

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :						
Product line		: NEMA Premium Efficiency Three-Phase		Product code :	14407462	
				Catalog # :	01512XT3H284T	
Frame	: 284T		Locked rotor time	: 45s (cold) 25s (hot)		
Output	: 15 HP (11 kW)		Temperature rise	: 80 K		
Poles	: 6		Duty cycle	: Cont.(S1)		
Frequency	: 60 Hz		Ambient temperature	: -20°C to +40°C		
Rated voltage	: 575 V		Altitude	: 1000 m.a.s.l.		
Rated current	: 14.0 A		Protection degree	: IP55		
L. R. Amperes	: 101 A		Cooling method	: IC411 - TEFC		
LRC	: 7.2x(Code H)		Mounting	: F-1		
No load current	: 5.60 A		Rotation <sup>1</sup>	: Both (CW and CCW)		
Rated speed	: 1180 rpm		Noise level <sup>2</sup>	: 59.0 dB(A)		
Slip	: 1.67 %		Starting method	: Direct On Line		
Rated torque	: 66.8 ft.lb		Approx. weight <sup>3</sup>	: 464 lb		
Locked rotor torque	: 250 %					
Breakdown torque	: 260 %					
Insulation class	: F					
Service factor	: 1.15					
Moment of inertia (J)	: 7.07 sq.ft.lb					
Design	: B					
Output	25%	50%	75%	100%	Foundation loads	
Efficiency (%)	90.8	91.0	91.7	91.7	Max. traction : 525 lb	
Power Factor	0.47	0.74	0.83	0.86	Max. compression : 989 lb	
			<u>Drive end</u>		<u>Non drive end</u>	
Bearing type	:		6311 C3		6211 C3	
Sealing	:		Oil Seal		Lip Seal	
Lubrication interval	:		20000 h		20000 h	
Lubricant amount	:		18 g		11 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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## Three Phase Induction Motor - Squirrel Cage



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



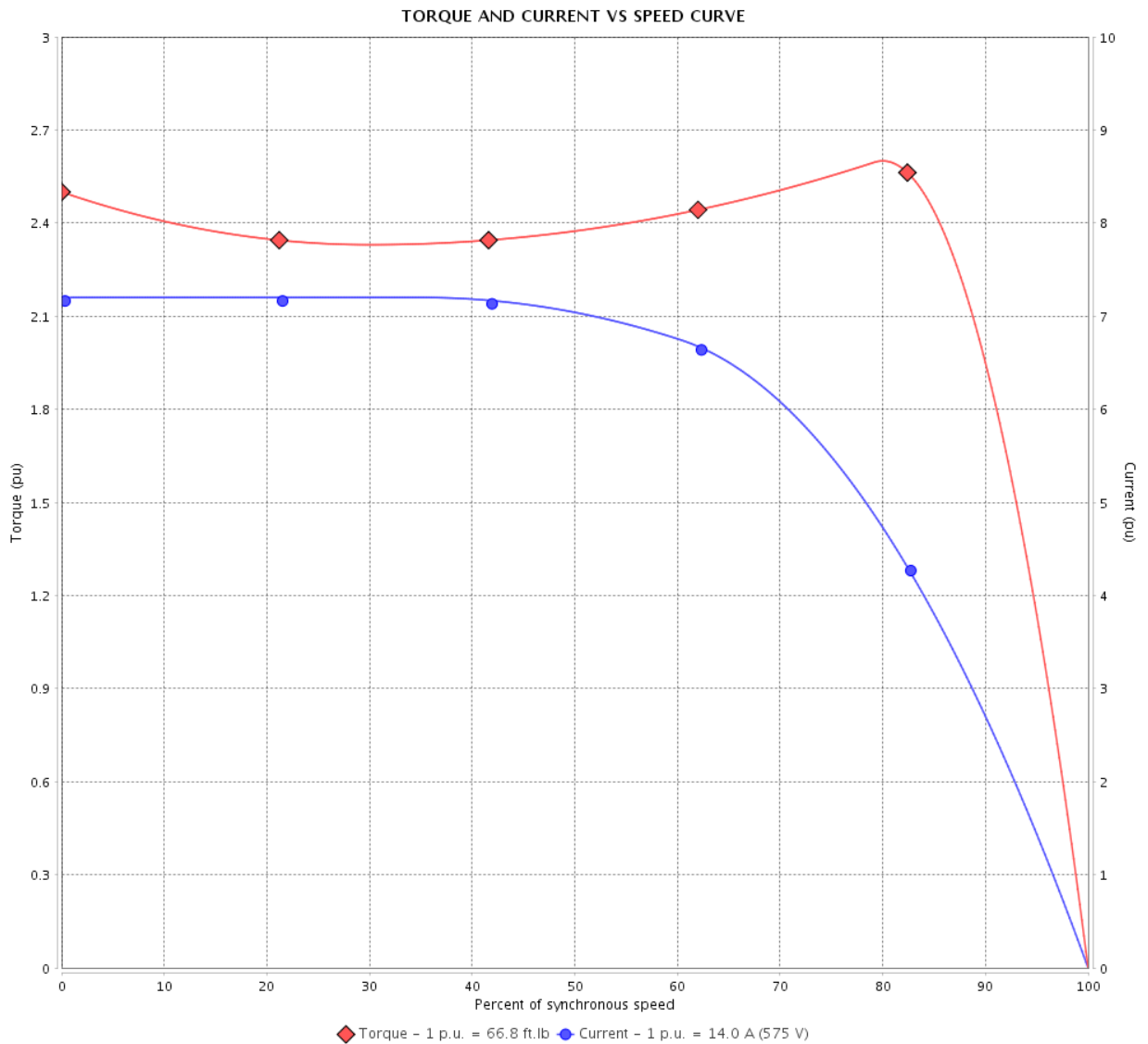
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14407462

Catalog # : 01512XT3H284T



Performance : 575 V 60 Hz 6P

Rated current	: 14.0 A	Moment of inertia (J)	: 7.07 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 66.8 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1180 rpm	Design	: B

Locked rotor time : 45s (cold) 25s (hot)

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



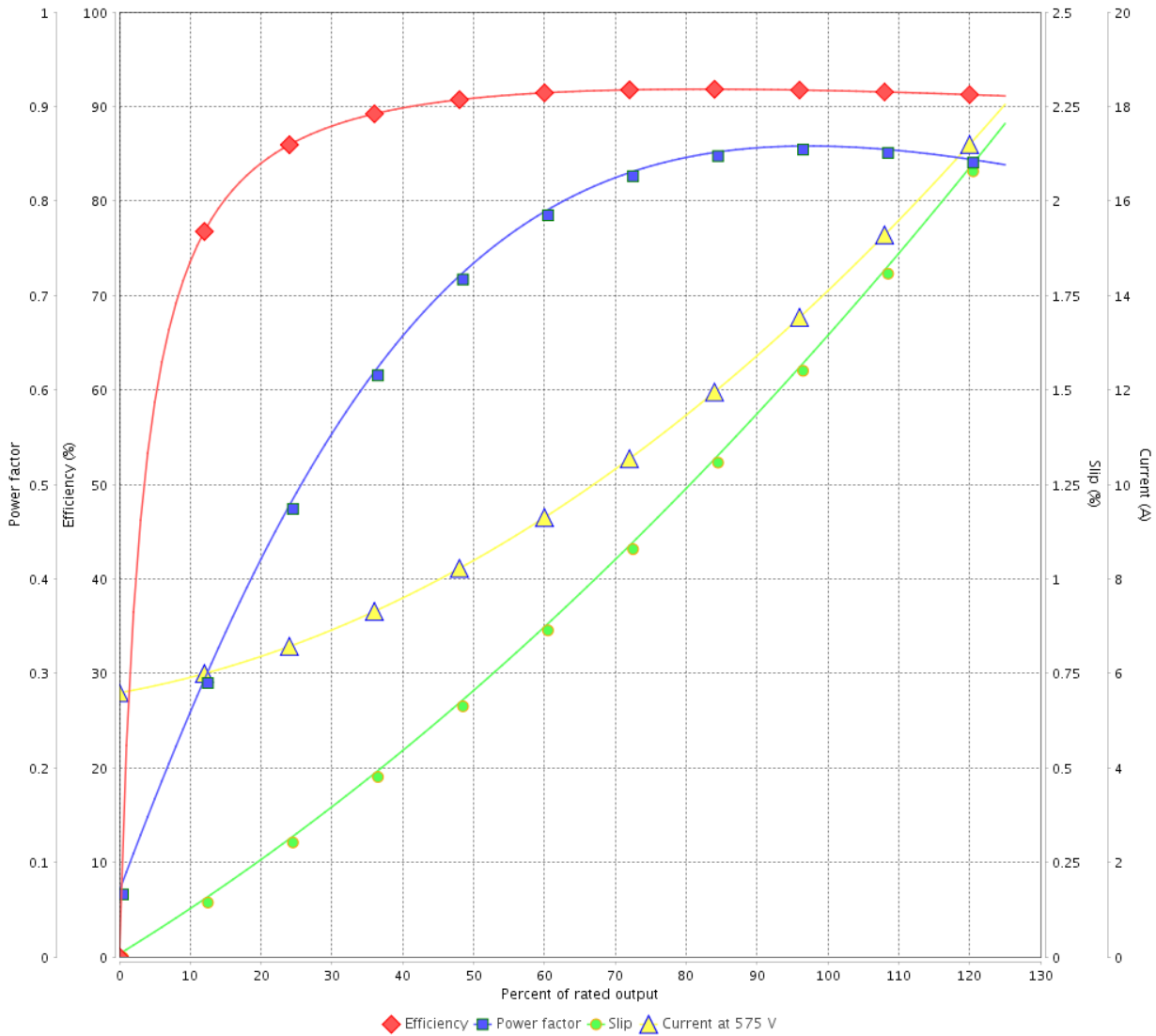
Customer :

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LOAD PERFORMANCE CURVE



Performance : 575 V 60 Hz 6P

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LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 66.8 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1180 rpm	Design	: B

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# THERMAL LIMIT CURVE



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LRC : 7.2	Duty cycle : Cont.(S1)
Rated torque : 66.8 ft.lb	Insulation class : F
Locked rotor torque : 250 %	Service factor : 1.15
Breakdown torque : 260 %	Temperature rise : 80 K
Rated speed : 1180 rpm	Design : B

Heating constant

Cooling constant

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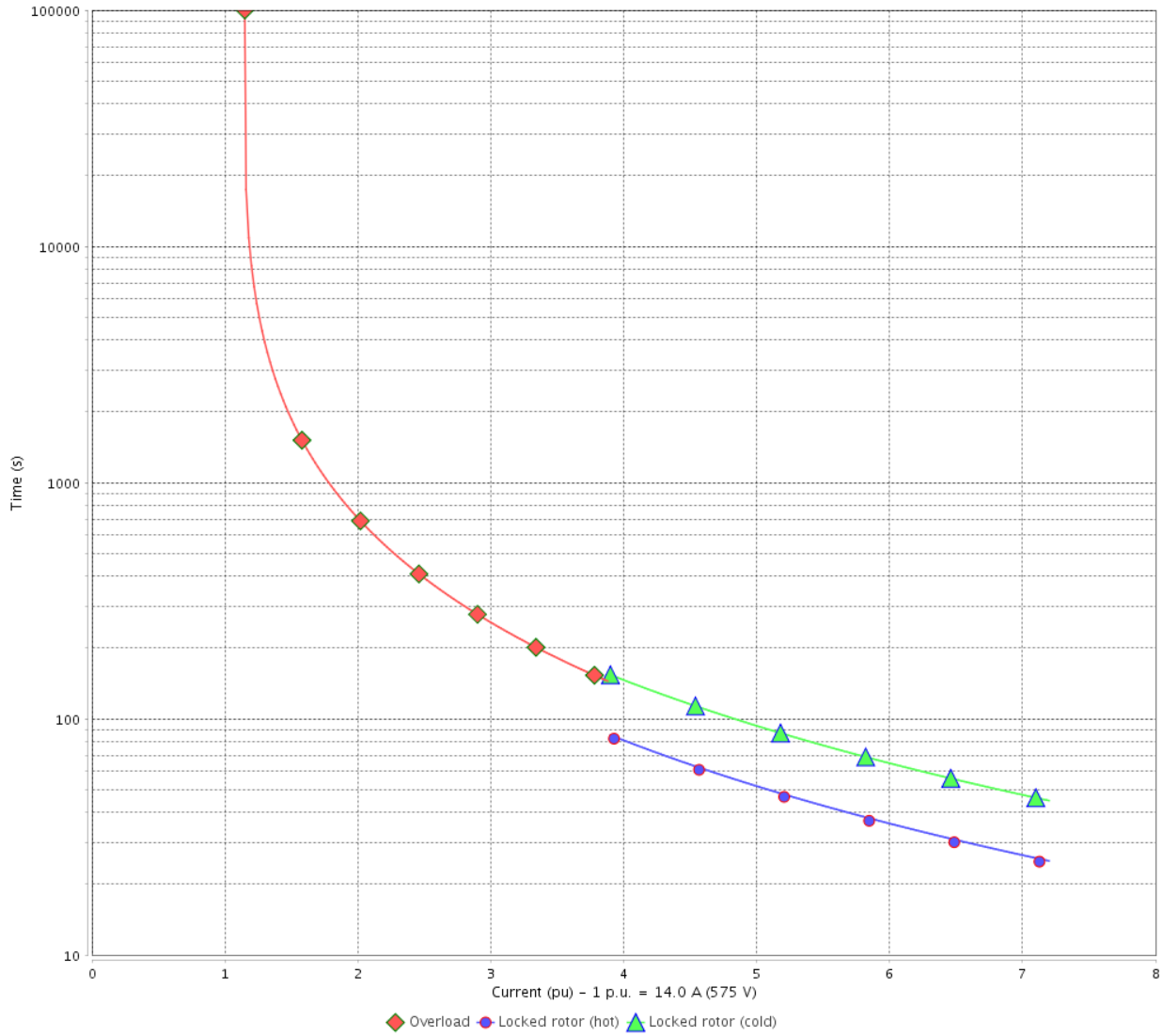
# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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

THERMAL LIMIT CURVE



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# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

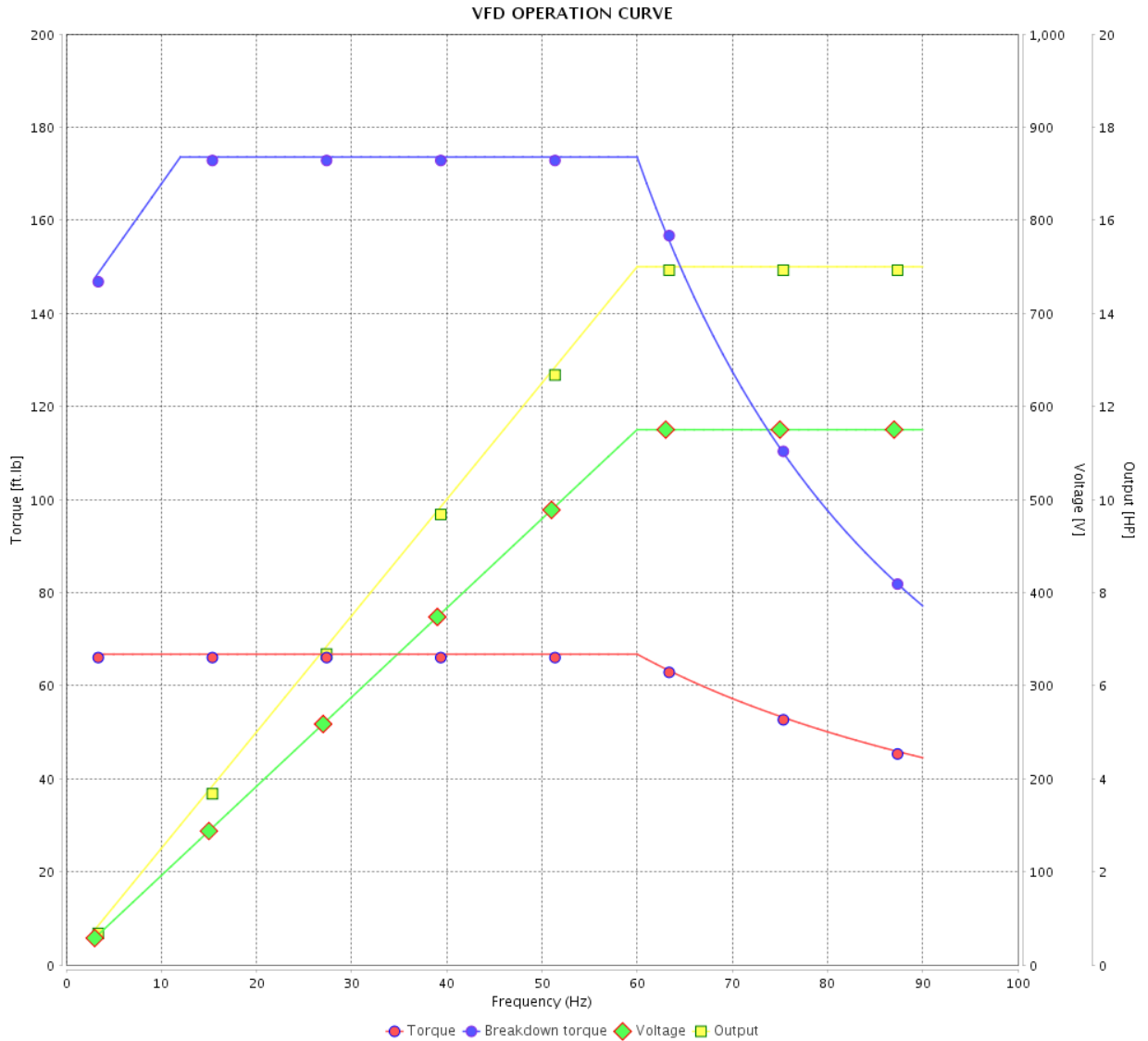


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14407462

Catalog # : 01512XT3H284T



Performance : 575 V 60 Hz 6P

Rated current : 14.0 A  
 LRC : 7.2  
 Rated torque : 66.8 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 260 %  
 Rated speed : 1180 rpm

Moment of inertia (J) : 7.07 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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1 2 3 4 5 6

A

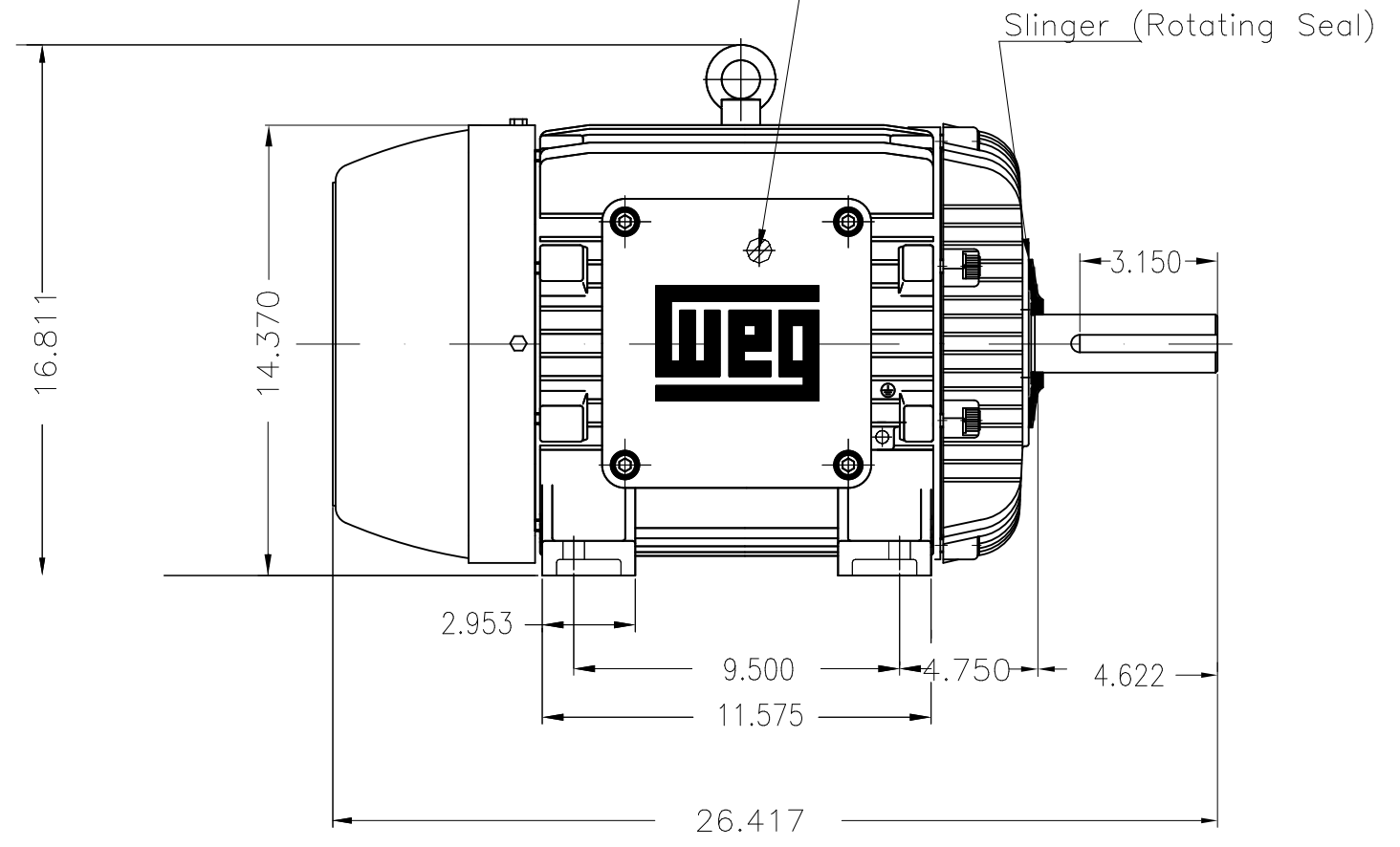
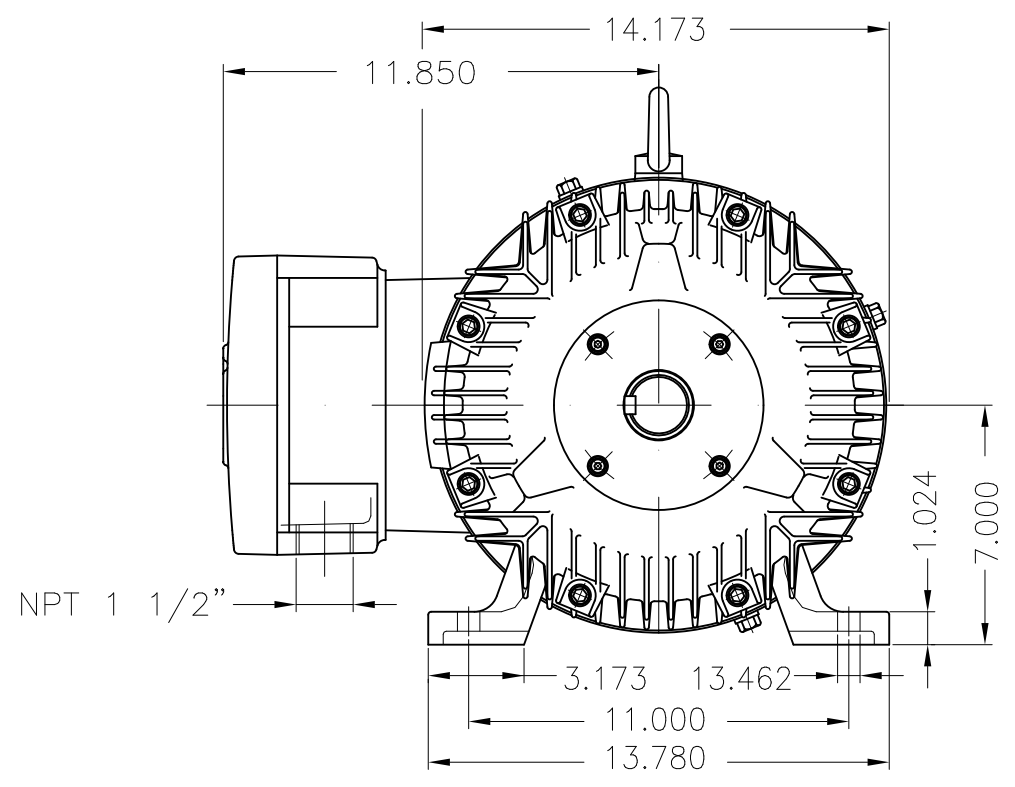
B

C

D

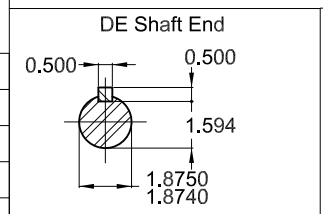
E

Grounding for leads 5.2–25 mm<sup>2</sup> / 10–4 AWG



15 HP 06 Poles 60 Hz A

- With grease fitting
- Color RAL 5009
- Painting plan 202P
- Mounting NEMA F-1
- Mounting B3R(D)



ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR EXPLOSION PROOF PREM. EFF.					
CHECKED		FRAME 284T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

PREVIEW  
WDD

SHEET 1 / 1

Dimensions in inches XME A3



MADE IN BRAZIL


**W21X NEMA**  
**Premium**

14407462

CC029A

*Inverter Duty Motor*  
*Severe Duty*


LISTED

HX015506NPW21X

PH 3 | FR 284T

HP(kW) 15(11)

HZ 60

IP55

V 575

A 14.0

RPM 1180

NEMA NOM EFF 91.7%

PF 0.86

SFA 16.1

DES B

INS CL F  $\Delta$ T 80 K | SF 1.15

ENCL TEFC

DUTY CONT.

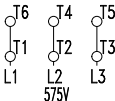
CODE H

ALT 1000

m.a.s.l.

AMB 40°C

AMB 55°C SF1.0



→ 6311-C3 MOBIL POLYREX EM

→ 6211-C3 18 g 20000 h

465 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, 6:1CT, 1.0SF, T3C, AMB 40°C.