

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer	:				
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	11535533		
		Catalog # :	02018ET3H256TC-W22		
Frame	: 254/6TC	Locked rotor time	: 54s (cold) 30s (hot)		
Output	: 20 HP (15 kW)	Temperature rise	: 80 K		
Poles	: 4	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	: 19.3 A	Protection degree	: IP55		
L. R. Amperes	: 133 A	Cooling method	: IC411 - TEFC		
LRC	: 6.9x(Code H)	Mounting	: F-1		
No load current	: 7.68 A	Rotation ¹	: Both (CW and CCW)		
Rated speed	: 1770 rpm	Noise level ²	: 64.0 dB(A)		
Slip	: 1.67 %	Starting method	: Direct On Line		
Rated torque	: 59.3 ft.lb	Approx. weight ³	: 339 lb		
Locked rotor torque	: 240 %				
Breakdown torque	: 260 %				
Insulation class	: F				
Service factor	: 1.25				
Moment of inertia (J)	: 3.10 sq.ft.lb				
Design	: B				
Output	50%	75%	100%	Foundation loads	
Efficiency (%)	91.7	92.4	93.0	Max. traction	
Power Factor	0.68	0.79	0.84	Max. compression	
				: 570 lb	
				: 909 lb	
		<u>Drive end</u>	<u>Non drive end</u>		
Bearing type	:	6309 C3	6209 C3		
Sealing	:	V'Ring	V'Ring		
Lubrication interval	:	20000 h	20000 h		
Lubricant amount	:	13 g	9 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



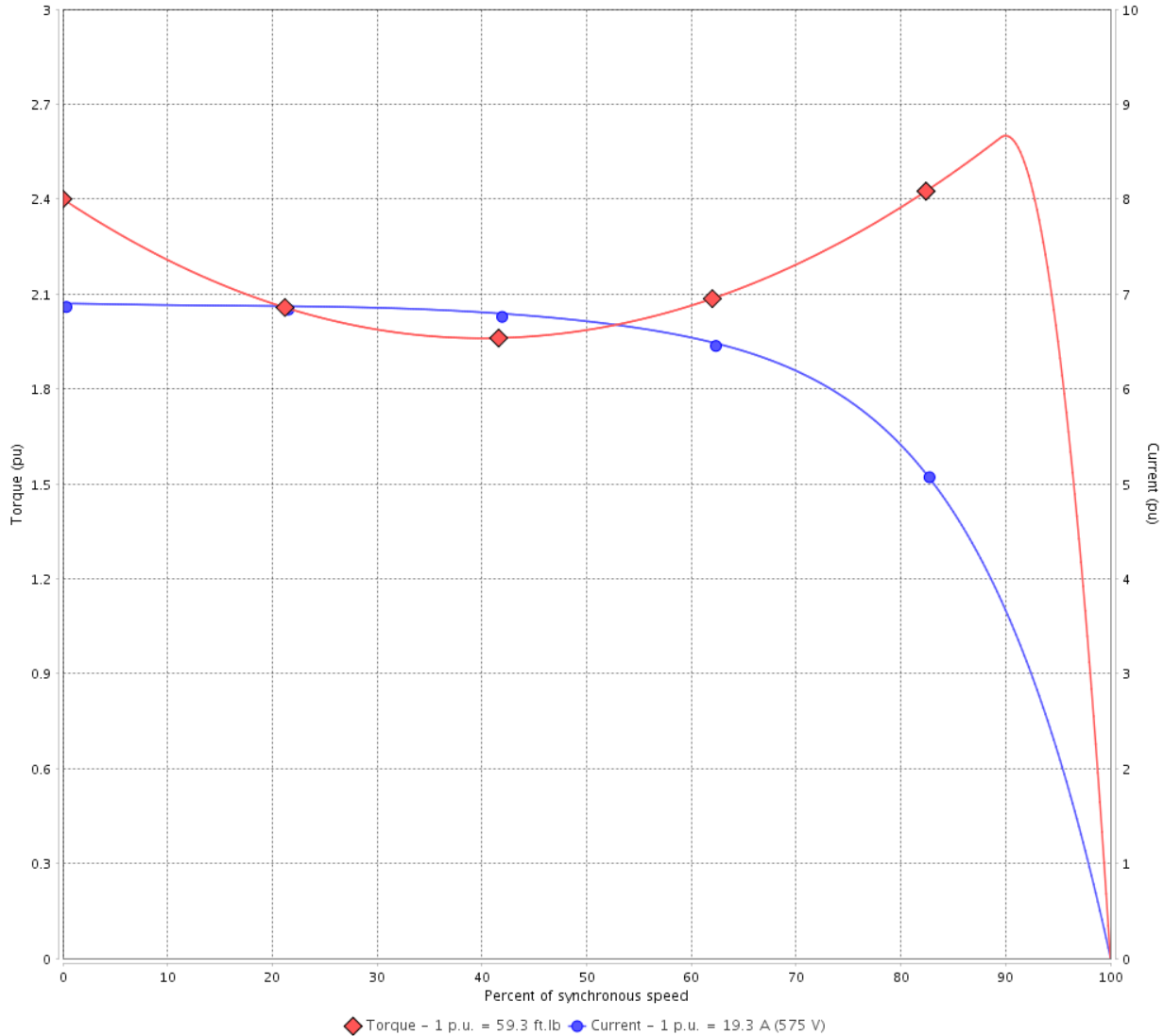
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11535533

Catalog # : 02018ET3H256TC-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 4P

Rated current	: 19.3 A	Moment of inertia (J)	: 3.10 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 59.3 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: B

Locked rotor time : 54s (cold) 30s (hot)

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Checked by				
Date	14/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

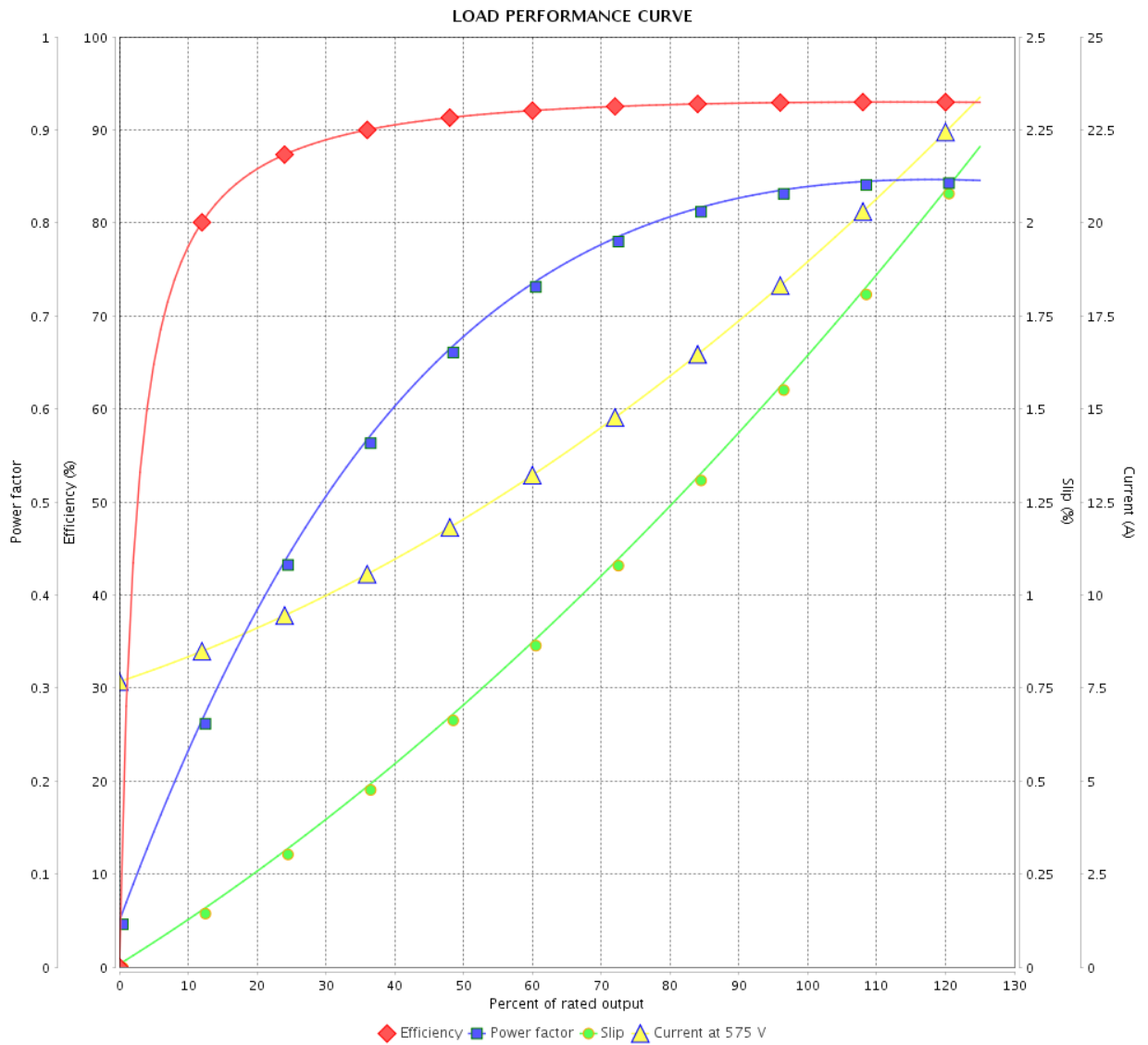


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Performance : 575 V 60 Hz 4P

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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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THERMAL LIMIT CURVE

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Rated torque	: 59.3 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
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Rated speed	: 1770 rpm	Design	: B

Heating constant

Cooling constant

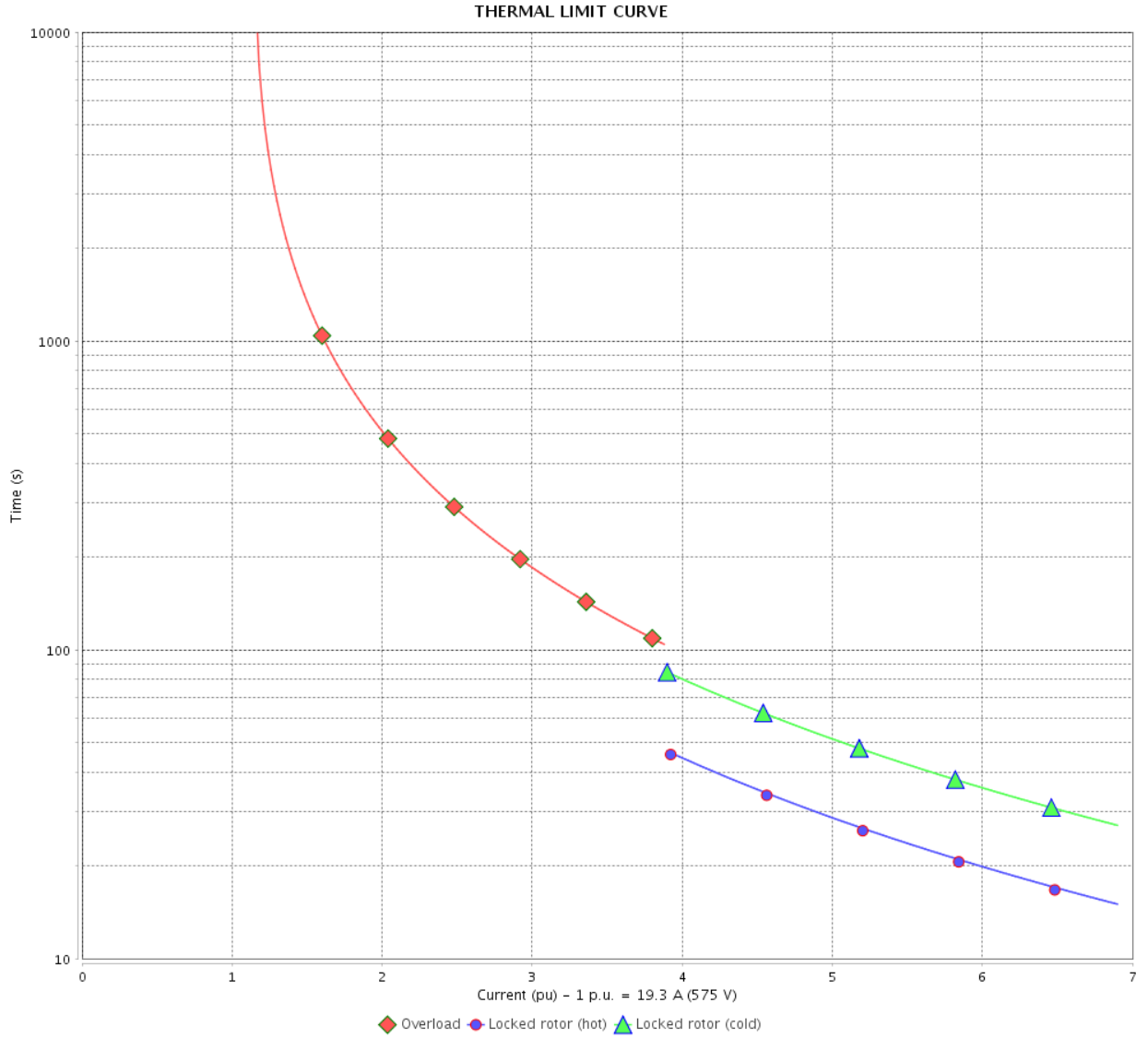
Rev.	Changes Summary	Performed	Checked	Date
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



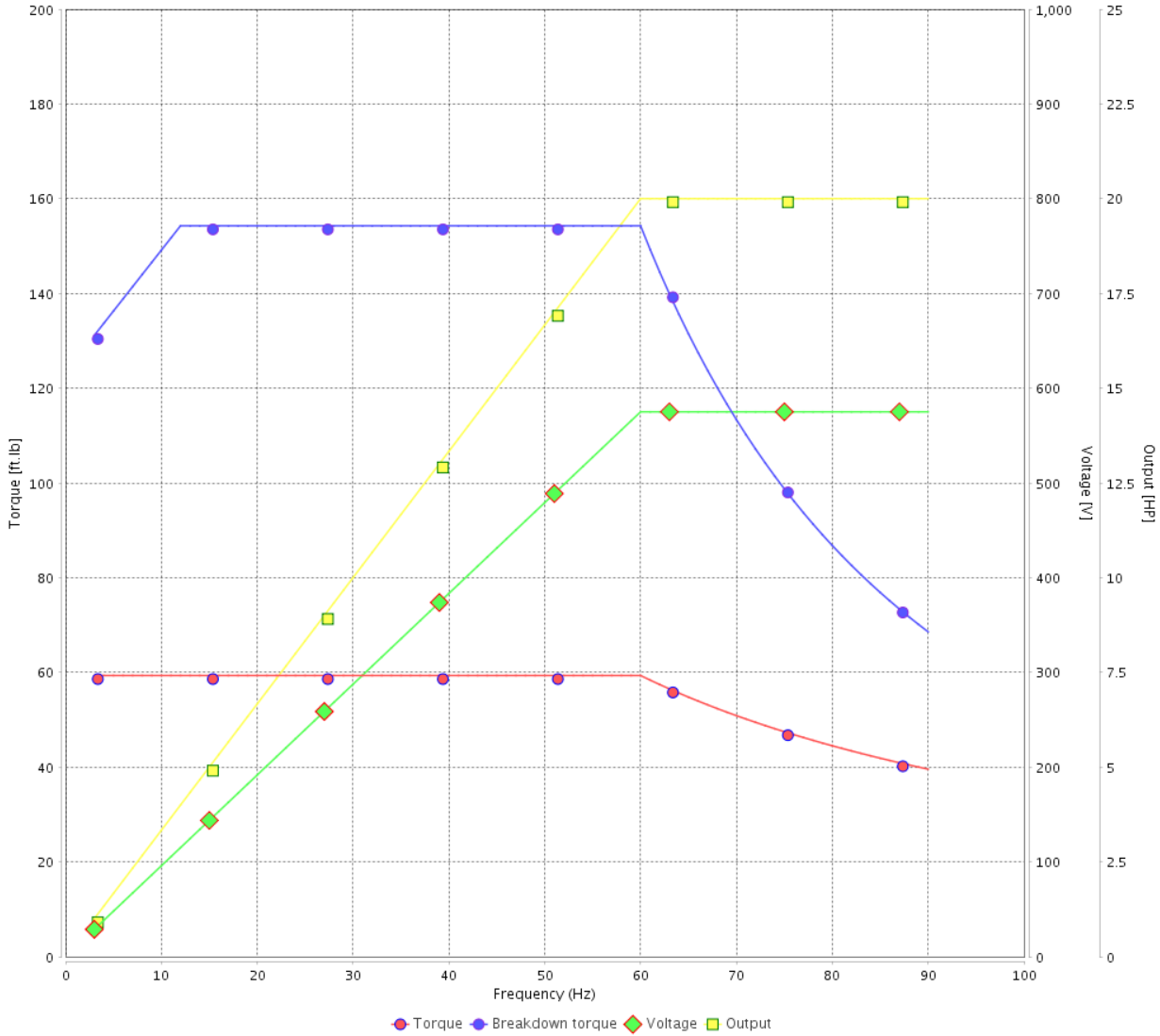
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VFD OPERATION CURVE



Performance : 575 V 60 Hz 4P

Rated current : 19.3 A
 LRC : 6.9
 Rated torque : 59.3 ft.lb
 Locked rotor torque : 240 %
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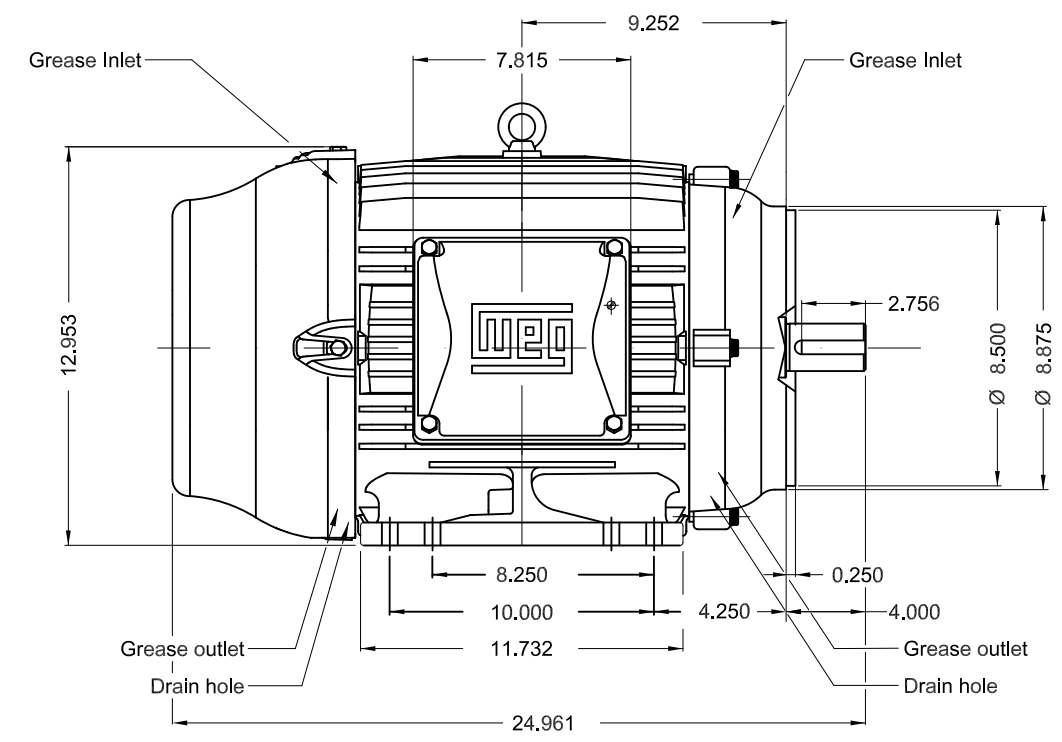
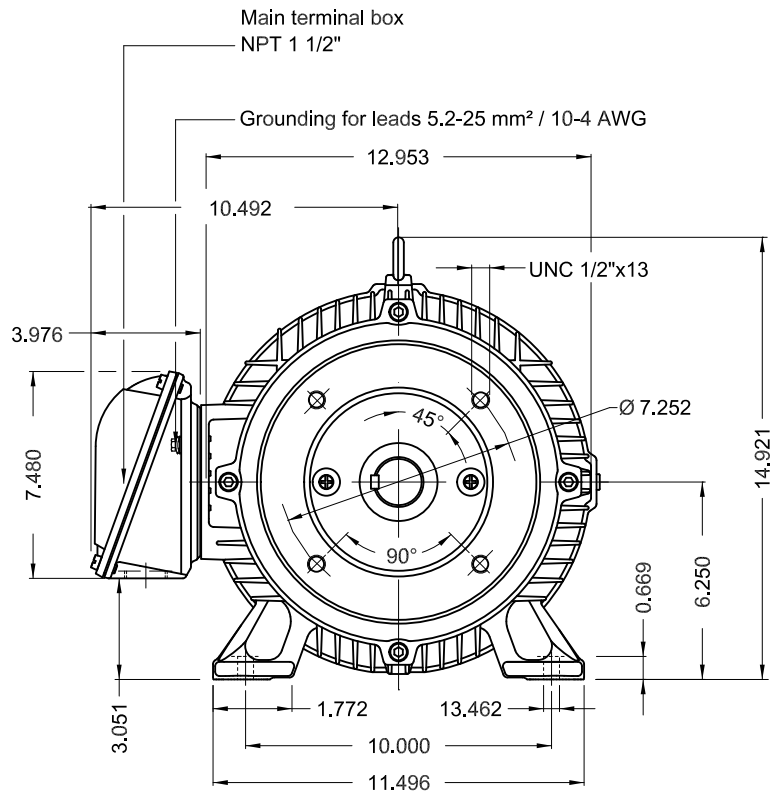
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1 2 3 4 5 6

A

B

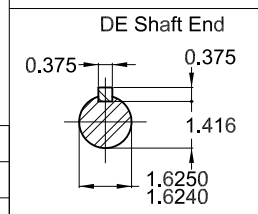
C



D

E

Color RAL 5009
 Painting plan 203A
 Mounting B34R(D)



20 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 254/6TC 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

CT020504NPW22

Inverter Duty Motor
Severe Duty

PH3 60Hz Fr. 254/6TC 1000m.a.s.l. IP55 TEFC 341lb

V 575

A 19.3

HP 20

kW 15

SF 1.25

SFA 24.1

RPM 1770

PF 0.84

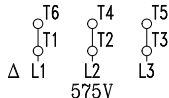
AMB 40°C

INS cl. F DT80K

NEMA NOM EFF 93.0%

DUTY CONT.

DES B Code H



→ 6309-C3 (13g)

→ 6209-C3 (9g)



MOBIL POLYREX EM (20000h)



MADE IN BRAZIL
11535533