

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer	:					
Product line	: JM Pump NEMA Premium Efficiency Three-Phase	Product code :	12945223			
		Catalog # :	00118OT3V143JM-S			
Frame	: 143/5JM	Locked rotor time	: 39s (cold) 22s (hot)			
Output	: 1 HP (0.75 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	: 3.47/1.74 A	Cooling method	: IC01 - ODP			
L. R. Amperes	: 27.8/13.9 A	Mounting	: F-1			
LRC	: 8.0x(Code L)	Rotation <sup>1</sup>	: Both (CW and CCW)			
No load current	: 2.20/1.10 A	Noise level <sup>2</sup>	: 52.0 dB(A)			
Rated speed	: 1760 rpm	Starting method	: Direct On Line			
Slip	: 2.22 %	Approx. weight <sup>3</sup>	: 36.7 lb			
Rated torque	: 2.98 ft.lb					
Locked rotor torque	: 290 %					
Breakdown torque	: 360 %					
Insulation class	: F					
Service factor	: 1.15					
Moment of inertia (J)	: 0.1101 sq.ft.lb					
Design	: B					
Output	25%	50%	75%	100%	Foundation loads	
Efficiency (%)	79.9	81.5	84.0	85.5	Max. traction	: 75 lb
Power Factor	0.29	0.51	0.65	0.73	Max. compression	: 112 lb
Bearing type	:	<u>Drive end</u>	<u>Non drive end</u>			
Sealing	:	6206 ZZ	6203 ZZ			
Lubrication interval	:	Without Bearing Seal	Without Bearing Seal			
Lubricant amount	:	-	-			
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



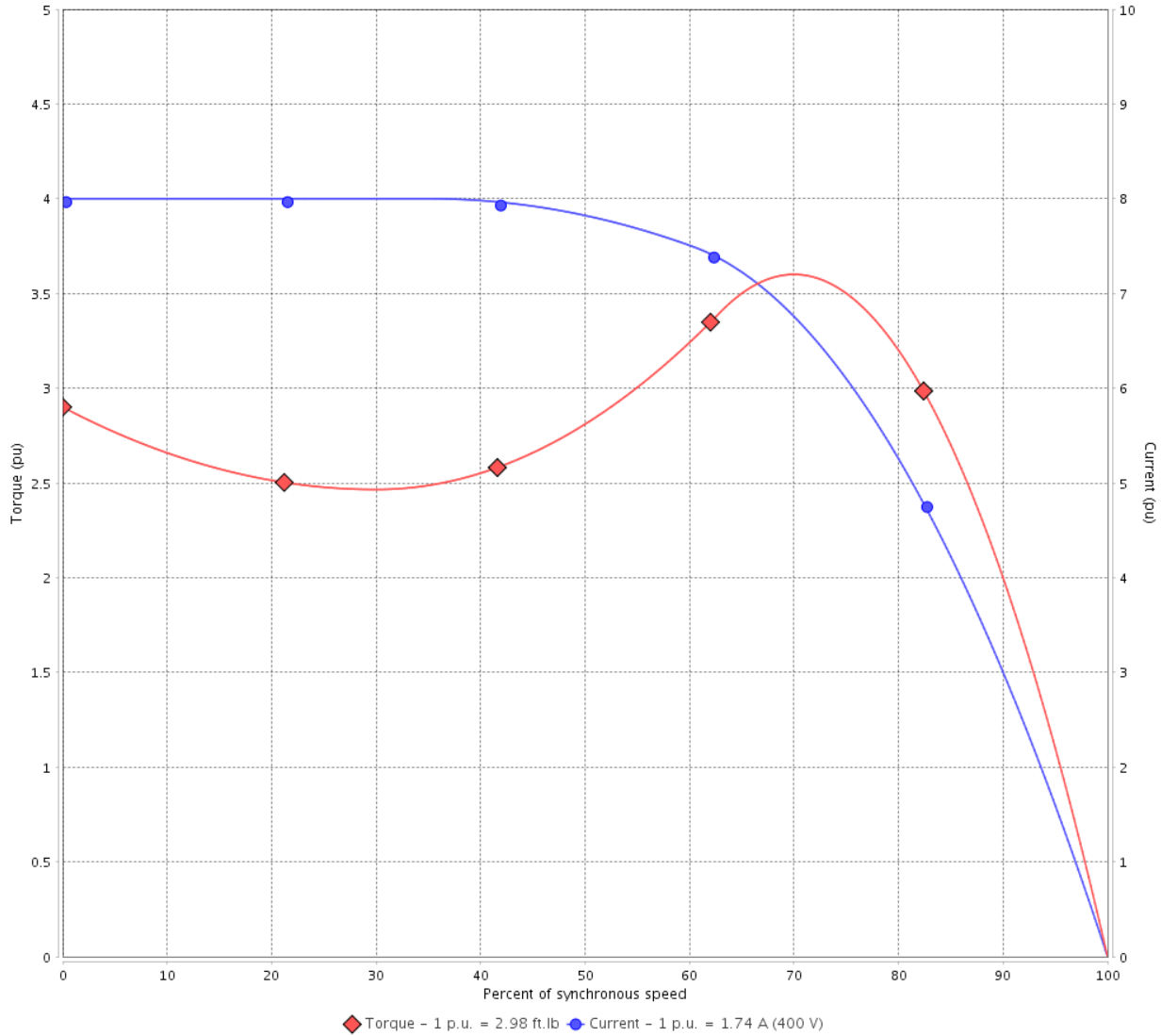
Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 12945223

Catalog # : 001180T3V143JM-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 200/400 V 60 Hz 4P

Rated current	: 3.47/1.74 A	Moment of inertia (J)	: 0.1101 sq.ft.lb
LRC	: 8.0	Duty cycle	: Cont.(S1)
Rated torque	: 2.98 ft.lb	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.15
Breakdown torque	: 360 %	Temperature rise	: 80 K
Rated speed	: 1760 rpm	Design	: B

Locked rotor time : 39s (cold) 22s (hot)

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

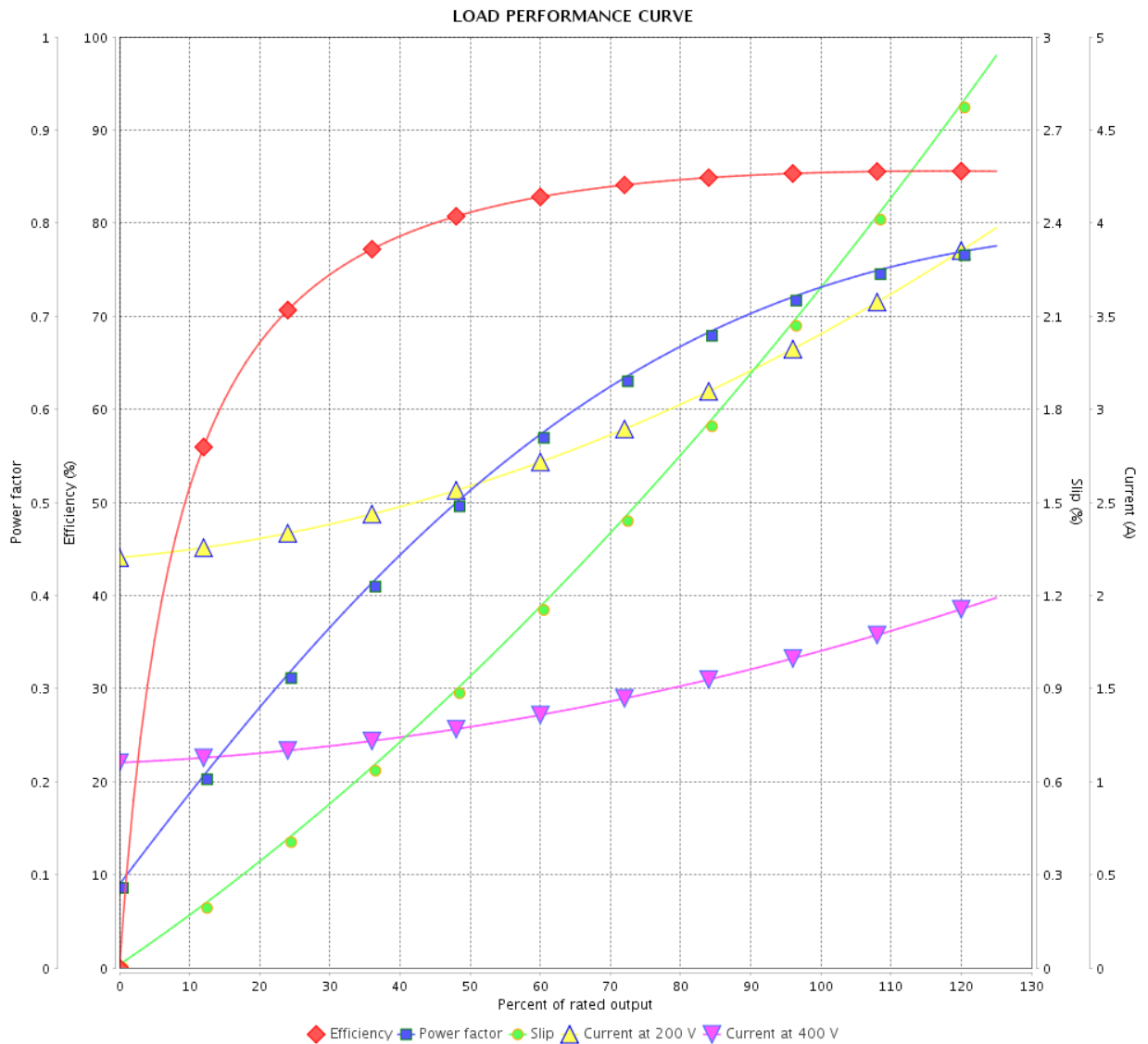


Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 12945223

Catalog # : 00118OT3V143JM-S



Performance : 200/400 V 60 Hz 4P

Rated current : 3.47/1.74 A  
 LRC : 8.0  
 Rated torque : 2.98 ft.lb  
 Locked rotor torque : 290 %  
 Breakdown torque : 360 %  
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.1101 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

Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 12945223

Catalog # : 00118OT3V143JM-S

Performance : 200/400 V 60 Hz 4P

Rated current : 3.47/1.74 A  
LRC : 8.0  
Rated torque : 2.98 ft.lb  
Locked rotor torque : 290 %  
Breakdown torque : 360 %  
Rated speed : 1760 rpm

Moment of inertia (J) : 0.1101 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

Heating constant

Cooling constant

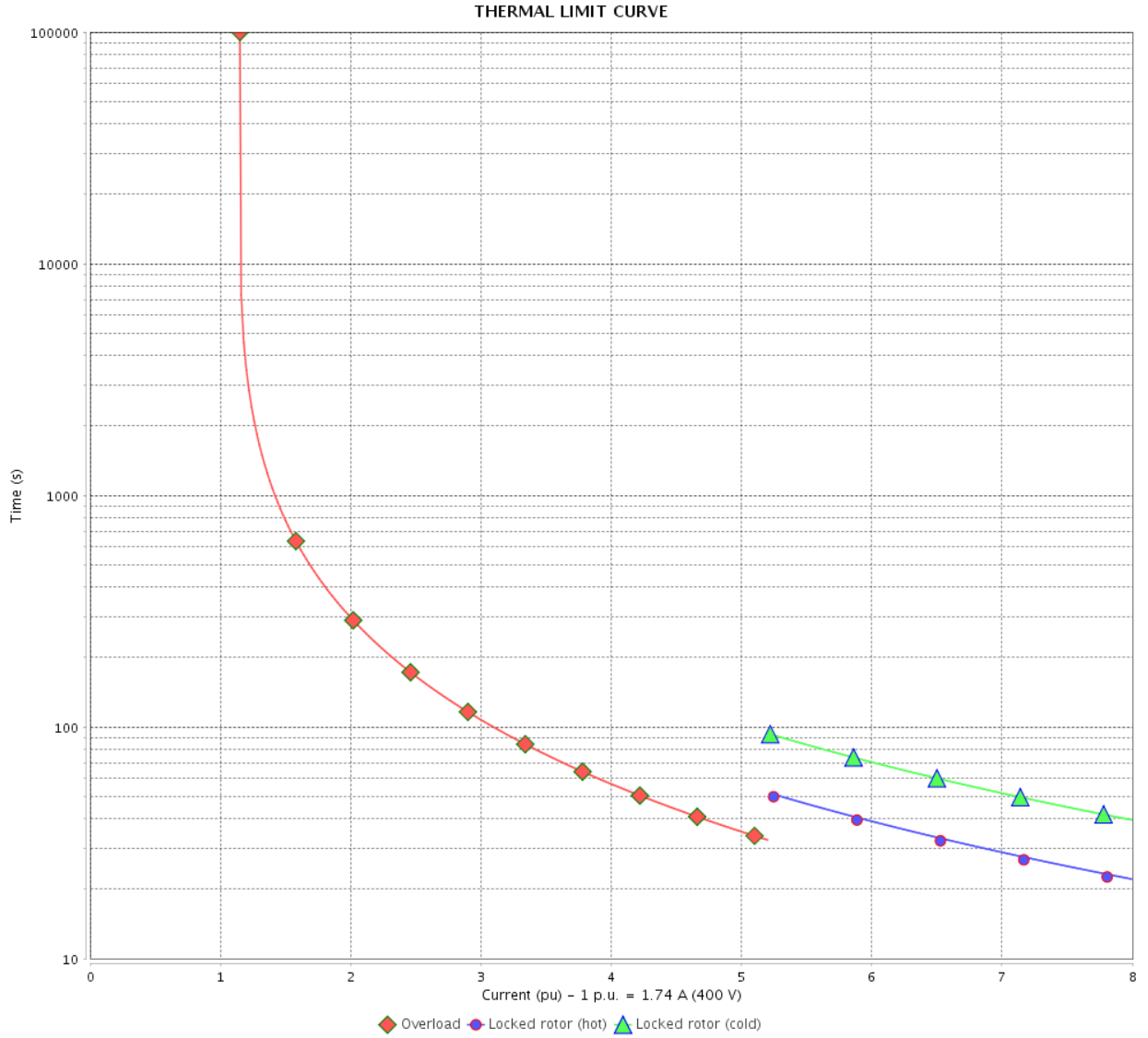
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



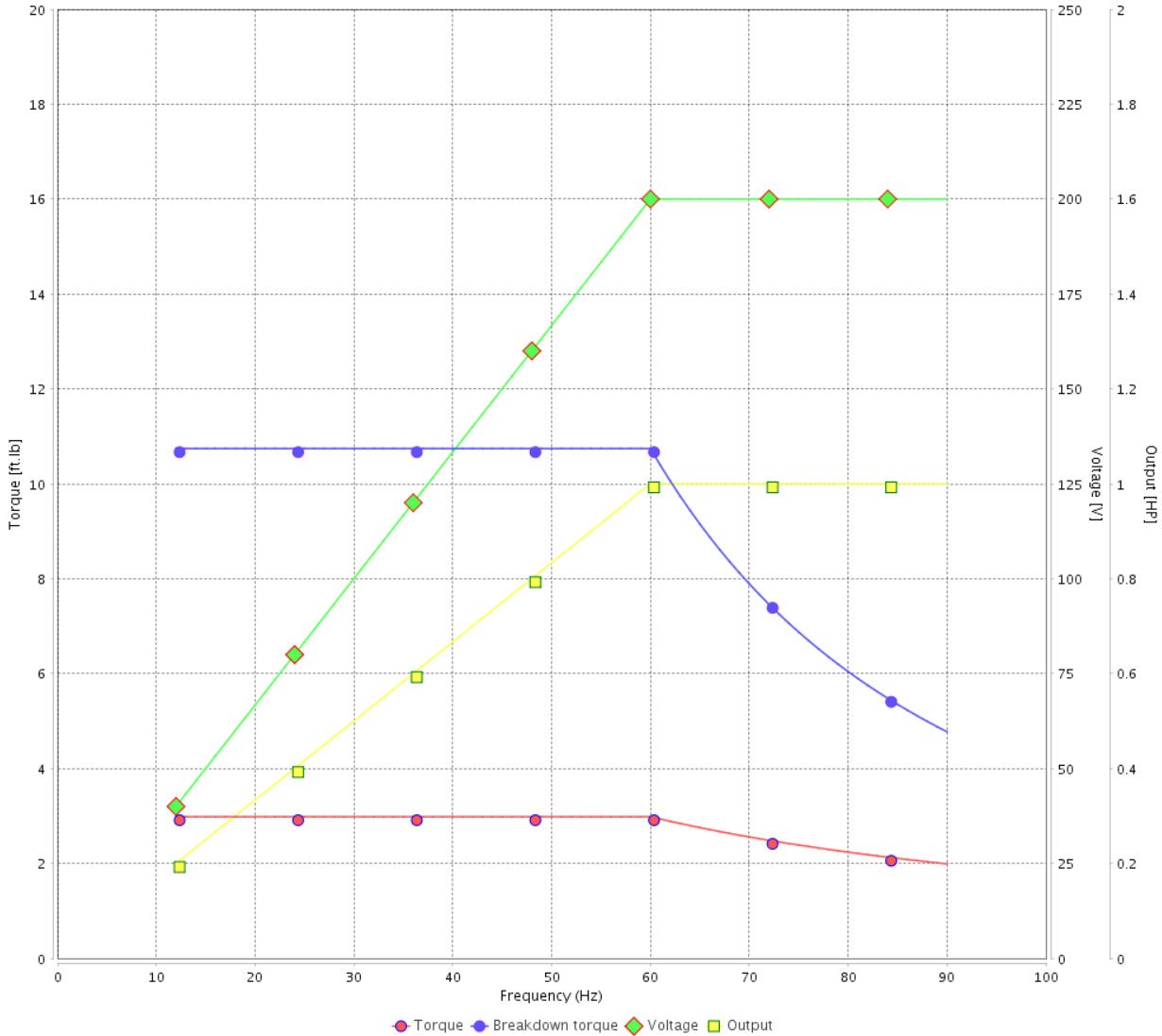
Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 12945223

Catalog # : 001180T3V143JM-S

VFD OPERATION CURVE



Performance : 200/400 V 60 Hz 4P

Rated current : 3.47/1.74 A  
 LRC : 8.0  
 Rated torque : 2.98 ft.lb  
 Locked rotor torque : 290 %  
 Breakdown torque : 360 %  
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.1101 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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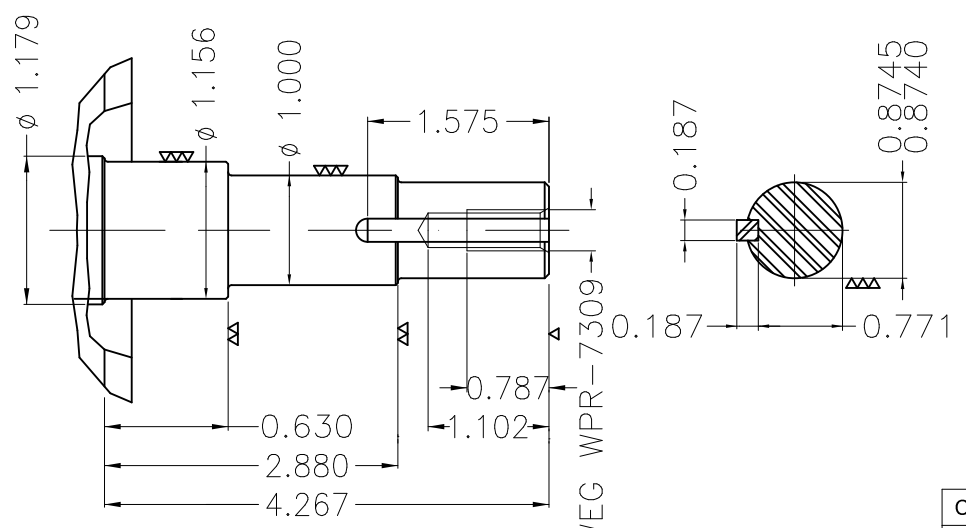
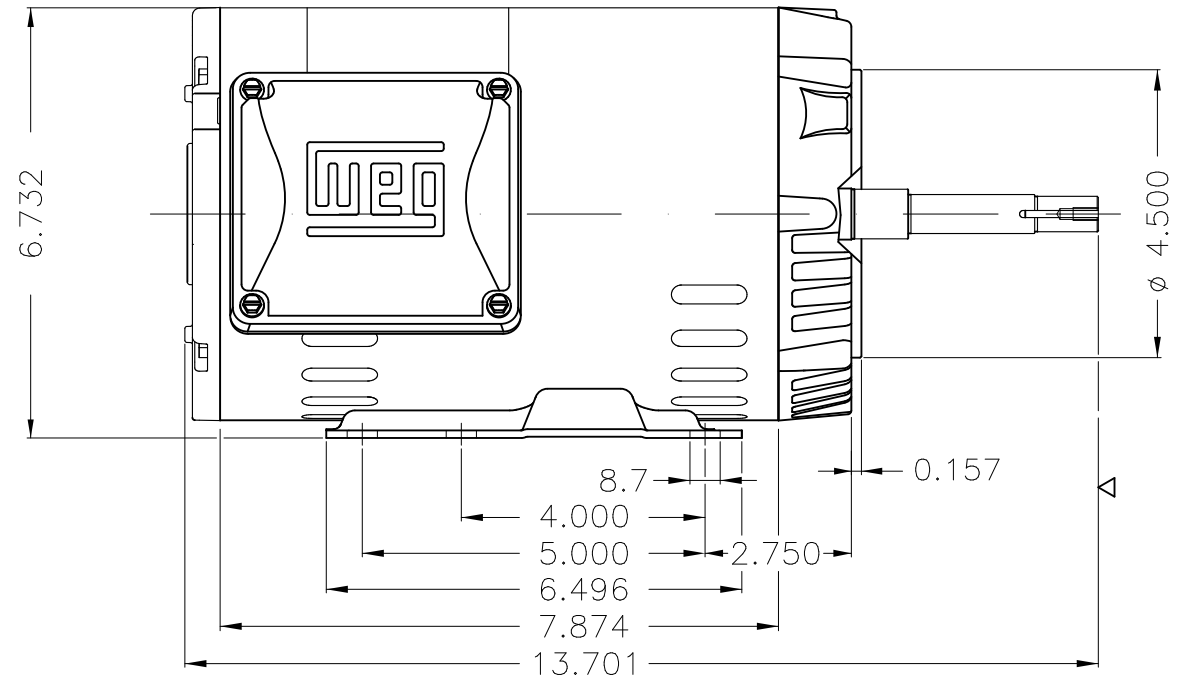
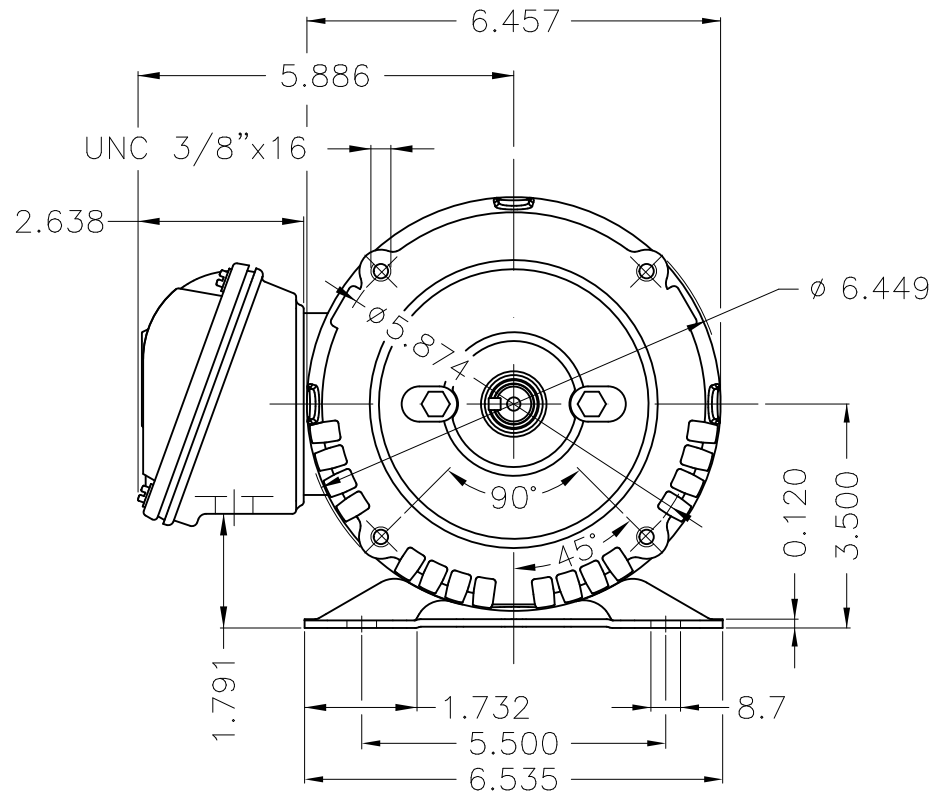
A

B

C

D

E



EUNC 3/8"-16 WEG WPR-7309

DE Shaft End

Color Munsell N 1 matte black									
Painting plan 207N									
Mounting F-1/B34R(D)									
ECM	LOC	SUMMARY OF MODIFICATIONS			EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWUSER	THREE PH. MOTOR ROLLED STEEL CLOSE COUPLED PUMP JN TYPE PSE 143							
CHECKED		FRAME 143/5JM IP21 ODP							
RELEASED									
REL DT.		WMO	Jaragua do Sul	Product Engineering					

1 HP 04 Poles 60 Hz

PREVIEW  
WDD  
SHEET 1 / 1



**NEMA**  
**Premium**

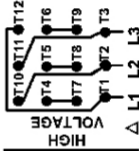
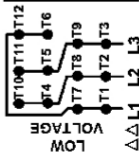
MADE IN MEXICO

**MAT: 12945223 CC029A****W01.T00IC0X0N****MODEL 001180T3V143JM-S****30MAR2022 B/N:**

<b>PH 3</b>	<b>Hz 60</b>	<b>HP 1.0</b>
<b>FR 143/5JM</b>		<b>KW 0.75</b>
<b>DUTY CONT.</b>		<b>V 200/400</b>
<b>ALT 1000 m.a.s.l.</b>		<b>A 3.47/1.74</b>
<b>INS CL F AT 80K</b>		<b>SFA 3.99/2.00</b>
<b>AMB 40°C</b>	<b>DES B</b>	<b>SF 1.15</b>
<b>ENCL ODP</b>	<b>CODE L</b>	<b>PF 0.73</b>
		<b>RPM 1760</b>
		<b>NEMA NOM. EFF 85.5%</b>

**Inverter duty motor For use on VPWM 1000:1 VT, 5:1 CT**

<b>DE 6206-ZZ</b>	<b>ODE 6203-ZZ</b>	<b>MOBIL POLYREX EM</b>
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T1-BLU T2-WHT  
 T3-ORG T4-YEL  
 T5-BLK T6-GRY  
 T7-PNK T8-RED  
 T9-BRK RED  
 T10-CURRY  
 T11-GRN T12-VLT

**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.

