

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer : _____																			
Product line : W40 NEMA Premium Efficiency Three-Phase	Product code : 14284838 Catalog # : 10018OT3H404TC-W40																		
Frame : 404/5TC Output : 100 HP (75 kW) Poles : 4 Frequency : 60 Hz Rated voltage : 575 V Rated current : 92.0 A L. R. Amperes : 626 A LRC : 6.8x(Code G) No load current : 31.8 A Rated speed : 1780 rpm Slip : 1.11 % Rated torque : 295 ft.lb Locked rotor torque : 200 % Breakdown torque : 250 % Insulation class : F Service factor : 1.25 Moment of inertia (J) : 21.9 sq.ft.lb Design : B	Locked rotor time : 21s (cold) 12s (hot) Temperature rise : 80 K Duty cycle : Cont.(S1) Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP23 Cooling method : IC01 - ODP Mounting : F-1 Rotation <sup>1</sup> : Both (CW and CCW) Noise level <sup>2</sup> : 69.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 974 lb																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Output</td> <td>25%</td> <td>50%</td> <td>75%</td> <td>100%</td> </tr> <tr> <td>Efficiency (%)</td> <td>94.9</td> <td>95.0</td> <td>95.4</td> <td>95.4</td> </tr> <tr> <td>Power Factor</td> <td>0.49</td> <td>0.75</td> <td>0.83</td> <td>0.86</td> </tr> </table>	Output	25%	50%	75%	100%	Efficiency (%)	94.9	95.0	95.4	95.4	Power Factor	0.49	0.75	0.83	0.86	Foundation loads Max. traction : 1725 lb Max. compression : 2699 lb			
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Notes																			
<p>This revision replaces and cancel the previous one, which must be eliminated.</p> <p>(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.</p>																			
<p>These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.</p>																			
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



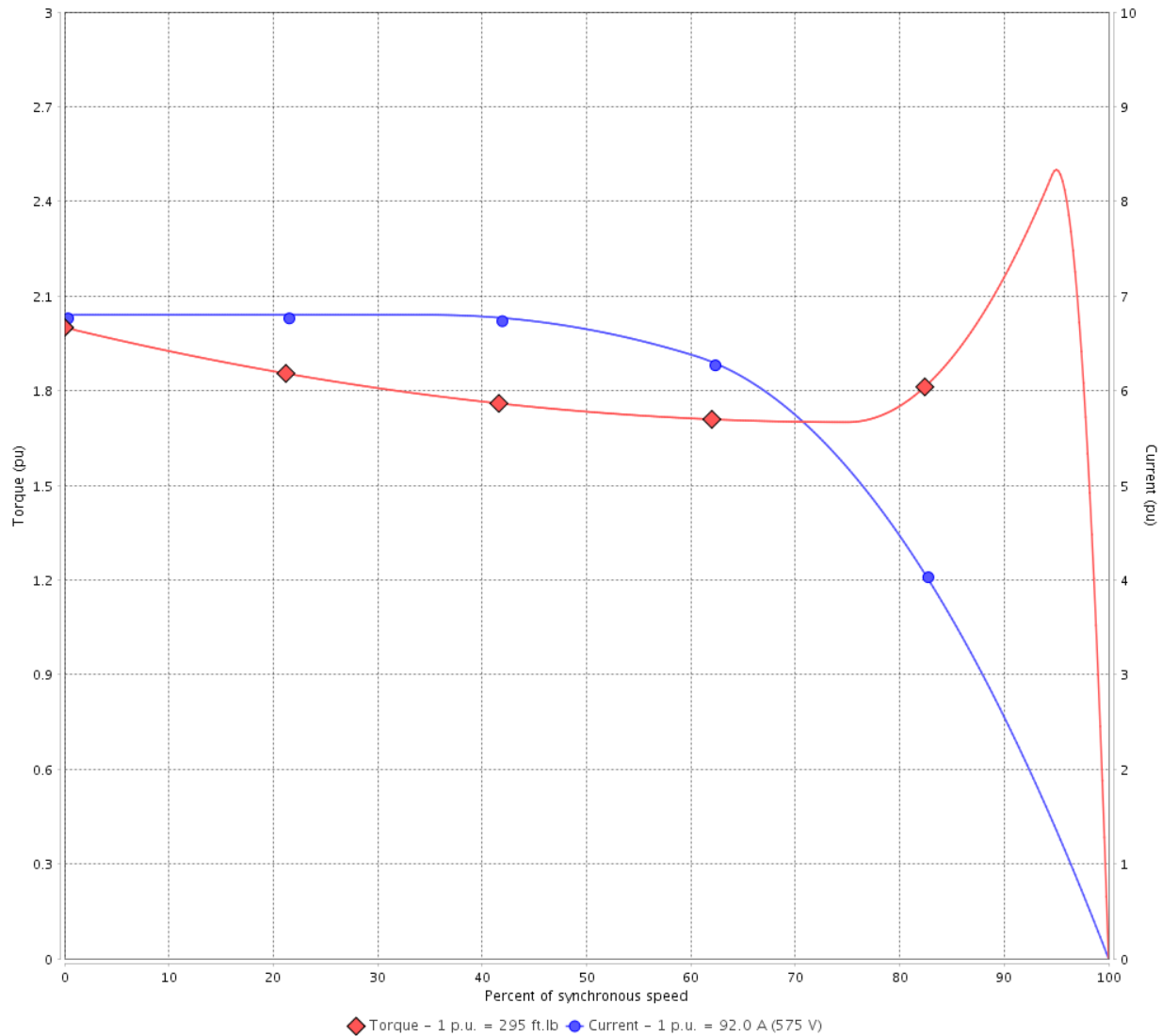
Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14284838

Catalog # : 10018OT3H404TC-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 4P

Rated current	: 92.0 A	Moment of inertia (J)	: 21.9 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 295 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: B

Locked rotor time : 21s (cold) 12s (hot)

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Date	12/04/2022			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

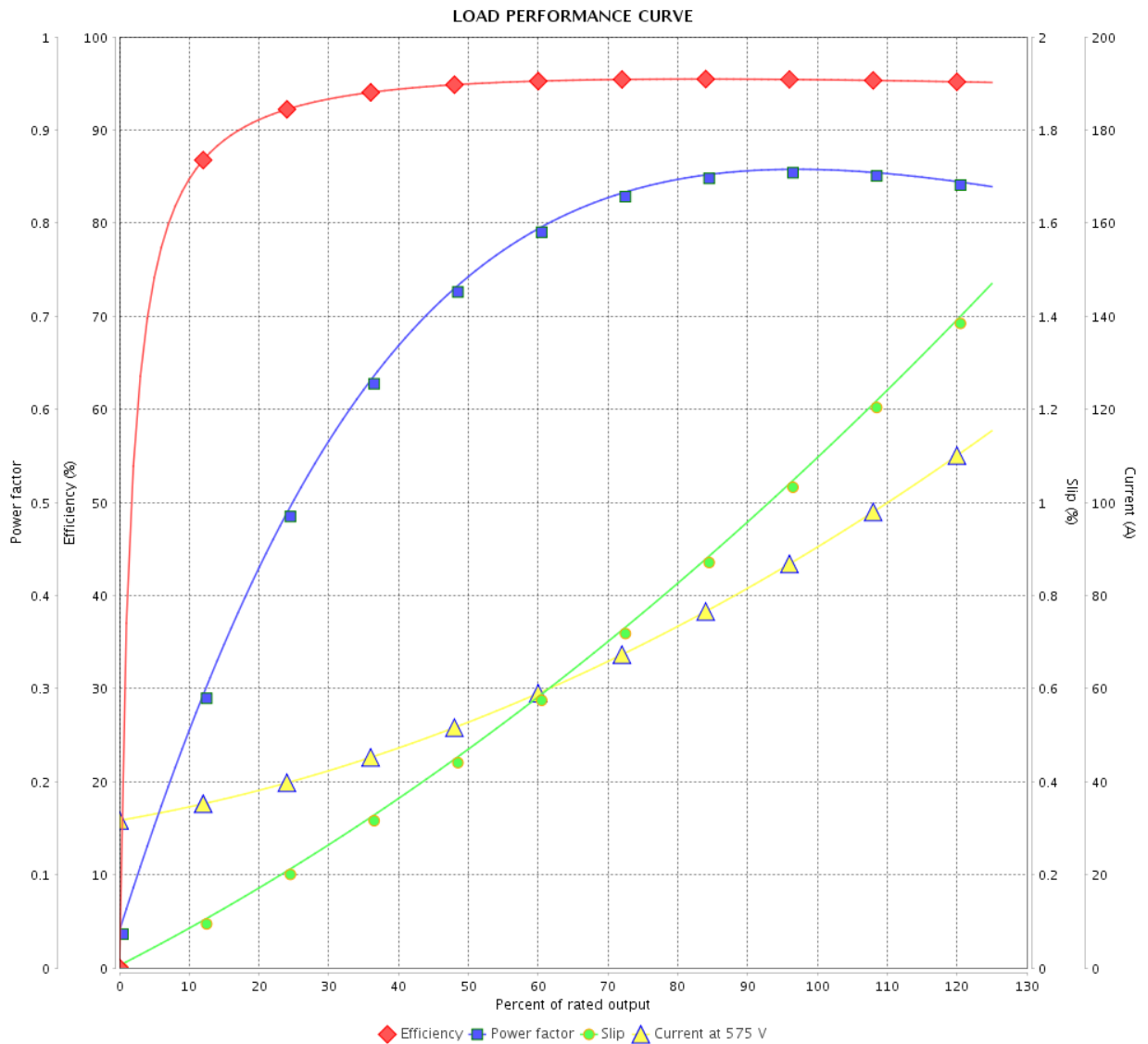


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# THERMAL LIMIT CURVE



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Heating constant

Cooling constant

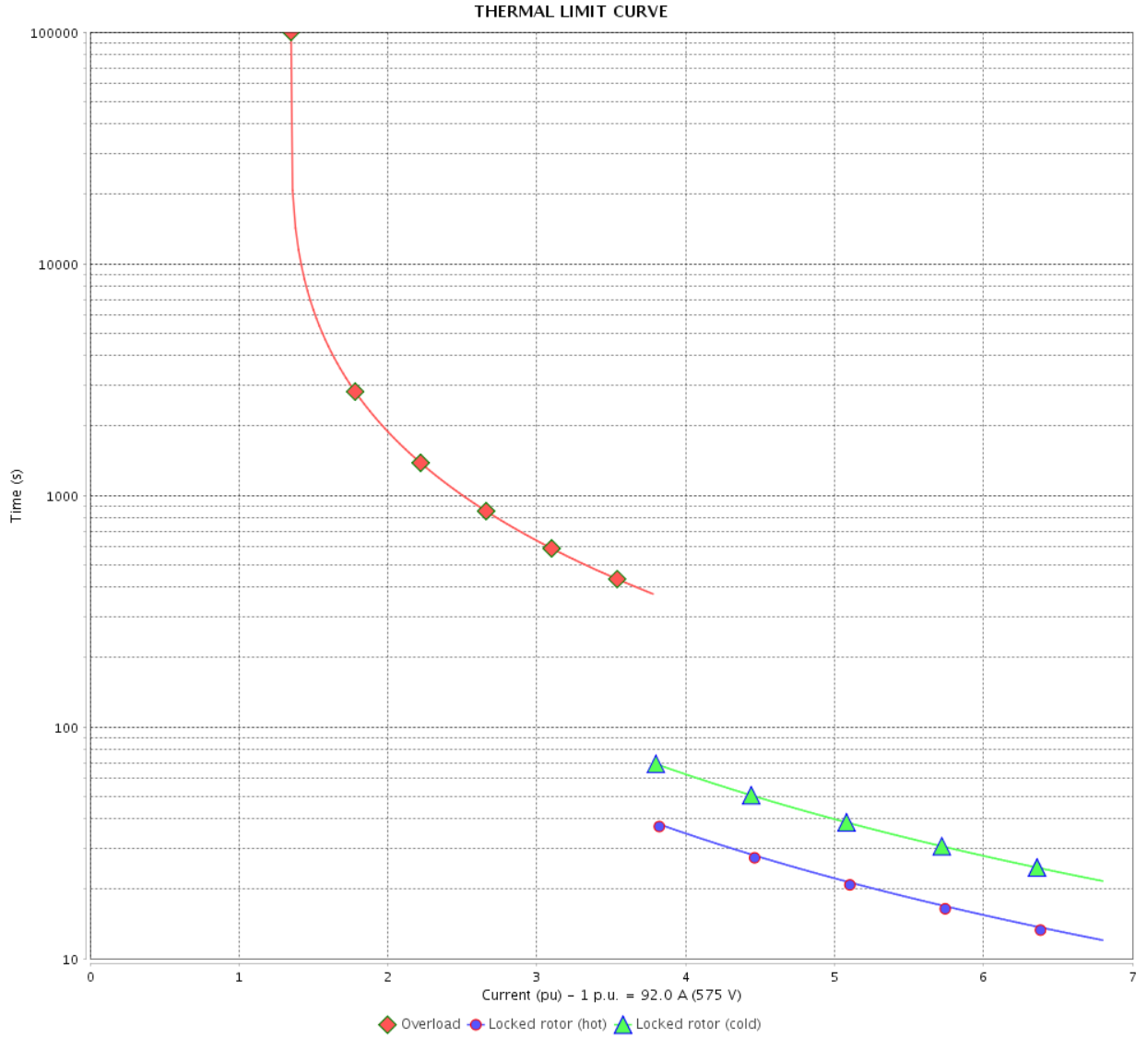
Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		4 / 6		
Date	12/04/2022			

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by				
Date				

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



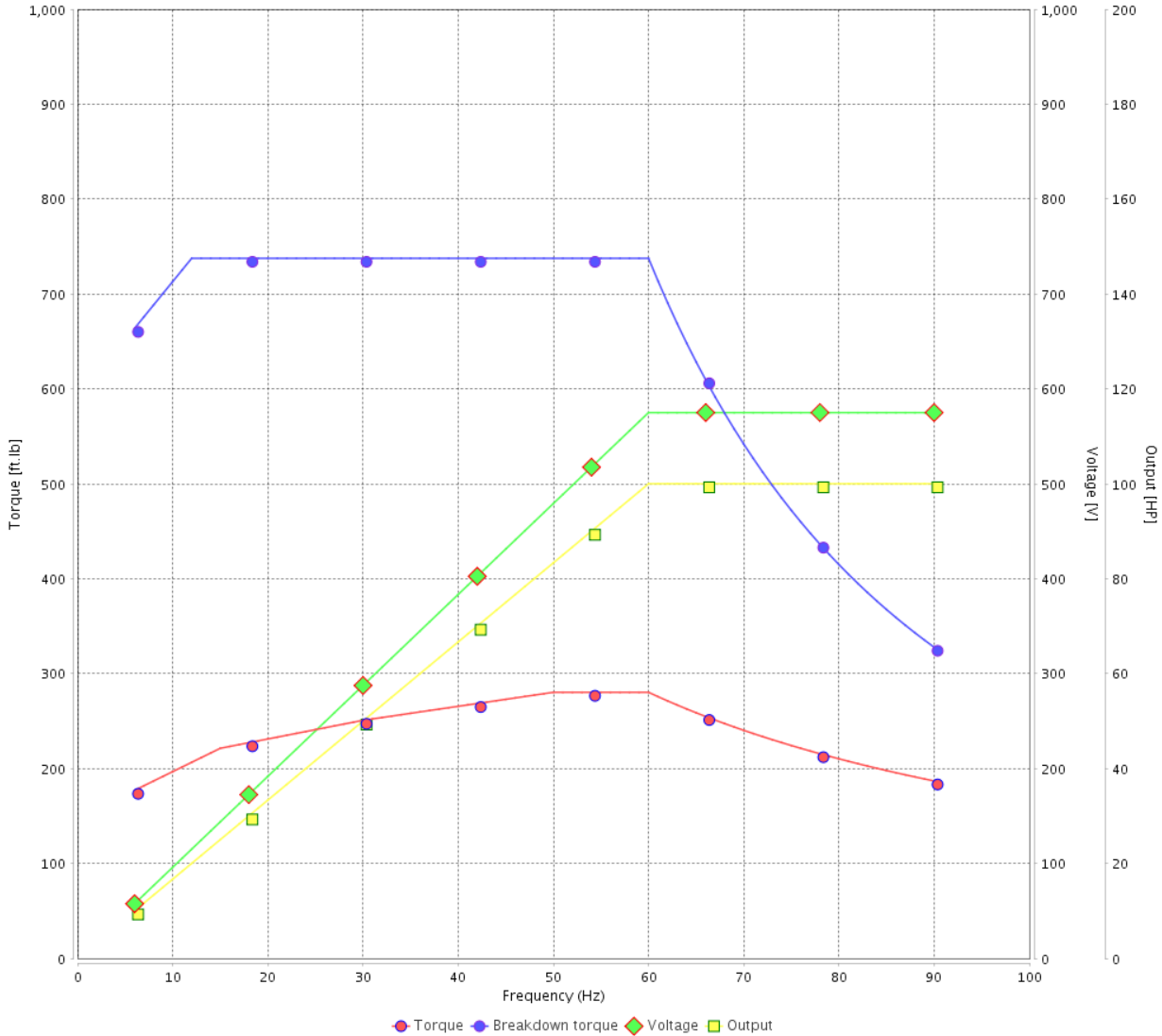
Customer :

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Three-Phase

Product code : 14284838

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VFD OPERATION CURVE

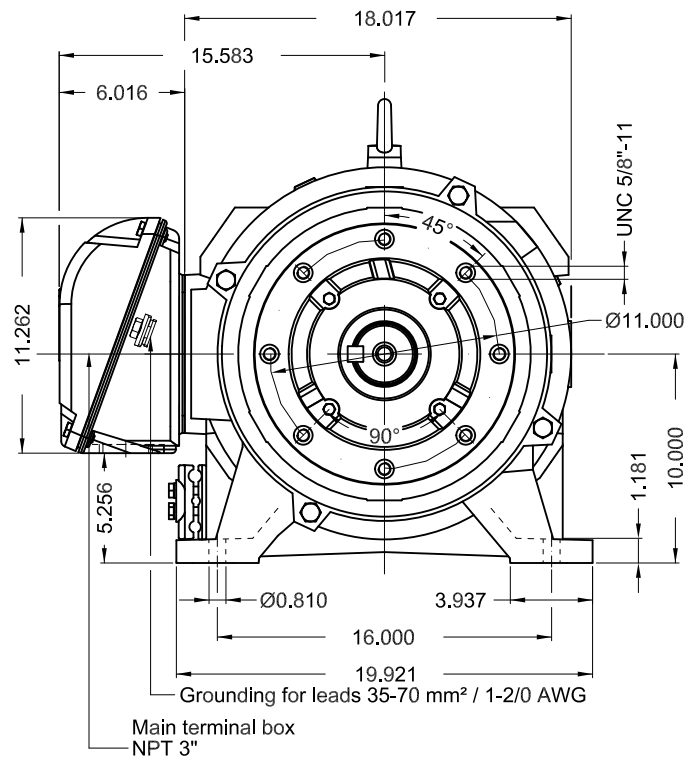


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LRC : 6.8  
Rated torque : 295 ft.lb  
Locked rotor torque : 200 %  
Breakdown torque : 250 %  
Rated speed : 1780 rpm

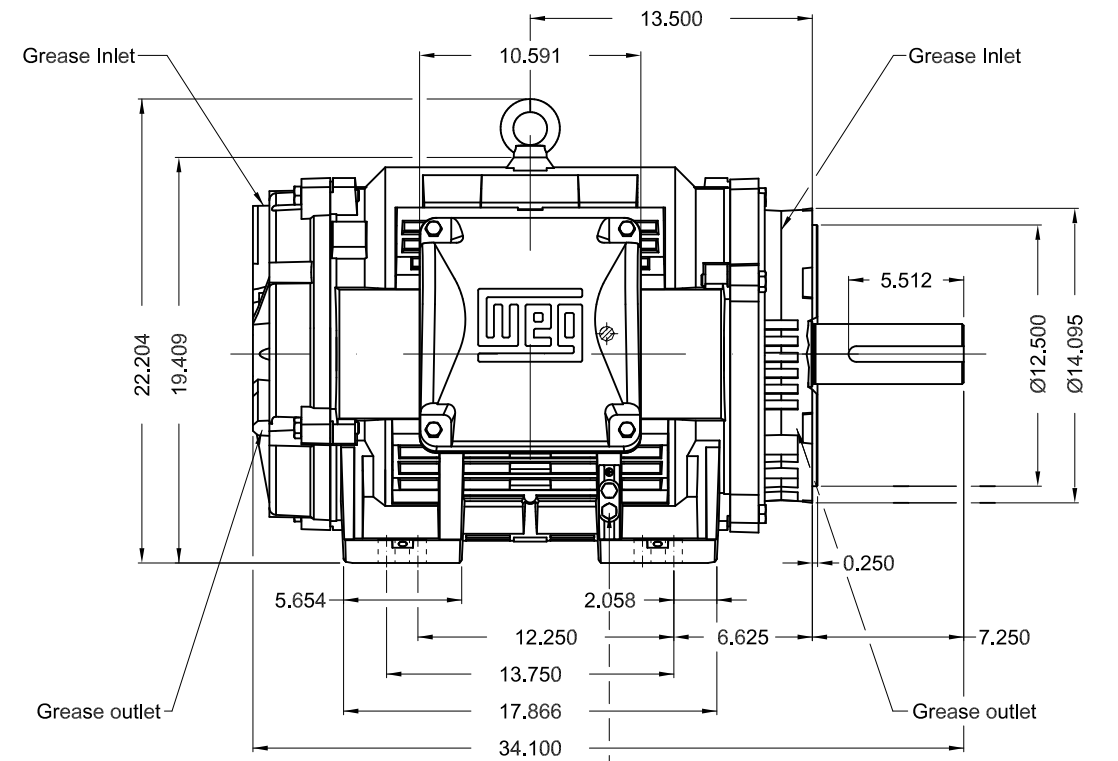
Moment of inertia (J) : 21.9 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

Rev.	Changes Summary	Performed	Checked	Date
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Main terminal box  
NPT 3"

Grounding for leads 35-70 mm<sup>2</sup> / 1-2/0 AWG



Grounding for leads 25-185 mm<sup>2</sup> / 3AWG-350MCM

100 HP 04 Poles 60 Hz

A

1:9

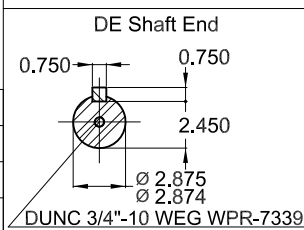
ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W40 PREM. EFF.					
CHECKED		FRAME 404/5TC IP23 ODP					
RELEASED							
REL DT.		WMO Jaragua do Sul	Product Engineering				

PREVIEW  
WDD



SHEET 1 / 1

Color RAL 5009  
Painting plan 203A  
Mounting NEMA F-1  
Mounting B34R(D)



**WEG** **W40 NEMA**  
**CC029A Premium**  
*Inverter Duty Motor*



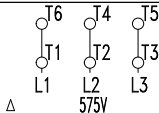
MOD.T01#FOXON




For use on PWM, VT 1000:1, CT 2:1, 1.0SF

CP100504NPBBW40  
 MADE IN BRAZIL  
 14284838

PH 3	FR 404/5TC	HP(kW) 100(75)		Hz 60
V 575		A 92.0		IP23
NEMA NOM EFF		95.4	%	RPM 1780
ENCL ODP	DUTY CONT.		INS. CL. F $\Delta$ T 80 K	
PF 0.86		DES B	CODE G	AMB. 40°C
SF 1.25	SFA 115		ALT 1000 m.a.s.l.	



 → 6316-C3(34g) MOBIL POLYREX EM  
 → 6212-Z-C3(13g) 20000 h

974 Lbs