

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : Premium Efficiency Three-Phase      Product code : 13326501  
Catalog # : .5018OT3H56-S

Frame	: 56	Locked rotor time	: 48s (cold) 27s (hot)
Output	: 0.5 HP (0.37 kW)	Temperature rise	: 80 K
Poles	: 4	Duty cycle	: Cont.(S1)
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 575 V	Altitude	: 1000 m.a.s.l.
Rated current	: 0.689 A	Cooling method	: IC01 - ODP
L. R. Amperes	: 4.96 A	Mounting	: F-1
LRC	: 7.2x(Code L)	Rotation <sup>1</sup>	: Both (CW and CCW)
No load current	: 0.520 A	Noise level <sup>2</sup>	: 52.0 dB(A)
Rated speed	: 1765 rpm	Starting method	: Direct On Line
Slip	: 1.94 %	Approx. weight <sup>3</sup>	: 20.6 lb
Rated torque	: 1.49 ft.lb		
Locked rotor torque	: 240 %		
Breakdown torque	: 330 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 0.0584 sq.ft.lb		

Output	25%	50%	75%	100%	Foundation loads	
Efficiency (%)	67.5	70.0	75.5	78.2	Max. traction	: 38 lb
Power Factor	0.26	0.47	0.60	0.69	Max. compression	: 58 lb

	<u>Drive end</u>	<u>Non drive end</u>
Bearing type	: 6203 ZZ	: 6202 ZZ
Sealing	: Without Bearing Seal	: Without Bearing Seal
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 NEMA MG-1.

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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase

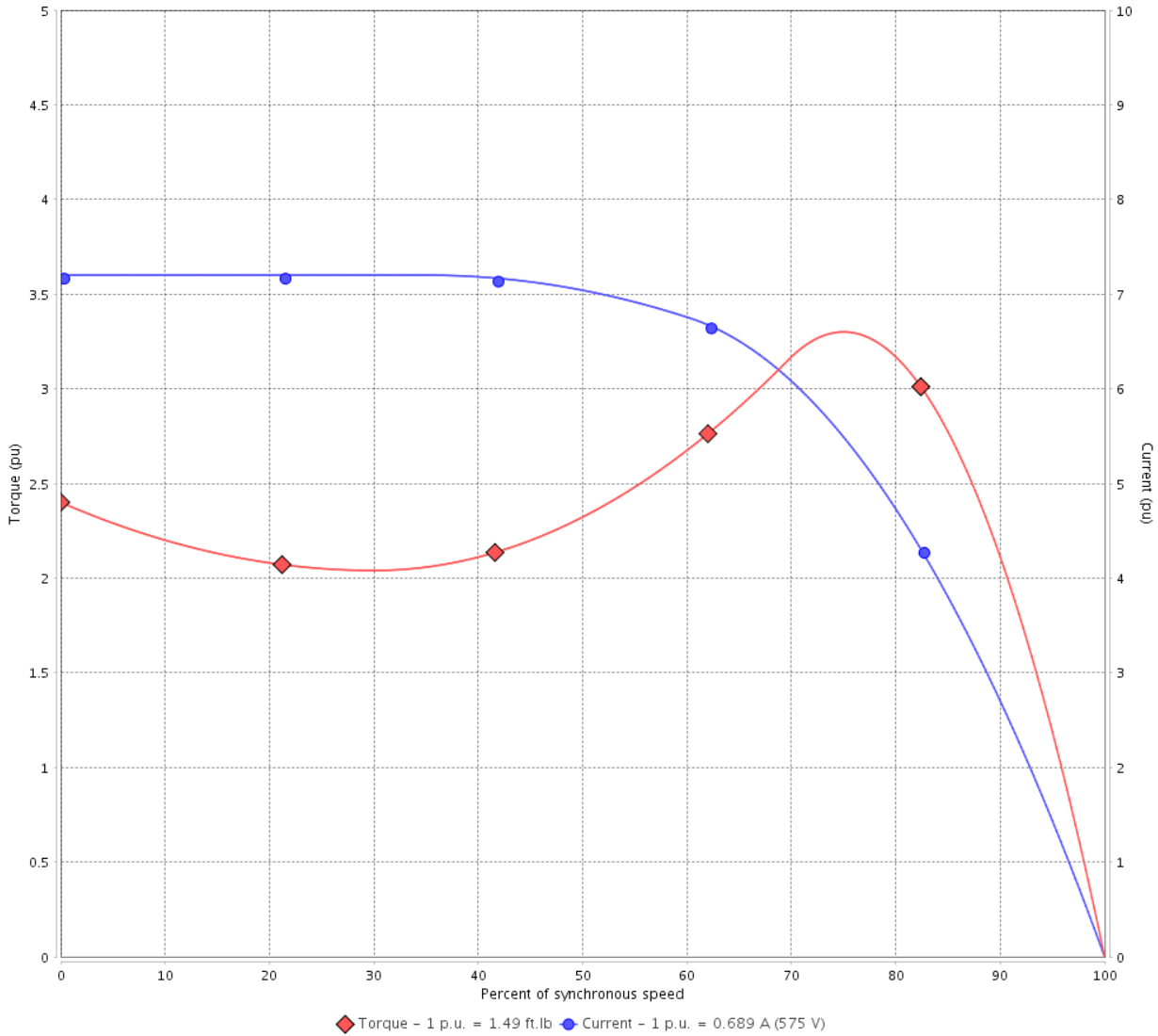
Product code :

13326501

Catalog # :

.5018OT3H56-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 4P

Rated current : 0.689 A  
 LRC : 7.2  
 Rated torque : 1.49 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 330 %  
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.0584 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K

Locked rotor time : 48s (cold) 27s (hot)

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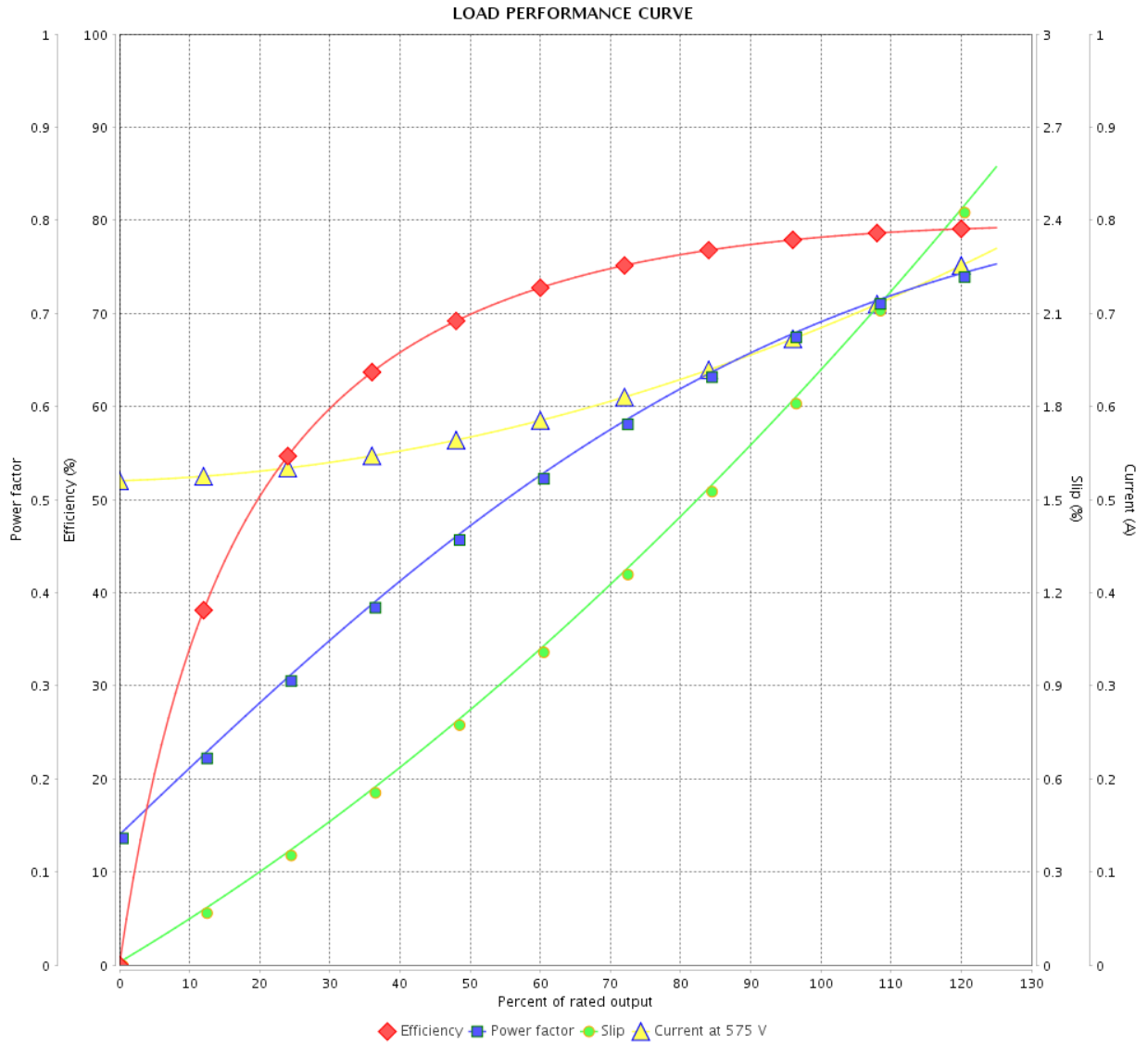
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



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 Catalog # : .5018OT3H56-S



Performance : 575 V 60 Hz 4P

Rated current : 0.689 A  
 LRC : 7.2  
 Rated torque : 1.49 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 330 %  
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.0584 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K

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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

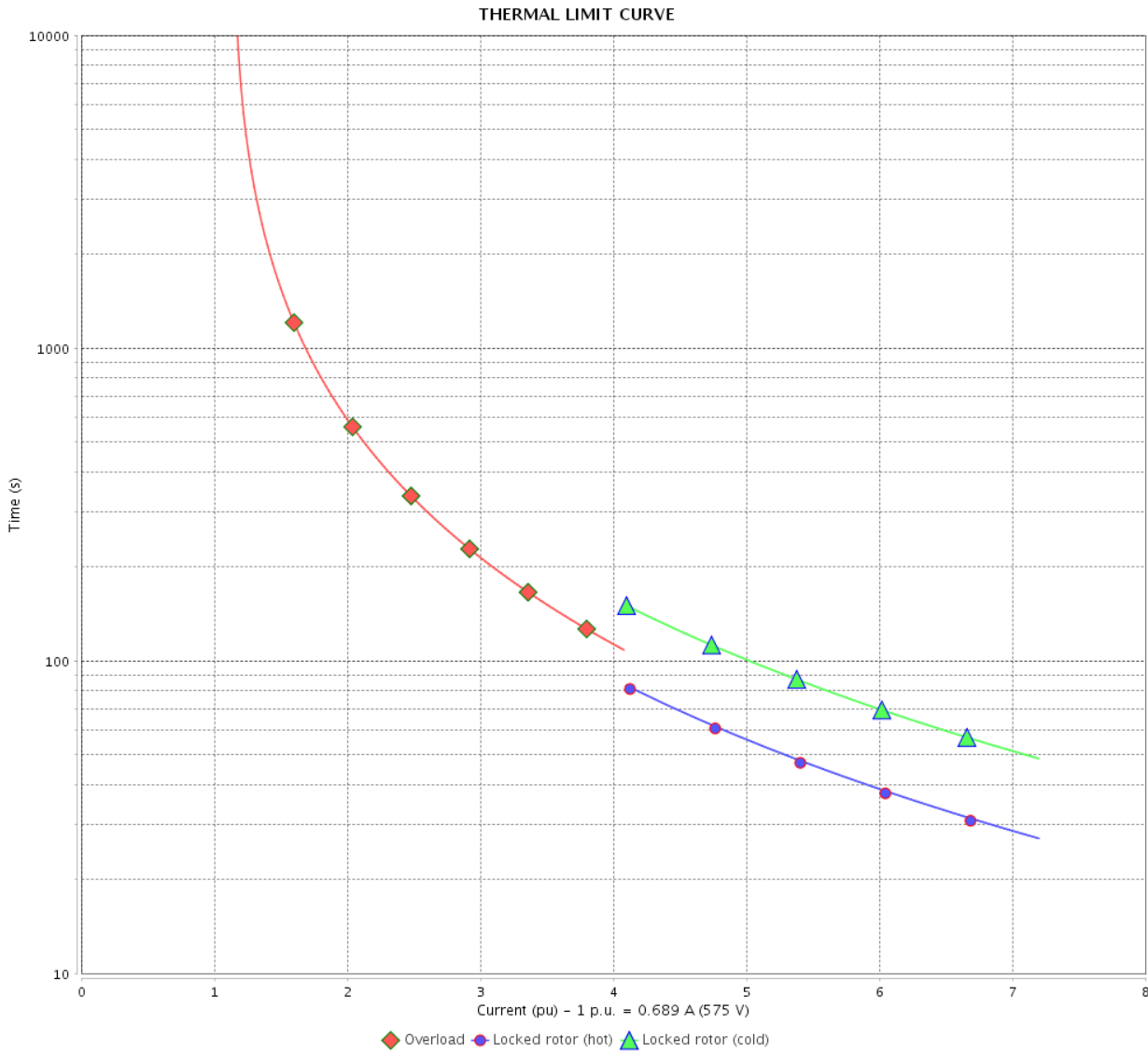
Product line : Premium Efficiency Three-Phase

Product code :

13326501

Catalog # :

.5018OT3H56-S



Performance : 575 V 60 Hz 4P

Rated current : 0.689 A  
 LRC : 7.2  
 Rated torque : 1.49 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 330 %  
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.0584 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K

Heating constant  
 Cooling constant

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		Revision		

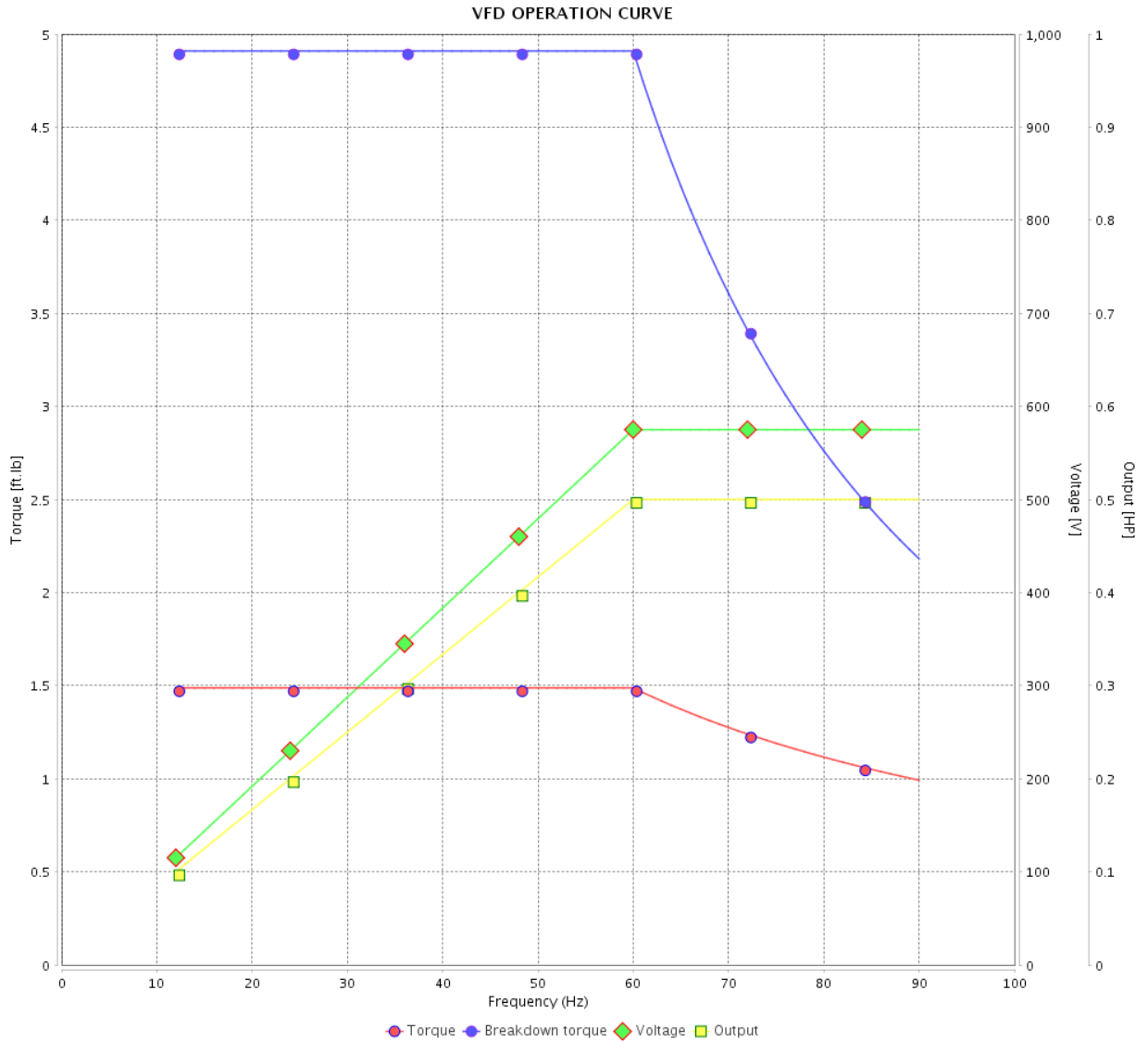
# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage



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 Catalog # : .5018OT3H56-S



Performance : 575 V 60 Hz 4P

Rated current : 0.689 A  
 LRC : 7.2  
 Rated torque : 1.49 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 330 %  
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.0584 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K

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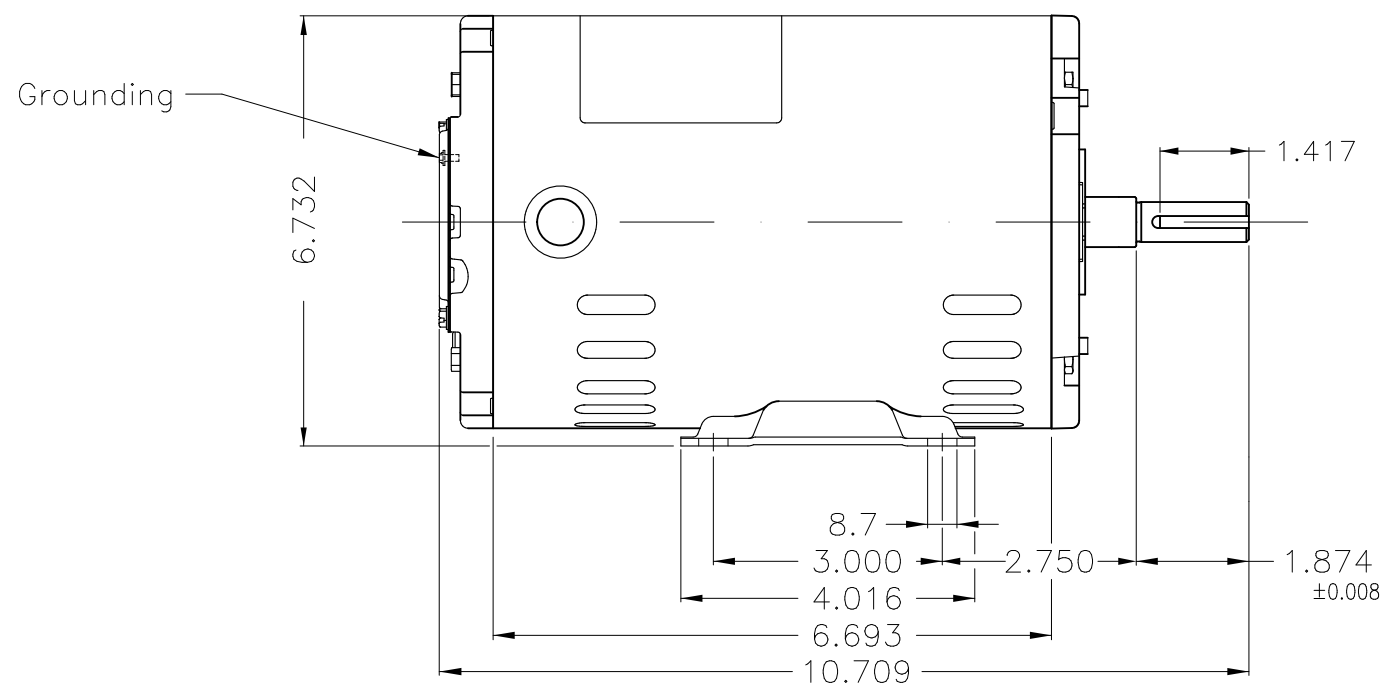
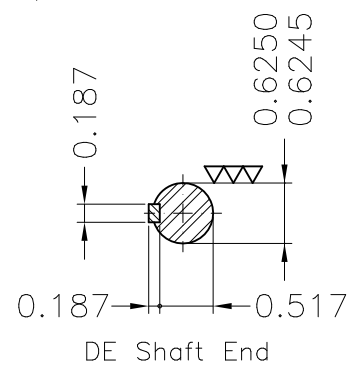
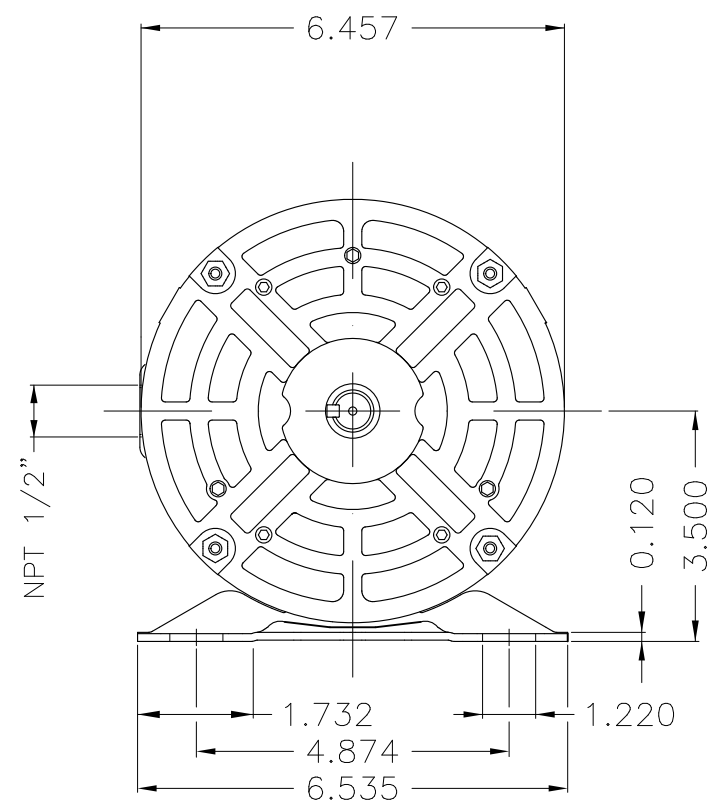
A

B

C

D

E



Dimensions in inches

Without coating										
Mounting F-1/B3R(D)										
ECM	LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWUSER	THREE PH. MOTOR ROLLED STEEL PREM. EFF.					<b>PREVIEW</b> WDD			
CHECKED		FRAME 56 IP21 ODP								
RELEASED										
REL DT.		WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1				

0.5 HP 04 Poles 60 Hz

A

XME A3



**NEMA**  
**Premium**



MADE IN MEXICO

**MAT: 13326501**

**W01.T00IC0X0X**


**MODEL .50180T3H56-S**

**01MAR2022 B/N:**

PH 3	Hz 60	HP 0.50
FR 56		KW 0.37
DUTY CONT.		V 575
ALT 1000 m.a.s.l		A 0.689
INS CL F AT 80K		SFA 0.861
AMB 40°C	DES -	SF 1.25
ENCL ODP	CODE L	PF 0.69
		RPM 1765
		AVG.F.L. 78.2% EFF.

Inverter duty motor For use on VPWM 1000:1 VT, 5:1 CT

DE 6203-ZZ ODE 6202-ZZ MOBIL POLYREX EM

T1 T2 T3  
  
 L1 L2 L3

T1-BLU

T2-WHT

T3-ORG

INTERCHANGE ANY TWO LINE WIRES TO REVERSE THE ROTATION

**WARNING:** Motor must be grounded in accordance with local and national electrical codes to prevent serious electrical shocks. Disconnect power source before servicing unit.



**AVERTISSEMENT:** Le moteur doit être mis à la terre

conformément aux codes électriques locaux et nationaux afin d'éviter tout choc électrique grave. Déconnectez l'alimentation avant l'entretien de la machine.

