

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :							
Product line : W20 Three-Phase			Product code : 17685405				
Frame	: 90S/L		Locked rotor time	: 14s (cold) 8s (hot)			
Output	: 1.5 kW (2 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	: 5.45/3.13 A		Protection degree	: IP55			
L. R. Amperes	: 47.4/27.3 A		Cooling method	: IC411 - TEFC			
LRC	: 8.7		Mounting	: B3T			
No load current	: 2.86/1.64 A		Rotation ¹	: Both (CW and CCW)			
Rated speed	: 2900 rpm		Noise level ²	: 62.0 dB(A)			
Slip	: 3.33 %		Starting method	: Direct On Line			
Rated torque	: 4.94 Nm		Approx. weight ³	: 18.4 kg			
Locked rotor torque	: 220 %						
Breakdown torque	: 300 %						
Insulation class	: F						
Service factor	: 1.00						
Moment of inertia (J)	: 0.0020 kgm ²						
Design	: N						
Output	50%	75%	100%	Foundation loads			
Efficiency (%)	83.6	84.2	84.2	Max. traction	: 333 N		
Power Factor	0.62	0.75	0.82	Max. compression	: 513 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)	
17.6	14.6	14.7	9.8	6.6	4.9	3.5	
		<u>Drive end</u>		<u>Non drive end</u>			
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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TORQUE AND CURRENT VS SPEED CURVE

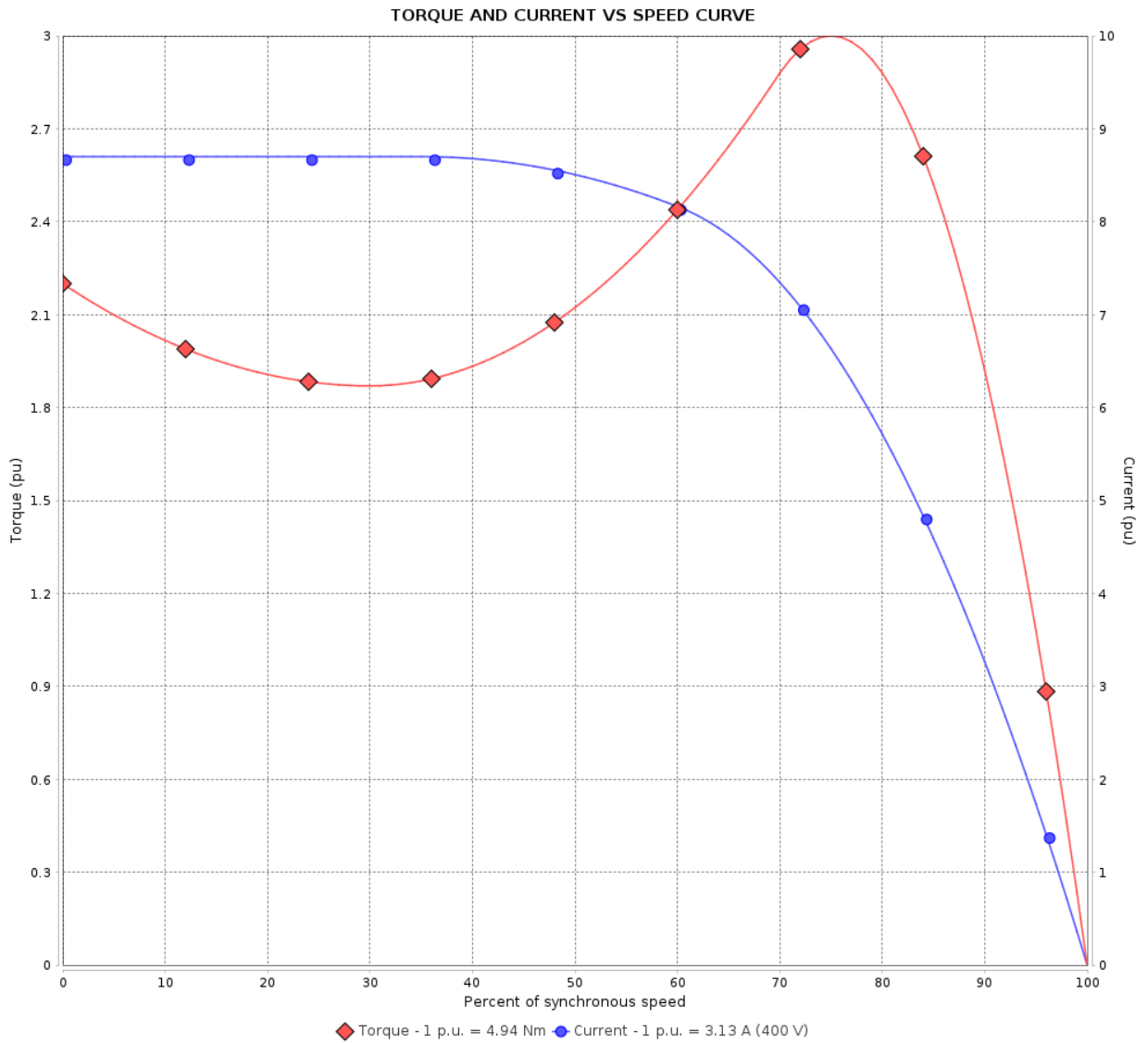
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W20 Three-Phase

Product code : 17685405



Performance : 230/400 V 50 Hz 2P

Rated current	: 5.45/3.13 A	Moment of inertia (J)	: 0.0020 kgm ²
LRC	: 8.7	Duty cycle	: S1
Rated torque	: 4.94 Nm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 2900 rpm	Design	: N

Locked rotor time : 14s (cold) 8s (hot)

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LOAD PERFORMANCE CURVE

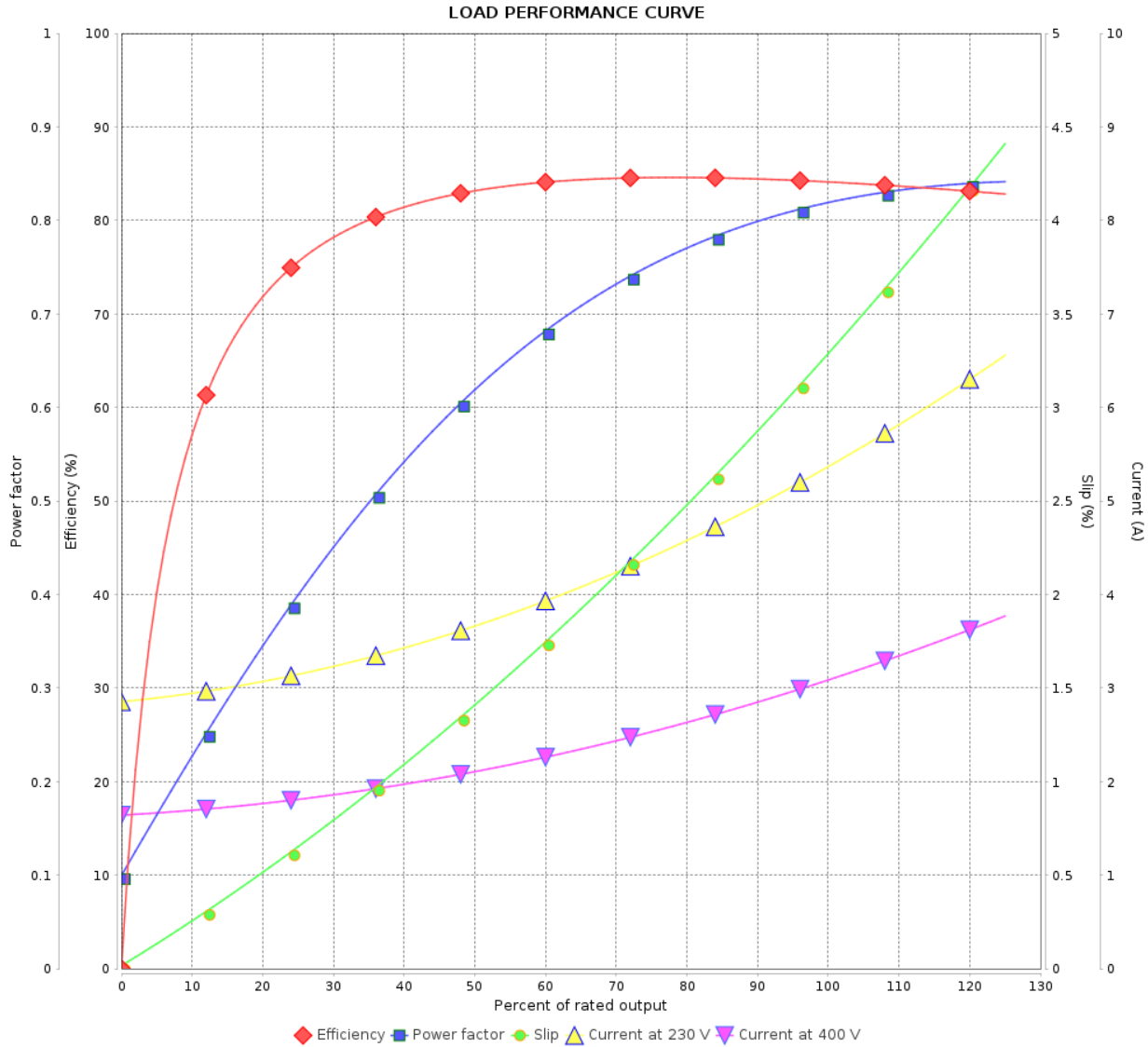
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 Rated torque : 4.94 Nm
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 Breakdown torque : 300 %
 Rated speed : 2900 rpm

Moment of inertia (J) : 0.0020 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
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 Design : N

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THERMAL LIMIT CURVE

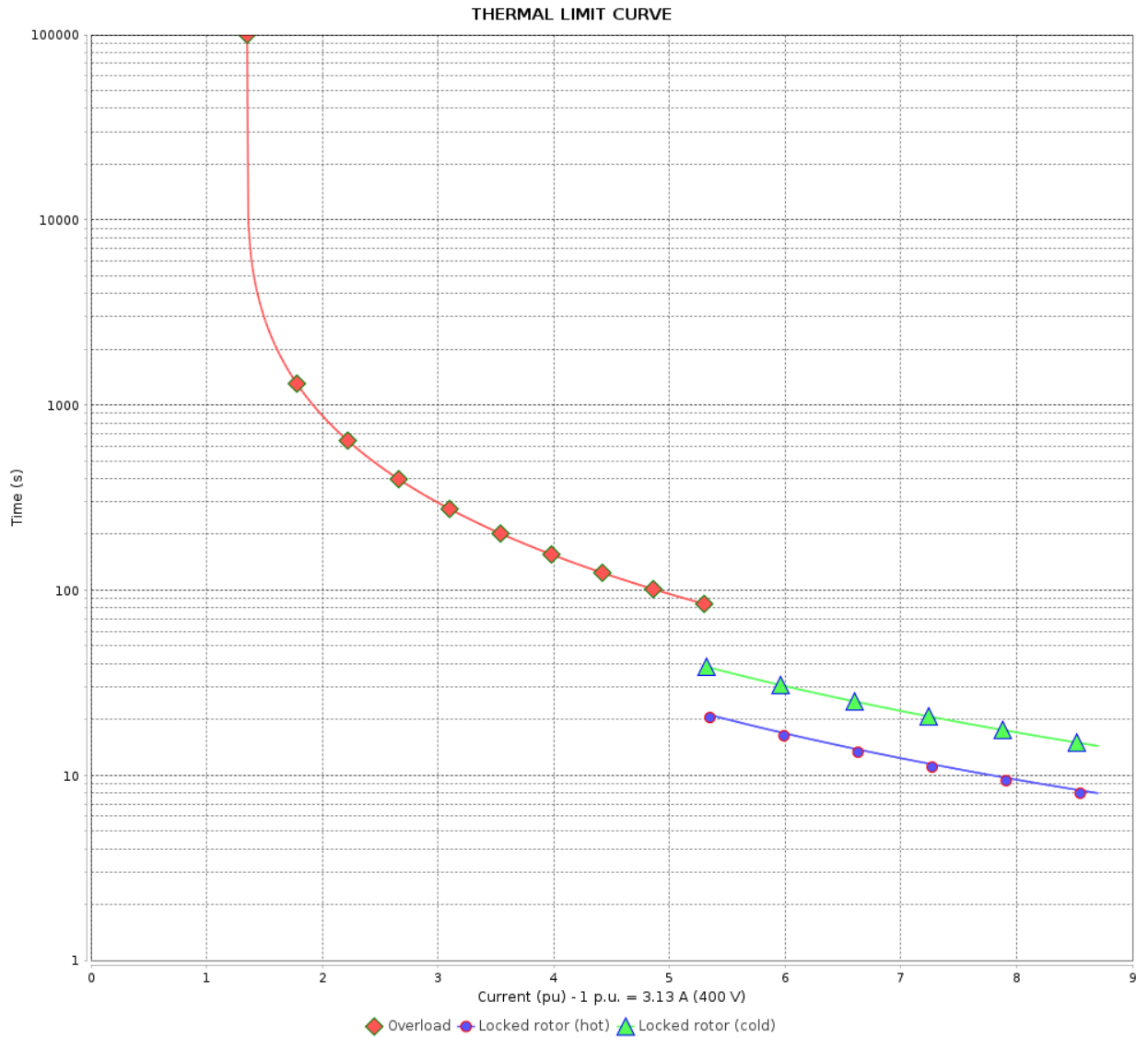
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 Temperature rise : 80 K
 Design : N

Heating constant

Cooling constant

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VFD OPERATION CURVE

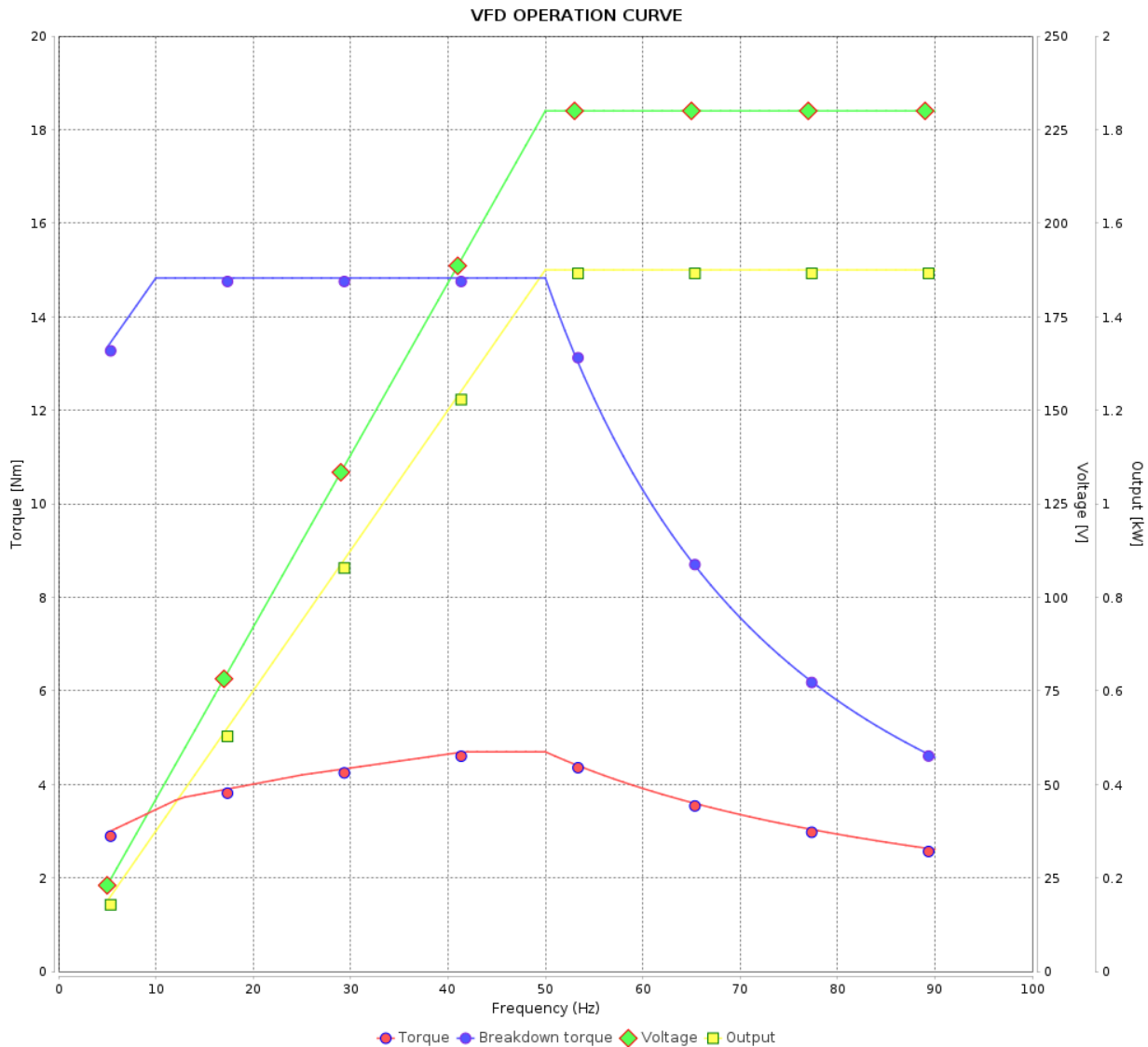
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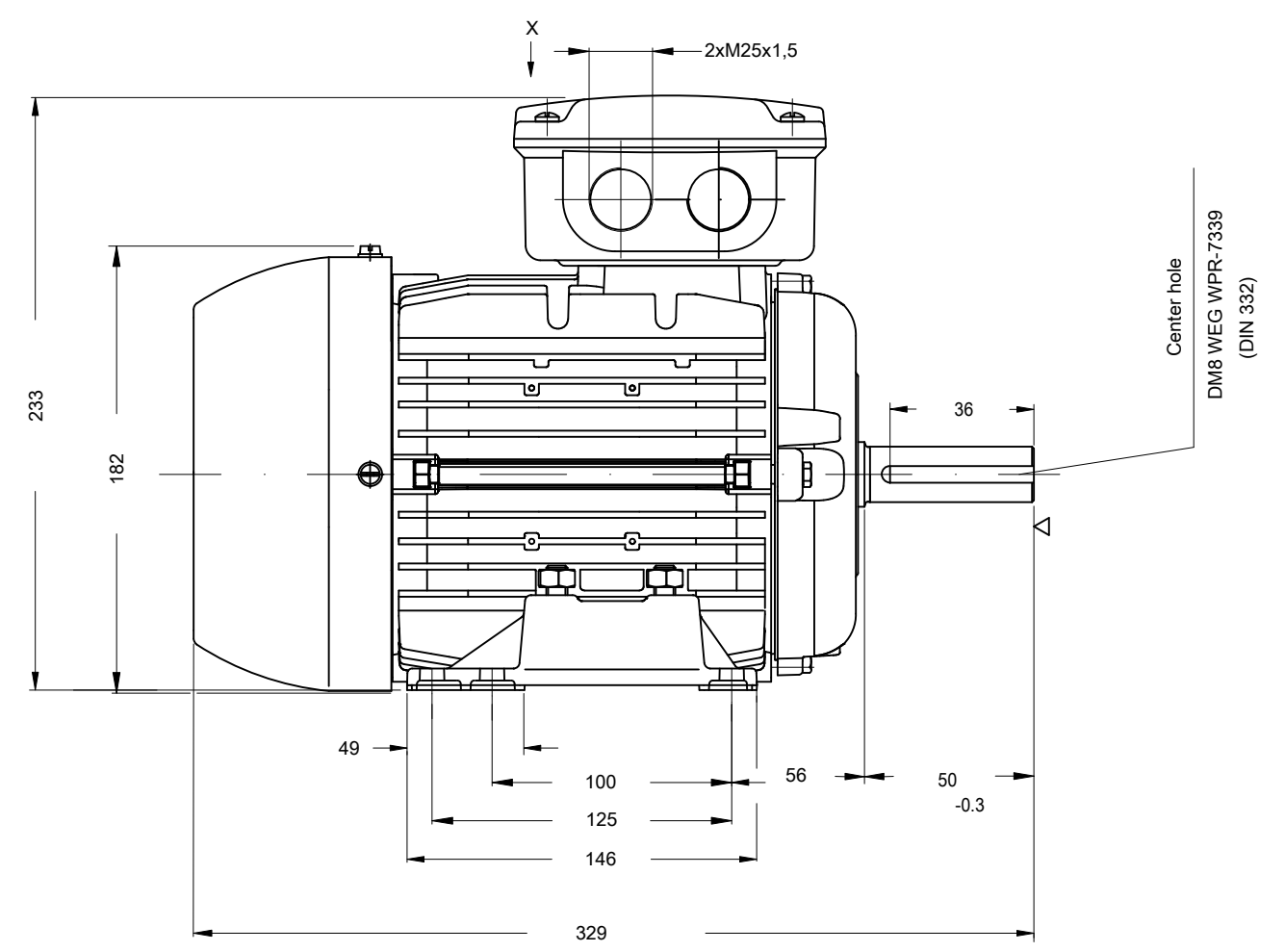
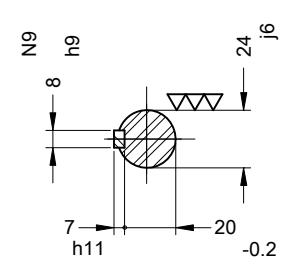
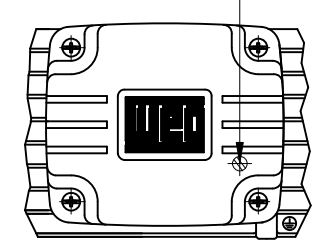
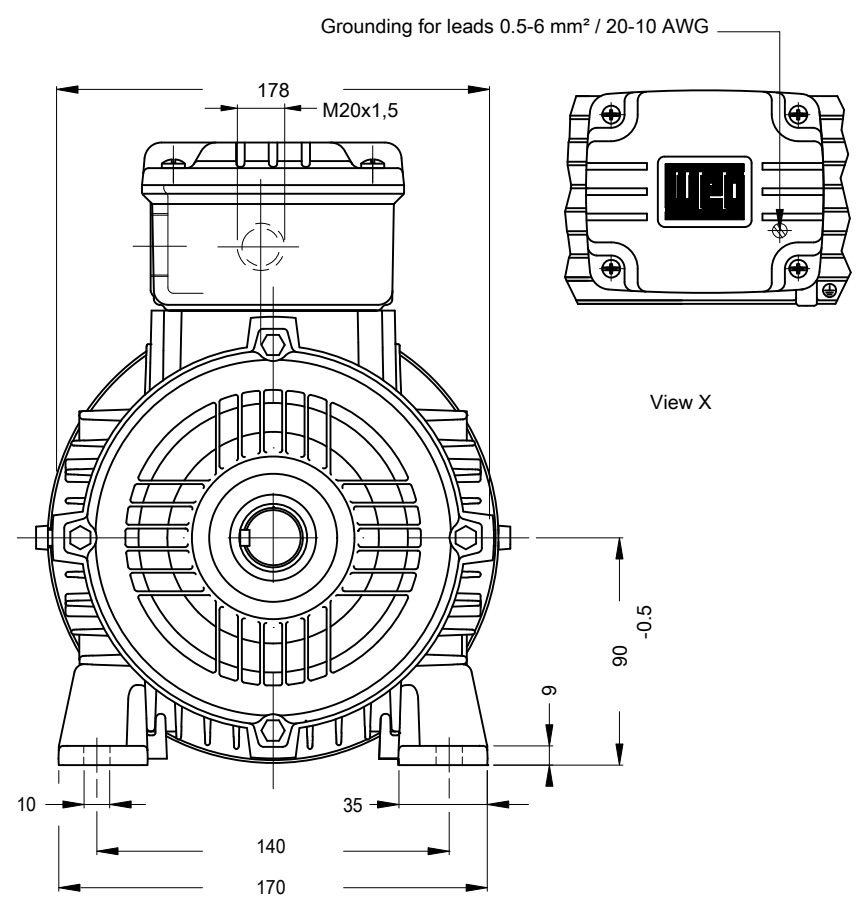
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A
B
C
D
E



Dimensions in mm

Certification CE/UKCA
 Thermal protection to switch off - thermistors 155°C
 Color RAL 7042
 Painting plan 201A
 Mounting B3T

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	HYBRISUSER	THREE PH. MOTOR W20 GB3					
CHECKED		FRAME 90S/L IP55 TEFC					
RELEASED							
REL. DATE	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

1.5 kW 02 Poles 50 Hz

A

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PREVIEW
WDD 00

