

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :			
Product line	: JM Pump NEMA Premium Efficiency Three-Phase	Product code :	14807036
		Catalog # :	00118ET3E143JM-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	: 40.6 lb
Protection degree	: IP55	Moment of inertia (J)	: 0.1232 sq.ft.lb
Design	: B		
Output [HP]	1	1	1
Poles	4	4	4
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190/380	220/415
Rated current [A]	2.94/1.47	3.40/1.70	3.09/1.64
L. R. Amperes [A]	25.3/12.6	22.1/11.0	22.0/11.6
LRC [A]	8.6x(Code M)	6.5x(Code J)	7.1x(Code K)
No load current [A]	1.78/0.890	1.76/0.879	1.77/0.938
Rated speed [RPM]	1765	1450	1455
Slip [%]	1.94	3.33	3.00
Rated torque [ft.lb]	2.98	3.62	3.61
Locked rotor torque [%]	280	200	220
Breakdown torque [%]	300	270	300
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	52.0 dB(A)	49.0 dB(A)	49.0 dB(A)
Efficiency (%)	25%	81.0	81.2
	50%	82.5	81.5
	75%	84.0	83.6
	100%	85.5	83.5
Power Factor	25%	0.30	0.33
	50%	0.52	0.58
	75%	0.66	0.71
	100%	0.75	0.79
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	: 74 lb
		Max. compression	: 114 lb
Lubrication interval	: -		
Lubricant amount	: -		
Lubricant type	: Mobil Polyrex EM		
Notes USABLE @208V 3.25A SF 1.00 SFA 3.25A			
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



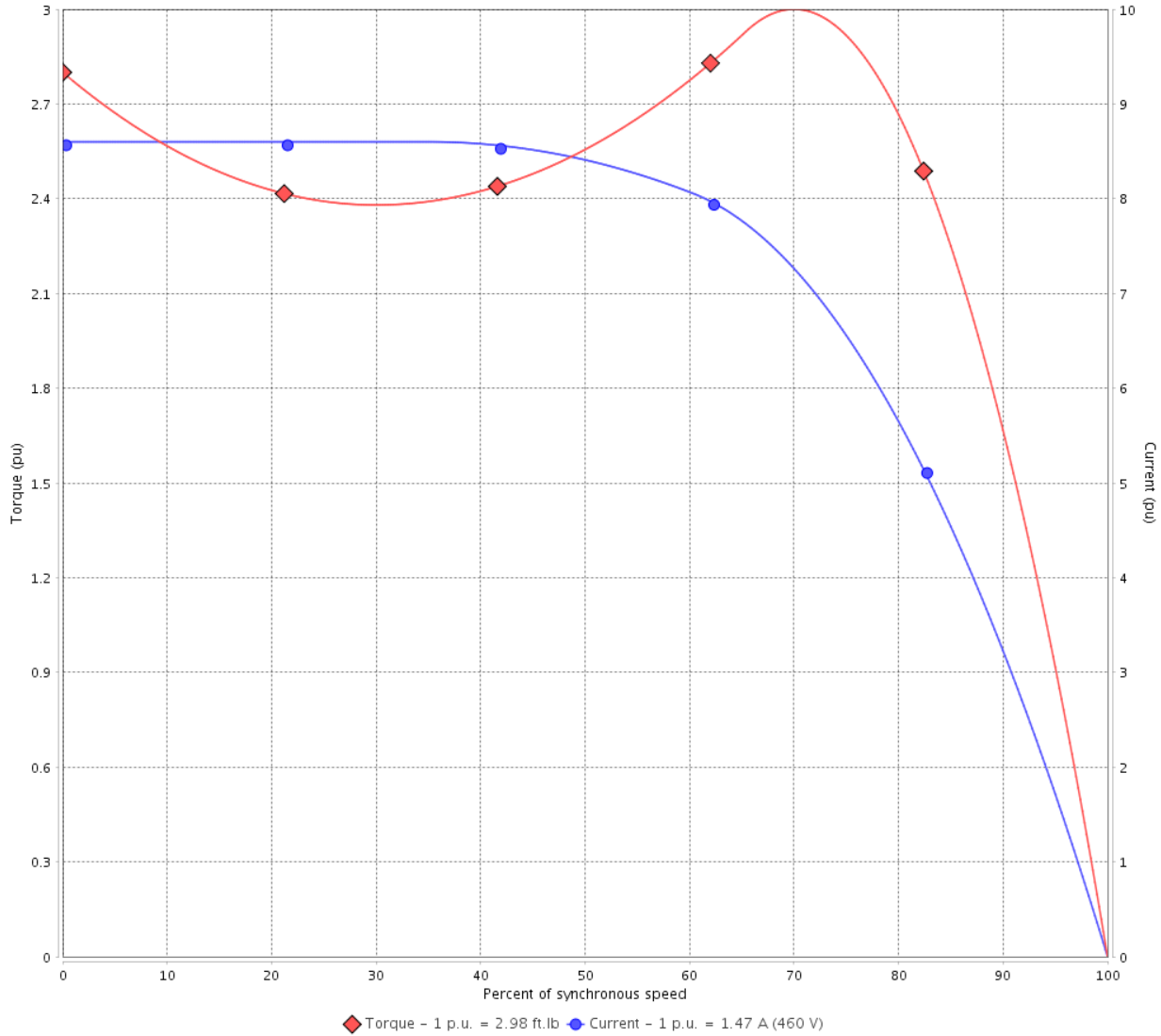
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TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 2.94/1.47 A
 LRC : 8.6
 Rated torque : 2.98 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 300 %
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.1232 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



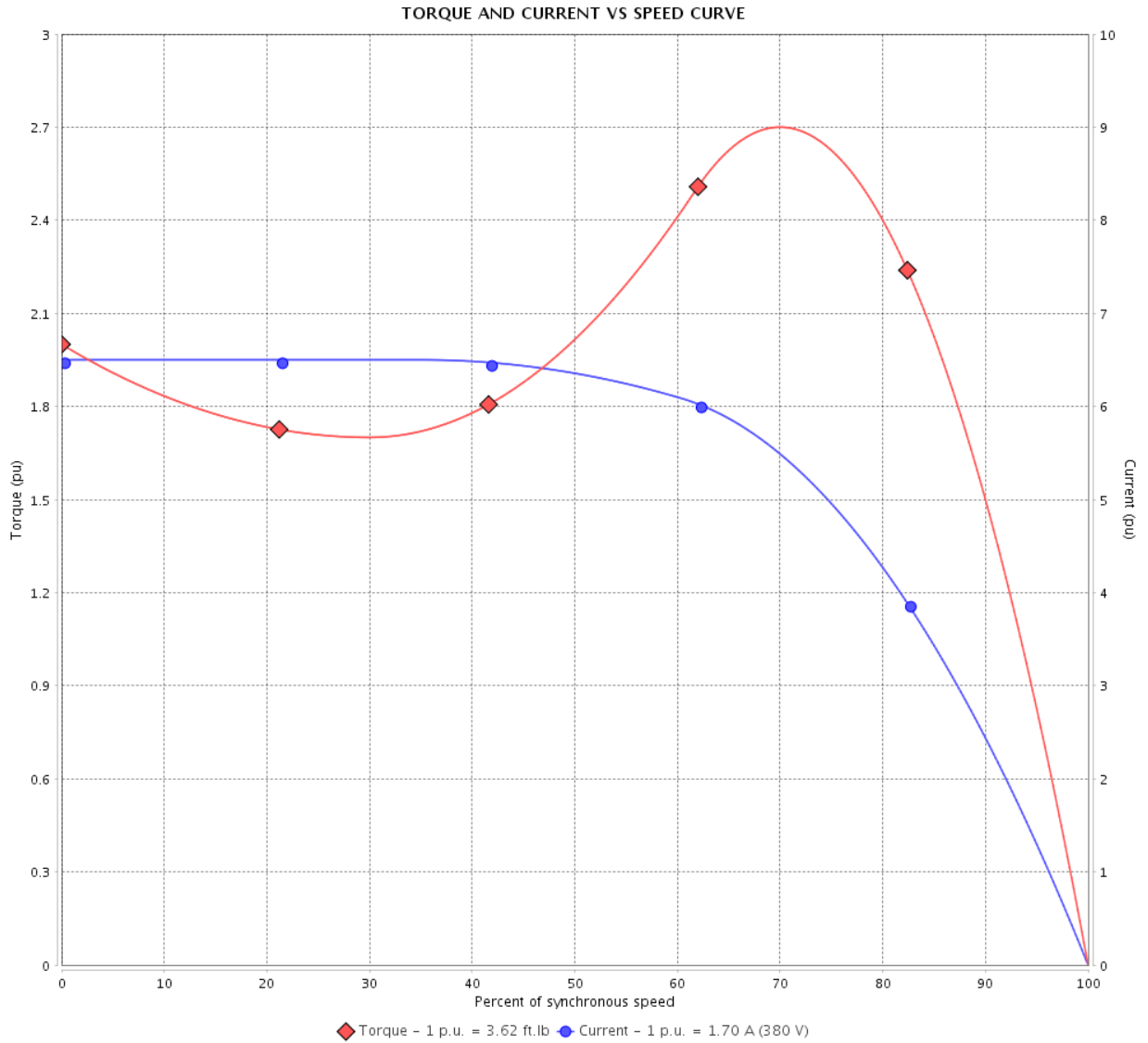
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Performance : 190/380 V 50 Hz 4P

Rated current : 3.40/1.70 A
 LRC : 6.5
 Rated torque : 3.62 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 270 %
 Rated speed : 1450 rpm

Moment of inertia (J) : 0.1232 sq.ft.lb
 Duty cycle : Cont.(S1)
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 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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

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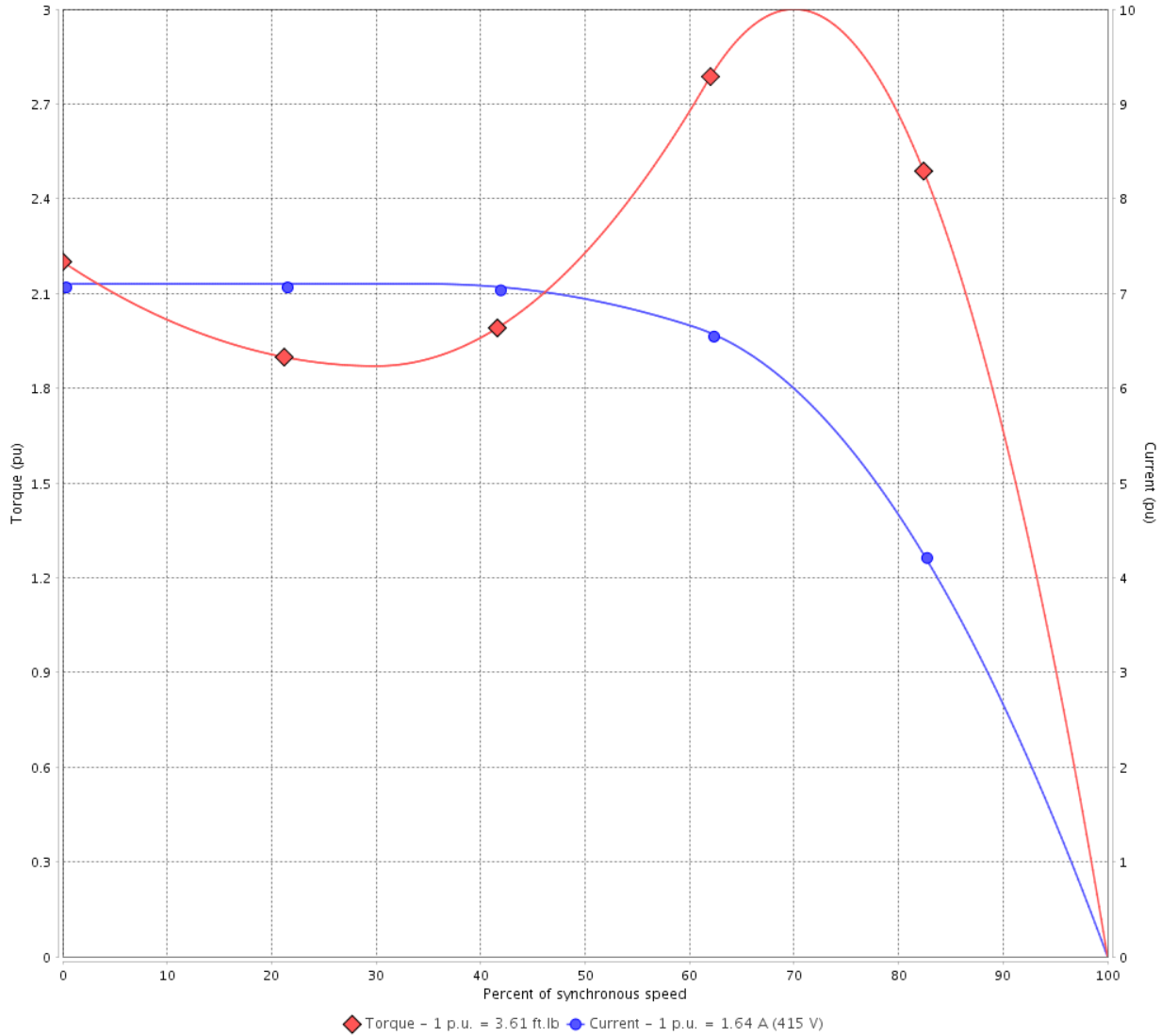
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TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

Rated current	: 3.09/1.64 A	Moment of inertia (J)	: 0.1232 sq.ft.lb
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 3.61 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1455 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

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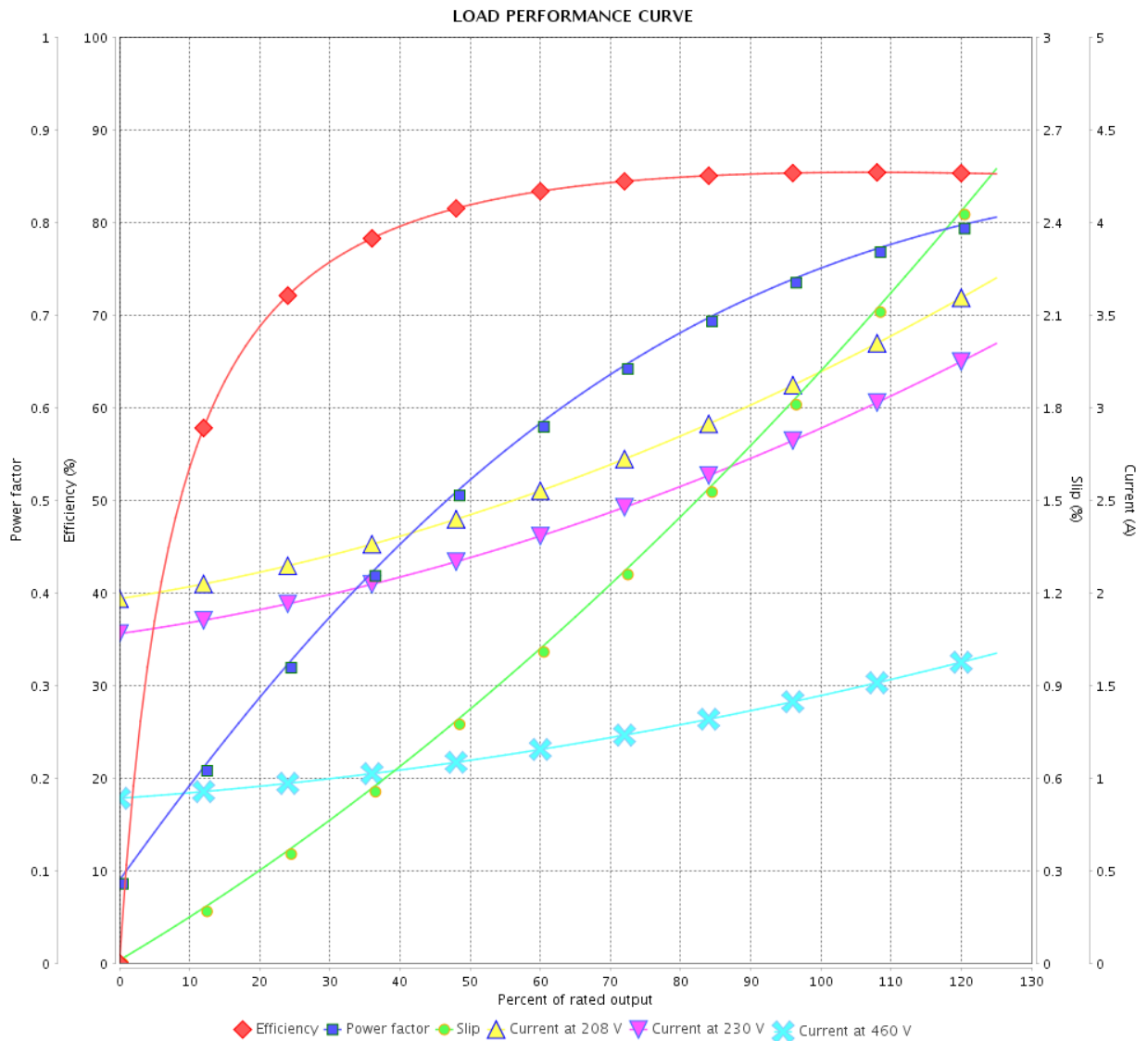


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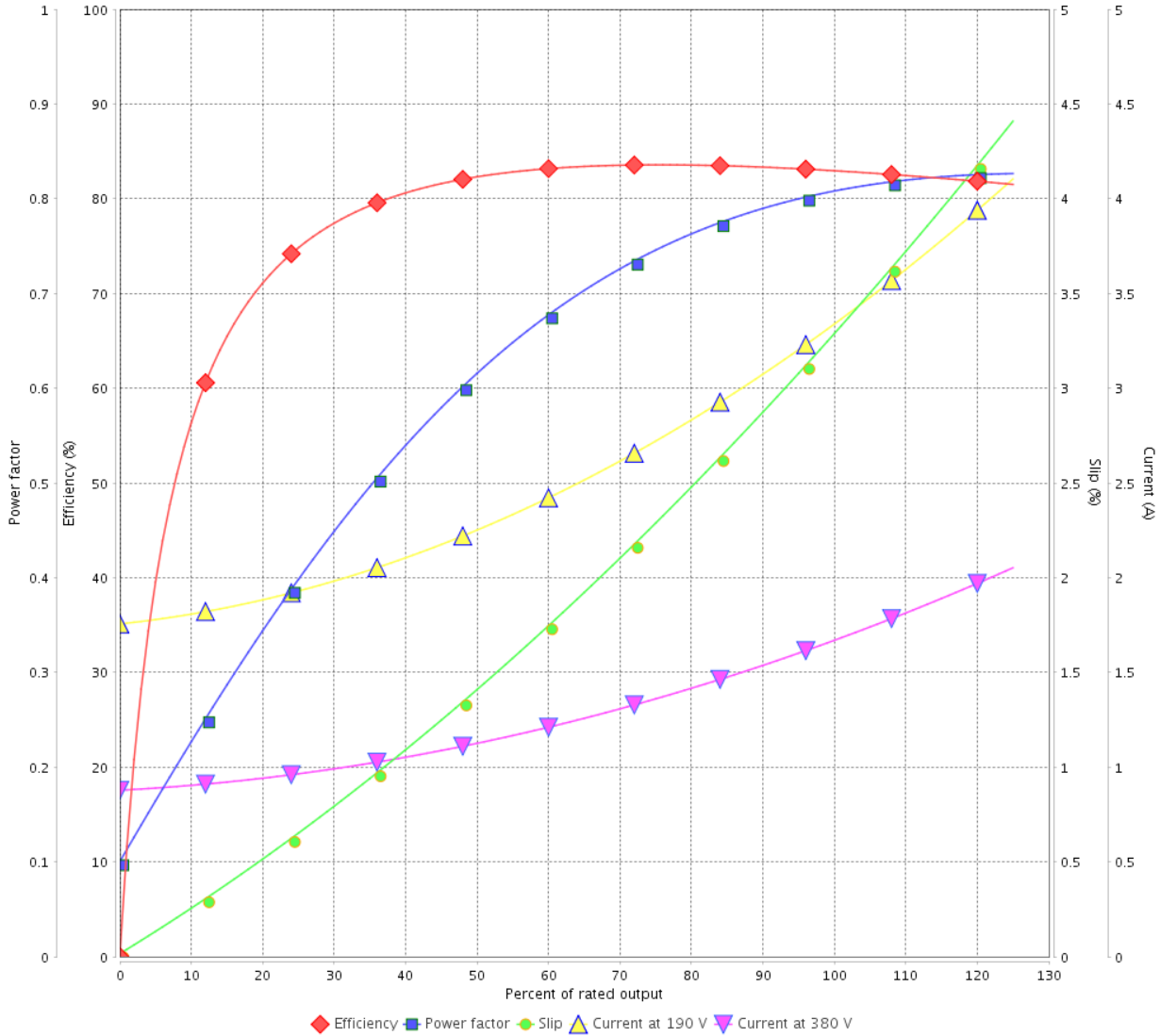
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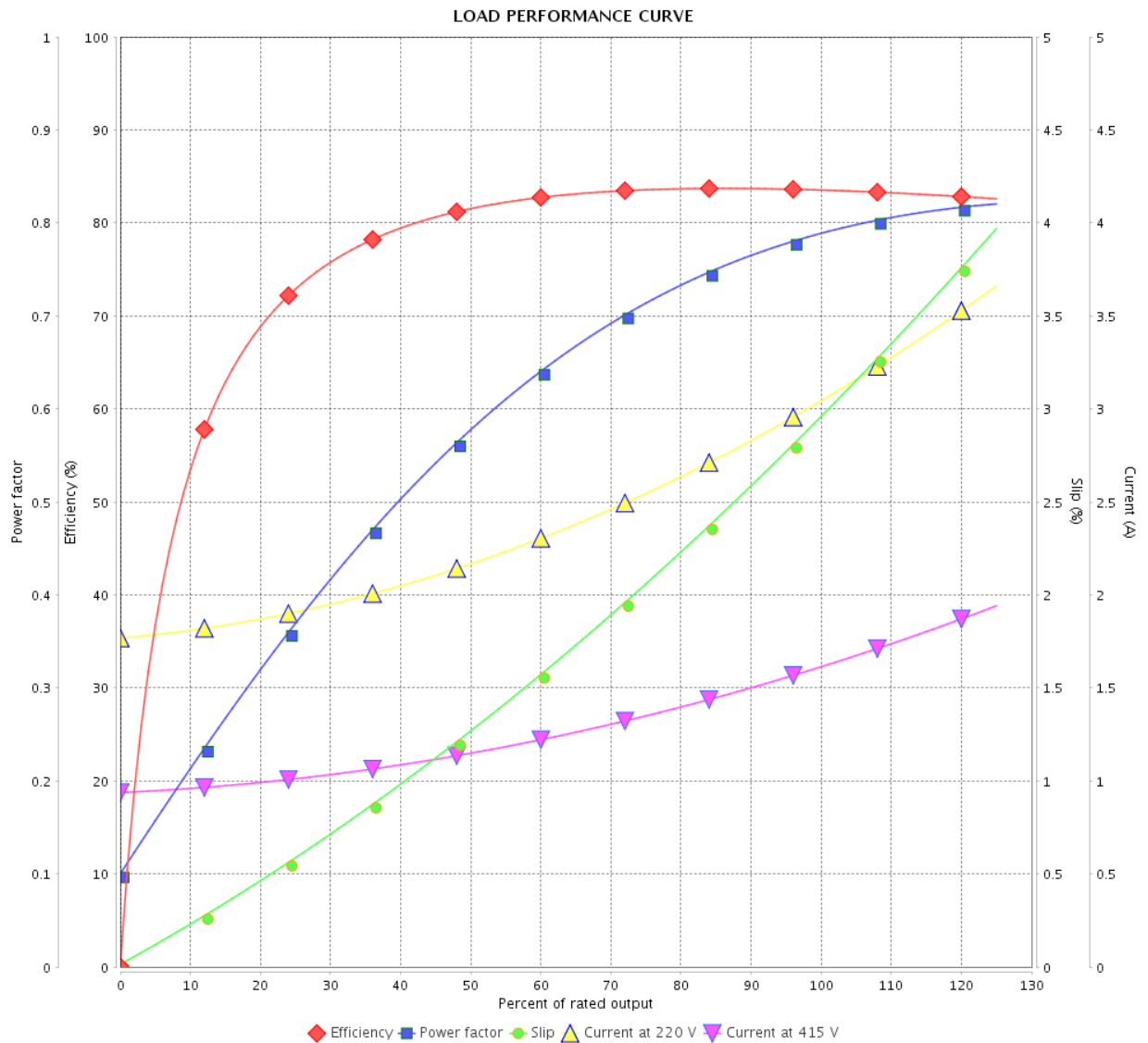


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THERMAL LIMIT CURVE



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Heating constant

Cooling constant

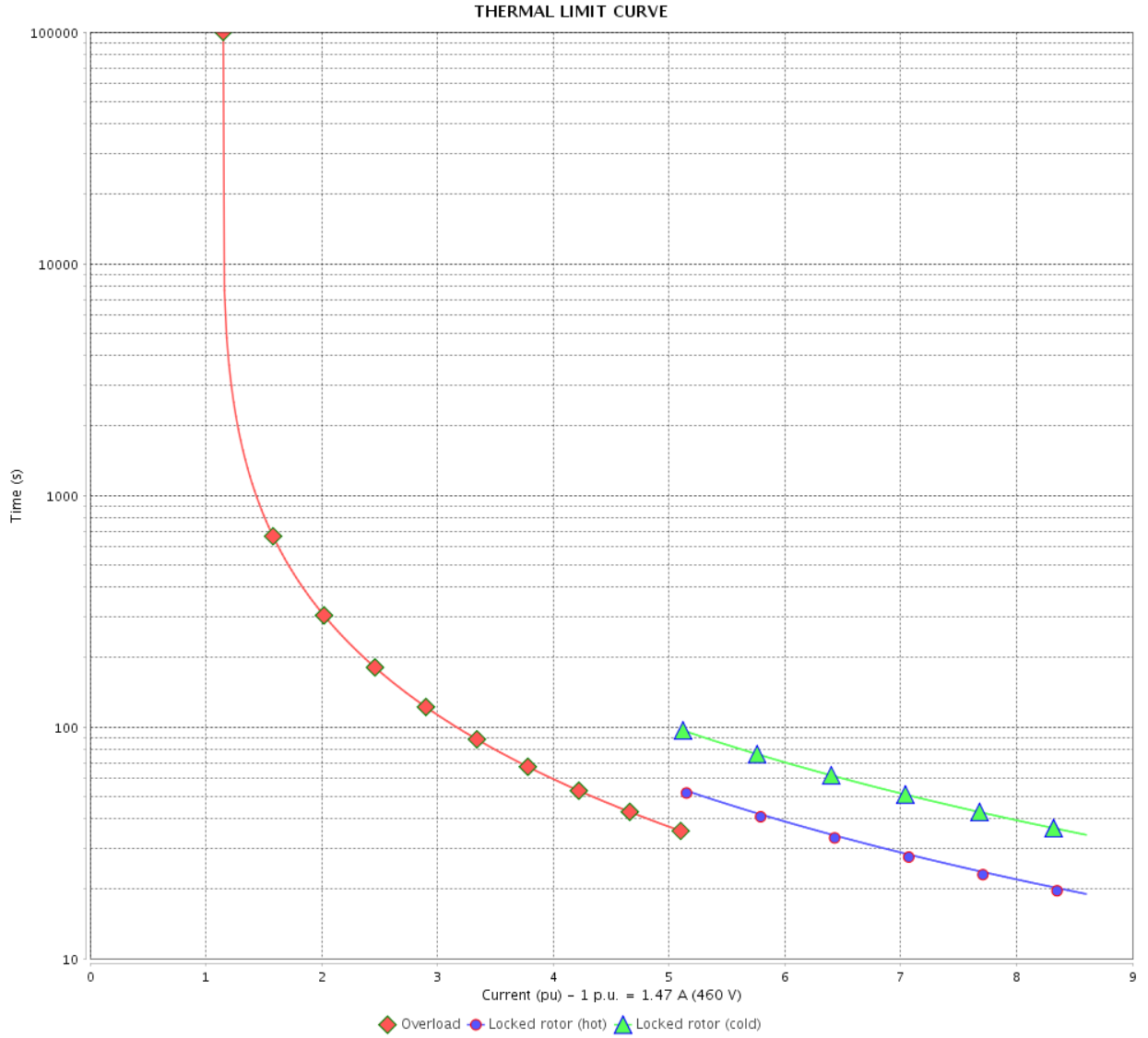
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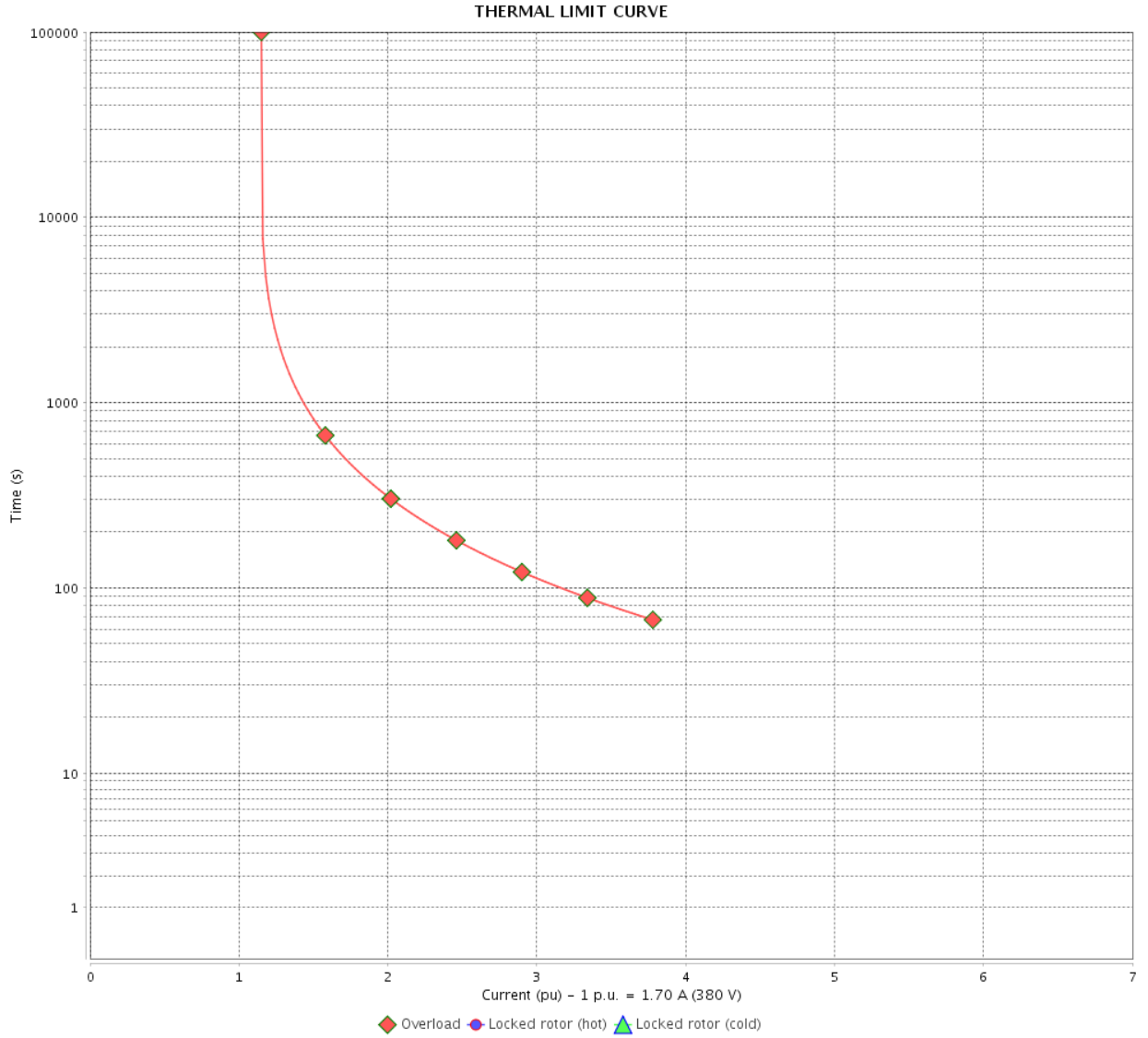
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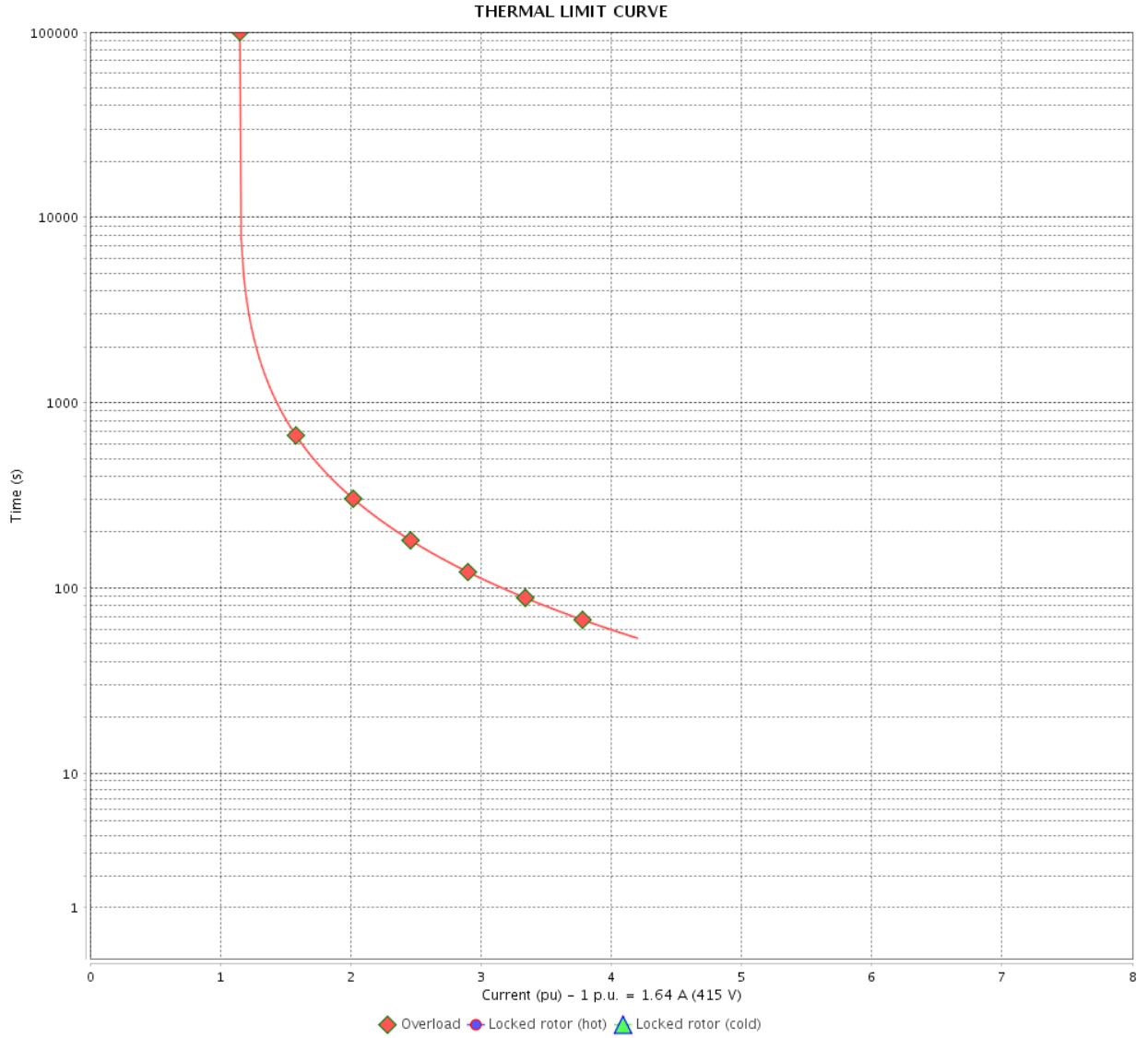
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VFD OPERATION CURVE

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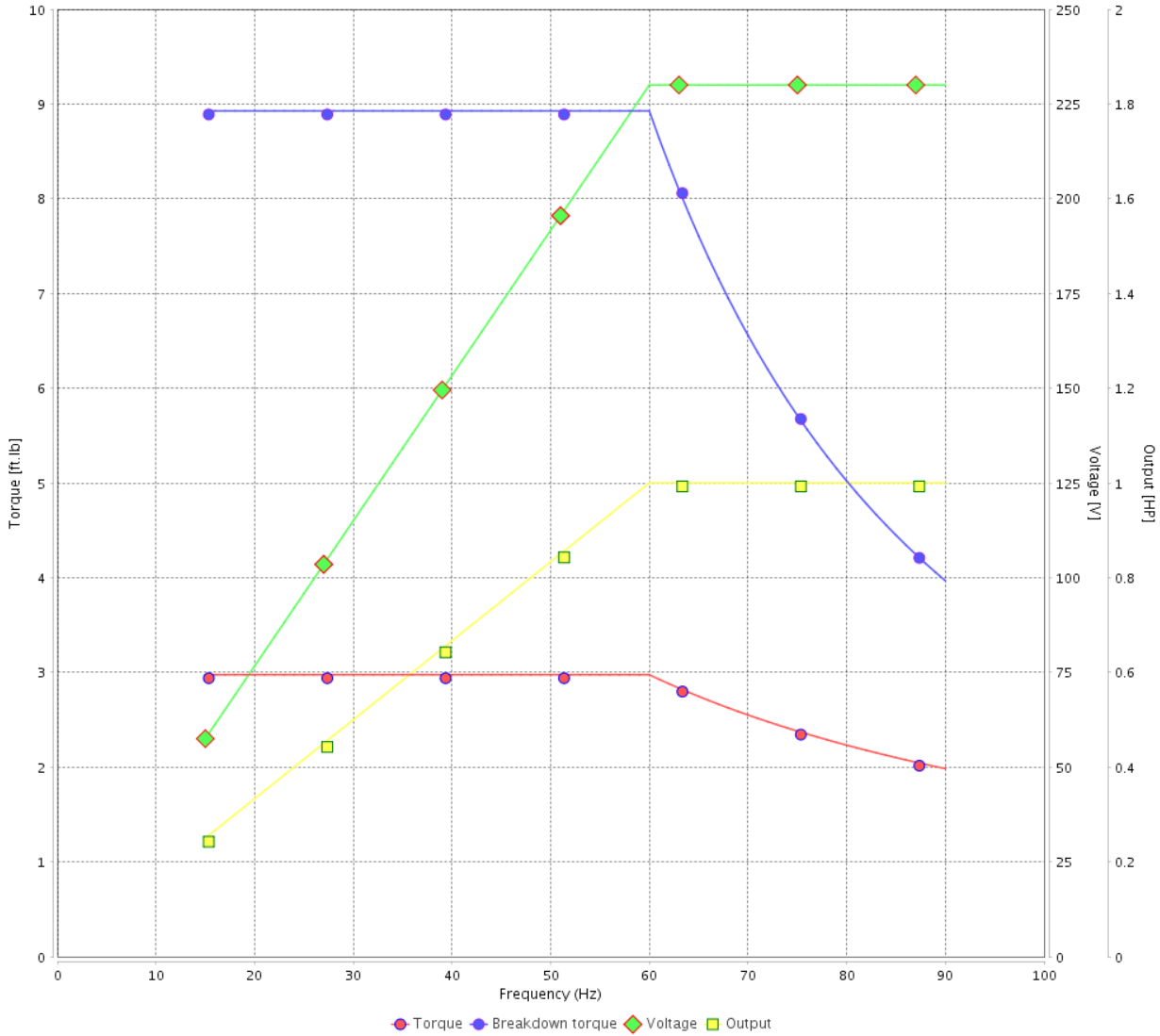
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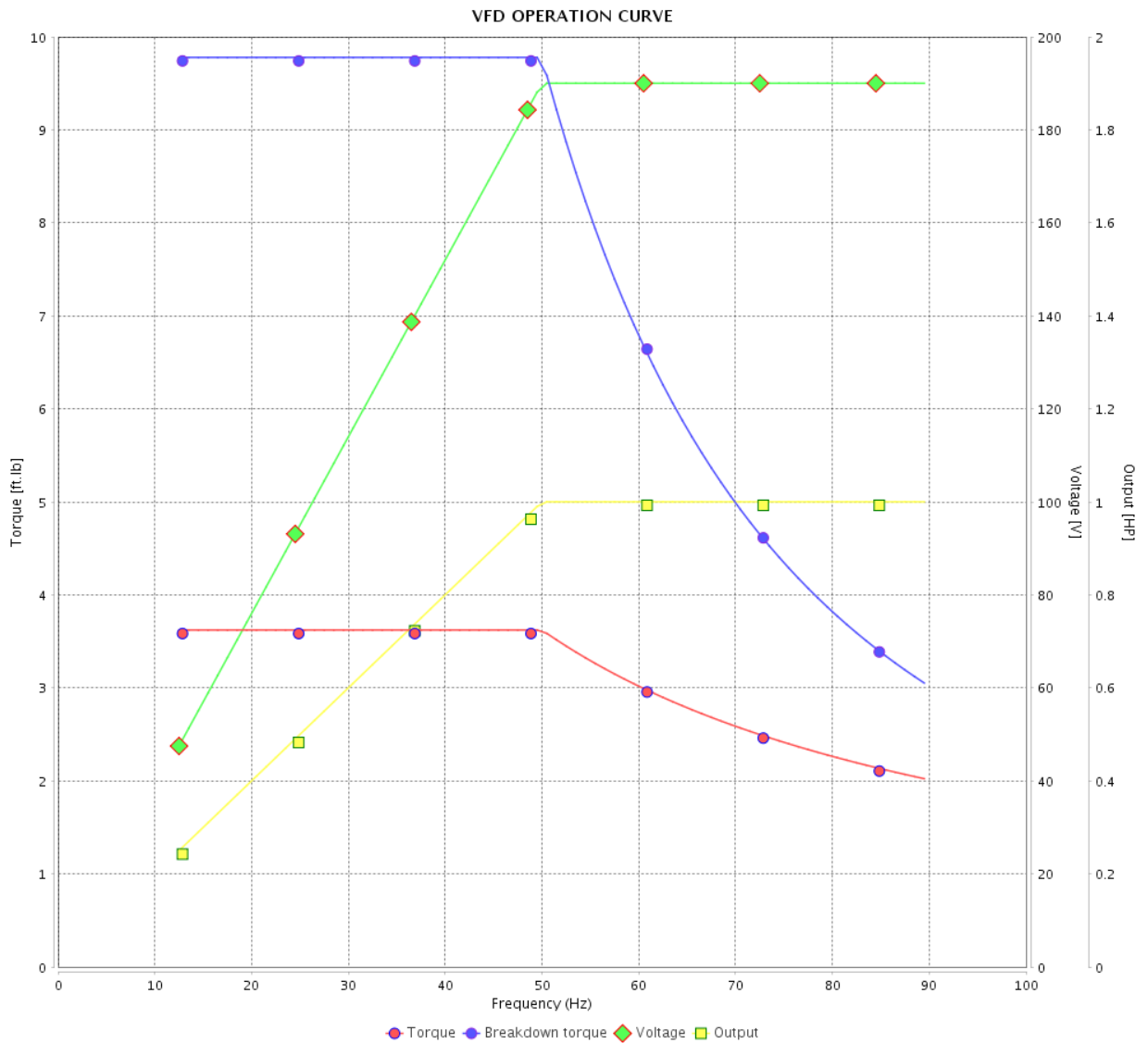


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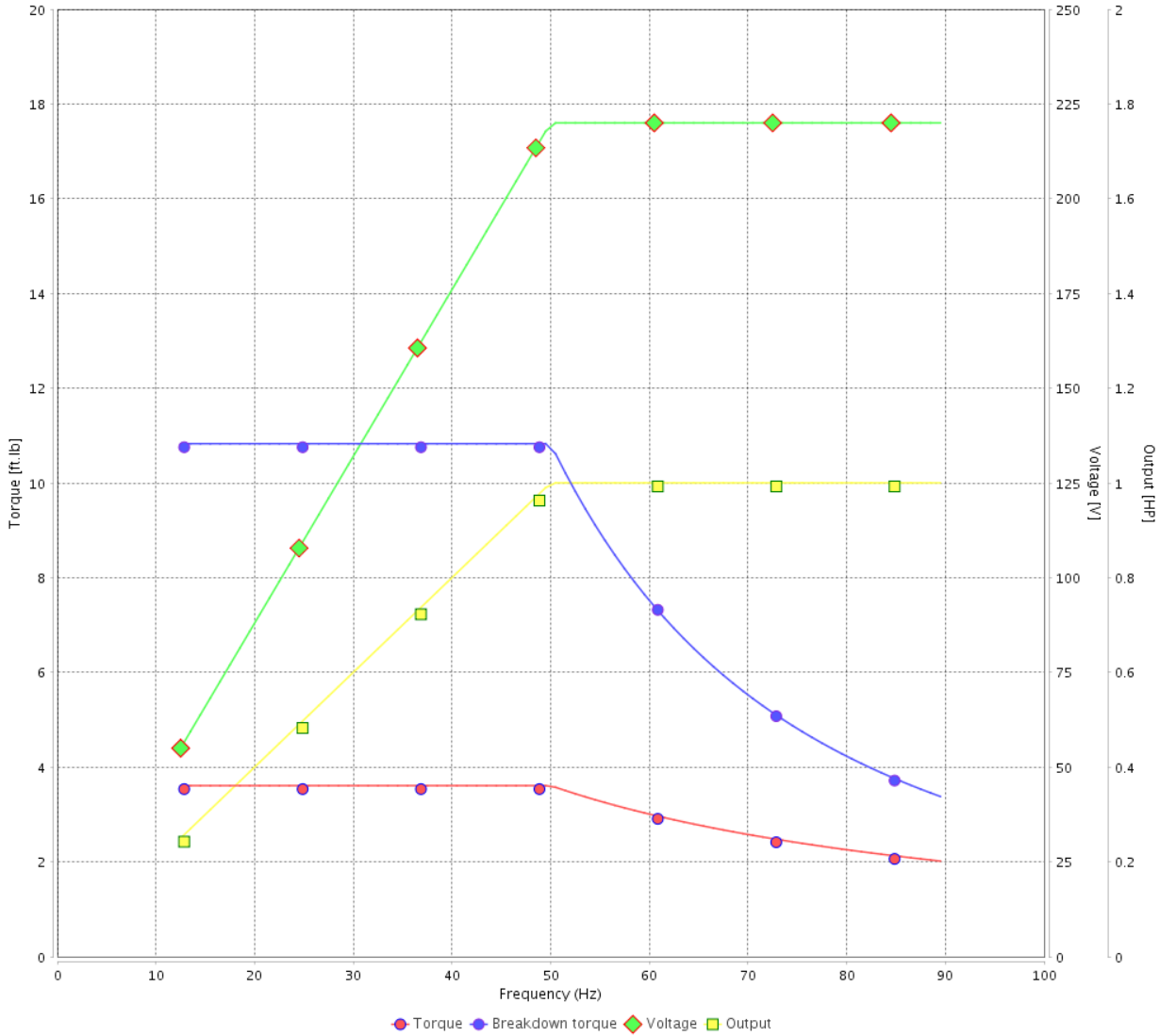
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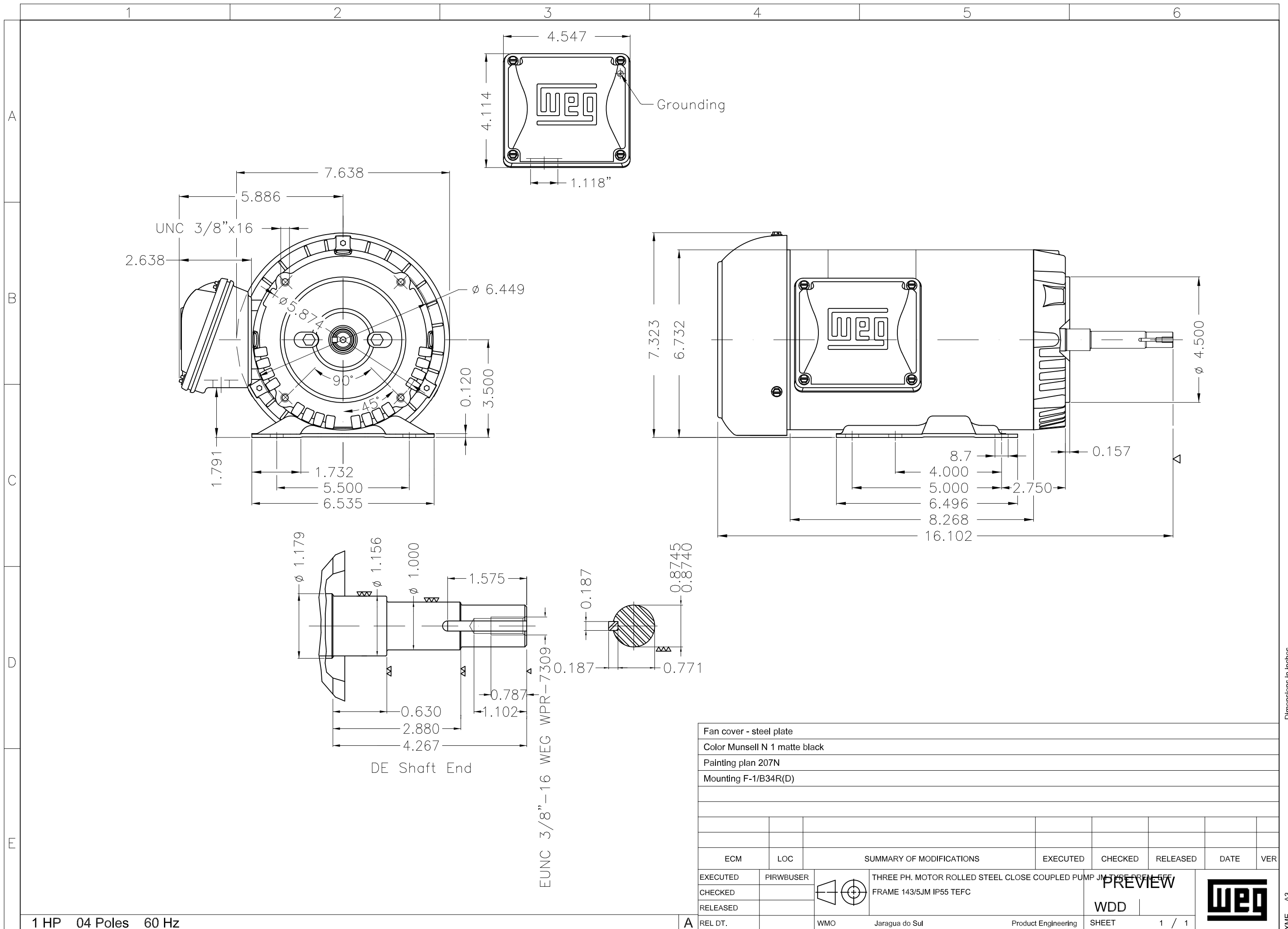


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1 HP 04 Poles 60 Hz

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 JM TYPE PSE 143									
CHECKED		FRAME 143/JM IP55 TEFC									
RELEASED											
REL DT.		WMO	Jaragua do Sul	Product Engineering							

Dimensions in inches XME A3



NEMA
Premium

®



3PT9

UL US LISTED
FOR SAFE AREA



Energy Verified

MADE IN BRAZIL

MAT: 14807036 CC029A

W01.TE0IC0X0N

MODEL 00118ET3E143JM-S

07APR2022 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 1.0
FR 143/5JM		KW 0.75
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 2.94/1.47
INS CL F AT 80K	IP55	SFA 3.38/1.69
AMB 40°C	DES B	SF 1.15
ENCL TEFC	CODE M	PF 0.75
USABLE @ 208V 3.25A		RPM 1765
SF1.00		NEMA NOM. EFF 85.5%

ALTERNATE RATING: 1.0HP 50Hz 190-220/380-415V SF1.15
3.40-3.06/1.70-1.62A 1450RPM EFF 82.9% (IE3) 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.

