

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :			
Product line	: JM Pump NEMA Premium Efficiency Three-Phase		
Product code :	13180545		
Catalog # :	00518ET3E184JM-S		
Frame	: 182/4JM	Cooling method	: IC411 - TEFC
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	: 84.0 lb
Protection degree	: IP55	Moment of inertia (J)	: 0.3080 sq.ft.lb
Design	: B		
Output [HP]	5	5	5
Poles	4	4	4
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190/380	220/415
Rated current [A]	13.0/6.49	15.8/7.88	14.3/7.59
L. R. Amperes [A]	90.9/45.4	91.4/45.7	91.6/48.6
LRC [A]	7.0x(Code J)	5.8x(Code G)	6.4x(Code H)
No load current [A]	6.89/3.44	6.74/3.37	7.10/3.77
Rated speed [RPM]	1750	1425	1435
Slip [%]	2.78	5.00	4.33
Rated torque [ft.lb]	15.0	18.4	18.3
Locked rotor torque [%]	220	170	200
Breakdown torque [%]	300	229	260
Service factor	1.15	1.00	1.00
Temperature rise	80 K	105 K	105 K
Locked rotor time	28s (cold) 16s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)
Noise level ²	56.0 dB(A)	53.0 dB(A)	53.0 dB(A)
Efficiency (%)	25%	88.2	88.2
	50%	88.5	87.2
	75%	89.5	87.3
	100%	89.5	85.8
Power Factor	25%	0.35	0.37
	50%	0.60	0.63
	75%	0.73	0.76
	100%	0.80	0.82
Bearing type	: <u>Drive end</u> 6207 ZZ <u>Non drive end</u> 6205 ZZ	Foundation loads	
Sealing	: V'Ring Without Bearing Seal	Max. traction	: 262 lb
Lubrication interval	: - -	Max. compression	: 346 lb
Lubricant amount	: - -		
Lubricant type	: Mobil Polyrex EM		
Notes USABLE @208V 14.4A SF 1.00 SFA 14.4A			
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



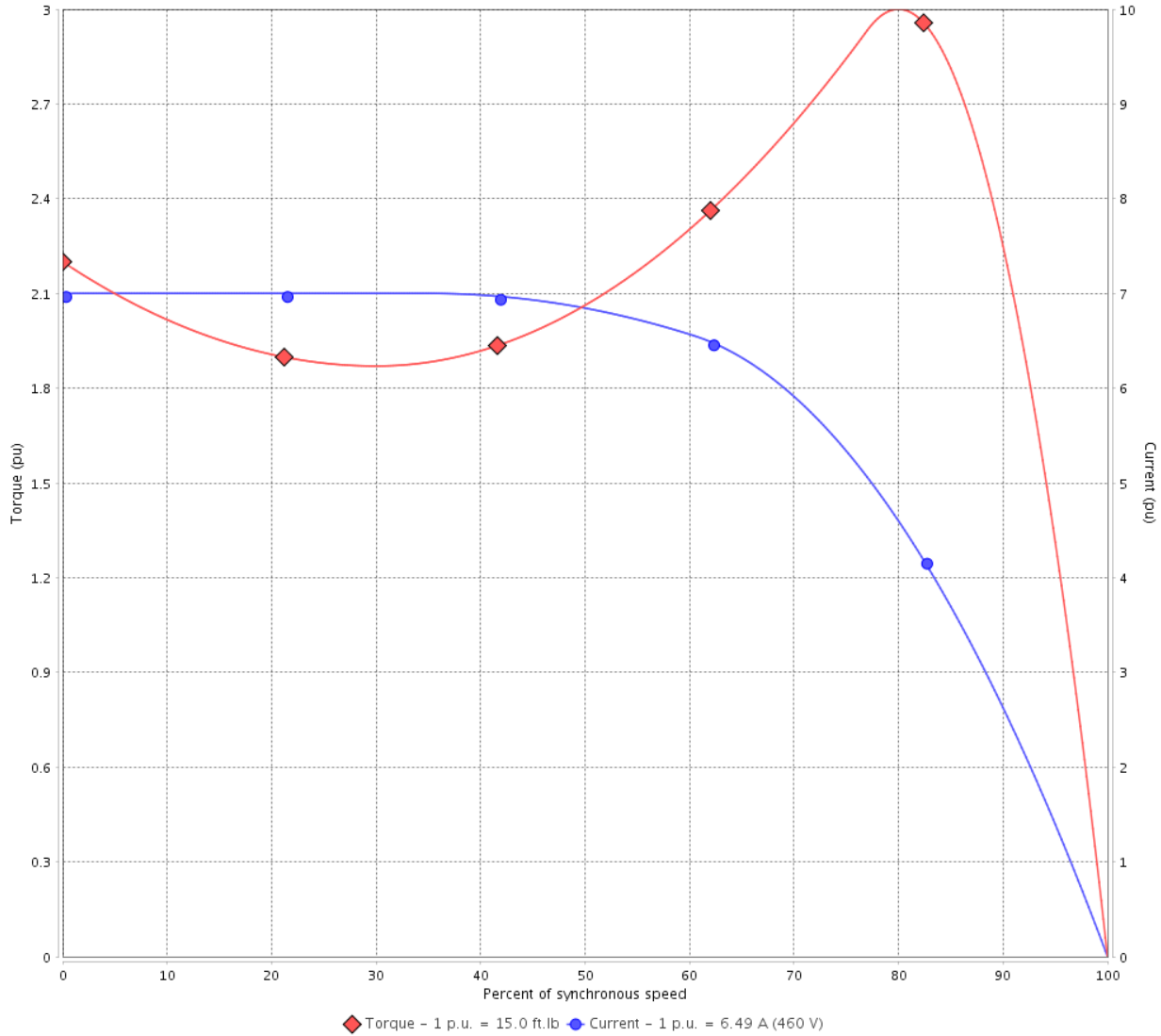
Customer :

Product line : JM Pump NEMA Premium
Efficiency Three-Phase

Product code : 13180545

Catalog # : 00518ET3E184JM-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 13.0/6.49 A
LRC : 7.0
Rated torque : 15.0 ft.lb
Locked rotor torque : 220 %
Breakdown torque : 300 %
Rated speed : 1750 rpm

Moment of inertia (J) : 0.3080 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

Locked rotor time : 28s (cold) 16s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



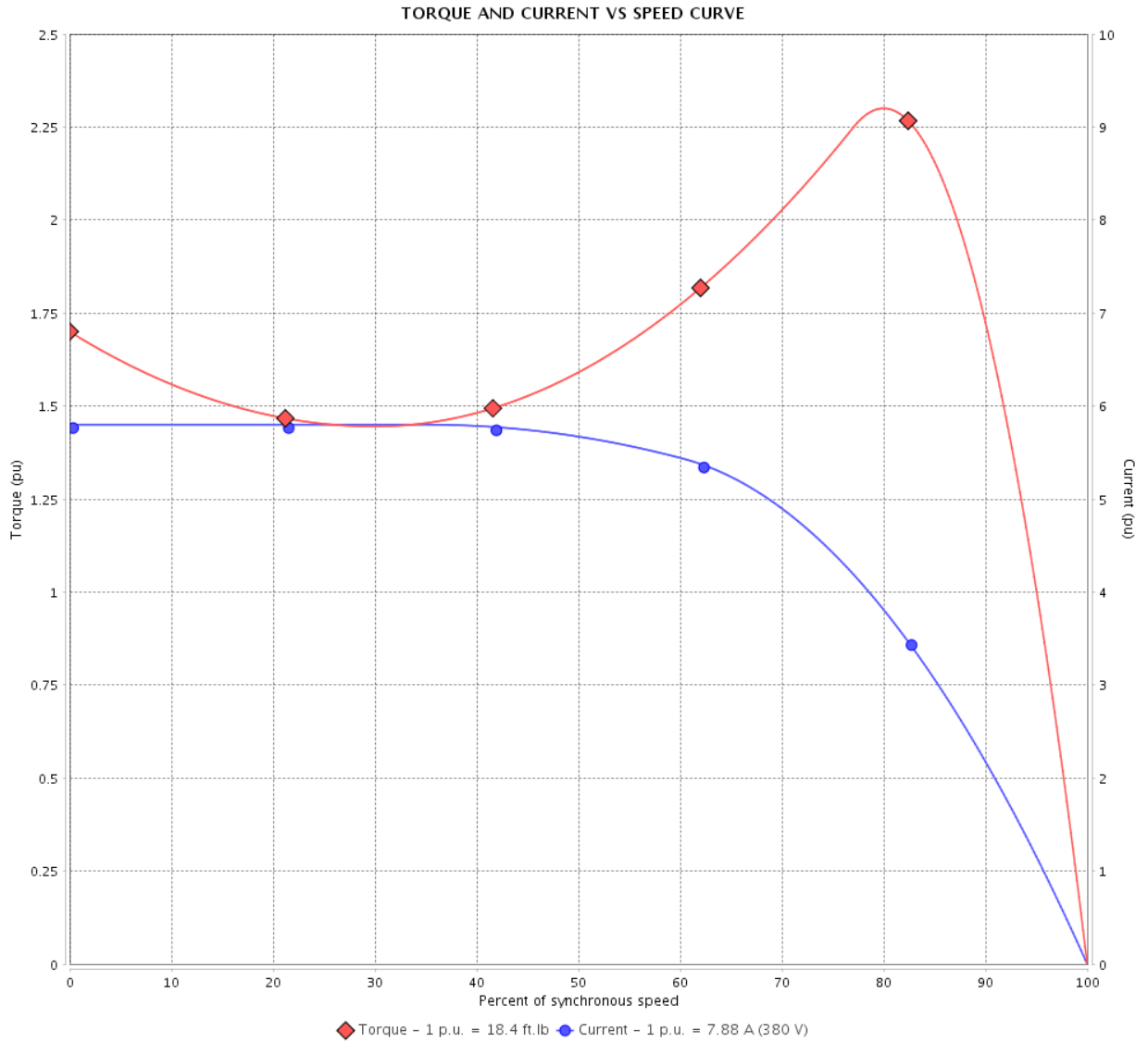
Three Phase Induction Motor - Squirrel Cage

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Performance : 190/380 V 50 Hz 4P

Rated current : 15.8/7.88 A
 LRC : 5.8
 Rated torque : 18.4 ft.lb
 Locked rotor torque : 170 %
 Breakdown torque : 229 %
 Rated speed : 1425 rpm

Moment of inertia (J) : 0.3080 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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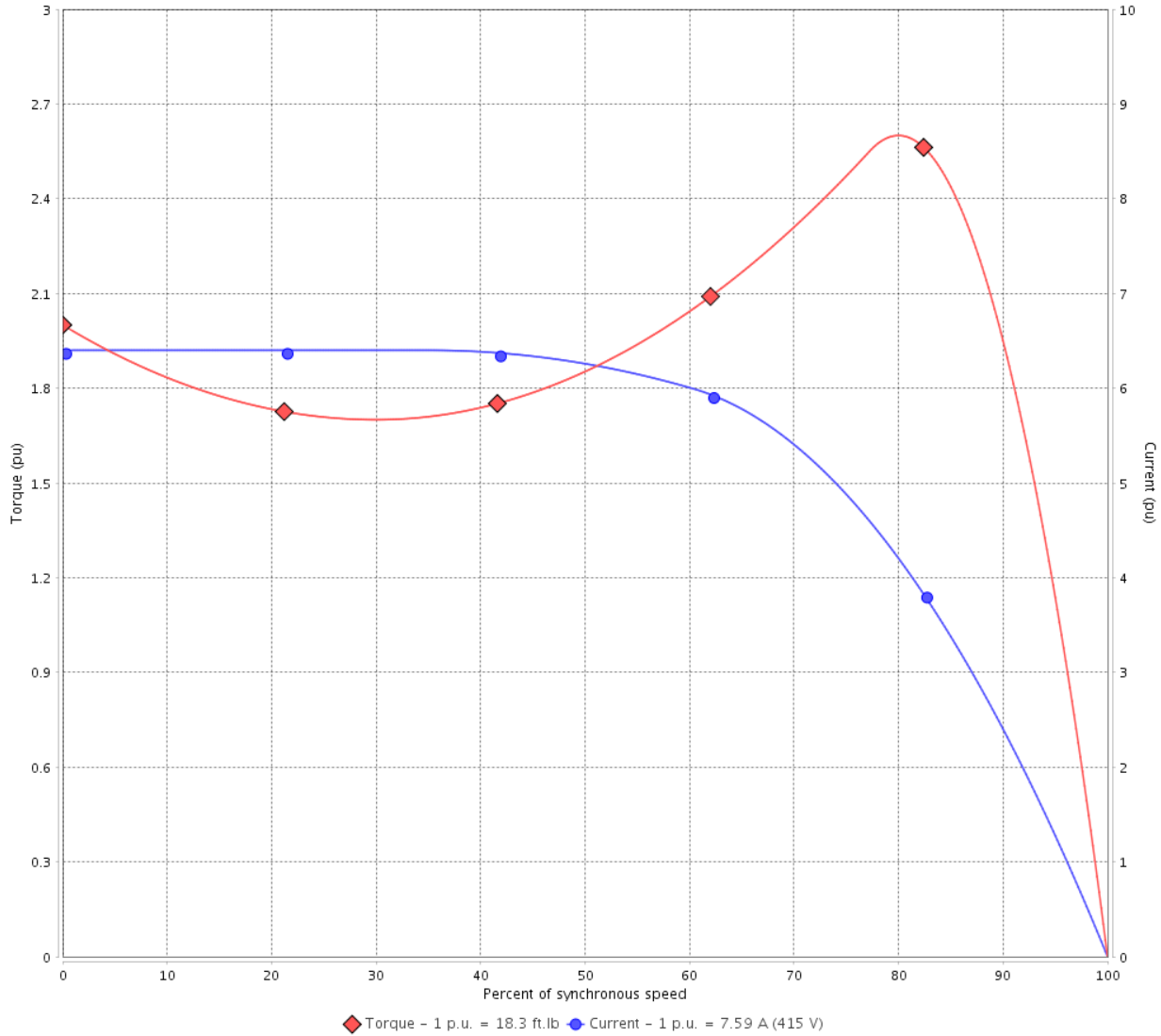
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TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

Rated current	: 14.3/7.59 A	Moment of inertia (J)	: 0.3080 sq.ft.lb
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 18.3 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 105 K
Rated speed	: 1435 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

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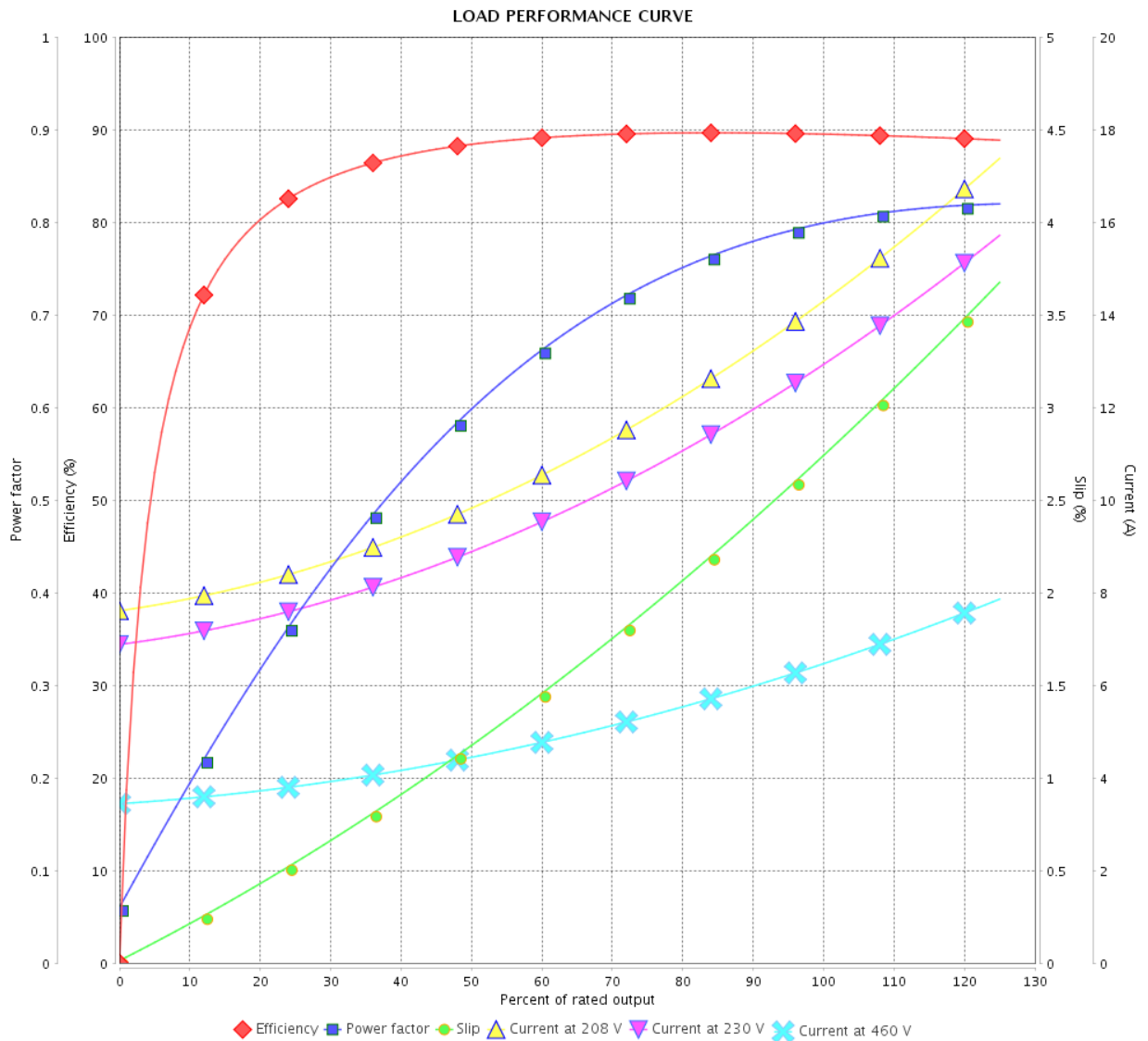


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Performance : 230/460 V 60 Hz 4P

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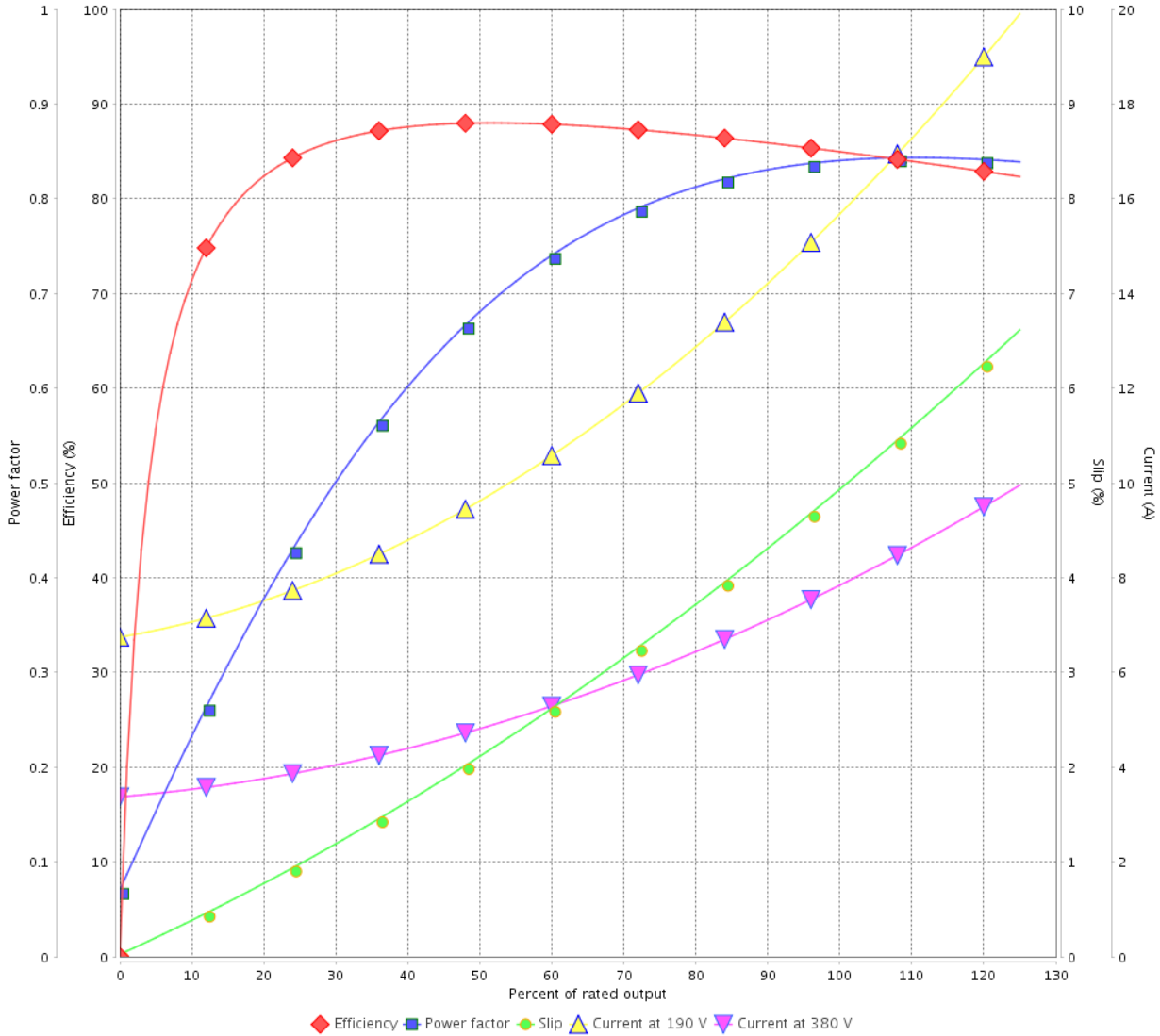
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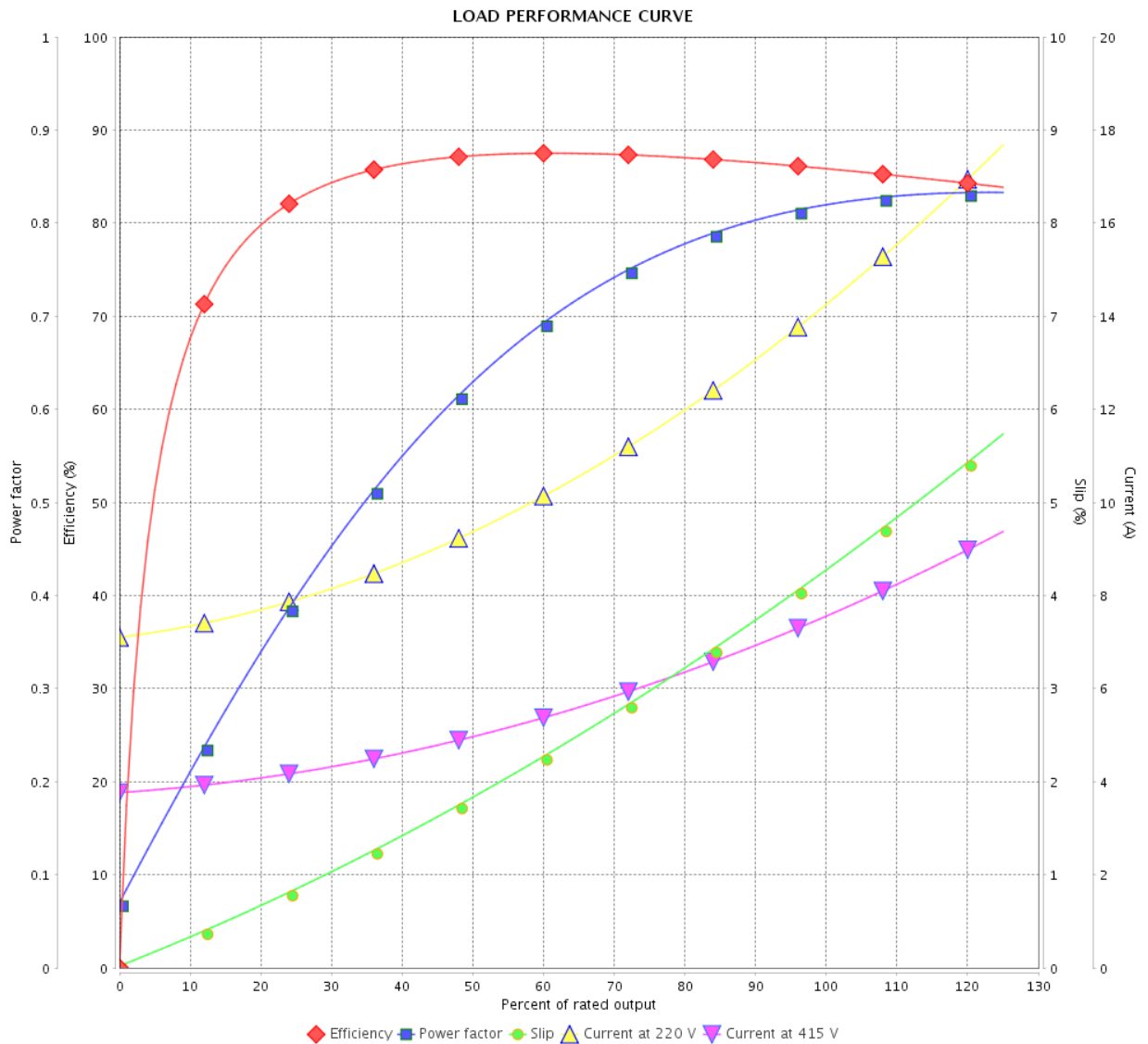


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THERMAL LIMIT CURVE



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Heating constant

Cooling constant

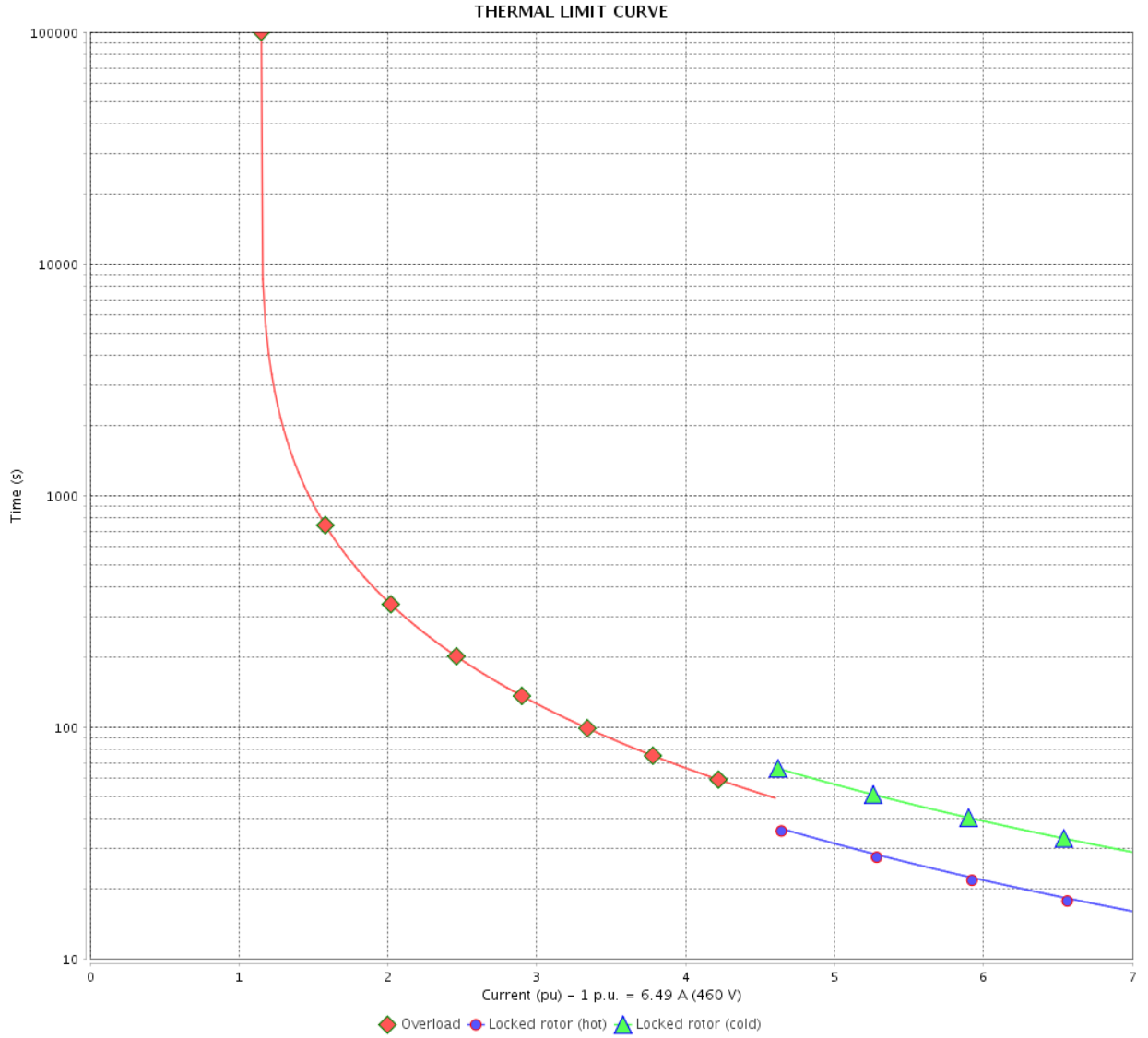
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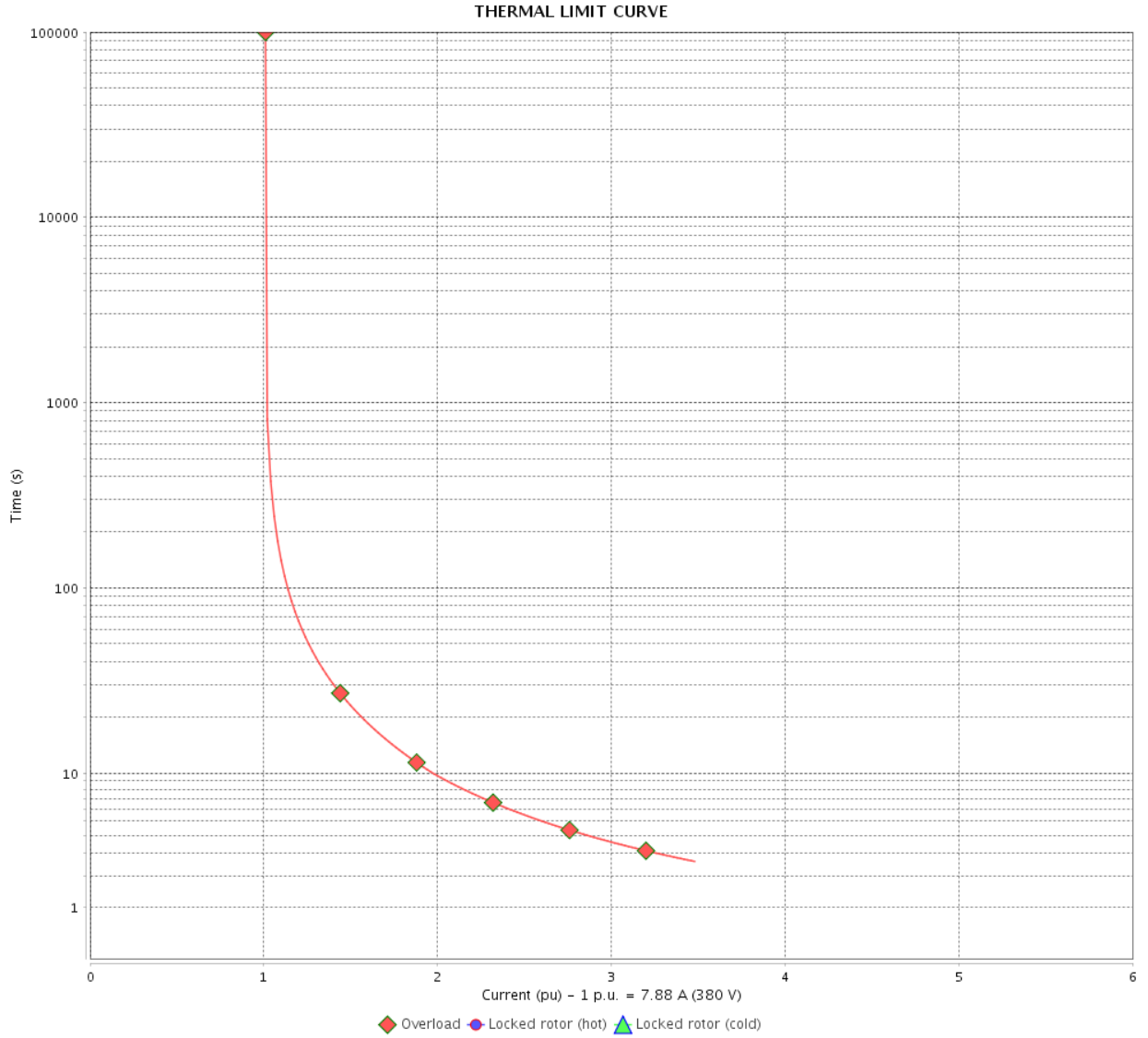
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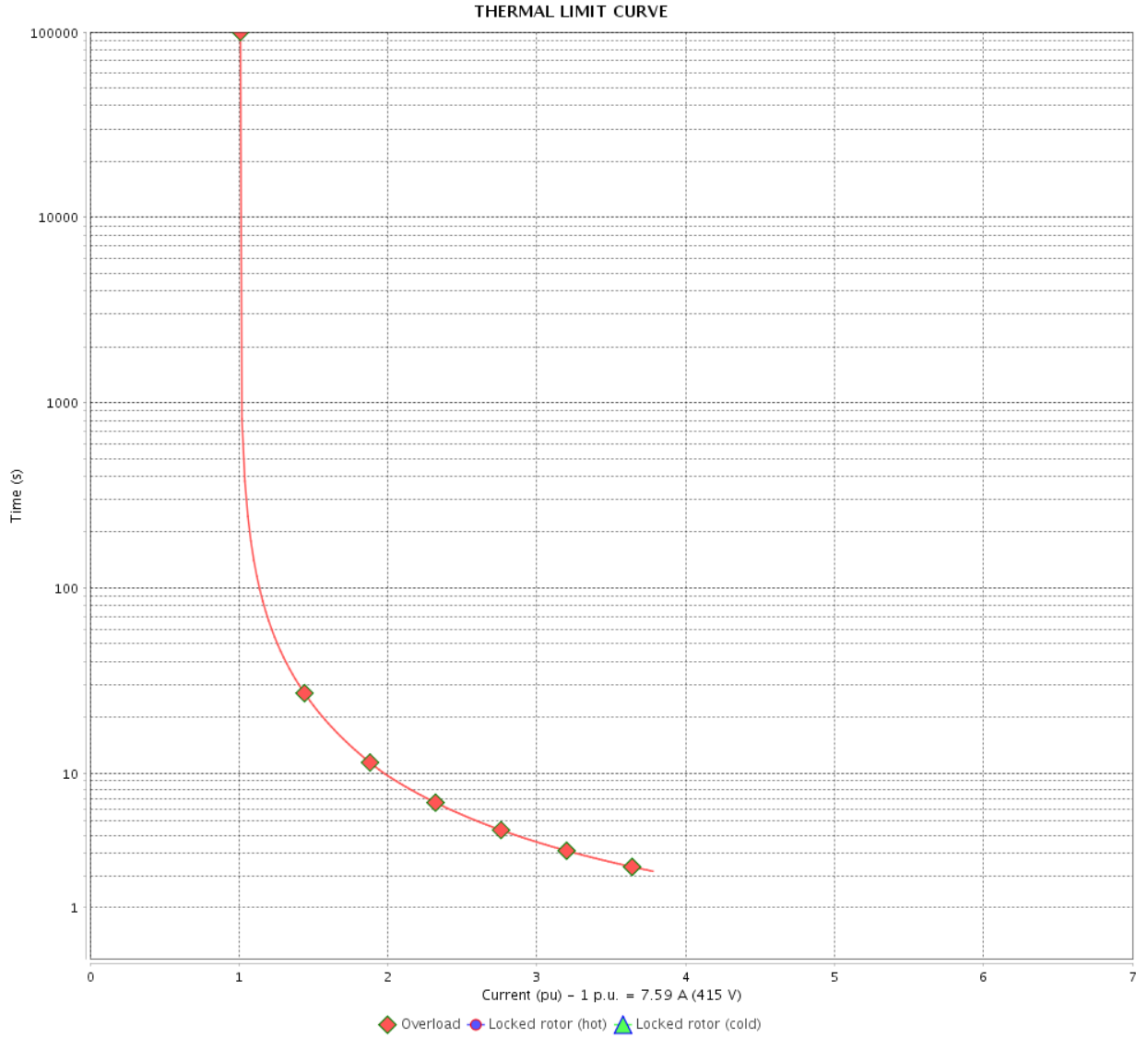
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VFD OPERATION CURVE

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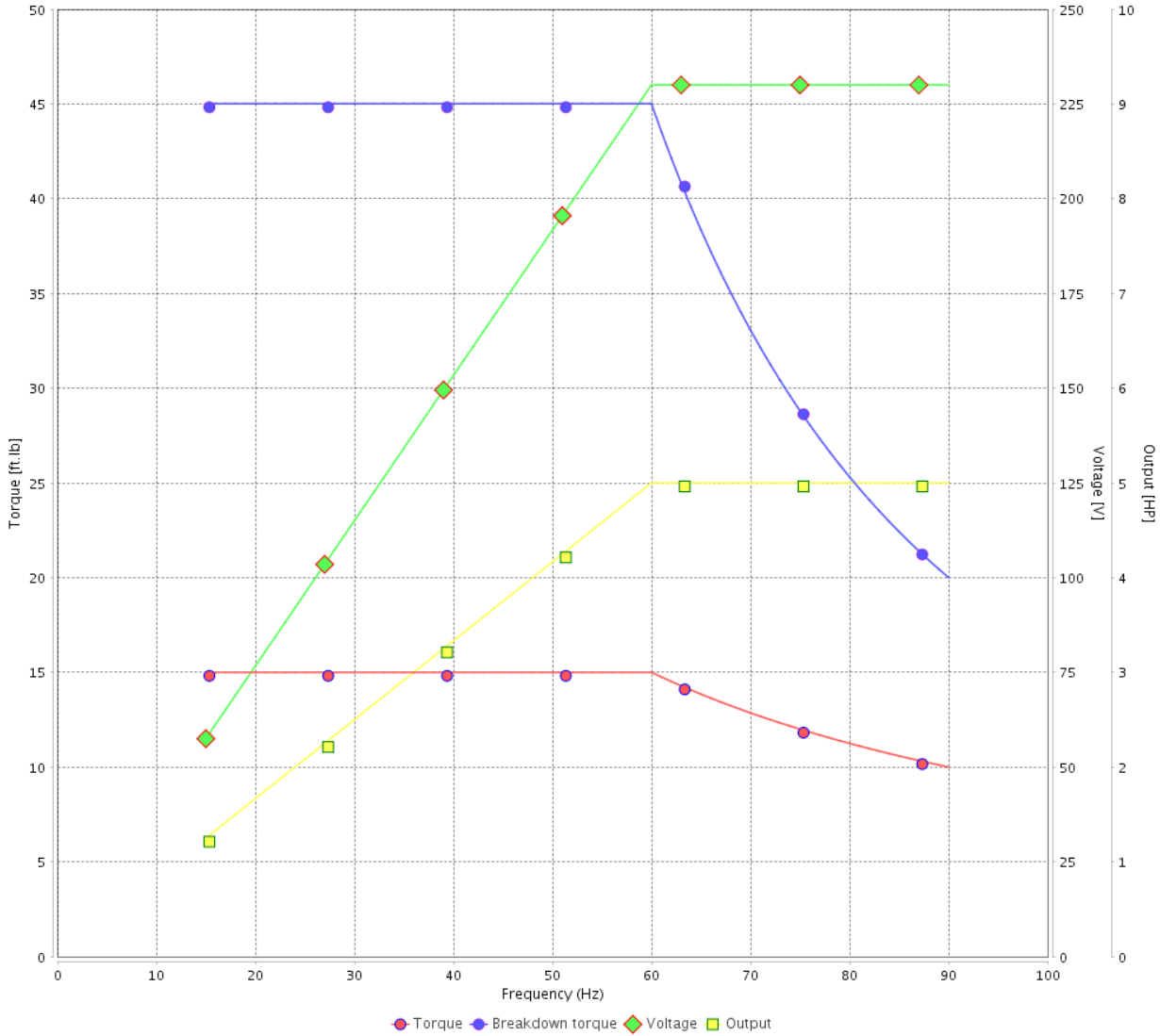
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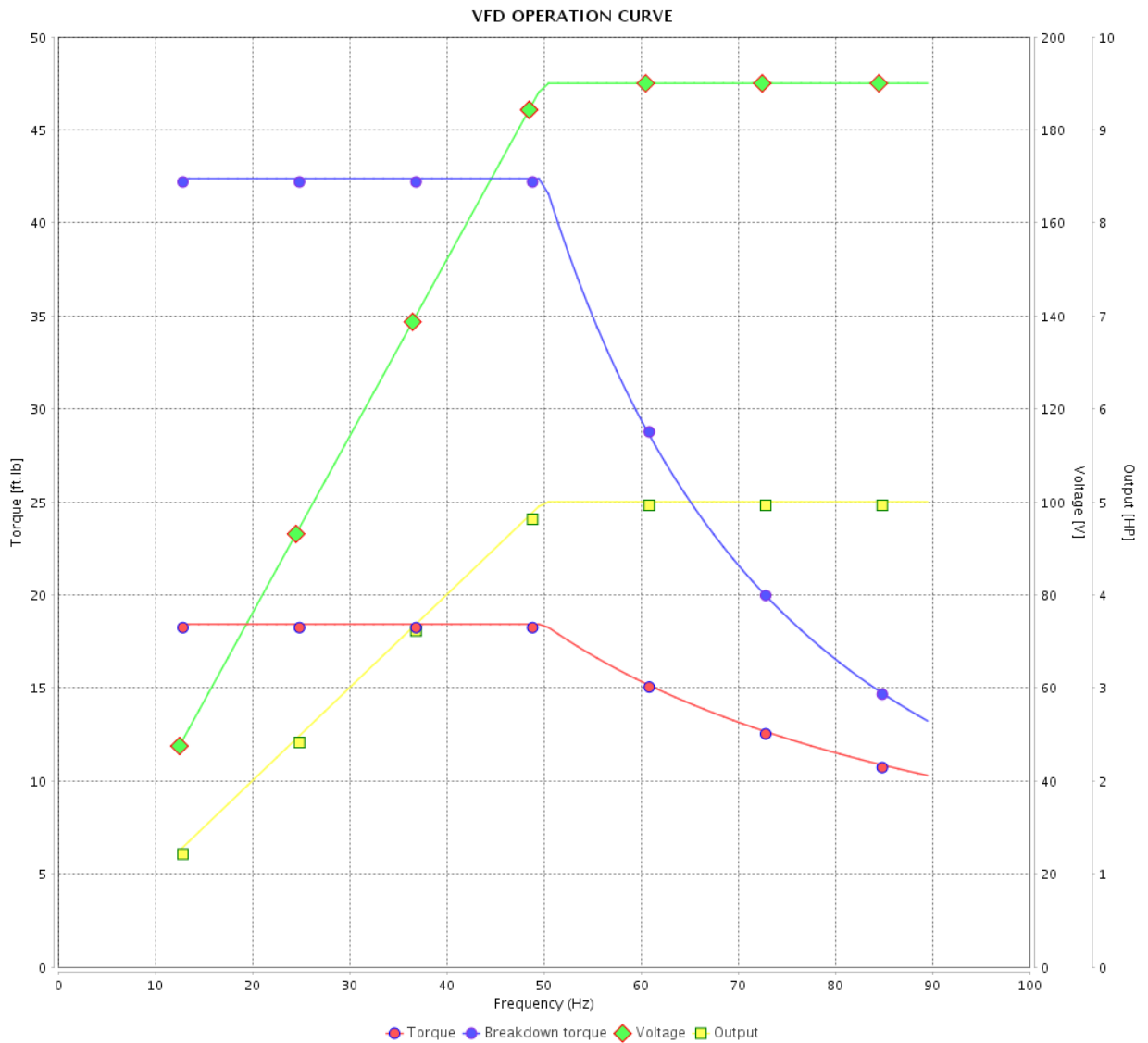


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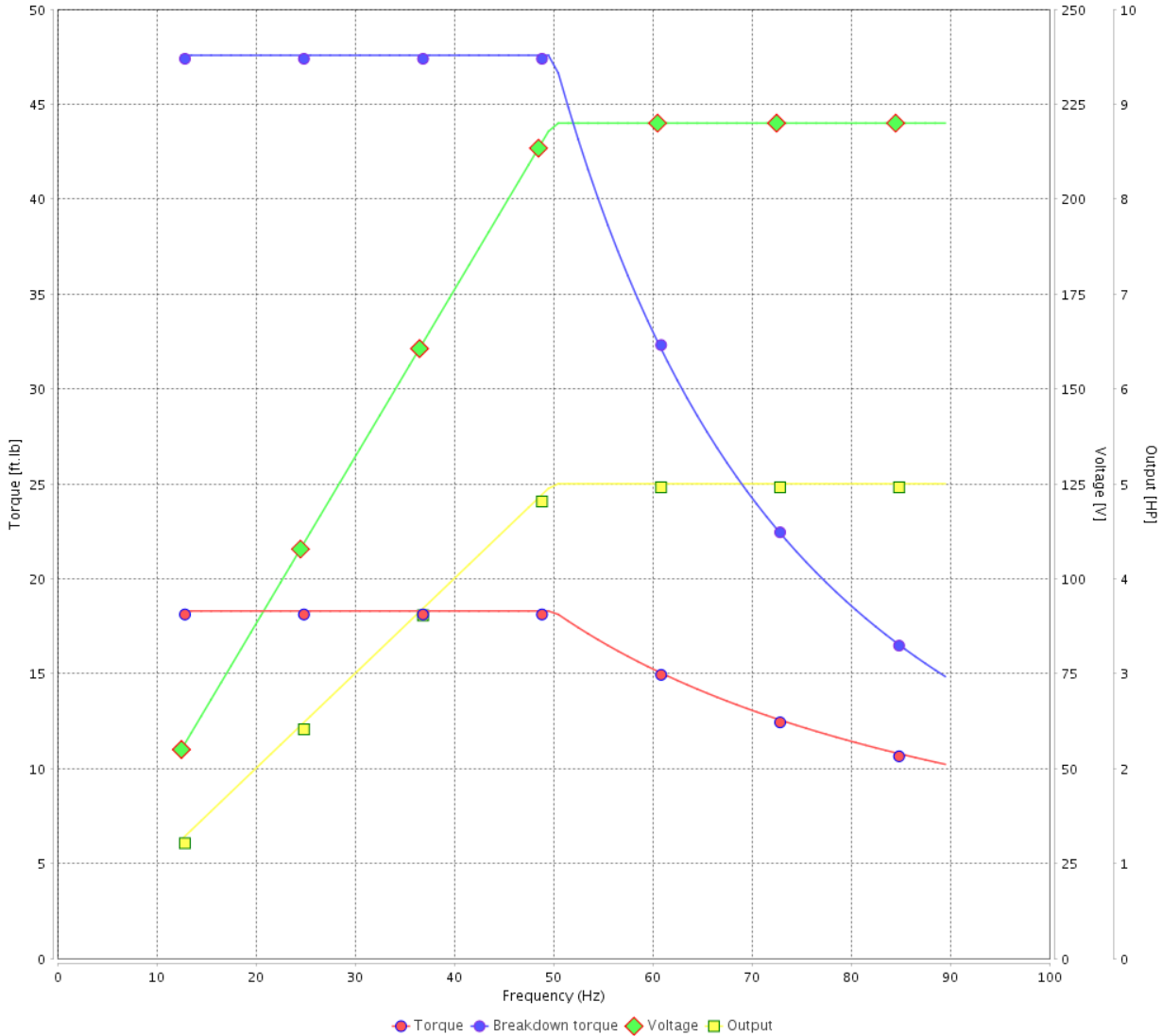
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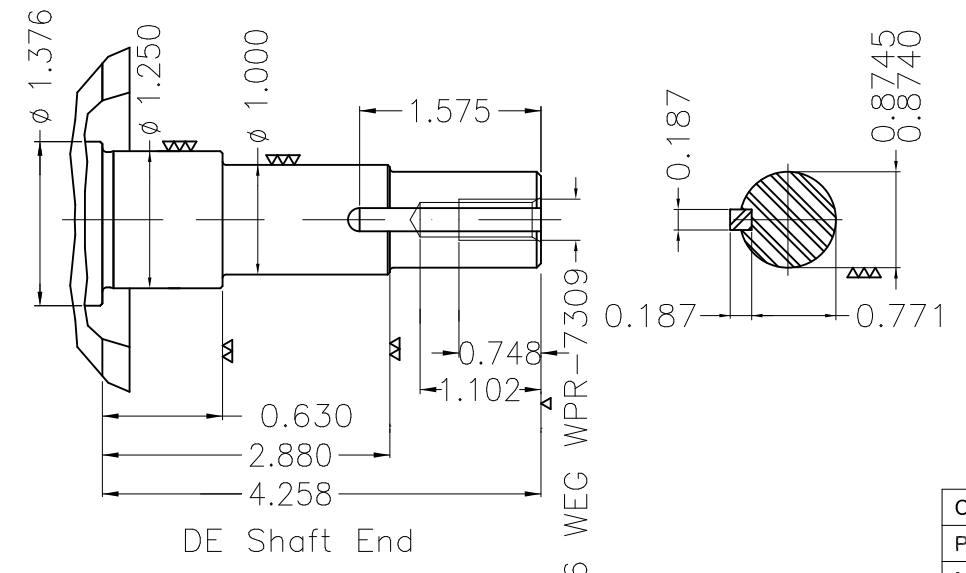
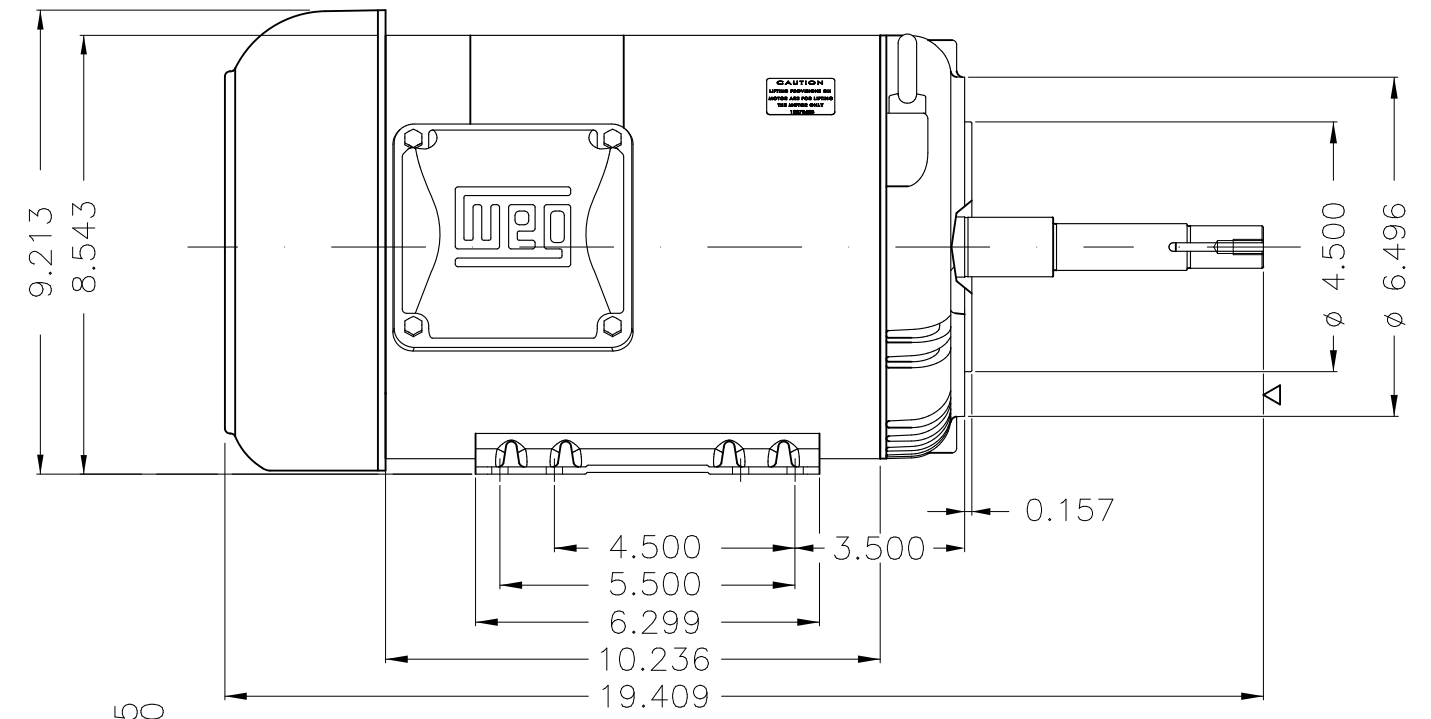
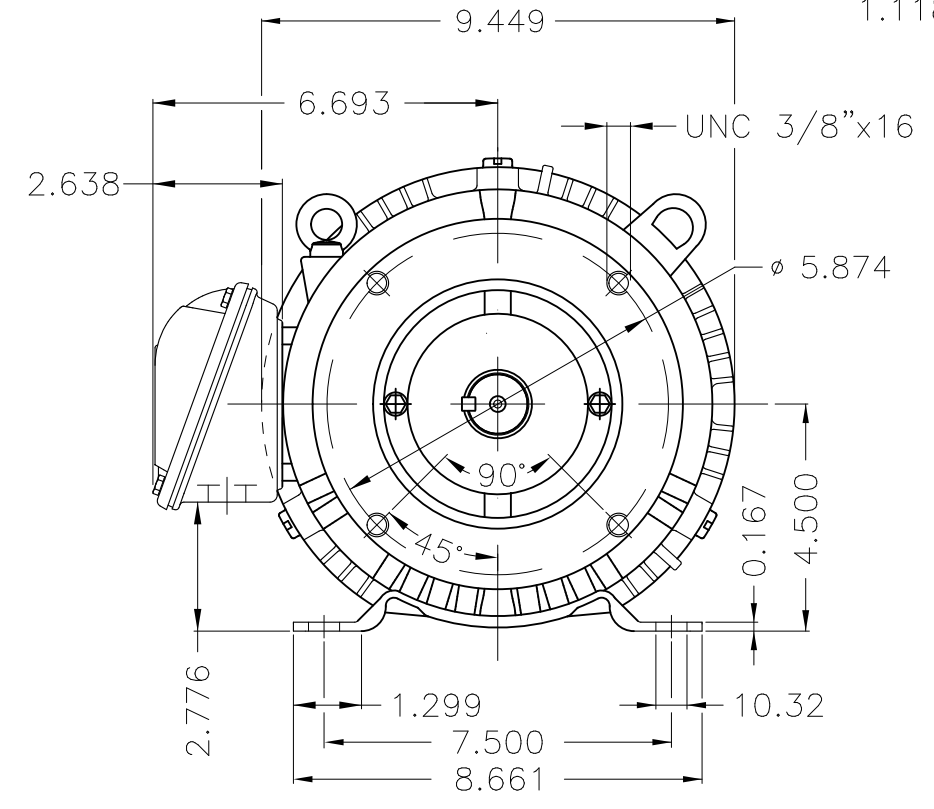
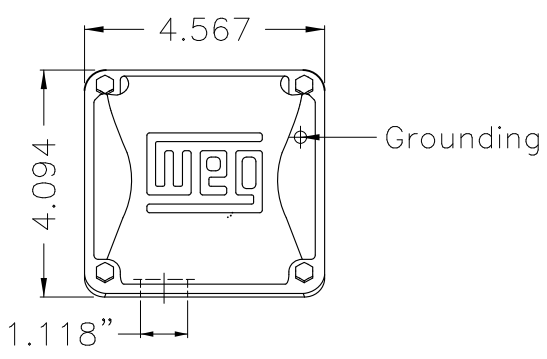
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1 2 3 4 5 6

A
B
C
D
E



EUNC 3/8"-16 WEG WPR-7309

DE Shaft End

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 JM TYPE PSEF 182							
CHECKED		FRAME 182/4JM IP55 TEFC							
RELEASED									
REL DT.		WMO	Jaragua do Sul	Product Engineering					

5 HP 04 Poles 60 Hz

Dimensions in inches XME A3



NEMA
Premium



MADE IN MEXICO

MAT: 13180545 CC029A

W01.TE0IC0X0N

MODEL 00518ET3E184JM-S

28MAR2022 S/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

PH 3	Hz 60	HP 5.0
FR 182/4JM		KW 3.7
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 13.0/6.49
INS CL F AT 80K	IP55	SFA 14.9/7.46
AMB 40°C	DES B	SF 1.15
ENCL TEFC	CODE J	PF 0.80
USABLE @ 208V 14.4A		RPM 1750
SF1.00		NEMA NOM. EFF 89.5%

ALTERNATE RATING: 5.0HP 50Hz 190-220/380-415V SF1.00
15.8-14.17.88-7.47A 1425RPM EFF 84.9% (IE1) IEC 60034-1

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

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

