

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :																			
Product line	: NEMA Premium Efficiency Three-Phase																		
Product code :	12744730																		
Catalog # :	00709ET3H256T-W22																		
Frame : 254/6T Output : 7.5 HP (5.5 kW) Poles : 8 Frequency : 60 Hz Rated voltage : 575 V Rated current : 8.88 A L. R. Amperes : 47.1 A LRC : 5.3x(Code G) No load current : 5.20 A Rated speed : 880 rpm Slip : 2.22 % Rated torque : 44.8 ft.lb Locked rotor torque : 200 % Breakdown torque : 250 % Insulation class : F Service factor : 1.25 Moment of inertia (J) : 4.43 sq.ft.lb Design : B	Locked rotor time : 59s (cold) 33s (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 <sup>1</sup> : Both (CW and CCW) Noise level <sup>2</sup> : 54.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 293 lb																		
Output	25%    50%    75%    100%																		
Efficiency (%)	85.2    85.5    87.5    87.5																		
Power Factor	0.29    0.50    0.63    0.71																		
Foundation loads																			
Max. traction : 390 lb																			
Max. compression : 683 lb																			
	<table border="0" style="width:100%;"> <tr> <td style="width: 50%;"></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;">6309 C3</td> <td style="text-align: center;">6209 C3</td> </tr> <tr> <td>Sealing :</td> <td style="text-align: center;">V'Ring</td> <td style="text-align: center;">V'Ring</td> </tr> <tr> <td>Lubrication interval :</td> <td style="text-align: center;">20000 h</td> <td style="text-align: center;">20000 h</td> </tr> <tr> <td>Lubricant amount :</td> <td style="text-align: center;">13 g</td> <td style="text-align: center;">9 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 :	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	
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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



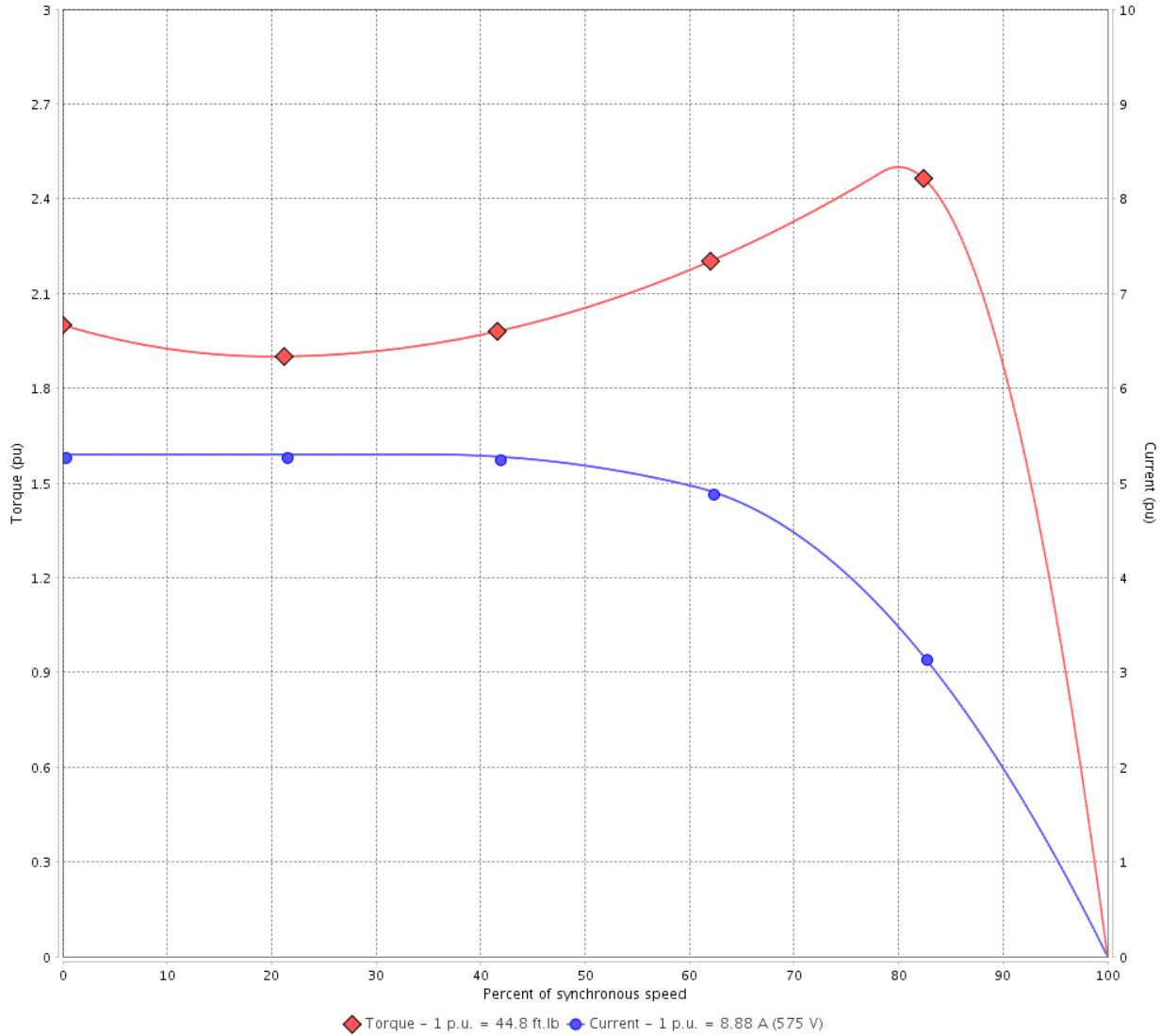
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12744730

Catalog # : 00709ET3H256T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 8P

Rated current	: 8.88 A	Moment of inertia (J)	: 4.43 sq.ft.lb
LRC	: 5.3	Duty cycle	: Cont.(S1)
Rated torque	: 44.8 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 880 rpm	Design	: B

Locked rotor time : 59s (cold) 33s (hot)

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Date	12/04/2022			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

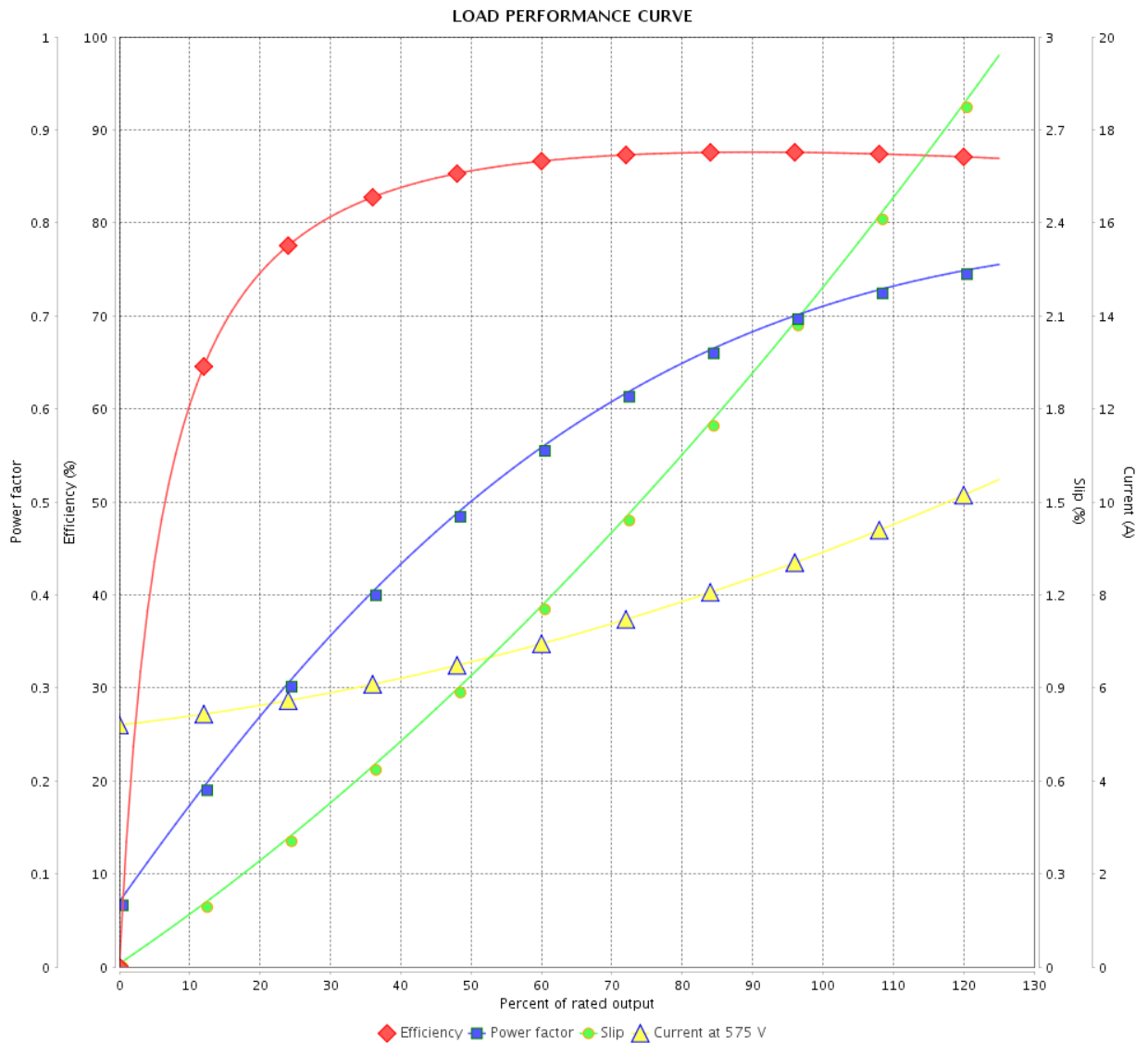


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12744730

Catalog # : 00709ET3H256T-W22



Performance : 575 V 60 Hz 8P

Rated current : 8.88 A  
 LRC : 5.3  
 Rated torque : 44.8 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 250 %  
 Rated speed : 880 rpm

Moment of inertia (J) : 4.43 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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Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 880 rpm	Design	: B

Heating constant

Cooling constant

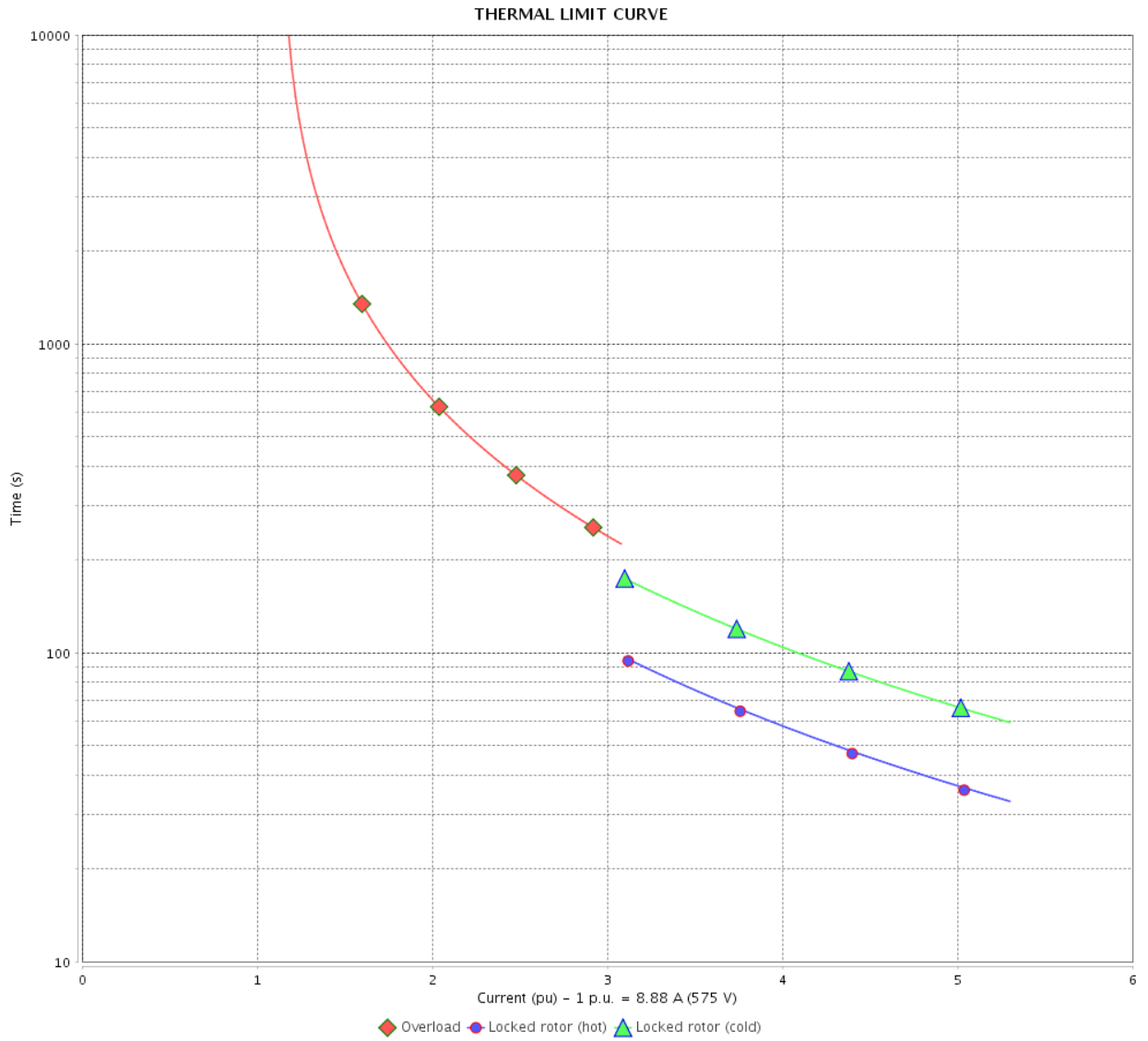
Rev.	Changes Summary	Performed	Checked	Date
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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



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



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



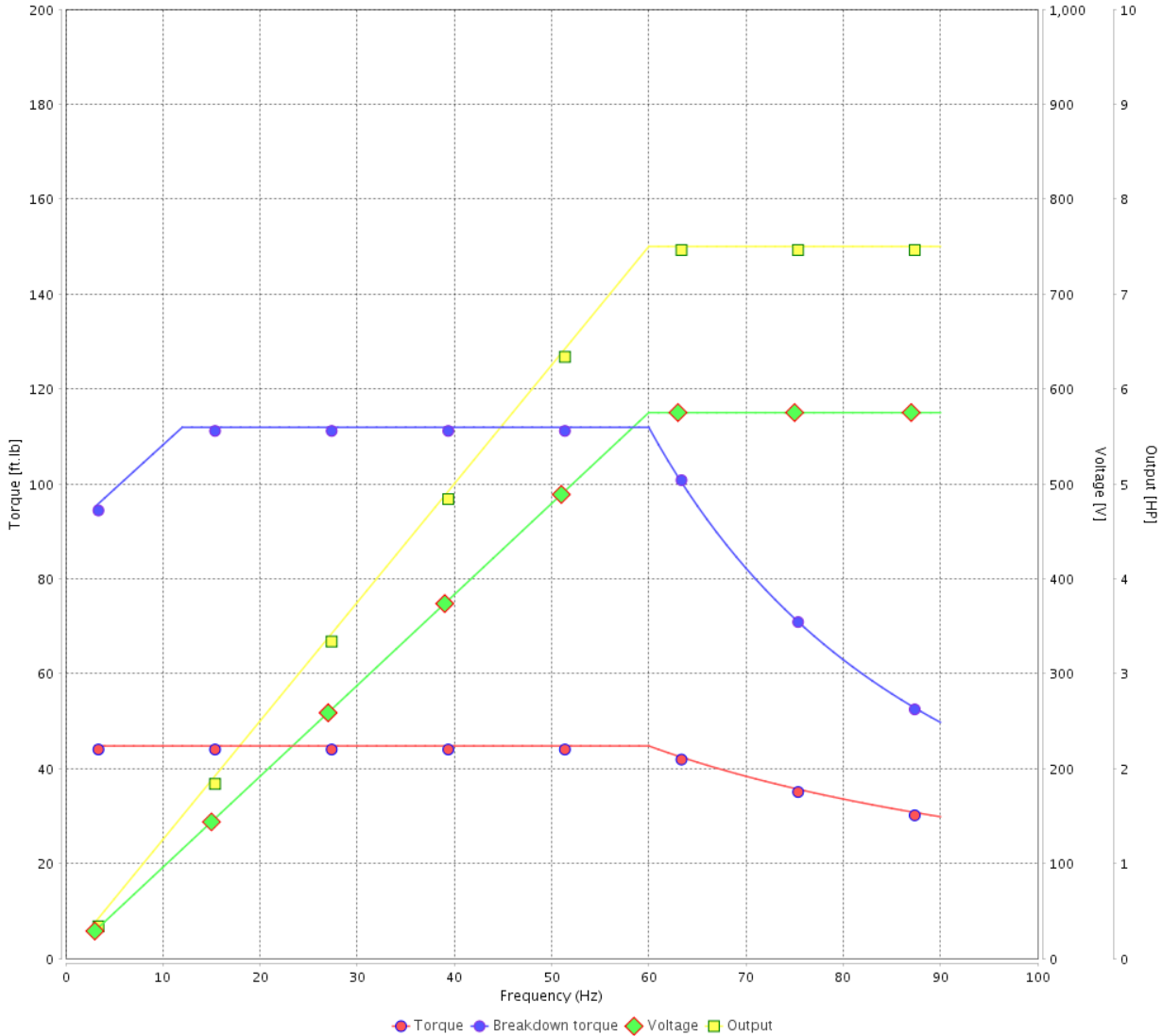
Customer :

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Product code : 12744730

Catalog # : 00709ET3H256T-W22

VFD OPERATION CURVE



Performance : 575 V 60 Hz 8P

Rated current : 8.88 A  
 LRC : 5.3  
 Rated torque : 44.8 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 250 %  
 Rated speed : 880 rpm

Moment of inertia (J) : 4.43 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

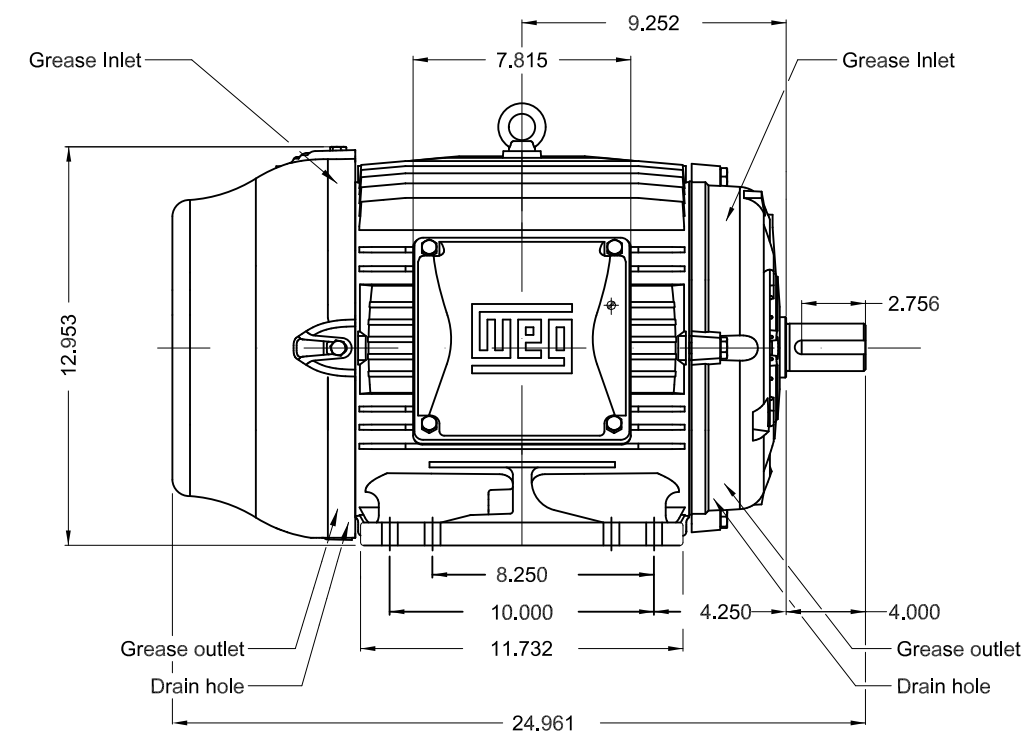
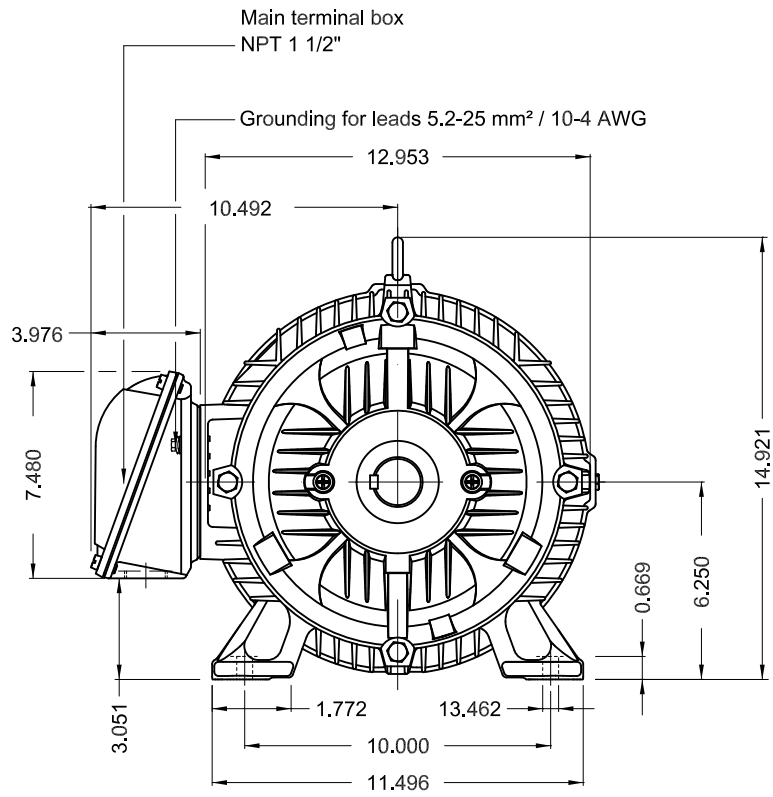
Rev.	Changes Summary	Performed	Checked	Date
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Date	12/04/2022			

1 2 3 4 5 6

A

B

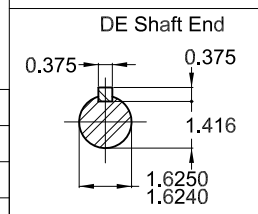
C



D

E

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



7.5 HP 08 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W22 PREM. EFF.					
CHECKED		FRAME 254/6T 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

HT007508NPW22

Inverter Duty Motor  
Severe Duty

PH3 60Hz Fr. 254/6T 1000m.a.s.l. IP55 TEFC 293lb

V 575

A 8.88

HP 7.5

kW 5.5

SF 1.25

SFA 11.1

RPM 880

PF 0.71

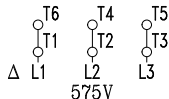
AMB 40°C

INS cl. F DT80K

NEMA NOM EFF 87.5%

DUTY CONT.

DES B Code G



→ 6309-C3 (13g)

→ 6209-C3 (9g)



MOBIL POLYREX EM (20000h)



MADE IN BRAZIL  
12744730