

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :				
Product line	: NEMA Premium Efficiency Three-Phase			
Product code :	13556811			
Catalog # :	00509ST3HIE254T-W22			
Frame : 254/6T Output : 5 HP (3.7 kW) Poles : 8 Frequency : 60 Hz Rated voltage : 575 V Rated current : 6.06 A L. R. Amperes : 32.1 A LRC : 5.3x(Code H) No load current : 3.60 A Rated speed : 882 rpm Slip : 2.00 % Rated torque : 29.8 ft.lb Locked rotor torque : 220 % Breakdown torque : 250 % Insulation class : F Service factor : 1.25 Moment of inertia (J) : 3.41 sq.ft.lb Design : B	Locked rotor time : 79s (cold) 44s (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 : F-1 Rotation <sup>1</sup> : Both (CW and CCW) Noise level <sup>2</sup> : 54.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 260 lb			
Output	25%    50%    75%    100%			
Efficiency (%)	85.2    85.5    87.5    87.5			
Power Factor	0.28    0.49    0.62    0.70			
Foundation loads				
Max. traction	: 227 lb			
Max. compression	: 487 lb			
Bearing type	: <u>Drive end</u> 6309 C3 <u>Non drive end</u> 6209 C3			
Sealing	: Inpro/Seal    Inpro/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.				
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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



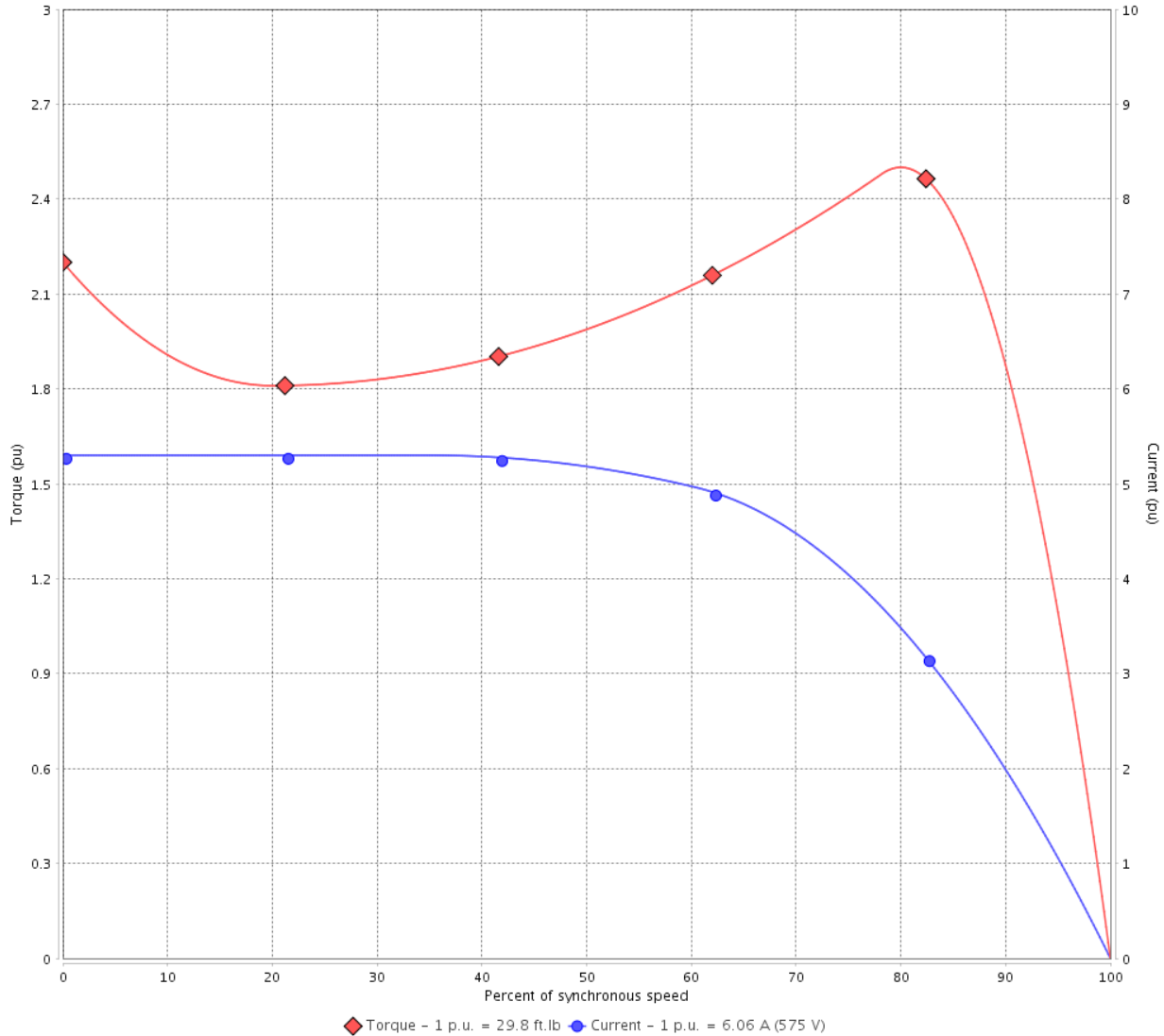
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13556811

Catalog # : 00509ST3HIE254T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 8P

Rated current	: 6.06 A	Moment of inertia (J)	: 3.41 sq.ft.lb
LRC	: 5.3	Duty cycle	: Cont.(S1)
Rated torque	: 29.8 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 882 rpm	Design	: B

Locked rotor time : 79s (cold) 44s (hot)

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

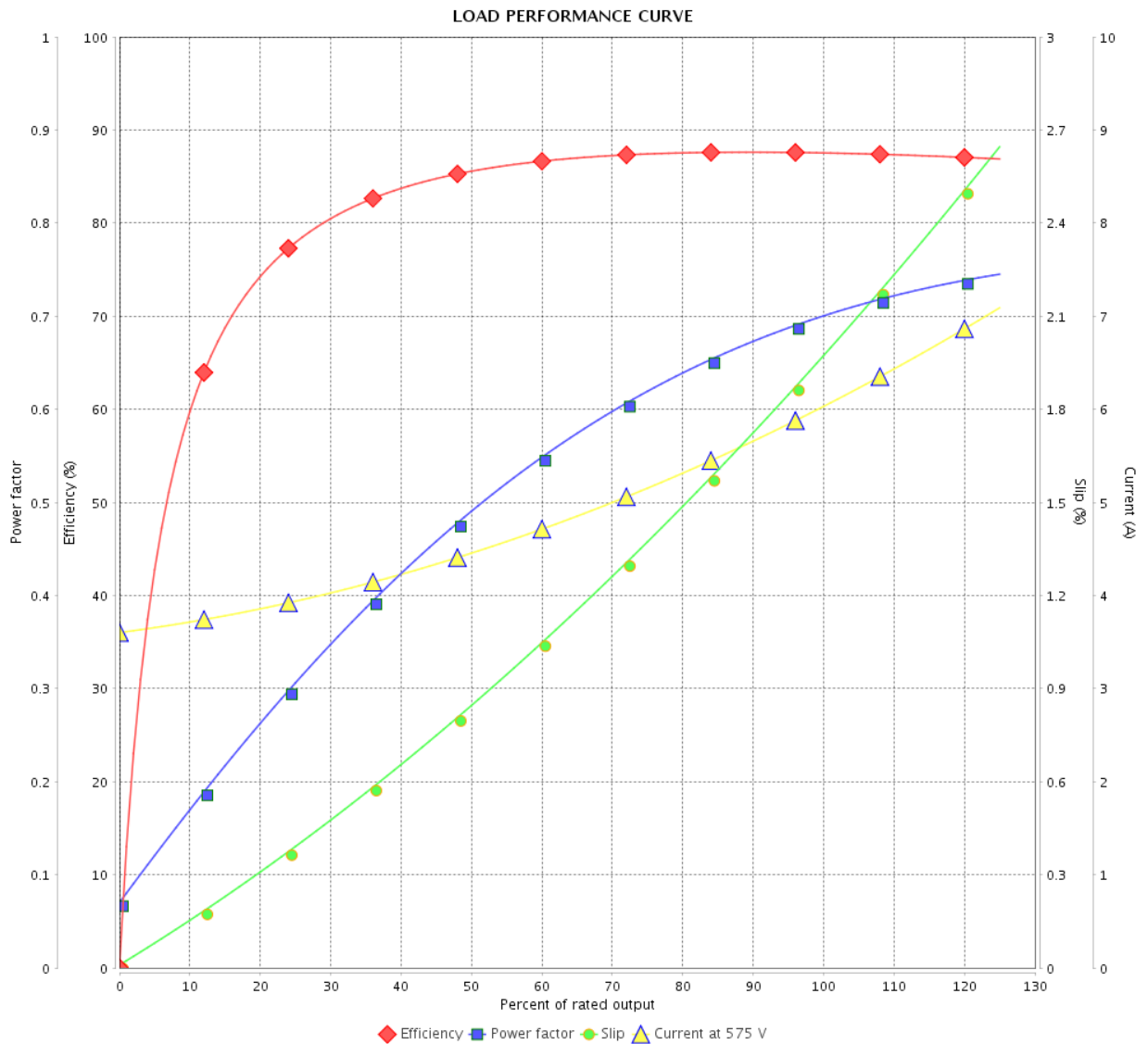


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13556811

Catalog # : 00509ST3HIE254T-W22



Performance : 575 V 60 Hz 8P

Rated current : 6.06 A  
 LRC : 5.3  
 Rated torque : 29.8 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 250 %  
 Rated speed : 882 rpm

Moment of inertia (J) : 3.41 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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 Product code : 13556811  
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Locked rotor torque : 220 %	Service factor : 1.25
Breakdown torque : 250 %	Temperature rise : 80 K
Rated speed : 882 rpm	Design : B

Heating constant

Cooling constant

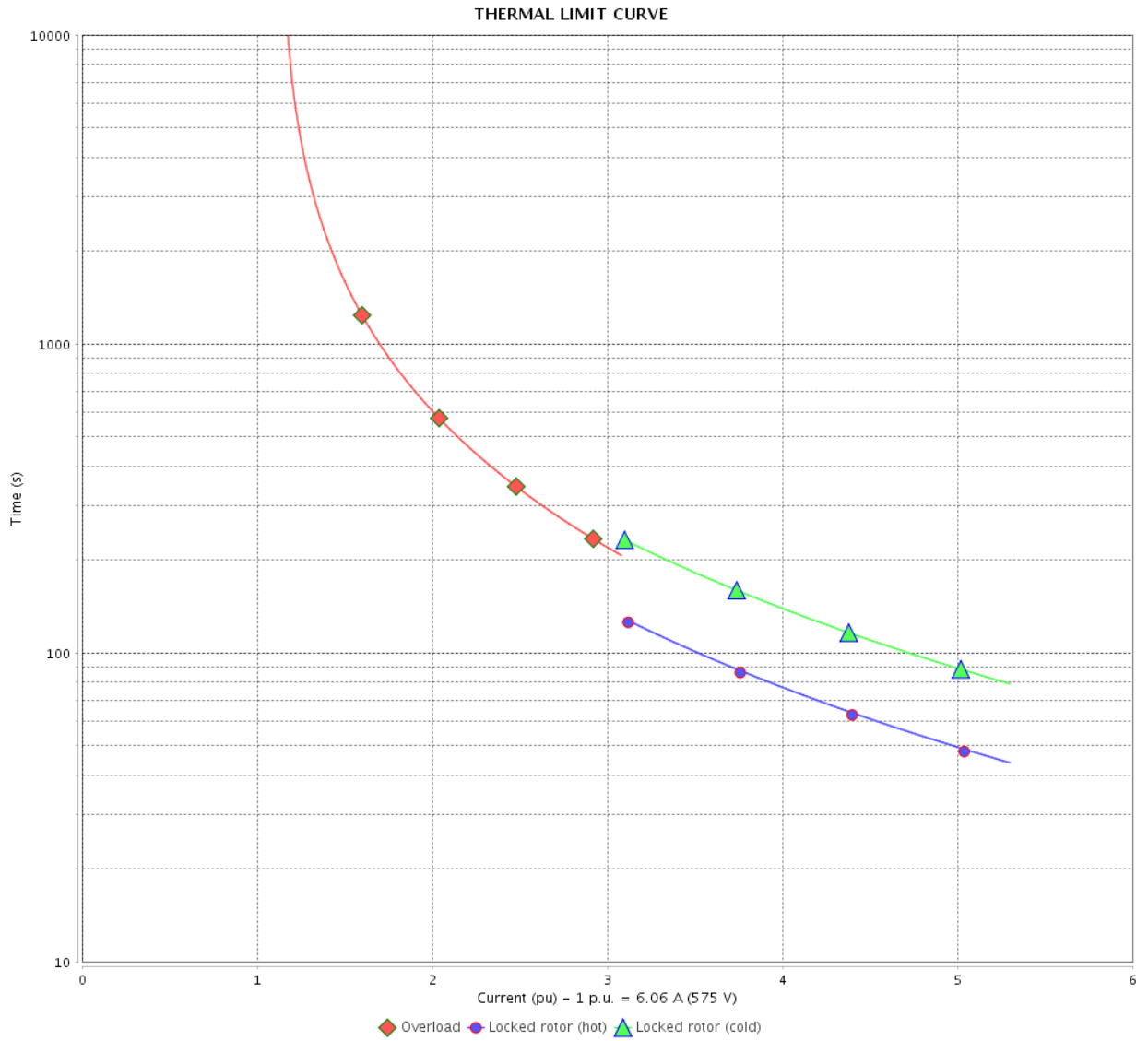
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Performed by			Page	Revision
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



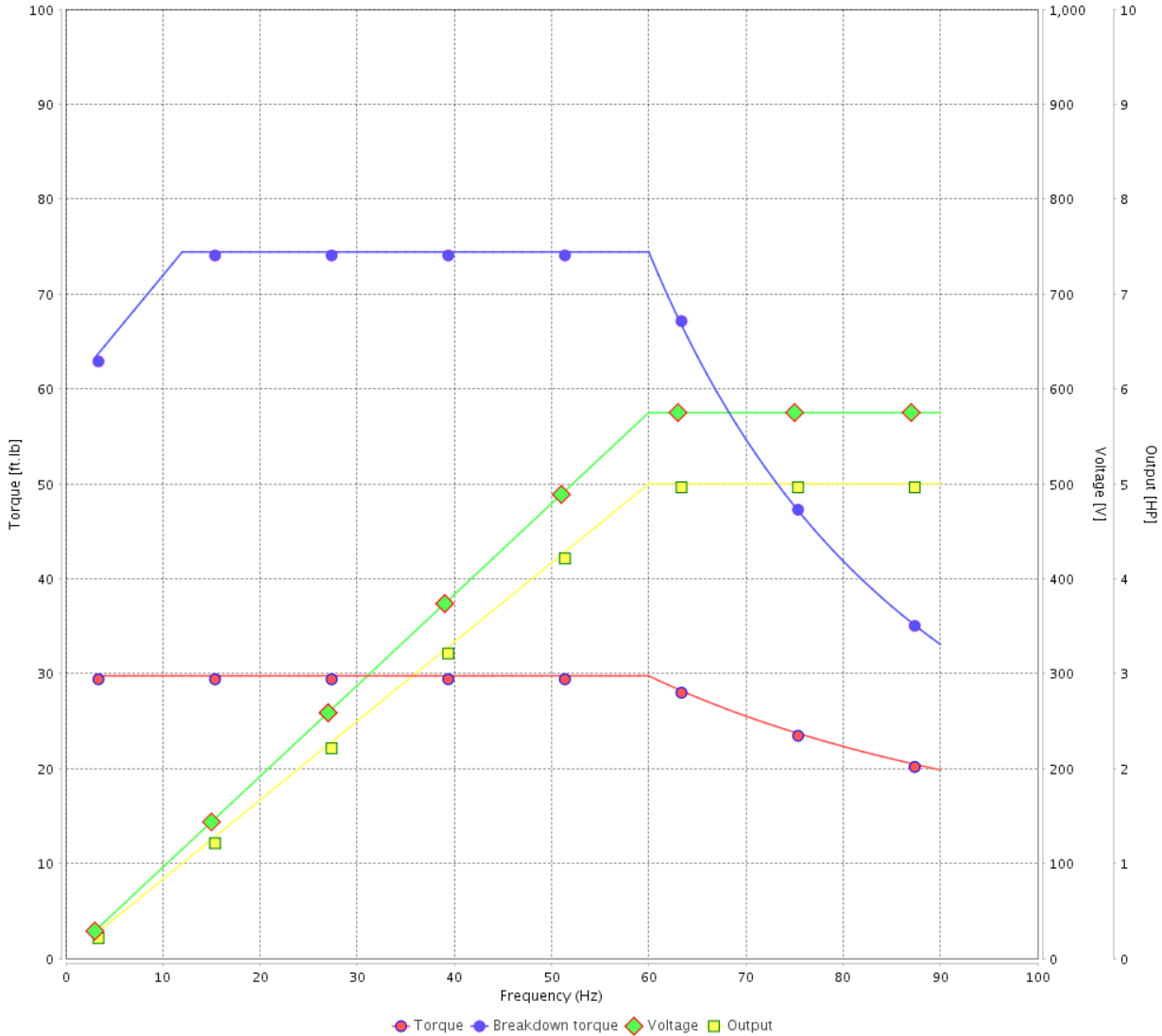
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13556811

Catalog # : 00509ST3HIE254T-W22

VFD OPERATION CURVE

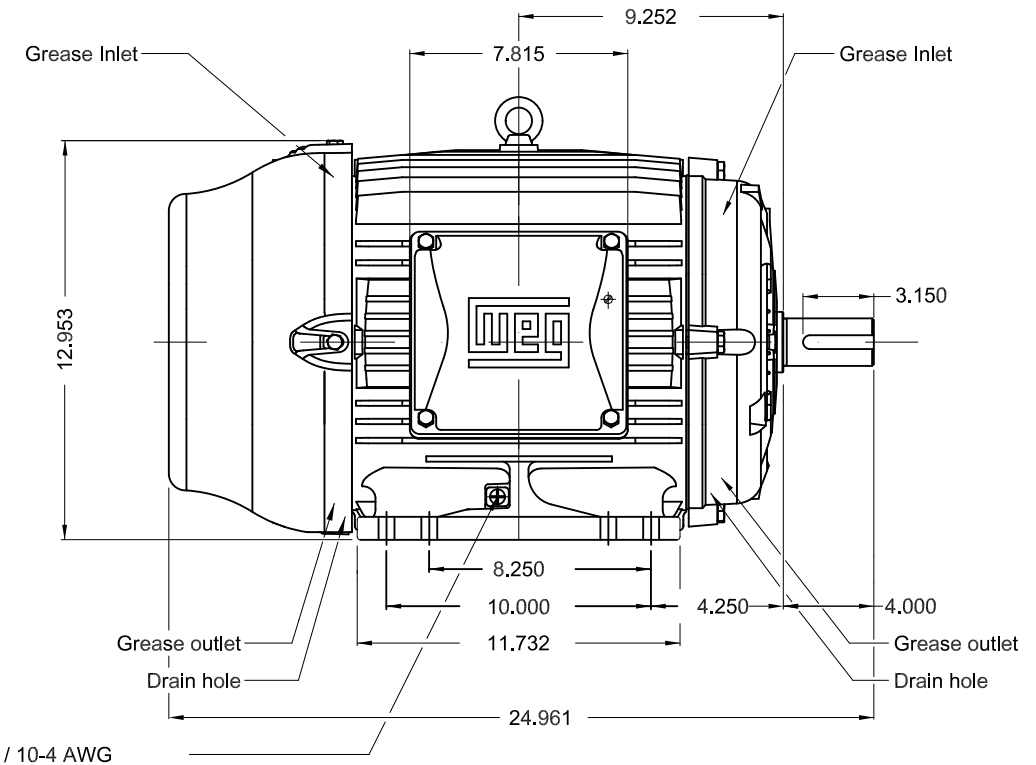
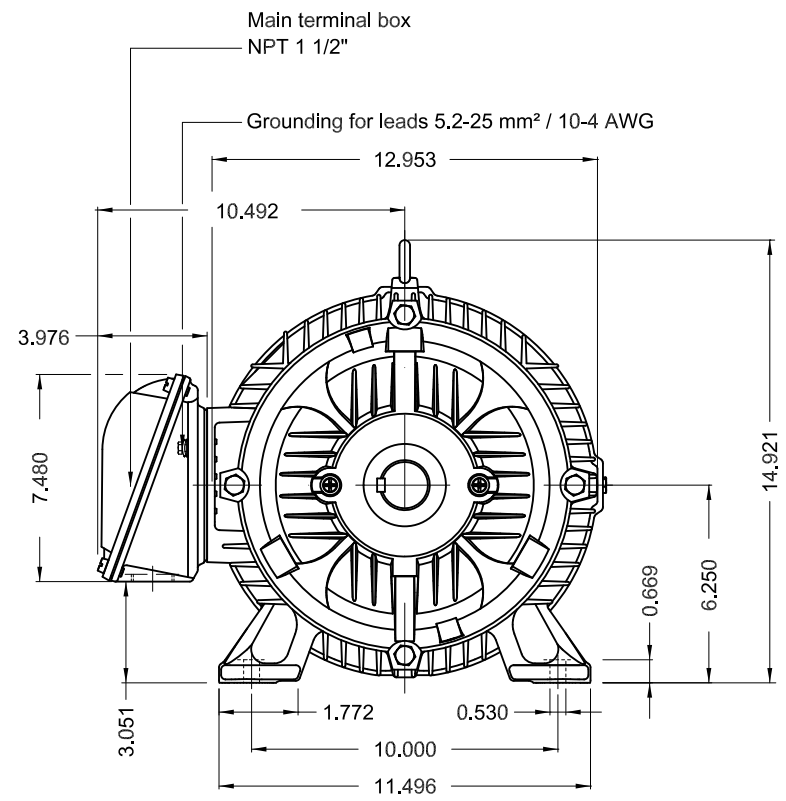


Performance : 575 V 60 Hz 8P

Rated current : 6.06 A  
 LRC : 5.3  
 Rated torque : 29.8 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 250 %  
 Rated speed : 882 rpm

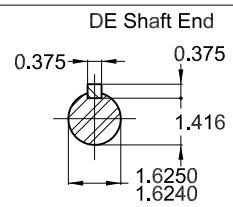
Moment of inertia (J) : 3.41 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

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Grounding for leads 5.2-25 mm<sup>2</sup> / 10-4 AWG

- Without vertical jackscrews
- Color RAL 5009
- Painting plan 202E
- Mounting NEMA F-1
- Mounting B3R(D)



5 HP 08 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	HYBRISUSER	THREE PH. MOTOR IEEE 841 W22 PREM. EFF. FRAME 254/6T IP55 TEFC					
CHECKED							
RELEASED							
REL DT.	WMO		Jaragua do Sul	Product Engineering			

**PREVIEW**  
WDD



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