

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer		: Astraprom d.o.o.			
Product line		: Multimounting IE2 Three-Phase		Product code : 11687208	
Frame	: 71	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	: 10.0 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.0009 kgm ²		
Design	: N				
Output [kW]	0.55	0.55	0.55	0.55	0.55
Poles	4	4	4	4	4
Frequency [Hz]	50	50	50	50	60
Rated voltage [V]	220/380	230/400	240/415	460	
Rated current [A]	2.60/1.51	2.60/1.49	2.68/1.55	1.41	
L. R. Amperes [A]	13.0/7.55	13.0/7.45	13.4/7.75	7.47	
LRC [A]	5.0	5.0	5.0	5.3	
No load current [A]	1.62/0.938	1.82/1.05	2.02/1.17	1.15	
Rated speed [RPM]	1365	1375	1380	1705	
Slip [%]	9.00	8.33	8.00	5.28	
Rated torque [kgfm]	0.392	0.390	0.388	0.314	
Locked rotor torque [%]	260	280	300	320	
Breakdown torque [%]	270	290	310	330	
Service factor	1.00	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	34s (cold) 19s (hot)	34s (cold) 19s (hot)	34s (cold) 19s (hot)	34s (cold) 19s (hot)	
Noise level ²	43.0 dB(A)	43.0 dB(A)	43.0 dB(A)	47.0 dB(A)	
Efficiency (%)	25%	0.000	0.000	0.000	0.000
	50%	72.4	72.3	67.8	65.7
	75%	77.1	76.5	72.3	72.6
	100%	77.1	77.1	77.1	76.5
Power Factor	25%	0.00	0.00	0.00	0.00
	50%	0.51	0.45	0.42	0.44
	75%	0.63	0.58	0.53	0.55
	100%	0.72	0.69	0.64	0.64
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	28.0	28.0	28.0	29.0
	P2 (0,5;1,0)	25.2	25.2	25.2	26.1
	P3 (0,25;1,0)	27.1	27.1	27.1	28.0
	P4 (0,9;0,5)	16.2	16.2	16.2	16.8
	P5 (0,5;0,5)	12.2	12.2	12.2	12.6
	P6 (0,5;0,25)	10.0	10.0	10.0	10.3
	P7 (0,25;0,25)	7.3	7.3	7.3	7.6
Bearing type	: Drive end 6203 ZZ	Non drive end 6202 ZZ	Foundation loads		
Sealing	: V'Ring	V'Ring	Max. traction	: 32 kgf	
Lubrication interval	: 0 h	0 h	Max. compression	: 42 kgf	
Lubricant amount	: 0 g	0 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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TORQUE AND CURRENT VS SPEED CURVE

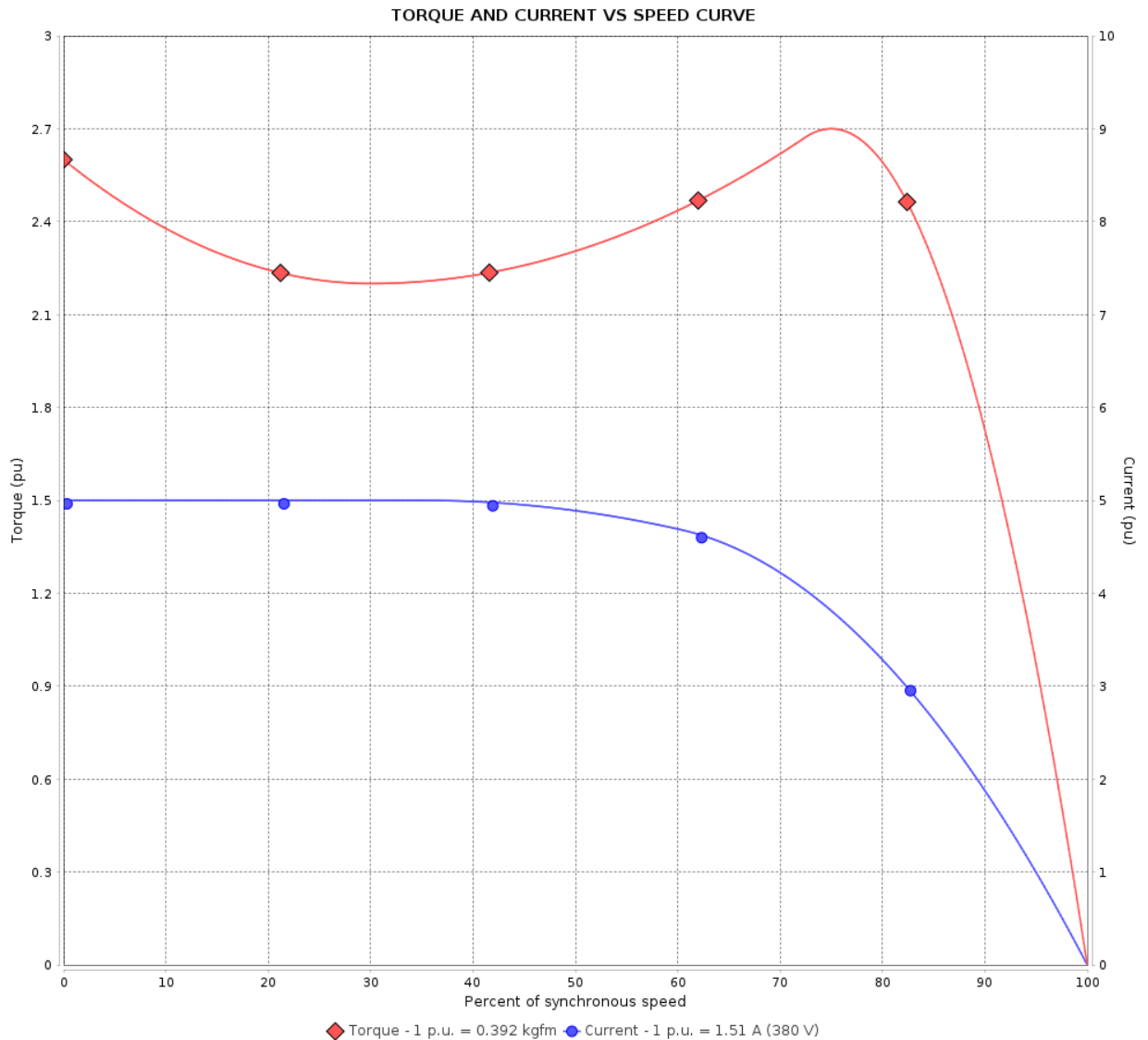
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : Multimounting IE2 Three-Phase

Product code : 11687208



Performance : 220/380 V 50 Hz 4P

Rated current	: 2.60/1.51 A	Moment of inertia (J)	: 0.0009 kgm ²
LRC	: 5.0	Duty cycle	: S1
Rated torque	: 0.392 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1365 rpm	Design	: N

Locked rotor time : 34s (cold) 19s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

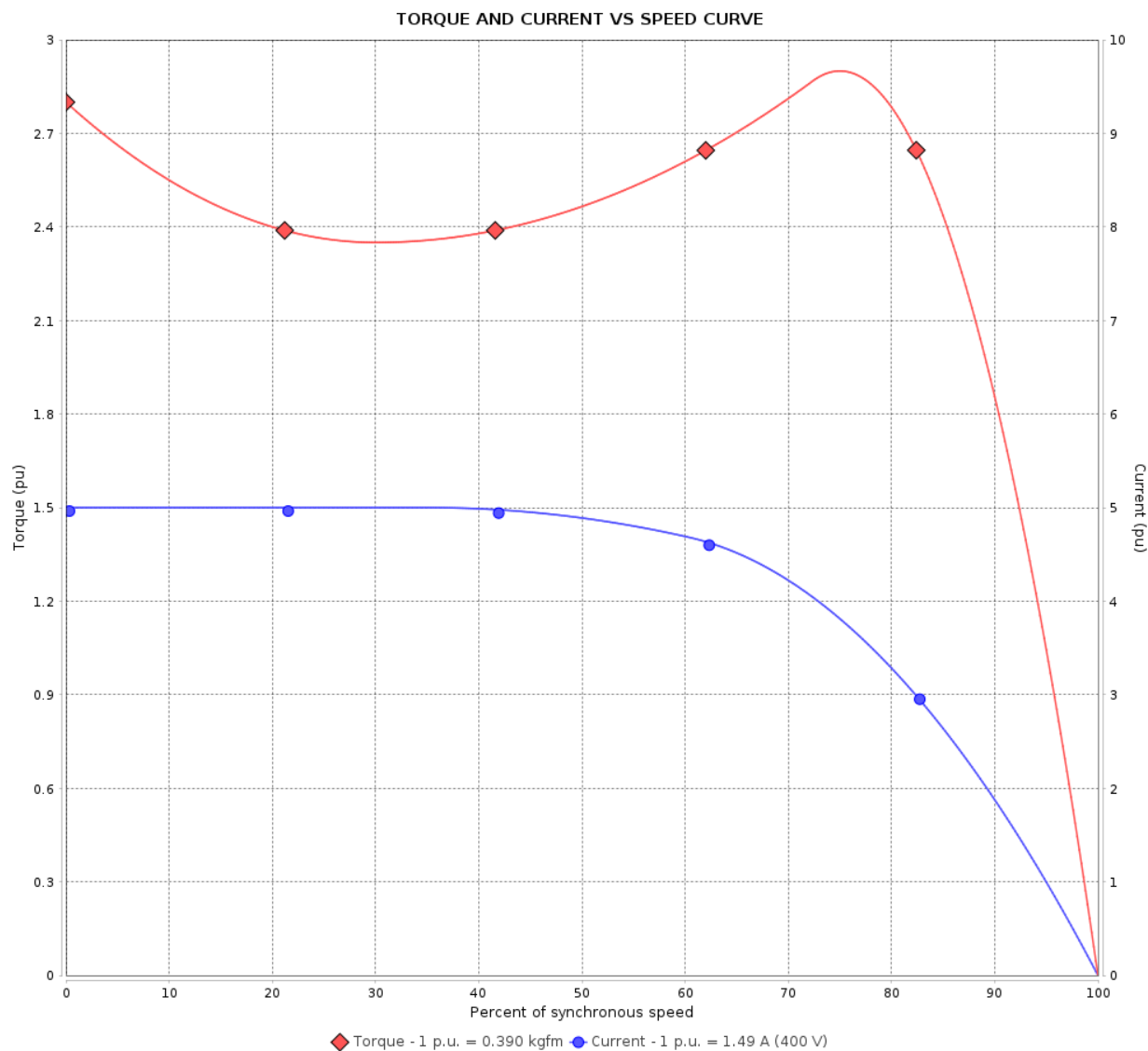
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : Multimounting IE2 Three-Phase

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Performance : 230/400 V 50 Hz 4P

Rated current	: 2.60/1.49 A	Moment of inertia (J)	: 0.0009 kgm ²
LRC	: 5.0	Duty cycle	: S1
Rated torque	: 0.390 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1375 rpm	Design	: N

Locked rotor time : 34s (cold) 19s (hot)

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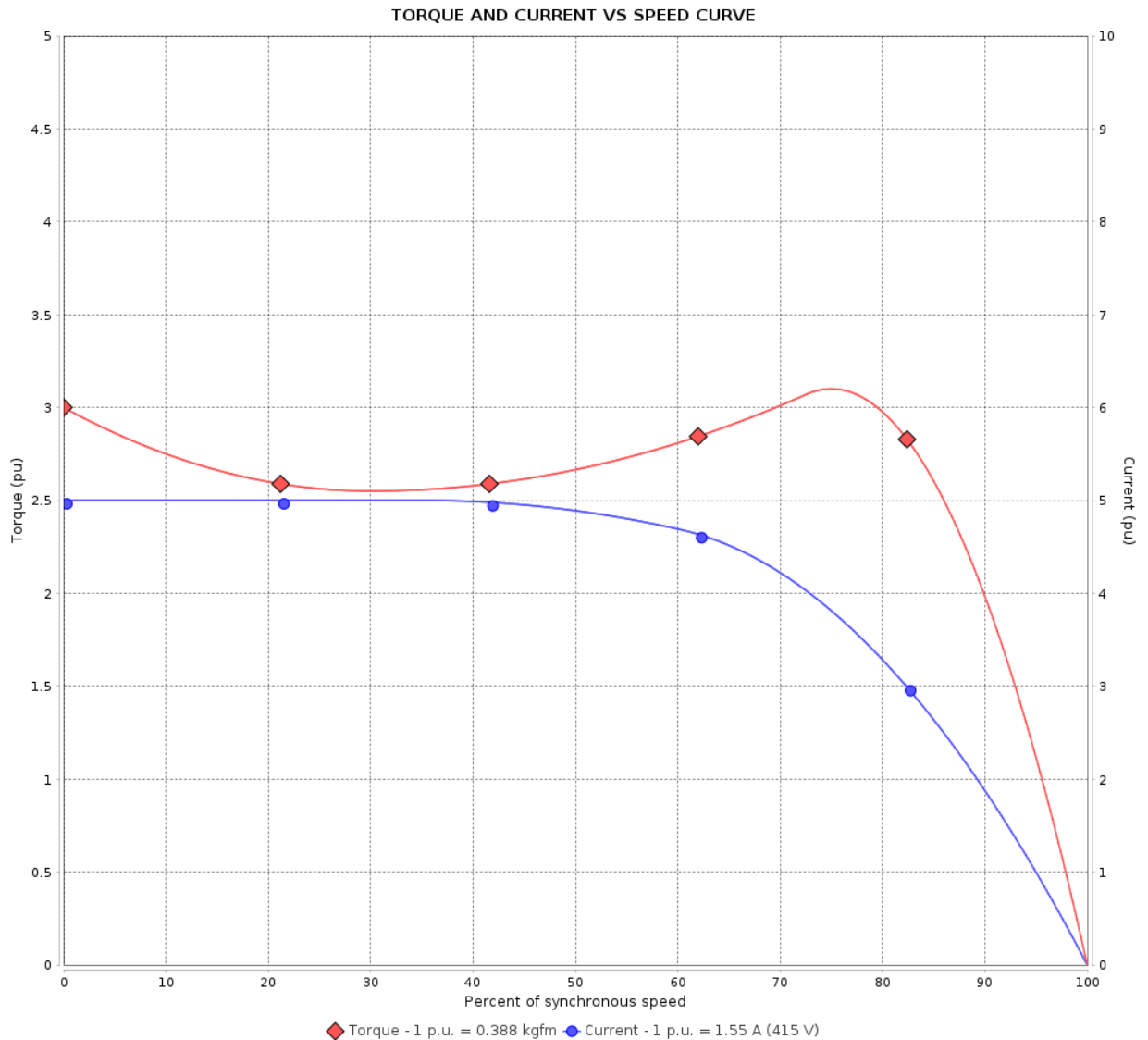
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

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Performance : 240/415 V 50 Hz 4P

Rated current	: 2.68/1.55 A	Moment of inertia (J)	: 0.0009 kgm ²
LRC	: 5.0	Duty cycle	: S1
Rated torque	: 0.388 kgfm	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1380 rpm	Design	: N

Locked rotor time : 34s (cold) 19s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

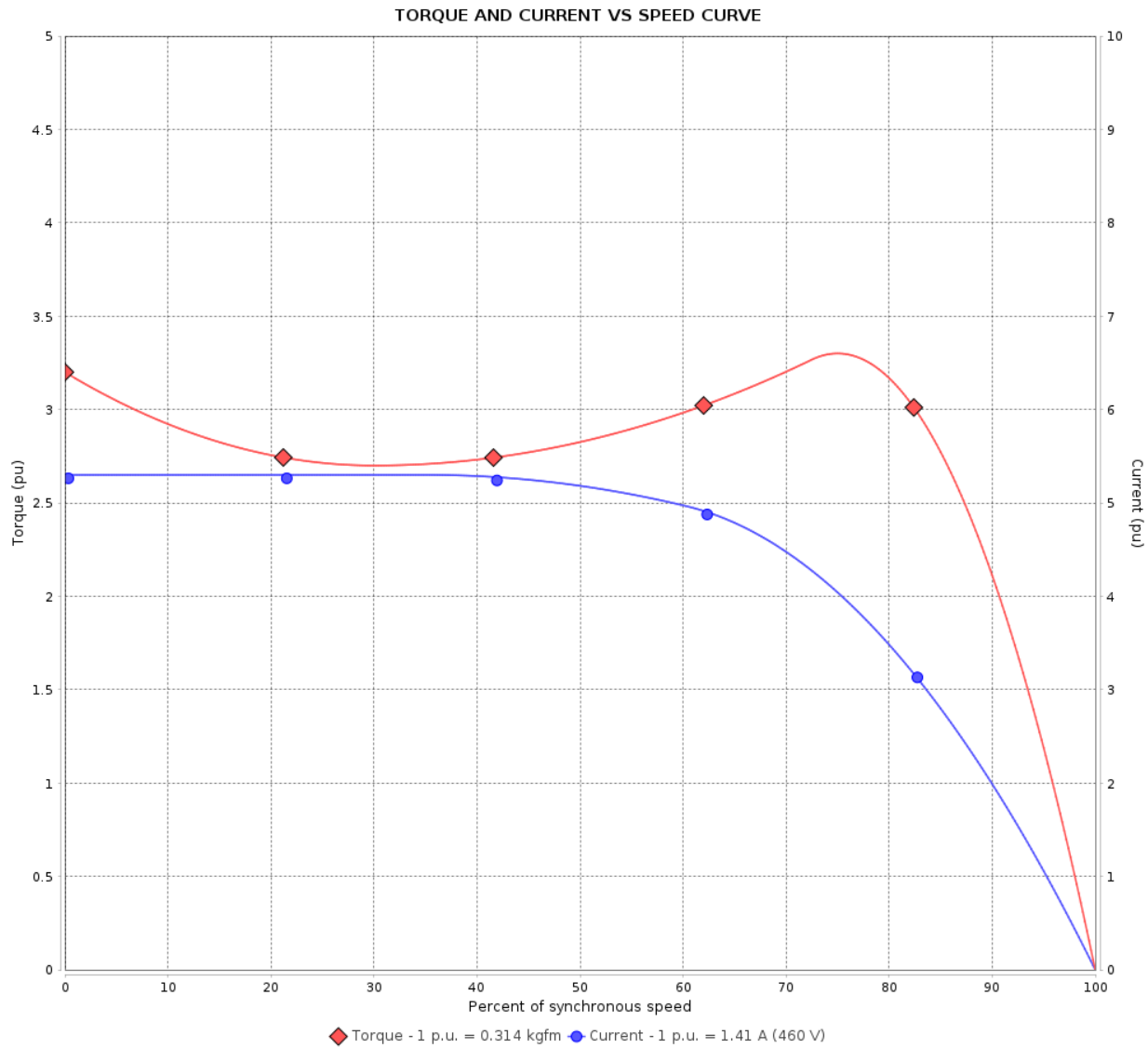
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : Multimounting IE2 Three-Phase

Product code : 11687208



Performance : 460 V 60 Hz 4P

Rated current	: 1.41 A	Moment of inertia (J)	: 0.0009 kgm ²
LRC	: 5.3	Duty cycle	: S1
Rated torque	: 0.314 kgfm	Insulation class	: F
Locked rotor torque	: 320 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1705 rpm	Design	: N

Locked rotor time : 34s (cold) 19s (hot)

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LOAD PERFORMANCE CURVE

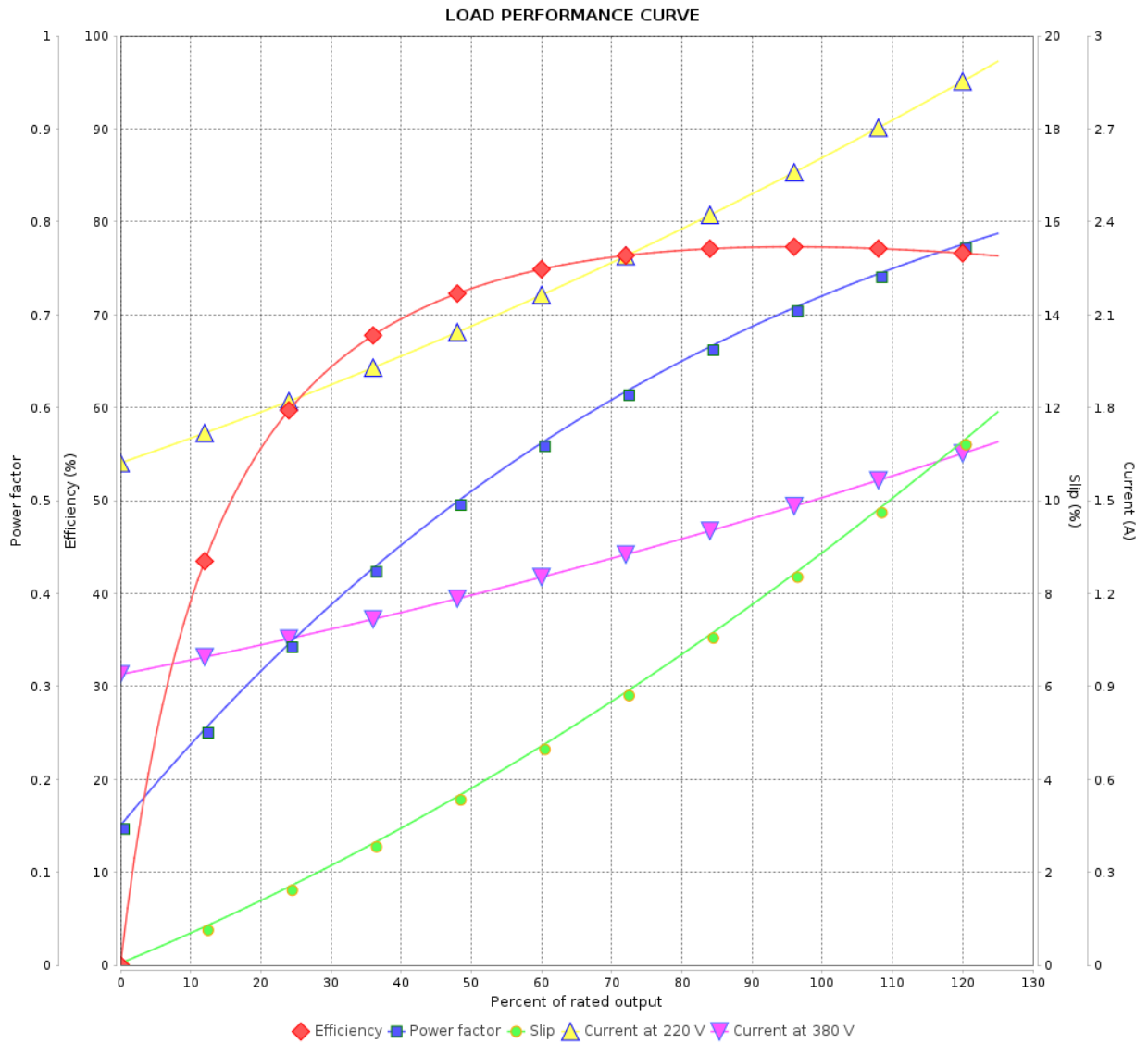
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Performance : 220/380 V 50 Hz 4P

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 Locked rotor torque : 260 %
 Breakdown torque : 270 %
 Rated speed : 1365 rpm

Moment of inertia (J) : 0.0009 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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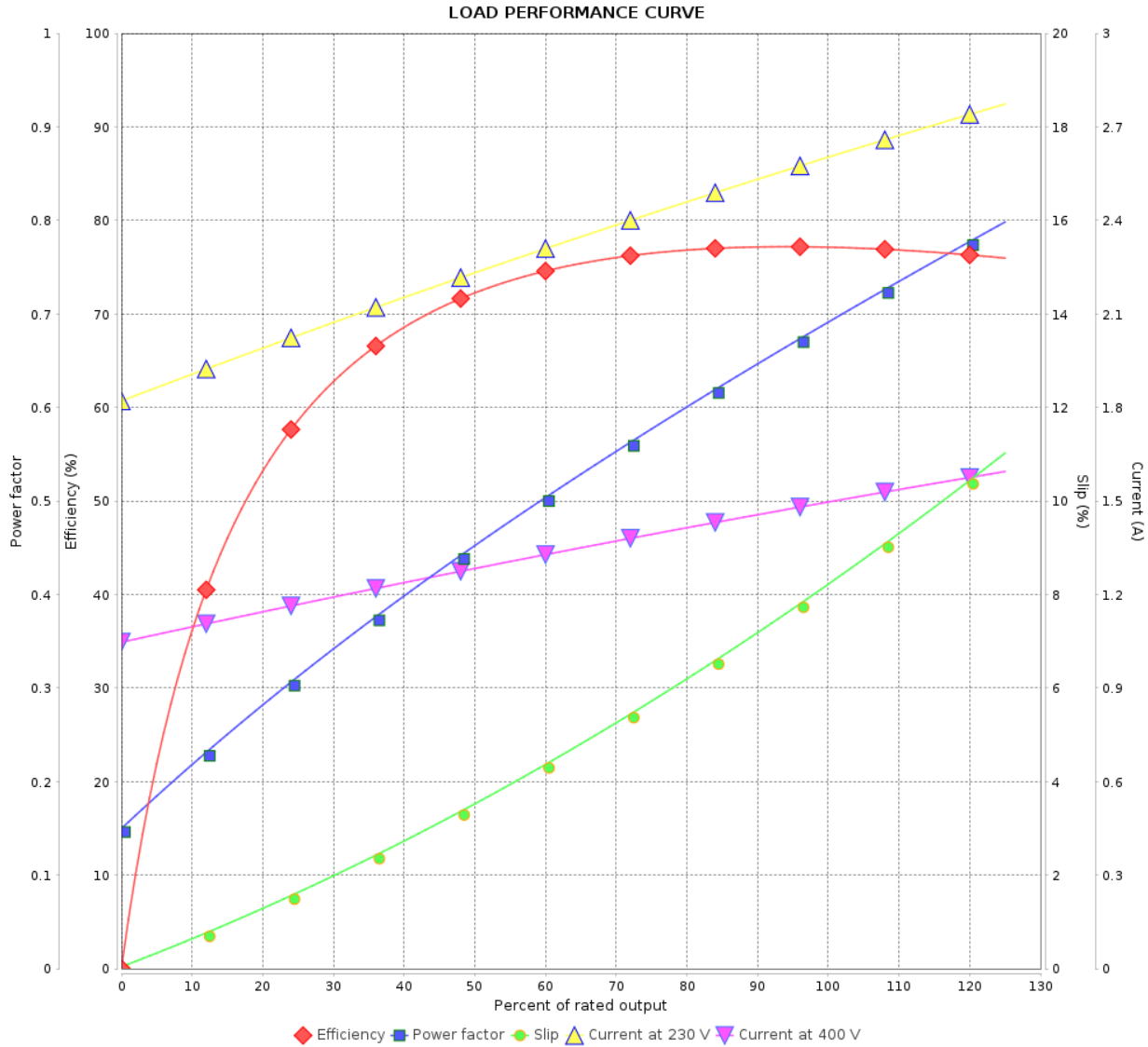
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Performance : 230/400 V 50 Hz 4P

Rated current : 2.60/1.49 A
 LRC : 5.0
 Rated torque : 0.390 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 290 %
 Rated speed : 1375 rpm

Moment of inertia (J) : 0.0009 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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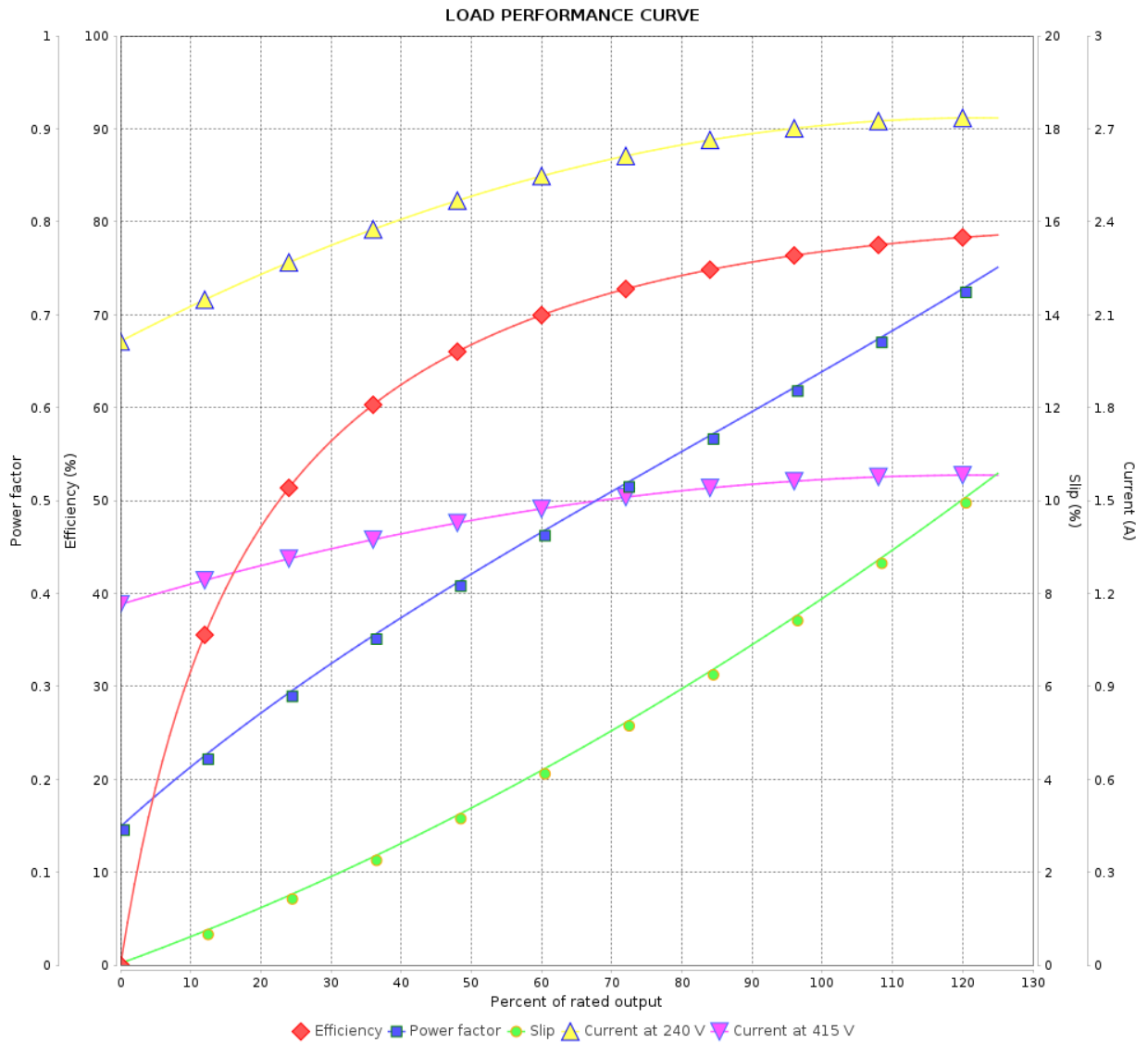
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 Rated speed : 1380 rpm

Moment of inertia (J) : 0.0009 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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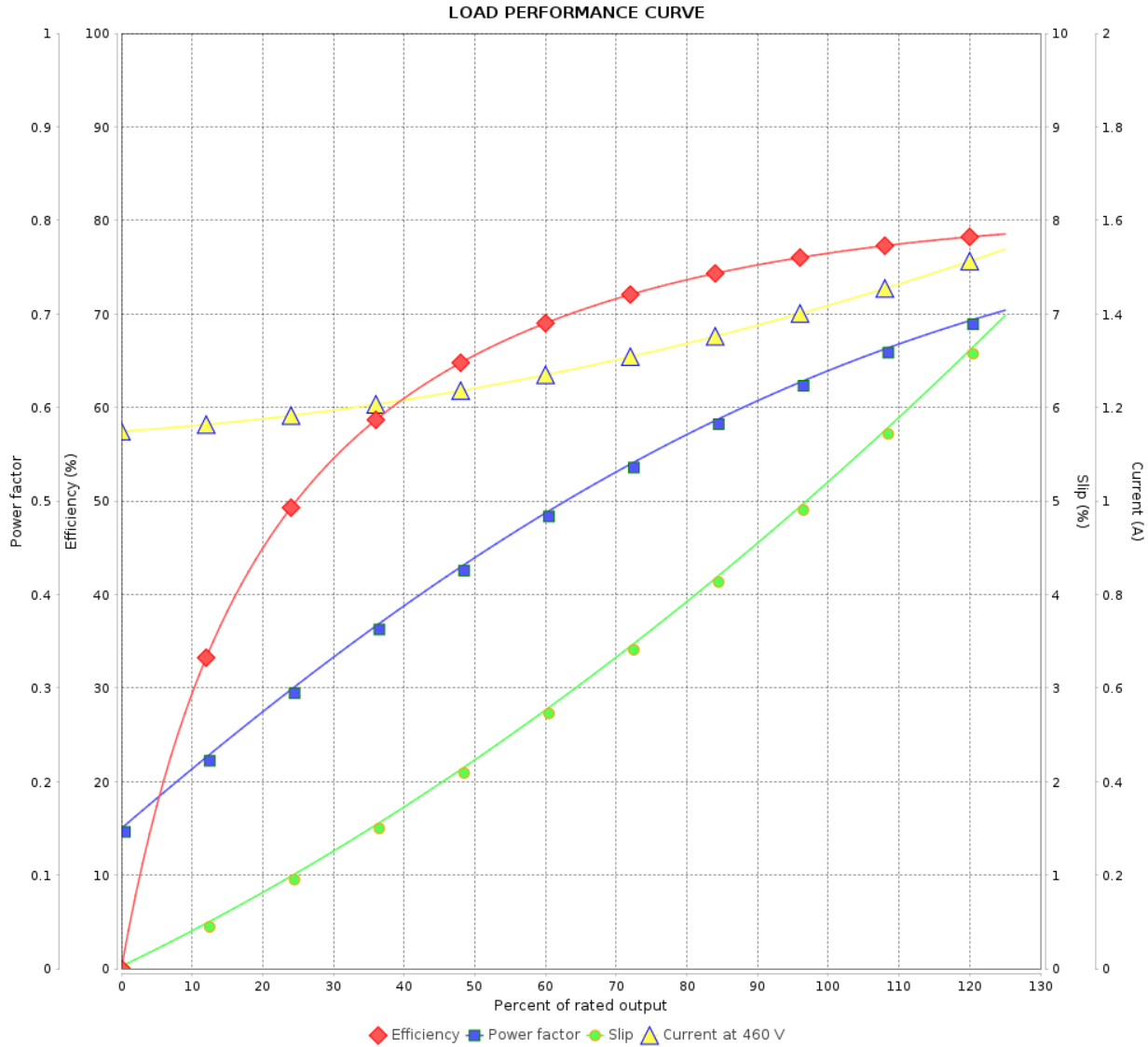
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THERMAL LIMIT CURVE

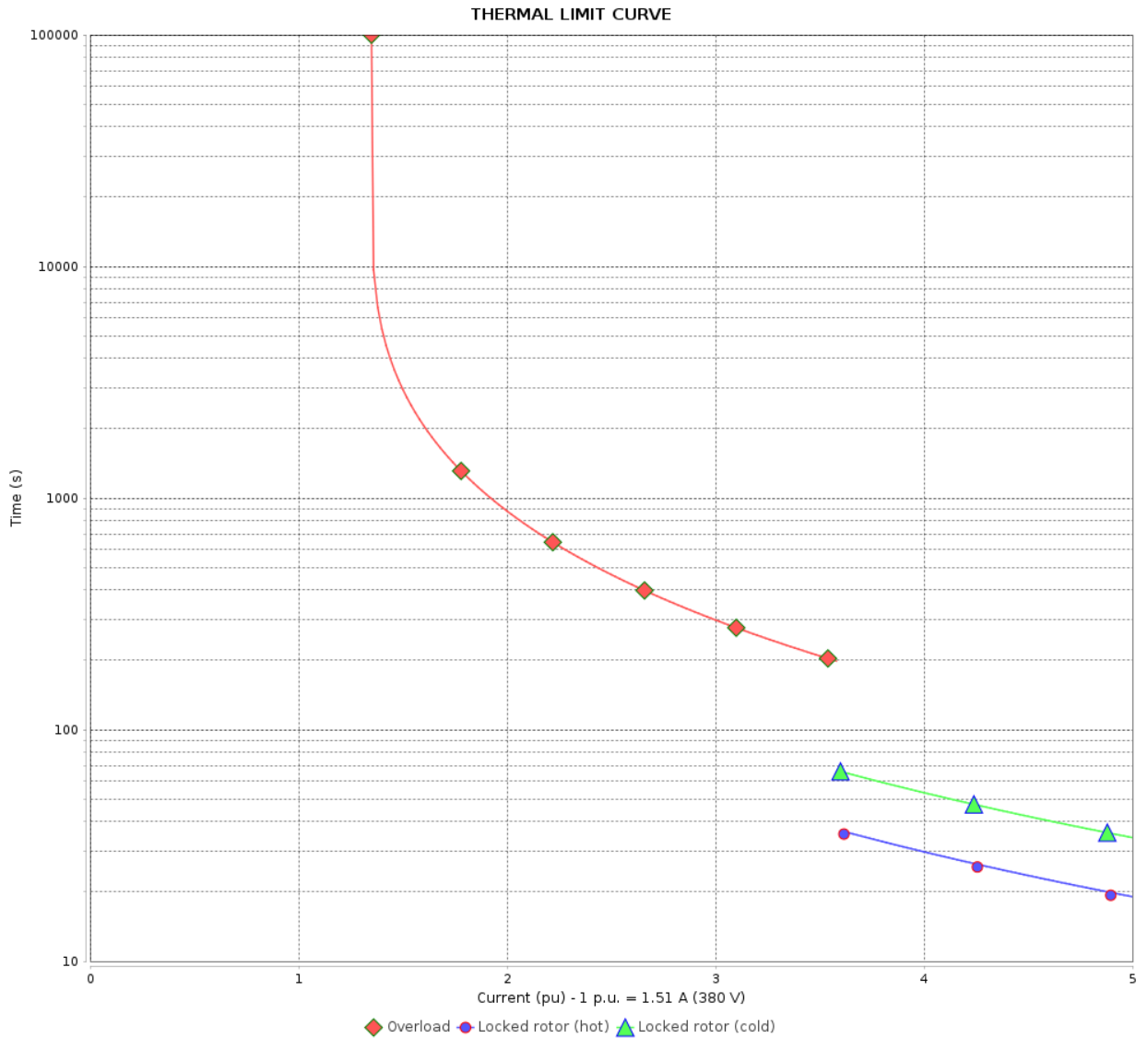
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 Duty cycle : S1
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 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Heating constant

Cooling constant

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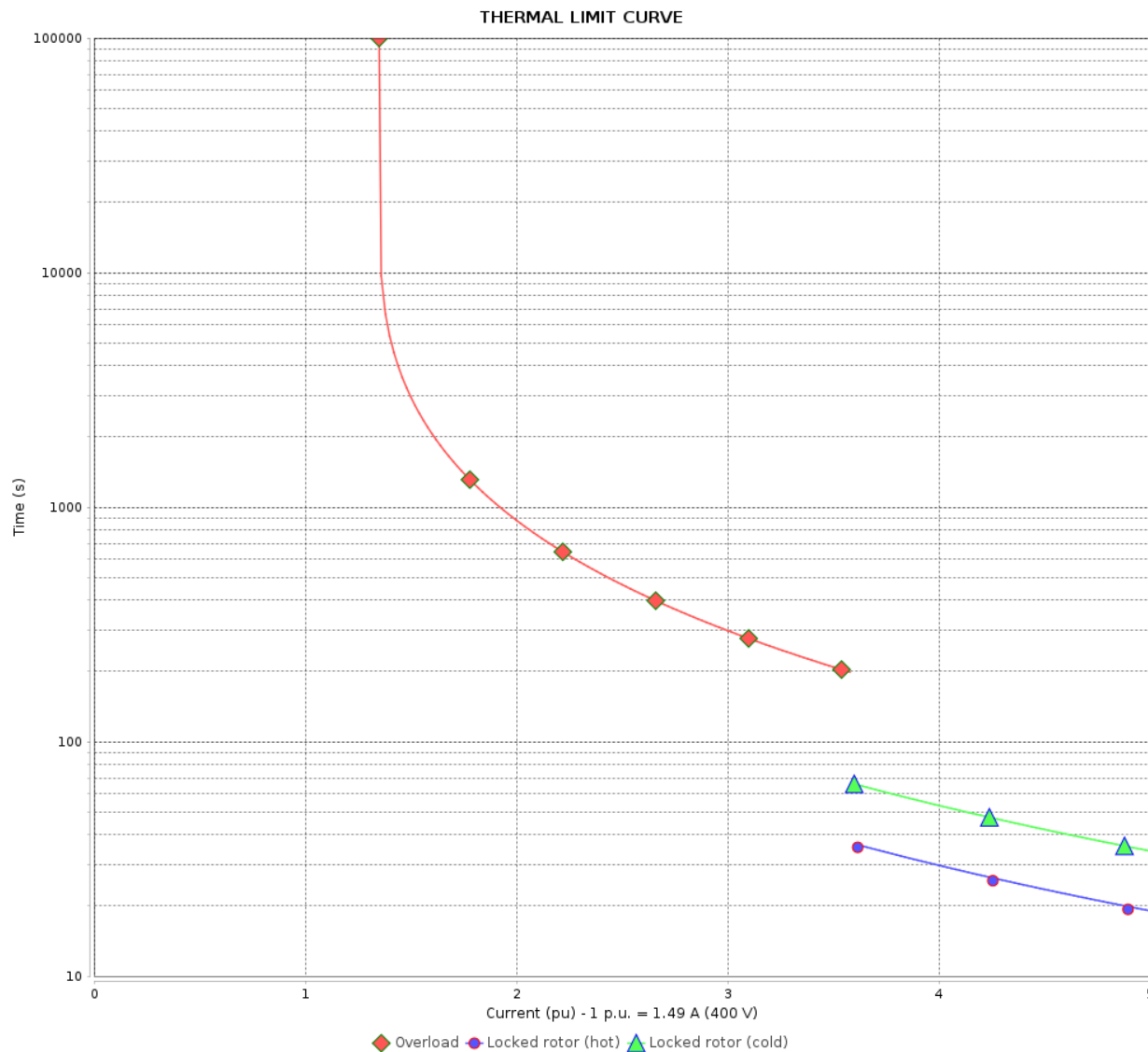
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Breakdown torque	: 290 %	Temperature rise	: 80 K
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Heating constant
Cooling constant

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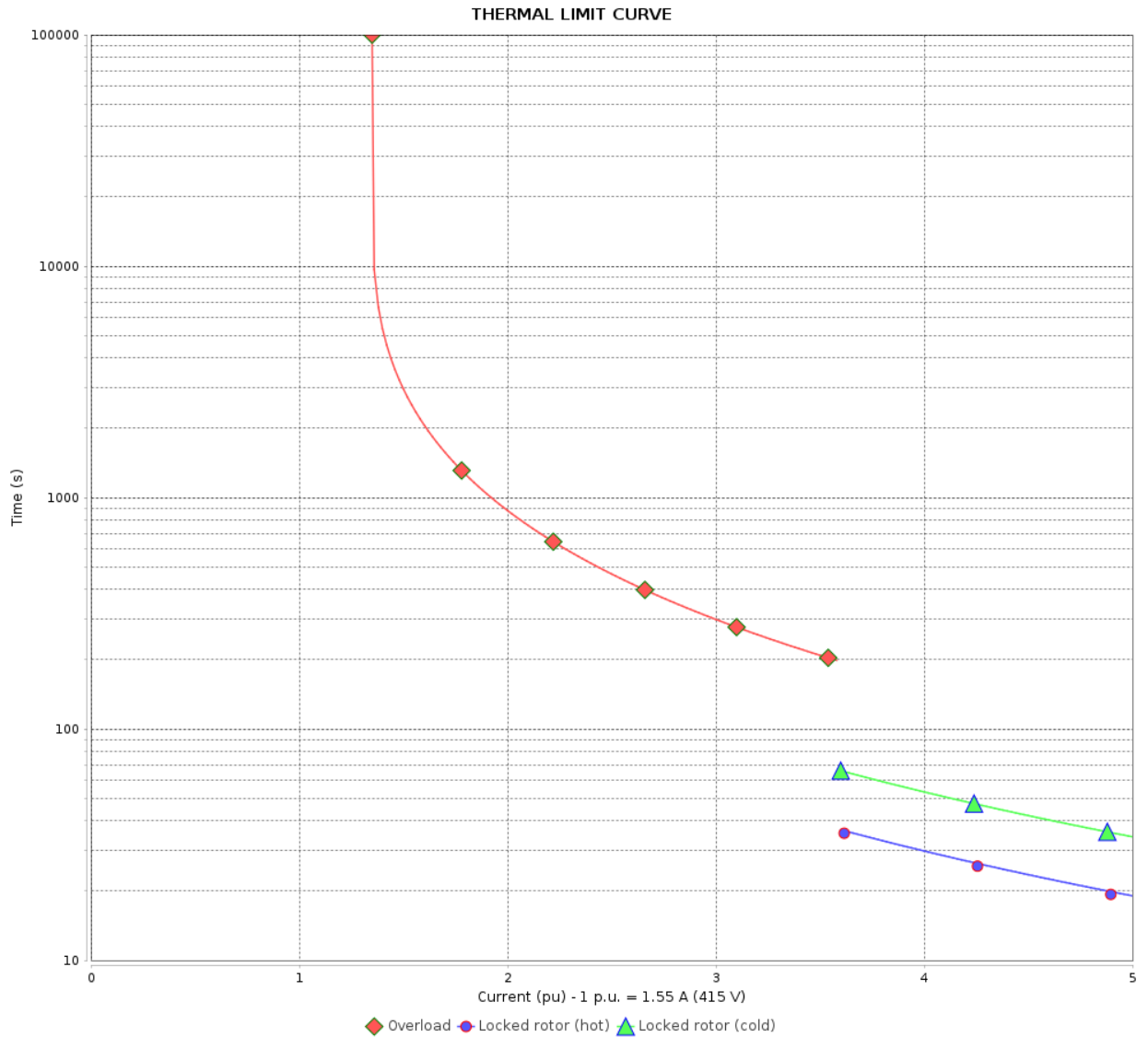
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Cooling constant

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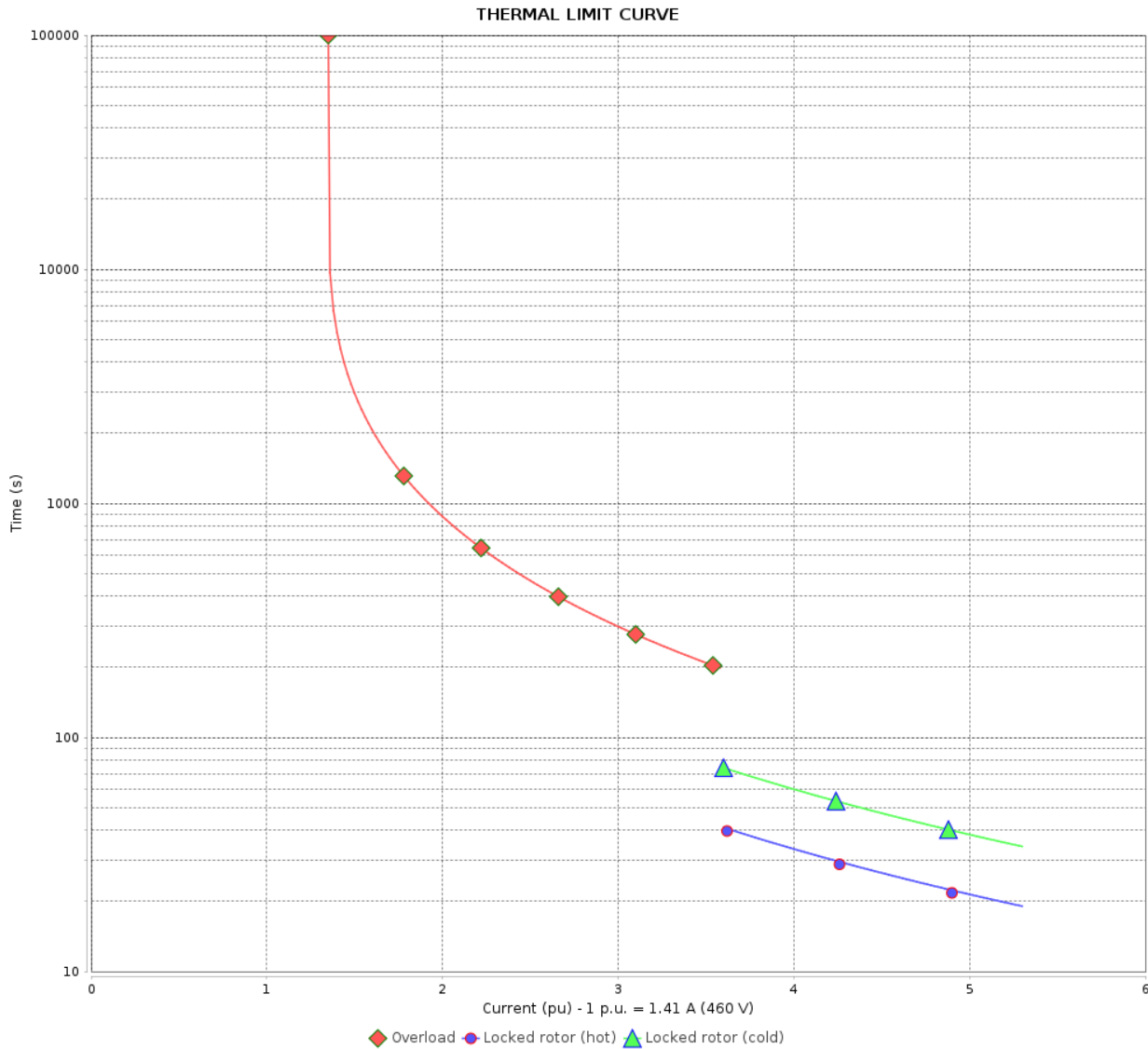
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Rated speed	: 1705 rpm	Design	: N

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VFD OPERATION CURVE

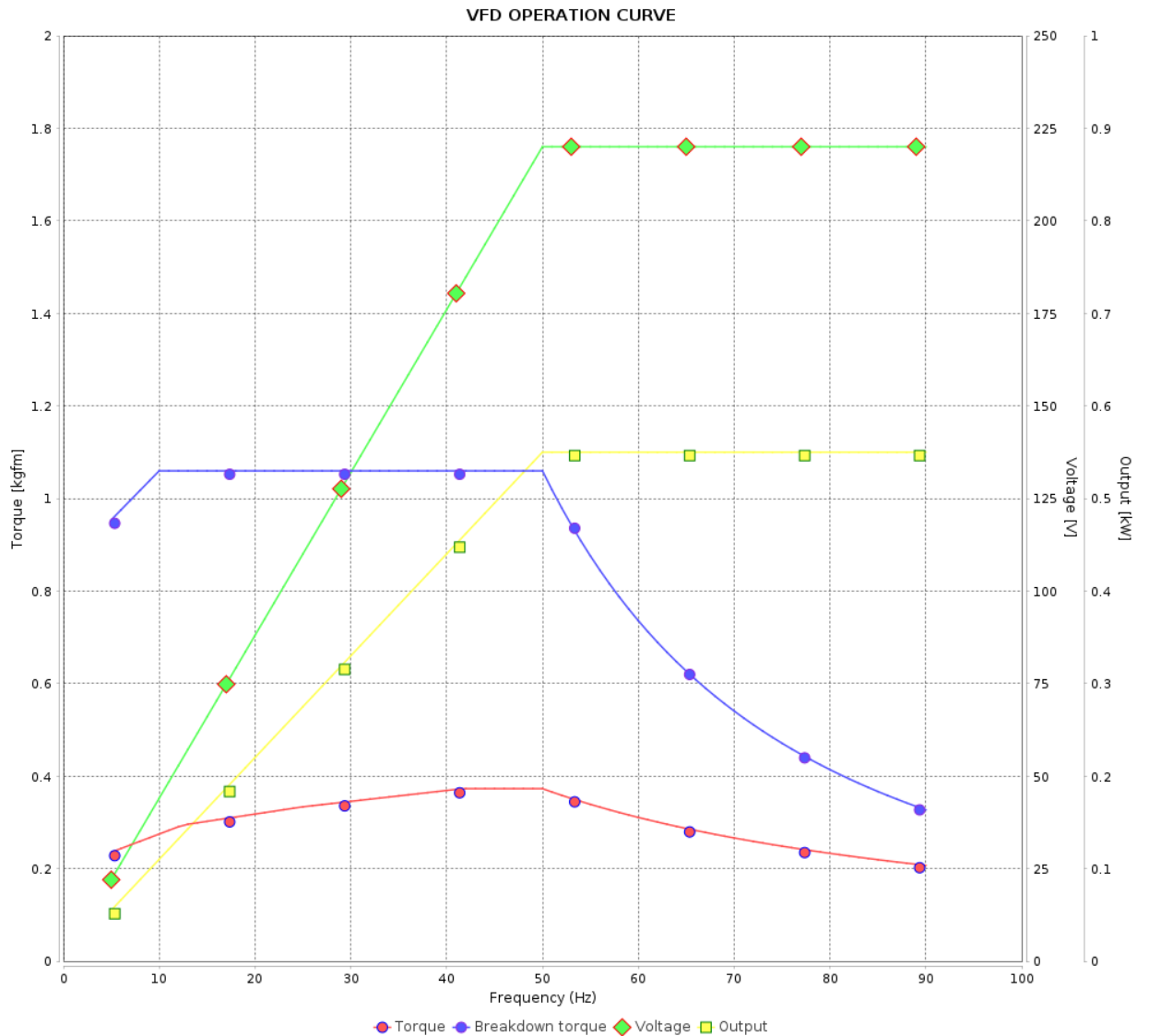
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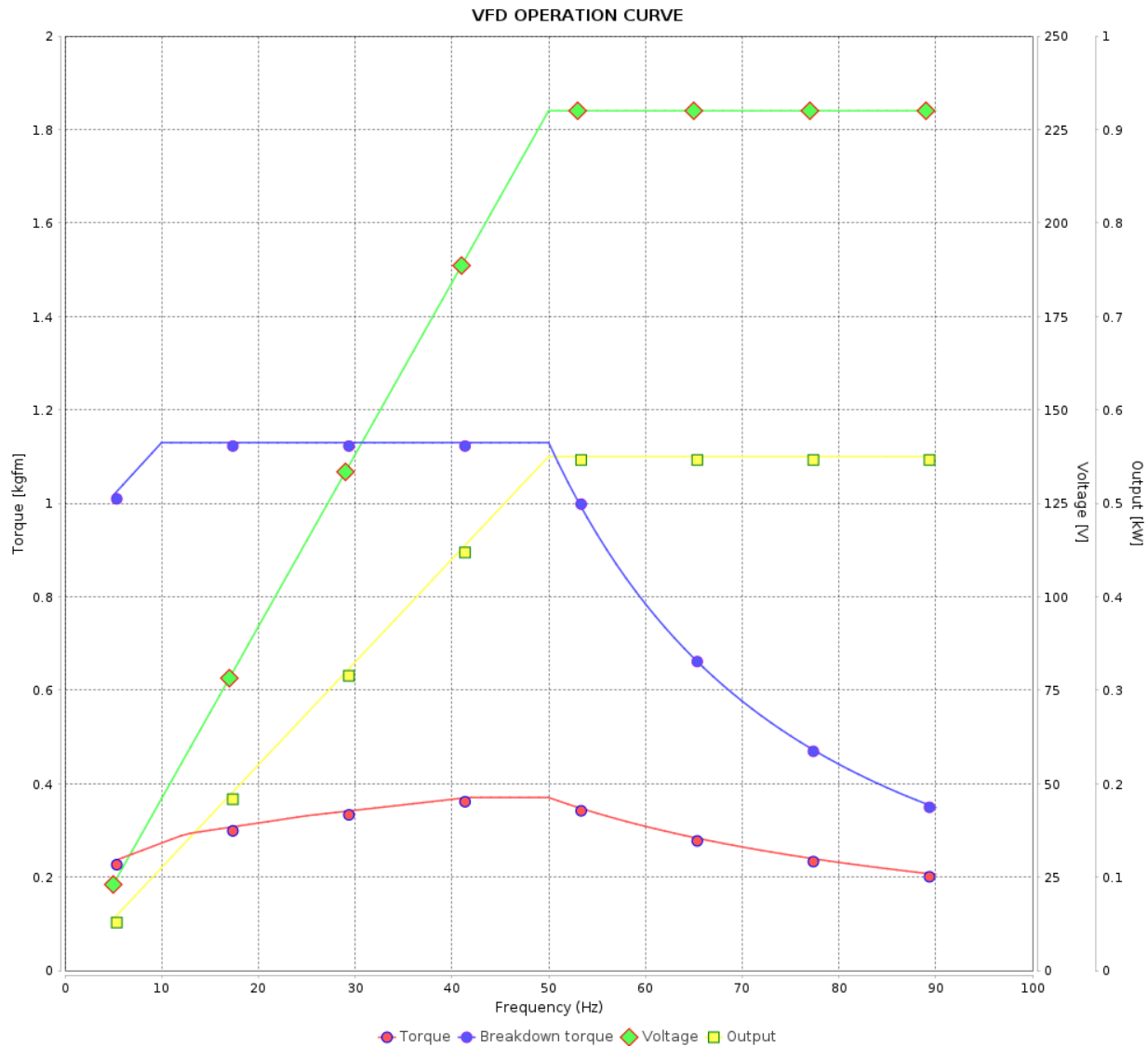
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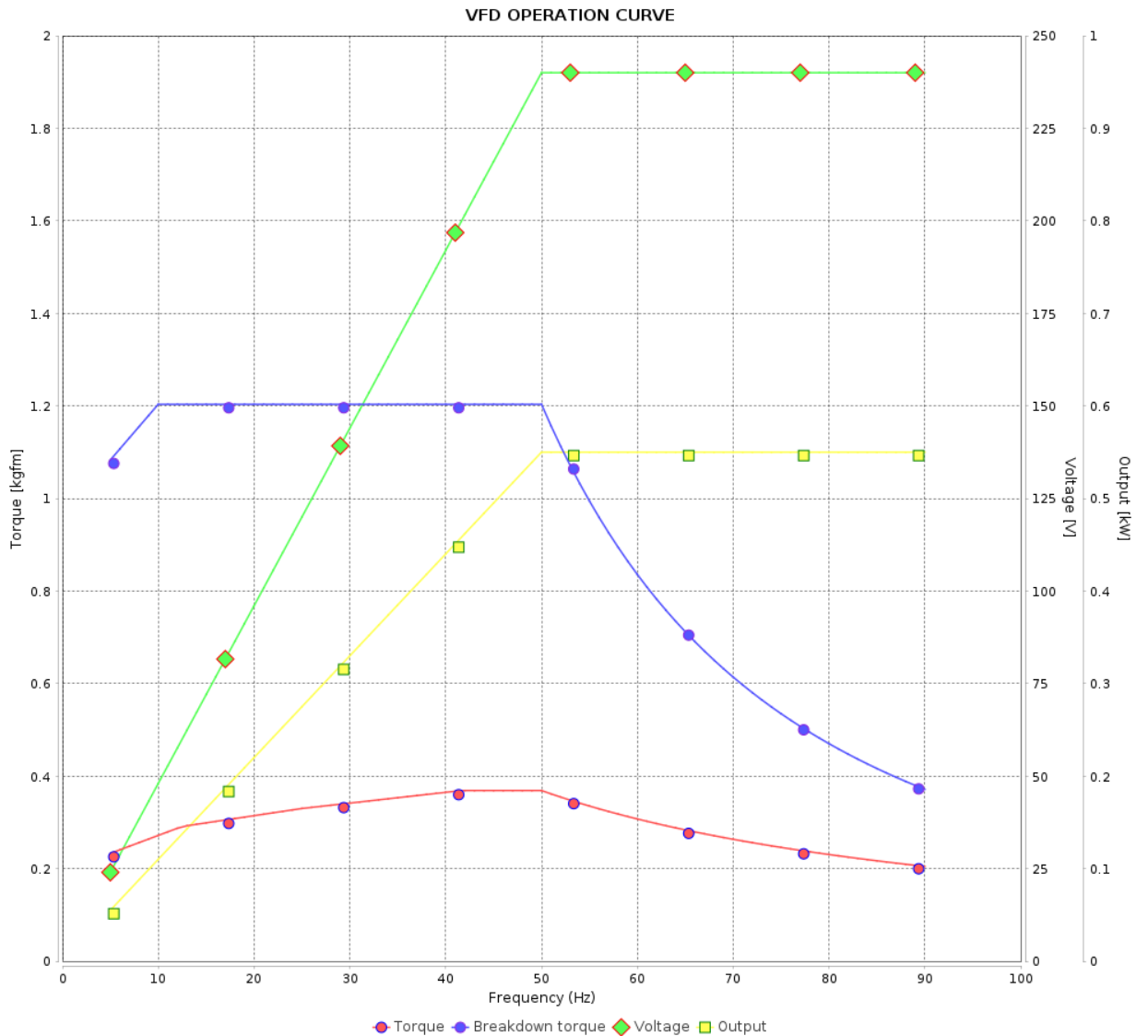
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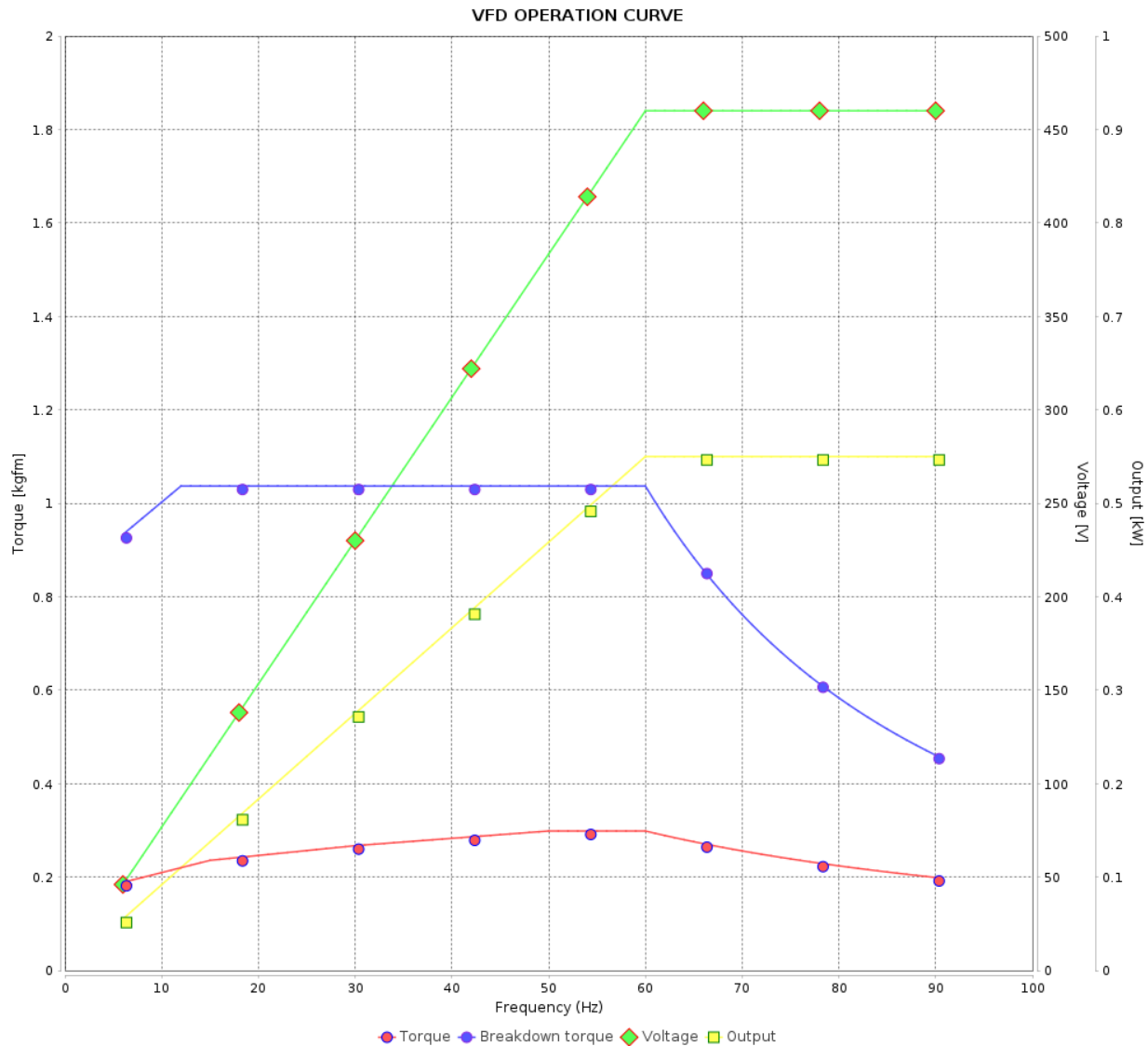
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