

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :	
Product line	: NEMA Premium Efficiency Three-Phase
Product code :	12877757
Catalog # :	00158OT3P145TC-S
Frame : 143/5TC Output : 1.5 HP (1.1 kW) Poles : 4 Frequency : 60 Hz Rated voltage : 200 V Rated current : 4.76 A L. R. Amperes : 41.4 A LRC : 8.7x(Code L) No load current : 2.76 A Rated speed : 1760 rpm Slip : 2.22 % Rated torque : 4.48 ft.lb Locked rotor torque : 280 % Breakdown torque : 330 % Insulation class : F Service factor : 1.15 Moment of inertia (J) : 0.1426 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> : 52.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 41.9 lb
Output	25%    50%    75%    100%
Efficiency (%)	83.6    84.0    86.5    86.5
Power Factor	0.32    0.56    0.69    0.77
Foundation loads	
Max. traction	: 107 lb
Max. compression	: 149 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.	
Rev.	Changes Summary
Performed by	Performed
Checked by	Checked
Date	12/04/2022
Page	1 / 6
Revision	

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



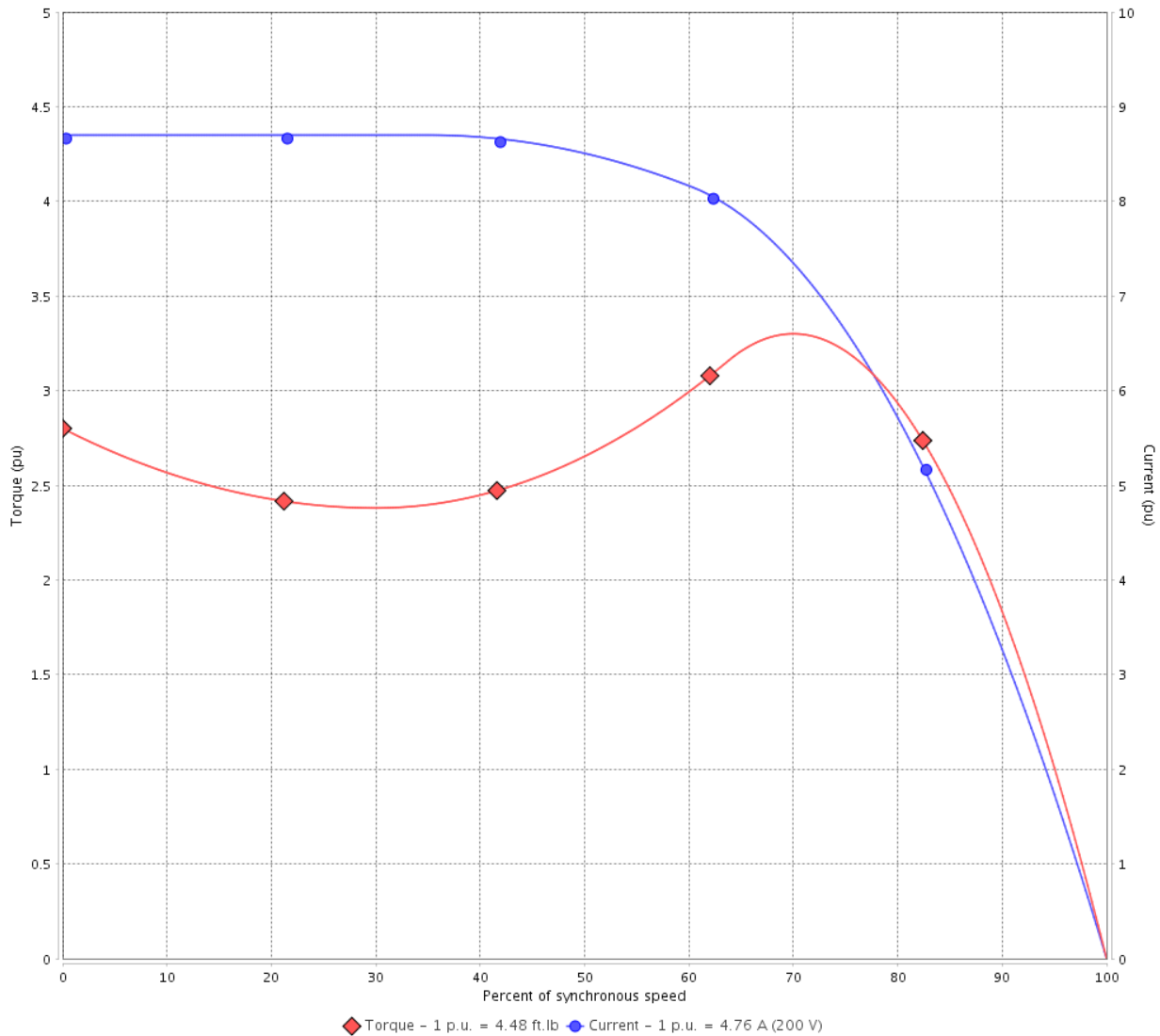
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12877757

Catalog # : 00158OT3P145TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 200 V 60 Hz 4P

Rated current	: 4.76 A	Moment of inertia (J)	: 0.1426 sq.ft.lb
LRC	: 8.7	Duty cycle	: Cont.(S1)
Rated torque	: 4.48 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.15
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1760 rpm	Design	: B

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 6	Revision
Checked by				
Date	12/04/2022			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

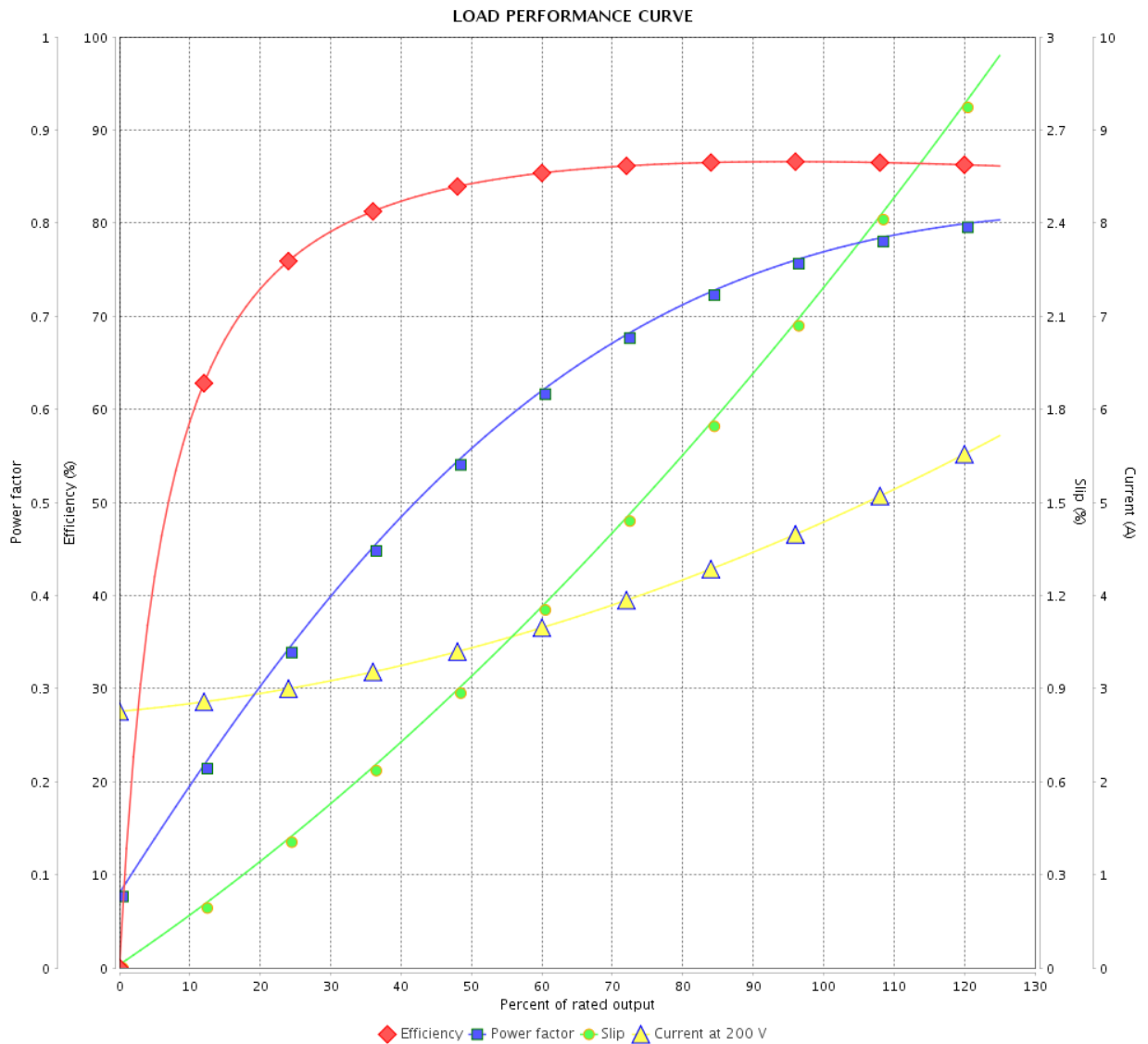


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12877757

Catalog # : 00158OT3P145TC-S



Performance : 200 V 60 Hz 4P

Rated current : 4.76 A  
 LRC : 8.7  
 Rated torque : 4.48 ft.lb  
 Locked rotor torque : 280 %  
 Breakdown torque : 330 %  
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.1426 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
Performed by			Page	Revision
Checked by			3 / 6	
Date	12/04/2022			

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 12877757  
Catalog # : 00158OT3P145TC-S

Performance : 200 V 60 Hz 4P

Rated current	: 4.76 A	Moment of inertia (J)	: 0.1426 sq.ft.lb
LRC	: 8.7	Duty cycle	: Cont.(S1)
Rated torque	: 4.48 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.15
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1760 rpm	Design	: B

Heating constant

Cooling constant

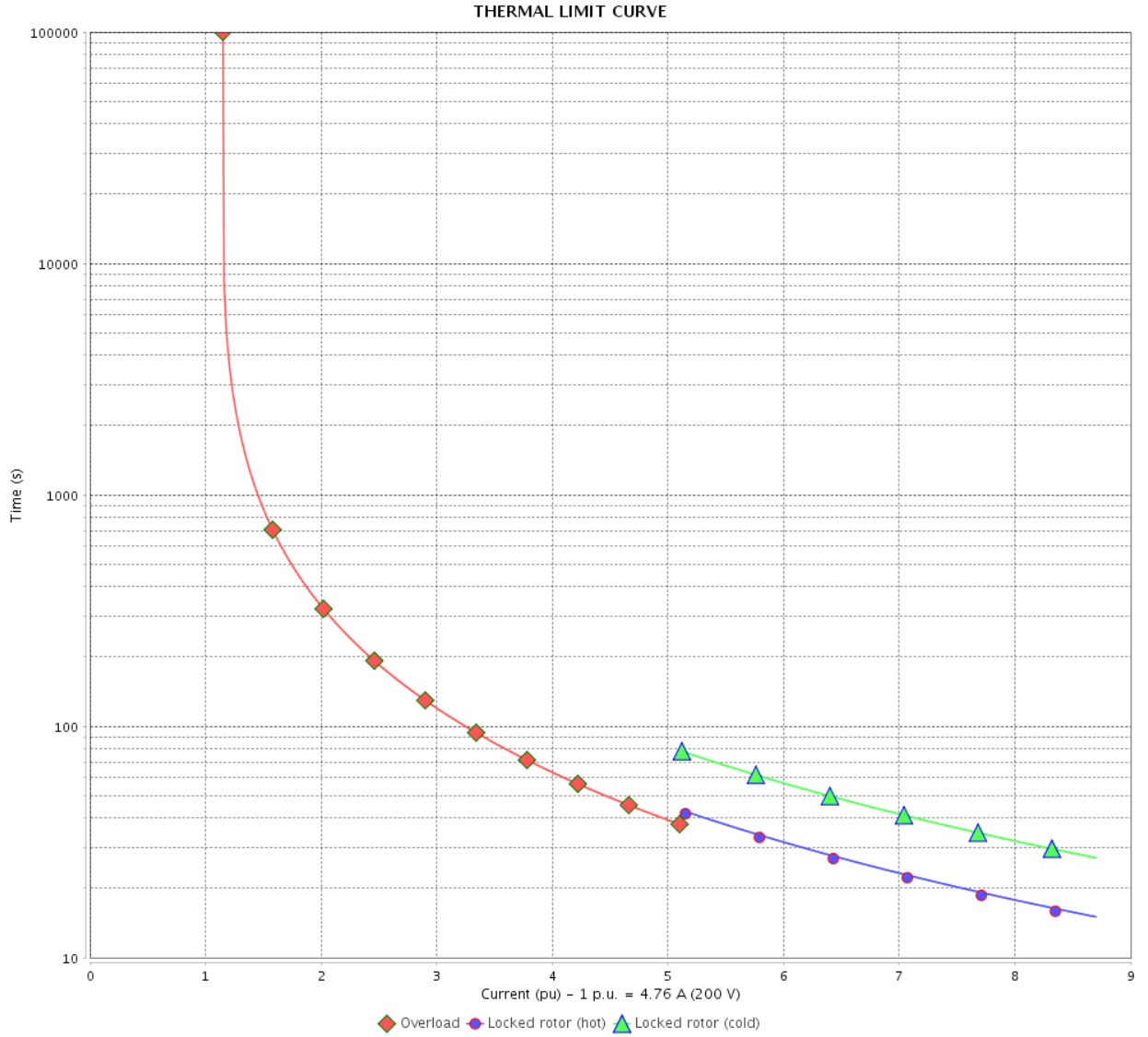
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	12/04/2022		4 / 6	

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 5 / 6		Revision
Checked by				
Date				

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



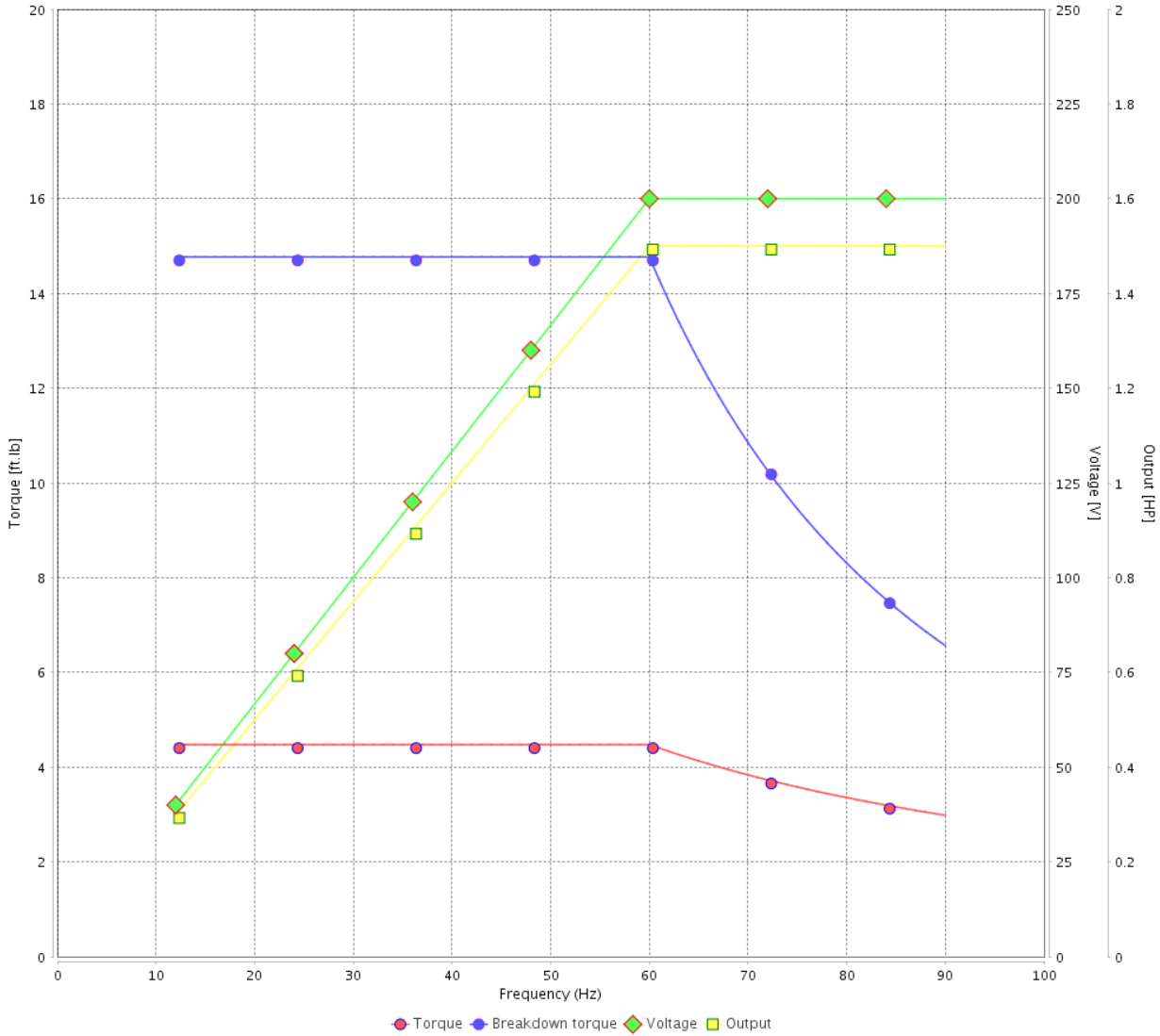
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12877757

Catalog # : 00158OT3P145TC-S

VFD OPERATION CURVE



Performance : 200 V 60 Hz 4P

Rated current : 4.76 A  
 LRC : 8.7  
 Rated torque : 4.48 ft.lb  
 Locked rotor torque : 280 %  
 Breakdown torque : 330 %  
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.1426 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
Performed by			Page 6 / 6	Revision
Checked by				
Date	12/04/2022			

1 2 3 4 5 6

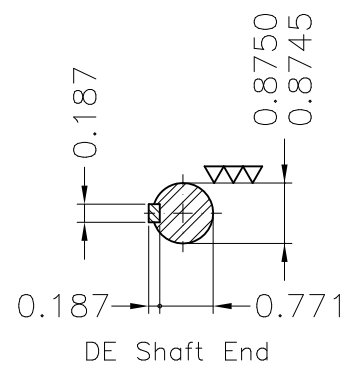
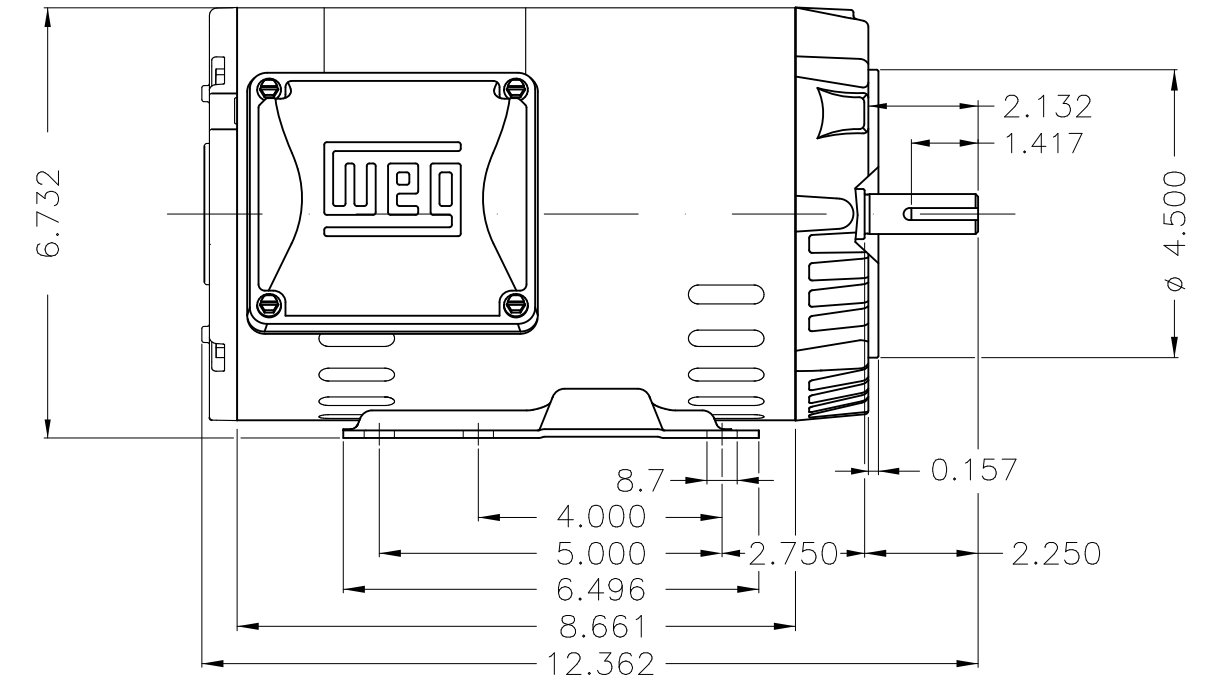
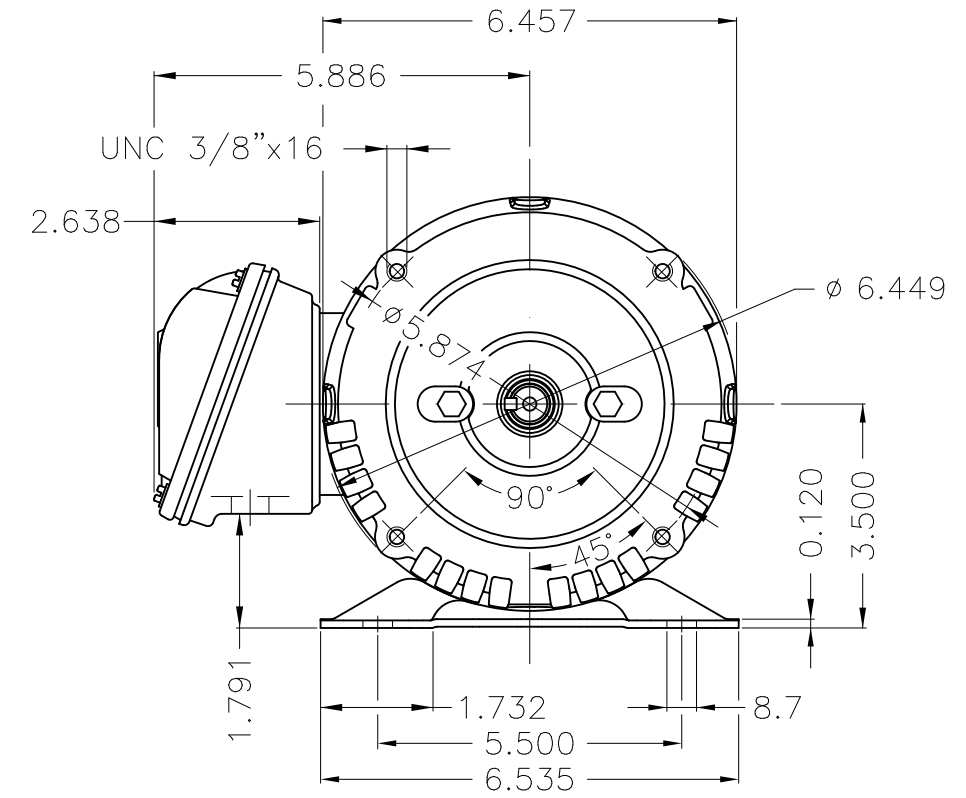
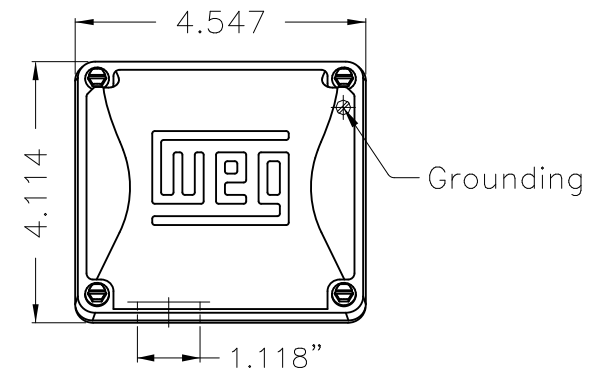
A

B

C

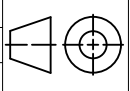
D

E



Dimensions in inches

Color Munsell N 1 matte black  
 Painting plan 207N  
 Mounting F-1/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	

1.5 HP 04 Poles 60 Hz

A

**PREVIEW**  
WDD

