

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : GOL PUMP TECHNOLOGY, INC.

Product line : W22 - IE3 Premium Efficiency

Frame	: 180M	Locked rotor time	: 22 s (hot) 40 s (cold)
Output	: 18.5 kW	Temperature rise	: 80 K
Poles	: 4	Duty cycle	: S1
Frequency	: 60 Hz	Ambient temperature	: -20 °C to +40 °C
Rated voltage	: 230/460 V	Altitude	: 3280 ft
Rated current	: 59.7/29.8 A	Protection degree	: IP55
L. R. Amperes	: 460/230 A	Cooling method	: IC411 - TEFC
LRC	: 7.7	Mounting	: B35T
No load current	: 25.8/12.9 A	Rotation ¹	: Both
Rated speed	: 1770 rpm	Noise level ²	: 63.0 dB(A)
Slip	: 1.67 %	Vibration class	: A
Rated torque	: 100 Nm	Starting method	: Direct On Line
Locked rotor torque	: 320 %	Coupling	: Direct
Pull up torque	: 255 %	Approx. weight ³	: 362 lb
Breakdown torque	: 340 %	Painting plan	: 203A
Insulation class	: F	Color	: RAL 5009
Service factor	: 1.25	Design	: N
Moment of inertia (J)	: 4.14 sq.ft.lb		

Output	50%	75%	100%	Load type	: -
Efficiency (%)	92.4	93.0	93.6	Load torque	: -
Power Factor	0.67	0.77	0.83	Load inertia (J=GD ² /4)	: -

Bearing type Lubrication interval Lubricant amount Lubricant type	Drive end	Non drive end	Foundation loads Max. traction : 4063.7 N Max. compression : 5672.6 N
	6311-ZZ-C3	6211-ZZ-C3	
	-	-	
	-	-	
	MOBIL POLYREX EM		

Notes
See notes on page 2.

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 be changed 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	Rev.	Checked	Date
Performed by	johnson	1228358314 Page 1 / 5 Rev. 1		
Checked by	AUTOMATICO			
Date	02/11/2021			

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Thermal protection

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

Notes

Standards	Specification	: IEC 60034-1	Vibration	: IEC 60034-14
	Test	: IEC 60034-2	Tolerance	: IEC 60034-1
	Noise	: IEC 60034-9		

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Date	02/11/2021		2 / 5	1

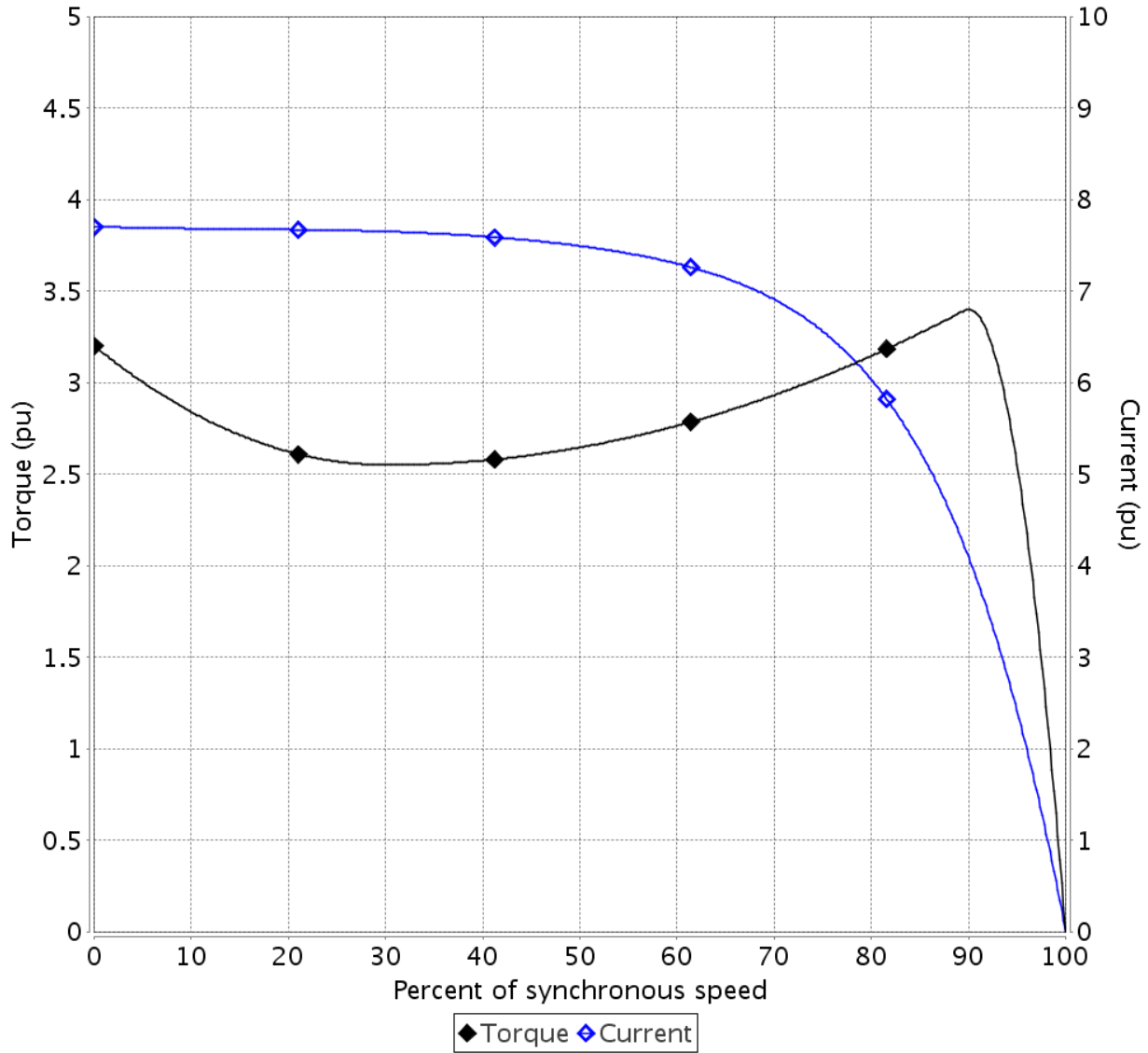
TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : GOL PUMP TECHNOLOGY, INC.

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Performance : 18.5 kW 230/460 V 60 Hz 4P 180M

Rated current	: 59.7/29.8 A	Moment of inertia (J)	: 4.14 sq.ft.lb
LRC	: 7.7	Duty cycle	: S1
Rated torque	: 100 Nm	Insulation class	: F
Locked rotor torque	: 320 %	Service factor	: 1.25
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: N

Locked rotor time 100% : 22 s (hot) 40 s (cold)

Load inertia (J=GD²/4) : 4.14 sq.ft.lb

Rev.	Changes Summary	Rev.	Checked	Date
Performed by	johnson	1228358314		
Checked by	AUTOMATICO			
Date	02/11/2021			
		Page	Rev.	
		3 / 5	1	

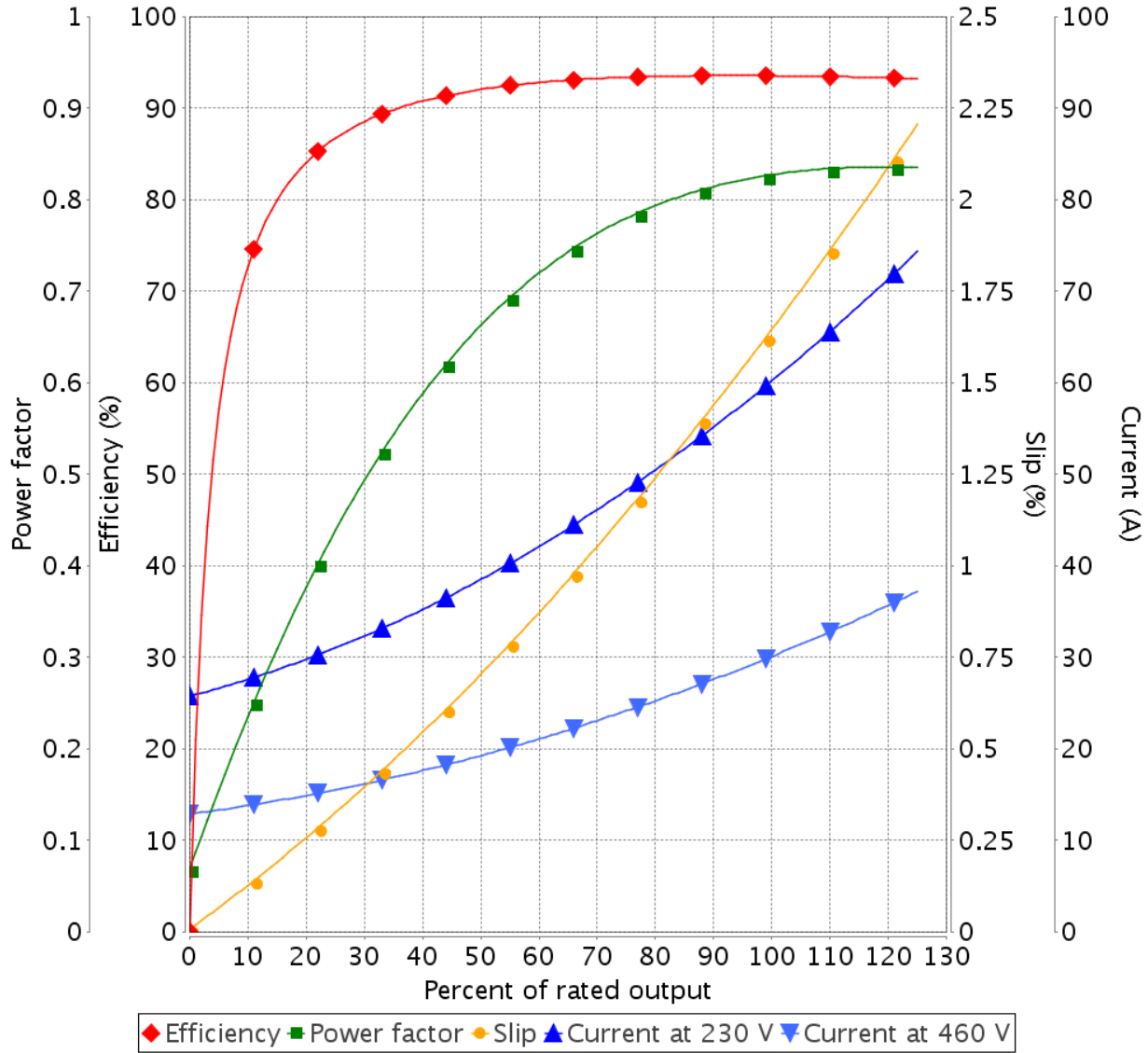
LOAD PERFORMANCE CURVE

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Rev.	Changes Summary	Rev.	Checked	Date		
Performed by	johnson	1228358314				
Checked by					Page	Rev.
Date	02/11/2021				4 / 5	1

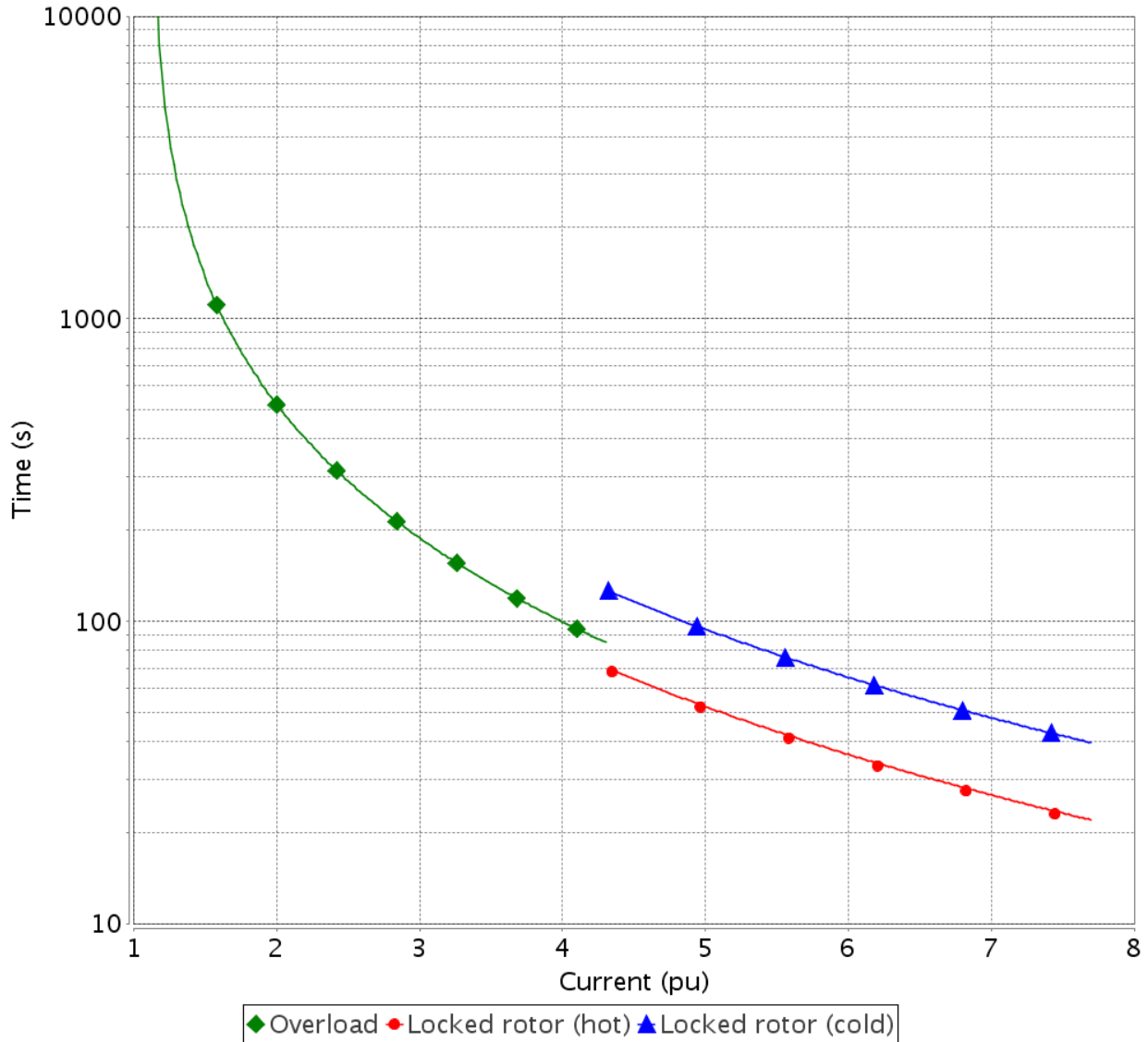
THERMAL LIMIT CURVE

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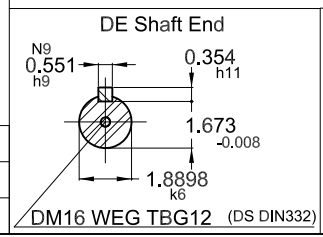
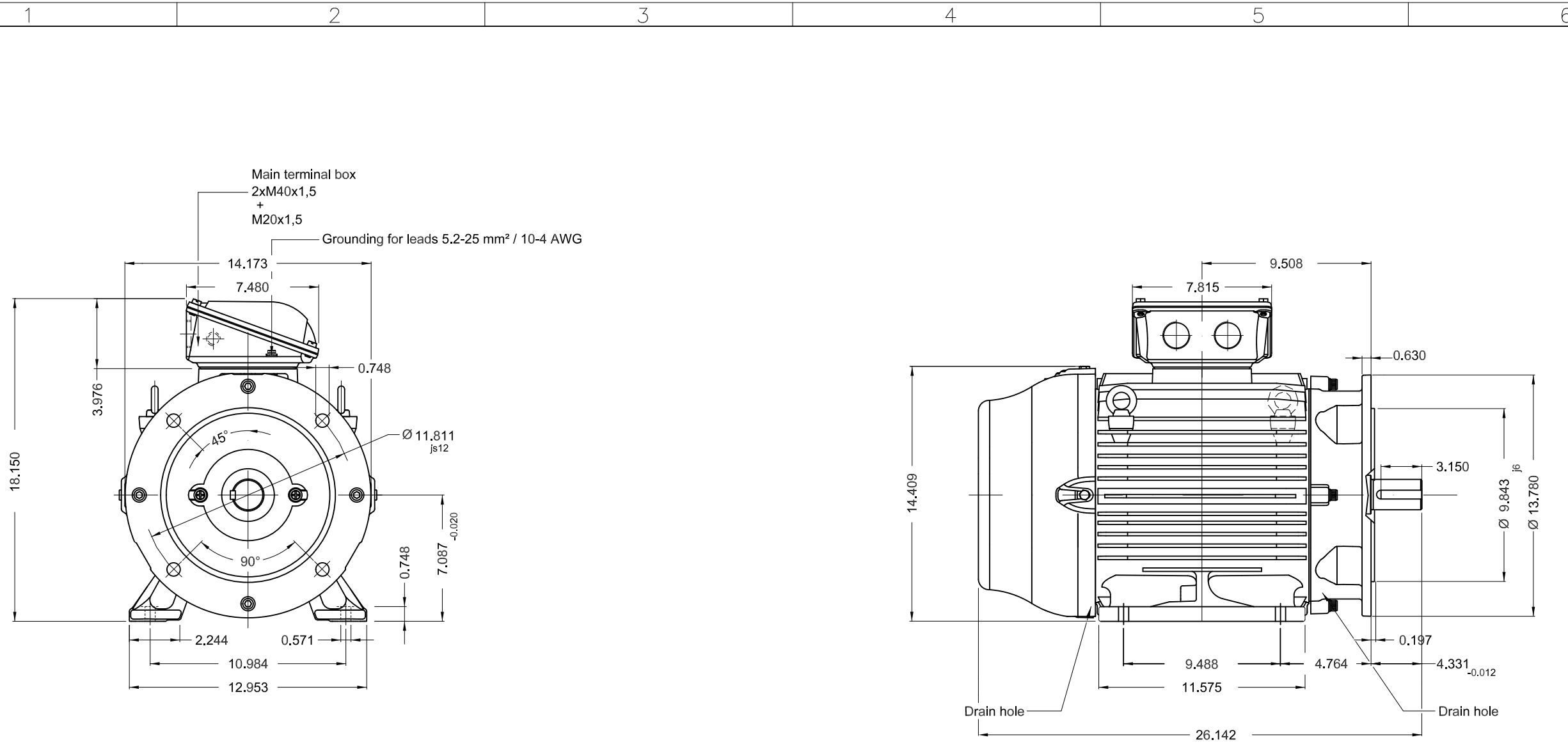


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Locked rotor torque	: 320 %	Service factor	: 1.25
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: N

Heating constant : 25.2 min
Cooling constant : 75.6 min

Rev.	Changes Summary		Rev.	Checked	Date
Performed by	johnson		1228358314 Page 5 / 5 Rev. 1		
Checked by					
Date	02/11/2021				



Color RAL 5009
 Painting plan 203A
 Mounting B35T

18.5 kW 04 Poles 60 Hz A

GOL PUMP TECHNOLOGY, INC.

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PHASE W22 MOTOR - PREMIUM EFF					
CHECKED		FRAME 180M IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

PREVIEW
WDD

SHEET 1 / 1