

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :																			
Product line	: NEMA Premium Efficiency Three-Phase																		
Product code :	13533088																		
Catalog # :	00336ST3HIE182T-W22																		
Frame : 182/4T Output : 3 HP (2.2 kW) Poles : 2 Frequency : 60 Hz Rated voltage : 575 V Rated current : 2.90 A L. R. Amperes : 25.0 A LRC : 8.6x(Code K) No load current : 1.04 A Rated speed : 3510 rpm Slip : 2.50 % Rated torque : 4.49 ft.lb Locked rotor torque : 250 % Breakdown torque : 380 % Insulation class : F Service factor : 1.25 Moment of inertia (J) : 0.1889 sq.ft.lb Design : B	Locked rotor time : 73s (cold) 41s (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> : 66.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 91.7 lb																		
Output	25%    50%    75%    100%																		
Efficiency (%)	82.0    82.5    86.5    86.5																		
Power Factor	0.50    0.75    0.84    0.88																		
Foundation loads																			
Max. traction	: 63 lb																		
Max. compression	: 155 lb																		
	<table border="0" style="width:100%;"> <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>: 6207 C3</td> <td>6206 C3</td> </tr> <tr> <td>Sealing</td> <td>: Inpro/Seal</td> <td>Inpro/Seal</td> </tr> <tr> <td>Lubrication interval</td> <td>: 20000 h</td> <td>20000 h</td> </tr> <tr> <td>Lubricant amount</td> <td>: 7 g</td> <td>5 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	: 6207 C3	6206 C3	Sealing	: Inpro/Seal	Inpro/Seal	Lubrication interval	: 20000 h	20000 h	Lubricant amount	: 7 g	5 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



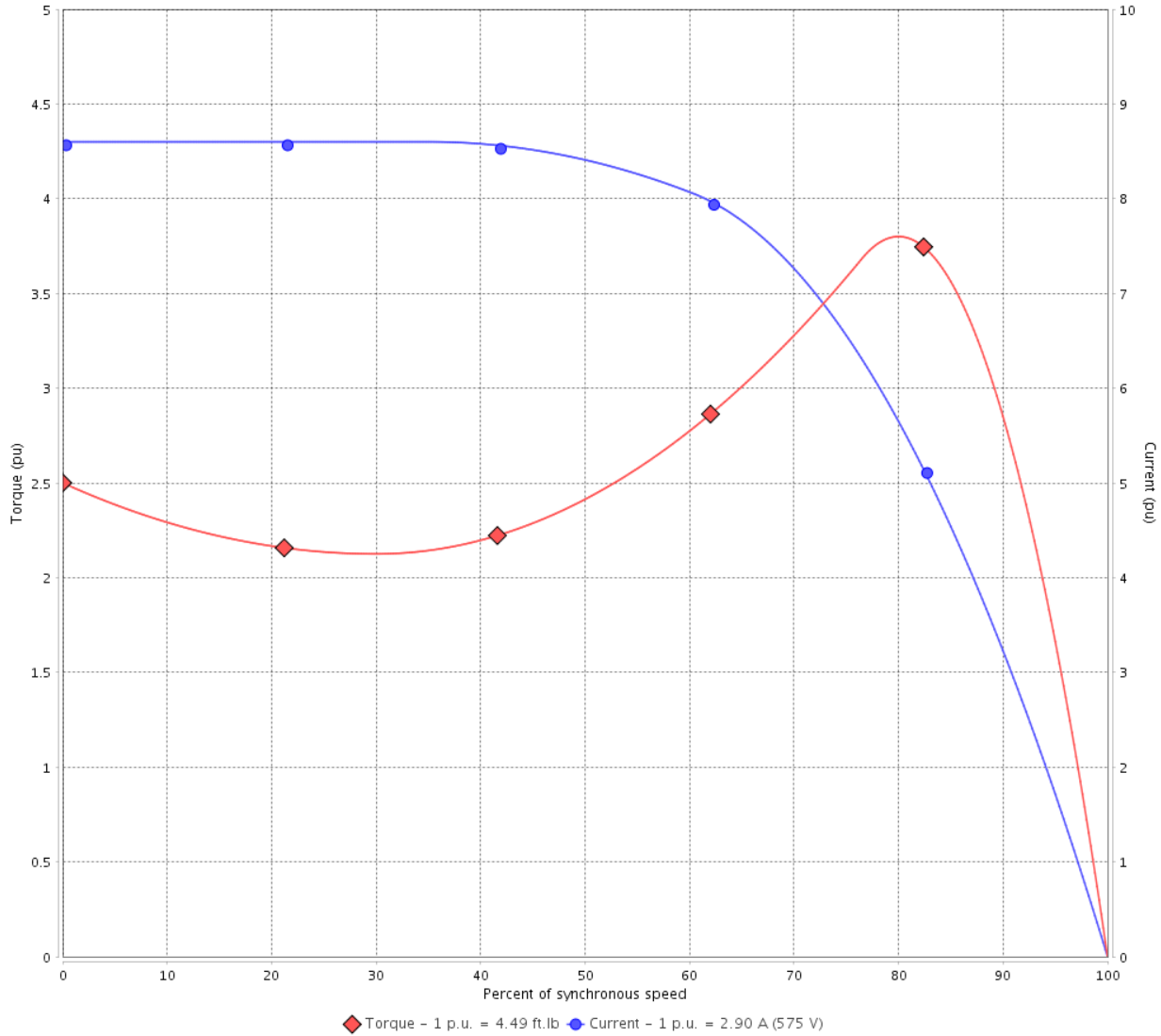
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13533088

Catalog # : 00336ST3HIE182T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 2P

Rated current	: 2.90 A	Moment of inertia (J)	: 0.1889 sq.ft.lb
LRC	: 8.6	Duty cycle	: Cont.(S1)
Rated torque	: 4.49 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.25
Breakdown torque	: 380 %	Temperature rise	: 80 K
Rated speed	: 3510 rpm	Design	: B

Locked rotor time : 73s (cold) 41s (hot)

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Date	13/04/2022			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

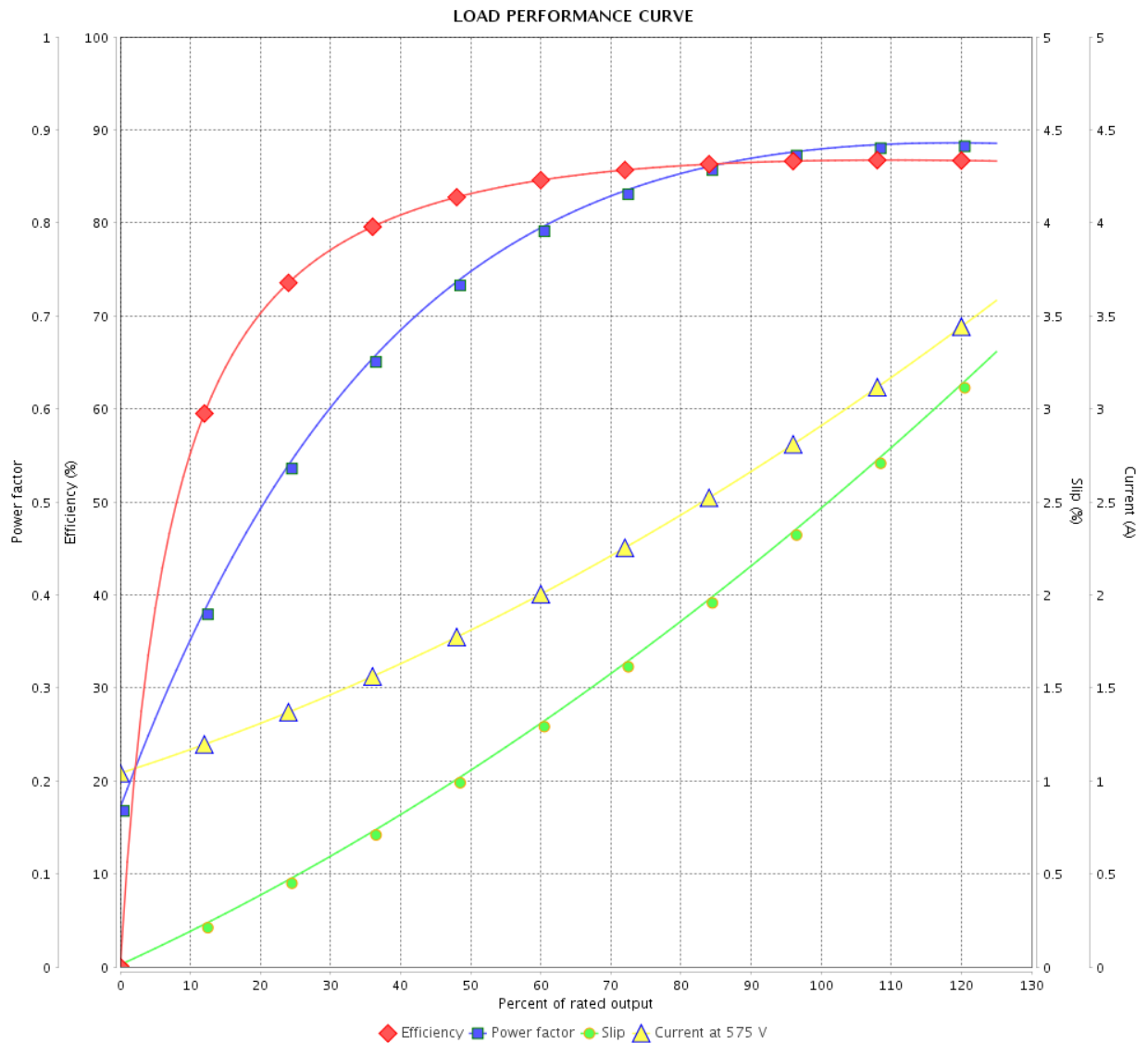


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13533088

Catalog # : 00336ST3HIE182T-W22



Performance : 575 V 60 Hz 2P

Rated current : 2.90 A  
 LRC : 8.6  
 Rated torque : 4.49 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 380 %  
 Rated speed : 3510 rpm

Moment of inertia (J) : 0.1889 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



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Breakdown torque	: 380 %	Temperature rise	: 80 K
Rated speed	: 3510 rpm	Design	: B

Heating constant

Cooling constant

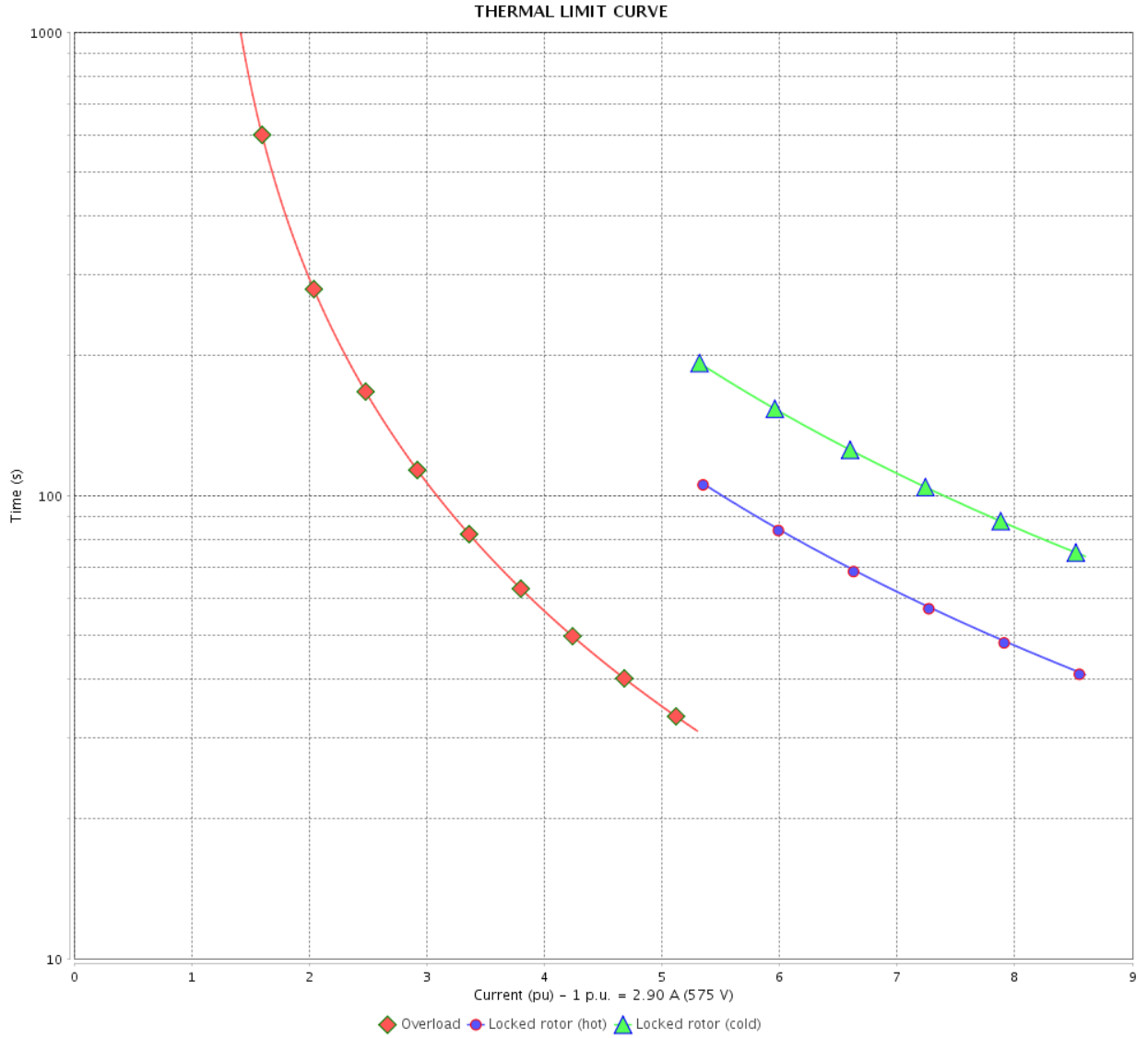
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Performed by				
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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



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



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Date				

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

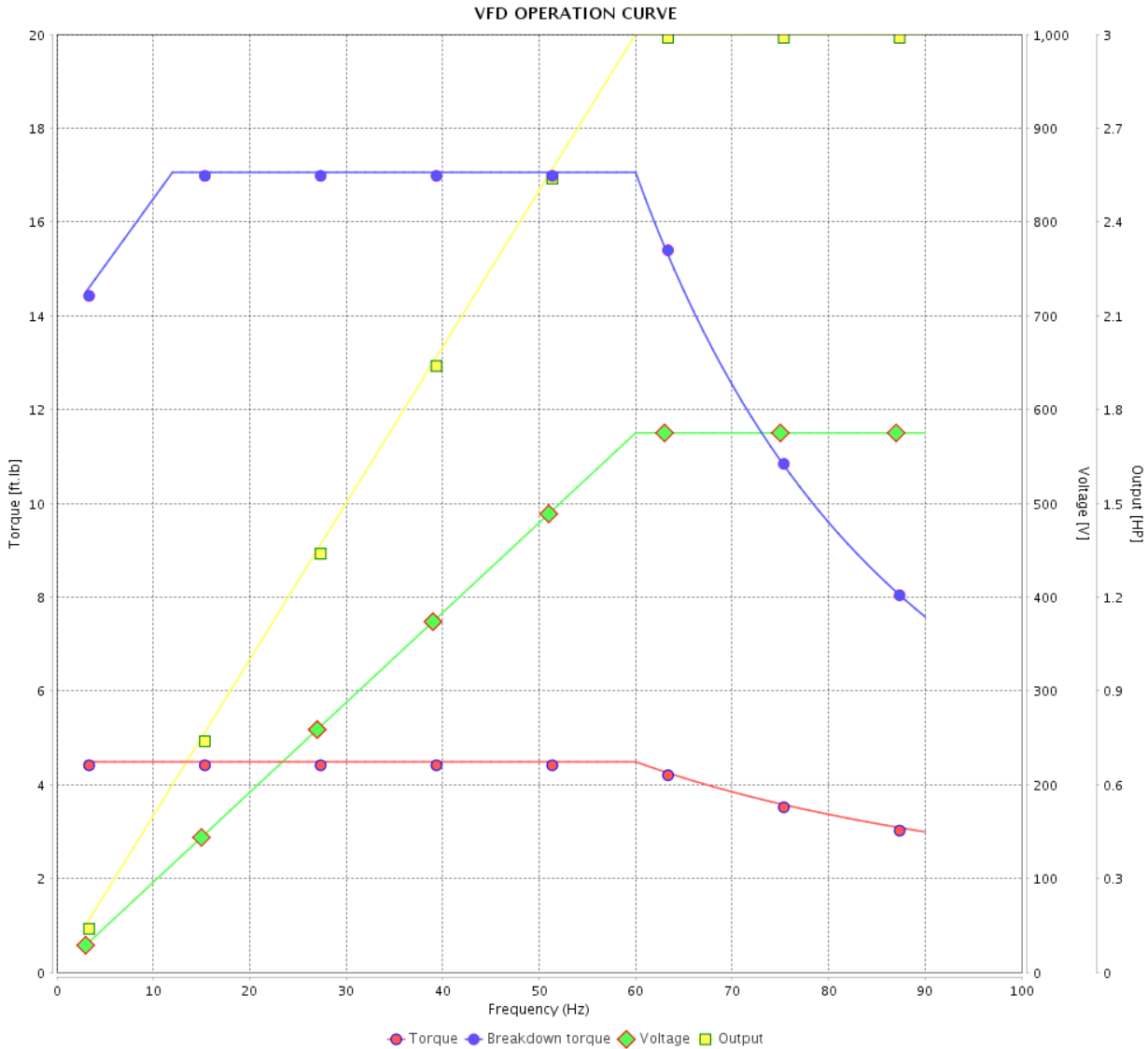


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13533088

Catalog # : 00336ST3HIE182T-W22



Performance : 575 V 60 Hz 2P

Rated current : 2.90 A  
 LRC : 8.6  
 Rated torque : 4.49 ft.lb  
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 Breakdown torque : 380 %  
 Rated speed : 3510 rpm

Moment of inertia (J) : 0.1889 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

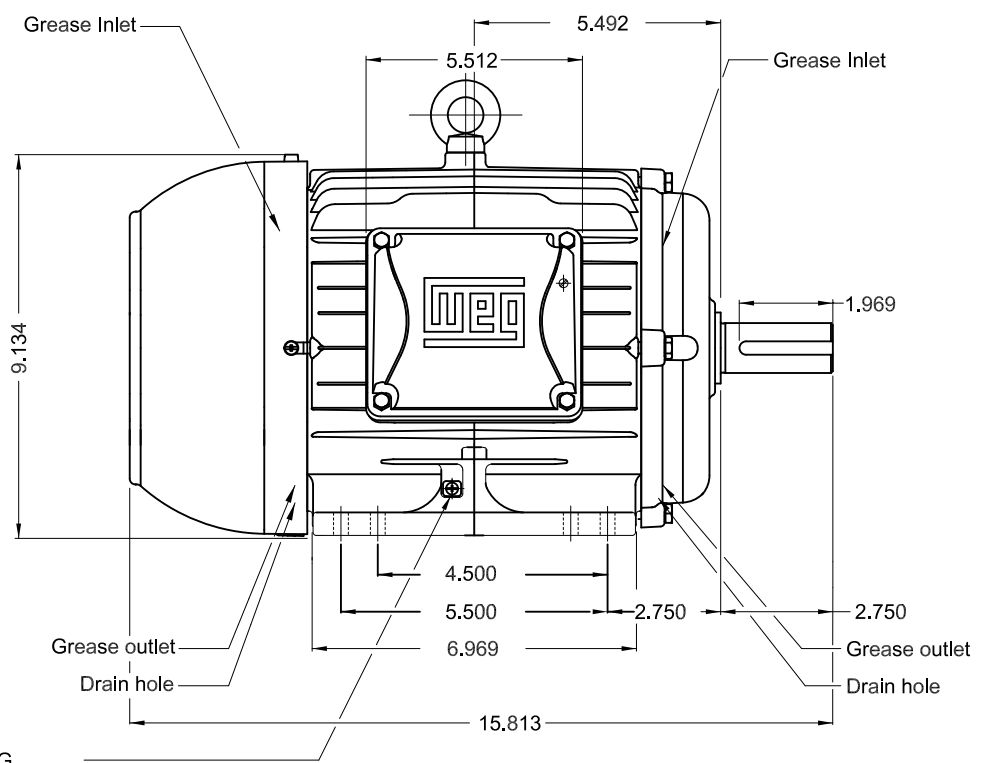
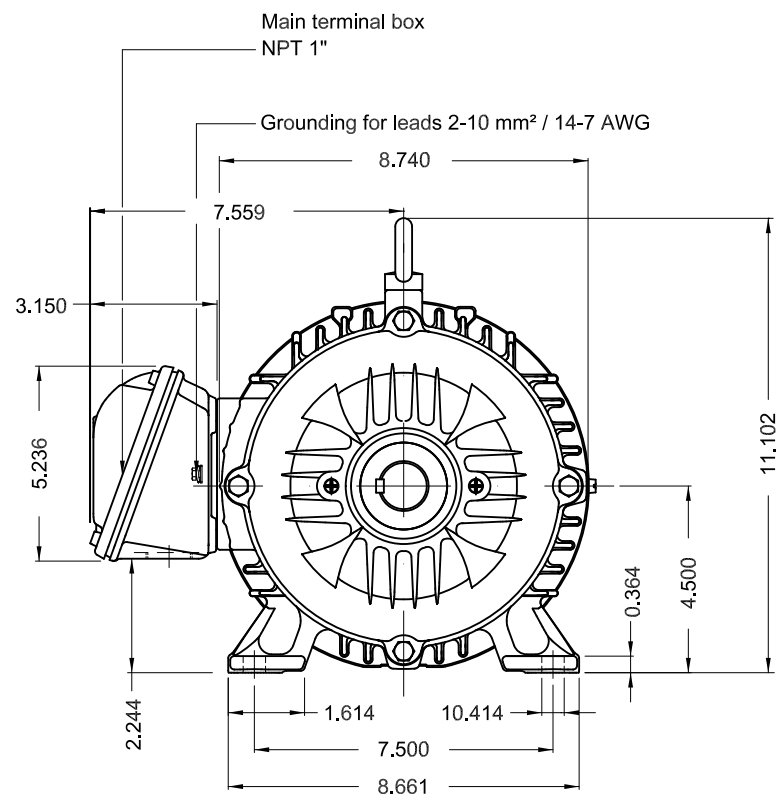
Rev.	Changes Summary	Performed	Checked	Date
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Checked by				
Date	13/04/2022			

1 2 3 4 5 6

A

B

C

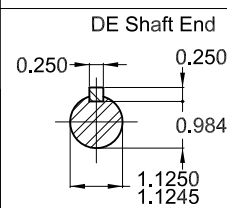


Grounding for leads 2-10 mm² / 14-7 AWG

D

E

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



3 HP 02 Poles 60 Hz

A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR IEEE 841 W22 PREM. EFF.					
CHECKED		FRAME 182/4T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW  
 WDD



MADE IN BRAZIL  
13533088



**NEMA**  
Premium

**W22**

IE003502W22IS

Inverter Duty Motor  
Severe Duty

**IEEE**  
841-2009



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 - T5  
For use on PWM: Gr. A, B, C, D, F and G,  
VT 1000:1, CT 20:1, 1.00SF - T4A



FOR SAFE AREA  
Mod. TE1BFOXON  
CC029A

PH3 60Hz Fr. 182/4T 1000m.a.s.l. IP55 TEFC 100lb

V 575

A 2.90

HP 3.0

kW 2.2

SF 1.25

SFA 3.63

RPM 3510

PF 0.88

AMB 40°C

INS cl. F DT80K

NEMA NOM EFF 86.5%

DUTY CONT.

DES B Code K

GUARANT. EFF 84.0%

