

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :			
Product line	: W40 NEMA Premium Efficiency Three-Phase	Product code :	14497419
		Catalog # :	05036OT3H324TS-W40
Frame	: 324TS	Locked rotor time	: 25s (cold) 14s (hot)
Output	: 50 HP (37 kW)	Temperature rise	: 80 K
Poles	: 2	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	: 47.5 A	Protection degree	: IP23
L. R. Amperes	: 299 A	Cooling method	: IC01 - ODP
LRC	: 6.3x(Code G)	Mounting	: F-1
No load current	: 18.0 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 3560 rpm	Noise level ²	: 75.0 dB(A)
Slip	: 1.11 %	Starting method	: Direct On Line
Rated torque	: 73.8 ft.lb	Approx. weight ³	: 415 lb
Locked rotor torque	: 200 %		
Breakdown torque	: 220 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 3.02 sq.ft.lb		
Design	: B		
Output	25% 50% 75% 100%	Foundation loads	
Efficiency (%)	91.5 91.7 93.0 93.0	Max. traction	
Power Factor	0.46 0.72 0.81 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	:	19658 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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Checked by			
Date	12/04/2022		
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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



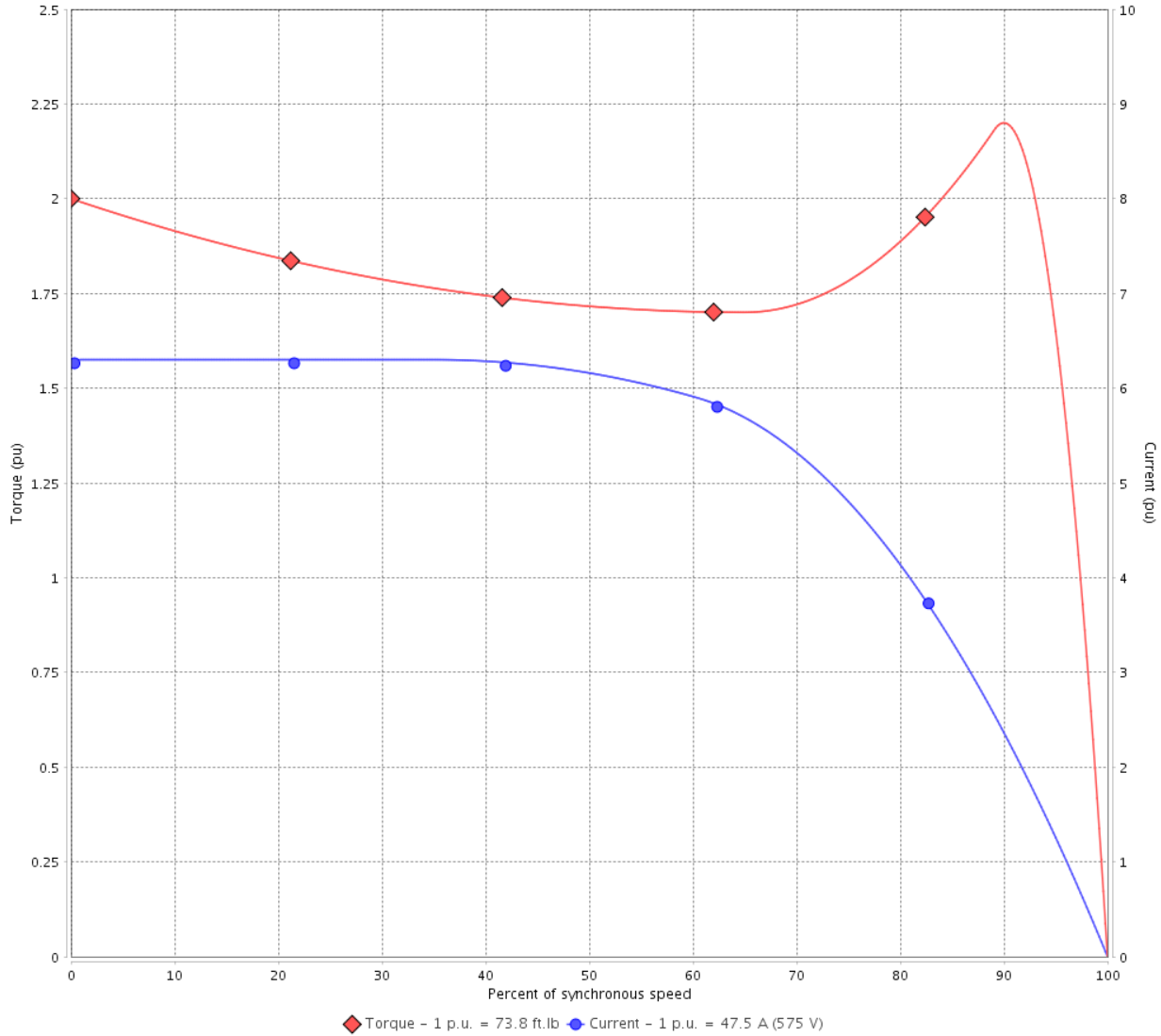
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14497419

Catalog # : 05036OT3H324TS-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 2P

Rated current	: 47.5 A	Moment of inertia (J)	: 3.02 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 73.8 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 3560 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

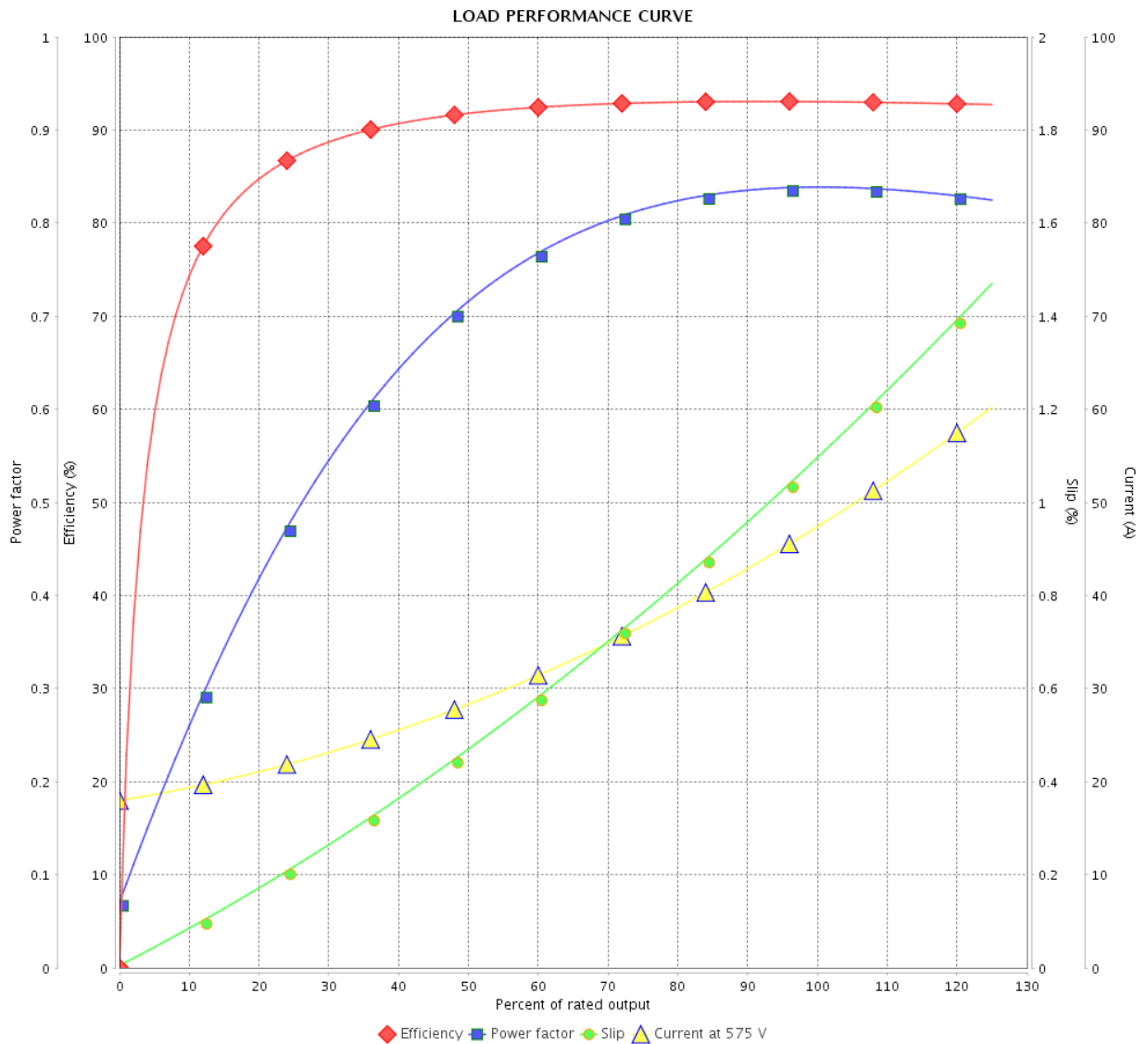


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Product code : 14497419

Catalog # : 05036OT3H324TS-W40



Performance : 575 V 60 Hz 2P

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 Breakdown torque : 220 %
 Rated speed : 3560 rpm

Moment of inertia (J) : 3.02 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



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Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

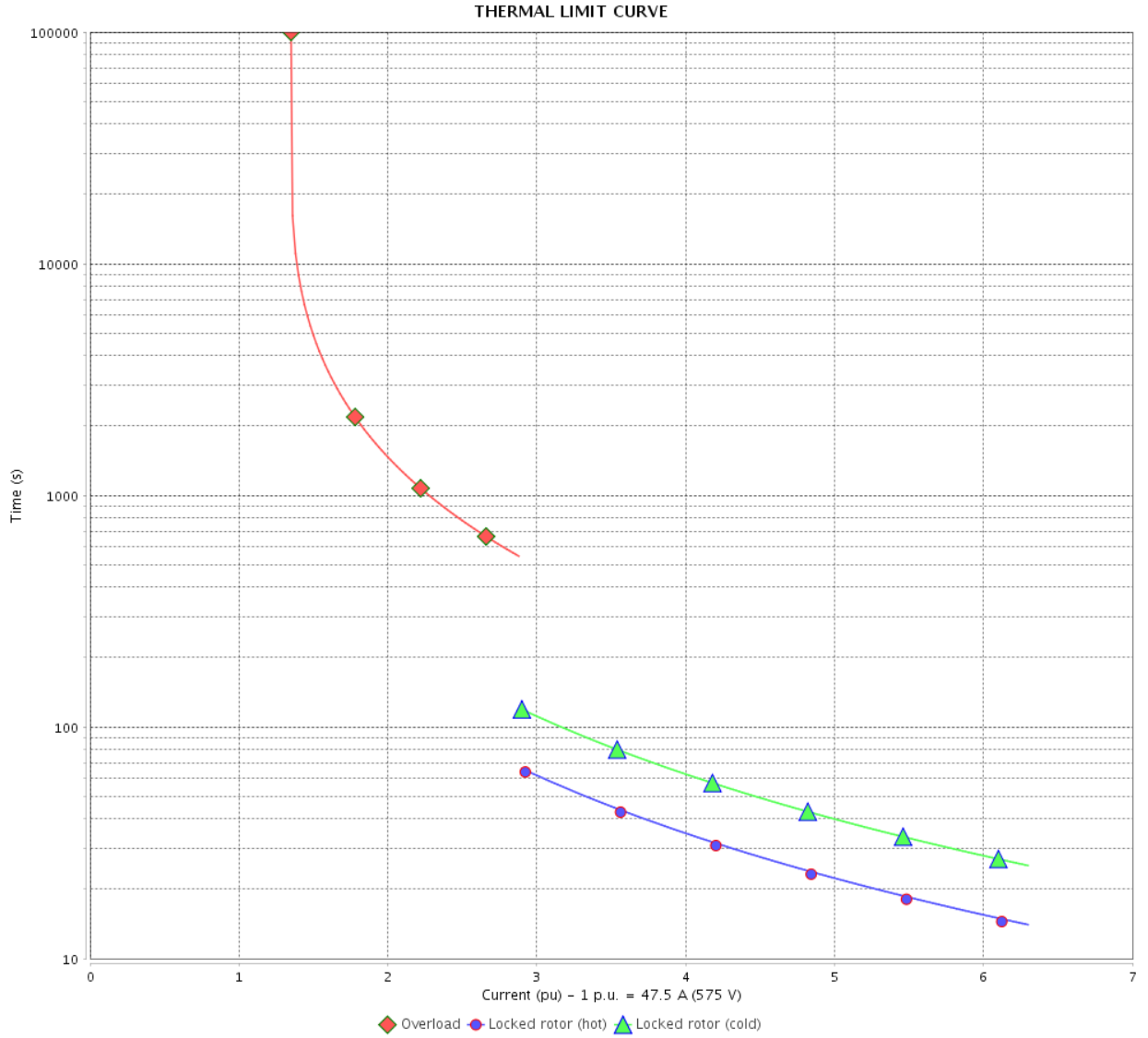
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



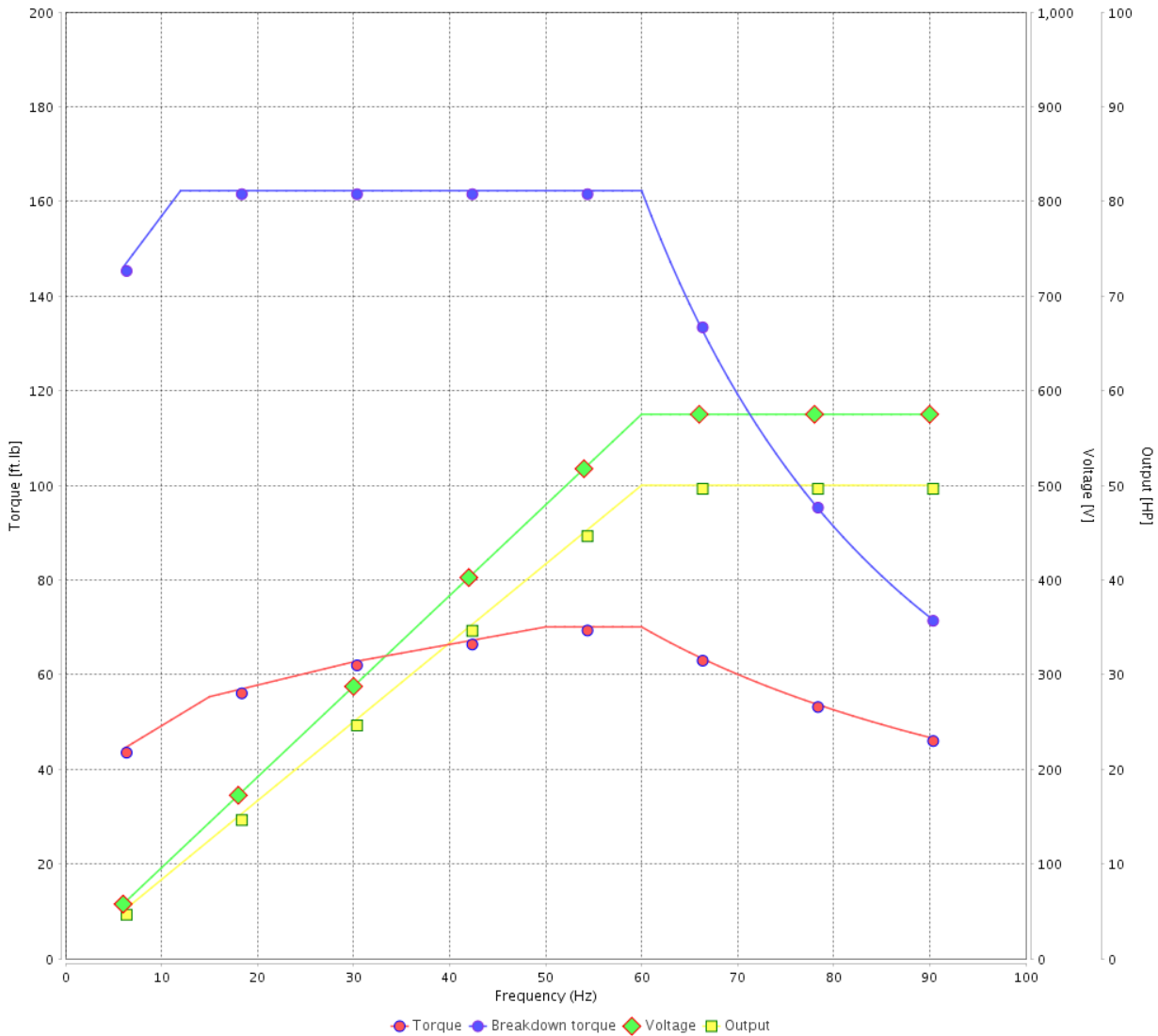
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VFD OPERATION CURVE

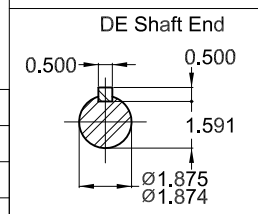
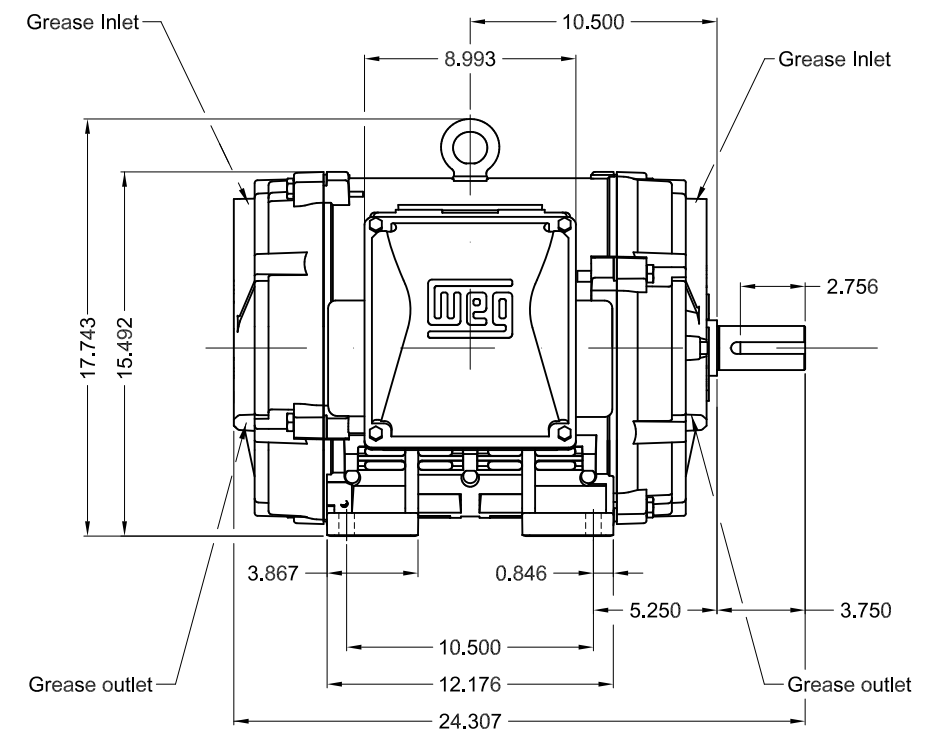
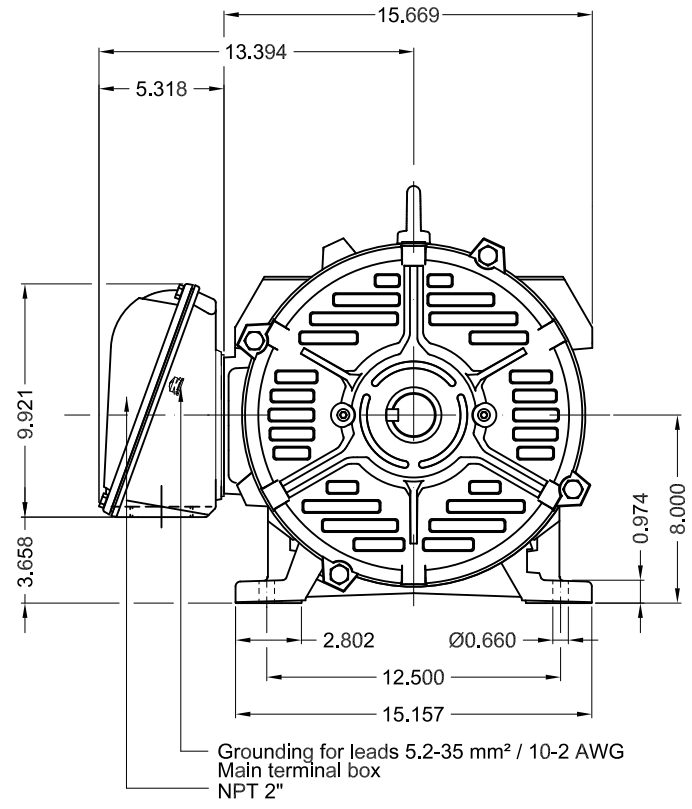


Performance : 575 V 60 Hz 2P

Rated current : 47.5 A
LRC : 6.3
Rated torque : 73.8 ft.lb
Locked rotor torque : 200 %
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Color RAL 5009
Painting plan 203A
Mounting NEMA F-1
Mounting B3R(D)

50 HP 02 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 324TS IP23 ODP					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW
WDD



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



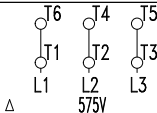
IEC 60034-1
 MOD.T01#FOXON



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

DP050502NPW40
 MADE IN BRAZIL
 14497419

PH 3	FR 324TS	HP(kW) 50(37)		Hz 60
V 575		A 47.5		IP23
NEMA NOM EFF		93.0	%	RPM 3560
ENCL ODP	DUTY CONT.		INS. CL. F Δ T 80 K	
PF 0.84		DES B	CODE G	AMB. 40°C
SF 1.25	SFA 59.4		ALT 1000 m.a.s.l.	



→ 6312-Z-C3
 → 6211-Z-C3

MOBIL POLYREX EM
 21 g 19658 h

414 Lbs