

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :		
Product line	: JM Pump NEMA Premium Efficiency Three-Phase	
Product code :	13221482	
Catalog # :	00318ET3E182JM-SG	
Frame	: 182/4JM	
Insulation class	: F	
Duty cycle	: Cont.(S1)	
Ambient temperature	: -20°C to +40°C	
Altitude	: 1000 m.a.s.l.	
Protection degree	: IP55	
Design	: B	
Cooling method	: IC411 - TEFC	
Mounting	: F-1	
Rotation <sup>1</sup>	: Both (CW and CCW)	
Starting method	: Direct On Line	
Approx. weight <sup>2</sup>	: 91.2 lb	
Moment of inertia (J)	: 0.4017 sq.ft.lb	
Output [HP]	3	
Poles	4	
Frequency [Hz]	60	
Rated voltage [V]	230/460	
Rated current [A]	7.62/3.81	
L. R. Amperes [A]	67.1/33.5	
LRC [A]	8.8x(Code K)	
No load current [A]	4.00/2.00	
Rated speed [RPM]	1765	
Slip [%]	1.94	
Rated torque [ft.lb]	8.93	
Locked rotor torque [%]	220	
Breakdown torque [%]	300	
Service factor	1.15	
Temperature rise	80 K	
Locked rotor time	32s (cold) 18s (hot)	
Noise level <sup>2</sup>	56.0 dB(A)	
Efficiency (%)	25%	86.4
	50%	87.5
	75%	88.5
	100%	89.5
Power Factor	25%	0.36
	50%	0.61
	75%	0.74
	100%	0.81
Bearing type	: <u>Drive end</u> 6207 ZZ <u>Non drive end</u> 6205 ZZ	
Sealing	: V'Ring Without Bearing Seal	
Lubrication interval	: - -	
Lubricant amount	: - -	
Lubricant type	: Mobil Polyrex EM	
Foundation loads	Max. traction : 154 lb	
	Max. compression : 245 lb	
Notes USABLE @208V 8.43A SF 1.00 SFA 8.43A		
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



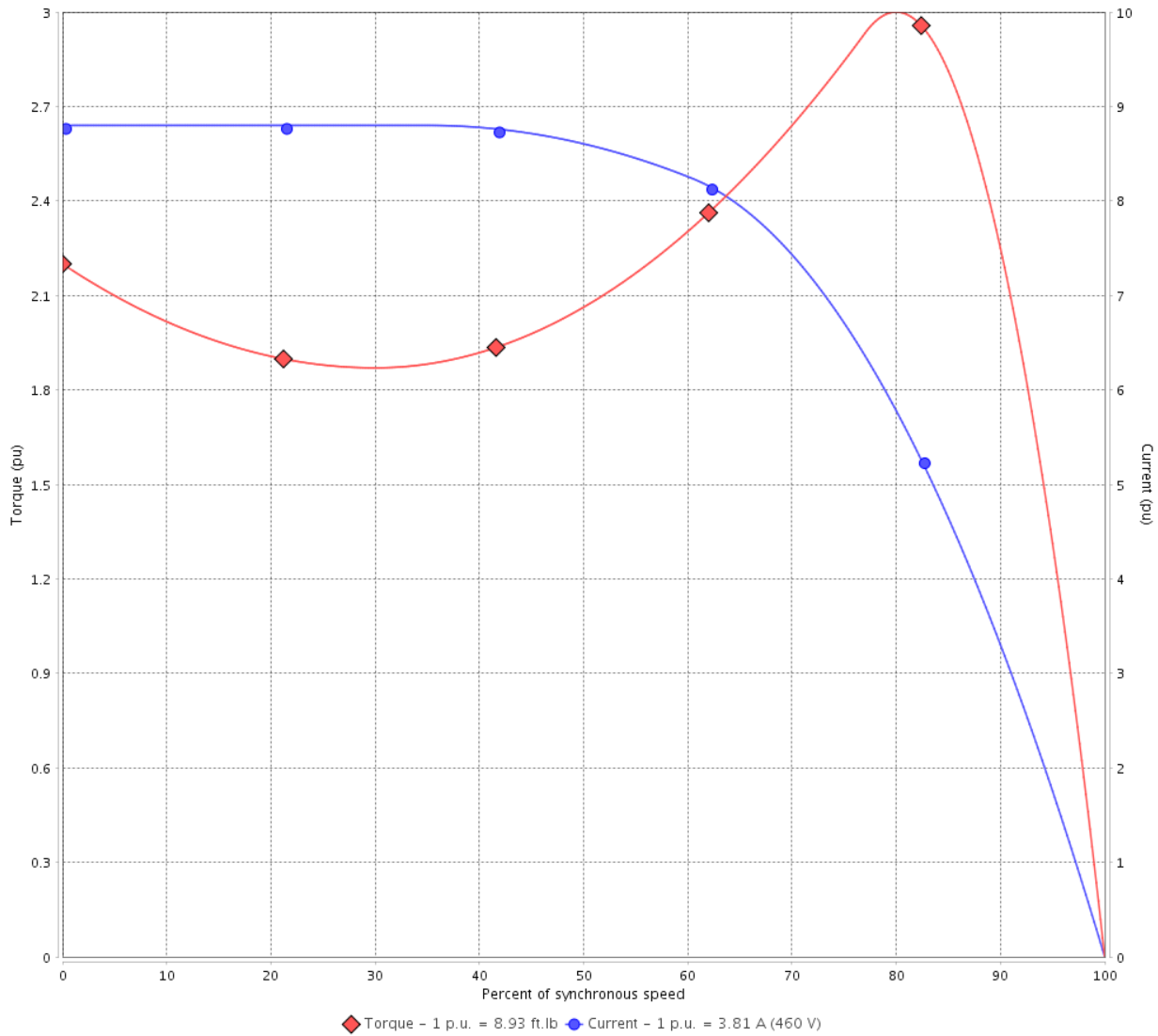
Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 13221482

Catalog # : 00318ET3E182JM-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 7.62/3.81 A  
LRC : 8.8  
Rated torque : 8.93 ft.lb  
Locked rotor torque : 220 %  
Breakdown torque : 300 %  
Rated speed : 1765 rpm

Moment of inertia (J) : 0.4017 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

Locked rotor time : 32s (cold) 18s (hot)

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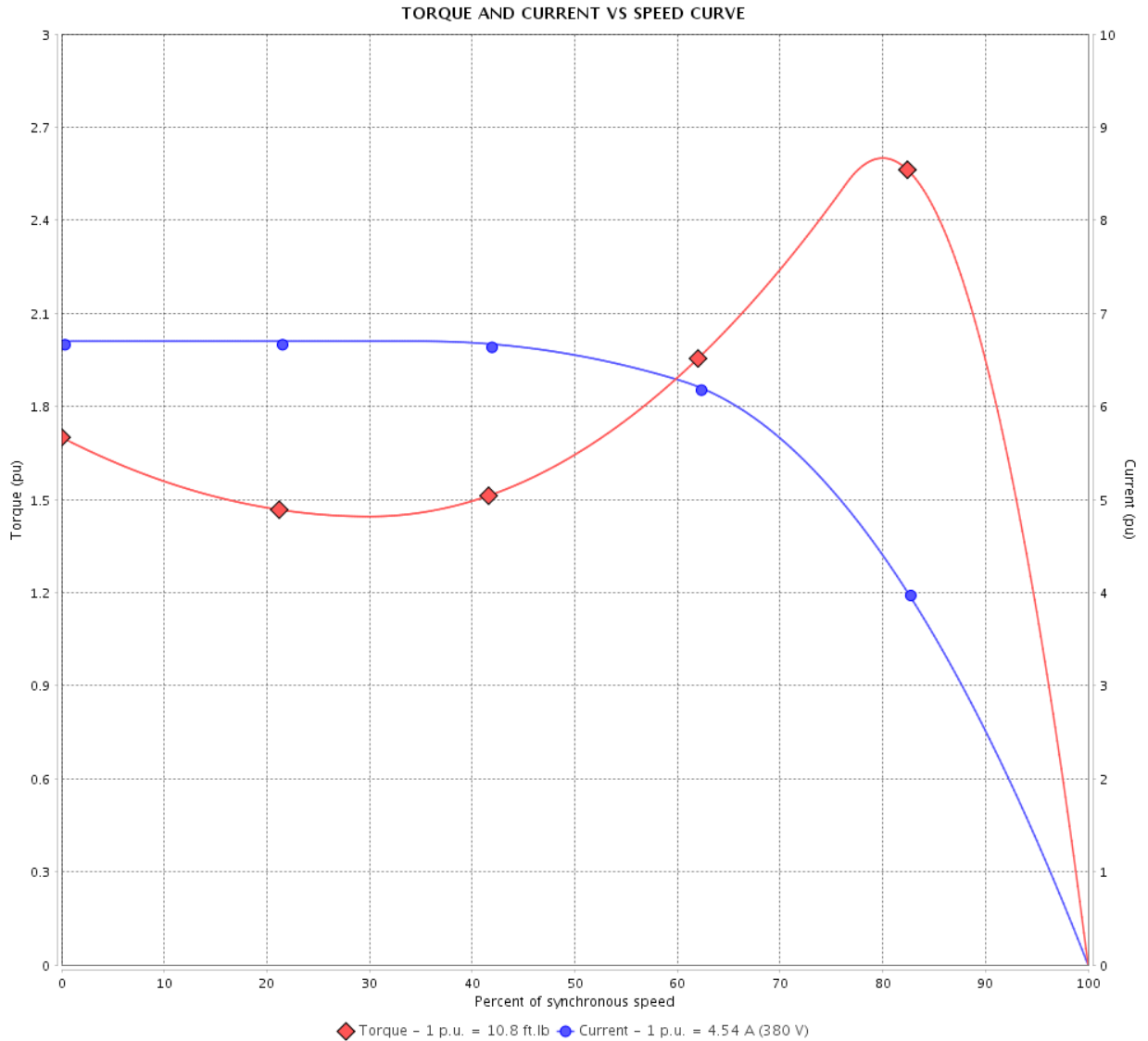
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13221482

Catalog # : 00318ET3E182JM-SG



Performance : 190/380 V 50 Hz 4P

Rated current : 9.08/4.54 A  
 LRC : 6.7  
 Rated torque : 10.8 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 260 %  
 Rated speed : 1455 rpm

Moment of inertia (J) : 0.4017 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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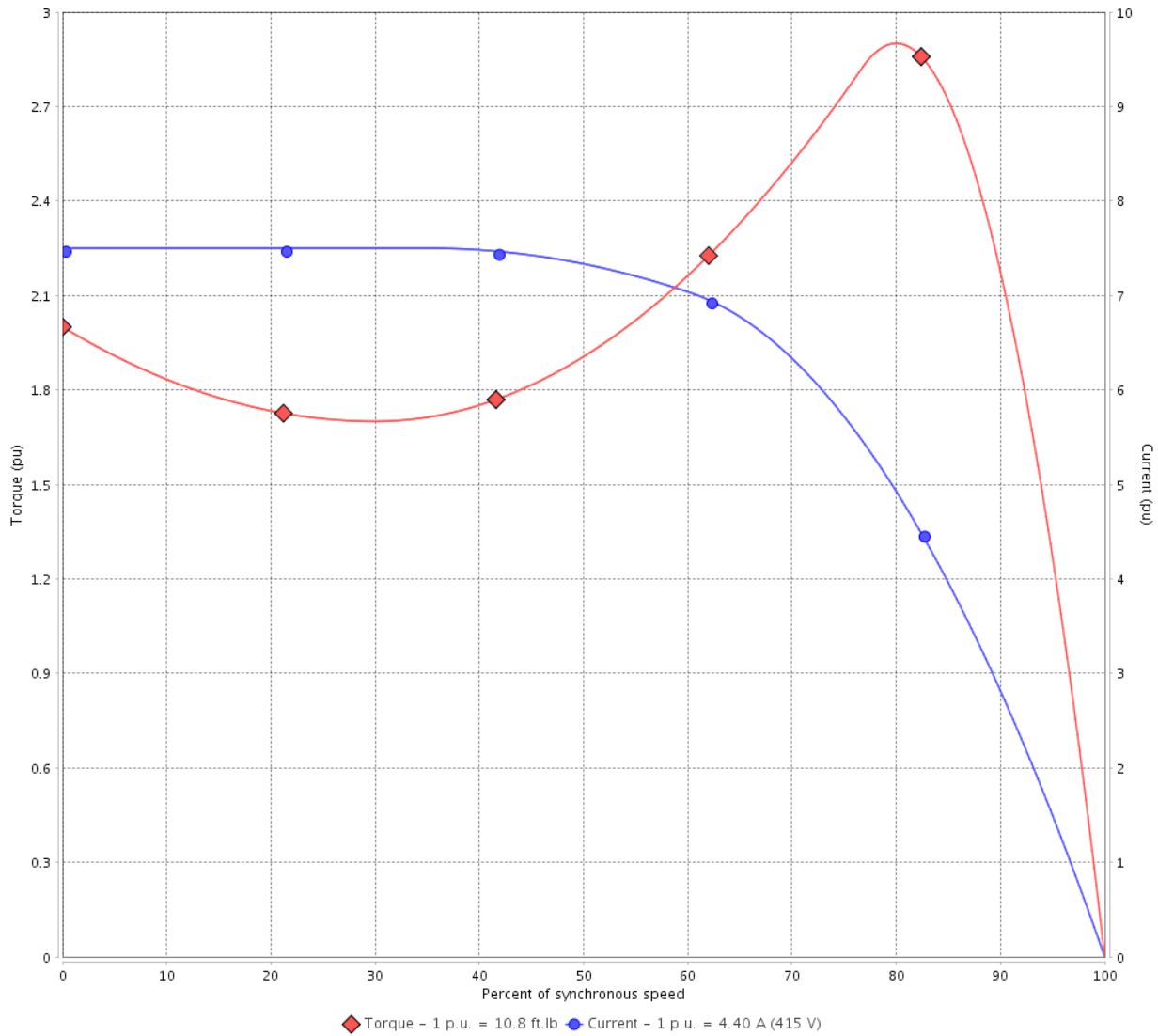
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Product code : 13221482

Catalog # : 00318ET3E182JM-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

Rated current : 8.30/4.40 A  
LRC : 7.5  
Rated torque : 10.8 ft.lb  
Locked rotor torque : 200 %  
Breakdown torque : 290 %  
Rated speed : 1460 rpm

Moment of inertia (J) : 0.4017 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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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

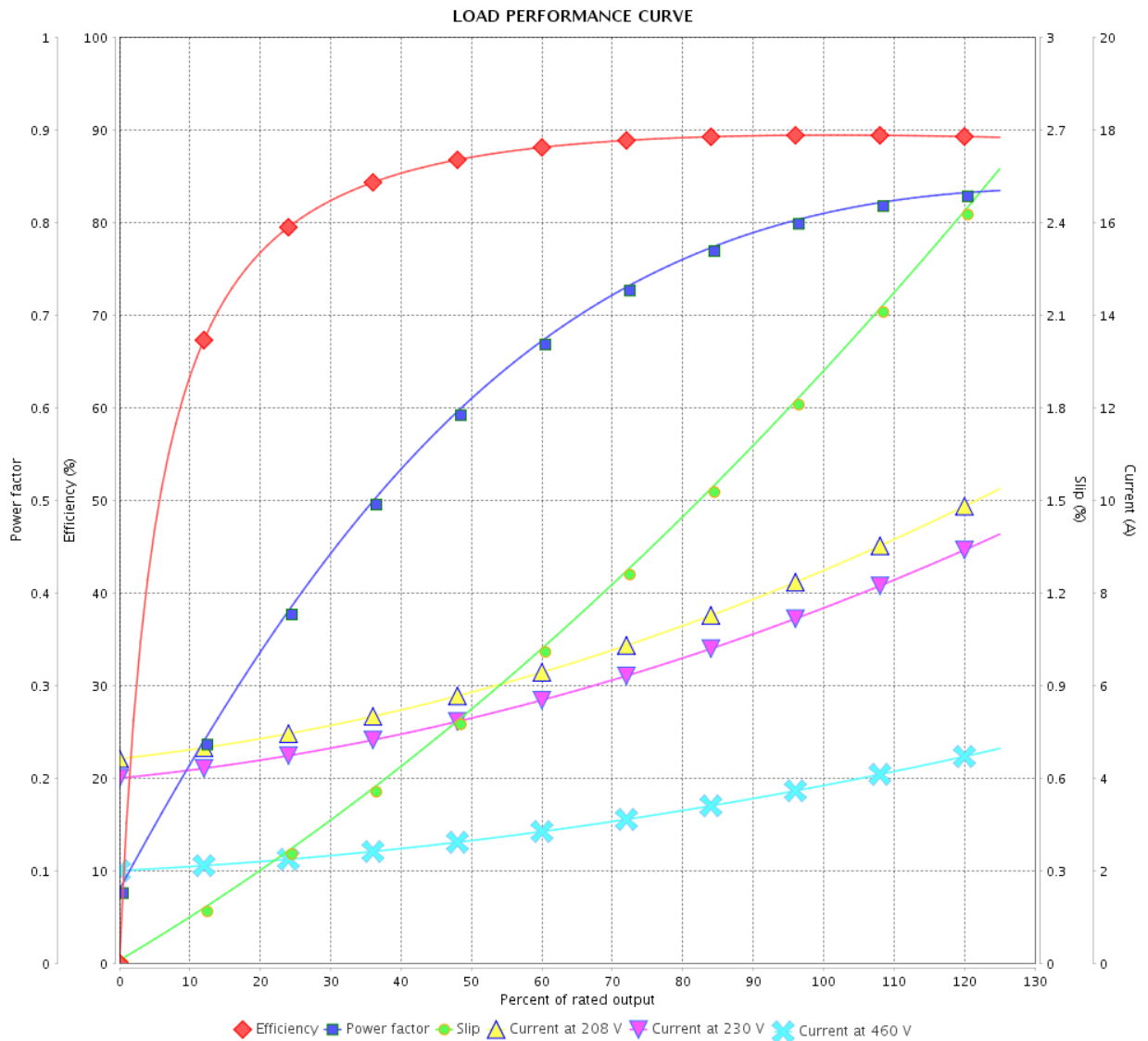


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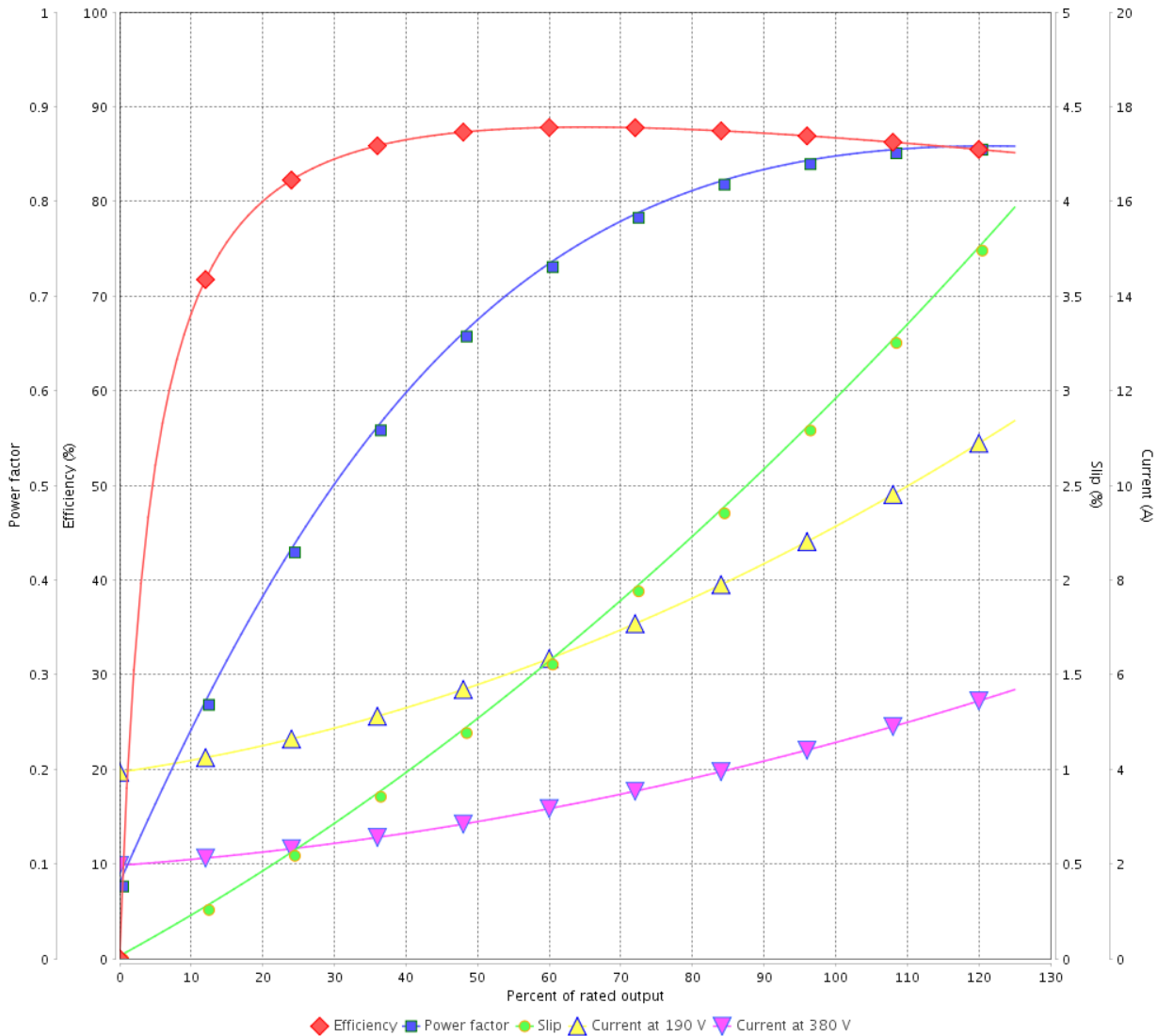
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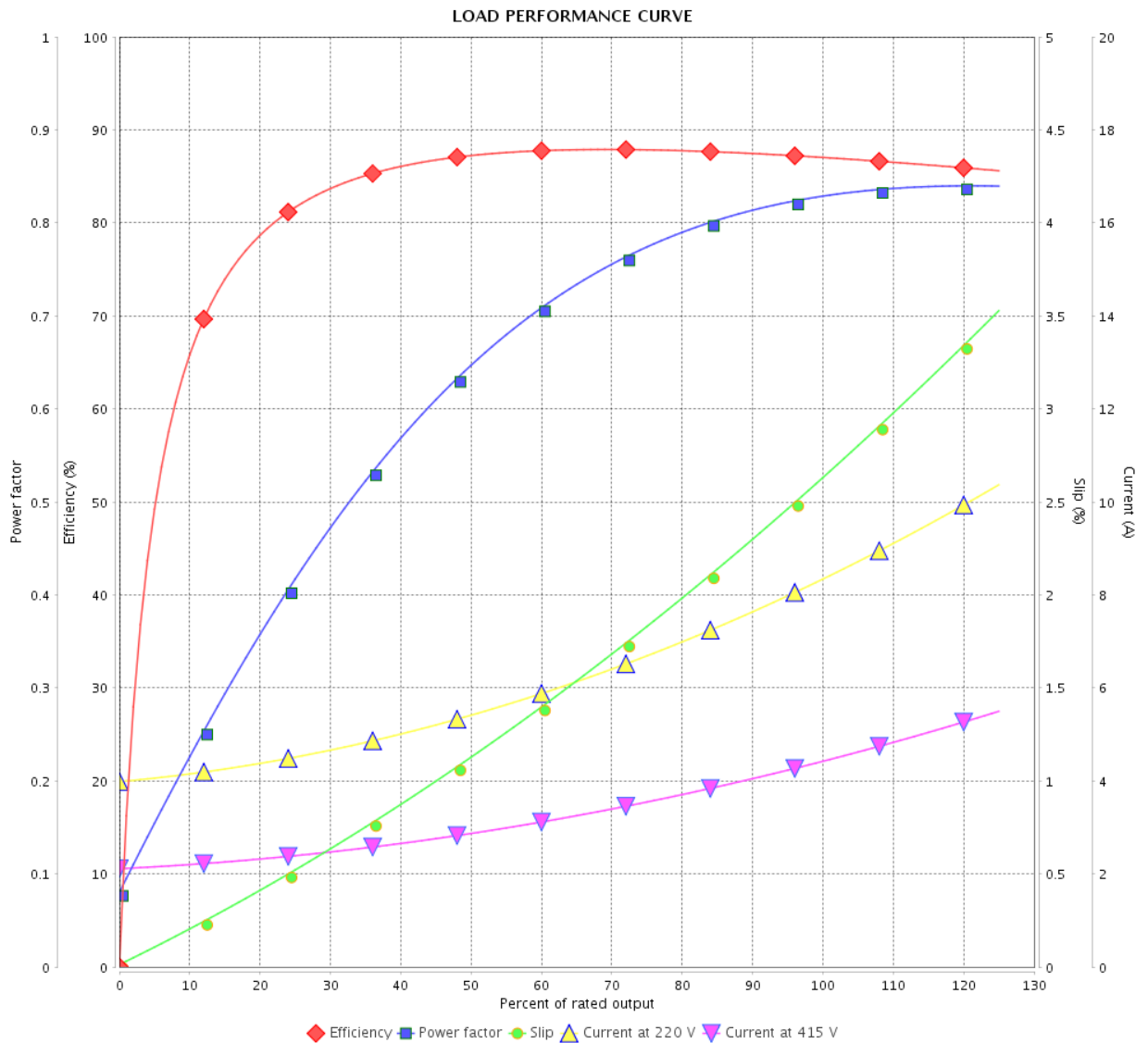


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# THERMAL LIMIT CURVE



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Design : B

Heating constant

Cooling constant

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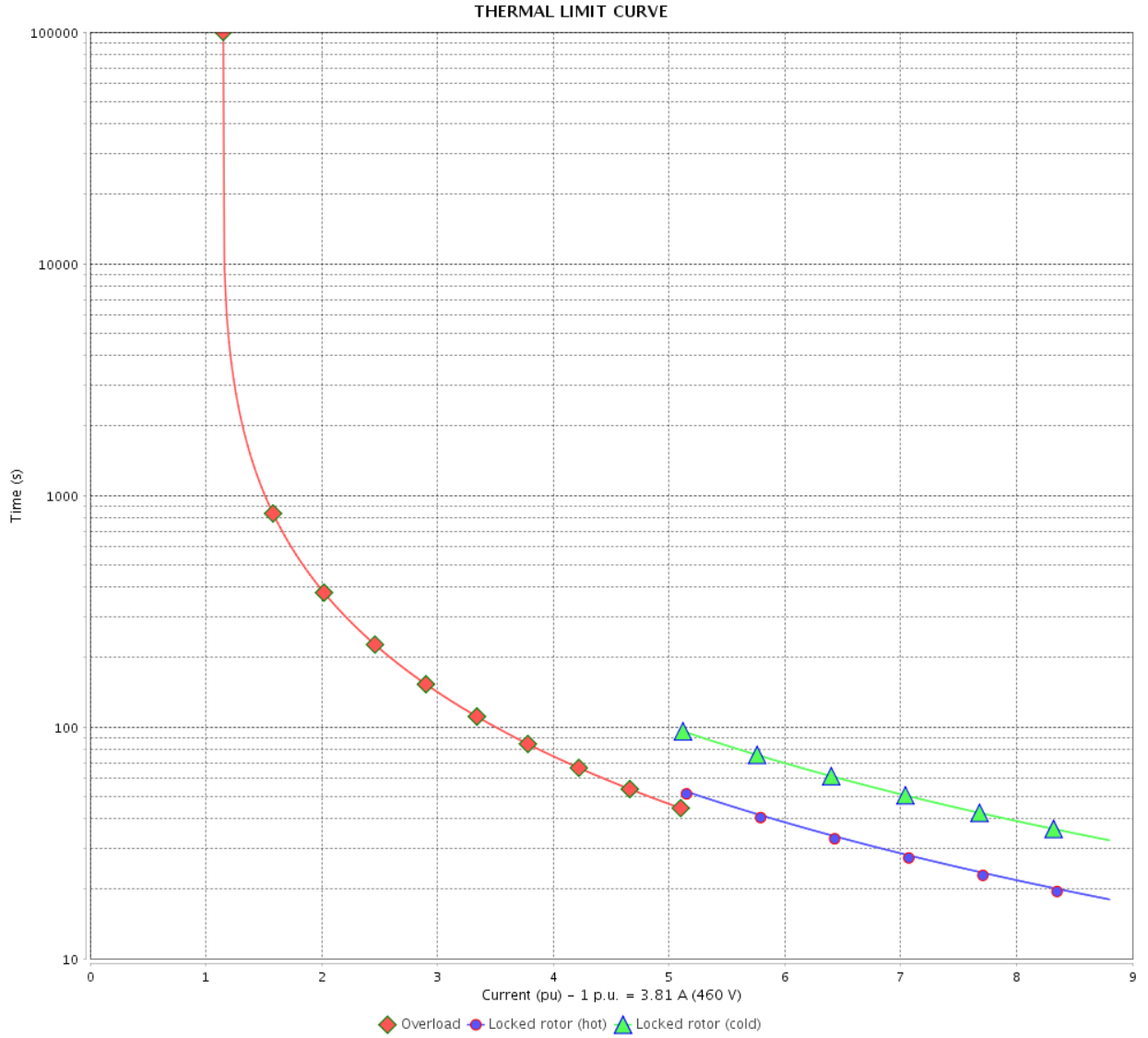


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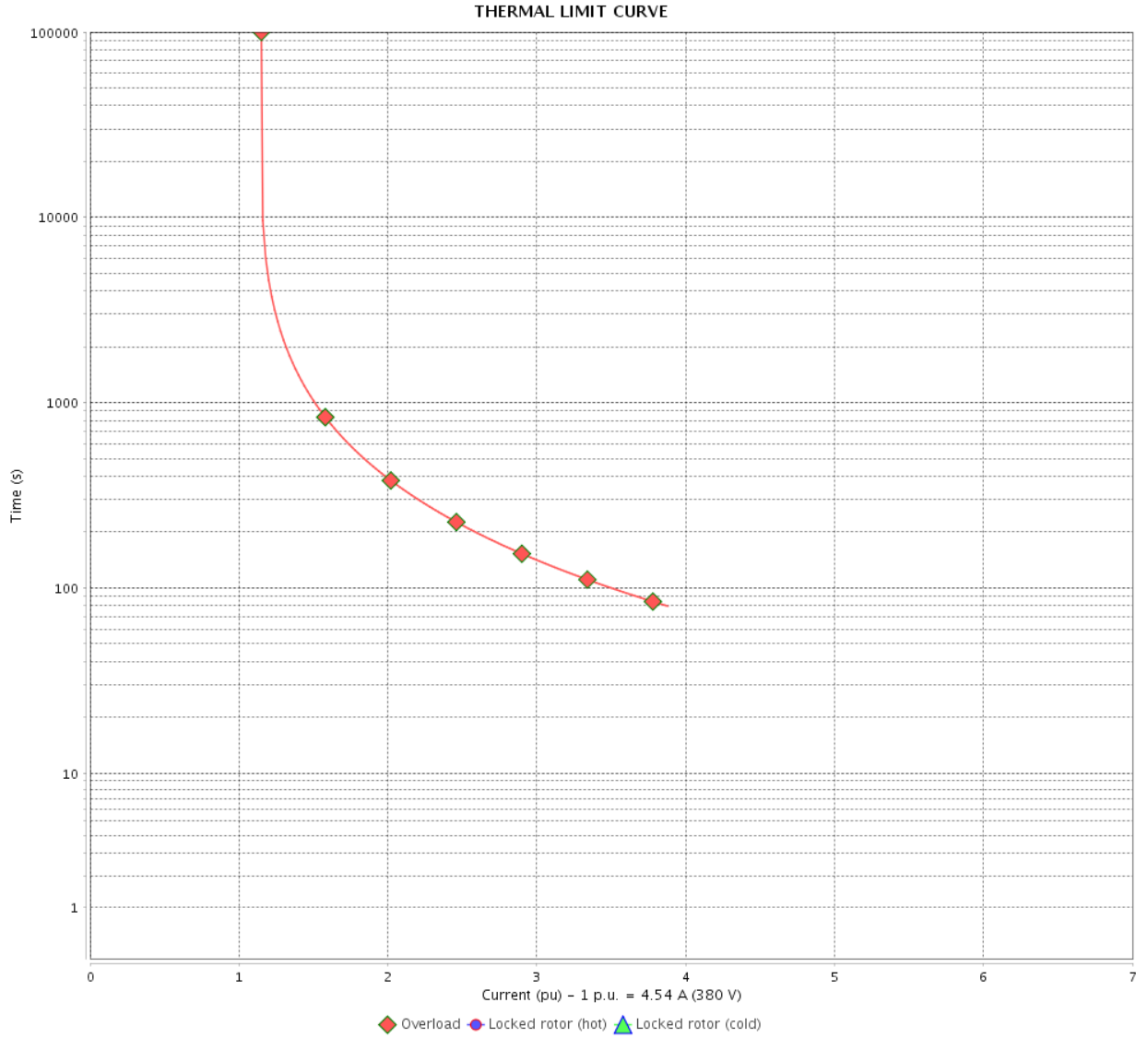
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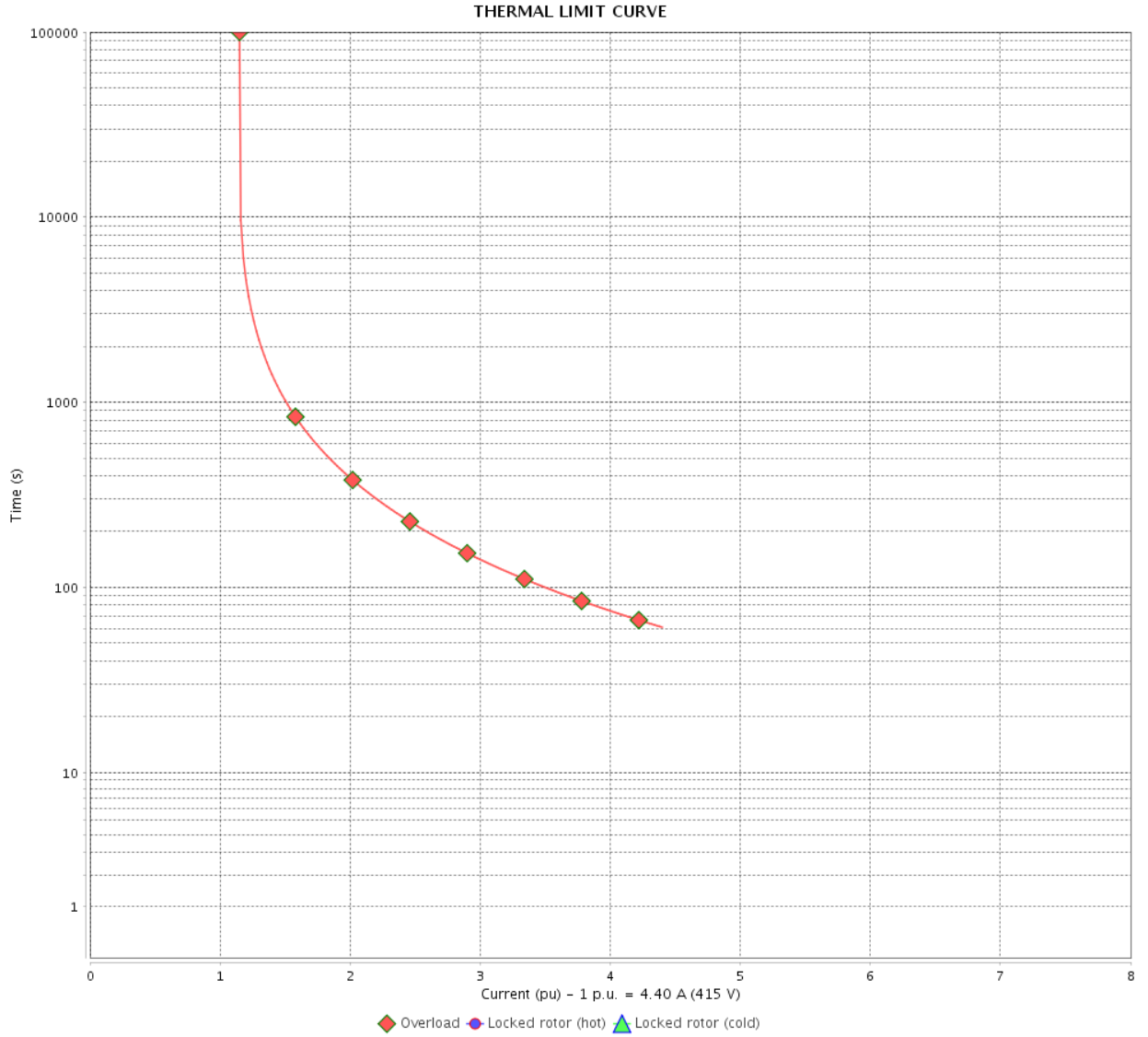
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# VFD OPERATION CURVE

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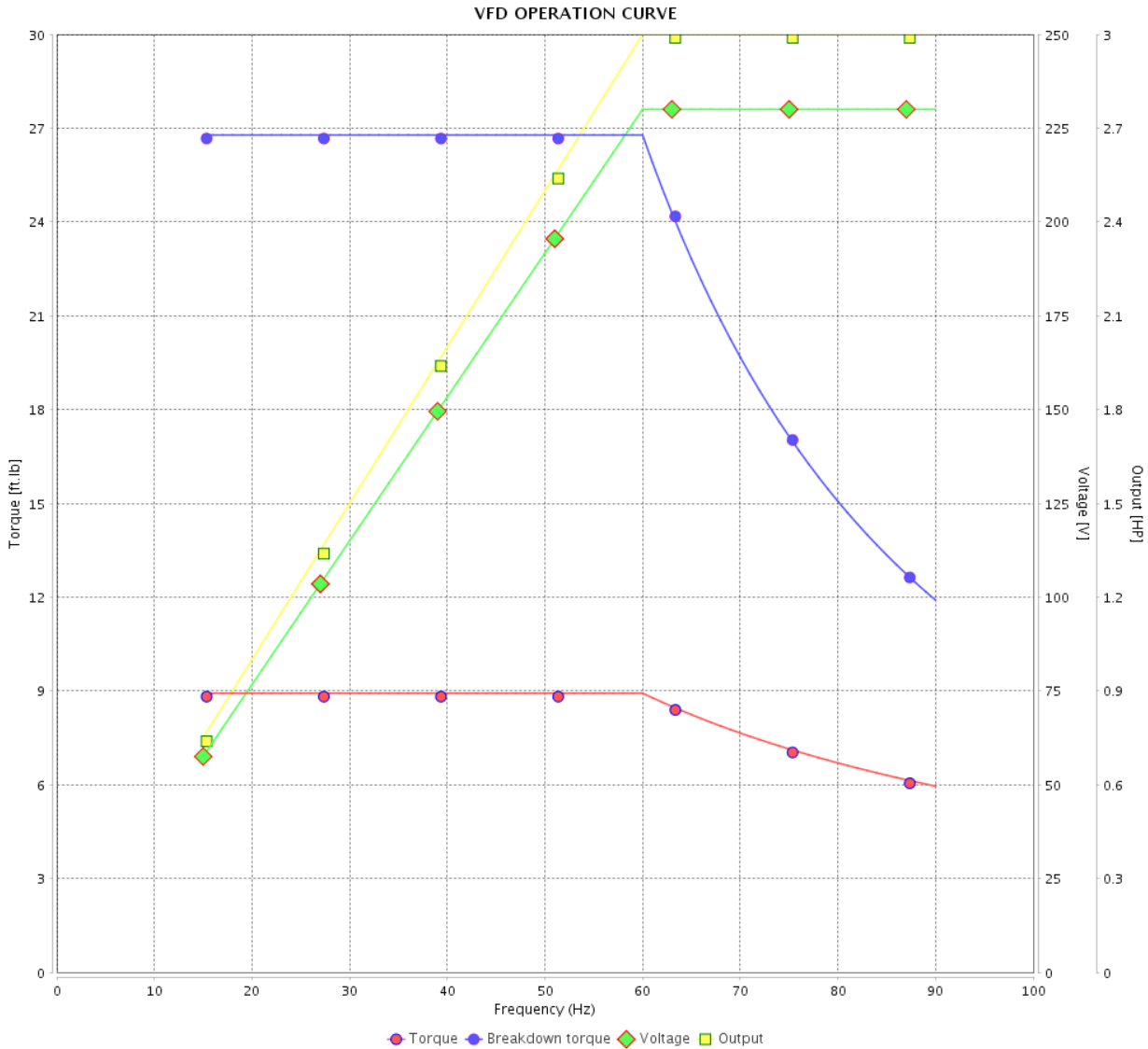


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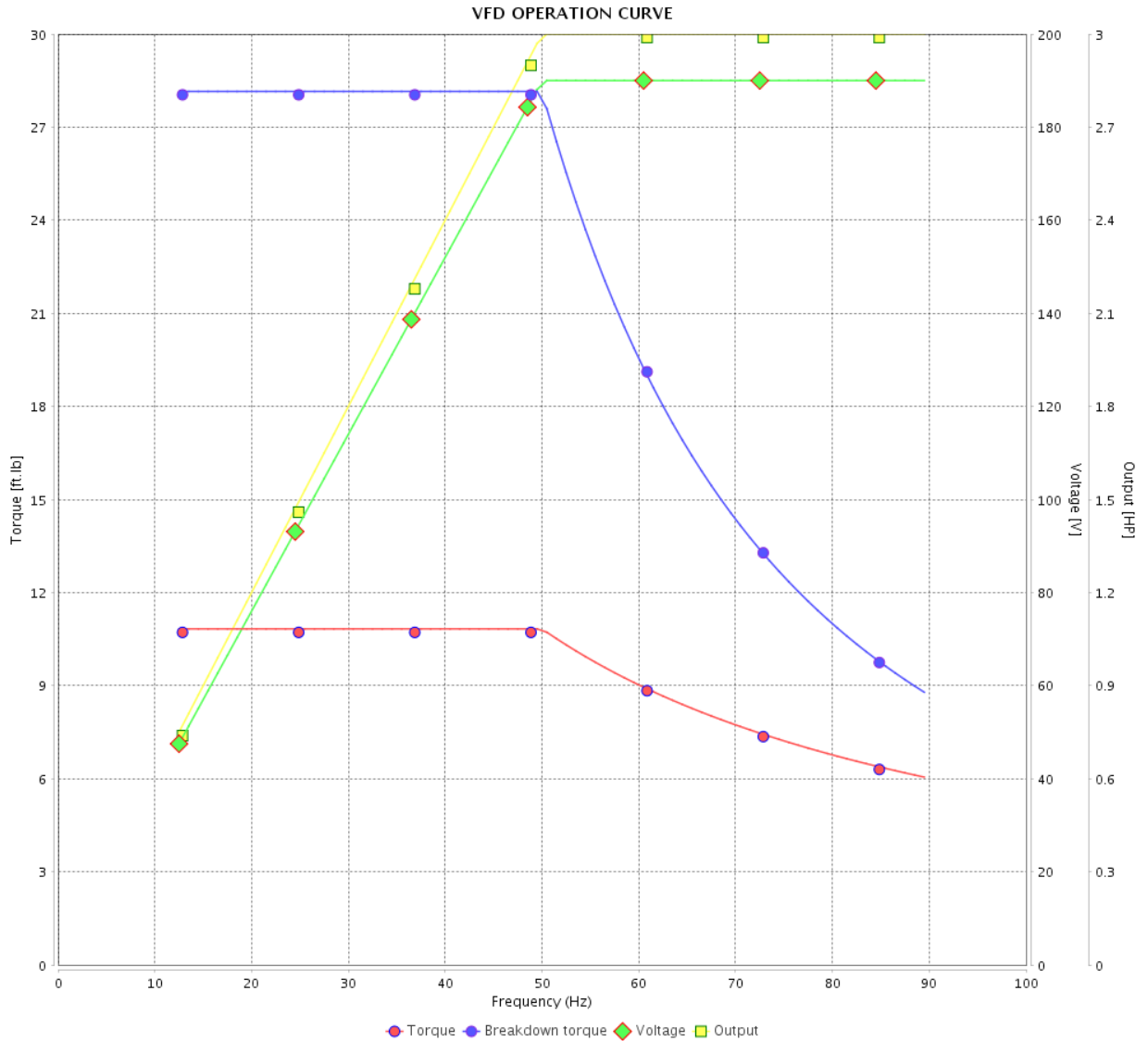


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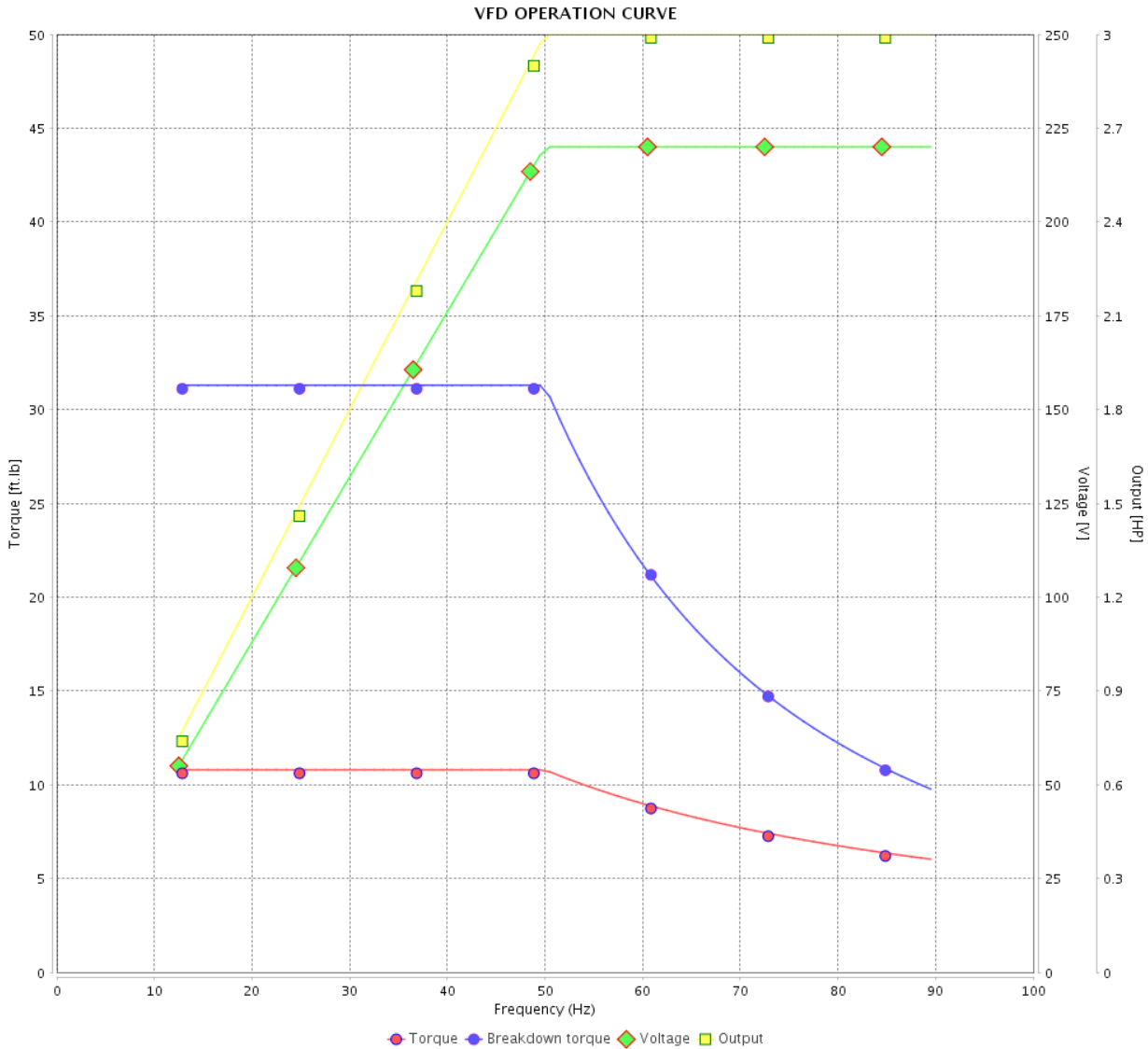


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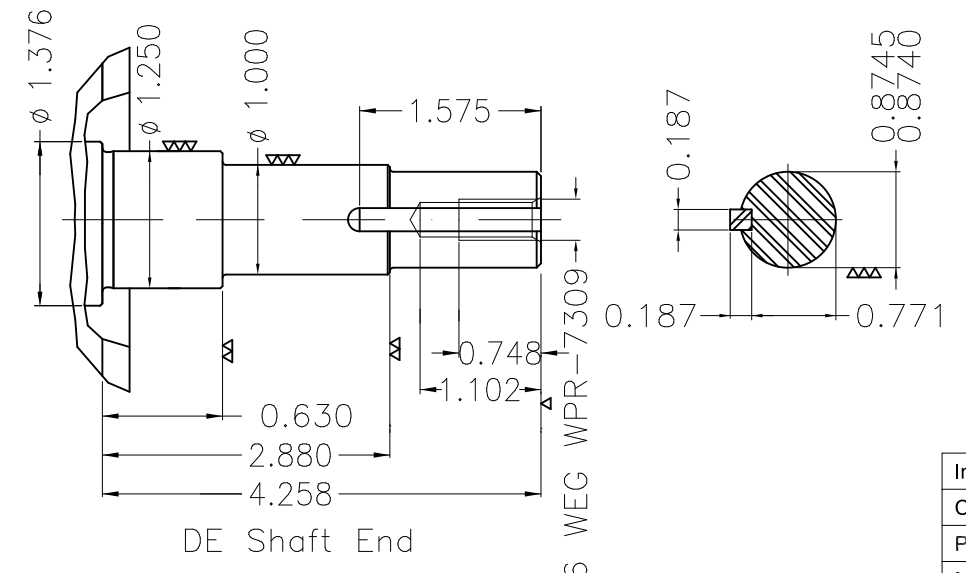
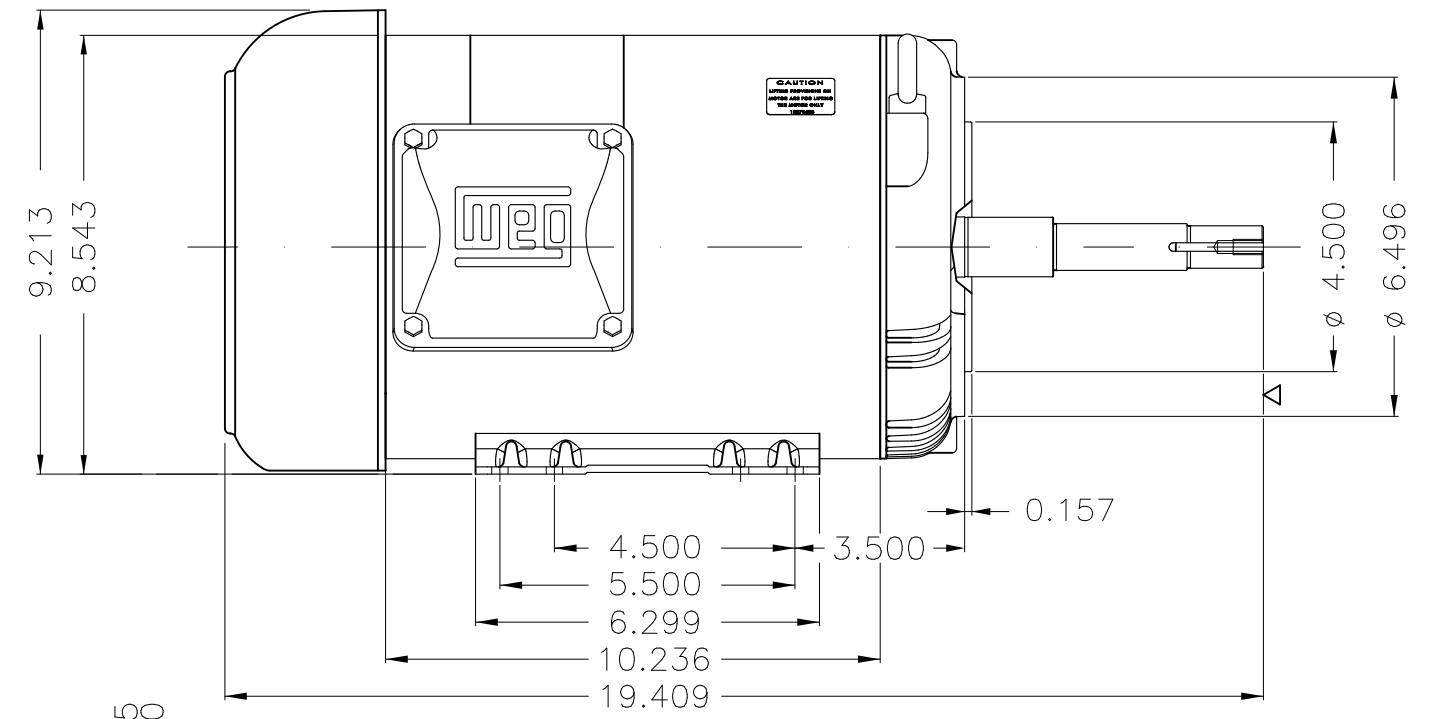
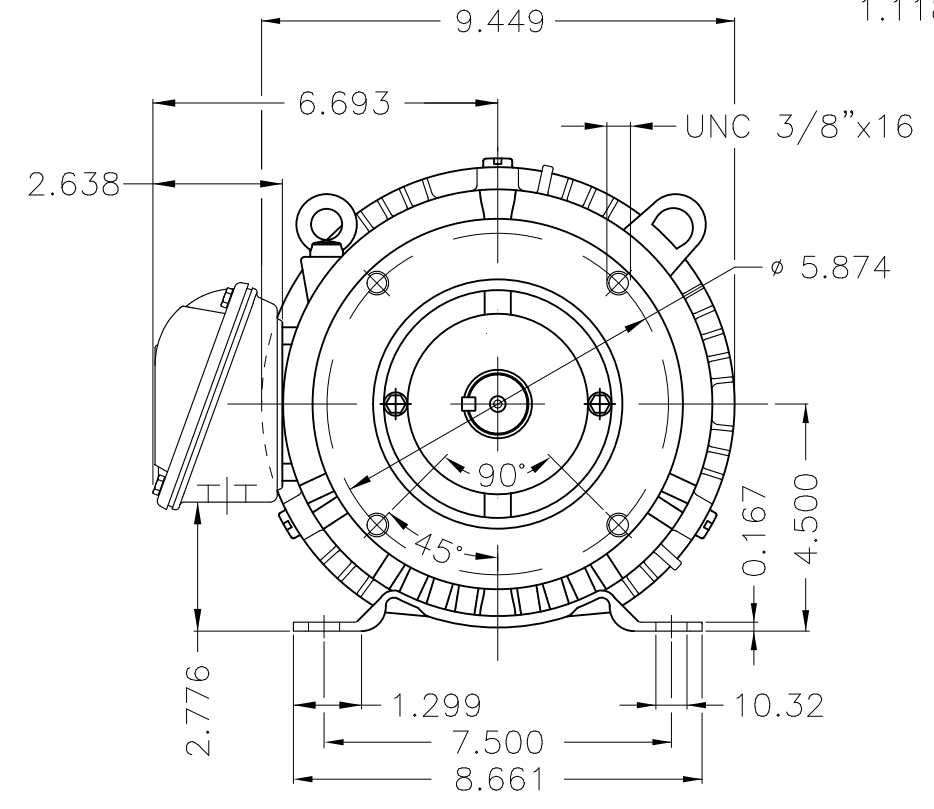
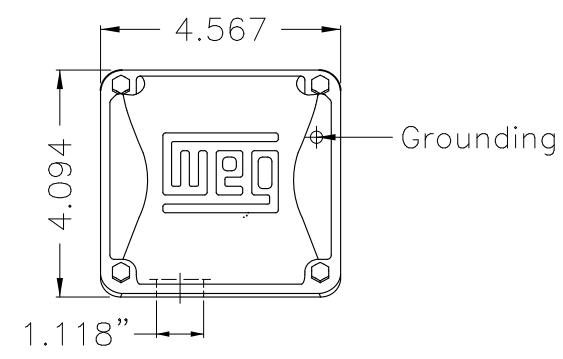
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1 2 3 4 5 6

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	PIRWUSER	THREE PH. MOTOR ROLLED STEEL CLOSE COUPLED PUMP JN TYPE PSEF 117					
CHECKED		FRAME 182/4JM IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	WDD	SHEET	1 / 1	

3 HP 04 Poles 60 Hz





**NEMA**  
**Premium**



3PT9



MADE IN MEXICO

**MAT: 13221482 CC029A**

**W01.TE0IC0X0N**

**JM003404NPW01GR**

**23MAR2022 S/N:**



PH 3	Hz 60	HP 3.0
FR 182/4JM		KW 2.2
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 7.62/3.81
INS CL F AT 80K	IP55	SFA 8.76/4.38
AMB 40°C	DES B	SF 1.15
ENCL TEFC	CODE K	PF 0.81
USABLE @ 208V 8.43A		RPM 1765
SF1.00		NEMA NOM. EFF 89.5%

**ALTERNATE RATING: 3.0HP 50Hz 190-220/380-415V SF1.15**  
**9.08-8.15/4.54-4.32A 1455RPM EFF 86.7% (IE3) IEC 60034-1**

Inverter duty motor For 80Hz use on VPWM 1000:1 VT, 4:1 CT

DE 6207-ZZ	ODE 6205-ZZ	MOBIL POLYREX EM
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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.

