

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :																			
Product line	: NEMA Premium Efficiency Three-Phase																		
Product code :	14387172																		
Catalog # :	04012ET3H364T-W22G																		
Frame : 364/5T Output : 40 HP (30 kW) Poles : 6 Frequency : 60 Hz Rated voltage : 575 V Rated current : 37.2 A L. R. Amperes : 238 A LRC : 6.4x(Code G) No load current : 13.6 A Rated speed : 1185 rpm Slip : 1.25 % Rated torque : 177 ft.lb Locked rotor torque : 200 % Breakdown torque : 240 % Insulation class : F Service factor : 1.25 Moment of inertia (J) : 21.8 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> : 66.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 833 lb																		
Output	25%    50%    75%    100%																		
Efficiency (%)	93.1    93.6    93.6    94.1																		
Power Factor	0.47    0.73    0.82    0.86																		
Foundation loads																			
Max. traction : 1040 lb																			
Max. compression : 1873 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>6314 C3</td> <td>6314 C3</td> </tr> <tr> <td>Sealing :</td> <td>WSeal</td> <td>WSeal</td> </tr> <tr> <td>Lubrication interval :</td> <td>17000 h</td> <td>17000 h</td> </tr> <tr> <td>Lubricant amount :</td> <td>27 g</td> <td>27 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 :	6314 C3	6314 C3	Sealing :	WSeal	WSeal	Lubrication interval :	17000 h	17000 h	Lubricant amount :	27 g	27 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															
Date	12/04/2022		1 / 6																

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



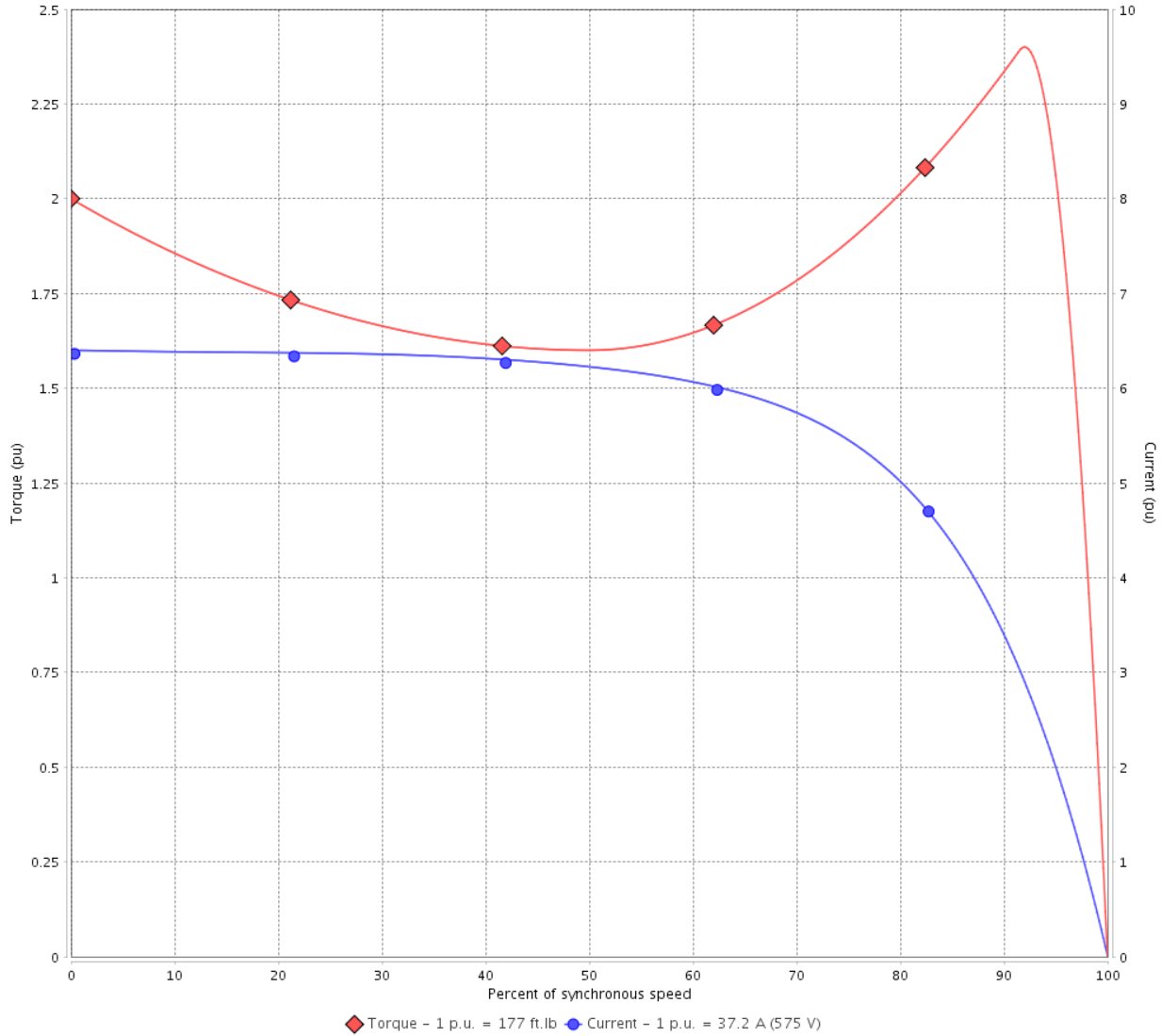
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14387172

Catalog # : 04012ET3H364T-W22G

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 6P

Rated current	: 37.2 A	Moment of inertia (J)	: 21.8 sq.ft.lb
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1185 rpm	Design	: B

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 6	Revision
Checked by				
Date	12/04/2022			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

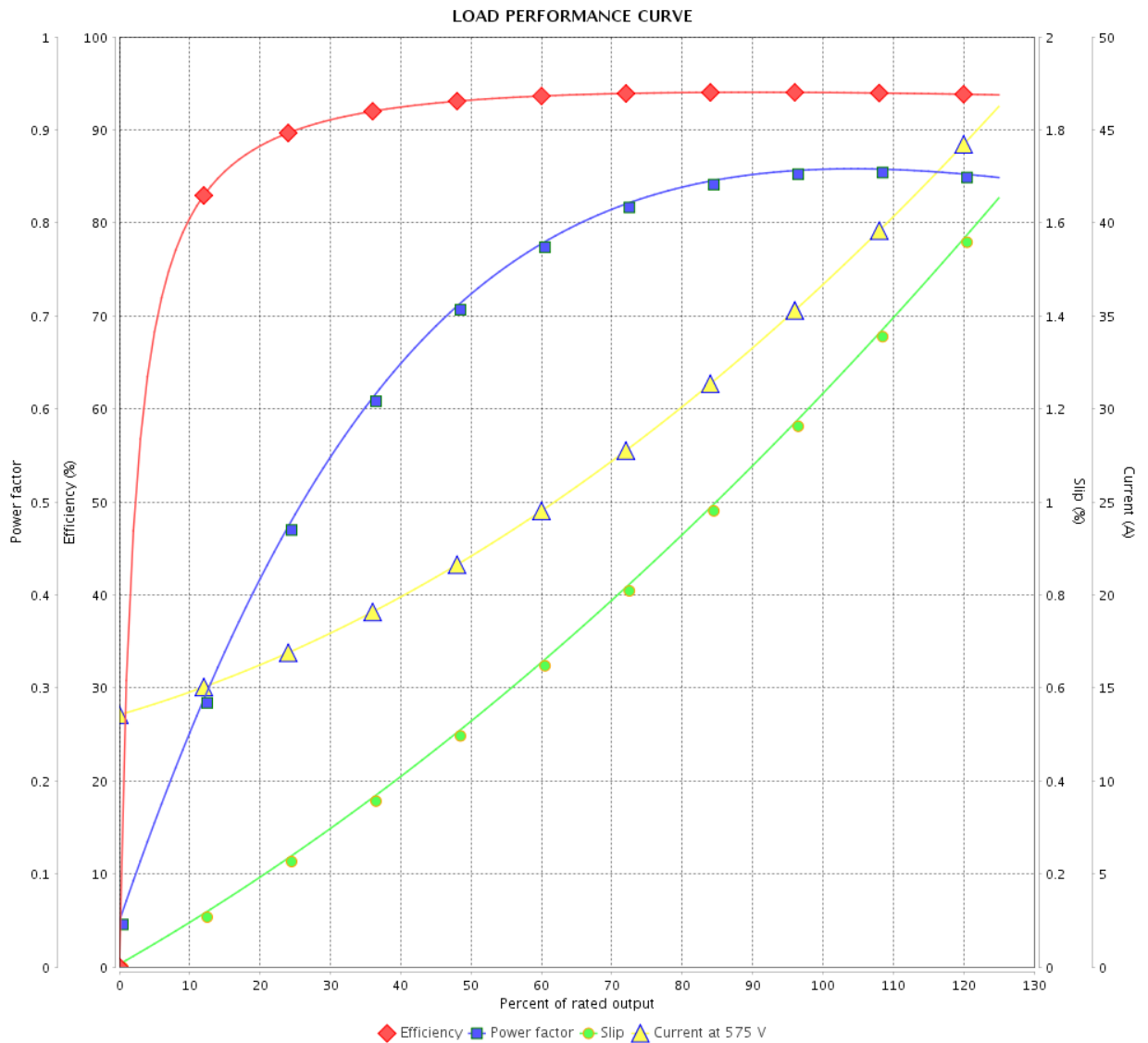


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14387172

Catalog # : 04012ET3H364T-W22G



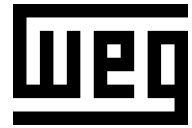
Performance : 575 V 60 Hz 6P

Rated current : 37.2 A  
 LRC : 6.4  
 Rated torque : 177 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 240 %  
 Rated speed : 1185 rpm

Moment of inertia (J) : 21.8 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
Performed by			Page	Revision
Checked by			3 / 6	
Date	12/04/2022			

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

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Performance : 575 V 60 Hz 6P

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Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1185 rpm	Design	: B

Heating constant

Cooling constant

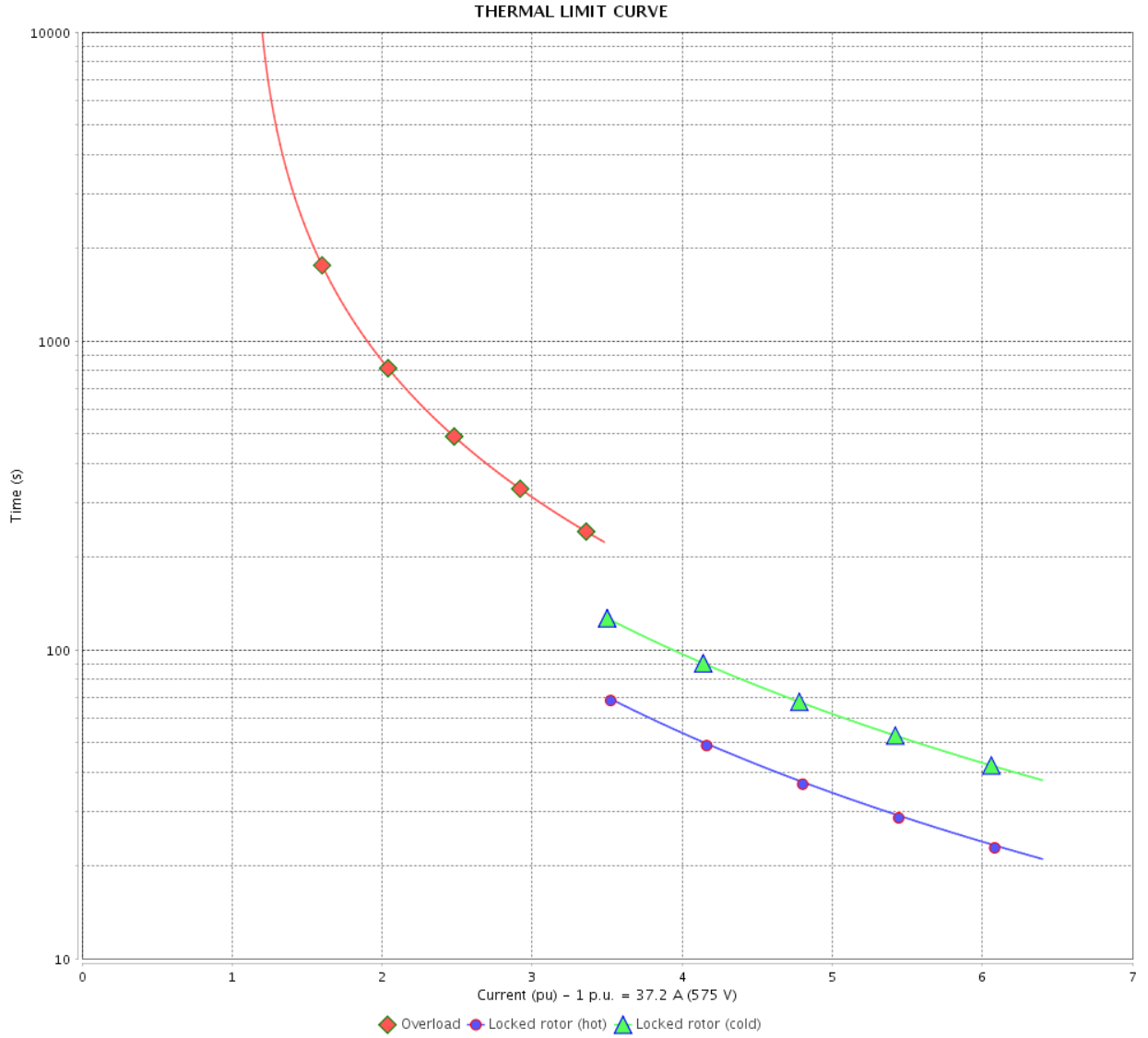
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	12/04/2022		4 / 6	

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 5 / 6		Revision
Checked by				
Date				

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

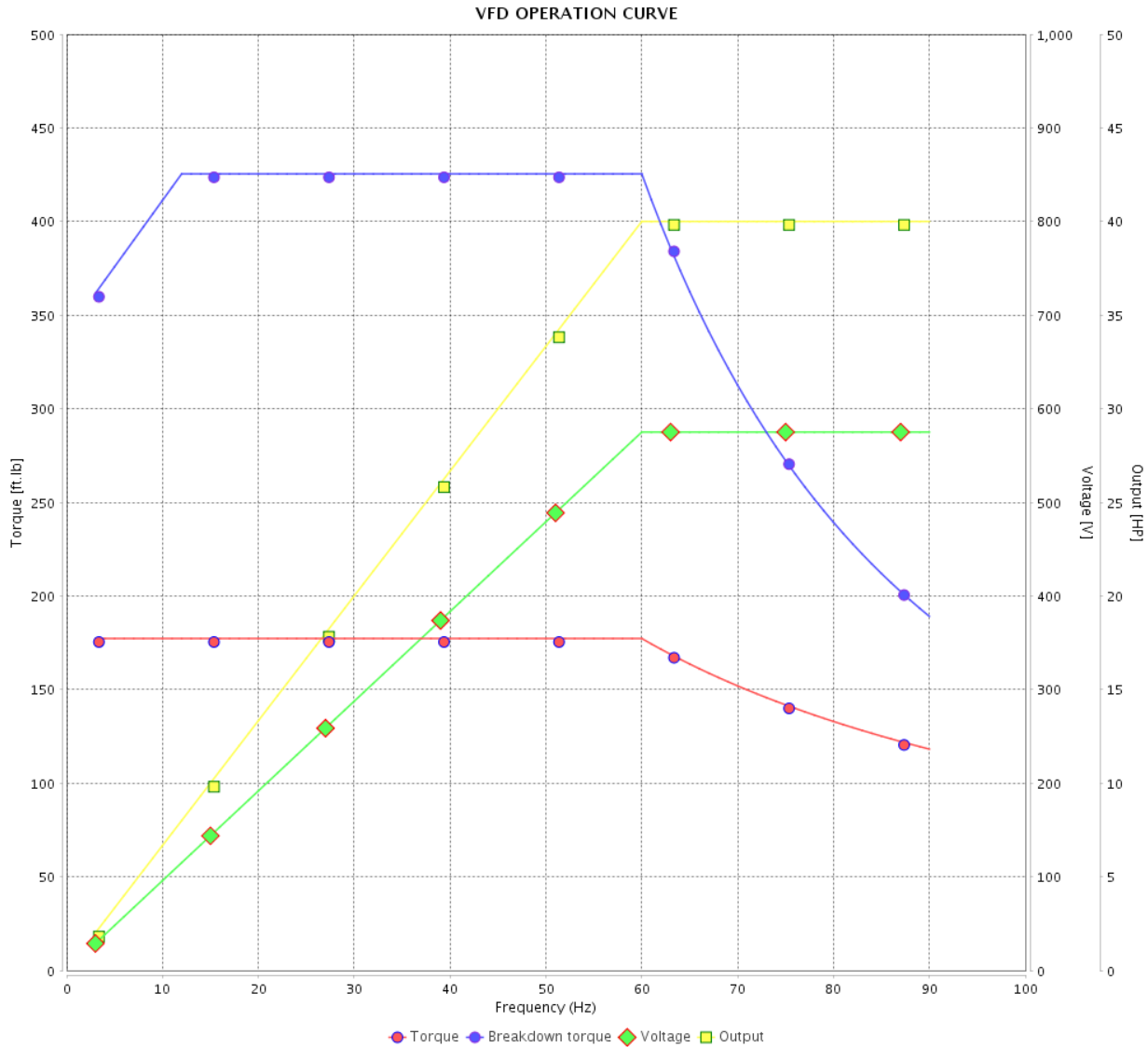


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14387172

Catalog # : 04012ET3H364T-W22G



Performance : 575 V 60 Hz 6P

Rated current : 37.2 A  
 LRC : 6.4  
 Rated torque : 177 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 240 %  
 Rated speed : 1185 rpm

Moment of inertia (J) : 21.8 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
Performed by			Page 6 / 6	Revision
Checked by				
Date	12/04/2022			

1 2 3 4 5 6

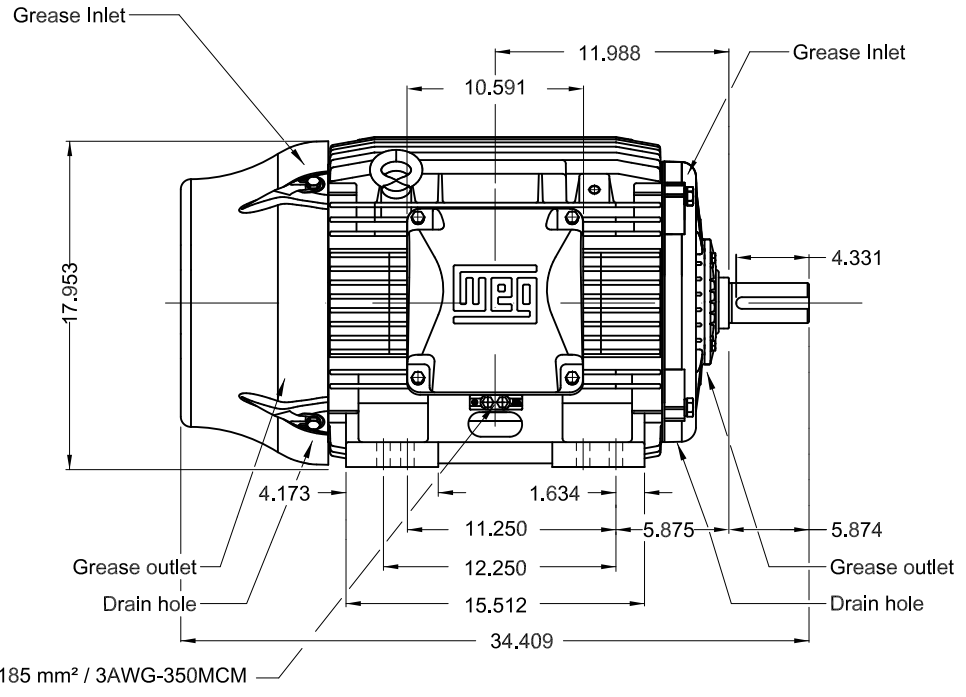
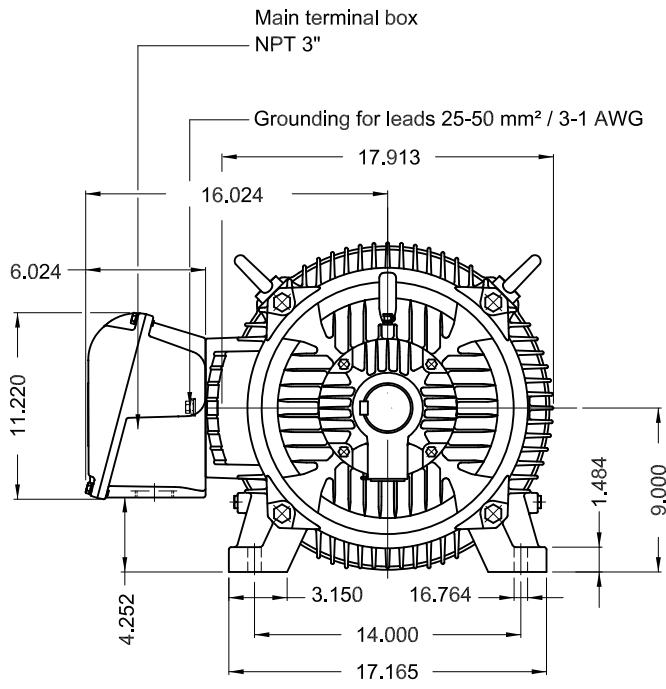
A

B

C

D

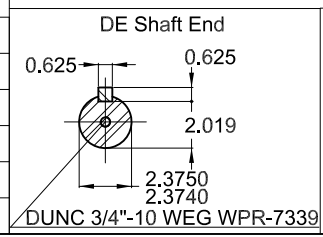
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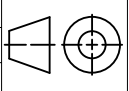


Grounding for leads 25-185 mm² / 3AWG-350MCM

40 HP 06 Poles 60 Hz A

- Without vertical jackscrews
- Internal AEGIS ground ring on the DE
- Color RAL 5009
- Painting plan 203A
- Mounting NEMA F-1
- Mounting B3R(D)



ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	 THREE PH. MOTOR W22 PREM. EFF. FRAME 364/5T IP55 TEFC					
CHECKED							
RELEASED							
REL DT.							
	WMO	Jaragua do Sul	Product Engineering	SHEET 1 / 1			

PREVIEW  
WDD

