

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :				
Product line	: NEMA Premium Efficiency Three-Phase			
Product code :	14589483			
Catalog # :	00158XT3H145TC			
Frame : 143/5TC Output : 1.5 HP (1.1 kW) Poles : 4 Frequency : 60 Hz Rated voltage : 575 V Rated current : 1.64 A L. R. Amperes : 14.6 A LRC : 8.9x(Code L) No load current : 0.960 A Rated speed : 1755 rpm Slip : 2.50 % Rated torque : 4.49 ft.lb Locked rotor torque : 270 % Breakdown torque : 350 % Insulation class : F Service factor : 1.15 Moment of inertia (J) : 0.1303 sq.ft.lb Design : B	Locked rotor time : 25s (cold) 14s (hot) Temperature rise : 80 K Duty cycle : Cont.(S1) Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP55 Cooling method : IC411 - TEFC Mounting : F-1 Rotation <sup>1</sup> : Both (CW and CCW) Noise level <sup>2</sup> : 51.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 74.8 lb			
Output	25%    50%    75%    100%			
Efficiency (%)	80.2    81.5    85.5    86.5			
Power Factor	0.34    0.58    0.70    0.78			
Foundation loads				
Max. traction	: 99 lb			
Max. compression	: 174 lb			
Bearing type	: <u>Drive end</u> 6205 2RS <u>Non drive end</u> 6204 2RS			
Sealing	: Oil Seal      Lip 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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Customer : \_\_\_\_\_

### Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermostat - 2 wires	1 x Phase	155 °C

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# TORQUE AND CURRENT VS SPEED CURVE



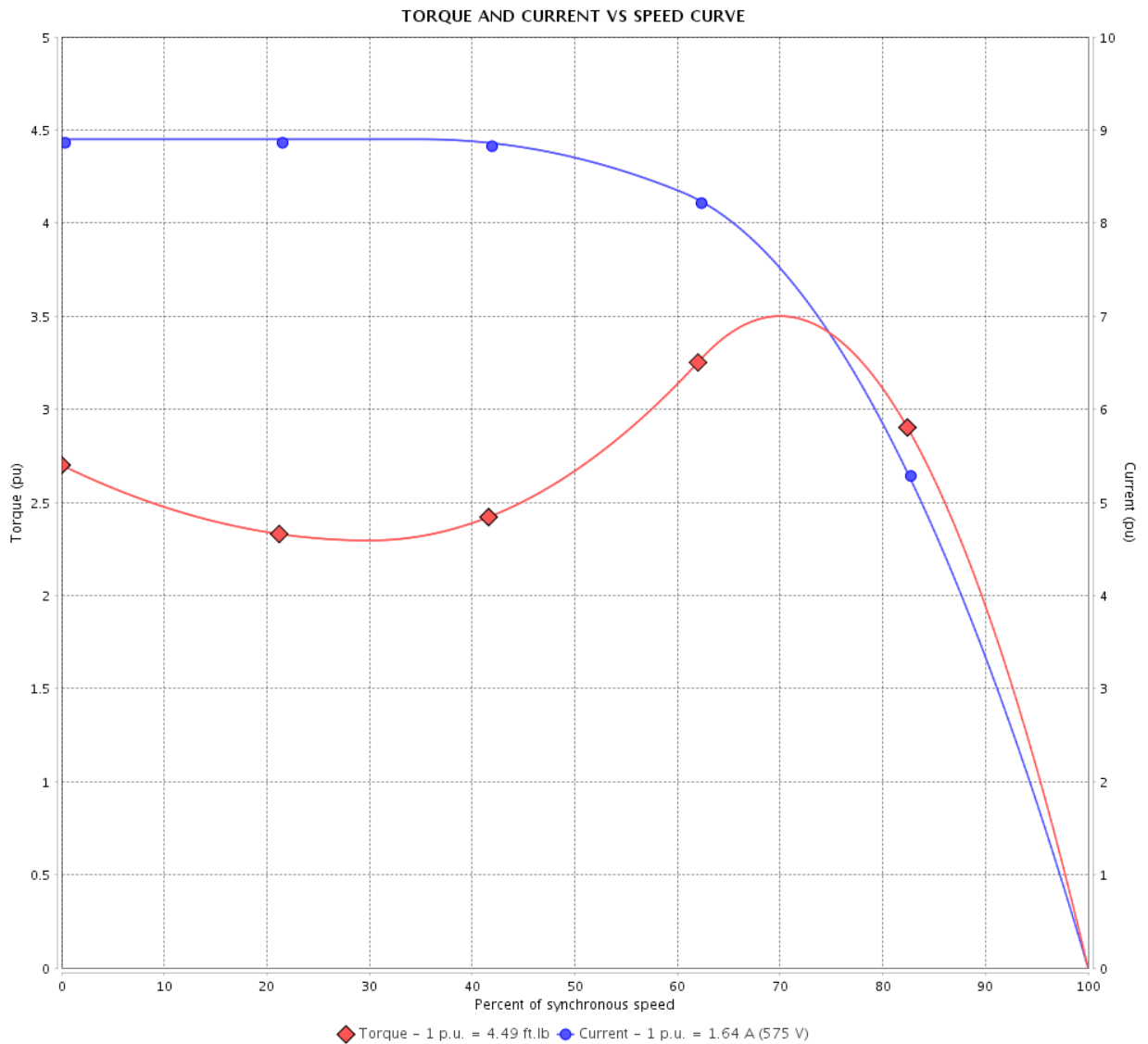
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14589483

Catalog # : 00158XT3H145TC



Performance : 575 V 60 Hz 4P

Rated current	: 1.64 A	Moment of inertia (J)	: 0.1303 sq.ft.lb
LRC	: 8.9	Duty cycle	: Cont.(S1)
Rated torque	: 4.49 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.15
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1755 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

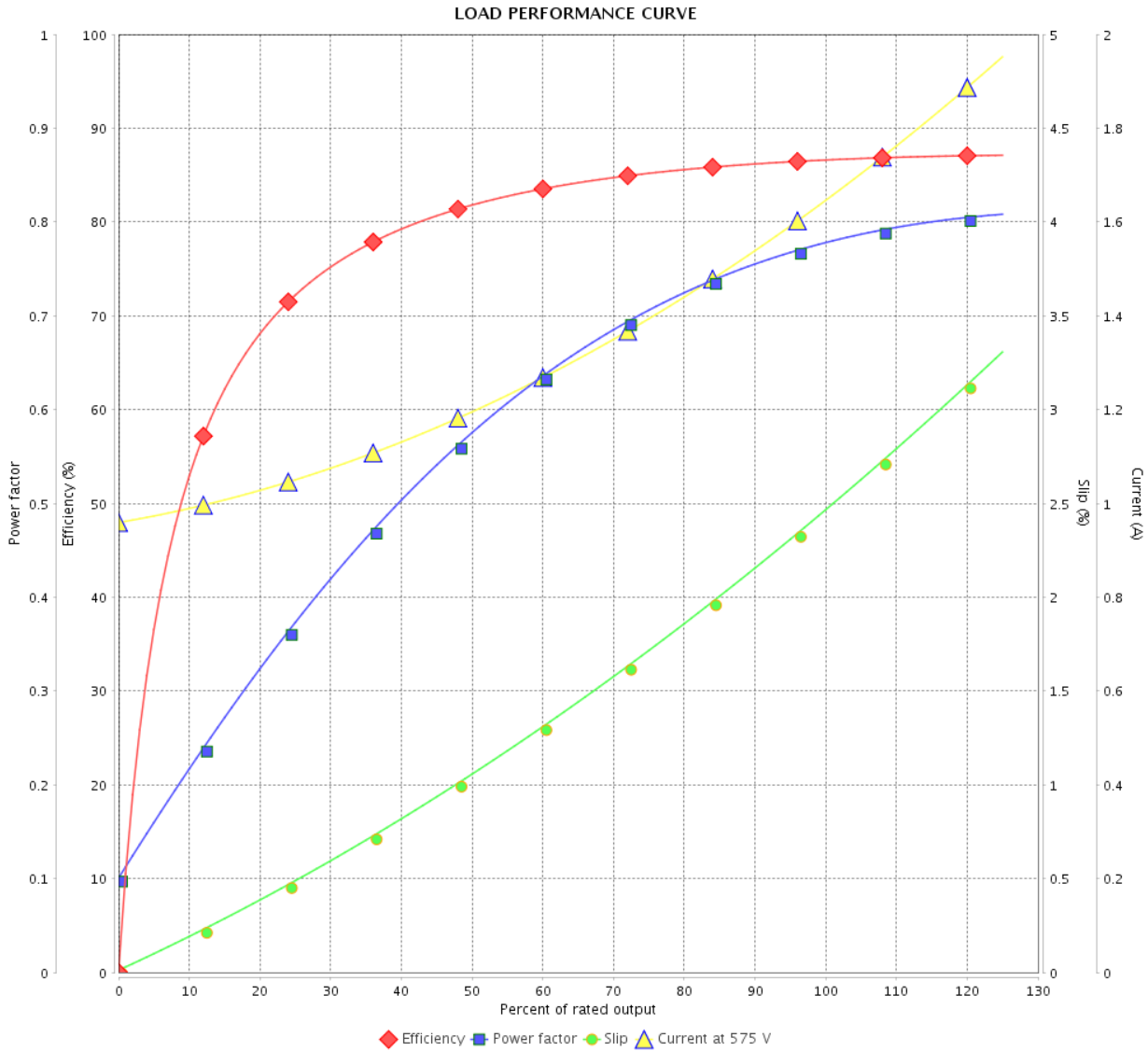


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14589483

Catalog # : 00158XT3H145TC



Performance : 575 V 60 Hz 4P

Rated current : 1.64 A  
 LRC : 8.9  
 Rated torque : 4.49 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 350 %  
 Rated speed : 1755 rpm

Moment of inertia (J) : 0.1303 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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 Product code : 14589483  
 Catalog # : 00158XT3H145TC

Performance : 575 V 60 Hz 4P

Rated current : 1.64 A	Moment of inertia (J) : 0.1303 sq.ft.lb
LRC : 8.9	Duty cycle : Cont.(S1)
Rated torque : 4.49 ft.lb	Insulation class : F
Locked rotor torque : 270 %	Service factor : 1.15
Breakdown torque : 350 %	Temperature rise : 80 K
Rated speed : 1755 rpm	Design : B

Heating constant

Cooling constant

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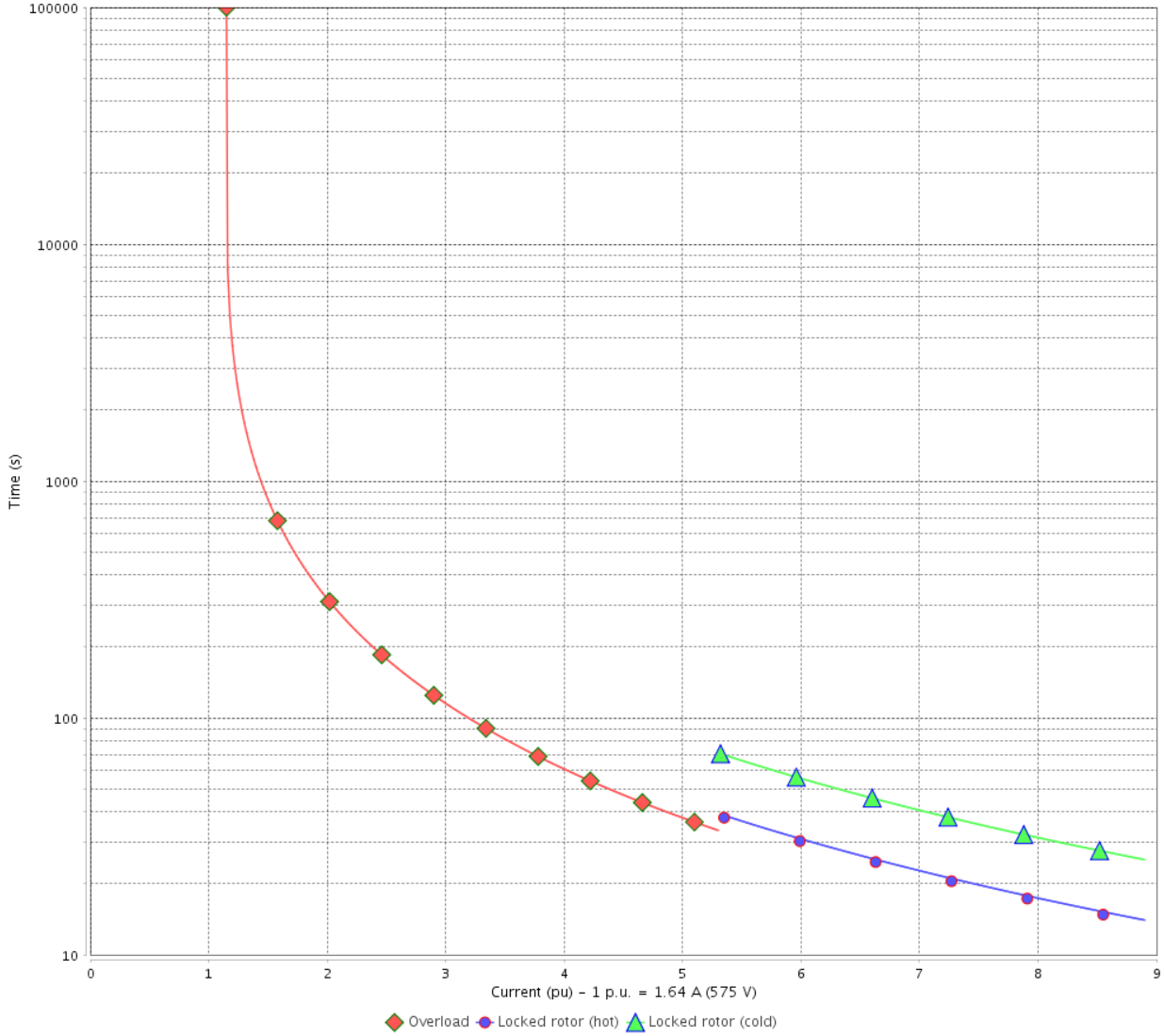
# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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

THERMAL LIMIT CURVE



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# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

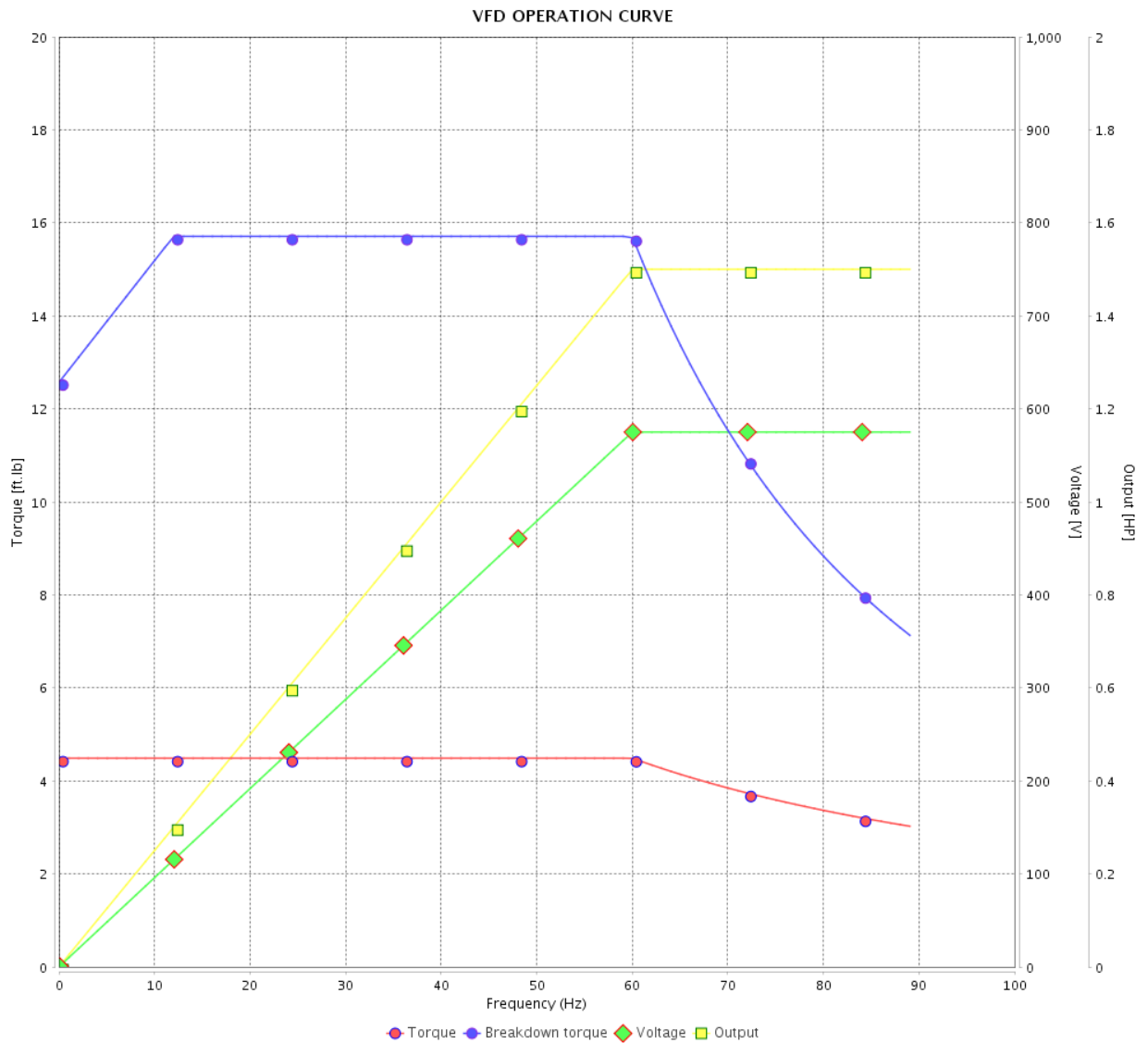


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14589483

Catalog # : 00158XT3H145TC

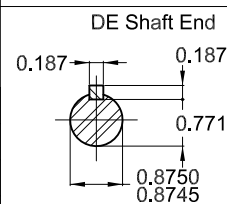
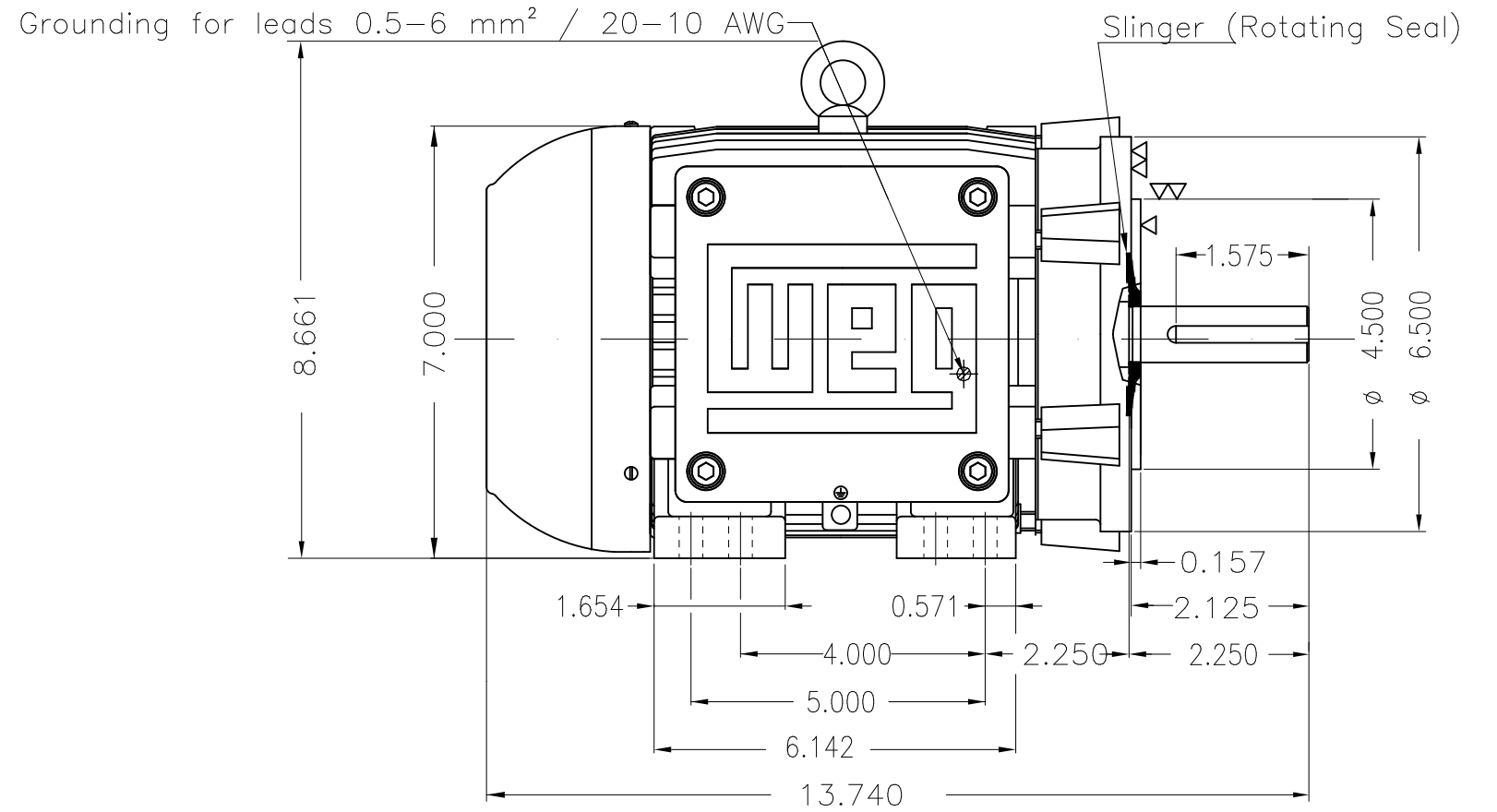
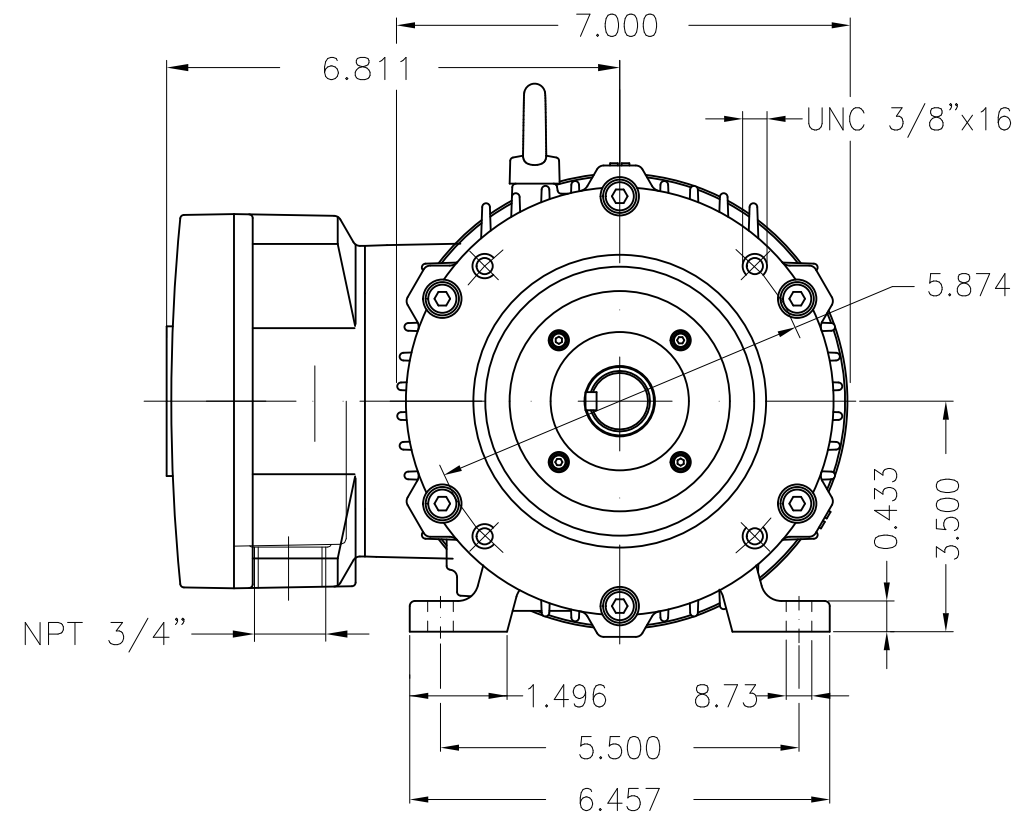


Performance : 575 V 60 Hz 4P

Rated current : 1.64 A  
 LRC : 8.9  
 Rated torque : 4.49 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 350 %  
 Rated speed : 1755 rpm

Moment of inertia (J) : 0.1303 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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Color RAL 5009  
 Painting plan 202P  
 Mounting NEMA F-1  
 Mounting B34R(D)

1.5 HP 04 Poles 60 Hz

Dimensions in inches

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR EXPLOSION PROOF PREM. EFF.					
CHECKED		FRAME 143/5TC IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

**PREVIEW**  
 WDD





MADE IN BRAZIL

**W21X NEMA**  
**Premium**

14589483

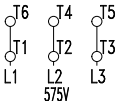
CC029A

*Inverter Duty Motor*  
*Severe Duty*

LISTED

MODEL 00158XT3H145TC

PH 3	FR 143/5TC	
HP(kW) 1.5(1.1)		HZ 60 IP55
V 575		A 1.64
RPM 1760		NEMA NOM EFF 86.5%
PF 0.78	SFA 1.89	DES B
INS CL F $\Delta$ T 80 K	SF 1.15	ENCL TEFC
DUTY CONT.	CODE L	ALT 1000 m.a.s.l.
AMB 40°C		
AMB 55°C	SF1.0	



→ 6205-2RS MOBIL POLYREX EM  
→ 6204-2RS

75 Lbs



TEMP CODE T3C  
CSA/UL: Class I - Div. 1 - Groups C and D  
CSA: Class II - Div. 1 - Groups F and G  
CSA: Class I - Zone 1 - IIB

EXPLOSION PROOF MOTOR

FOR USE ON VPWM VFD 1000:1VT, 20:1CT, 1.0SF, T3C, AMB 40°C.