

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :																			
Product line	: NEMA Premium Efficiency Three-Phase																		
Product code :	12674736																		
Catalog # :	007180T3V213TC-S																		
Frame : 213/5TC Output : 7.5 HP (5.5 kW) Poles : 4 Frequency : 60 Hz Rated voltage : 200/400 V Rated current : 21.3/10.6 A L. R. Amperes : 153/76.6 A LRC : 7.2x(Code H) No load current : 10.1/5.05 A Rated speed : 1770 rpm Slip : 1.67 % Rated torque : 22.3 ft.lb Locked rotor torque : 240 % Breakdown torque : 320 % Insulation class : F Service factor : 1.15 Moment of inertia (J) : 1.03 sq.ft.lb Design : B	Locked rotor time : 23s (cold) 13s (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> : 59.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 127 lb																		
Output	25%    50%    75%    100%																		
Efficiency (%)	88.6    89.5    90.2    91.0																		
Power Factor	0.39    0.65    0.77    0.82																		
Foundation loads																			
Max. traction : 338 lb																			
Max. compression : 465 lb																			
<table border="0" style="width:100%;"> <tr> <td></td> <td style="text-align: center;"><u>Drive end</u></td> <td style="text-align: center;"><u>Non drive end</u></td> </tr> <tr> <td>Bearing type :</td> <td style="text-align: center;">6208 ZZ</td> <td style="text-align: center;">6206 ZZ</td> </tr> <tr> <td>Sealing :</td> <td style="text-align: center;">Without Bearing Seal</td> <td style="text-align: center;">Without Bearing Seal</td> </tr> <tr> <td>Lubrication interval :</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Lubricant amount :</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Lubricant type :</td> <td colspan="2" style="text-align: center;">Mobil Polyrex EM</td> </tr> </table>			<u>Drive end</u>	<u>Non drive end</u>	Bearing type :	6208 ZZ	6206 ZZ	Sealing :	Without Bearing Seal	Without Bearing Seal	Lubrication interval :	-	-	Lubricant amount :	-	-	Lubricant type :	Mobil Polyrex EM	
	<u>Drive end</u>	<u>Non drive end</u>																	
Bearing type :	6208 ZZ	6206 ZZ																	
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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			Page	Revision															
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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



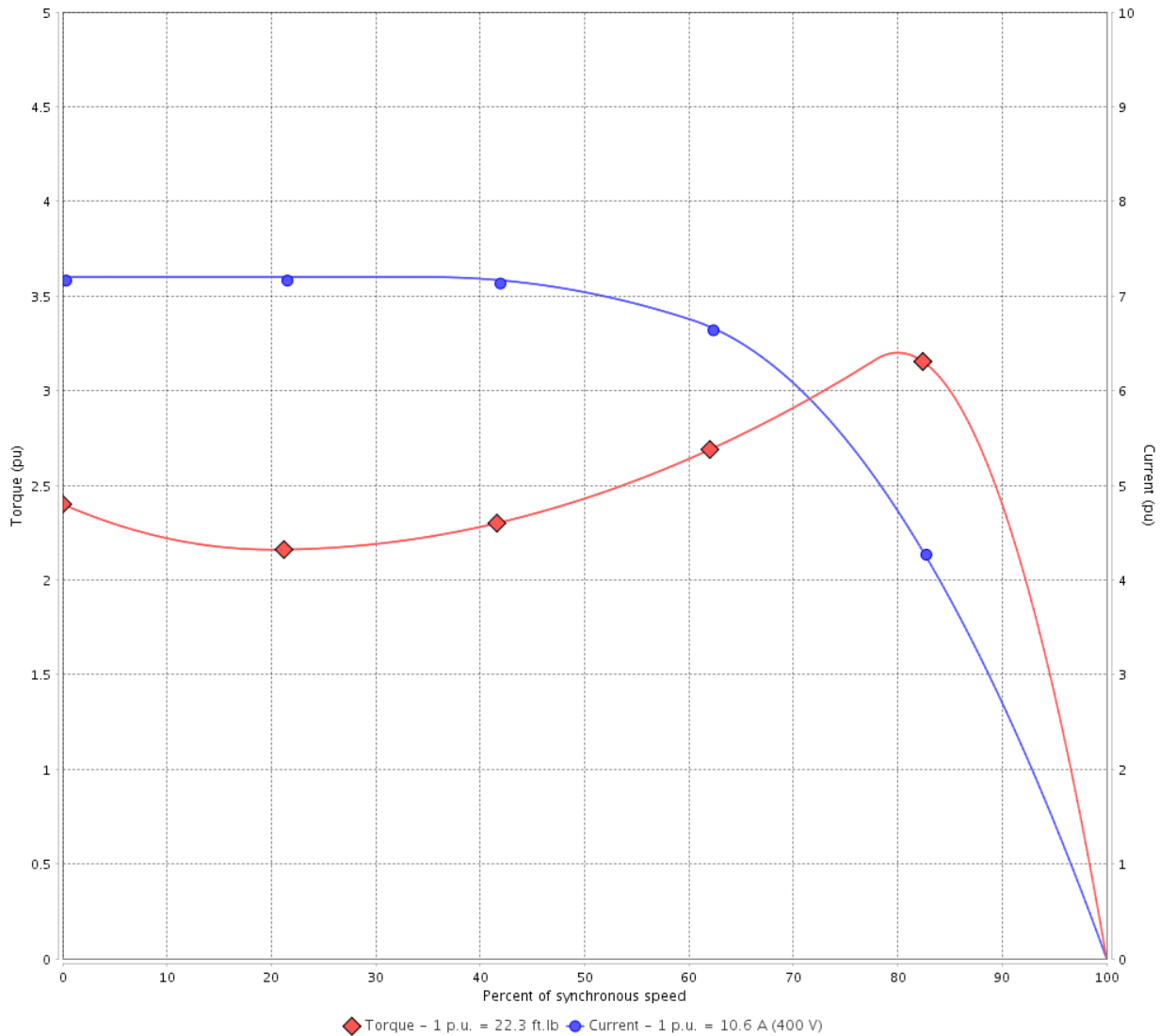
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12674736

Catalog # : 007180T3V213TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 200/400 V 60 Hz 4P

Rated current	: 21.3/10.6 A	Moment of inertia (J)	: 1.03 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 22.3 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.15
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: B

Locked rotor time : 23s (cold) 13s (hot)

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Date	13/04/2022			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

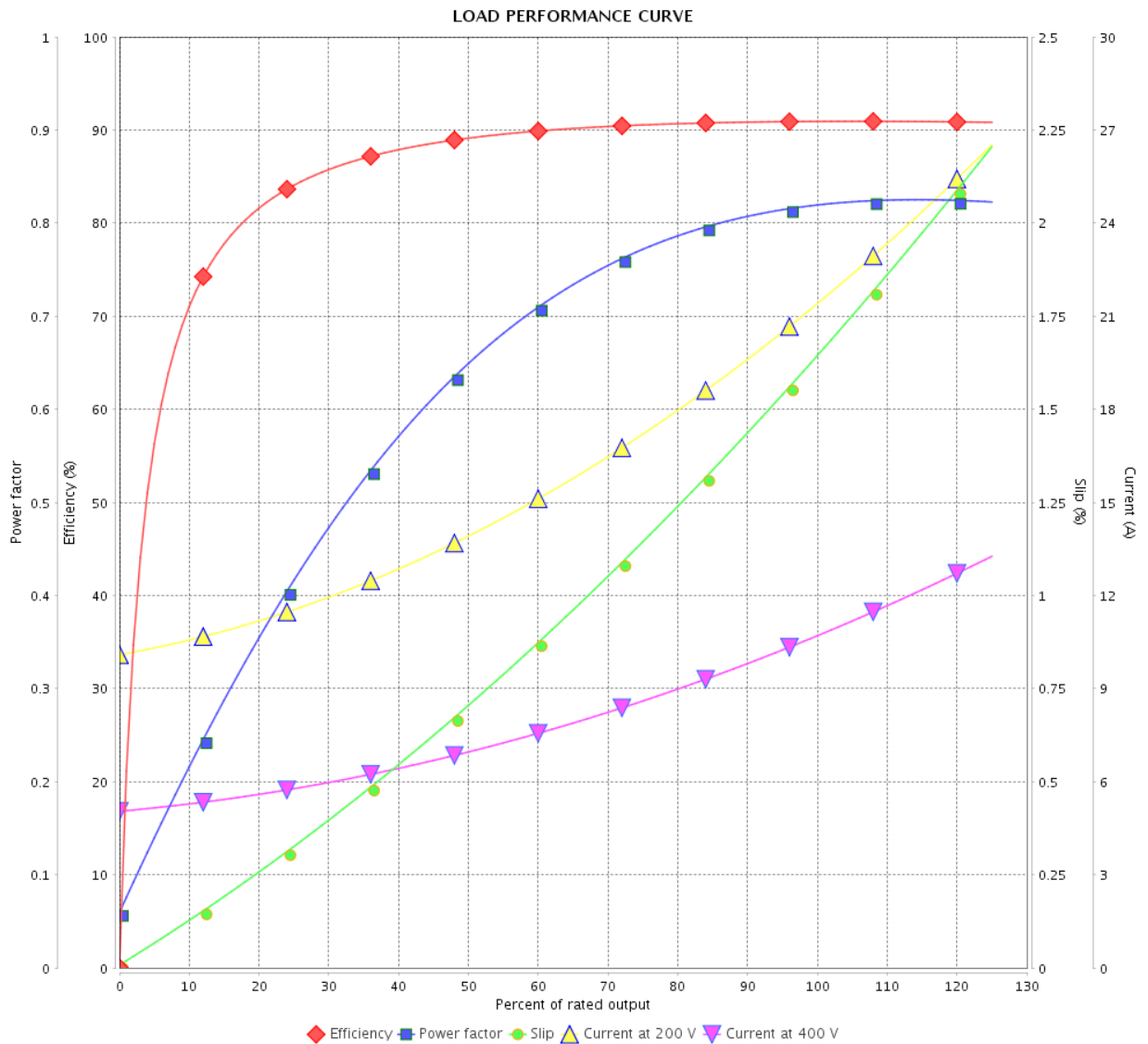


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12674736

Catalog # : 007180T3V213TC-S



Performance : 200/400 V 60 Hz 4P

Rated current : 21.3/10.6 A  
 LRC : 7.2  
 Rated torque : 22.3 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 320 %  
 Rated speed : 1770 rpm

Moment of inertia (J) : 1.03 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

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 12674736  
Catalog # : 00718OT3V213TC-S

Performance : 200/400 V 60 Hz 4P

Rated current	: 21.3/10.6 A	Moment of inertia (J)	: 1.03 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 22.3 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.15
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: B

Heating constant

Cooling constant

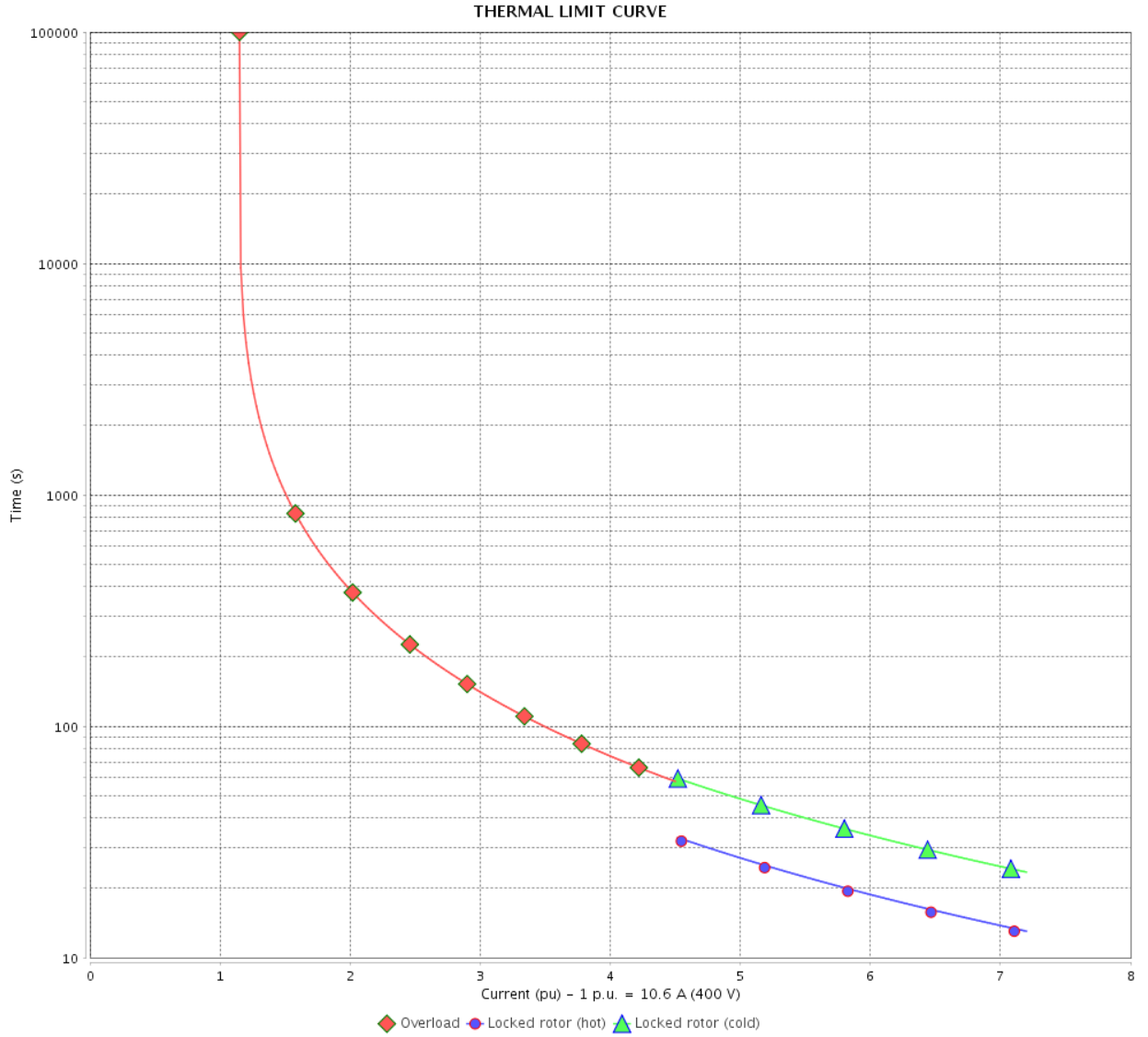
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



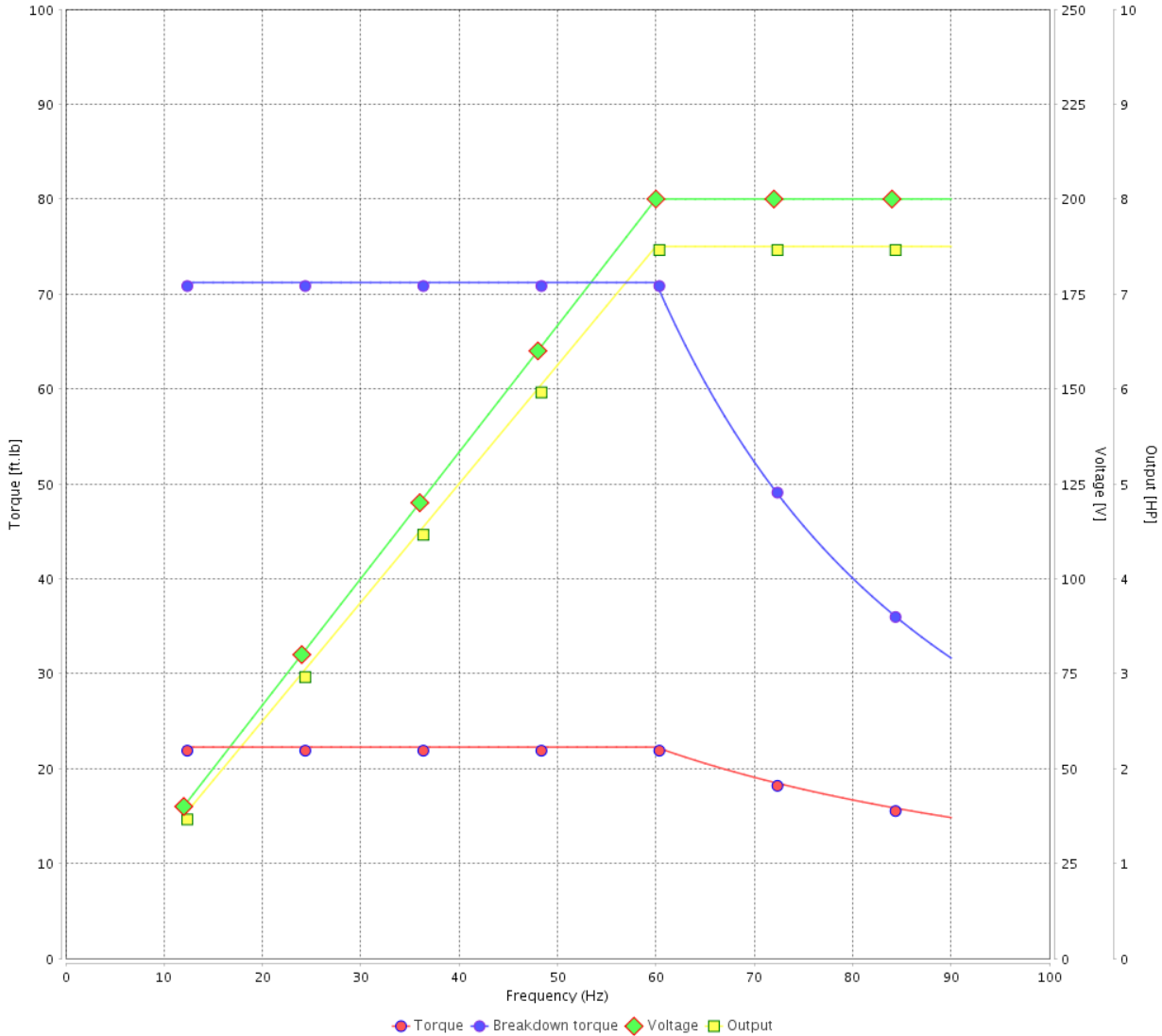
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12674736

Catalog # : 007180T3V213TC-S

VFD OPERATION CURVE



Performance : 200/400 V 60 Hz 4P

Rated current : 21.3/10.6 A  
 LRC : 7.2  
 Rated torque : 22.3 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 320 %  
 Rated speed : 1770 rpm

Moment of inertia (J) : 1.03 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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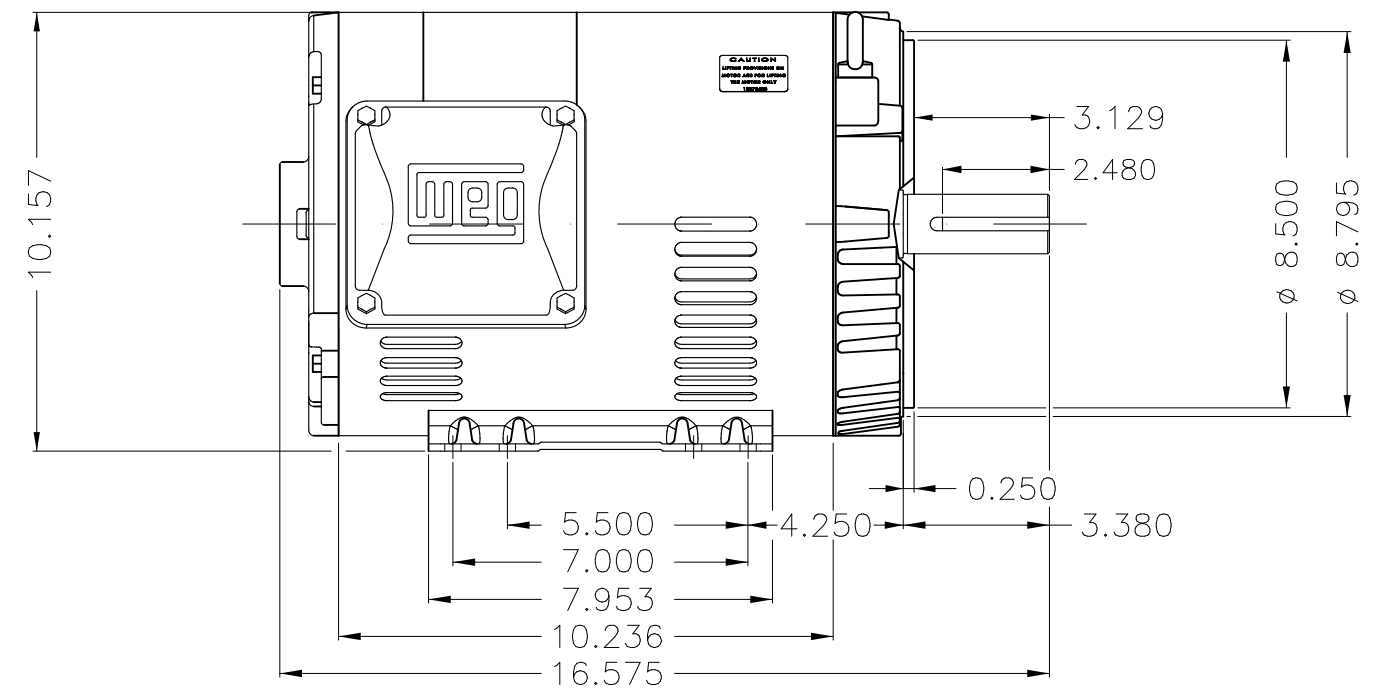
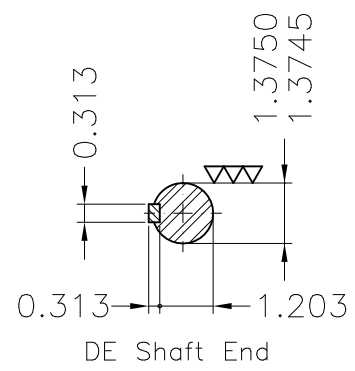
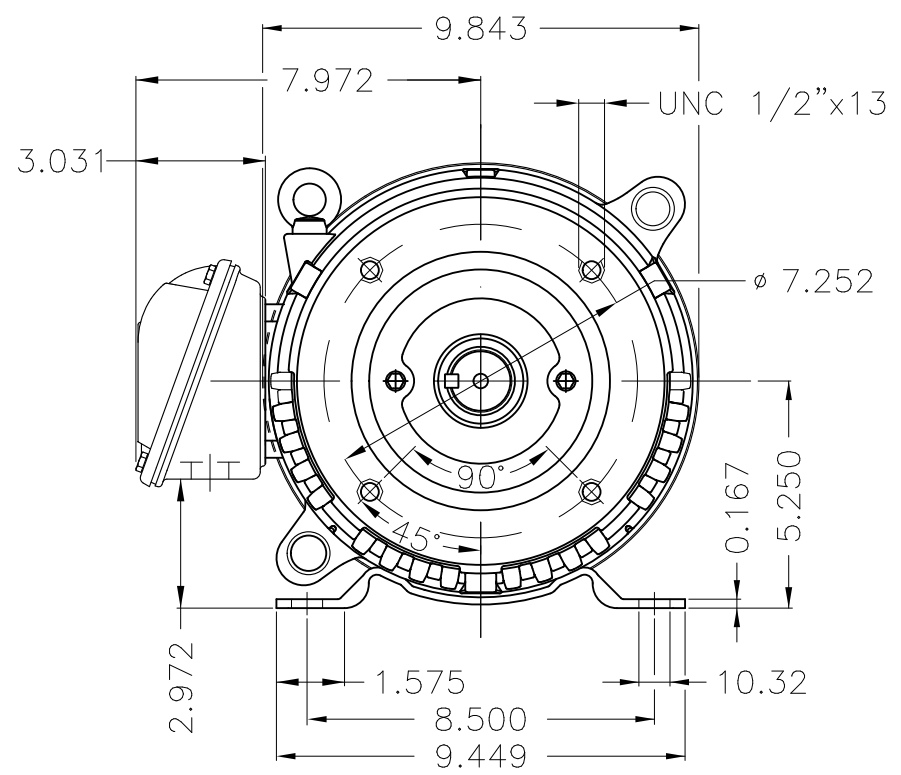
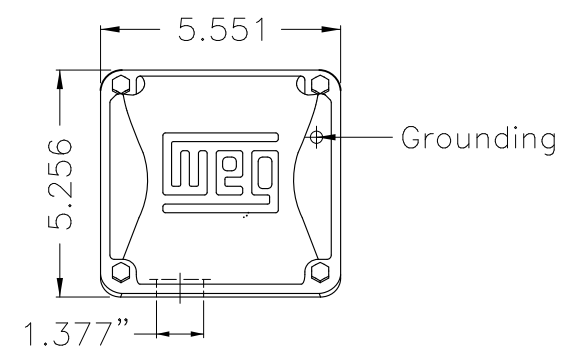
A

B

C

D

E



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	PIRWBUSER	THREE PH. MOTOR ROLLED STEEL PREM. EFF.					PREVIEW	WDD	SHEET	1 / 1	
CHECKED		FRAME 213/5TC IP21 ODP									
RELEASED											
REL DT.	WMO	Jaragua do Sul	Product Engineering								

7.5 HP 04 Poles 60 Hz

**NEMA  
Premium**

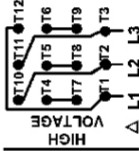
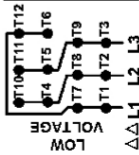
MADE IN MEXICO

**MAT: 12674736 CC029A****W01.T00IC0X0N****MODEL 007180T3V213TC-S****16FEB2022 S/N:**

<b>PH 3</b>	<b>Hz 60</b>	<b>HP 7.5</b>
<b>FR 213/5TC</b>		<b>KW 5.5</b>
<b>DUTY CONT.</b>		<b>V 200/400</b>
<b>ALT 1000 m.a.s.l.</b>		<b>A 21.3/10.6</b>
<b>INS CL F AT 80K</b>		<b>SFA 24.5/12.2</b>
<b>AMB 40°C</b>	<b>DES B</b>	<b>SF 1.15</b>
<b>ENCL ODP</b>	<b>CODE H</b>	<b>PF 0.82</b>
		<b>RPM 1770</b>
		<b>NEMA NOM. EFF 91.0%</b>

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

<b>DE 6208-ZZ</b>	<b>ODE 6206-ZZ</b>	<b>MOBIL POLYREX EM</b>
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T1-BLU T2-WHT  
 T3-ORG T4-YEL  
 T5-BLK T6-GRY  
 T7-PNK T8-RED  
 T9-BRK RED  
 T10-CURRY  
 T11-GRN T12-VLT

**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.

