

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	12198676		
		Catalog # :	05009ST3HIE404T-W22		
Frame	: 404/5T	Locked rotor time	: 52s (cold) 29s (hot)		
Output	: 50 HP (37 kW)	Temperature rise	: 80 K		
Poles	: 8	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	: 48.2 A	Protection degree	: IP55		
L. R. Amperes	: 347 A	Cooling method	: IC411 - TEFC		
LRC	: 7.2x(Code H)	Mounting	: F-1		
No load current	: 18.0 A	Rotation ¹	: Both (CW and CCW)		
Rated speed	: 880 rpm	Noise level ²	: 60.0 dB(A)		
Slip	: 2.22 %	Starting method	: Direct On Line		
Rated torque	: 298 ft.lb	Approx. weight ³	: 1096 lb		
Locked rotor torque	: 170 %				
Breakdown torque	: 260 %				
Insulation class	: F				
Service factor	: 1.25				
Moment of inertia (J)	: 34.6 sq.ft.lb				
Design	: B				
Output	25%	50%	75%	100%	
Efficiency (%)	92.8	93.0	93.0	93.0	
Power Factor	0.44	0.68	0.78	0.83	
Foundation loads					
Max. traction : 1780 lb					
Max. compression : 2877 lb					
		<u>Drive end</u>	<u>Non drive end</u>		
Bearing type	:	6316 C3	6314 C3		
Sealing	:	Inpro/Seal	Inpro/Seal		
Lubrication interval	:	20000 h	20000 h		
Lubricant amount	:	34 g	27 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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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



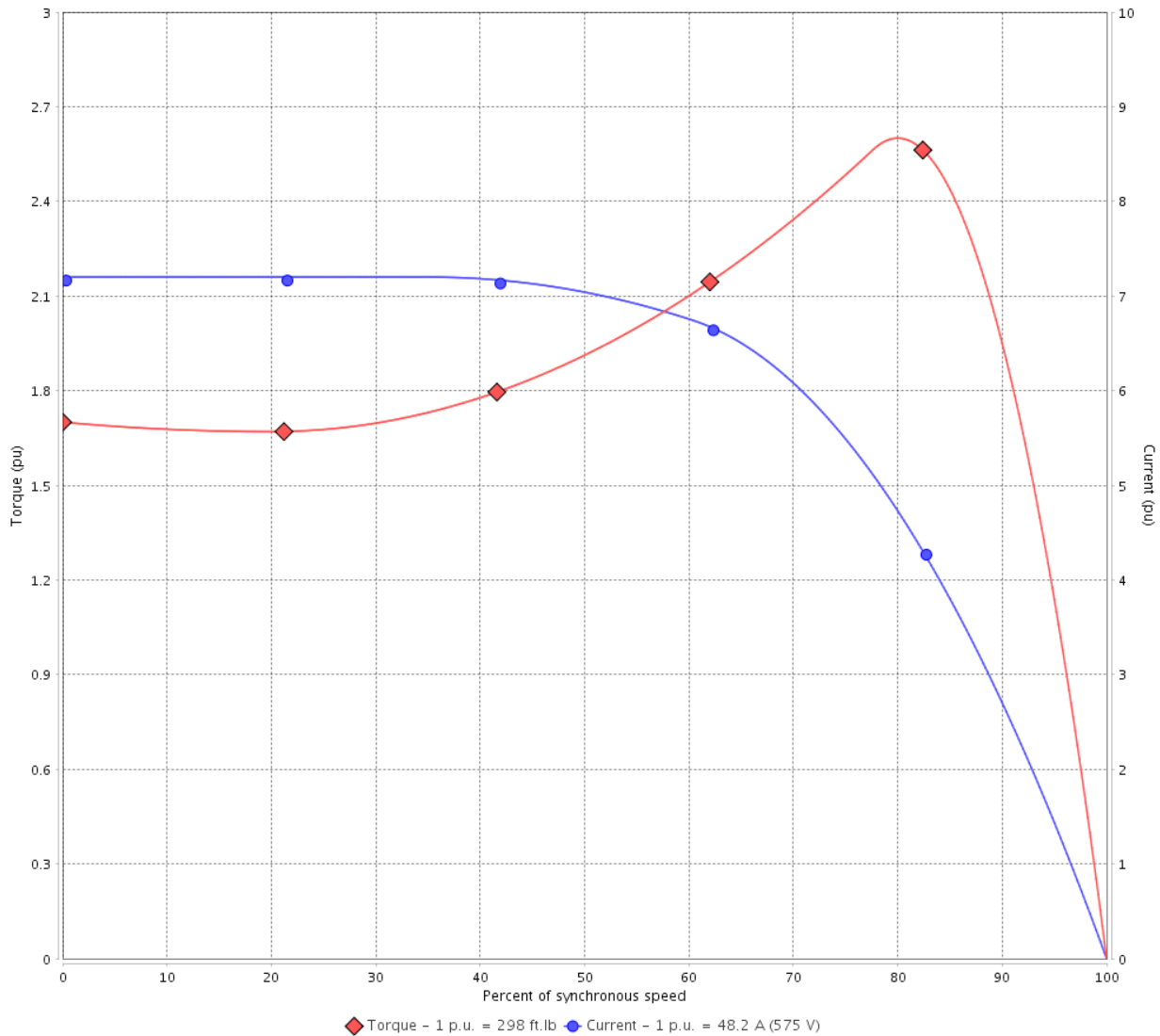
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12198676

Catalog # : 05009ST3HIE404T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 8P

Rated current	: 48.2 A	Moment of inertia (J)	: 34.6 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 298 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 880 rpm	Design	: B

Locked rotor time : 52s (cold) 29s (hot)

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LOAD PERFORMANCE CURVE

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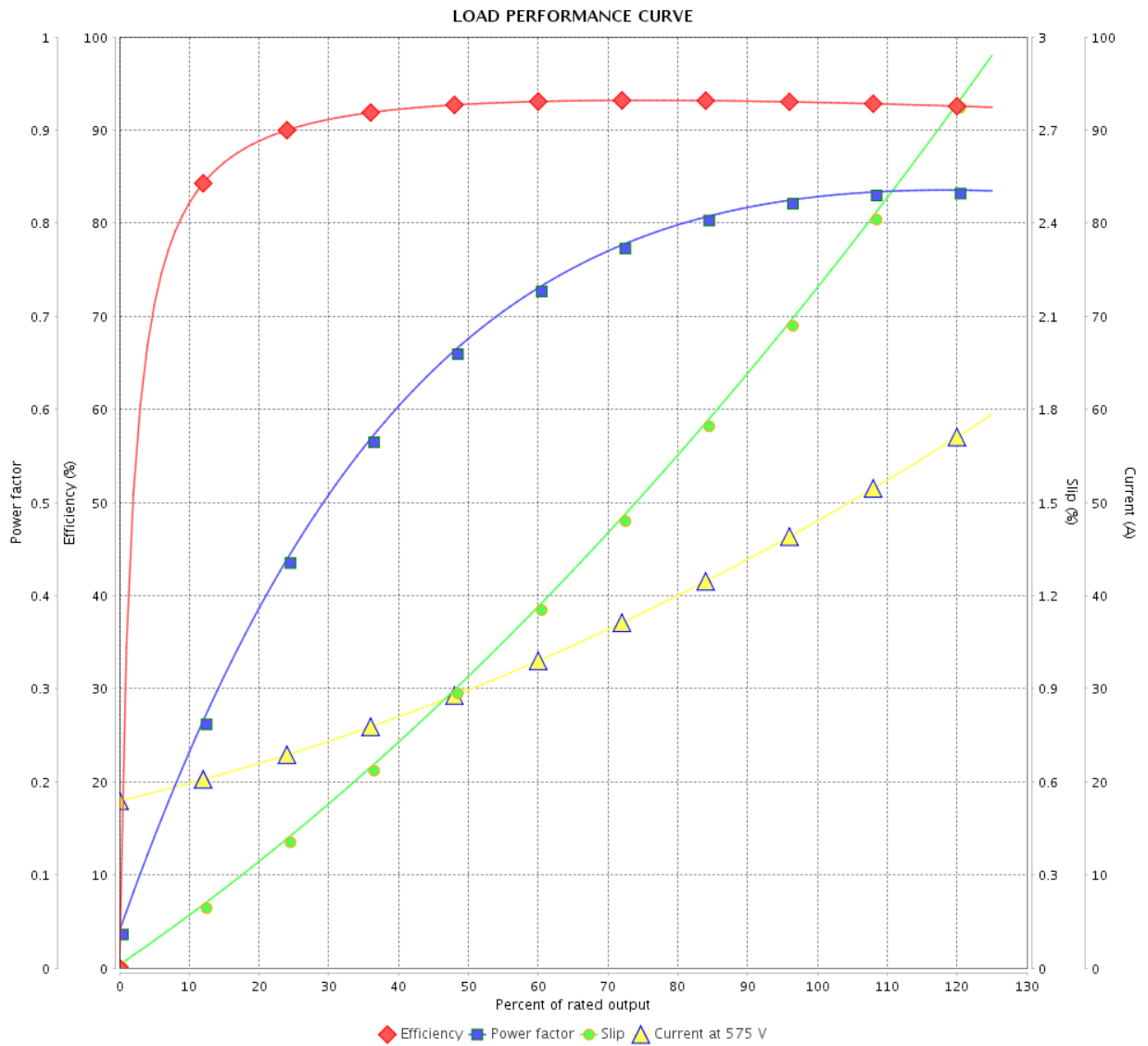


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THERMAL LIMIT CURVE



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Heating constant

Cooling constant

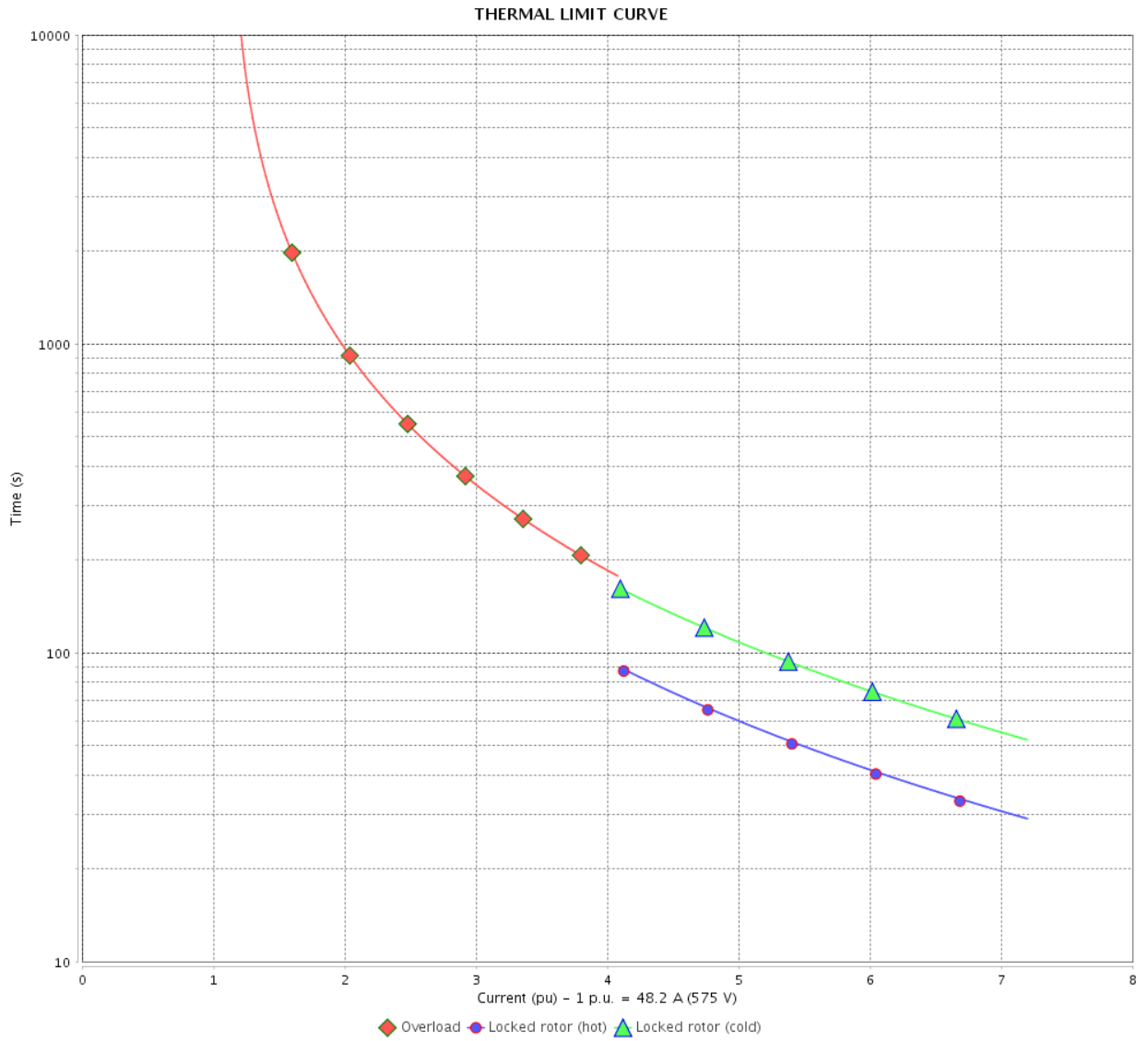
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



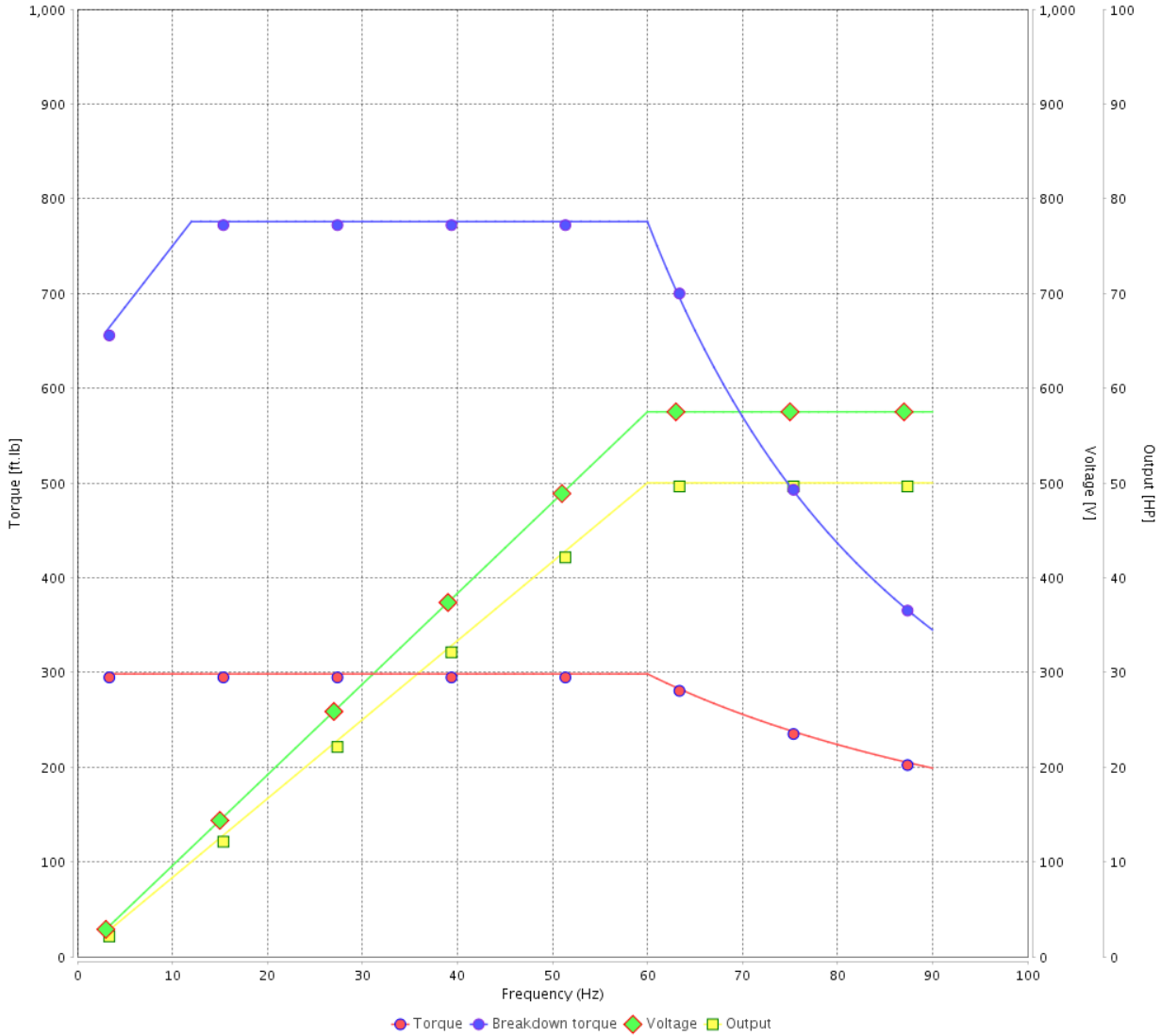
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VFD OPERATION CURVE

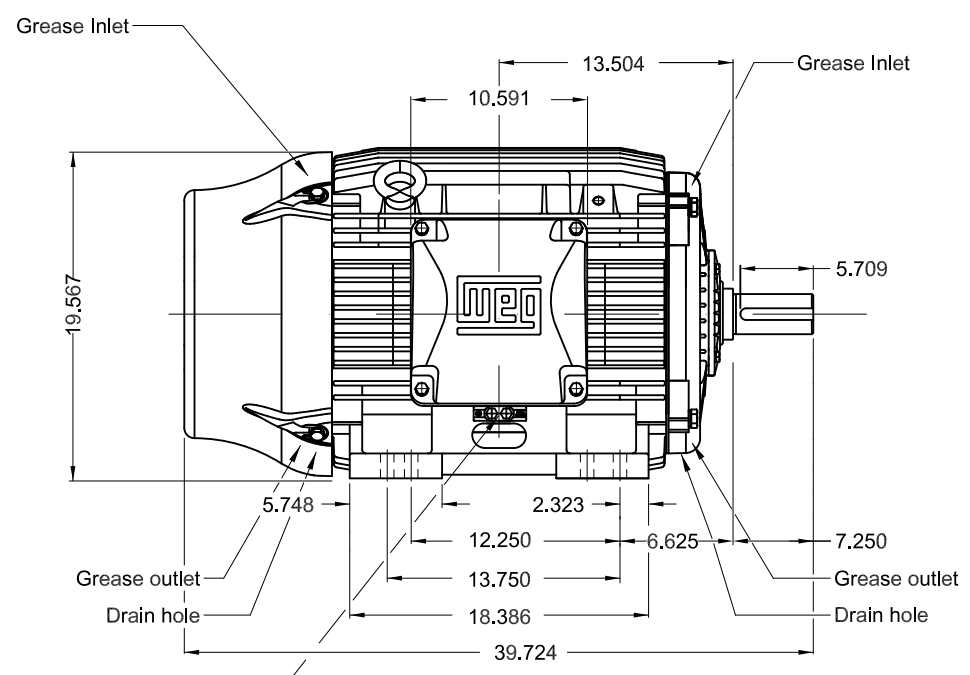
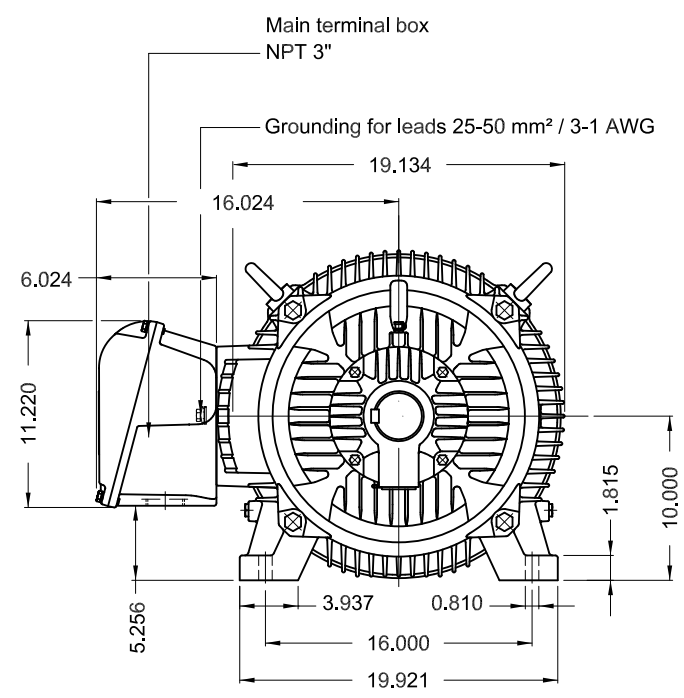


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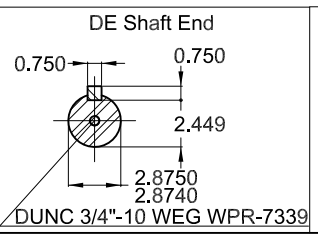
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Grounding for leads 25-185 mm² / 3AWG-350MCM

50 HP 08 Poles 60 Hz A

Color RAL 5009
 Painting plan 202E
 Mounting NEMA F-1
 Mounting B3R(D)



ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	HYBRISUSER	THREE PH. MOTOR IEEE 841 W22 PREM. EFF.					
CHECKED		FRAME 404/5T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

PREVIEW
 WDD



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