

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer : GOL PUMP TECHNOLOGY, INC.

Product line : W22 - IE3 Premium Efficiency

Frame	: 160M	Locked rotor time	: 10 s (hot) 18 s (cold)
Output	: 15 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	: 47.6/23.8 A	Protection degree	: IP55
L. R. Amperes	: 362/181 A	Cooling method	: IC411 - TEFC
LRC	: 7.6	Mounting	: B35T
No load current	: 18.0/8.99 A	Rotation <sup>1</sup>	: Both
Rated speed	: 3545 rpm	Noise level <sup>2</sup>	: 72.0 dB(A)
Slip	: 1.53 %	Vibration class	: A
Rated torque	: 40.4 Nm	Starting method	: Direct On Line
Locked rotor torque	: 270 %	Coupling	: Direct
Pull up torque	: 185 %	Approx. weight <sup>3</sup>	: 254 lb
Breakdown torque	: 320 %	Painting plan	: 203A
Insulation class	: F	Color	: RAL 5009
Service factor	: 1.25	Design	: N
Moment of inertia (J)	: 1.31 sq.ft.lb		

Output	50%	75%	100%	Load type	: -
Efficiency (%)	90.0	90.8	91.0	Load torque	: -
Power Factor	0.74	0.83	0.87	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 : 1473.4 N Max. compression : 2601.5 N
	6309-ZZ-C3	6209-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.

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Customer : GOL PUMP TECHNOLOGY, INC.

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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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(1) Looking the motor from the shaft end.  
(2) Measured at 1m and with tolerance of +3dB(A).  
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(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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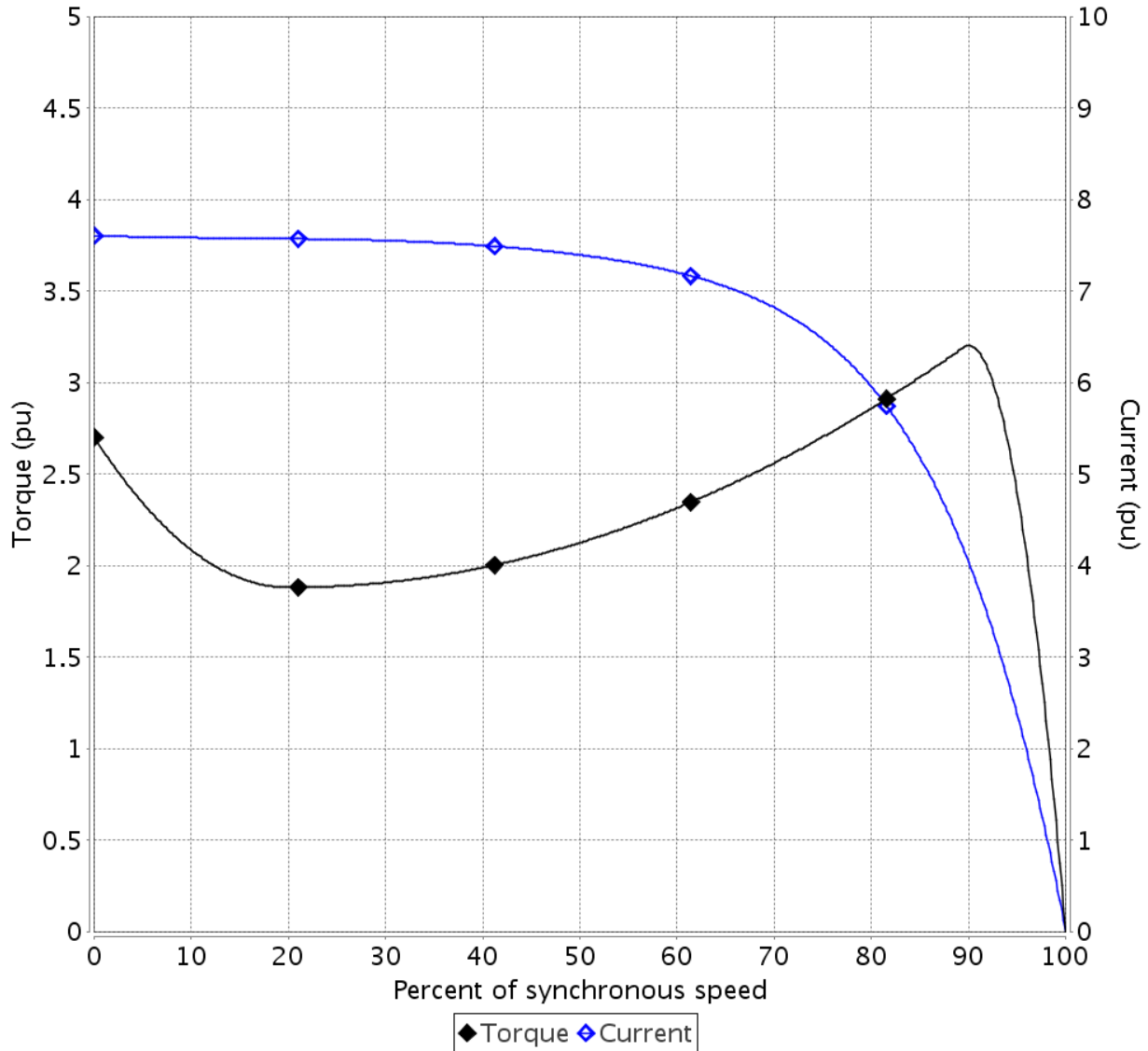
# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer : GOL PUMP TECHNOLOGY, INC.

Product line : W22 - IE3 Premium Efficiency



Performance : 15 kW 230/460 V 60 Hz 2P 160M

Rated current	: 47.6/23.8 A	Moment of inertia (J)	: 1.31 sq.ft.lb
LRC	: 7.6	Duty cycle	: S1
Rated torque	: 40.4 Nm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.25
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 3545 rpm	Design	: N

Locked rotor time 100% : 10 s (hot) 18 s (cold)

Load inertia (J=GD<sup>2</sup>/4) : 1.31 sq.ft.lb

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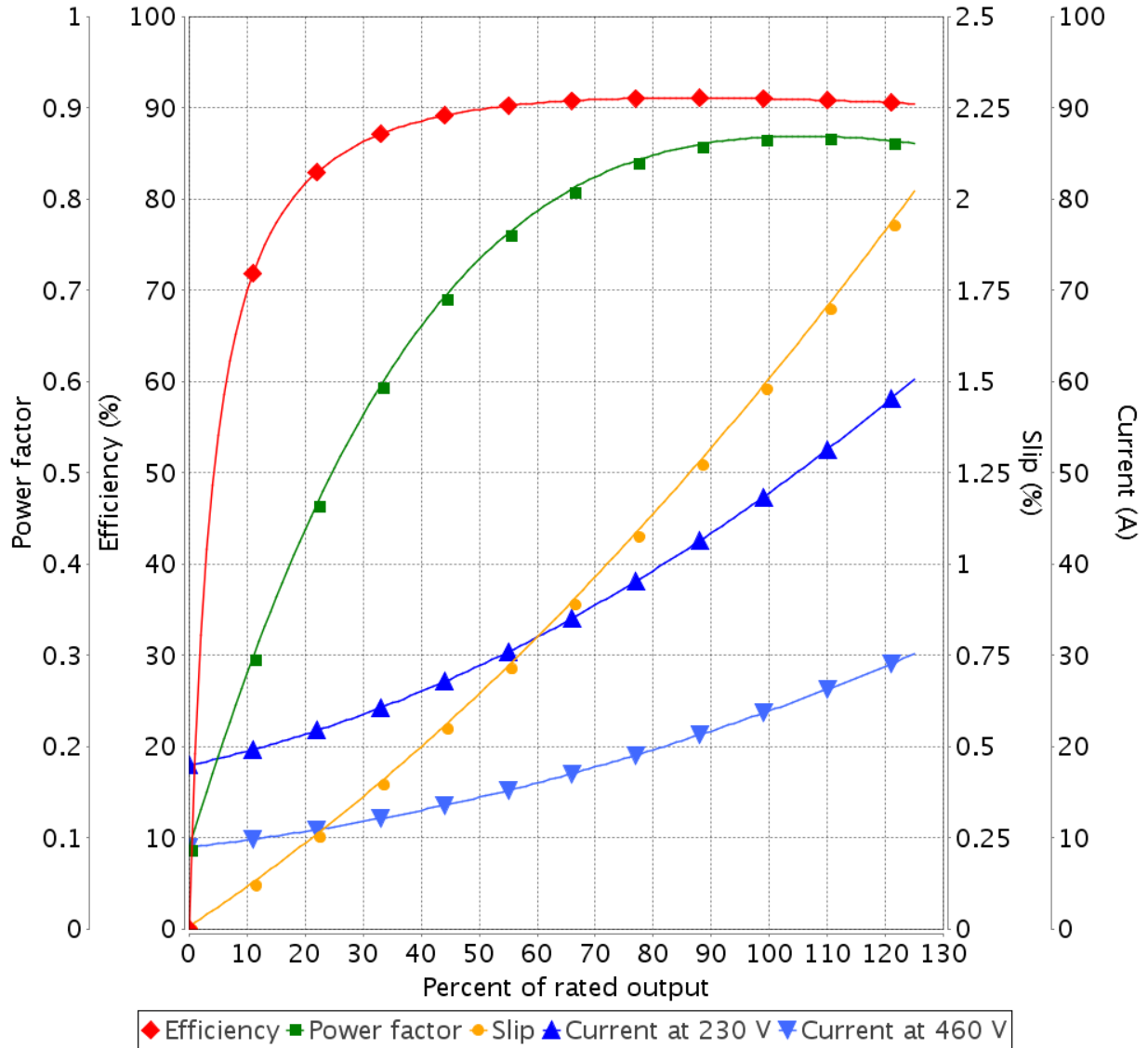
# LOAD PERFORMANCE CURVE

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Product line : W22 - IE3 Premium Efficiency



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LRC	: 7.6	Duty cycle	: S1
Rated torque	: 40.4 Nm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.25
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 3545 rpm	Design	: N

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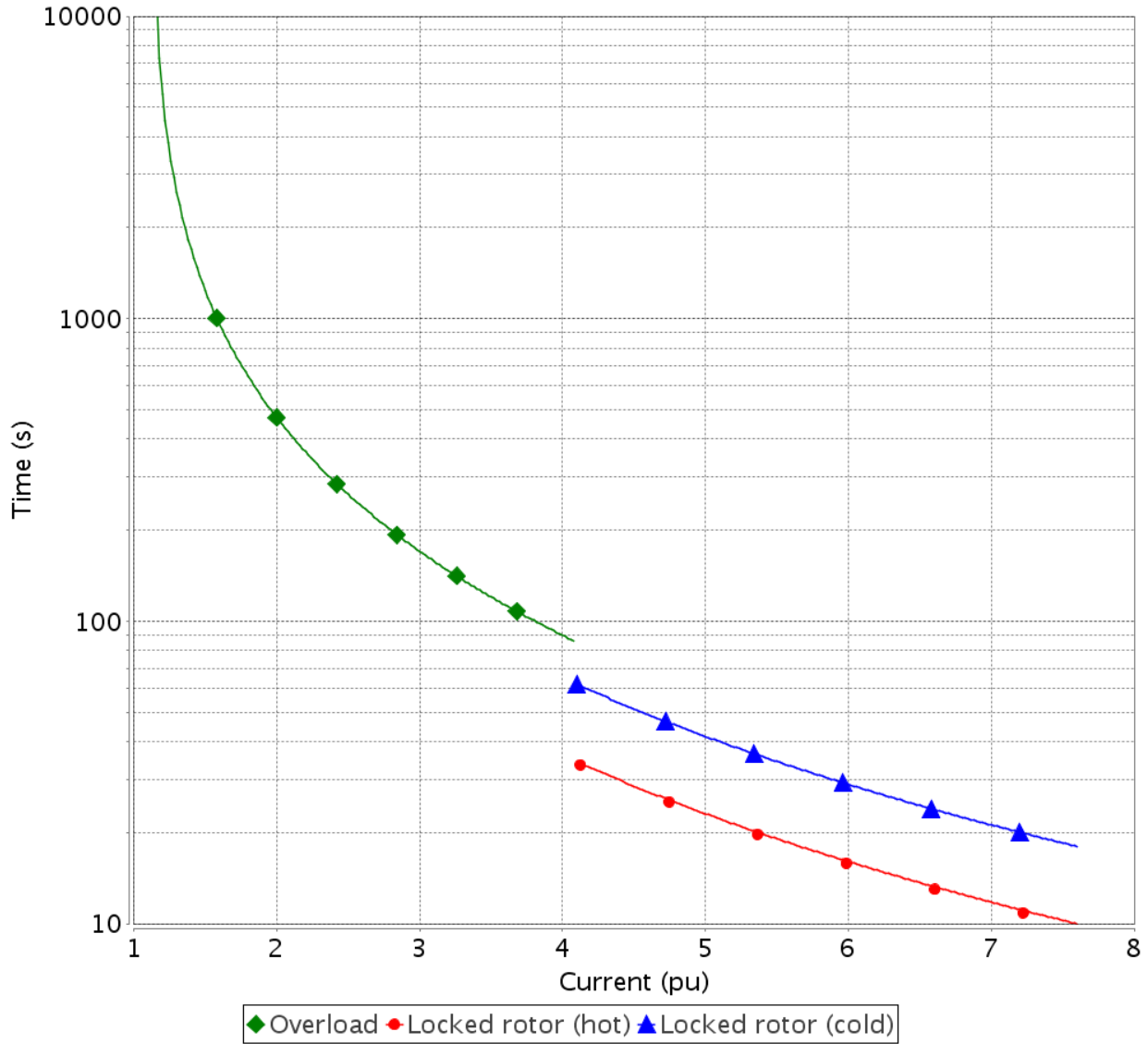
# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



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Product line : W22 - IE3 Premium Efficiency



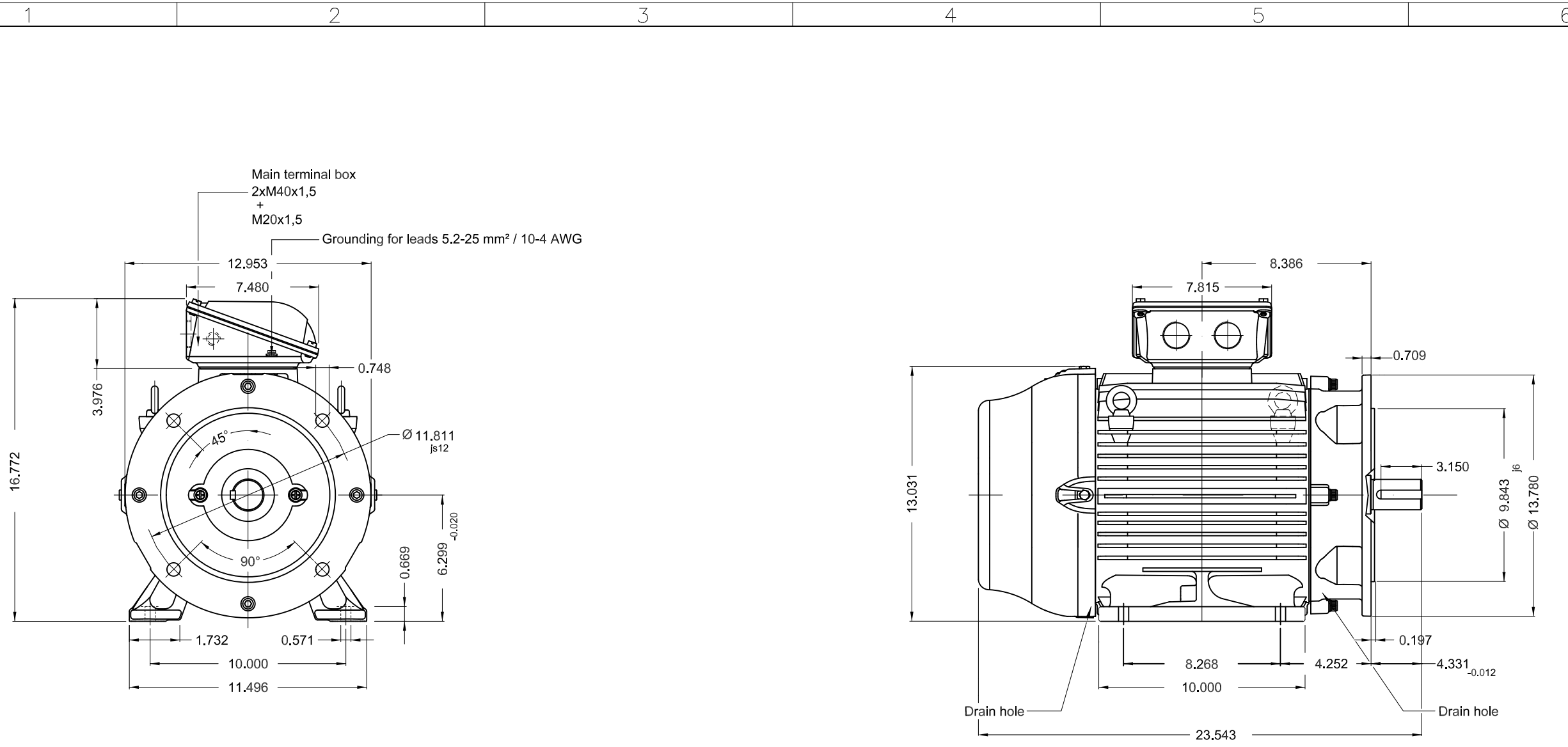
Performance : 15 kW 230/460 V 60 Hz 2P 160M

Rated current	: 47.6/23.8 A	Moment of inertia (J)	: 1.31 sq.ft.lb
LRC	: 7.6	Duty cycle	: S1
Rated torque	: 40.4 Nm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.25
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 3545 rpm	Design	: N

Heating constant : 22.8 min

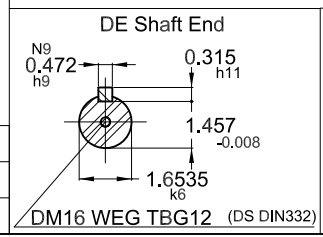
Cooling constant : 68.4 min

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A  
B  
C  
D  
E

Color RAL 5009  
Painting plan 203A  
Mounting B35T



15 kW 02 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 160M IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

**PREVIEW**  
WDD

**WEG**

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Dimensions in inches XME A3