

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :																			
Product line	: NEMA Premium Efficiency Three-Phase																		
Product code :	14122319																		
Catalog # :	01518ET3H254TC-S																		
Frame : 254/6TC Output : 15 HP (11 kW) Poles : 4 Frequency : 60 Hz Rated voltage : 575 V Rated current : 14.6 A L. R. Amperes : 94.6 A LRC : 6.5x(Code G) No load current : 6.92 A Rated speed : 1770 rpm Slip : 1.67 % Rated torque : 44.5 ft.lb Locked rotor torque : 250 % Breakdown torque : 300 % Insulation class : F Service factor : 1.15 Moment of inertia (J) : 2.15 sq.ft.lb Design : B	Locked rotor time : 34s (cold) 19s (hot) Temperature rise : 80 K Duty cycle : Cont.(S1) Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP55 Cooling method : IC411 - TEFC Mounting : W-6 Rotation <sup>1</sup> : Both (CW and CCW) Noise level <sup>2</sup> : 68.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 224 lb																		
Output	25%    50%    75%    100%																		
Efficiency (%)	90.8    91.0    92.4    92.4																		
Power Factor	0.39    0.64    0.76    0.82																		
Foundation loads																			
Max. traction : 528 lb																			
Max. compression : 752 lb																			
	<table border="0"> <tr> <td></td> <td style="text-align: center;"><u>Drive end</u></td> <td style="text-align: center;"><u>Non drive end</u></td> </tr> <tr> <td>Bearing type</td> <td>: 6309 Z C3</td> <td>6208 Z C3</td> </tr> <tr> <td>Sealing</td> <td>: V'Ring</td> <td>V'Ring</td> </tr> <tr> <td>Lubrication interval</td> <td>: 14395 h</td> <td>16660 h</td> </tr> <tr> <td>Lubricant amount</td> <td>: 13 g</td> <td>8 g</td> </tr> <tr> <td>Lubricant type</td> <td colspan="2">: Mobil Polyrex EM</td> </tr> </table>		<u>Drive end</u>	<u>Non drive end</u>	Bearing type	: 6309 Z C3	6208 Z C3	Sealing	: V'Ring	V'Ring	Lubrication interval	: 14395 h	16660 h	Lubricant amount	: 13 g	8 g	Lubricant type	: Mobil Polyrex EM	
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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																			
Checked by			Page	Revision															
Date	13/04/2022		1 / 6																

# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



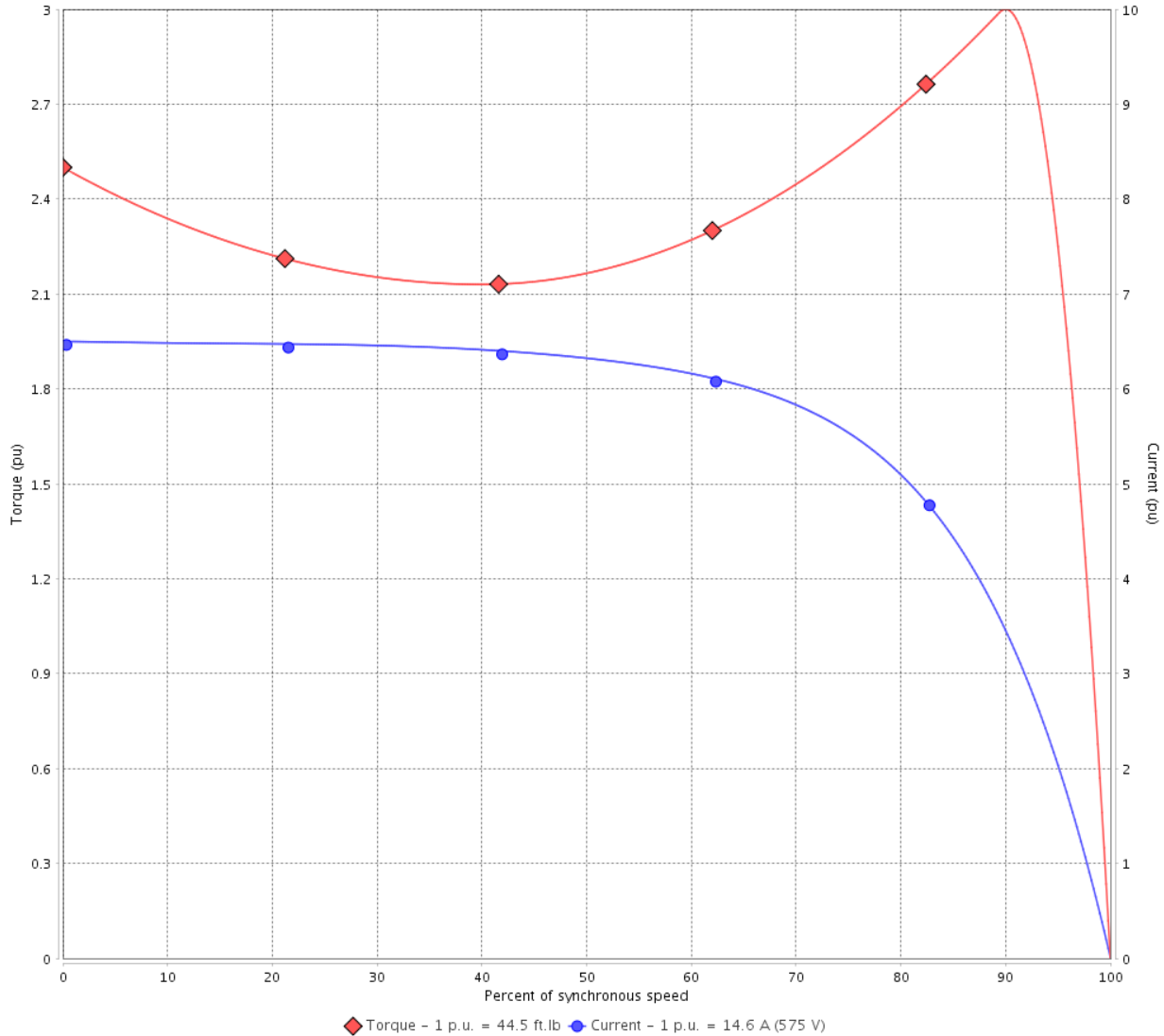
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14122319

Catalog # : 01518ET3H254TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 4P

Rated current	: 14.6 A	Moment of inertia (J)	: 2.15 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 44.5 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: B

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

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Date	13/04/2022			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

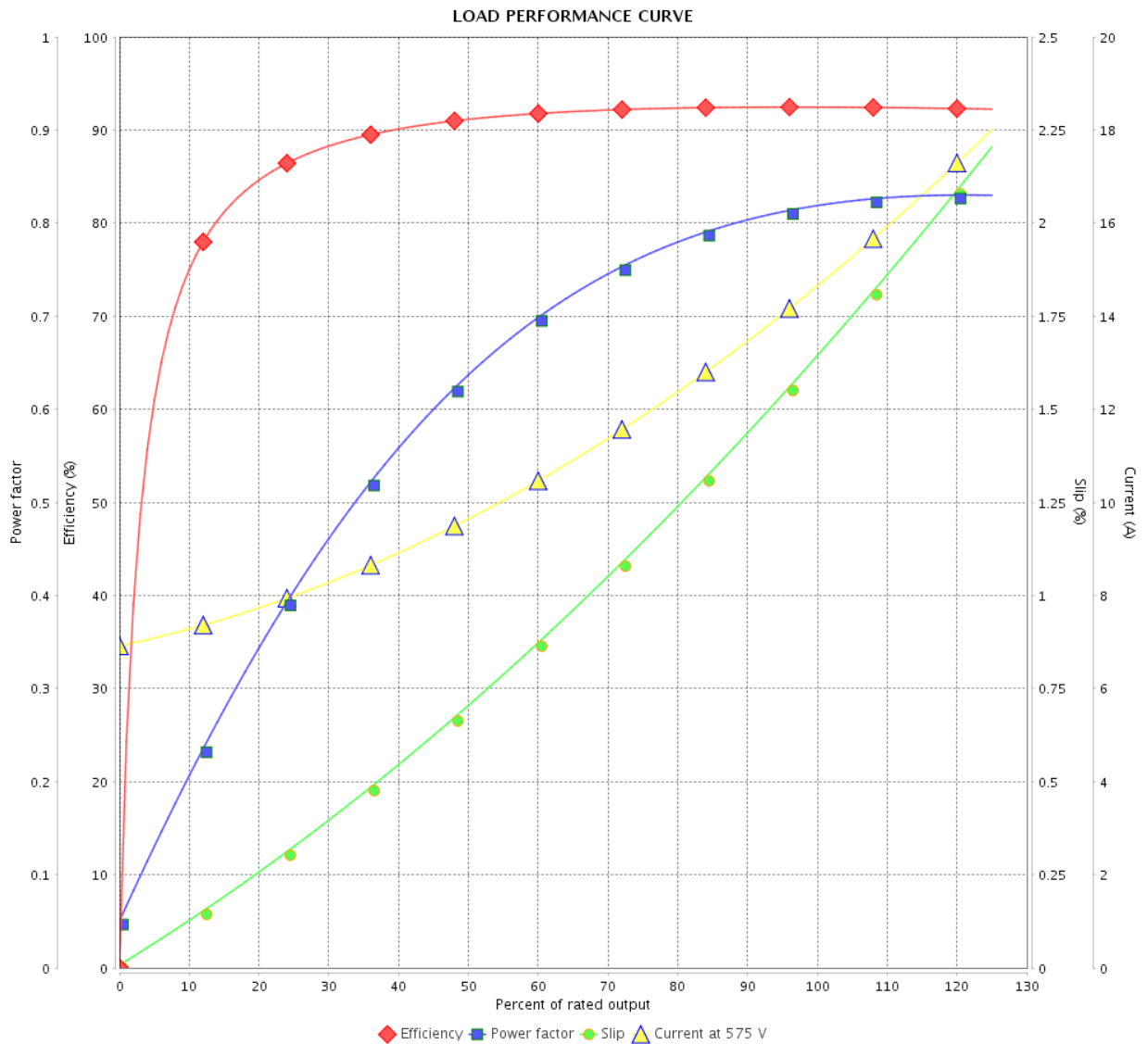


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14122319

Catalog # : 01518ET3H254TC-S



Performance : 575 V 60 Hz 4P

Rated current : 14.6 A  
 LRC : 6.5  
 Rated torque : 44.5 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 300 %  
 Rated speed : 1770 rpm

Moment of inertia (J) : 2.15 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

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 Product code : 14122319  
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Locked rotor torque : 250 %	Service factor : 1.15
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Rated speed : 1770 rpm	Design : B

Heating constant

Cooling constant

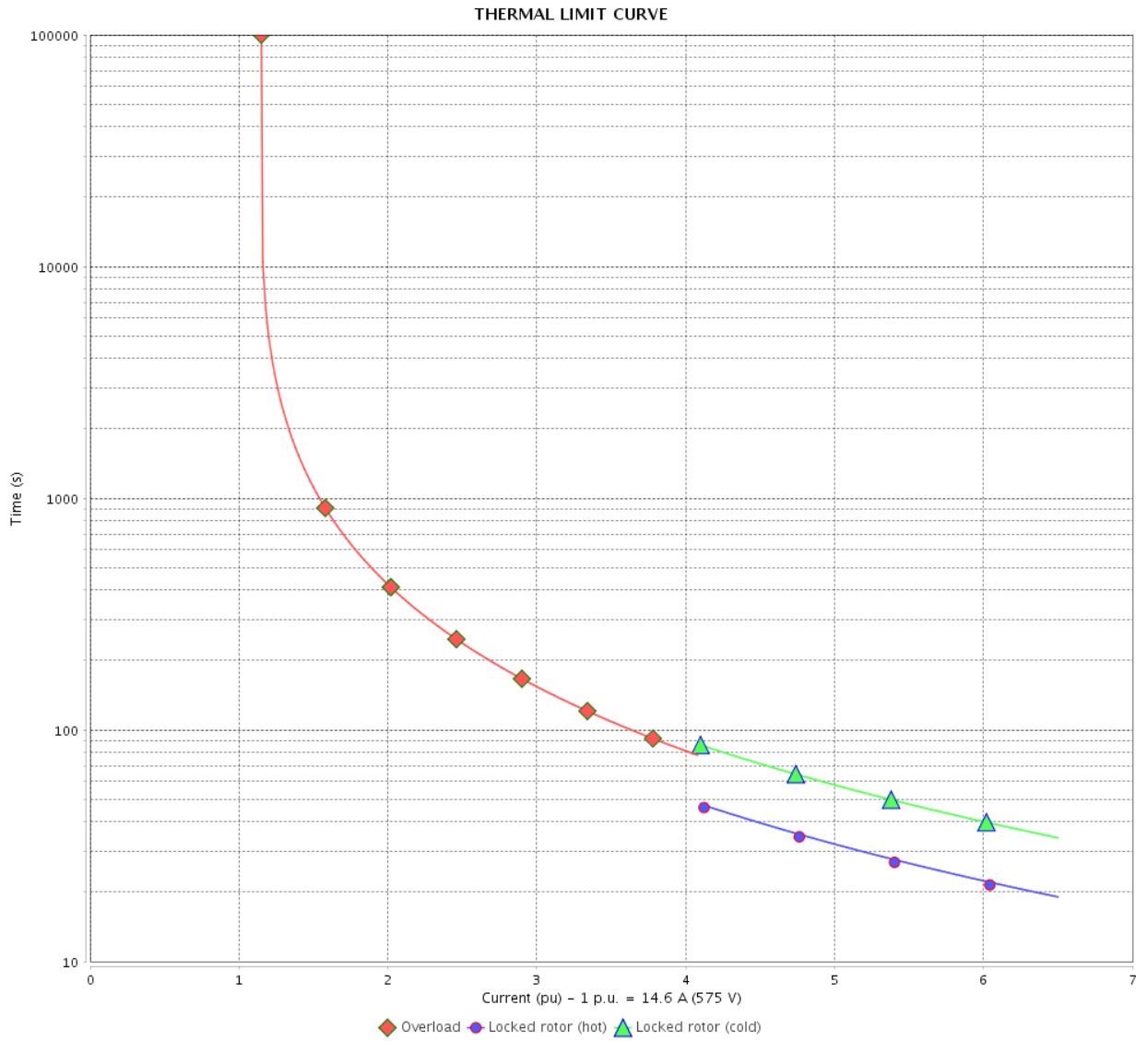
Rev.	Changes Summary	Performed	Checked	Date
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Date	13/04/2022			

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



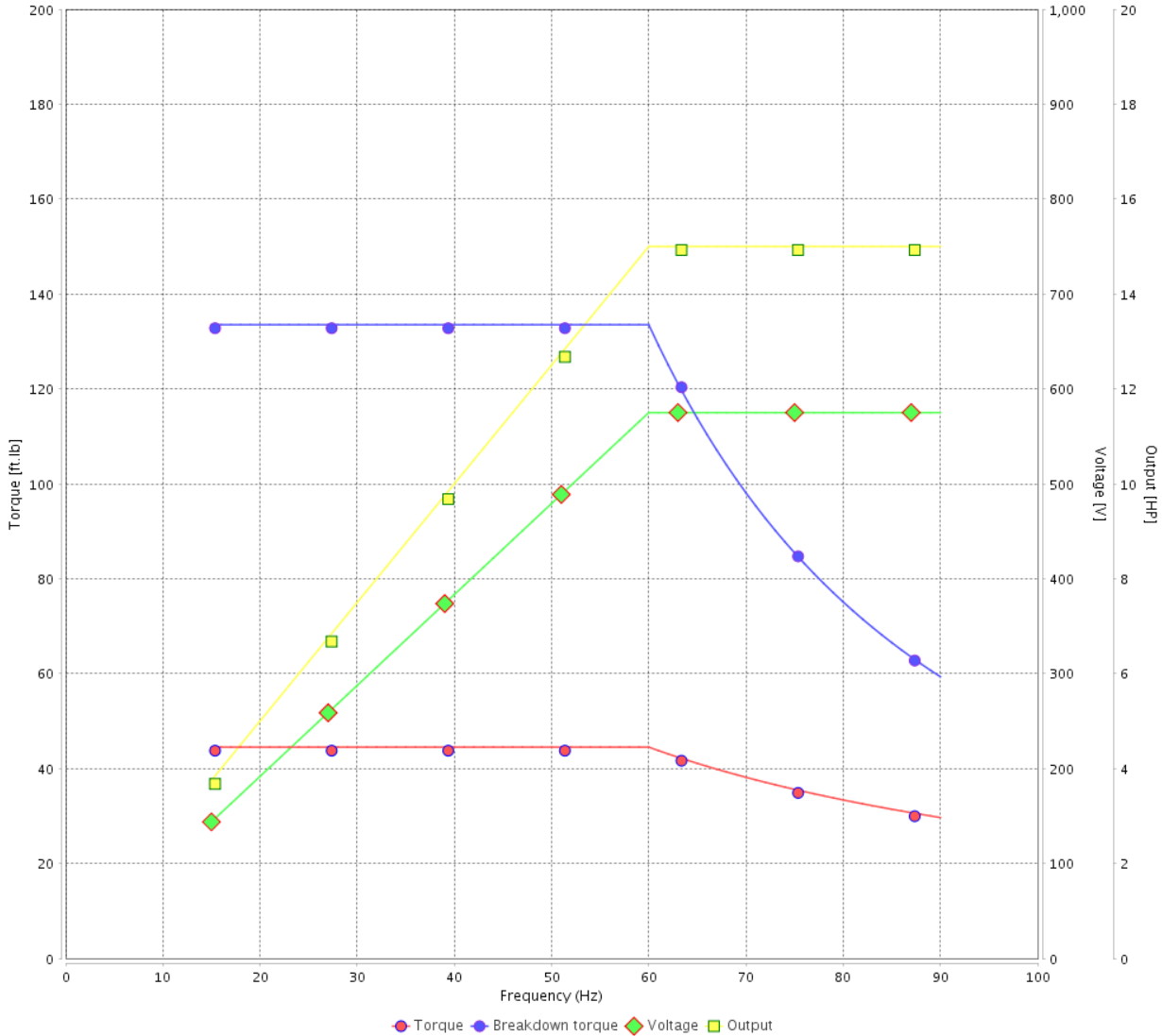
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Product line : NEMA Premium Efficiency Three-Phase

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VFD OPERATION CURVE

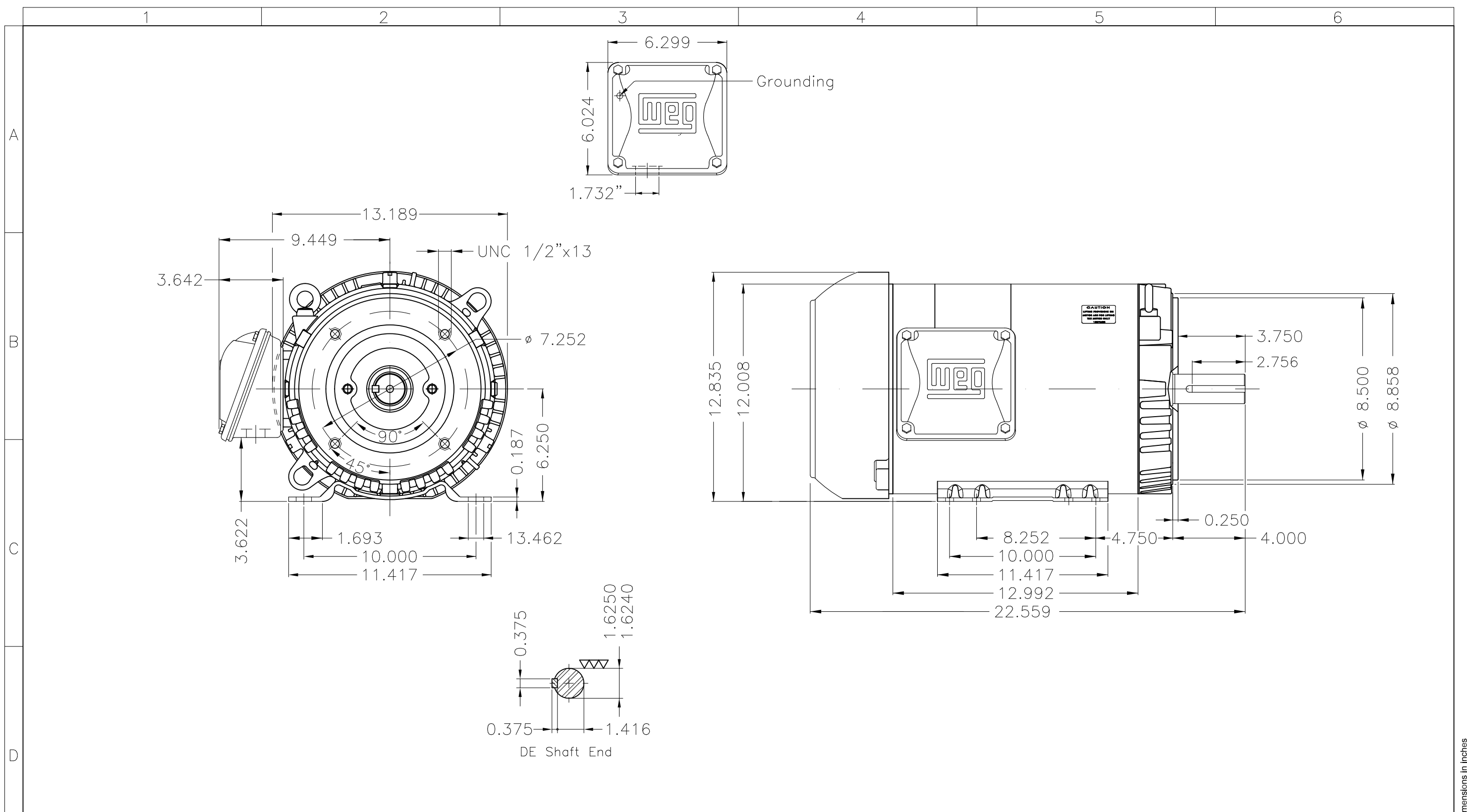


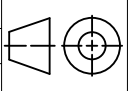

Performance : 575 V 60 Hz 4P

Rated current : 14.6 A  
 LRC : 6.5  
 Rated torque : 44.5 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 300 %  
 Rated speed : 1770 rpm

Moment of inertia (J) : 2.15 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
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NDE sealing - V ring									
Color Munsell N 1 matte black									
Painting plan 207N									
Mounting W-6/V17R(D)									
ECM	LOC	SUMMARY OF MODIFICATIONS			EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR ROLLED STEEL PREM. EFF.				<b>PREVIEW</b> <b>WDD</b>			
CHECKED		FRAME 254/6TC IP55 TEFC							
RELEASED									
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1				

15 HP 04 Poles 60 Hz



**NEMA**  
**Premium**



MADE IN MEXICO

**MAT: 14122319 CC029A**

**W01.TE0IC0X0N**

**MODEL 01518ET3H254TC-S**

**10JAN2022 S/N:**

**For 60Hz: Class I, Zone 2, IIC  
Class I, Div.2, Gr. A,B,C,D - T3**

**Class II, Div.2, Gr. F,G - T4**

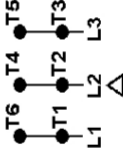
**Div 2 Inverter Duty (SF1.00)**

**CT 2:1/VT 1000:1**

PH 3	Hz 60	HP 15
FR 254/6TC		KW 11
DUTY CONT.		V 575
ALT 1000 m.a.s.l.		A 14.6
INS CL F AT 80K	IP55	SFA 16.8
AMB 40°C	DES B	SF 1.15
ENCL TEFC	CODE H	PF 0.82
		RPM 1770
		NEMA NOM. EFF 92.4%

**For safe area-Inverter duty motor For use on VPWM 1000:1 VT, 4:1 CT**

DE 6309-Z-C3	ODE 6208-Z-C3	MOBIL POLYREX EM	14395h
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T1-BLU  
T2-WHT  
T3-ORG  
T4-YEL  
T5-BLK  
T6-GRY

**INTERCHANGE ANY TWO LINE WIRES TO REVERSE THE ROTATION**

**WARNING:** Motor must be grounded in accordance with local and national electrical codes to prevent serious electrical shocks. Disconnect power source before servicing unit.



**AVERTISSEMENT:** Le moteur doit être mis à la terre

conformément aux codes électriques locaux et nationaux afin d'éviter tout

choc électrique grave. Déconnectez l'alimentation avant l'entretien de la machine.

