

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer : MGE
Customer reference : MGE

Product line : W20 Three-Phase Product code : 16849987

Frame	: 100L	Locked rotor time	: 16s (cold) 9s (hot)
Output	: 3 kW (4 HP)	Temperature rise	: 80 K
Poles	: 2	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	: 9.95/5.72 A	Protection degree	: IP55
L. R. Amperes	: 77.6/44.6 A	Cooling method	: IC411 - TEFC
LRC	: 7.8	Mounting	: B3T
No load current	: 4.54/2.61 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 2905 rpm	Noise level ²	: 67.0 dB(A)
Slip	: 3.17 %	Starting method	: Direct On Line
Rated torque	: 9.87 Nm	Approx. weight ³	: 25.1 kg
Locked rotor torque	: 229 %		
Breakdown torque	: 330 %		
Insulation class	: F		
Service factor	: 1.00		
Moment of inertia (J)	: 0.0064 kgm ²		
Design	: N		

Output	50%	75%	100%	Foundation loads	
Efficiency (%)	85.0	86.5	87.1	Max. traction	: 690 N
Power Factor	0.69	0.81	0.87	Max. compression	: 937 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)
14.5	12.7	11.5	7.0	4.7	3.1	2.1

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6206 ZZ	6205 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.

Rev.	Changes Summary	Performed	Checked	Date
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Checked by				
Date	29/09/2023			

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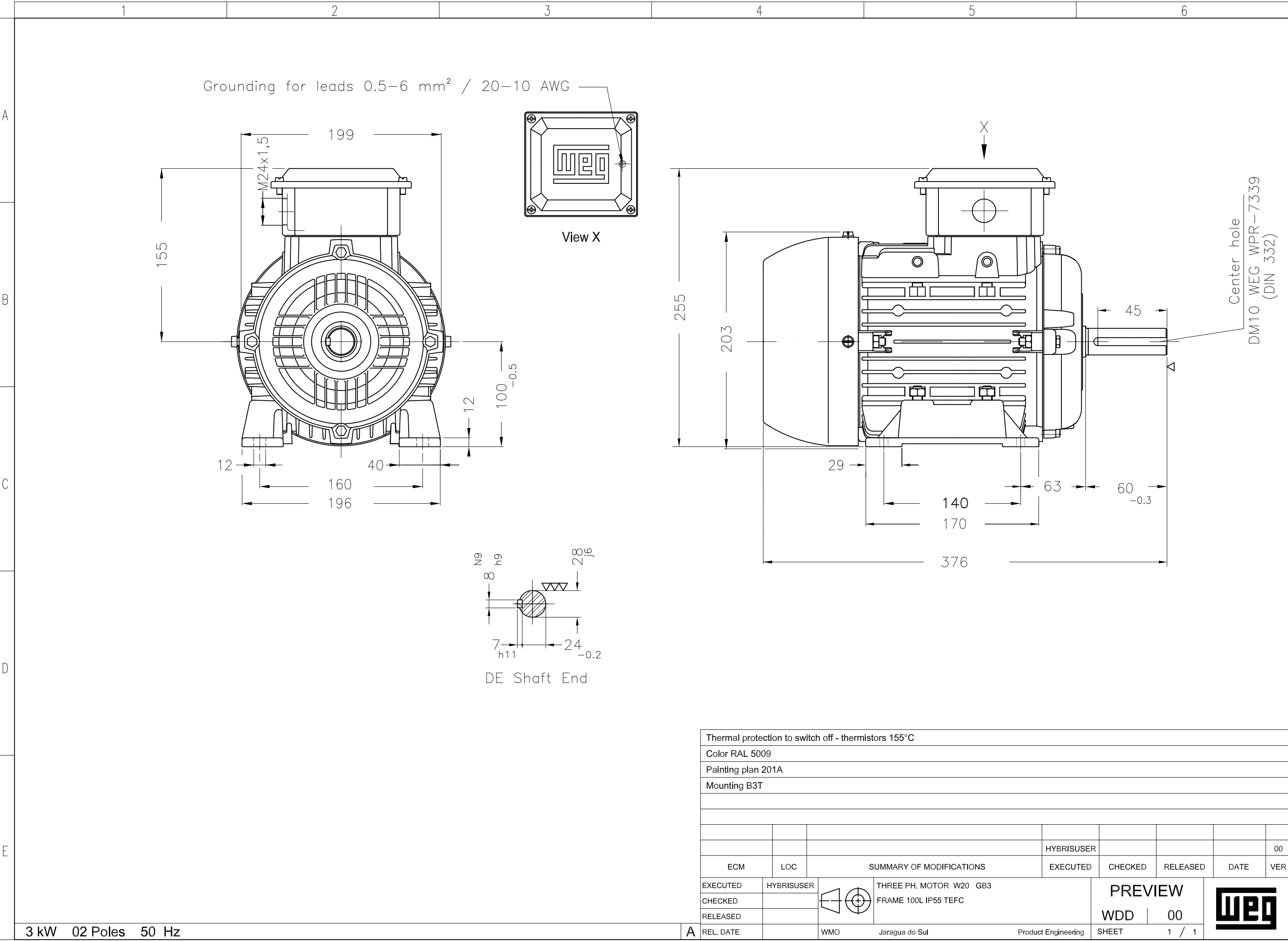


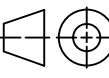

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Thermal protection

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

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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 FRAME 100L IP55 TEFC			PREVIEW				
CHECKED									
RELEASED									
REL. DATE		WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1			