

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :	
Product line	: NEMA Premium Efficiency Three-Phase
Product code :	12682574
Catalog # :	00218OT3H145TC-S
Frame : 143/5TC Output : 2 HP (1.5 kW) Poles : 4 Frequency : 60 Hz Rated voltage : 575 V Rated current : 2.15 A L. R. Amperes : 16.6 A LRC : 7.7x(Code K) No load current : 1.10 A Rated speed : 1740 rpm Slip : 3.33 % Rated torque : 6.04 ft.lb Locked rotor torque : 260 % Breakdown torque : 320 % Insulation class : F Service factor : 1.15 Moment of inertia (J) : 0.1168 sq.ft.lb Design : B	Locked rotor time : 30s (cold) 17s (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> : 52.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 40.0 lb
Output	25%    50%    75%    100%
Efficiency (%)	85.2    85.5    86.5    86.5
Power Factor	0.36    0.61    0.74    0.81
Foundation loads	
Max. traction	: 148 lb
Max. compression	: 188 lb
Bearing type	: <u>Drive end</u> 6205 ZZ <u>Non drive end</u> 6203 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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Checked by	Checked
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14/04/2022	
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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



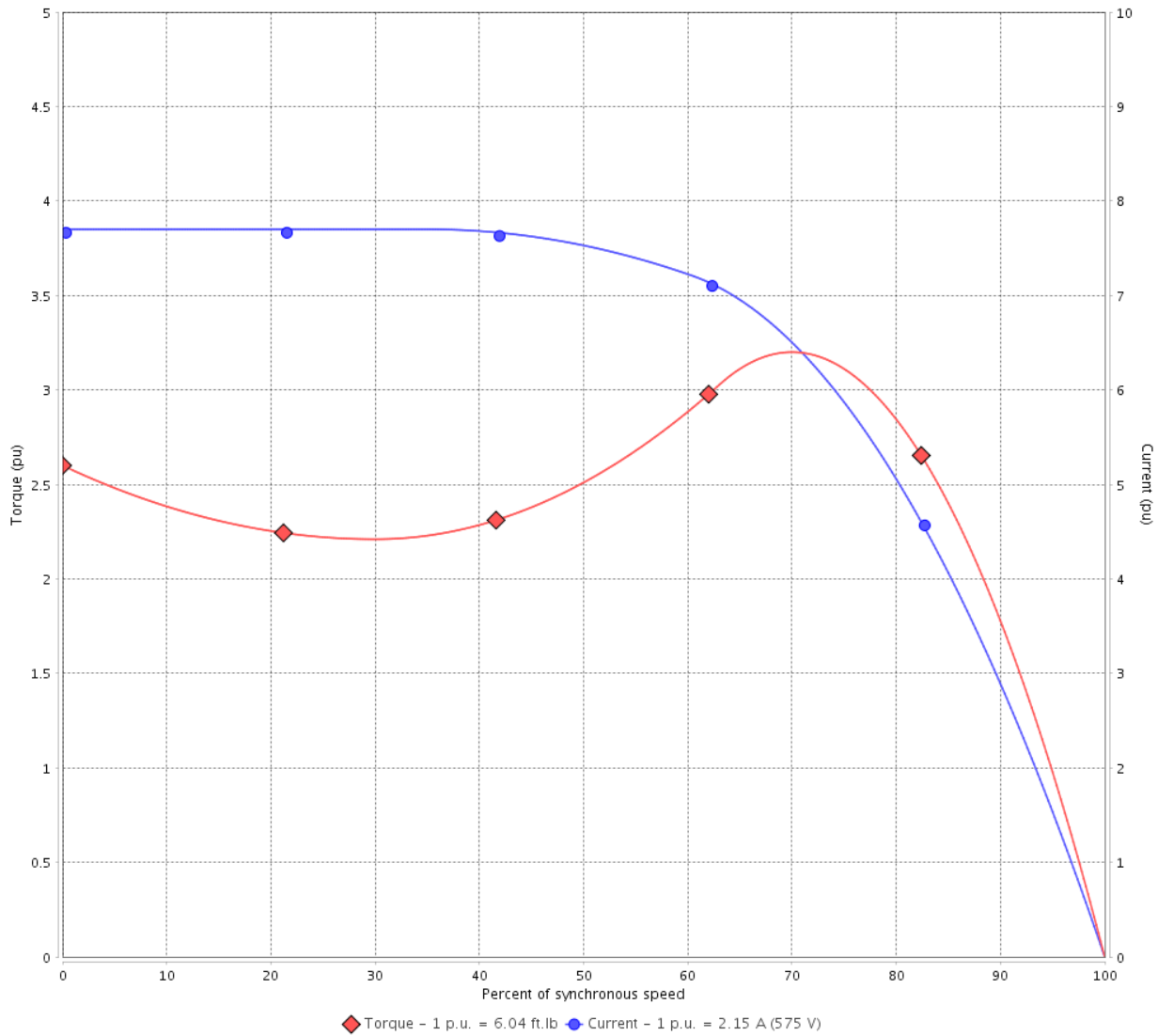
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12682574

Catalog # : 00218OT3H145TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 4P

Rated current	: 2.15 A	Moment of inertia (J)	: 0.1168 sq.ft.lb
LRC	: 7.7	Duty cycle	: Cont.(S1)
Rated torque	: 6.04 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.15
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1740 rpm	Design	: B

Locked rotor time : 30s (cold) 17s (hot)

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

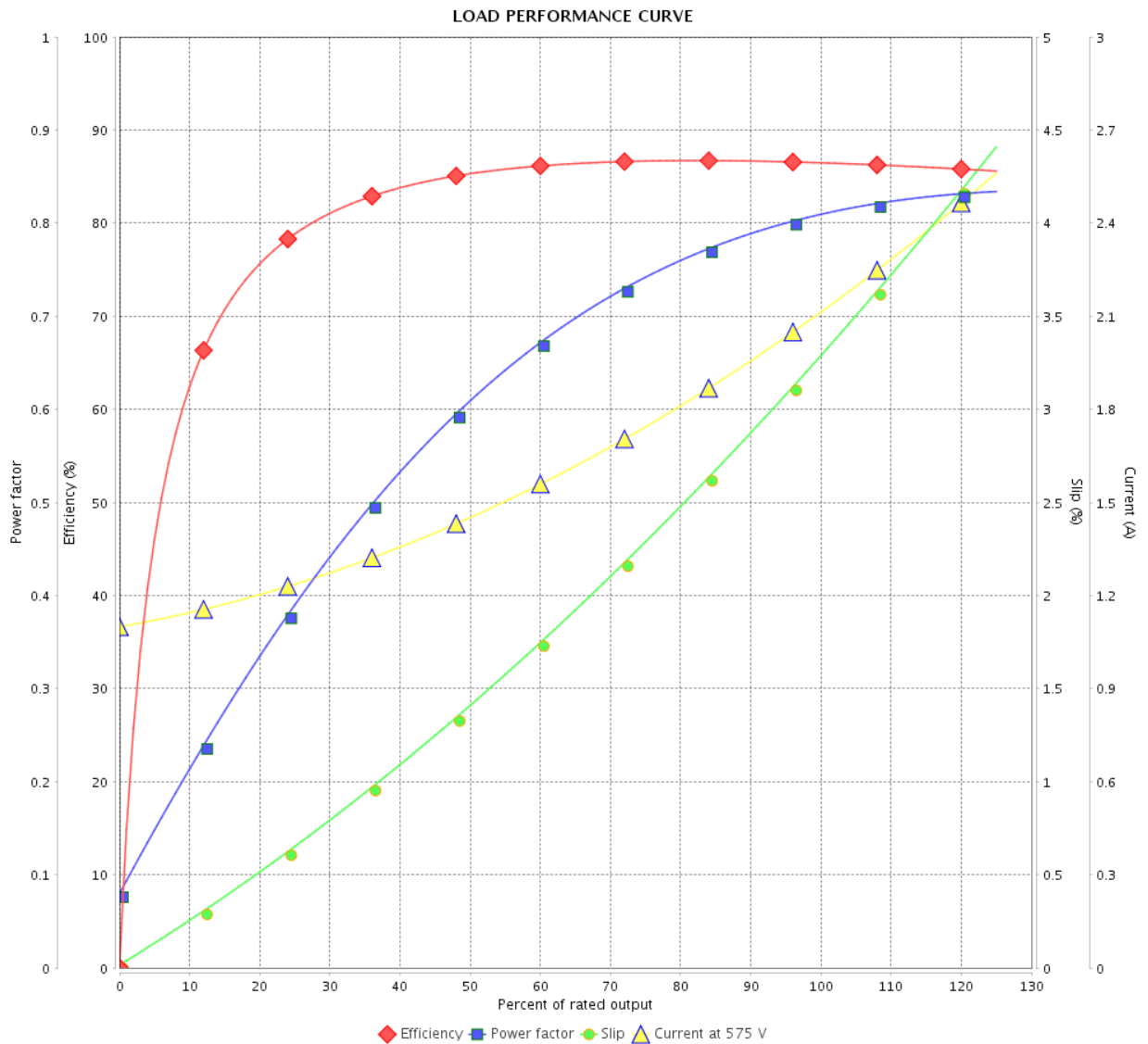


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12682574

Catalog # : 002180T3H145TC-S



Performance : 575 V 60 Hz 4P

Rated current : 2.15 A  
 LRC : 7.7  
 Rated torque : 6.04 ft.lb  
 Locked rotor torque : 260 %  
 Breakdown torque : 320 %  
 Rated speed : 1740 rpm

Moment of inertia (J) : 0.1168 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 : 12682574  
Catalog # : 00218OT3H145TC-S

Performance : 575 V 60 Hz 4P

Rated current	: 2.15 A	Moment of inertia (J)	: 0.1168 sq.ft.lb
LRC	: 7.7	Duty cycle	: Cont.(S1)
Rated torque	: 6.04 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.15
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1740 rpm	Design	: B

Heating constant

Cooling constant

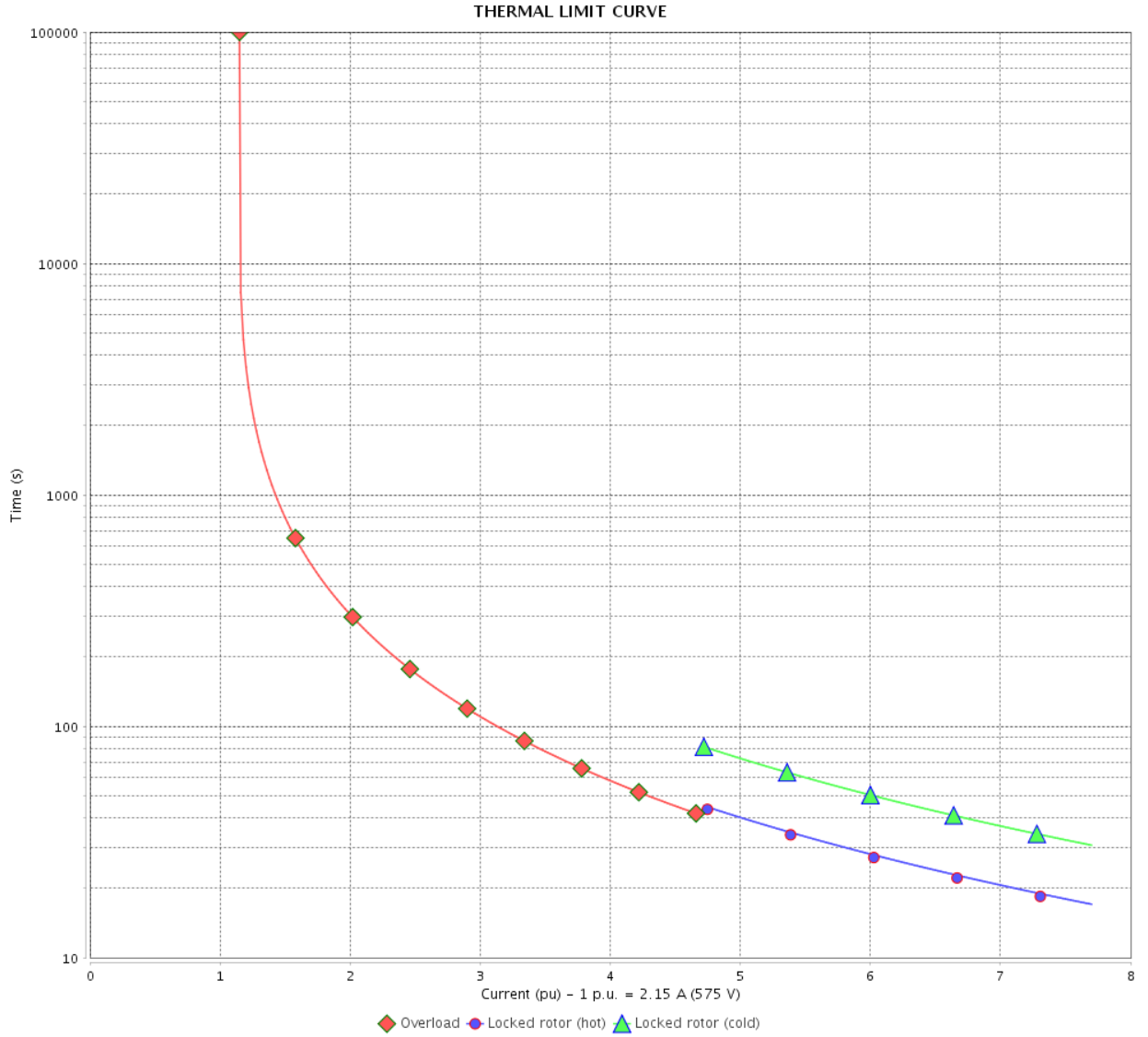
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

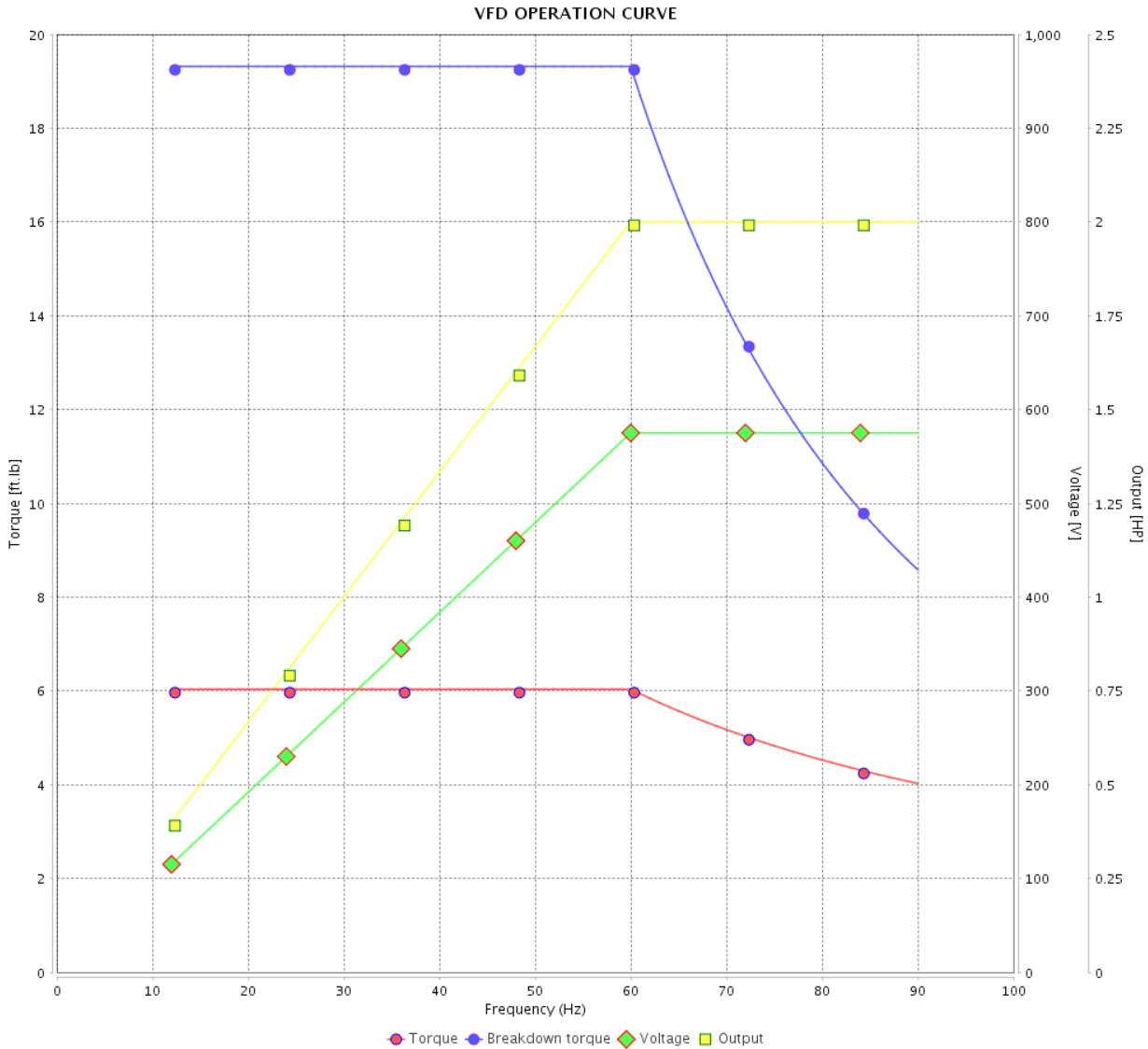


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12682574

Catalog # : 00218OT3H145TC-S



Performance : 575 V 60 Hz 4P

Rated current : 2.15 A  
 LRC : 7.7  
 Rated torque : 6.04 ft.lb  
 Locked rotor torque : 260 %  
 Breakdown torque : 320 %  
 Rated speed : 1740 rpm

Moment of inertia (J) : 0.1168 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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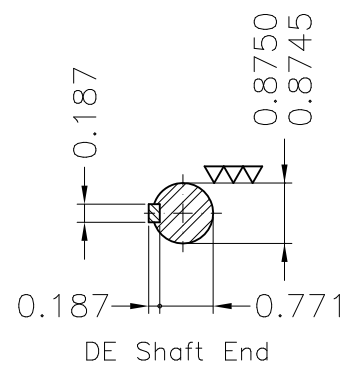
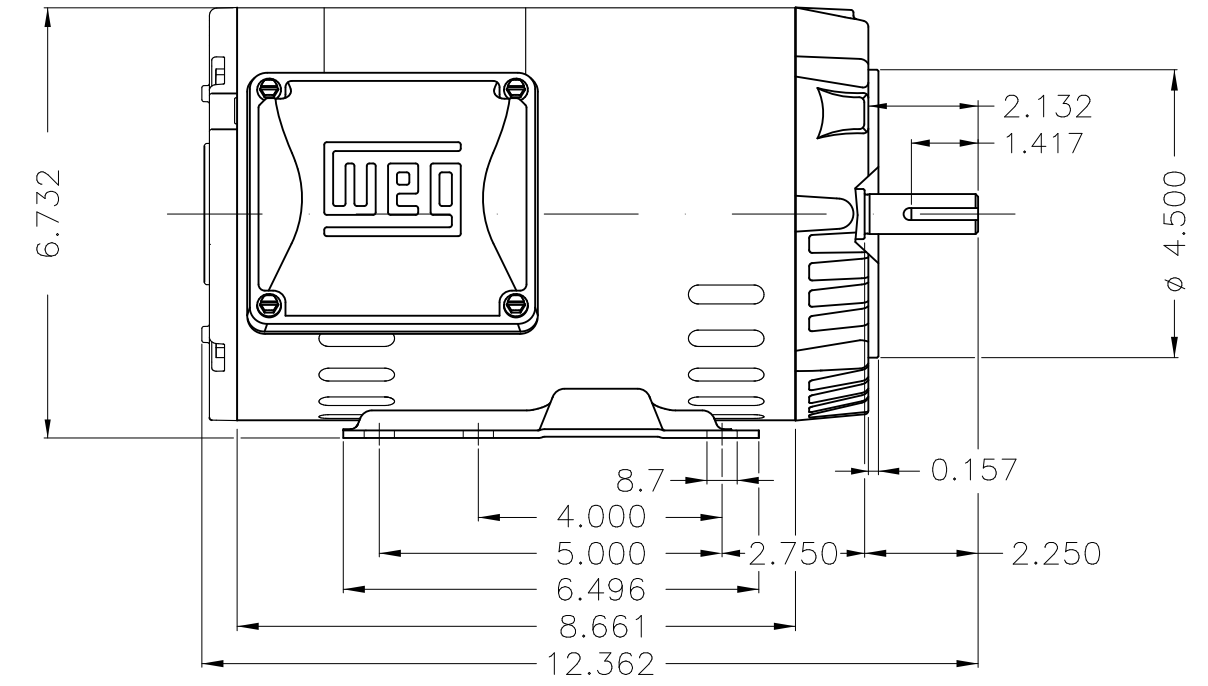
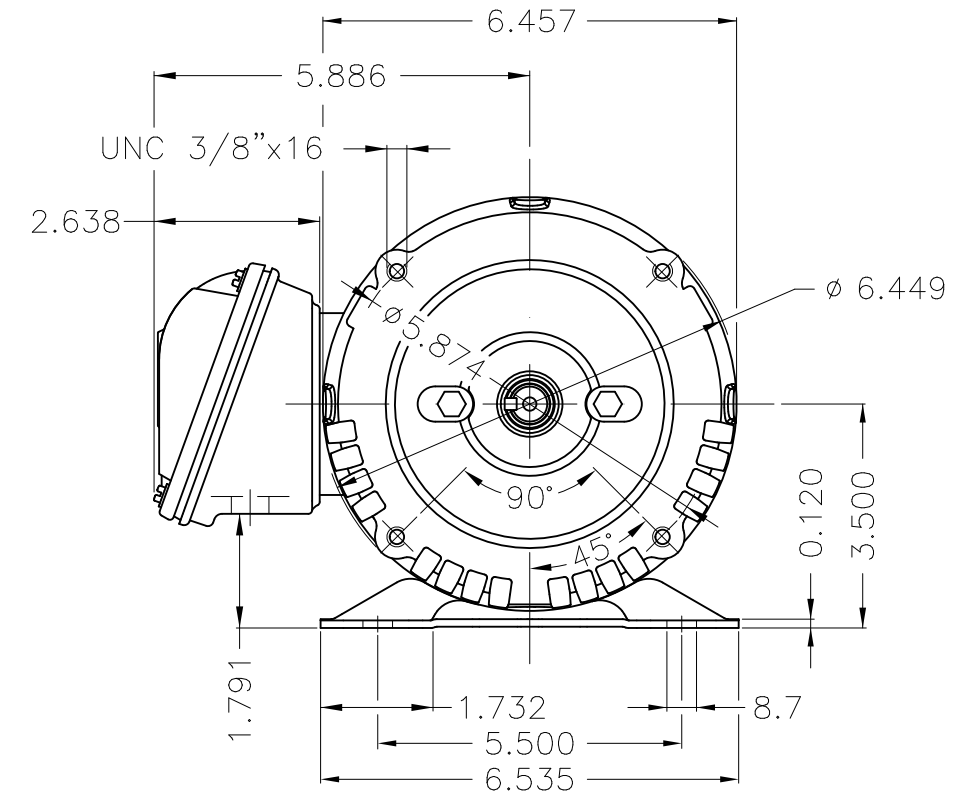
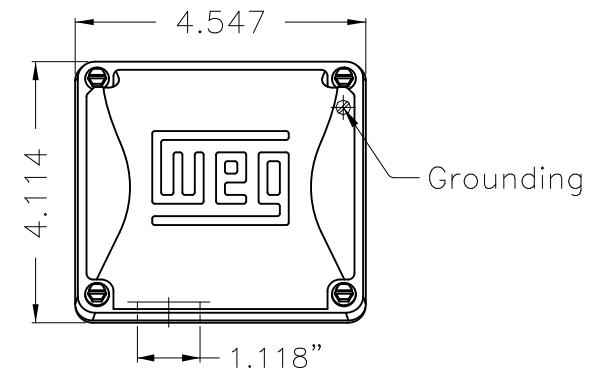
A

B

C

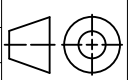
D

E



Dimensions in inches

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. FRAME 143/5TC IP21 ODP					
CHECKED							
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET 1 / 1			

2 HP 04 Poles 60 Hz

A

**PREVIEW**  
WDD





**NEMA**  
**Premium**



MADE IN BRAZIL

**MAT: 12682574 CC029A**

**W01.T00IC0X0N**

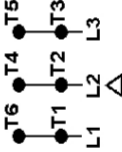
**CP002504NPW01**

**03MAR2022 B/N:**

<b>PH 3</b>	<b>Hz 60</b>	<b>HP 2.0</b>
<b>FR 143/5TC</b>		<b>KW 1.5</b>
<b>DUTY CONT.</b>		<b>V 575</b>
<b>ALT 1000 m.a.s.l.</b>		<b>A 2.15</b>
<b>INS CL F AT 80K</b>		<b>SFA 2.47</b>
<b>AMB 40°C</b>	<b>DES B</b>	<b>SF 1.15</b>
<b>ENCL ODP</b>	<b>CODE K</b>	<b>PF 0.81</b>
		<b>RPM 1740</b>
		<b>NEMA NOM. EFF 86.5%</b>

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

**DE 6205-ZZ ODE 6203-ZZ MOBIL POLYREX EM**



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.

