

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :																			
Product line	: NEMA Premium Efficiency Three-Phase																		
Product code :	12445707																		
Catalog # :	00156ET3H143TC-W22																		
Frame : 143/5TC Output : 1.5 HP (1.1 kW) Poles : 2 Frequency : 60 Hz Rated voltage : 575 V Rated current : 1.57 A L. R. Amperes : 14.0 A LRC : 8.9x(Code L) No load current : 0.664 A Rated speed : 3480 rpm Slip : 3.33 % Rated torque : 2.26 ft.lb Locked rotor torque : 310 % Breakdown torque : 370 % Insulation class : F Service factor : 1.25 Moment of inertia (J) : 0.0470 sq.ft.lb Design : B	Locked rotor time : 37s (cold) 21s (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> : 68.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 46.2 lb																		
Output	25%    50%    75%    100%																		
Efficiency (%)	81.1    81.5    84.0    84.0																		
Power Factor	0.43    0.68    0.78    0.84																		
Foundation loads																			
Max. traction : 49 lb																			
Max. compression : 96 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 style="text-align: center;">6205 ZZ</td> <td style="text-align: center;">6204 ZZ</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;">-</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Lubricant amount :</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</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 :	6205 ZZ	6204 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	12/04/2022		1 / 6																

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



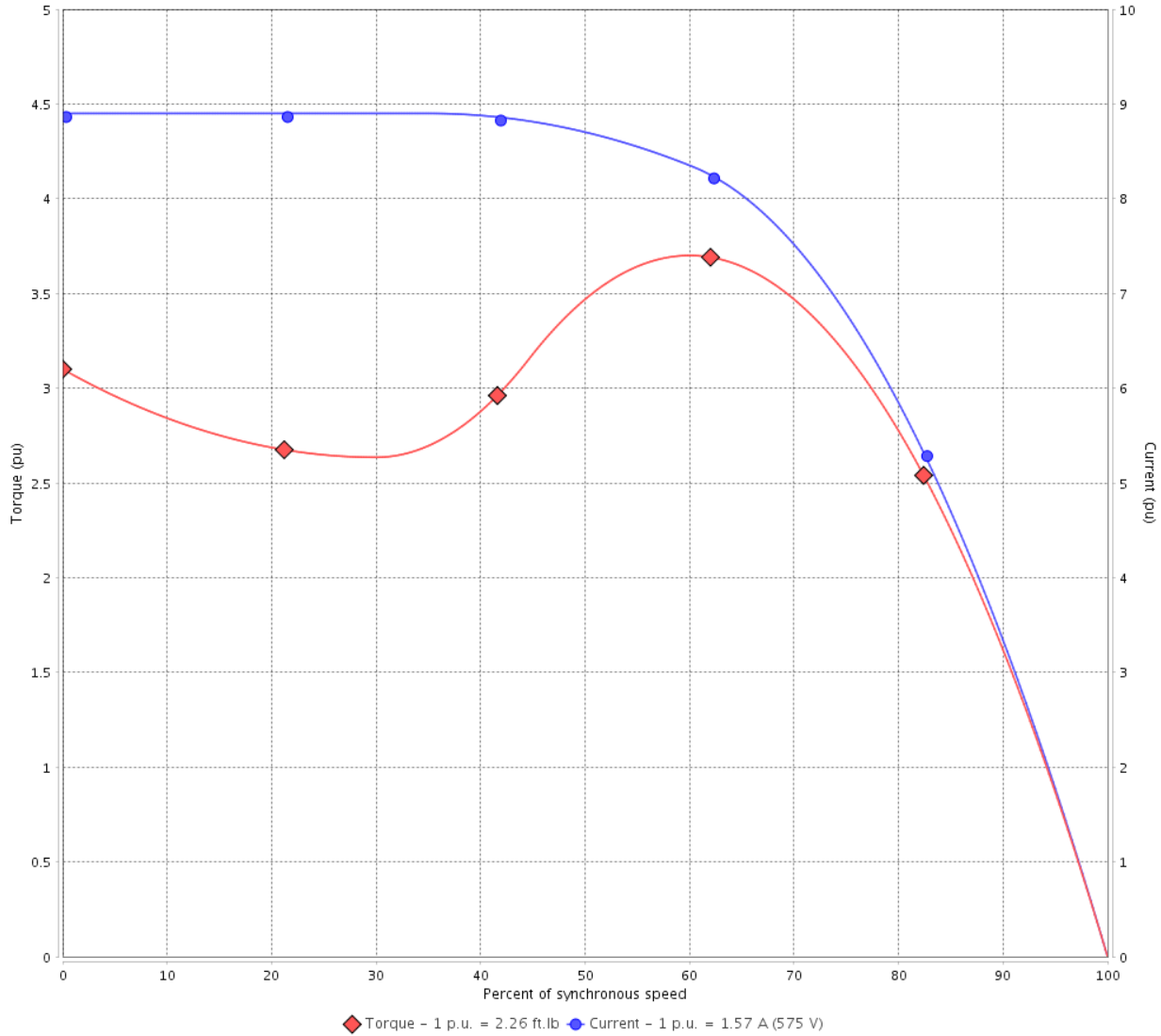
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12445707

Catalog # : 00156ET3H143TC-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 2P

Rated current	: 1.57 A	Moment of inertia (J)	: 0.0470 sq.ft.lb
LRC	: 8.9	Duty cycle	: Cont.(S1)
Rated torque	: 2.26 ft.lb	Insulation class	: F
Locked rotor torque	: 310 %	Service factor	: 1.25
Breakdown torque	: 370 %	Temperature rise	: 80 K
Rated speed	: 3480 rpm	Design	: B

Locked rotor time : 37s (cold) 21s (hot)

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Date	12/04/2022			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

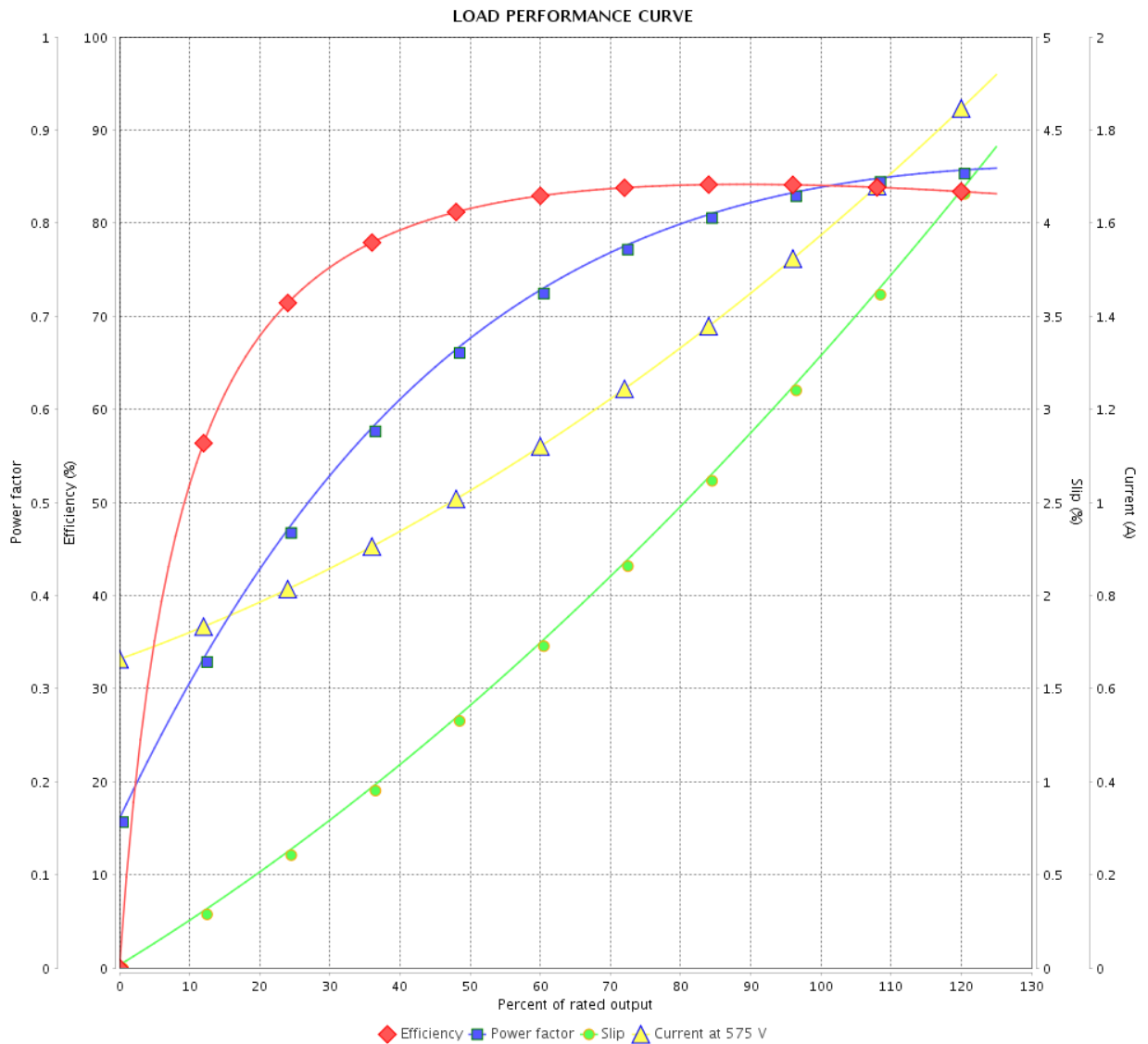


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12445707

Catalog # : 00156ET3H143TC-W22



Performance : 575 V 60 Hz 2P

Rated current : 1.57 A  
 LRC : 8.9  
 Rated torque : 2.26 ft.lb  
 Locked rotor torque : 310 %  
 Breakdown torque : 370 %  
 Rated speed : 3480 rpm

Moment of inertia (J) : 0.0470 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 : 12445707  
 Catalog # : 00156ET3H143TC-W22

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Rated speed : 3480 rpm	Design : B

Heating constant

Cooling constant

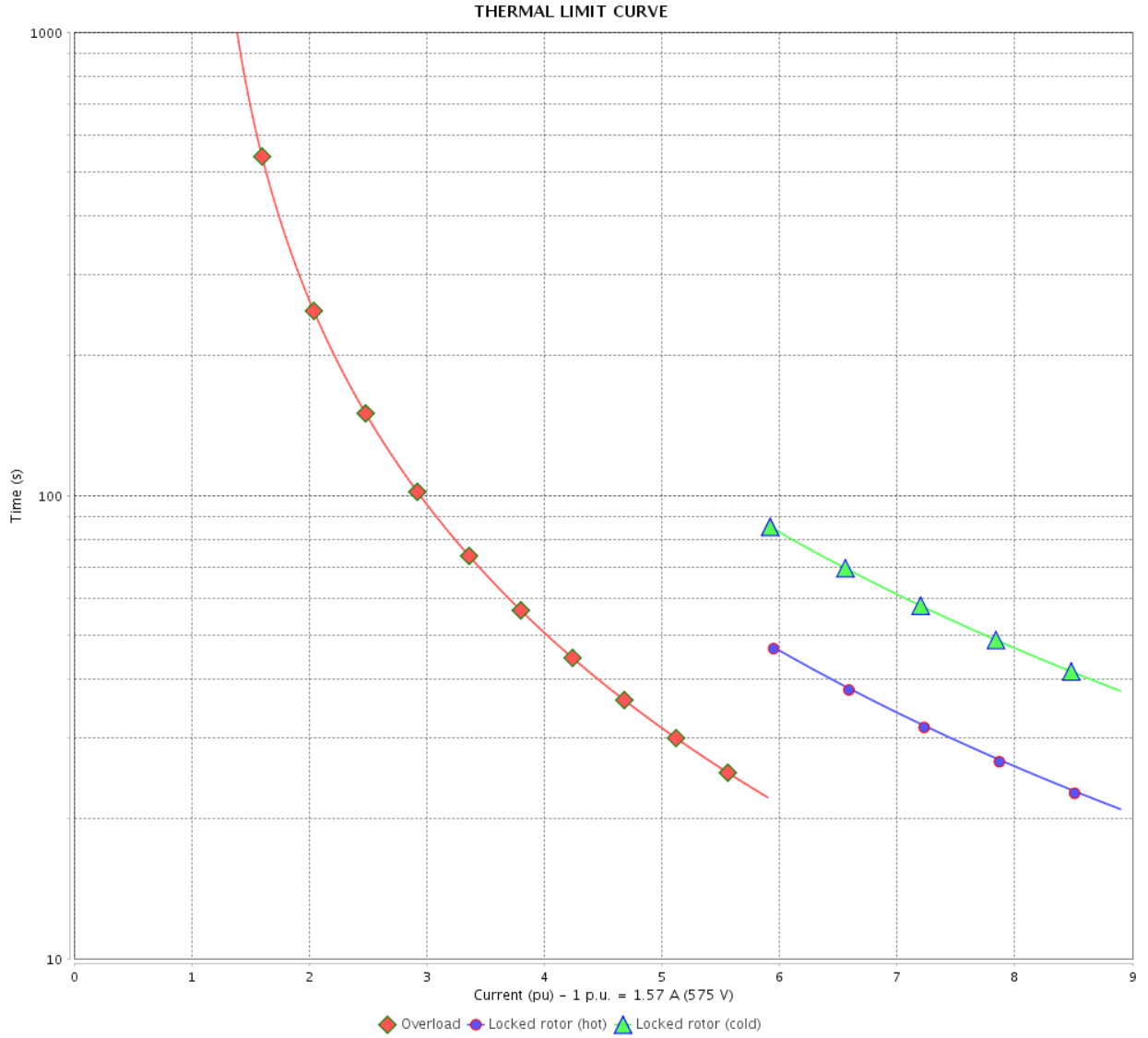
Rev.	Changes Summary	Performed	Checked	Date
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Date	12/04/2022			

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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Date				

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



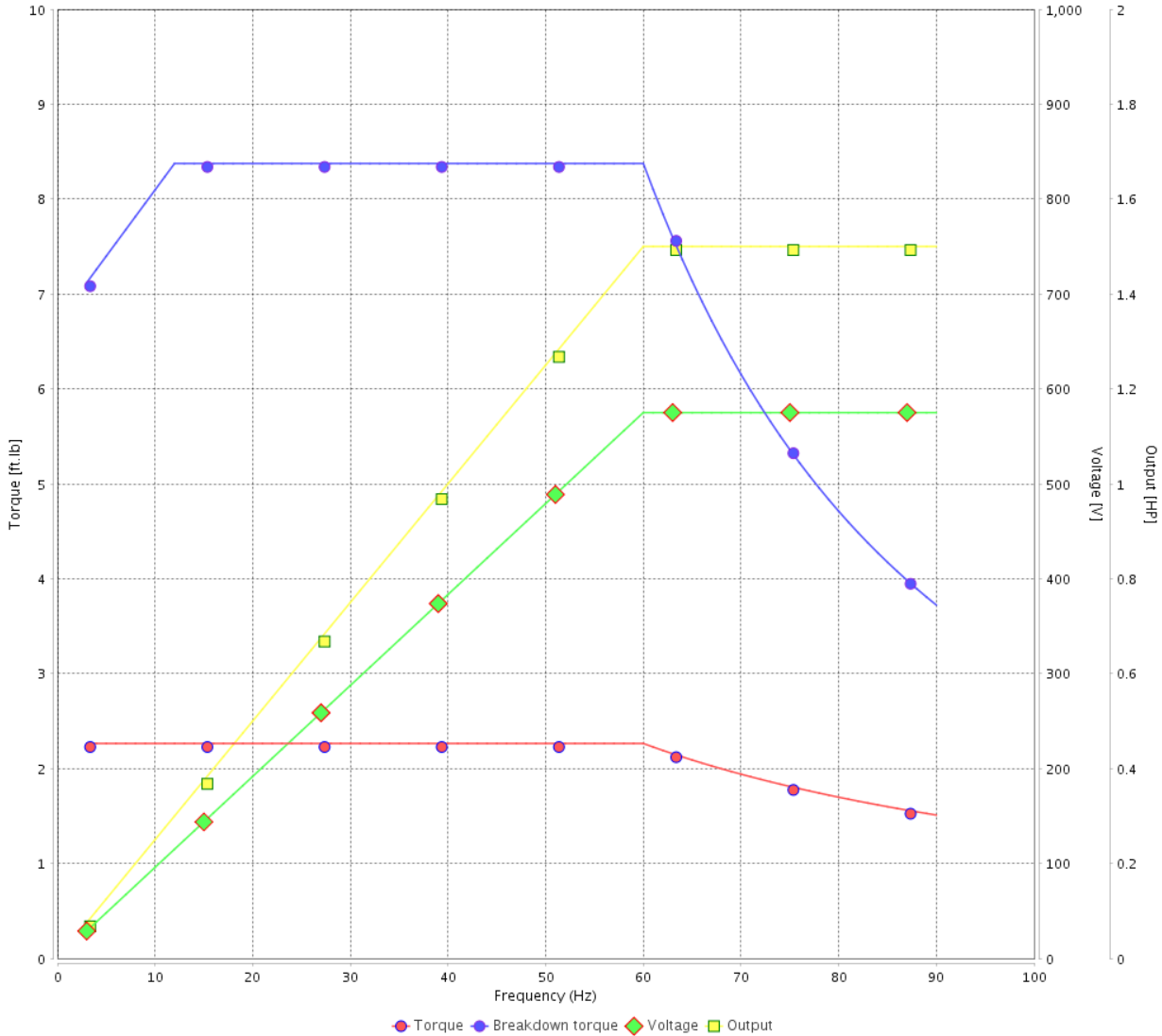
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VFD OPERATION CURVE

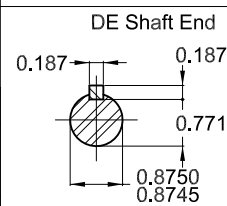
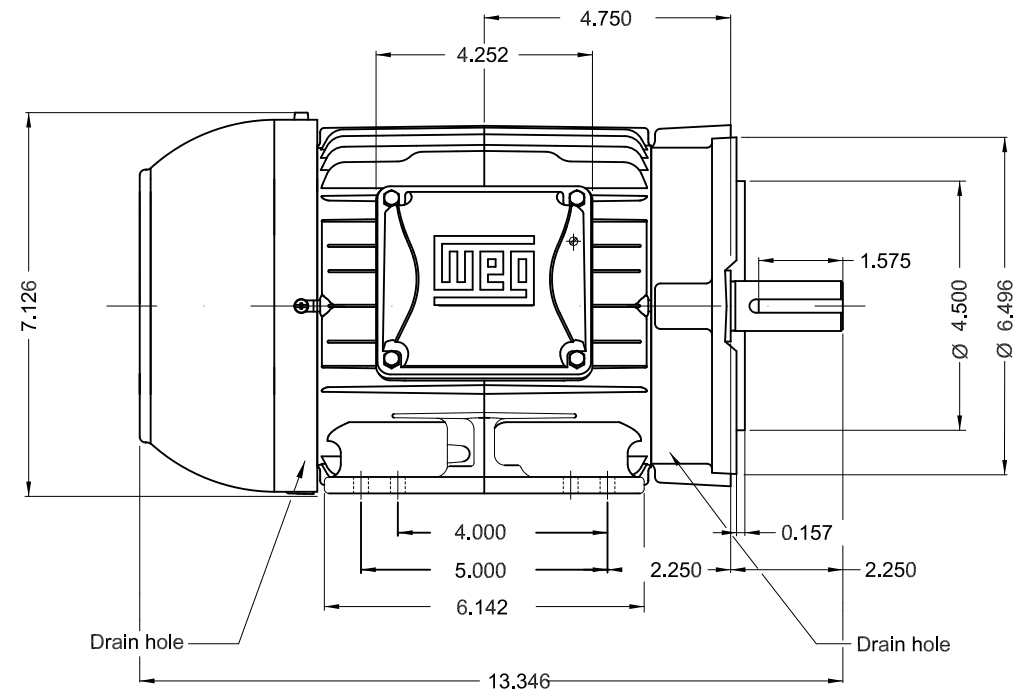
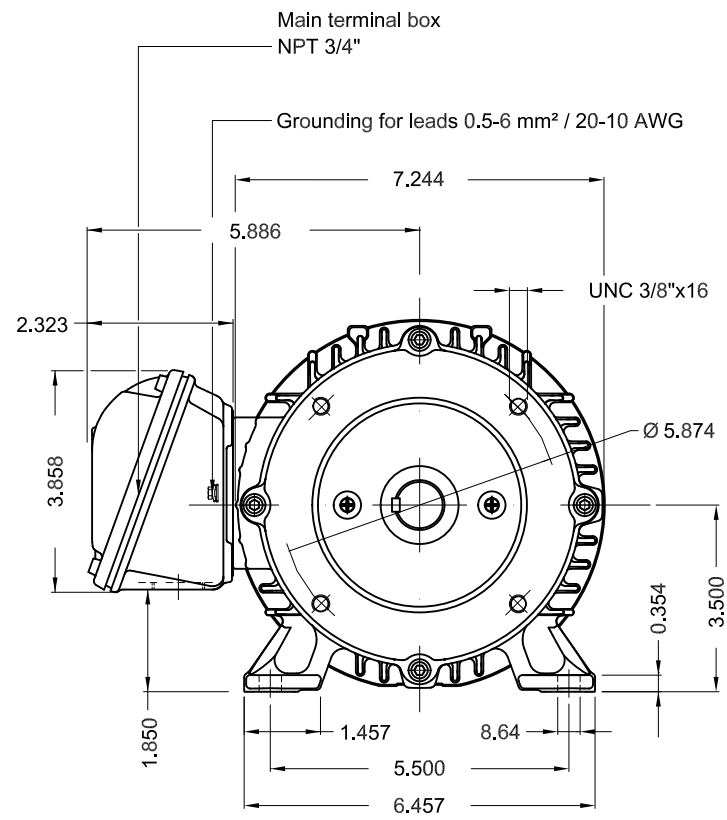


Performance : 575 V 60 Hz 2P

Rated current : 1.57 A  
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Bearing cap  
 Color RAL 5009  
 Painting plan 207A  
 Mounting B34R(D)

1.5 HP 02 Poles 60 Hz

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W22 PREM. EFF.					
CHECKED		FRAME 143/5TC IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW  
 WDD



MADE IN BRAZIL  
12445707



W22

MODEL 00156ET3H143TC-W22

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 - T5  
For use on PWM: Gr. A, B, C, D, F and G,  
VT 1000:1, CT 20:1, 1.00SF - T4A



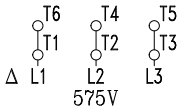
FOR SAFE AREA  
Mod. TE1BFOXON  
CC029A

PH3 60Hz Fr. 143/5TC 1000m.a.s.l. IP55 TEFC 46lb

V 575  
HP 1.5  
SF 1.25  
RPM 3480  
AMB 40°C  
DUTY CONT.

A 1.57  
kW 1.1  
SFA 1.96  
PF 0.84  
INS cl. F DT80K  
DES B Code L

NEMA NOM EFF 84.0%



MOBIL POLYREX EM