

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :				
Product line	: NEMA Premium Efficiency Three-Phase			
Product code :	12770647			
Catalog # :	02018OT3H256T-S			
Frame : 254/6T Output : 20 HP (15 kW) Poles : 4 Frequency : 60 Hz Rated voltage : 575 V Rated current : 20.0 A L. R. Amperes : 126 A LRC : 6.3x(Code G) No load current : 9.15 A Rated speed : 1770 rpm Slip : 1.67 % Rated torque : 59.3 ft.lb Locked rotor torque : 240 % Breakdown torque : 290 % Insulation class : F Service factor : 1.15 Moment of inertia (J) : 2.23 sq.ft.lb Design : B	Locked rotor time : 27s (cold) 15s (hot) Temperature rise : 80 K Duty cycle : Cont.(S1) Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Cooling method : IC01 - ODP Mounting : F-1 Rotation <sup>1</sup> : Both (CW and CCW) Noise level <sup>2</sup> : 64.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 212 lb			
Output	25%    50%    75%    100%			
Efficiency (%)	91.7    92.4    92.4    93.0			
Power Factor	0.38    0.63    0.74    0.81			
Foundation loads				
Max. traction	: 720 lb			
Max. compression	: 931 lb			
Bearing type	: <u>Drive end</u> 6309 Z C3 <u>Non drive end</u> 6208 Z C3			
Sealing	: Without Bearing Seal      Without Bearing Seal			
Lubrication interval	: 20000 h      20000 h			
Lubricant amount	: 13 g      8 g			
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



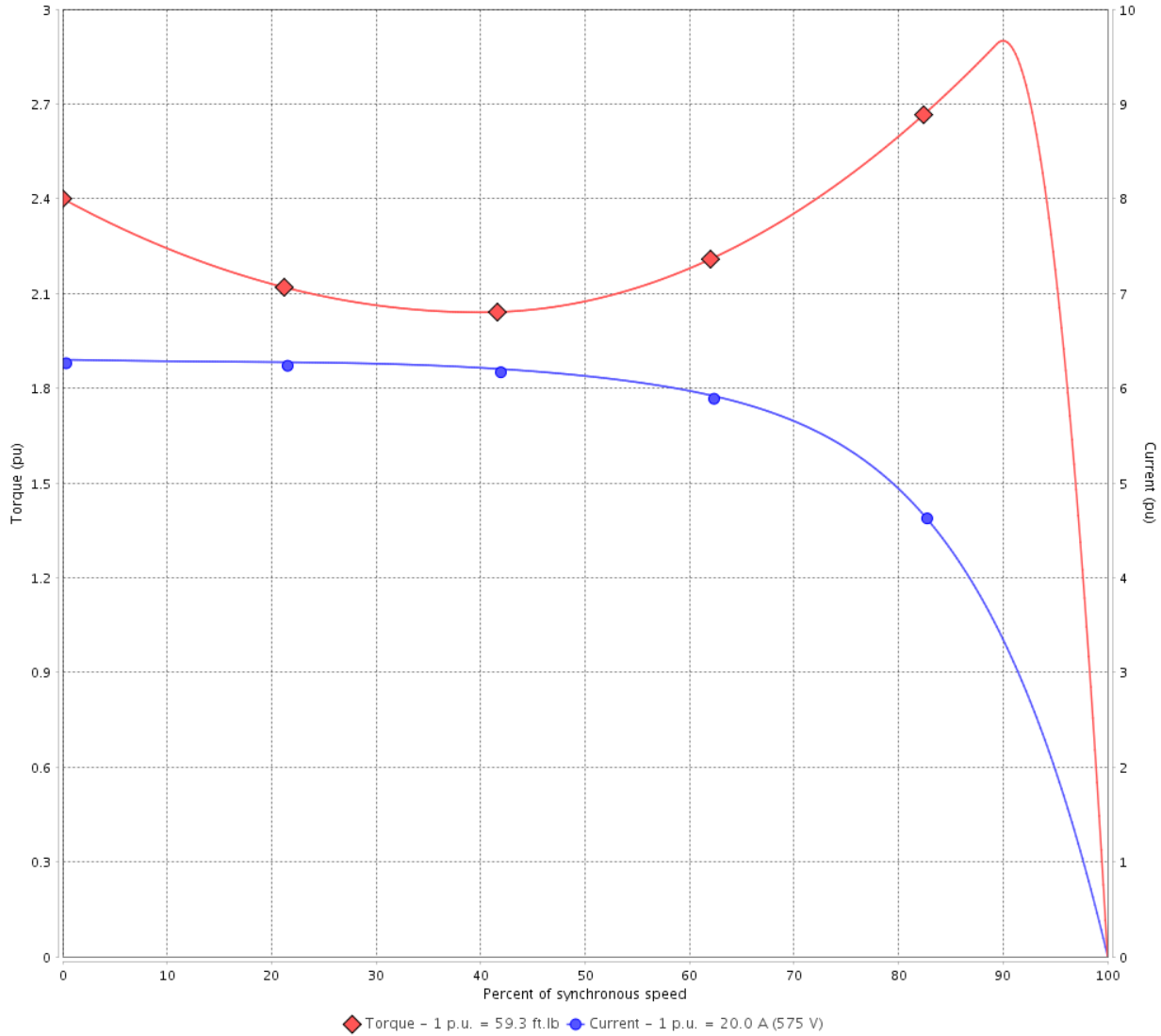
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12770647

Catalog # : 02018OT3H256T-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 4P

Rated current	: 20.0 A	Moment of inertia (J)	: 2.23 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 59.3 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.15
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: B

Locked rotor time : 27s (cold) 15s (hot)

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

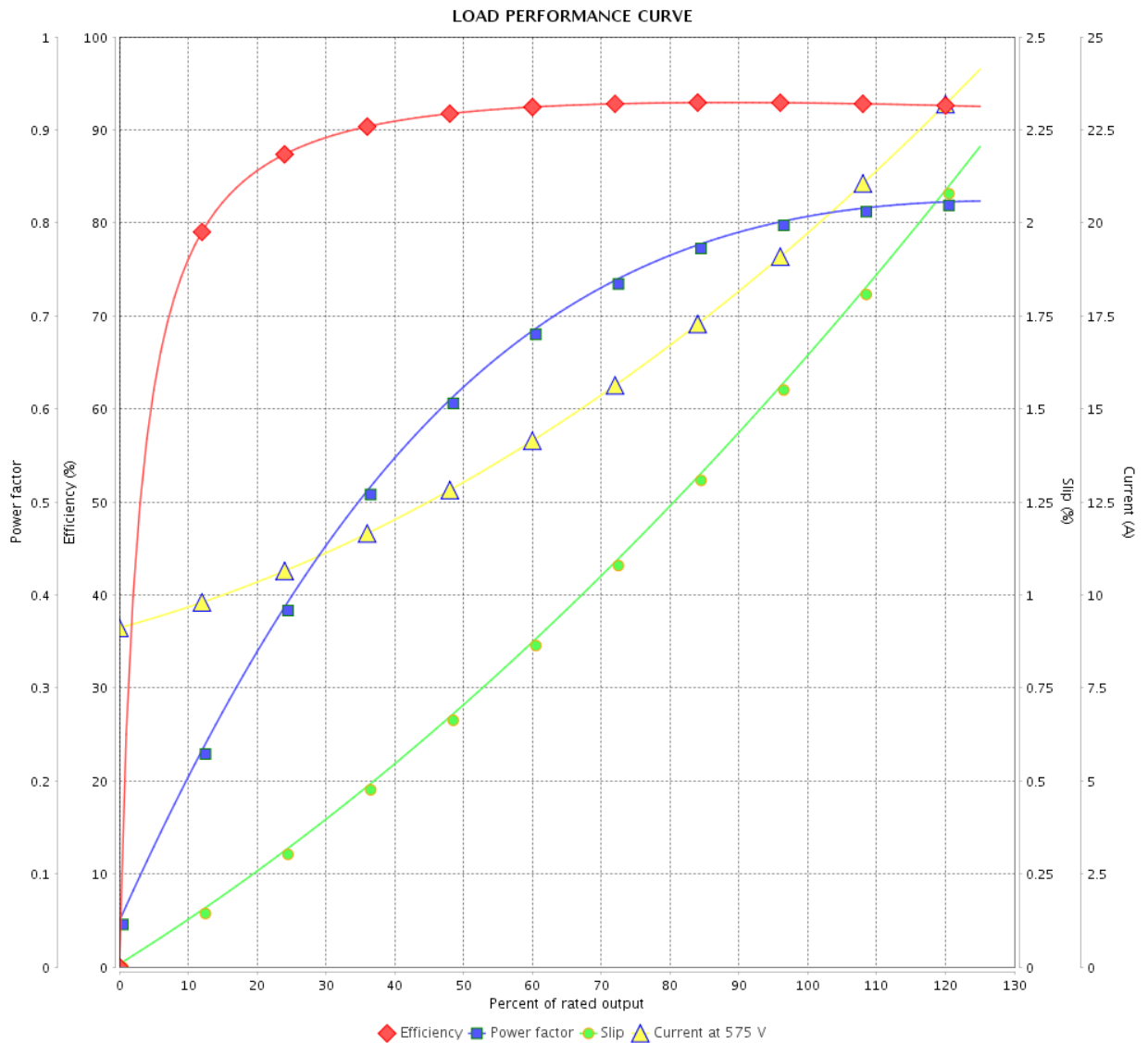


Customer :

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Product code : 12770647

Catalog # : 02018OT3H256T-S



Performance : 575 V 60 Hz 4P

Rated current : 20.0 A  
 LRC : 6.3  
 Rated torque : 59.3 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 290 %  
 Rated speed : 1770 rpm

Moment of inertia (J) : 2.23 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

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Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: B

Heating constant

Cooling constant

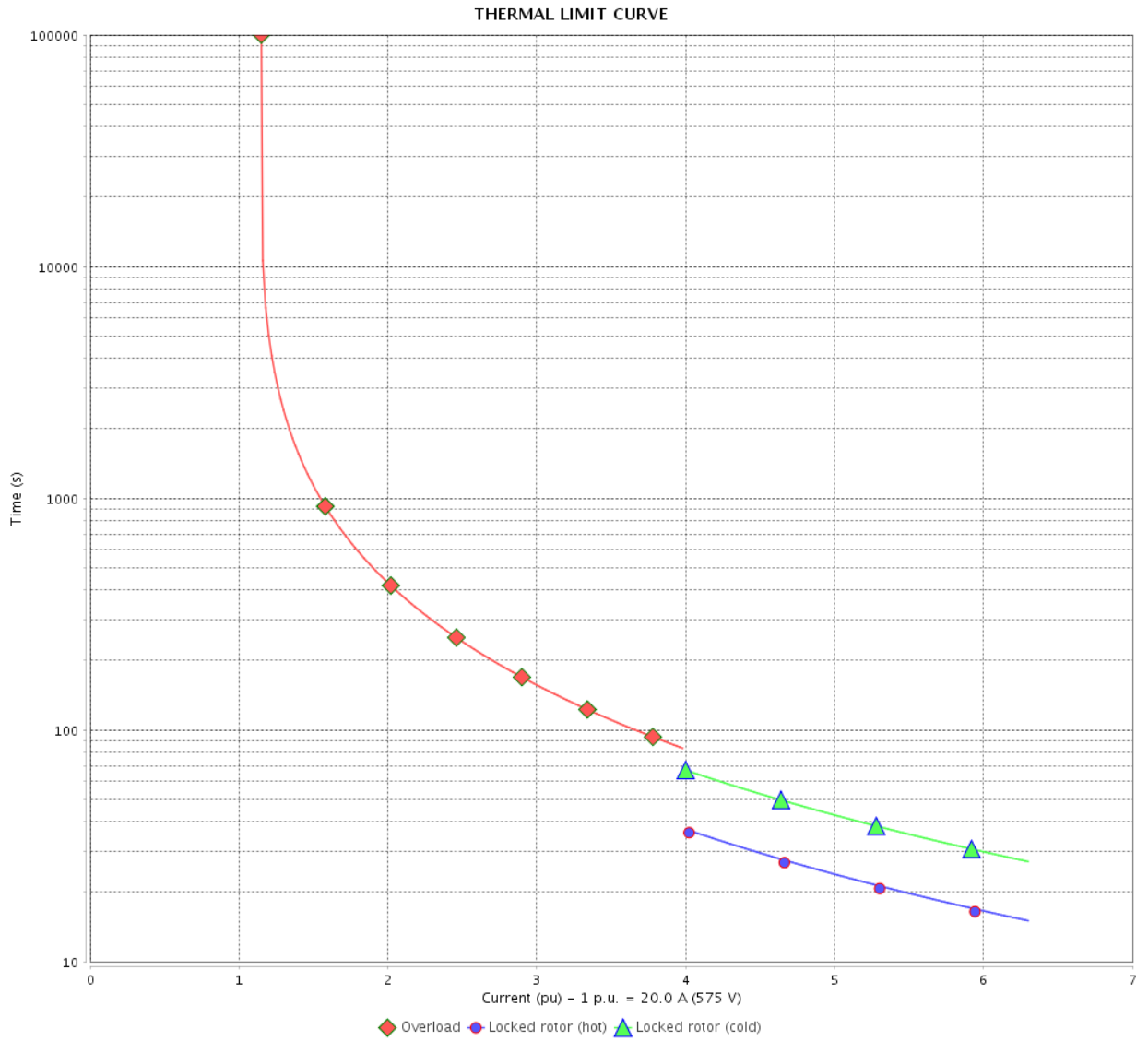
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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Date				

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

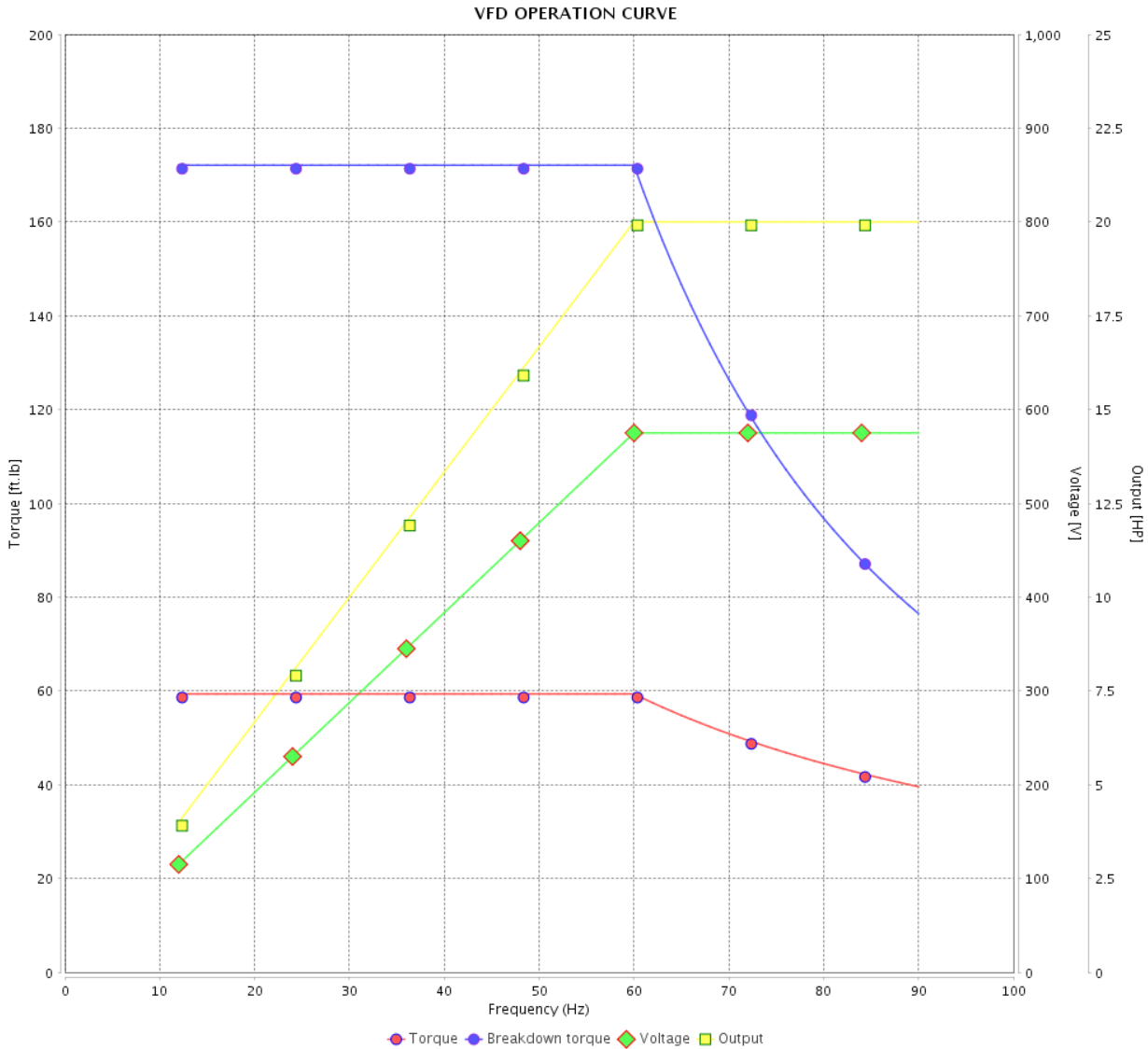


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12770647

Catalog # : 02018OT3H256T-S



Performance : 575 V 60 Hz 4P

Rated current : 20.0 A  
 LRC : 6.3  
 Rated torque : 59.3 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 290 %  
 Rated speed : 1770 rpm

Moment of inertia (J) : 2.23 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
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1 2 3 4 5 6

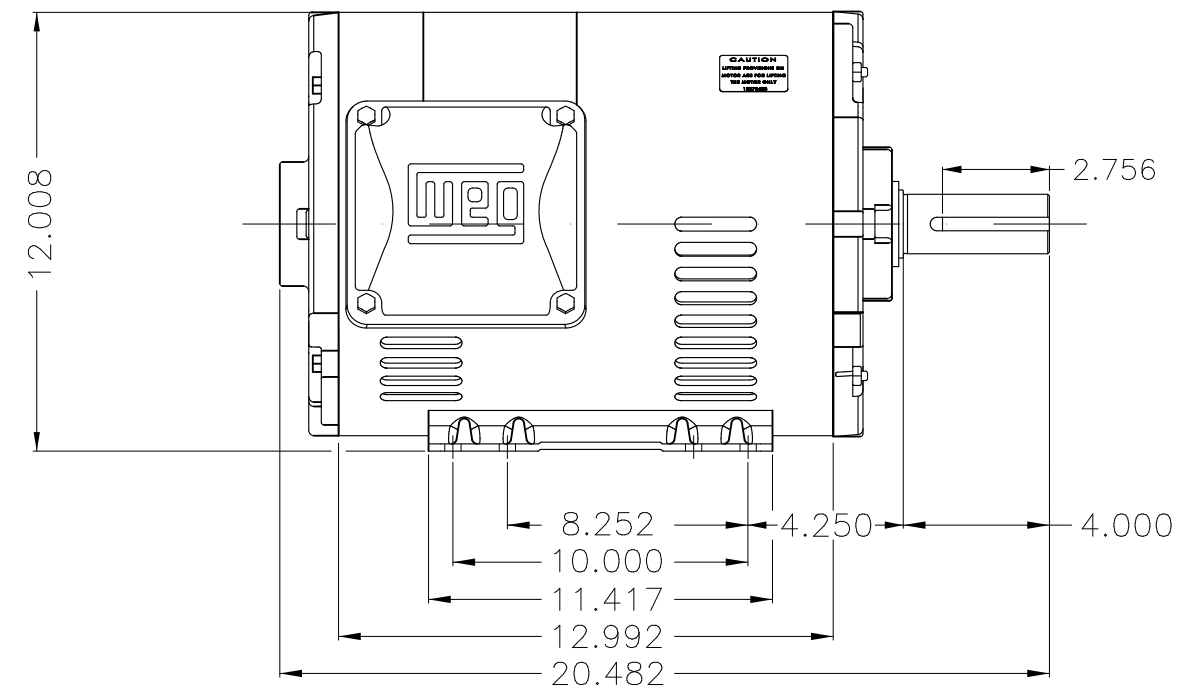
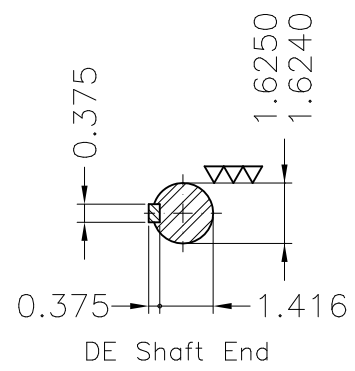
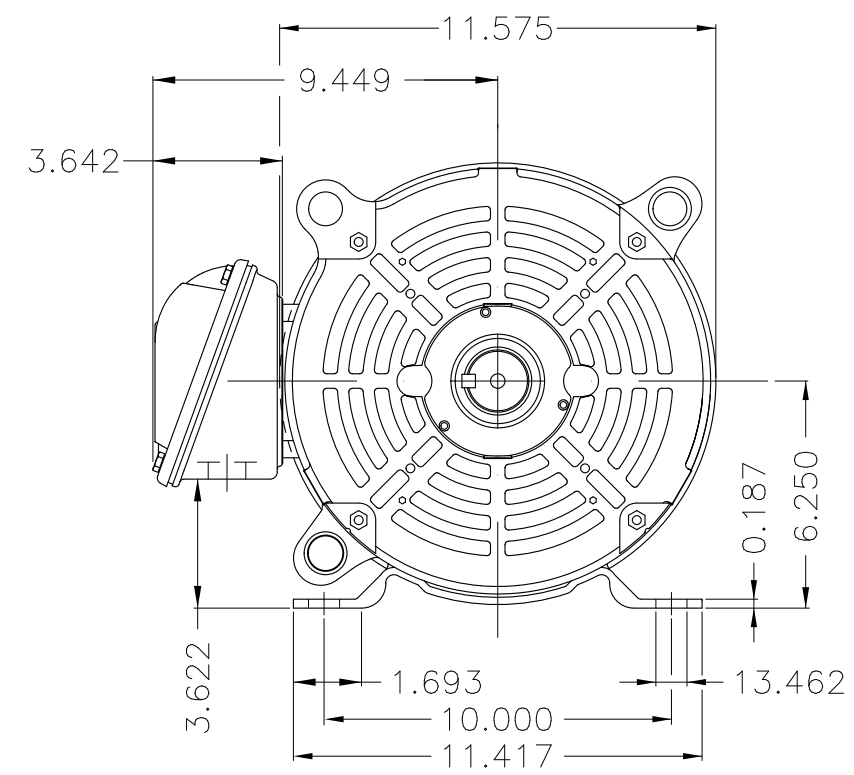
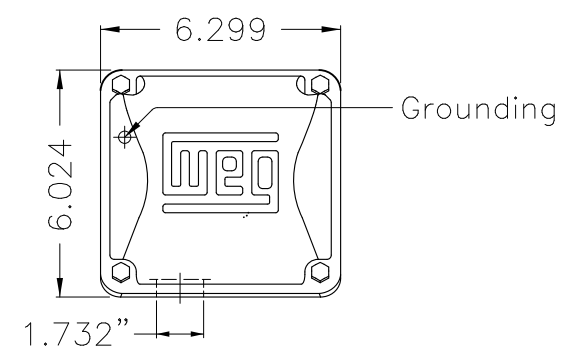
A

B

C

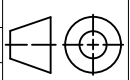
D

E



Dimensions in inches

Color Munsell N 1 matte black  
 Painting plan 207N  
 Mounting F-1/B3R(D)

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	 THREE PH. MOTOR ROLLED STEEL PREM. EFF. FRAME 254/6T IP21 ODP					
CHECKED							
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

20 HP 04 Poles 60 Hz

A

**PREVIEW**  
WDD





**NEMA**  
**Premium**



MADE IN MEXICO

**MAT: 12770647 CC029A**

**W01.T00IC0X0N**

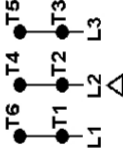
**DP020504NPW01**

**11MAR2022 S/N:**

<b>PH 3</b>	<b>Hz 60</b>	<b>HP 20</b>
<b>FR 254/6T</b>		<b>KW 15</b>
<b>DUTY CONT.</b>		<b>V 575</b>
<b>ALT 1000 m.a.s.l.</b>		<b>A 20.0</b>
<b>INS CL F AT 80K</b>		<b>SFA 23.0</b>
<b>AMB 40°C</b>	<b>DES B</b>	<b>SF 1.15</b>
<b>ENCL ODP</b>	<b>CODE G</b>	<b>PF 0.81</b>
		<b>RPM 1770</b>
		<b>NEMA NOM. EFF 93.0%</b>

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

<b>DE 6309-Z-C3</b>	<b>ODE 6208-Z-C3</b>	<b>MOBIL POLYREX EM</b>	<b>20000h</b>
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T1-BLU  
T2-WHT  
T3-ORG  
T4-YEL  
T5-BLK  
T6-GRY

**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.

