

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 JM Pump NEMA Premium Efficiency Three-Phase      Product code : 14269580  
Catalog # : 06018OT3G364JM-W40

Frame	: 364/5JM	Locked rotor time	: 34s (cold) 19s (hot)
Output	: 60 HP (45 kW)	Temperature rise	: 80 K
Poles	: 4	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	: 69.9 A	Protection degree	: IP23
L. R. Amperes	: 454 A	Cooling method	: IC01 - ODP
LRC	: 6.5x(Code G)	Mounting	: F-1
No load current	: 24.7 A	Rotation <sup>1</sup>	: Both (CW and CCW)
Rated speed	: 1780 rpm	Noise level <sup>2</sup>	: 69.0 dB(A)
Slip	: 1.11 %	Starting method	: Direct On Line
Rated torque	: 177 ft.lb	Approx. weight <sup>3</sup>	: 785 lb
Locked rotor torque	: 200 %		
Breakdown torque	: 240 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 15.6 sq.ft.lb		
Design	: B		

Output	25%	50%	75%	100%	Foundation loads	
Efficiency (%)	94.4	94.5	95.0	95.0	Max. traction	: 1243 lb
Power Factor	0.48	0.73	0.82	0.85	Max. compression	: 2028 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

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

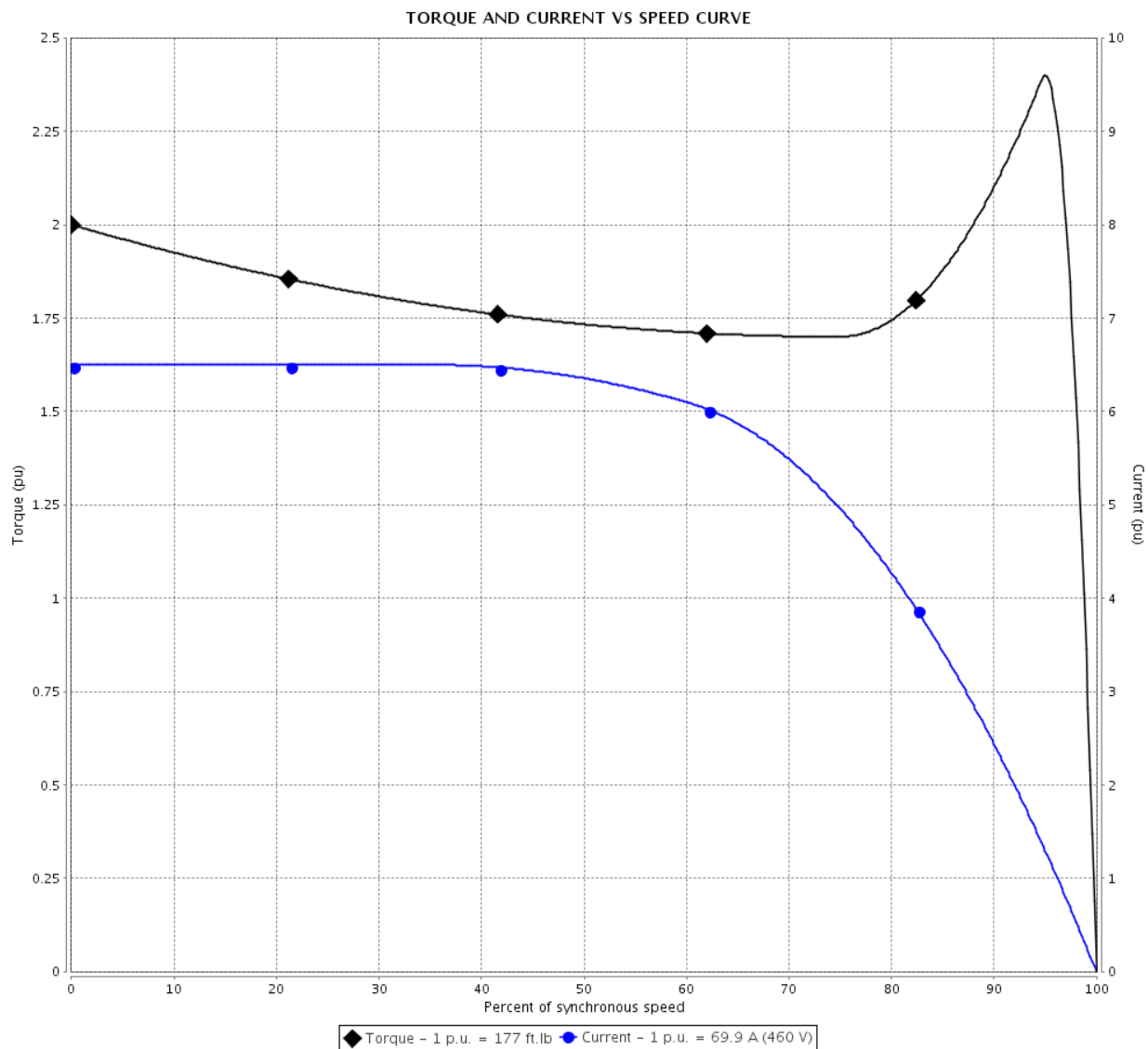


Customer :

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

Product code : 14269580

Catalog # : 06018OT3G364JM-W40



Performance : 460 V 60 Hz 4P

Rated current	: 69.9 A	Moment of inertia (J)	: 15.6 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: B

Locked rotor time : 34s (cold) 19s (hot)

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Checked by				
Date	10/04/2020			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

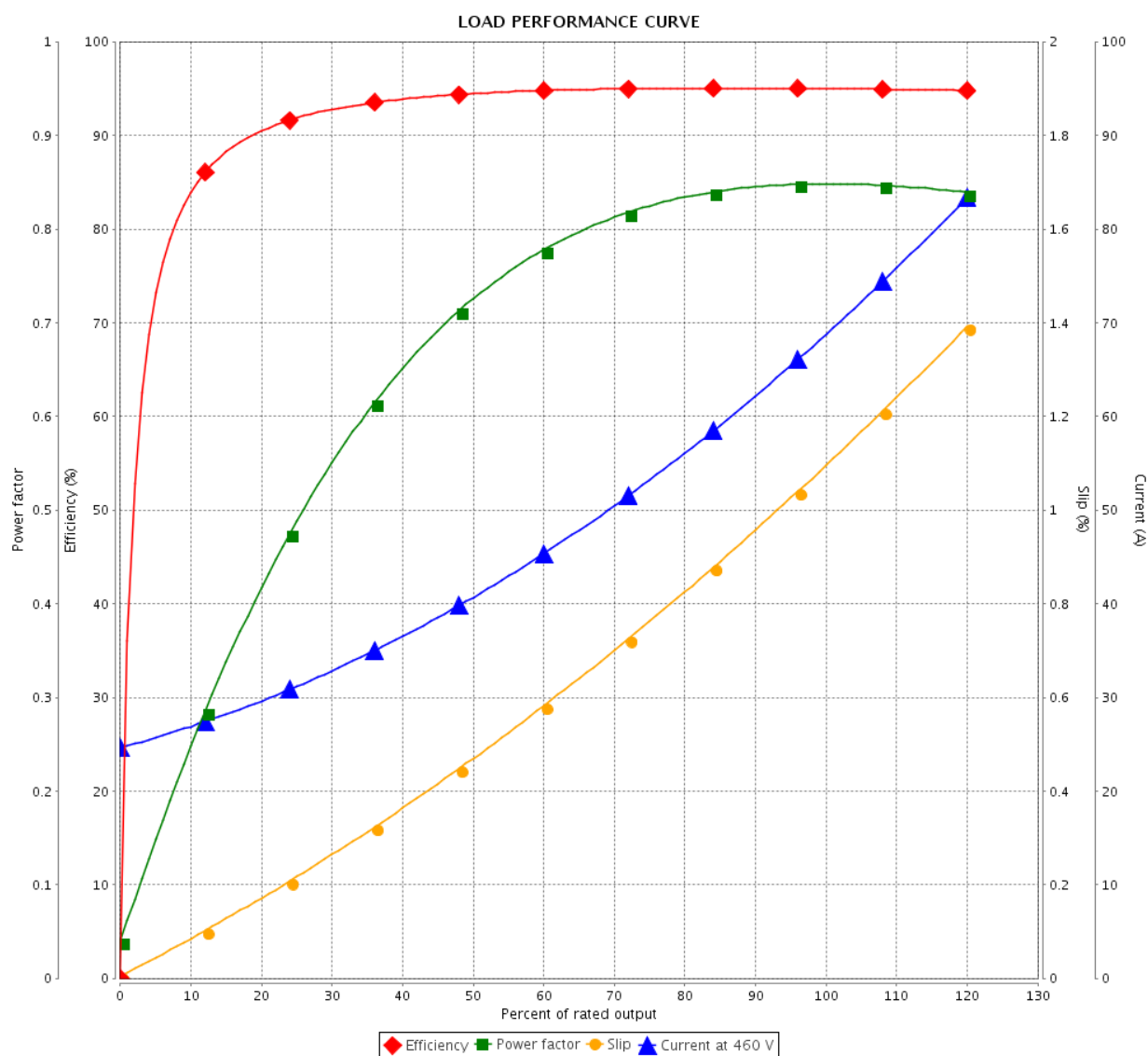


Customer :

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

Product code : 14269580

Catalog # : 06018OT3G364JM-W40



Performance : 460 V 60 Hz 4P

Rated current	: 69.9 A	Moment of inertia (J)	: 15.6 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: B

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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer

:

Product line

: W40 JM Pump NEMA Premium  
Efficiency Three-Phase

Product code :

14269580

Catalog # :

06018OT3G364JM-W40

Performance : 460 V 60 Hz 4P

Rated current

: 69.9 A

LRC

: 6.5

Rated torque

: 177 ft.lb

Locked rotor torque

: 200 %

Breakdown torque

: 240 %

Rated speed

: 1780 rpm

Moment of inertia (J)

: 15.6 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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Checked by

Date

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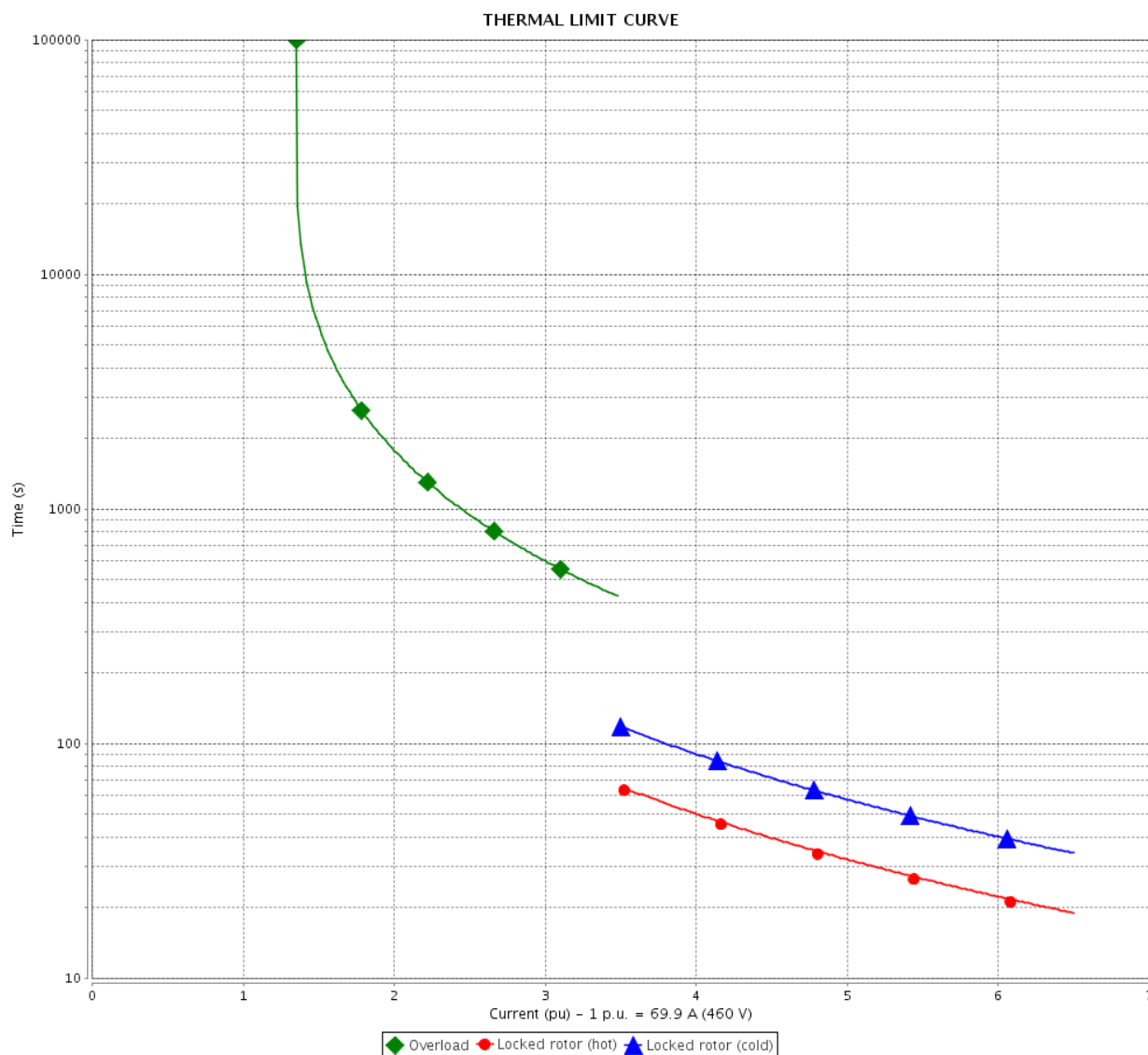
Revision

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

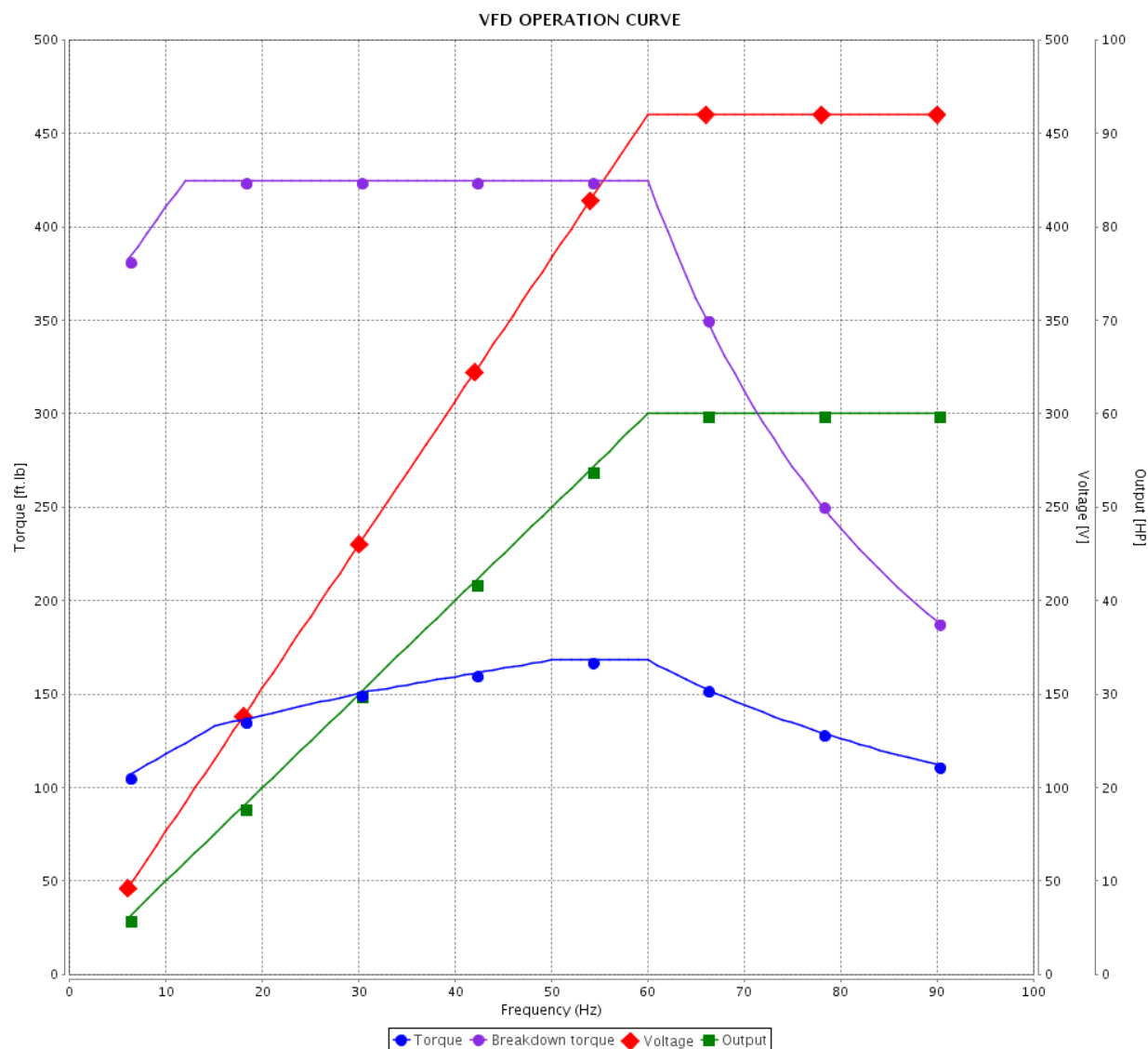


Customer :

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

Product code : 14269580

Catalog # : 06018OT3G364JM-W40

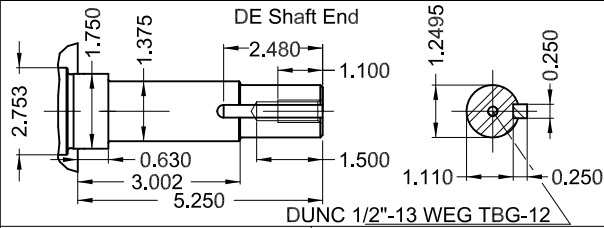
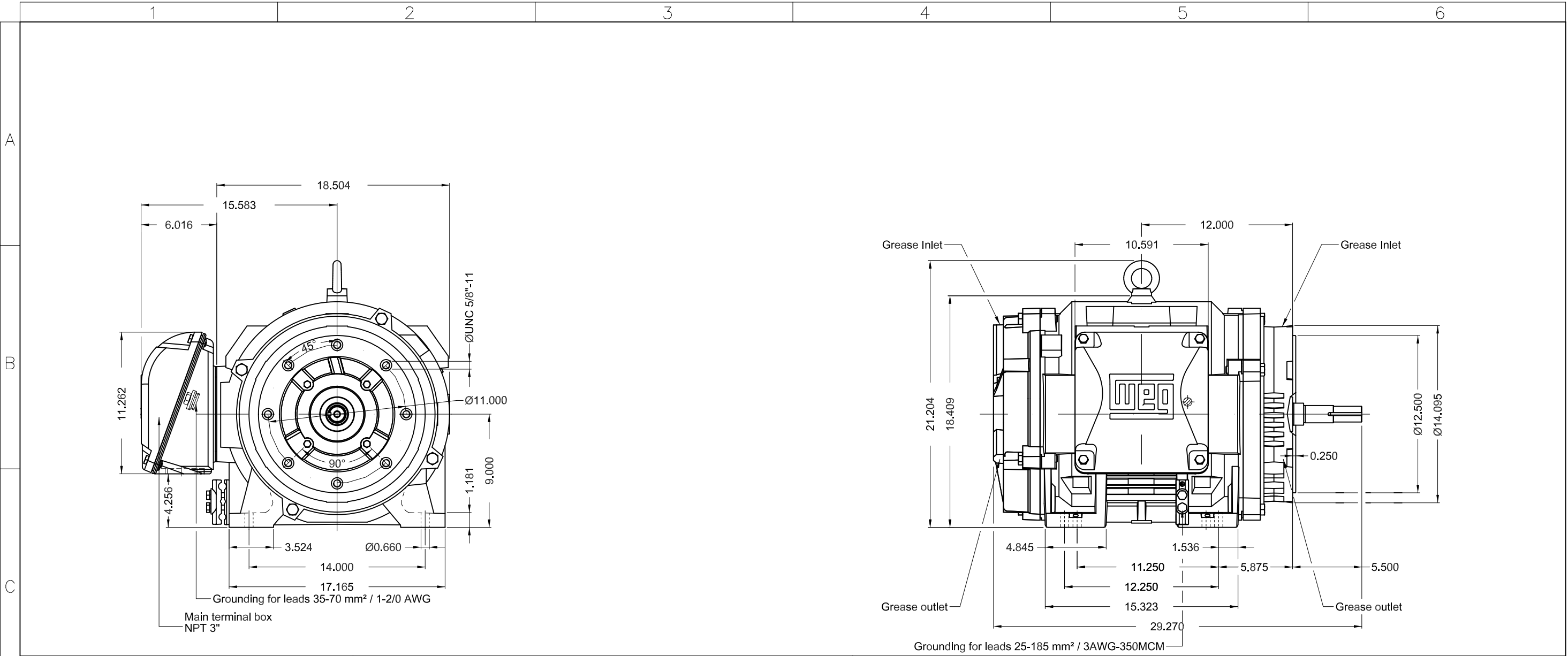


Performance : 460 V 60 Hz 4P

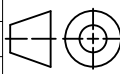

Rated current : 69.9 A  
LRC : 6.5  
Rated torque : 177 ft.lb  
Locked rotor torque : 200 %  
Breakdown torque : 240 %  
Rated speed : 1780 rpm

Moment of inertia (J) : 15.6 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

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Color RAL 5009
Painting plan 203A
Mounting NEMA F-1
Mounting B34R(D)

60 HP 04 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 364/5JM IP23 ODP				PREVIEW  WDD			
CHECKED													
RELEASED													
REL DT.				WMO		Jaragua do Sul		Product Engineering		SHEET			