

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :							
Product line		: NEMA Premium Efficiency Three-Phase		Product code :	11616140		
				Catalog # :	10036ET3H405TS-W22		
Frame	:	404/5TS			Locked rotor time	:	25s (cold) 14s (hot)
Output	:	100 HP (75 kW)			Temperature rise	:	80 K
Poles	:	2			Duty cycle	:	Cont.(S1)
Frequency	:	60 Hz			Ambient temperature	:	-20°C to +40°C
Rated voltage	:	575 V			Altitude	:	1000 m.a.s.l.
Rated current	:	89.6 A			Protection degree	:	IP55
L. R. Amperes	:	582 A			Cooling method	:	IC411 - TEFC
LRC	:	6.5x(Code G)			Mounting	:	F-1
No load current	:	20.8 A			Rotation <sup>1</sup>	:	Both (CW and CCW)
Rated speed	:	3545 rpm			Noise level <sup>2</sup>	:	79.0 dB(A)
Slip	:	1.53 %			Starting method	:	Direct On Line
Rated torque	:	148 ft.lb			Approx. weight <sup>3</sup>	:	1101 lb
Locked rotor torque	:	240 %					
Breakdown torque	:	260 %					
Insulation class	:	F					
Service factor	:	1.25					
Moment of inertia (J)	:	13.2 sq.ft.lb					
Design	:	B					
Output	25%	50%	75%	100%	Foundation loads		
Efficiency (%)	92.8	93.0	94.1	94.1	Max. traction	:	605 lb
Power Factor	0.61	0.83	0.88	0.89	Max. compression	:	1706 lb
		<u>Drive end</u>		<u>Non drive end</u>			
Bearing type	:	6314 C3		6314 C3			
Sealing	:	WSeal		WSeal			
Lubrication interval	:	4000 h		4000 h			
Lubricant amount	:	27 g		27 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.			
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Performed by							
Checked by					Page	Revision	
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# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



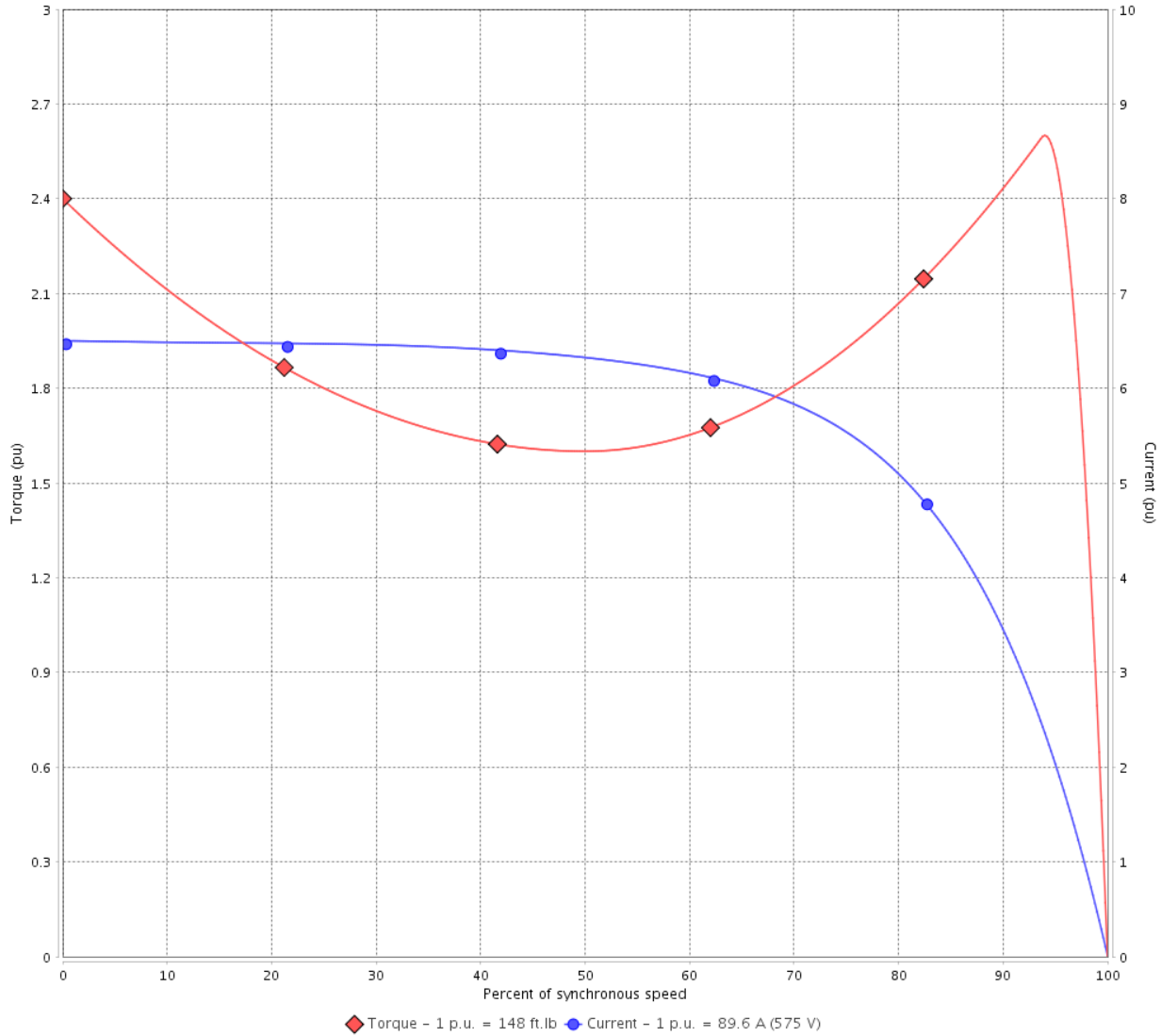
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11616140

Catalog # : 10036ET3H405TS-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 2P

Rated current	: 89.6 A	Moment of inertia (J)	: 13.2 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 148 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 3545 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

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Date	12/04/2022			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

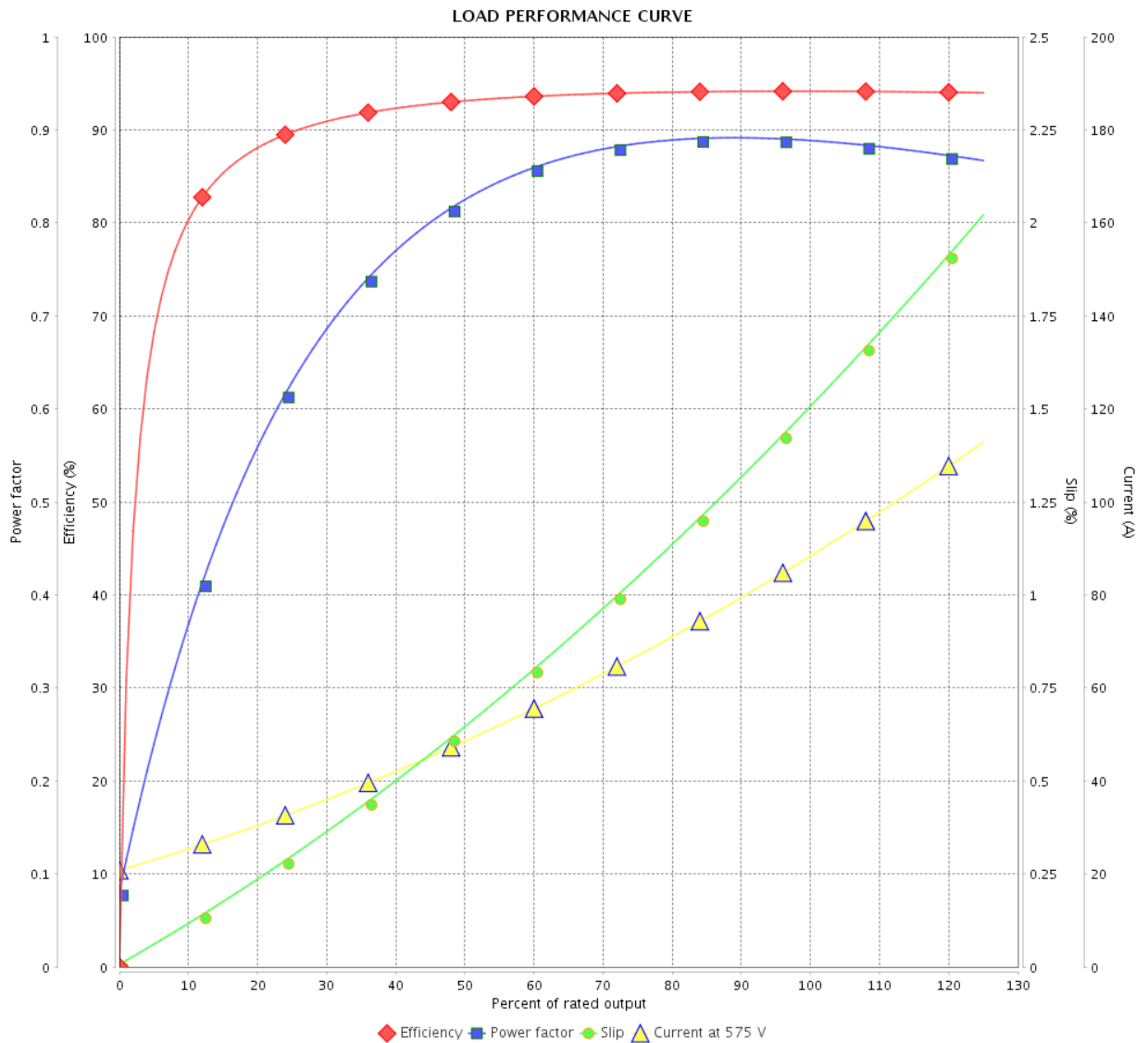


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Product line : NEMA Premium Efficiency Three-Phase

Product code : 11616140

Catalog # : 10036ET3H405TS-W22



Performance : 575 V 60 Hz 2P

Rated current : 89.6 A  
 LRC : 6.5  
 Rated torque : 148 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 260 %  
 Rated speed : 3545 rpm

Moment of inertia (J) : 13.2 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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 Product code : 11616140  
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Performance : 575 V 60 Hz 2P

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LRC : 6.5	Duty cycle : Cont.(S1)
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Locked rotor torque : 240 %	Service factor : 1.25
Breakdown torque : 260 %	Temperature rise : 80 K
Rated speed : 3545 rpm	Design : B

Heating constant

Cooling constant

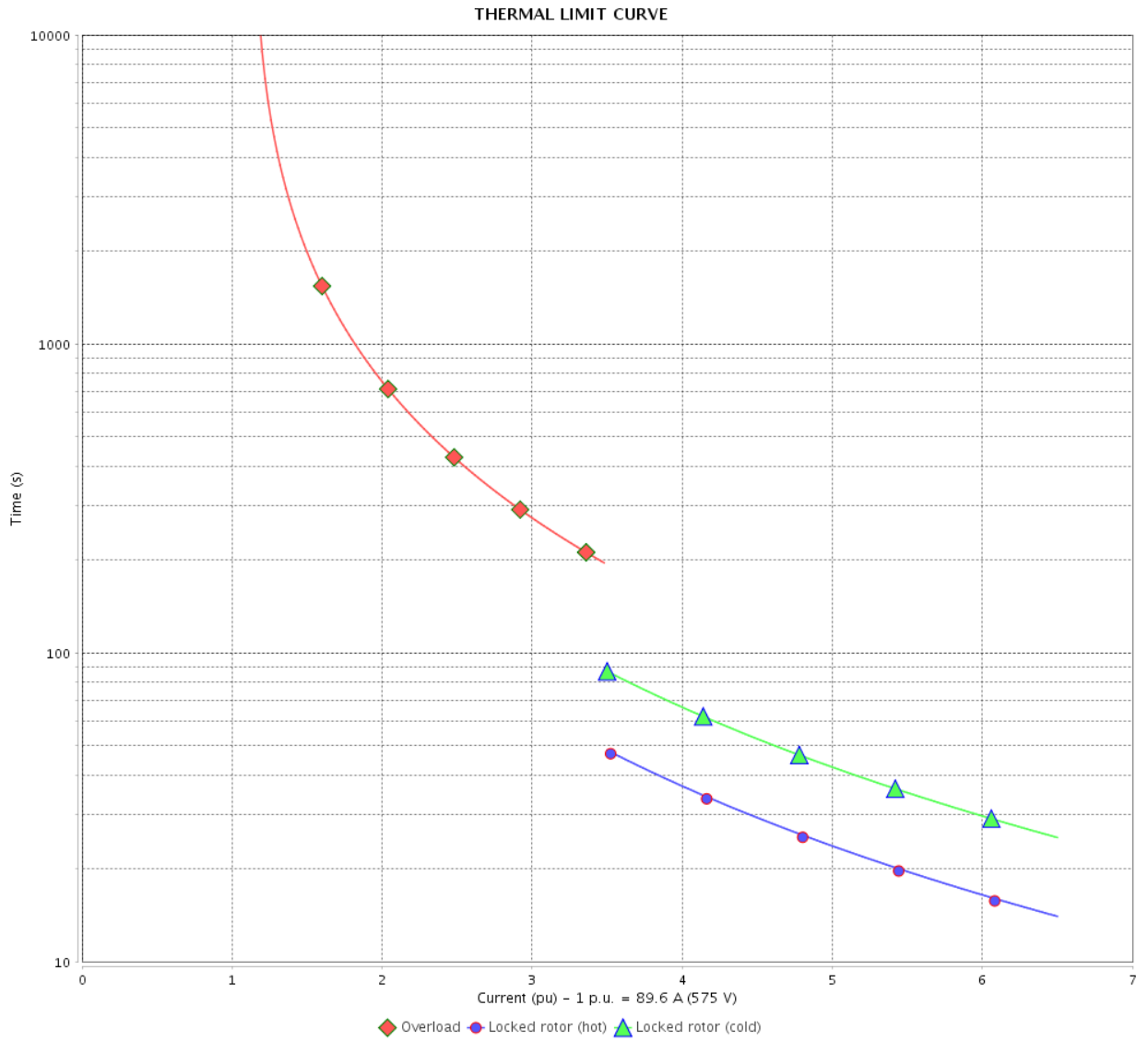
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Performed by			Page	Revision
Checked by				
Date	12/04/2022			

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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Performed by				
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Date				
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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



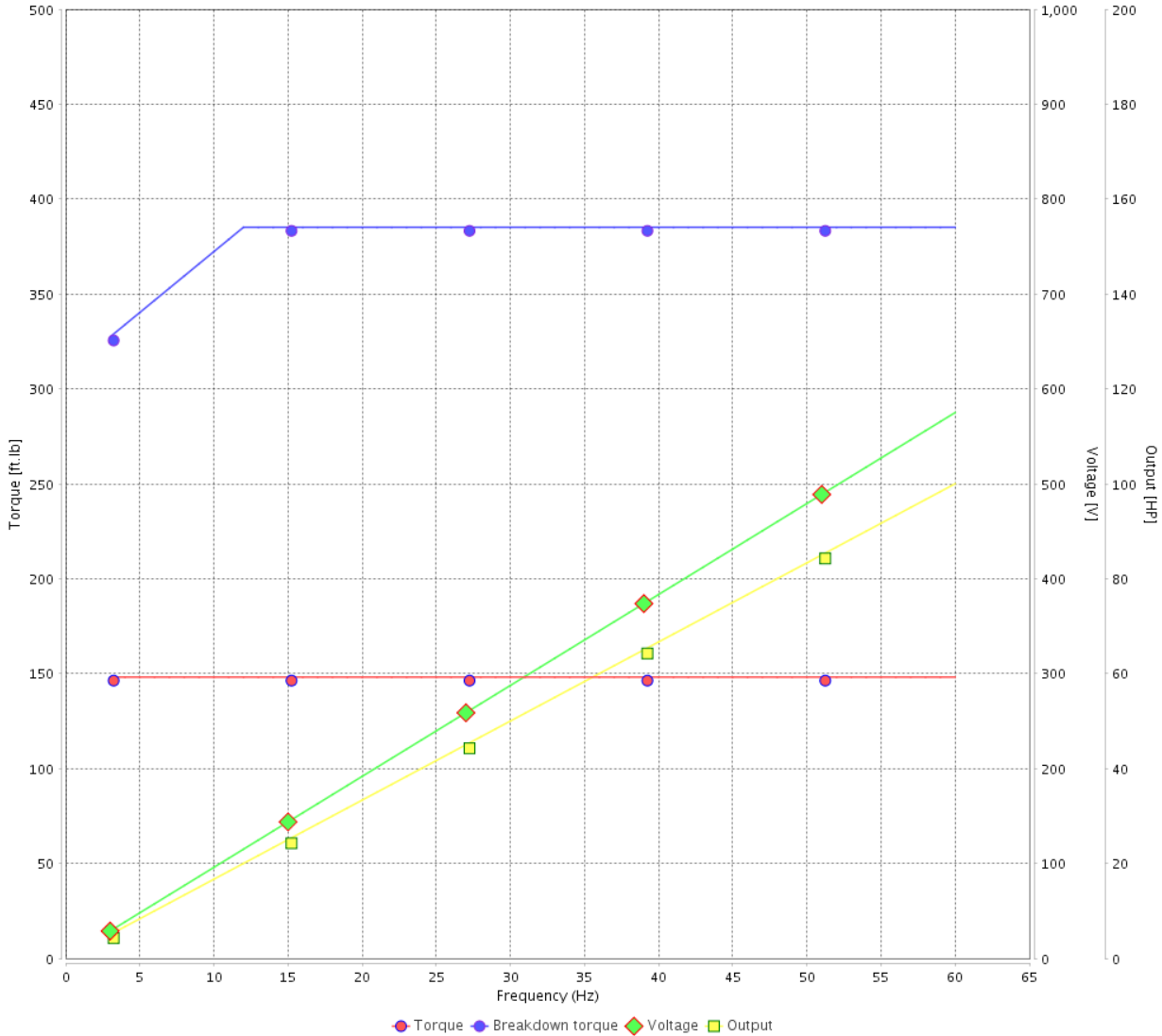
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VFD OPERATION CURVE



Performance : 575 V 60 Hz 2P

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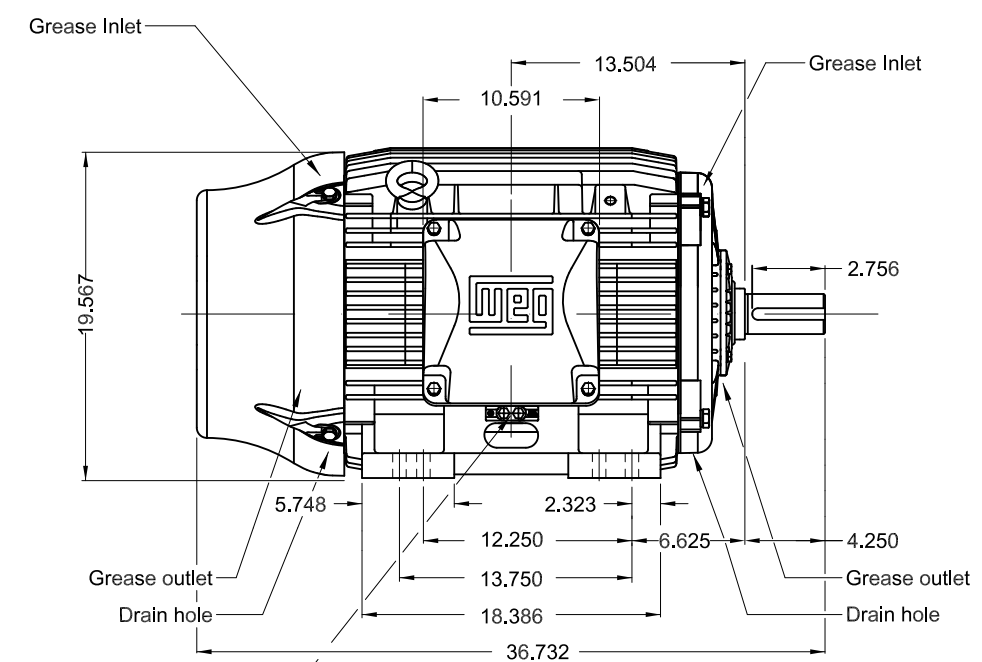
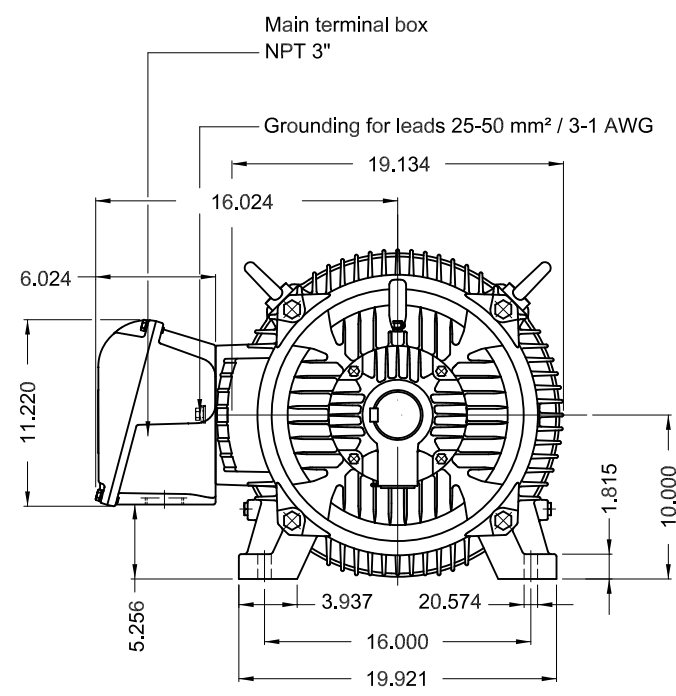
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1 2 3 4 5 6

A

B

C

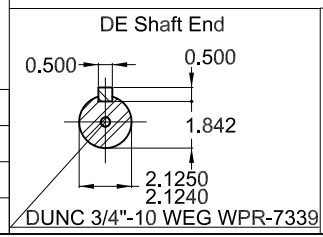


Grounding for leads 25-185 mm² / 3AWG-350MCM

D

E

Without vertical jackscrews  
 Color RAL 5009  
 Painting plan 203A  
 Mounting B3R(D)



100 HP 02 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRBUSER	THREE PH. MOTOR W22 PREM. EFF.					
CHECKED		FRAME 404/5TS IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW  
 WDD



Dimensions in inches XME A3



**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

MODEL 10036ET3H405TS-W22

Inverter Duty Motor  
Severe Duty

PH3 60Hz Fr. 404/5TS 1000m.a.s.l. IP55 TEFC 1102lb

V 575

A 89.6

HP 100

kW 75

SF 1.25

SFA 112

RPM 3545

PF 0.89

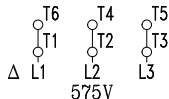
AMB 40°C

INS cl. F DT80K

NEMA NOM EFF 94.1%

DUTY CONT.

DES B Code G

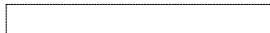


→ 6314-C3 (27g)

→ 6314-C3 (27g)



MOBIL POLYREX EM (4000h)



MADE IN BRAZIL  
11616140