

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer : GOL PUMP TECHNOLOGY, INC.

Product line : W22 - IE3 Premium Efficiency

Frame	: 315S/M	Locked rotor time	: 28 s (hot) 50 s (cold)
Output	: 110 kW	Temperature rise	: 80 K
Poles	: 2	Duty cycle	: S1
Frequency	: 60 Hz	Ambient temperature	: -20 °C to +40 °C
Rated voltage	: 230/460 V	Altitude	: 3280 ft
Rated current	: 329/165 A	Protection degree	: IP55
L. R. Amperes	: 2402/1201 A	Cooling method	: IC411 - TEFC
LRC	: 7.3	Mounting	: B35T
No load current	: 95.7/47.8 A	Rotation <sup>1</sup>	: Both
Rated speed	: 3580 rpm	Noise level <sup>2</sup>	: 81.0 dB(A)
Slip	: 0.56 %	Vibration class	: A
Rated torque	: 294 Nm	Starting method	: Direct On Line
Locked rotor torque	: 180 %	Coupling	: Direct
Pull up torque	: 120 %	Approx. weight <sup>3</sup>	: 1940 lb
Breakdown torque	: 290 %	Painting plan	: 203A
Insulation class	: F	Color	: RAL 5009
Service factor	: 1.25	Design	: N
Moment of inertia (J)	: 37.7 sq.ft.lb		

Output	50%	75%	100%	Load type	: -
Efficiency (%)	93.0	94.5	95.3	Load torque	: -
Power Factor	0.78	0.85	0.88	Load inertia (J=GD <sup>2</sup> /4)	: -

Bearing type Lubrication interval Lubricant amount Lubricant type	Drive end	Non drive end	Foundation loads Max. traction : 2387.6 N Max. compression : 11020.4 N
	6314-C3	6314-C3	
	4000 h	4000 h	
	27 g	27 g	
	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	1228356654 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	

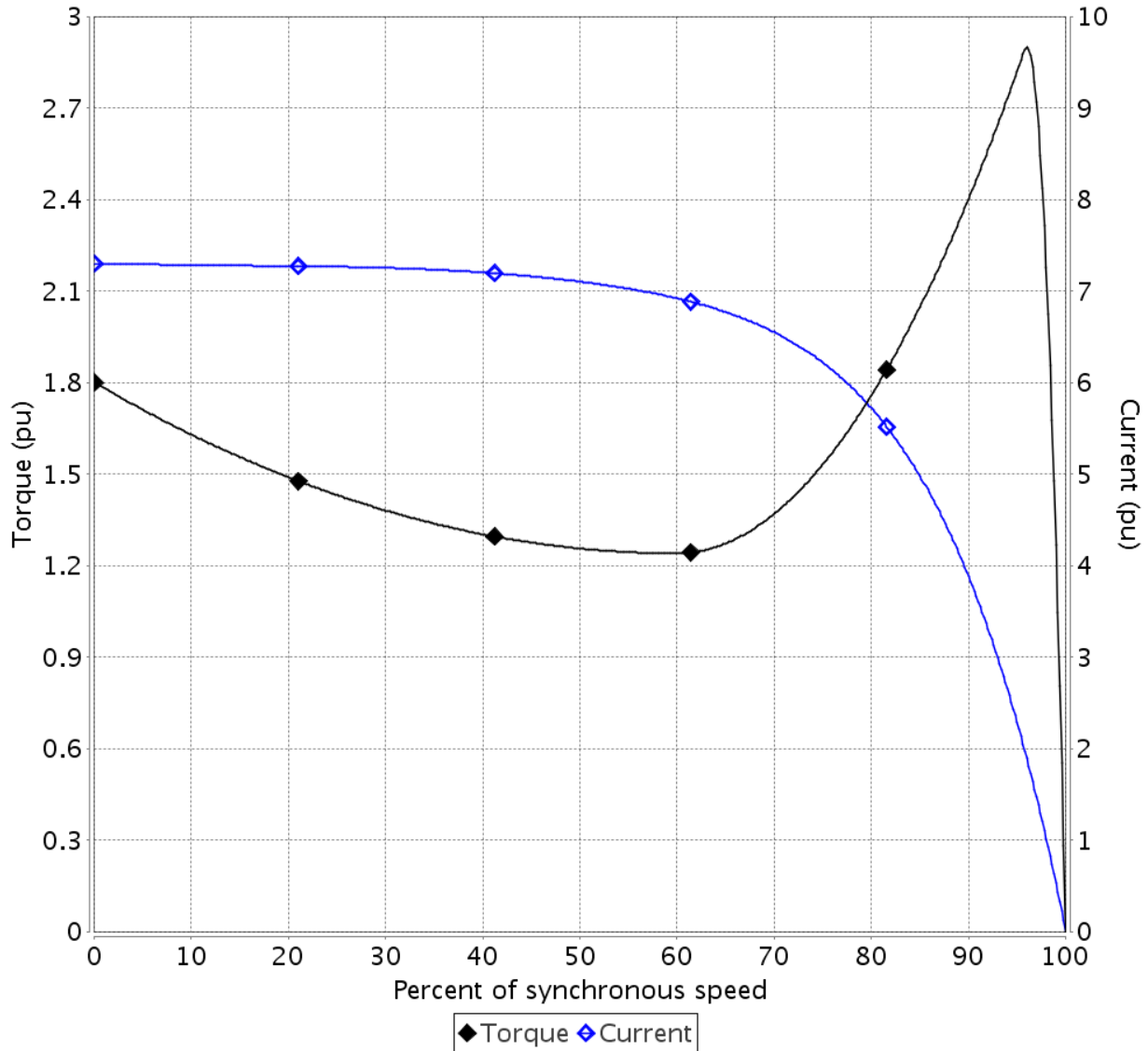
# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer : GOL PUMP TECHNOLOGY, INC.

Product line : W22 - IE3 Premium Efficiency



Performance : 110 kW 230/460 V 60 Hz 2P 315S/M

Rated current	: 329/165 A	Moment of inertia (J)	: 37.7 sq.ft.lb
LRC	: 7.3	Duty cycle	: S1
Rated torque	: 294 Nm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.25
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 3580 rpm	Design	: N

Locked rotor time 100% : 28 s (hot) 50 s (cold)

Load inertia (J=GD<sup>2</sup>/4) : 37.7 sq.ft.lb

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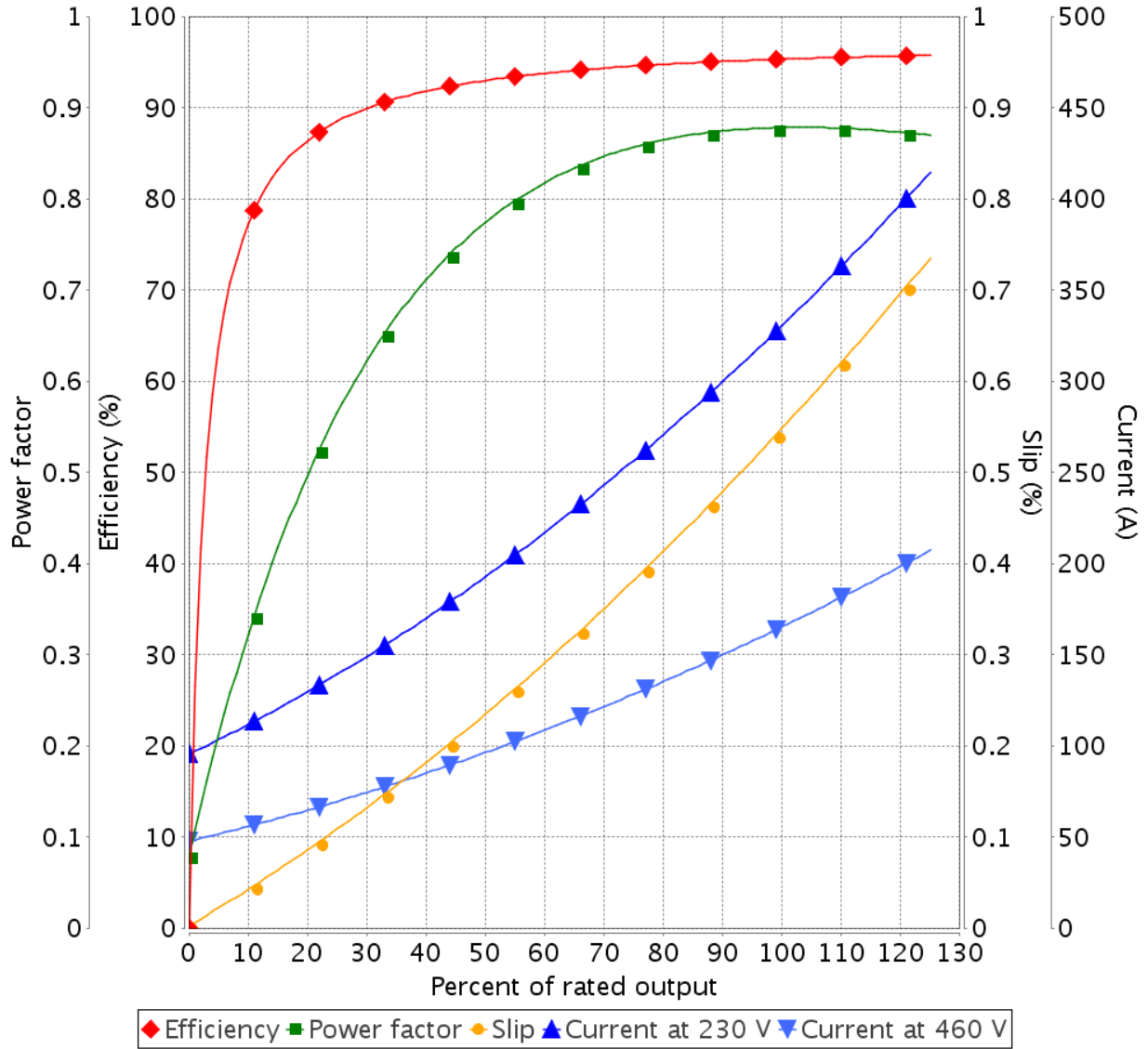
# LOAD PERFORMANCE CURVE

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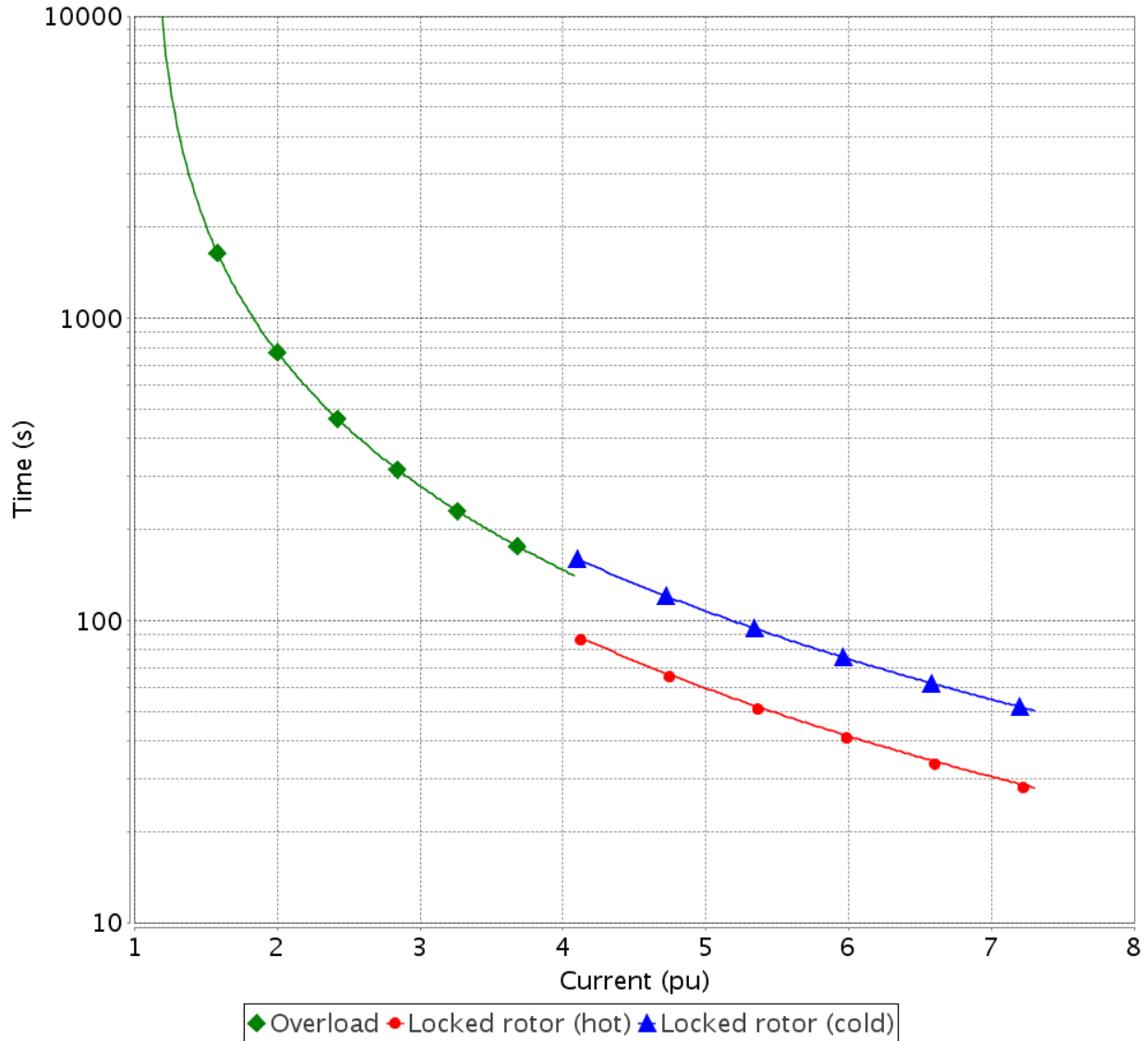
# THERMAL LIMIT CURVE

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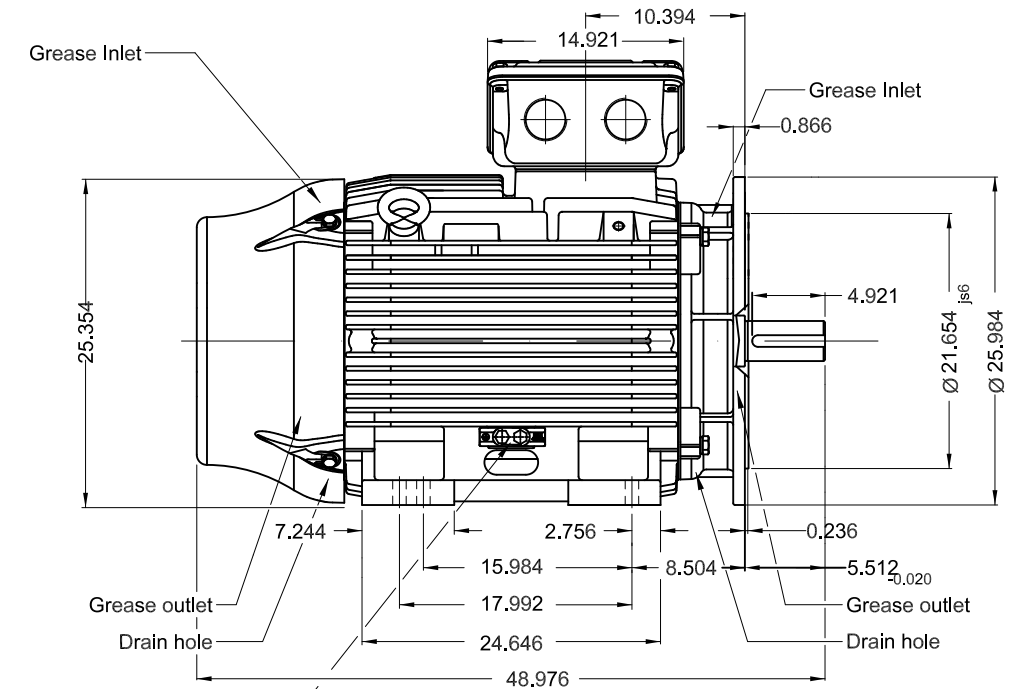
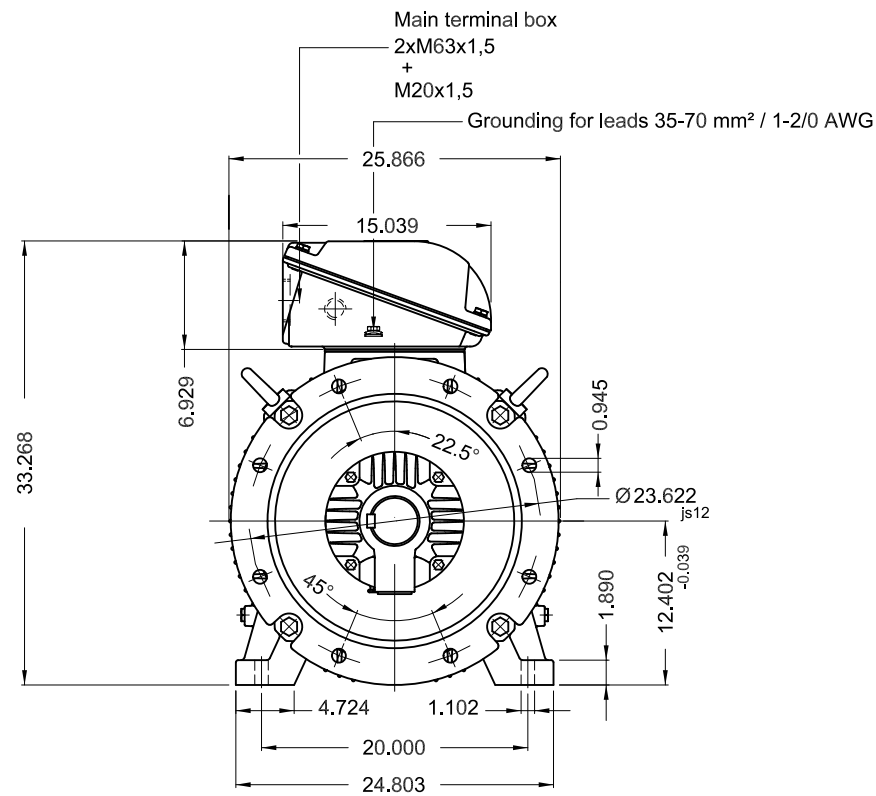


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Locked rotor torque	: 180 %	Service factor	: 1.25
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 3580 rpm	Design	: N

Heating constant : 37.3 min  
Cooling constant : 111.9 min

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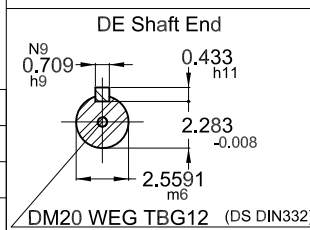


Grounding for leads 25-185 mm² / 3AWG-350MCM

110 kW 02 Poles 60 Hz

GOL PUMP TECHNOLOGY, INC.

NDE endshield with electrically insulated bearing hub  
 Color RAL 5009  
 Painting plan 203A  
 Mounting B35T



ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWUSER	THREE PHASE W22 MOTOR - PREMIUM EFF					
CHECKED		FRAME 315S/M IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

PREVIEW  
 WDD



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Dimensions in inches

XME A3