

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase Product code : 14272484
Catalog # : 050120T3E365TC-W40

Frame	: 364/5TC	Locked rotor time	: 27s (cold) 15s (hot)
Output	: 50 HP (37 kW)	Temperature rise	: 80 K
Poles	: 6	Duty cycle	: Cont.(S1)
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 230/460 V	Altitude	: 1000 m.a.s.l.
Rated current	: 116/58.1 A	Protection degree	: IP23
L. R. Amperes	: 779/389 A	Cooling method	: IC01 - ODP
LRC	: 6.7x(Code G)	Mounting	: F-1
No load current	: 40.8/20.4 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1185 rpm	Noise level ²	: 68.0 dB(A)
Slip	: 1.25 %	Starting method	: Direct On Line
Rated torque	: 222 ft.lb	Approx. weight ³	: 803 lb
Locked rotor torque	: 220 %		
Breakdown torque	: 240 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 23.9 sq.ft.lb		
Design	: B		

Output	25%	50%	75%	100%	Foundation loads	
Efficiency (%)	93.5	93.6	94.1	94.1	Max. traction	: 1718 lb
Power Factor	0.48	0.74	0.82	0.85	Max. compression	: 2521 lb

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6314 C3	6212 Z C3
Sealing	:	Without Bearing Seal	Without Bearing Seal
Lubrication interval	:	20000 h	20000 h
Lubricant amount	:	27 g	13 g
Lubricant type	:	Mobil Polyrex EM	

Notes
USABLE @208V 128A SF 1.15 SFA 148A

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

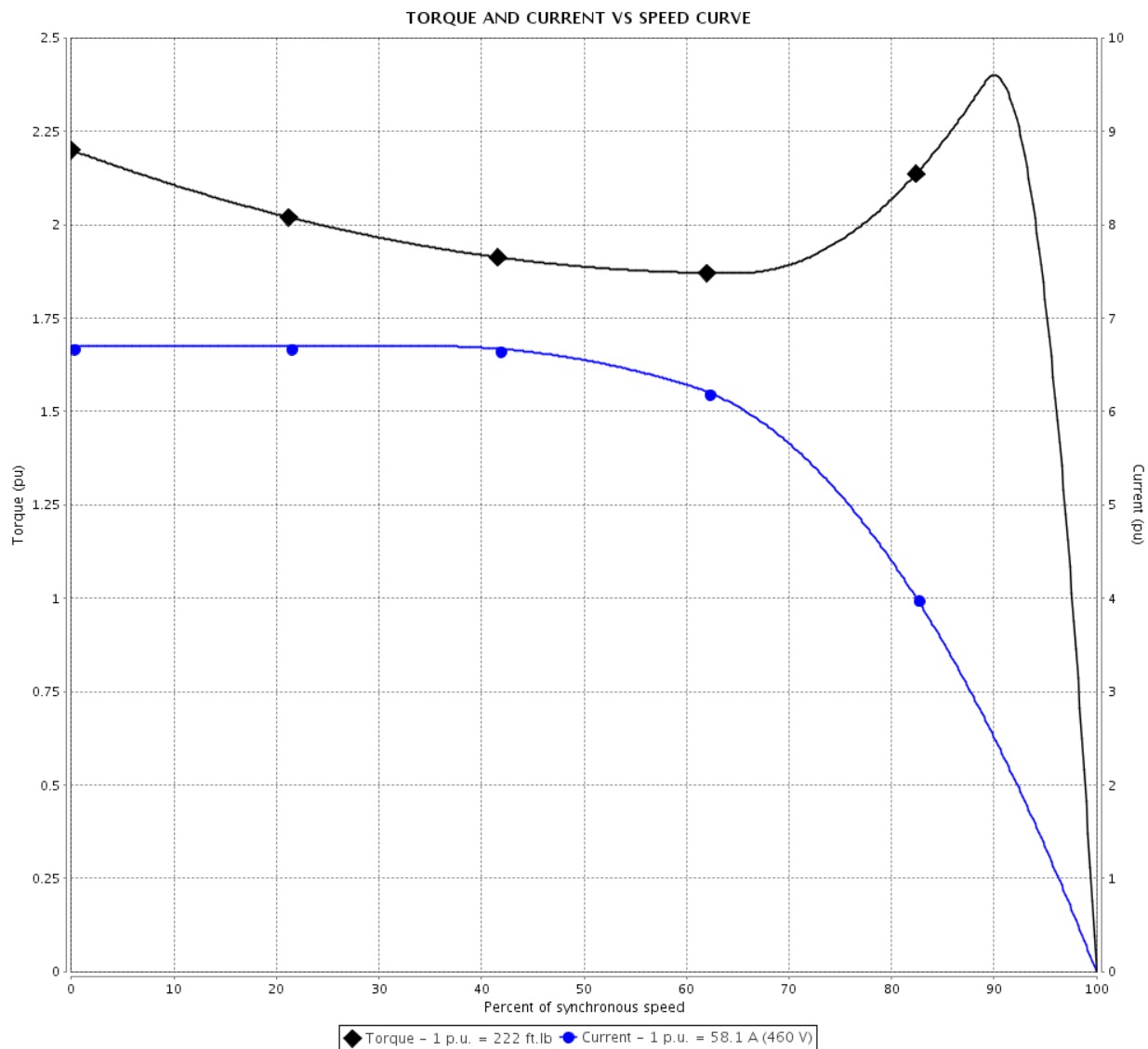


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272484

Catalog # : 050120T3E365TC-W40



Performance : 230/460 V 60 Hz 6P

Rated current : 116/58.1 A
LRC : 6.7
Rated torque : 222 ft.lb
Locked rotor torque : 220 %
Breakdown torque : 240 %
Rated speed : 1185 rpm

Moment of inertia (J) : 23.9 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Locked rotor time : 27s (cold) 15s (hot)

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Checked by				
Date	10/04/2020			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

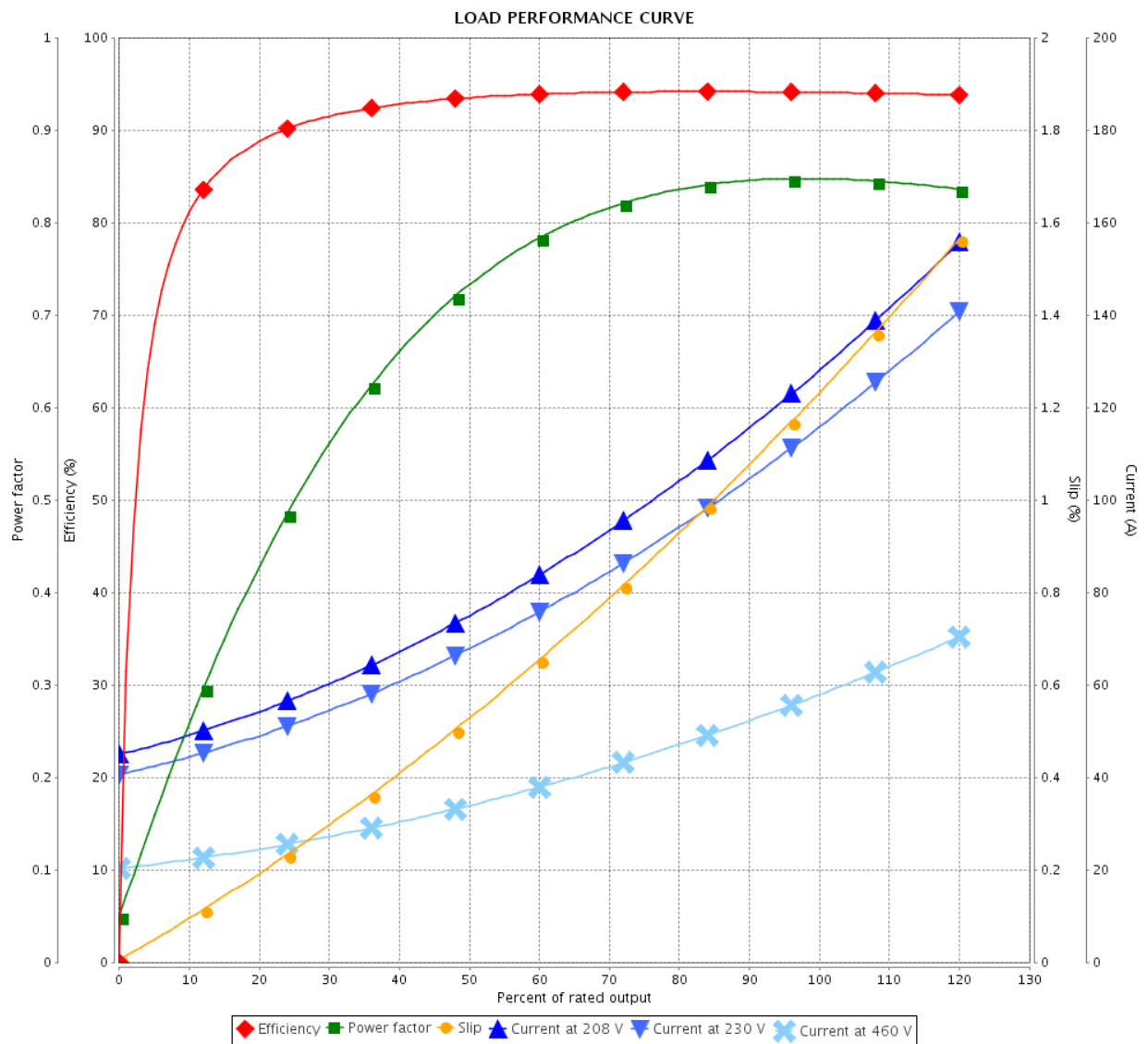


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272484

Catalog # : 05012OT3E365TC-W40



Performance : 230/460 V 60 Hz 6P

Rated current : 116/58.1 A
LRC : 6.7
Rated torque : 222 ft.lb
Locked rotor torque : 220 %
Breakdown torque : 240 %
Rated speed : 1185 rpm

Moment of inertia (J) : 23.9 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 : 14272484

Catalog # : 05012OT3E365TC-W40

Performance : 230/460 V 60 Hz 6P

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Rated torque : 222 ft.lb
Locked rotor torque : 220 %
Breakdown torque : 240 %
Rated speed : 1185 rpm

Moment of inertia (J) : 23.9 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.

Changes Summary

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Checked

Date

Performed by

Checked by

Date

10/04/2020

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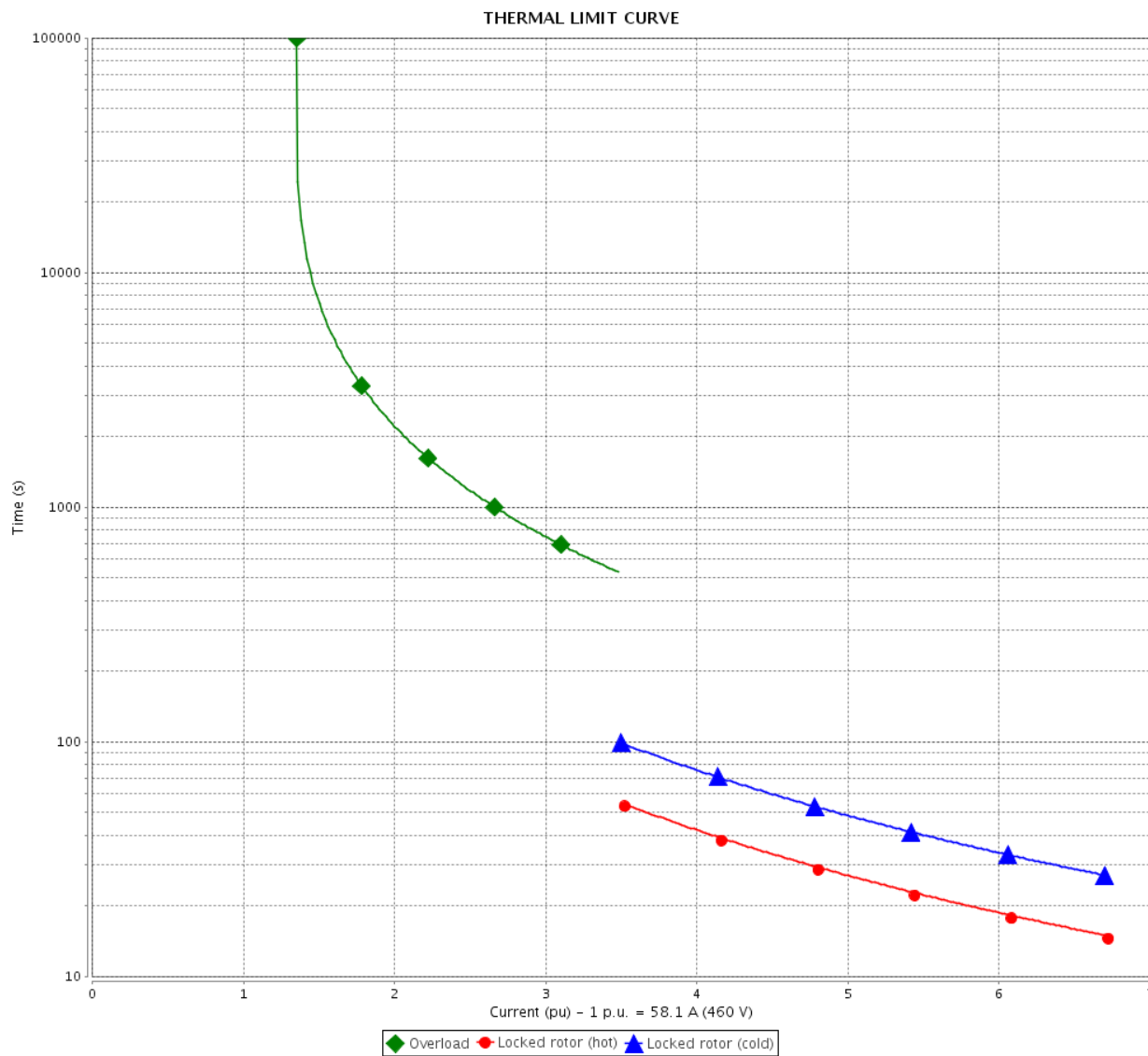
Revision

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

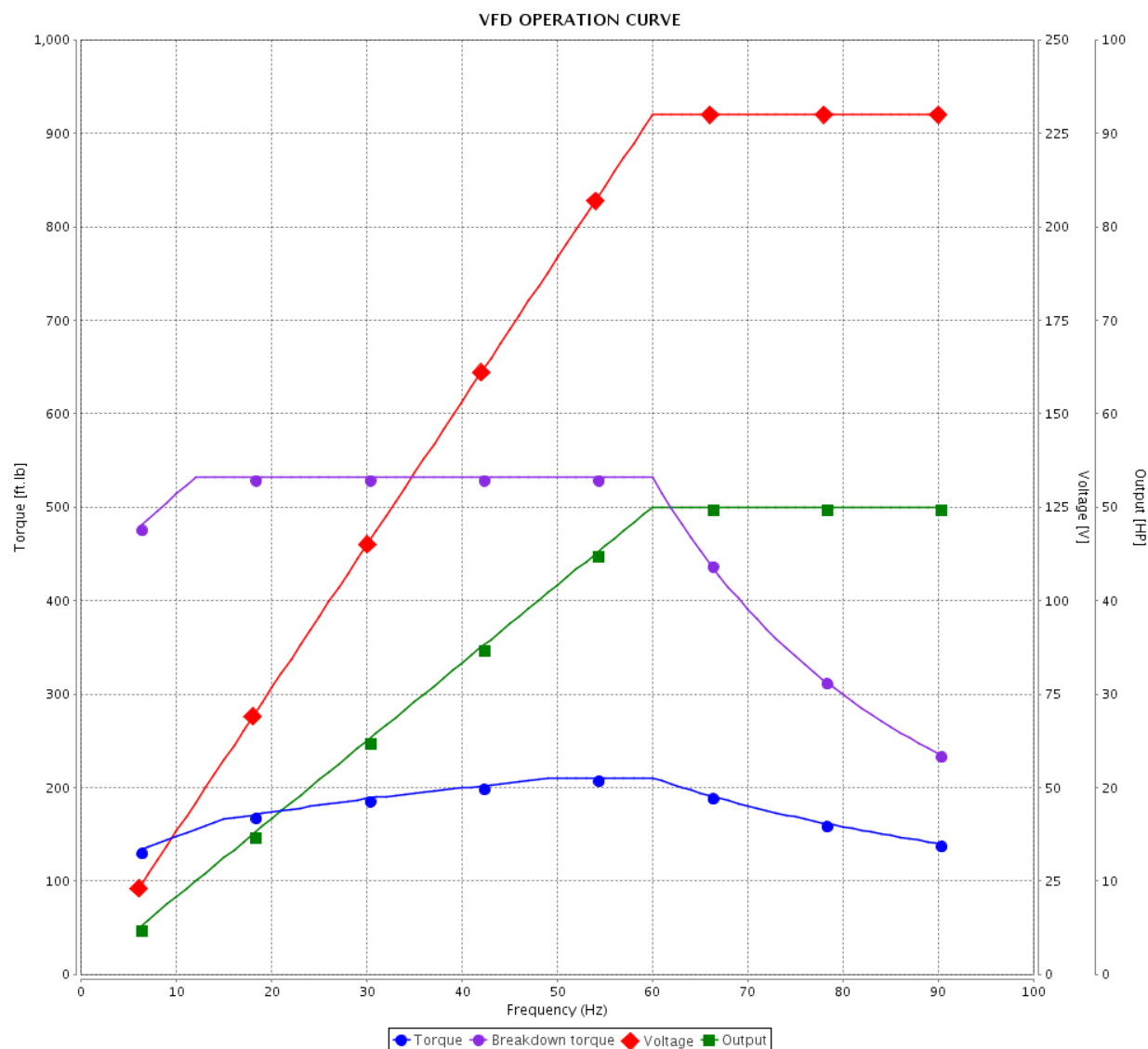


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272484

Catalog # : 050120T3E365TC-W40

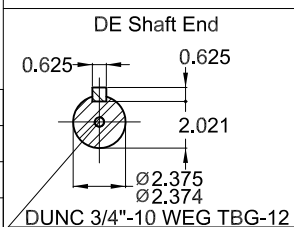
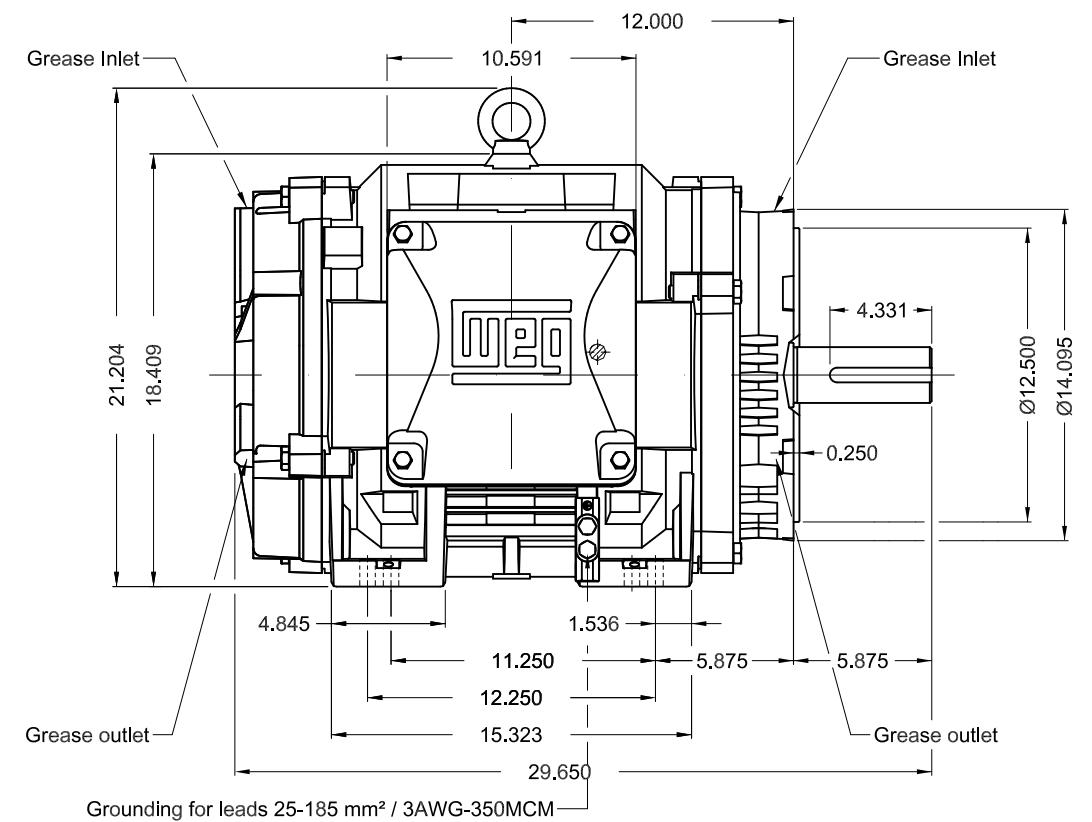
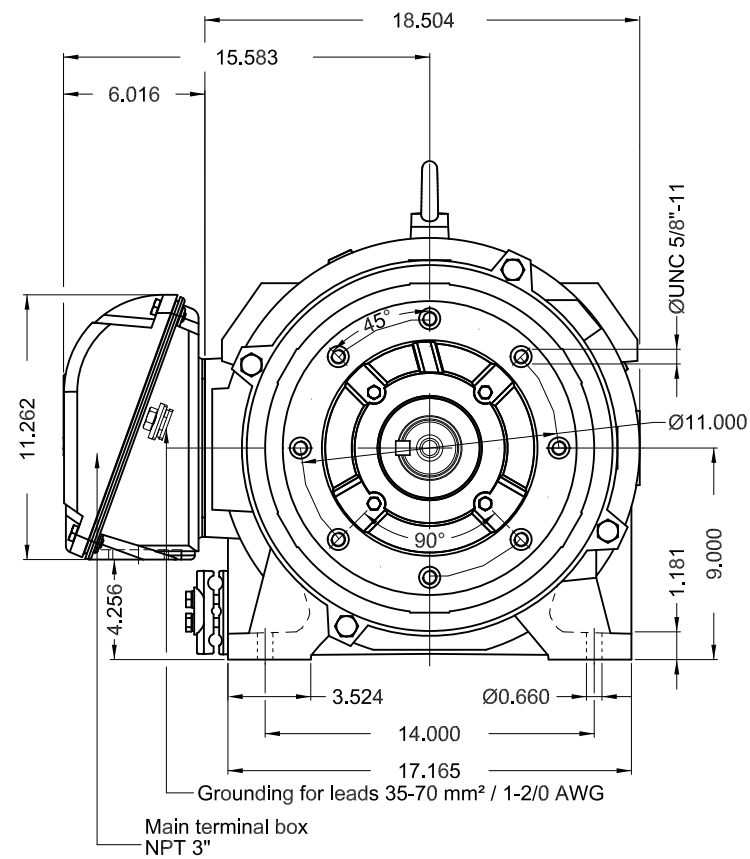


Performance : 230/460 V 60 Hz 6P



Rated current : 116/58.1 A
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Color RAL 5009
Painting plan 203A
Mounting NEMA F-1
Mounting B34R(D)

50 HP 06 Poles 60Hz										A	
								1:8			
ECM		LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWUSER		THREE PHASE W40 MOTOR NEMA PREMIUM EFF FRAME 364/5TC IP23 ODP				PREVIEW WDD				
CHECKED											
RELEASED											
REL DT.		WMO	Jaragua do Sul		Product Engineering		SHEET	1 / 1			