

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer		: Astraprom d.o.o.			
Product line		: Multimounting IE3 Three-Phase		Product code : 13749657	
Frame	: 80	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	: 13.0 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.0026 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]	2.16/1.25	2.14/1.23	2.13/1.23	1.09	
L. R. Amperes [A]	14.3/8.25	14.1/8.12	14.0/8.12	7.96	
LRC [A]	6.6	6.6	6.6	7.3	
No load current [A]	1.05/0.610	1.18/0.680	1.31/0.760	0.580	
Rated speed [RPM]	1410	1420	1430	1720	
Slip [%]	6.00	5.33	4.67	4.44	
Rated torque [kgfm]	0.380	0.377	0.375	0.311	
Locked rotor torque [%]	240	280	320	340	
Breakdown torque [%]	260	300	350	380	
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)	39s (cold) 22s (hot)	
Noise level ²	44.0 dB(A)	44.0 dB(A)	44.0 dB(A)	48.0 dB(A)	
Efficiency (%)	25%				
	50%	78.0	77.0	76.0	77.0
	75%	79.1	79.0	78.9	80.0
	100%	80.8	80.8	80.8	81.5
Power Factor	25%				
	50%	0.65	0.61	0.57	0.60
	75%	0.77	0.74	0.71	0.73
	100%	0.83	0.80	0.77	0.78
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	23.7	23.7	23.7	22.7
	P2 (0,5;1,0)	22.5	22.5	22.5	21.5
	P3 (0,25;1,0)	21.5	21.5	21.5	20.5
	P4 (0,9;0,5)	11.5	11.5	11.5	11.0
	P5 (0,5;0,5)	8.3	8.3	8.3	7.9
	P6 (0,5;0,25)	5.7	5.7	5.7	5.4
	P7 (0,25;0,25)	4.0	4.0	4.0	3.9
Bearing type	: Drive end 6204 ZZ	Non drive end 6203 ZZ	Foundation loads		
Sealing	: Oil Seal	Oil Seal	Max. traction	: 31 kgf	
Lubrication interval	: -	-	Max. compression	: 44 kgf	
Lubricant amount	: -	-			
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

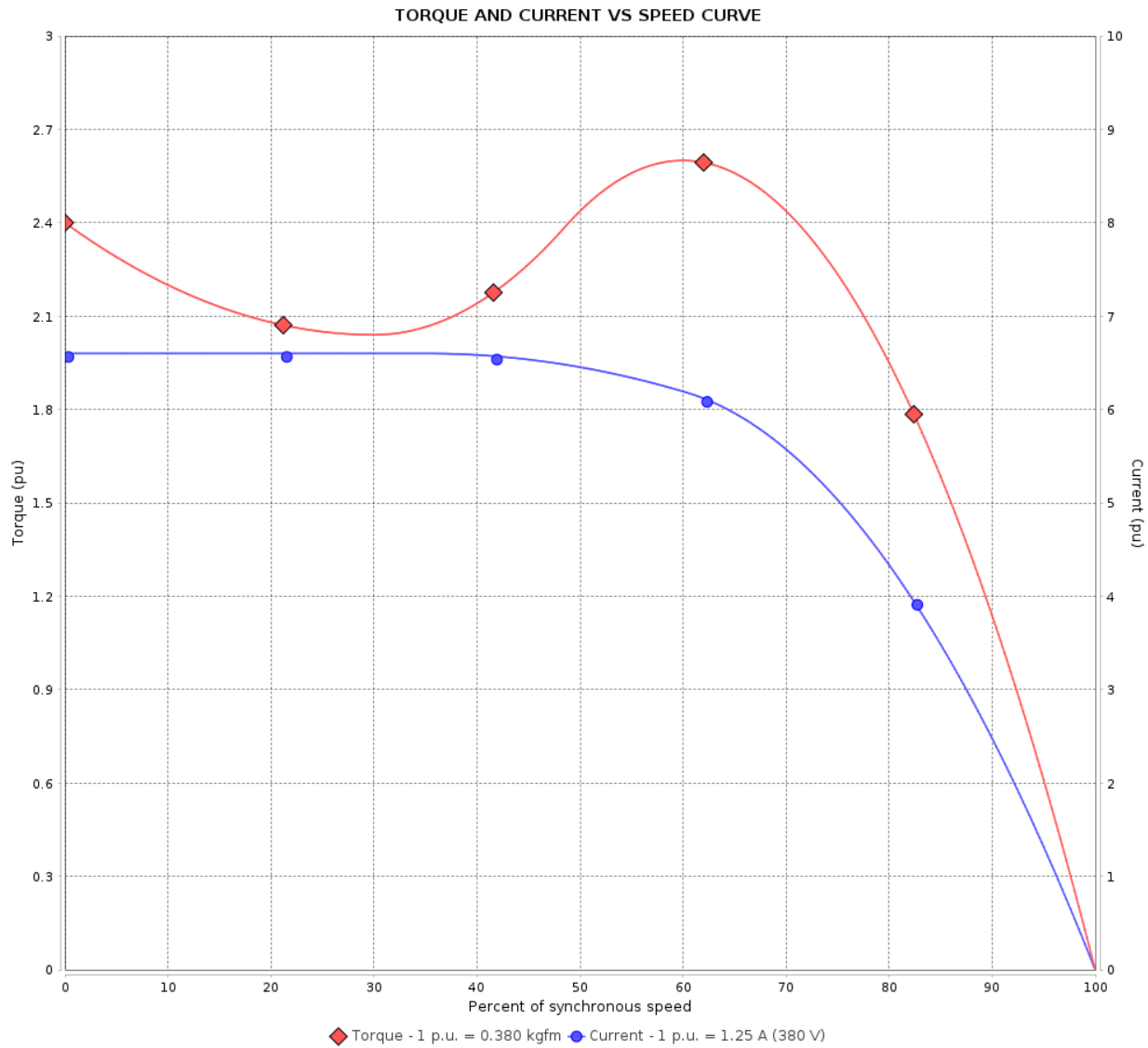
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code : 13749657



Performance : 220/380 V 50 Hz 4P

Rated current	: 2.16/1.25 A	Moment of inertia (J)	: 0.0026 kgm ²
LRC	: 6.6	Duty cycle	: S1
Rated torque	: 0.380 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1410 rpm	Design	: N

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

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TORQUE AND CURRENT VS SPEED CURVE

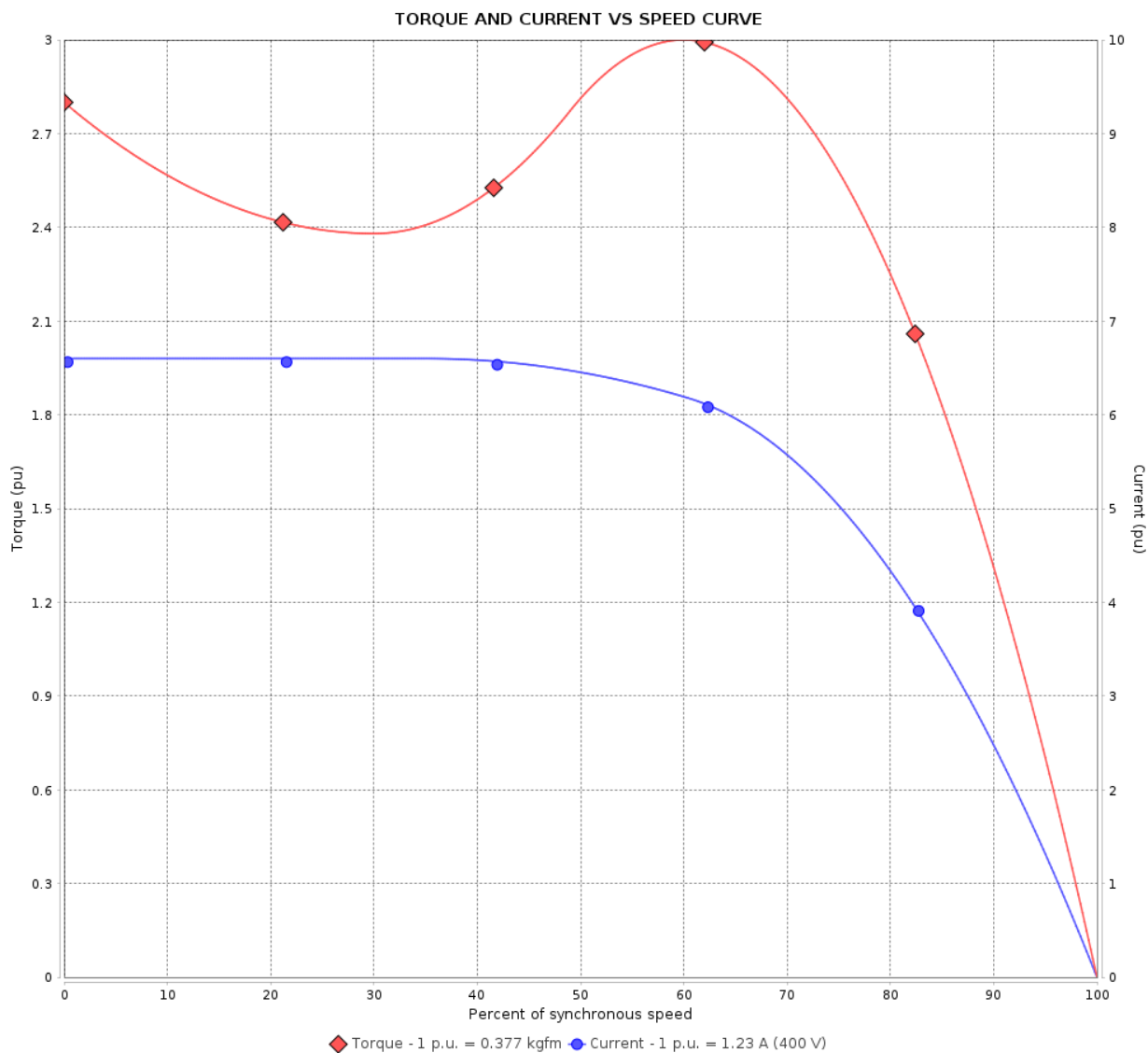


Three Phase Induction Motor - Squirrel Cage

Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code : 13749657



Performance : 230/400 V 50 Hz 4P

Rated current	: 2.14/1.23 A	Moment of inertia (J)	: 0.0026 kgm ²
LRC	: 6.6	Duty cycle	: S1
Rated torque	: 0.377 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1420 rpm	Design	: N

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

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TORQUE AND CURRENT VS SPEED CURVE

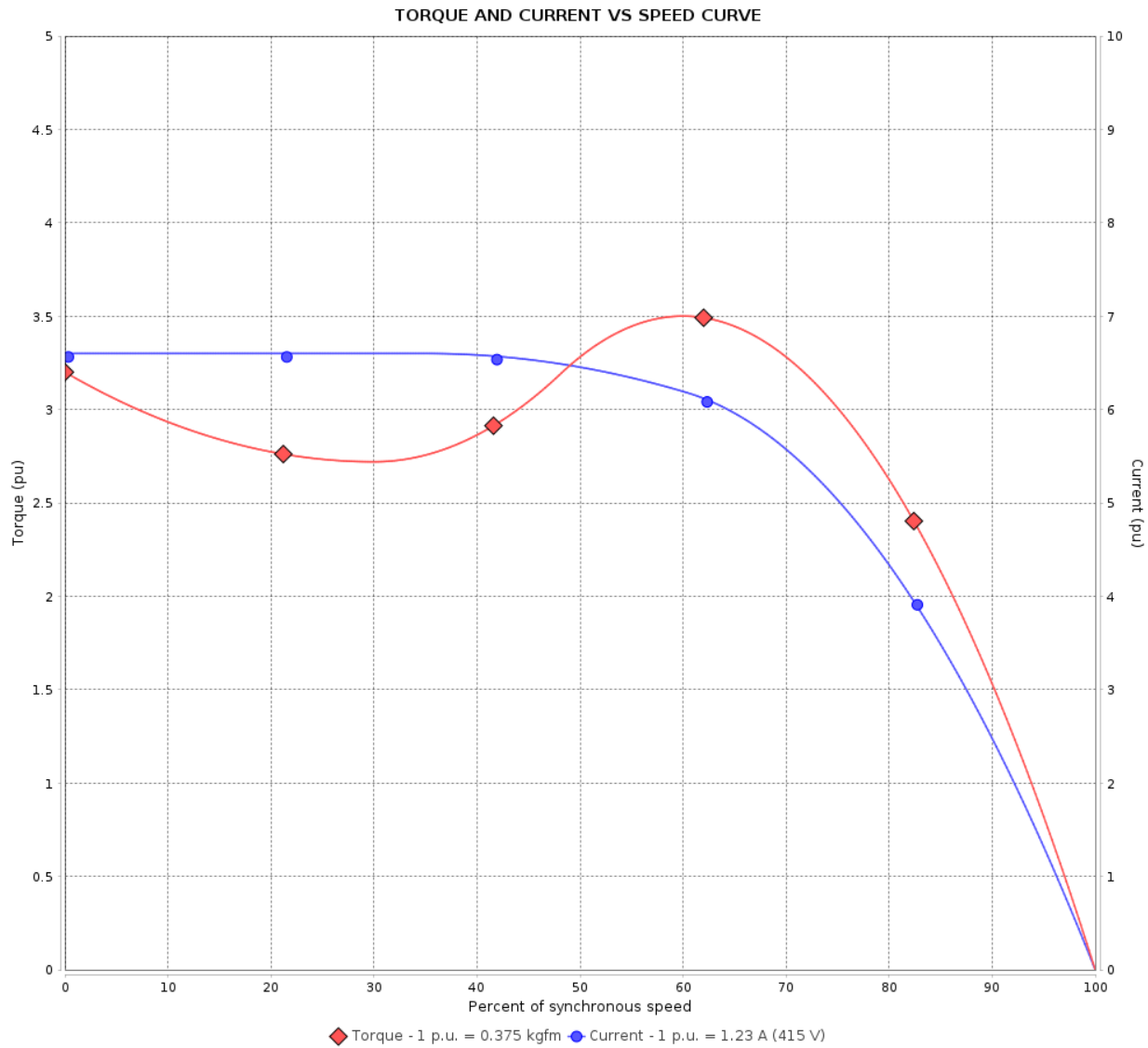
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code : 13749657



Performance : 240/415 V 50 Hz 4P

Rated current	: 2.13/1.23 A	Moment of inertia (J)	: 0.0026 kgm ²
LRC	: 6.6	Duty cycle	: S1
Rated torque	: 0.375 kgfm	Insulation class	: F
Locked rotor torque	: 320 %	Service factor	: 1.00
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1430 rpm	Design	: N

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

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TORQUE AND CURRENT VS SPEED CURVE



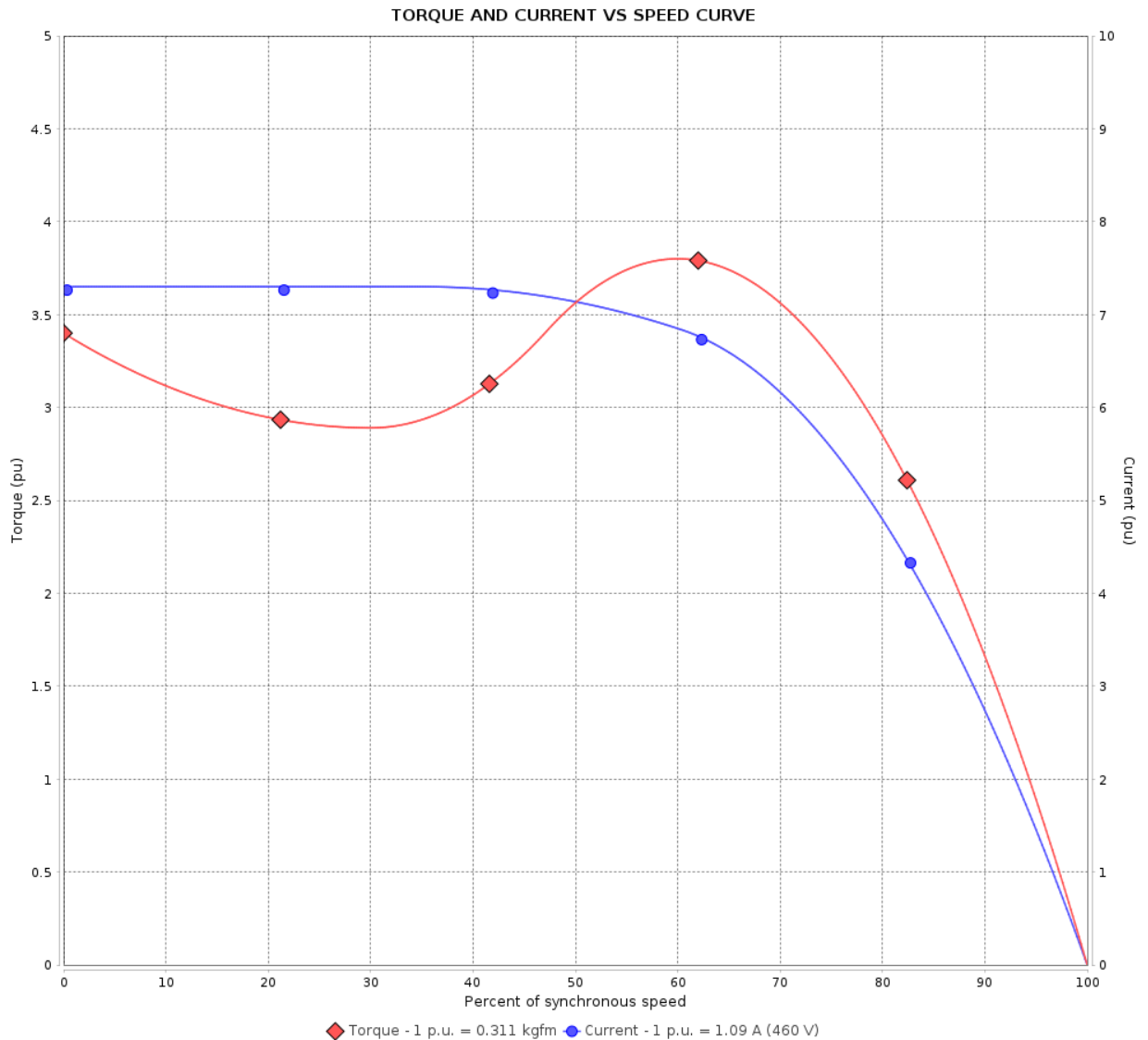
Three Phase Induction Motor - Squirrel Cage

Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code :

13749657



Performance : 460 V 60 Hz 4P

Rated current	: 1.09 A	Moment of inertia (J)	: 0.0026 kgm ²
LRC	: 7.3	Duty cycle	: S1
Rated torque	: 0.311 kgfm	Insulation class	: F
Locked rotor torque	: 340 %	Service factor	: 1.00
Breakdown torque	: 380 %	Temperature rise	: 80 K
Rated speed	: 1720 rpm	Design	: N

Locked rotor time : 39s (cold) 22s (hot)

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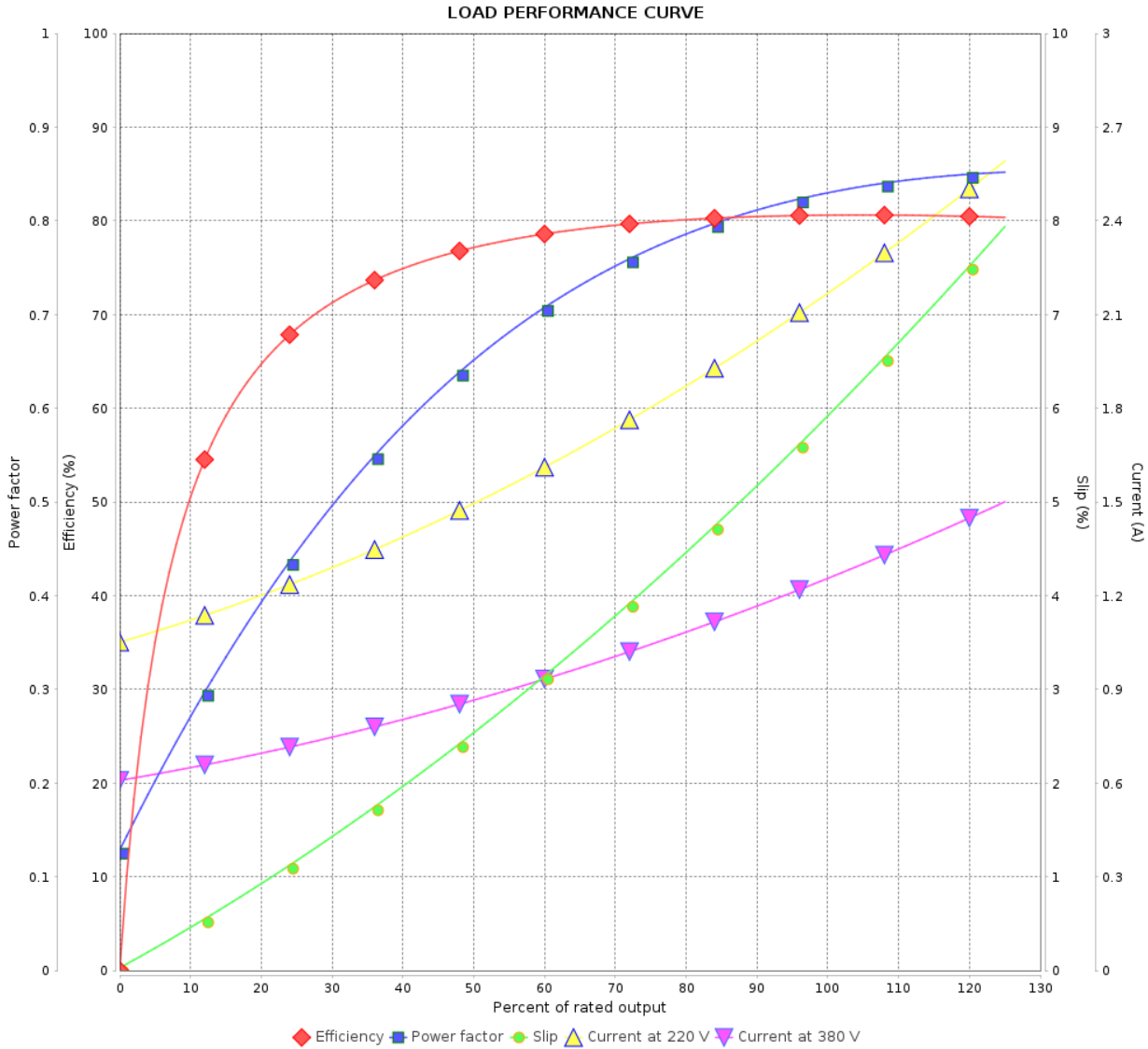
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Customer : Astraprom d.o.o.

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Performance : 220/380 V 50 Hz 4P

Rated current : 2.16/1.25 A
 LRC : 6.6
 Rated torque : 0.380 kgfm
 Locked rotor torque : 240 %
 Breakdown torque : 260 %
 Rated speed : 1410 rpm

Moment of inertia (J) : 0.0026 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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Three Phase Induction Motor - Squirrel Cage

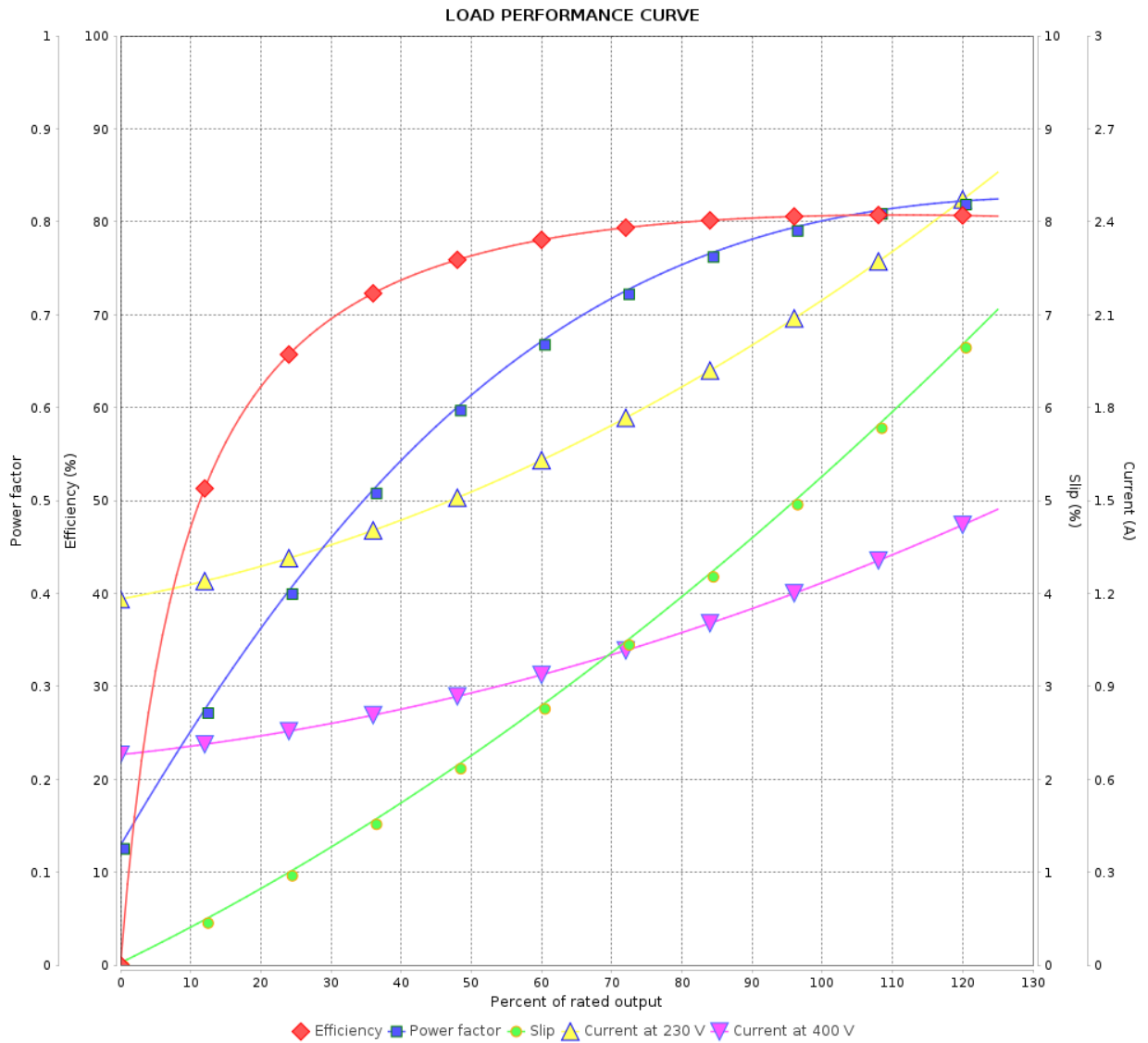


Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code :

13749657



Performance : 230/400 V 50 Hz 4P

Rated current : 2.14/1.23 A
 LRC : 6.6
 Rated torque : 0.377 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 300 %
 Rated speed : 1420 rpm

Moment of inertia (J) : 0.0026 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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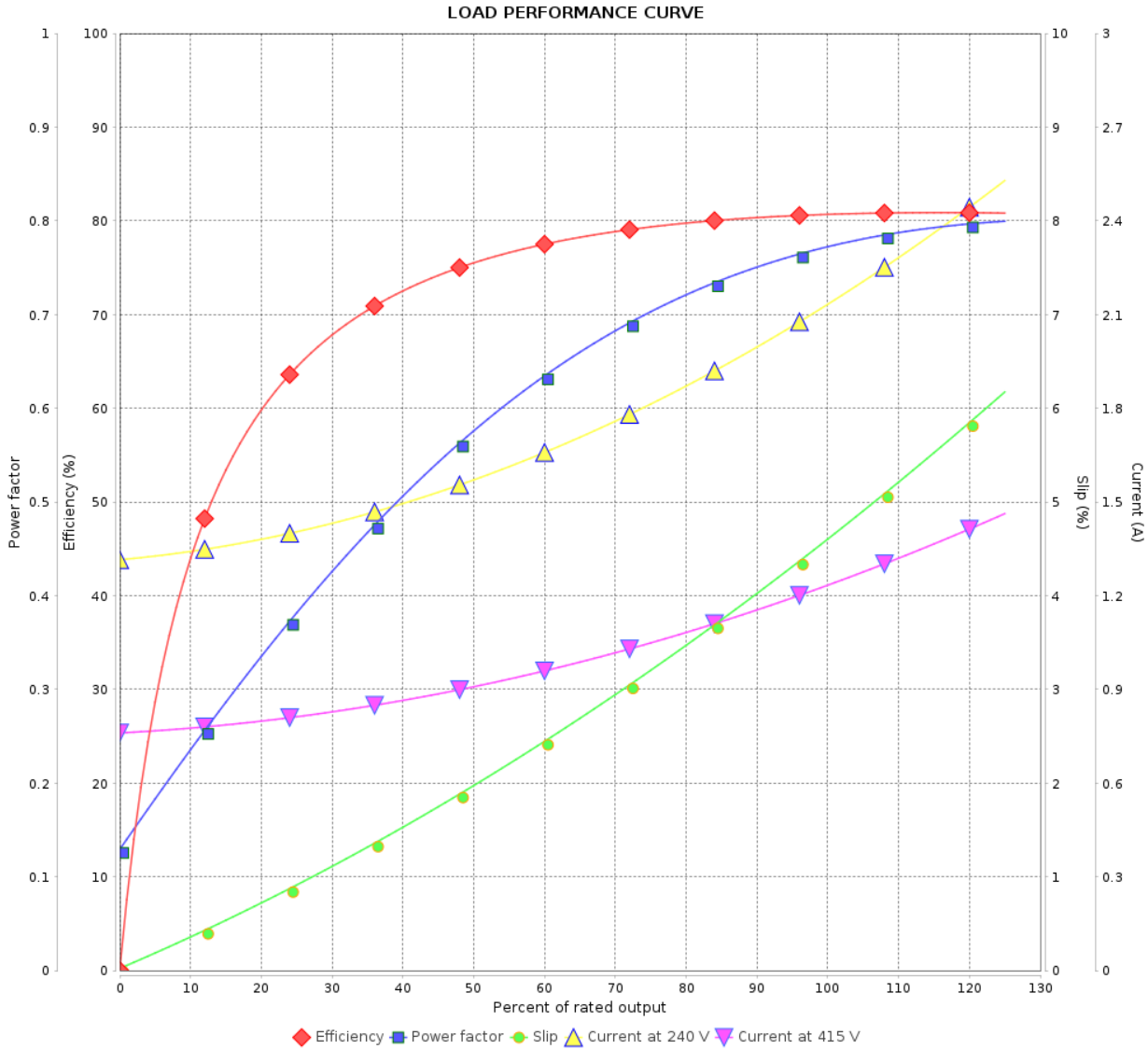
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 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
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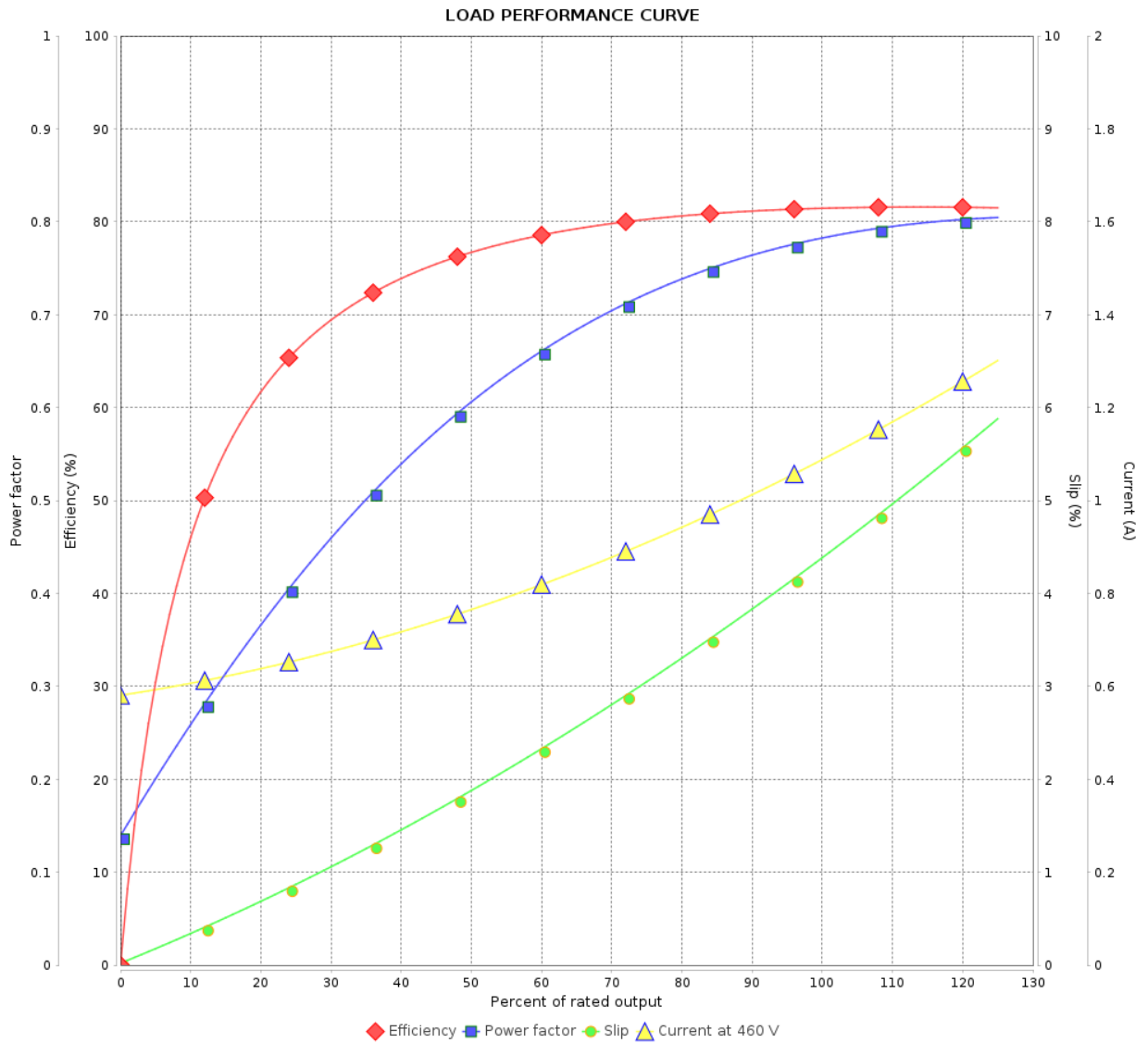


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THERMAL LIMIT CURVE

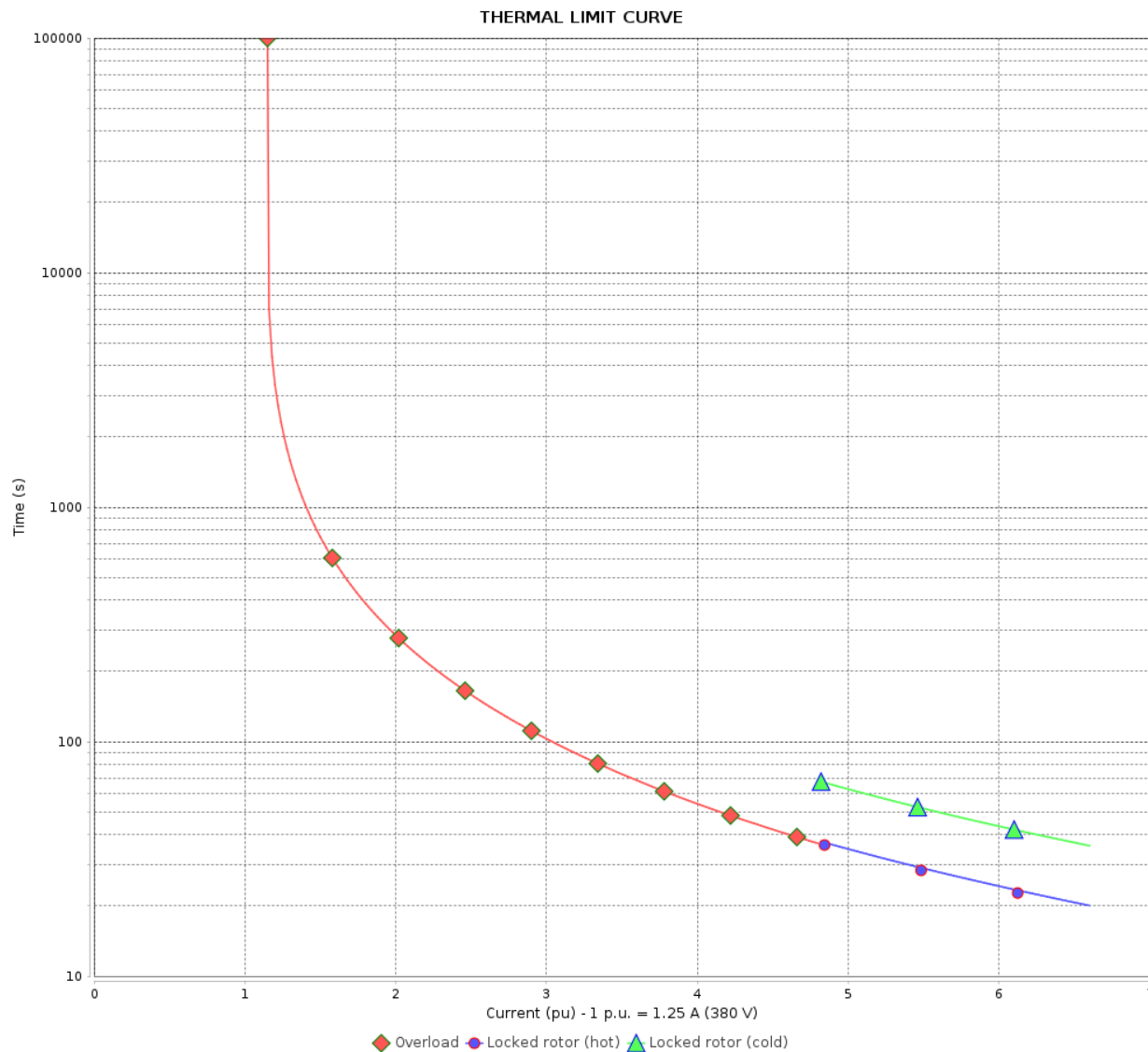
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 Rated speed : 1410 rpm

Moment of inertia (J) : 0.0026 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Heating constant
 Cooling constant

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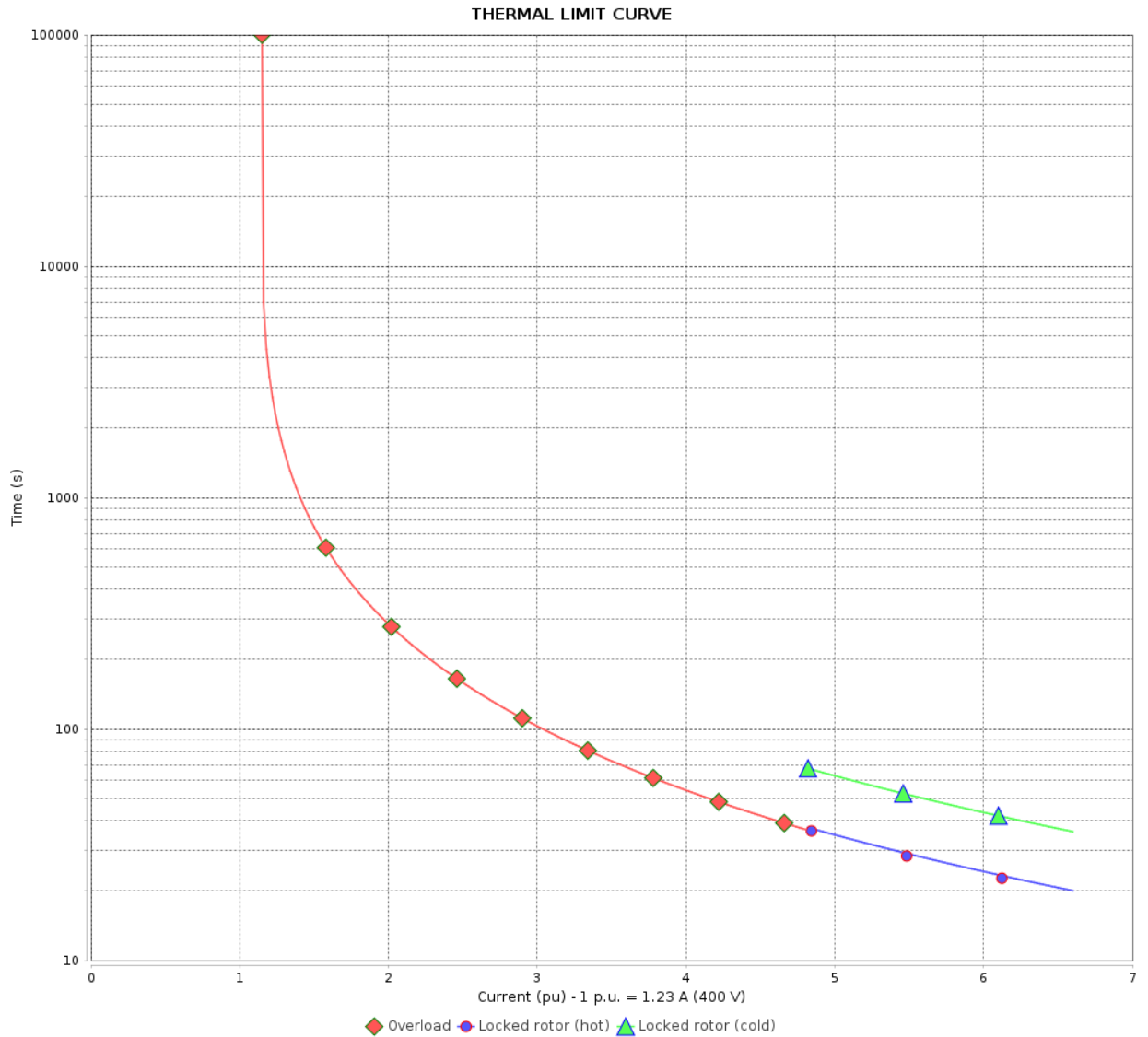
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 Duty cycle : S1
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 Service factor : 1.00
 Temperature rise : 80 K
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Heating constant

Cooling constant

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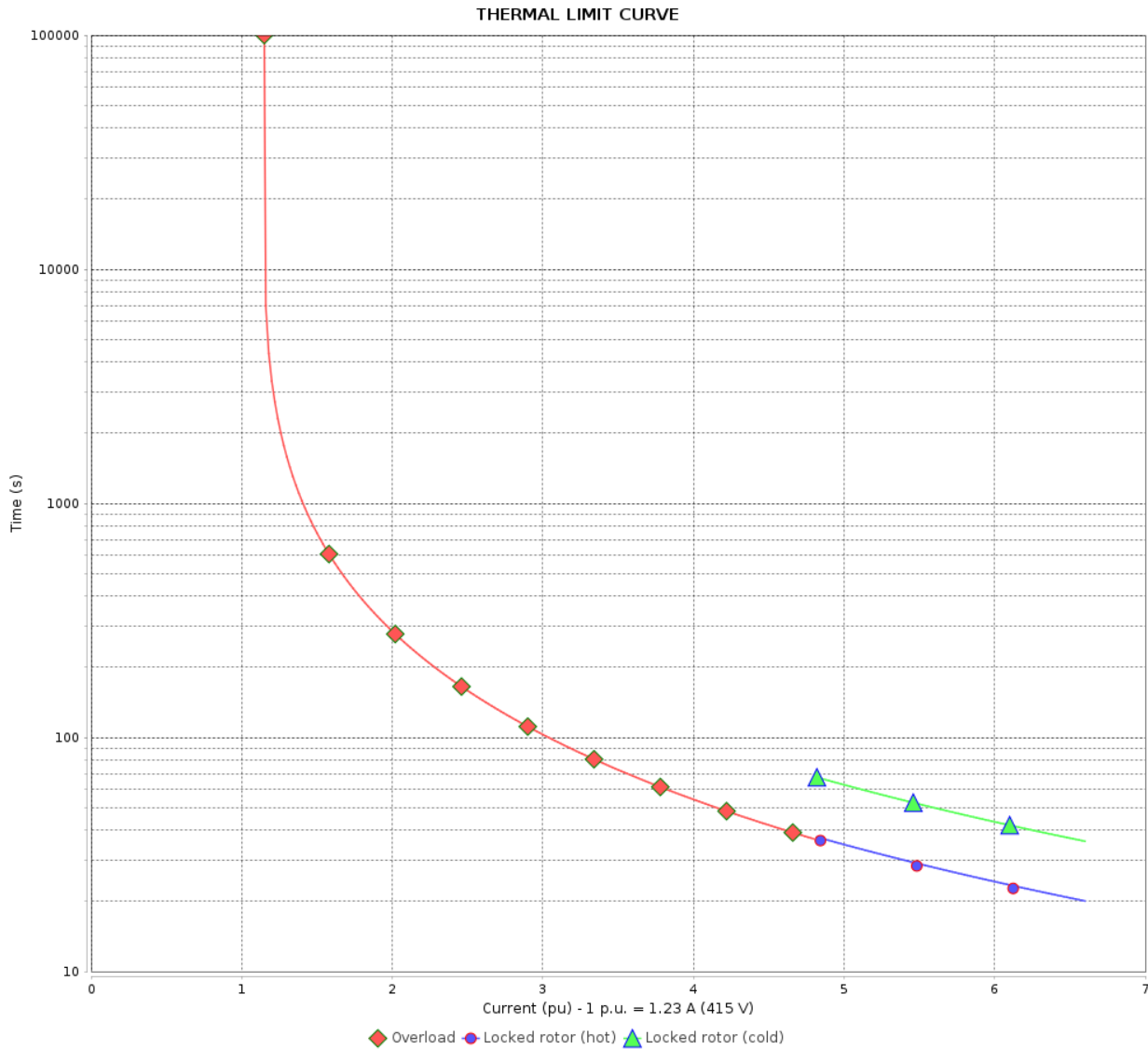
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 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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Cooling constant

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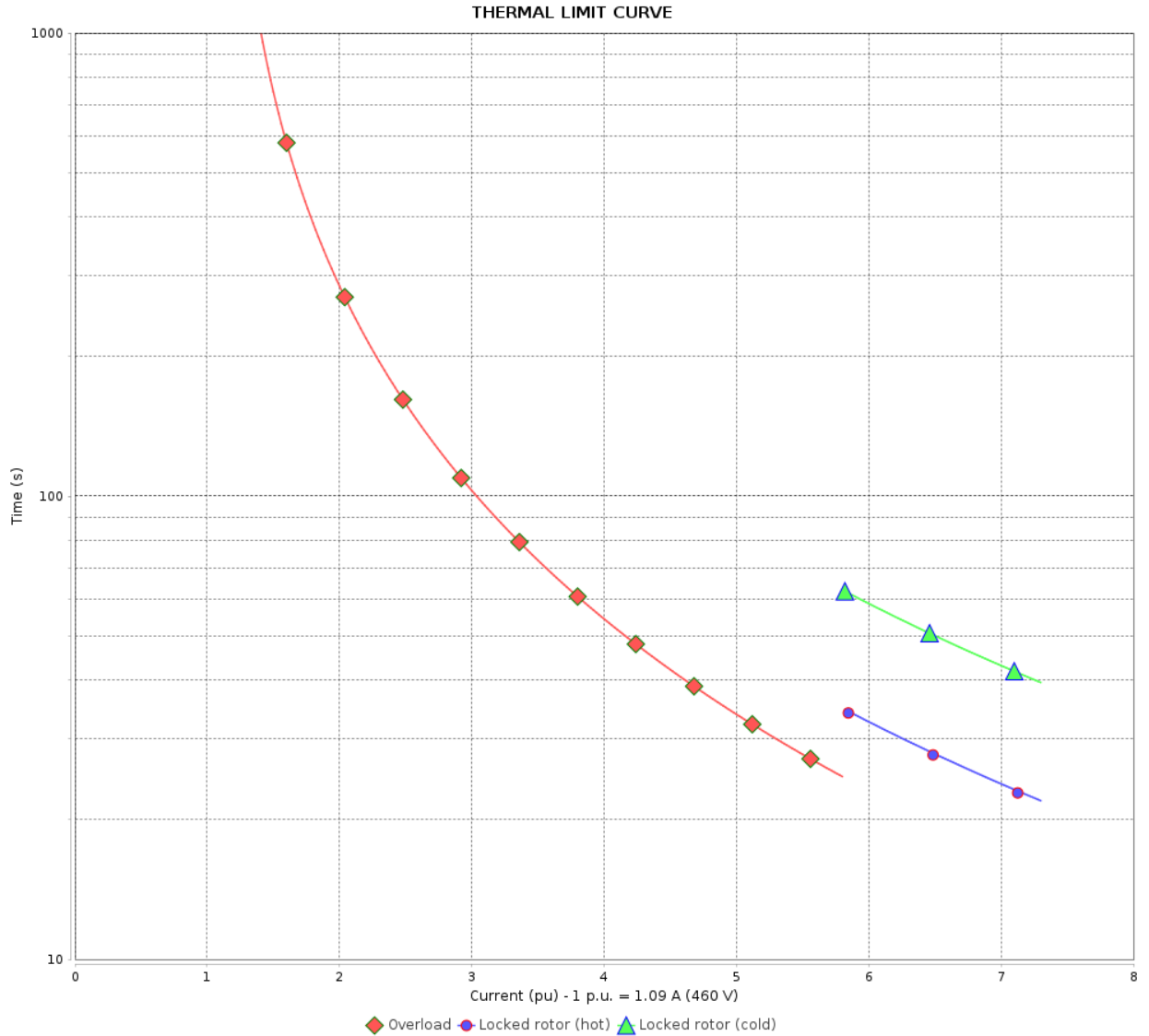
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Breakdown torque	: 380 %	Temperature rise	: 80 K
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Heating constant

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VFD OPERATION CURVE

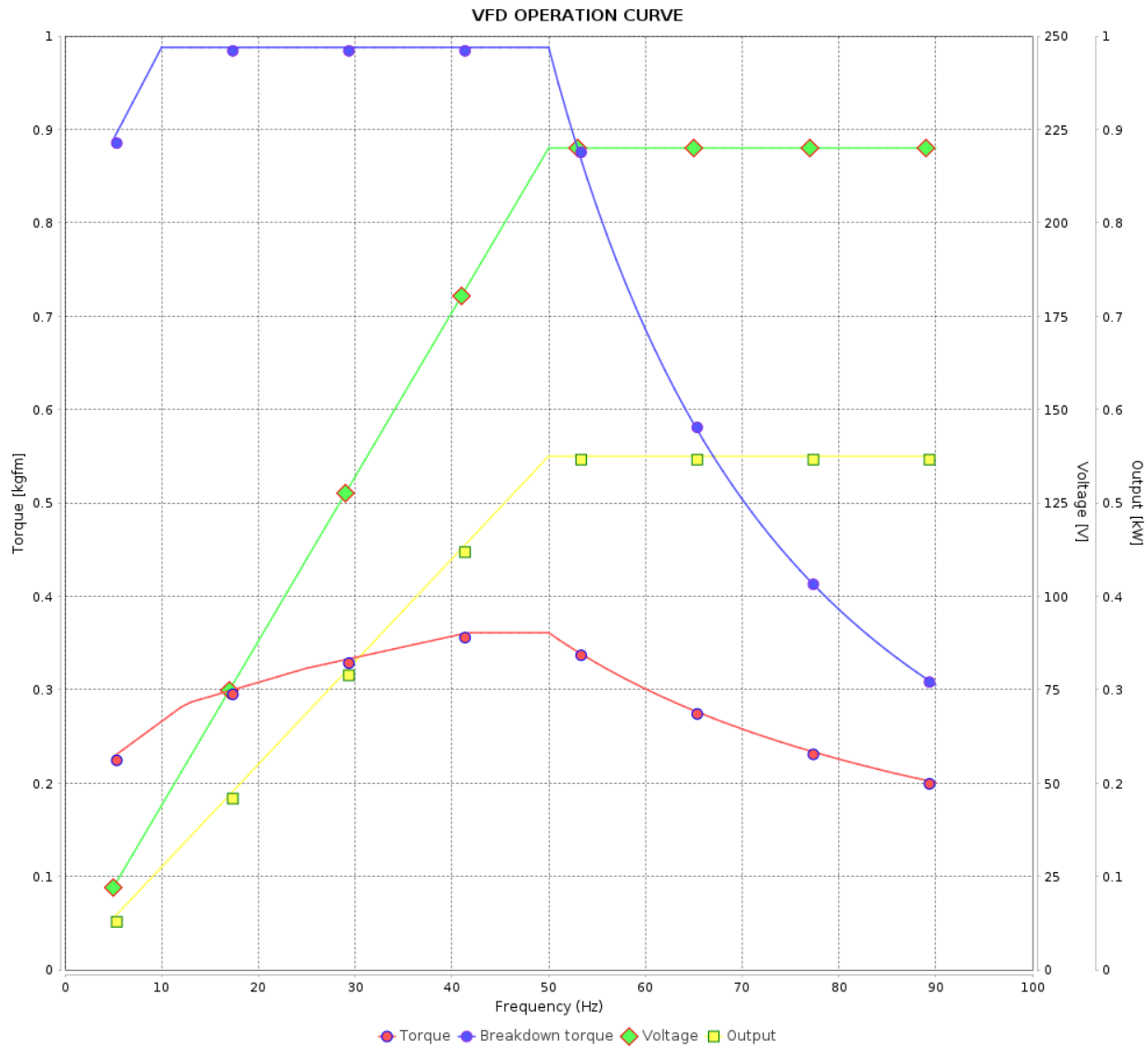
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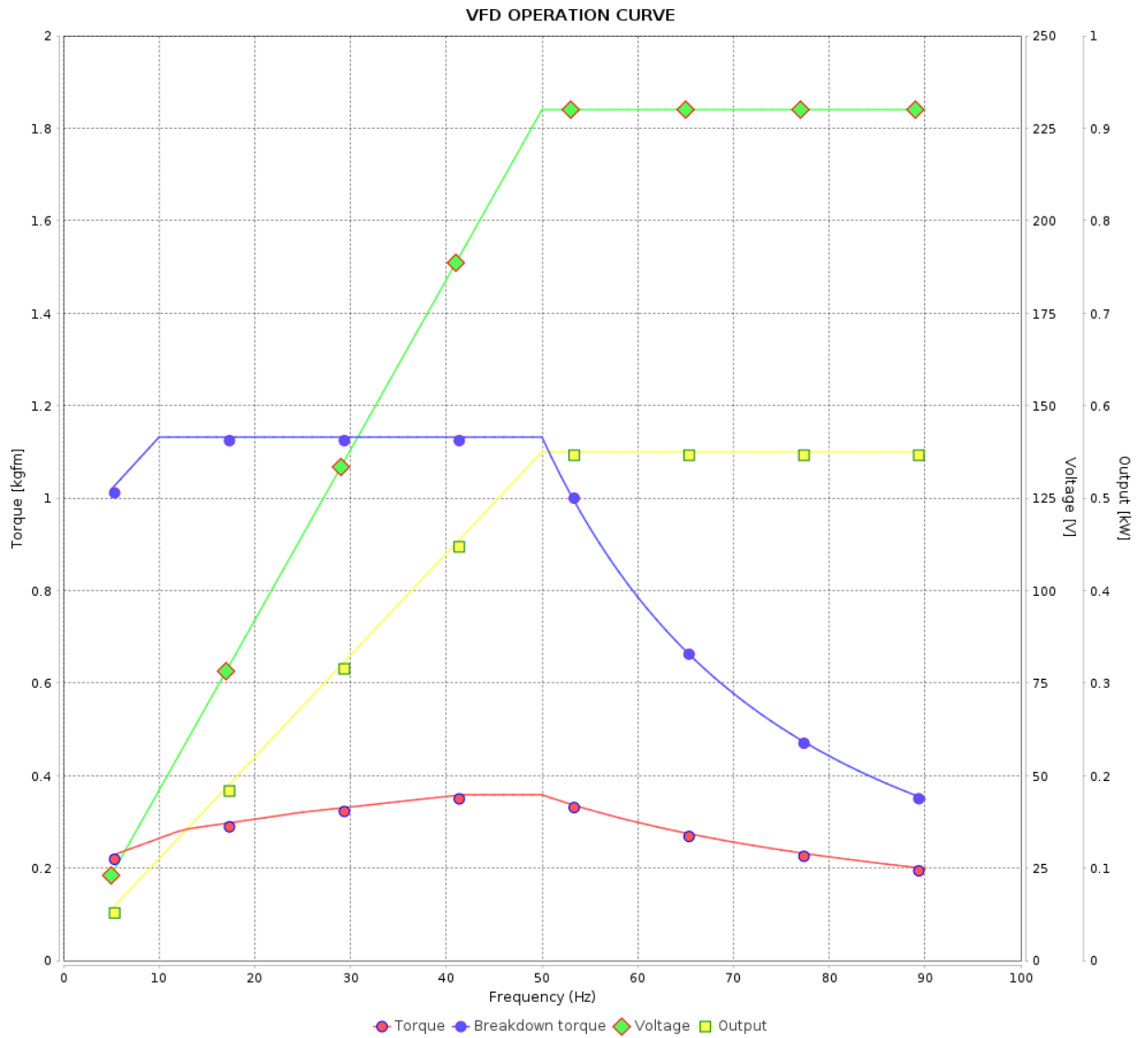
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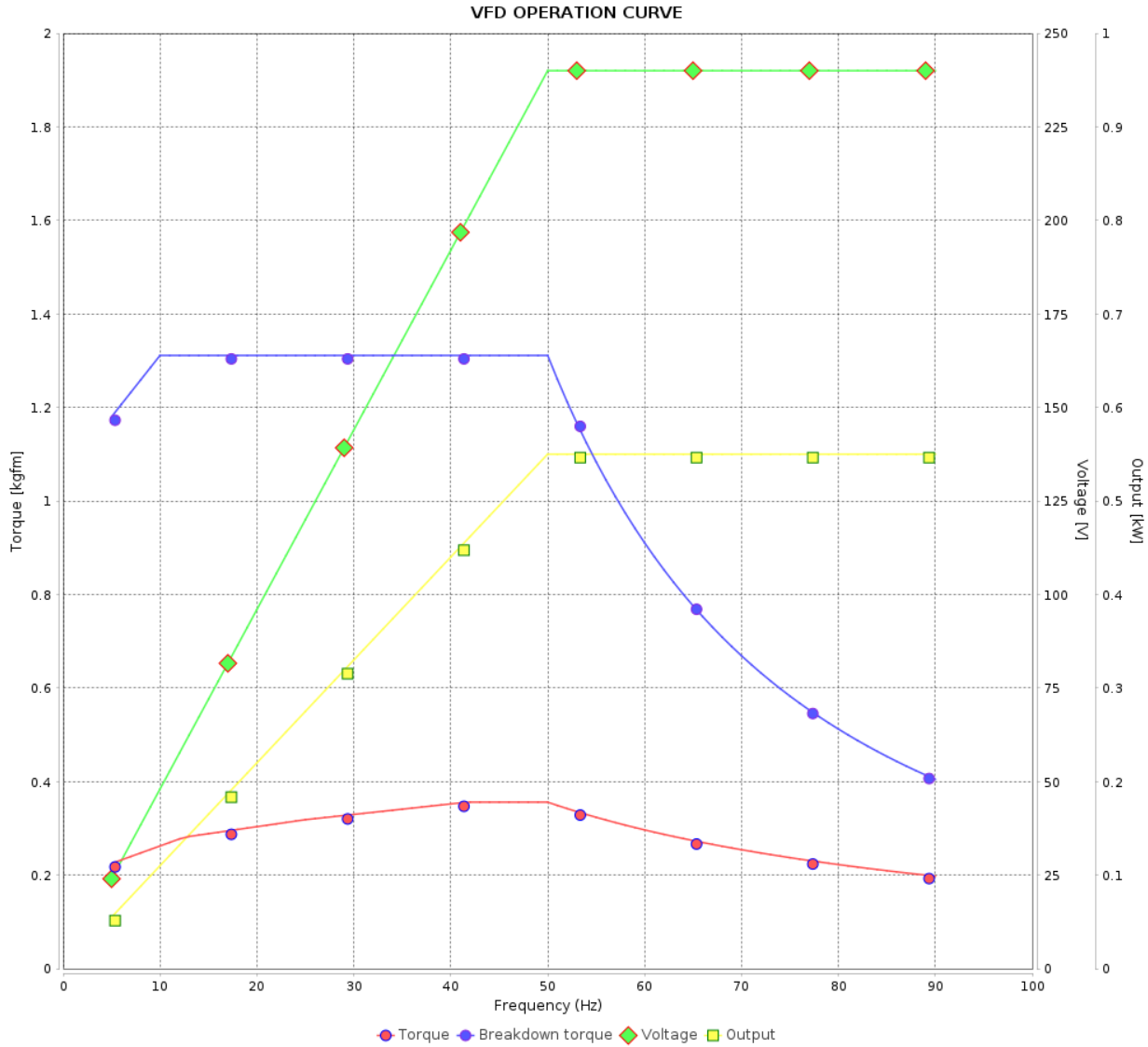
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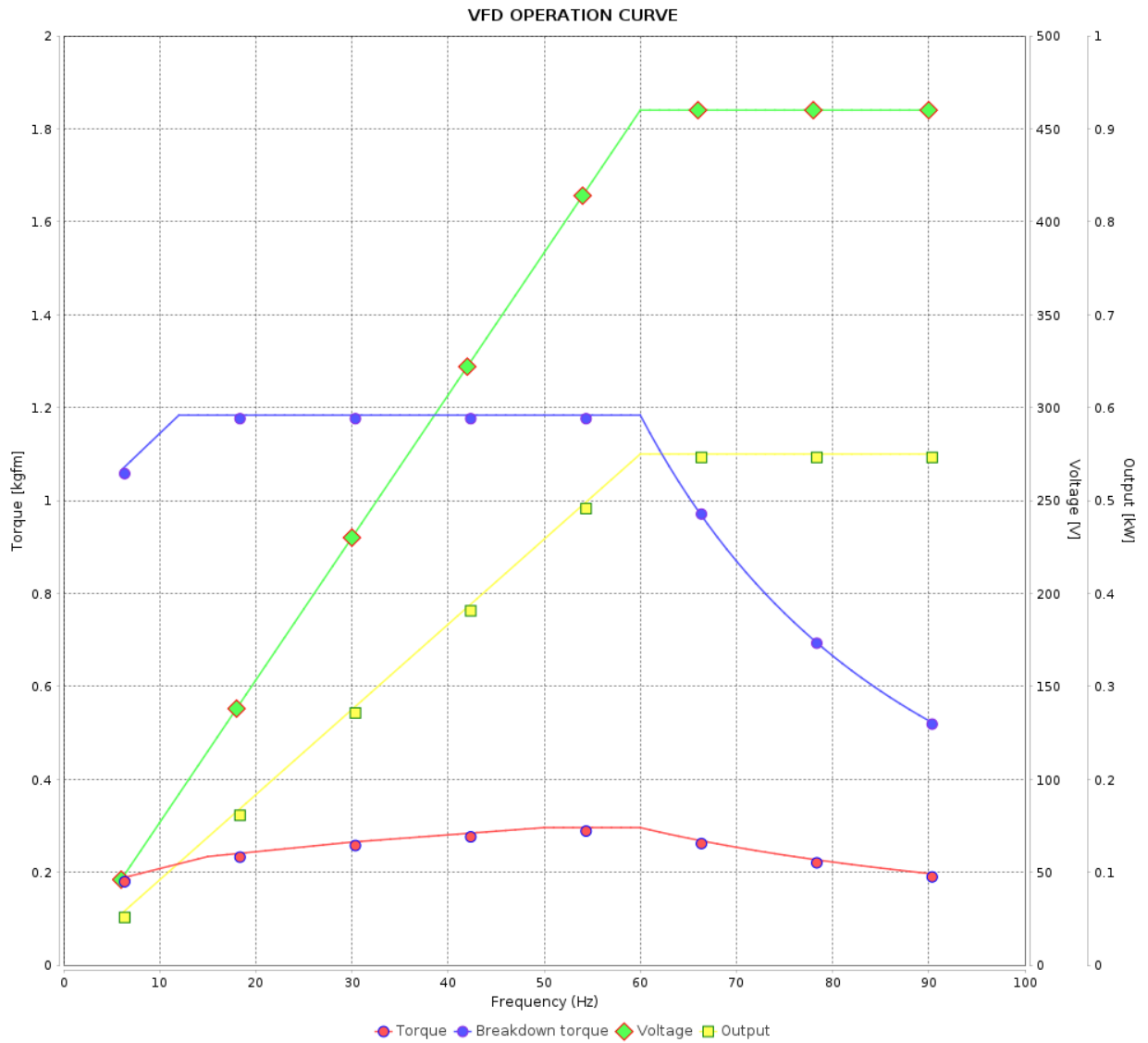
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