

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line	: JM Pump NEMA Premium Efficiency Three-Phase	Product code :	13173713	
		Catalog # :	00156OT3E143JM-SG	
Frame	: 143/5JM	Cooling method	: IC01 - ODP	
Insulation class	: F	Mounting	: F-1	
Duty cycle	: Cont.(S1)	Rotation ¹	: Both (CW and CCW)	
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line	
Altitude	: 1000 m.a.s.l.	Approx. weight ²	: 32.0 lb	
Design	: B	Moment of inertia (J)	: 0.0835 sq.ft.lb	
Output [HP]	1.5	1.5	1.5	
Poles	2	2	2	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	3.70/1.85	4.40/2.20	4.02/2.13	
L. R. Amperes [A]	31.8/15.9	29.5/14.7	29.7/15.8	
LRC [A]	8.6x(Code K)	6.7x(Code H)	7.4x(Code J)	
No load current [A]	1.62/0.809	1.59/0.796	1.66/0.881	
Rated speed [RPM]	3510	2890	2900	
Slip [%]	2.50	3.67	3.33	
Rated torque [ft.lb]	2.24	2.73	2.72	
Locked rotor torque [%]	210	180	200	
Breakdown torque [%]	330	250	280	
Service factor		1.15	1.15	
Temperature rise	80 K	80 K	80 K	
Locked rotor time	34s (cold) 19s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)	
Noise level ²	62.0 dB(A)	60.0 dB(A)	60.0 dB(A)	
Efficiency (%)	25%	81.1	82.1	
	50%	81.5	81.9	
	75%	84.0	83.5	
	100%	84.0	82.9	
Power Factor	25%	0.45	0.47	
	50%	0.73	0.75	
	75%	0.83	0.85	
	100%	0.89	0.90	
Bearing type	: <u>Drive end</u> 6206 ZZ <u>Non drive end</u> 6203 ZZ	Foundation loads		
Sealing	: Without Without Bearing Seal Bearing Seal	Max. traction	: 50 lb	
		Max. compression	: 82 lb	
Lubrication interval	: - -			
Lubricant amount	: - -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 4.09A SF 1.00 SFA 4.09A				
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



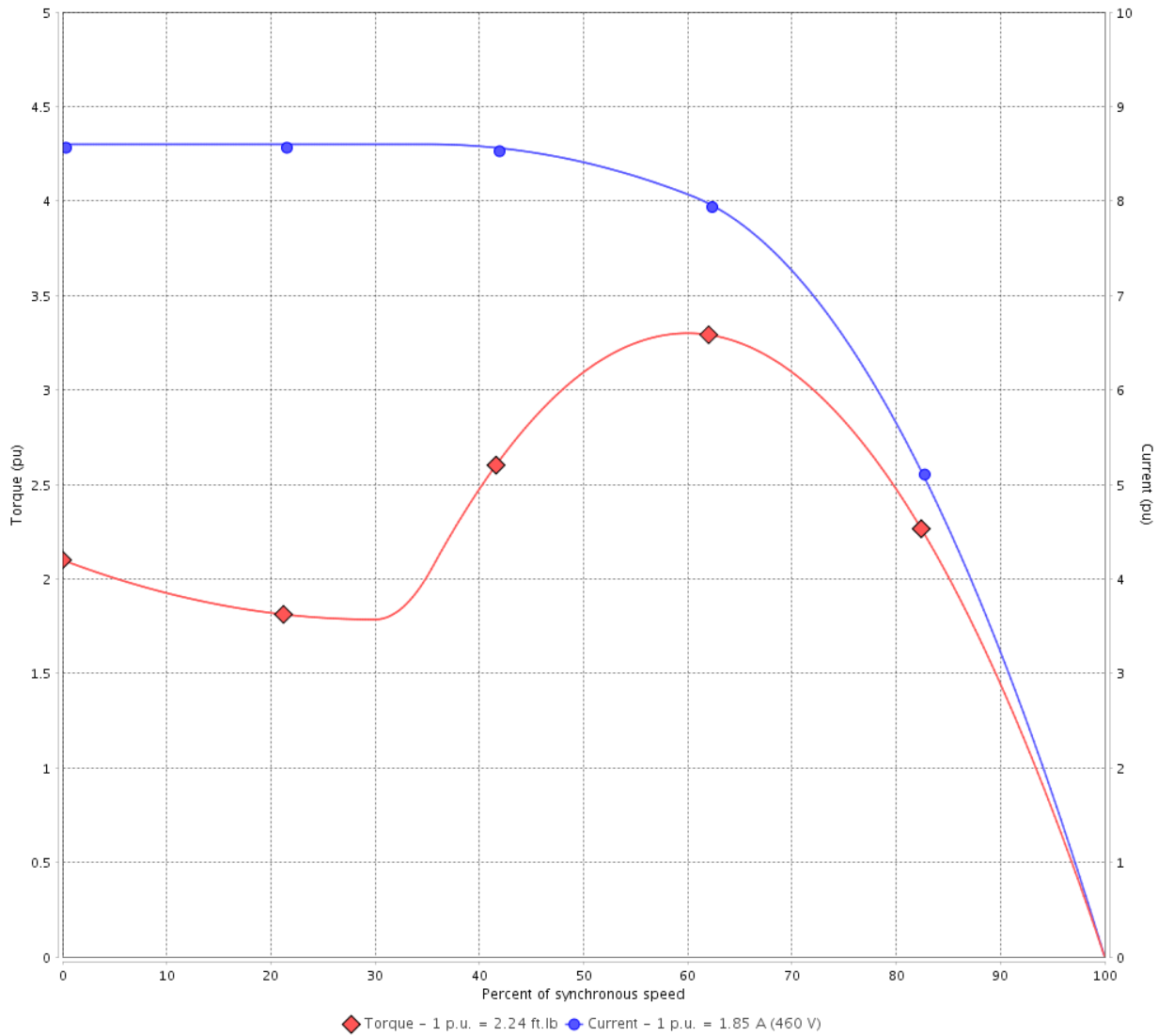
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Efficiency Three-Phase

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Catalog # : 00156OT3E143JM-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 3.70/1.85 A
LRC : 8.6
Rated torque : 2.24 ft.lb
Locked rotor torque : 210 %
Breakdown torque : 330 %
Rated speed : 3510 rpm

Moment of inertia (J) : 0.0835 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor :
Temperature rise : 80 K
Design : B

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

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TORQUE AND CURRENT VS SPEED CURVE



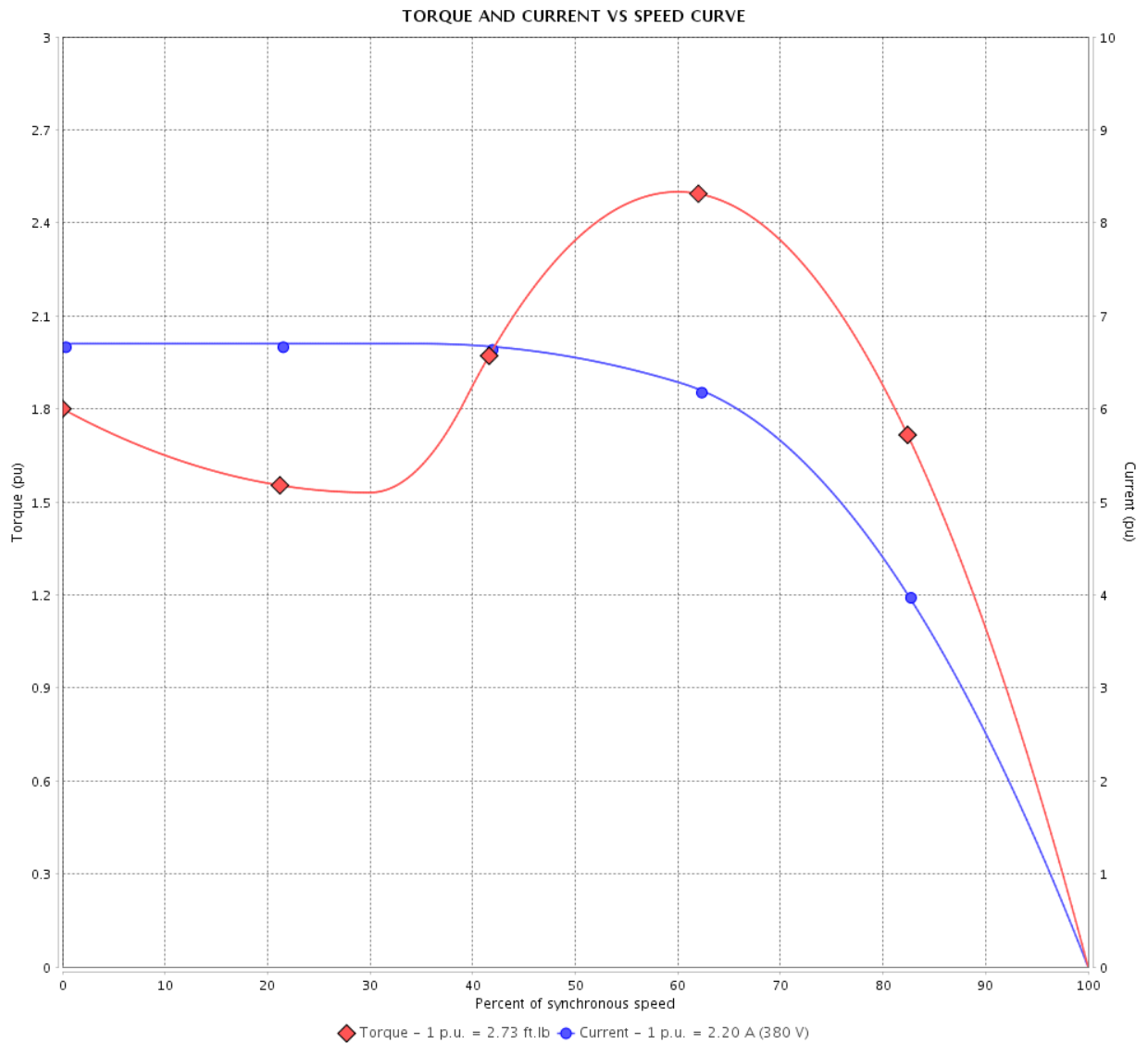
Three Phase Induction Motor - Squirrel Cage

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Performance : 190/380 V 50 Hz 2P

Rated current : 4.40/2.20 A
 LRC : 6.7
 Rated torque : 2.73 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 250 %
 Rated speed : 2890 rpm

Moment of inertia (J) : 0.0835 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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

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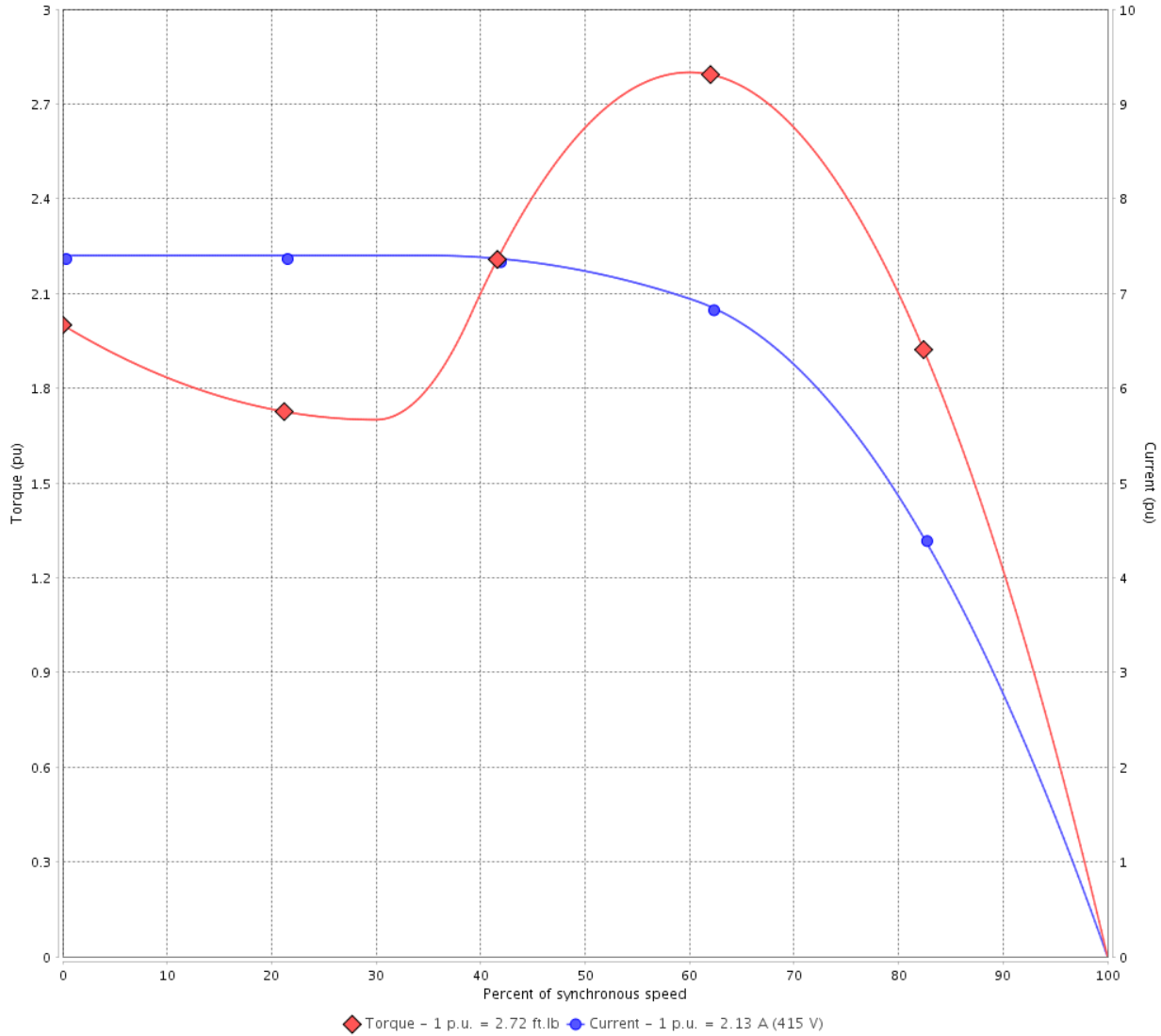
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TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current : 4.02/2.13 A
LRC : 7.4
Rated torque : 2.72 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 280 %
Rated speed : 2900 rpm

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LOAD PERFORMANCE CURVE

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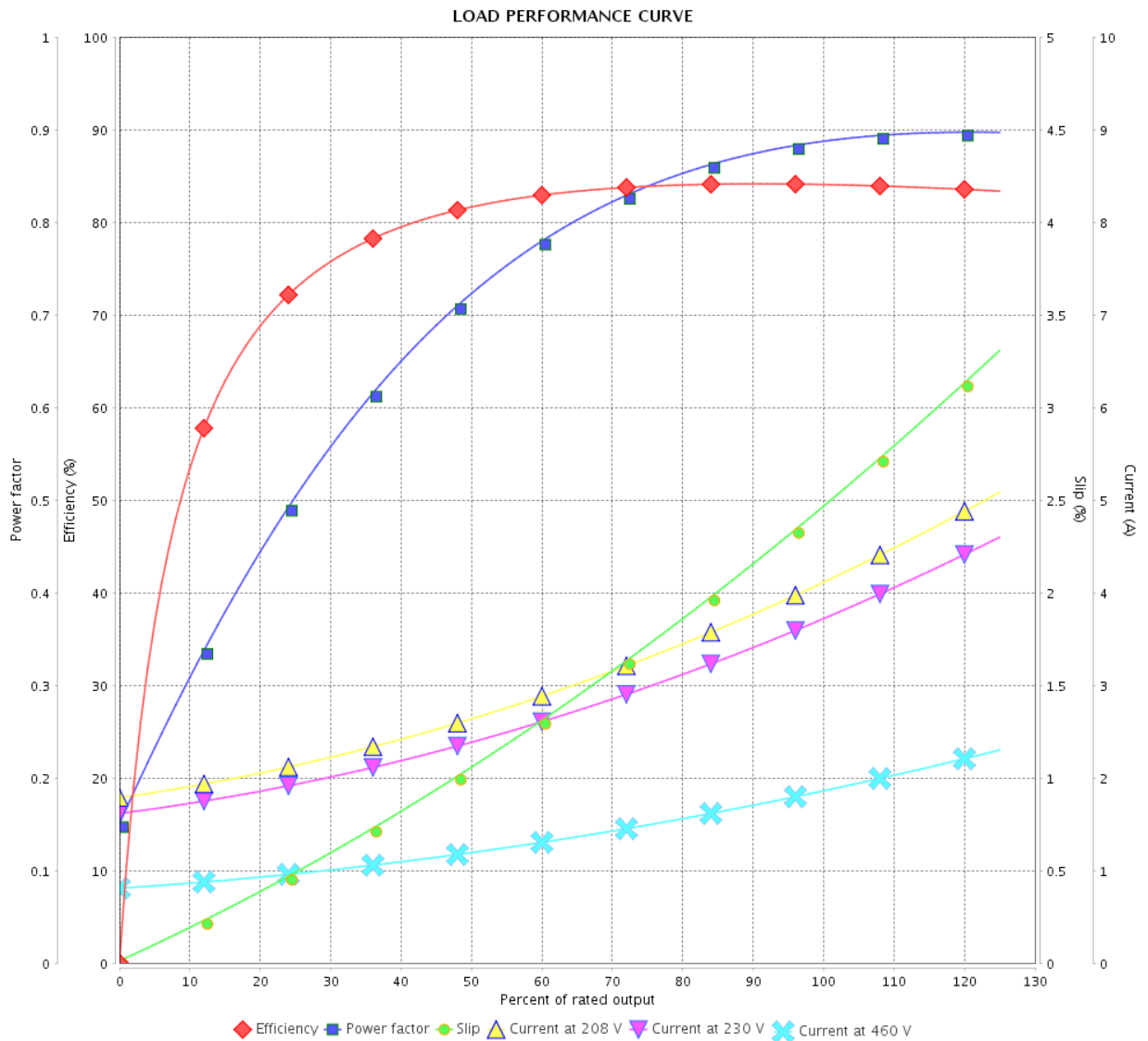


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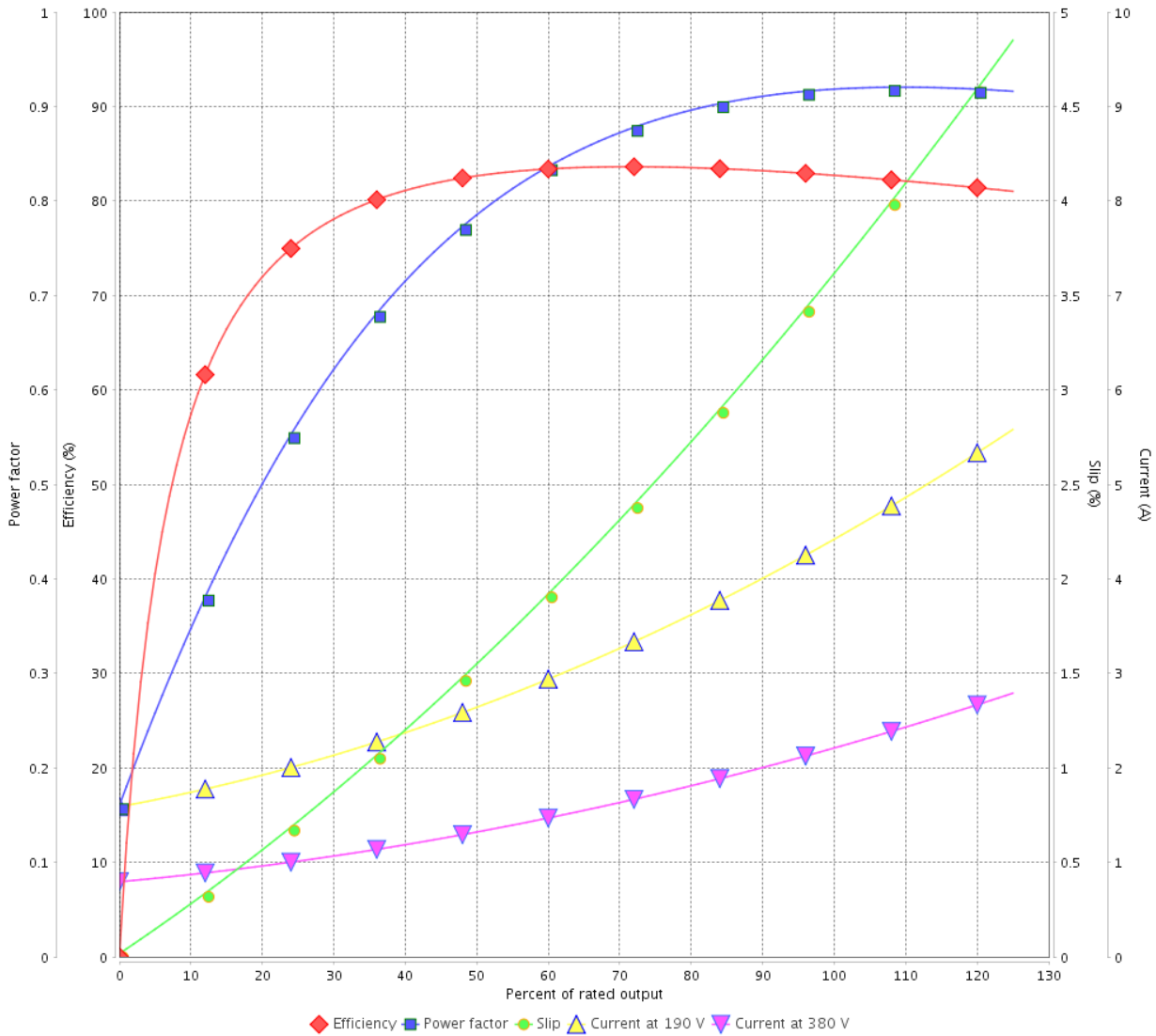
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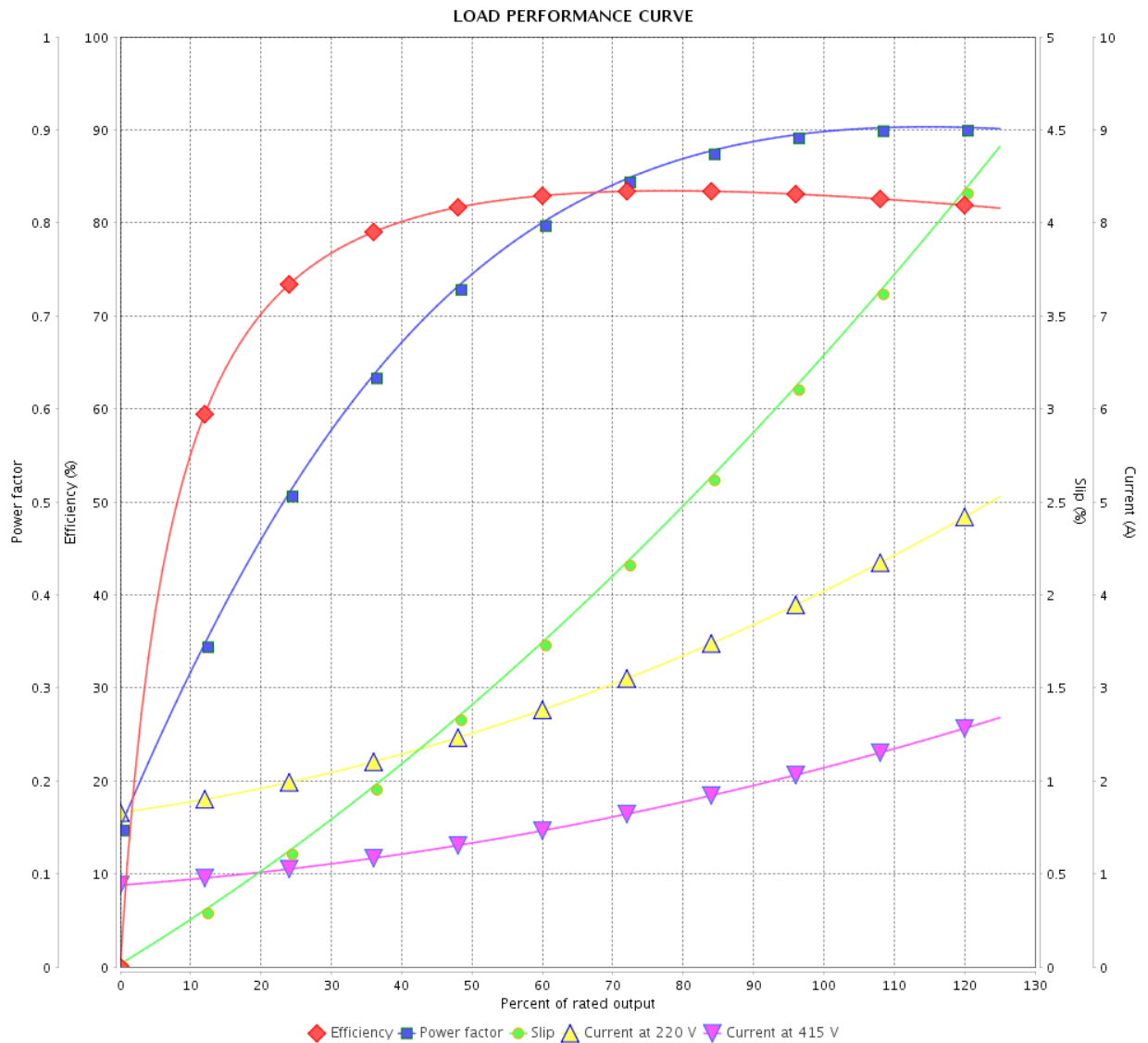


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THERMAL LIMIT CURVE



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Heating constant

Cooling constant

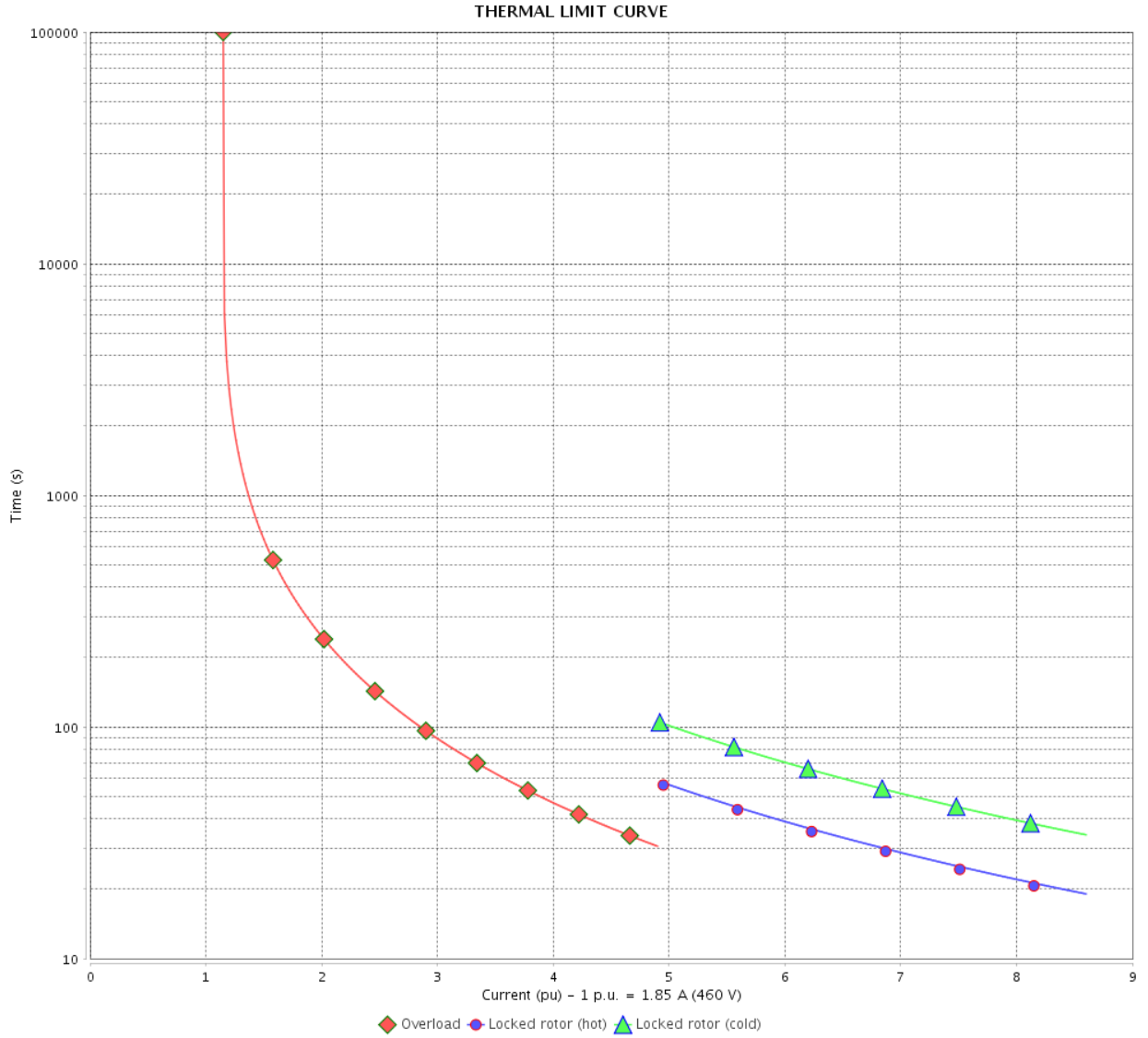
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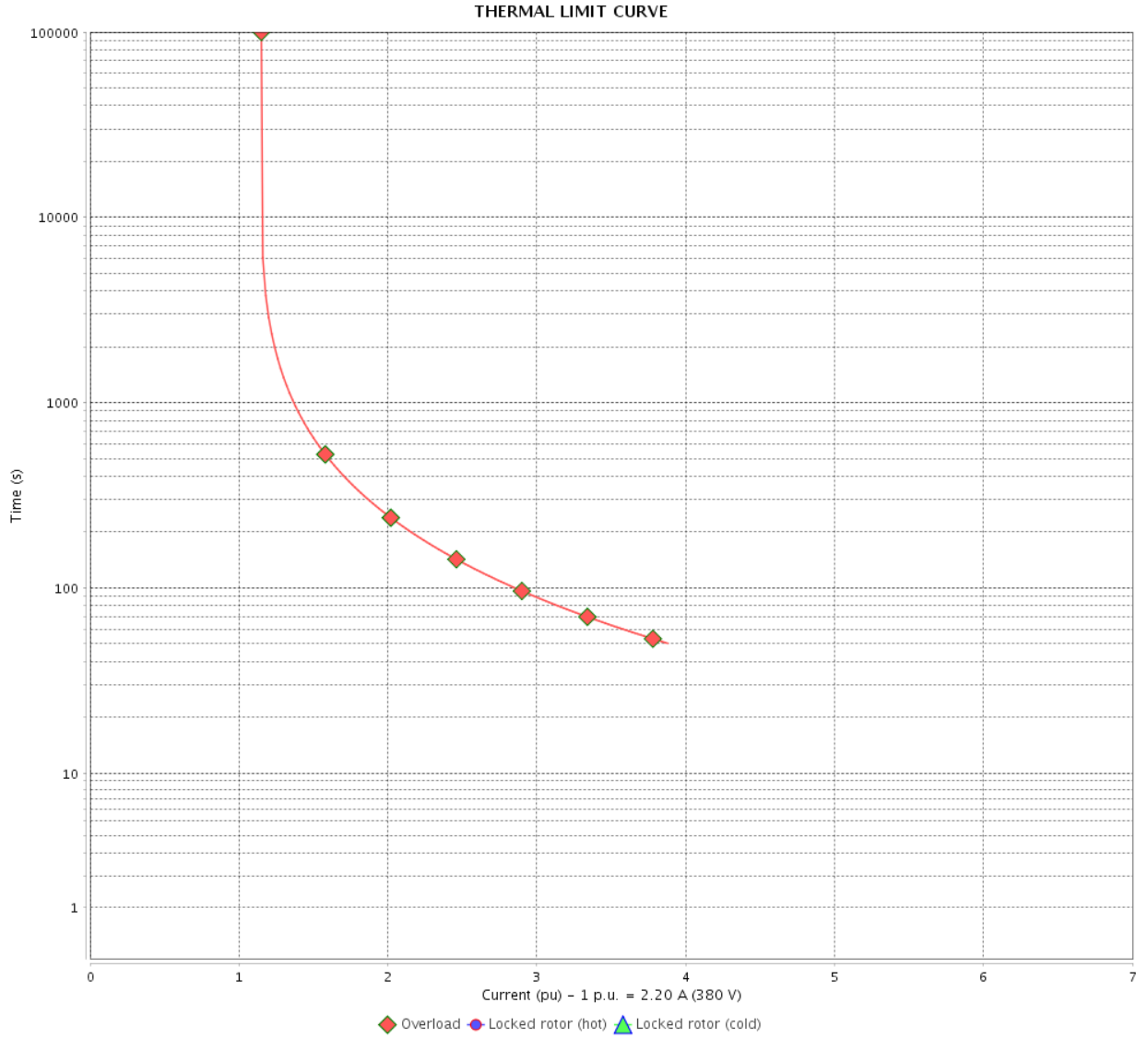
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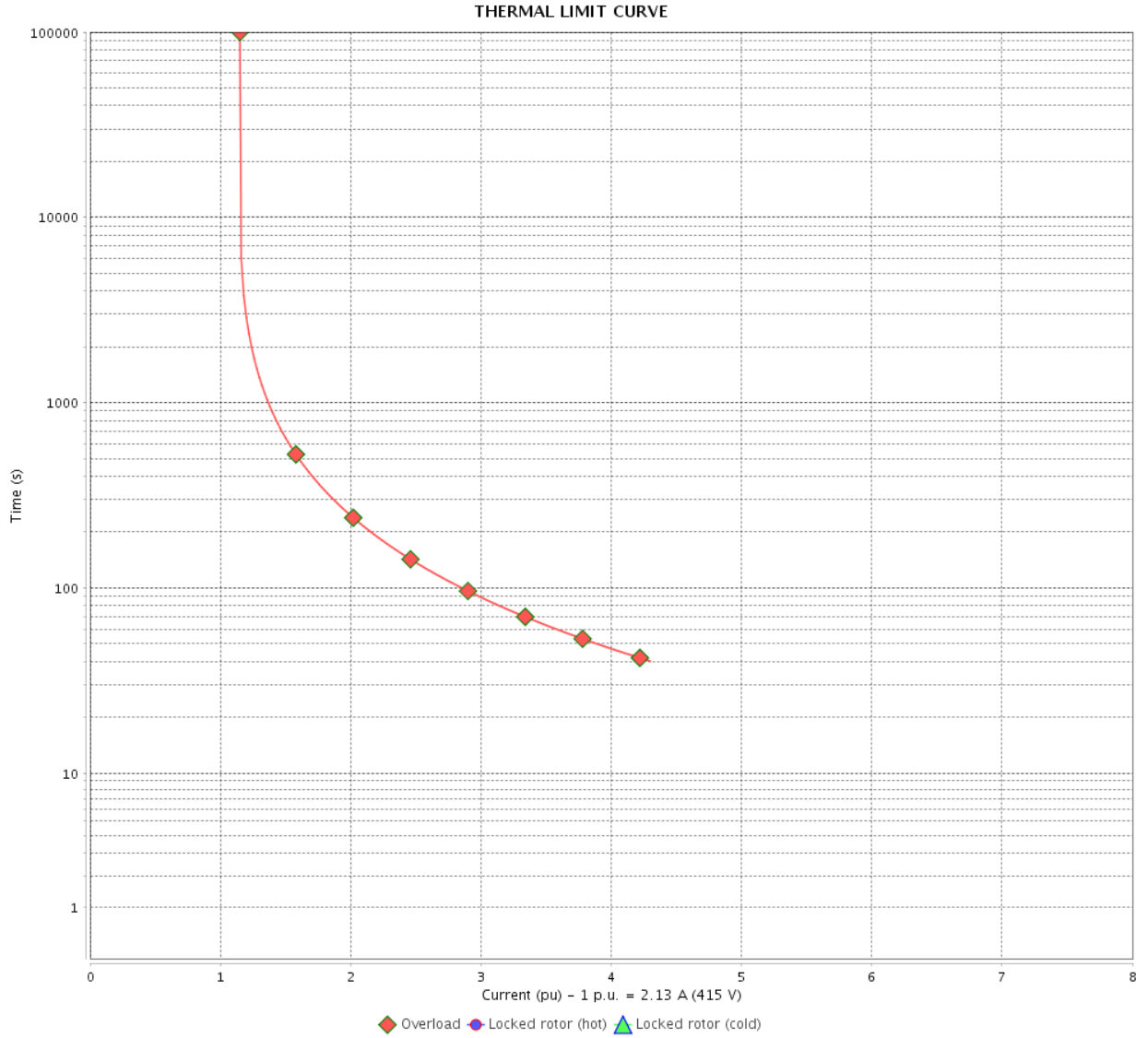
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VFD OPERATION CURVE

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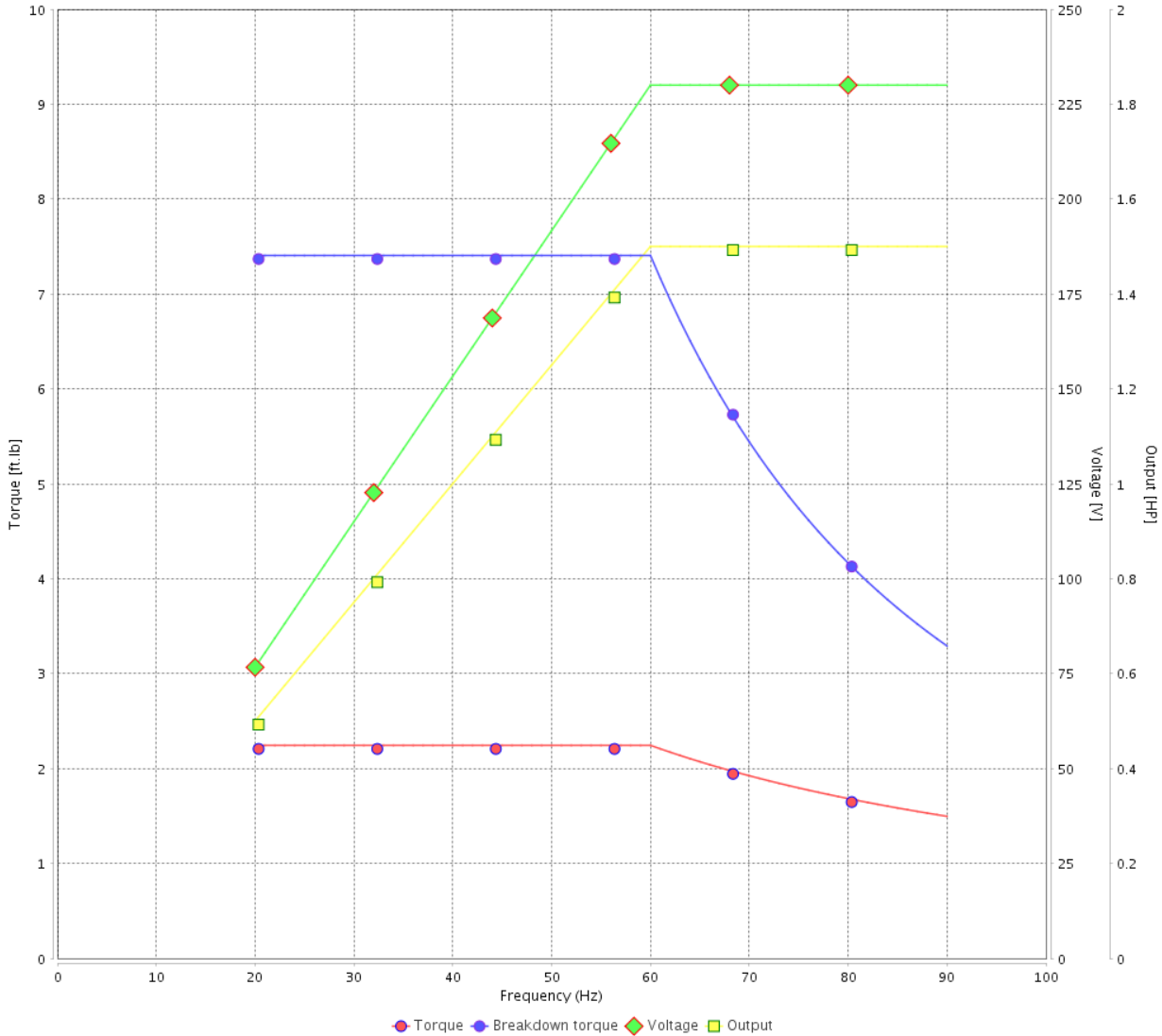
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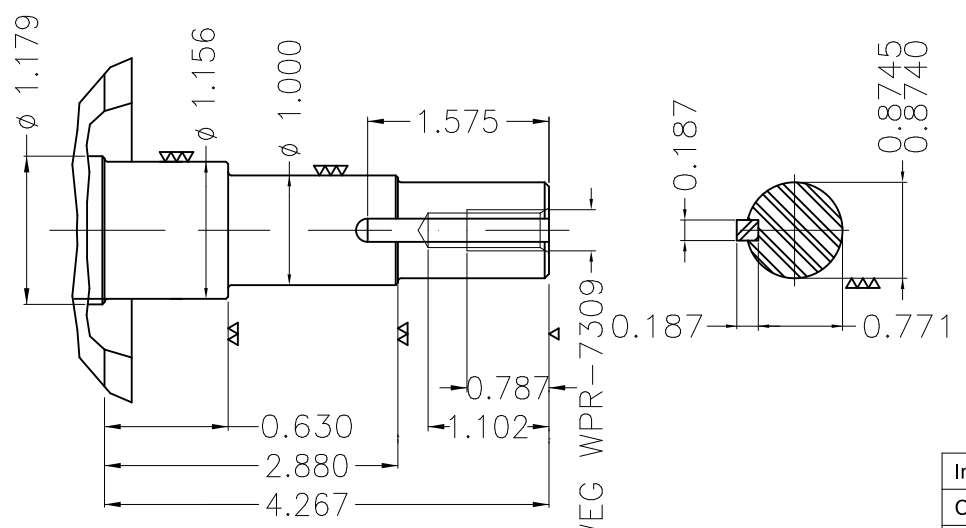
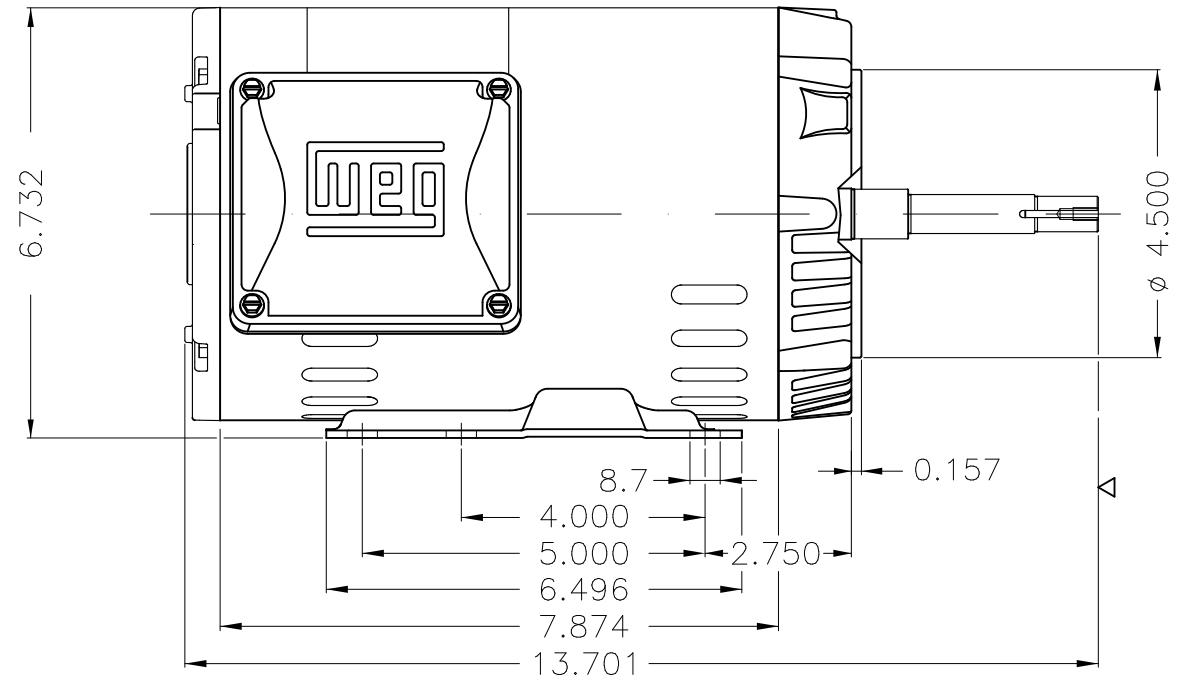
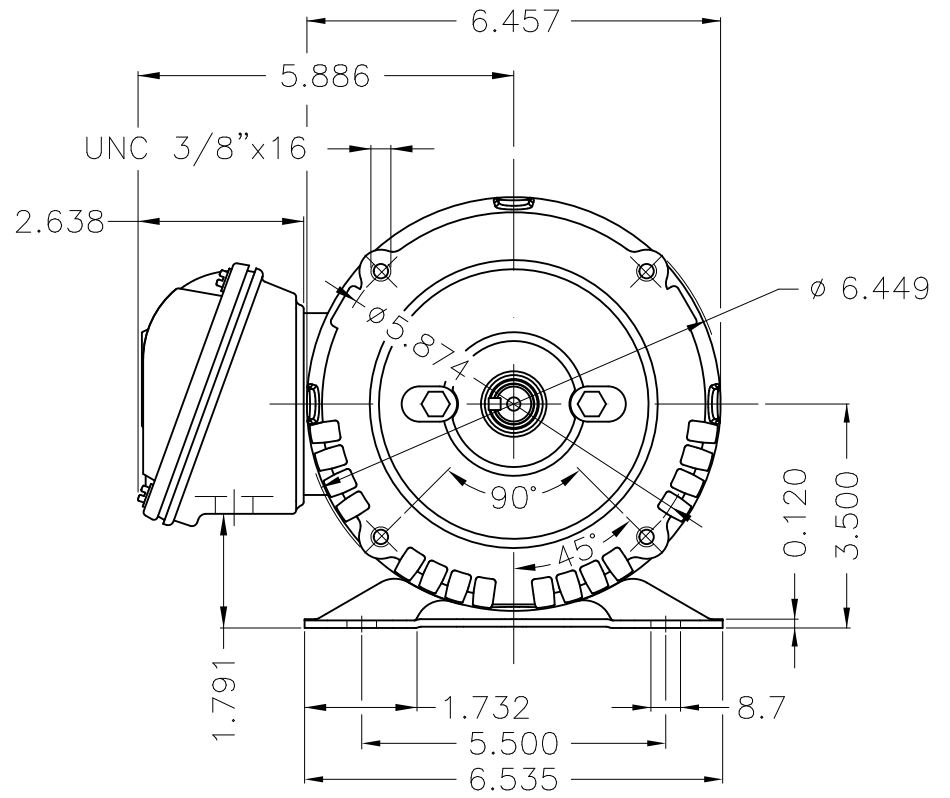
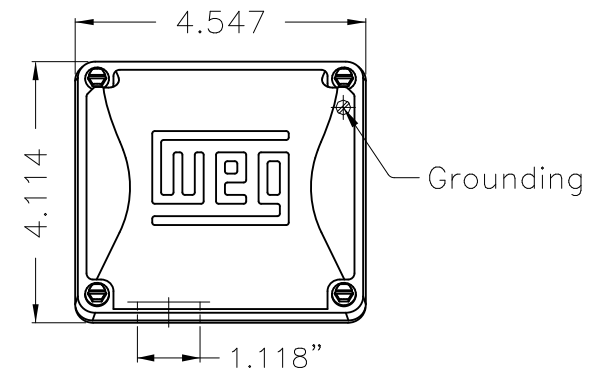
A

B

C

D

E



EUNC 3/8"-16 WEG WPR-7309-

DE Shaft End

Internal AEGIS ground ring on the DE
 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	PIRWBUSER	THREE PH. MOTOR ROLLED STEEL CLOSE COUPLED PUMP JN TYPE PSE 1/2 HP					
CHECKED		FRAME 143/5JM IP21 ODP					
RELEASED							
REL DT.		WMO Jaragua do Sul	Product Engineering	WDD	SHEET	1 / 1	

1.5 HP 02 Poles 60 Hz

Dimensions in inches XME A3