

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line		: W40 NEMA Premium Efficiency Three-Phase		Product code : 14494185	
				Catalog # : 01518OT3V254TC-W40	
Frame	: 254TC			Locked rotor time	: 61s (cold) 34s (hot)
Output	: 15 HP (11 kW)			Temperature rise	: 80 K
Poles	: 4			Duty cycle	: Cont.(S1)
Frequency	: 60 Hz			Ambient temperature	: -20°C to +40°C
Rated voltage	: 200/400 V			Altitude	: 1000 m.a.s.l.
Rated current	: 40.2/20.1 A			Protection degree	: IP23
L. R. Amperes	: 258/129 A			Cooling method	: IC01 - ODP
LRC	: 6.4x(Code G)			Mounting	: F-1
No load current	: 15.6/7.82 A			Rotation <sup>1</sup>	: Both (CW and CCW)
Rated speed	: 1775 rpm			Noise level <sup>2</sup>	: 62.0 dB(A)
Slip	: 1.39 %			Starting method	: Direct On Line
Rated torque	: 44.4 ft.lb			Approx. weight <sup>3</sup>	: 264 lb
Locked rotor torque	: 220 %				
Breakdown torque	: 260 %				
Insulation class	: F				
Service factor	: 1.25				
Moment of inertia (J)	: 2.72 sq.ft.lb				
Design	: B				
Output	25%	50%	75%	100%	Foundation loads
Efficiency (%)	91.0	91.7	92.4	93.0	Max. traction
Power Factor	0.43	0.66	0.78	0.85	Max. compression
		<u>Drive end</u>		<u>Non drive end</u>	
Bearing type	:		6309 Z C3	6209 Z C3	
Sealing	:		Without Bearing Seal	Without Bearing Seal	
Lubrication interval	:		20000 h	20000 h	
Lubricant amount	:		13 g	9 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
Performed by					
Checked by					
Date	13/04/2022			Page	Revision
				1 / 6	

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



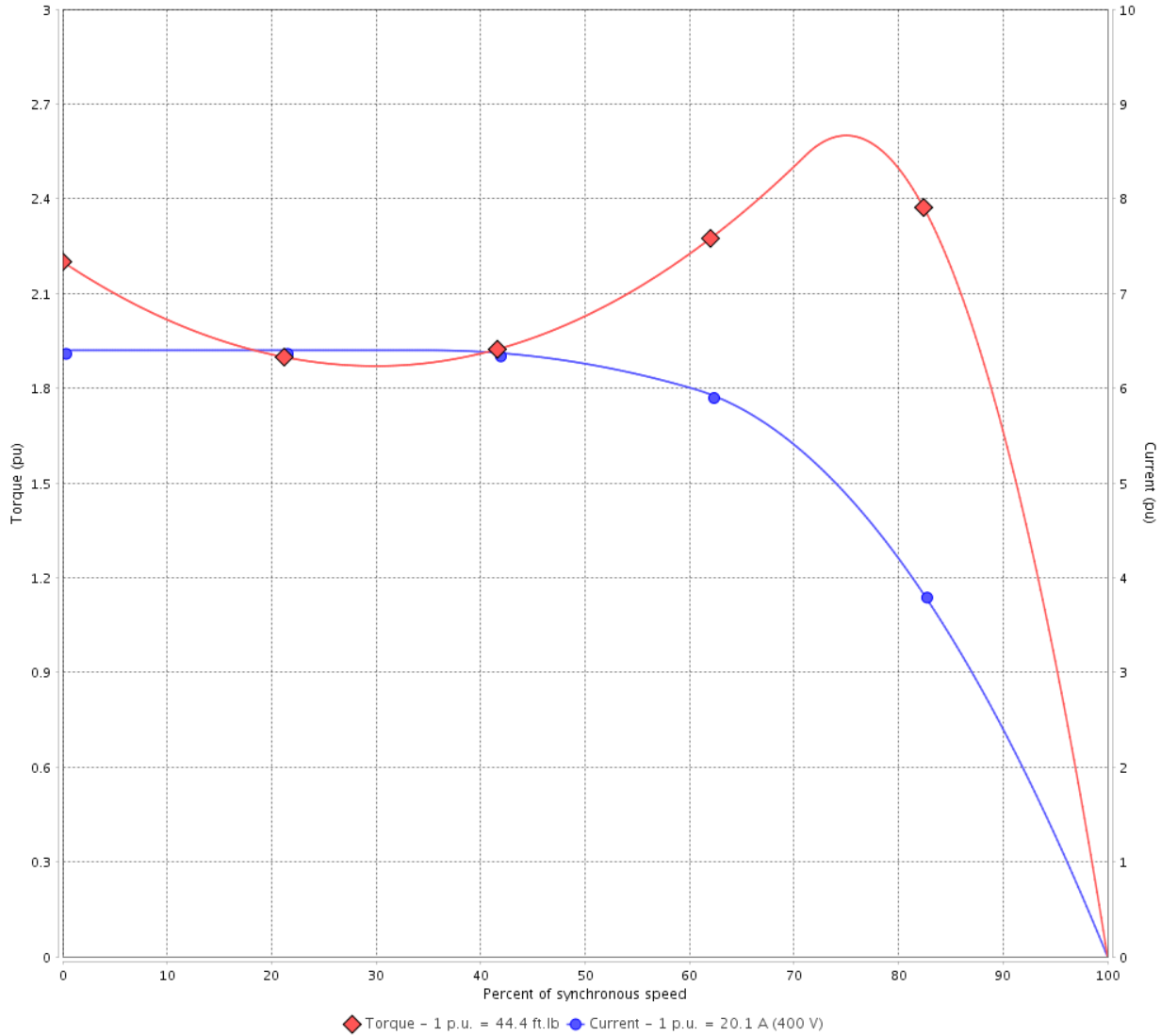
Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14494185

Catalog # : 01518OT3V254TC-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 200/400 V 60 Hz 4P

Rated current	: 40.2/20.1 A	Moment of inertia (J)	: 2.72 sq.ft.lb
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 44.4 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1775 rpm	Design	: B

Locked rotor time : 61s (cold) 34s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 6	Revision
Checked by				
Date	13/04/2022			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

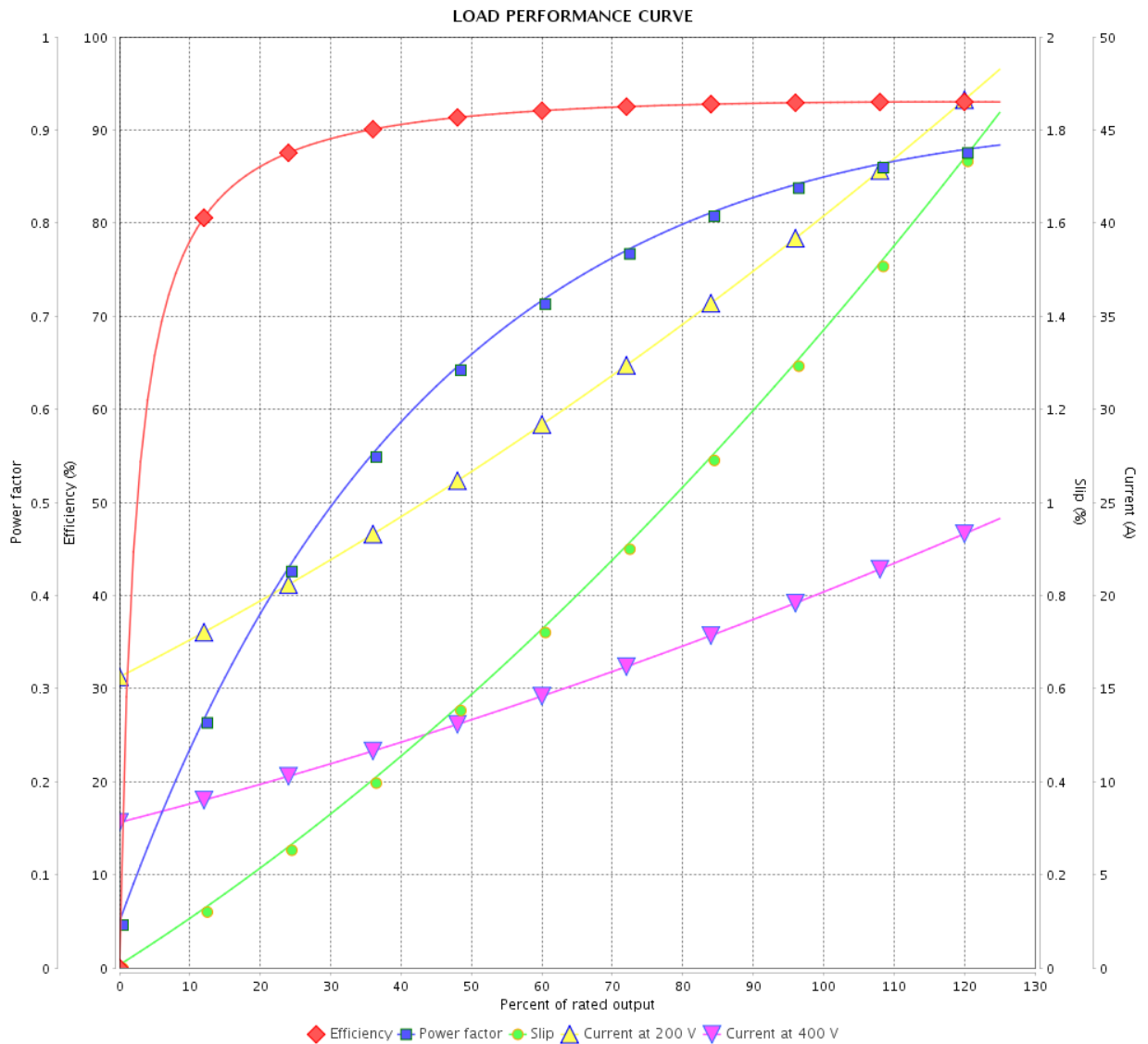


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14494185

Catalog # : 01518OT3V254TC-W40



Performance : 200/400 V 60 Hz 4P

Rated current : 40.2/20.1 A  
 LRC : 6.4  
 Rated torque : 44.4 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 260 %  
 Rated speed : 1775 rpm

Moment of inertia (J) : 2.72 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		3 / 6		
Date		13/04/2022		

# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



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Three-Phase

Product code : 14494185

Catalog # : 01518OT3V254TC-W40

Performance : 200/400 V 60 Hz 4P

Rated current : 40.2/20.1 A  
LRC : 6.4  
Rated torque : 44.4 ft.lb  
Locked rotor torque : 220 %  
Breakdown torque : 260 %  
Rated speed : 1775 rpm

Moment of inertia (J) : 2.72 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

Heating constant

Cooling constant

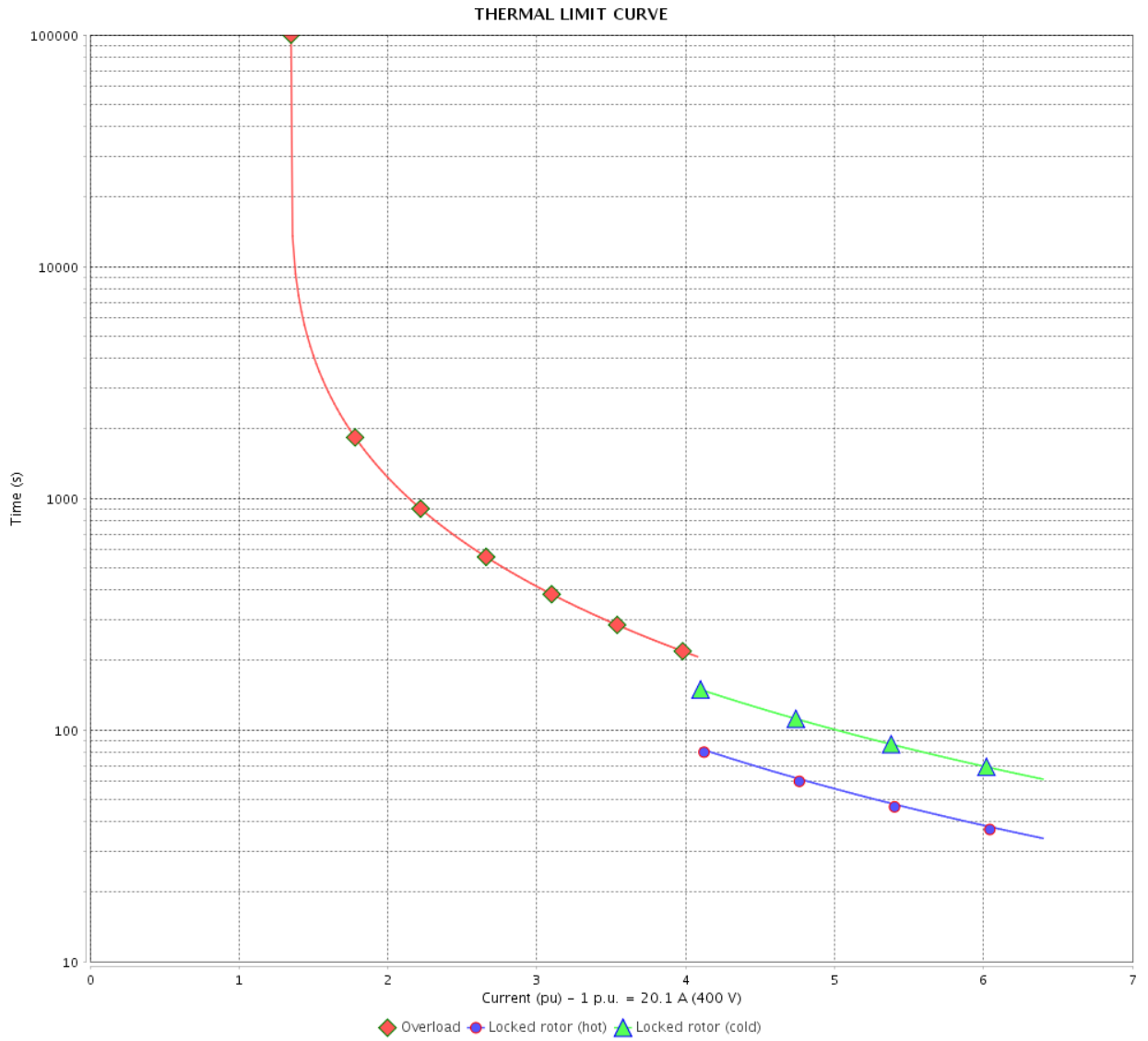
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/04/2022		4 / 6	

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 5 / 6		Revision
Checked by				
Date				

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



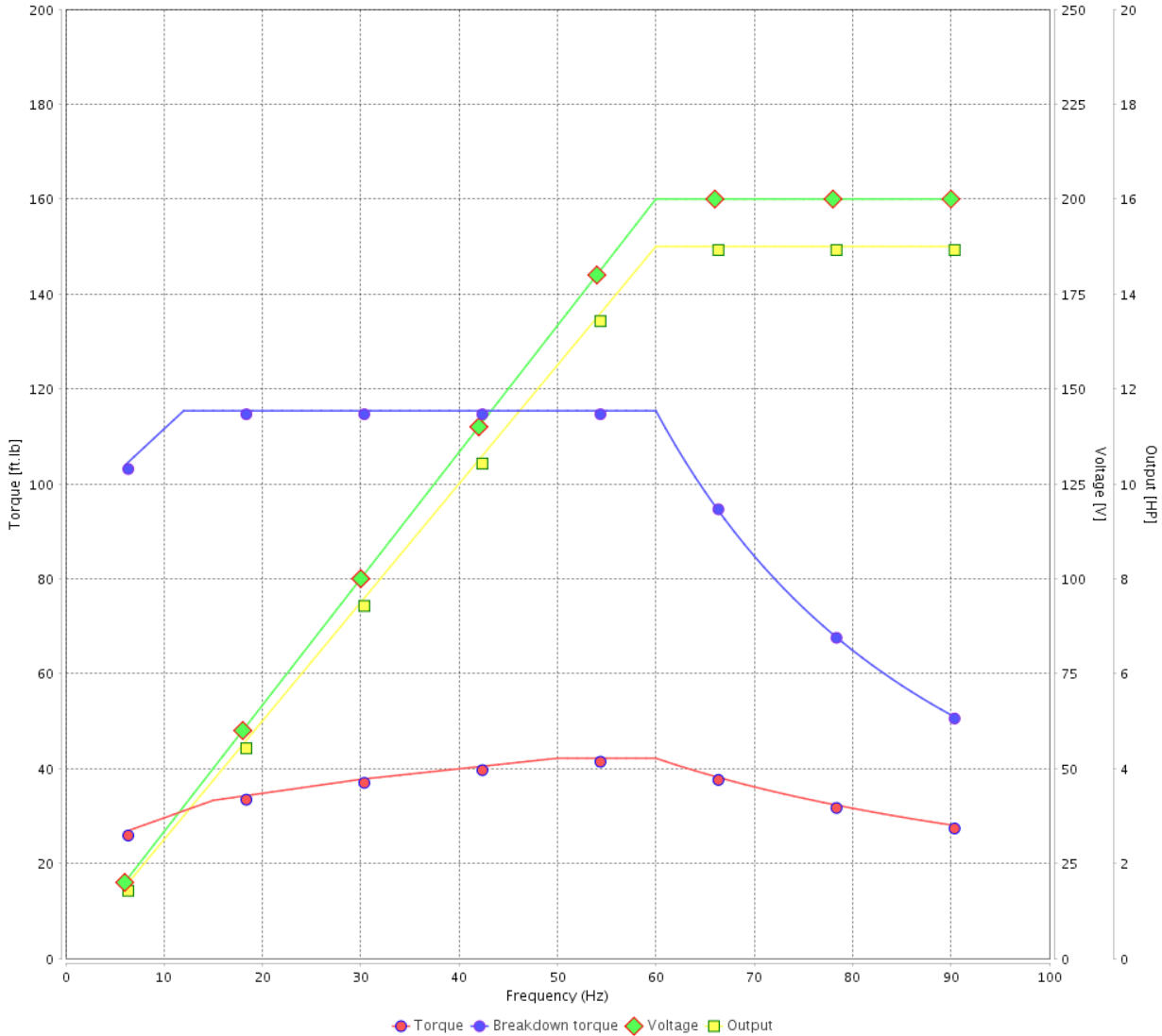
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VFD OPERATION CURVE

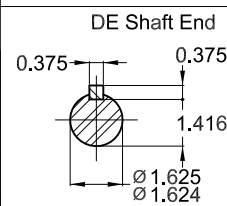
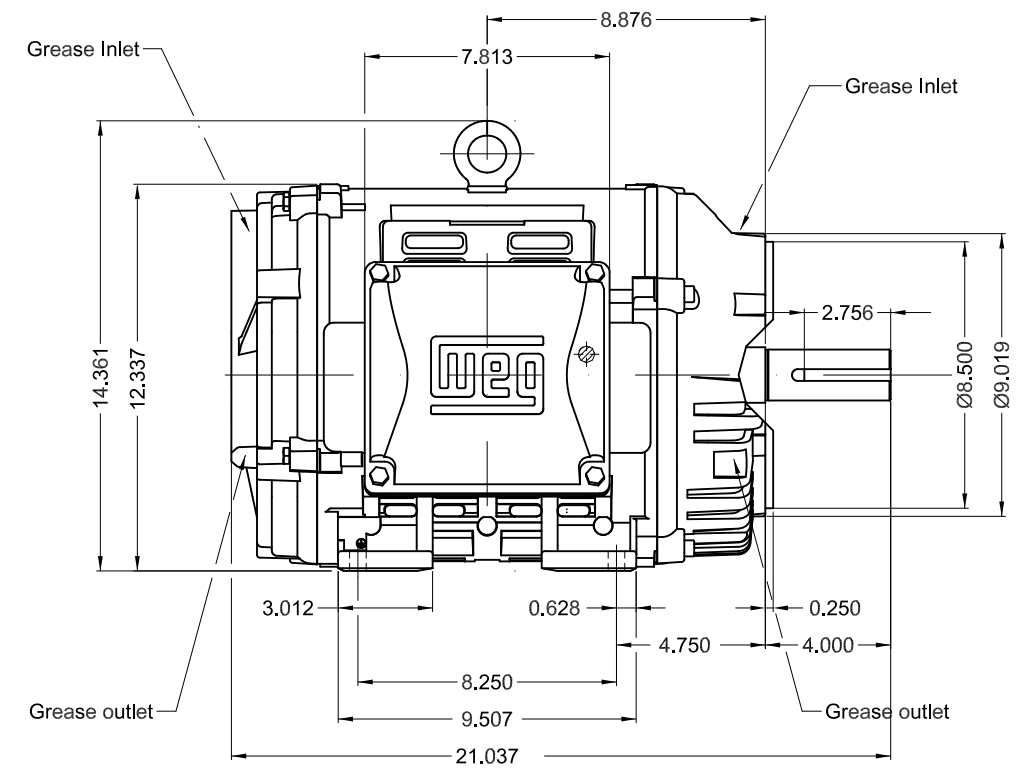
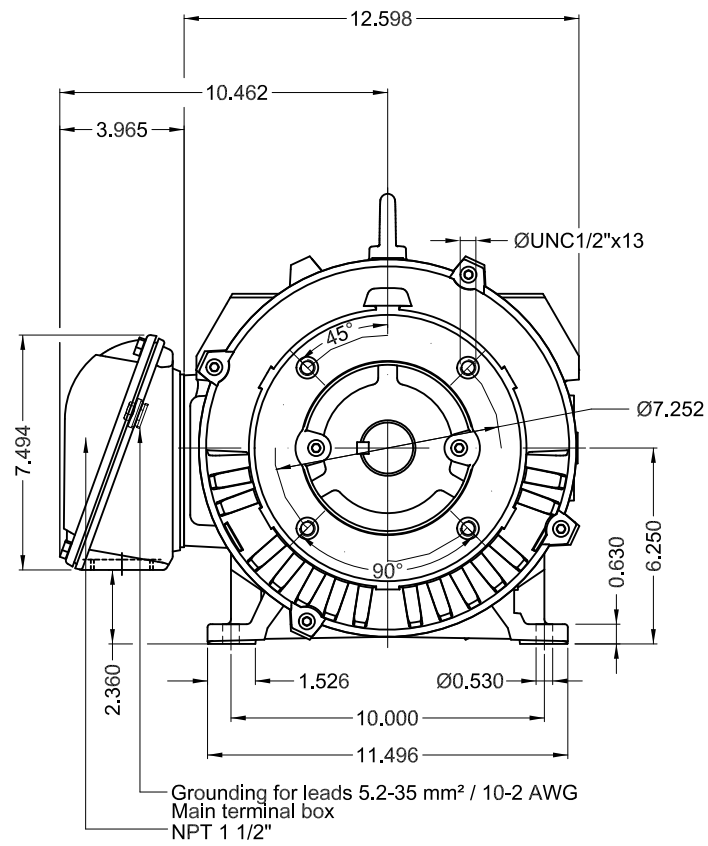


Performance : 200/400 V 60 Hz 4P

Rated current : 40.2/20.1 A  
 LRC : 6.4  
 Rated torque : 44.4 ft.lb  
 Locked rotor torque : 220 %  
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Moment of inertia (J) : 2.72 sq.ft.lb  
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Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 6 / 6	Revision
Checked by				
Date	13/04/2022			



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

15 HP 04 Poles 60 Hz

Dimensions in inches

1:6

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W40 PREM. EFF.					
CHECKED		FRAME 254TC IP23 ODP					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

**PREVIEW**  
WDD

