

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :																			
Product line	: NEMA Premium Efficiency Three-Phase																		
Product code :	13332153																		
Catalog # :	00518ST3HIE184TC-W22																		
Frame : 182/4TC Output : 5 HP (3.7 kW) Poles : 4 Frequency : 60 Hz Rated voltage : 575 V Rated current : 5.19 A L. R. Amperes : 40.0 A LRC : 7.7x(Code J) No load current : 2.32 A Rated speed : 1750 rpm Slip : 2.78 % Rated torque : 15.0 ft.lb Locked rotor torque : 229 % Breakdown torque : 300 % Insulation class : F Service factor : 1.25 Moment of inertia (J) : 0.4003 sq.ft.lb Design : B	Locked rotor time : 50s (cold) 28s (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> : 56.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 113 lb																		
Output	25%    50%    75%    100%																		
Efficiency (%)	88.2    88.5    89.5    89.5																		
Power Factor	0.38    0.62    0.74    0.80																		
Foundation loads																			
Max. traction : 231 lb																			
Max. compression : 344 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;">6207 C3</td> <td style="text-align: center;">6206 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;">20000 h</td> <td style="text-align: center;">20000 h</td> </tr> <tr> <td>Lubricant amount :</td> <td style="text-align: center;">7 g</td> <td style="text-align: center;">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	
	<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																		
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															
Date	01/06/2022		1 / 6																

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



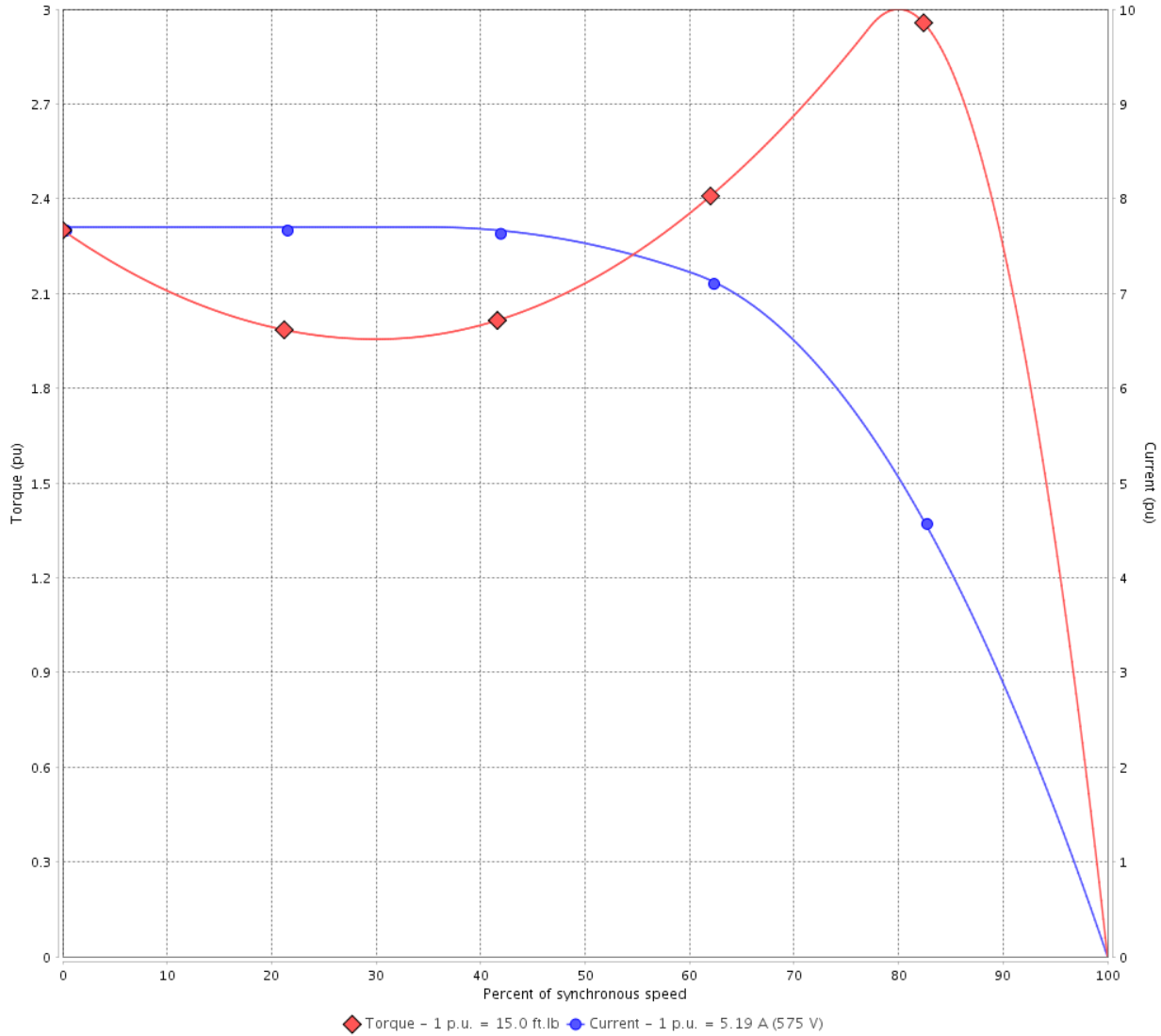
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13332153

Catalog # : 00518ST3HIE184TC-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 4P

Rated current	: 5.19 A	Moment of inertia (J)	: 0.4003 sq.ft.lb
LRC	: 7.7	Duty cycle	: Cont.(S1)
Rated torque	: 15.0 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.25
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1750 rpm	Design	: B

Locked rotor time : 50s (cold) 28s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 6	Revision
Checked by				
Date	01/06/2022			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

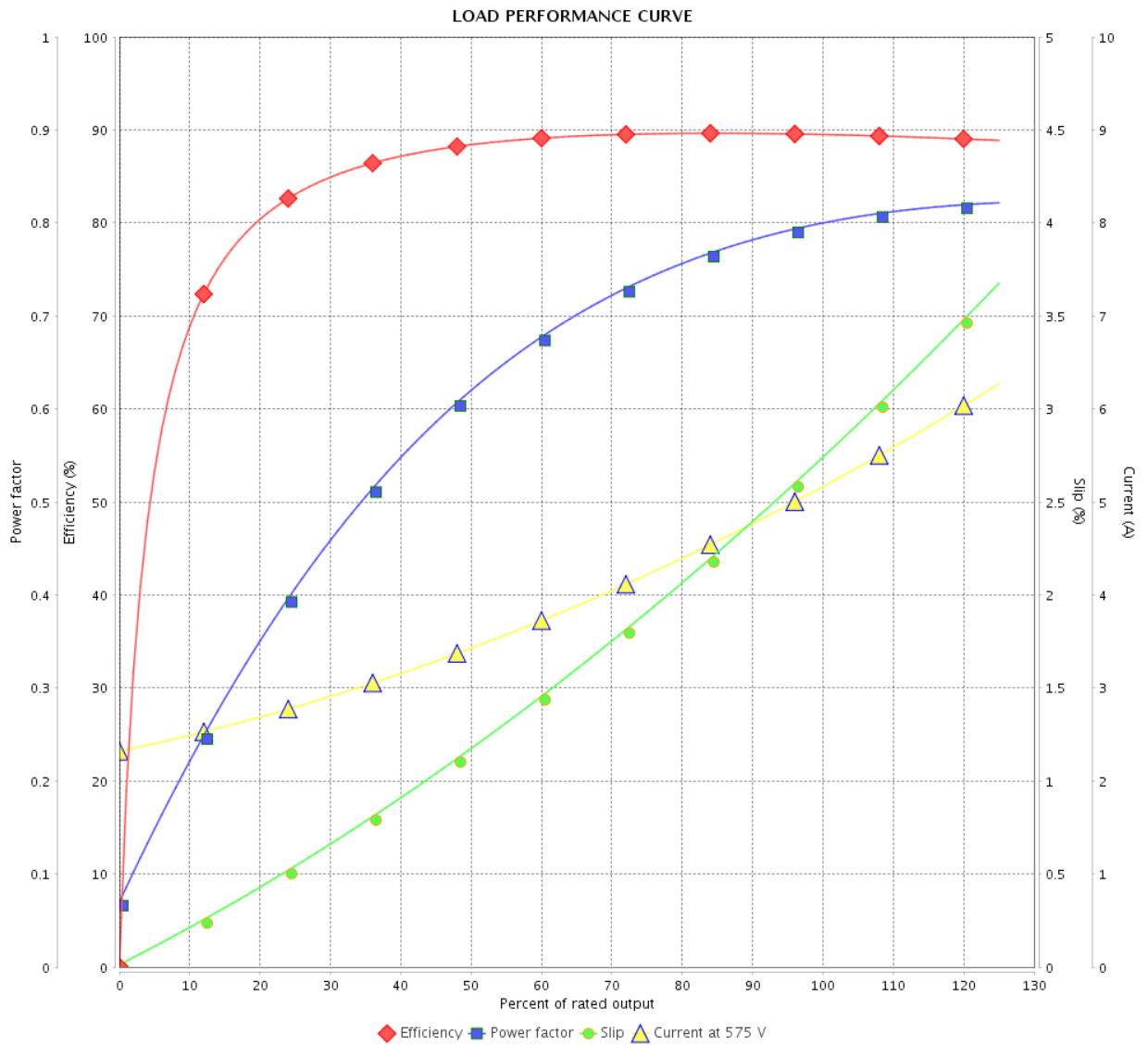


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13332153

Catalog # : 00518ST3HIE184TC-W22



Performance : 575 V 60 Hz 4P

Rated current : 5.19 A  
 LRC : 7.7  
 Rated torque : 15.0 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 300 %  
 Rated speed : 1750 rpm

Moment of inertia (J) : 0.4003 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
Performed by			Page	Revision
Checked by			3 / 6	
Date	01/06/2022			

# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 13332153  
Catalog # : 00518ST3HIE184TC-W22

Performance : 575 V 60 Hz 4P

Rated current	: 5.19 A	Moment of inertia (J)	: 0.4003 sq.ft.lb
LRC	: 7.7	Duty cycle	: Cont.(S1)
Rated torque	: 15.0 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.25
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1750 rpm	Design	: B

Heating constant

Cooling constant

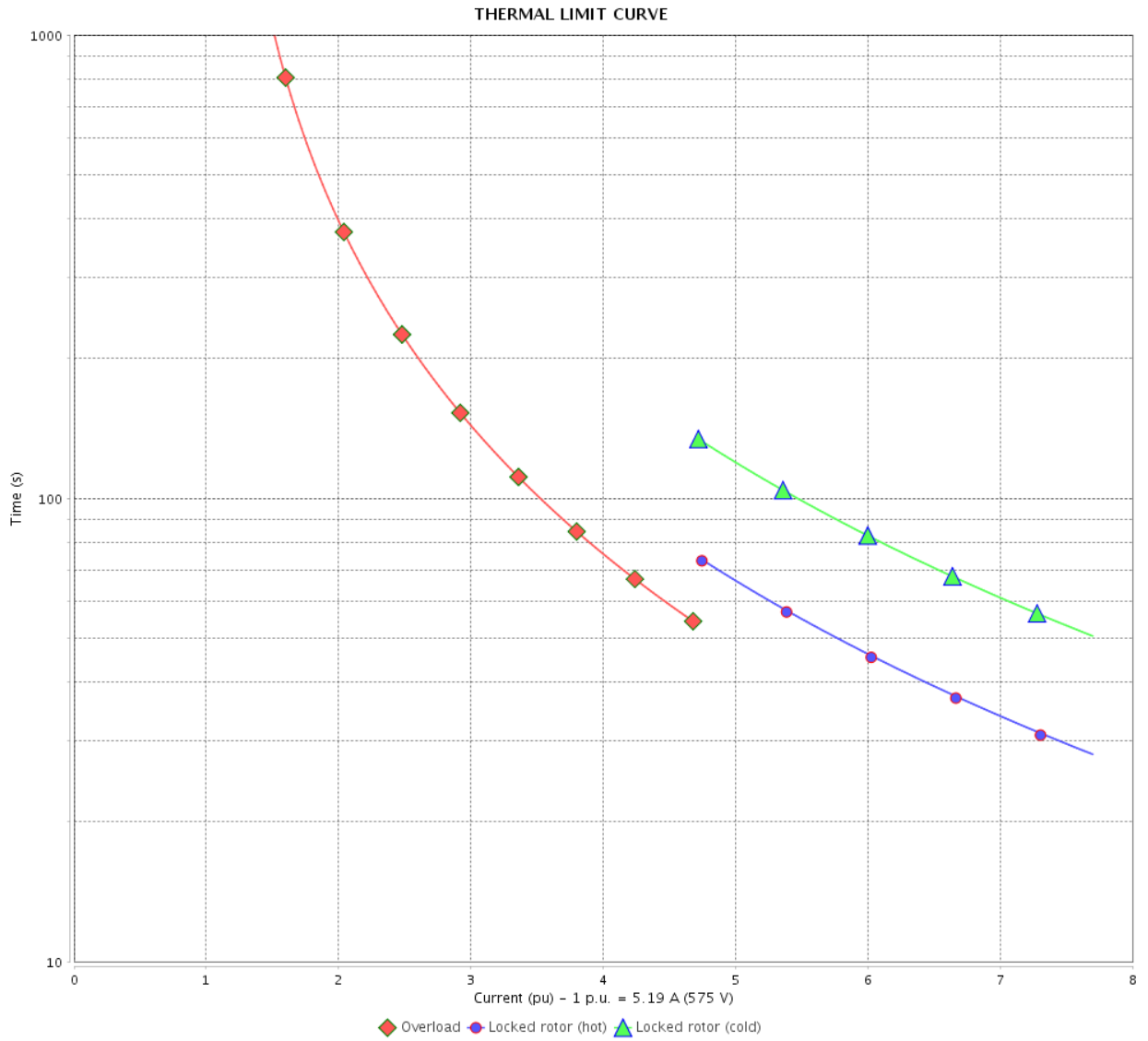
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	01/06/2022		4 / 6	

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 5 / 6		Revision
Checked by				
Date				

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



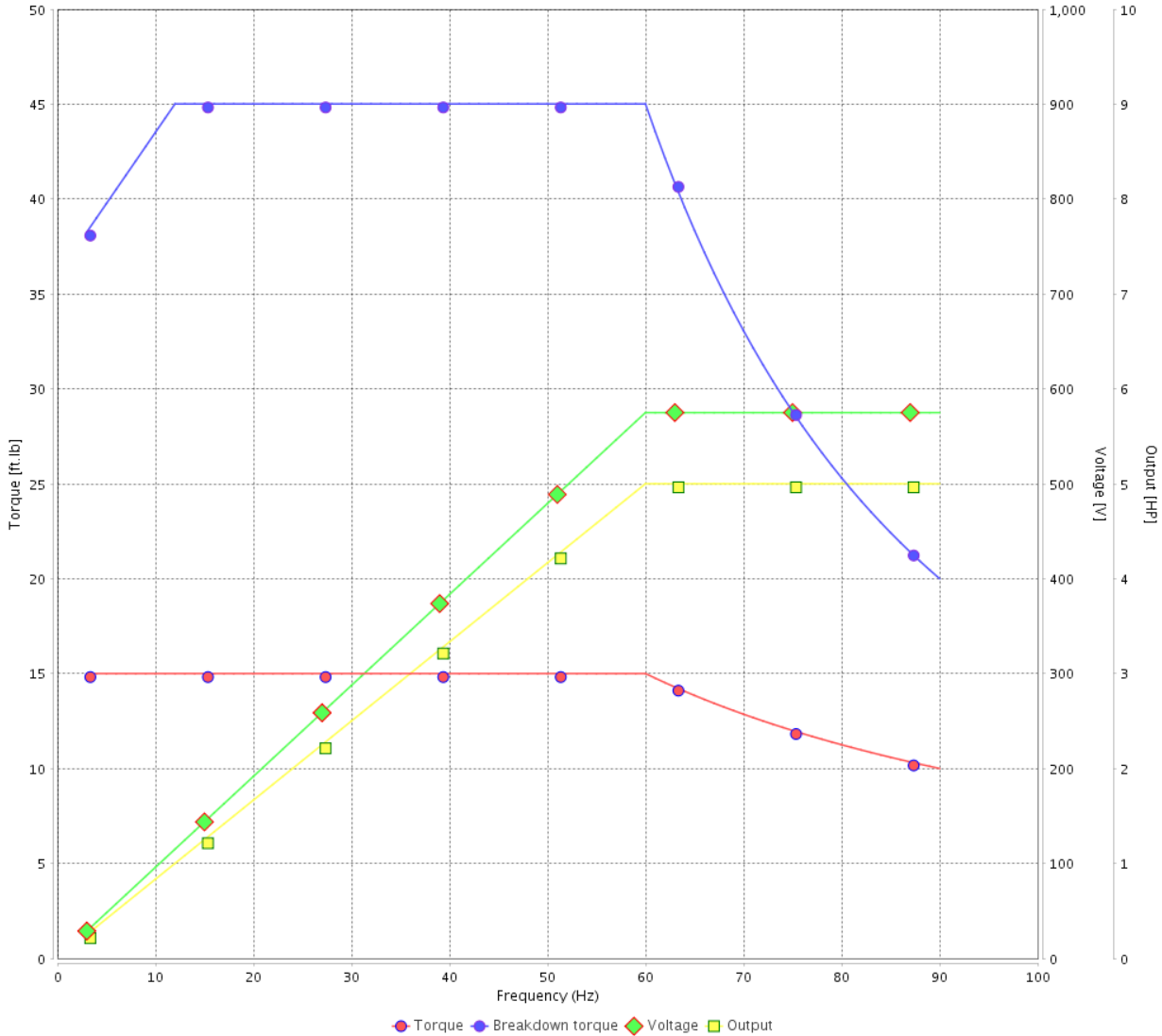
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13332153

Catalog # : 00518ST3HIE184TC-W22

VFD OPERATION CURVE



Performance : 575 V 60 Hz 4P

Rated current : 5.19 A  
 LRC : 7.7  
 Rated torque : 15.0 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 300 %  
 Rated speed : 1750 rpm

Moment of inertia (J) : 0.4003 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

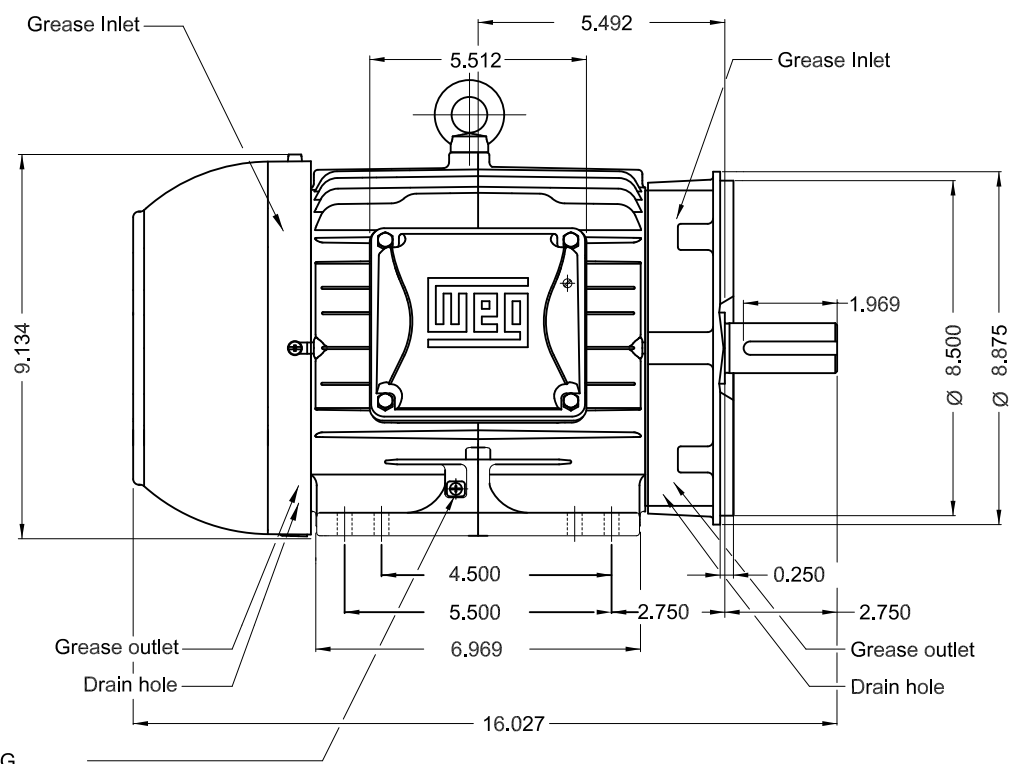
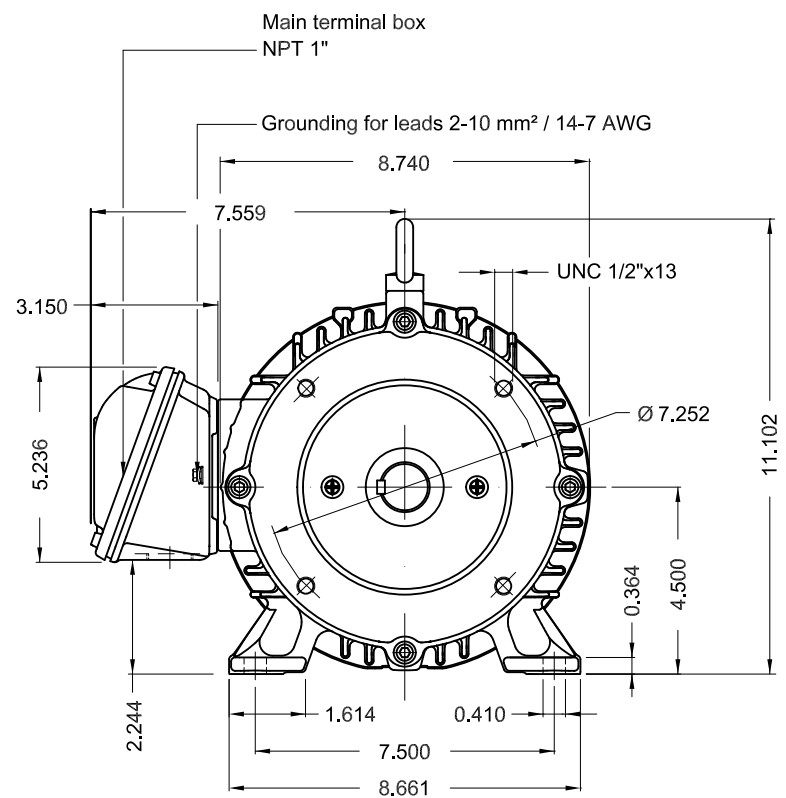
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 6 / 6	Revision
Checked by				
Date	01/06/2022			

1 2 3 4 5 6

A

B

C

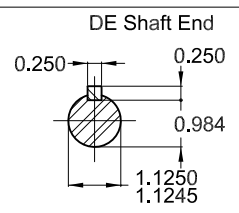


Grounding for leads 2-10 mm² / 14-7 AWG

D

E

Color RAL 5009  
 Painting plan 202E  
 Mounting NEMA F-1  
 Mounting B34R(D)



5 HP 04 Poles 60 Hz A

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

PREVIEW  
 WDD



SHEET 1 / 1

MADE IN BRAZIL  
13332153



**NEMA**  
Premium



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

MODEL 00518ST3HIE184TC-W22

Inverter Duty Motor  
Severe Duty

**IEEE**  
841-2009



FOR SAFE AREA  
Mod. TE1BFOXON  
CC029A

PH3 60Hz Fr. 182/4TC 1000m.a.s.l. IP55 TEFC 117lb

V 575

A 5.19

HP 5.0

kW 3.7

SF 1.25

SFA 6.49

RPM 1750

PF 0.80

AMB 40°C

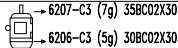
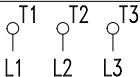
INS cl. F DT80K

NEMA NOM EFF 89.5%

DUTY CONT.

DES B Code J

GUARANT. EFF 87.5%



MOBIL POLYREX EM (20000h)

