

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :																			
Product line	: NEMA Premium Efficiency Three-Phase																		
Product code :	12445723																		
Catalog # :	00312ET3H213T-W22																		
Frame : 213/5T Output : 3 HP (2.2 kW) Poles : 6 Frequency : 60 Hz Rated voltage : 575 V Rated current : 3.53 A L. R. Amperes : 24.7 A LRC : 7.0x(Code K) No load current : 2.20 A Rated speed : 1175 rpm Slip : 2.08 % Rated torque : 13.4 ft.lb Locked rotor torque : 200 % Breakdown torque : 280 % Insulation class : F Service factor : 1.25 Moment of inertia (J) : 1.20 sq.ft.lb Design : B	Locked rotor time : 104s (cold) 58s (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> : 55.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 155 lb																		
Output	25%    50%    75%    100%																		
Efficiency (%)	85.4    86.5    88.5    89.5																		
Power Factor	0.28    0.50    0.63    0.70																		
Foundation loads																			
Max. traction	: 134 lb																		
Max. compression	: 289 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>: 6308 ZZ</td> <td>6207 ZZ</td> </tr> <tr> <td>Sealing</td> <td>: V'Ring</td> <td>V'Ring</td> </tr> <tr> <td>Lubrication interval</td> <td>: -</td> <td>-</td> </tr> <tr> <td>Lubricant amount</td> <td>: -</td> <td>-</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	: 6308 ZZ	6207 ZZ	Sealing	: V'Ring	V'Ring	Lubrication interval	: -	-	Lubricant amount	: -	-	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															
Date	14/04/2022		1 / 6																

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



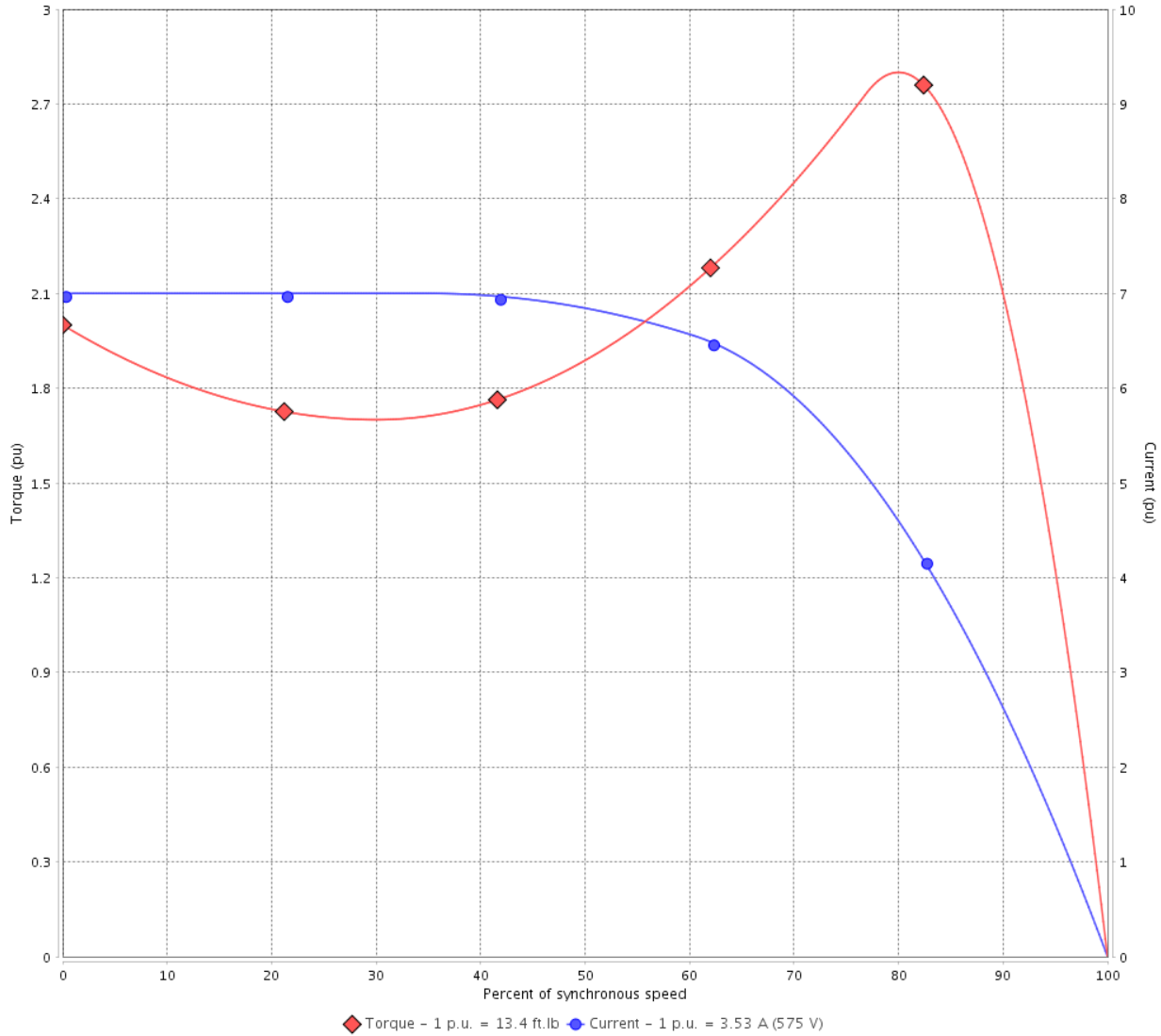
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12445723

Catalog # : 00312ET3H213T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 6P

Rated current	: 3.53 A	Moment of inertia (J)	: 1.20 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 13.4 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1175 rpm	Design	: B

Locked rotor time : 104s (cold) 58s (hot)

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Date	14/04/2022			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

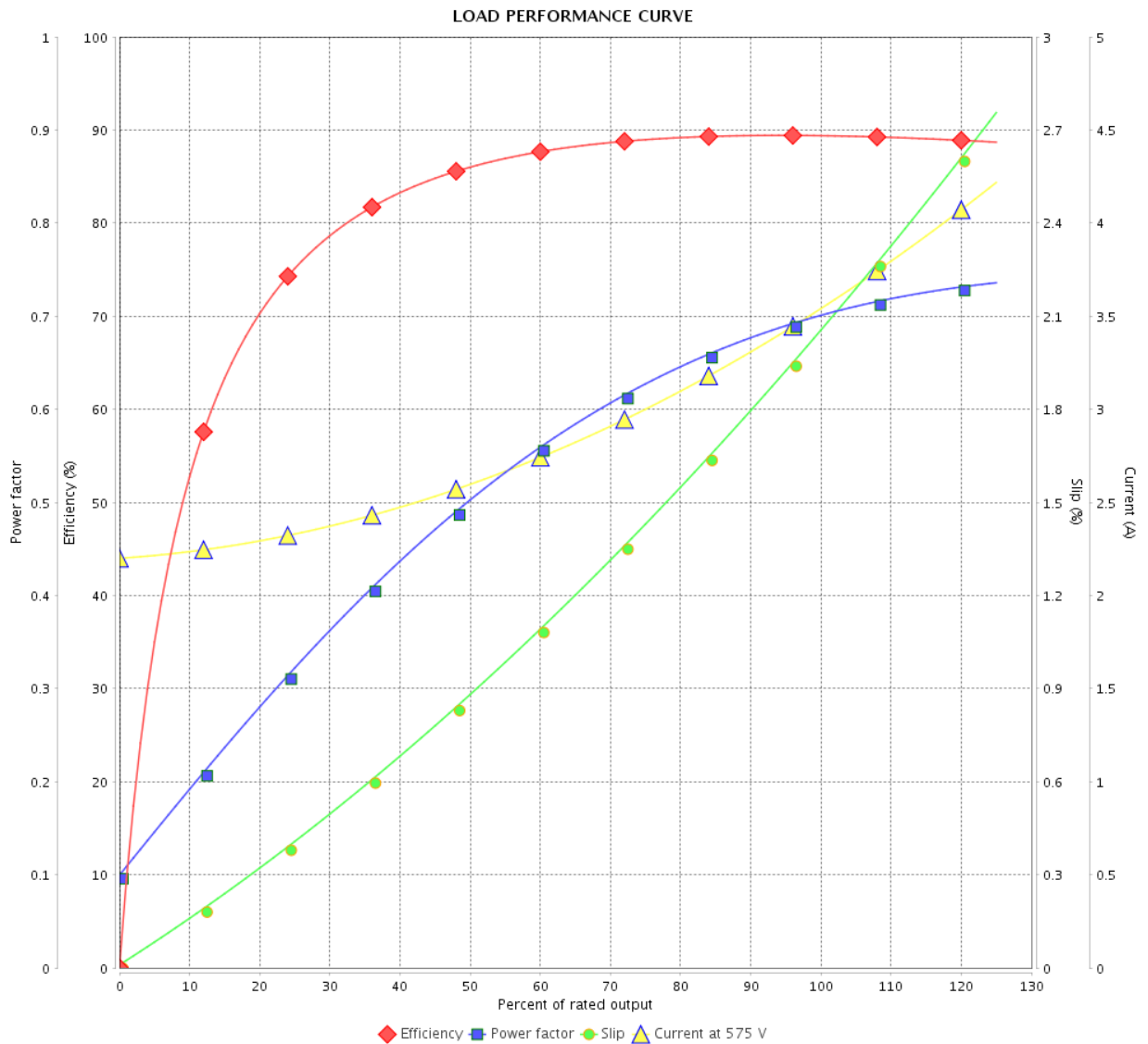


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12445723

Catalog # : 00312ET3H213T-W22



Performance : 575 V 60 Hz 6P

Rated current : 3.53 A  
 LRC : 7.0  
 Rated torque : 13.4 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 280 %  
 Rated speed : 1175 rpm

Moment of inertia (J) : 1.20 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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Heating constant

Cooling constant

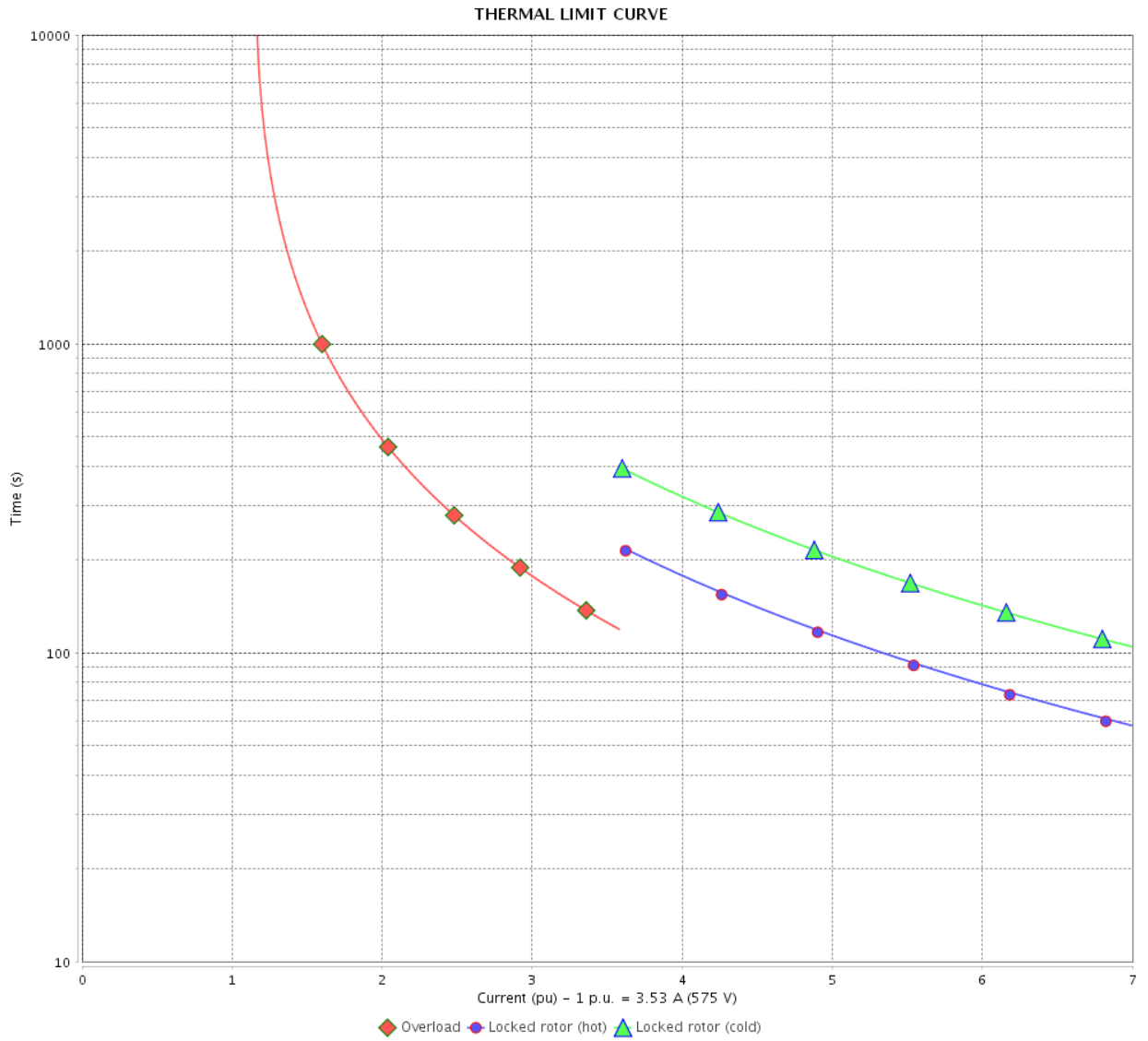
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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Date				

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

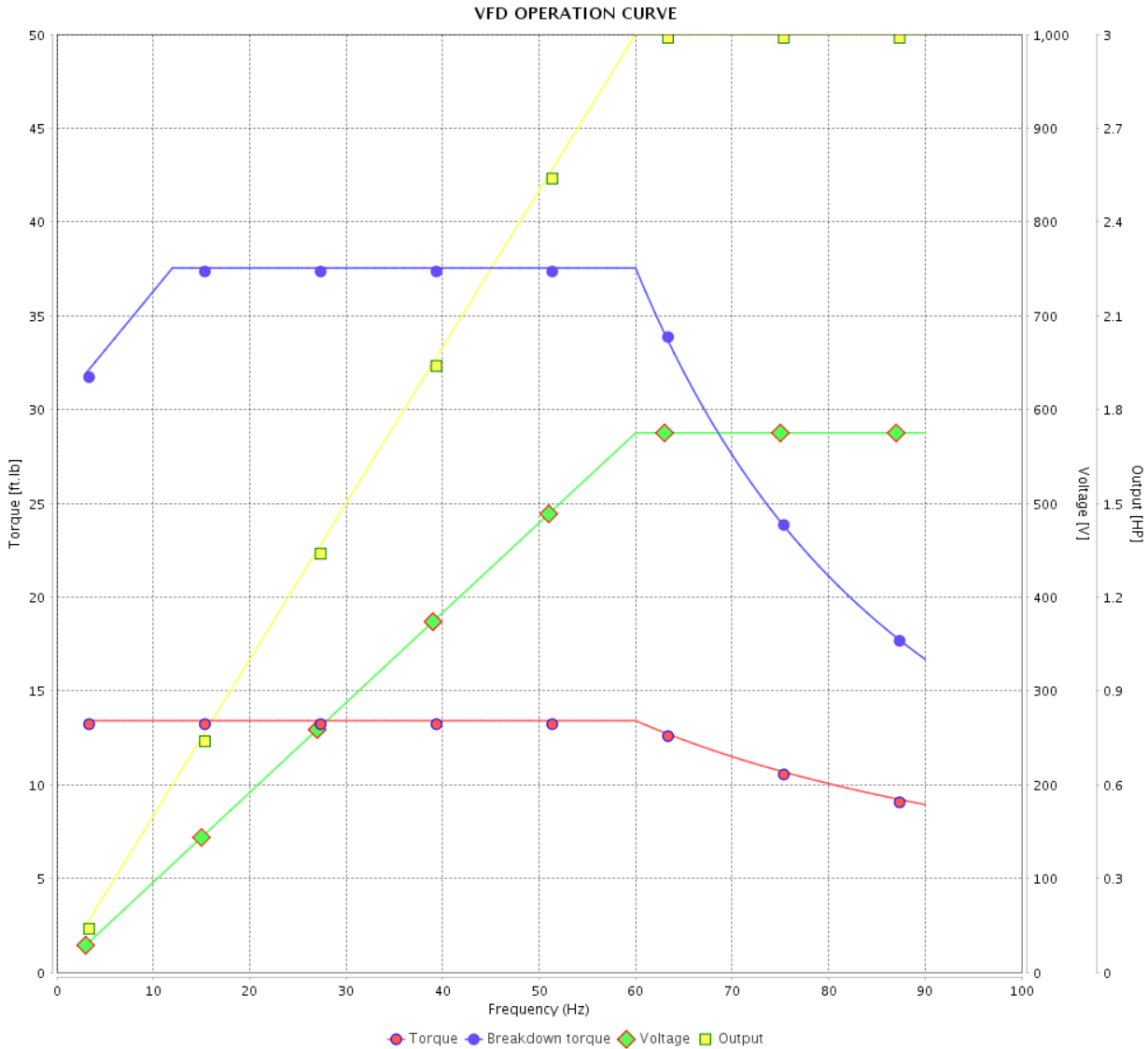


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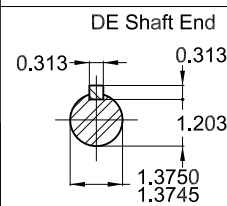
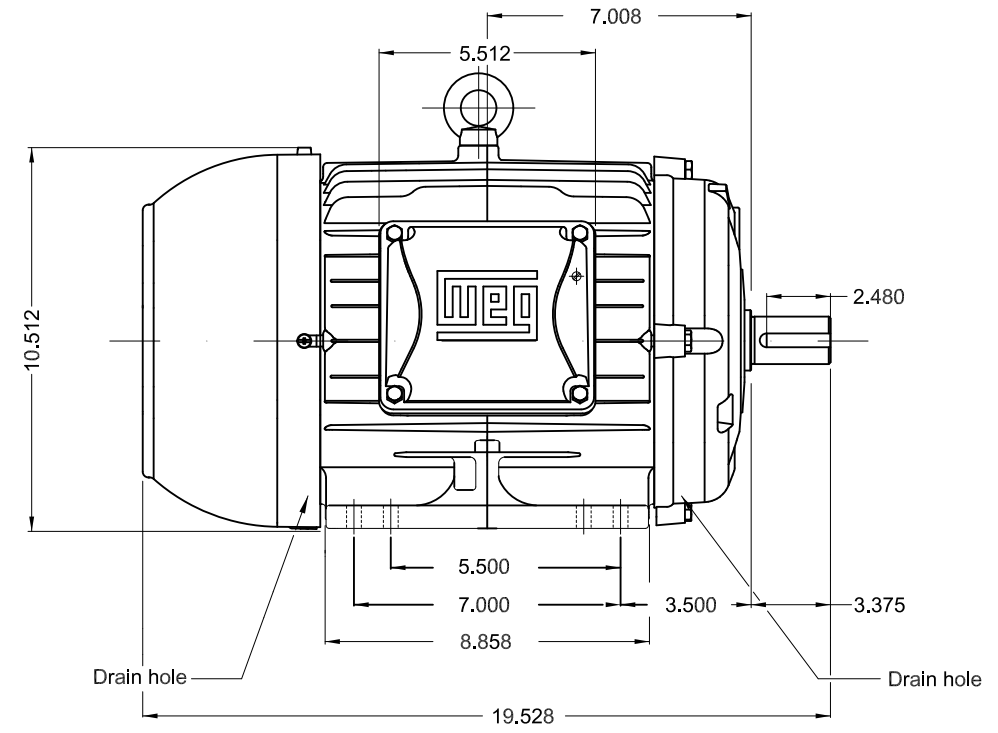
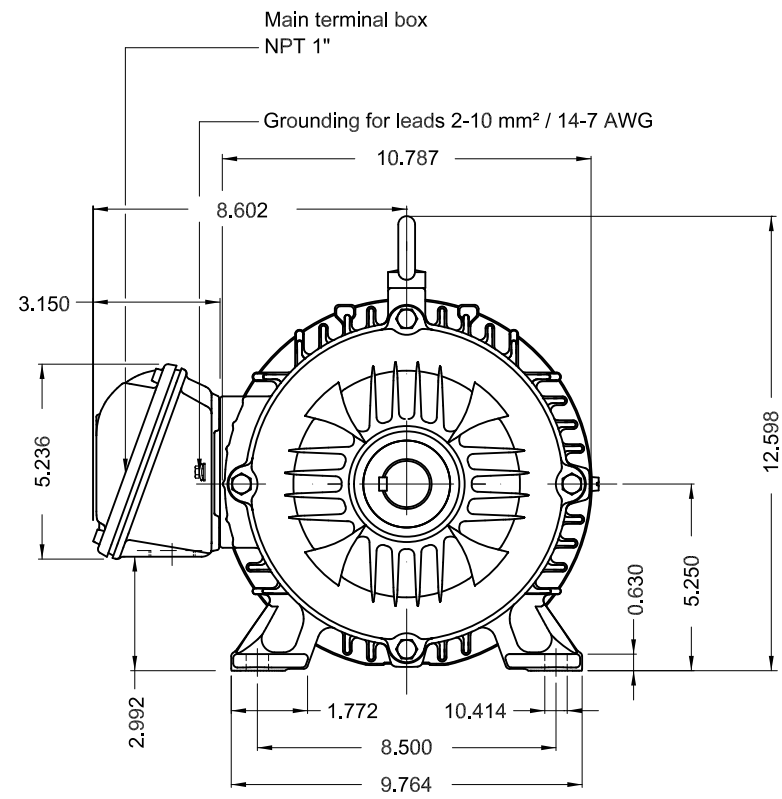


Performance : 575 V 60 Hz 6P

Rated current : 3.53 A  
 LRC : 7.0  
 Rated torque : 13.4 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 280 %  
 Rated speed : 1175 rpm

Moment of inertia (J) : 1.20 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

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Color RAL 5009  
 Painting plan 207A  
 Mounting B3R(D)

3 HP 06 Poles 60 Hz

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W22 PREM. EFF.					
CHECKED		FRAME 213/5T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

**PREVIEW**  
 WDD



MADE IN BRAZIL  
12445723



W22

HT003506NPW22

Inverter Duty Motor  
Severe Duty



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



FOR SAFE AREA  
Mod. TE1BFOXON  
CC029A

PH3 60Hz Fr. 213/5T 1000m.a.s.l. IP55 TEFC 155lb

V 575

A 3.53

HP 3.0

kW 2.2

SF 1.25

SFA 4.41

RPM 1175

PF 0.70

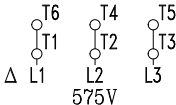
AMB 40°C

INS cl. F DT80K

NEMA NOM EFF 89.5%

DUTY CONT.

DES B Code K



MOBIL POLYREX EM