

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :																			
Product line	: NEMA Premium Efficiency Three-Phase																		
Product code :	11164525																		
Catalog # :	10018ET3HRB405T-W22																		
Frame : 404/5T Output : 100 HP (75 kW) Poles : 4 Frequency : 60 Hz Rated voltage : 575 V Rated current : 90.4 A L. R. Amperes : 660 A LRC : 7.3x(Code H) No load current : 30.4 A Rated speed : 1780 rpm Slip : 1.11 % Rated torque : 295 ft.lb Locked rotor torque : 240 % Breakdown torque : 260 % Insulation class : F Service factor : 1.25 Moment of inertia (J) : 29.9 sq.ft.lb Design : B	Locked rotor time : 23s (cold) 13s (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 : 68.0 dB(A) Starting method : Direct On Line Approx. weight ³ : 1173 lb																		
Output	25% 50% 75% 100%																		
Efficiency (%)	94.6 95.0 95.0 95.4																		
Power Factor	0.51 0.77 0.84 0.87																		
Foundation loads																			
Max. traction	: 1716 lb																		
Max. compression	: 2889 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>: NU-316 C3</td> <td>6314 C3</td> </tr> <tr> <td>Sealing</td> <td>: WSeal</td> <td>WSeal</td> </tr> <tr> <td>Lubrication interval</td> <td>: 7000 h</td> <td>12000 h</td> </tr> <tr> <td>Lubricant amount</td> <td>: 34 g</td> <td>27 g</td> </tr> <tr> <td>Lubricant type</td> <td colspan="2">: Mobil Polyrex EM</td> </tr> </table>		<u>Drive end</u>	<u>Non drive end</u>	Bearing type	: NU-316 C3	6314 C3	Sealing	: WSeal	WSeal	Lubrication interval	: 7000 h	12000 h	Lubricant amount	: 34 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



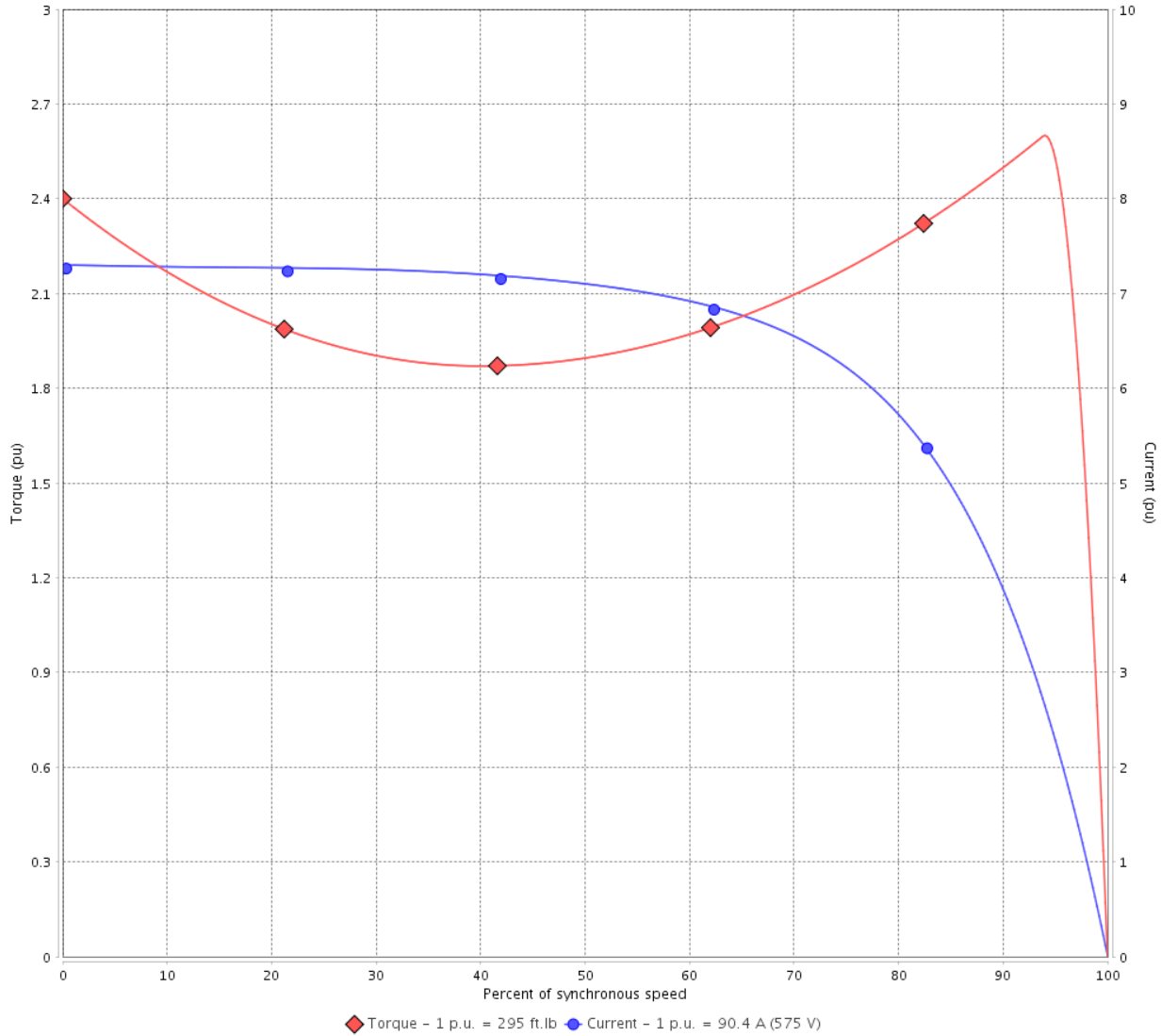
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11164525

Catalog # : 10018ET3HRB405T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 4P

Rated current	: 90.4 A	Moment of inertia (J)	: 29.9 sq.ft.lb
LRC	: 7.3	Duty cycle	: Cont.(S1)
Rated torque	: 295 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: B

Locked rotor time : 23s (cold) 13s (hot)

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Performed by			Page 2 / 6	Revision
Checked by				
Date	14/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

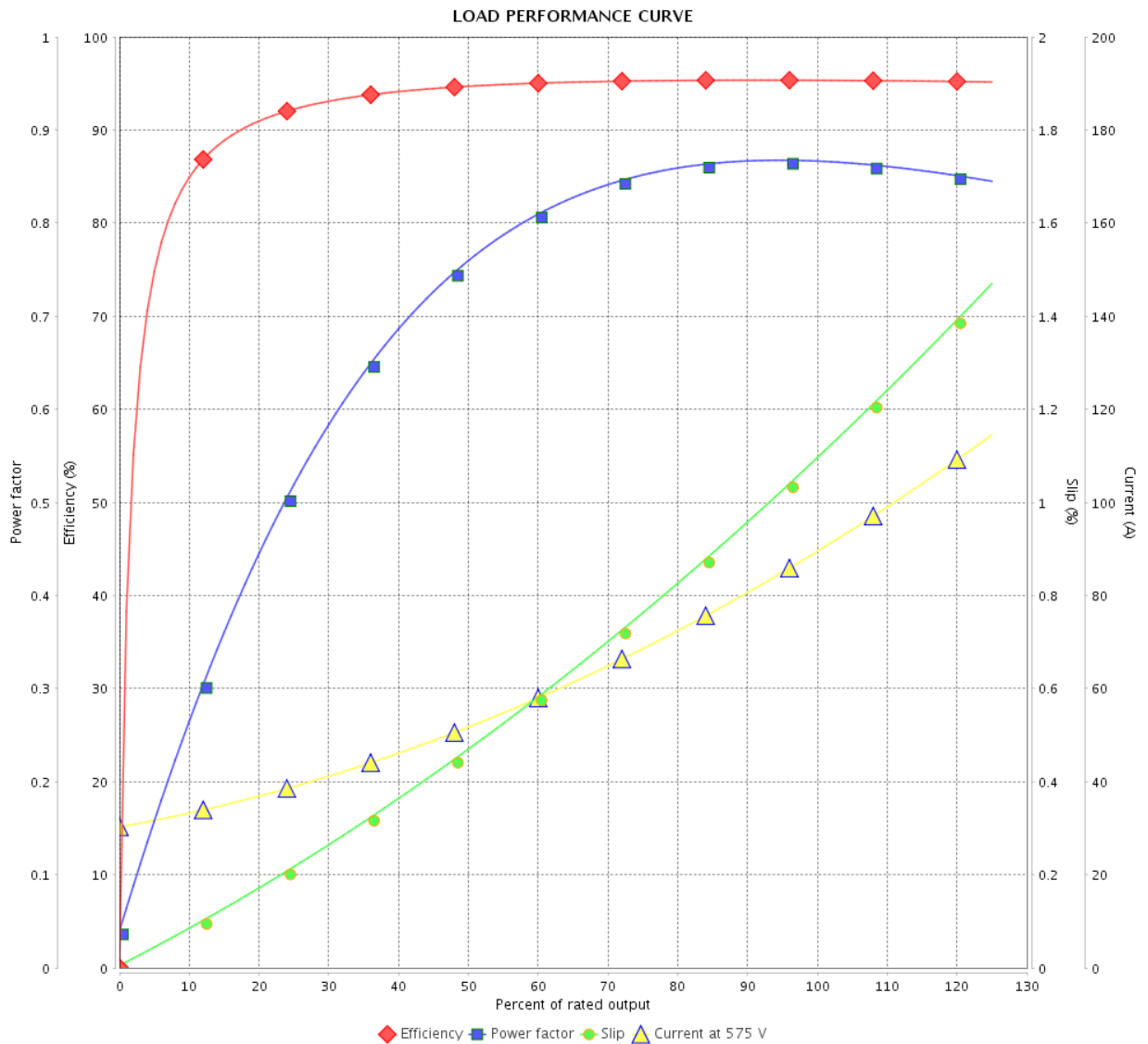


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THERMAL LIMIT CURVE

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Heating constant

Cooling constant

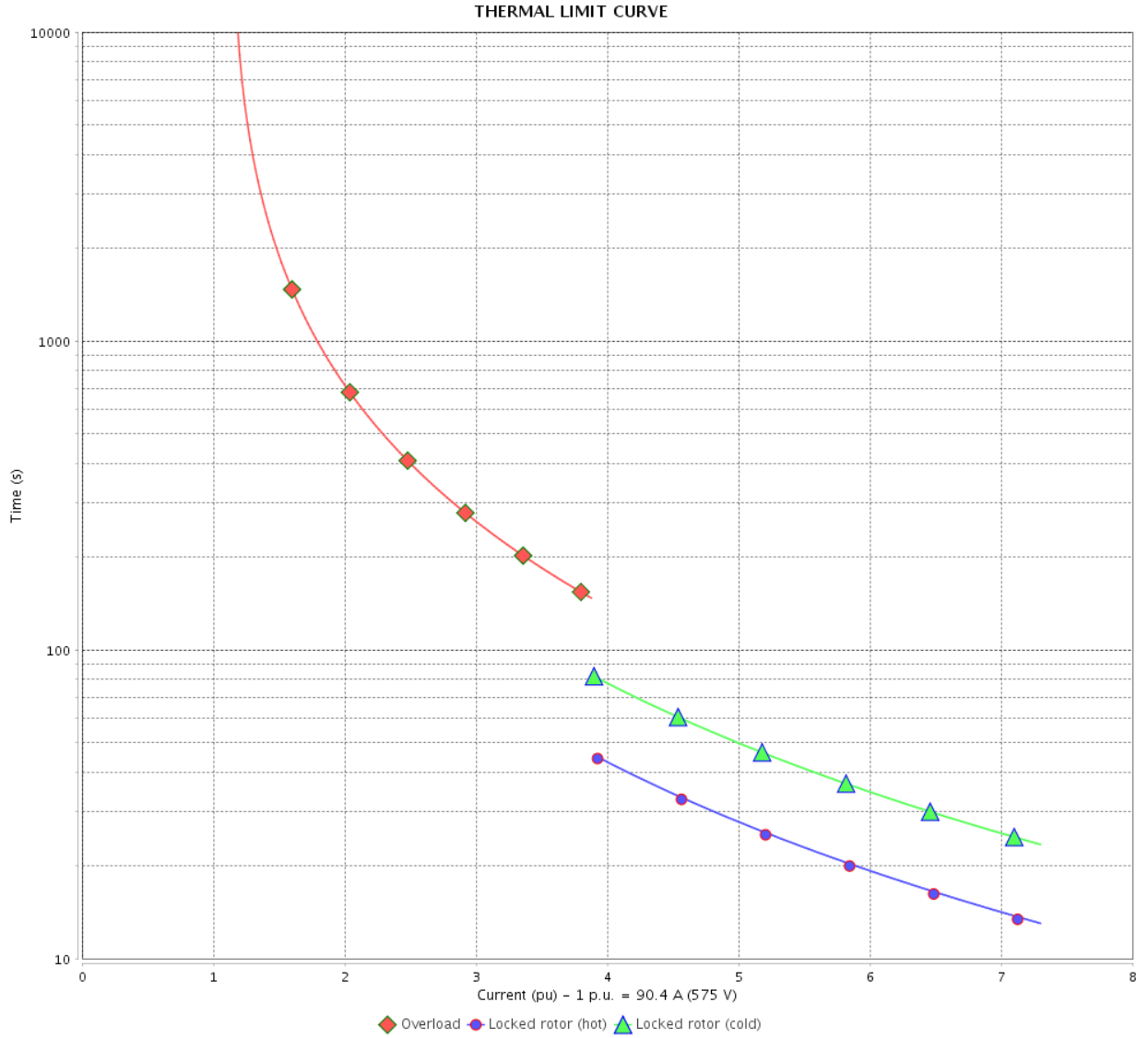
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



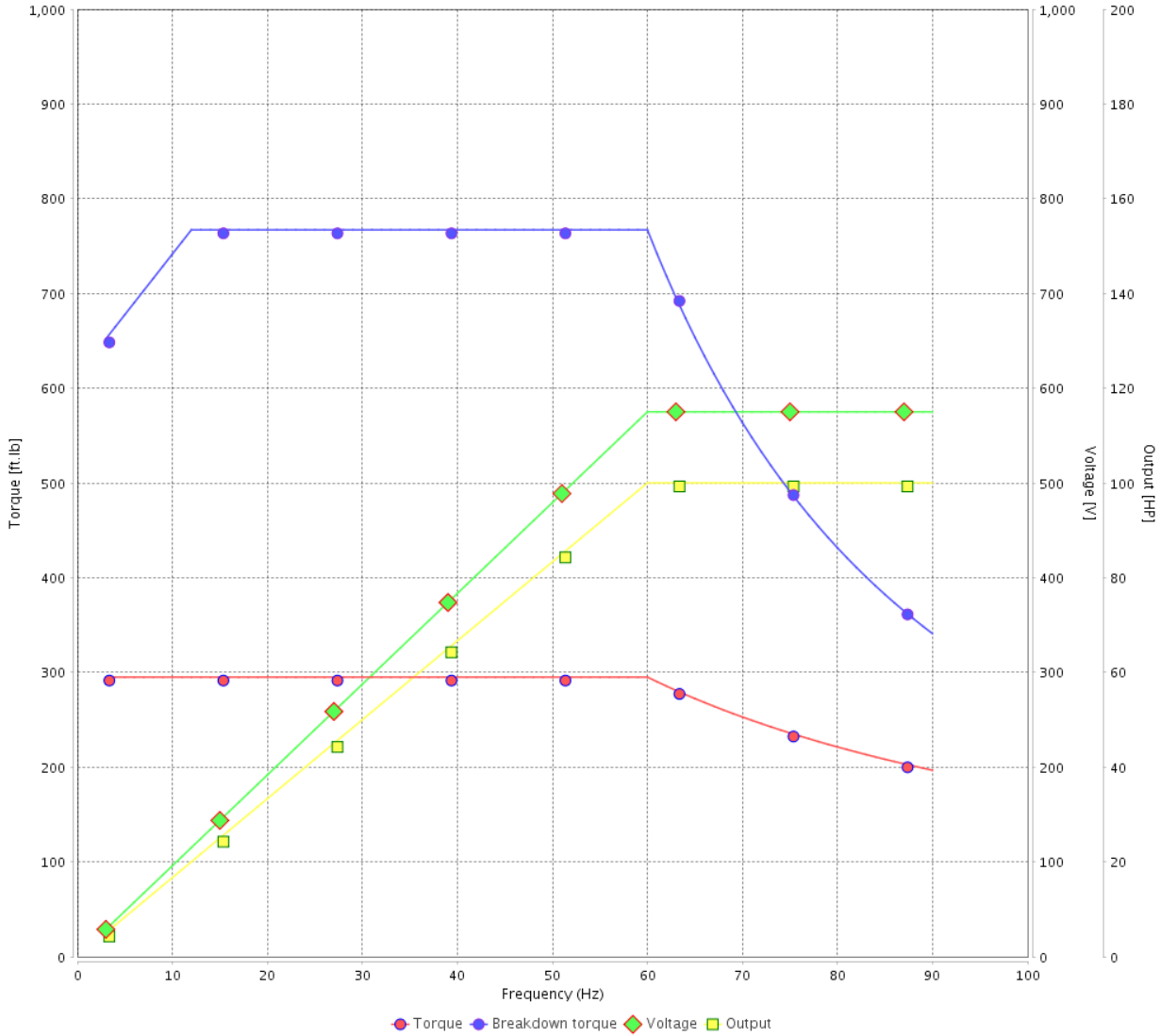
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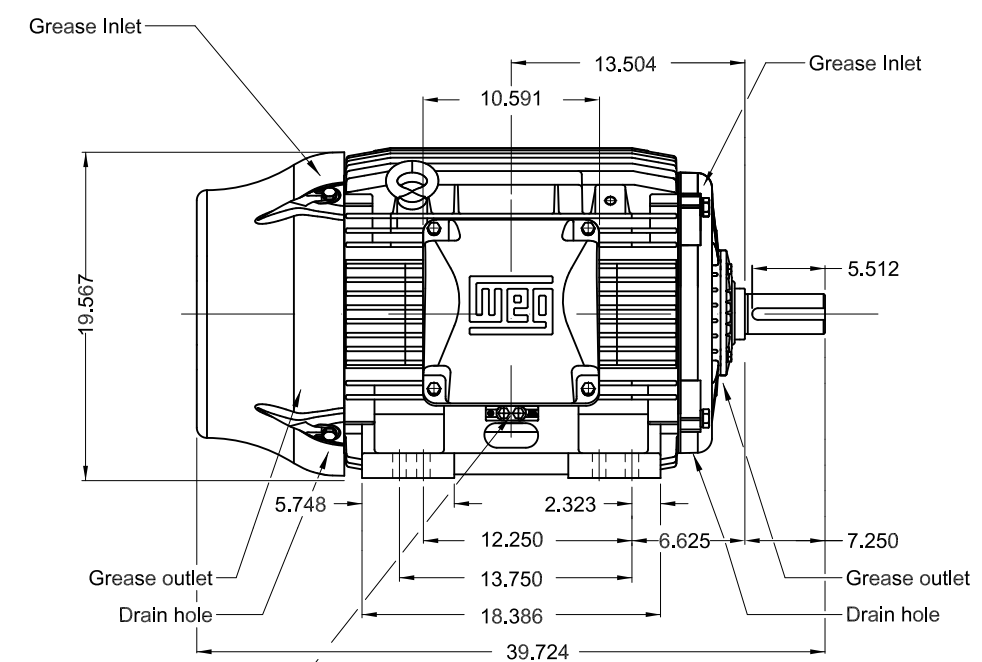
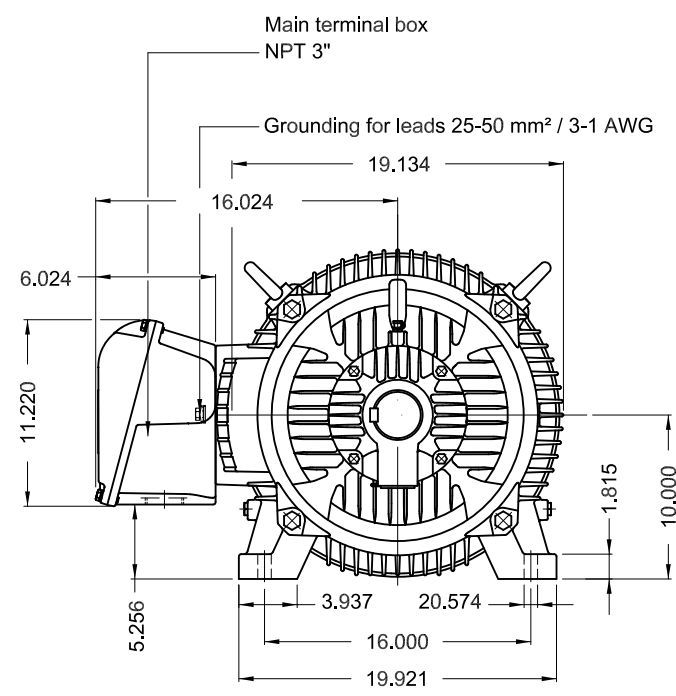
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 6 / 6	Revision
Checked by				
Date	14/04/2022			

1 2 3 4 5 6

A

B

C

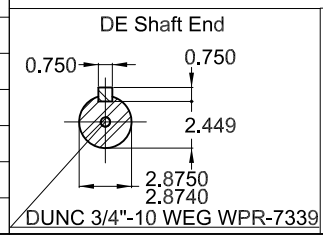


Grounding for leads 25-185 mm² / 3AWG-350MCM

D

E

- Without vertical jackscrews
- DE roller bearing
- Shaft locking device
- Shaft material - AISI/SAE 4140
- Color RAL 5009
- Painting plan 203A
- Mounting B3R(D)



100 HP 04 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W22 PREM. EFF.					
CHECKED		FRAME 404/5T 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

HT100504NPRBW22

Inverter Duty Motor
Severe Duty

PH3 60Hz Fr. 404/5T 1000m.a.s.l. IP55 TEFC 1173lb

V 575

A 90.4

HP 100

kW 75

SF 1.25

SFA 113

RPM 1780

PF 0.87

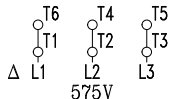
AMB 40°C

INS cl. F DT80K

NEMA NOM EFF 95.4%

DUTY CONT.

DES B Code H

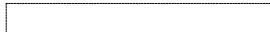


→ NU-316-C3 (34g)

→ 6314-C3 (27g)



MOBIL POLYREX EM (7000h)



MADE IN BRAZIL
11164525