

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

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

Product line : W40 NEMA Premium Efficiency Three-Phase  
 Product code : 14496910  
 Catalog # : 04018OT3H324TC-W40

Frame : 324TC	Locked rotor time : 23s (cold) 13s (hot)
Output : 40 HP (30 kW)	Temperature rise : 80 K
Poles : 4	Duty cycle : Cont.(S1)
Frequency : 60 Hz	Ambient temperature : -20°C to +40°C
Rated voltage : 575 V	Altitude : 1000 m.a.s.l.
Rated current : 38.1 A	Protection degree : IP23
L. R. Amperes : 236 A	Cooling method : IC01 - ODP
LRC : 6.2x(Code G)	Mounting : F-1
No load current : 14.8 A	Rotation <sup>1</sup> : Both (CW and CCW)
Rated speed : 1775 rpm	Noise level <sup>2</sup> : 66.0 dB(A)
Slip : 1.39 %	Starting method : Direct On Line
Rated torque : 118 ft.lb	Approx. weight <sup>3</sup> : 463 lb
Locked rotor torque : 200 %	
Breakdown torque : 240 %	
Insulation class : F	
Service factor : 1.25	
Moment of inertia (J) : 5.69 sq.ft.lb	
Design : B	

Output	25%	50%	75%	100%	Foundation loads
Efficiency (%)	93.5	93.6	94.1	94.1	Max. traction
Power Factor	0.44	0.70	0.80	0.84	Max. compression

	<u>Drive end</u>	<u>Non drive end</u>
Bearing type :	6312 Z C3	6211 Z C3
Sealing :	Without Bearing Seal	Without Bearing Seal
Lubrication interval :	20000 h	20000 h
Lubricant amount :	21 g	11 g
Lubricant type :	Mobil Polyrex EM	

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.

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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



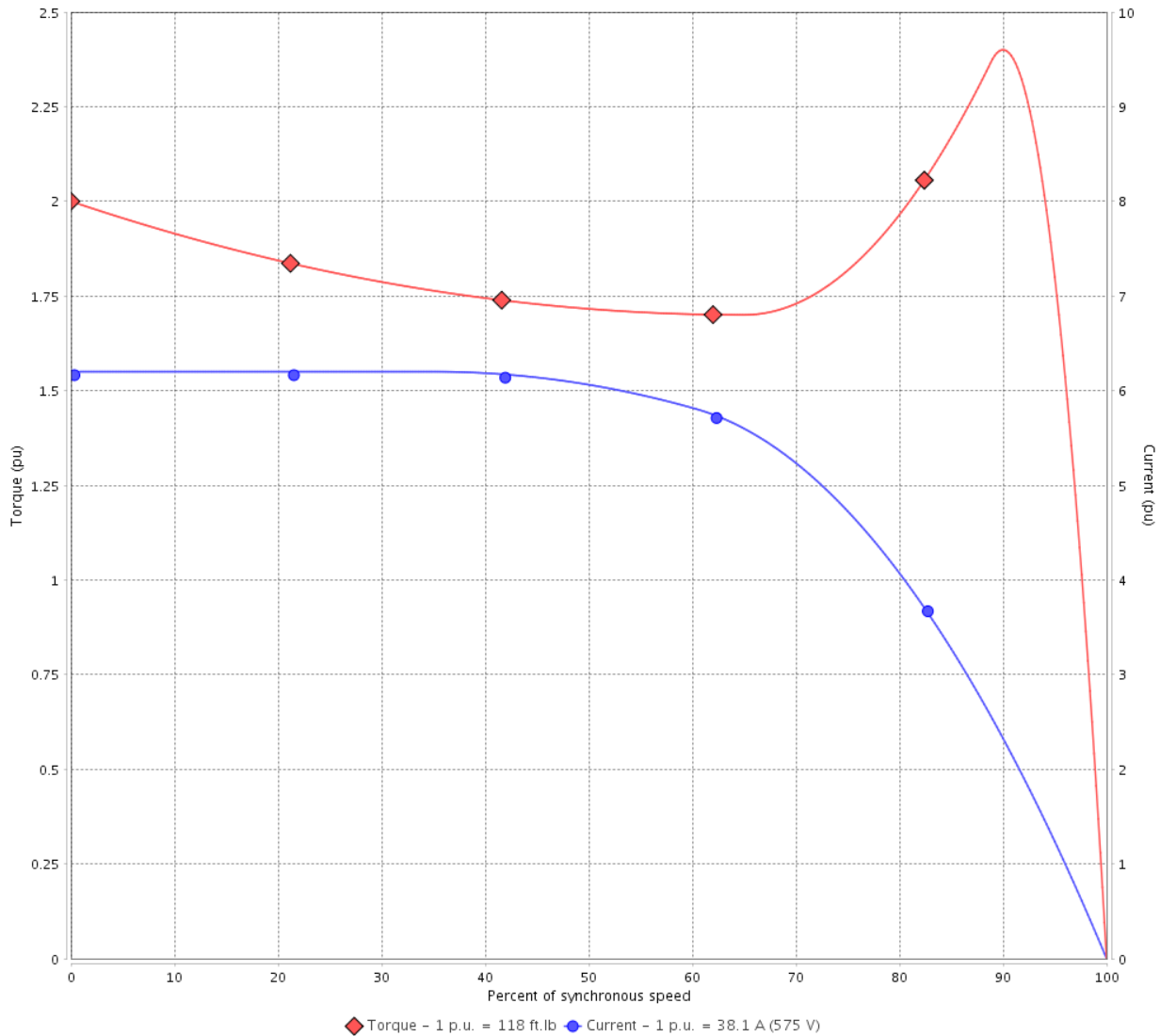
Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14496910

Catalog # : 04018OT3H324TC-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 4P

Rated current	: 38.1 A	Moment of inertia (J)	: 5.69 sq.ft.lb
LRC	: 6.2	Duty cycle	: Cont.(S1)
Rated torque	: 118 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1775 rpm	Design	: B

Locked rotor time : 23s (cold) 13s (hot)

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

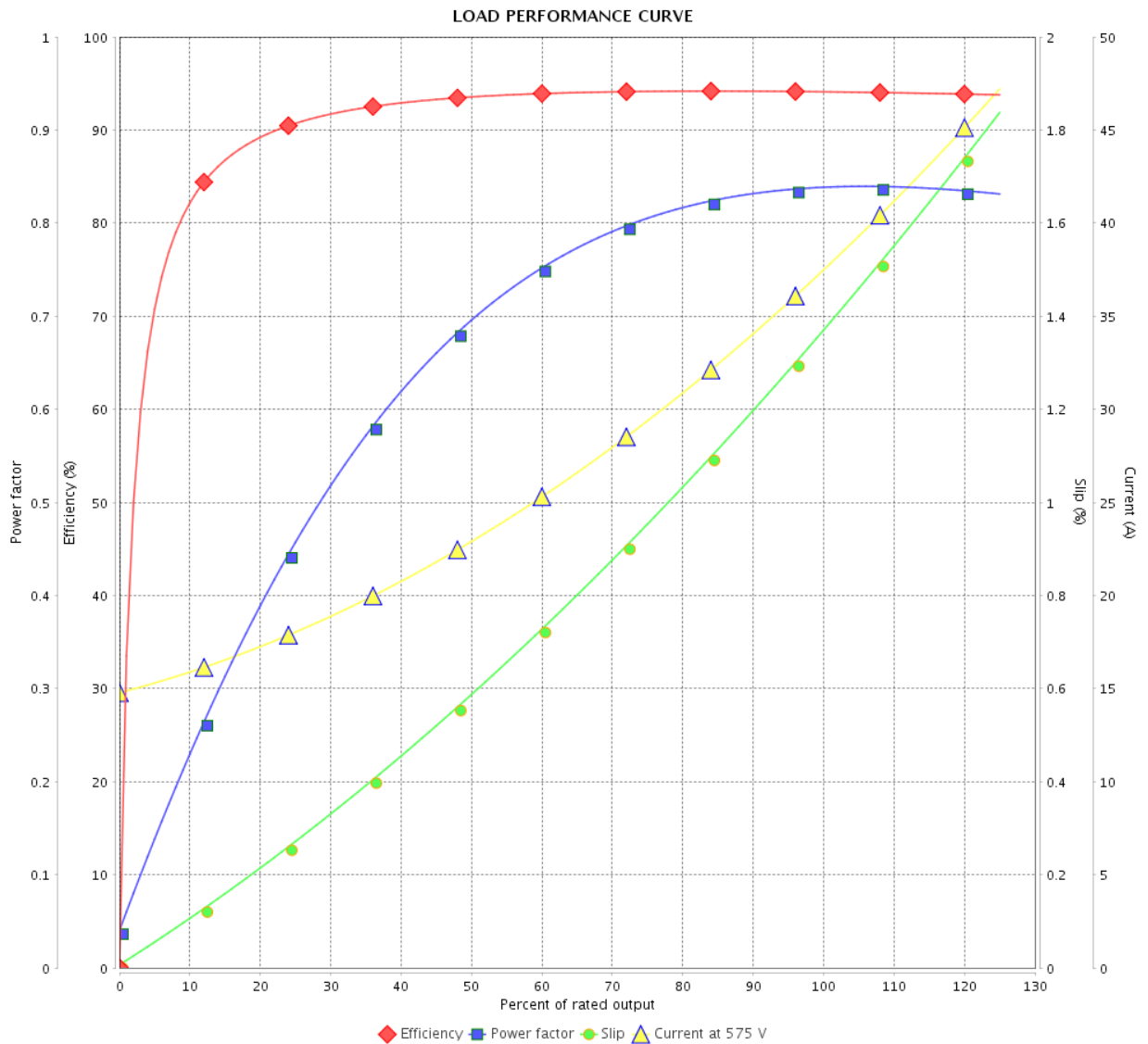


Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14496910

Catalog # : 04018OT3H324TC-W40



Performance : 575 V 60 Hz 4P

Rated current : 38.1 A  
 LRC : 6.2  
 Rated torque : 118 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 240 %  
 Rated speed : 1775 rpm

Moment of inertia (J) : 5.69 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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Three-Phase

Product code : 14496910

Catalog # : 04018OT3H324TC-W40

Performance : 575 V 60 Hz 4P

Rated current : 38.1 A	Moment of inertia (J) : 5.69 sq.ft.lb
LRC : 6.2	Duty cycle : Cont.(S1)
Rated torque : 118 ft.lb	Insulation class : F
Locked rotor torque : 200 %	Service factor : 1.25
Breakdown torque : 240 %	Temperature rise : 80 K
Rated speed : 1775 rpm	Design : B

Heating constant

Cooling constant

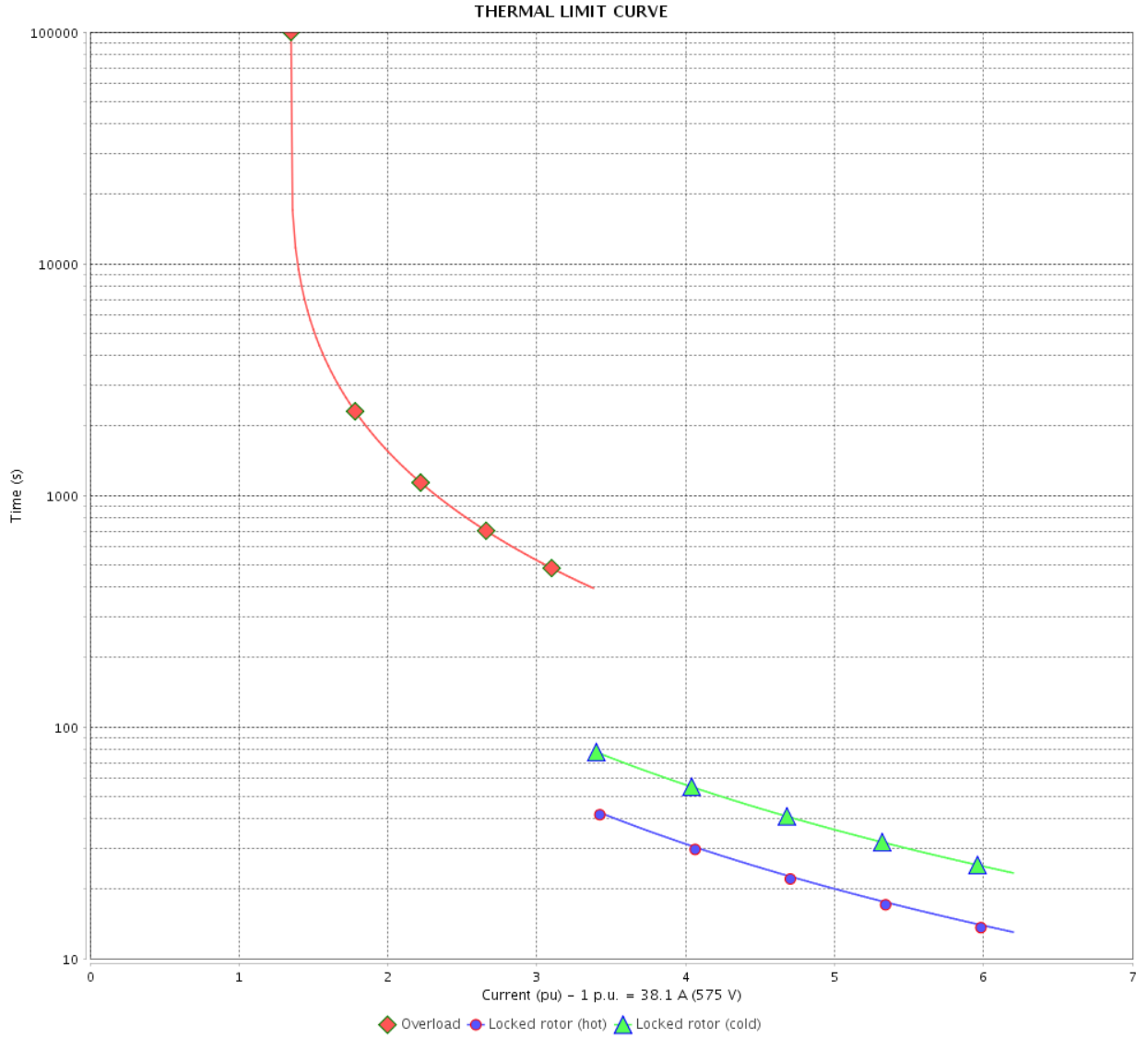
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

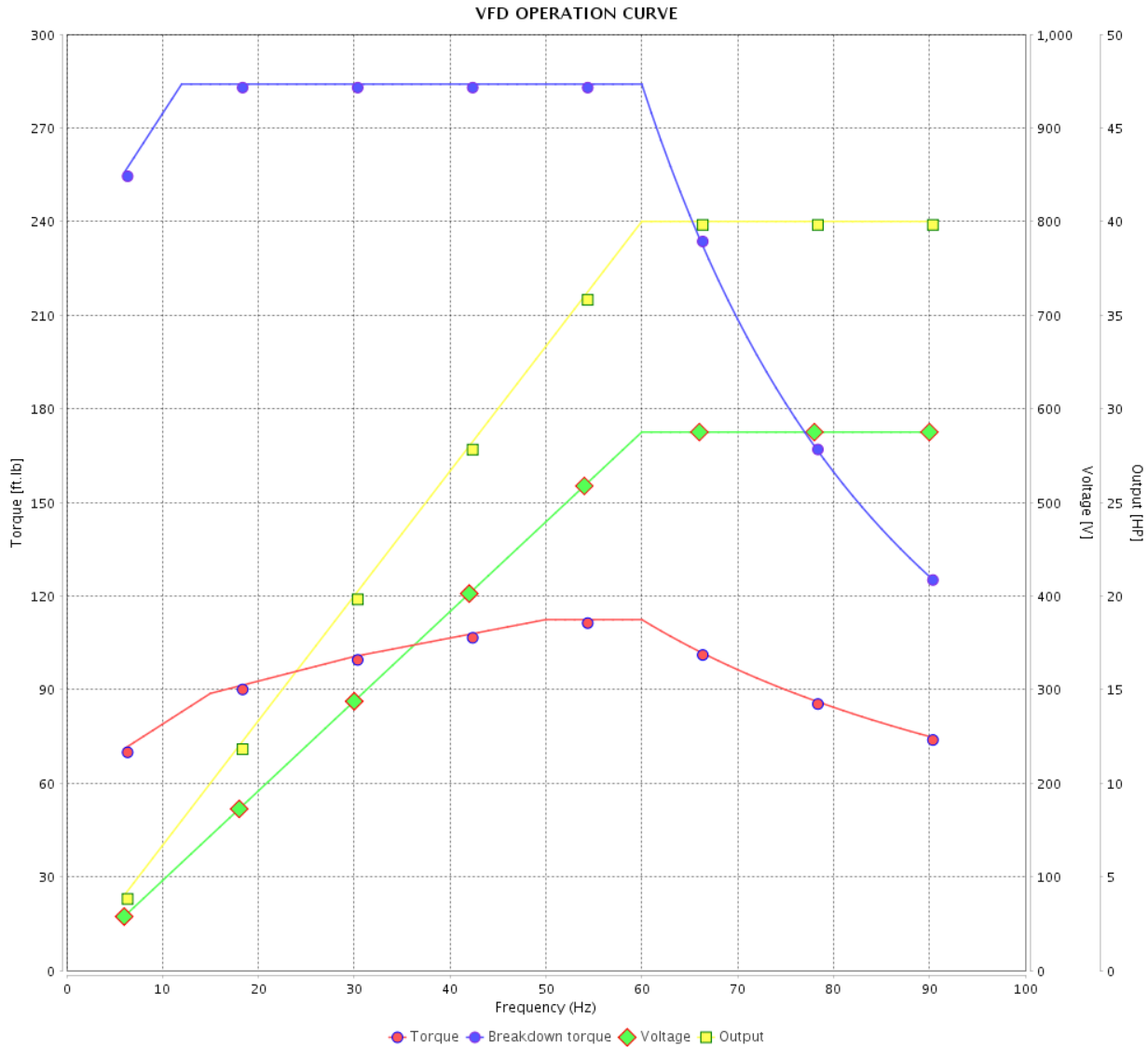


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Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14496910

Catalog # : 04018OT3H324TC-W40

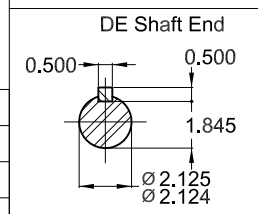
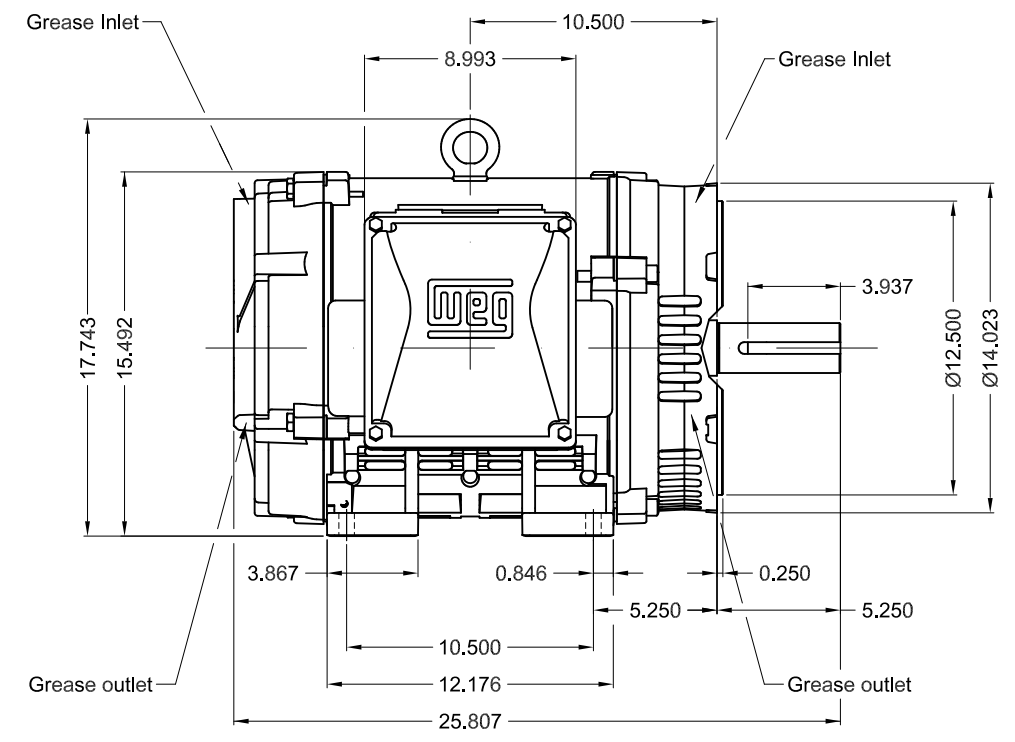
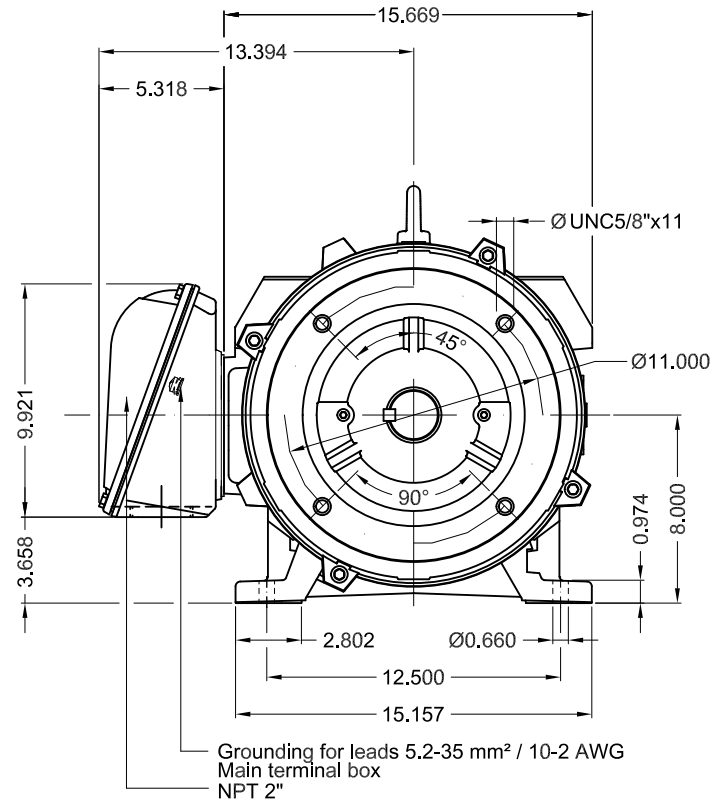


Performance : 575 V 60 Hz 4P

Rated current : 38.1 A  
 LRC : 6.2  
 Rated torque : 118 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 240 %  
 Rated speed : 1775 rpm

Moment of inertia (J) : 5.69 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 203A  
Mounting NEMA F-1  
Mounting B34R(D)

40 HP 04 Poles 60 Hz A

1:8

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W40 PREM. EFF.					
CHECKED		FRAME 324TC IP23 ODP					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

**PREVIEW**  
WDD



MODEL 040180T3H324TC-W40  
MADE IN BRAZIL  
14496910

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

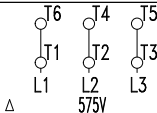


IEC 60034-1  
MOD.T01#FOXON



For use on PWM, VT 1000:1, CT 3:1, 1.0SF

PH 3	FR 324TC	HP(kW) 40(30)		Hz 60
V 575		A 38.1		IP23
NEMA NOM EFF		94.1	%	RPM 1775
ENCL ODP	DUTY CONT.		INS. CL. F $\Delta$ T 80 K	
PF 0.84		DES B	CODE G	AMB. 40°C
SF 1.25		SFA 47.6		ALT 1000 m.a.s.l.



→ 6312-Z-C3  
→ 6211-Z-C3

MOBIL POLYREX EM  
21 g 20000 h

463 Lbs