

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

Product code : 15839317

Frame	: 132M	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: B5T
Duty cycle	: 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 ³	: 80.2 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0563 kgm ²
Design	: N		

Output [kW]	7.5	7.5	7.5	7.5
Poles	4	4	4	4
Frequency [Hz]	50	50	60	50
Rated voltage [V]	380/660	415	460	400/690
Rated current [A]	14.8/8.54	14.6	12.7	25.6/14.8
L. R. Amperes [A]	123/70.9	127	120	212/123
LRC [A]	8.3	8.7	9.5	8.3
No load current [A]	6.80/3.92	8.30	6.90	11.7/6.80
Rated speed [RPM]	1460	1465	1770	1460
Slip [%]	2.67	2.33	1.67	2.67
Rated torque [kgfm]	5.00	4.99	4.13	5.00
Locked rotor torque [%]	229	280	280	229
Breakdown torque [%]	310	380	400	310
Service factor	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	18s (cold) 10s (hot)	16s (cold) 9s (hot)	19s (cold) 11s (hot)	18s (cold) 10s (hot)
Noise level ²	56.0 dB(A)	56.0 dB(A)	58.0 dB(A)	56.0 dB(A)
Efficiency (%)	25%	0.000		0.000
	50%	90.0	88.5	90.0
	75%	90.2	90.3	90.2
	100%	90.4	91.7	90.4
Power Factor	25%	0.00		0.00
	50%	0.66	0.59	0.66
	75%	0.79	0.72	0.79
	100%	0.85	0.79	0.85

Losses at normative operating points (speed;torque), in percentage of rated output power

Losses (%)	P1 (0,9;1,0)	10.6	10.6	9.0	10.6
	P2 (0,5;1,0)	9.6	9.6	8.2	9.6
	P3 (0,25;1,0)	9.3	9.3	7.9	9.3
	P4 (0,9;0,5)	5.0	5.0	4.2	5.0
	P5 (0,5;0,5)	3.8	3.8	3.2	3.8
	P6 (0,5;0,25)	2.5	2.5	2.1	2.5
	P7 (0,25;0,25)	2.1	2.1	1.8	2.1

	Drive end	Non drive end	Foundation loads
Bearing type	: 6308 ZZ	6207 ZZ	Max. traction : 247 kgf
Sealing	: V'Ring	V'Ring	Max. compression : 327 kgf
Lubrication interval	: -	-	
Lubricant amount	: -	-	
Lubricant type	: Mobil Polyrex EM		

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 IEC 60034-1.

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Customer :

Notes

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Customer :

Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermistor - 2 wires	1 x Phase	155 °C

Space heater information

Voltage: 110-127/200-240 V

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TORQUE AND CURRENT VS SPEED CURVE

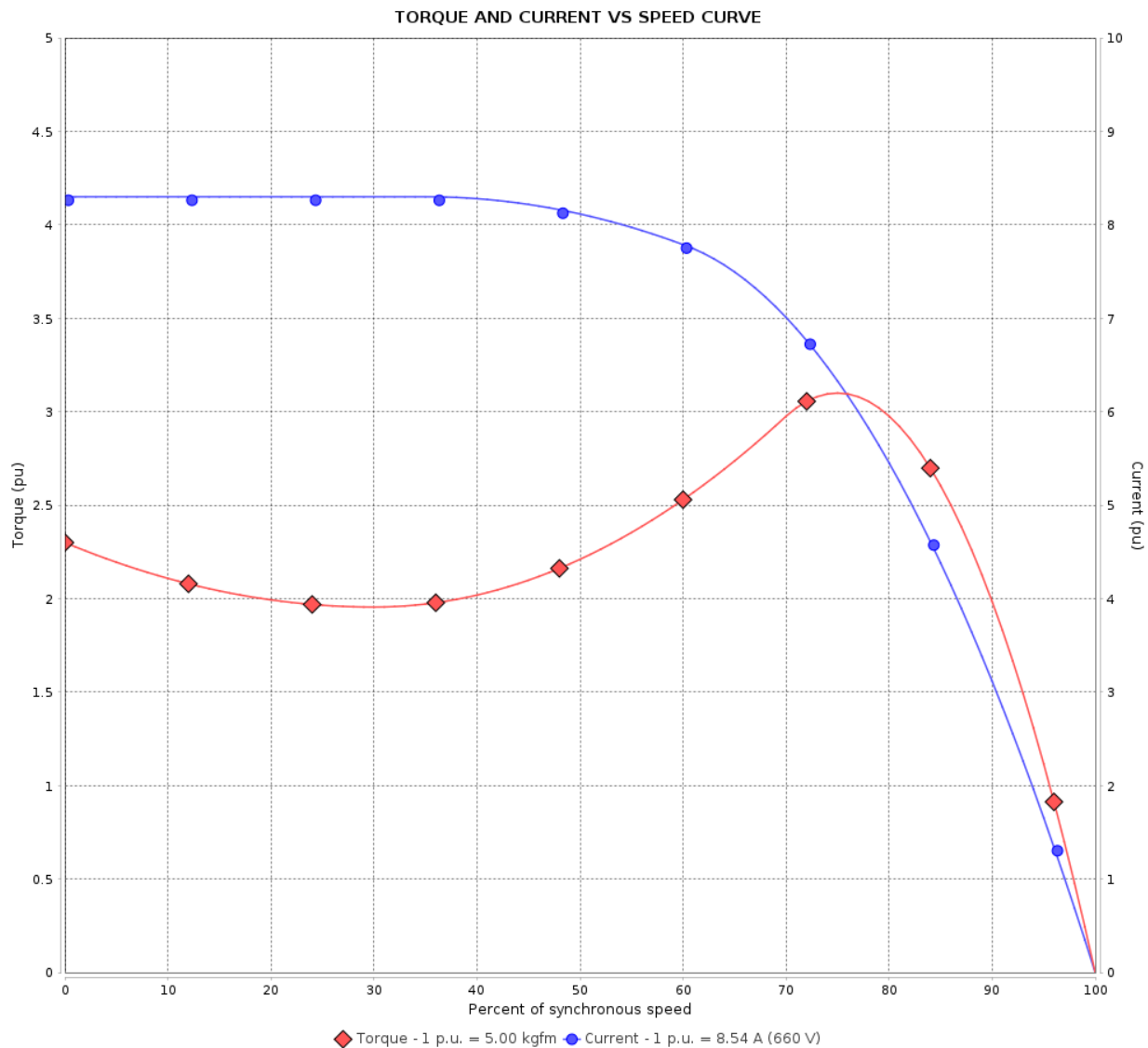
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

Product code : 15839317



Performance : 380/660 V 50 Hz 4P

Rated current : 14.8/8.54 A
LRC : 8.3
Rated torque : 5.00 kgfm
Locked rotor torque : 229 %
Breakdown torque : 310 %
Rated speed : 1460 rpm

Moment of inertia (J) : 0.0563 kgm²
Duty cycle : S1
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : N

Locked rotor time : 18s (cold) 10s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

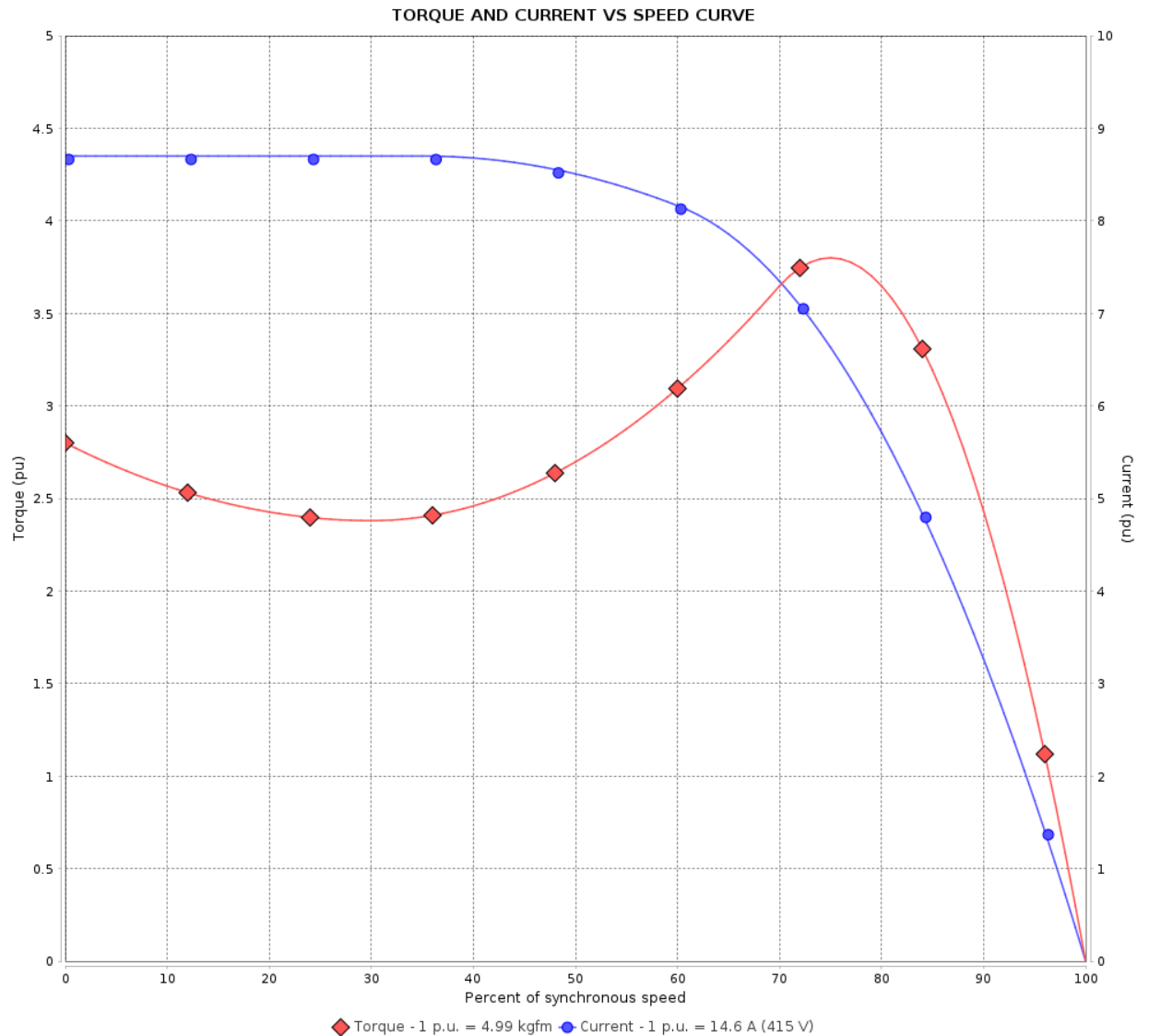
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

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Performance : 415 V 50 Hz 4P

Rated current	: 14.6 A	Moment of inertia (J)	: 0.0563 kgm ²
LRC	: 8.7	Duty cycle	: S1
Rated torque	: 4.99 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 380 %	Temperature rise	: 80 K
Rated speed	: 1465 rpm	Design	: N

Locked rotor time : 16s (cold) 9s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

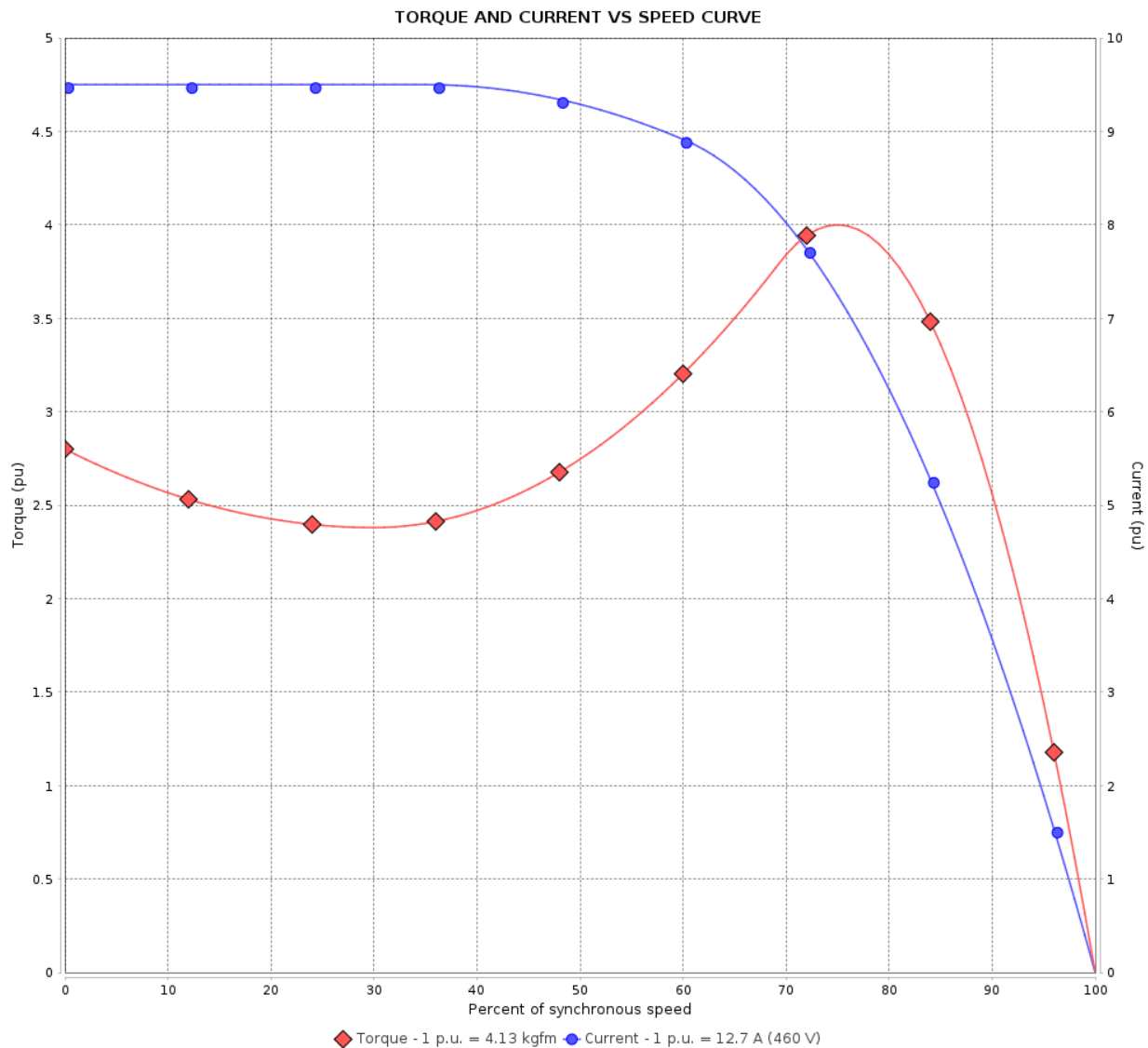
Three Phase Induction Motor - Squirrel Cage



Customer :

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Product code : 15839317



Performance : 460 V 60 Hz 4P

Rated current	: 12.7 A	Moment of inertia (J)	: 0.0563 kgm ²
LRC	: 9.5	Duty cycle	: S1
Rated torque	: 4.13 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 400 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: N

Locked rotor time : 19s (cold) 11s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

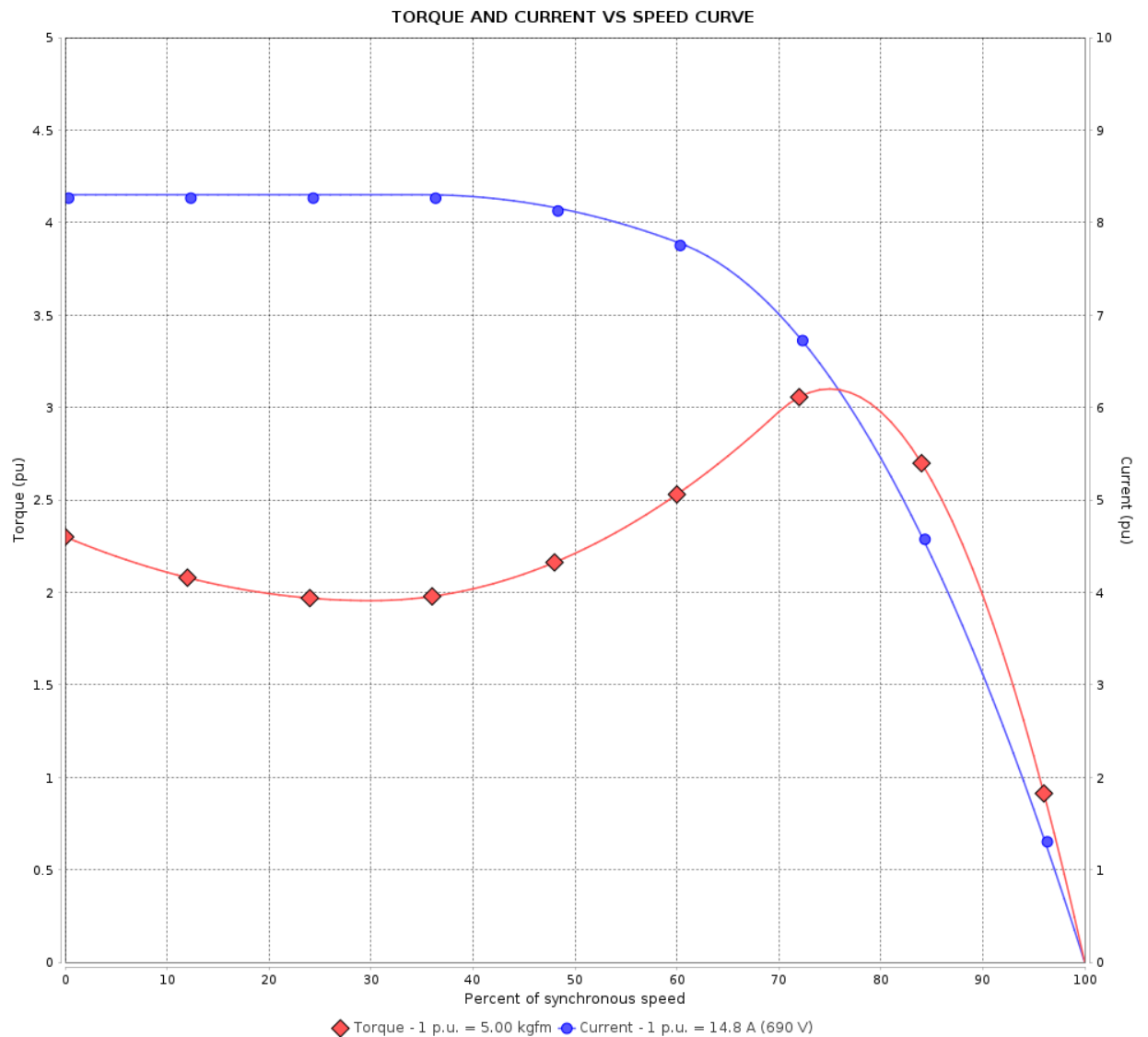
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

Product code : 15839317



Performance : 400/690 V 50 Hz 4P

Rated current : 25.6/14.8 A
LRC : 8.3
Rated torque : 5.00 kgfm
Locked rotor torque : 229 %
Breakdown torque : 310 %
Rated speed : 1460 rpm

Moment of inertia (J) : 0.0563 kgm²
Duty cycle : S1
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : N

Locked rotor time : 18s (cold) 10s (hot)

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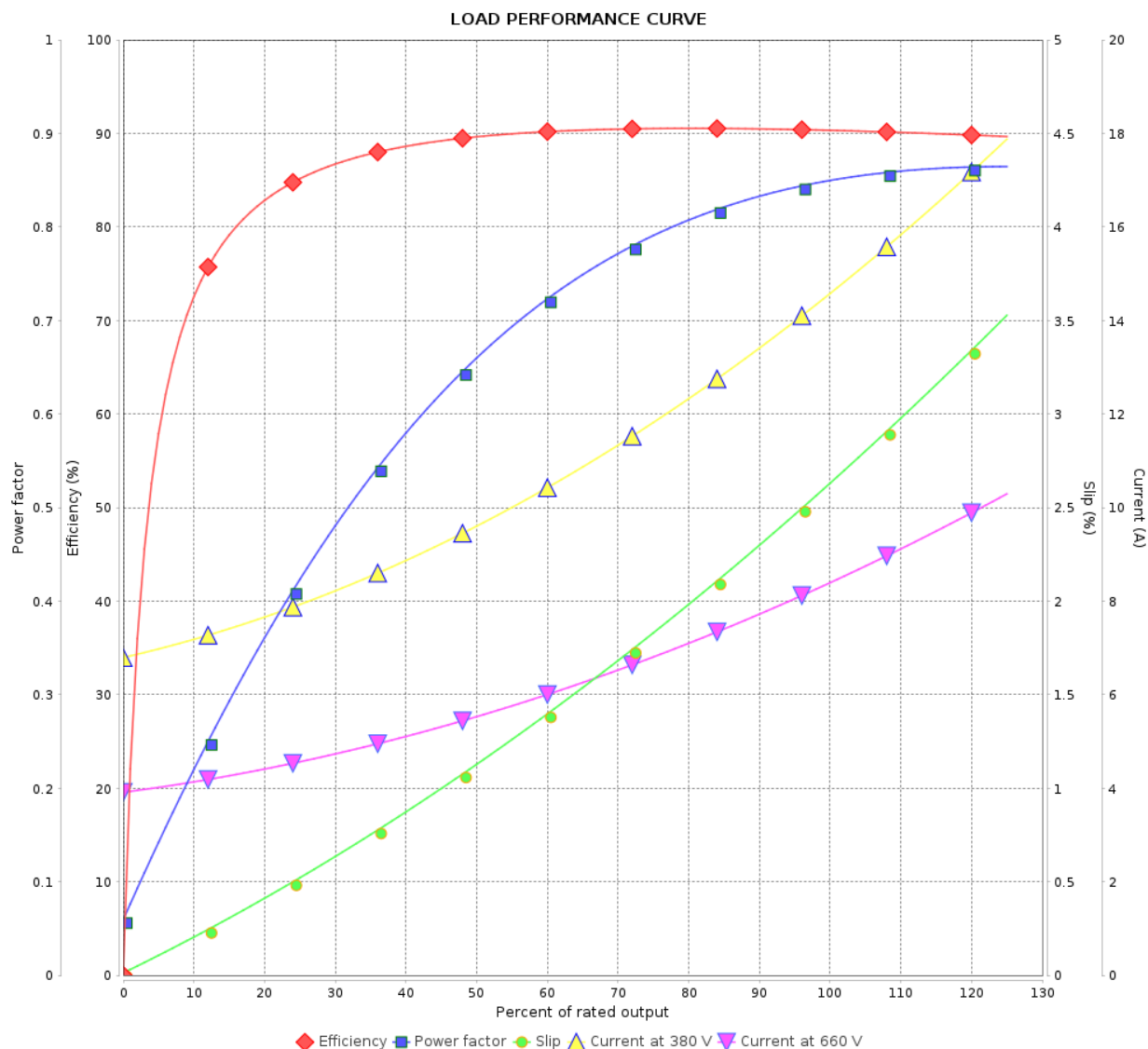
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Service factor : 1.00
Temperature rise : 80 K
Design : N

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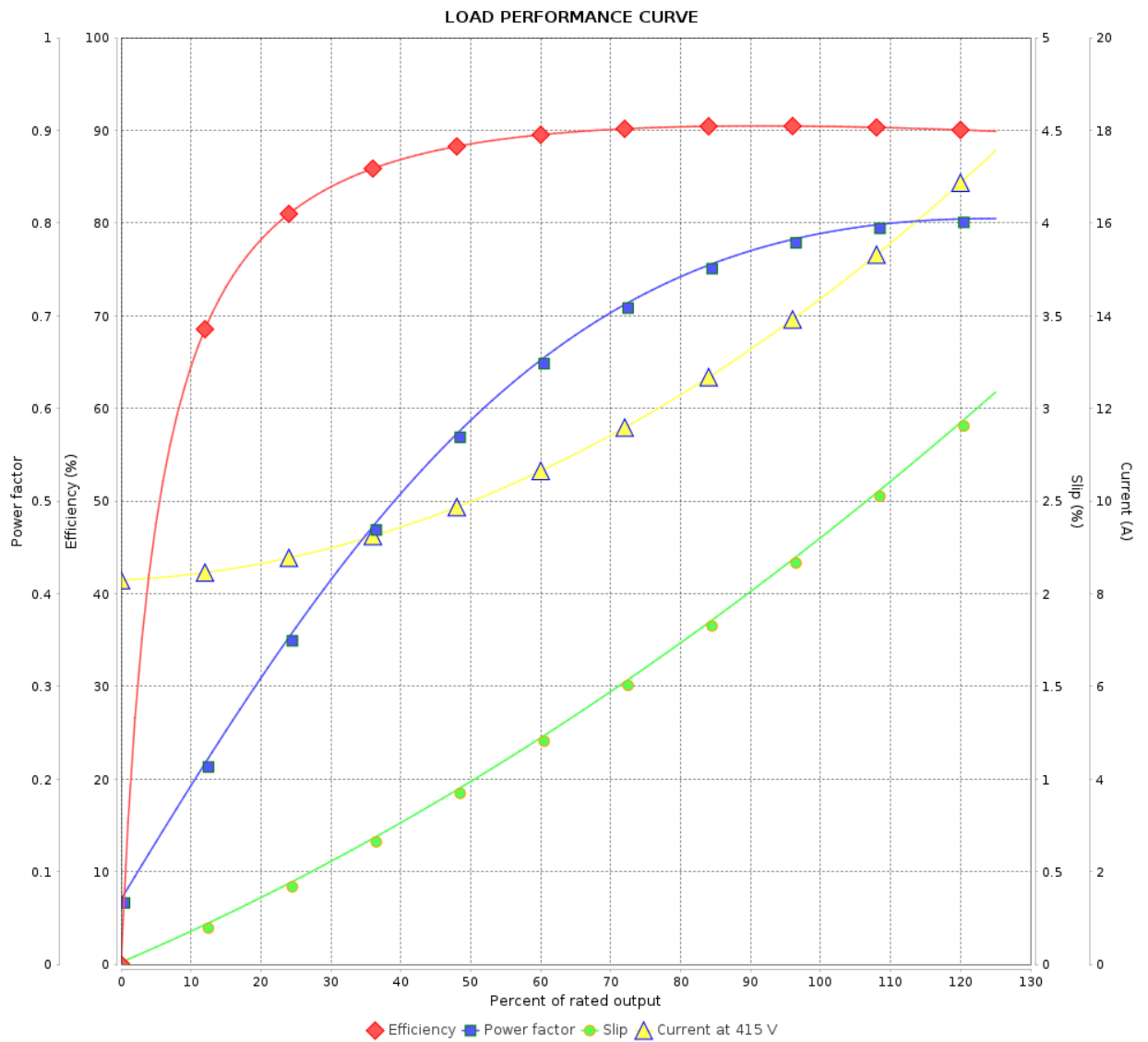
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Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 380 %	Temperature rise	: 80 K
Rated speed	: 1465 rpm	Design	: N

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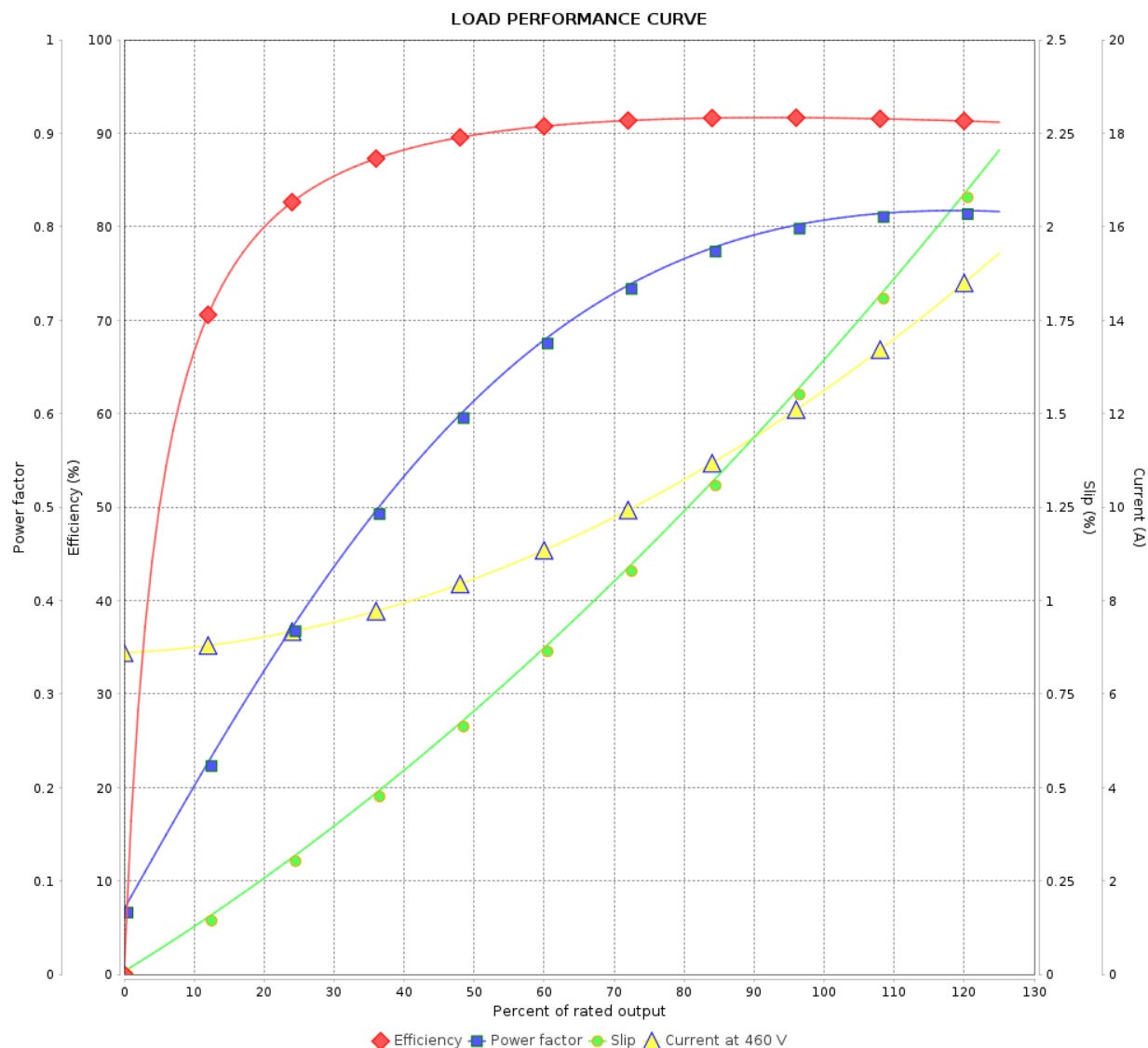
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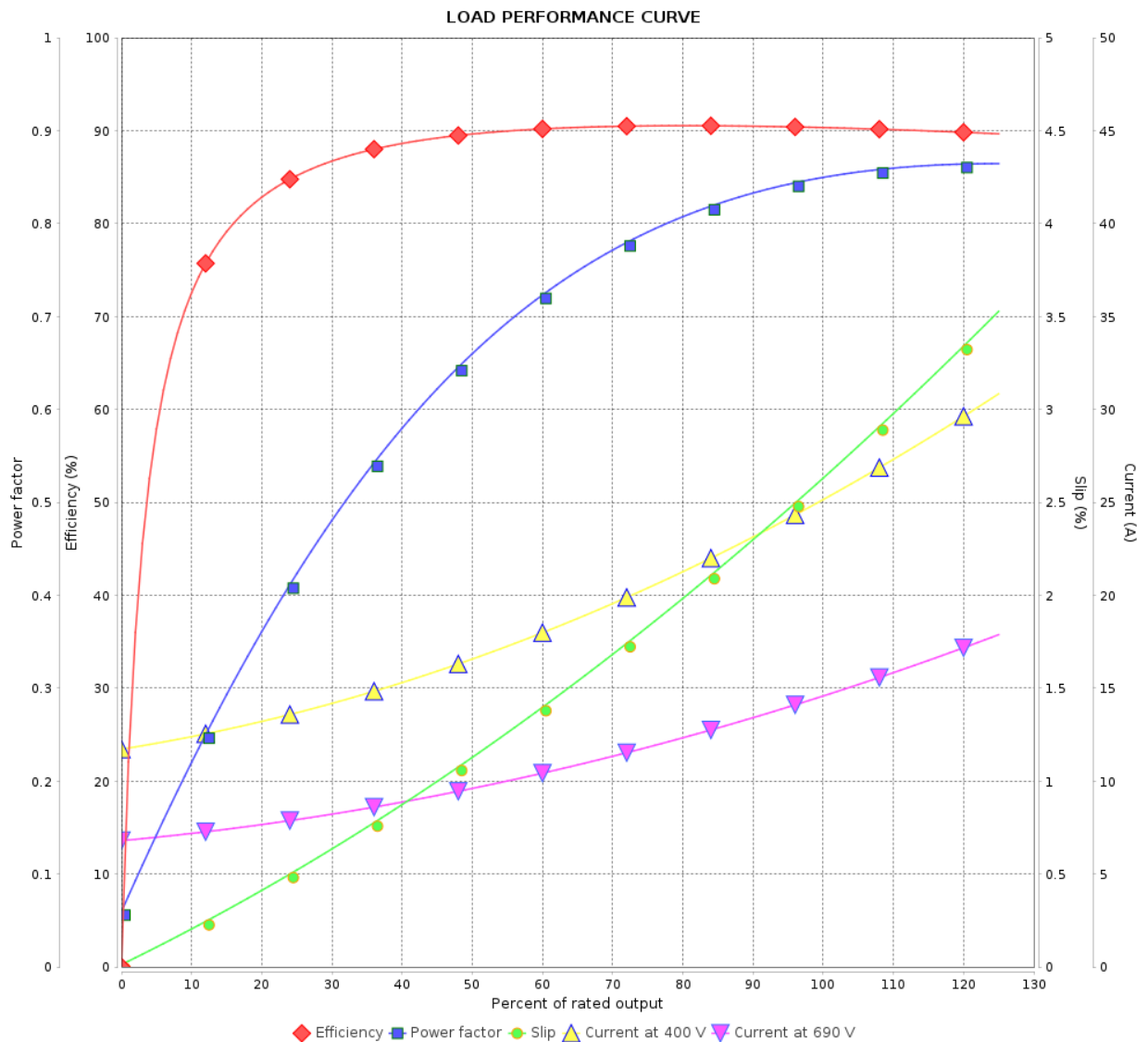
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THERMAL LIMIT CURVE

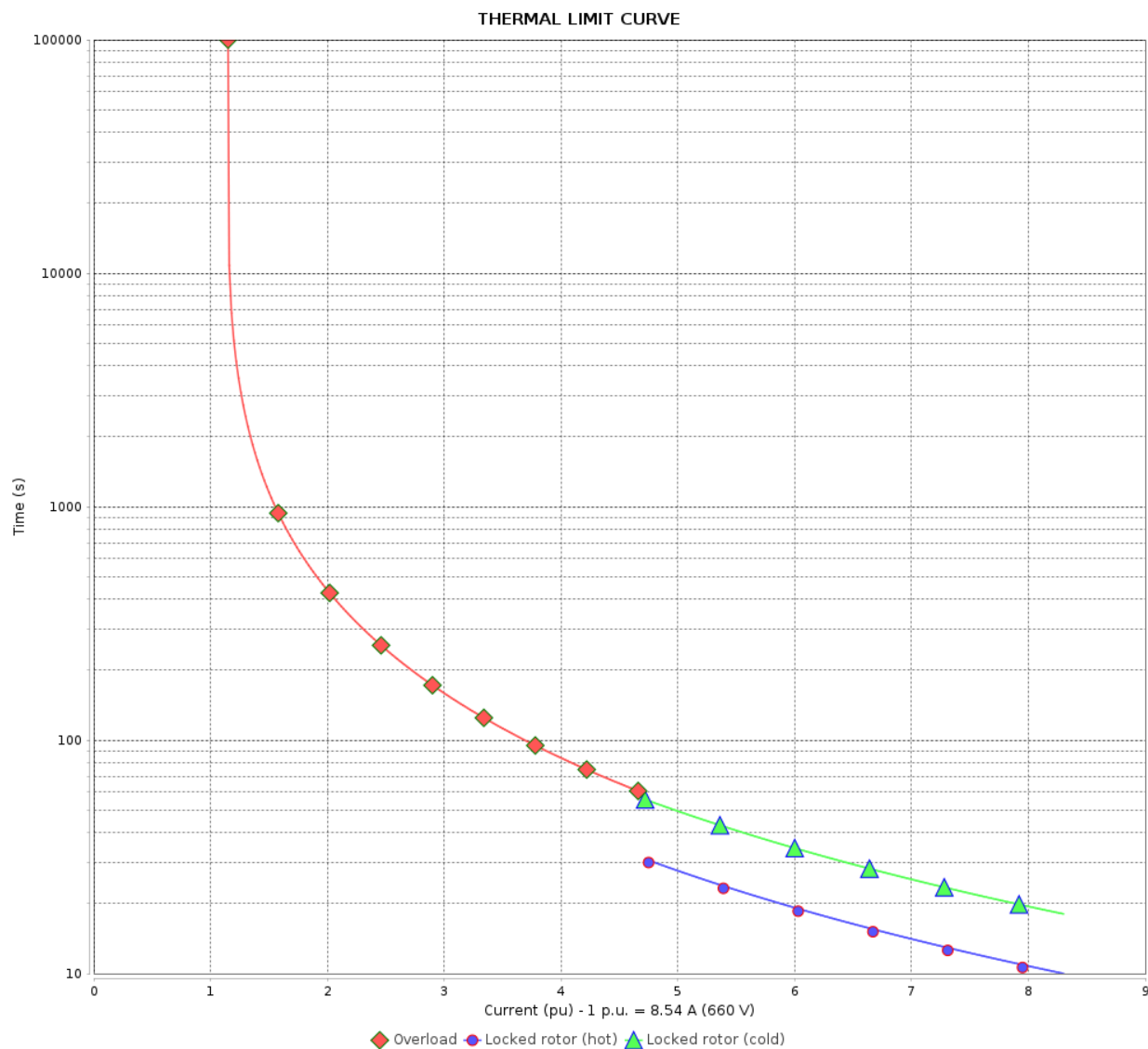
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Heating constant

Cooling constant

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THERMAL LIMIT CURVE

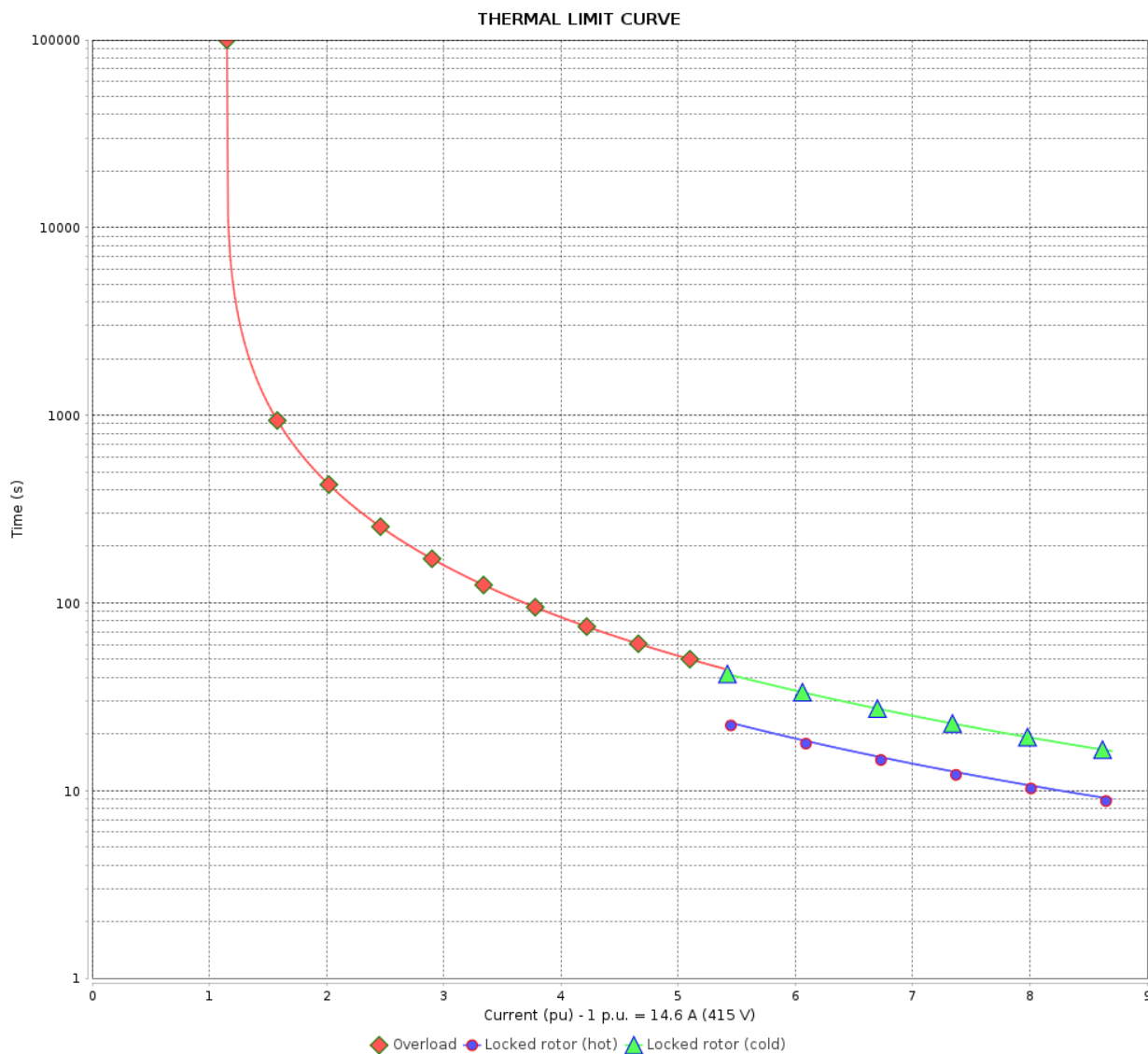
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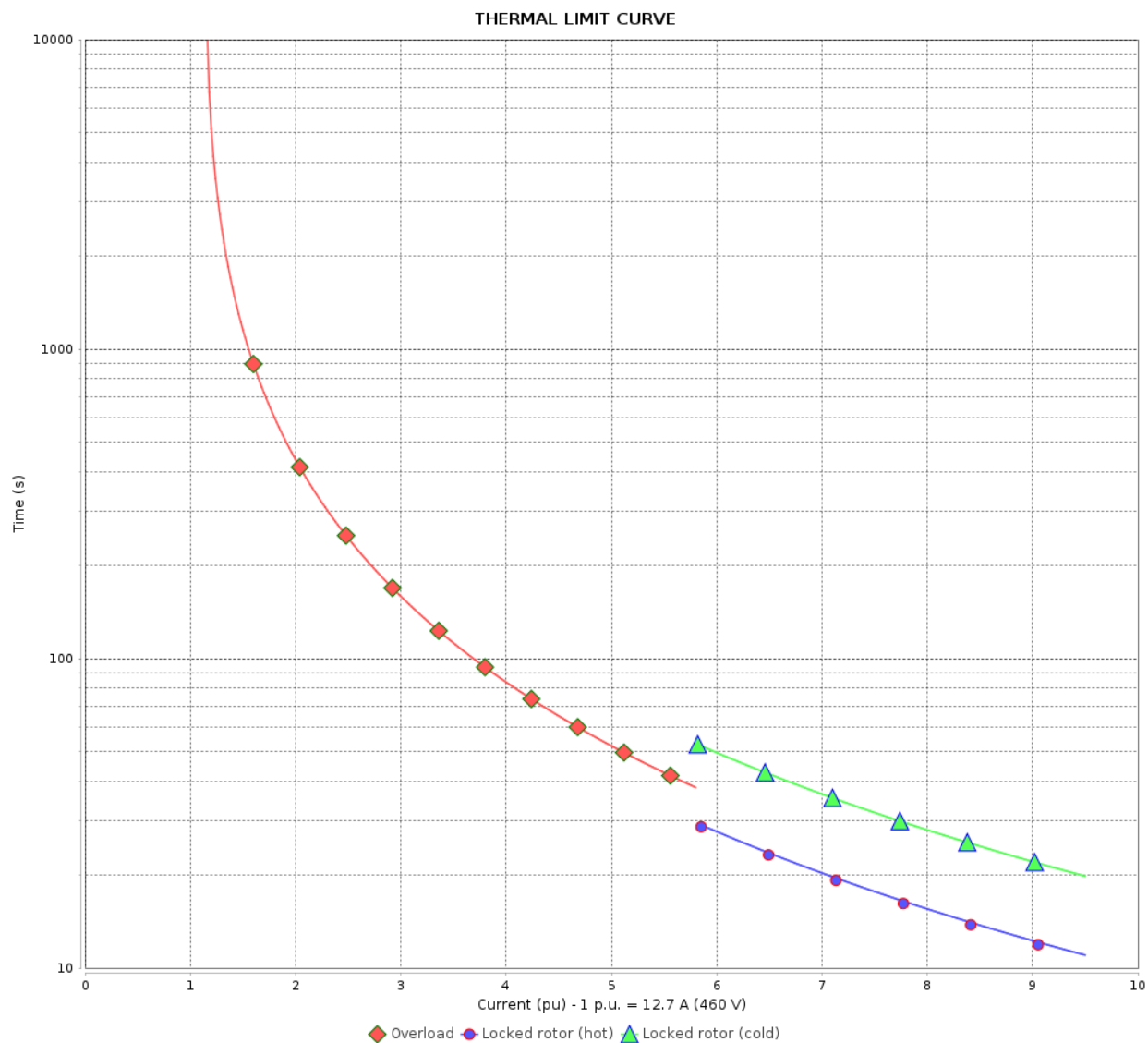
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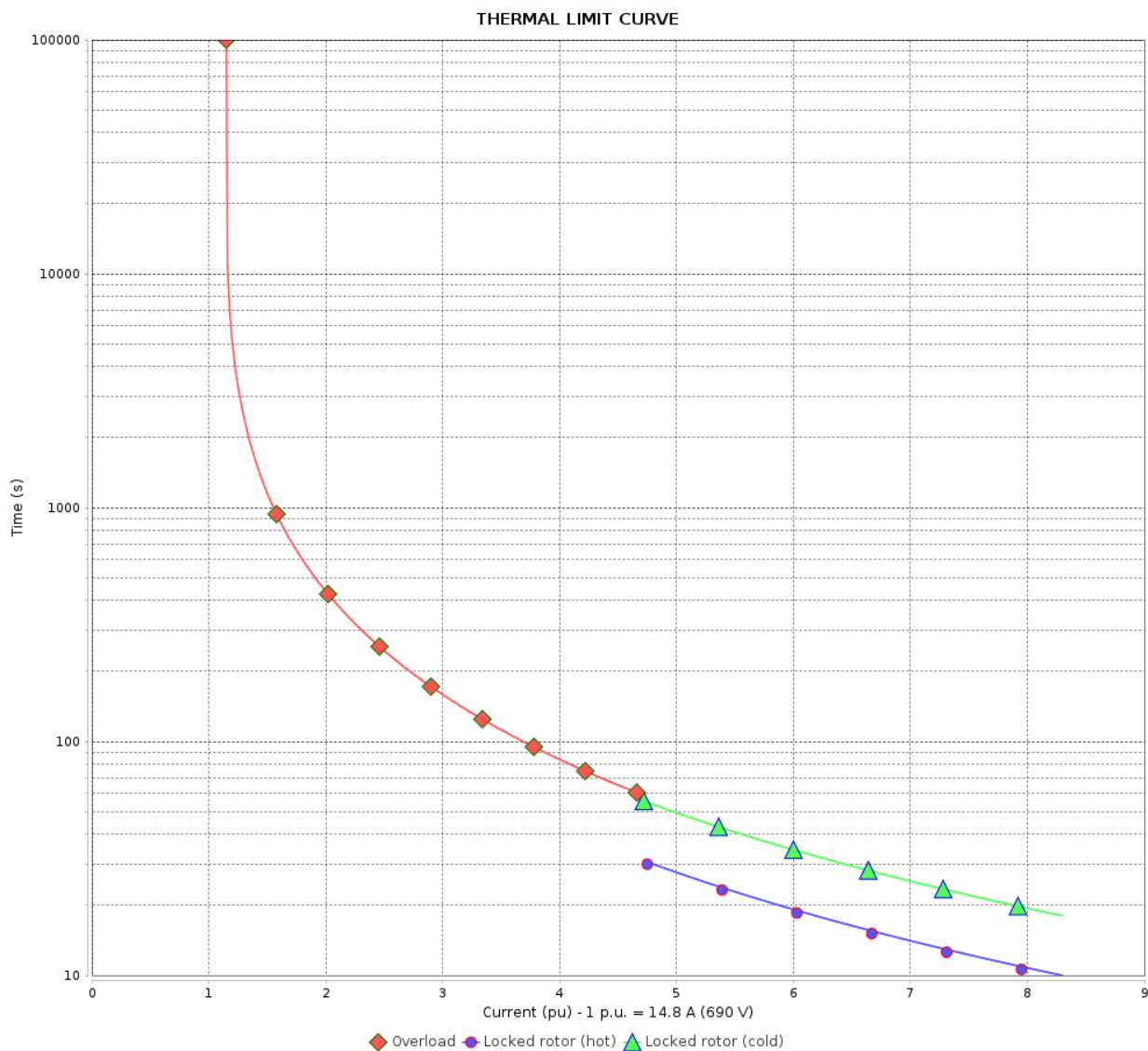
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VFD OPERATION CURVE

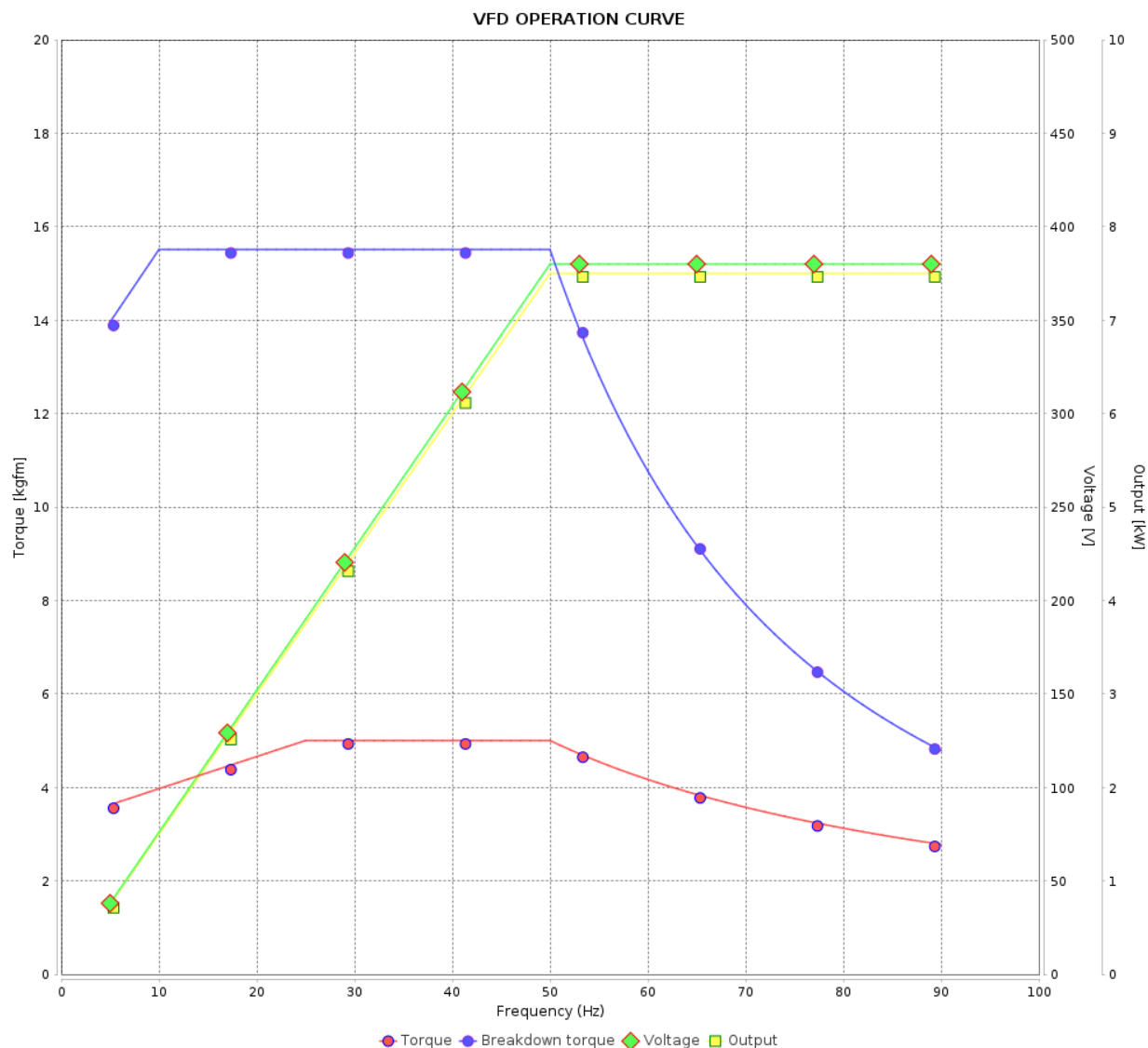
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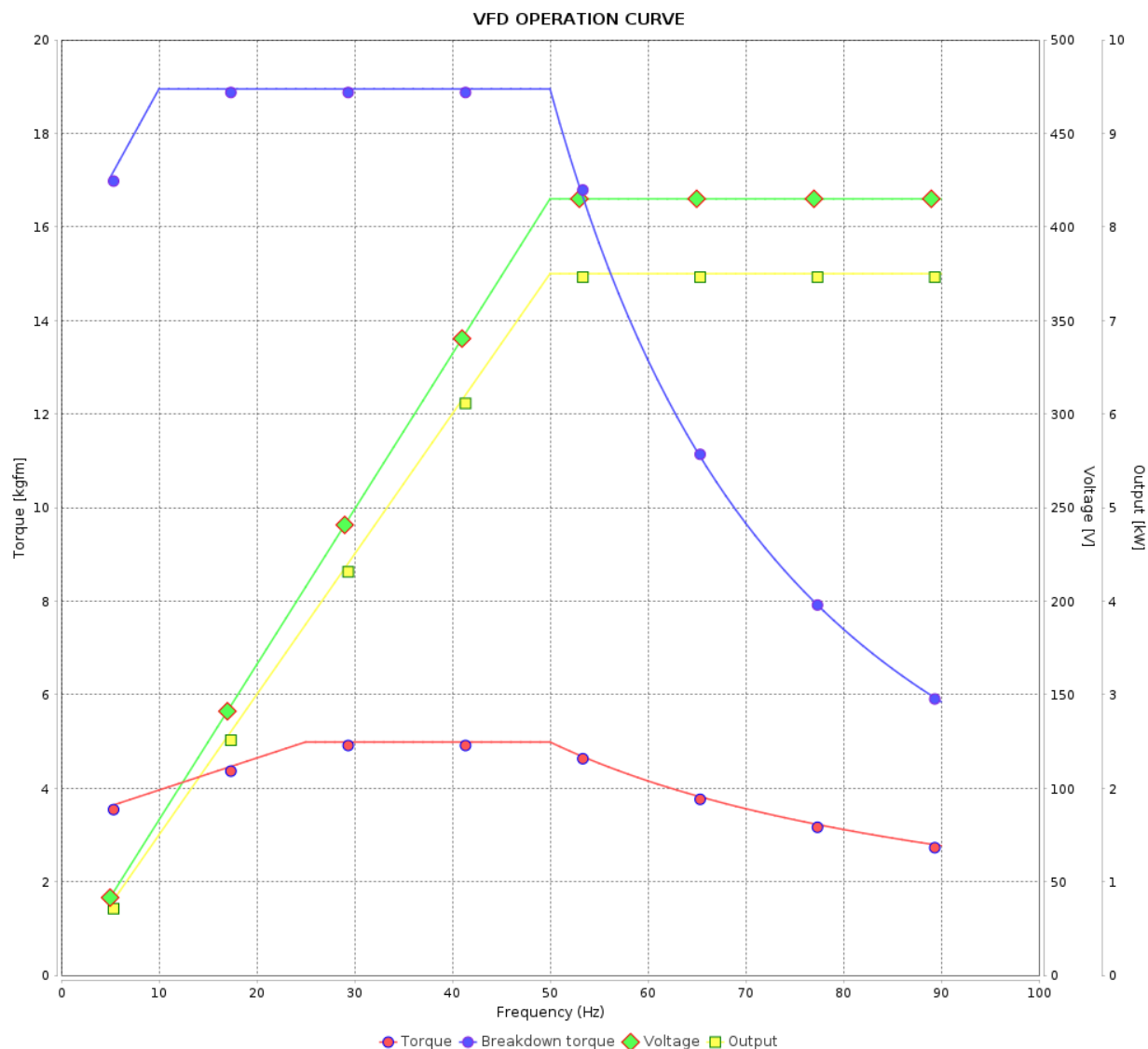
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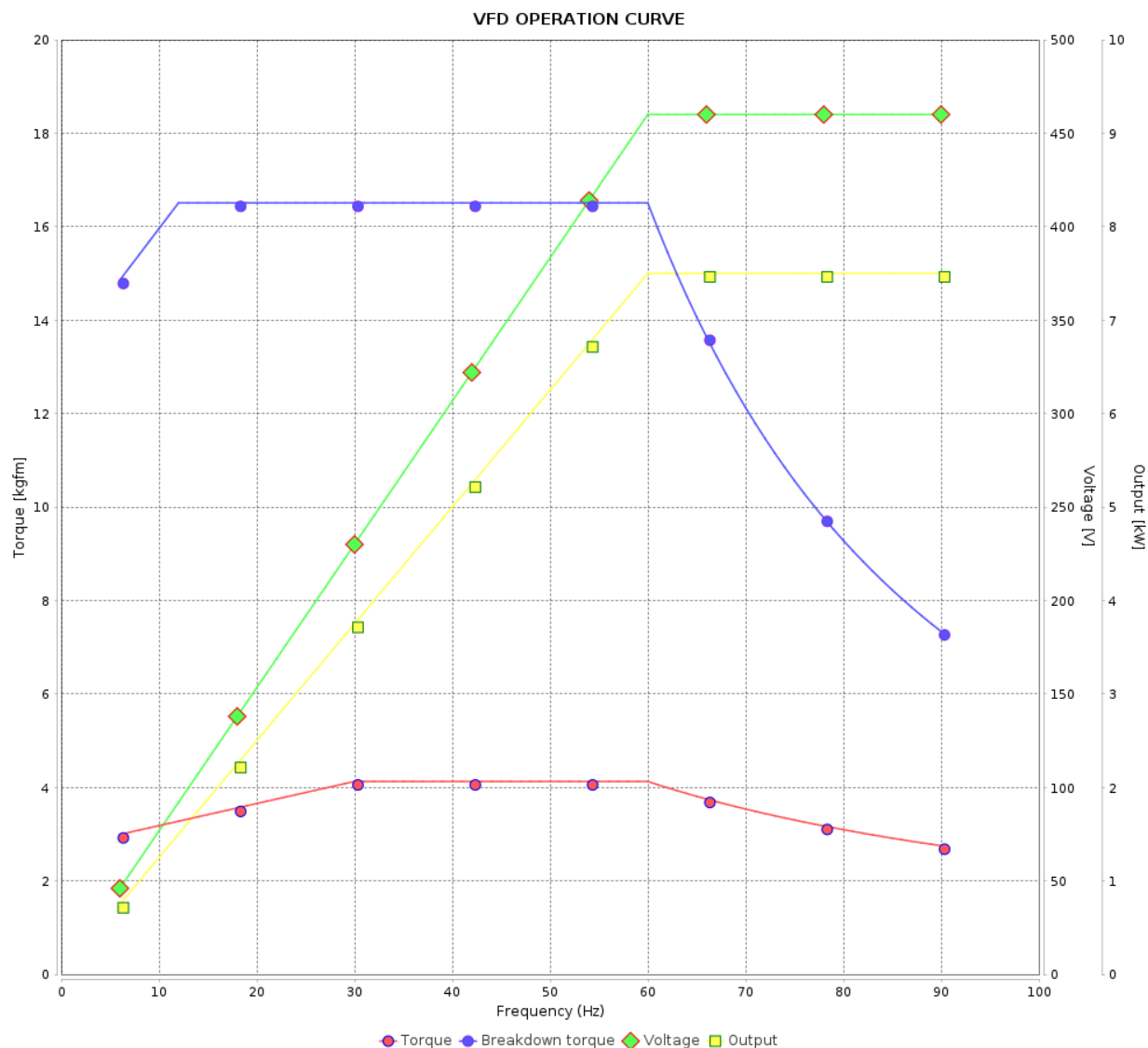
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VFD OPERATION CURVE

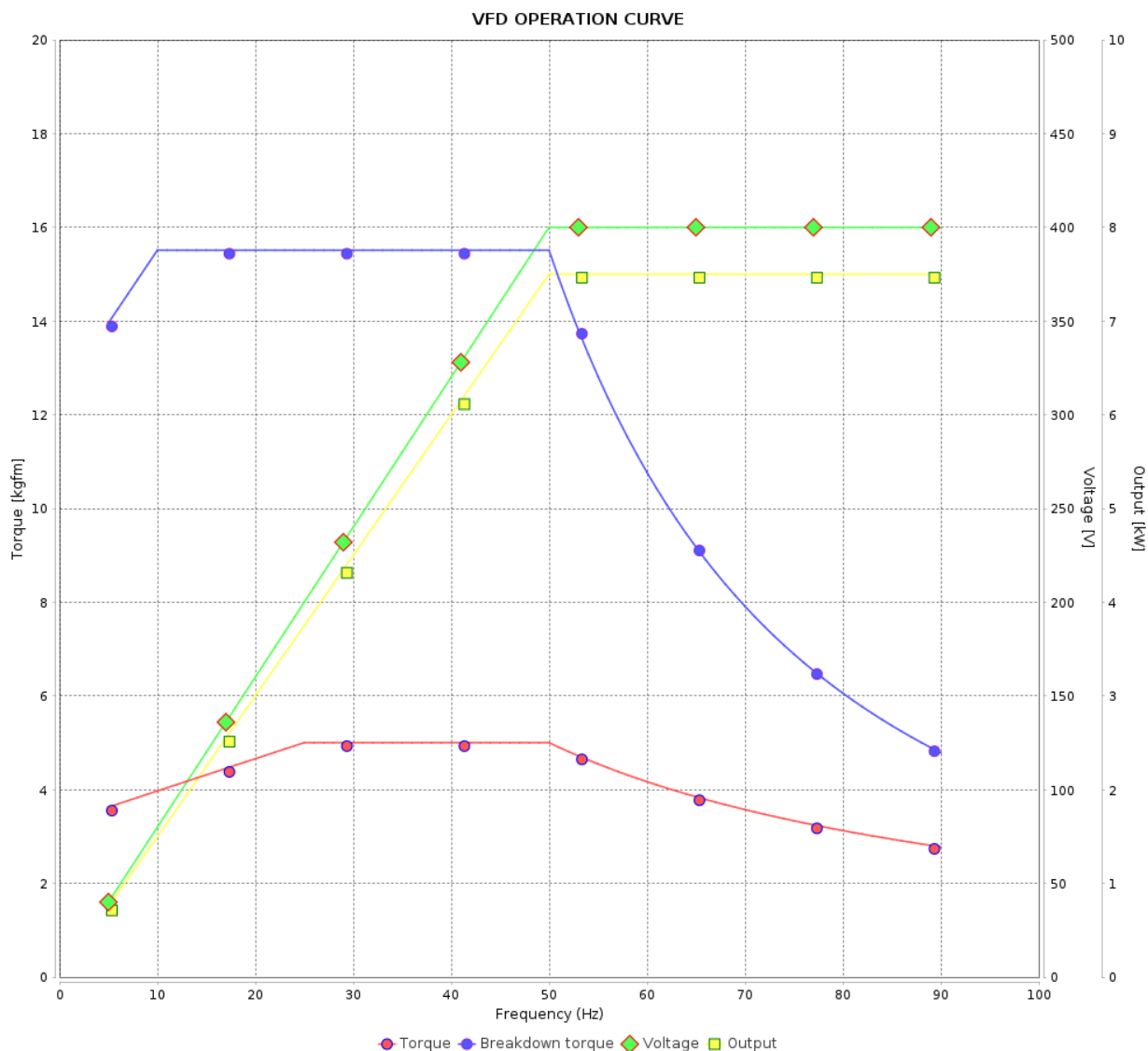
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