

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer	: Astraprom d.o.o.		
Product line	: IE4 Three-Phase	Product code :	12774369
Frame	: 280S/M	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: B3T
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 ²	: 790 kg
Protection degree	: IP55	Moment of inertia (J)	: 2.78 kgm ²
Design	: N		
Output [kW]	75		75
Poles	4		4
Frequency [Hz]	50		60
Rated voltage [V]	400/690		460
Rated current [A]	138/80.0		121
L. R. Amperes [A]	1173/680		1150
LRC [A]	8.5		9.5
No load current [A]	55.0/31.9		52.0
Rated speed [RPM]	1490		1791
Slip [%]	0.67		0.50
Rated torque [kgfm]	49.0		40.8
Locked rotor torque [%]	280		310
Breakdown torque [%]	300		340
Service factor	1.00		1.00
Temperature rise	80 K		80 K
Locked rotor time	66s (cold) 37s (hot)		73s (cold) 41s (hot)
Noise level ²	69.0 dB(A)		73.0 dB(A)
Efficiency (%)	25%		
	50%	95.5	94.5
	75%	96.0	95.4
	100%	96.0	96.2
Power Factor	25%		
	50%	0.68	0.65
	75%	0.78	0.76
	100%	0.82	0.81
Losses at normative operating points (speed;torque), in percentage of rated output power			
Losses (%)	P1 (0,9;1,0)	4.0	3.8
	P2 (0,5;1,0)	3.0	2.8
	P3 (0,25;1,0)	2.6	2.4
	P4 (0,9;0,5)	2.3	2.2
	P5 (0,5;0,5)	1.4	1.3
	P6 (0,5;0,25)	1.0	1.0
	P7 (0,25;0,25)	0.6	0.6
Bearing type	: Drive end : 6316 C3 Non drive end : 6316 C3	Foundation loads	
Sealing	: WSeal WSeal	Max. traction	: 818 kgf
Lubrication interval	: 13000 h 13000 h	Max. compression	: 1608 kgf
Lubricant amount	: 34 g 34 g		
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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Notes

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Thermal protection

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

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TORQUE AND CURRENT VS SPEED CURVE

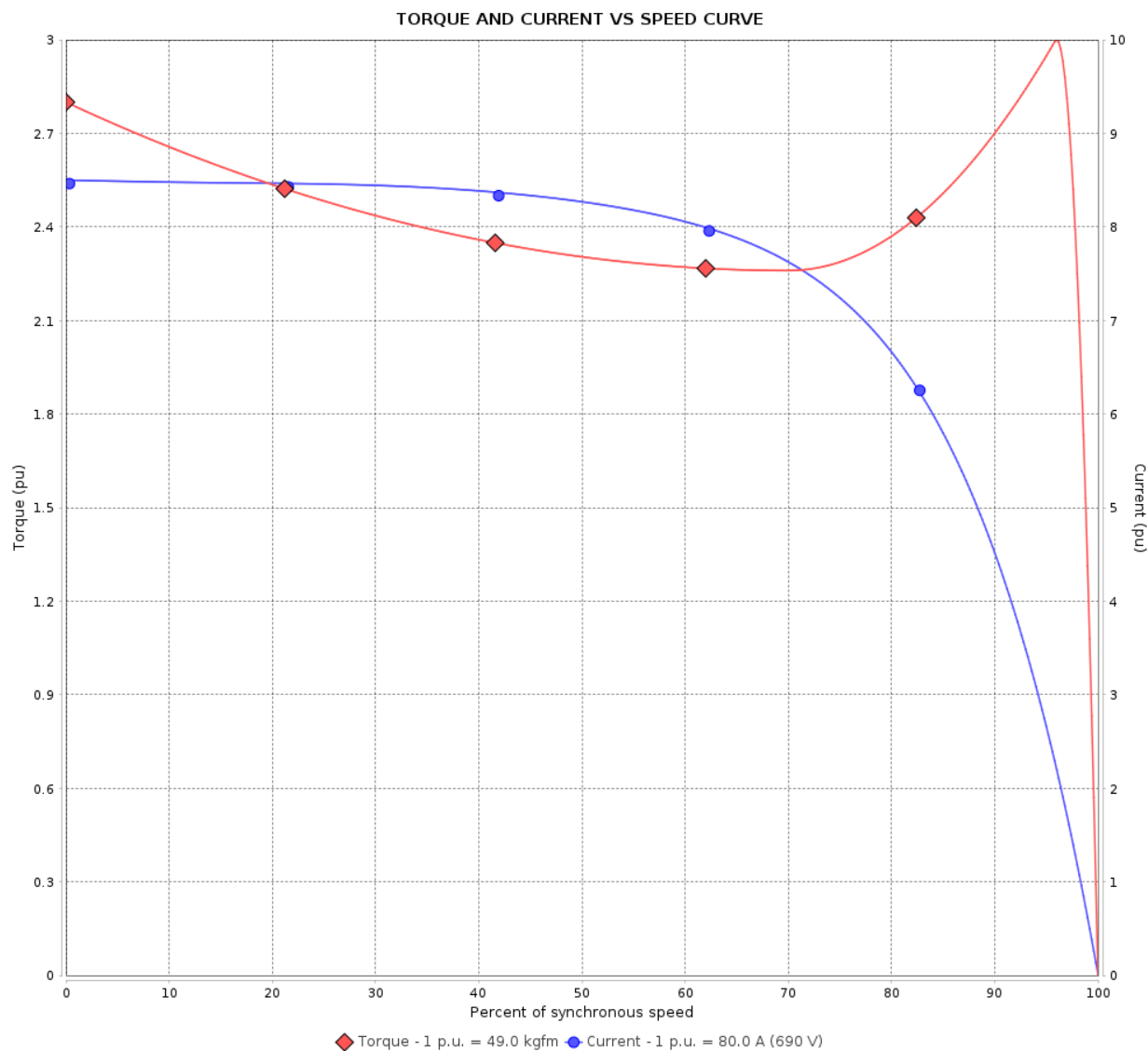
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Performance : 400/690 V 50 Hz 4P

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 LRC : 8.5
 Rated torque : 49.0 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 300 %
 Rated speed : 1490 rpm

Moment of inertia (J) : 2.78 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Locked rotor time : 66s (cold) 37s (hot)

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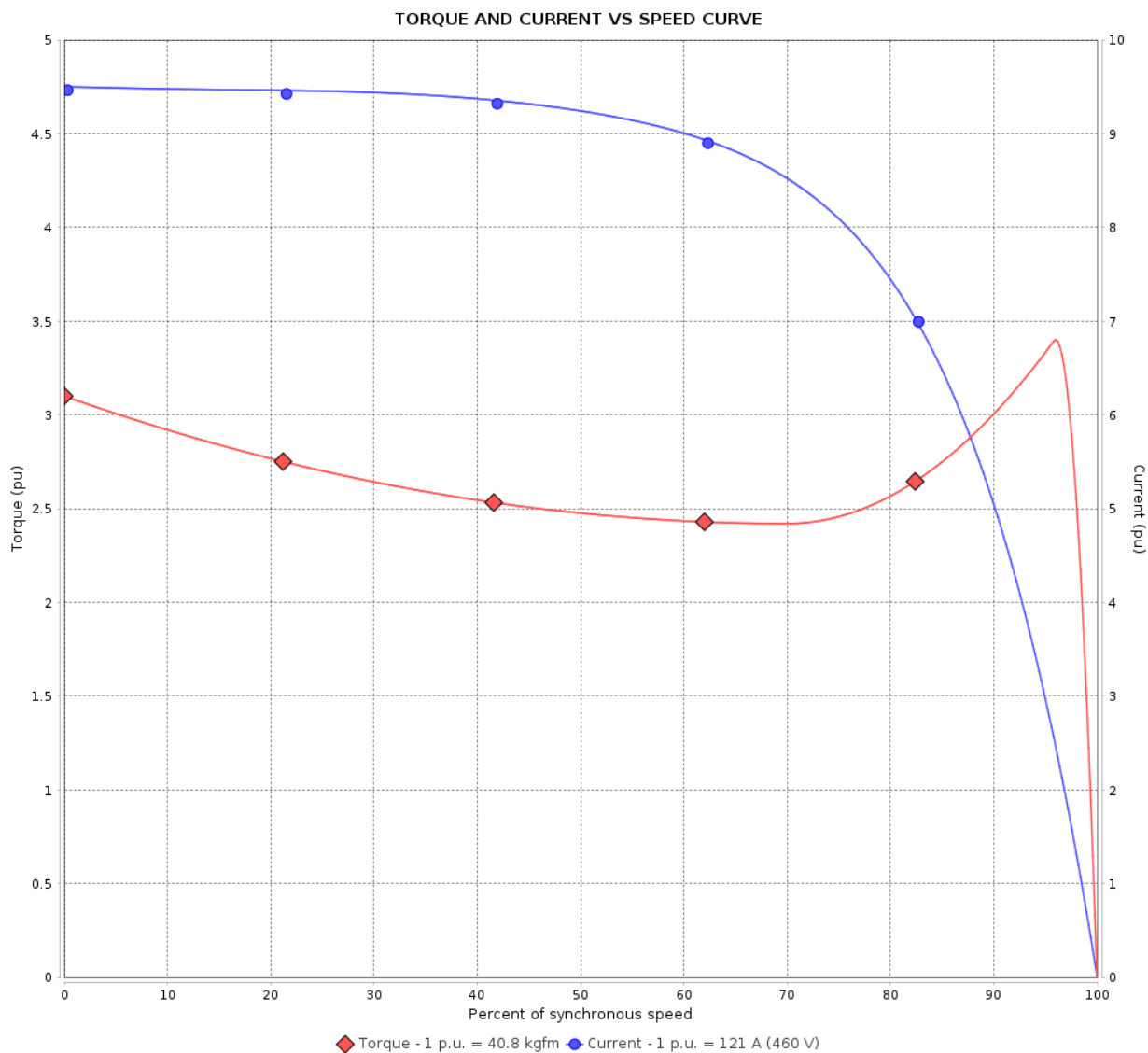


Three Phase Induction Motor - Squirrel Cage

Customer : Astraprom d.o.o.

Product line : IE4 Three-Phase

Product code : 12774369



Performance : 460 V 60 Hz 4P

Rated current	: 121 A	Moment of inertia (J)	: 2.78 kgm ²
LRC	: 9.5	Duty cycle	: S1
Rated torque	: 40.8 kgfm	Insulation class	: F
Locked rotor torque	: 310 %	Service factor	: 1.00
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1791 rpm	Design	: N

Locked rotor time : 73s (cold) 41s (hot)

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LOAD PERFORMANCE CURVE

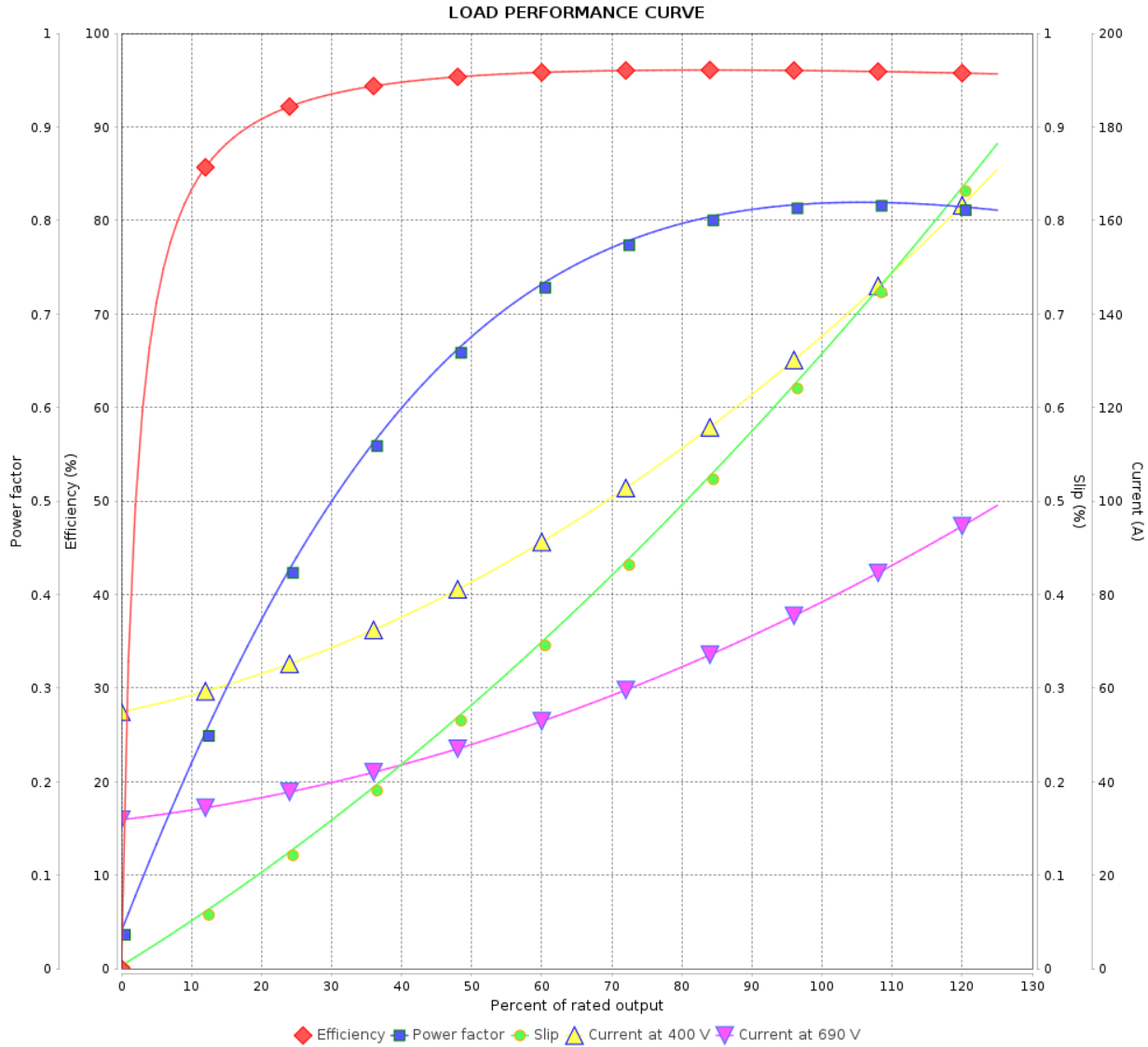
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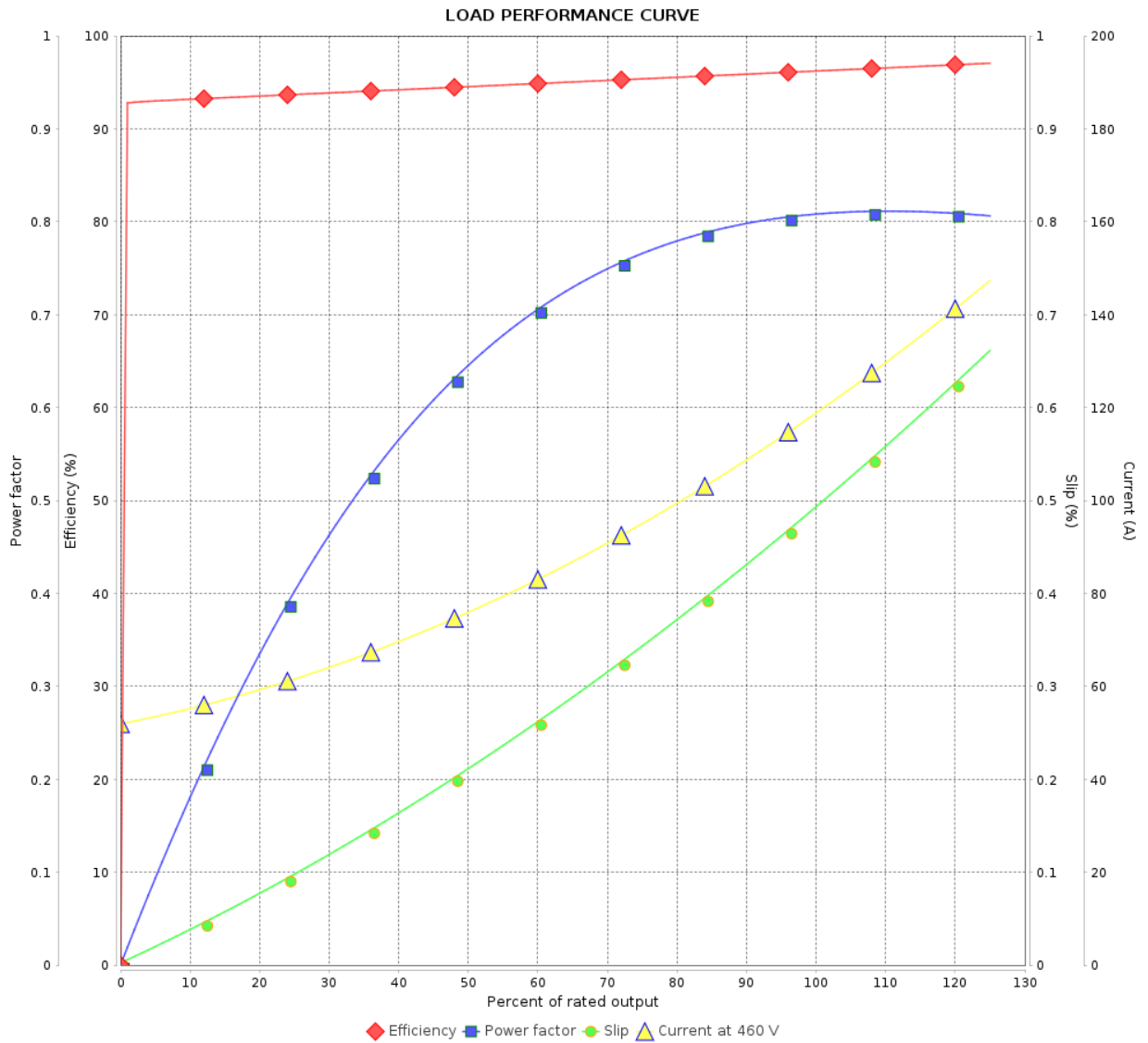
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THERMAL LIMIT CURVE

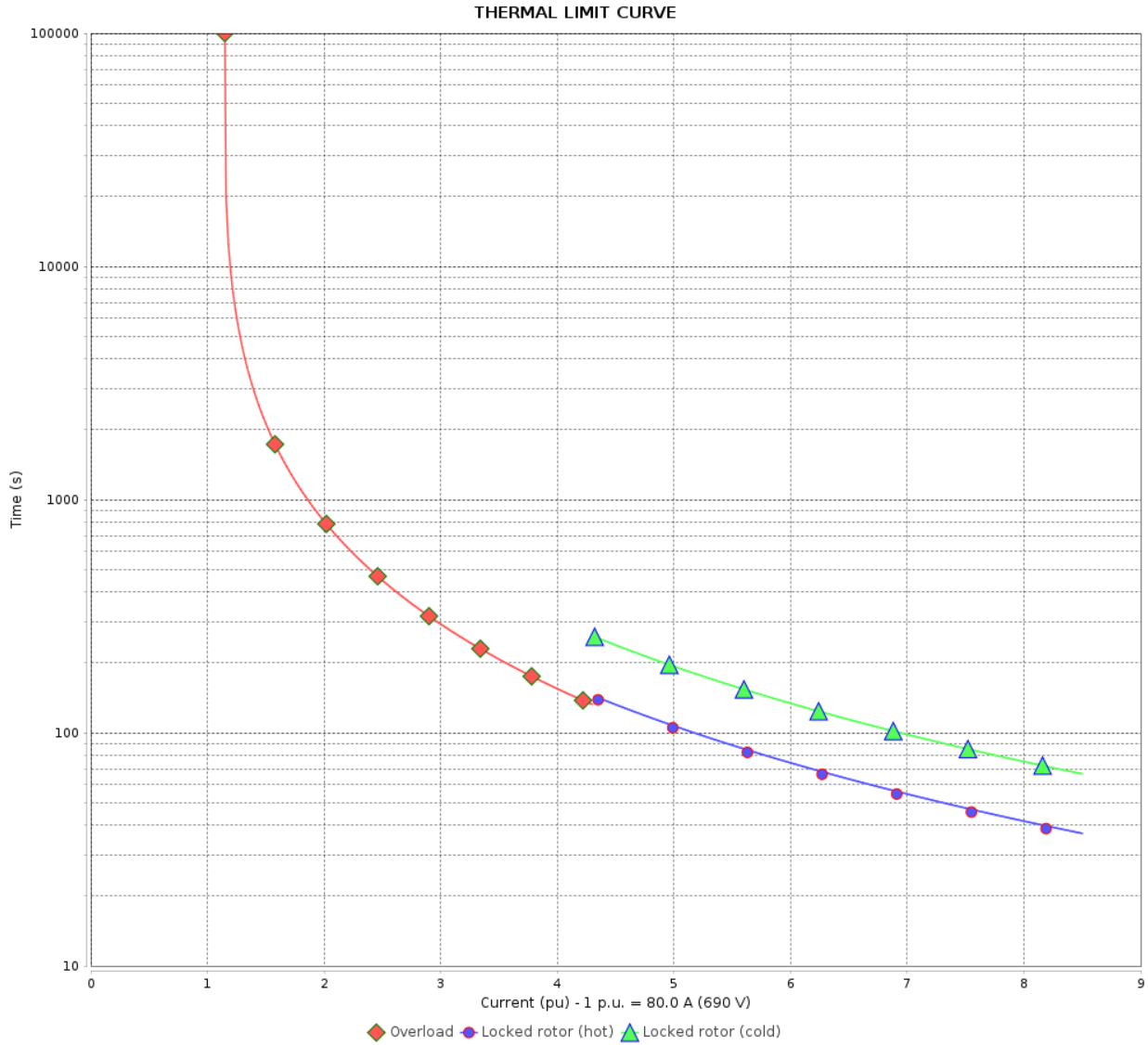
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Heating constant

Cooling constant

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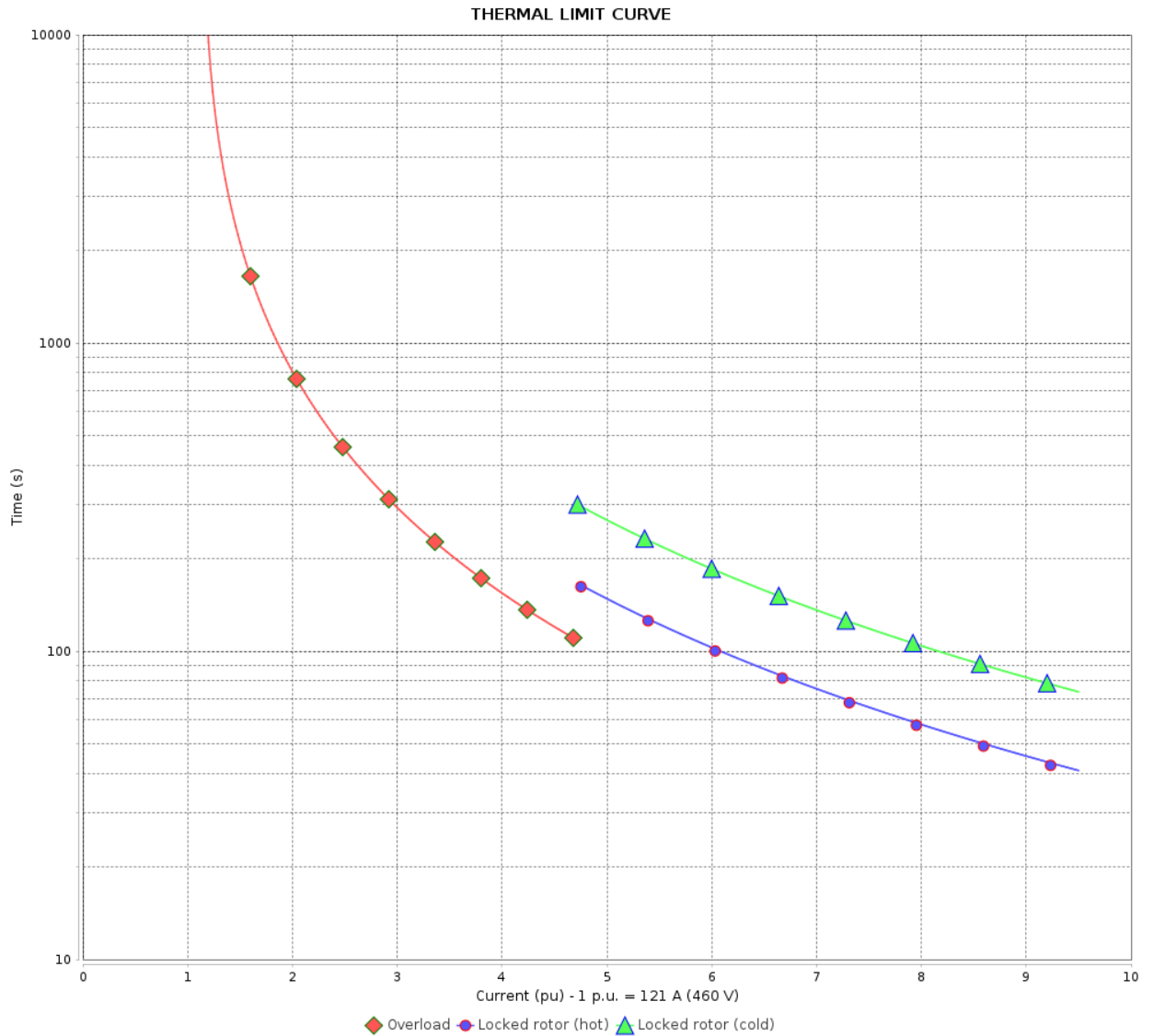
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VFD OPERATION CURVE

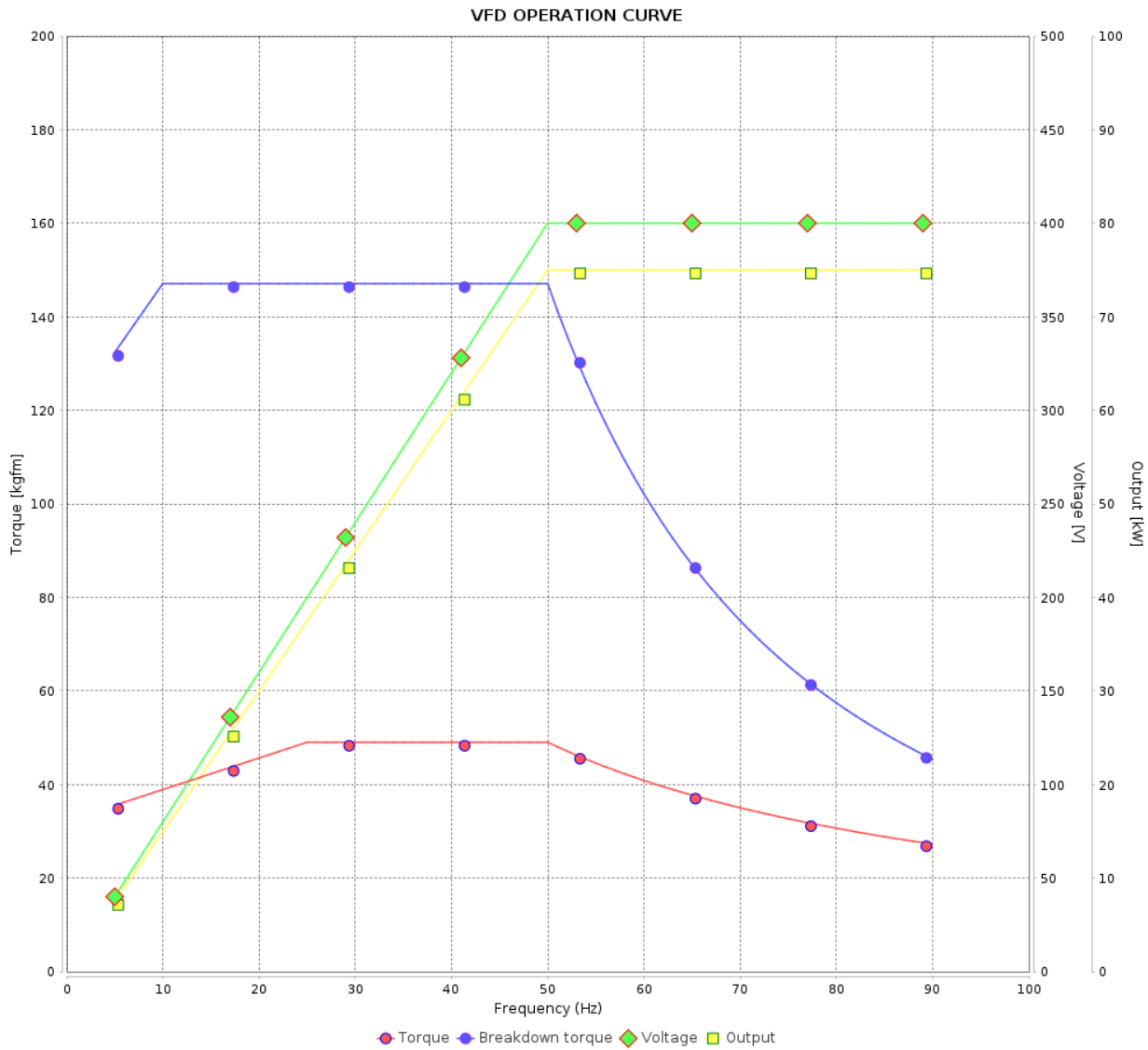
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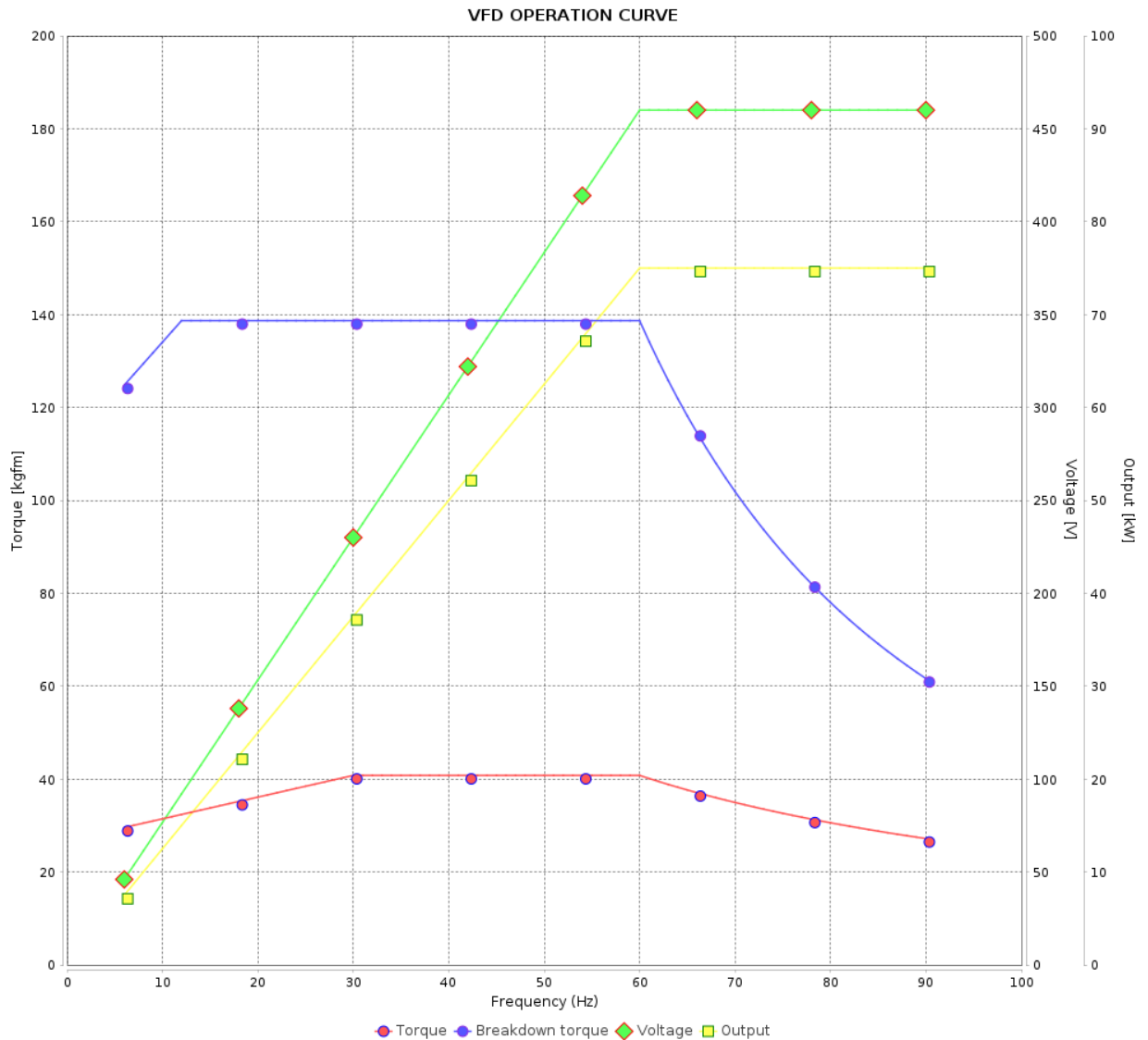
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