

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 14407175  
Catalog # : 05018XT3H326T

Frame : 326T	Locked rotor time : 36s (cold) 20s (hot)
Output : 50 HP (37 kW)	Temperature rise : 80 K
Poles : 4	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 : 48.5 A	Protection degree : IP55
L. R. Amperes : 354 A	Cooling method : IC411 - TEFC
LRC : 7.3x(Code H)	Mounting : F-1
No load current : 22.0 A	Rotation <sup>1</sup> : Both (CW and CCW)
Rated speed : 1775 rpm	Noise level <sup>2</sup> : 71.0 dB(A)
Slip : 1.39 %	Starting method : Direct On Line
Rated torque : 148 ft.lb	Approx. weight <sup>3</sup> : 690 lb
Locked rotor torque : 260 %	
Breakdown torque : 280 %	
Insulation class : F	
Service factor : 1.15	
Moment of inertia (J) : 9.16 sq.ft.lb	
Design : B	

Output	25%	50%	75%	100%	Foundation loads	
Efficiency (%)	93.4	93.6	94.5	94.5	Max. traction	: 1245 lb
Power Factor	0.40	0.65	0.76	0.81	Max. compression	: 1935 lb

	<u>Drive end</u>	<u>Non drive end</u>
Bearing type :	6312 C3	6212 C3
Sealing :	Oil Seal	Lip Seal
Lubrication interval :	20000 h	20000 h
Lubricant amount :	21 g	13 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



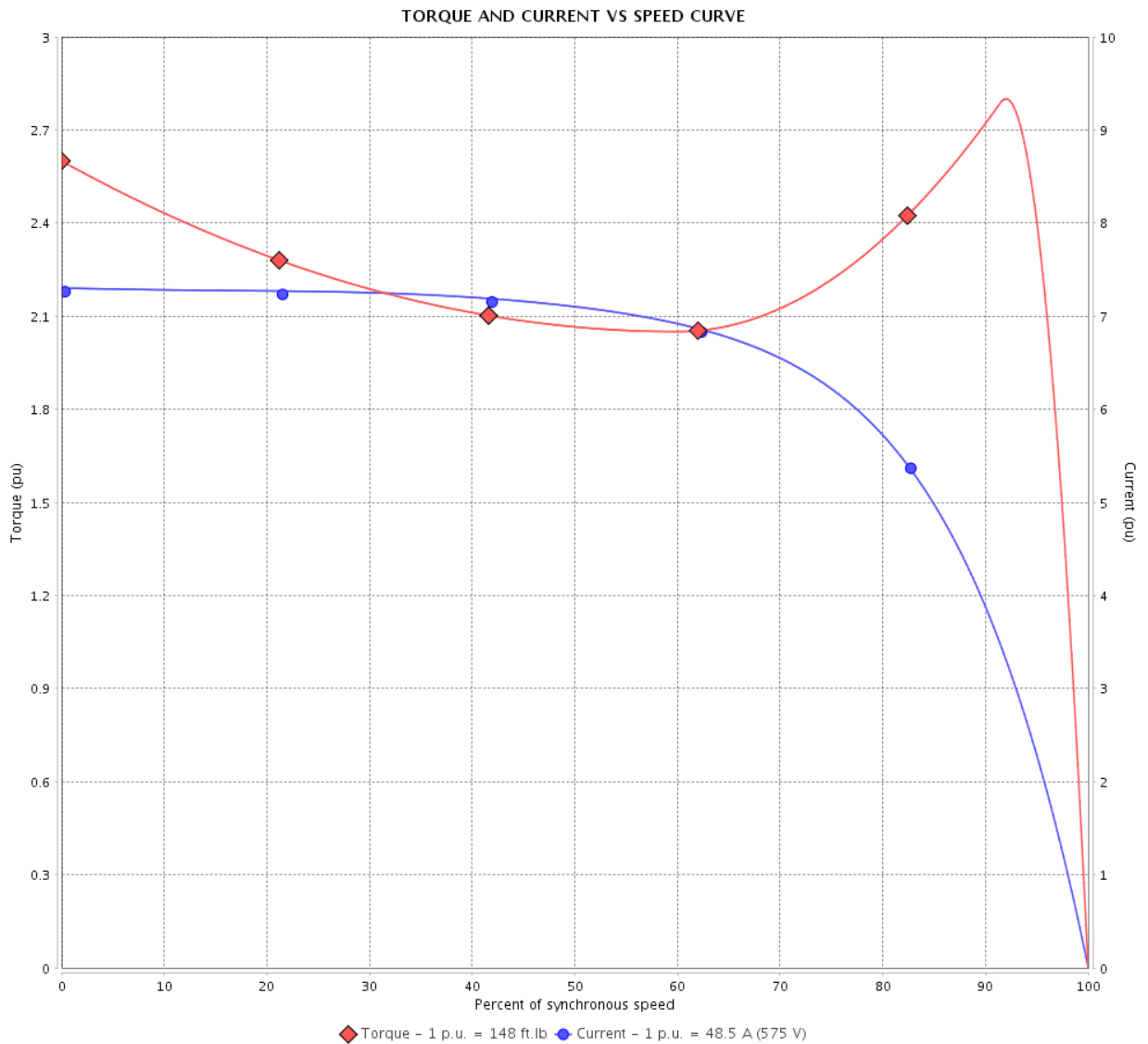
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14407175

Catalog # : 05018XT3H326T



Performance : 575 V 60 Hz 4P

Rated current	: 48.5 A	Moment of inertia (J)	: 9.16 sq.ft.lb
LRC	: 7.3	Duty cycle	: Cont.(S1)
Rated torque	: 148 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1775 rpm	Design	: B

Locked rotor time : 36s (cold) 20s (hot)

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

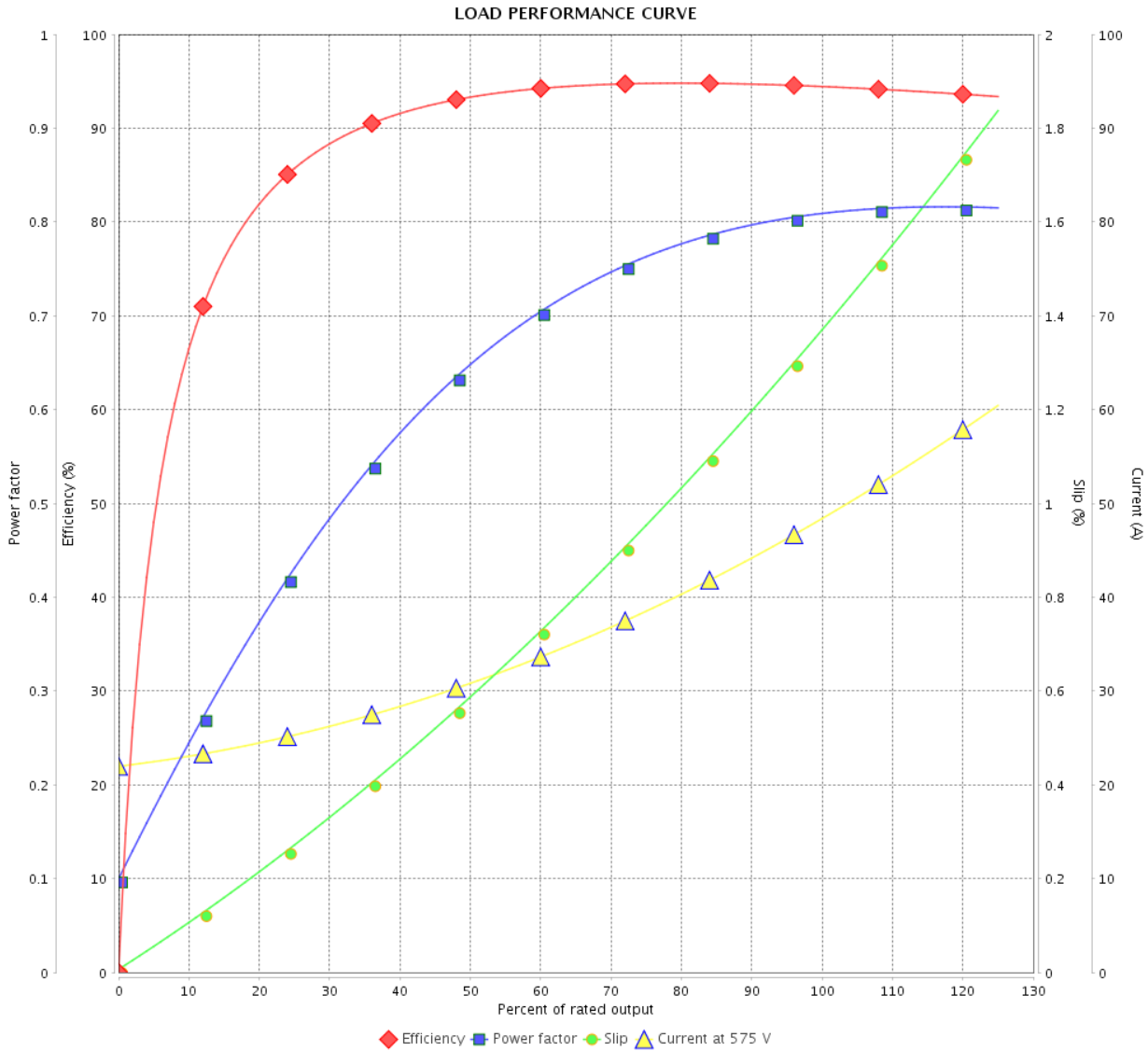


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Rated current : 48.5 A  
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 Rated speed : 1775 rpm

Moment of inertia (J) : 9.16 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



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LRC : 7.3	Duty cycle : Cont.(S1)
Rated torque : 148 ft.lb	Insulation class : F
Locked rotor torque : 260 %	Service factor : 1.15
Breakdown torque : 280 %	Temperature rise : 80 K
Rated speed : 1775 rpm	Design : B

Heating constant

Cooling constant

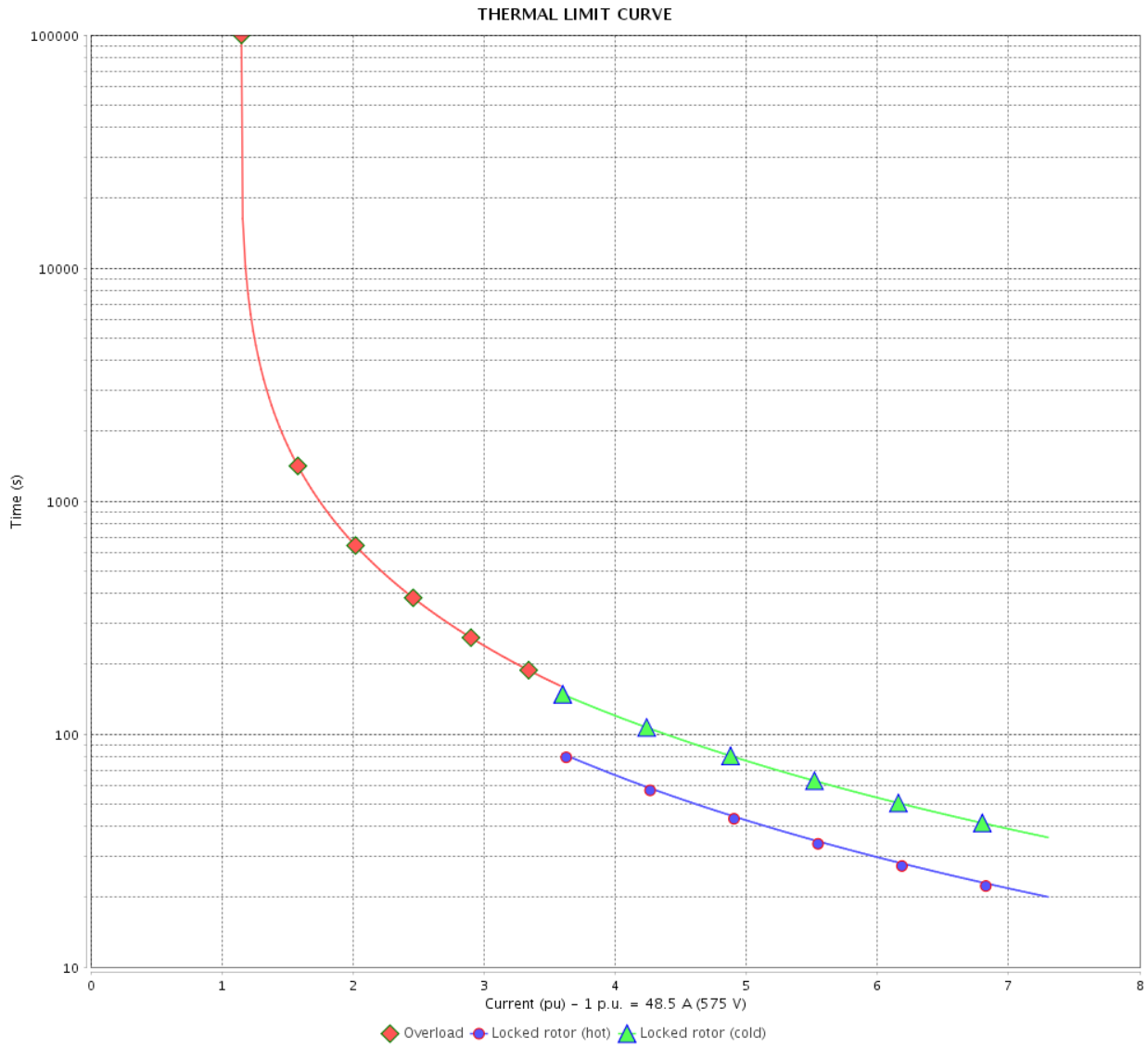
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

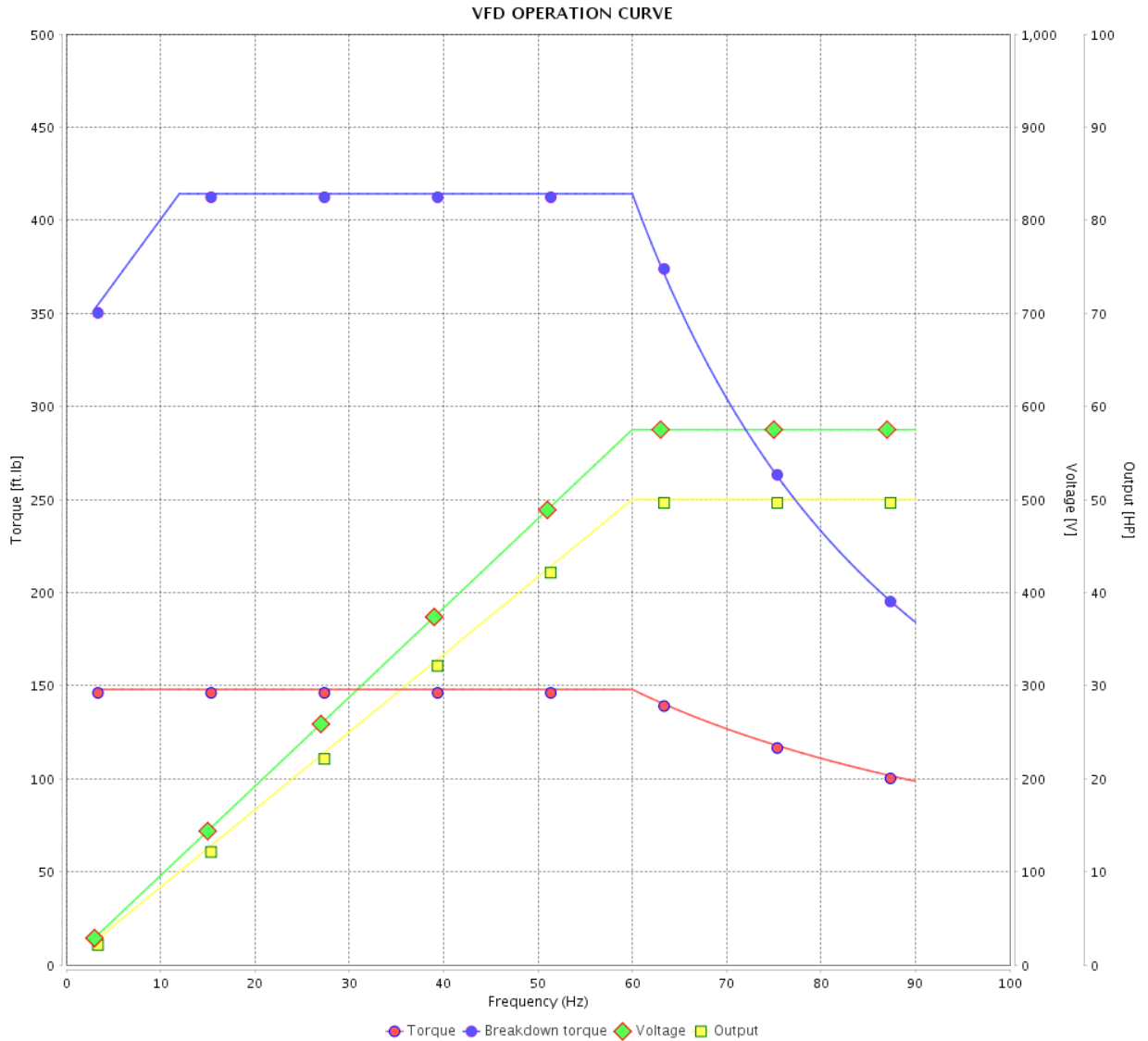


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Product line : NEMA Premium Efficiency Three-Phase

Product code : 14407175

Catalog # : 05018XT3H326T

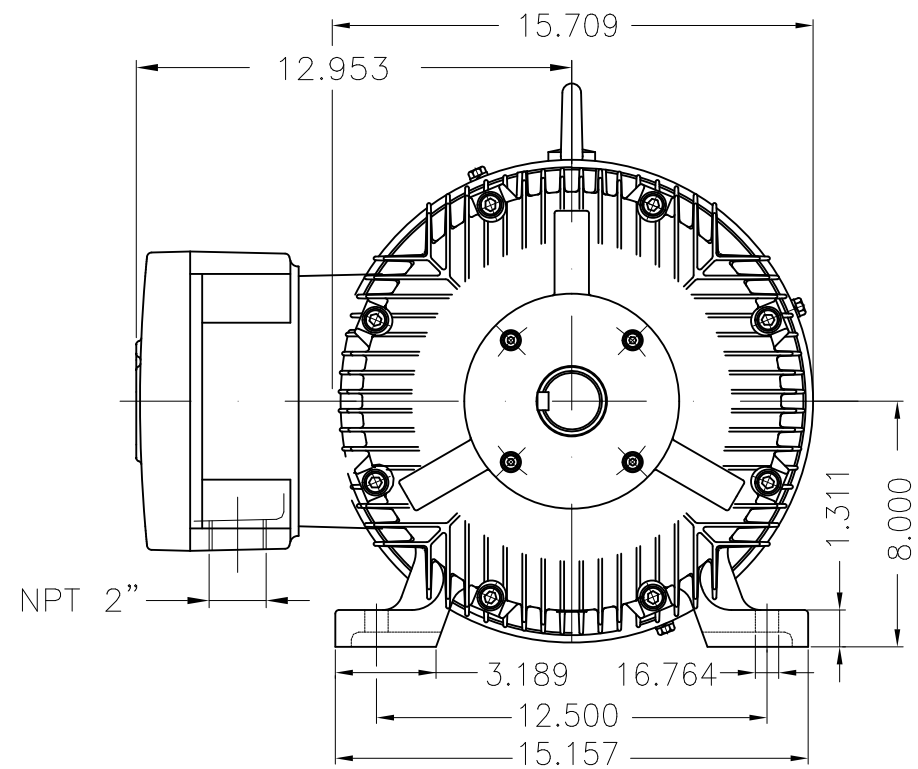


Performance : 575 V 60 Hz 4P

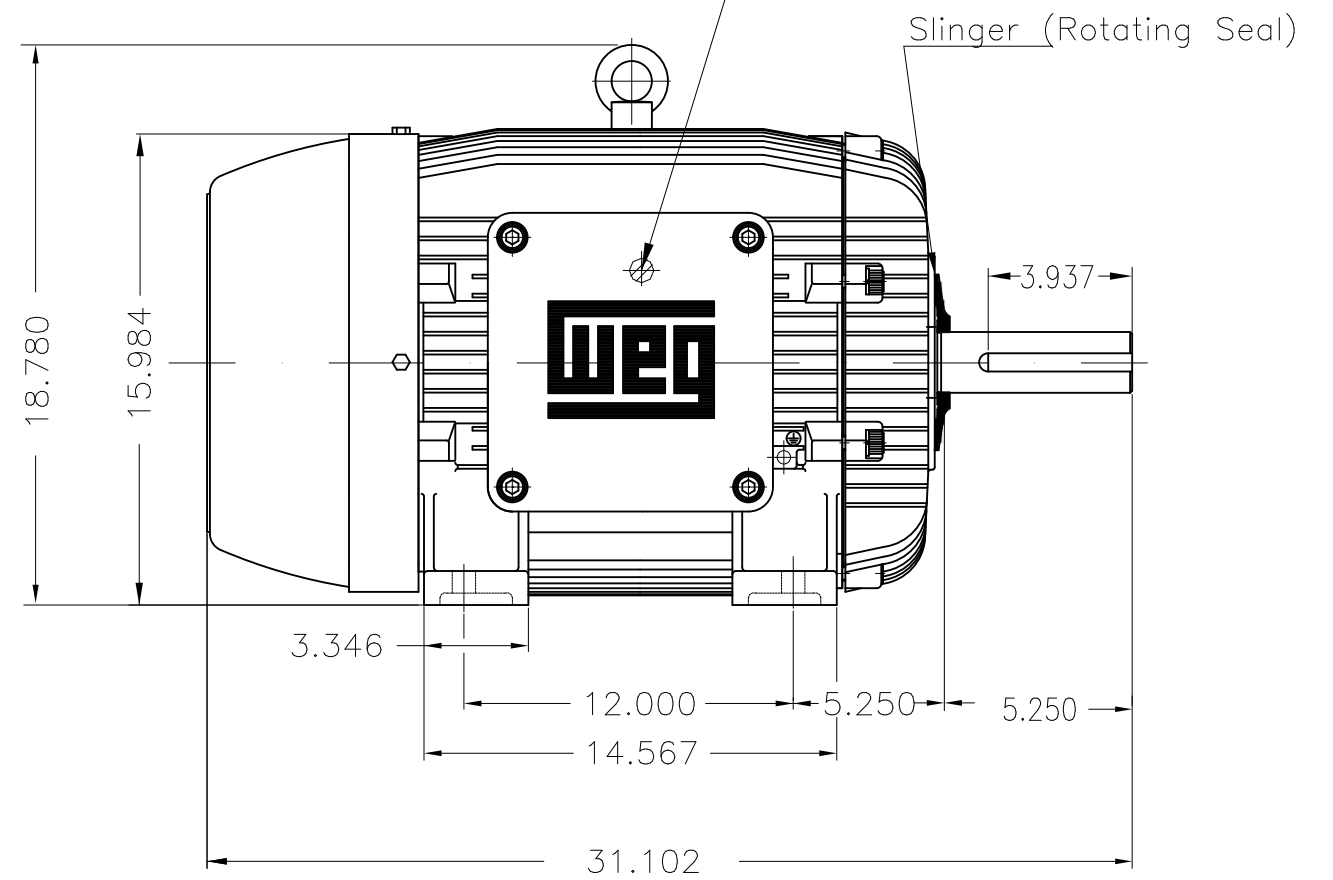
Rated current : 48.5 A  
 LRC : 7.3  
 Rated torque : 148 ft.lb  
 Locked rotor torque : 260 %  
 Breakdown torque : 280 %  
 Rated speed : 1775 rpm

Moment of inertia (J) : 9.16 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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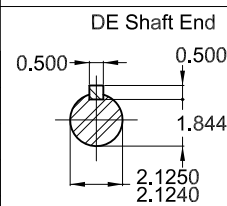
Grounding for leads 5.2–35 mm<sup>2</sup> / 10–2 AWG



50 HP 04 Poles 60 Hz

Dimensions in inches

- 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 326T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

**PREVIEW**  
WDD





MADE IN BRAZIL

**W21X NEMA**  
**Premium**

14407175

CC029A

*Inverter Duty Motor*  
*Severe Duty*

LISTED

MODEL 05018XT3H326T

PH 3 | FR 326T

HP(kW) 50(37)

HZ 60

IP55

V 575

A 48.5

RPM 1775

NEMA NOM EFF 94.5%

PF 0.81

SFA 55.8

DES B

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

ENCL TEFC

DUTY CONT.

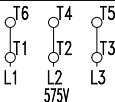
CODE H

ALT 1000

m.a.s.l.

AMB 40°C

AMB 55°C SF1.0



→ 6312-C3 MOBIL POLYREX EM

→ 6212-C3 21 g 20000 h

690 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.