

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W20 GENERAL PURPOSE IE4 Three-Phase Product code : 16311278

Frame	: W280S/M	Locked rotor time	: 36s (cold) 20s (hot)
Output	: 90 kW (125 HP)	Temperature rise	: 80 K
Poles	: 2	Duty cycle	: S1
Frequency	: 50 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 400/690 V	Altitude	: 1000
Rated current	: 154/89.3 A	Protection degree	: IP55
L. R. Amperes	: 1355/786 A	Cooling method	: IC411 - TEFC
LRC	: 8.8	Mounting	: B3T
No load current	: 49.0/28.4 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 2970 rpm	Noise level ²	: 74.0 dB(A)
Slip	: 1.00 %	Starting method	: Direct On Line
Rated torque	: 290 Nm	Approx. weight ³	: 589 kg
Locked rotor torque	: 340 %		
Breakdown torque	: 340 %		
Insulation class	: F		
Service factor	: 1.00		
Moment of inertia (J)	: 0.5414 kgm ²		
Design	: N		

Output	50%	75%	100%	Foundation loads
Efficiency (%)	94.2	95.0	95.8	Max. traction
Power Factor	0.78	0.85	0.88	Max. compression

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)
4.2	3.1	2.7	2.2	1.3	0.9	0.5

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6314 C3	6212 C3
Sealing	:	WSeal	V'Ring
Lubrication interval	:	6600 h	8800 h
Lubricant amount	:	27 g	13 g
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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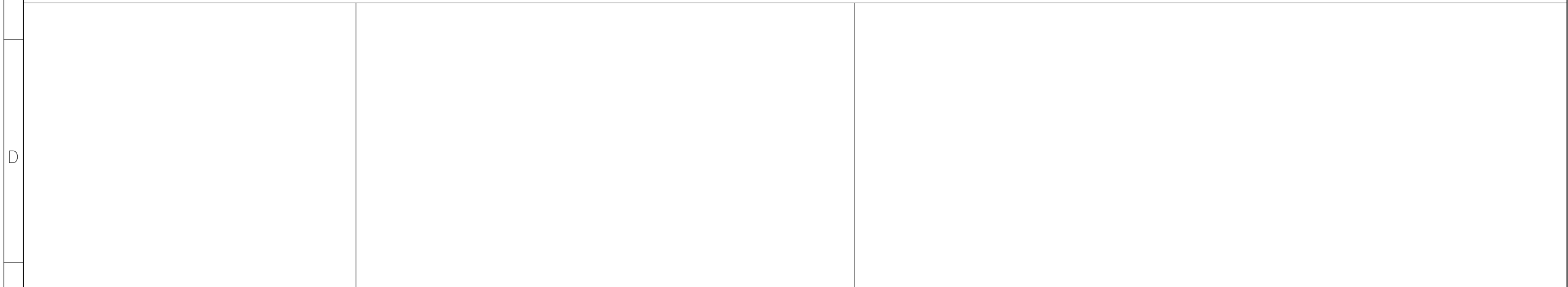
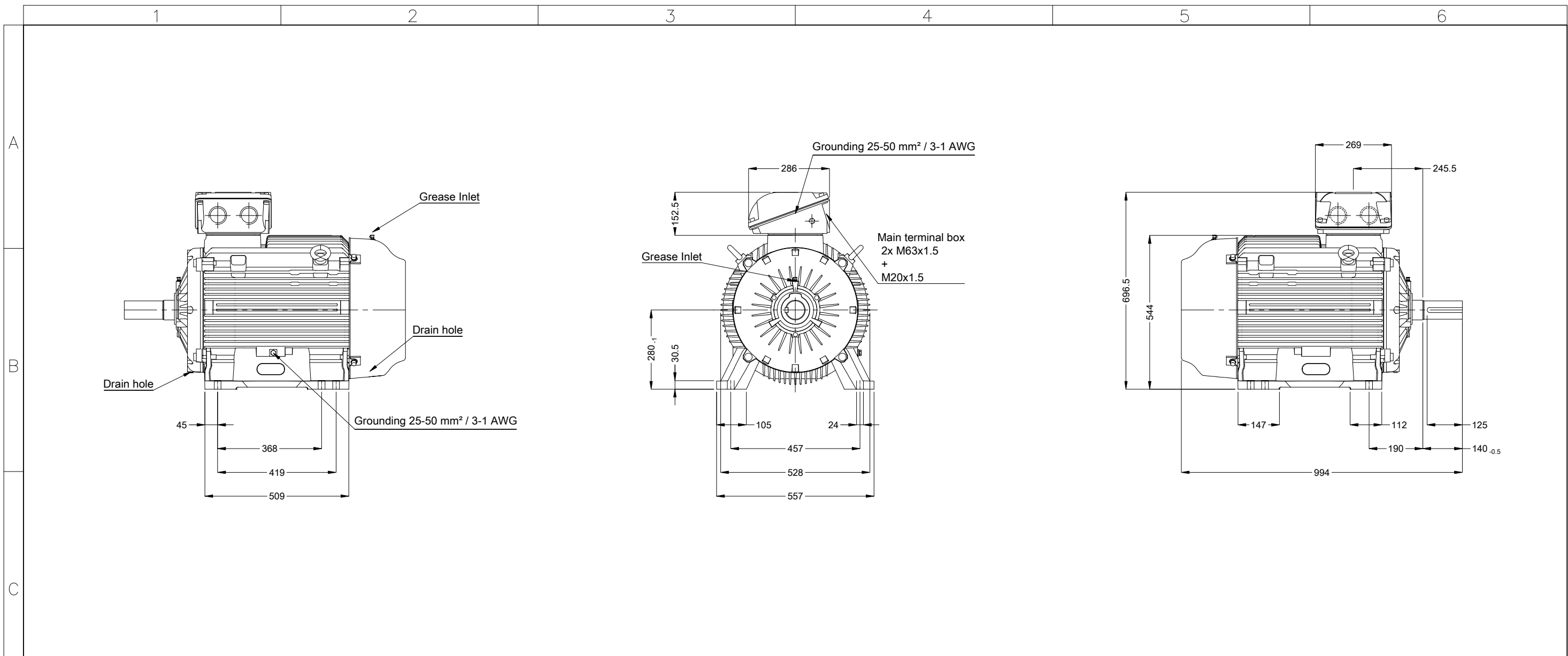


Customer : _____

Thermal protection

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

Rev.	Changes Summary	Performed	Checked	Date
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90 kW 02 Poles 50 Hz										A	
Scale 1 : 14											
HYBRISUSER										00	
ECM	LOC	SUMMARY OF MODIFICATIONS					EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	HYBRISUSER	THREE PH. MOTOR W20 GENERAL PURPOSE IE4						PREVIEW			
CHECKED		FRAME W280S/M IP55 TEFC						WDD	00		
RELEASED								SHEET	1 / 1		
REL. DATE											

Color RAL 7042
 Painting plan 203A
 Mounting NEMA F-3
 Mounting B3T

