

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer		: Astraprom d.o.o.			
Product line		: Multimounting IE3 Three-Phase		Product code : 13749673	
Frame	: L80	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 ²	: 14.6 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.0034 kgm ²		
Design	: N				
Output [kW]	0.55	0.55	0.55	0.55	0.55
Poles	6	6	6	6	6
Frequency [Hz]	50	50	50	50	60
Rated voltage [V]	220/380	230/400	240/415	460	
Rated current [A]	2.56/1.48	2.59/1.49	2.63/1.52	1.35	
L. R. Amperes [A]	13.0/7.55	13.2/7.60	13.7/7.90	8.24	
LRC [A]	5.1	5.1	5.2	6.1	
No load current [A]	1.82/1.06	2.06/1.19	2.26/1.31	1.08	
Rated speed [RPM]	940	945	950	1155	
Slip [%]	6.00	5.50	5.00	3.75	
Rated torque [kgfm]	0.570	0.567	0.564	0.464	
Locked rotor torque [%]	260	290	320	350	
Breakdown torque [%]	270	310	340	390	
Service factor	1.00	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	
Noise level ²	43.0 dB(A)	43.0 dB(A)	43.0 dB(A)	47.0 dB(A)	
Efficiency (%)	25%				
	50%	73.4	70.5	67.9	71.9
	75%	76.7	75.2	75.0	77.0
	100%	77.2	77.2	77.2	80.0
Power Factor	25%				
	50%	0.49	0.45	0.42	0.42
	75%	0.63	0.58	0.55	0.54
	100%	0.73	0.69	0.65	0.64
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	28.5	28.5	28.5	24.1
	P2 (0,5;1,0)	25.7	25.7	25.7	21.8
	P3 (0,25;1,0)	25.9	25.9	25.9	22.0
	P4 (0,9;0,5)	17.2	17.2	17.2	14.5
	P5 (0,5;0,5)	13.1	13.1	13.1	11.1
	P6 (0,5;0,25)	10.9	10.9	10.9	9.3
	P7 (0,25;0,25)	8.2	8.2	8.2	6.9
Bearing type	: Drive end 6204 ZZ Non drive end 6203 ZZ	Foundation loads			
Sealing	: Oil Seal Oil Seal	Max. traction : 50 kgf			
Lubrication interval	: - -	Max. compression : 65 kgf			
Lubricant amount	: - -				
Lubricant type	: Mobil Polyrex EM				
This revision replaces and cancel the previous one, which must be eliminated.		These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in IEC 60034-1.			
(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.					
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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

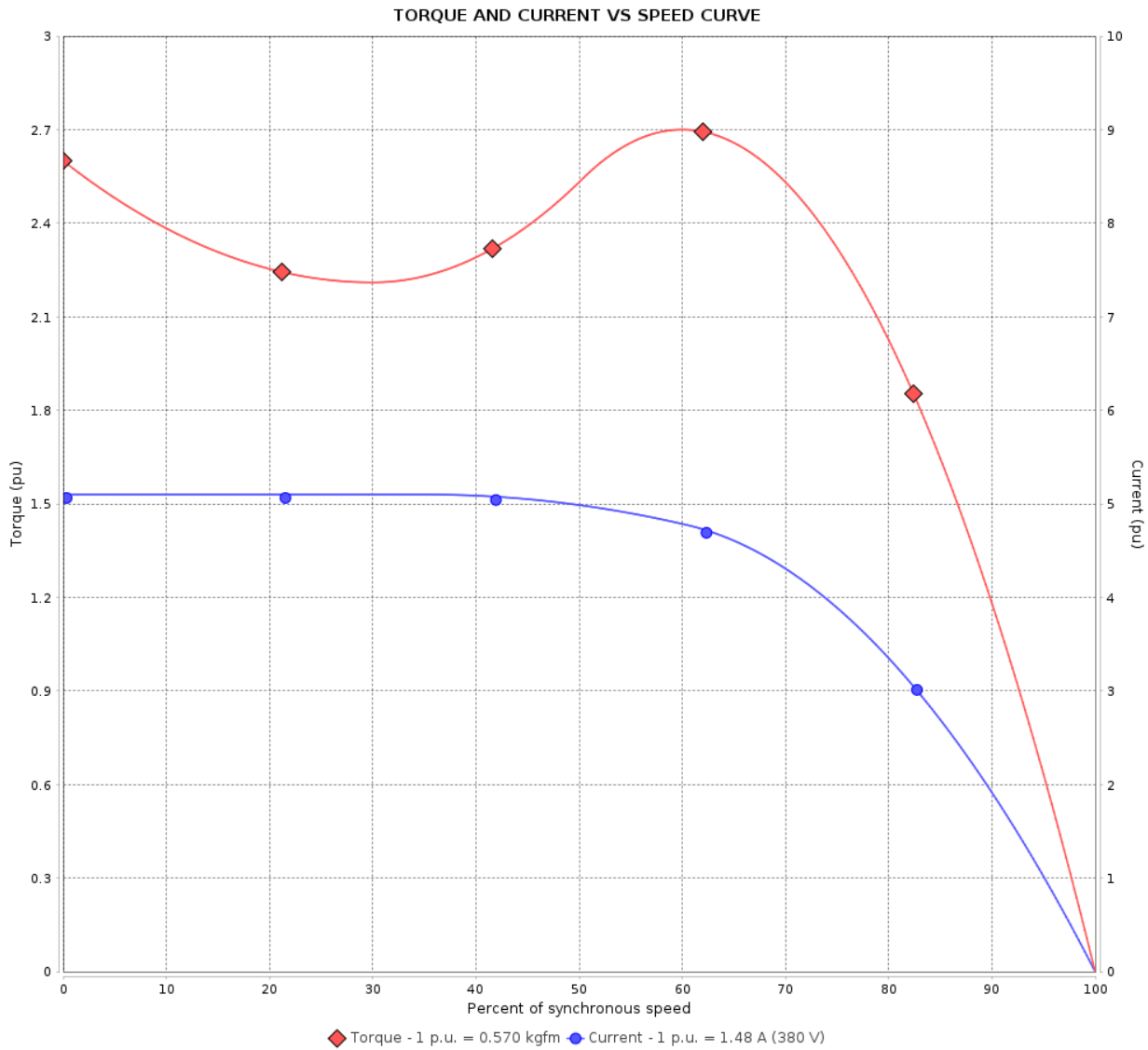
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code : 13749673



Performance : 220/380 V 50 Hz 6P

Rated current	: 2.56/1.48 A	Moment of inertia (J)	: 0.0034 kgm ²
LRC	: 5.1	Duty cycle	: S1
Rated torque	: 0.570 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 940 rpm	Design	: N

Locked rotor time : 36s (cold) 20s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

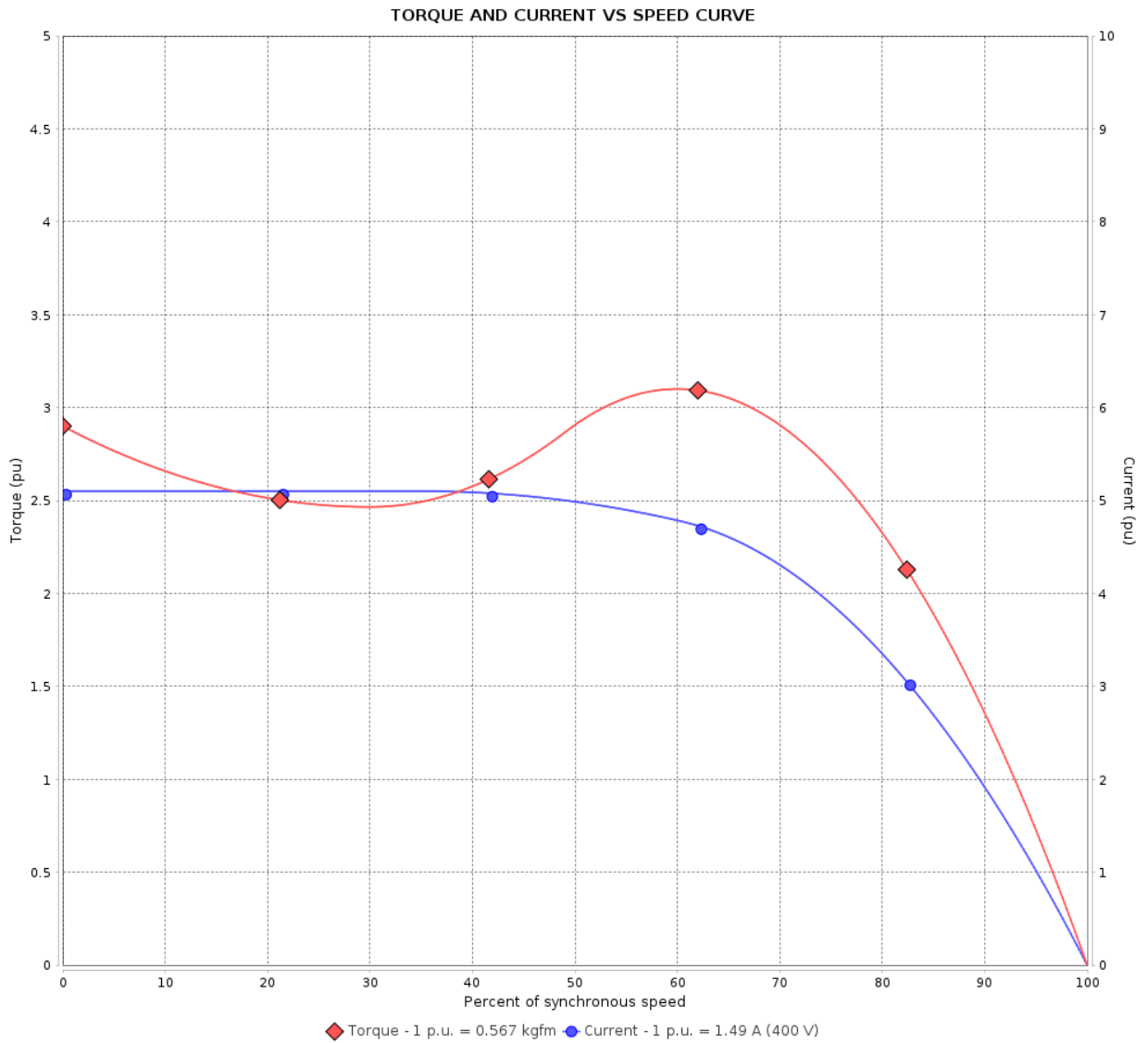
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

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Performance : 230/400 V 50 Hz 6P

Rated current	: 2.59/1.49 A	Moment of inertia (J)	: 0.0034 kgm ²
LRC	: 5.1	Duty cycle	: S1
Rated torque	: 0.567 kgfm	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 945 rpm	Design	: N

Locked rotor time : 36s (cold) 20s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

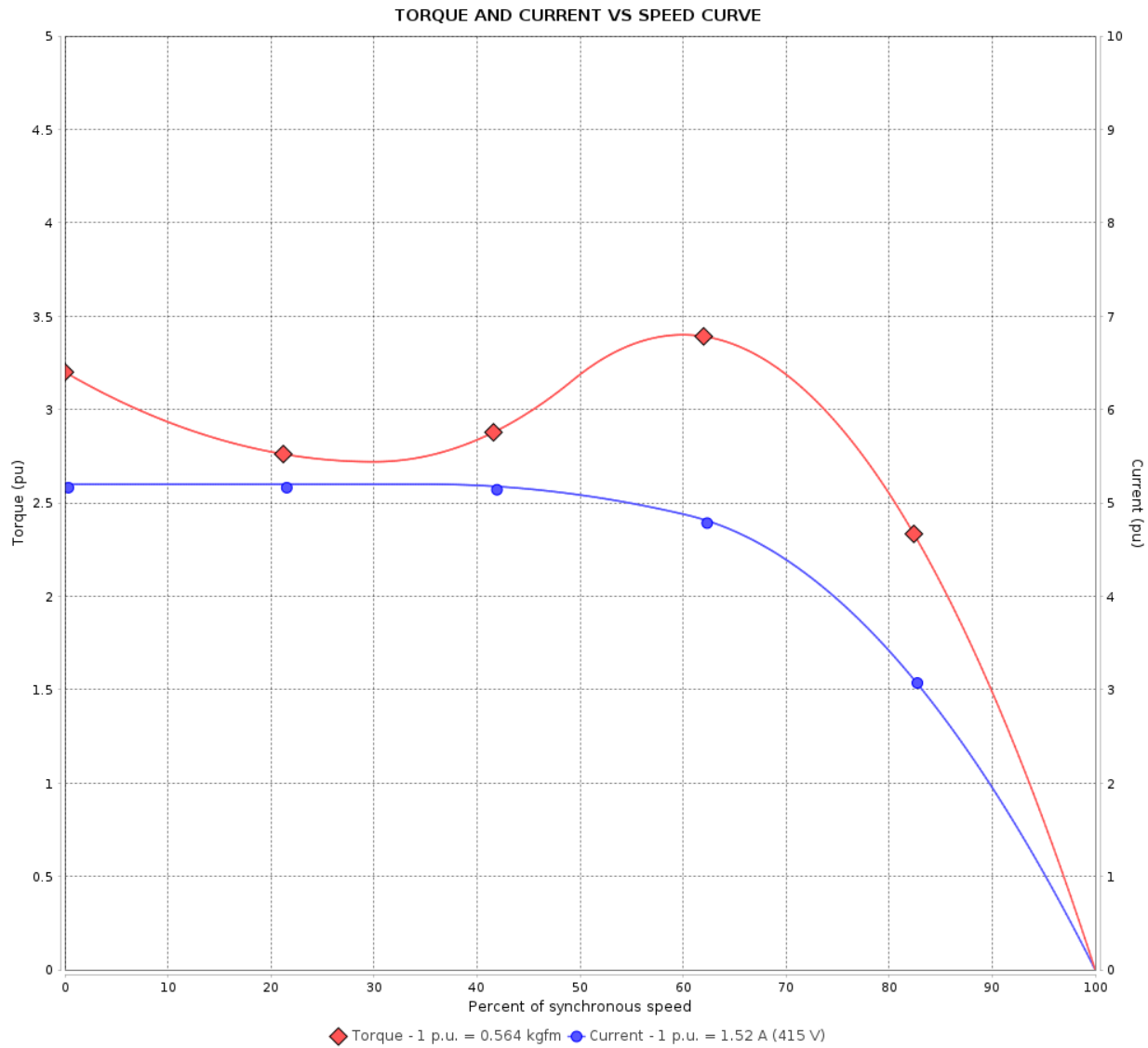
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code : 13749673



Performance : 240/415 V 50 Hz 6P

Rated current	: 2.63/1.52 A	Moment of inertia (J)	: 0.0034 kgm ²
LRC	: 5.2	Duty cycle	: S1
Rated torque	: 0.564 kgfm	Insulation class	: F
Locked rotor torque	: 320 %	Service factor	: 1.00
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 950 rpm	Design	: N

Locked rotor time : 36s (cold) 20s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

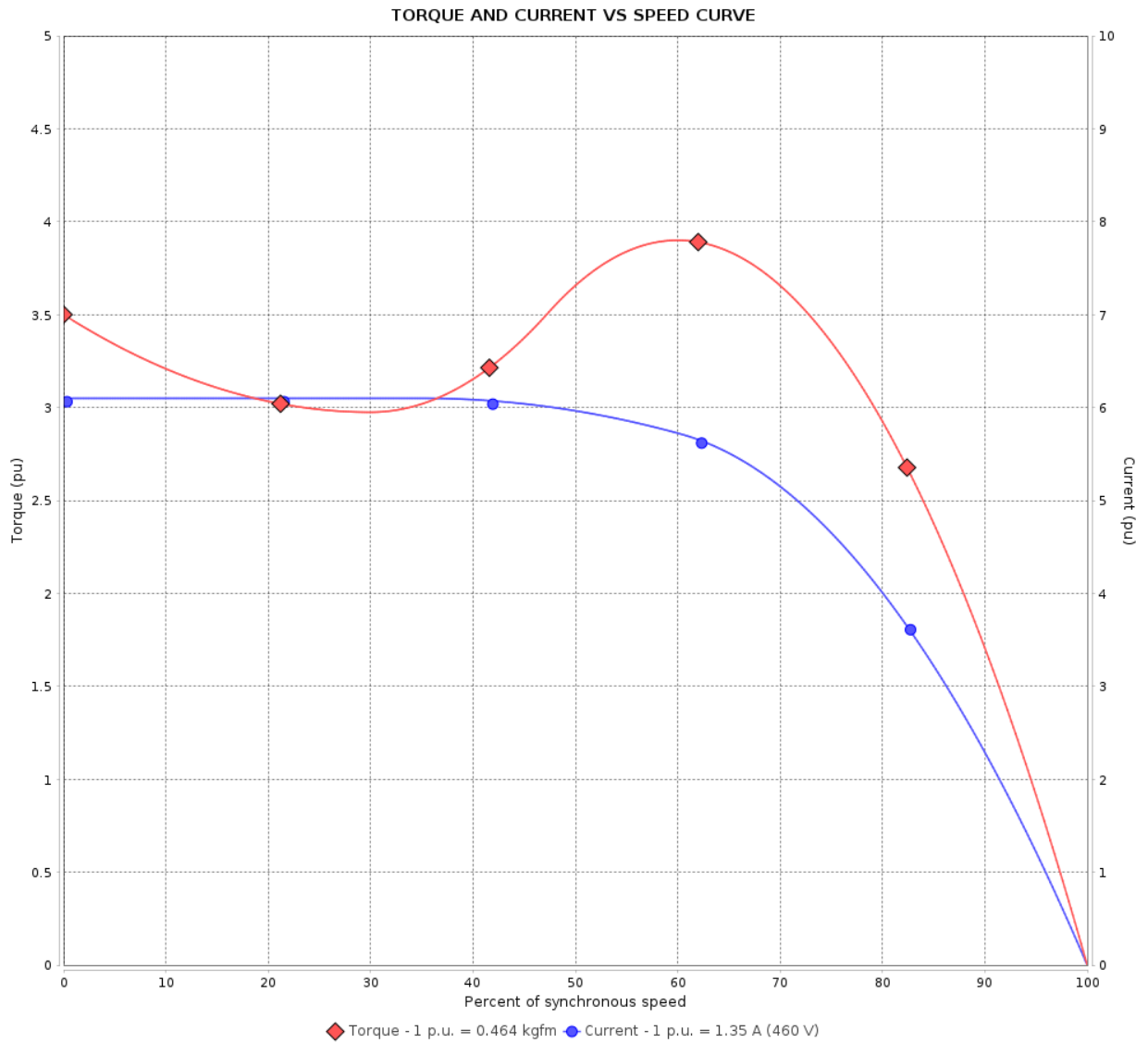
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code : 13749673



Performance : 460 V 60 Hz 6P

Rated current	: 1.35 A	Moment of inertia (J)	: 0.0034 kgm ²
LRC	: 6.1	Duty cycle	: S1
Rated torque	: 0.464 kgfm	Insulation class	: F
Locked rotor torque	: 350 %	Service factor	: 1.00
Breakdown torque	: 390 %	Temperature rise	: 80 K
Rated speed	: 1155 rpm	Design	: N

Locked rotor time : 36s (cold) 20s (hot)

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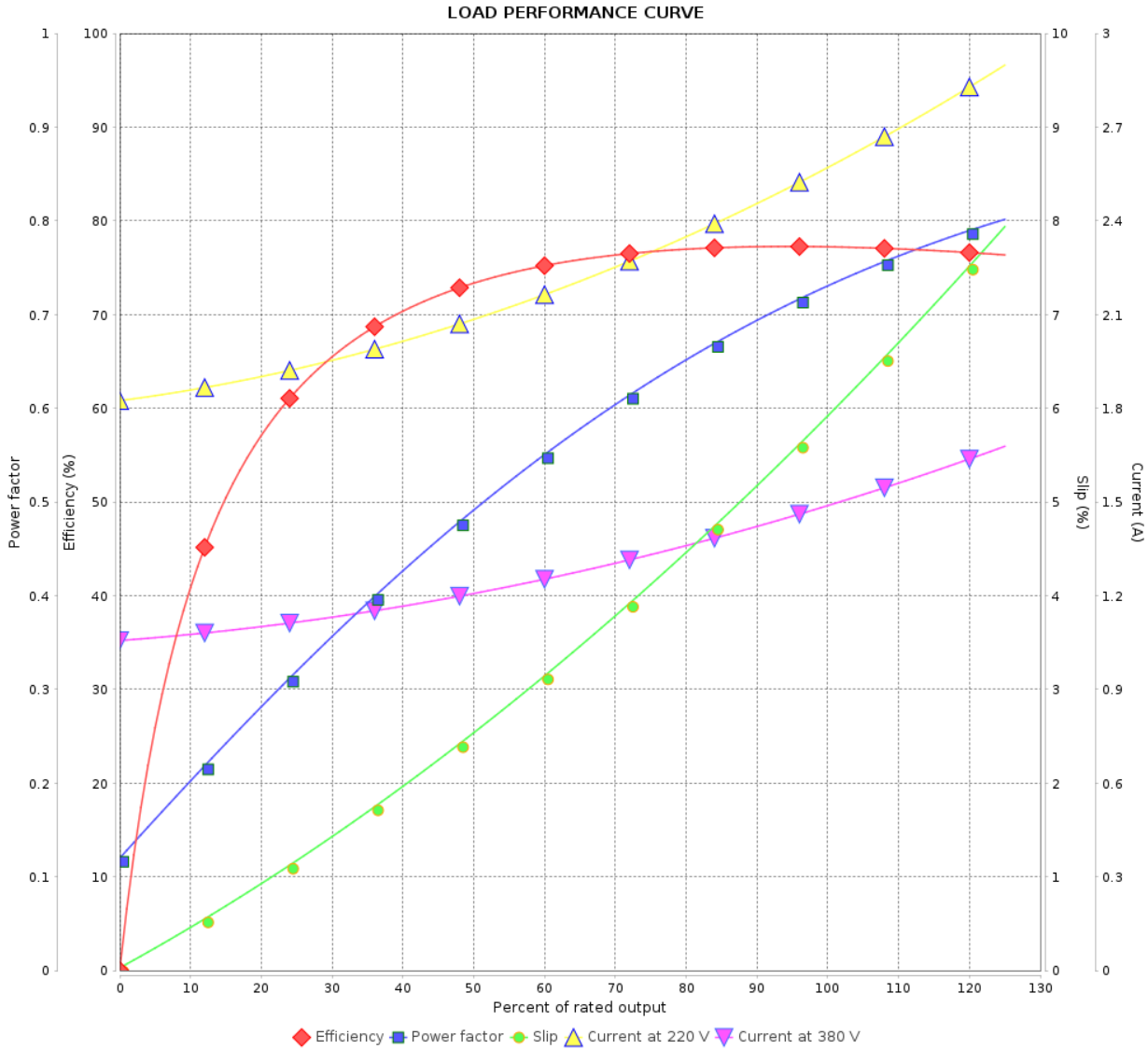
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Performance : 220/380 V 50 Hz 6P

Rated current : 2.56/1.48 A
 LRC : 5.1
 Rated torque : 0.570 kgfm
 Locked rotor torque : 260 %
 Breakdown torque : 270 %
 Rated speed : 940 rpm

Moment of inertia (J) : 0.0034 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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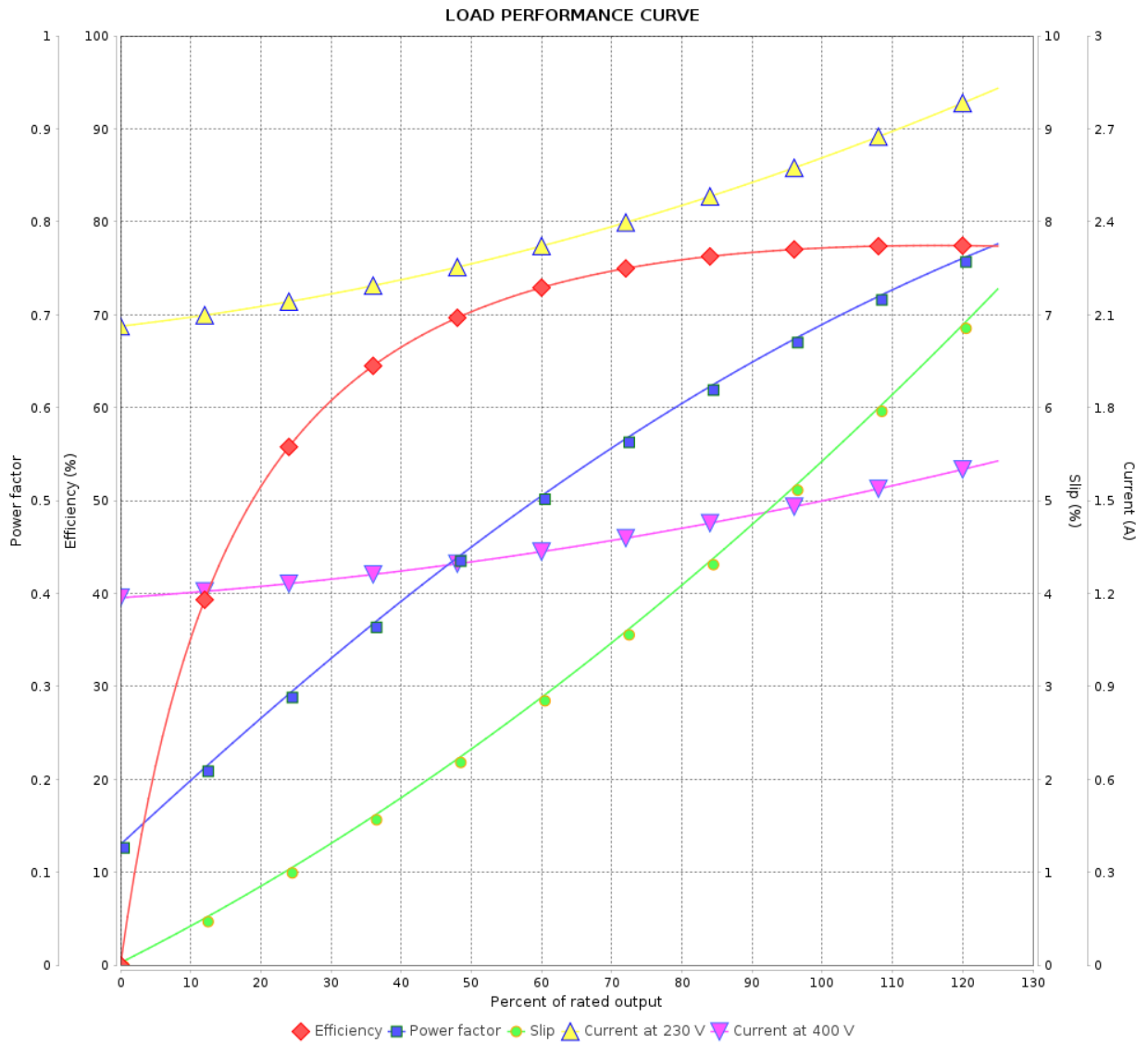


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 Breakdown torque : 310 %
 Rated speed : 945 rpm

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

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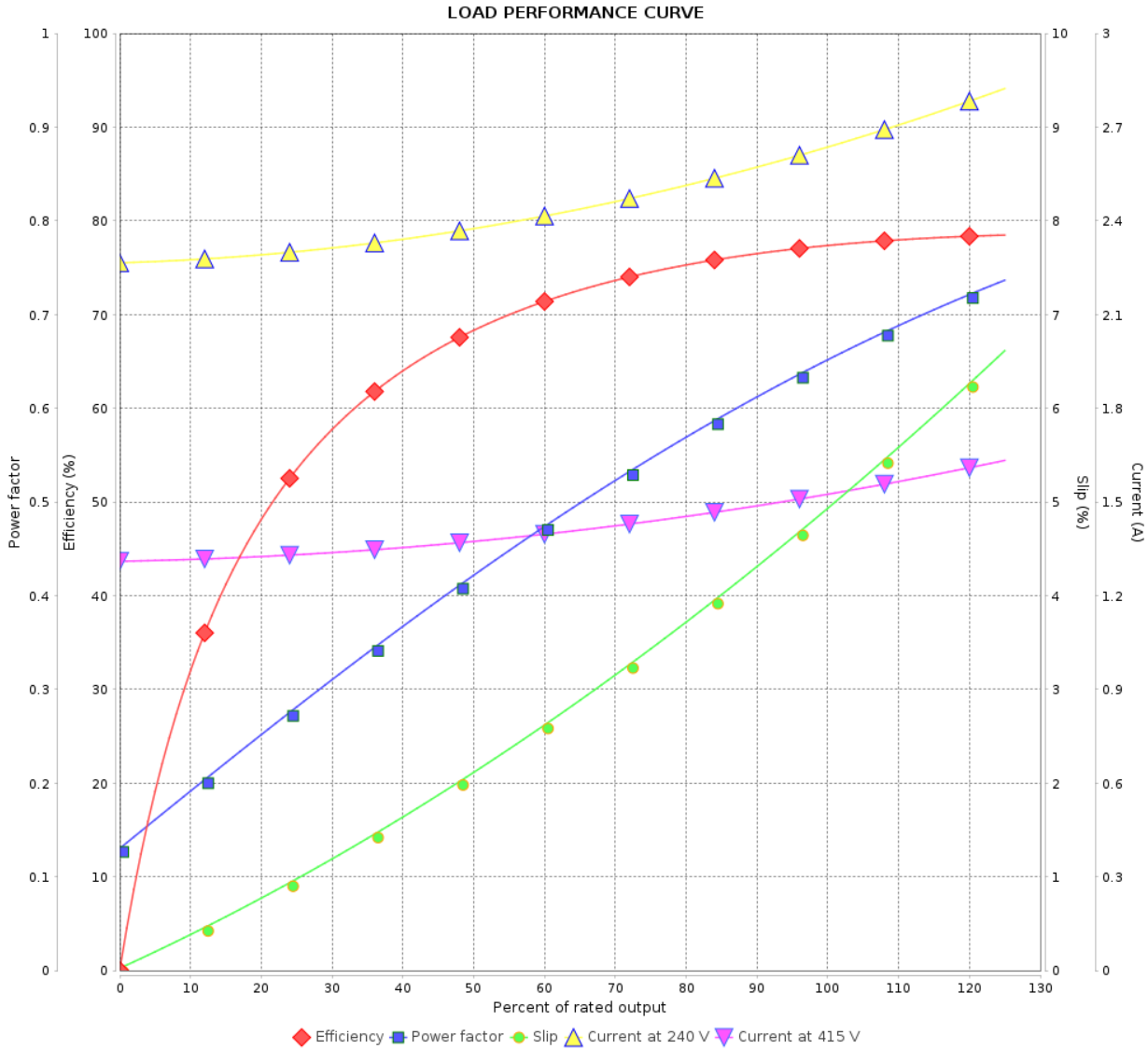
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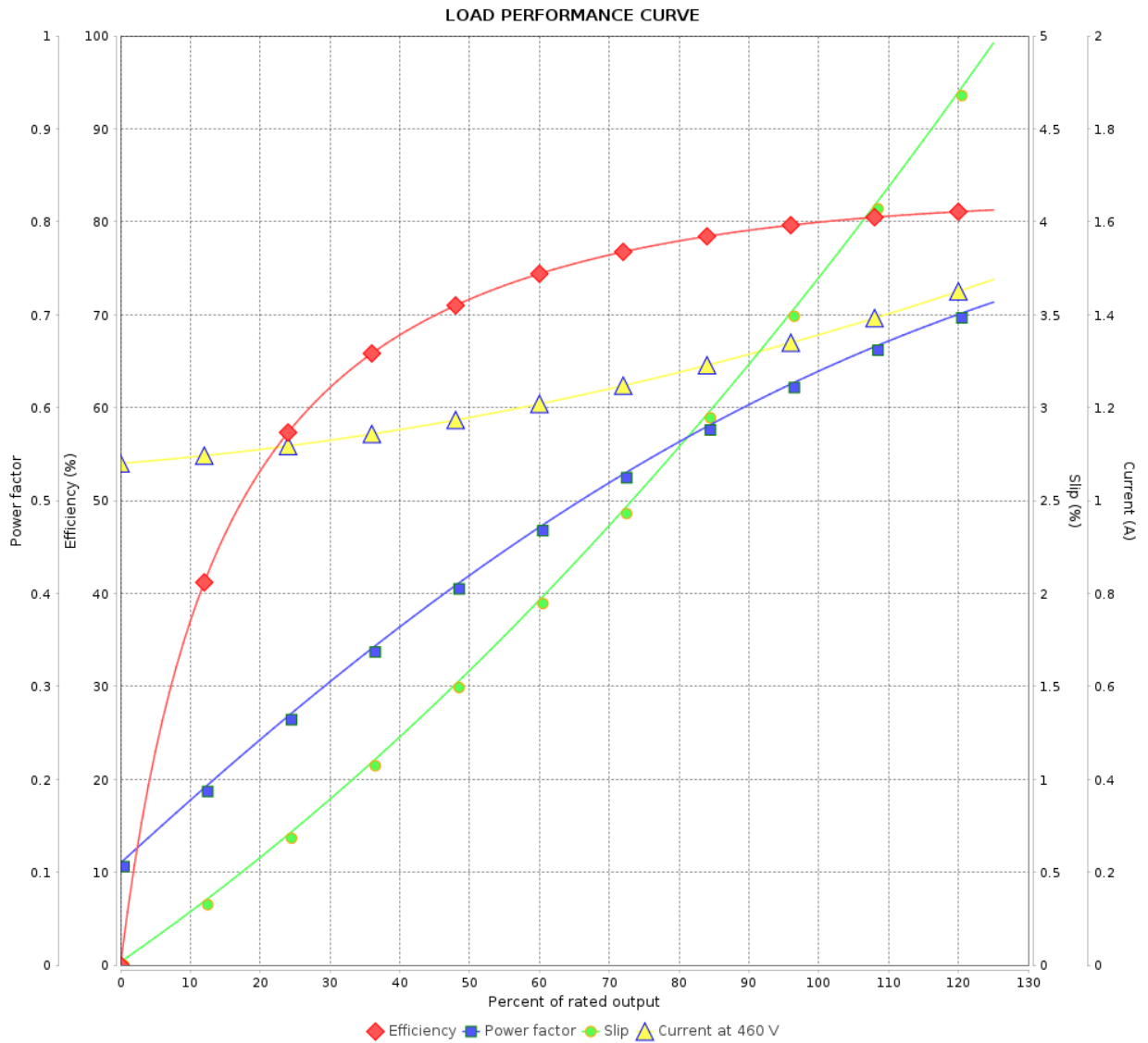


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THERMAL LIMIT CURVE

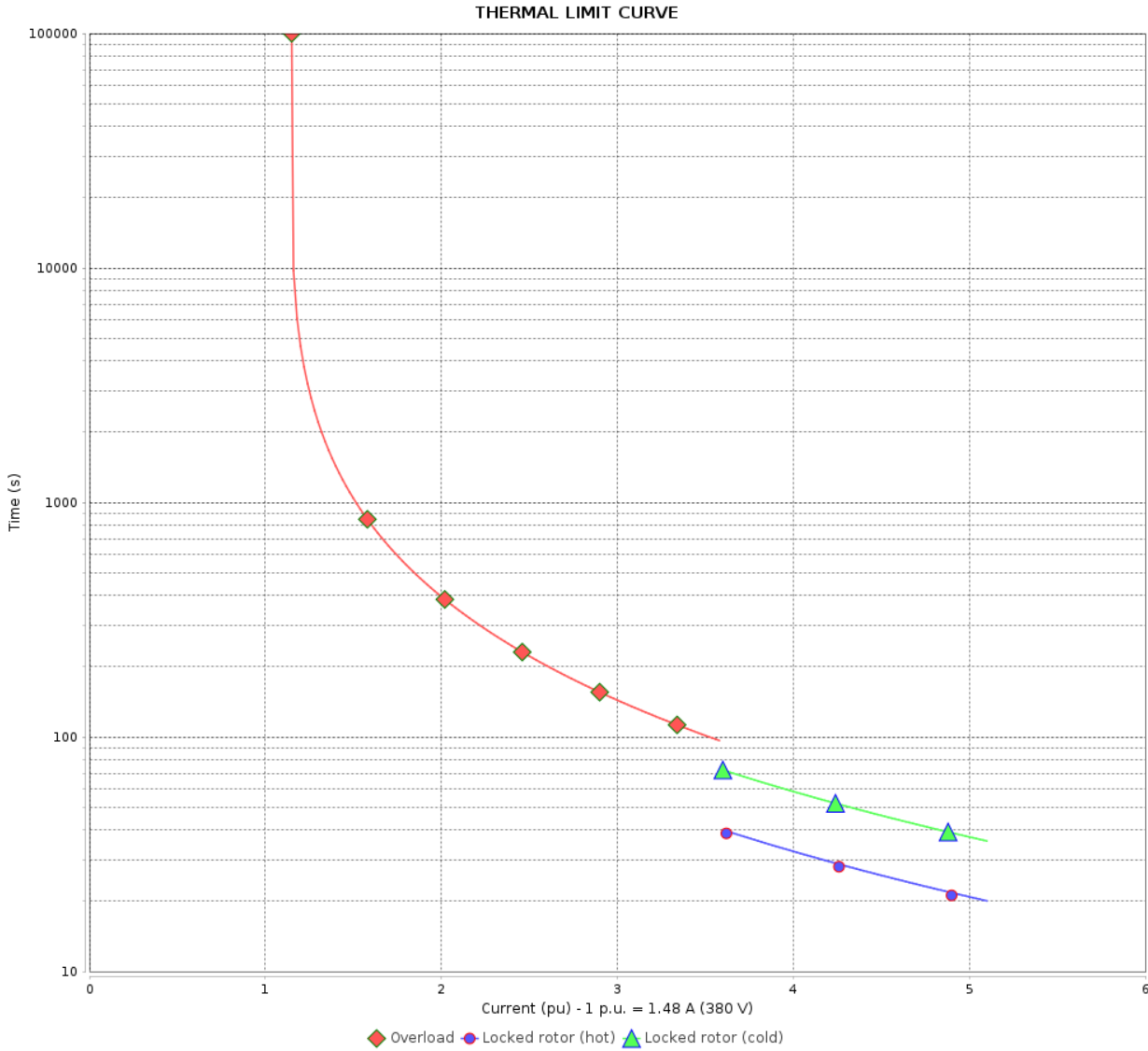
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 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Heating constant

Cooling constant

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THERMAL LIMIT CURVE

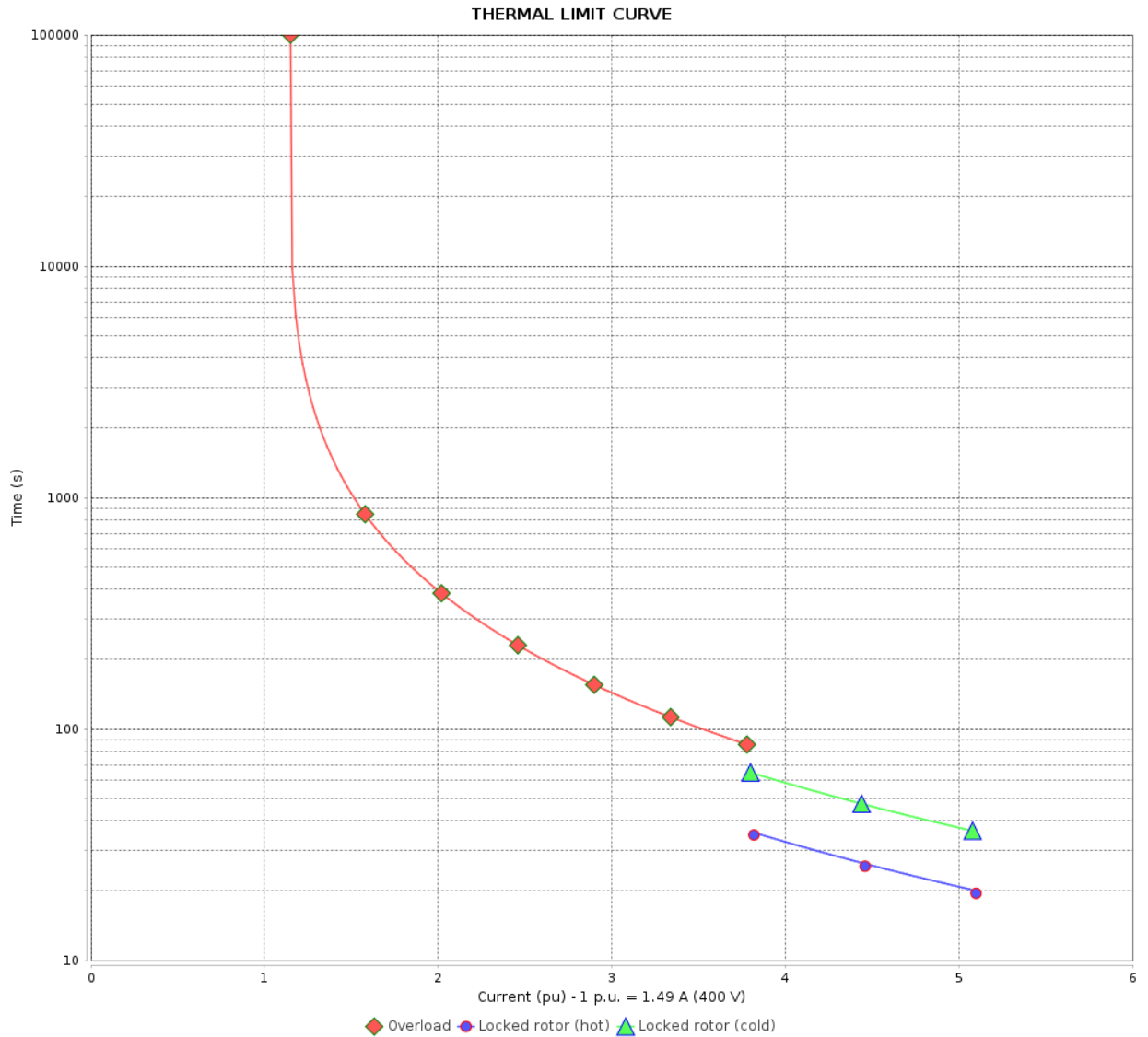
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Cooling constant

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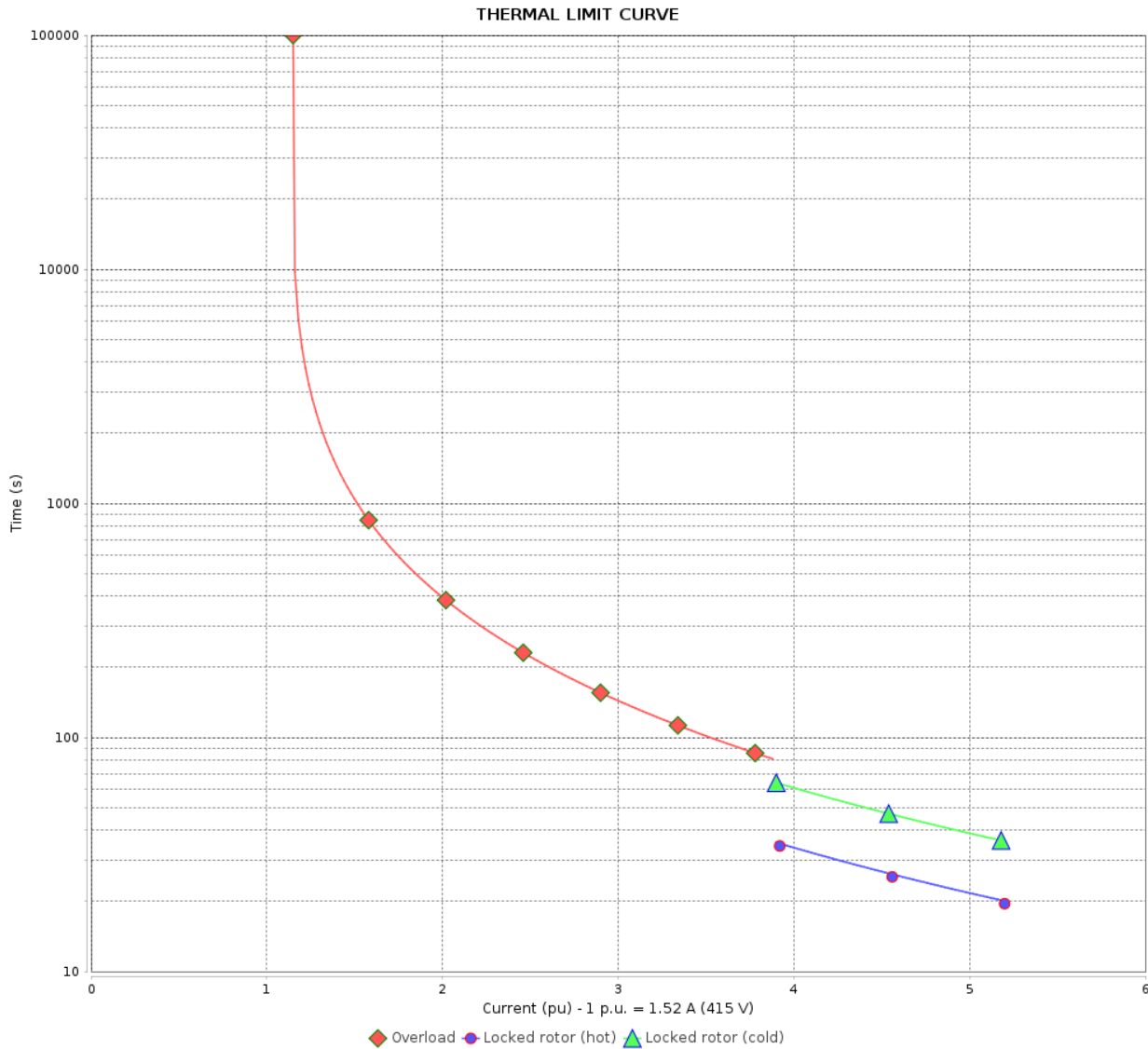
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 Service factor : 1.00
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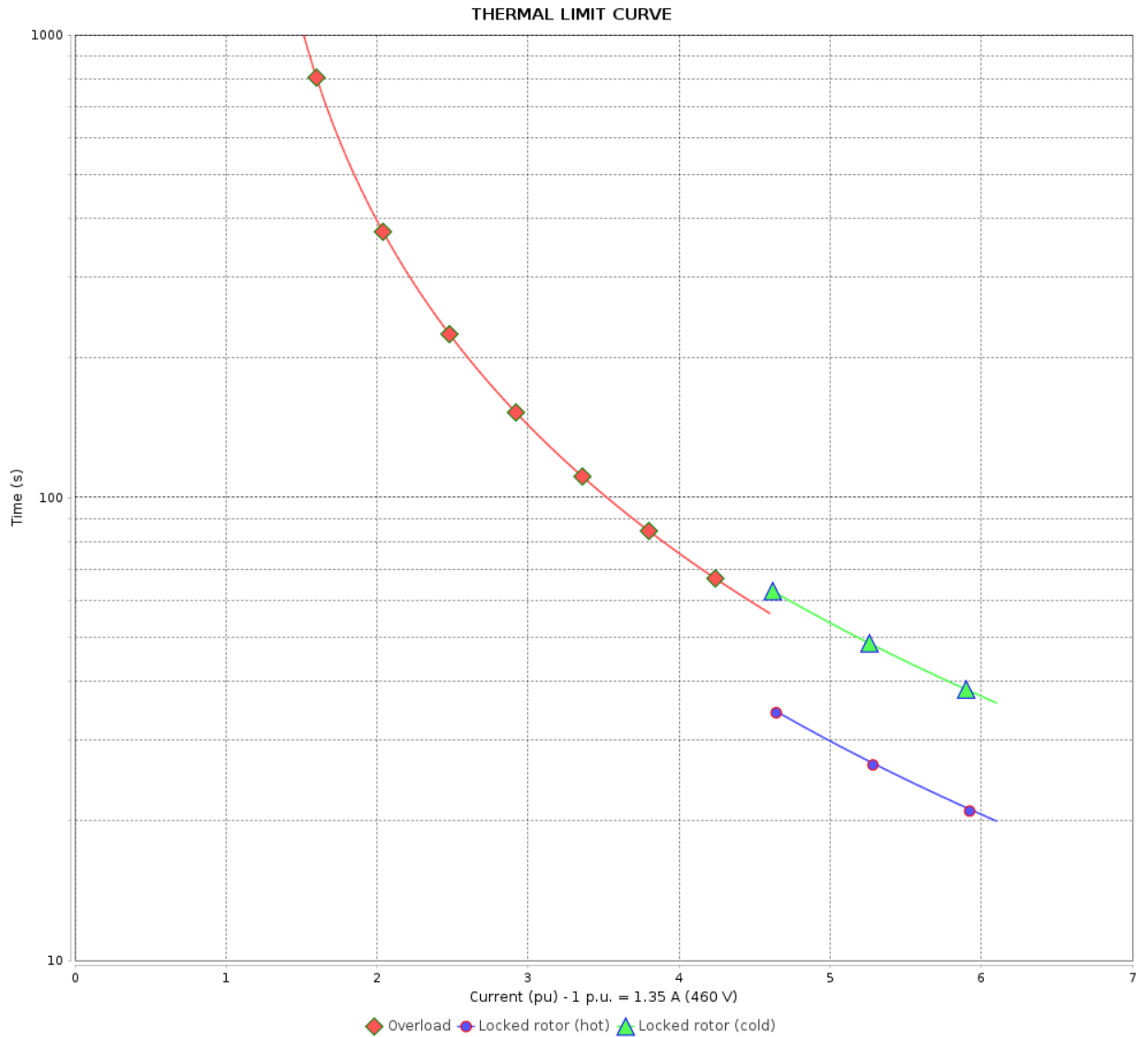
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Rated torque	: 0.464 kgfm	Insulation class	: F
Locked rotor torque	: 350 %	Service factor	: 1.00
Breakdown torque	: 390 %	Temperature rise	: 80 K
Rated speed	: 1155 rpm	Design	: N

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VFD OPERATION CURVE

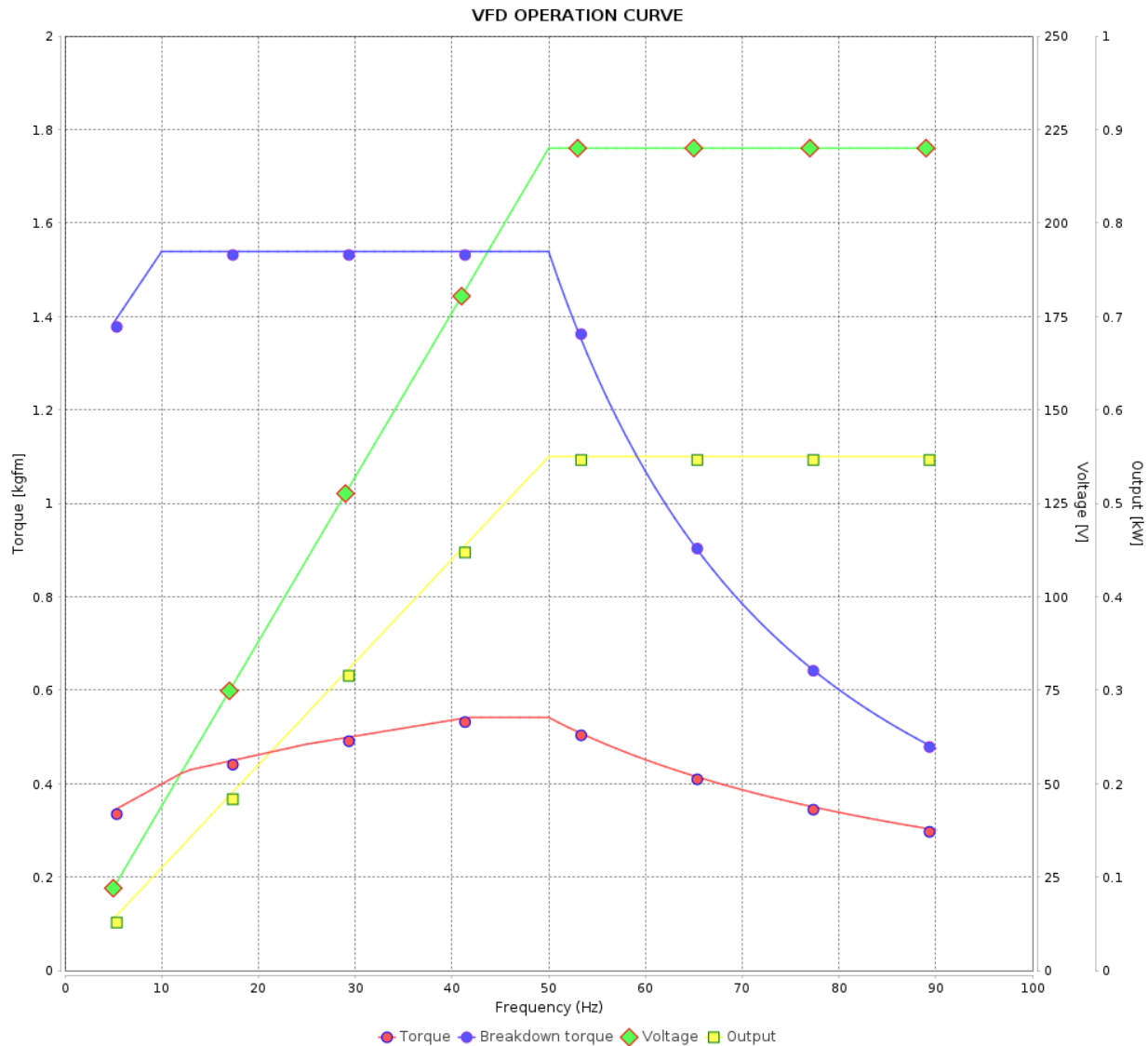
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VFD OPERATION CURVE

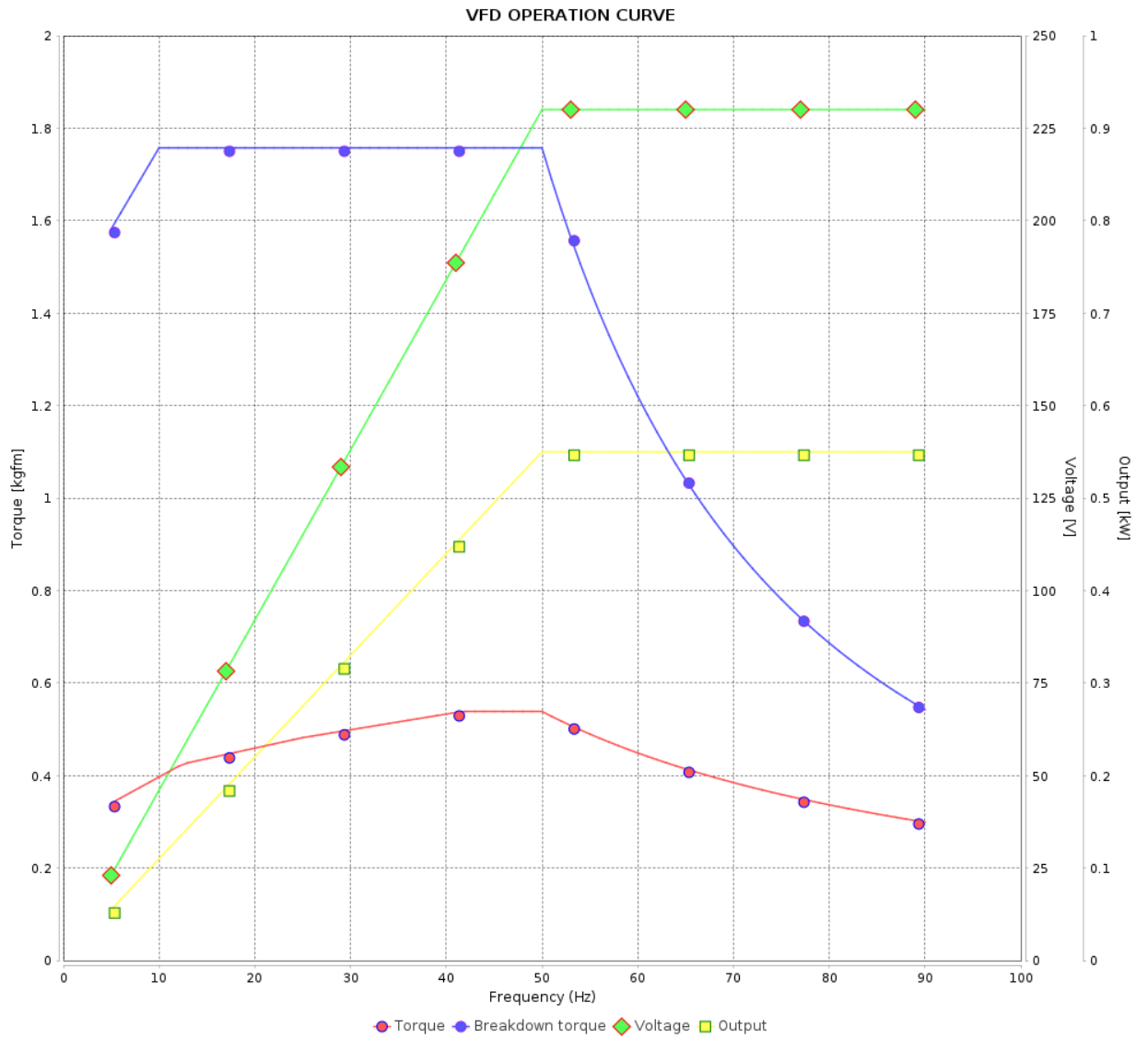
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VFD OPERATION CURVE

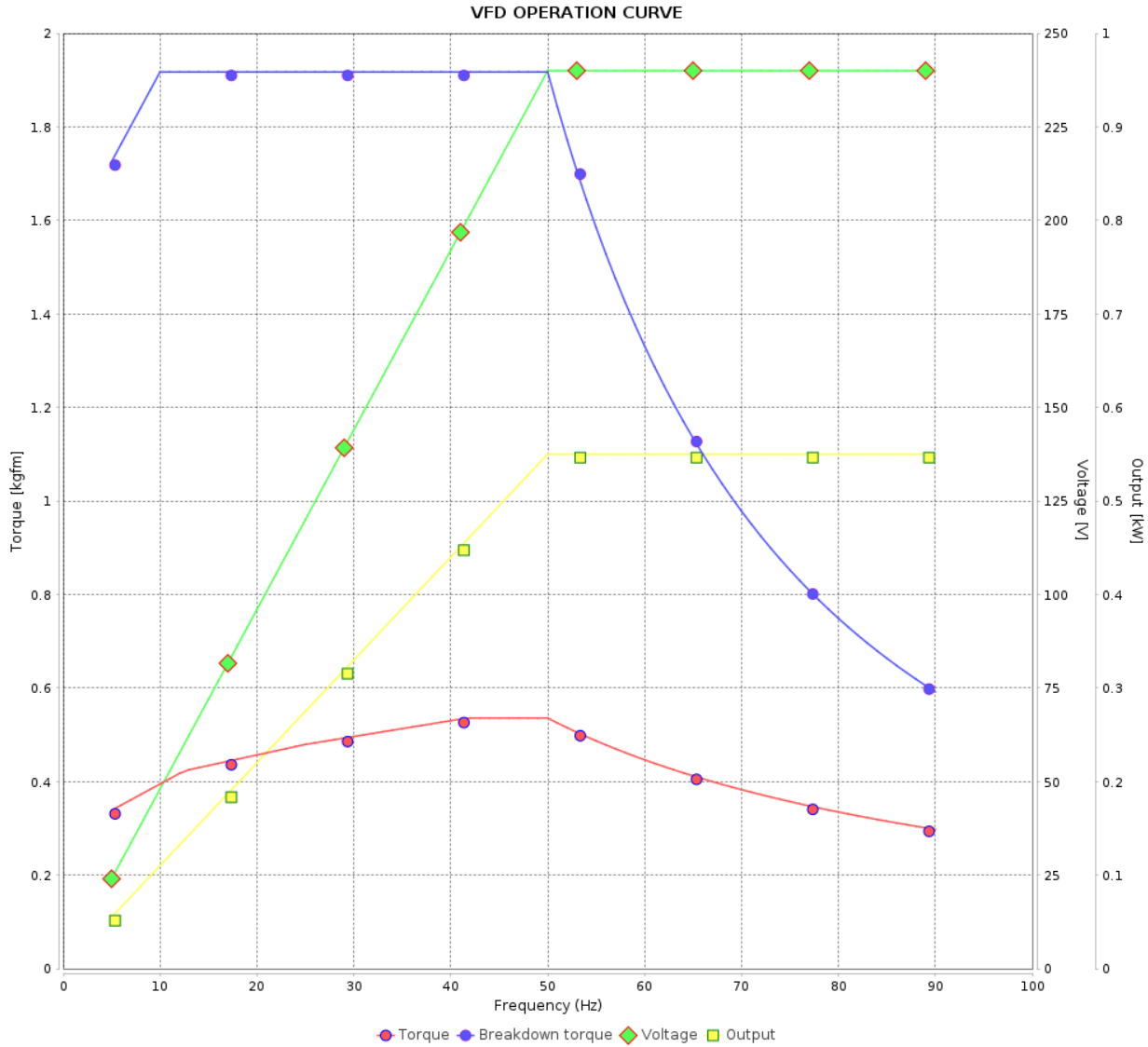
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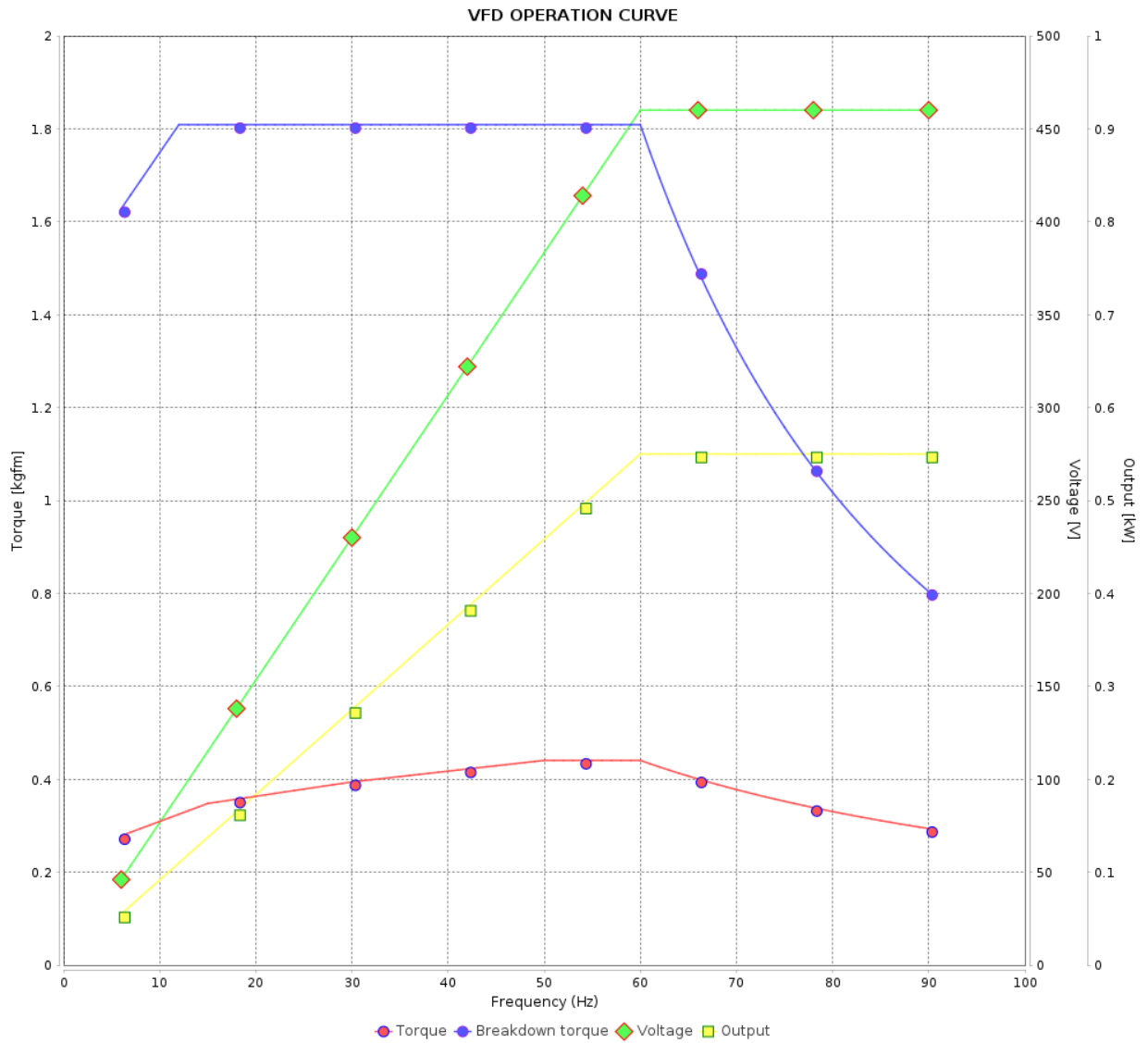
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