

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase Product code : 14285006
Catalog # : 12518OT3E405TC-W40G

Frame	: 404/5TC	Locked rotor time	: 18s (cold) 10s (hot)
Output	: 125 HP	Temperature rise	: 80 K
Poles	: 4	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	: 276/138 A	Protection degree	: IP23
L. R. Amperes	: 1904/952 A	Cooling method	: IC01 - ODP
LRC	: 6.9x(Code G)	Mounting	: F-1
No load current	: 94.0/47.0 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1780 rpm	Noise level ²	: 69.0 dB(A)
Slip	: 1.11 %	Starting method	: Direct On Line
Rated torque	: 369 ft.lb	Approx. weight ³	: 1072 lb
Locked rotor torque	: 270 %		
Breakdown torque	: 260 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 25.5 sq.ft.lb		
Design	: B		

Output	25%	50%	75%	100%	Foundation loads	
Efficiency (%)	94.9	95.0	95.4	95.4	Max. traction	: 2869 lb
Power Factor	0.50	0.75	0.83	0.86	Max. compression	: 3941 lb

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6316 C3	6212 Z C3
Sealing	:	Without Bearing Seal	Without Bearing Seal
Lubrication interval	:	20000 h	20000 h
Lubricant amount	:	34 g	13 g
Lubricant type	:	Mobil Polyrex EM	

Notes
USABLE @208V 305A SF 1.15 SFA 351A

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

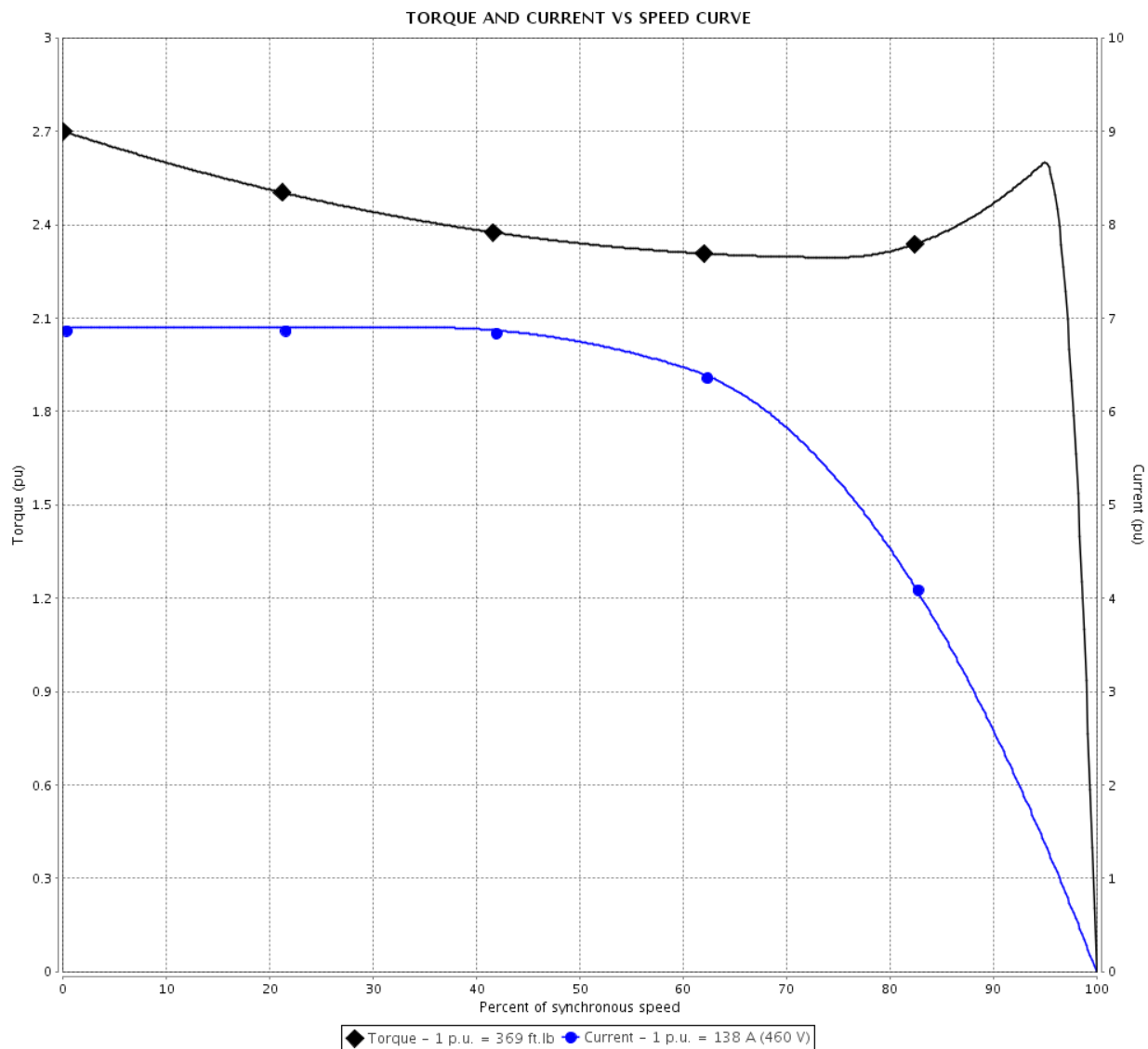


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14285006

Catalog # : 12518OT3E405TC-W40G



Performance : 230/460 V 60 Hz 4P

Rated current	: 276/138 A	Moment of inertia (J)	: 25.5 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 369 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: B

Locked rotor time : 18s (cold) 10s (hot)

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Performed by		<div style="display: flex; justify-content: space-between;"> <div>Page 2 / 6</div> <div>Revision</div> </div>		
Checked by				
Date	10/04/2020			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

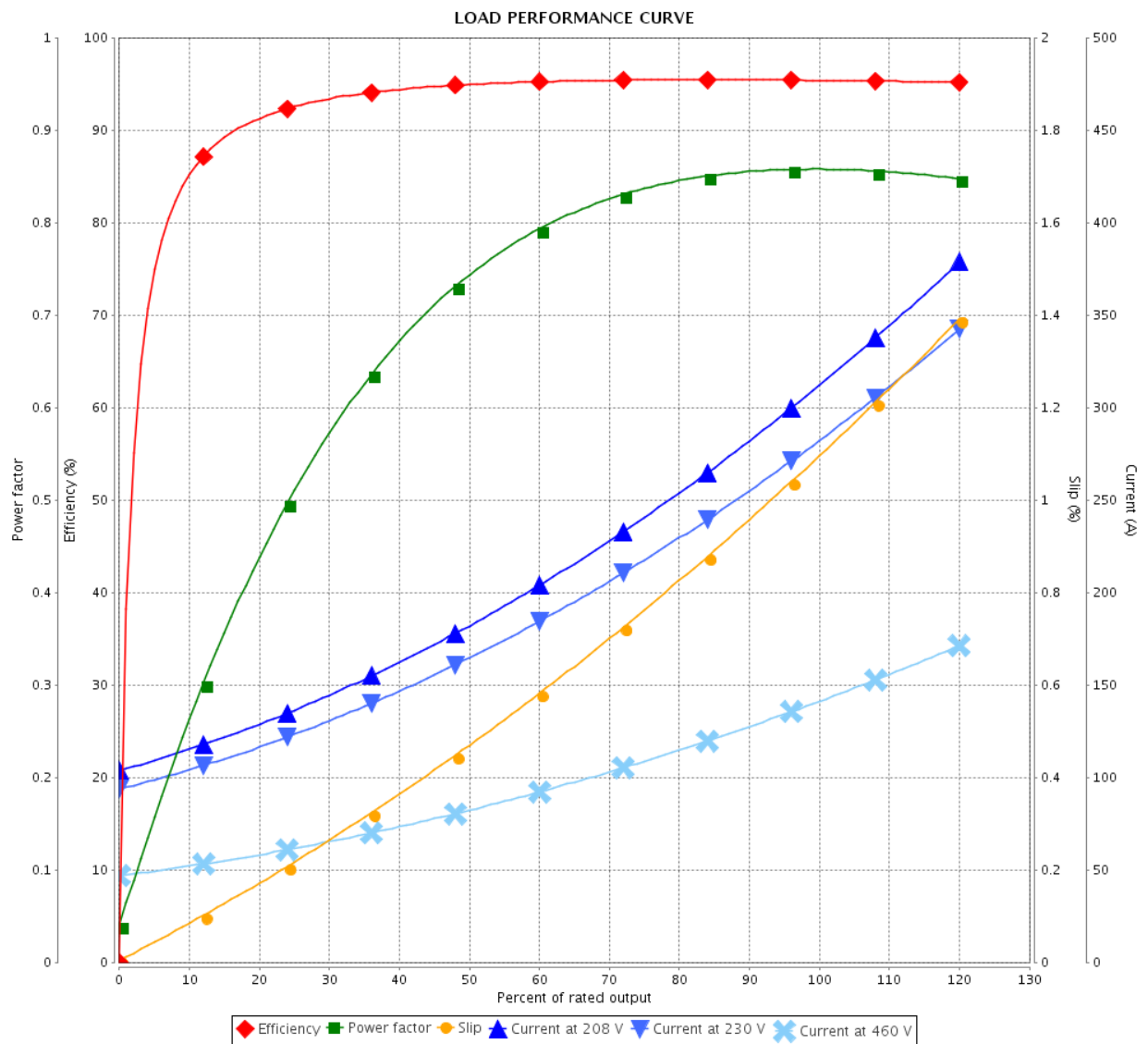


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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

Rev.

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Performed

Checked

Date

Performed by

Checked by

Date

10/04/2020

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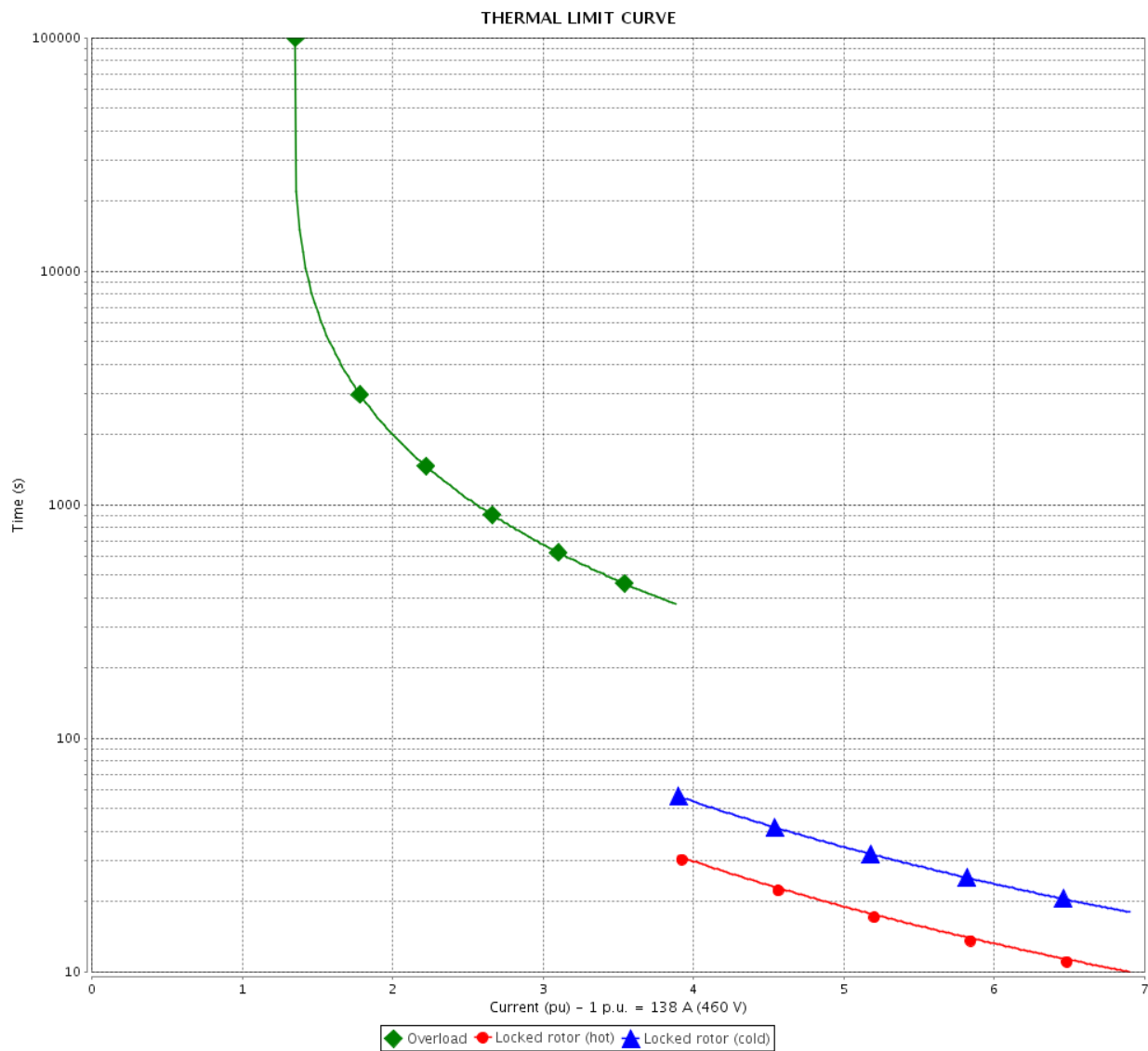
Revision

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

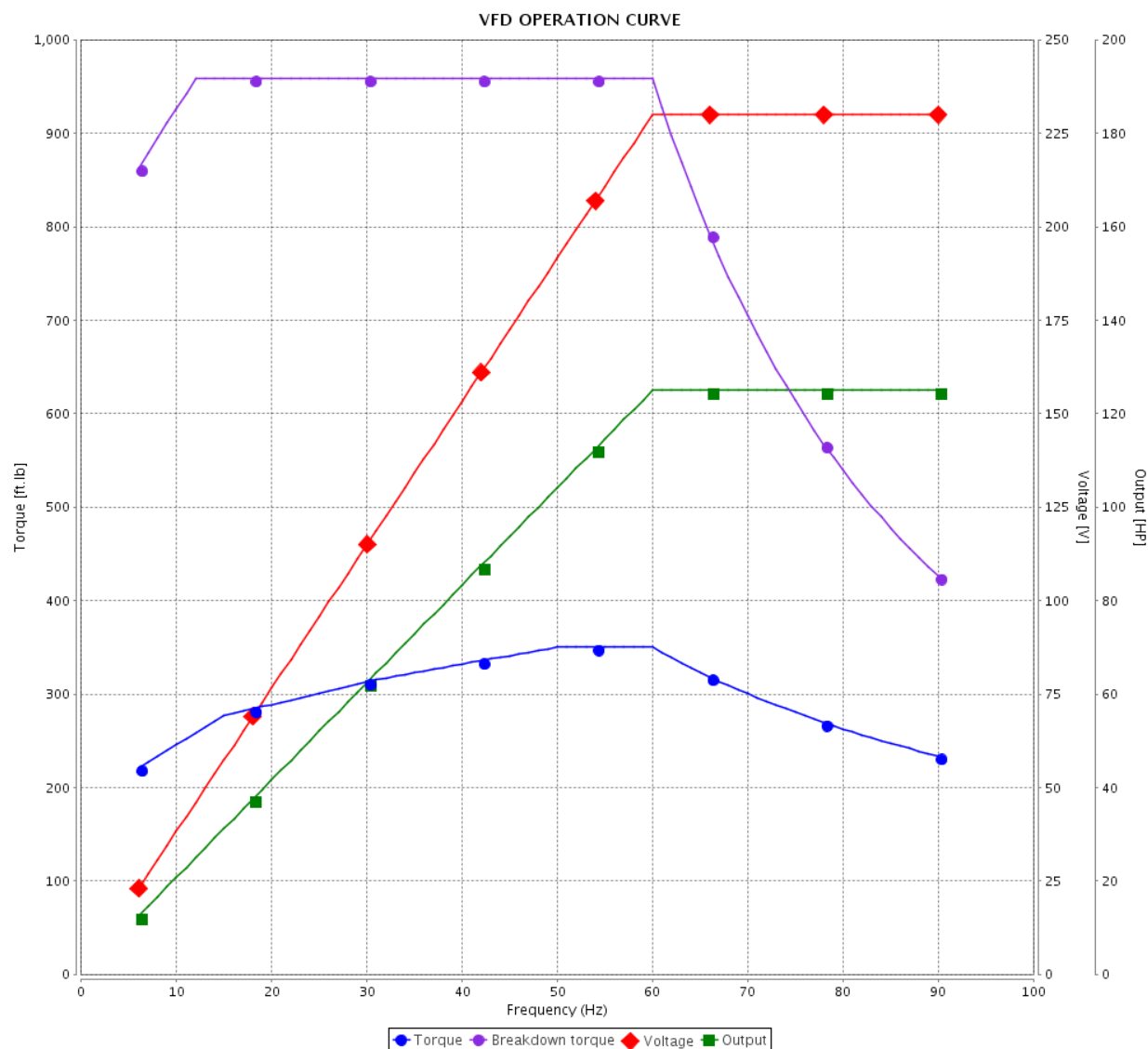


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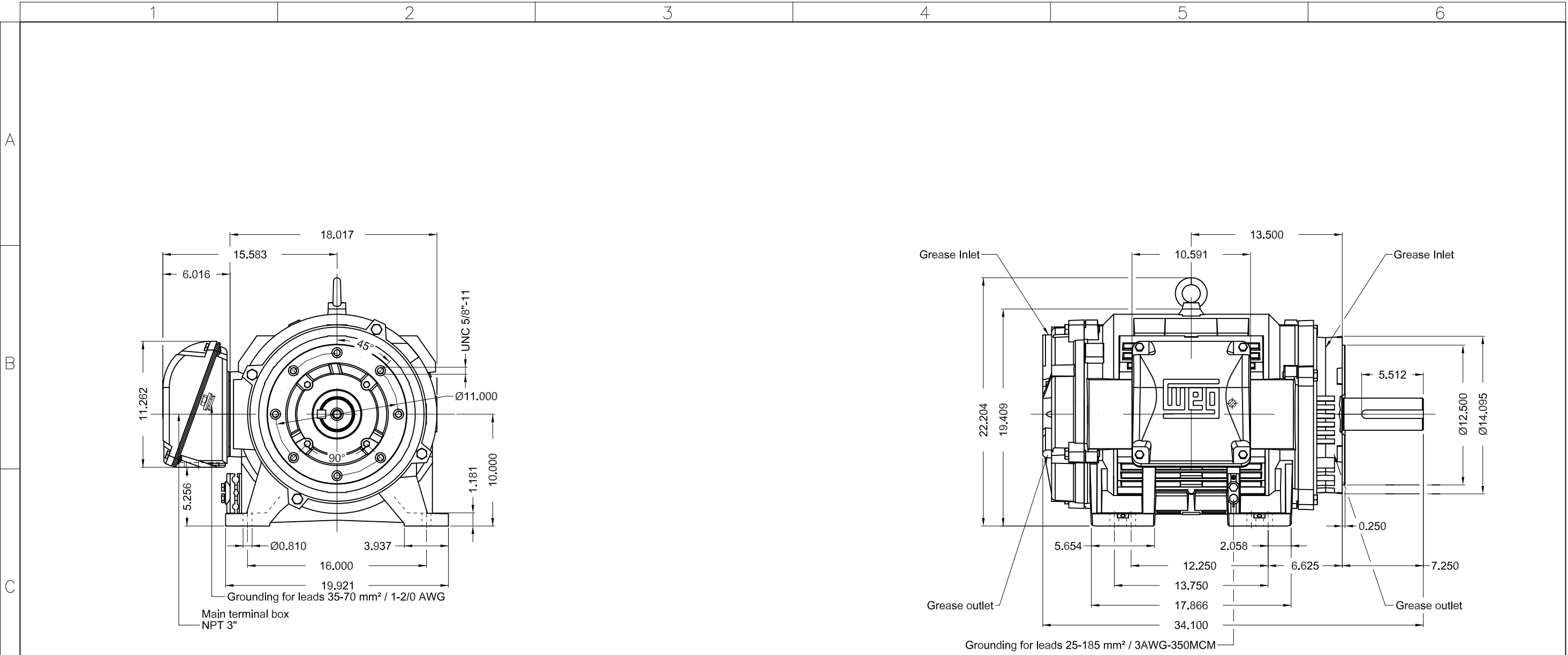


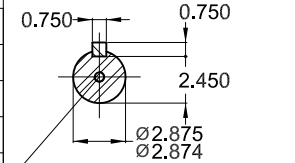
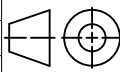

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D															A
															1:9
E	<div>Internal AEGIS ground ring on the DE</div> <div>Color RAL 5009</div> <div>Painting plan 203A</div> <div>Mounting NEMA F-1</div> <div>Mounting B34R(D)</div>	<div>DE Shaft End</div> <div></div>			ECM		LOC	SUMMARY OF MODIFICATIONS			EXECUTED	CHECKED	RELEASED	DATE	VER
					EXECUTED	PIRWBUSER			THREE PHASE W40 MOTOR NEMA PREMIUM EFF			PREVIEW			
					CHECKED				FRAME 404/5TC IP23 ODP			WDD			
					RELEASED										
					REL DT.			WMO	Jaragua do Sul			Product Engineering		SHEET	