

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :																			
Product line	: NEMA Premium Efficiency Three-Phase																		
Product code :	13906220																		
Catalog # :	03036ST3HIE286TS-W22																		
Frame : 284/6TS Output : 30 HP (22 kW) Poles : 2 Frequency : 60 Hz Rated voltage : 575 V Rated current : 27.7 A L. R. Amperes : 174 A LRC : 6.3x(Code G) No load current : 7.92 A Rated speed : 3540 rpm Slip : 1.67 % Rated torque : 44.5 ft.lb Locked rotor torque : 240 % Breakdown torque : 250 % Insulation class : F Service factor : 1.25 Moment of inertia (J) : 3.37 sq.ft.lb Design : B	Locked rotor time : 27s (cold) 15s (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 ¹ : Both (CW and CCW) Noise level ² : 72.0 dB(A) Starting method : Direct On Line Approx. weight ³ : 402 lb																		
Output	25% 50% 75% 100%																		
Efficiency (%)	91.6 91.7 91.7 91.7																		
Power Factor	0.54 0.77 0.85 0.87																		
Foundation loads																			
Max. traction : 284 lb																			
Max. compression : 686 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 style="text-align: center;">6311 C3</td> <td style="text-align: center;">6211 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;">14000 h</td> <td style="text-align: center;">17000 h</td> </tr> <tr> <td>Lubricant amount :</td> <td style="text-align: center;">18 g</td> <td style="text-align: center;">11 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 :	6311 C3	6211 C3	Sealing :	Inpro/Seal	Inpro/Seal	Lubrication interval :	14000 h	17000 h	Lubricant amount :	18 g	11 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															
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Checked by			Page	Revision															
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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



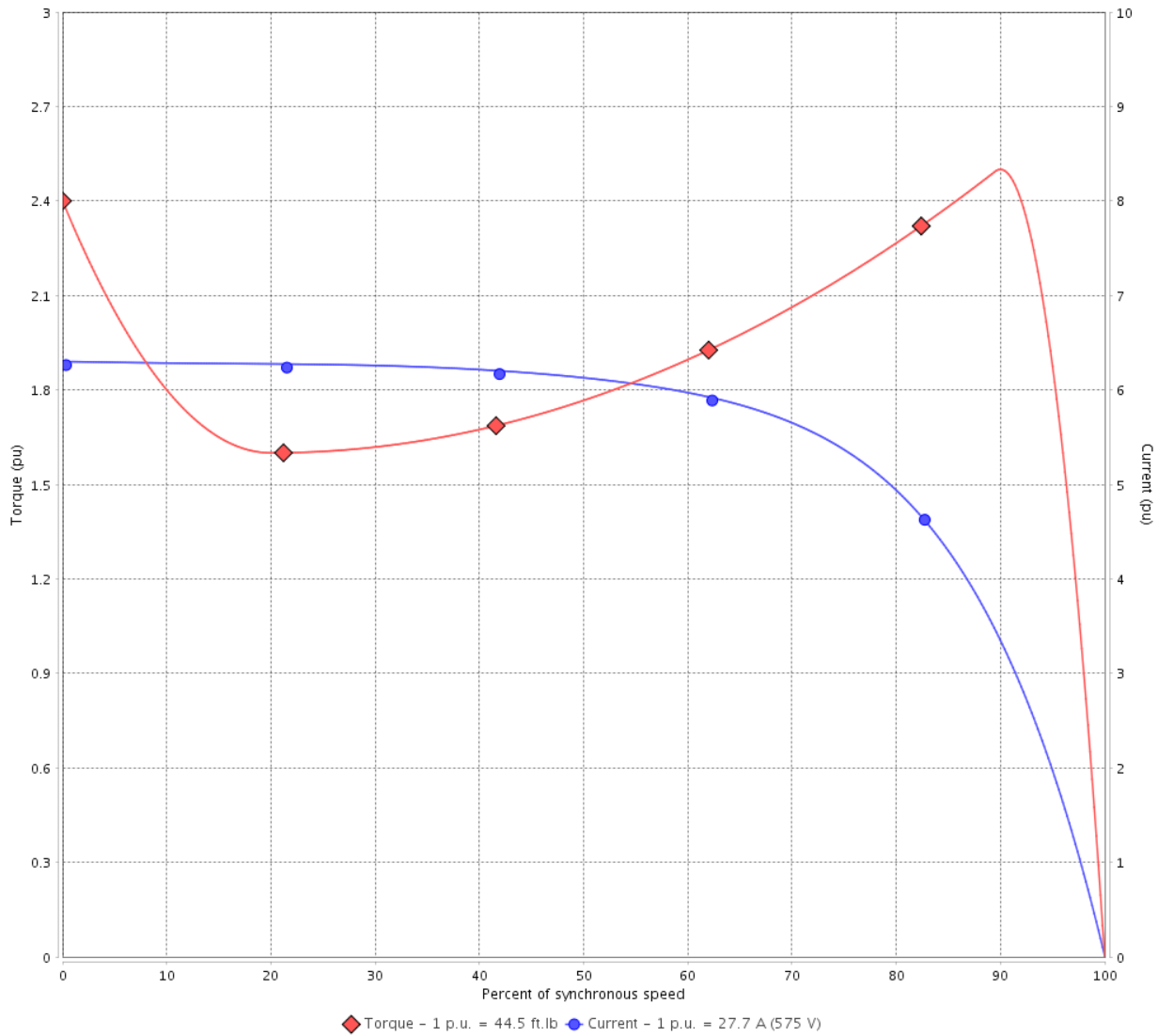
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13906220

Catalog # : 03036ST3HIE286TS-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 2P

Rated current	: 27.7 A	Moment of inertia (J)	: 3.37 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 44.5 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 3540 rpm	Design	: B

Locked rotor time : 27s (cold) 15s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

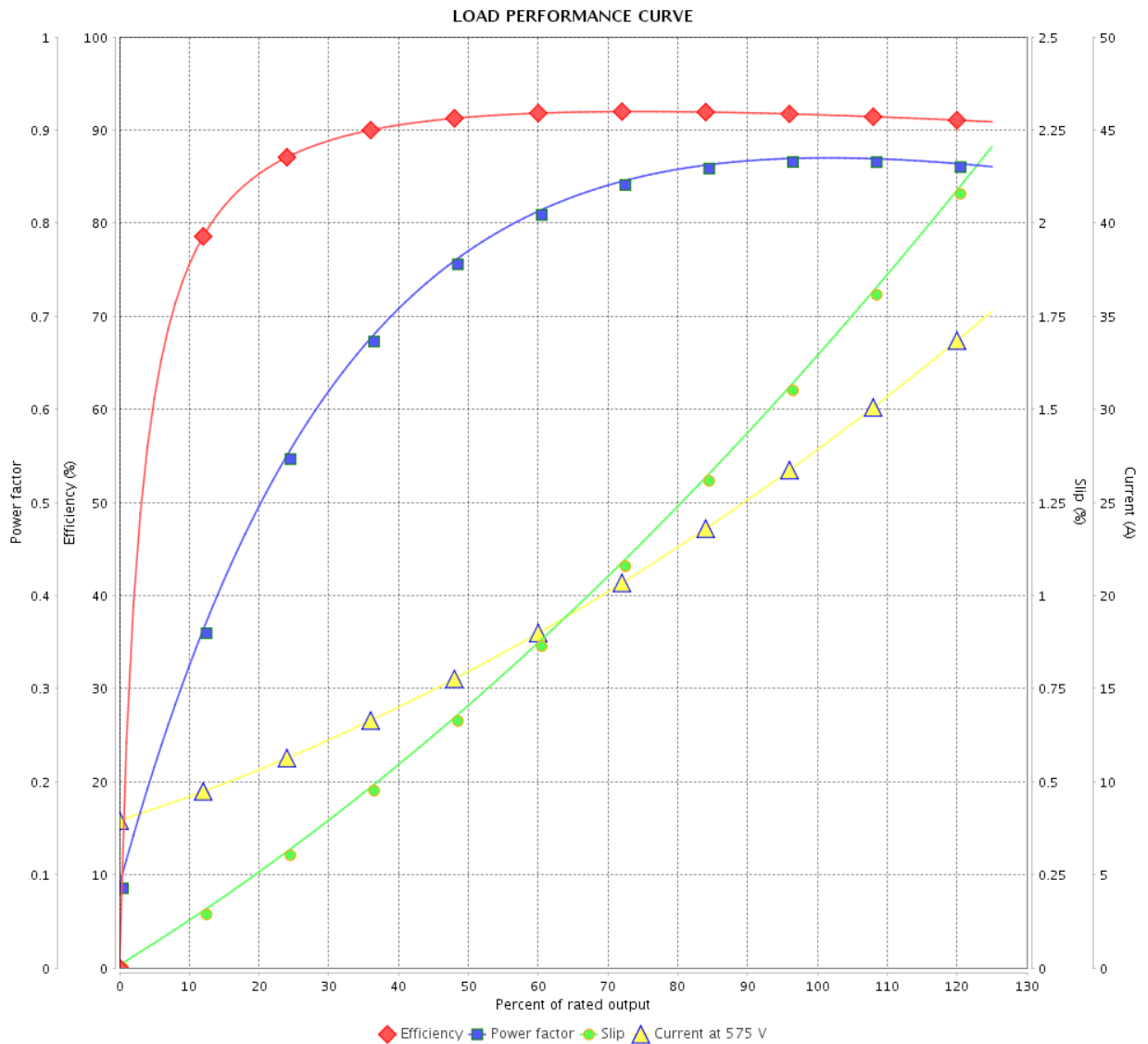


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13906220

Catalog # : 03036ST3HIE286TS-W22



Performance : 575 V 60 Hz 2P

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 Rated speed : 3540 rpm

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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
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 Design : B

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THERMAL LIMIT CURVE



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Heating constant

Cooling constant

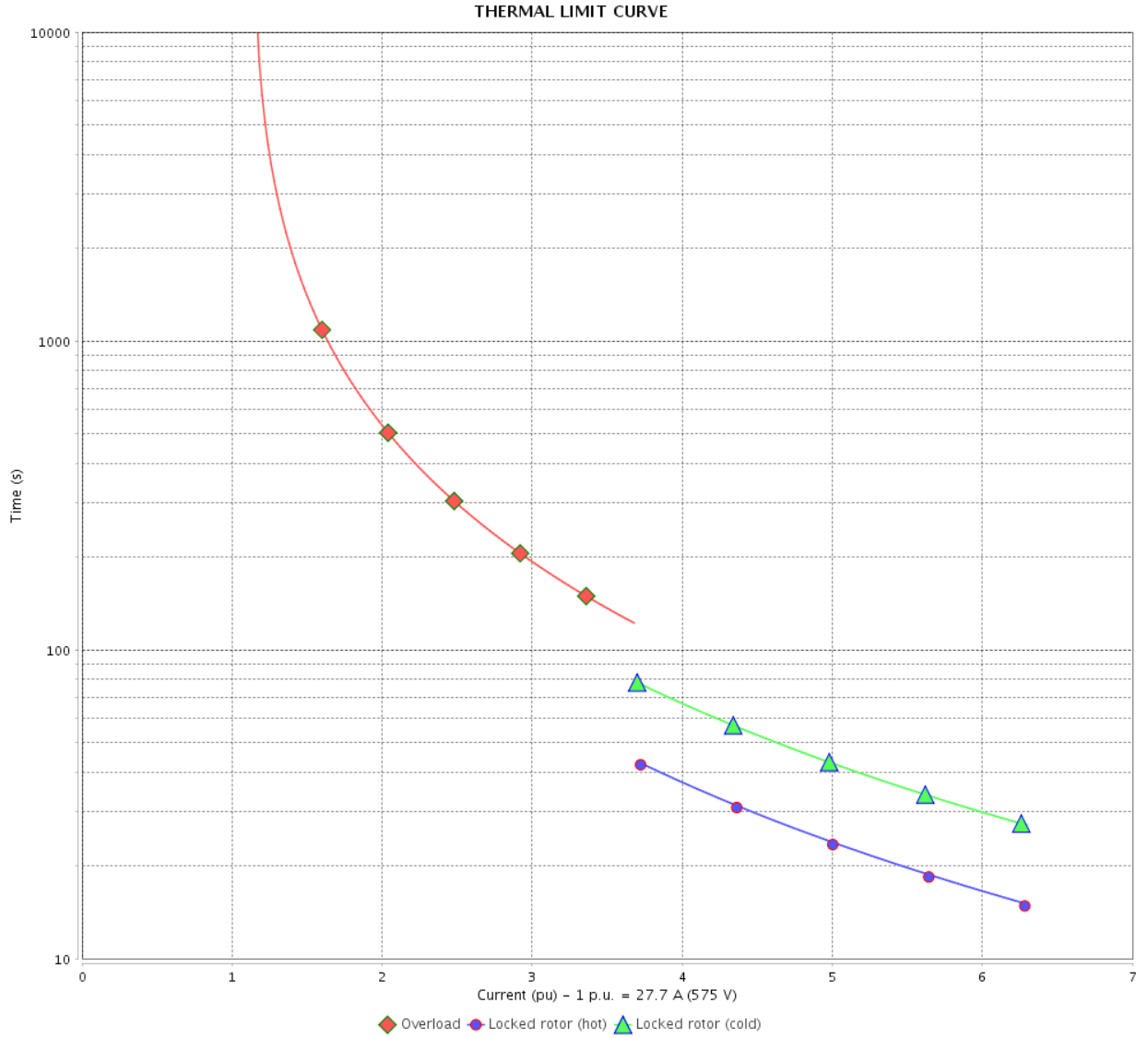
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



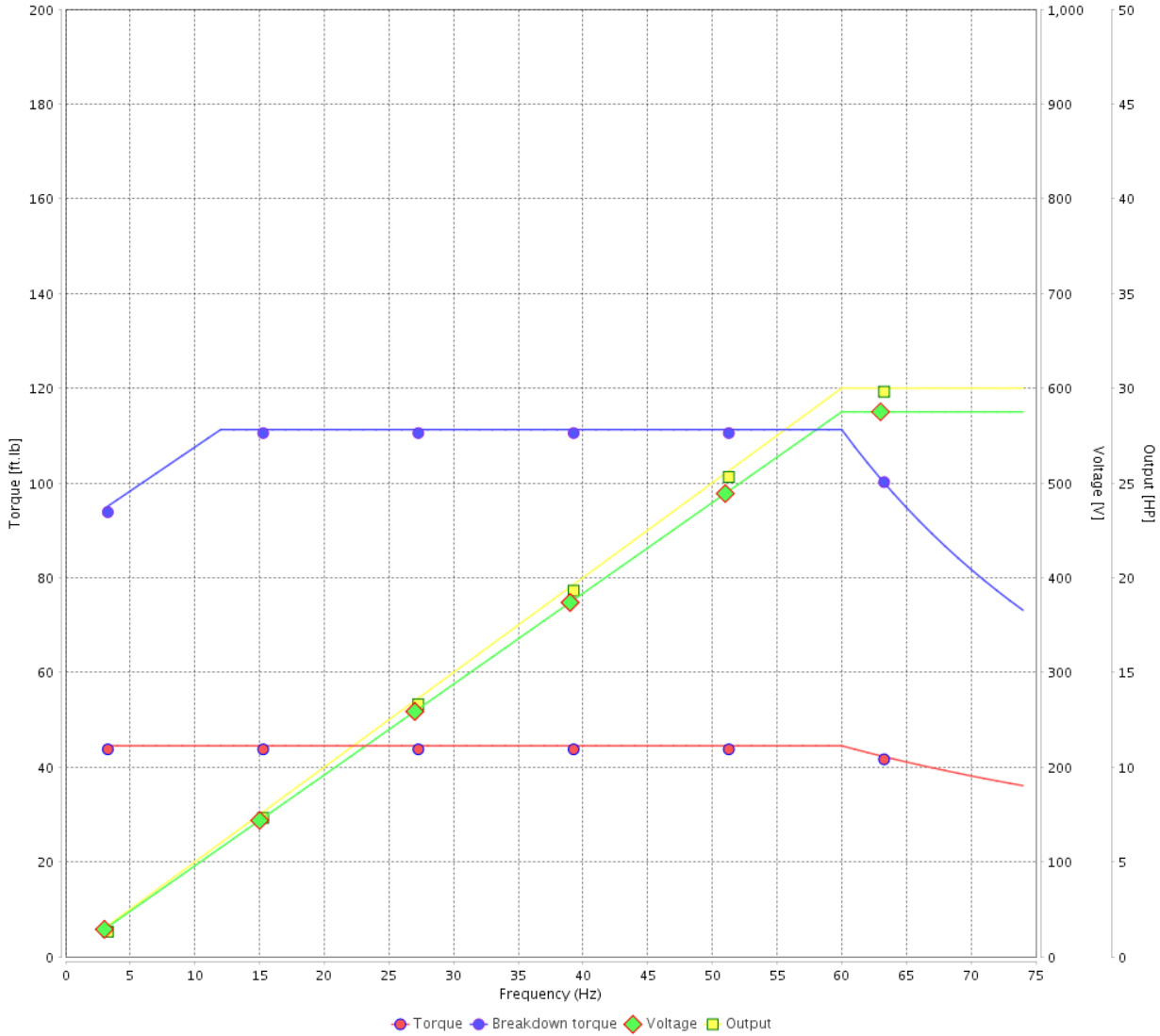
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VFD OPERATION CURVE



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 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

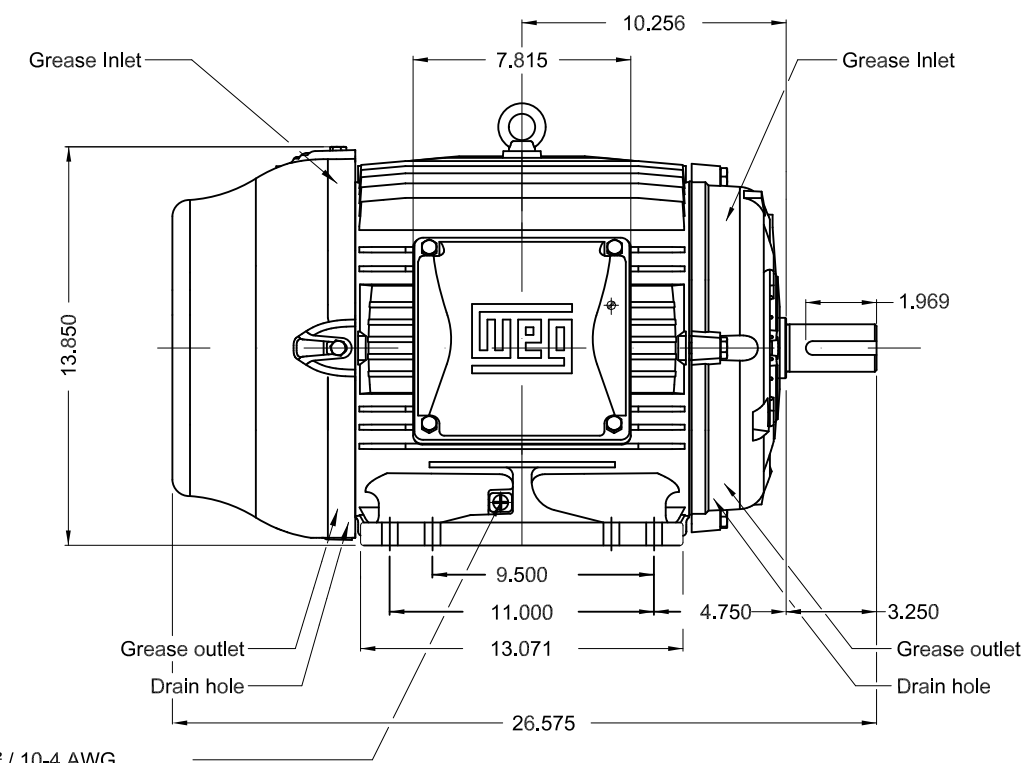
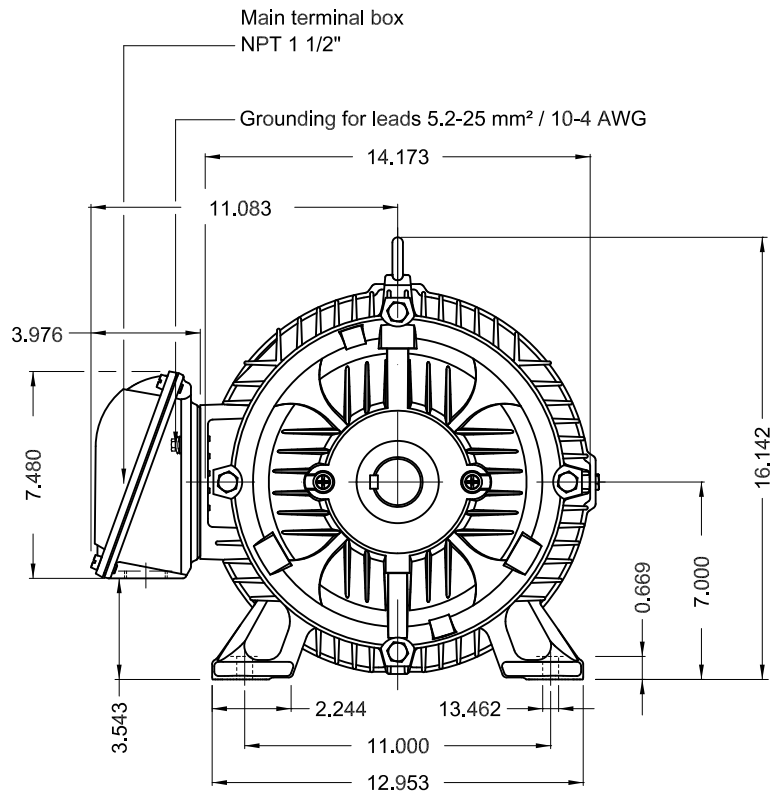
Rev.	Changes Summary	Performed	Checked	Date
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Date	14/04/2022			

1 2 3 4 5 6

A

B

C

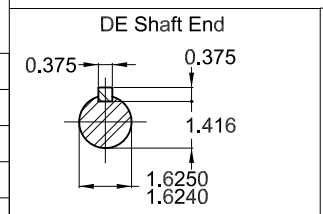


Grounding for leads 5.2-25 mm² / 10-4 AWG

D

E

Without vertical jackscrews
Color RAL 5009
Painting plan 202E
Mounting NEMA F-1
Mounting B3R(D)



30 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 284/6TS IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW
WDD





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 - T4
For use on PWM: Gr. A, B, C, D and F,
VT 1000:1, CT 20:1, 1.00SF - T3A

IE030502W22IS



Inverter Duty Motor
Severe Duty

MADE IN BRAZIL
13906220

PH3 60Hz Fr. 284/6TS 1000m.a.s.l. IP55 TEFC 410lb

V 575

A 27.7

HP 30

kW 22

SF 1.25

SFA 34.6

RPM 3540

PF 0.87

AMB 40°C

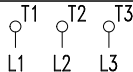
INS cl. F DT80K

NEMA NOM EFF 91.7%

DUTY CONT.

DES B Code G

GUARANT. EFF 90.2%



575V



→ 6311-C3 (18g) 55BC03X30

→ 6211-C3 (11g) 55BC02X30



MOBIL POLYREX EM (14000h)

