

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer		:				
Product line		: NEMA Premium Efficiency Three-Phase		Product code : 11165996		
				Catalog # : 10036ET3E405TS-W22		
Frame		: 404/5TS		Cooling method : IC411 - TEFC		
Insulation class		: F		Mounting : F-1		
Duty cycle		: Cont.(S1)		Rotation ¹ : Both (CW and CCW)		
Ambient temperature		: -20°C to +40°C		Starting method : Direct On Line		
Altitude		: 1000 m.a.s.l.		Approx. weight ² : 1109 lb		
Protection degree		: IP55		Moment of inertia (J) : 13.2 sq.ft.lb		
Design		: B				
Output [HP]	100					
Poles	2					
Frequency [Hz]	60					
Rated voltage [V]	230/460					
Rated current [A]	224/112					
L. R. Amperes [A]	1456/728					
LRC [A]	6.5x(Code G)					
No load current [A]	52.0/26.0					
Rated speed [RPM]	3545					
Slip [%]	1.53					
Rated torque [ft.lb]	148					
Locked rotor torque [%]	240					
Breakdown torque [%]	260					
Service factor	1.25					
Temperature rise	80 K					
Locked rotor time	25s (cold) 14s (hot)					
Noise level ²	79.0 dB(A)					
Efficiency (%)	25%	0.000				
	50%	93.0				
	75%	94.1				
	100%	94.1				
Power Factor	25%	0.00				
	50%	0.83				
	75%	0.88				
	100%	0.89				
Bearing type		Drive end	Non drive end	Foundation loads		
Sealing		6314 C3	6314 C3	Max. traction : 601 lb		
Lubrication interval		WSeal	WSeal	Max. compression : 1710 lb		
Lubricant amount		4000 h	4000 h			
Lubricant type		27 g	27 g			
		Mobil Polyrex EM				
Notes						
USABLE @208V 243A SF 1.10 SFA 268A						
This revision replaces and cancel the previous one, which must be eliminated.			These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.			
(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.						
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Performed by						
Checked by						
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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



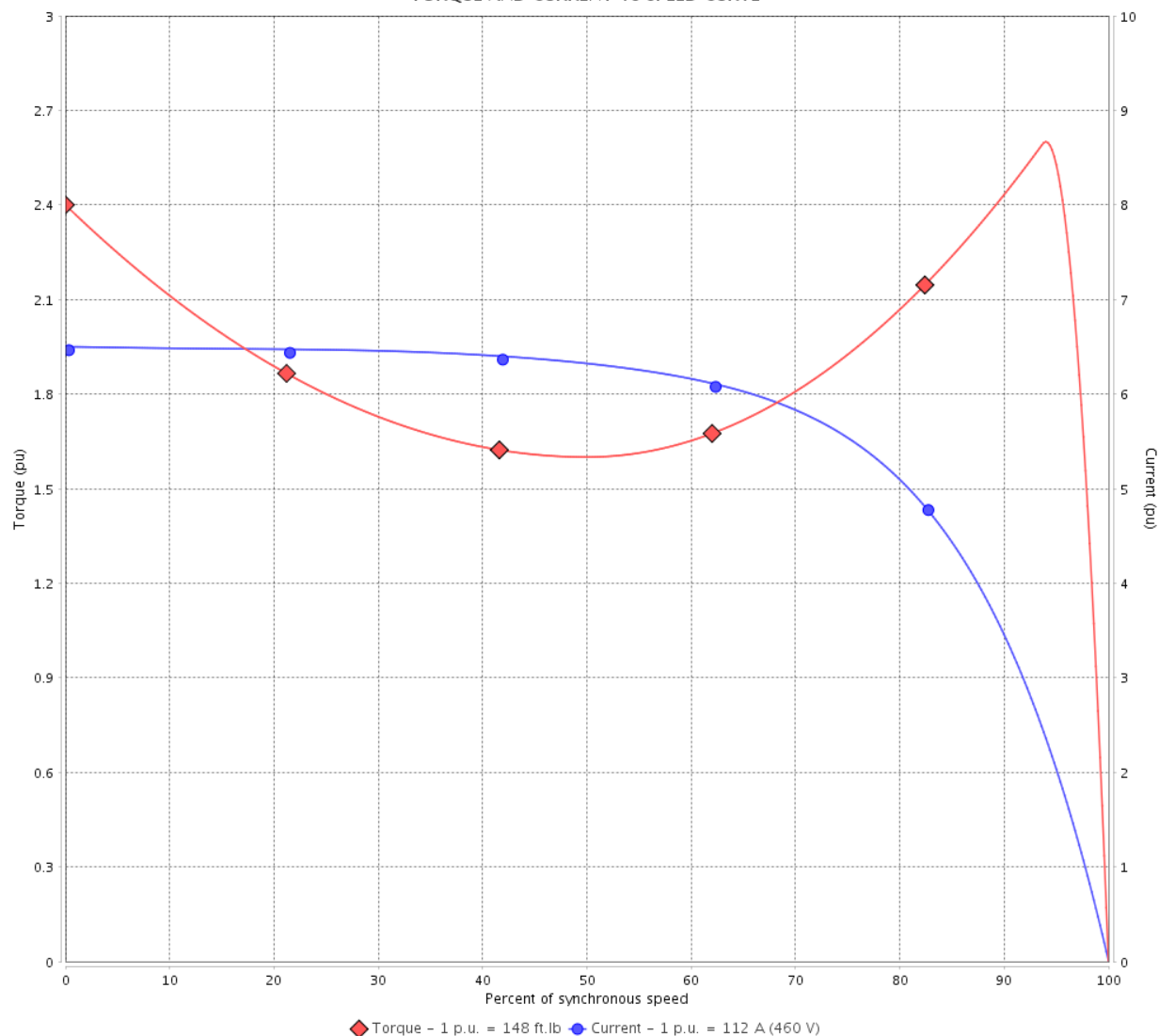
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11165996

Catalog # : 10036ET3E405TS-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 224/112 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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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

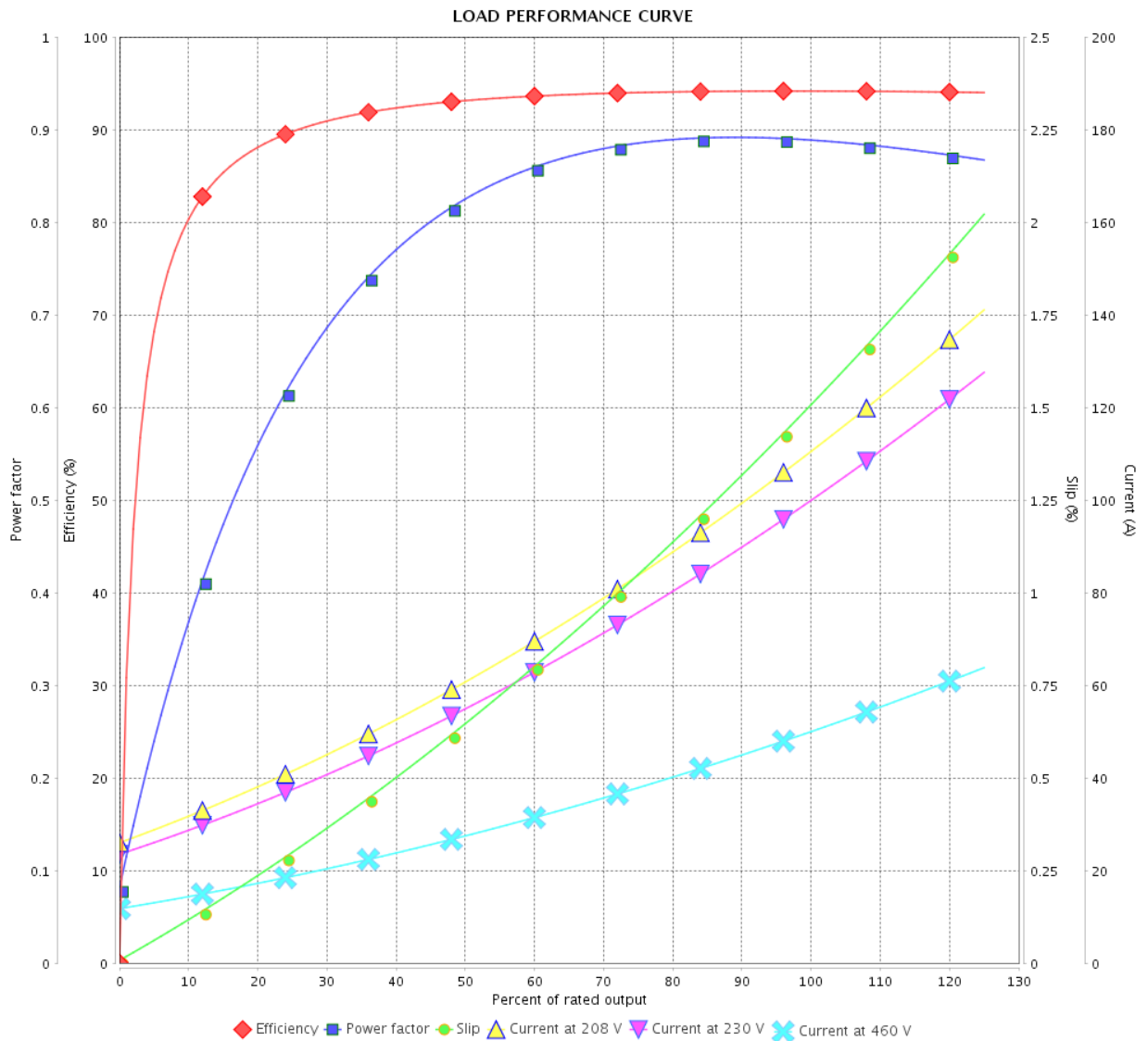


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Performance : 230/460 V 60 Hz 2P

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 Duty cycle : Cont.(S1)
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 Service factor : 1.25
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THERMAL LIMIT CURVE



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Heating constant

Cooling constant

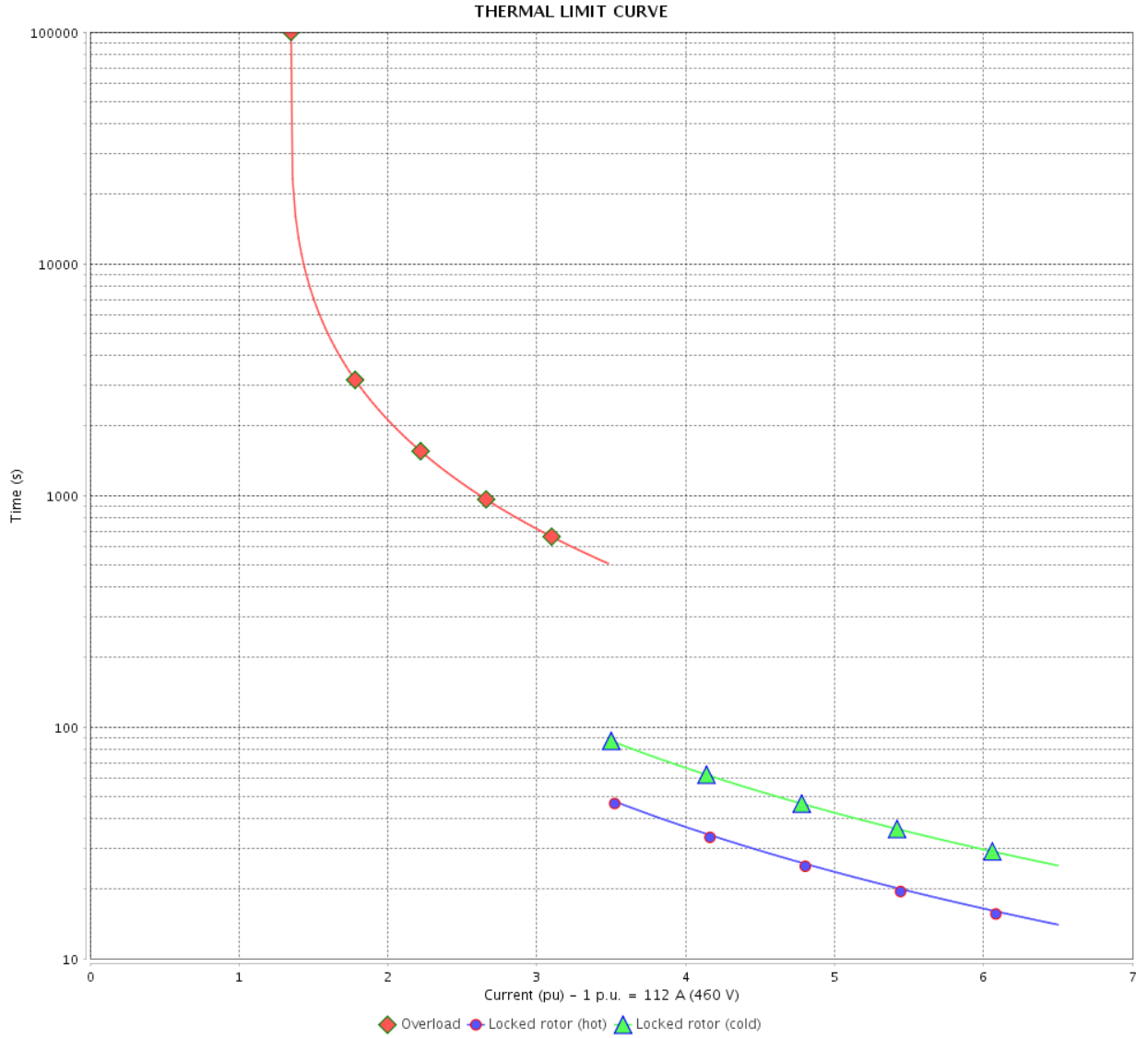
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

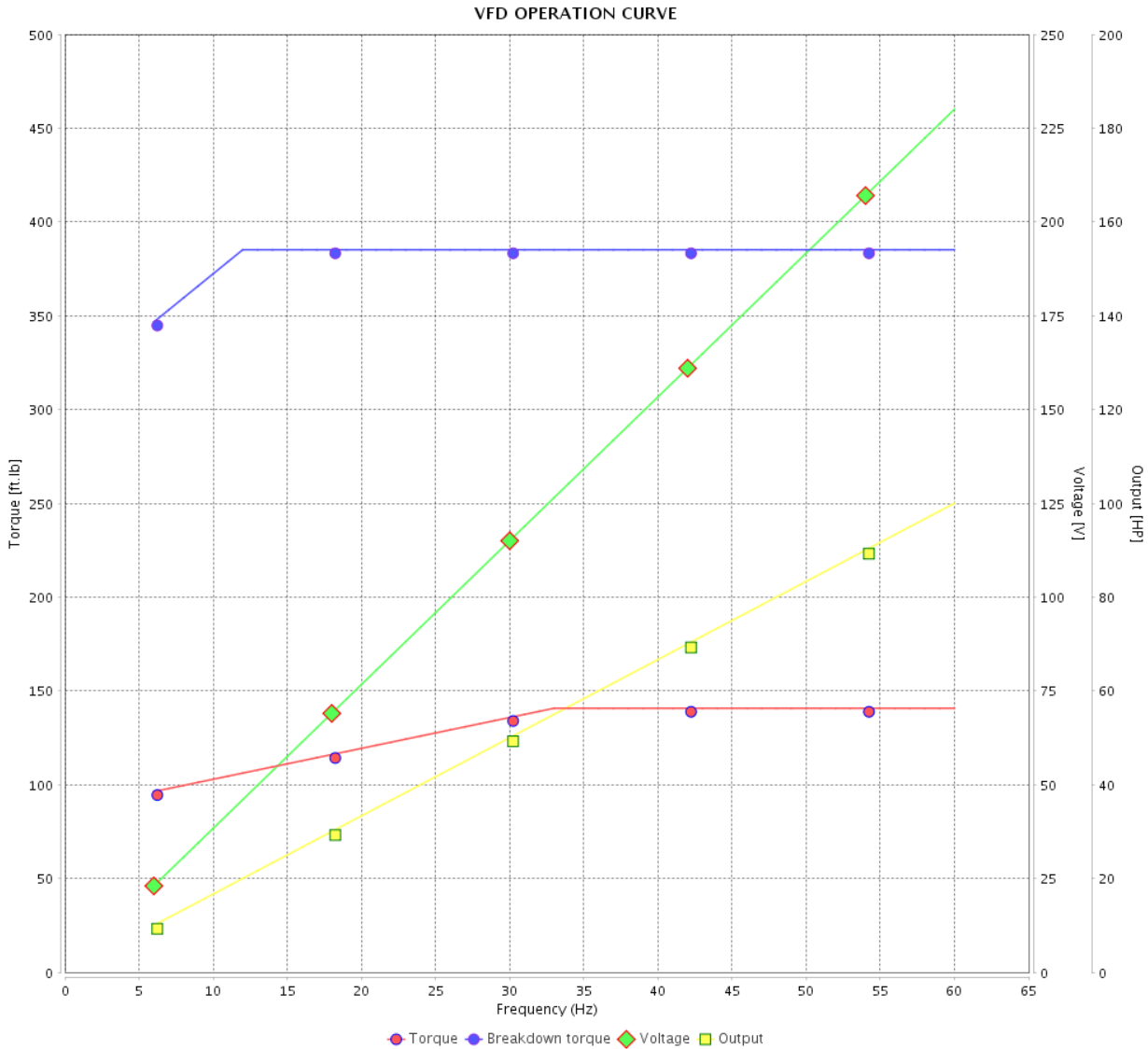


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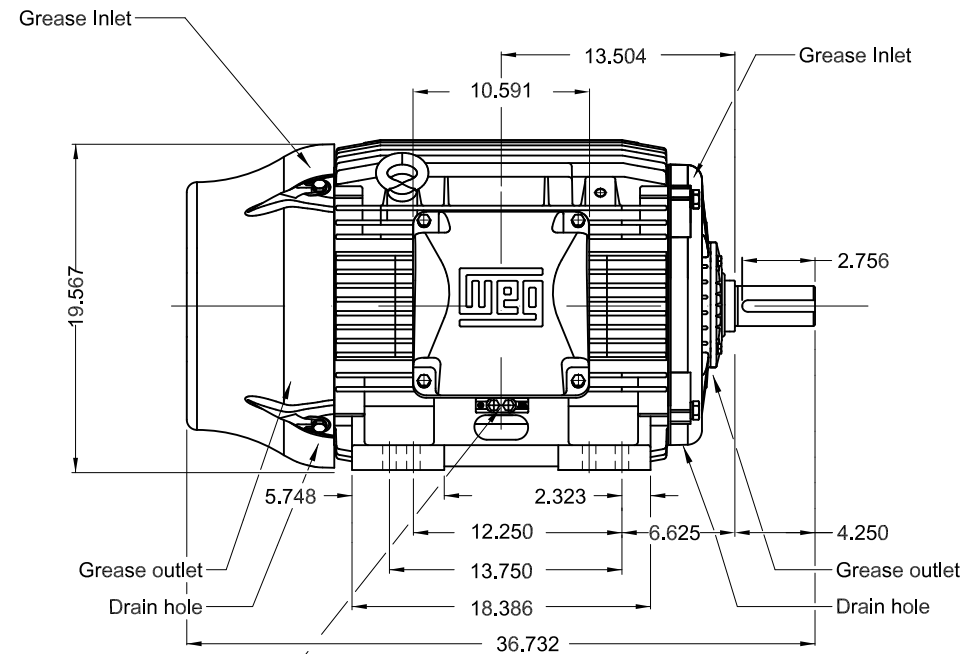
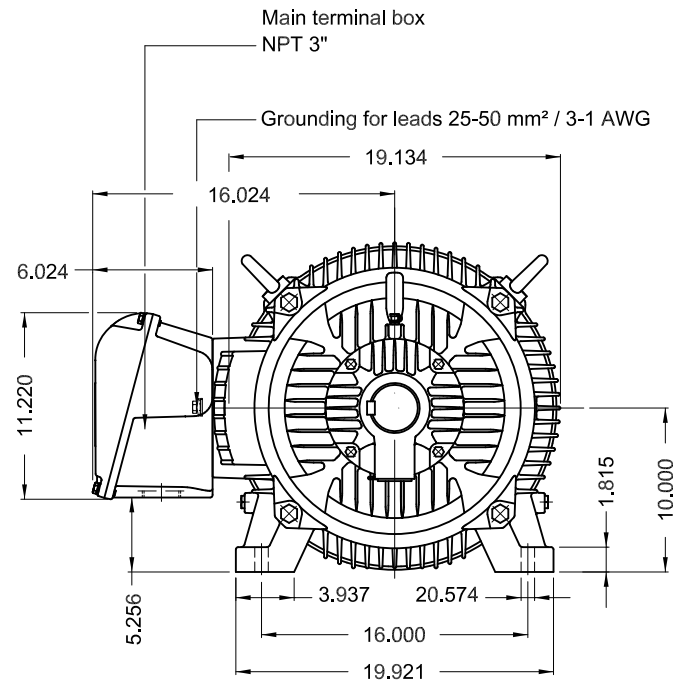
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1 2 3 4 5 6

A

B

C



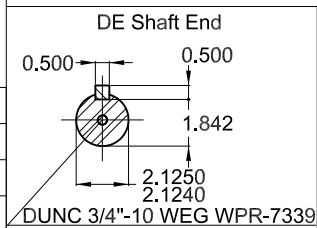
Grounding for leads 25-185 mm² / 3AWG-350MCM

D

E

100 HP 02 Poles 60 Hz A

Color RAL 5009
 Painting plan 203A
 Mounting NEMA F-1
 Mounting B3R(D)



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				

PREVIEW
 WDD



SHEET 1 / 1

Dimensions in inches

XME A3



FOR SAFE AREA
Mod.TE1BFOXON
CC029A



For use on 60Hz
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 10036ET3E405TS-W22

Inverter Duty Motor
Severe Duty

PH3 60Hz Fr. 404/5TS 1000m.a.s.l. IP55 TEFC 1106lb

V 230/460 A 224/112

HP 100 kW 75

SF 1.25 SFA 280/140

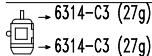
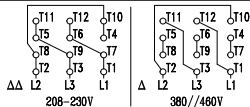
RPM 3545 PF 0.89

AMB 40°C INS cl. F DT80K NEMA NOM EFF 94.1%

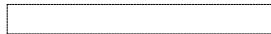
DUTY CONT. DES B Code G

USABLE @208V 243A SF 1.10 SFA 267

75HP 55kW 50Hz 380V 99.6A 2955RPM SF 1.00 EFF 94.3% (IE3)



MOBIL POLYREX EM (4000h)



MADE IN MEXICO
11165996