

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line		: Standard Efficiency Three-Phase		Product code : 14797028 Catalog # : .5018ES3H56C-S	
Frame	: 56C	Locked rotor time	: 36s (cold) 20s (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	: 0.690 A	Protection degree	: IP55		
L. R. Amperes	: 4.83 A	Cooling method	: IC411 - TEFC		
LRC	: 7.0x(Code L)	Mounting	: F-1		
No load current	: 0.480 A	Rotation <sup>1</sup>	: Both (CW and CCW)		
Rated speed	: 1760 rpm	Noise level <sup>2</sup>	: 52.0 dB(A)		
Slip	: 2.22 %	Starting method	: Direct On Line		
Rated torque	: 1.49 ft.lb	Approx. weight <sup>3</sup>	: 22.1 lb		
Locked rotor torque	: 240 %				
Breakdown torque	: 300 %				
Insulation class	: F				
Service factor	: 1.15				
Moment of inertia (J)	: 0.0584 sq.ft.lb				
Output	25%	50%	75%	100%	
Efficiency (%)	65.4	68.0	74.0	77.0	
Power Factor	0.28	0.48	0.61	0.70	
Foundation loads					
Max. traction : 32 lb					
Max. compression : 55 lb					
		<u>Drive end</u>	<u>Non drive end</u>		
Bearing type	:	6203 ZZ	6202 ZZ		
Sealing	:	V'Ring	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.		
Rev.	Changes Summary		Performed	Checked	Date
Performed by					
Checked by					
Date	11/04/2022			Page	Revision
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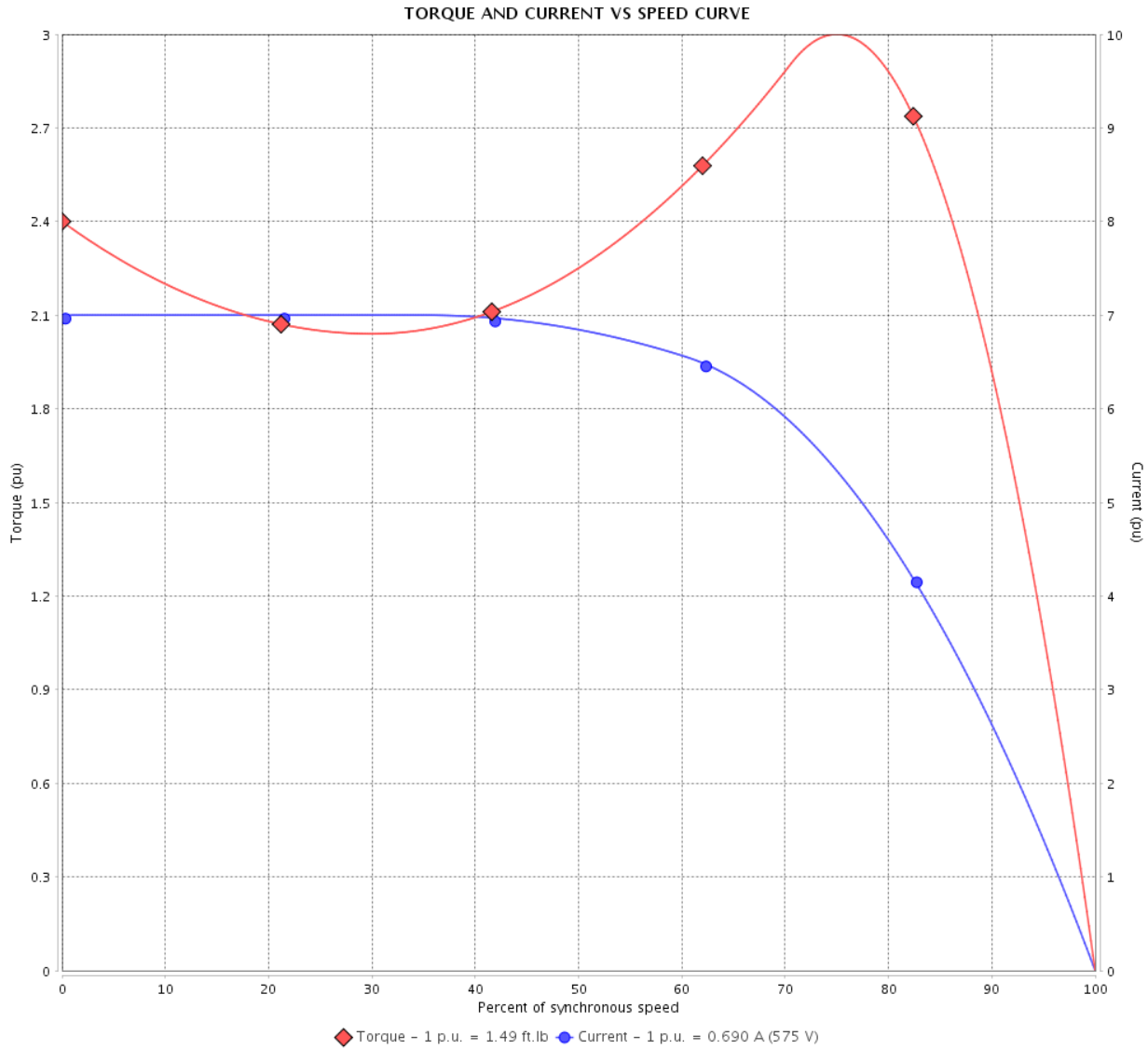
# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Standard Efficiency Three-Phase      Product code : 14797028  
 Catalog # : .5018ES3H56C-S



Performance : 575 V 60 Hz 4P

Rated current	: 0.690 A	Moment of inertia (J)	: 0.0584 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 1.49 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1760 rpm		

Locked rotor time : 36s (cold) 20s (hot)

Rev.	Changes Summary	Performed	Checked	Date
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Date	11/04/2022			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

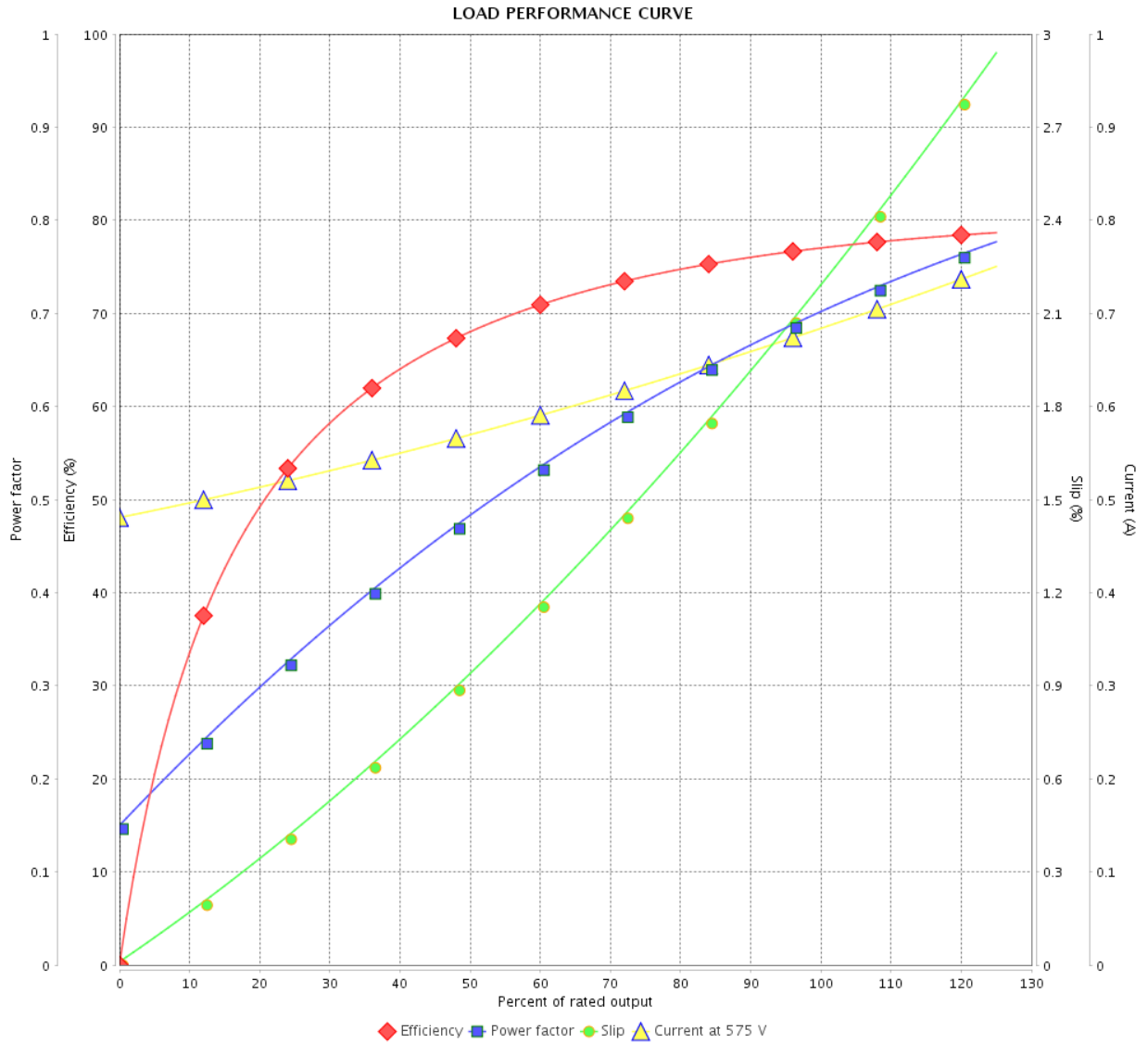


Customer : \_\_\_\_\_

Product line : Standard Efficiency Three-Phase

Product code : 14797028

Catalog # : .5018ES3H56C-S



Performance : 575 V 60 Hz 4P

Rated current : 0.690 A  
 LRC : 7.0  
 Rated torque : 1.49 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 300 %  
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.0584 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K

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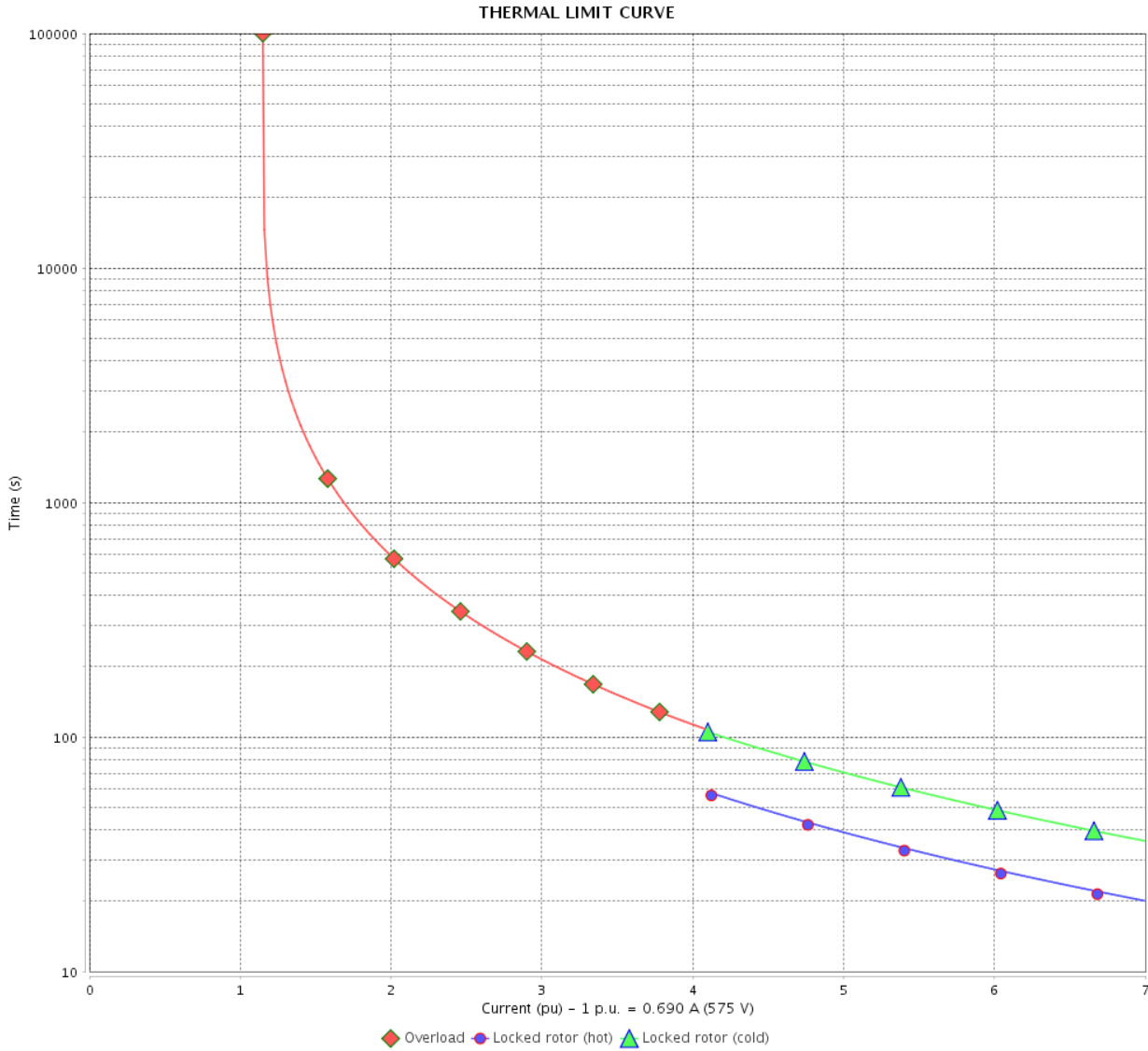
# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

Product line : Standard Efficiency Three-Phase      Product code : 14797028  
 Catalog # : .5018ES3H56C-S



Performance : 575 V 60 Hz 4P

Rated current	: 0.690 A	Moment of inertia (J)	: 0.0584 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 1.49 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1760 rpm		

Heating constant

Cooling constant

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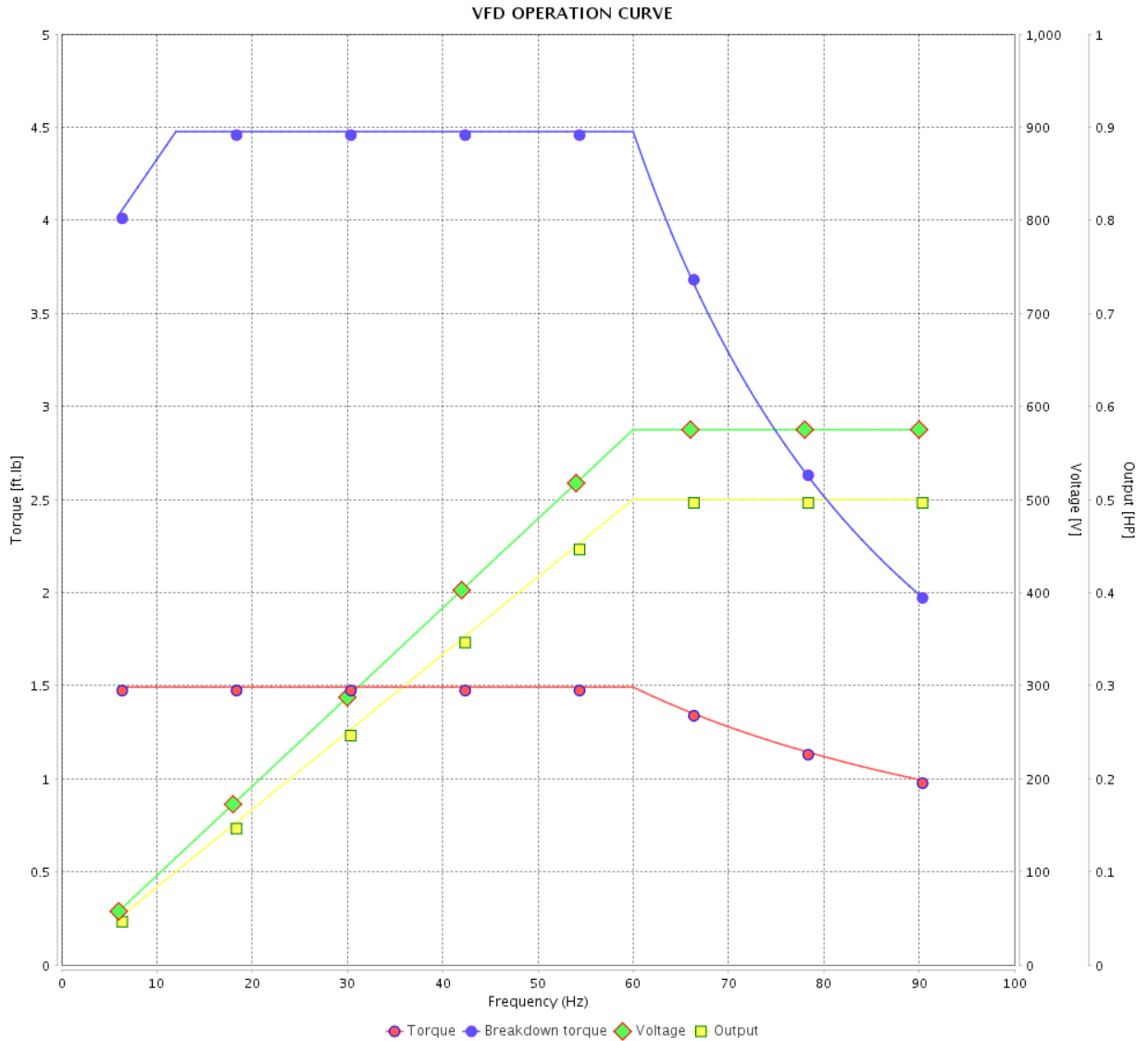
# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage



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Product line : Standard Efficiency Three-Phase      Product code : 14797028  
 Catalog # : .5018ES3H56C-S



Performance : 575 V 60 Hz 4P

Rated current : 0.690 A  
 LRC : 7.0  
 Rated torque : 1.49 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 300 %  
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.0584 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K

Rev.	Changes Summary	Performed	Checked	Date
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Date	11/04/2022			

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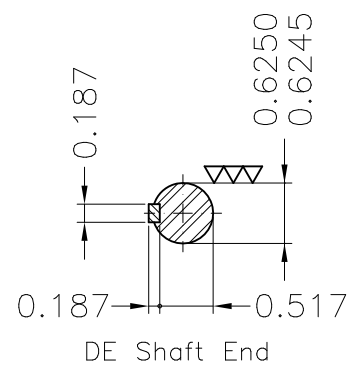
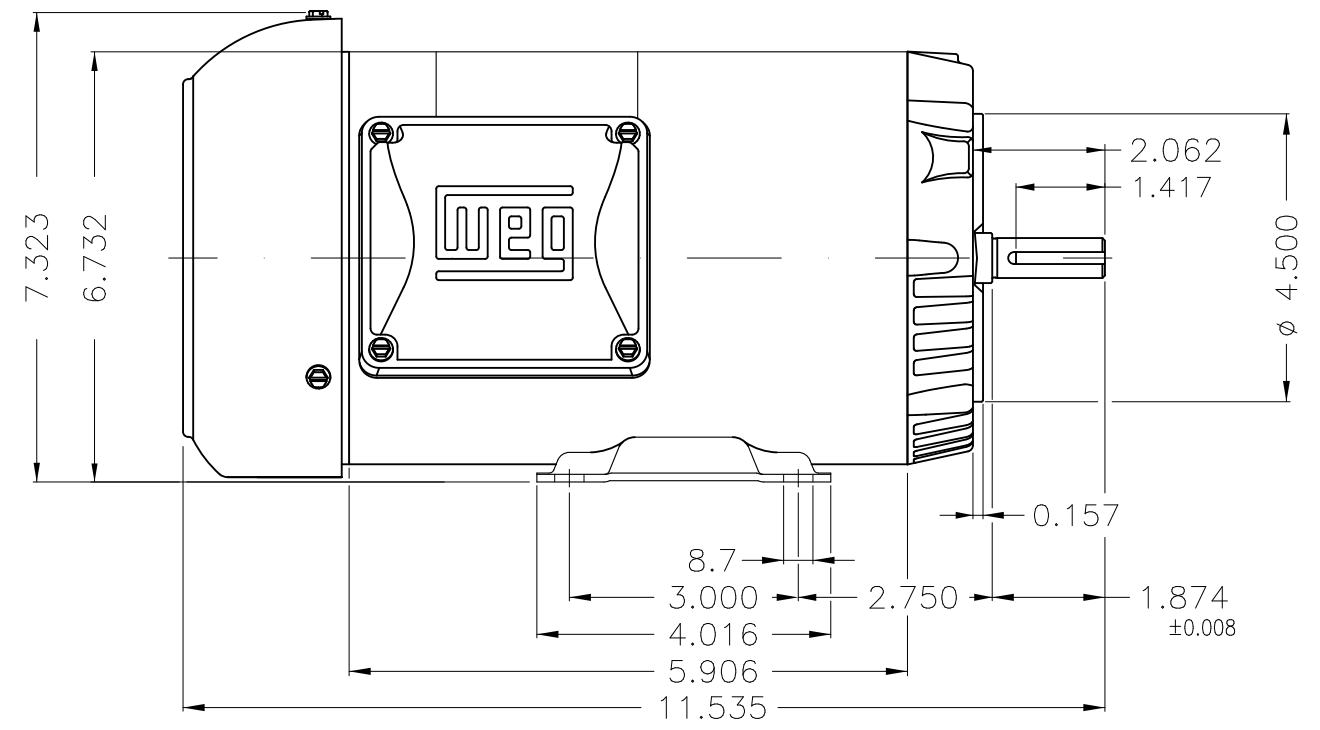
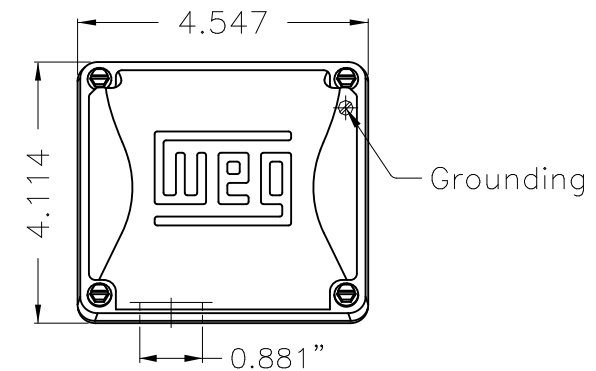
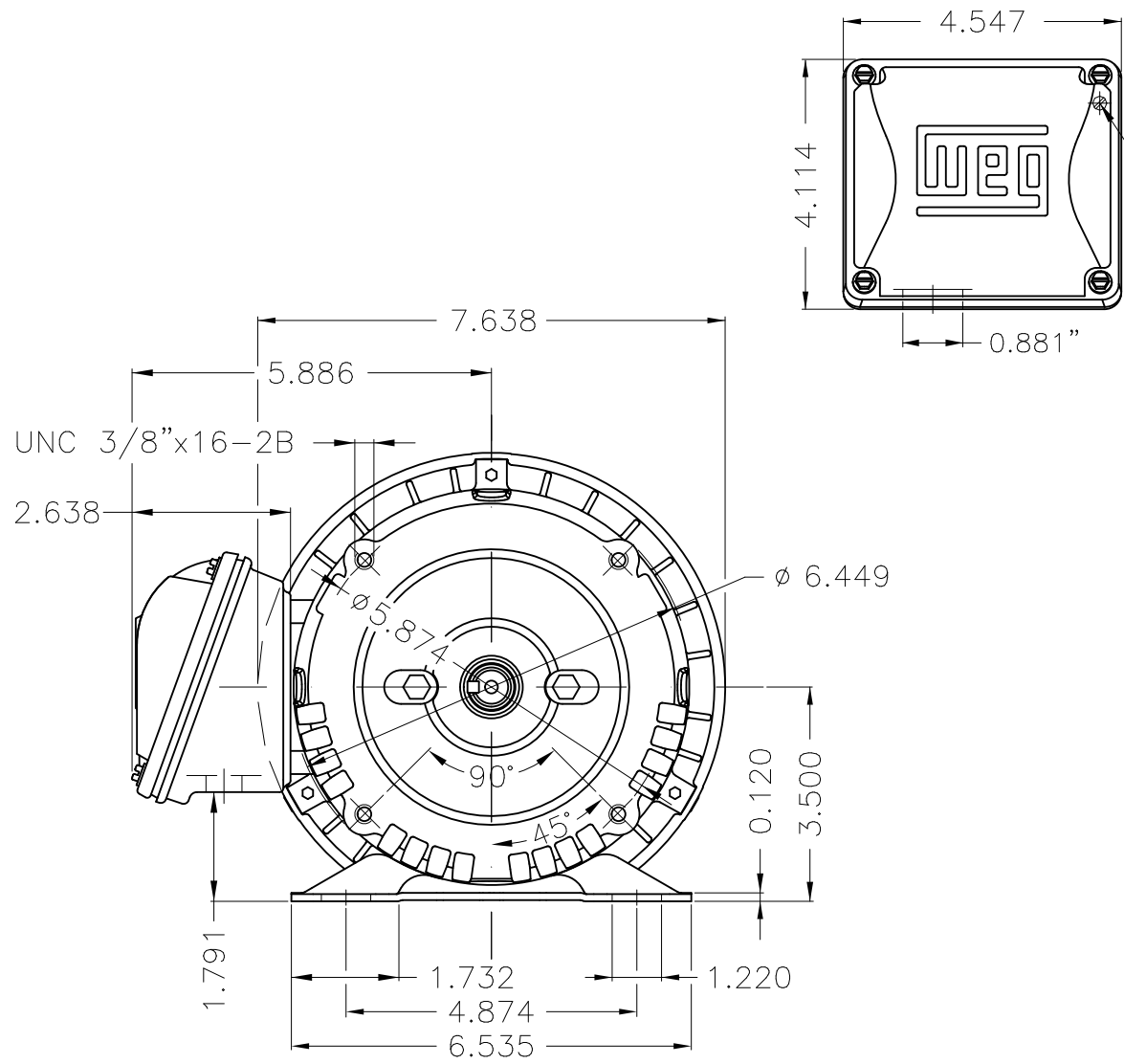
A

B

C

D

E



Dimensions in inches

Fan cover - steel plate  
 Color Munsell N 1 matte black  
 Painting plan 207N  
 Mounting F-1/B34R(D)

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWUSER	THREE PH. MOTOR ROLLED STEEL					
CHECKED		FRAME 56C IP55 TEFC					
RELEASED							

**PREVIEW**  
 WDD



0.5 HP 04 Poles 60 Hz

A REL DT. WMO Jaragua do Sul Product Engineering SHEET 1 / 1

XME A3



MADE IN MEXICO

MAT: 14797028

W01.TE0IC0X0X

MODEL 5018ES3H56C-S

14MAR2022 B/N:

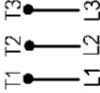


For 60Hz: Class I, Zone 2, IIC  
Class I, Div.2, Gr. A,B,C,D - T3  
DIV 2 Inverter Duty (SF1.00)  
CT 2:1/VT 1000:1

PH 3	Hz 60	HP 0.50
FR 56C		KW 0.37
DUTY CONT.		V 575
ALT 1000 m.a.s.l		A 0.690
INS CL F AT 80K	IP55	SFA 0.793
AMB 40°C	DES -	SF 1.15
ENCL TEFC	CODE L	PF 0.70
		RPM 1760
		NEMA
		NOM. EFF 77.0%

For safe area-inverter duty motor For use on VPWM 1000:1 VT, 10:1 CT

DE 6203-ZZ ODE 6202-ZZ MOBIL POLYREX EM



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.

