

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer	:		
Product line	: JM Pump NEMA Premium Efficiency Three-Phase	Product code :	14807032
		Catalog # :	00112ET3E145JM-S
Frame	: 143/5JM	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: F-1
Duty cycle	: Cont.(S1)	Rotation <sup>1</sup>	: Both (CW and CCW)
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line
Altitude	: 1000 m.a.s.l.	Approx. weight <sup>2</sup>	: 41.2 lb
Protection degree	: IP55	Moment of inertia (J)	: 0.1597 sq.ft.lb
Design	: B		
Output [HP]	1	1	1
Poles	6	6	6
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190/380	220/415
Rated current [A]	3.16/1.58	3.74/1.87	3.41/1.81
L. R. Amperes [A]	18.3/9.16	16.5/8.23	16.7/8.87
LRC [A]	5.8x(Code J)	4.4x(Code F)	4.9x(Code G)
No load current [A]	2.03/1.01	2.00/1.00	2.02/1.07
Rated speed [RPM]	1145	915	930
Slip [%]	4.58	8.50	7.00
Rated torque [ft.lb]	4.59	5.74	5.65
Locked rotor torque [%]	229	170	200
Breakdown torque [%]	280	200	229
Service factor		1.00	1.00
Temperature rise	80 K	105 K	105 K
Locked rotor time	55s (cold) 31s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)
Noise level <sup>2</sup>	50.0 dB(A)	47.0 dB(A)	47.0 dB(A)
Efficiency (%)	25%	79.5	80.4
	50%	80.0	79.4
	75%	82.5	80.4
	100%	82.5	78.6
Power Factor	25%	0.28	0.31
	50%	0.50	0.54
	75%	0.63	0.68
	100%	0.72	0.76
Bearing type	: <u>Drive end</u> 6206 ZZ <u>Non drive end</u> 6203 ZZ	Foundation loads	
Sealing	: V'Ring Without Bearing Seal	Max. traction	: 92 lb
		Max. compression	: 133 lb
Lubrication interval	: -		
Lubricant amount	: -		
Lubricant type	: Mobil Polyrex EM		
Notes USABLE @208V 3.49A SF 1.00 SFA 3.49A			
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



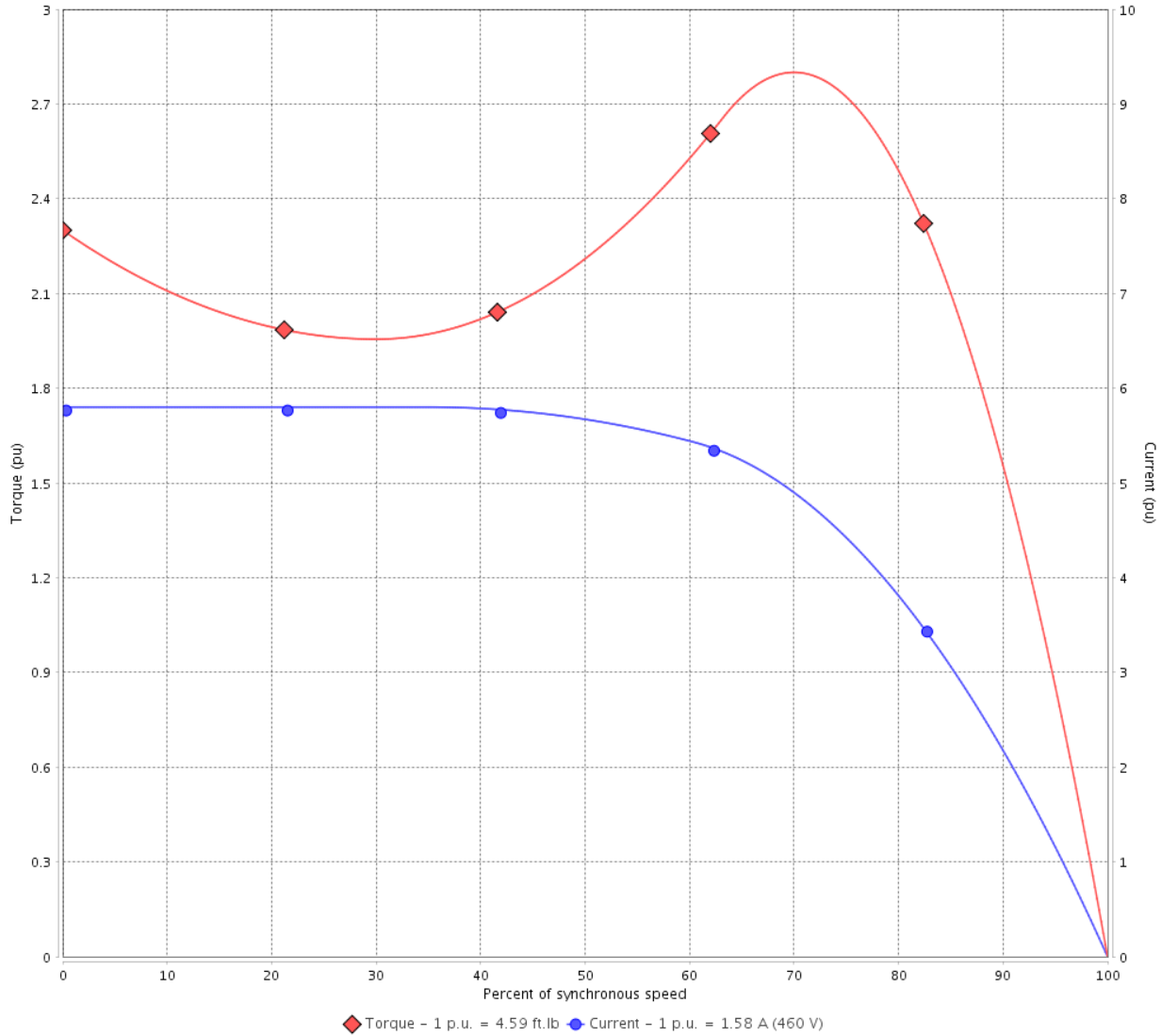
Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 14807032

Catalog # : 00112ET3E145JM-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current : 3.16/1.58 A  
LRC : 5.8  
Rated torque : 4.59 ft.lb  
Locked rotor torque : 229 %  
Breakdown torque : 280 %  
Rated speed : 1145 rpm

Moment of inertia (J) : 0.1597 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor :  
Temperature rise : 80 K  
Design : B

Locked rotor time : 55s (cold) 31s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



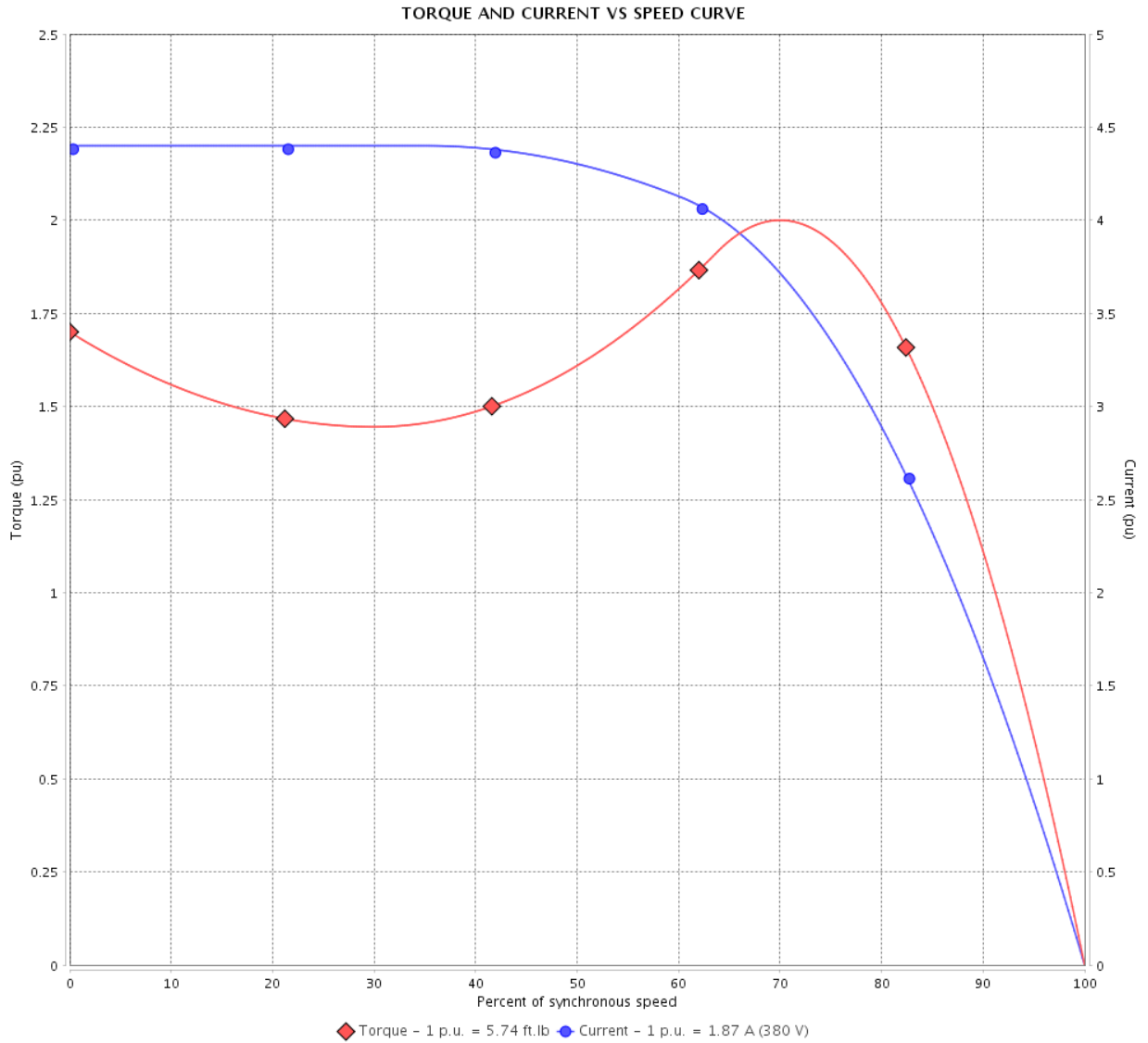
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 14807032

Catalog # : 00112ET3E145JM-S



Performance : 190/380 V 50 Hz 6P

Rated current : 3.74/1.87 A  
 LRC : 4.4  
 Rated torque : 5.74 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 200 %  
 Rated speed : 915 rpm

Moment of inertia (J) : 0.1597 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

Locked rotor time : 0s (cold) 0s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage

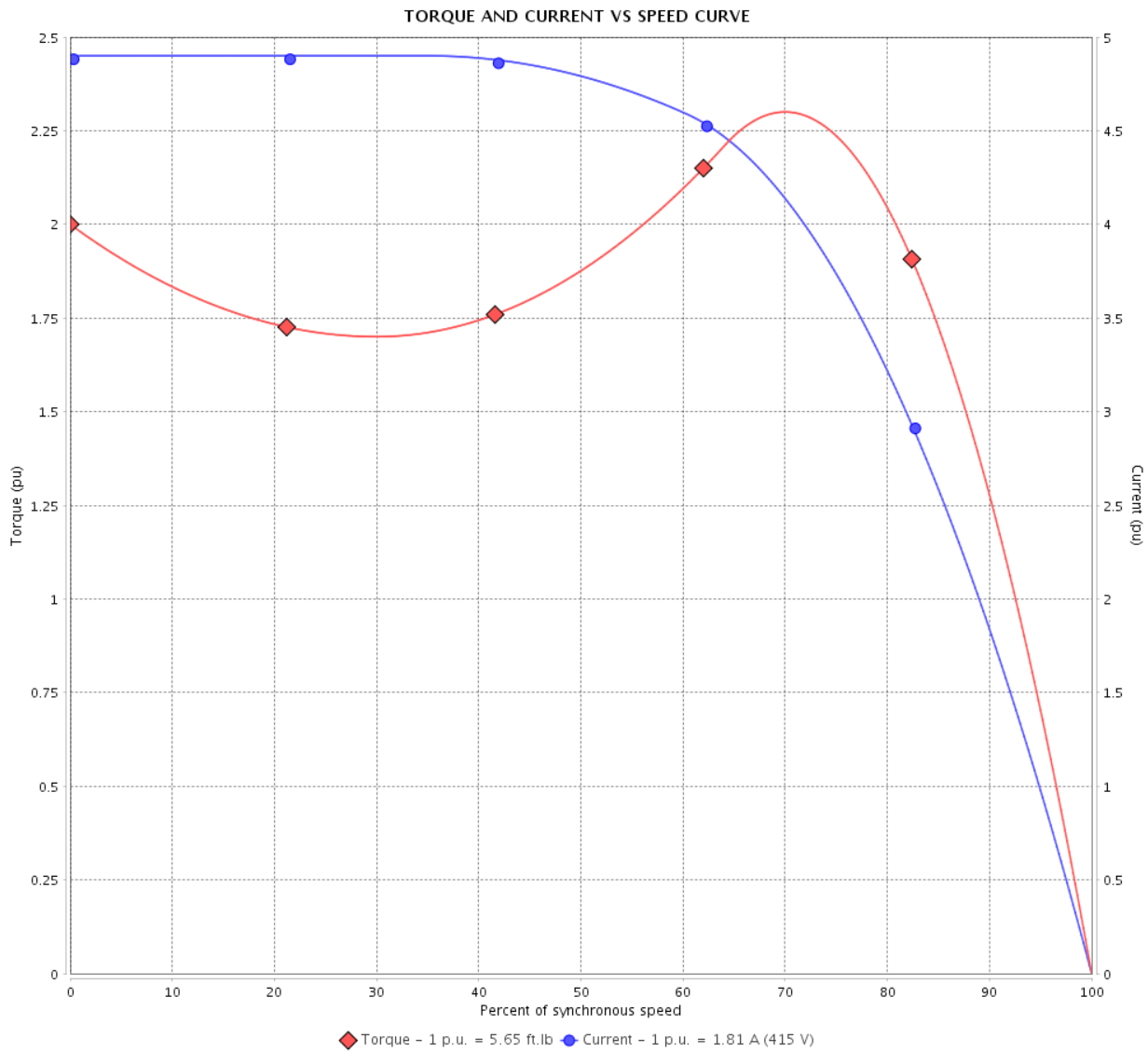


Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 14807032

Catalog # : 00112ET3E145JM-S



Performance : 220/415 V 50 Hz 6P

Rated current	: 3.41/1.81 A	Moment of inertia (J)	: 0.1597 sq.ft.lb
LRC	: 4.9	Duty cycle	: Cont.(S1)
Rated torque	: 5.65 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 105 K
Rated speed	: 930 rpm	Design	: B

Locked rotor time : 0s (cold) 0s (hot)

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

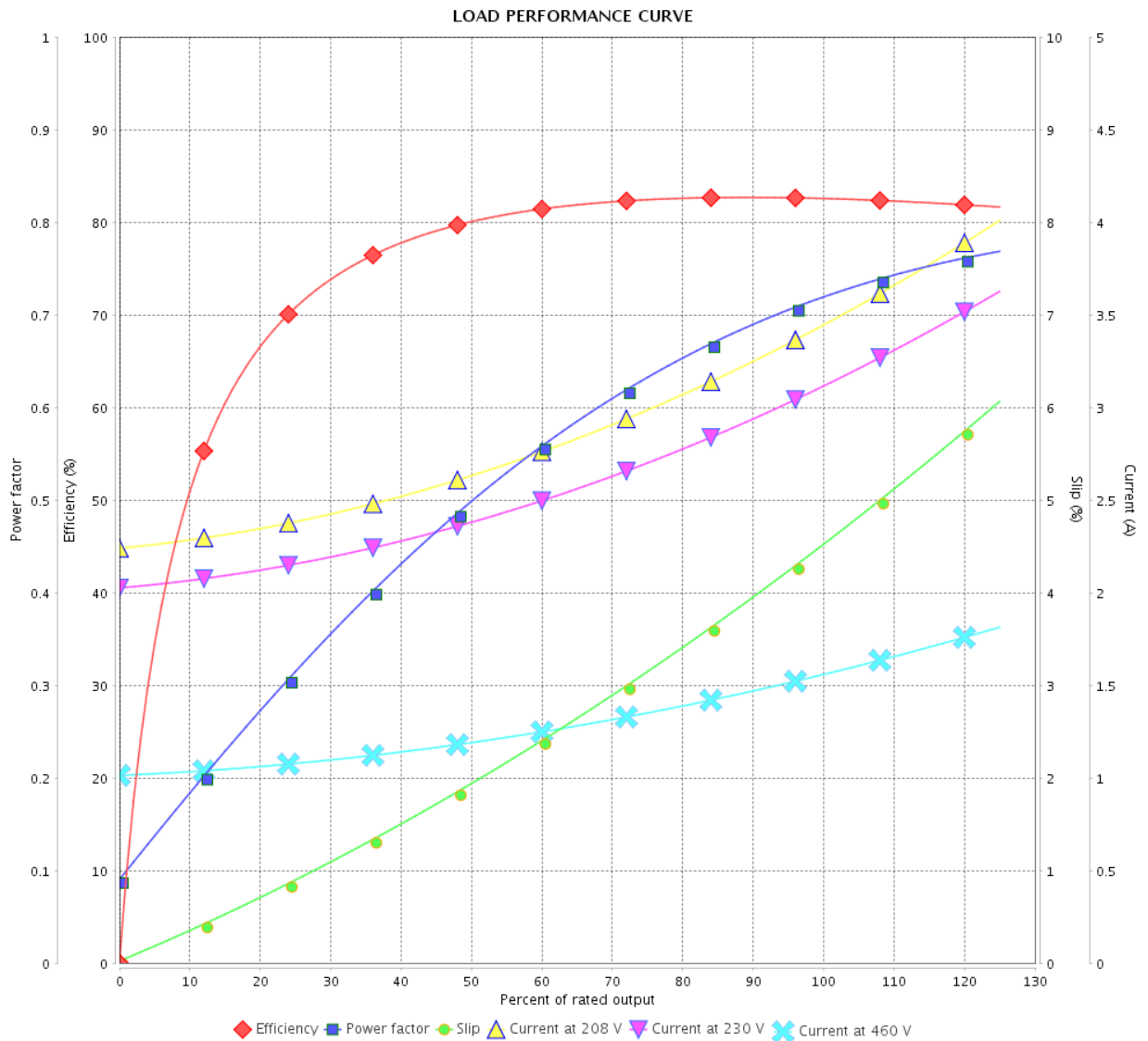


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Product code : 14807032

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Performance : 230/460 V 60 Hz 6P

Rated current : 3.16/1.58 A  
 LRC : 5.8  
 Rated torque : 4.59 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 280 %  
 Rated speed : 1145 rpm

Moment of inertia (J) : 0.1597 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



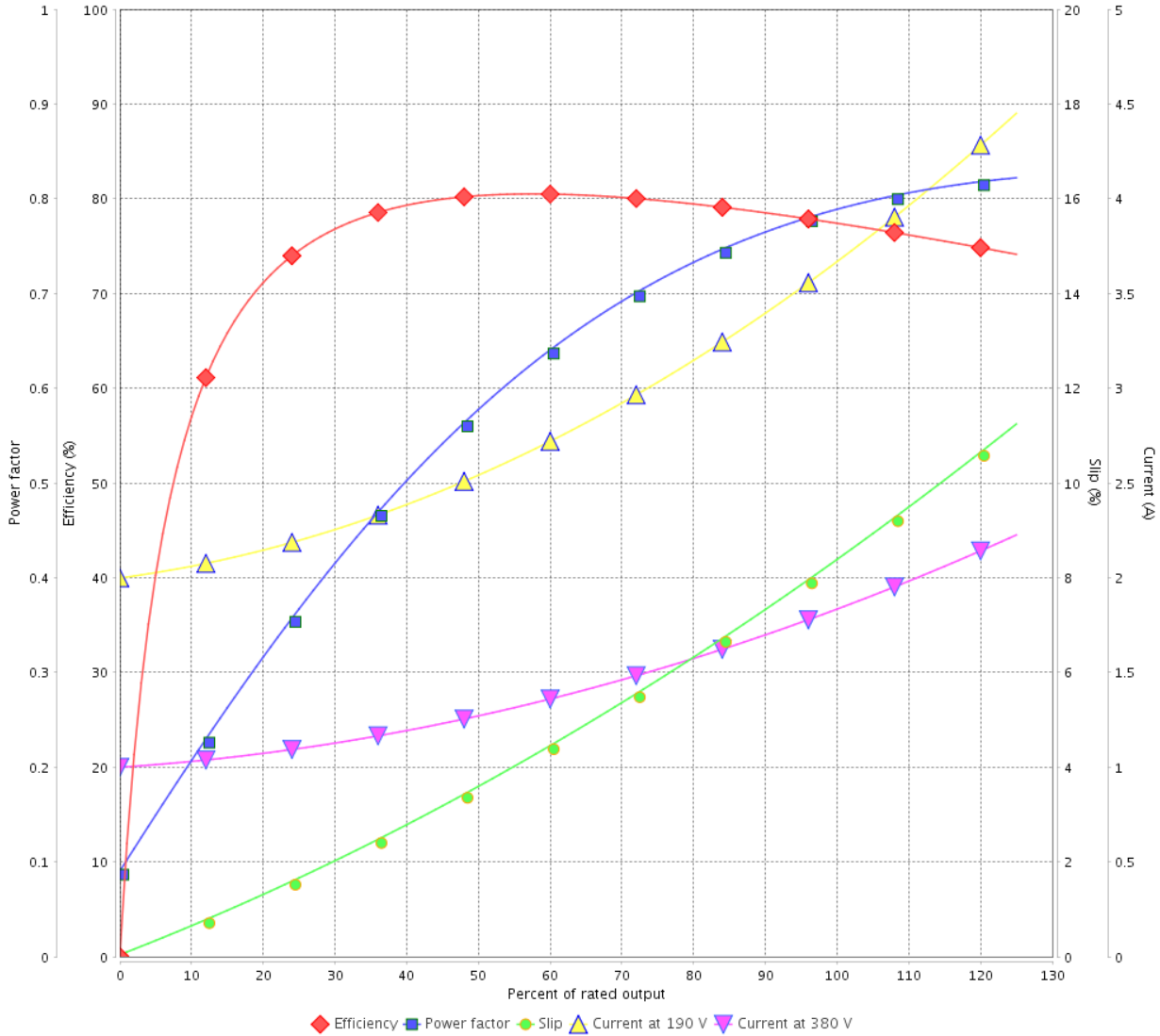
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Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 14807032

Catalog # : 00112ET3E145JM-S

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 6P

Rated current : 3.74/1.87 A  
 LRC : 4.4  
 Rated torque : 5.74 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 200 %  
 Rated speed : 915 rpm

Moment of inertia (J) : 0.1597 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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Three Phase Induction Motor - Squirrel Cage

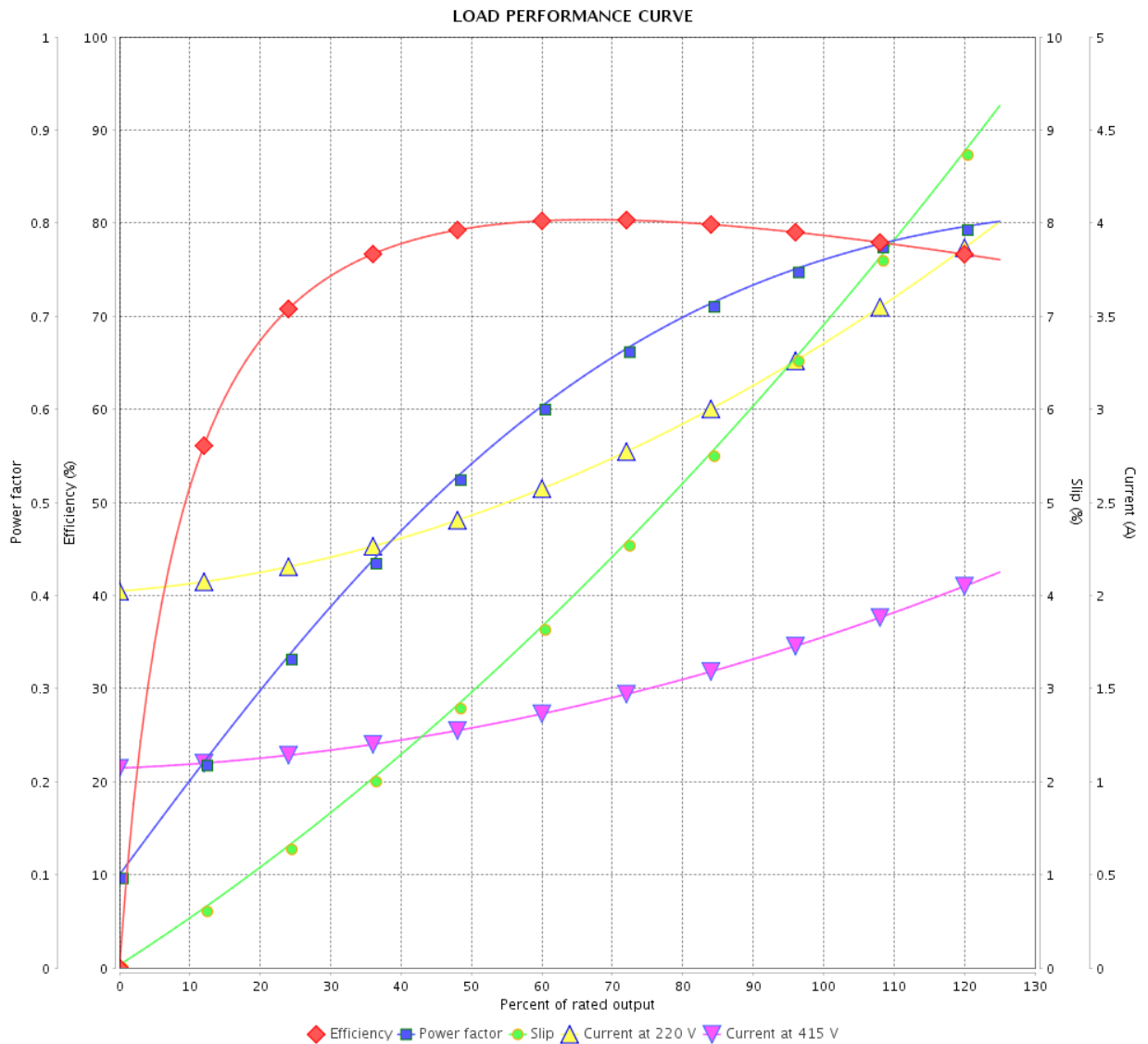


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# THERMAL LIMIT CURVE



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Performance : 230/460 V 60 Hz 6P

Rated current : 3.16/1.58 A  
LRC : 5.8  
Rated torque : 4.59 ft.lb  
Locked rotor torque : 229 %  
Breakdown torque : 280 %  
Rated speed : 1145 rpm

Moment of inertia (J) : 0.1597 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor :  
Temperature rise : 80 K  
Design : B

Heating constant

Cooling constant

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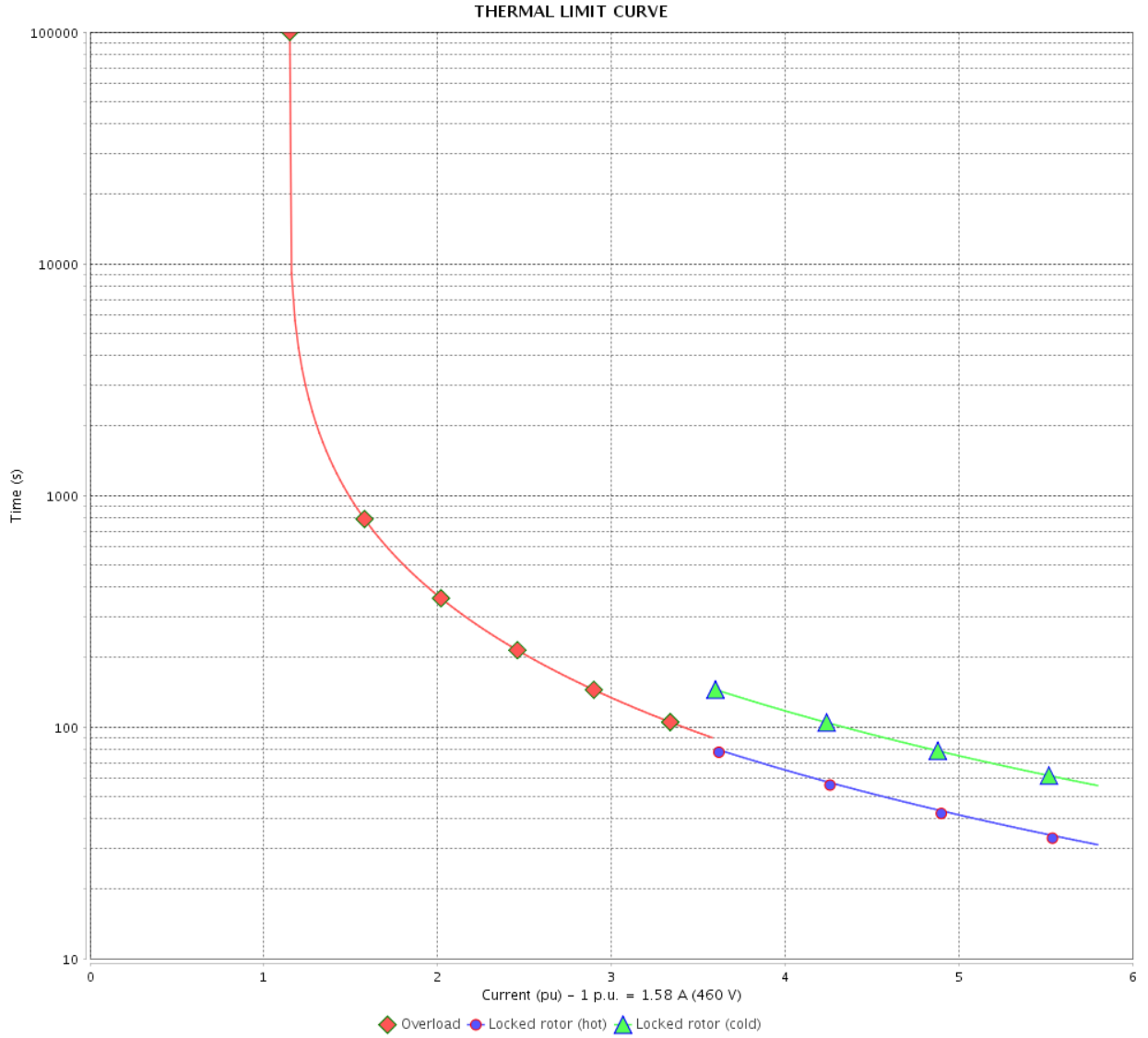


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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Performance : 190/380 V 50 Hz 6P

Rated current : 3.74/1.87 A  
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Heating constant

Cooling constant

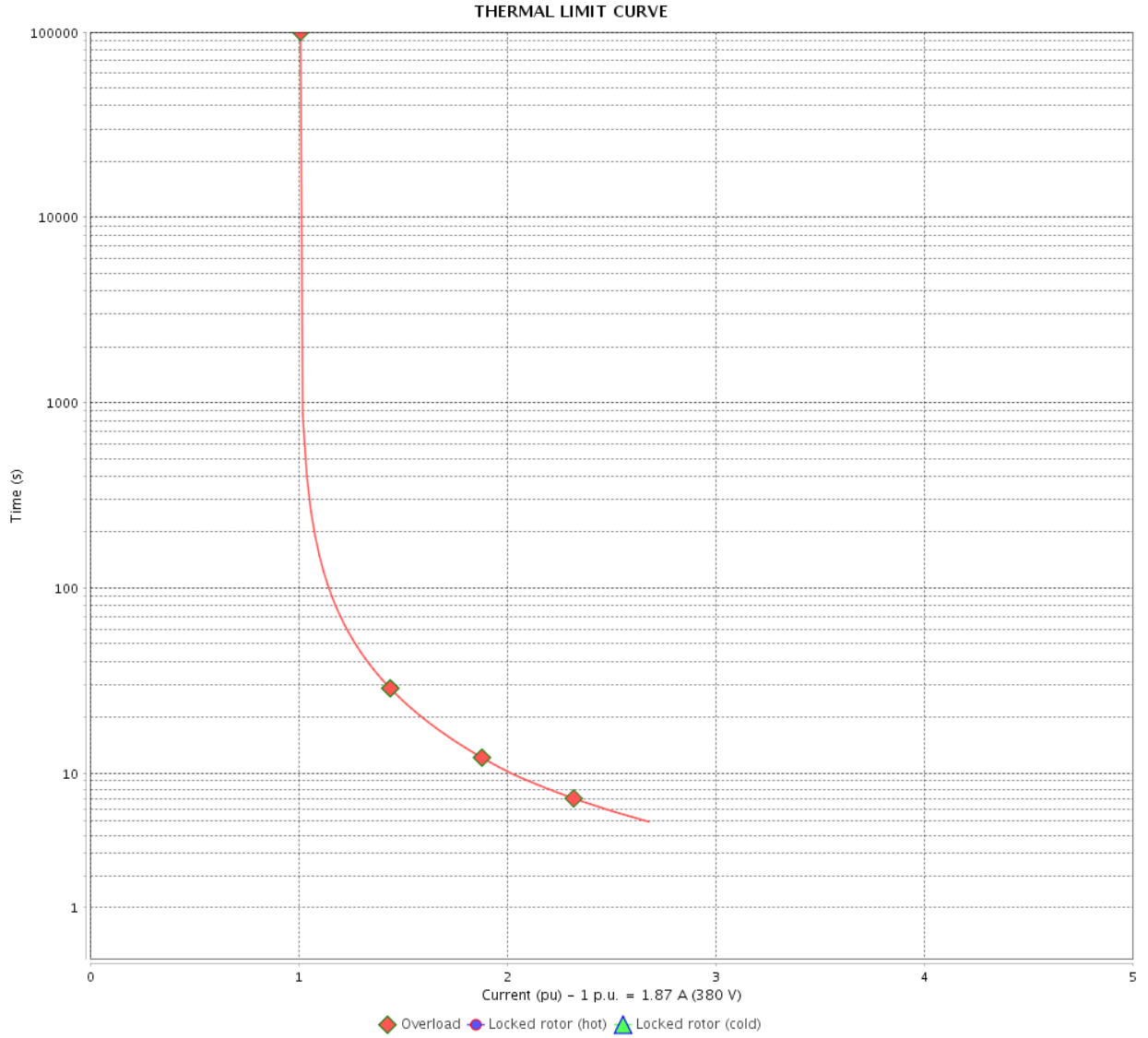
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Heating constant

Cooling constant

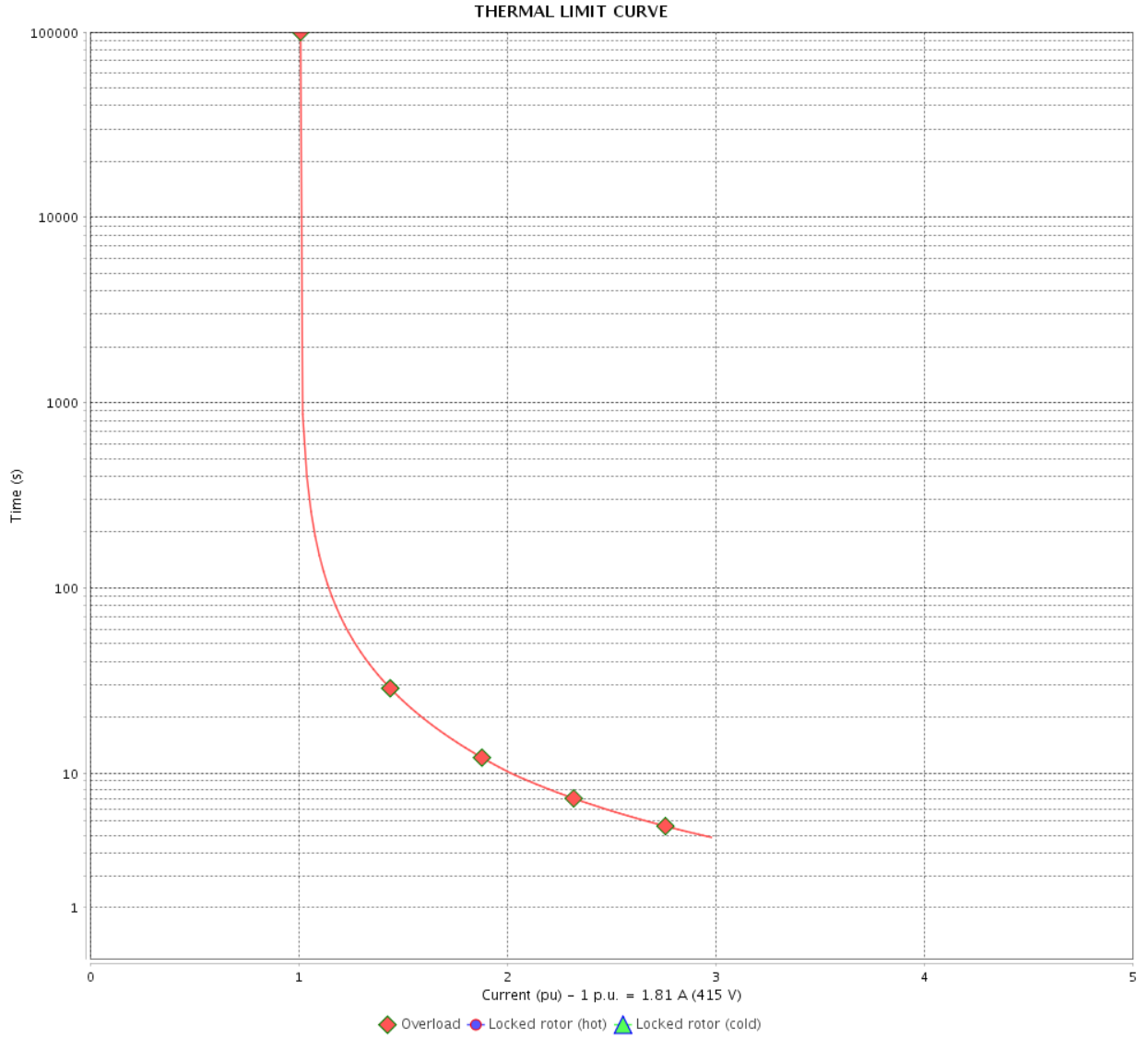
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Three Phase Induction Motor - Squirrel Cage



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



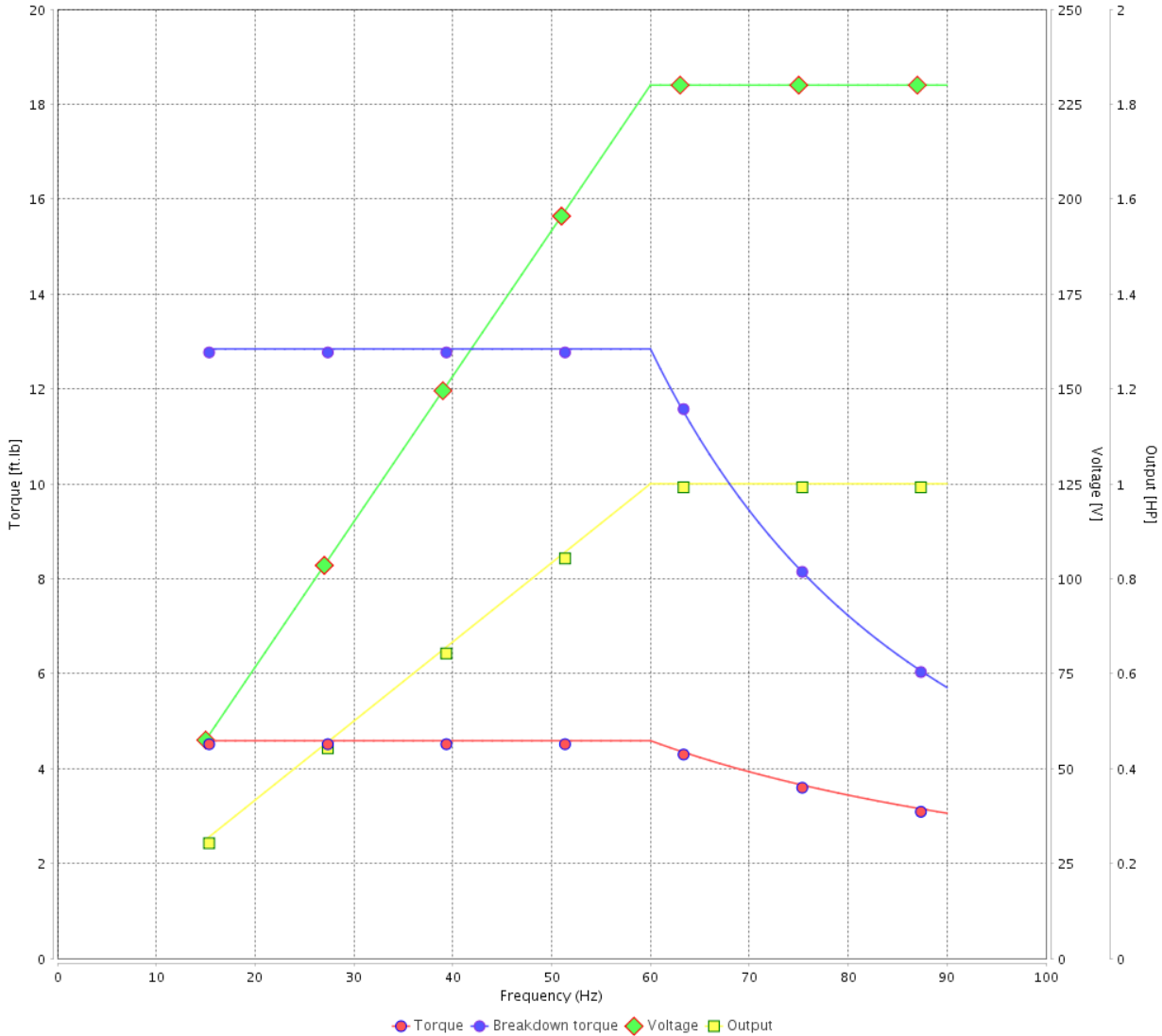
Customer :

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Product code : 14807032

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VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 6P

Rated current : 3.16/1.58 A  
 LRC : 5.8  
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 Locked rotor torque : 229 %  
 Breakdown torque : 280 %  
 Rated speed : 1145 rpm

Moment of inertia (J) : 0.1597 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K  
 Design : B

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# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

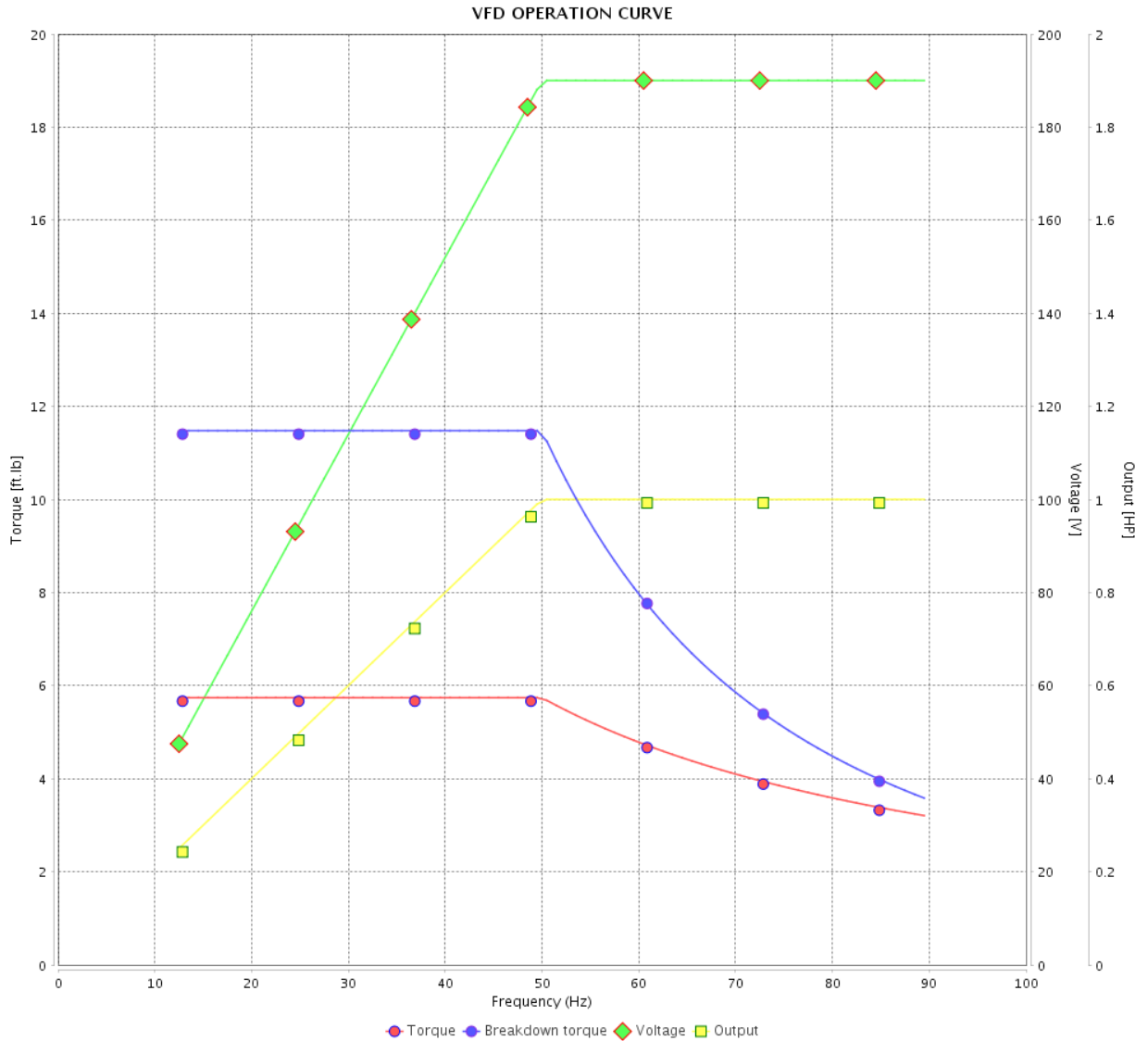


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 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



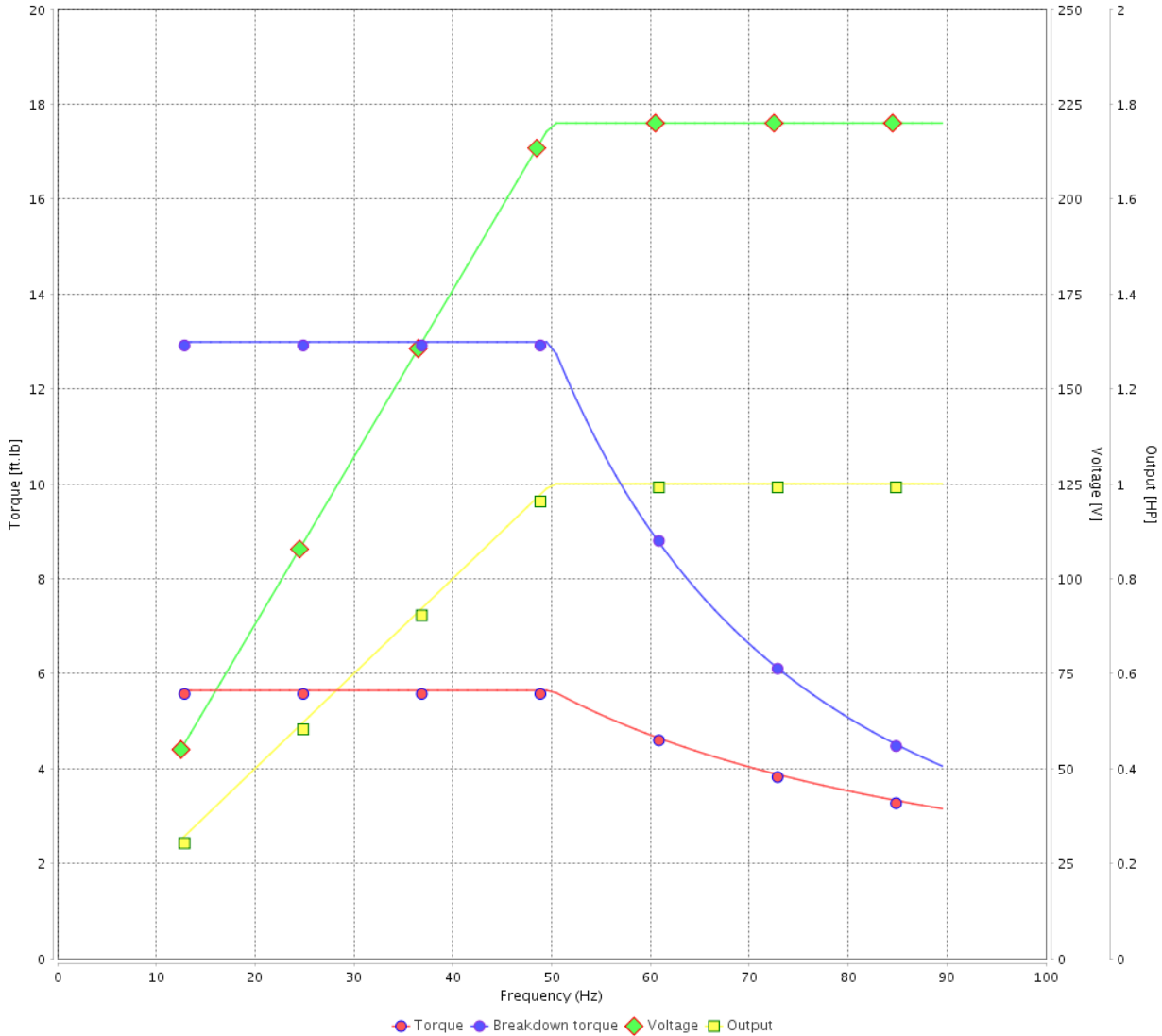
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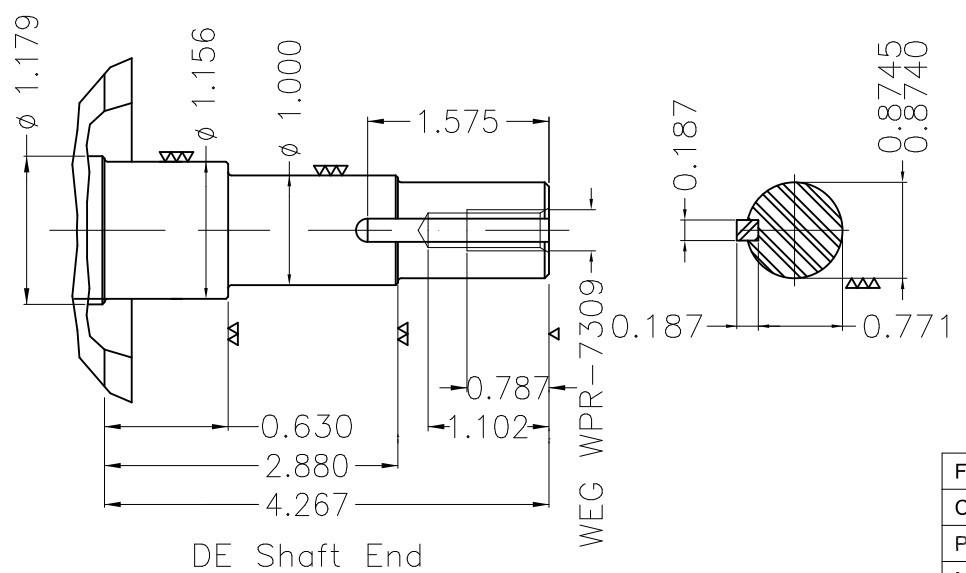
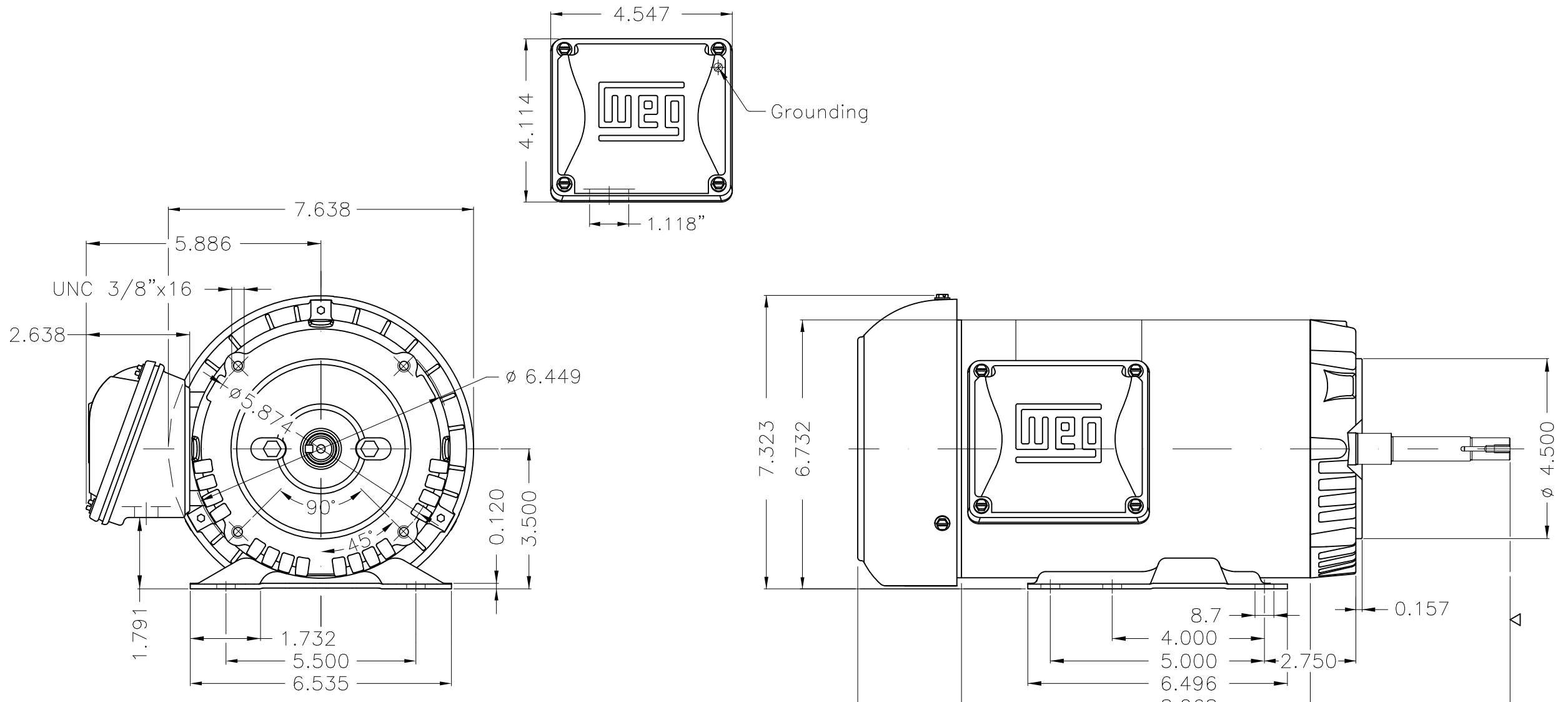
A

B

C

D

E



EUNC 3/8"-16 WEG WPR-7309

DE Shaft End

Fan cover - steel plate						
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	PIRBUSER		THREE PH. MOTOR ROLLED STEEL CLOSE COUPLED PUMP JN TYPE PSE 143			<p><b>PREVIEW</b></p> <p>WDD</p>		REL DT.	1 / 1
CHECKED			FRAME 143/5JM IP55 TEFC						
RELEASED									
REL DT.		WMO	Jaragua do Sul	Product Engineering	SHEET				

1 HP 06 Poles 60 Hz



**NEMA**  
**Premium**



3PT9



Energy Verified

MADE IN BRAZIL

**MAT: 14807032 CC029A**

**W01.TE0IC0X0N**

**MODEL 00112ET3E145JM-S**

**12OCT2021 B/N:**

**For 60Hz: Class I, Zone 2, IIC**

**Class I, Div.2, Gr. A,B,C,D - T3**

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

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

<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 230/460</b>
<b>ALT 1000 m.a.s.l.</b>		<b>A 3.16/1.58</b>
<b>INS CL F AT 80K</b>	<b>IP55</b>	<b>SFA 3.63/1.82</b>
<b>AMB 40°C</b>	<b>DES B</b>	<b>SF 1.15</b>
<b>ENCL TEFC</b>	<b>CODE J</b>	<b>PF 0.72</b>
<b>USABLE @ 208V 3.49A</b>		<b>RPM 1145</b>
<b>SF1.00</b>		<b>NEMA NOM. EFF 82.5%</b>

<b>ALTERNATE RATING: 1.0HP 50Hz 190-220/380-415V SF1.00</b>
<b>3.74-3.36/1.87-1.78A 915RPM EFF 77.3% (IE2) IEC 60034-1</b>

For safe area-inverter duty motor For 60Hz use on VPWM 1000:1 VT, 4:1 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

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.

