

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

Product code : 15833976

Frame : 80
Insulation class : F
Duty cycle : S1
Ambient temperature : -20°C to +40°C
Altitude : 1000 m.a.s.l.
Protection degree : IP55
Design : N

Cooling method : IC411 - TEFC
Mounting : B3T
Rotation¹ : Both (CW and CCW)
Starting method : Direct On Line
Approx. weight³ : 17.0 kg
Moment of inertia (J) : 0.0032 kgm²

Output [kW]	0.75	0.75	0.75	0.75
Poles	4	4	4	4
Frequency [Hz]	50	50	50	60
Rated voltage [V]	220/380	230/400	240/415	460
Rated current [A]	2.90/1.68	2.92/1.68	2.87/1.66	1.47
L. R. Amperes [A]	19.4/11.3	20.5/11.8	21.0/12.1	12.5
LRC [A]	6.7	7.0	7.3	8.5
No load current [A]	1.73/1.00	1.91/1.10	2.08/1.20	1.00
Rated speed [RPM]	1430	1435	1440	1745
Slip [%]	4.67	4.33	4.00	3.06
Rated torque [kgfm]	0.511	0.509	0.507	0.419
Locked rotor torque [%]	330	360	390	440
Breakdown torque [%]	330	360	390	440
Service factor	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	30s (cold) 17s (hot)
Noise level ²	44.0 dB(A)	44.0 dB(A)	44.0 dB(A)	48.0 dB(A)
Efficiency (%)	25%			
	50%	79.0	78.0	77.0
	75%	81.5	81.0	81.0
	100%	82.5	82.5	82.5
Power Factor	25%			
	50%	0.59	0.54	0.50
	75%	0.73	0.68	0.65
	100%	0.82	0.78	0.76

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

Losses (%)	P1 (0,9;1,0)	20.6	20.6	20.6	18.5
	P2 (0,5;1,0)	18.1	18.1	18.1	16.3
	P3 (0,25;1,0)	17.4	17.4	17.4	15.6
	P4 (0,9;0,5)	11.1	11.1	11.1	10.0
	P5 (0,5;0,5)	7.8	7.8	7.8	7.0
	P6 (0,5;0,25)	5.8	5.8	5.8	5.2
	P7 (0,25;0,25)	4.1	4.1	4.1	3.7

Drive end Non drive end
Bearing type : 6204 ZZ 6203 ZZ
Sealing : V'Ring V'Ring
Lubrication interval : - -
Lubricant amount : - -
Lubricant type : Mobil Polyrex EM

Foundation loads
Max. traction : 50 kgf
Max. compression : 67 kgf

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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Three Phase Induction Motor - Squirrel Cage



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 V

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TORQUE AND CURRENT VS SPEED CURVE

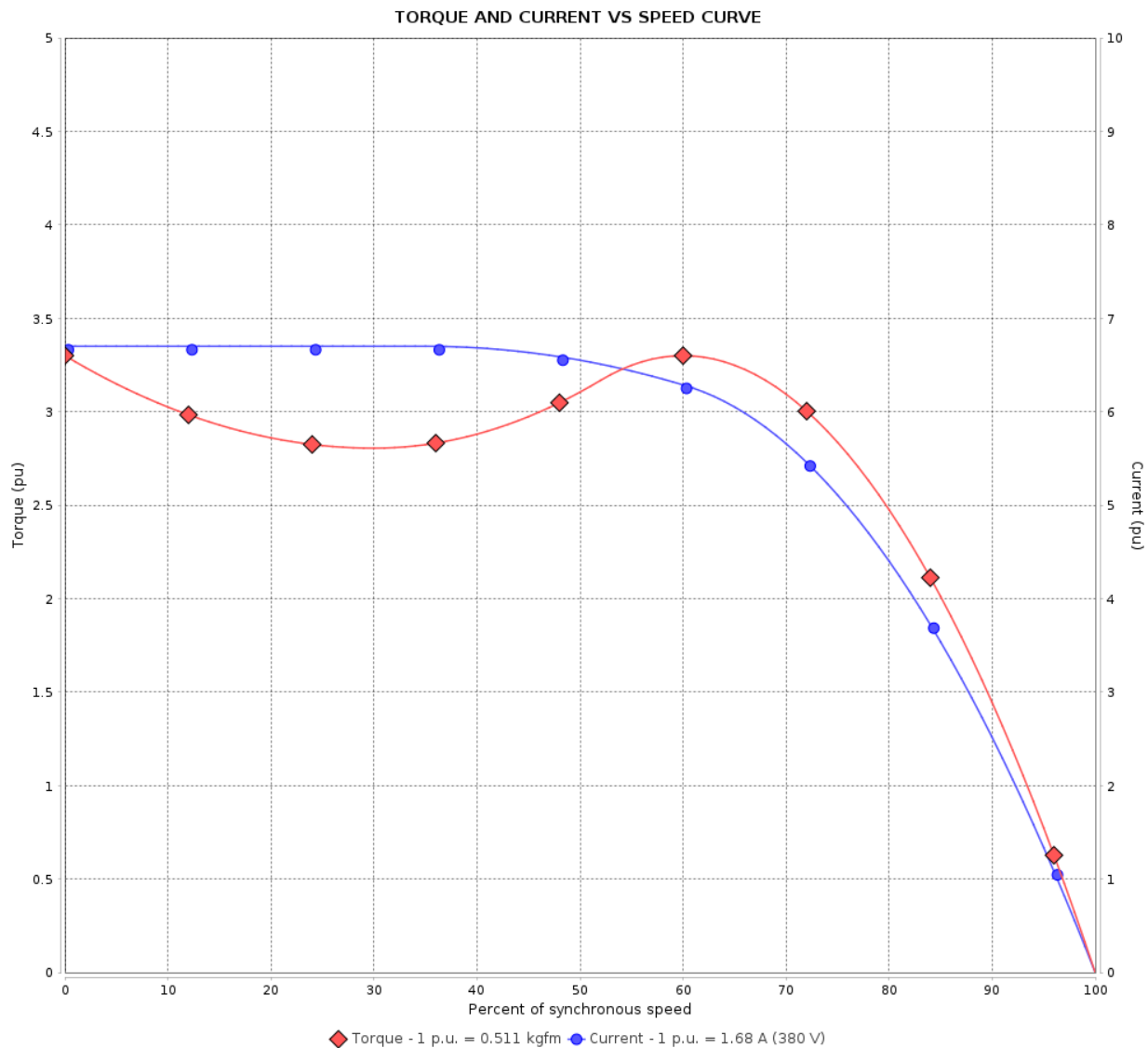
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE3 Three-Phase

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Performance : 220/380 V 50 Hz 4P

Rated current : 2.90/1.68 A
LRC : 6.7
Rated torque : 0.511 kgfm
Locked rotor torque : 330 %
Breakdown torque : 330 %
Rated speed : 1430 rpm

Moment of inertia (J) : 0.0032 kgm²
Duty cycle : S1
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : N

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

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TORQUE AND CURRENT VS SPEED CURVE

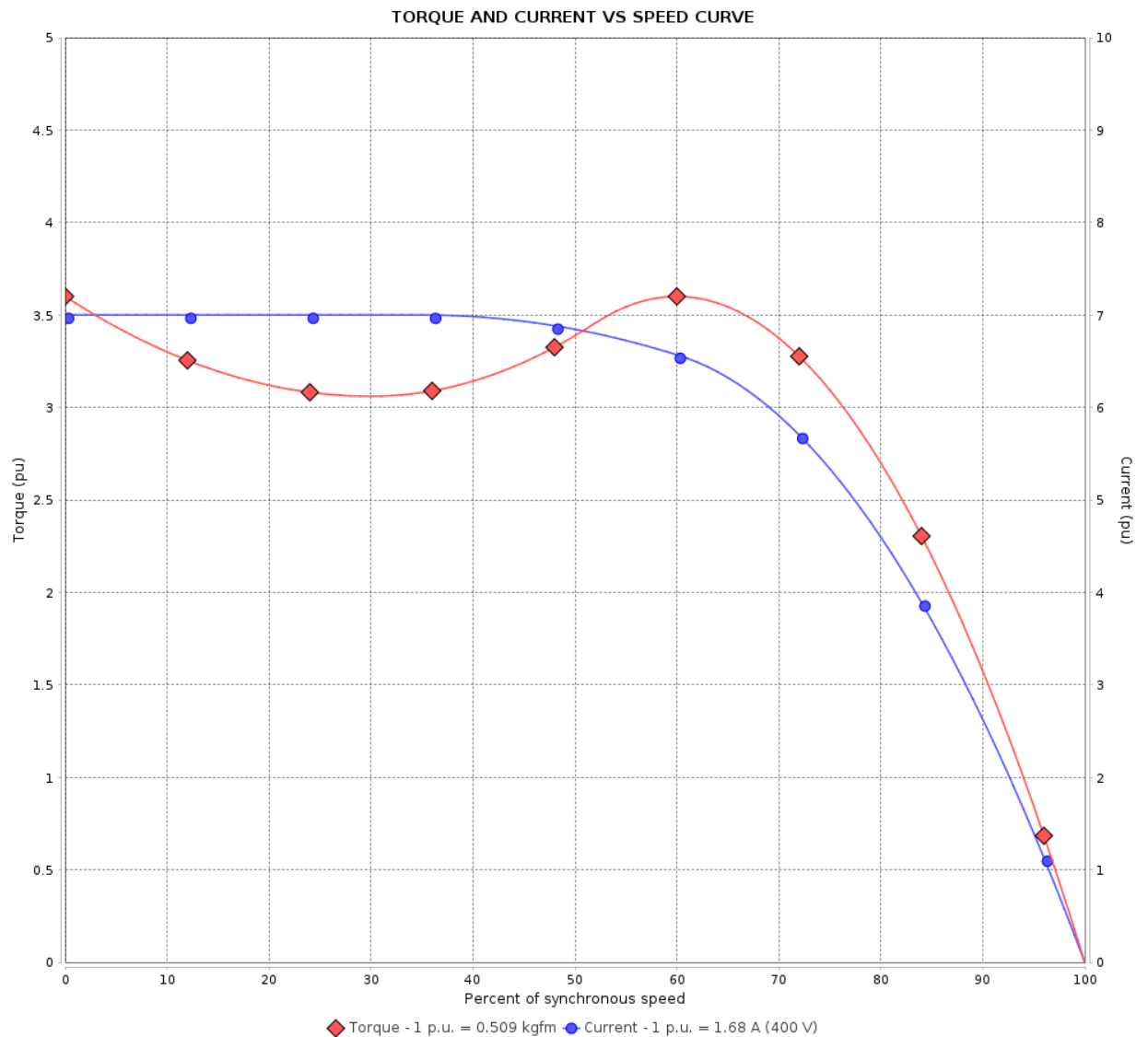
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 230/400 V 50 Hz 4P

Rated current	: 2.92/1.68 A	Moment of inertia (J)	: 0.0032 kgm ²
LRC	: 7.0	Duty cycle	: S1
Rated torque	: 0.509 kgfm	Insulation class	: F
Locked rotor torque	: 360 %	Service factor	: 1.00
Breakdown torque	: 360 %	Temperature rise	: 80 K
Rated speed	: 1435 rpm	Design	: N

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

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TORQUE AND CURRENT VS SPEED CURVE

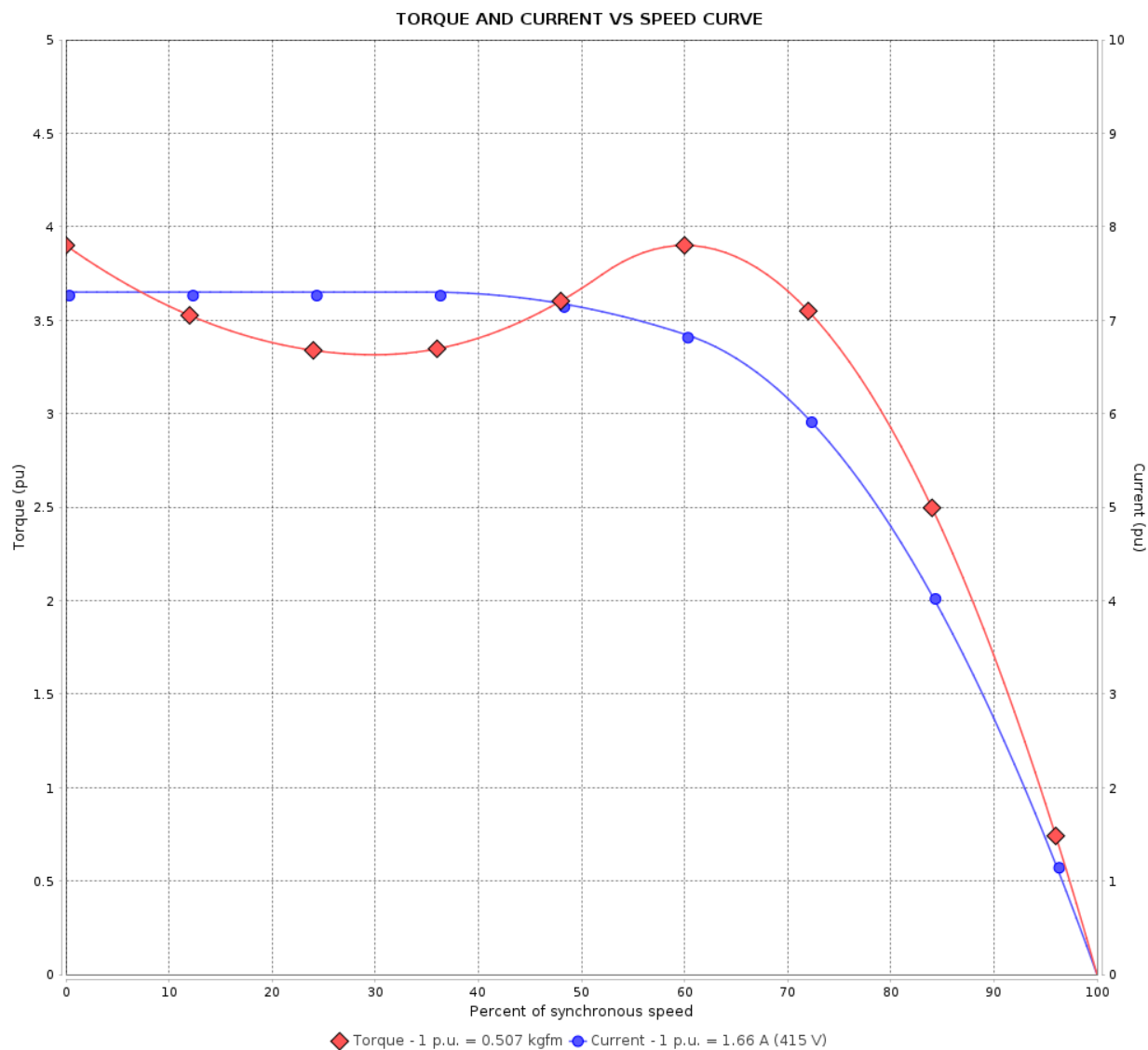
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 240/415 V 50 Hz 4P

Rated current : 2.87/1.66 A
LRC : 7.3
Rated torque : 0.507 kgfm
Locked rotor torque : 390 %
Breakdown torque : 390 %
Rated speed : 1440 rpm

Moment of inertia (J) : 0.0032 kgm²
Duty cycle : S1
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : N

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

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TORQUE AND CURRENT VS SPEED CURVE

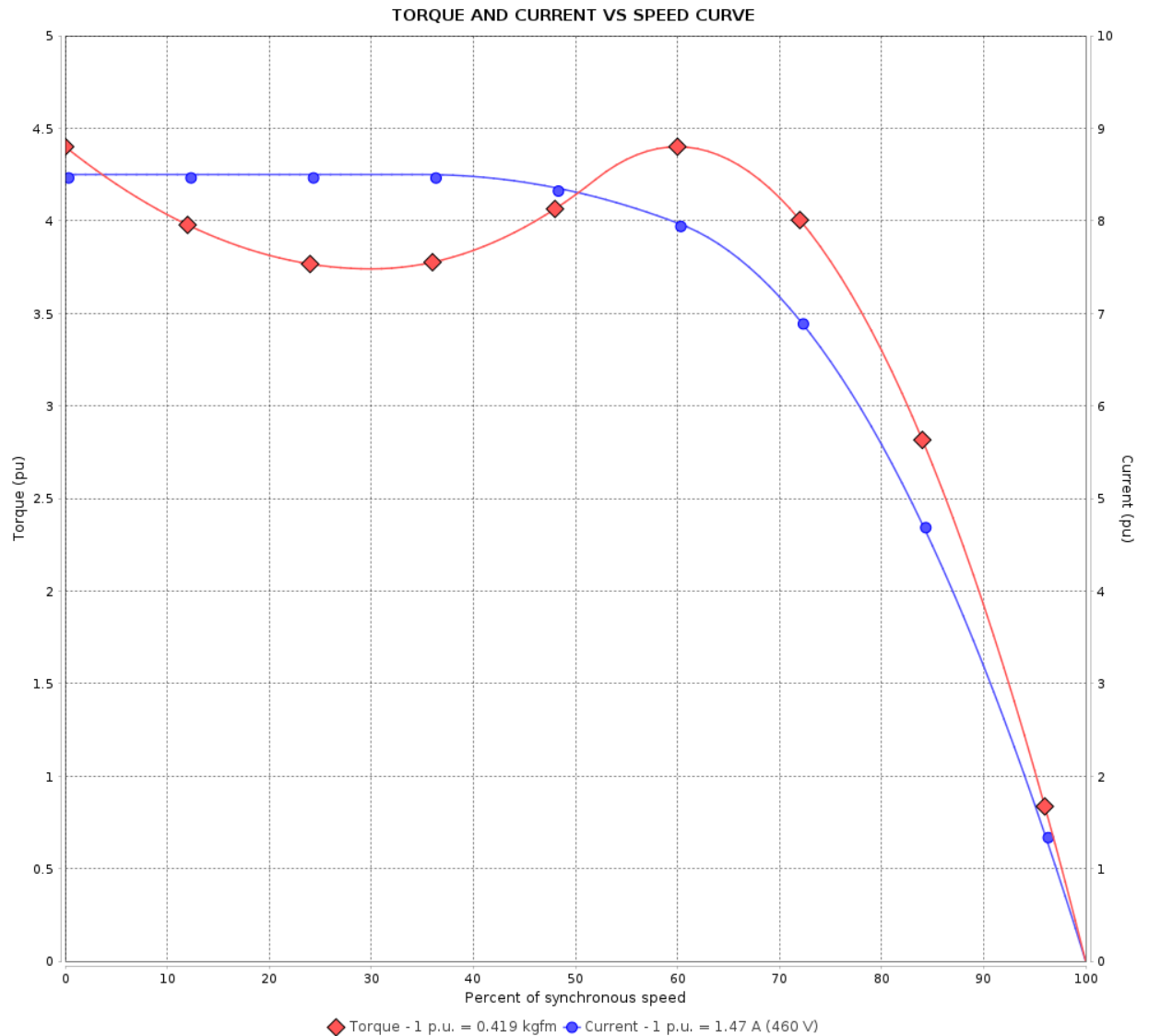
Three Phase Induction Motor - Squirrel Cage



Customer :

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Product code : 15833976



Performance : 460 V 60 Hz 4P

Rated current	: 1.47 A	Moment of inertia (J)	: 0.0032 kgm ²
LRC	: 8.5	Duty cycle	: S1
Rated torque	: 0.419 kgfm	Insulation class	: F
Locked rotor torque	: 440 %	Service factor	: 1.00
Breakdown torque	: 440 %	Temperature rise	: 80 K
Rated speed	: 1745 rpm	Design	: N

Locked rotor time : 30s (cold) 17s (hot)

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LOAD PERFORMANCE CURVE

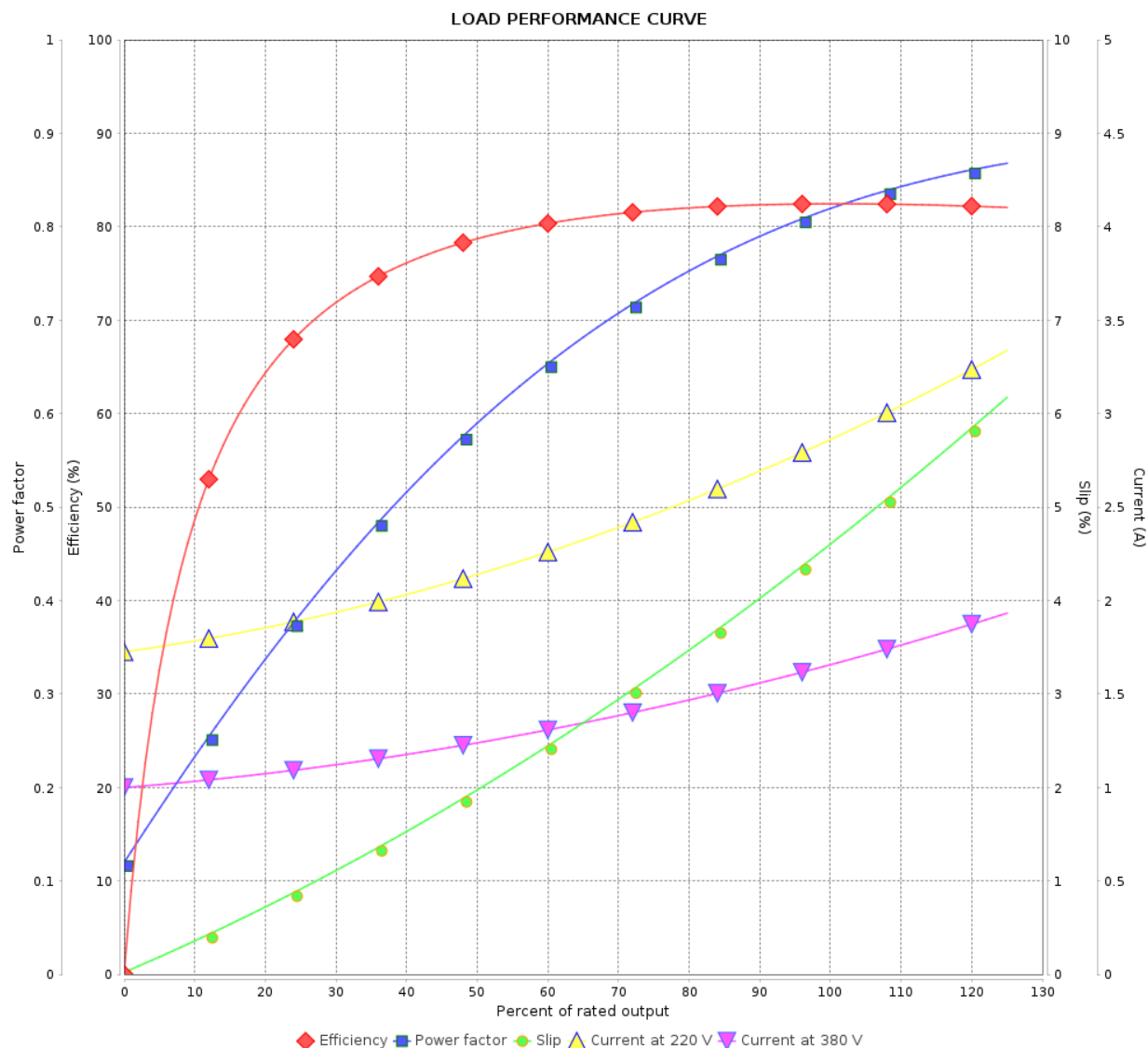
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Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : N

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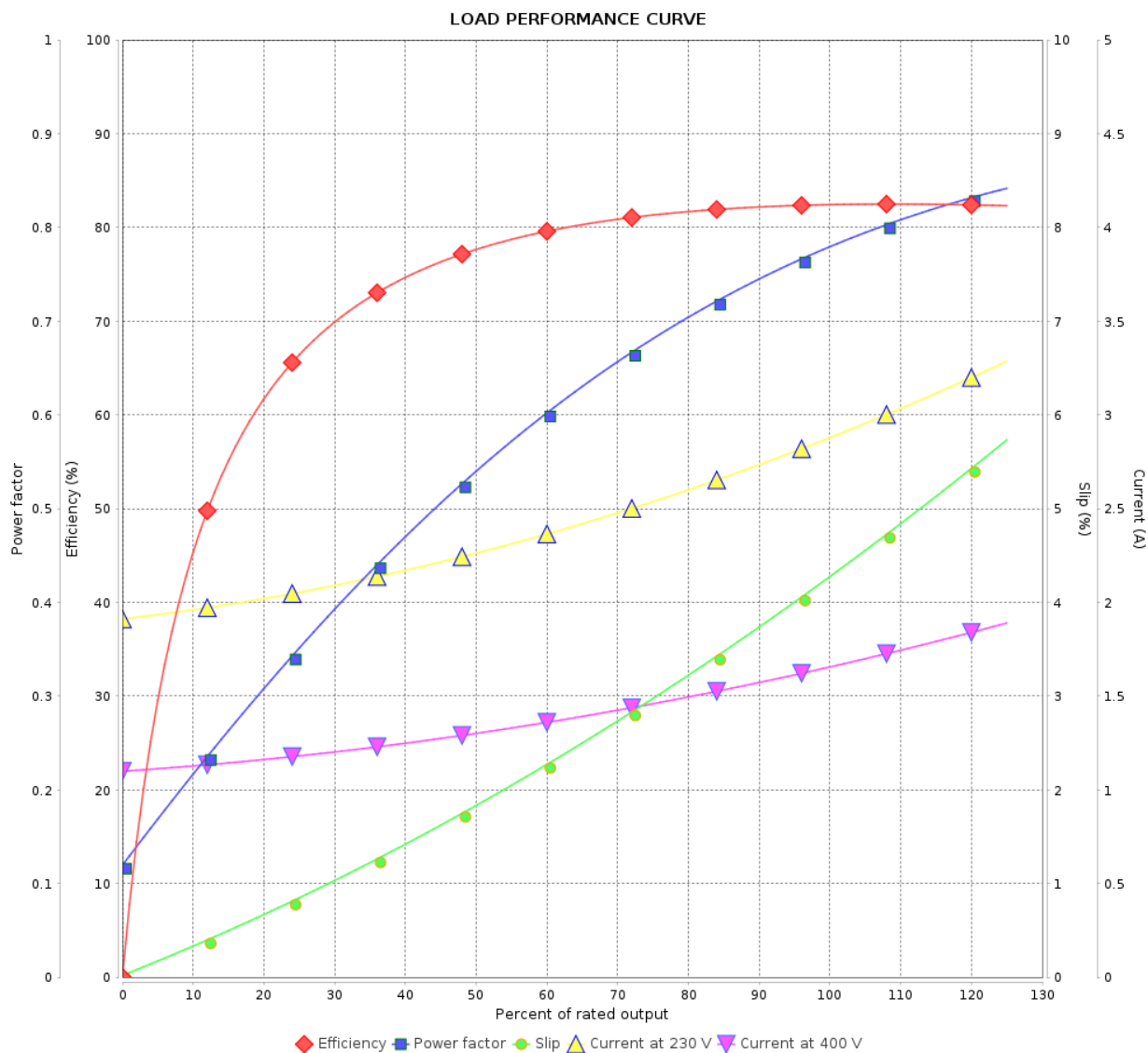
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Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
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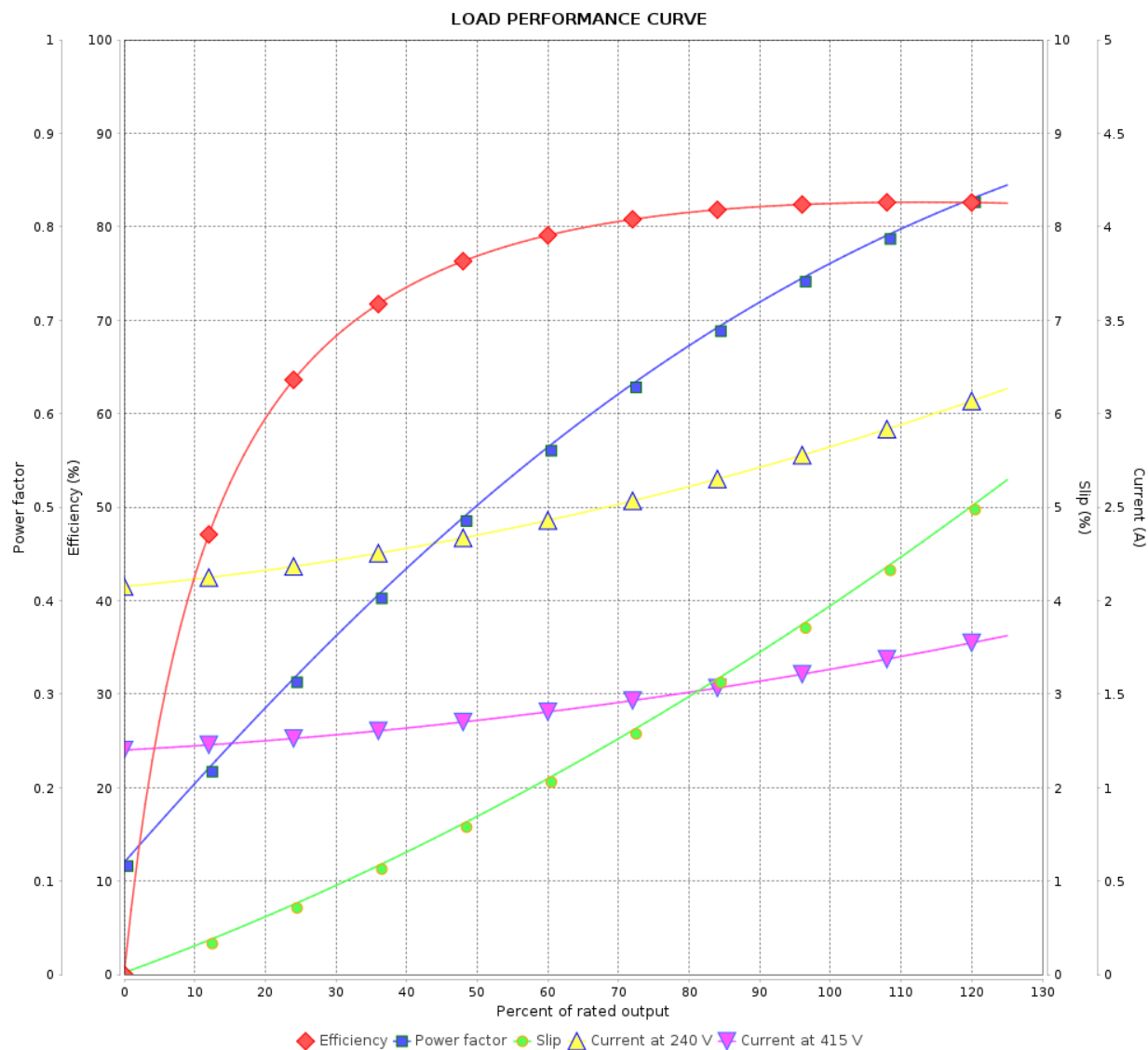
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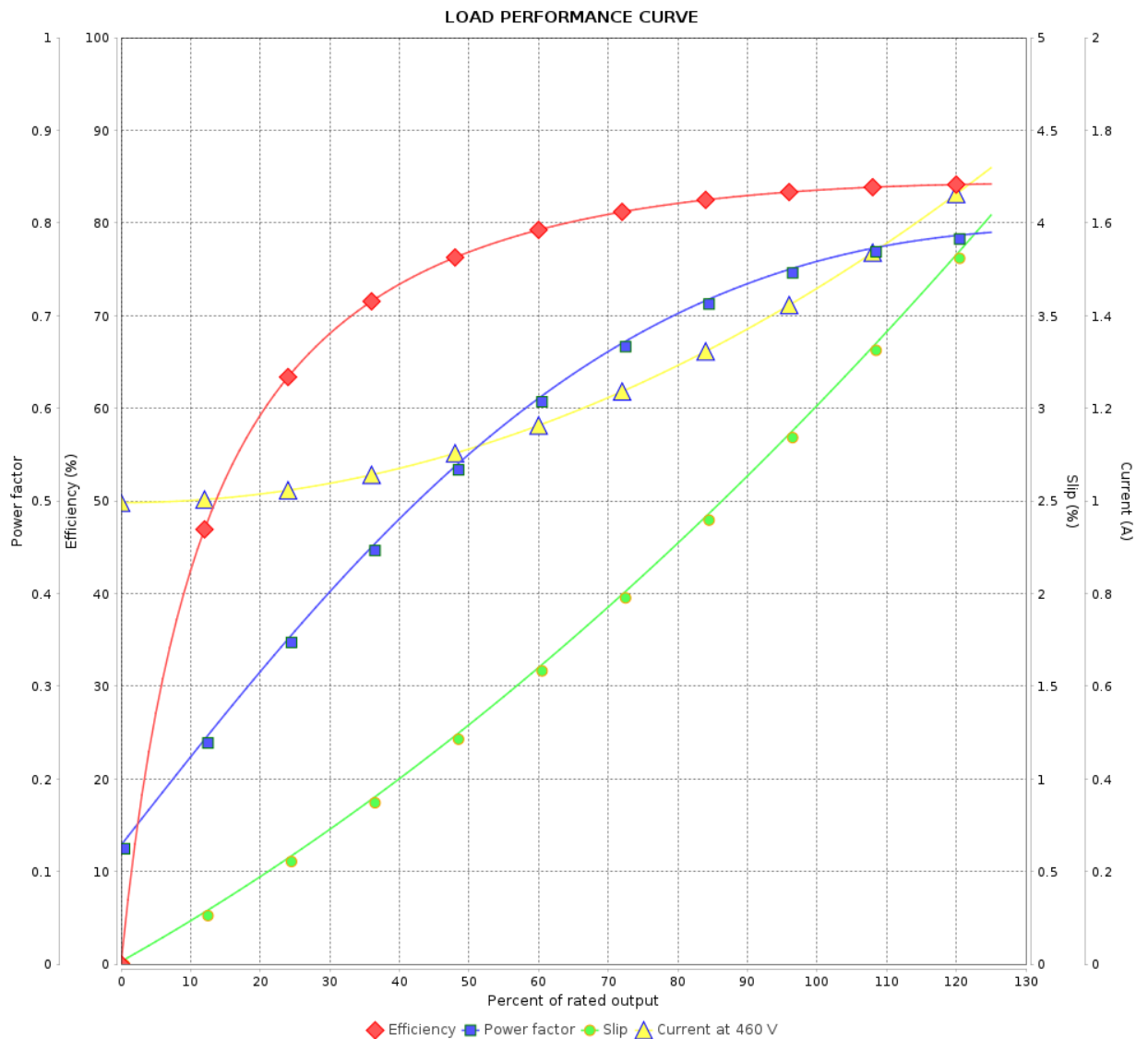
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THERMAL LIMIT CURVE

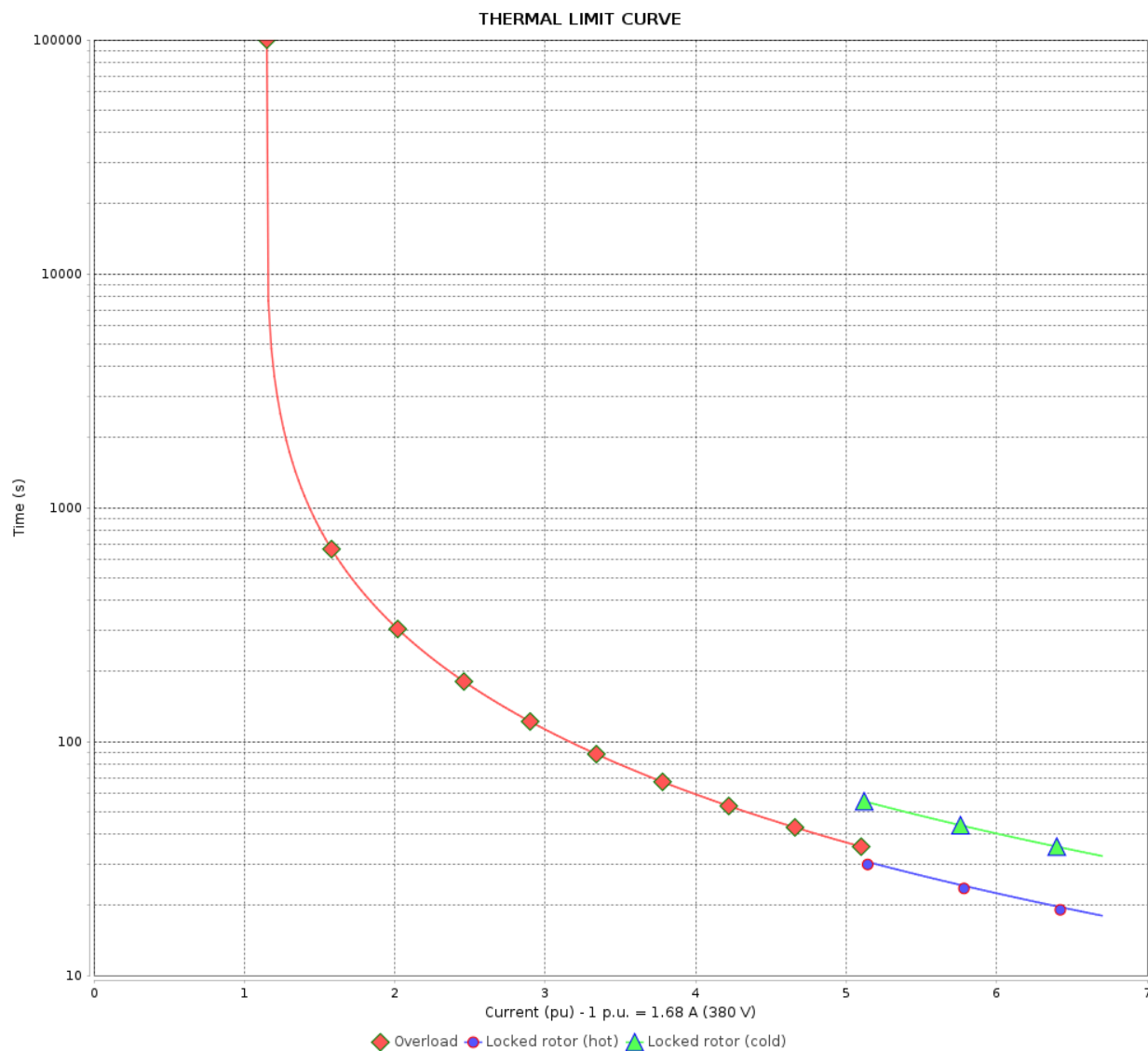
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Heating constant

Cooling constant

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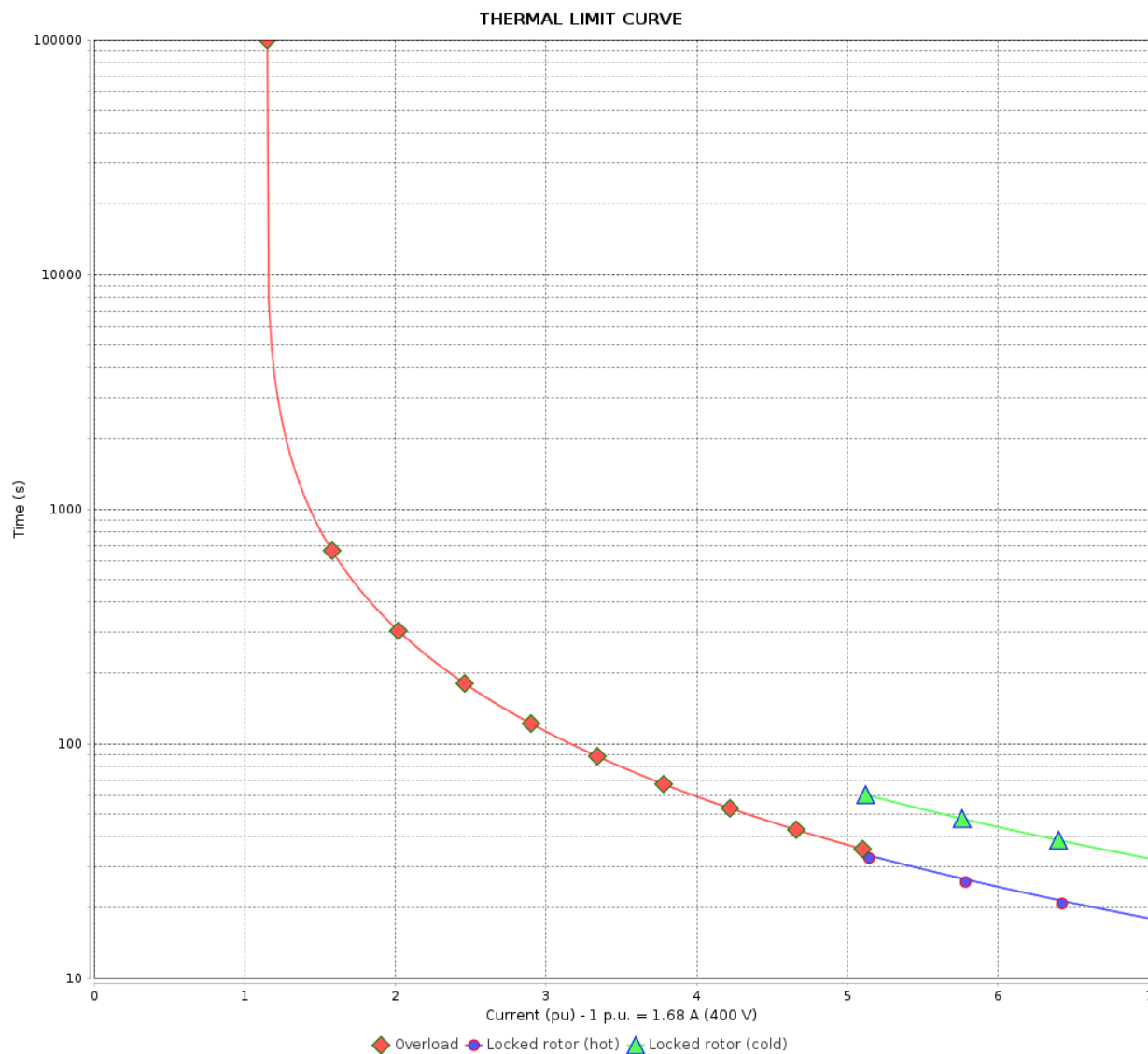
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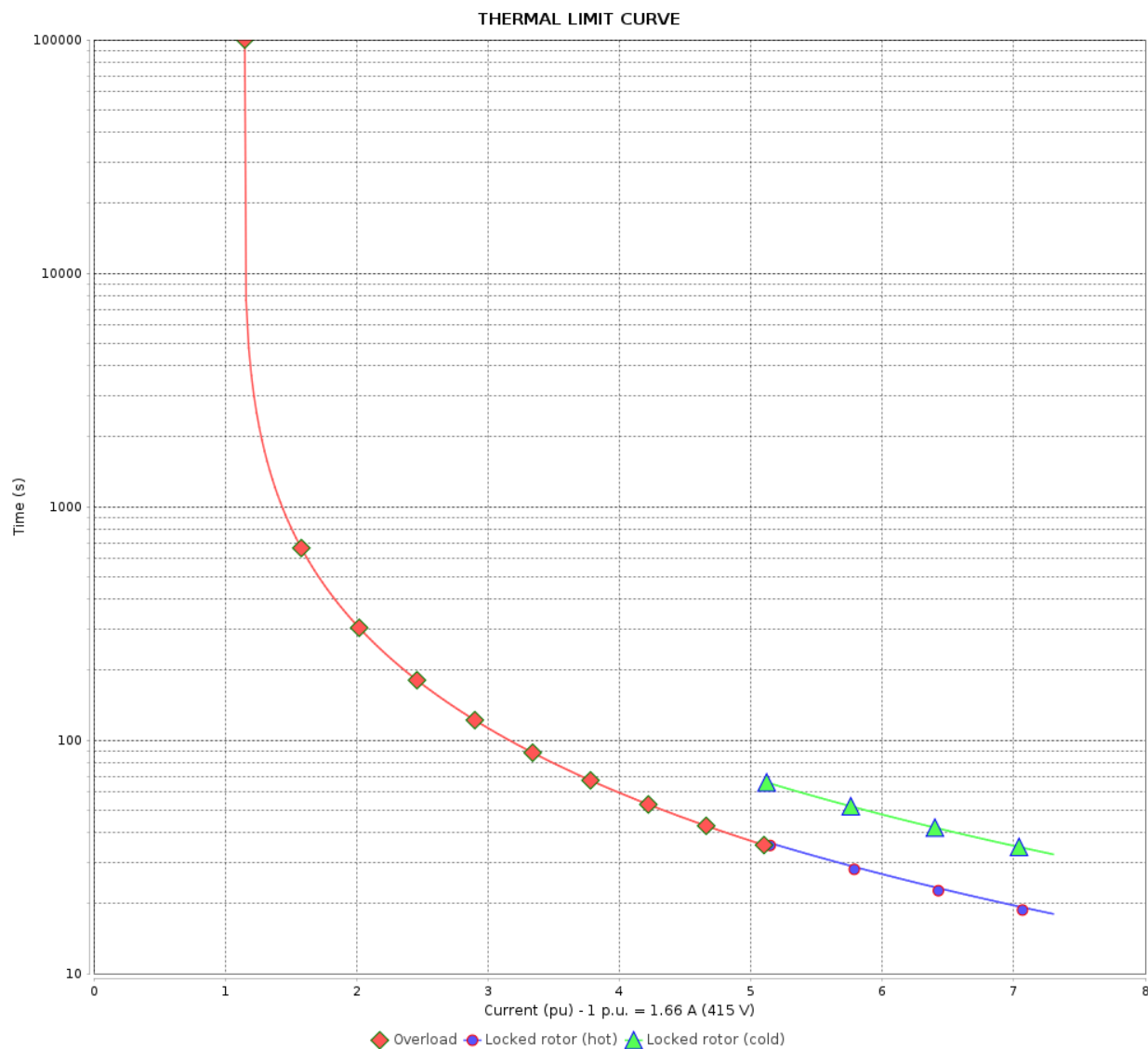
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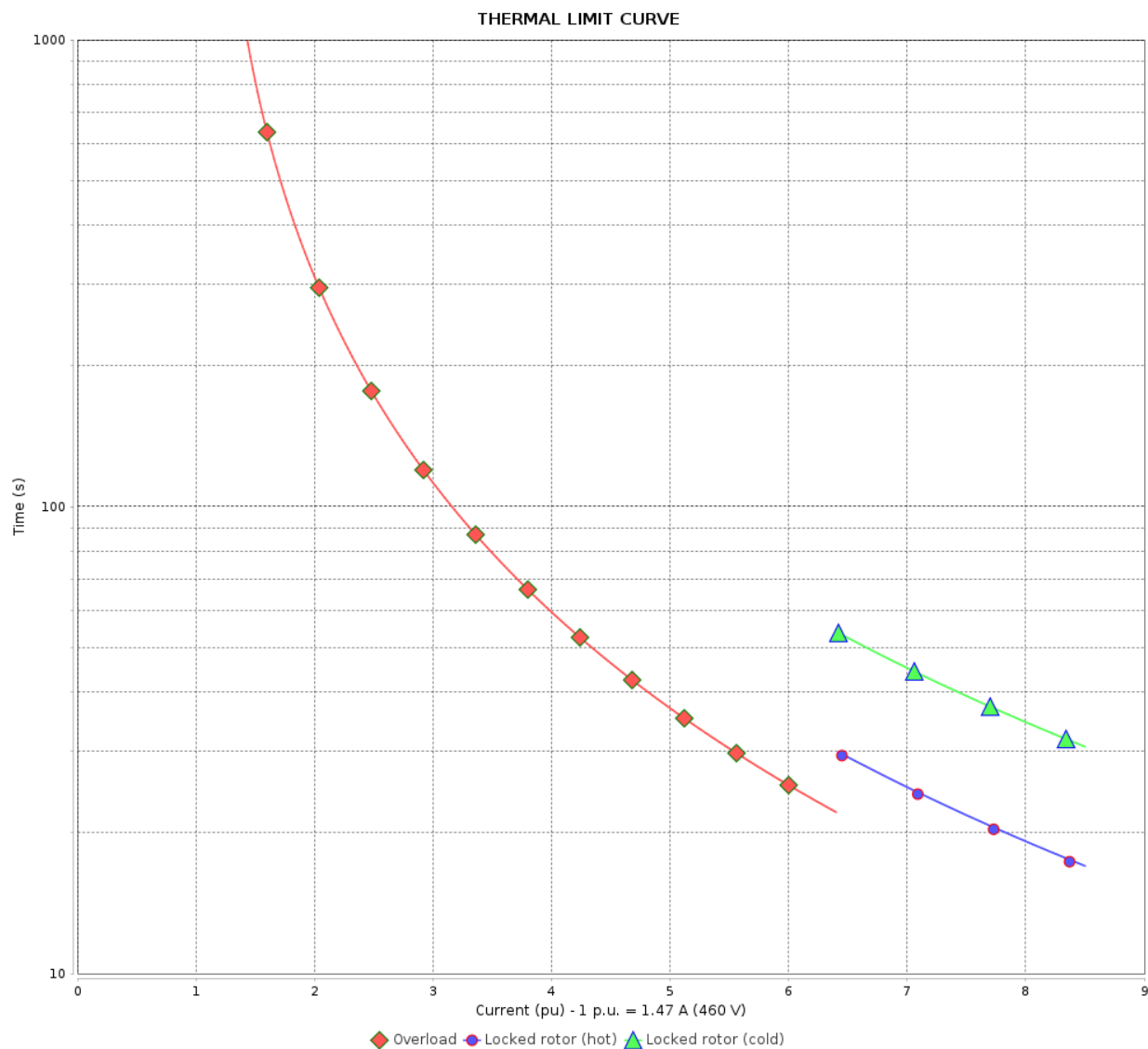
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Cooling constant

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VFD OPERATION CURVE

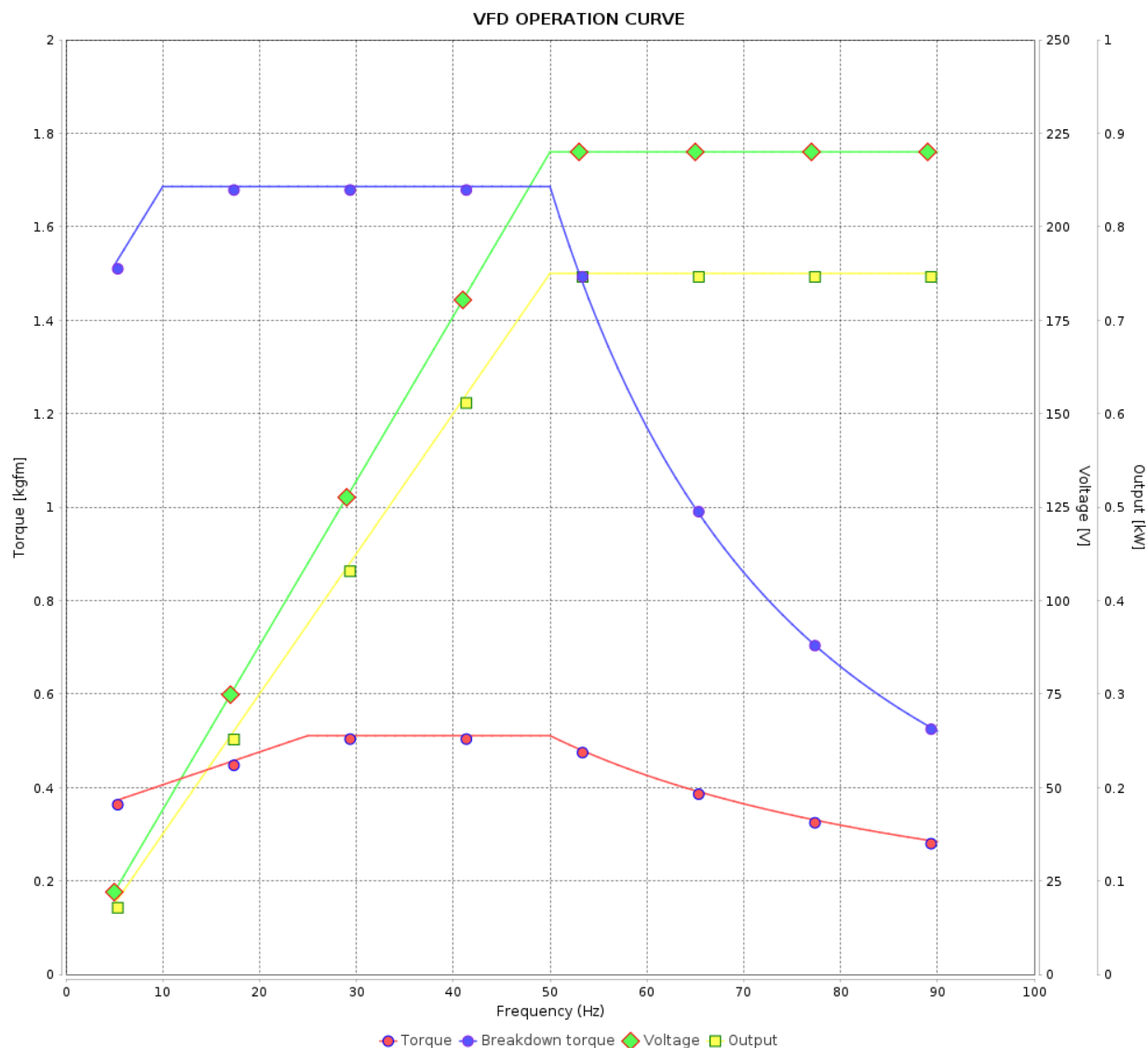
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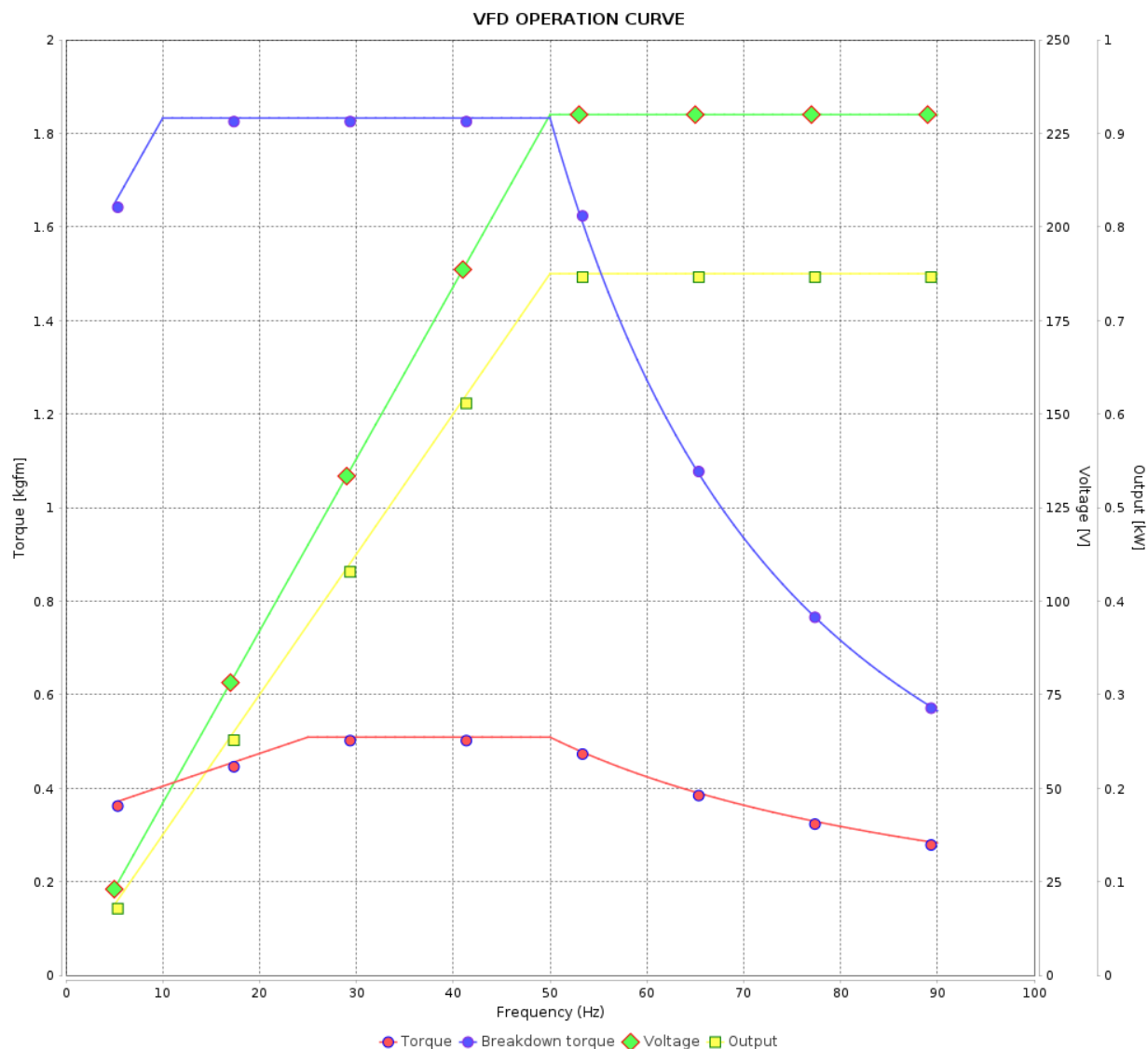
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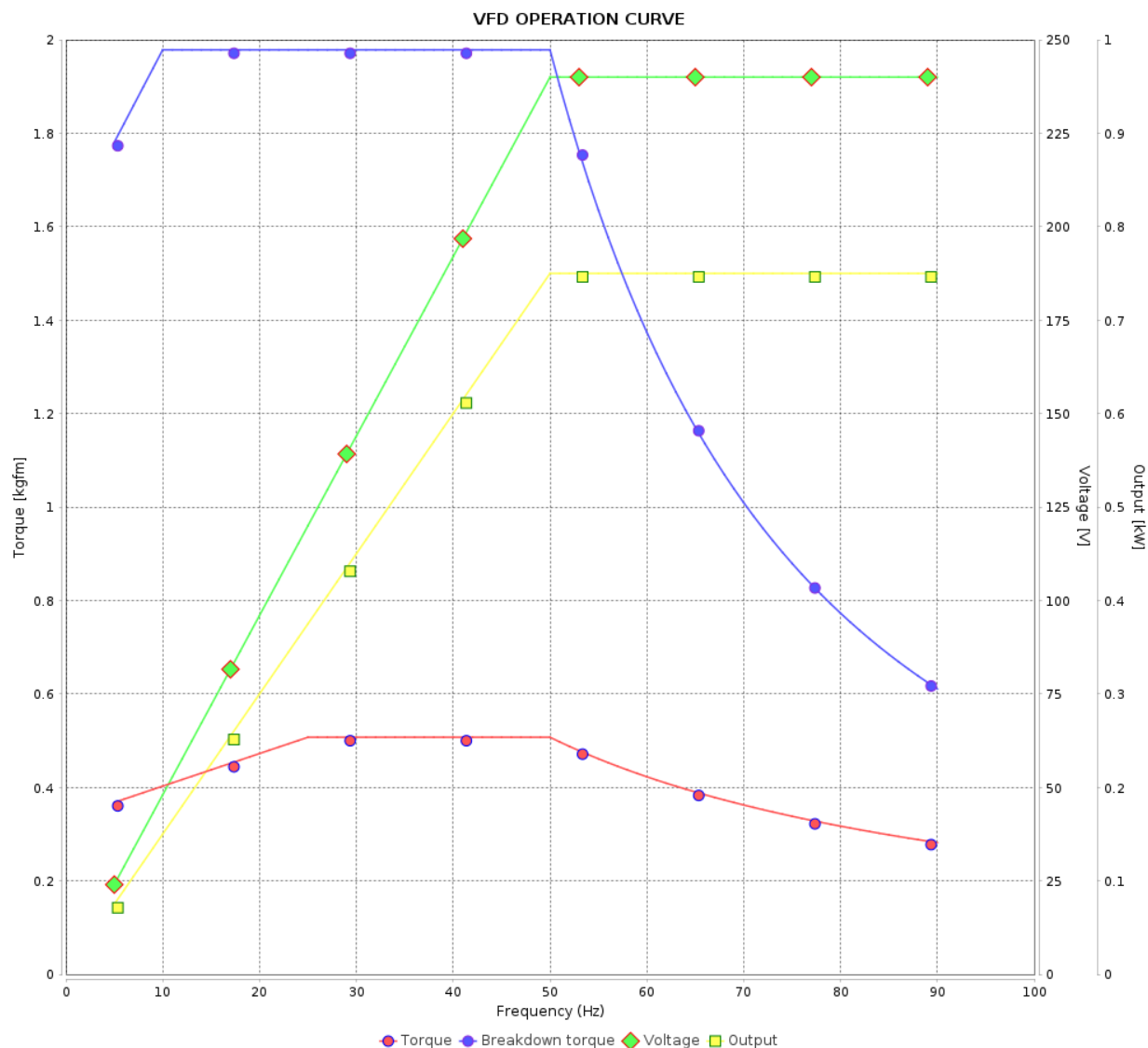
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VFD OPERATION CURVE

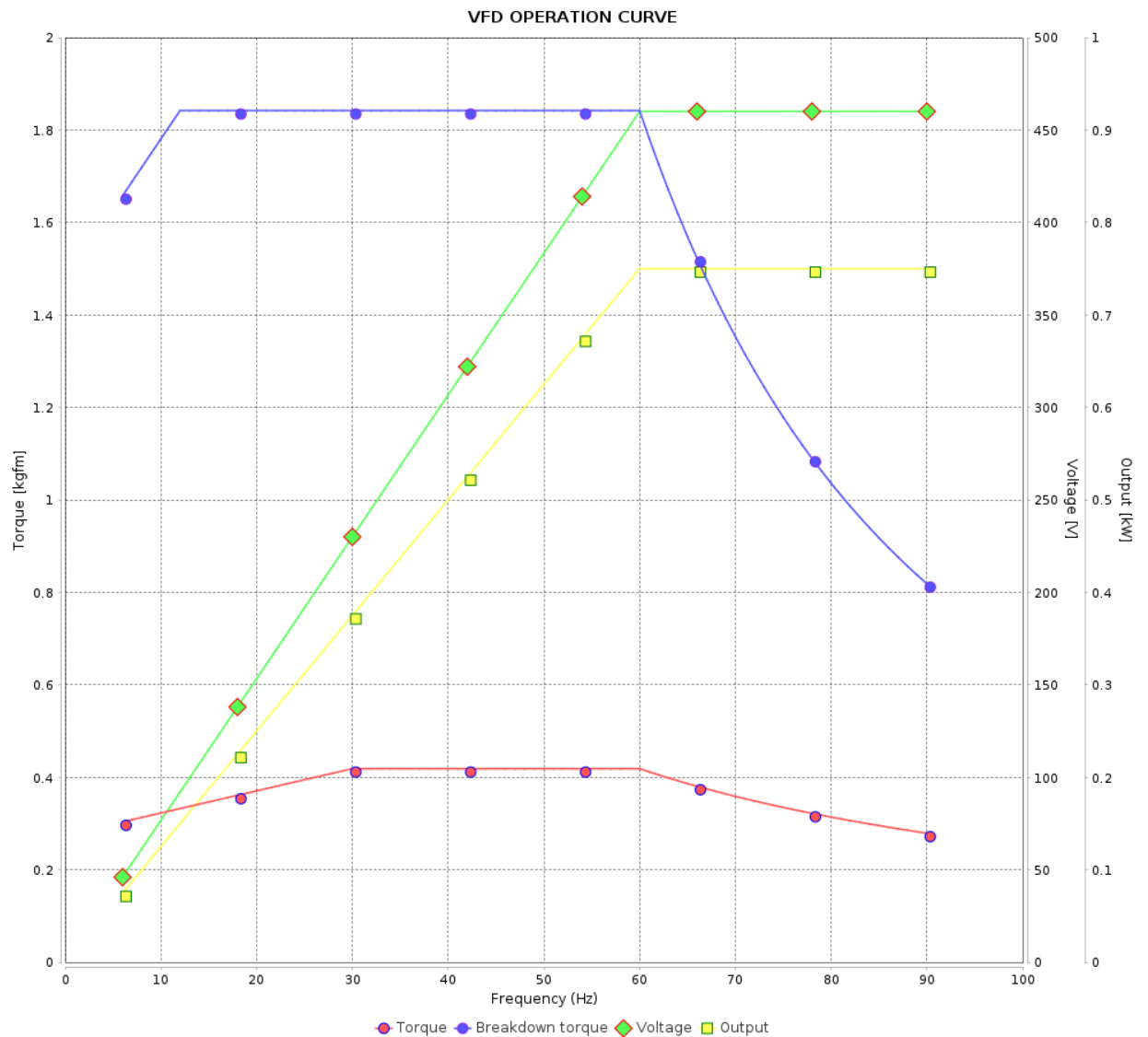
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