

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :						
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	14406978			
		Catalog # :	02036XT3H256T			
Frame	: 256T	Locked rotor time	: 46s (cold) 26s (hot)			
Output	: 20 HP (15 kW)	Temperature rise	: 80 K			
Poles	: 2	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	: 18.6 A	Protection degree	: IP55			
L. R. Amperes	: 115 A	Cooling method	: IC411 - TEFC			
LRC	: 6.2x(Code G)	Mounting	: F-1			
No load current	: 5.36 A	Rotation ¹	: Both (CW and CCW)			
Rated speed	: 3530 rpm	Noise level ²	: 75.0 dB(A)			
Slip	: 1.94 %	Starting method	: Direct On Line			
Rated torque	: 29.8 ft.lb	Approx. weight ³	: 357 lb			
Locked rotor torque	: 200 %					
Breakdown torque	: 250 %					
Insulation class	: F					
Service factor	: 1.15					
Moment of inertia (J)	: 1.45 sq.ft.lb					
Design	: B					
Output	25%	50%	75%	100%		
Efficiency (%)	90.0	90.2	91.0	91.0		
Power Factor	0.55	0.79	0.86	0.89		
Foundation loads						
Max. traction : 178 lb						
Max. compression : 535 lb						
		<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				
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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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



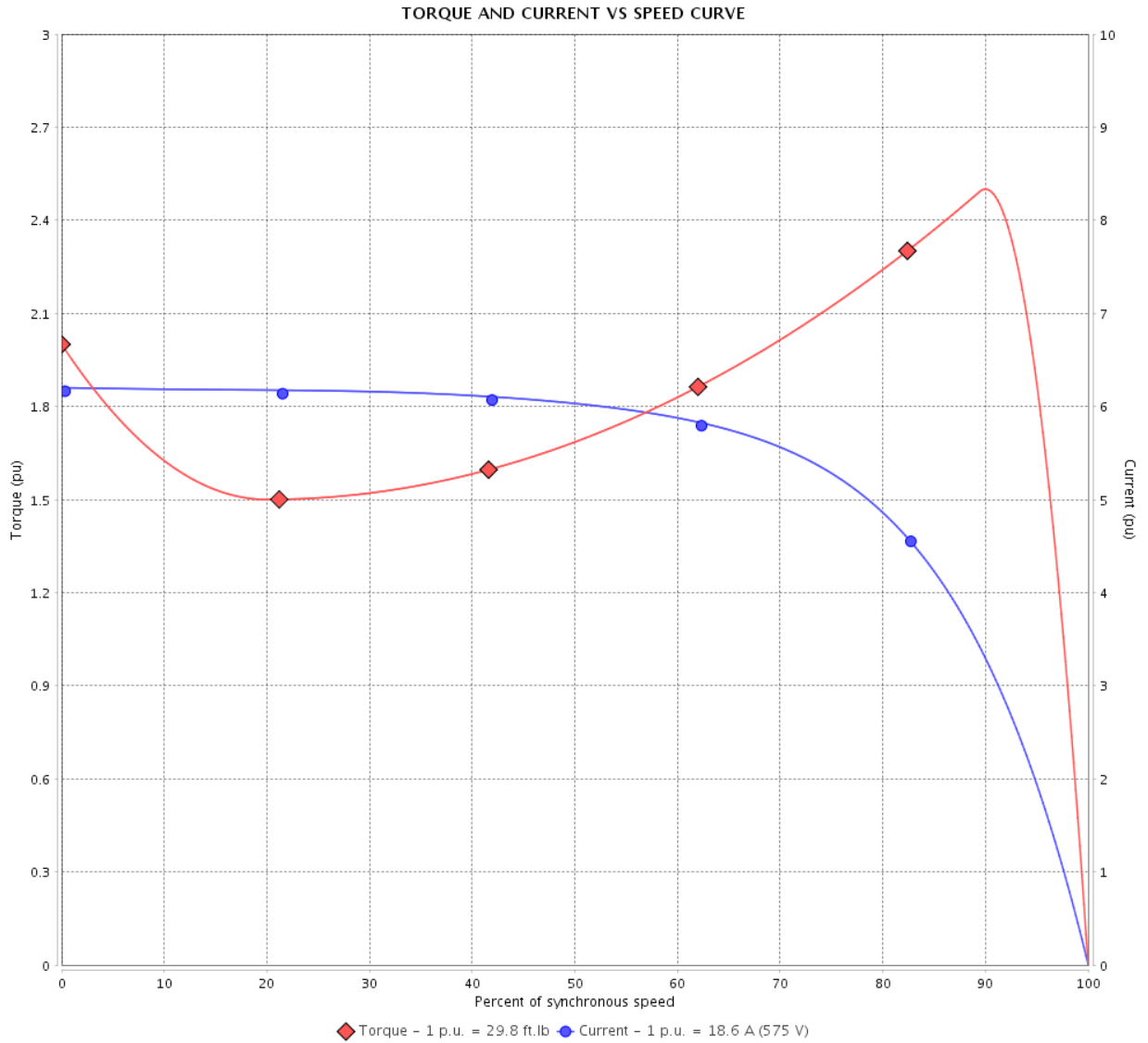
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14406978

Catalog # : 02036XT3H256T



Performance : 575 V 60 Hz 2P

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LRC	: 6.2	Duty cycle	: Cont.(S1)
Rated torque	: 29.8 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 3530 rpm	Design	: B

Locked rotor time : 46s (cold) 26s (hot)

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LOAD PERFORMANCE CURVE

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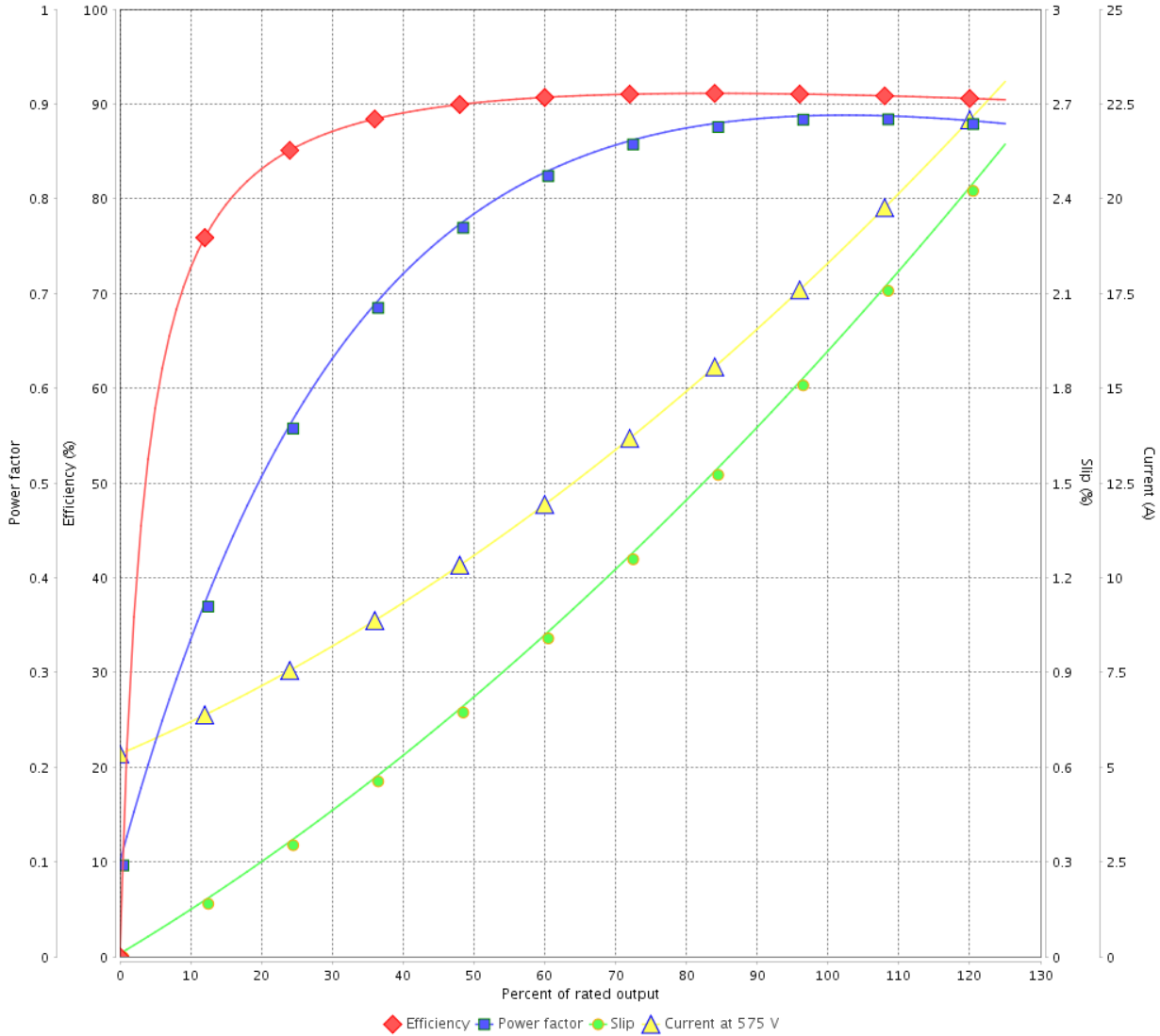
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THERMAL LIMIT CURVE

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Heating constant

Cooling constant

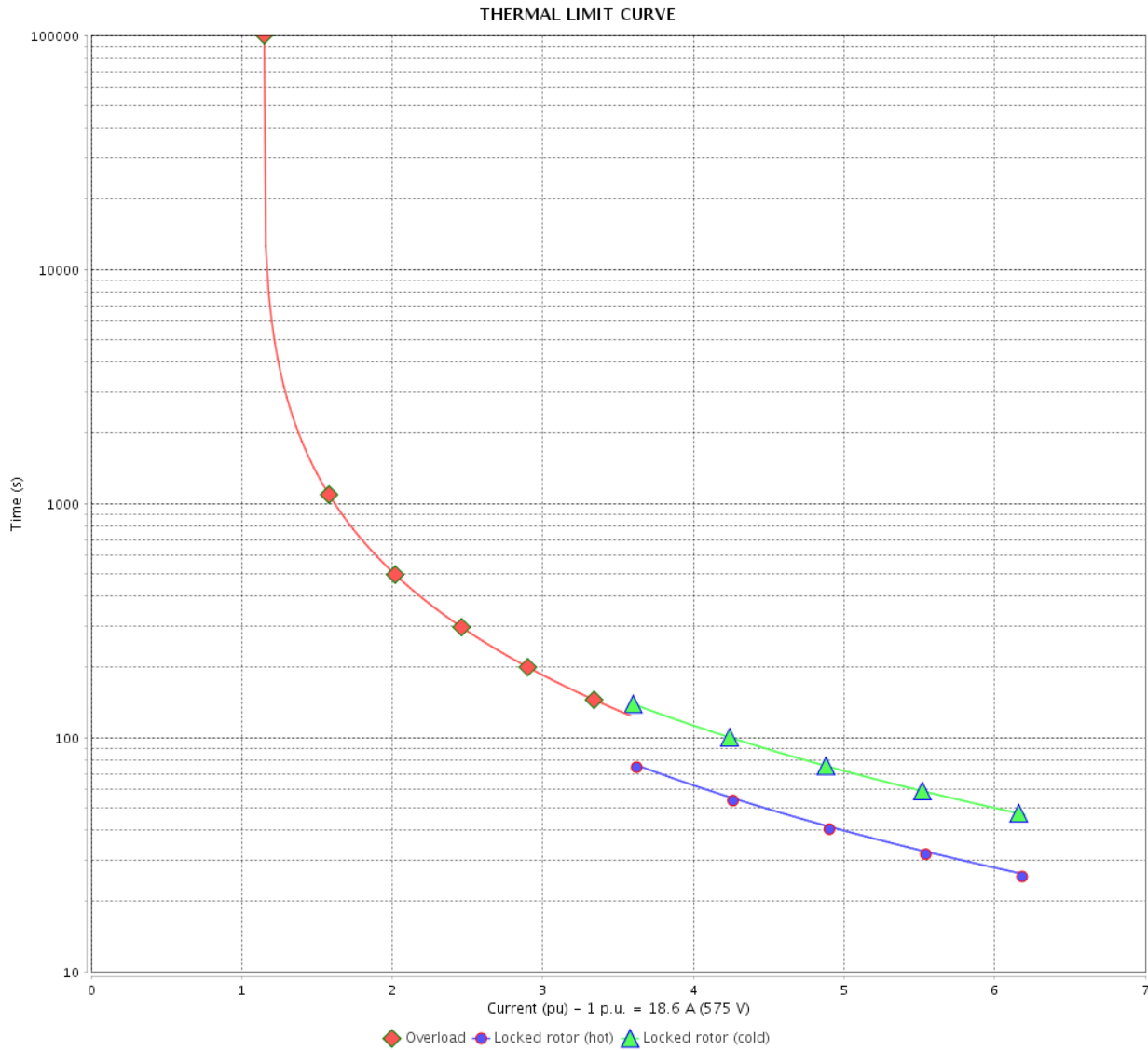
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THERMAL LIMIT CURVE

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

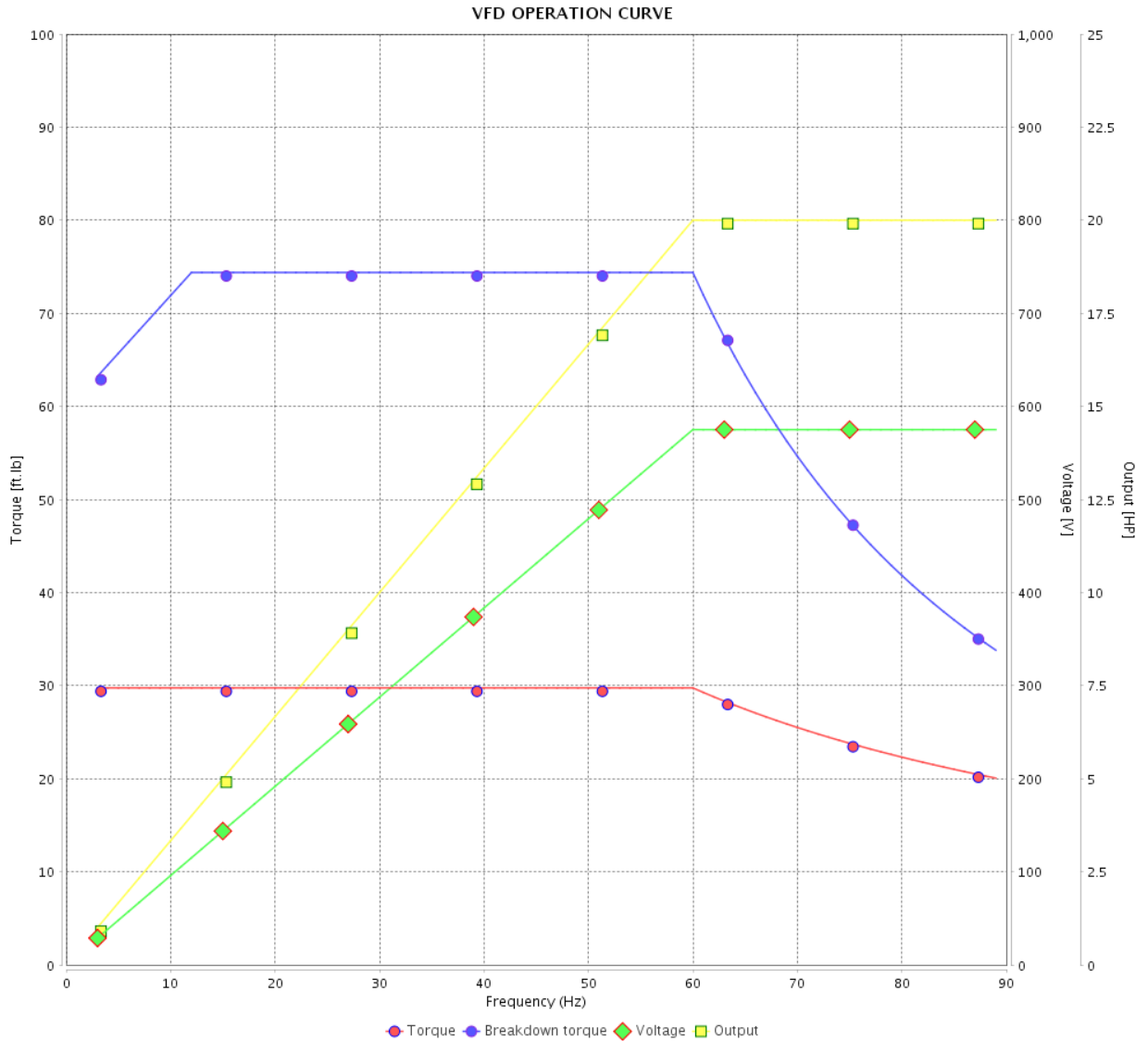


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Moment of inertia (J) : 1.45 sq.ft.lb
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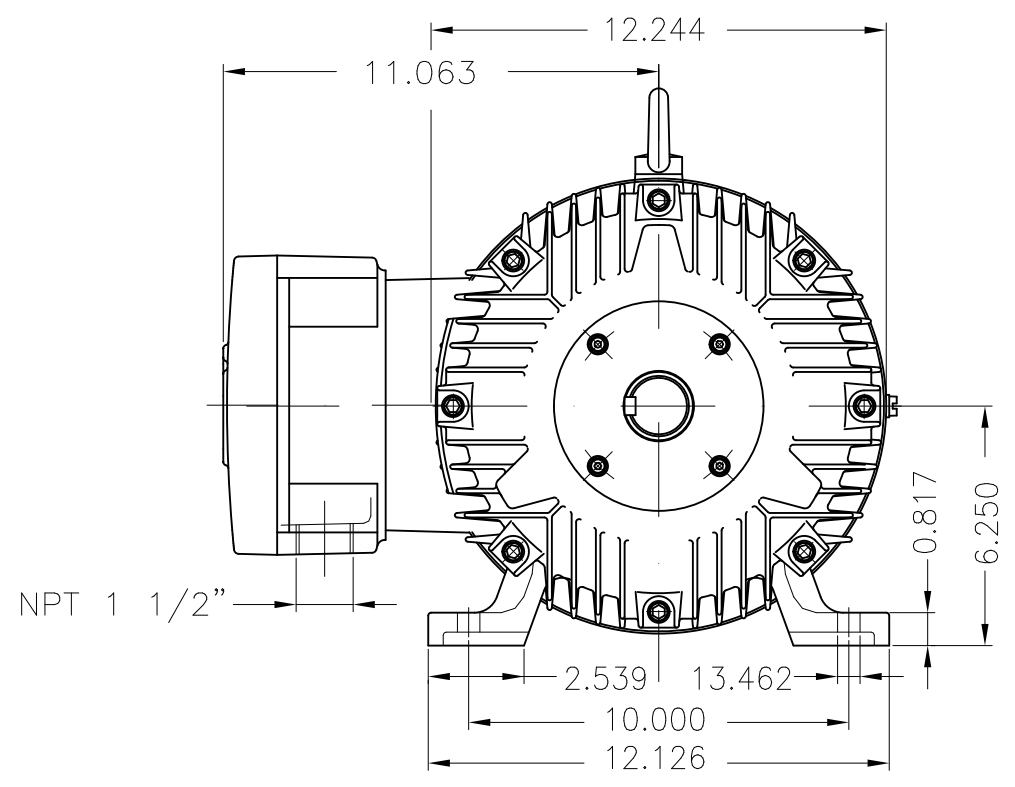
A

B

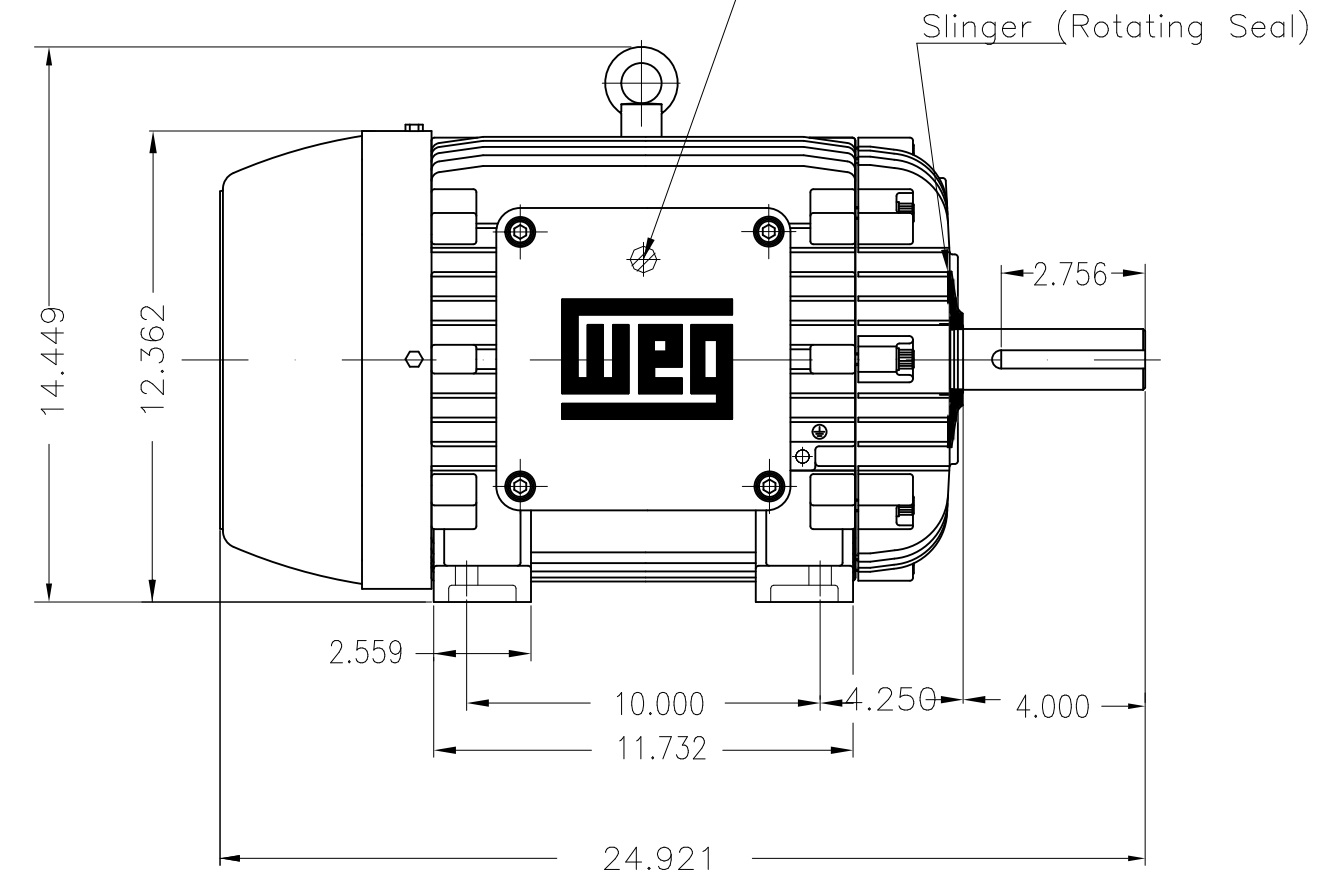
C

D

E

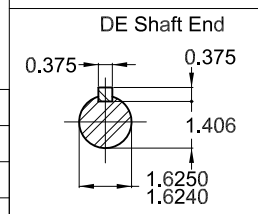


Grounding for leads 5.2–25 mm² / 10–4 AWG



20 HP 02 Poles 60 Hz A

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 256T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

PREVIEW
WDD



SHEET 1 / 1

MADE IN BRAZIL

**W21X NEMA**
Premium

14406978



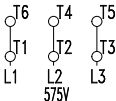
LISTED

CC029A

Inverter Duty Motor
Severe Duty

HX020502NPW21X

PH 3	FR 256T		
HP(kW) 20(15)		HZ 60	IP55
V 575		A 18.6	
RPM 3530		NEMA NOM EFF 91.0%	
PF 0.89		SFA 21.4	DES B
INS CL F Δ 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

359 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.