

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase Product code : 14272437
Catalog # : 15012OT3G445T-W40

Frame	: 444/5T	Locked rotor time	: 19s (cold) 11s (hot)
Output	: 150 HP (110 kW)	Temperature rise	: 80 K
Poles	: 6	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	: 183 A	Protection degree	: IP23
L. R. Amperes	: 1171 A	Cooling method	: IC01 - ODP
LRC	: 6.4x(Code G)	Mounting	: F-1
No load current	: 86.0 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1188 rpm	Noise level ²	: 69.0 dB(A)
Slip	: 1.00 %	Starting method	: Direct On Line
Rated torque	: 663 ft.lb	Approx. weight ³	: 1537 lb
Locked rotor torque	: 210 %		
Breakdown torque	: 260 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 79.0 sq.ft.lb		
Design	: B		

Output	25%	50%	75%	100%	Foundation loads	
Efficiency (%)	94.0	94.5	95.0	95.4	Max. traction	: 4711 lb
Power Factor	0.37	0.62	0.73	0.79	Max. compression	: 6248 lb

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6319 C3	6314 C3
Sealing	:	Without Bearing Seal	Without Bearing Seal
Lubrication interval	:	20000 h	20000 h
Lubricant amount	:	45 g	27 g
Lubricant type	:	Mobil Polyrex EM	

Notes

This revision replaces and cancel the previous one, which must be eliminated.

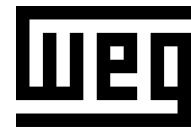
- (1) Looking the motor from the shaft end.
- (2) Measured at 1m and with tolerance of +3dB(A).
- (3) Approximate weight subject to changes after manufacturing process.
- (4) At 100% of full load.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 1 / 6 Revision		
Checked by				
Date	10/04/2020			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

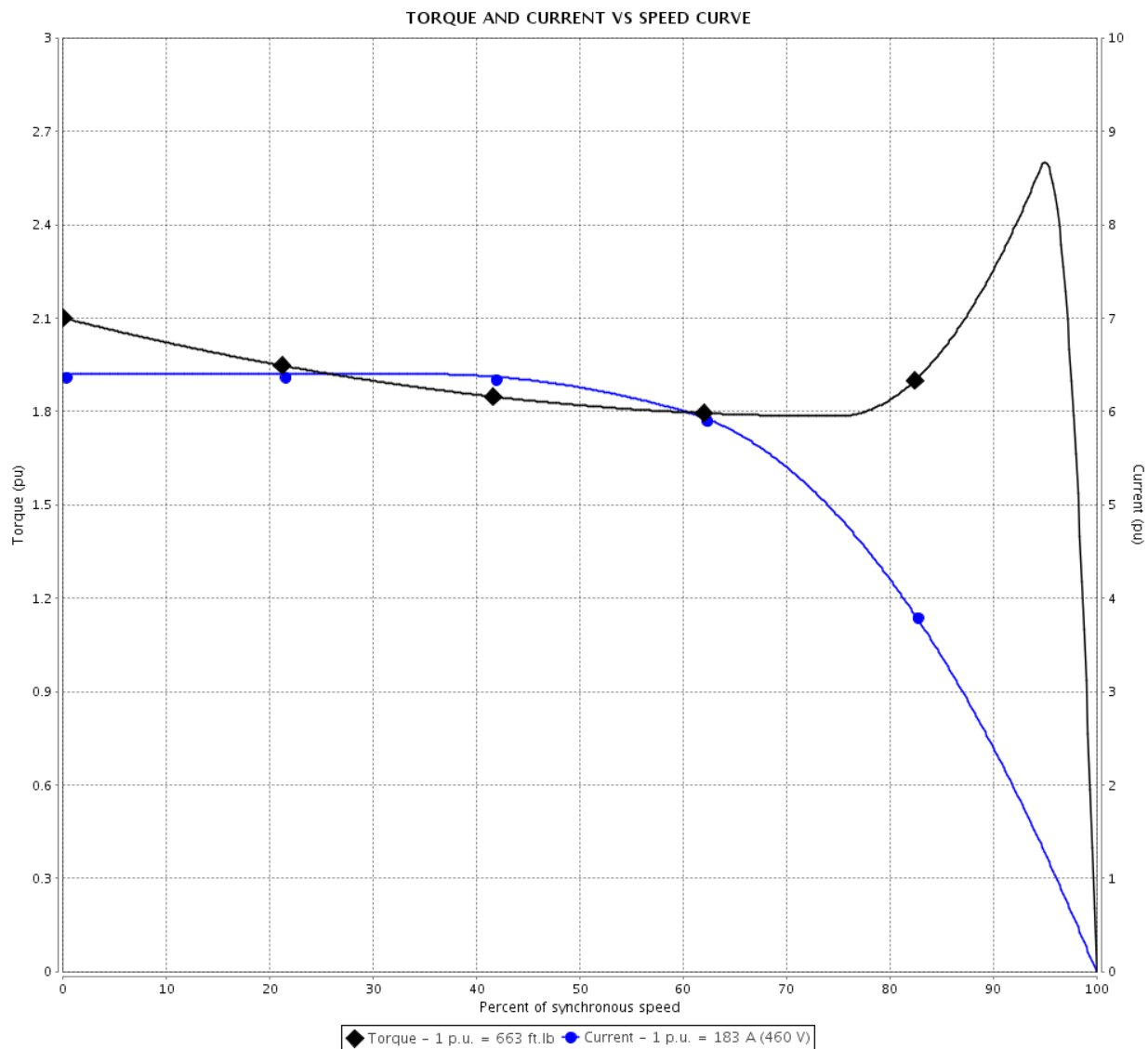


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272437

Catalog # : 150120T3G445T-W40



Performance : 460 V 60 Hz 6P

Rated current	: 183 A	Moment of inertia (J)	: 79.0 sq.ft.lb
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 663 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1188 rpm	Design	: B

Locked rotor time : 19s (cold) 11s (hot)

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Performed by		Page 2 / 6 Revision		
Checked by				
Date	10/04/2020			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

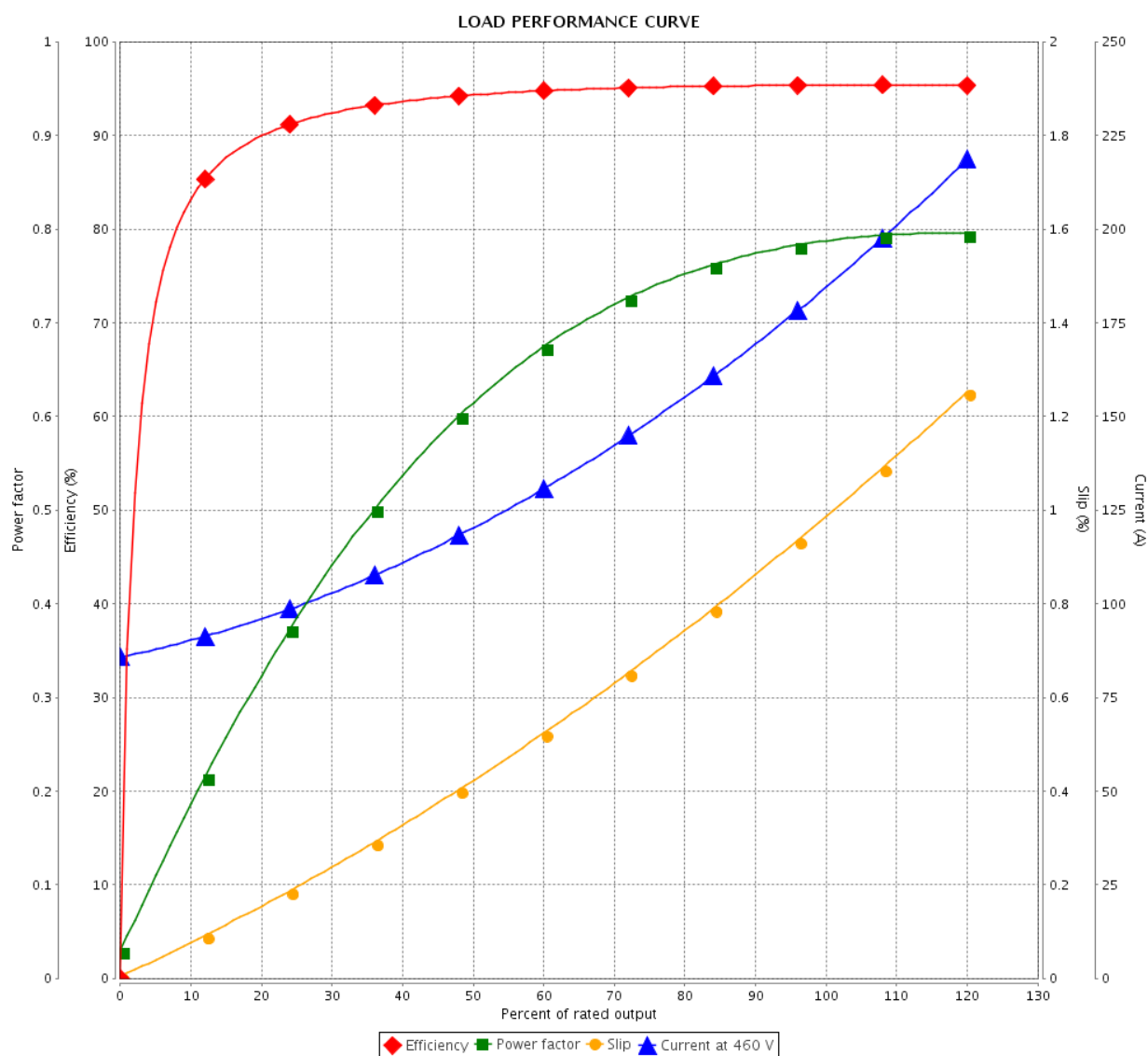


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Three-Phase

Product code : 14272437

Catalog # : 15012OT3G445T-W40



Performance : 460 V 60 Hz 6P

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THERMAL LIMIT CURVE

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Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1188 rpm	Design	: B

Heating constant

Cooling constant

Rev.

Changes Summary

Performed

Checked

Date

Performed by

Checked by

Date

10/04/2020

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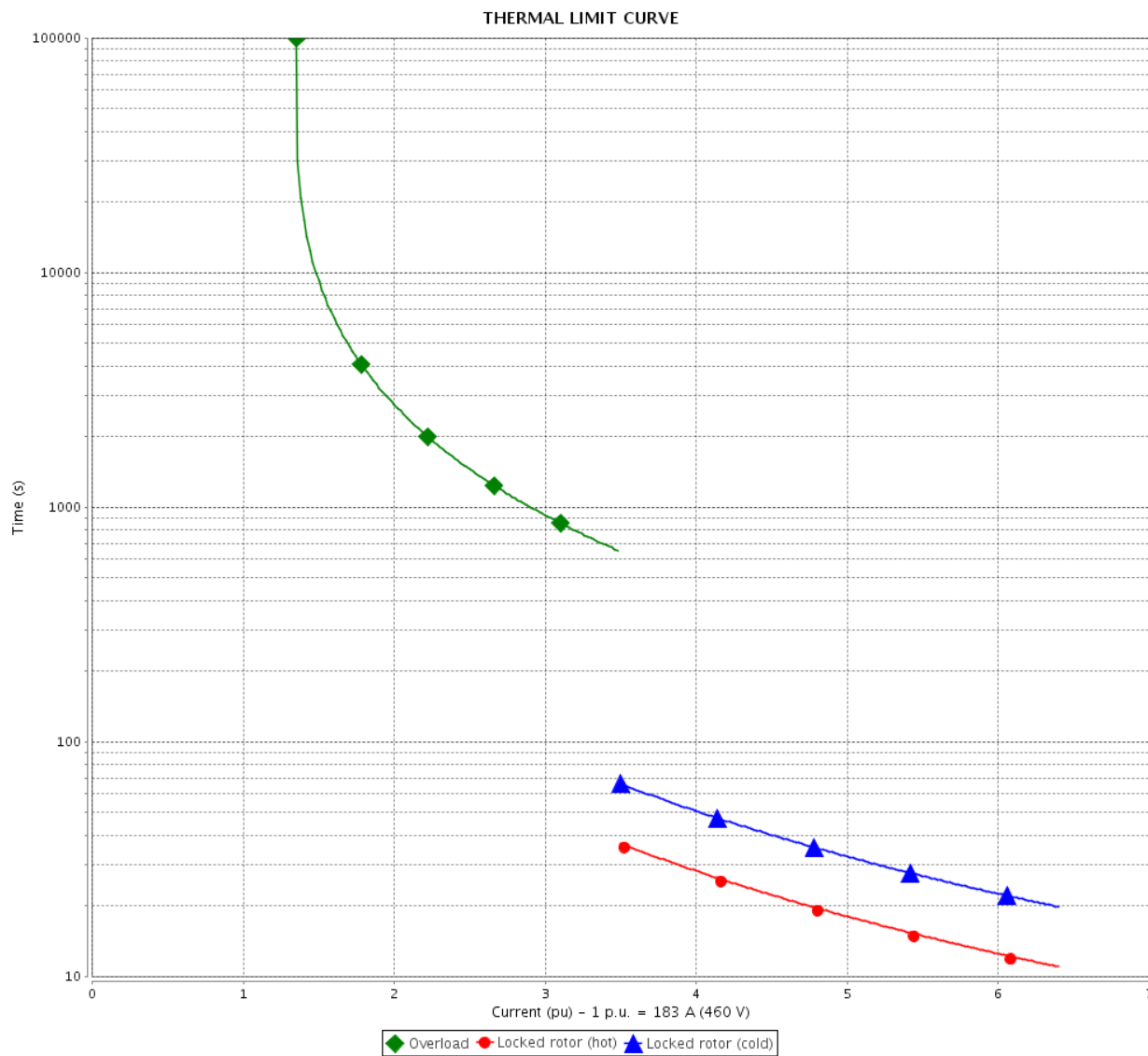
Revision

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Checked by					
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

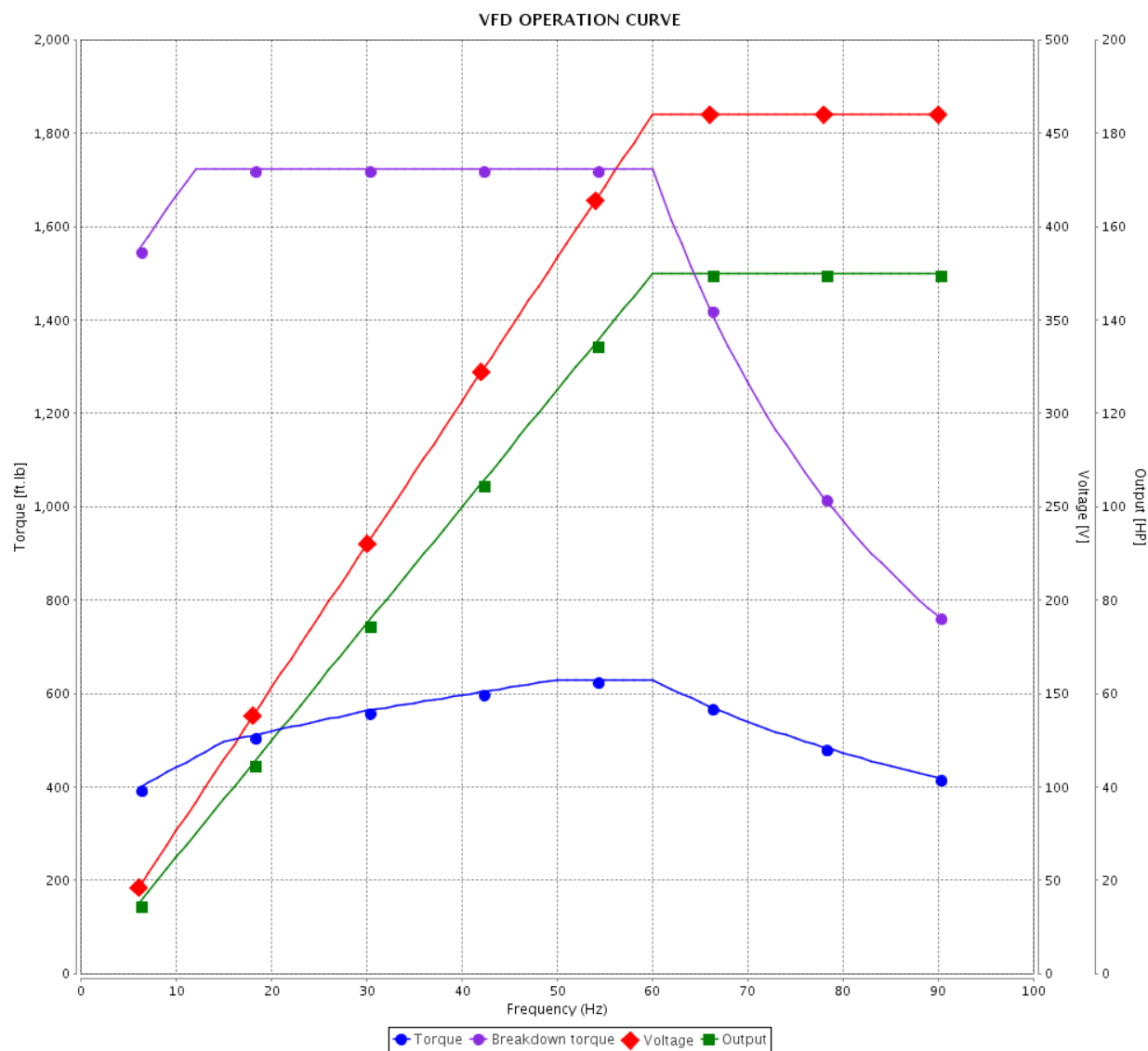


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Catalog # : 150120T3G445T-W40

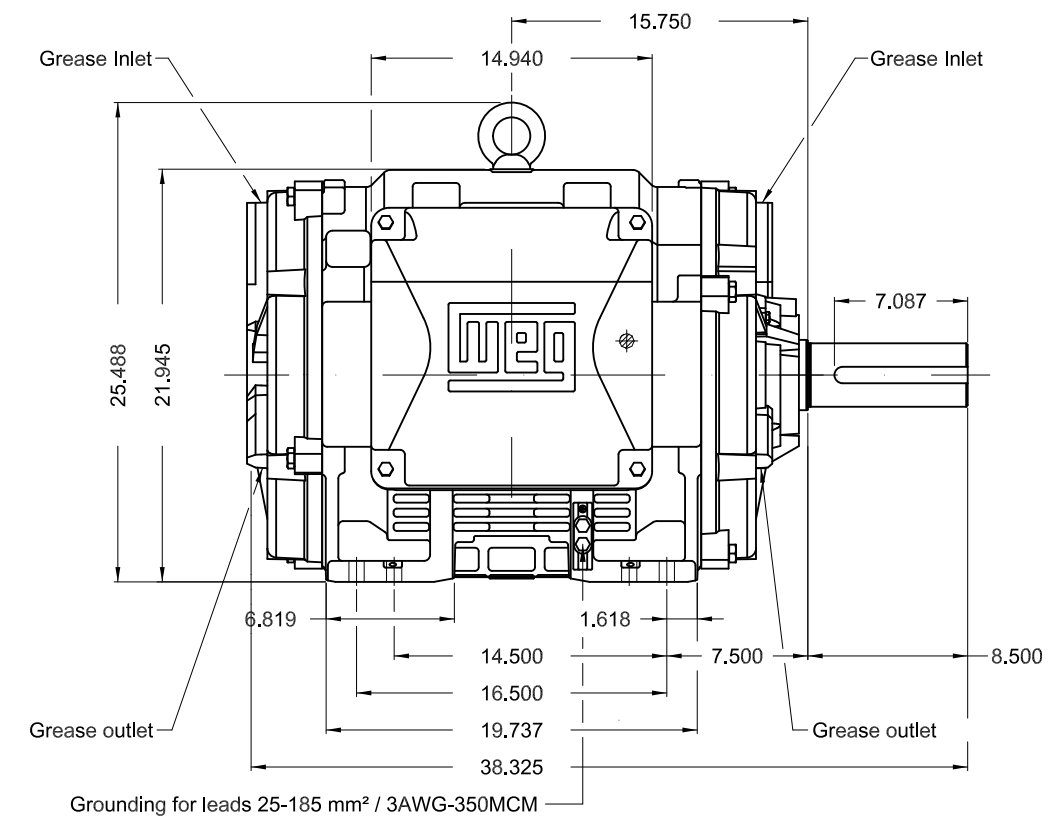
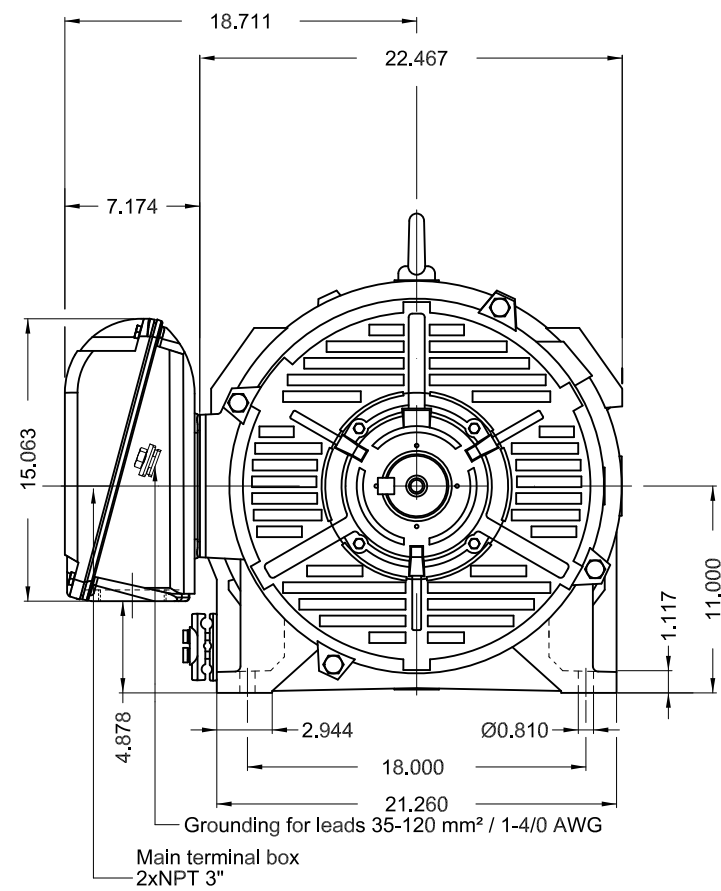




Performance : 460 V 60 Hz 6P

Rated current : 183 A
LRC : 6.4
Rated torque : 663 ft.lb
Locked rotor torque : 210 %
Breakdown torque : 260 %
Rated speed : 1188 rpm

Moment of inertia (J) : 79.0 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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Date				
	10/04/2020			Revision



150 HP 06 Poles 60Hz										A
										1:10
ECM	LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWUSER		THREE PHASE W40 MOTOR NEMA PREMIUM EFF FRAME 444/5T IP23 ODP				PREVIEW WDD			
CHECKED										
RELEASED										
REL DT.		WMO	Jaragua do Sul		Product Engineering		SHEET	1 / 1		

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Calcium in Singapore


NAME	A3
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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.	 <div>KLUBERSYNTH BHP 72-102</div>						
SF	SFA		ALT 1000 m.a.s.l.		Lbs						