

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :			
Product line	: JM Pump NEMA Premium Efficiency Three-Phase	Product code :	14808415
		Catalog # :	00158ET3E145JM-S
Frame	: 143/5JM	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	: 40.8 lb
Protection degree	: IP55	Moment of inertia (J)	: 0.1101 sq.ft.lb
Design	: B		
Output [HP]	1.5	1.5	1.5
Poles	4	4	4
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190/380	220/415
Rated current [A]	4.04/2.02	4.82/2.41	4.38/2.32
L. R. Amperes [A]	33.1/16.6	29.4/14.7	29.3/15.5
LRC [A]	8.2x(Code K)	6.1x(Code H)	6.7x(Code J)
No load current [A]	2.17/1.08	2.13/1.07	2.20/1.17
Rated speed [RPM]	1750	1420	1430
Slip [%]	2.78	5.33	4.67
Rated torque [ft.lb]	4.50	5.55	5.51
Locked rotor torque [%]	270	210	240
Breakdown torque [%]	300	250	280
Service factor		1.15	1.15
Temperature rise	80 K	105 K	80 K
Locked rotor time	37s (cold) 21s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)
Noise level ²	52.0 dB(A)	49.0 dB(A)	49.0 dB(A)
Efficiency (%)	25%	85.2	85.0
	50%	85.5	84.2
	75%	86.5	84.9
	100%	86.5	83.6
Power Factor	25%	0.35	0.37
	50%	0.59	0.62
	75%	0.72	0.75
	100%	0.79	0.82
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	: 114 lb
		Max. compression	: 154 lb
Lubrication interval	: -		
Lubricant amount	: -		
Lubricant type	: Mobil Polyrex EM		
Notes USABLE @208V 4.47A SF 1.00 SFA 4.47A			
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

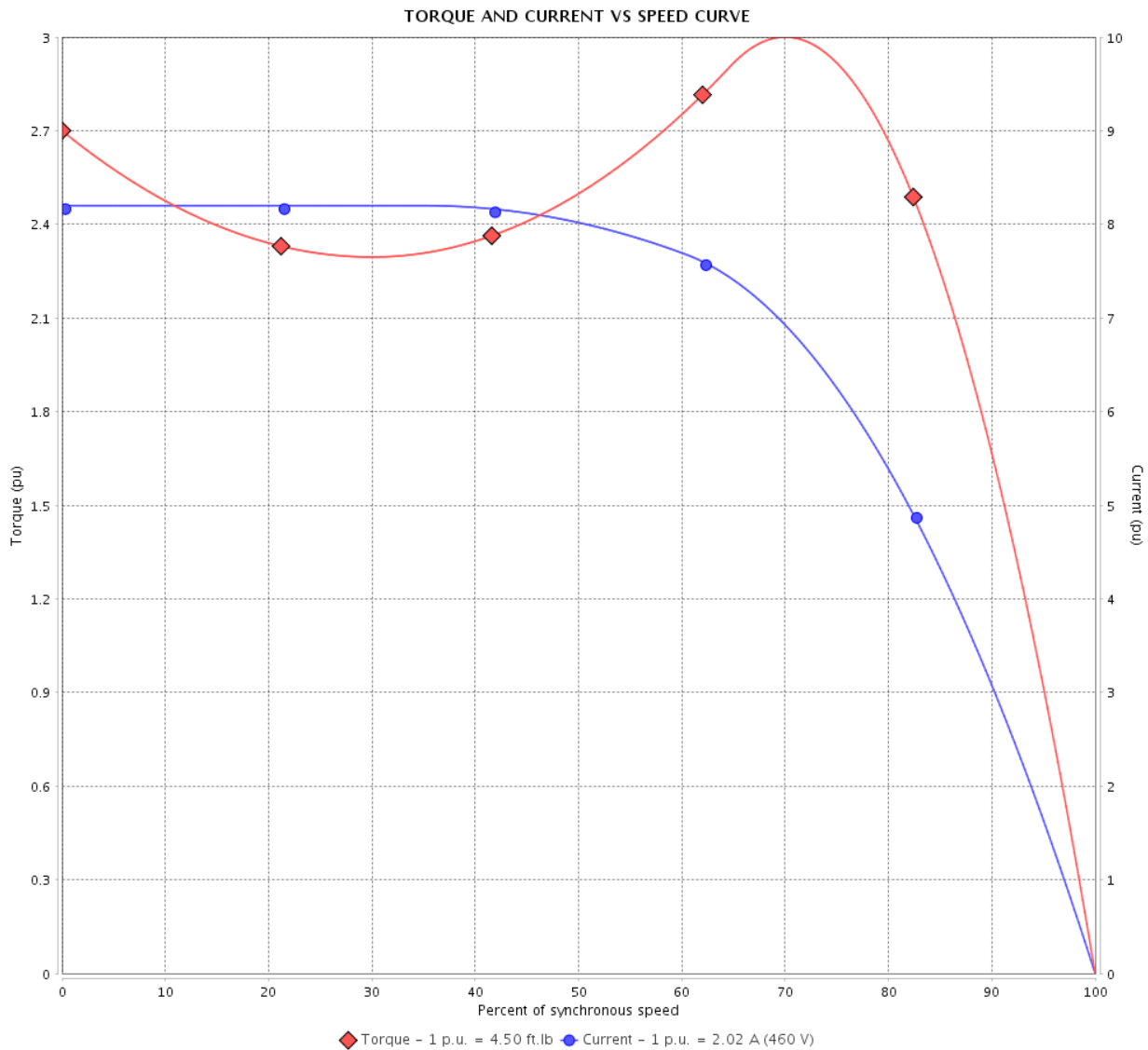


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Efficiency Three-Phase

Product code : 14808415

Catalog # : 00158ET3E145JM-S



Performance : 230/460 V 60 Hz 4P

Rated current : 4.04/2.02 A
LRC : 8.2
Rated torque : 4.50 ft.lb
Locked rotor torque : 270 %
Breakdown torque : 300 %
Rated speed : 1750 rpm

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

Locked rotor time : 37s (cold) 21s (hot)

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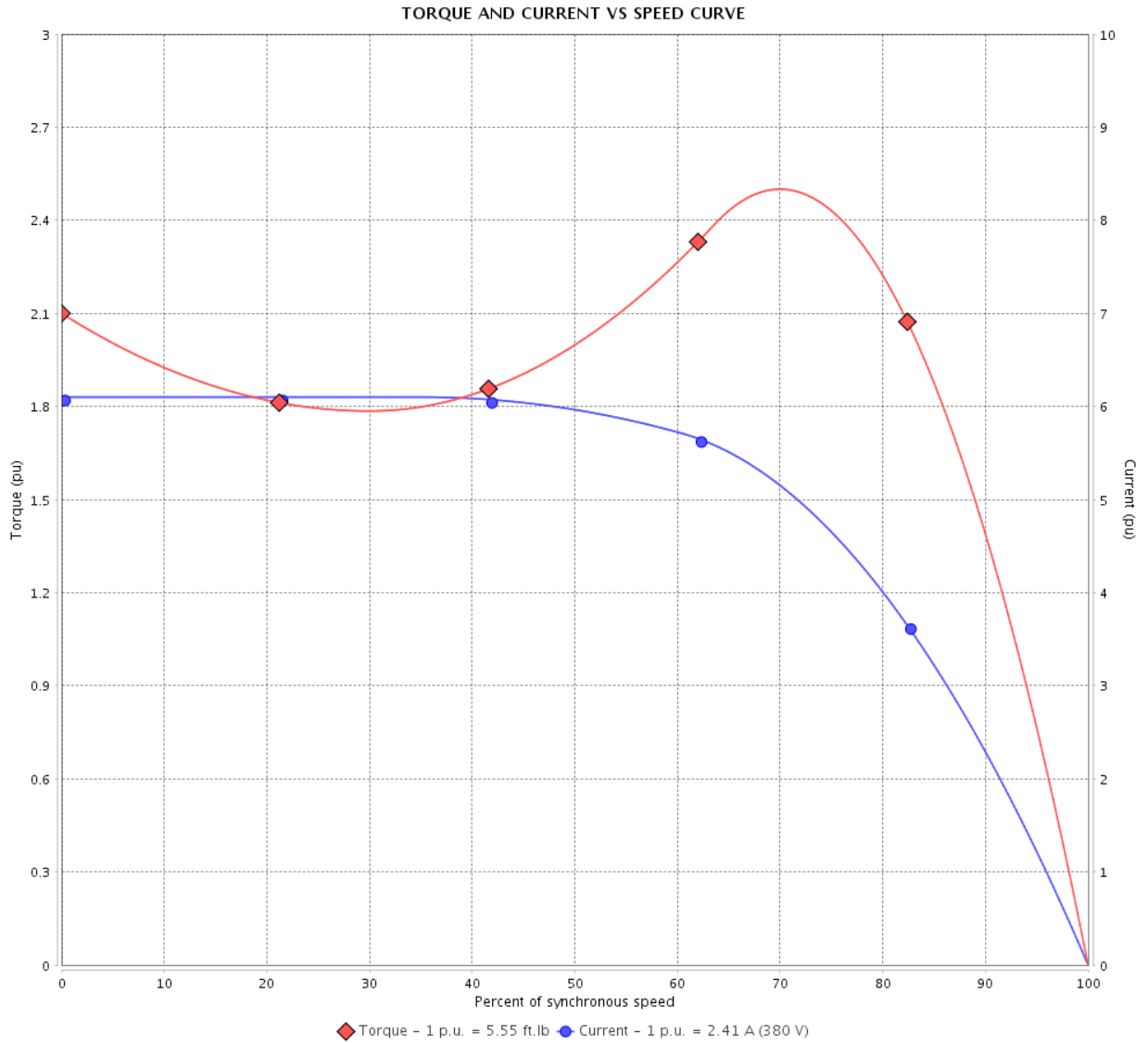
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Performance : 190/380 V 50 Hz 4P

Rated current : 4.82/2.41 A
 LRC : 6.1
 Rated torque : 5.55 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 250 %
 Rated speed : 1420 rpm

Moment of inertia (J) : 0.1101 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 105 K
 Design : B

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

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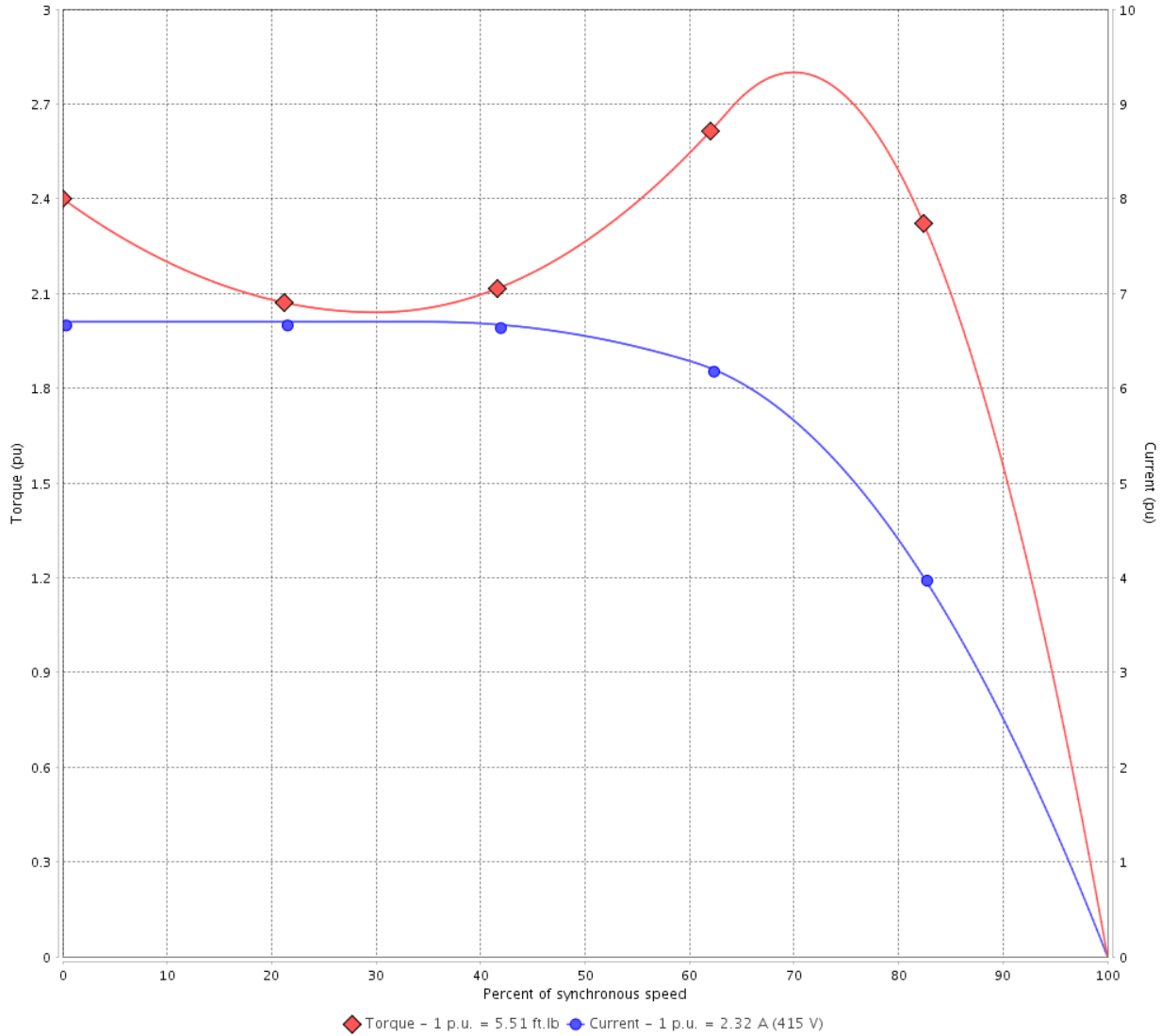
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Performance : 220/415 V 50 Hz 4P

Rated current : 4.38/2.32 A
 LRC : 6.7
 Rated torque : 5.51 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 280 %
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LOAD PERFORMANCE CURVE

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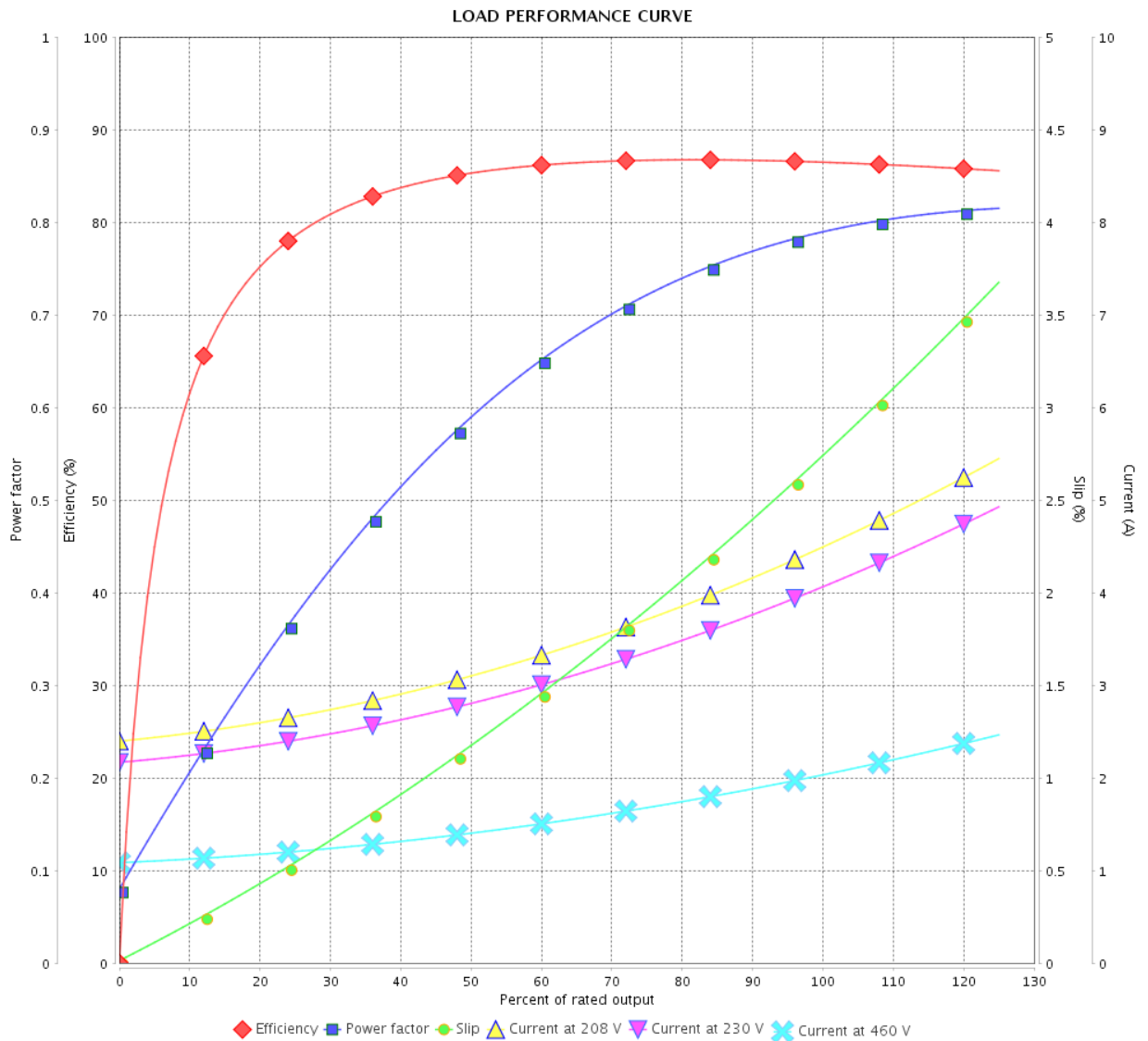


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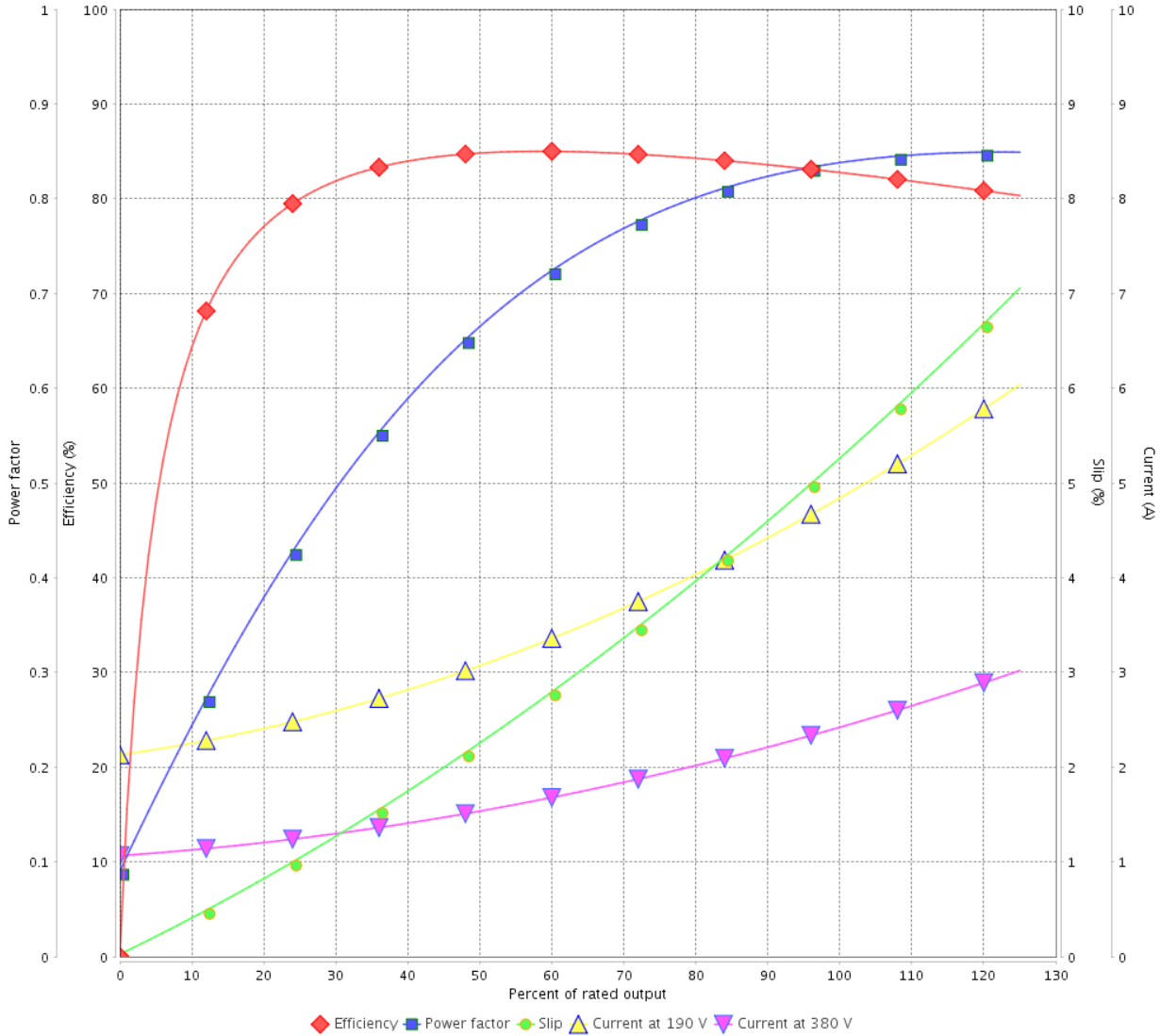
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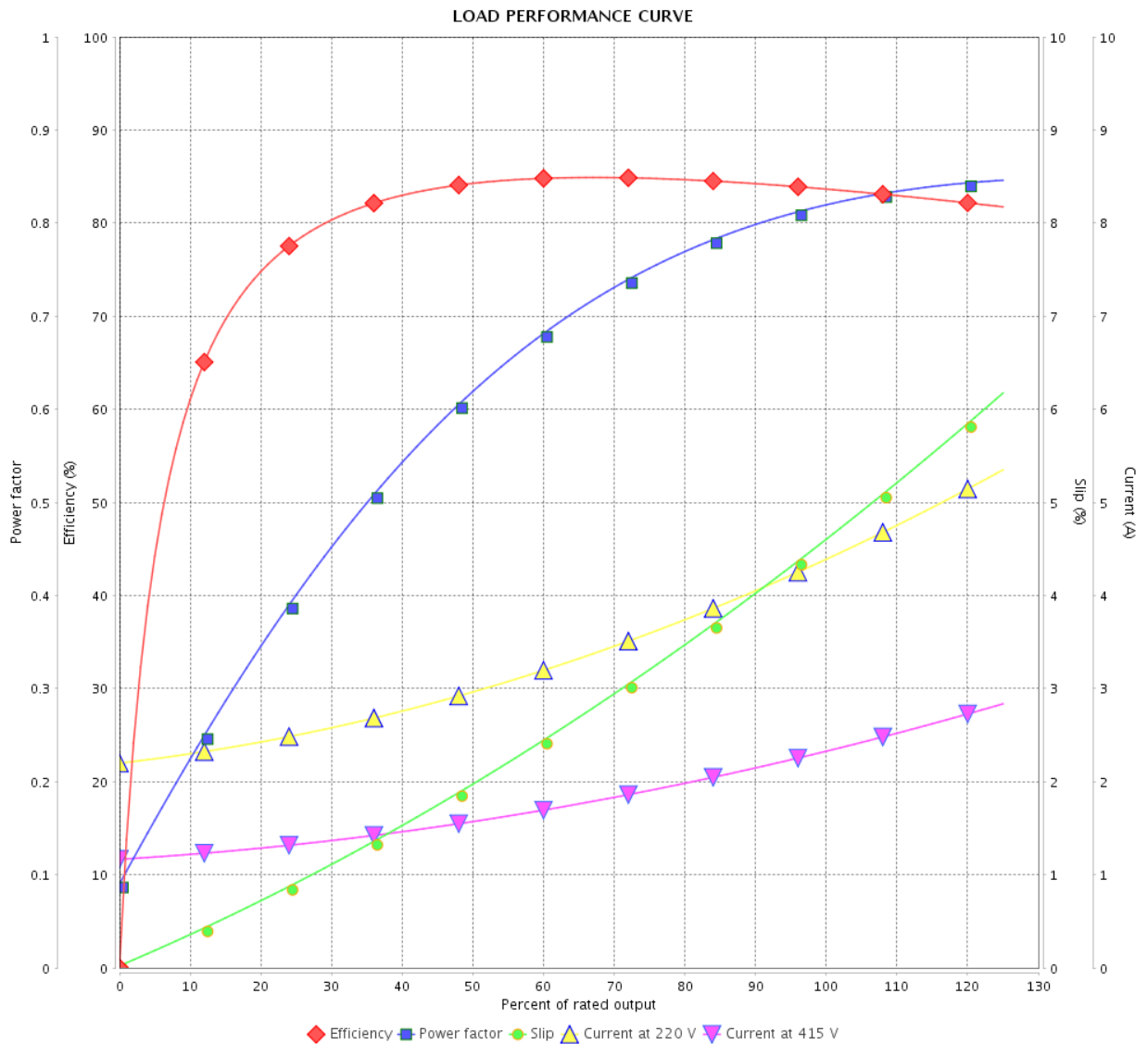


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THERMAL LIMIT CURVE



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Heating constant

Cooling constant

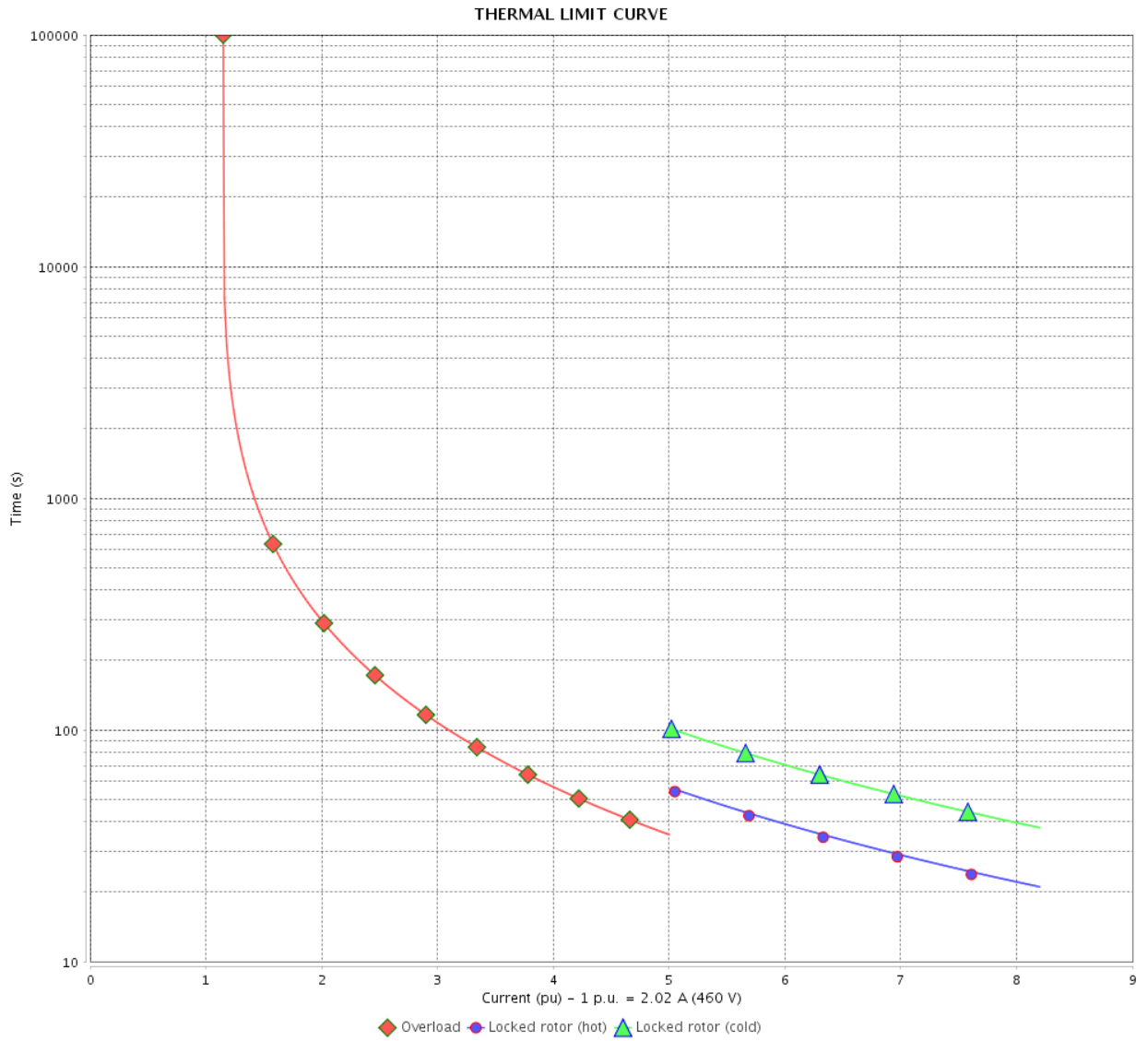
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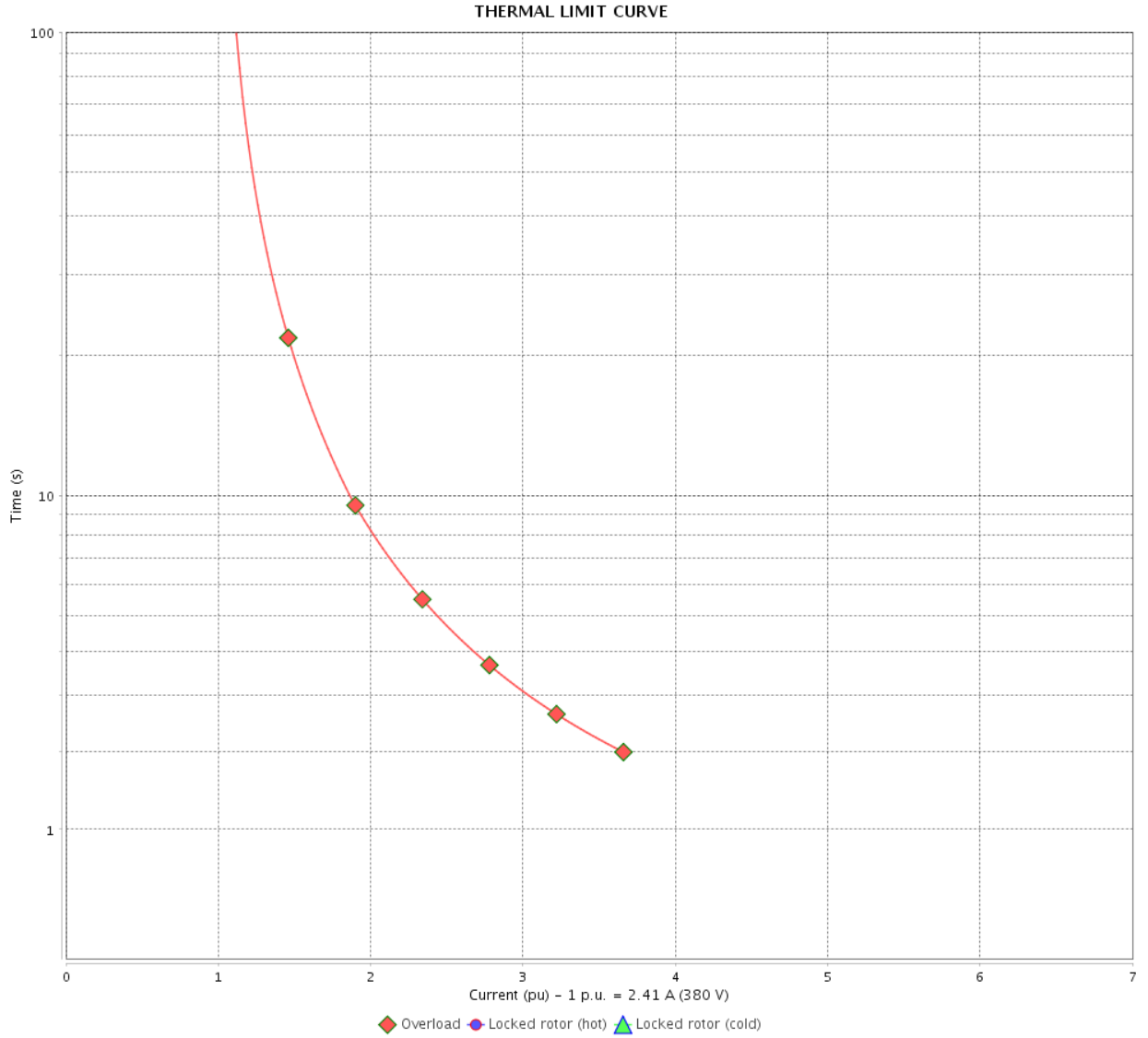
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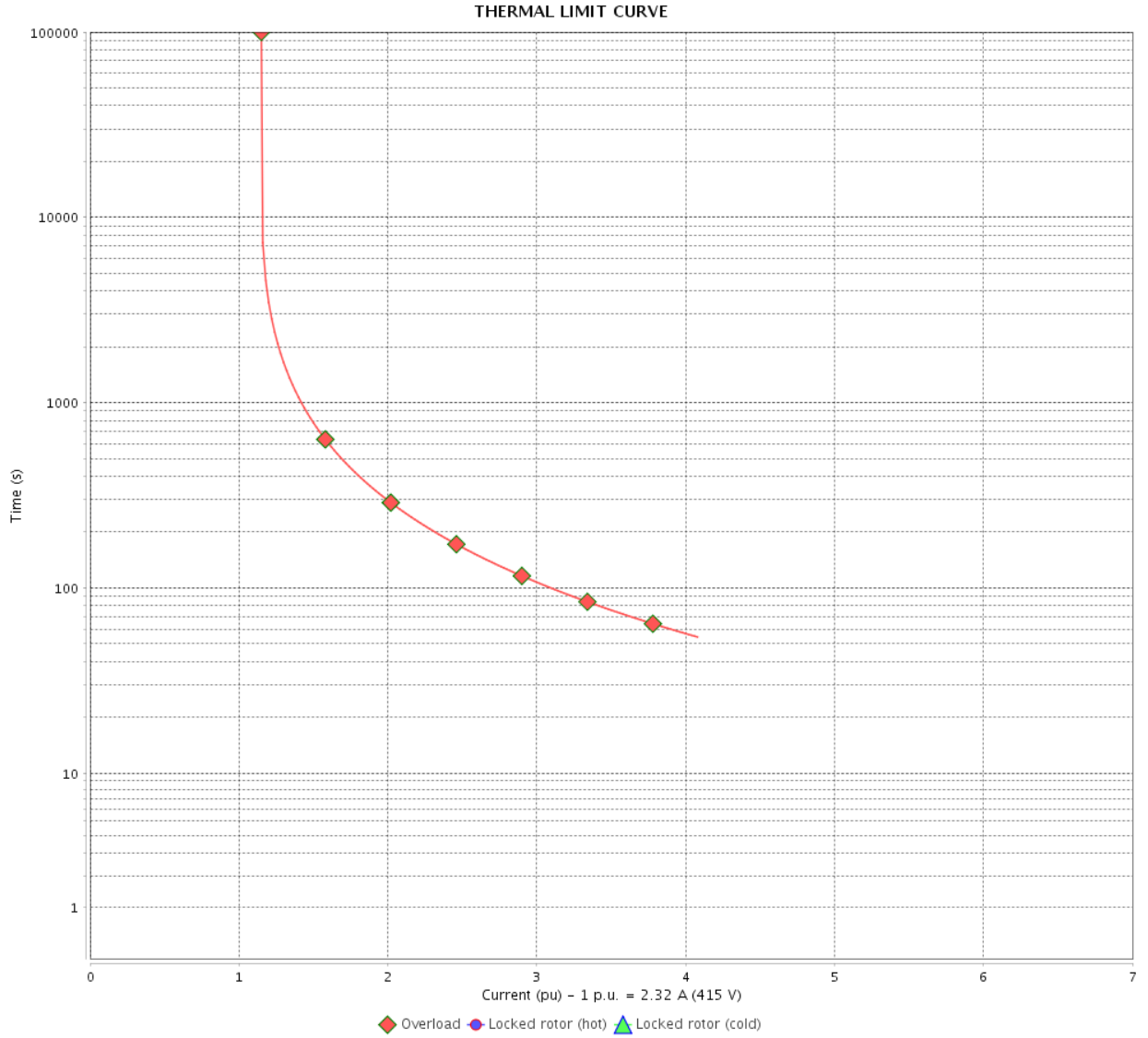
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VFD OPERATION CURVE

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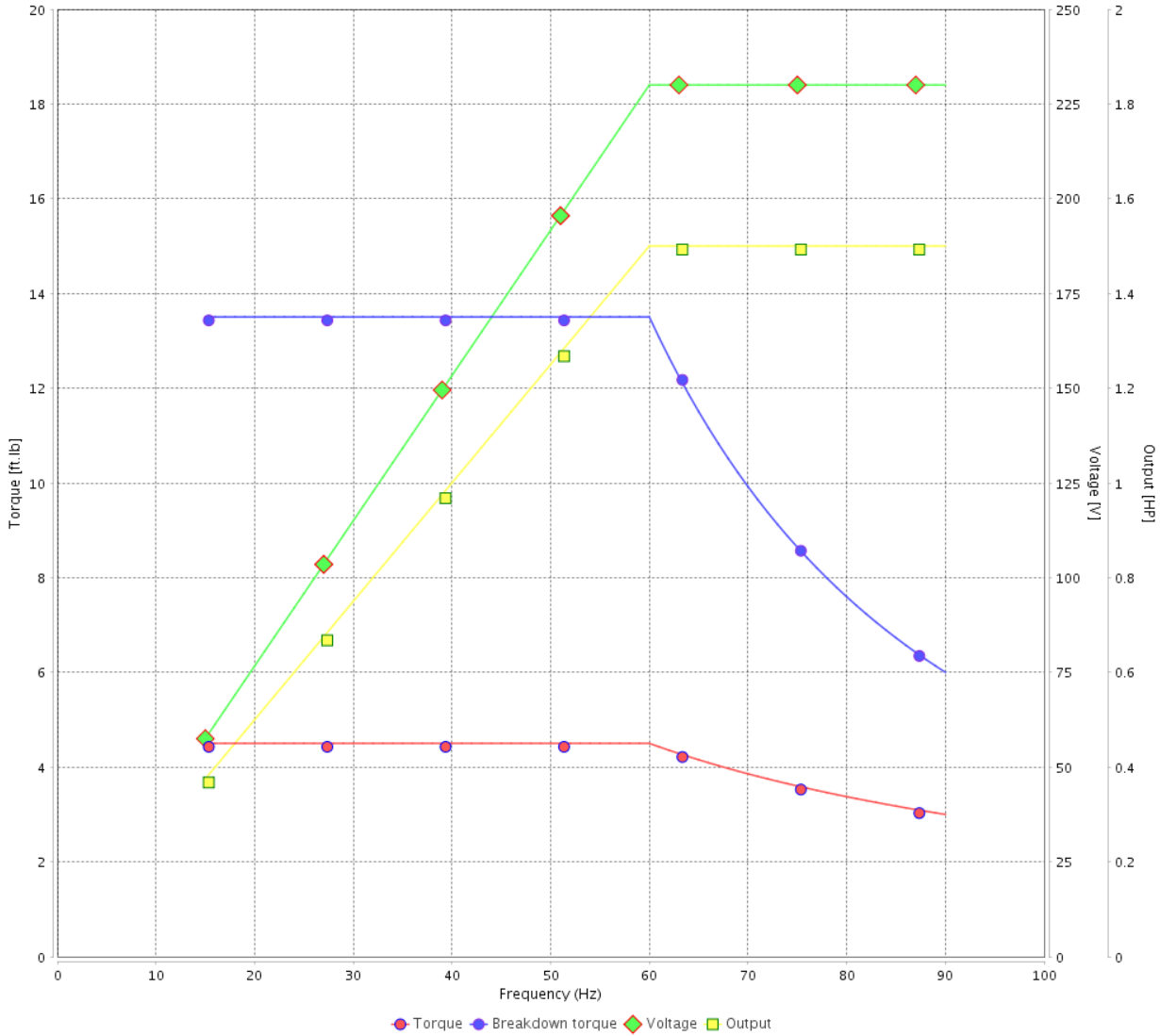
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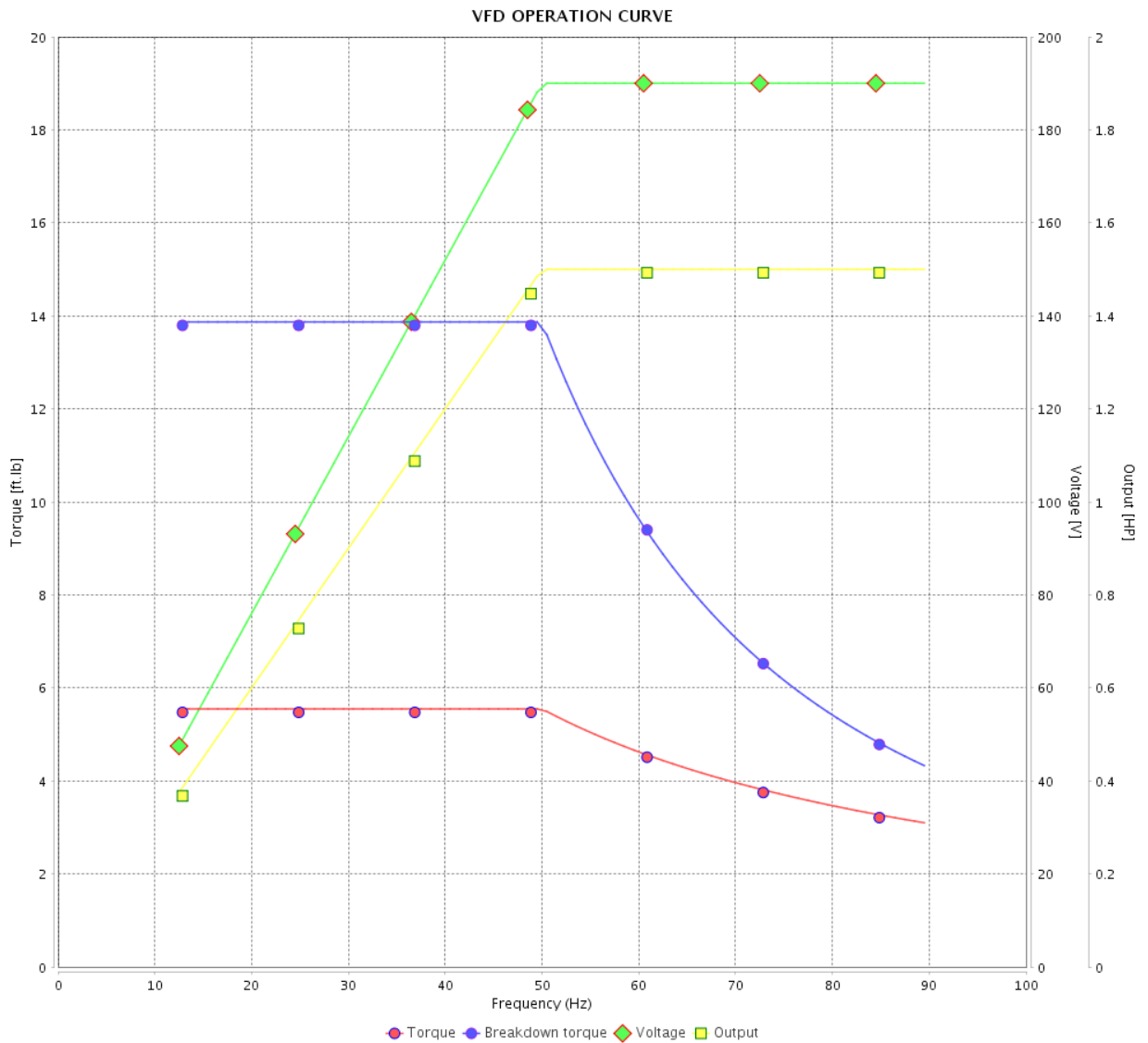


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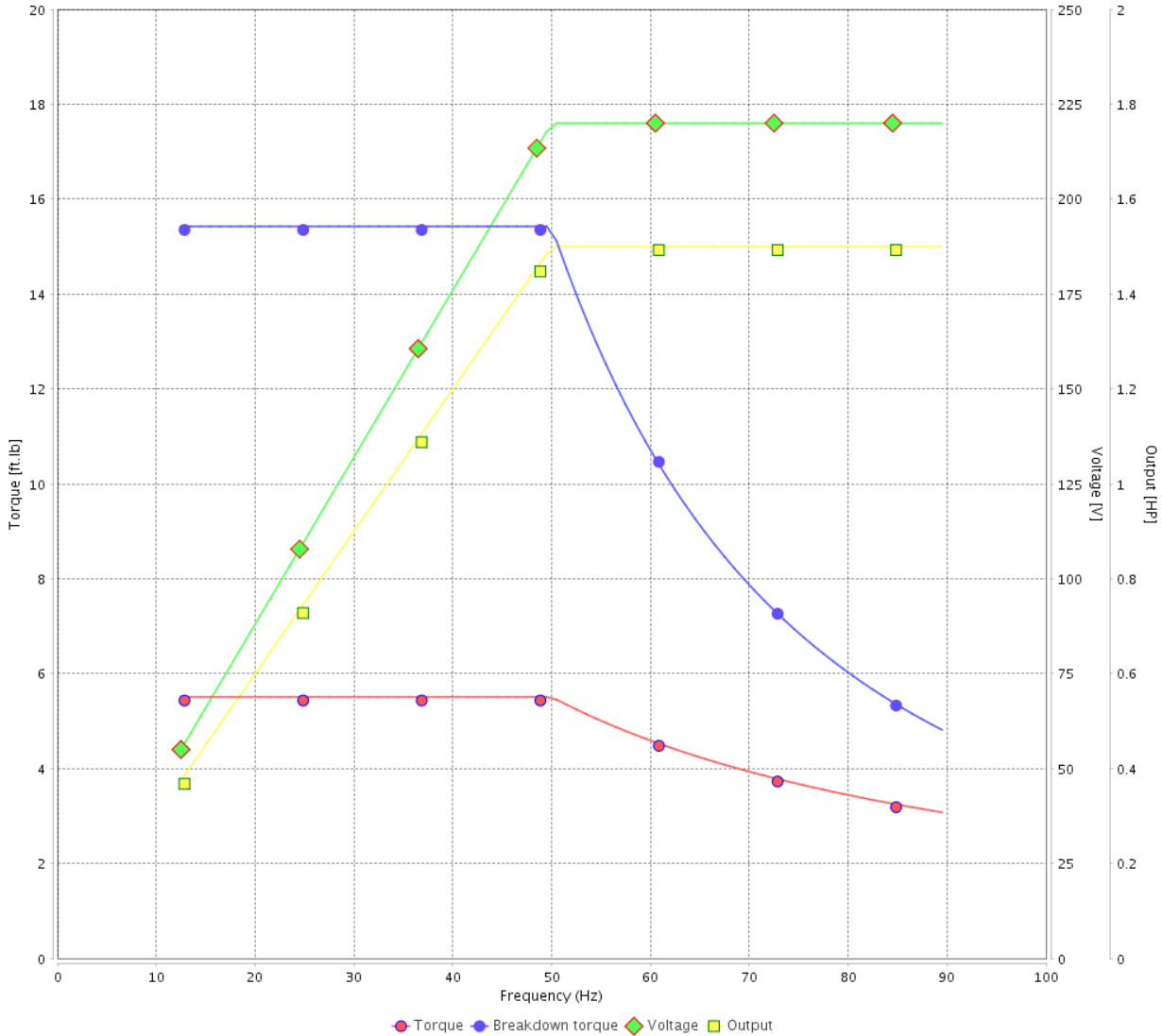
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NEMA
Premium



MADE IN BRAZIL

MAT: 14808415 CC029A

W01.TE0IC0X0N

MODEL 00158ET3E145JM-S

06APR2022 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

PH 3	Hz 60	HP 1.5
FR 143/5JM		KW 1.1
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 4.04/2.02
INS CL F AT 80K	IP55	SFA 4.65/2.32
AMB 40°C	DES B	SF 1.15
ENCL TEFC	CODE K	PF 0.79
USABLE @ 208V 4.47A		RPM 1750
SF1.00		NEMA NOM. EFF 86.5%

ALTERNATE RATING: 1.5HP 50Hz 190-220/380-415V SF1.15
4.82-4.28/2.41-2.27A 1420RPM EFF 82.7% (IE2) IEC 60034-1

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

DE 6206-ZZ	ODE 6203-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.

