

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer		: Astraprom d.o.o.			
Product line		: W22 IE3 Three-Phase		Product code : 13477985	
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 ³	: 639 kg		
Protection degree	: IP55	Moment of inertia (J)	: 2.82 kgm ²		
Design	: N				
Output [kW]	37	37	37	37	37
Poles	8	8	8	8	8
Frequency [Hz]	50	50	50	50	60
Rated voltage [V]	380/660	400/690	415	460	460
Rated current [A]	77.5/44.6	75.4/43.7	74.6	67.0	67.0
L. R. Amperes [A]	388/223	415/240	448	402	402
LRC [A]	5.0	5.5	6.0	6.0	6.0
No load current [A]	31.6/18.2	34.0/19.7	36.1	31.5	31.5
Rated speed [RPM]	740	740	741	892	892
Slip [%]					
Rated torque [kgfm]	48.7	48.7	48.6	40.4	40.4
Locked rotor torque [%]	160	180	200	180	180
Breakdown torque [%]	200	229	250	240	240
Service factor	1.00	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	80 K
Locked rotor time					
Noise level ²	59.0 dB(A)	59.0 dB(A)	59.0 dB(A)	63.0 dB(A)	63.0 dB(A)
Efficiency (%)	25%				
	50%				
	75%				
	100%				
Power Factor	25%				
	50%				
	75%				
	100%				
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	8.5	8.2	8.2	7.8
	P2 (0,5;1,0)	6.9	6.7	6.7	6.4
	P3 (0,25;1,0)	6.7	6.5	6.5	6.2
	P4 (0,9;0,5)	4.0	3.9	3.9	3.7
	P5 (0,5;0,5)	2.7	2.6	2.6	2.5
	P6 (0,5;0,25)	1.7	1.7	1.7	1.6
	P7 (0,25;0,25)	1.2	1.2	1.2	1.1
Bearing type	: Drive end : 6316 C3	Non drive end : 6316 C3	Foundation loads		
Sealing	: WSeal	WSeal	Max. traction : 529 kgf		
Lubrication interval	: 20000 h	20000 h	Max. compression : 1168 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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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

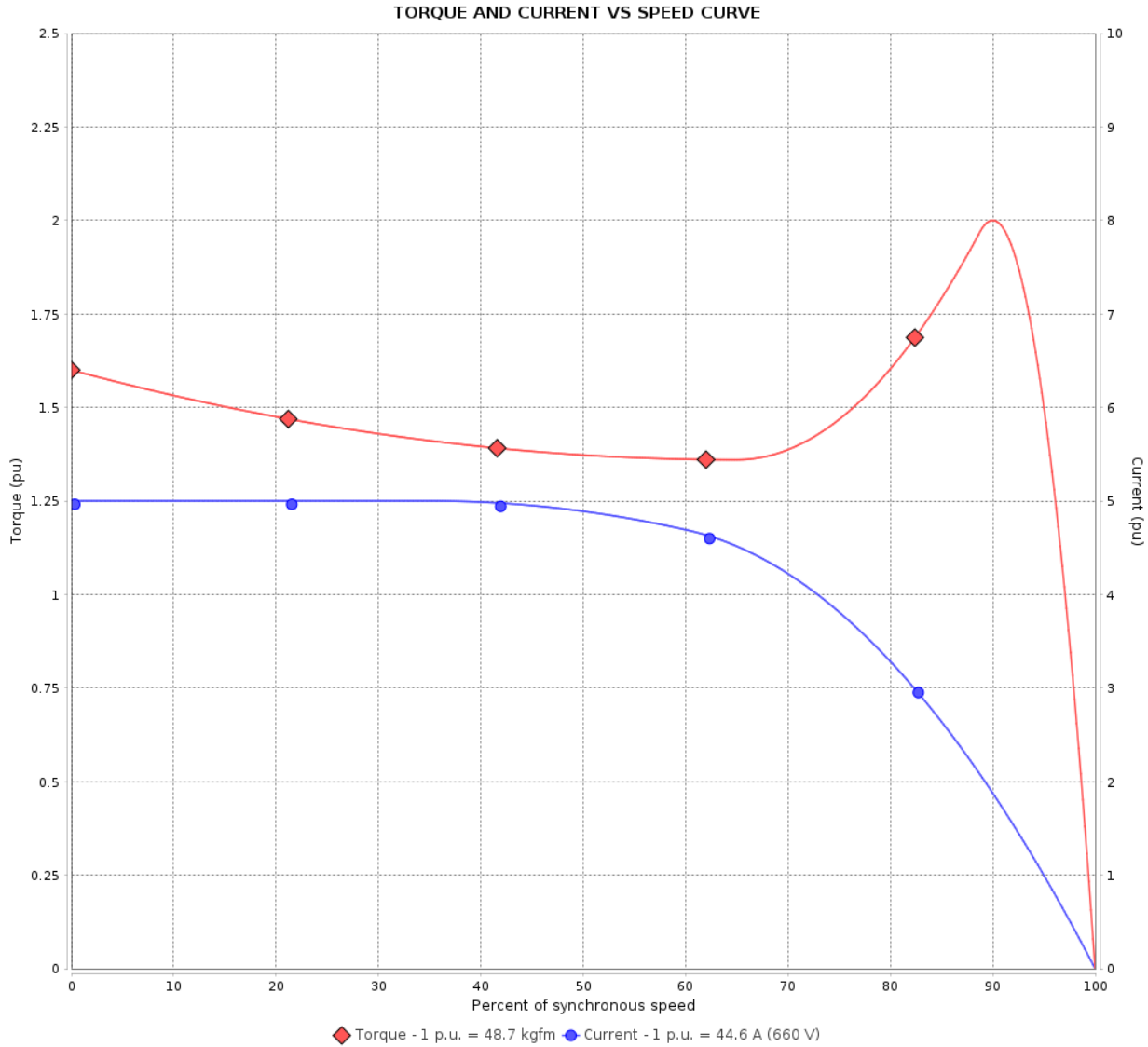
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE3 Three-Phase

Product code : 13477985



Performance : 380/660 V 50 Hz 8P

Rated current	: 77.5/44.6 A	Moment of inertia (J)	: 2.82 kgm ²
LRC	: 5.0	Duty cycle	: S1
Rated torque	: 48.7 kgfm	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 80 K
Rated speed	: 740 rpm	Design	: N

Locked rotor time

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TORQUE AND CURRENT VS SPEED CURVE

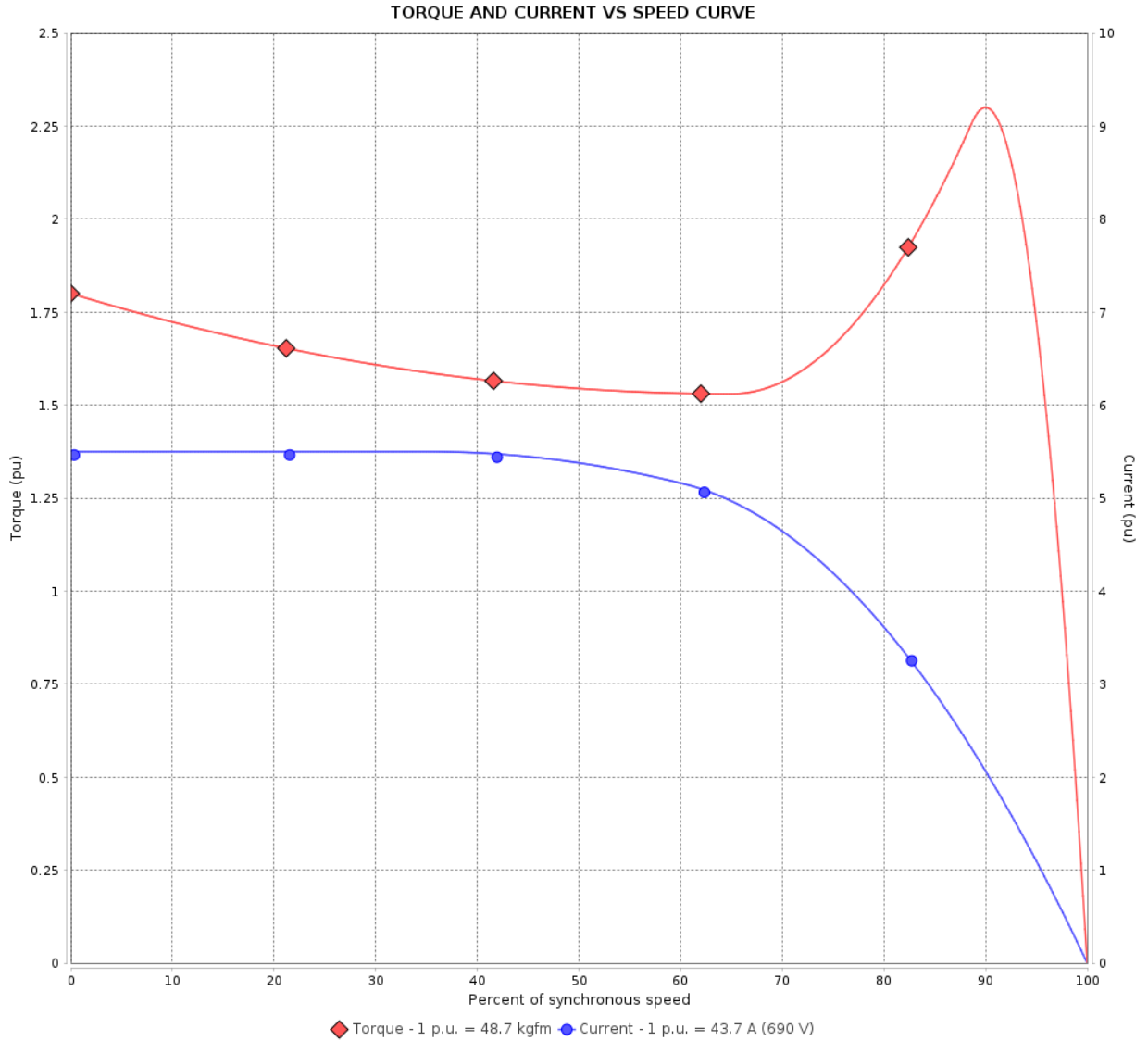
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE3 Three-Phase

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Performance : 400/690 V 50 Hz 8P

Rated current : 75.4/43.7 A
 LRC : 5.5
 Rated torque : 48.7 kgfm
 Locked rotor torque : 180 %
 Breakdown torque : 229 %
 Rated speed : 740 rpm

Moment of inertia (J) : 2.82 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Locked rotor time

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TORQUE AND CURRENT VS SPEED CURVE

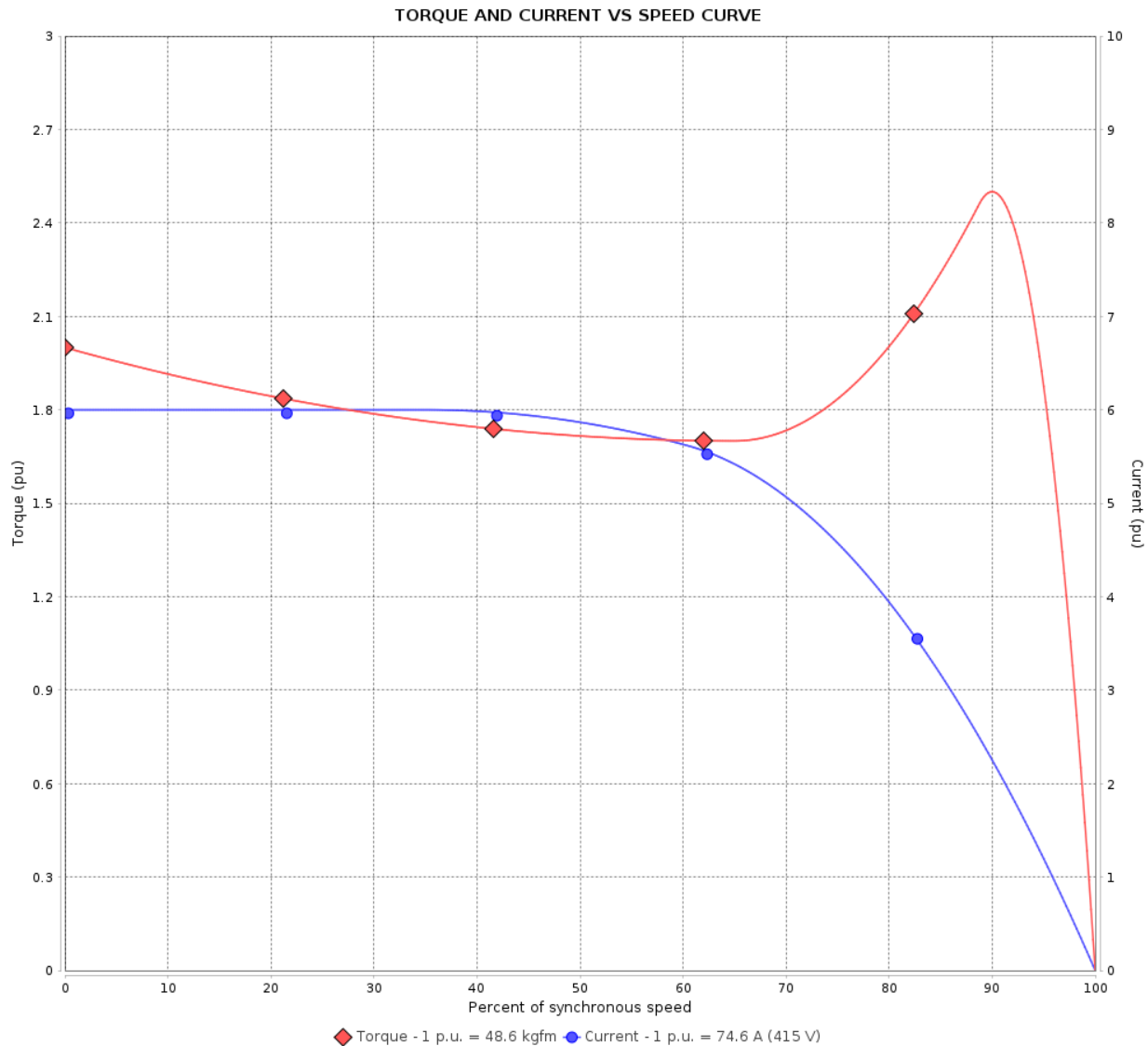
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE3 Three-Phase

Product code : 13477985



Performance : 415 V 50 Hz 8P

Rated current	: 74.6 A	Moment of inertia (J)	: 2.82 kgm ²
LRC	: 6.0	Duty cycle	: S1
Rated torque	: 48.6 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 741 rpm	Design	: N

Locked rotor time

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TORQUE AND CURRENT VS SPEED CURVE

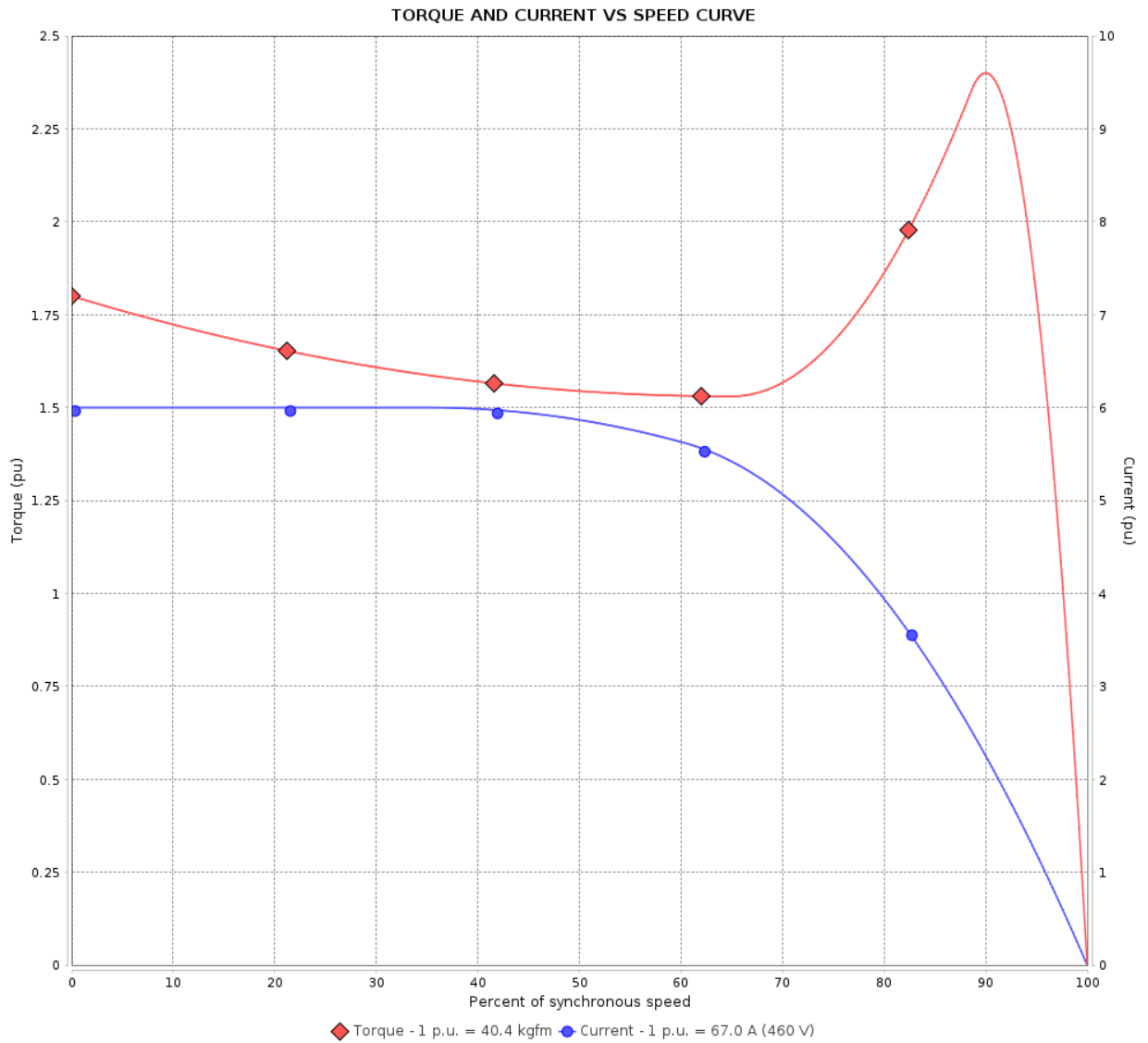
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE3 Three-Phase

Product code : 13477985



Performance : 460 V 60 Hz 8P

Rated current	: 67.0 A	Moment of inertia (J)	: 2.82 kgm ²
LRC	: 6.0	Duty cycle	: S1
Rated torque	: 40.4 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 892 rpm	Design	: N

Locked rotor time

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LOAD PERFORMANCE CURVE

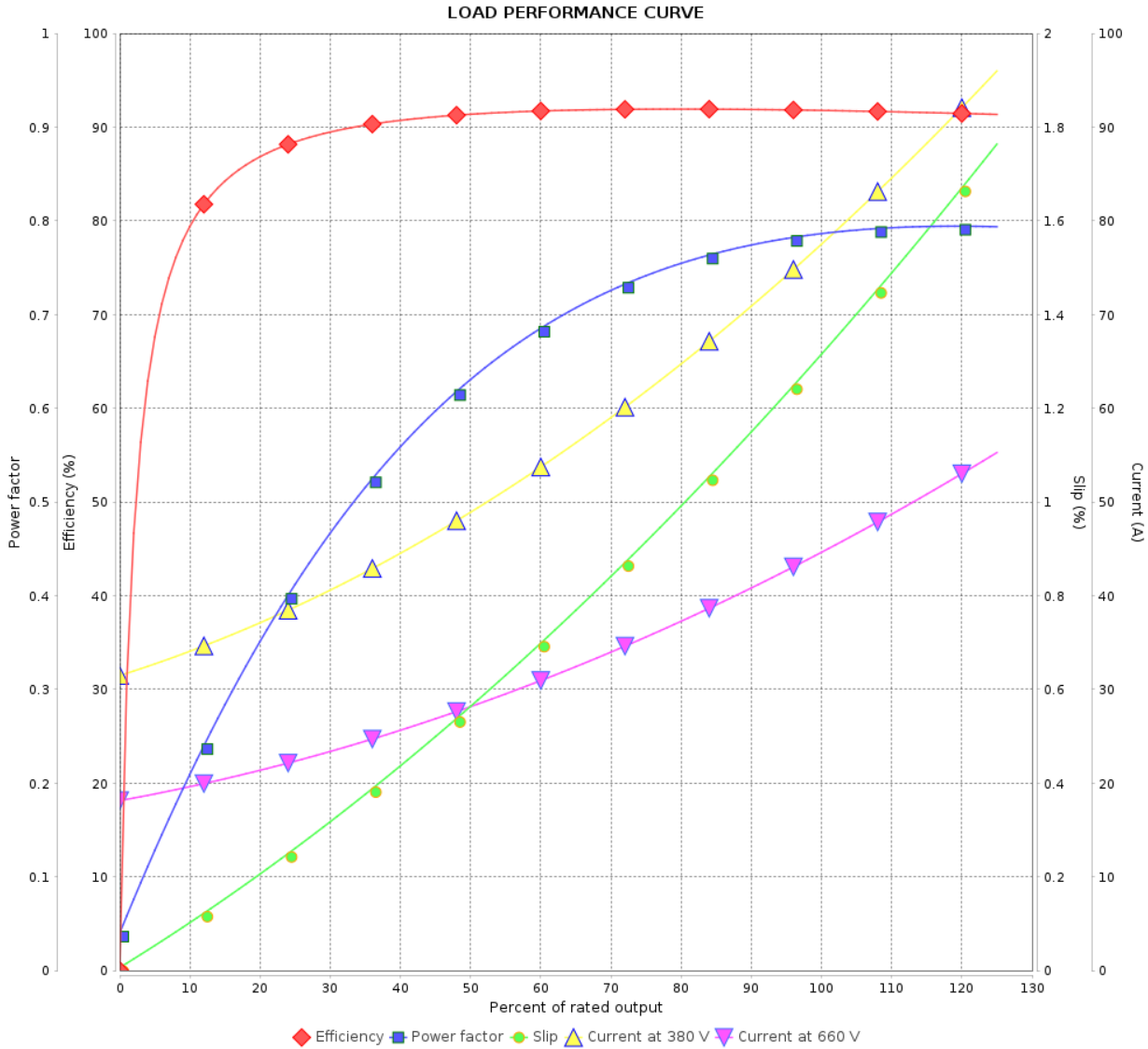
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 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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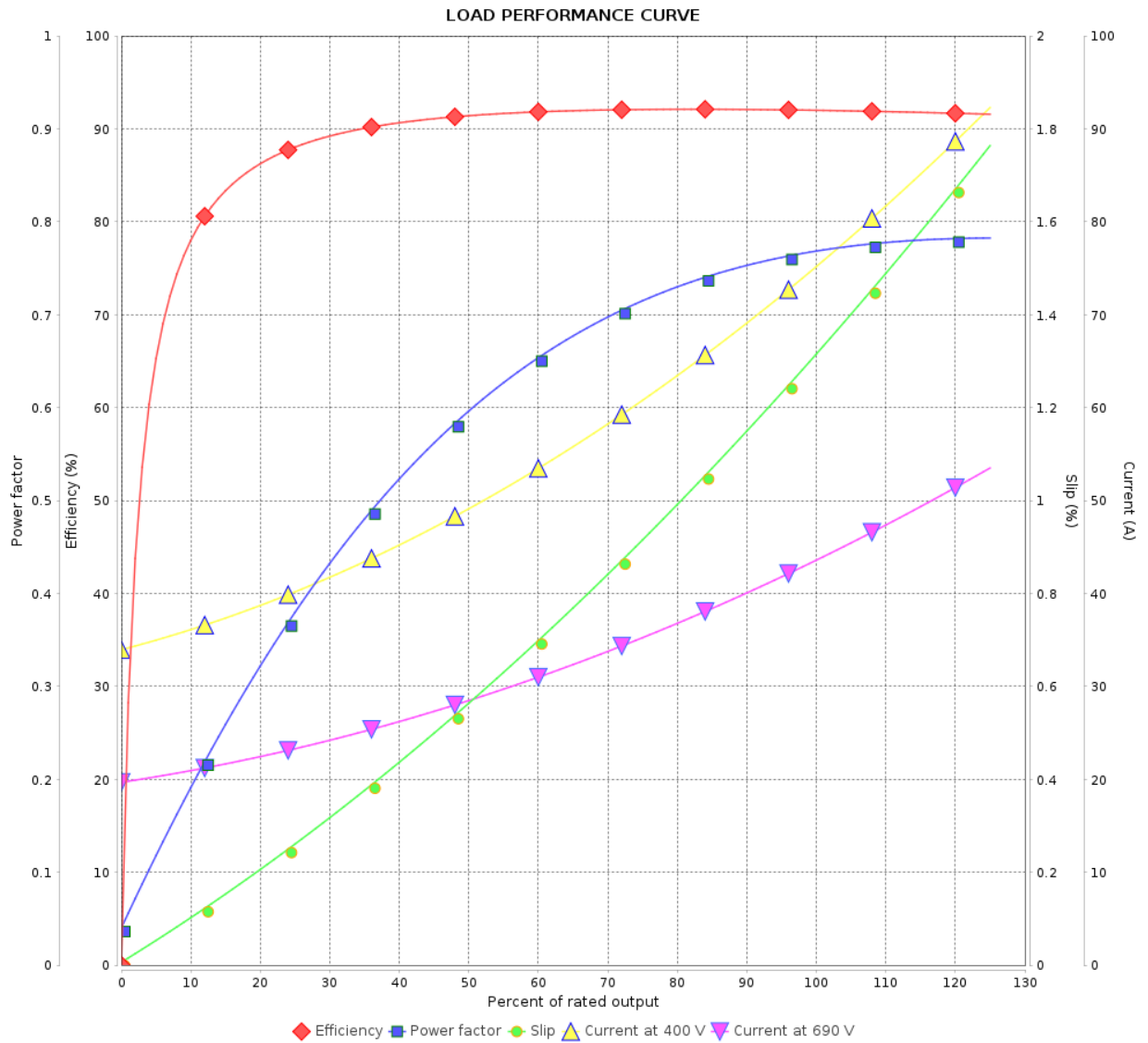
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 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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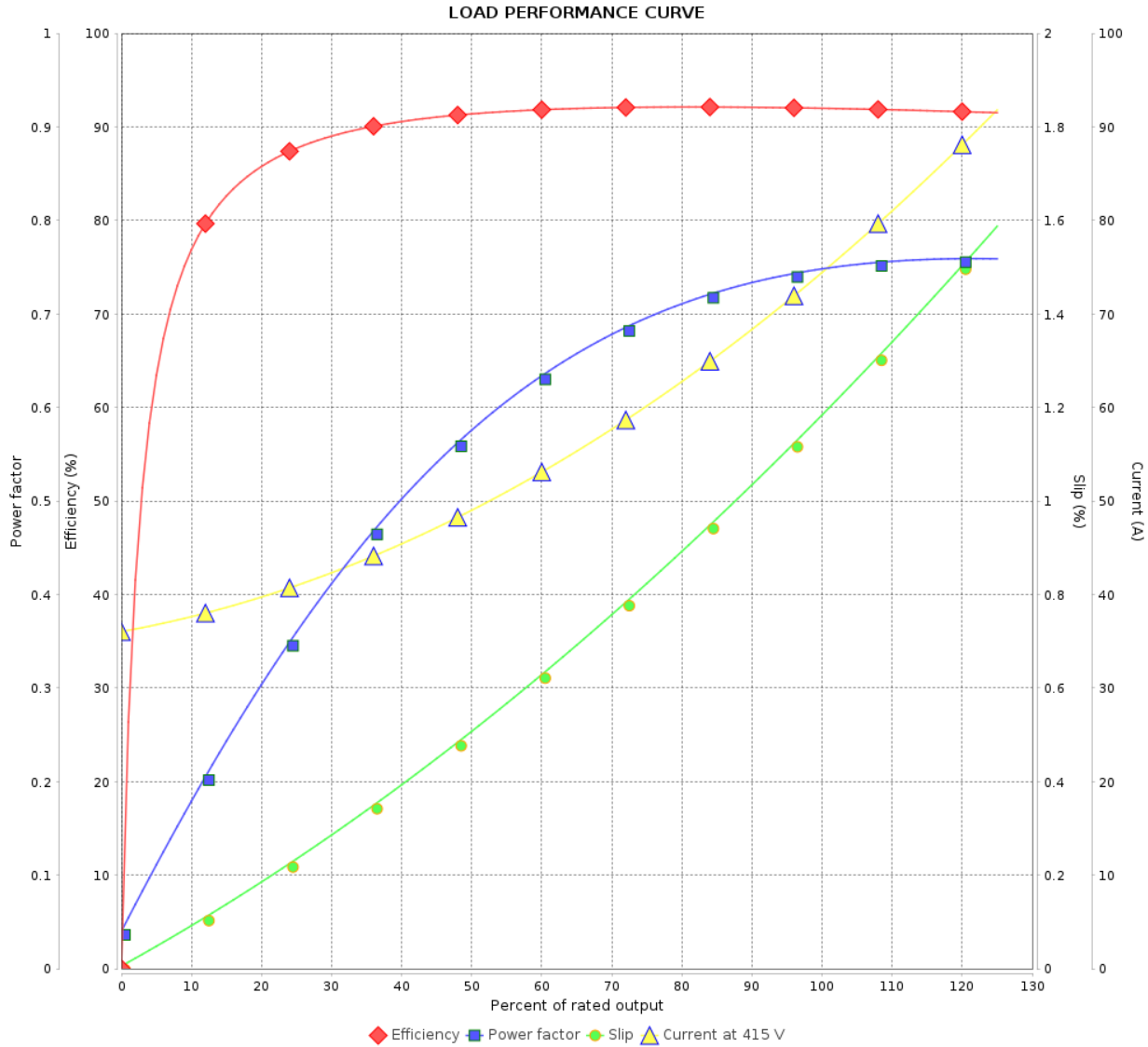
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Rated torque : 48.6 kgfm	Insulation class : F
Locked rotor torque : 200 %	Service factor : 1.00
Breakdown torque : 250 %	Temperature rise : 80 K
Rated speed : 741 rpm	Design : N

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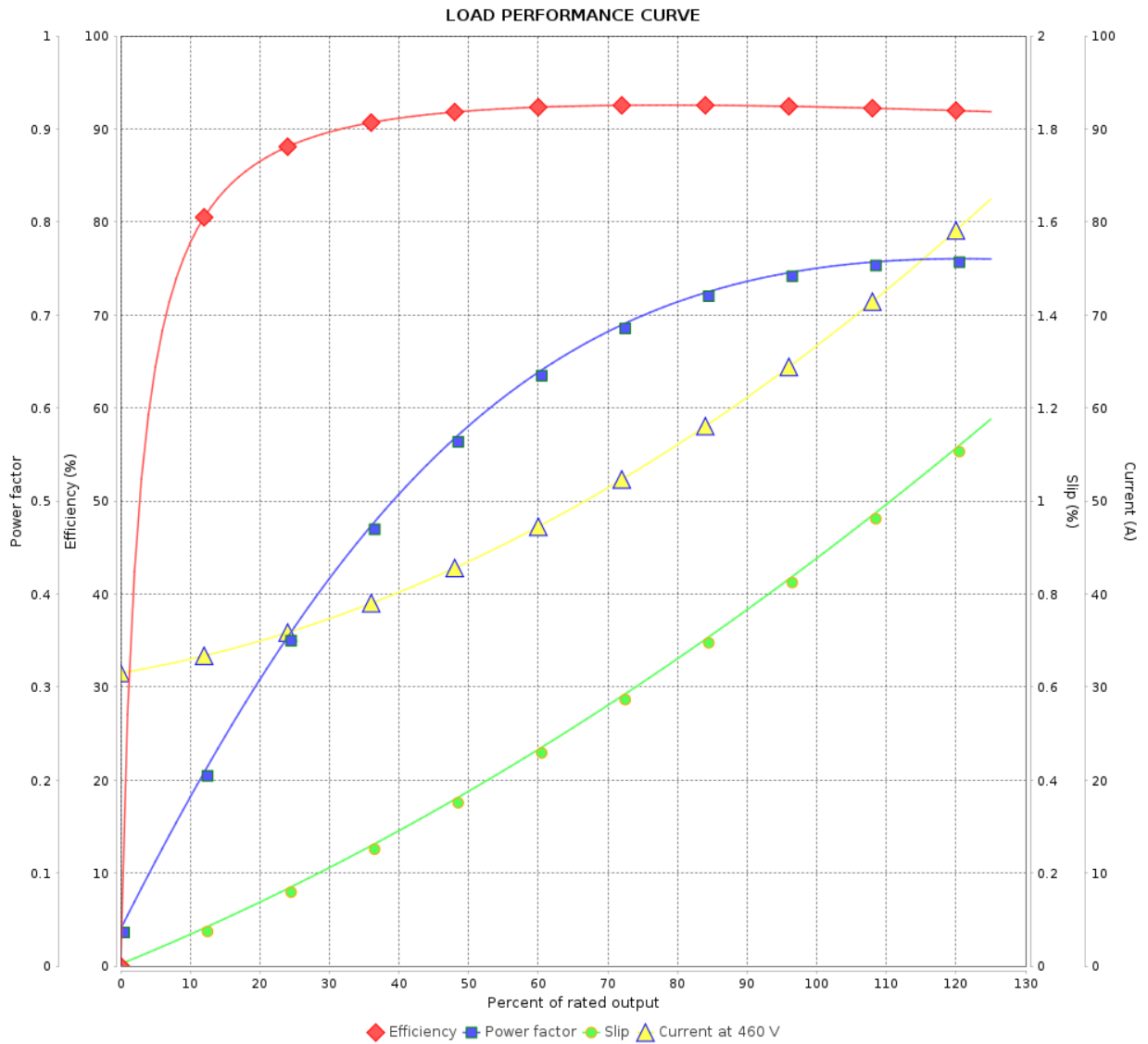
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THERMAL LIMIT CURVE

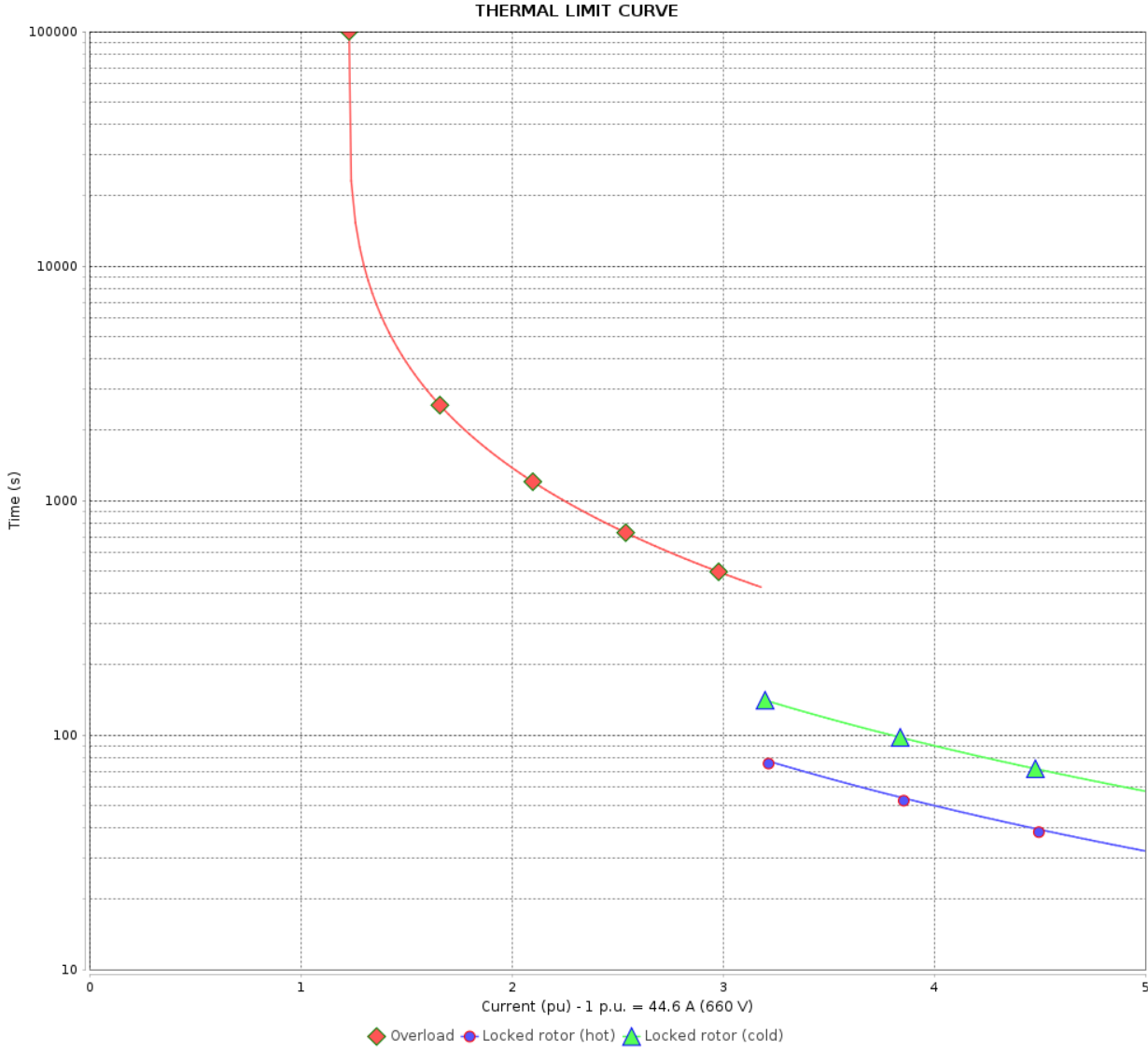
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Rated speed	: 740 rpm	Design	: N

Heating constant

Cooling constant

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THERMAL LIMIT CURVE

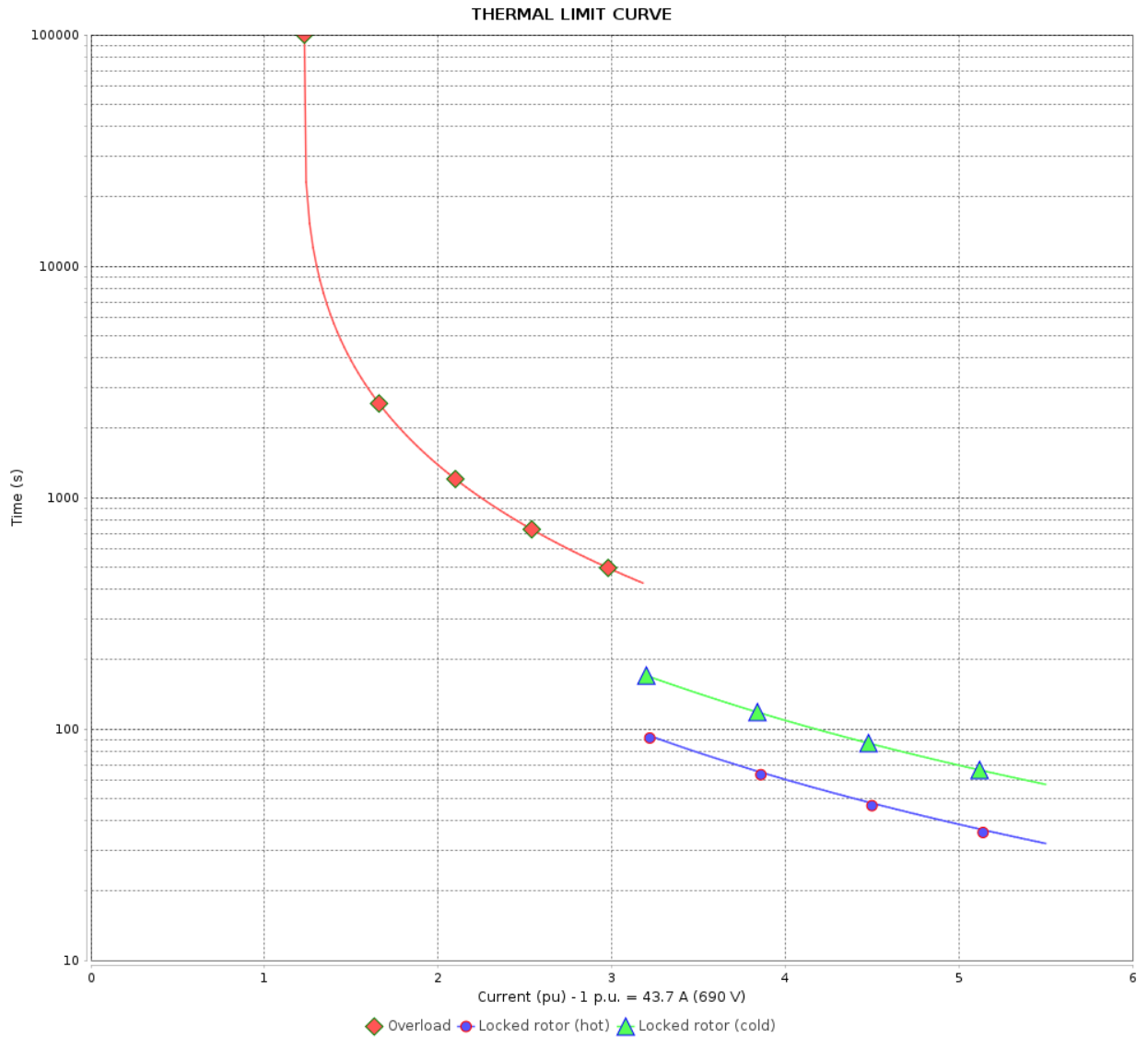
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 Service factor : 1.00
 Temperature rise : 80 K
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Heating constant
 Cooling constant

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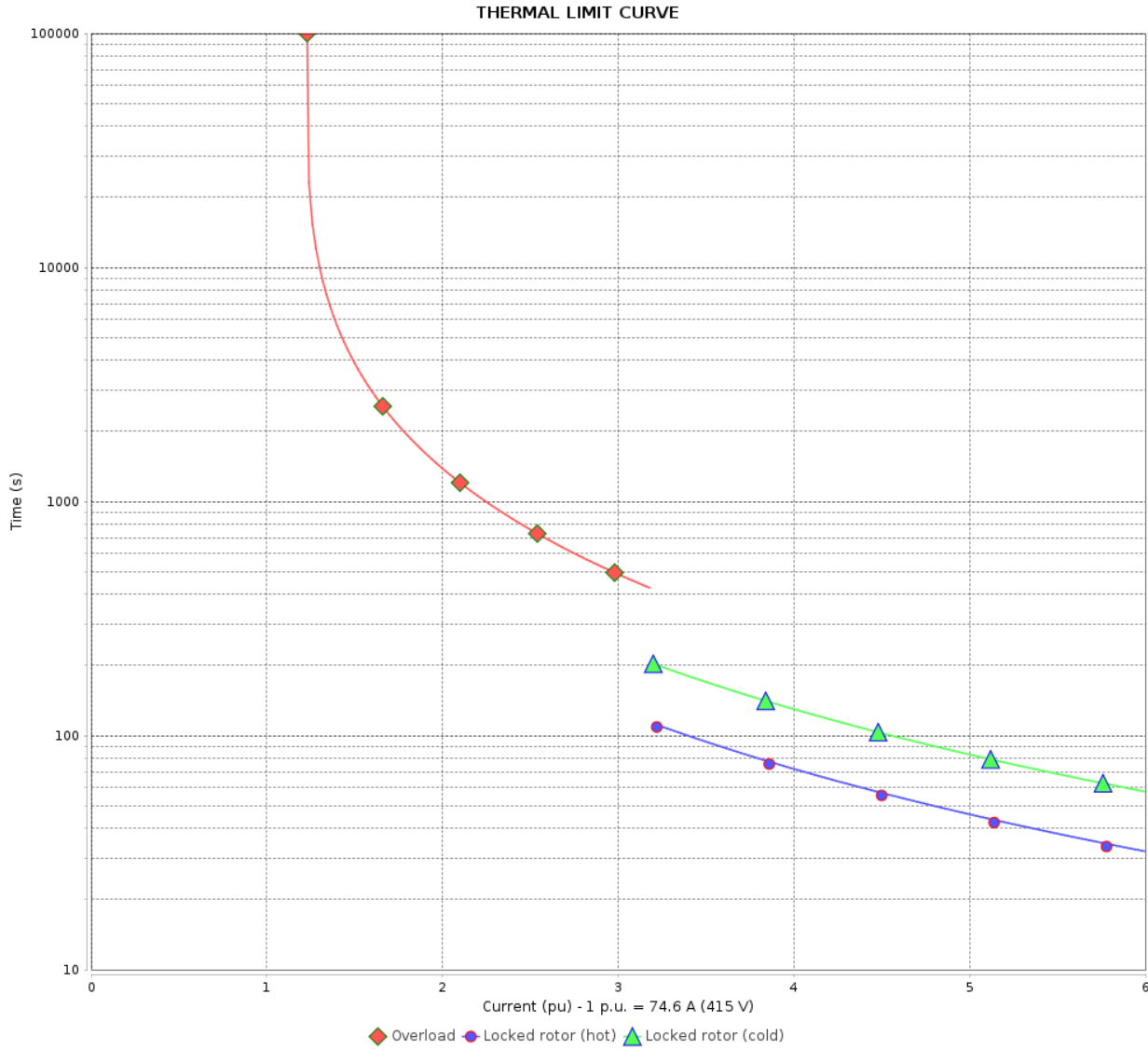
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Rated speed	: 741 rpm	Design	: N

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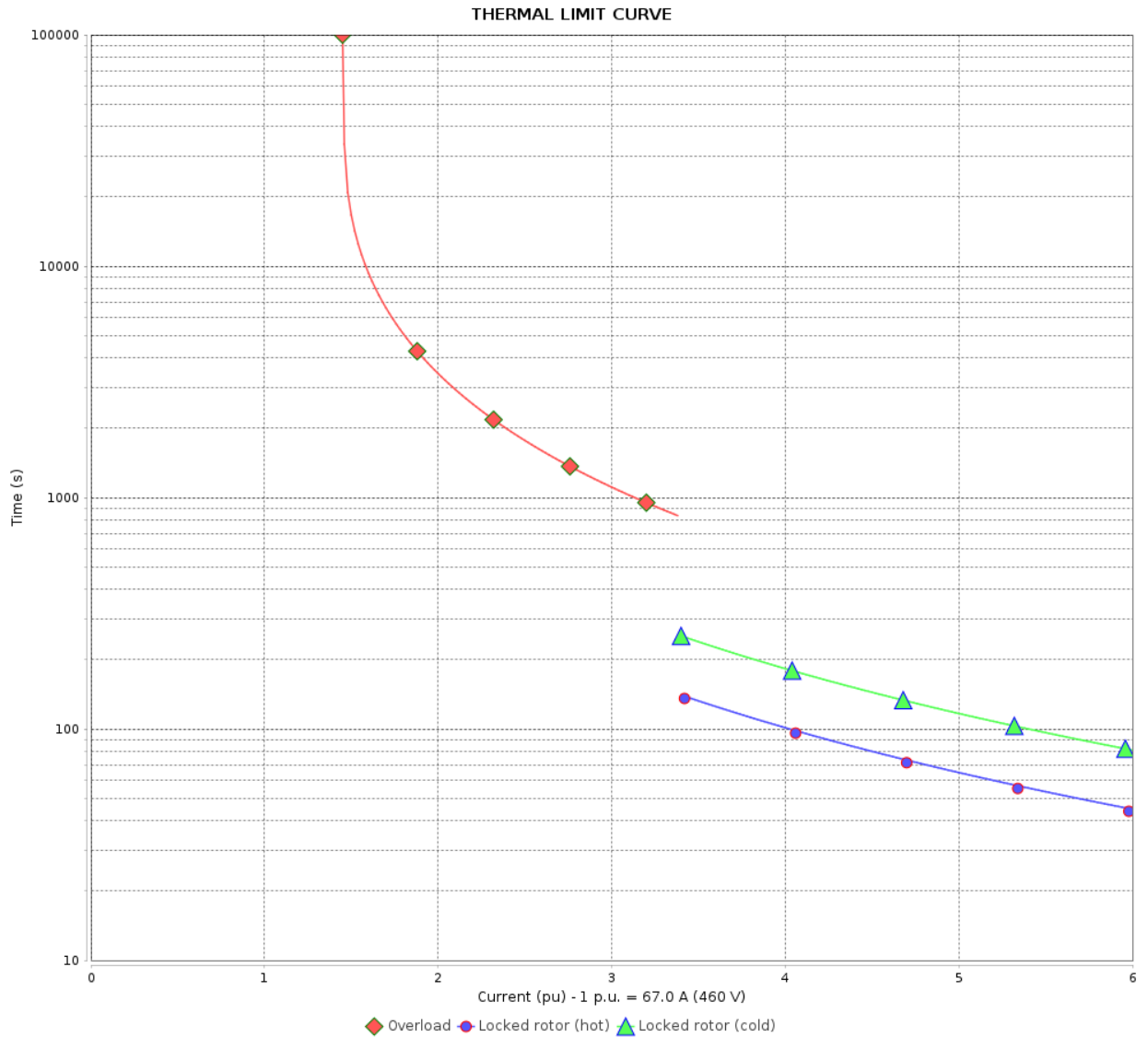
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VFD OPERATION CURVE

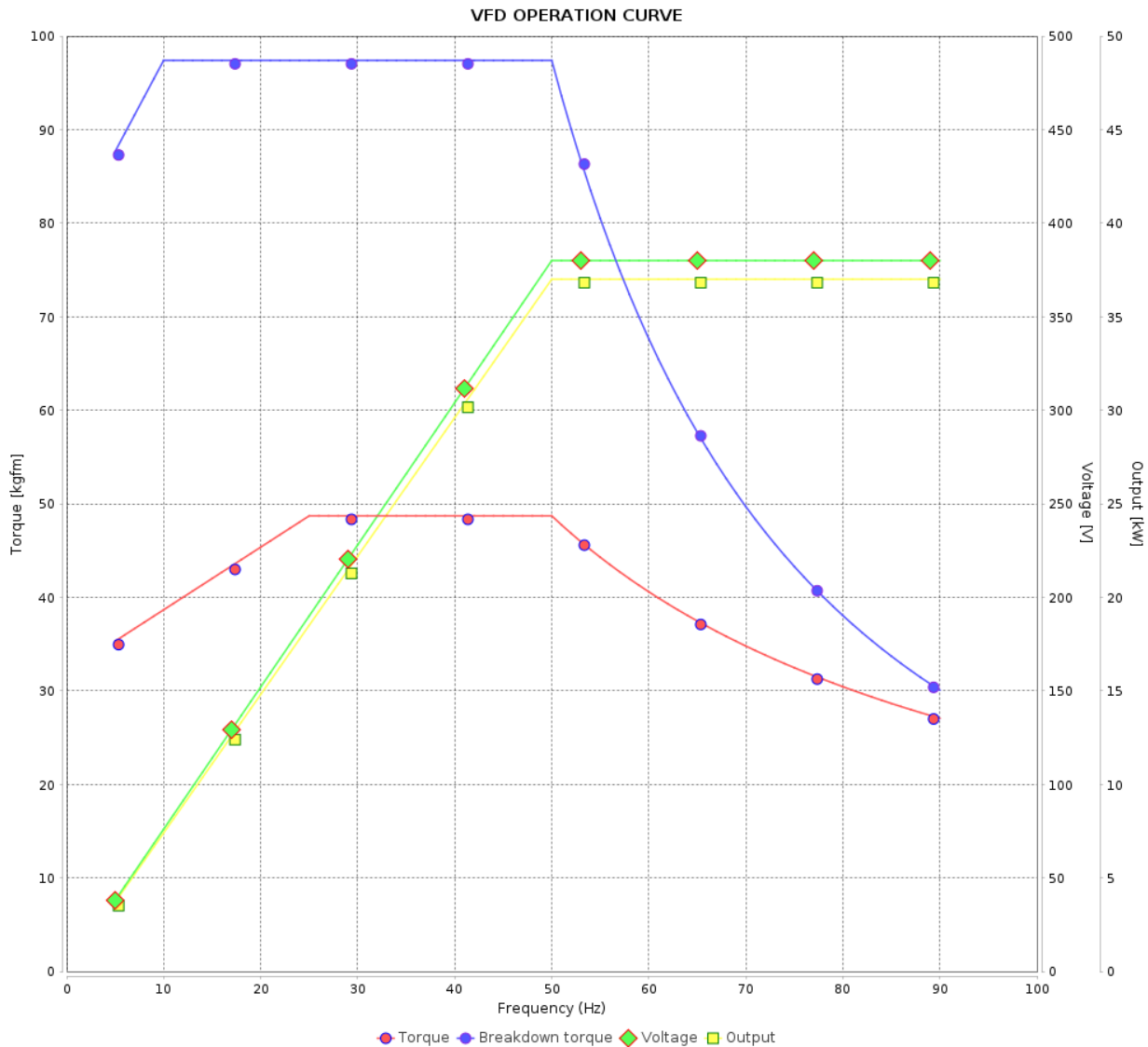
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 Insulation class : F
 Service factor : 1.00
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 Design : N

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VFD OPERATION CURVE

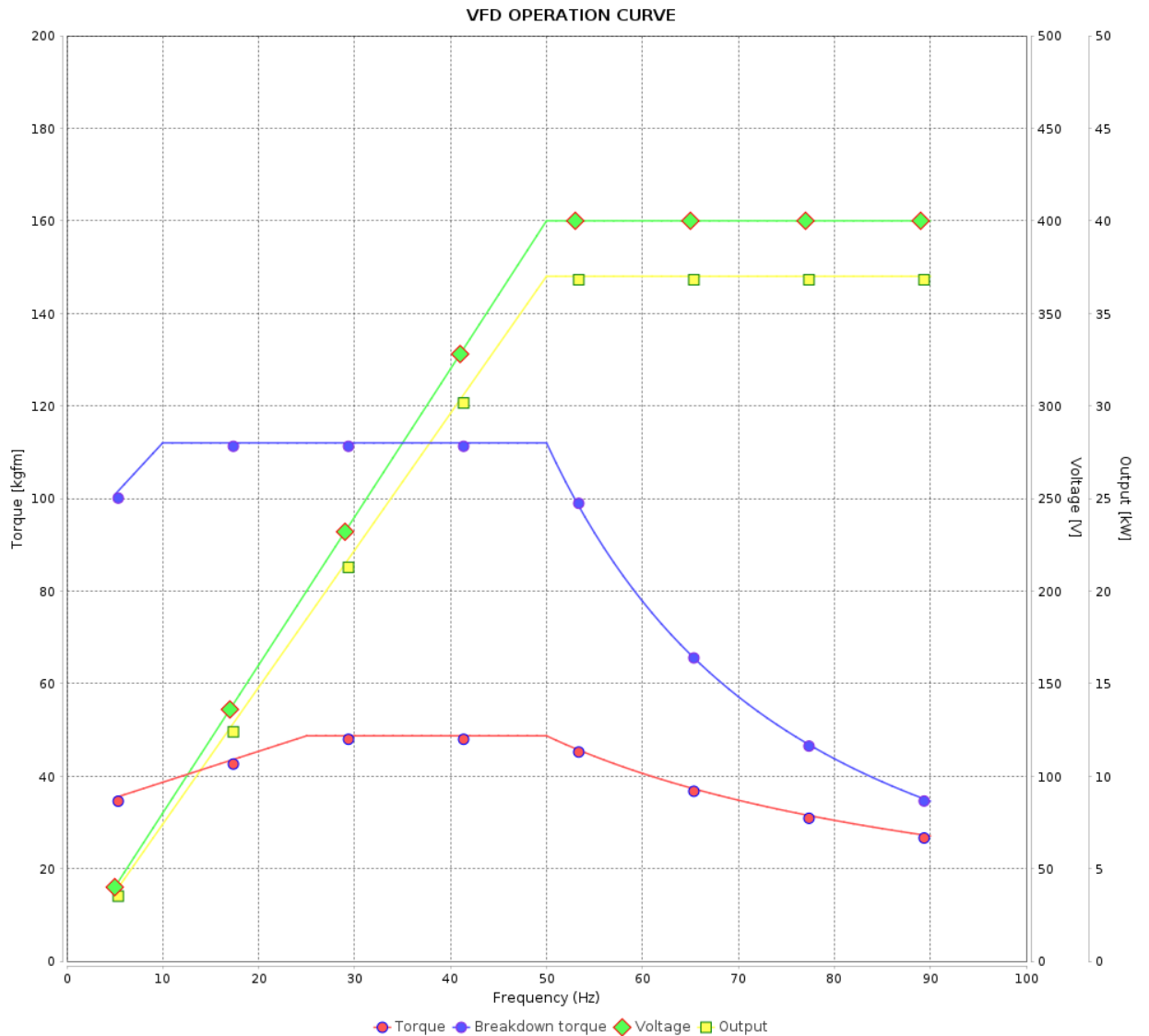
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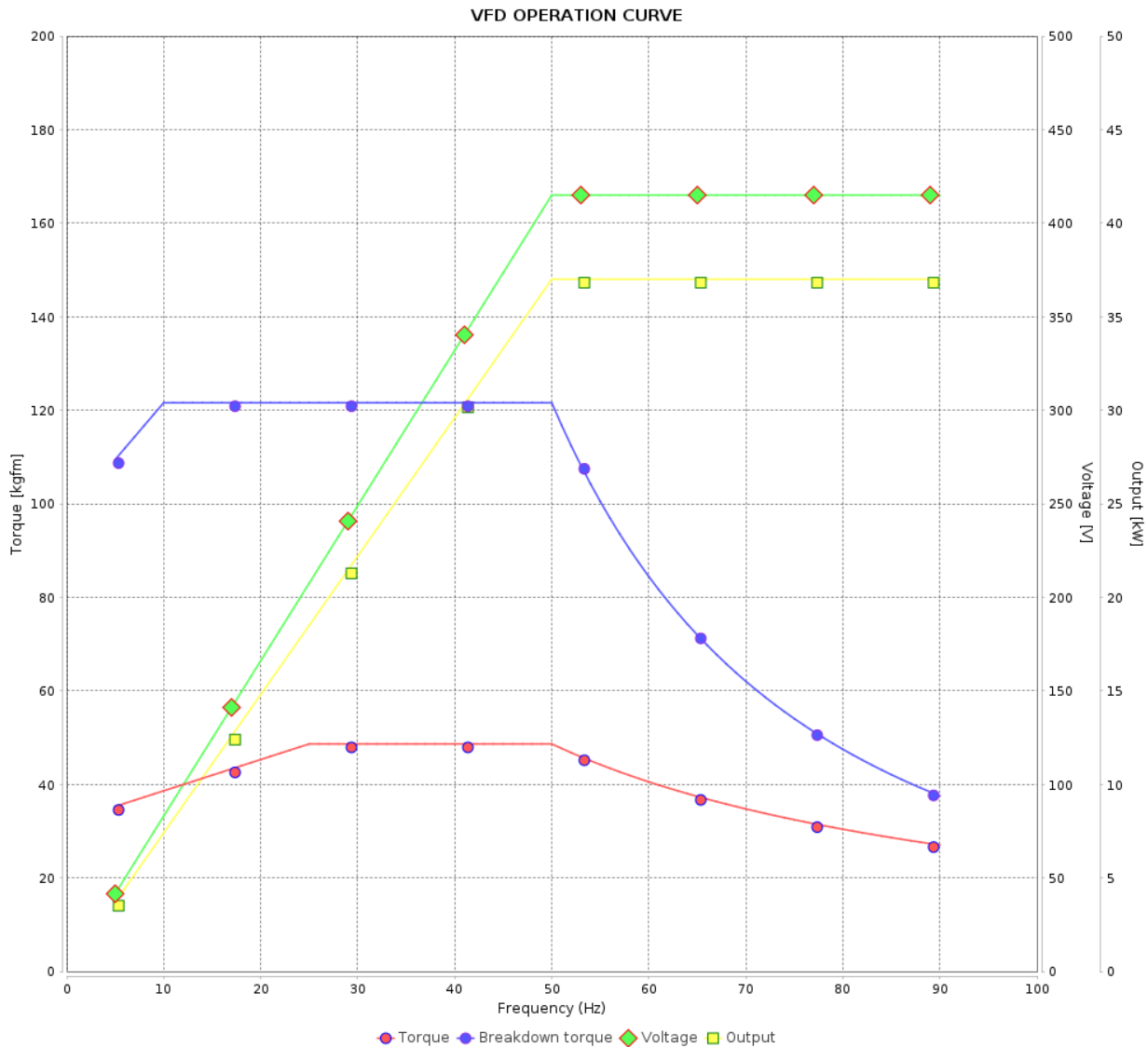
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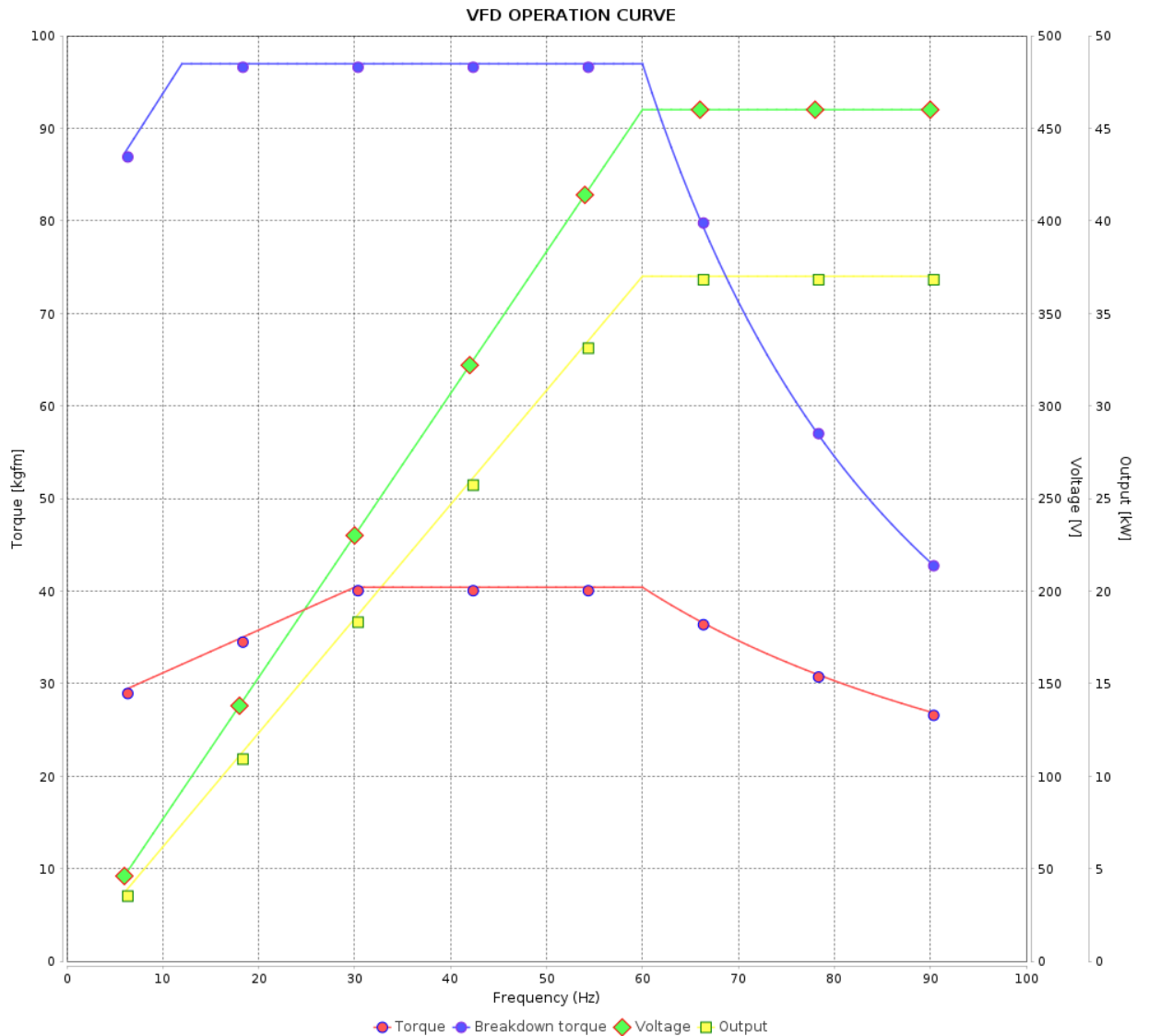
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