

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase Product code : 14490300
Catalog # : 05036OT3G324JP-W40

Frame	: 324JP	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	: 460 V	Altitude	: 1000 m.a.s.l.
Rated current	: 58.7 A	Protection degree	: IP23
L. R. Amperes	: 370 A	Cooling method	: IC01 - ODP
LRC	: 6.3x(Code G)	Mounting	: F-1
No load current	: 18.5 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	: 442 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	0.50	0.73	0.82	0.85	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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Date	10/04/2020			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

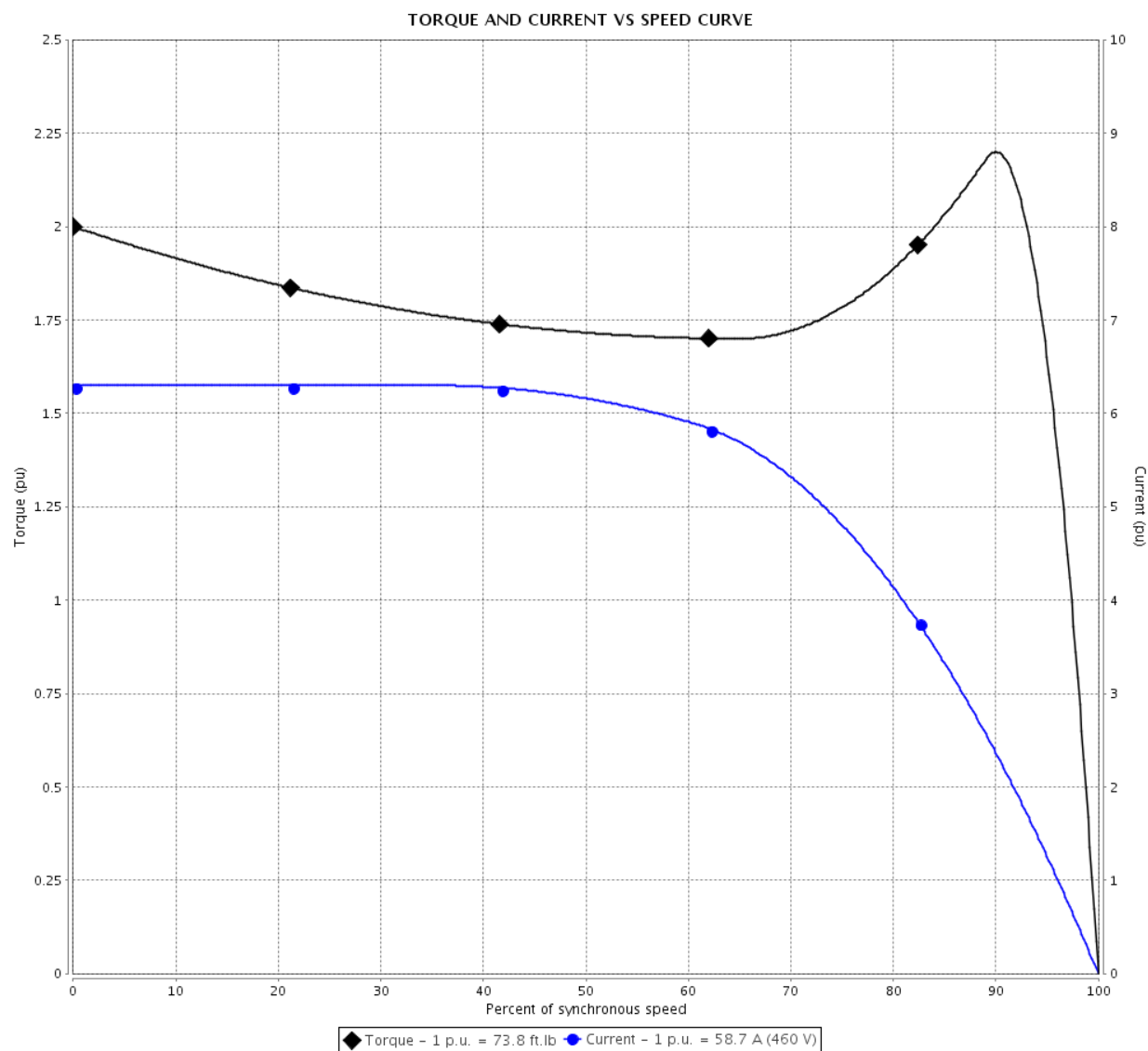


Customer :

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14490300

Catalog # : 05036OT3G324JP-W40



Performance : 460 V 60 Hz 2P

Rated current	: 58.7 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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Checked by				
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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

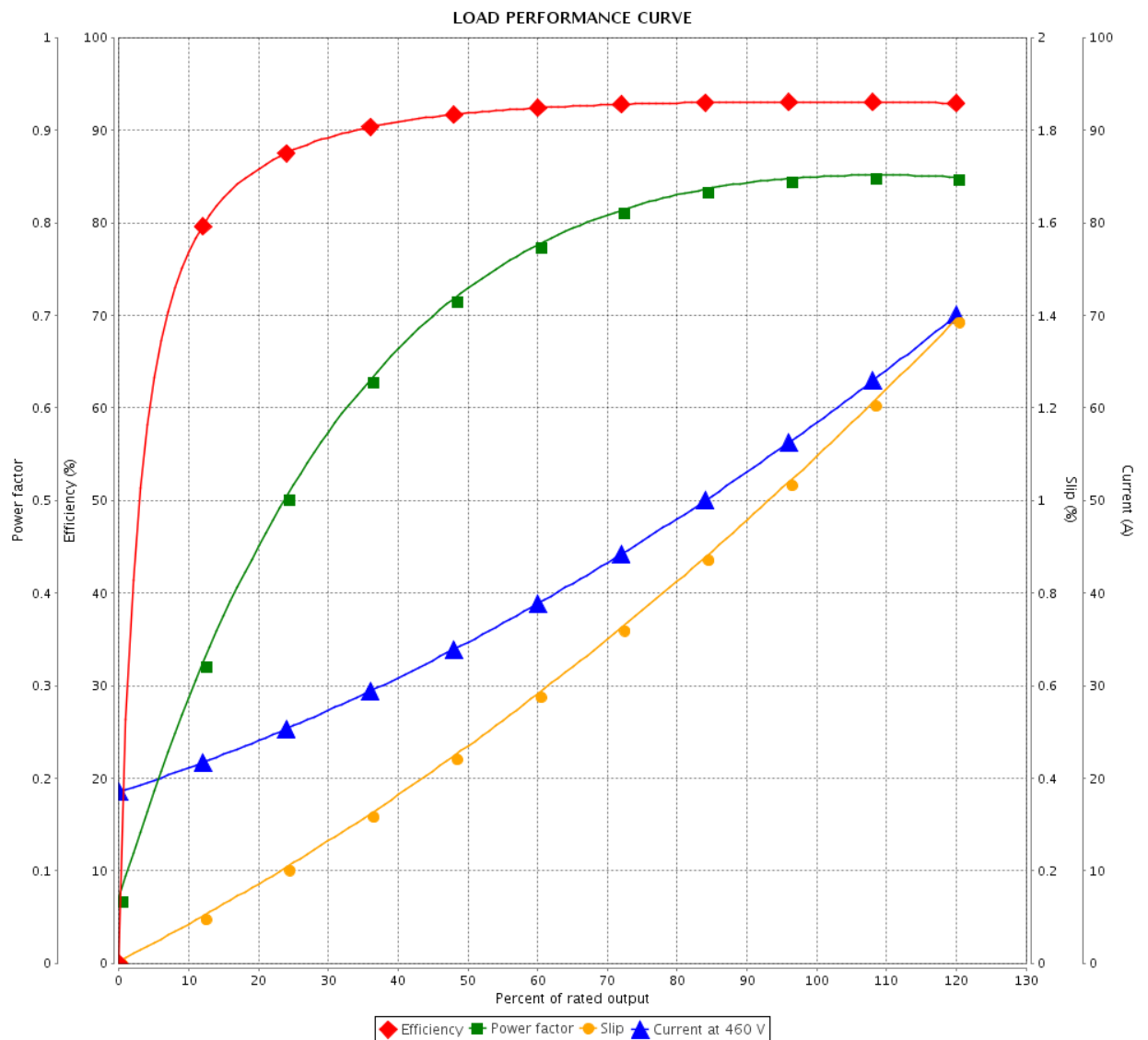


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Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14490300

Catalog # : 05036OT3G324JP-W40



Performance : 460 V 60 Hz 2P

Rated current : 58.7 A
LRC : 6.3
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Locked rotor torque : 200 %
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

Three Phase Induction Motor - Squirrel Cage



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Product line

: W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code :

14490300

Catalog # :

05036OT3G324JP-W40

Performance : 460 V 60 Hz 2P

Rated current

: 58.7 A

LRC

: 6.3

Rated torque

: 73.8 ft.lb

Locked rotor torque

: 200 %

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

Heating constant

Cooling constant

Rev.

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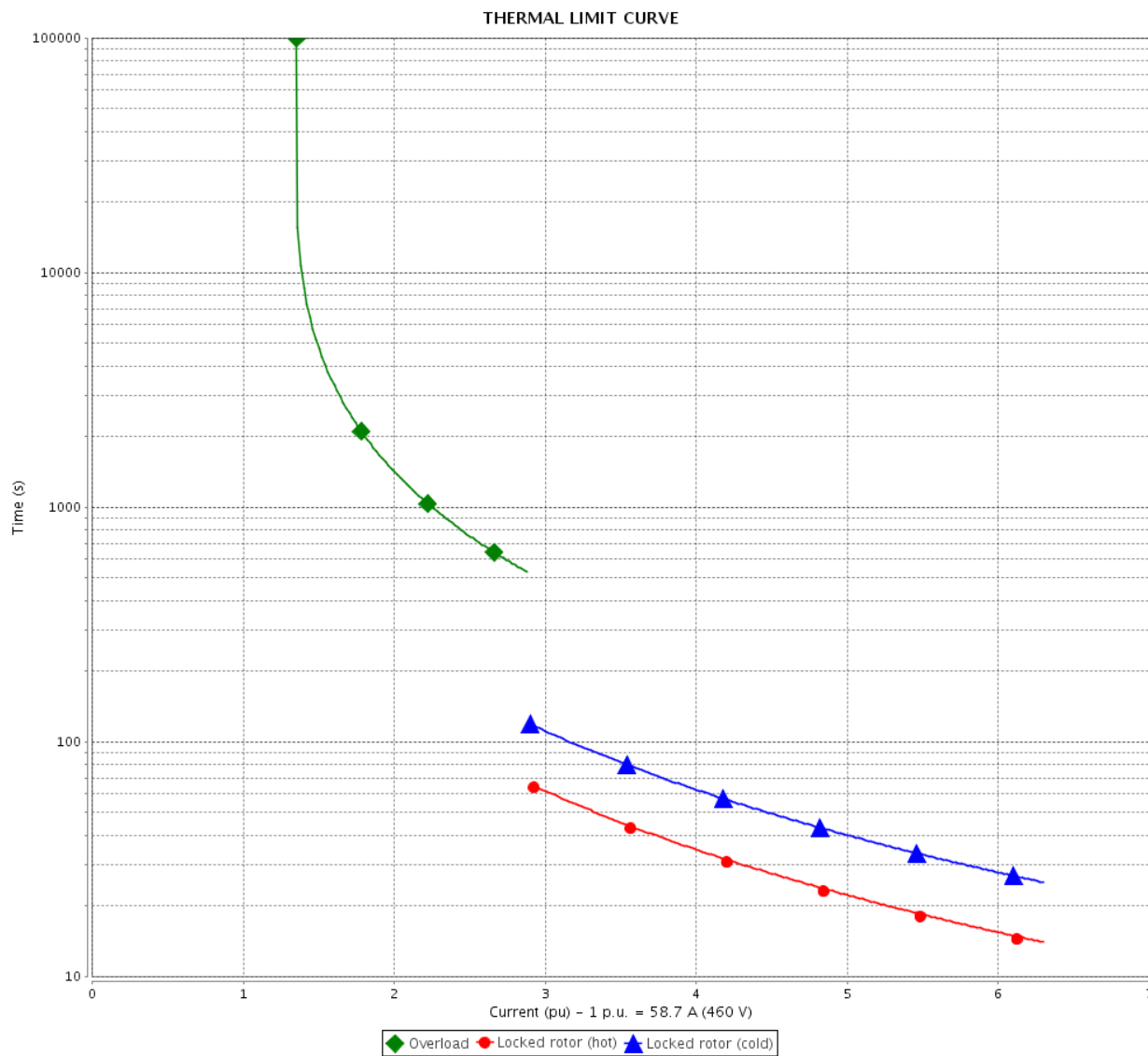
Revision

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

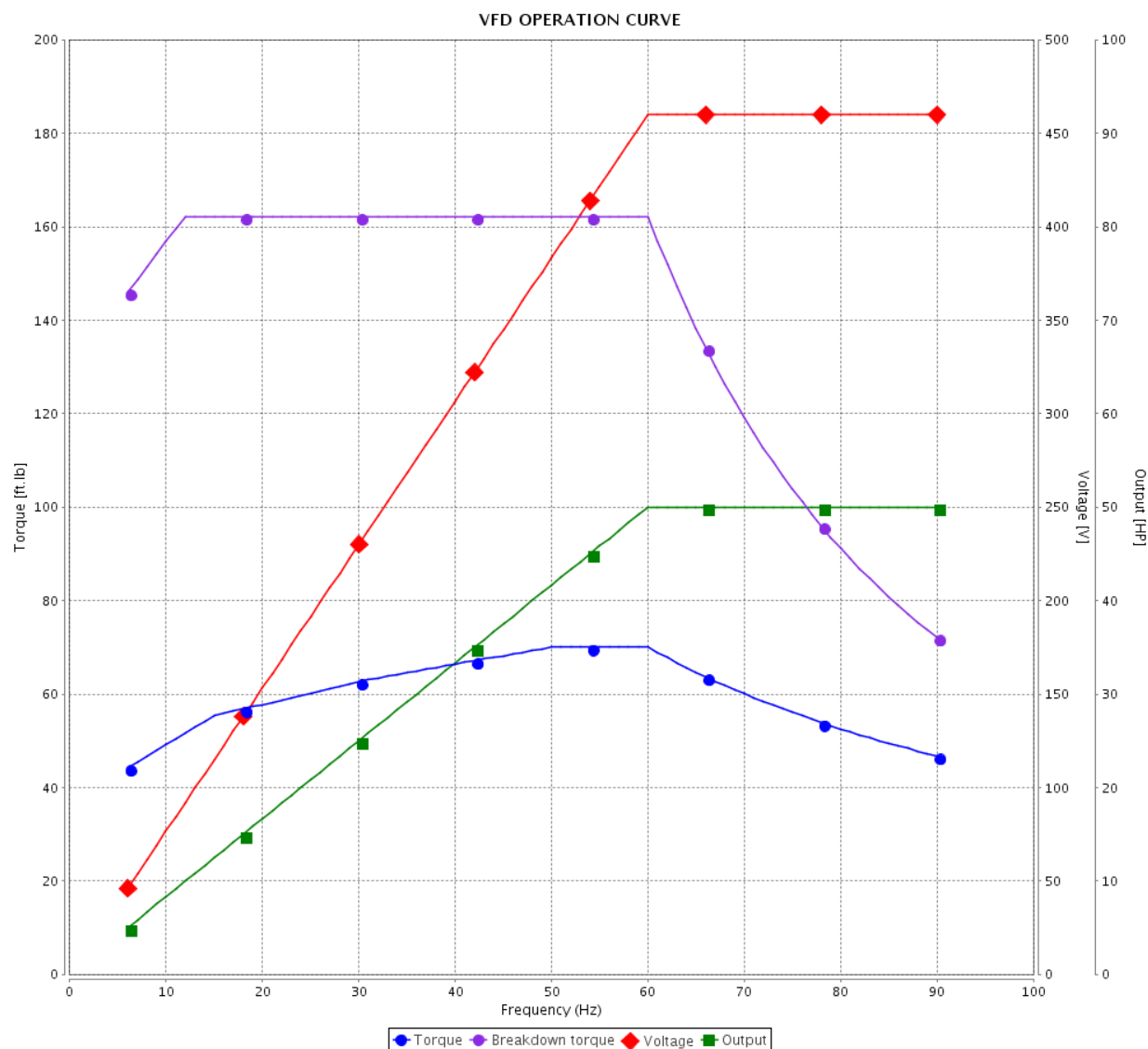


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Product code : 14490300

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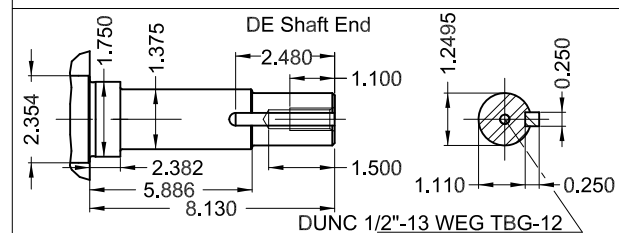
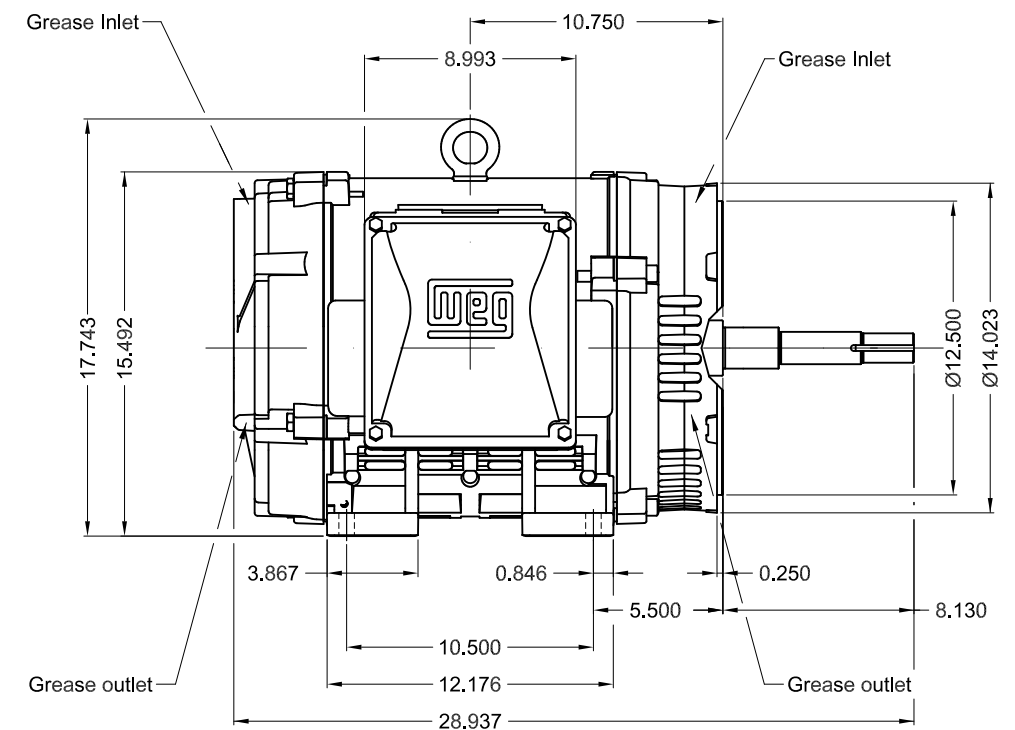
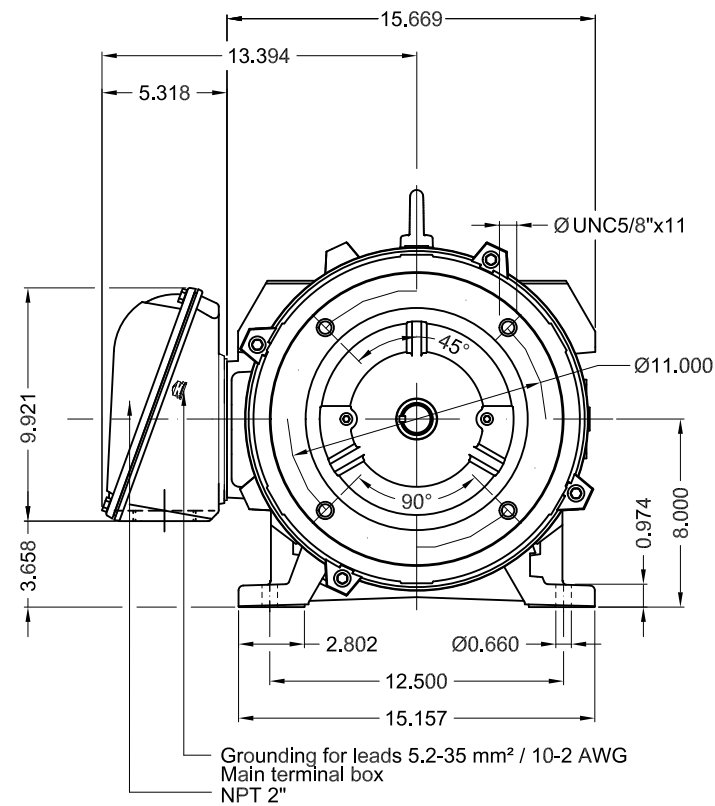




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LRC : 6.3
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Rated speed : 3560 rpm

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50 HP 02 Poles 60Hz										A	
								1:8			
ECM		LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER		THREE PHASE W40 MOTOR NEMA PREMIUM EFF FRAME 324JP IP23 ODP					PREVIEW WDD			
CHECKED											
RELEASED											
REL DT.		WMO	Jaragua do Sul		Product Engineering		SHEET	1 / 1			



W40 NEMA
Premium



Severe Duty

PH	FR	HP(kW)		Hz	<div> <div> PART-WINDING START T12 T10 T11 T7 T8 T9 T6 T4 T5 T1 T2 T3 L1 L2 L3 </div> <div> RUN T12 T10 T11 T7 T8 T9 T6 T4 T5 T1 T2 T3 L1 L2 L3 </div> <div> WYE-DELTA START T12 T10 T11 T6 T4 T5 T7 T8 T9 T1 T2 T3 L1 L2 L3 </div> <div> RUN T12 T10 T11 T6 T4 T5 T7 T8 T9 T1 T2 T3 L1 L2 L3 </div> </div>						
V —		A —									
NEMA NOM EFF		— %		RPM							
ENCL ODP	DUTY		INS. CL.	ΔT	K						
PF		DES —	CODE	AMB.							
SF	SFA		ALT 1000 m.a.s.l.		Lbs						