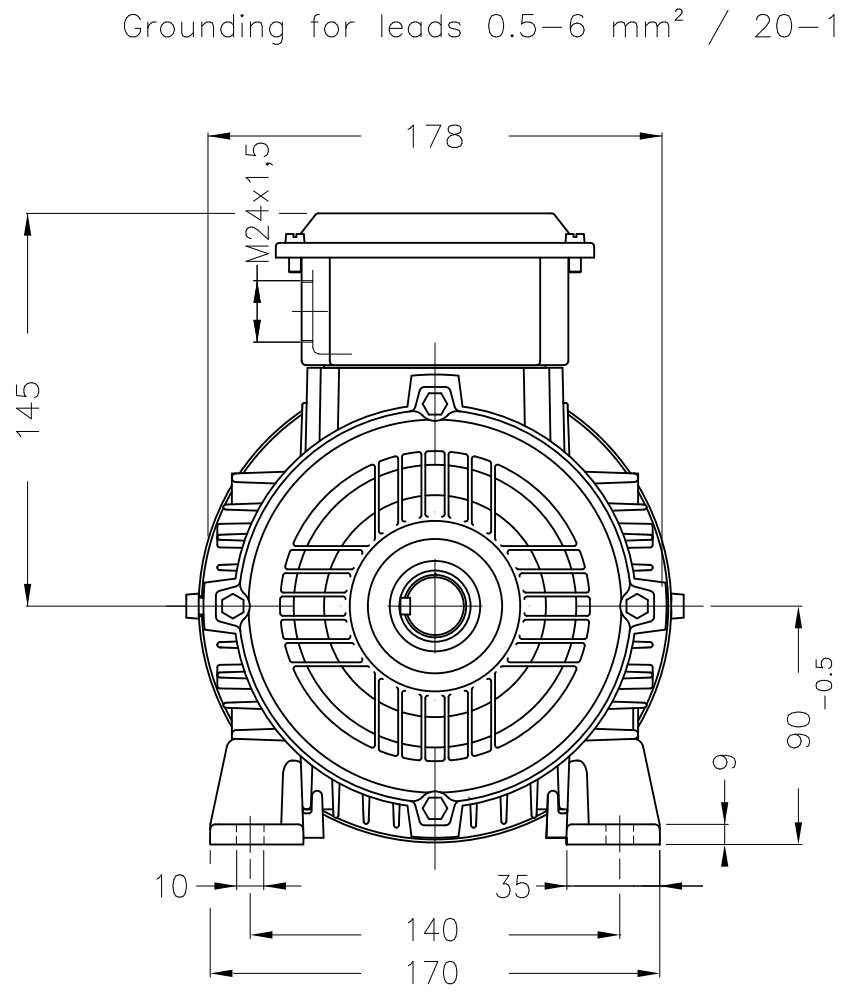
Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermistor - 2 wires	1 x Phase	155 °C

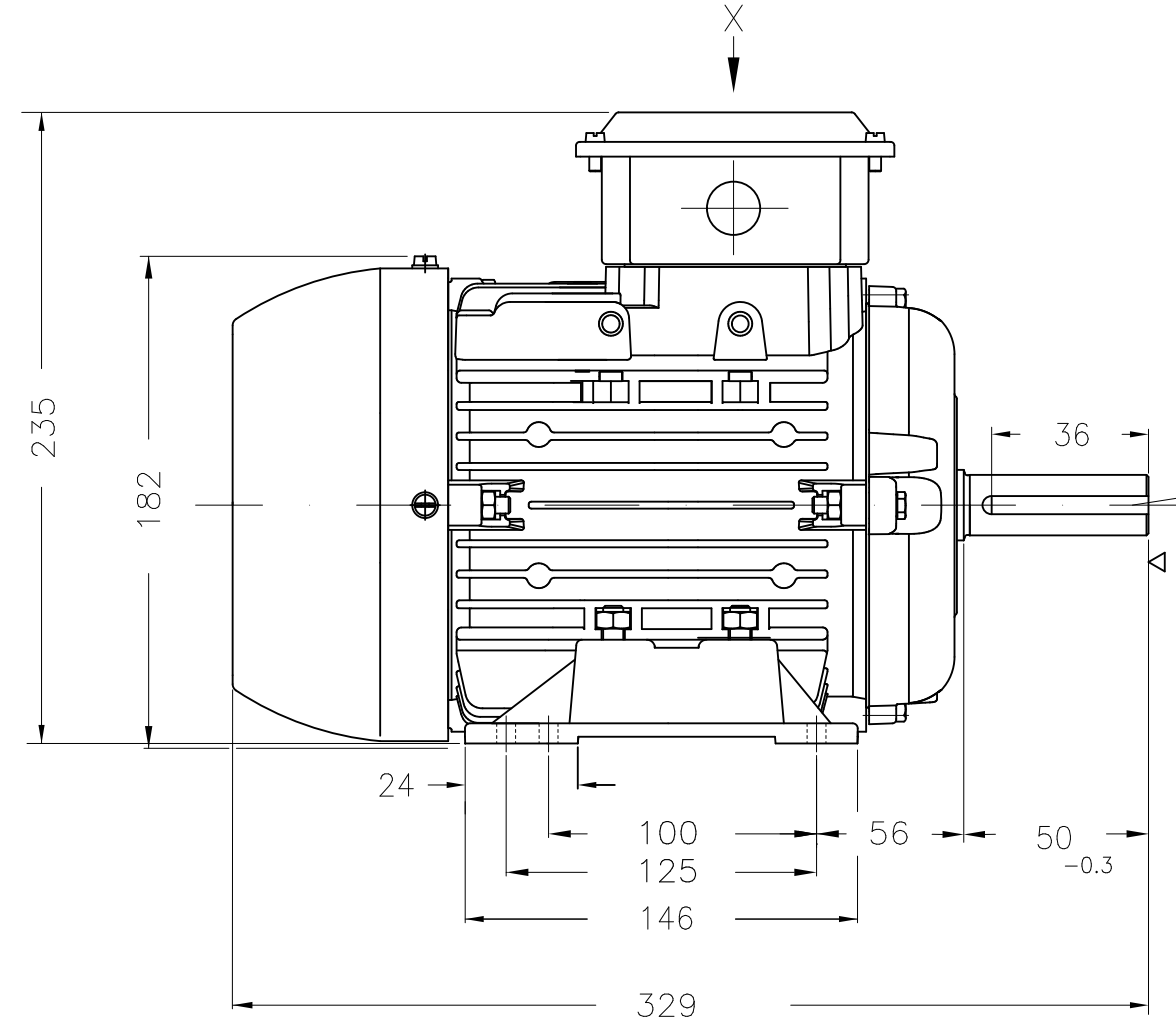
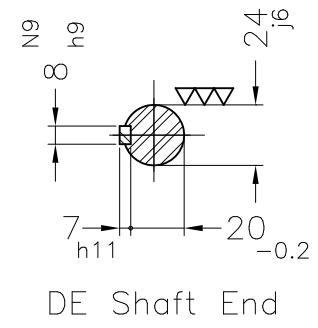
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1 2 3 4 5 6

A
B
C
D
E



Grounding for leads 0.5–6 mm² / 20–10 AWG



Center hole
DM8 WEG WPR-7339
(DIN 332)

Thermal protection to switch off - thermistors 155°C									
Color RAL 5009									
Painting plan 201A									
Mounting B3T									
					HYBRISUSER	00			
ECM	LOC	SUMMARY OF MODIFICATIONS			EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	HYBRISUSER	THREE PH. MOTOR W20 GB3				PREVIEW WDD 00			
CHECKED		FRAME 90S/L IP55 TEFC							
RELEASED									
REL. DATE		WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1			

1.1 kW 04 Poles 50 Hz

A