

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :																			
Product line	: NEMA Premium Efficiency Three-Phase																		
Product code :	14407015																		
Catalog # :	01536XT3H254T																		
Frame : 254T Output : 15 HP (11 kW) Poles : 2 Frequency : 60 Hz Rated voltage : 575 V Rated current : 13.9 A L. R. Amperes : 94.7 A LRC : 6.8x(Code G) No load current : 4.80 A Rated speed : 3540 rpm Slip : 1.67 % Rated torque : 22.3 ft.lb Locked rotor torque : 200 % Breakdown torque : 270 % Insulation class : F Service factor : 1.15 Moment of inertia (J) : 1.19 sq.ft.lb Design : B	Locked rotor time : 55s (cold) 31s (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> : 75.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 320 lb																		
Output	25%    50%    75%    100%																		
Efficiency (%)	89.4    90.0    90.5    91.0																		
Power Factor	0.49    0.74    0.83    0.87																		
Foundation loads																			
Max. traction : 128 lb																			
Max. compression : 448 lb																			
	<table border="0"> <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>6309 C3</td> <td>6209 C3</td> </tr> <tr> <td>Sealing :</td> <td>Oil Seal</td> <td>Lip Seal</td> </tr> <tr> <td>Lubrication interval :</td> <td>15797 h</td> <td>18447 h</td> </tr> <tr> <td>Lubricant amount :</td> <td>13 g</td> <td>9 g</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 :	6309 C3	6209 C3	Sealing :	Oil Seal	Lip Seal	Lubrication interval :	15797 h	18447 h	Lubricant amount :	13 g	9 g	Lubricant type :	Mobil Polyrex EM	
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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															
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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



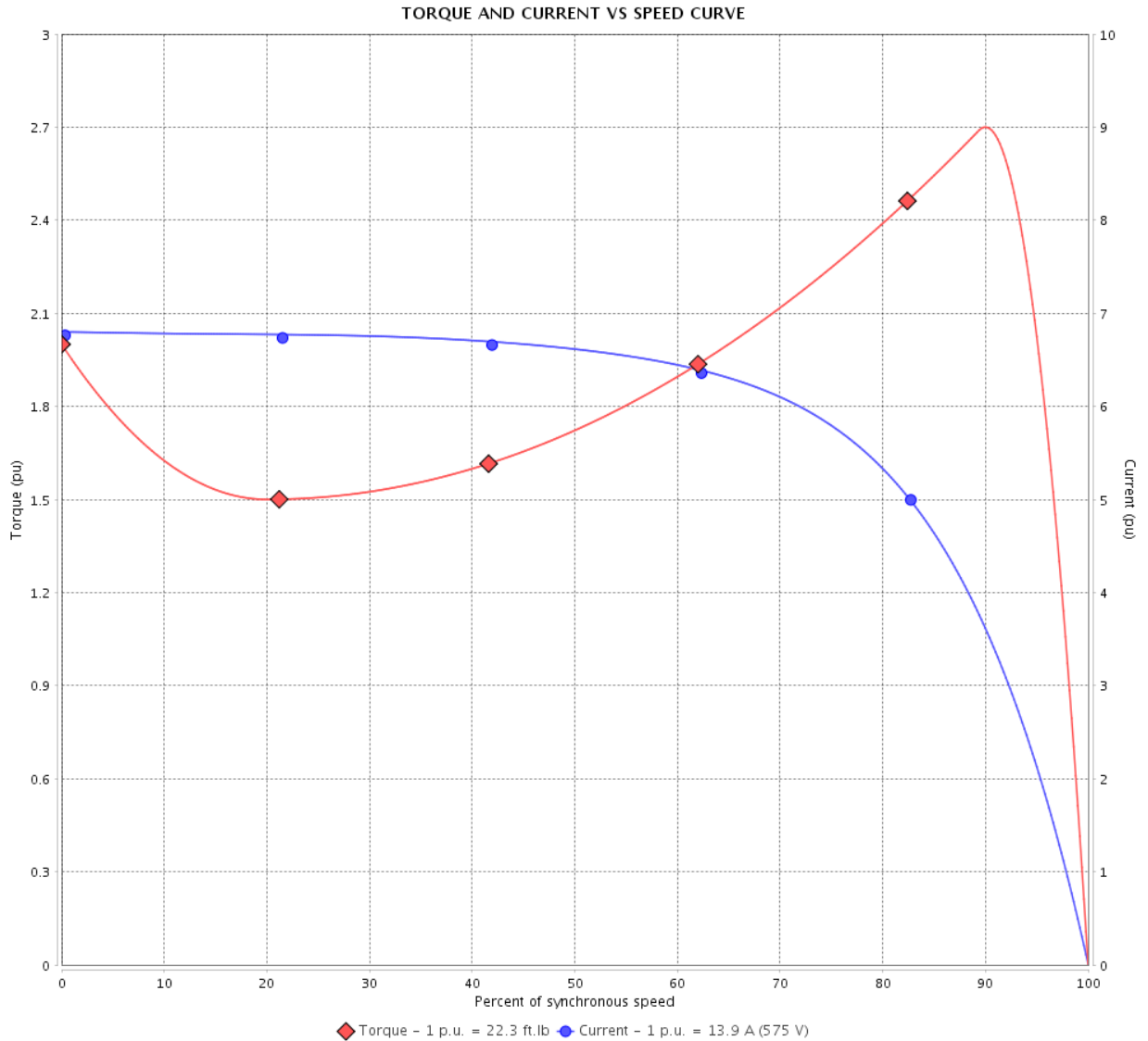
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14407015

Catalog # : 01536XT3H254T



Performance : 575 V 60 Hz 2P

Rated current	: 13.9 A	Moment of inertia (J)	: 1.19 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 22.3 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 3540 rpm	Design	: B

Locked rotor time : 55s (cold) 31s (hot)

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



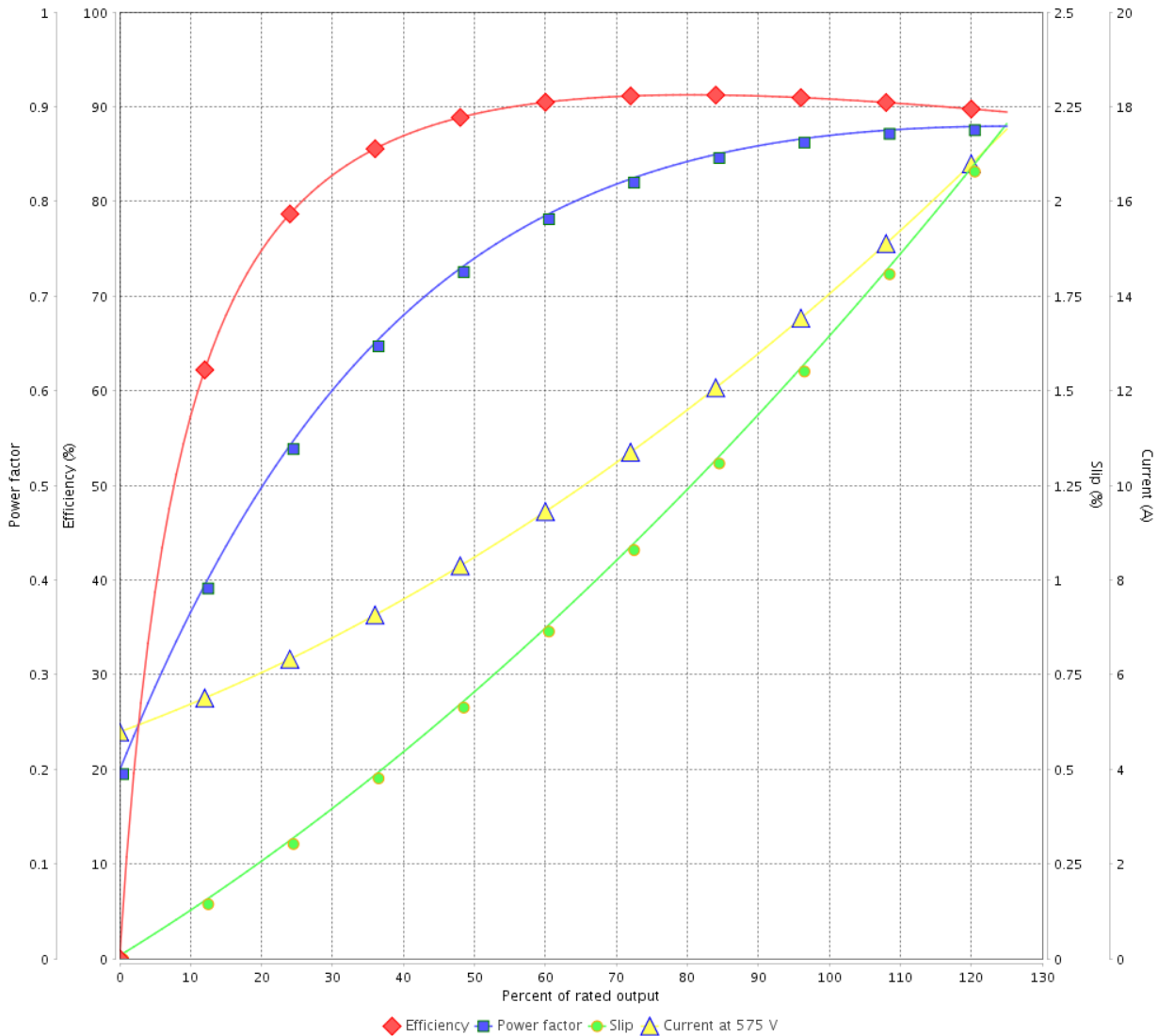
Customer :

Product line : NEMA Premium Efficiency Three-Phase

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Catalog # : 01536XT3H254T

LOAD PERFORMANCE CURVE



Performance : 575 V 60 Hz 2P

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Rated speed	: 3540 rpm	Design	: B

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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

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 Product code : 14407015  
 Catalog # : 01536XT3H254T

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Locked rotor torque : 200 %	Service factor : 1.15
Breakdown torque : 270 %	Temperature rise : 80 K
Rated speed : 3540 rpm	Design : B

Heating constant

Cooling constant

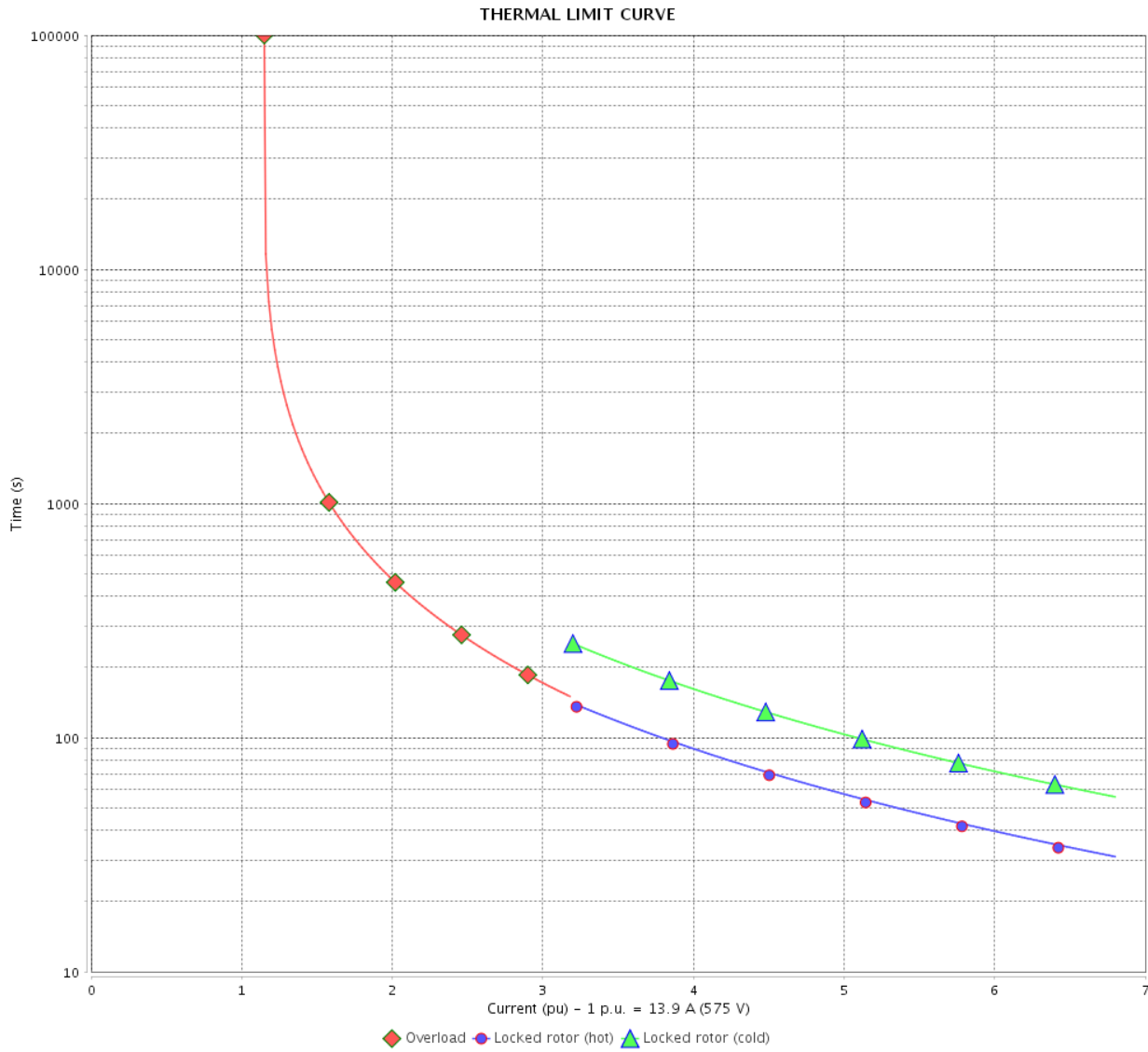
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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Date				

# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

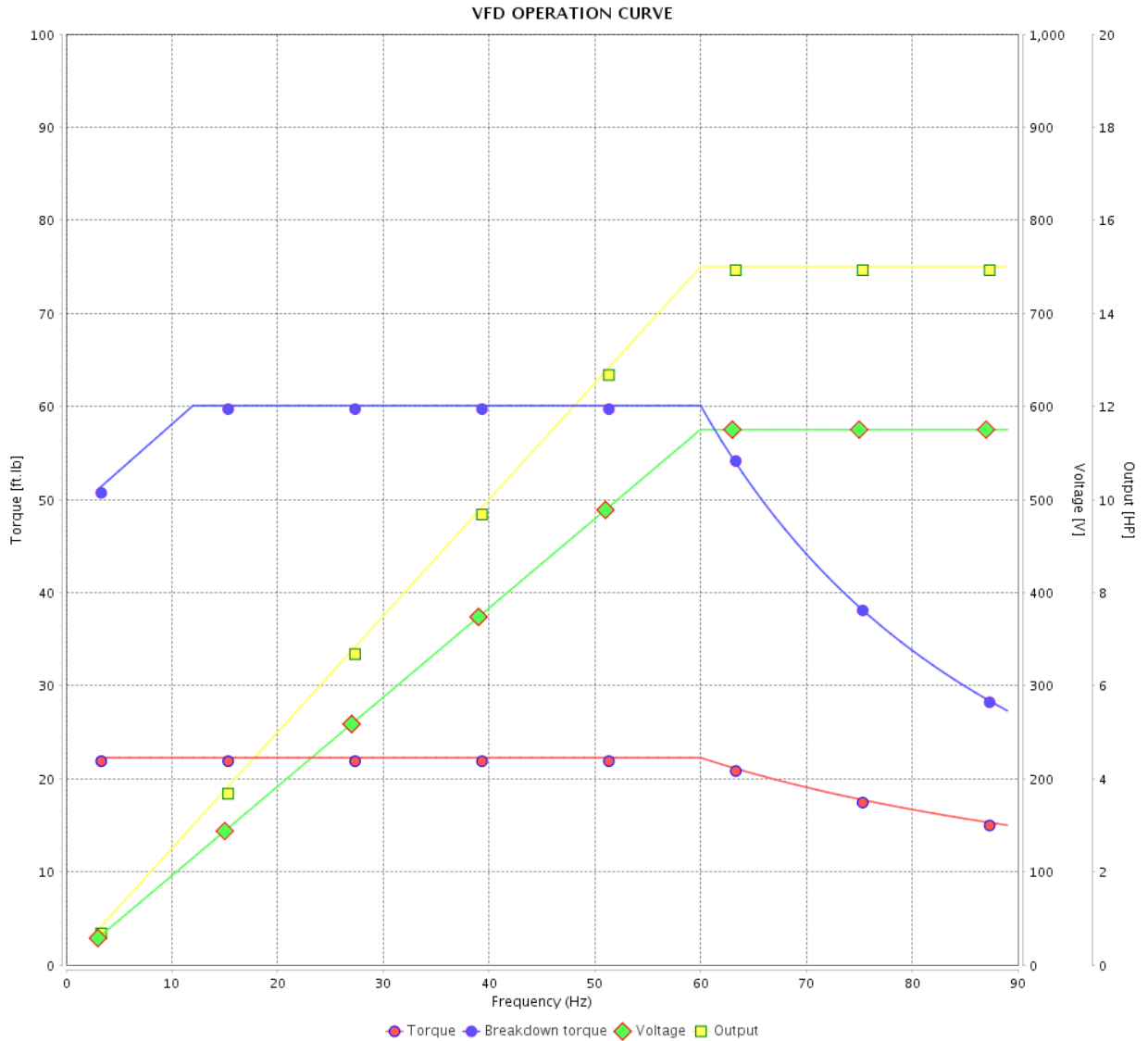


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14407015

Catalog # : 01536XT3H254T



Performance : 575 V 60 Hz 2P

Rated current : 13.9 A  
 LRC : 6.8  
 Rated torque : 22.3 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 270 %  
 Rated speed : 3540 rpm

Moment of inertia (J) : 1.19 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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				Revision

1 2 3 4 5 6

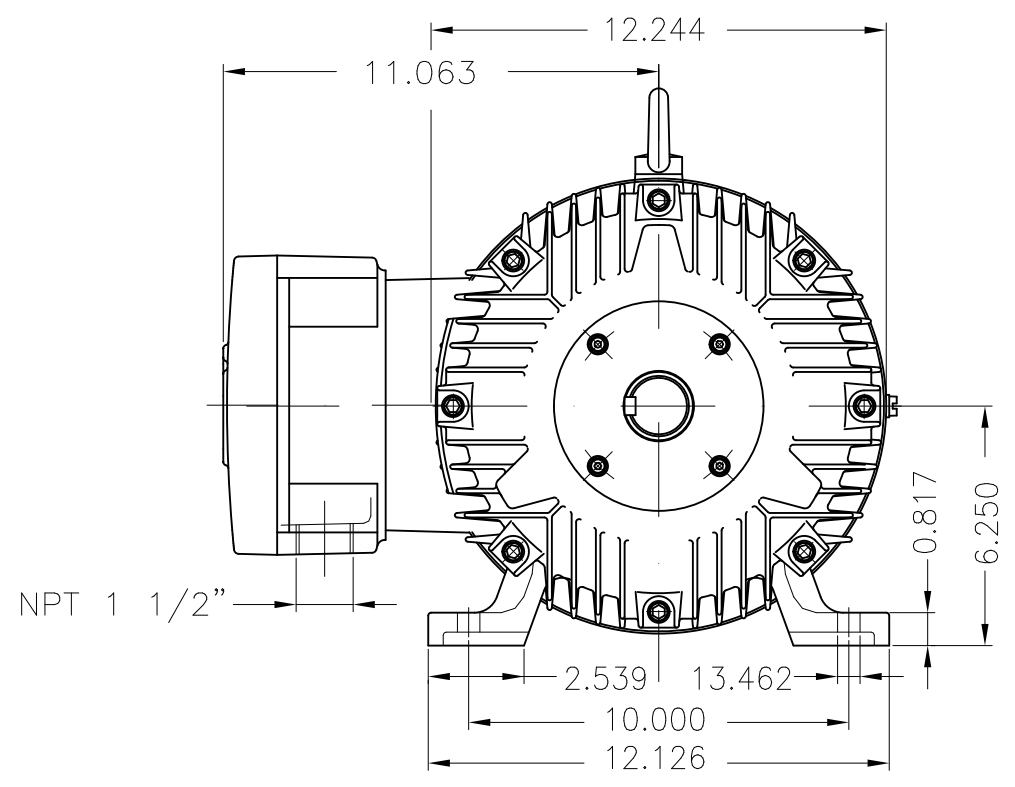
A

B

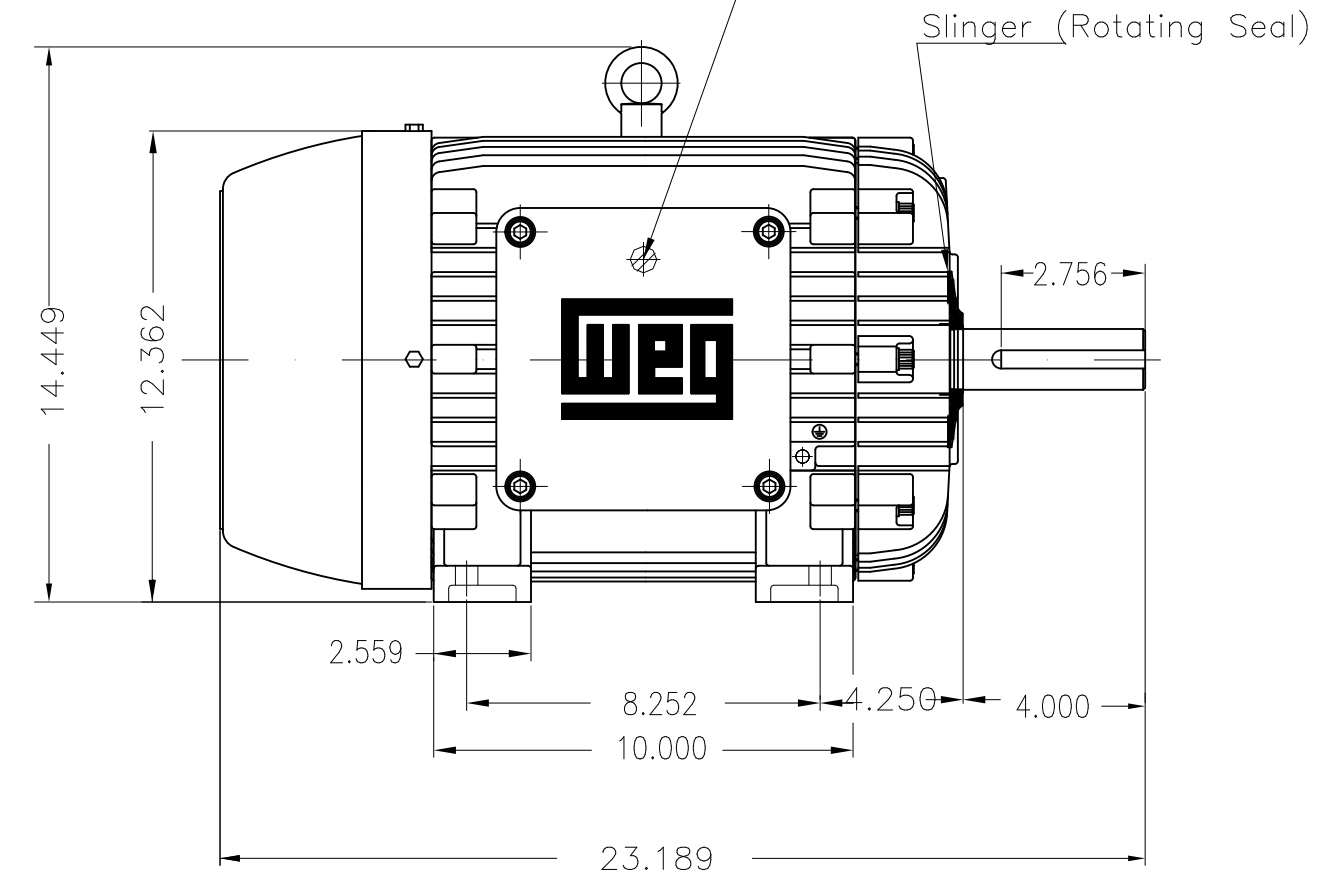
C

D

E

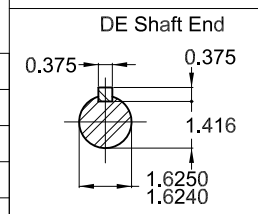


Grounding for leads 5.2–25 mm<sup>2</sup> / 10–4 AWG



15 HP 02 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 254T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW

WDD





MADE IN BRAZIL

**W21X NEMA**  
**Premium**

14407015



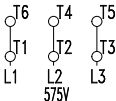
LISTED

CC029A

*Inverter Duty Motor*  
*Severe Duty*

MODEL 01536XT3H254T

PH 3	FR 254T		
HP(kW) 15(11)		HZ 60	IP55
V 575		A 13.9	
RPM 3540		NEMA NOM EFF 91.0%	
PF 0.87		SFA 16.0	DES B
INS CL F $\Delta$ T 80 K		SF 1.15	ENCL TEFC
DUTY CONT.		CODE G	ALT 1000 m.a.s.l.
AMB 40°C			
AMB 55°C SF1.0		-bearings lub interval reduced by a factor of 50%	



→ 6309-C3 MOBIL POLYREX EM  
→ 6209-C3 13 g 15797 h

322 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.