

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :																			
Product line	: NEMA Premium Efficiency Three-Phase																		
Product code :	11434624																		
Catalog # :	12536ST3HIE444TS-W22																		
Frame : 444/5TS Output : 125 HP Poles : 2 Frequency : 60 Hz Rated voltage : 575 V Rated current : 107 A L. R. Amperes : 708 A LRC : 6.6x(Code G) No load current : 27.2 A Rated speed : 3570 rpm Slip : 0.83 % Rated torque : 184 ft.lb Locked rotor torque : 200 % Breakdown torque : 250 % Insulation class : F Service factor : 1.15 Moment of inertia (J) : 33.5 sq.ft.lb Design : B	Locked rotor time : 52s (cold) 29s (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> : 81.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 1629 lb																		
Output	25%    50%    75%    100%																		
Efficiency (%)	93.0    93.6    94.5    95.0																		
Power Factor	0.59    0.82    0.87    0.89																		
Foundation loads																			
Max. traction	: 410 lb																		
Max. compression	: 2040 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 style="text-align: center;">6314 C3</td> <td style="text-align: center;">6314 C3</td> </tr> <tr> <td>Sealing :</td> <td style="text-align: center;">Inpro/Seal</td> <td style="text-align: center;">Inpro/Seal</td> </tr> <tr> <td>Lubrication interval :</td> <td style="text-align: center;">4000 h</td> <td style="text-align: center;">4000 h</td> </tr> <tr> <td>Lubricant amount :</td> <td style="text-align: center;">27 g</td> <td style="text-align: center;">27 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 :	6314 C3	6314 C3	Sealing :	Inpro/Seal	Inpro/Seal	Lubrication interval :	4000 h	4000 h	Lubricant amount :	27 g	27 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															
Performed by																			
Checked by			Page	Revision															
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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



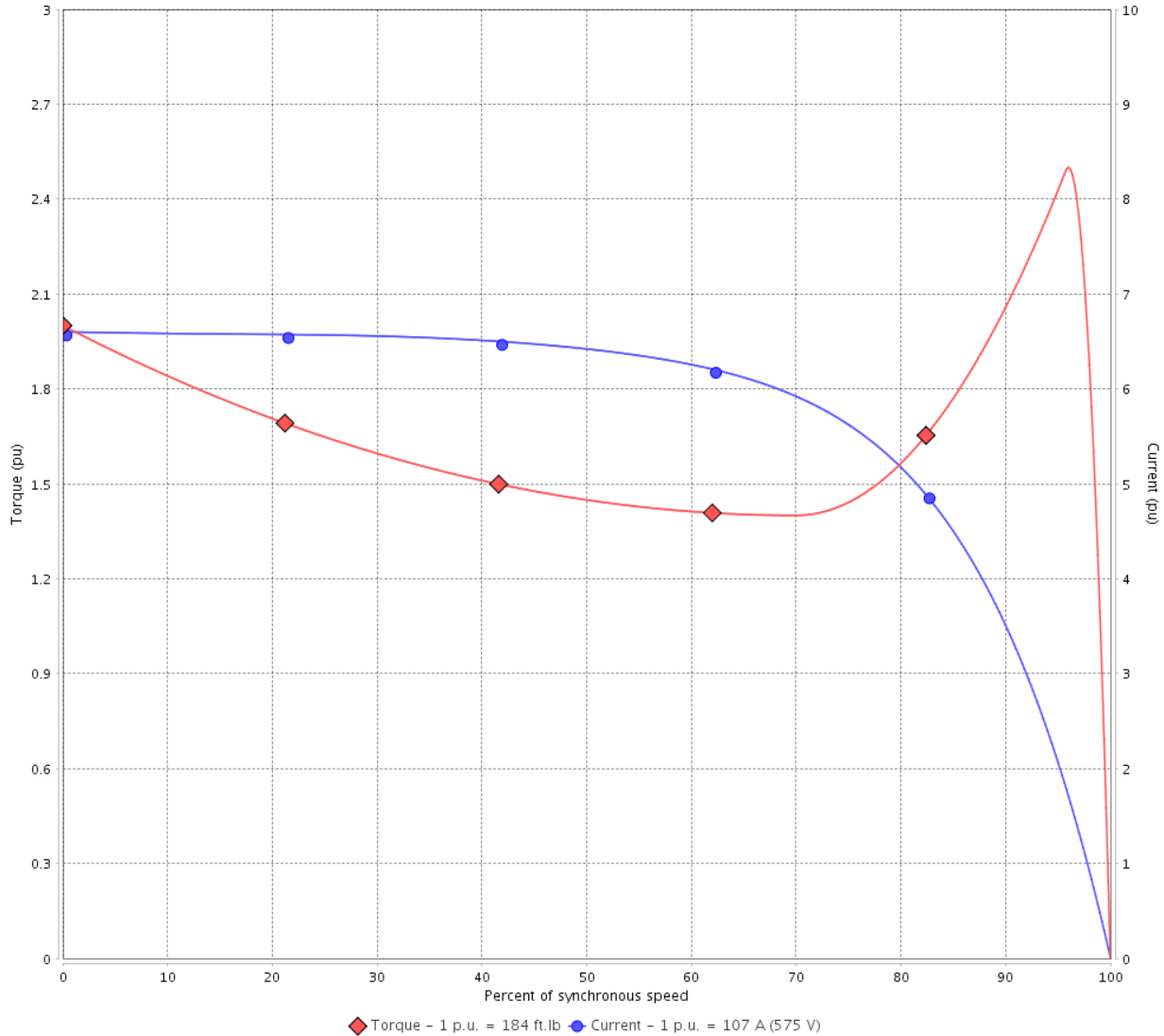
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11434624

Catalog # : 12536ST3HIE444TS-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 2P

Rated current	: 107 A	Moment of inertia (J)	: 33.5 sq.ft.lb
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 184 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 3570 rpm	Design	: B

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

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Date	13/04/2022			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

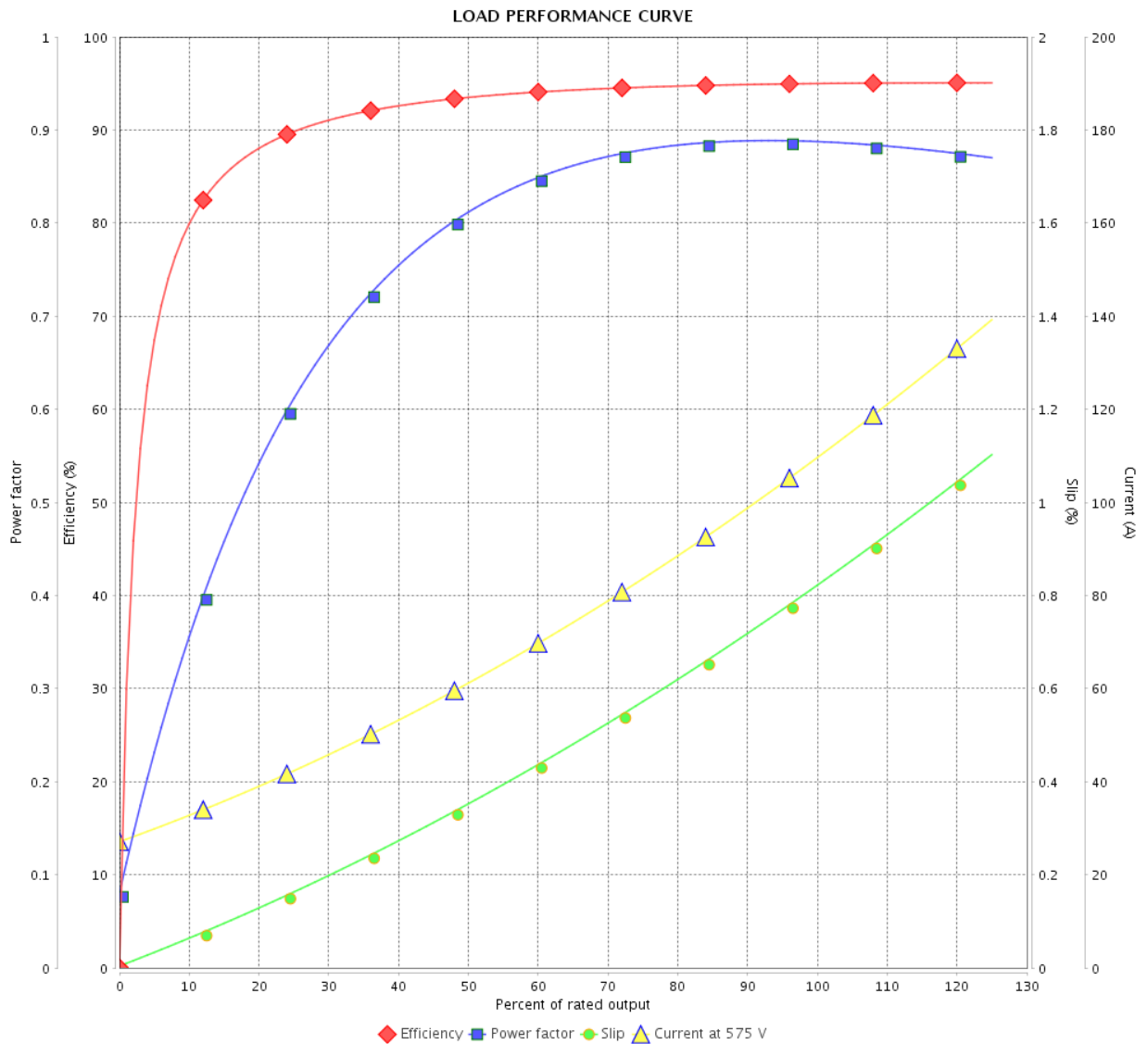


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11434624

Catalog # : 12536ST3HIE444TS-W22



Performance : 575 V 60 Hz 2P

Rated current : 107 A  
 LRC : 6.6  
 Rated torque : 184 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 250 %  
 Rated speed : 3570 rpm

Moment of inertia (J) : 33.5 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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Heating constant

Cooling constant

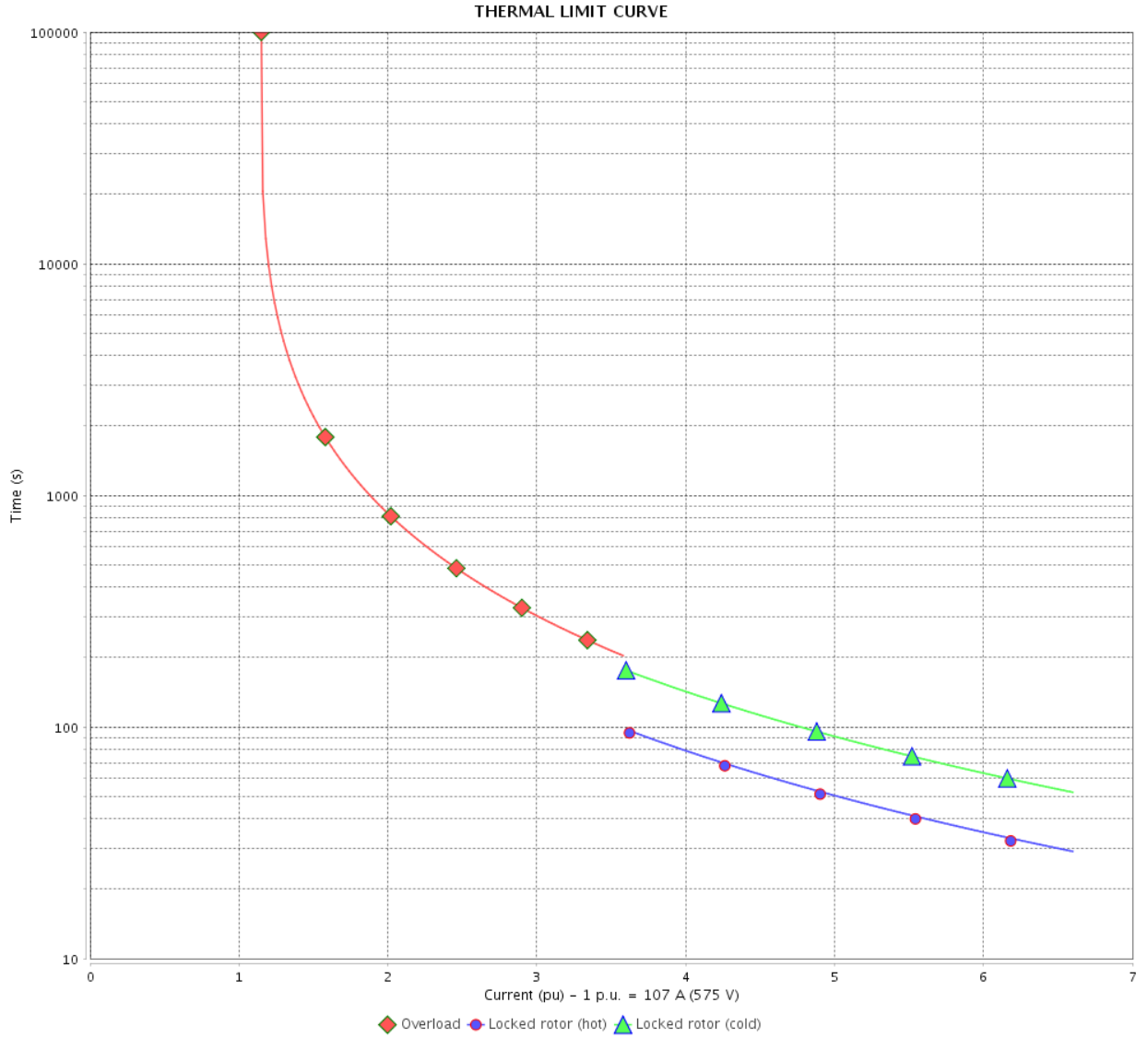
Rev.	Changes Summary	Performed	Checked	Date
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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Date				

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

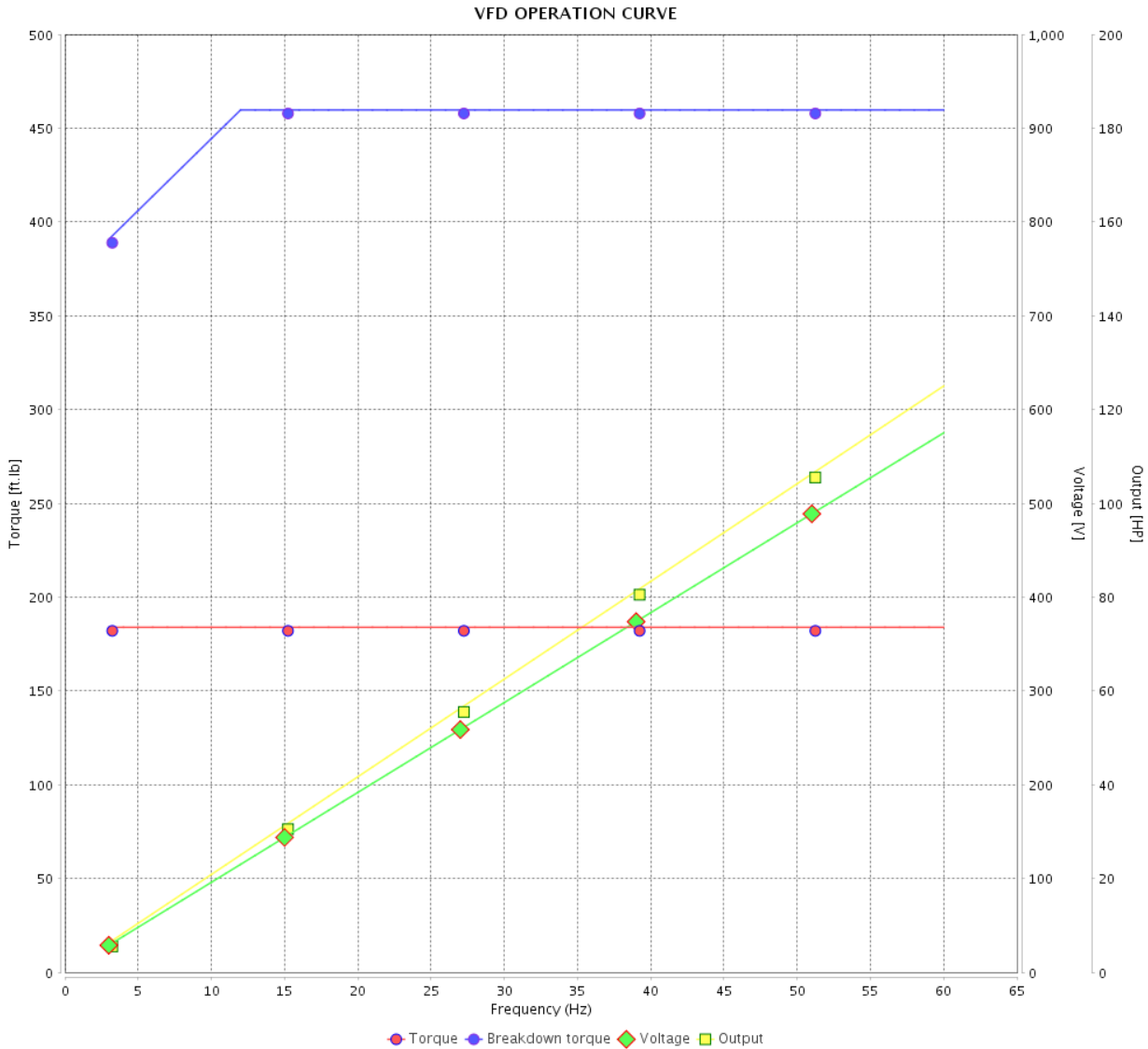


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Catalog # : 12536ST3HIE444TS-W22



Performance : 575 V 60 Hz 2P

Rated current : 107 A  
 LRC : 6.6  
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 Rated speed : 3570 rpm

Moment of inertia (J) : 33.5 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
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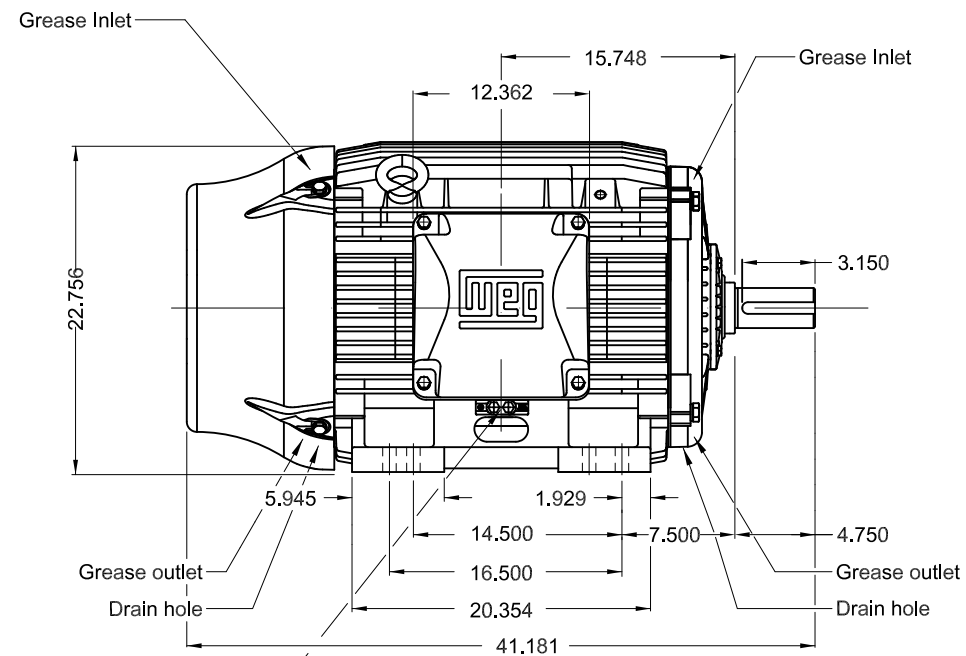
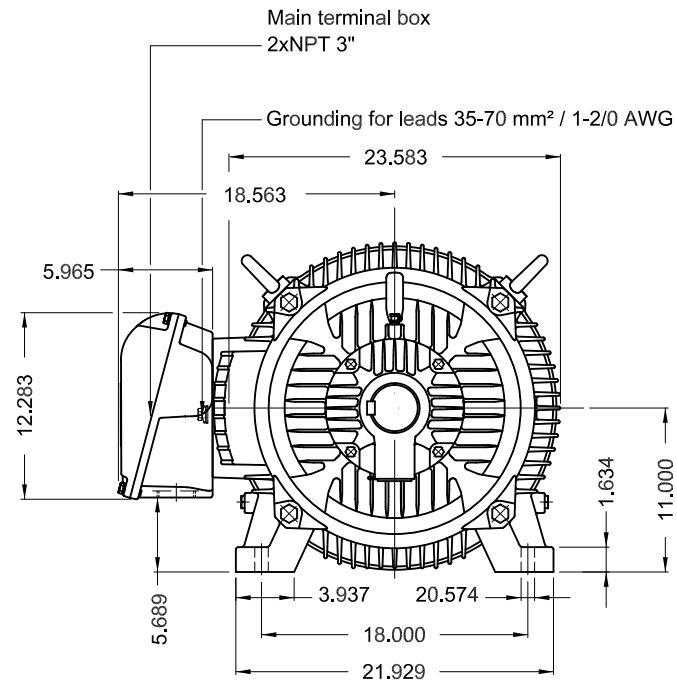
Rev.	Changes Summary	Performed	Checked	Date
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Checked by				
Date				

1 2 3 4 5 6

A

B

C

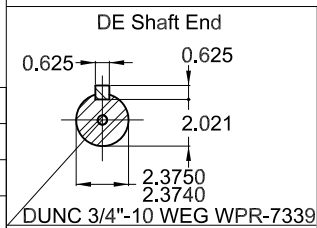


Grounding for leads 25-185 mm² / 3AWG-350MCM

D

E

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



125 HP 02 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRBUSER	THREE PH. MOTOR IEEE 841 W22 PREM. EFF.					
CHECKED		FRAME 444/5TS IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW  
 WDD



Dimensions in inches XME A3

MADE IN BRAZIL  
11434624



**NEMA**  
Premium  
W22

FOR SAFE AREA  
Mod. TE1BFOXON  
CC029A



Class I, Div 2, Gr A, B, C and D - T3  
Class I, Zone 2, IIC - T3  
Class II, Div 2, Gr F and G - T3C  
For use on PWM: Gr. A, B, C, D and F,  
VT 1000:1, CT 20:1, 1.00SF - T3A

MODEL 12536ST3HIE444TS-W22

Inverter Duty Motor  
Severe Duty

**IEEE**  
841-2009

PH3 60Hz Fr. 444/5TS 1000m.a.s.l. IP55 TEFC 1630lb

V 575

A 107

HP 125

kW 90

SF 1.15

SFA 123

RPM 3570

PF 0.89

AMB 40°C

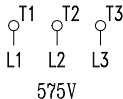
INS cl. F DT80K

NEMA NOM EFF 95.0%

DUTY CONT.

DES B Code G

GUARANT. EFF 94.1%



→ 6314-C3 (27g) 4000h  
70BC03X30

→ 6314-C3 (27g) 4000h  
70BC03X30



MOBIL POLYREX EM

