

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer		: Astraprom d.o.o.			
Product line		: Multimounting IE3 Three-Phase		Product code : 13749672	
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	: 12.7 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.0025 kgm ²		
Design	: N				
Output [kW]	0.37	0.37	0.37	0.37	0.37
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]	1.67/0.968	1.69/0.969	1.68/0.973	0.879	
L. R. Amperes [A]	7.52/4.36	7.58/4.36	7.57/4.38	4.31	
LRC [A]	4.5	4.5	4.5	4.9	
No load current [A]	1.02/0.590	1.20/0.690	1.37/0.790	0.590	
Rated speed [RPM]	915	925	930	1140	
Slip [%]	8.50	7.50	7.00	5.00	
Rated torque [kgfm]	0.394	0.390	0.388	0.316	
Locked rotor torque [%]	190	190	220	240	
Breakdown torque [%]	210	210	229	280	
Service factor	1.00	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	50s (cold) 28s (hot)	
Noise level ²	43.0 dB(A)	43.0 dB(A)	43.0 dB(A)	47.0 dB(A)	
Efficiency (%)	25%				
	50%	67.6	66.0	64.3	66.0
	75%	69.9	69.5	68.8	70.0
	100%	73.5	73.5	73.5	75.5
Power Factor	25%				
	50%	0.55	0.51	0.48	0.47
	75%	0.69	0.65	0.62	0.60
	100%	0.79	0.75	0.72	0.70
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	35.5	35.5	35.5	31.9
	P2 (0,5;1,0)	34.4	34.4	34.4	30.9
	P3 (0,25;1,0)	35.3	35.3	35.3	31.8
	P4 (0,9;0,5)	17.4	17.4	17.4	15.6
	P5 (0,5;0,5)	13.9	13.9	13.9	12.5
	P6 (0,5;0,25)	10.3	10.3	10.3	9.3
	P7 (0,25;0,25)	7.8	7.8	7.8	7.1
Bearing type	: Drive end 6204 ZZ	Non drive end 6203 ZZ	Foundation loads		
Sealing	: Oil Seal	Oil Seal	Max. traction	: 21 kgf	
Lubrication interval	: -	-	Max. compression	: 34 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

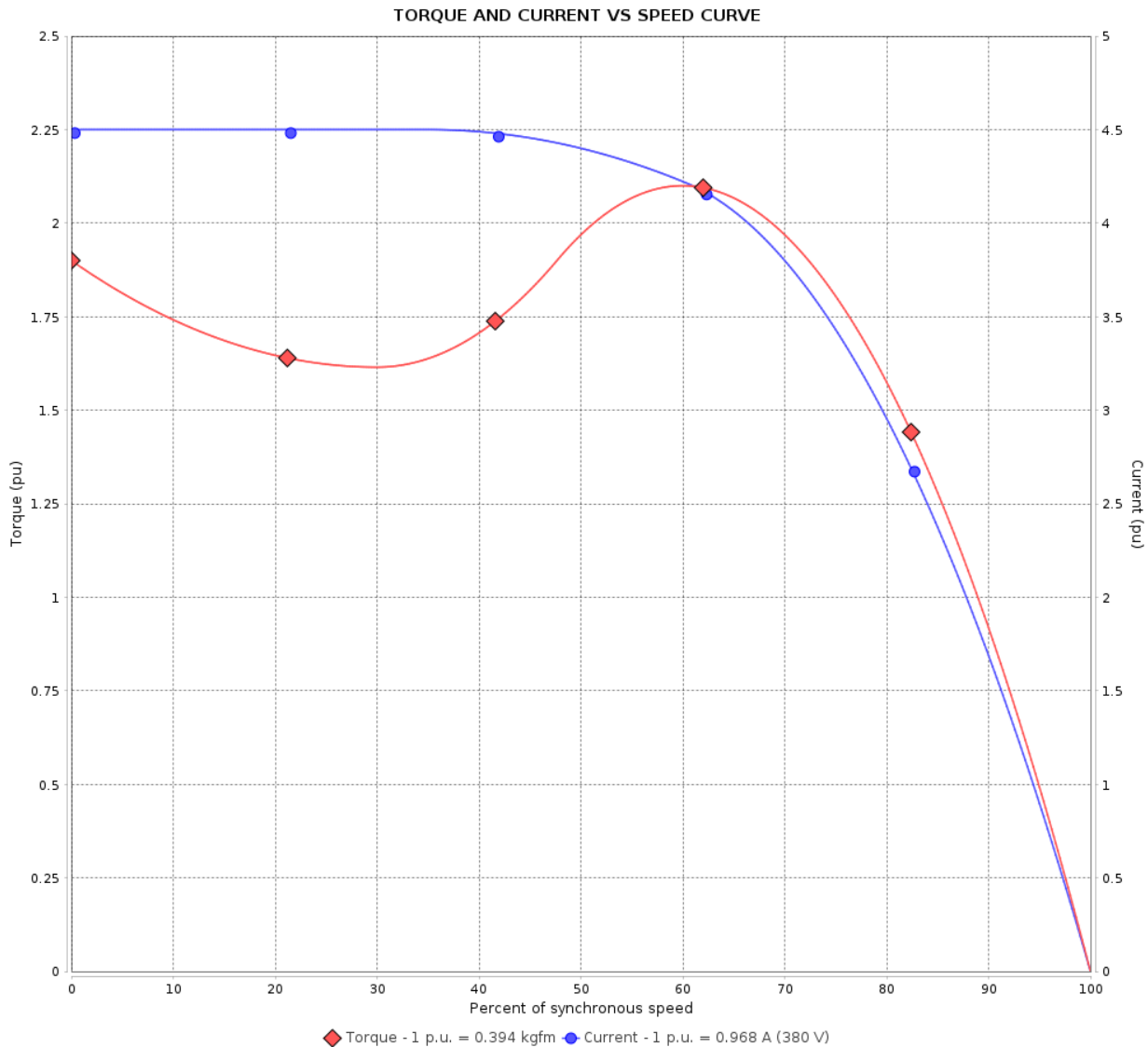
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code : 13749672



Performance : 220/380 V 50 Hz 6P

Rated current	: 1.67/0.968 A	Moment of inertia (J)	: 0.0025 kgm ²
LRC	: 4.5	Duty cycle	: S1
Rated torque	: 0.394 kgfm	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 80 K
Rated speed	: 915 rpm	Design	: N

Locked rotor time : 45s (cold) 25s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



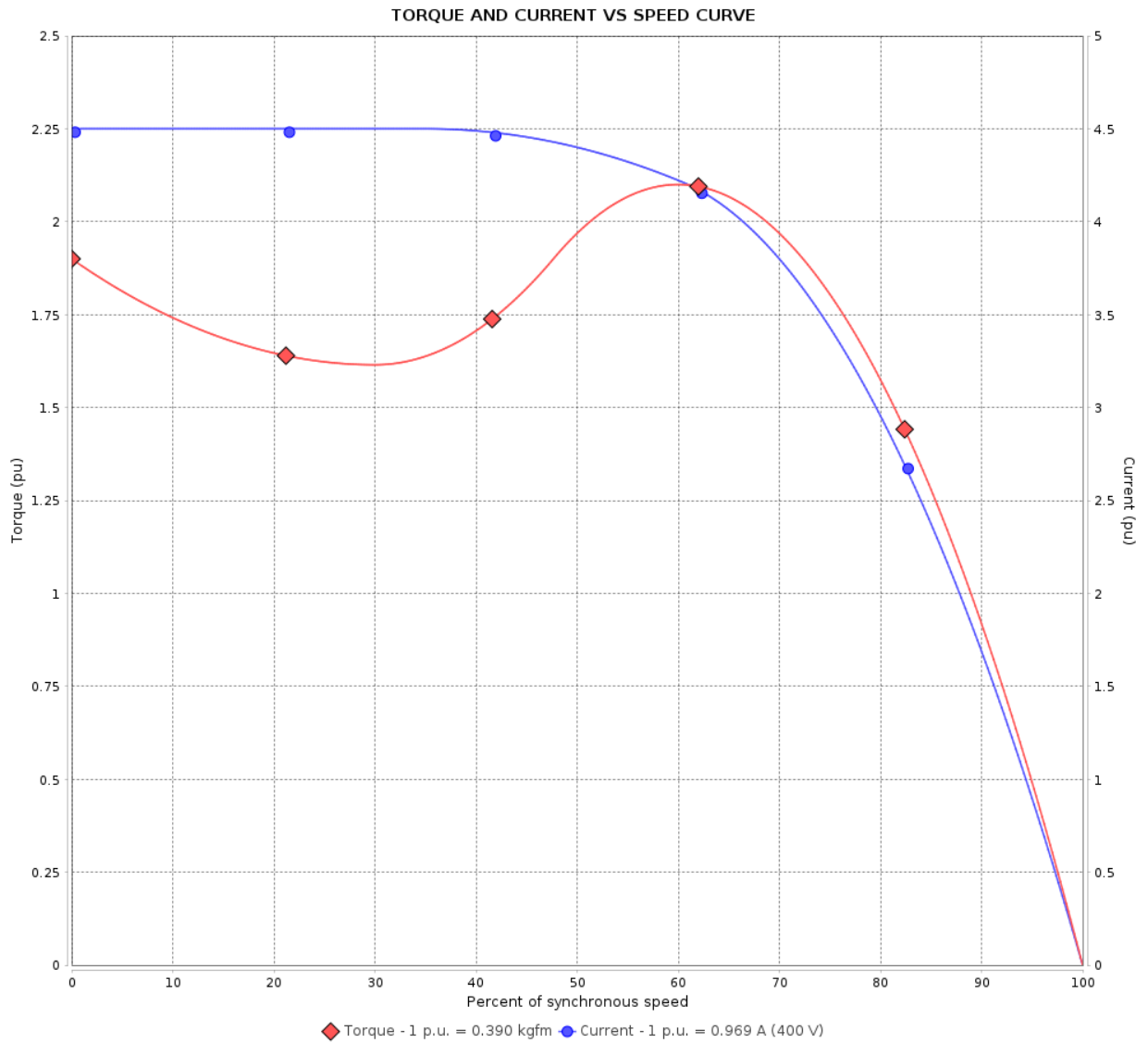
Three Phase Induction Motor - Squirrel Cage

Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code :

13749672



Performance : 230/400 V 50 Hz 6P

Rated current : 1.69/0.969 A
 LRC : 4.5
 Rated torque : 0.390 kgfm
 Locked rotor torque : 190 %
 Breakdown torque : 210 %
 Rated speed : 925 rpm

Moment of inertia (J) : 0.0025 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Locked rotor time : 45s (cold) 25s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

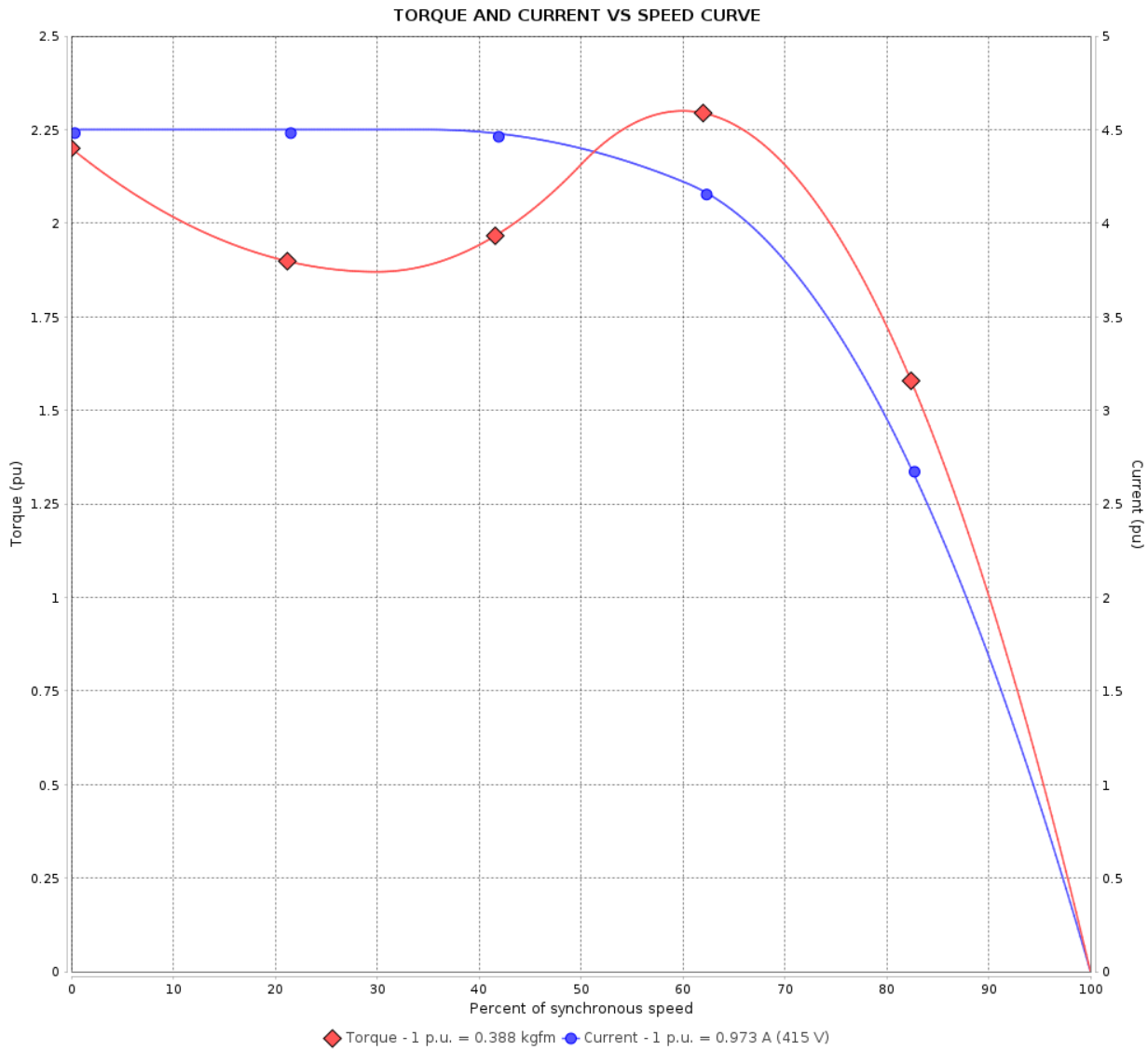
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code : 13749672



Performance : 240/415 V 50 Hz 6P

Rated current	: 1.68/0.973 A	Moment of inertia (J)	: 0.0025 kgm ²
LRC	: 4.5	Duty cycle	: S1
Rated torque	: 0.388 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 930 rpm	Design	: N

Locked rotor time : 45s (cold) 25s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

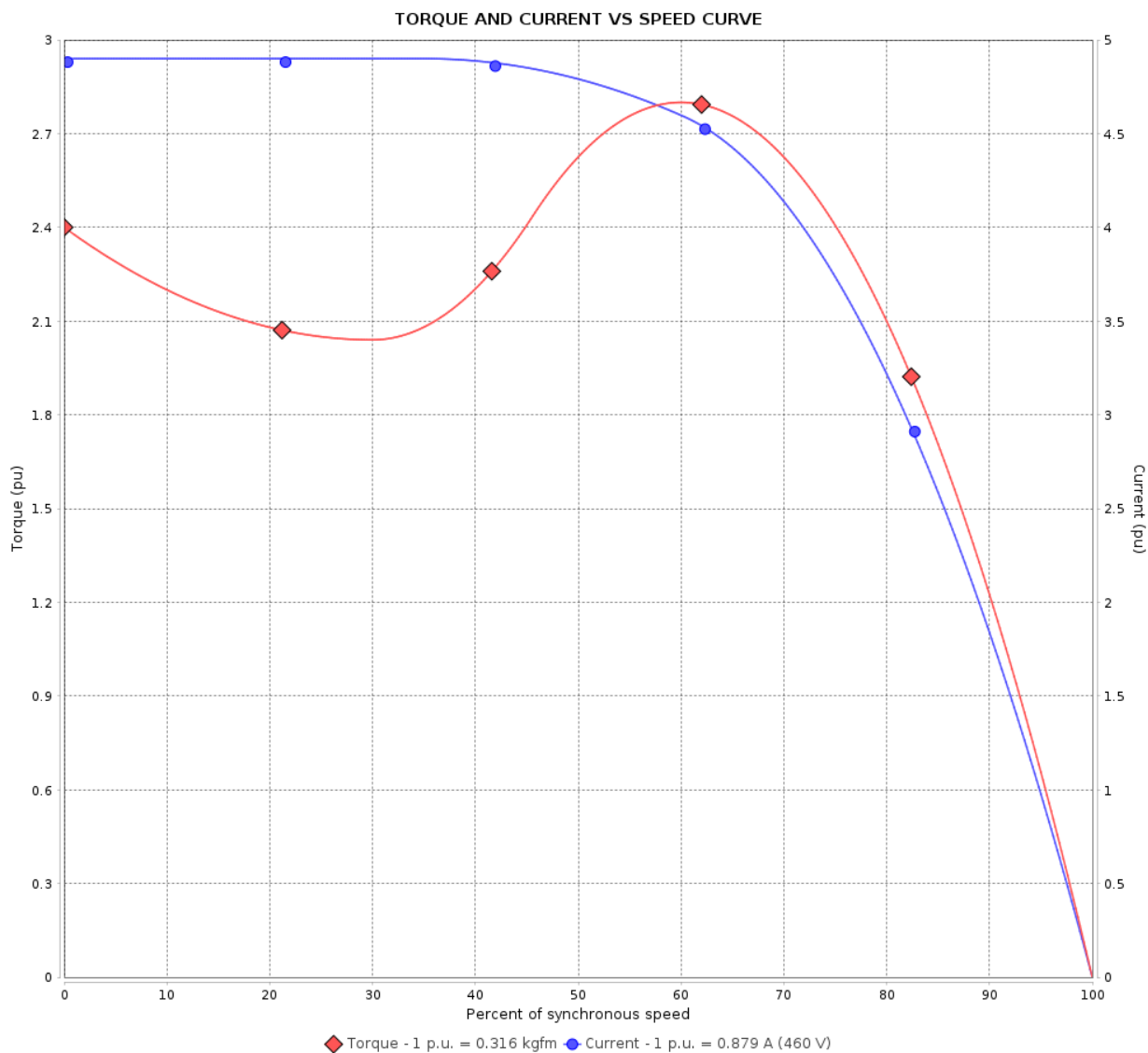


Three Phase Induction Motor - Squirrel Cage

Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code : 13749672



Performance : 460 V 60 Hz 6P

Rated current	: 0.879 A	Moment of inertia (J)	: 0.0025 kgm ²
LRC	: 4.9	Duty cycle	: S1
Rated torque	: 0.316 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1140 rpm	Design	: N

Locked rotor time : 50s (cold) 28s (hot)

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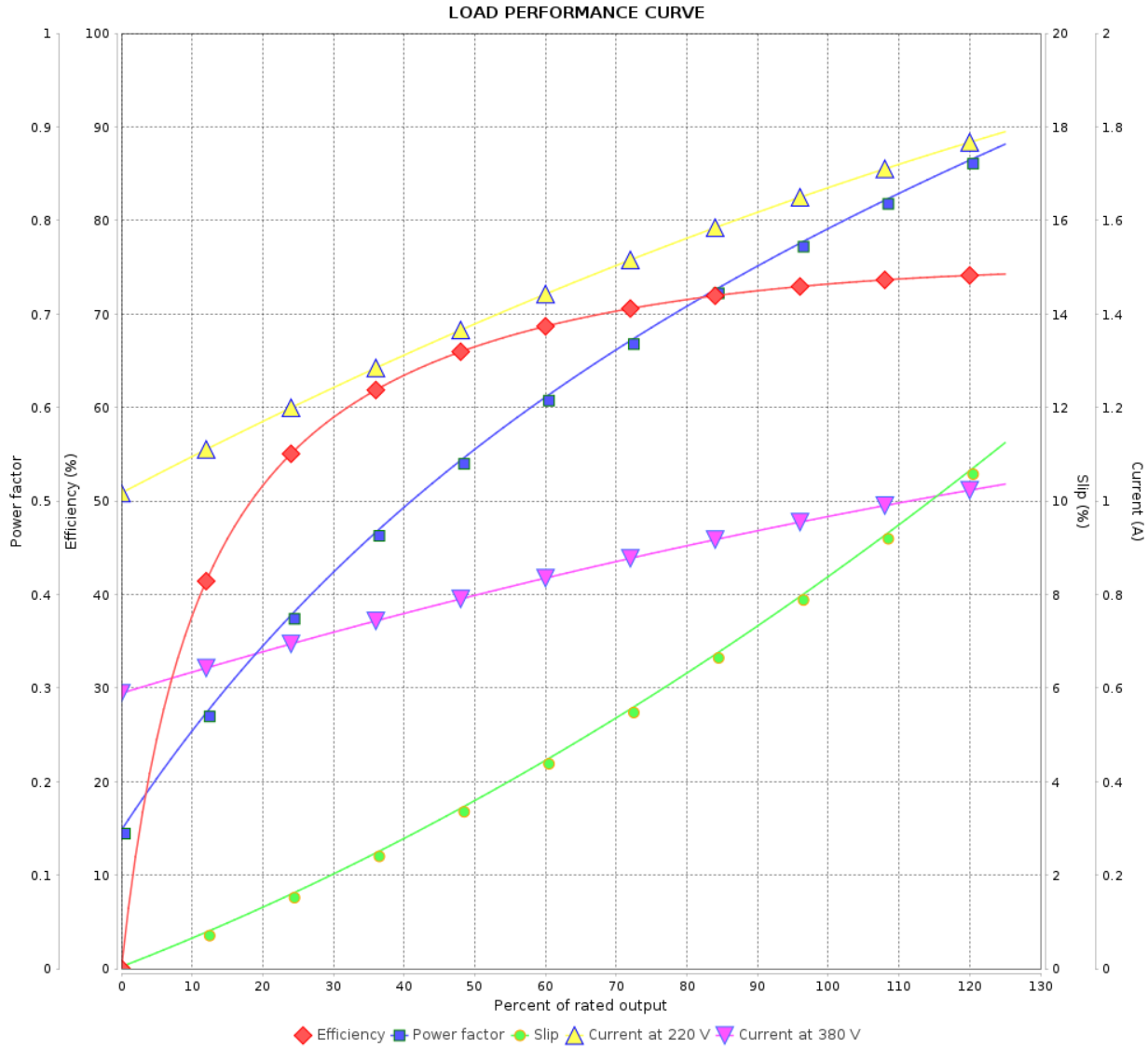
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 Locked rotor torque : 190 %
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 Rated speed : 915 rpm

Moment of inertia (J) : 0.0025 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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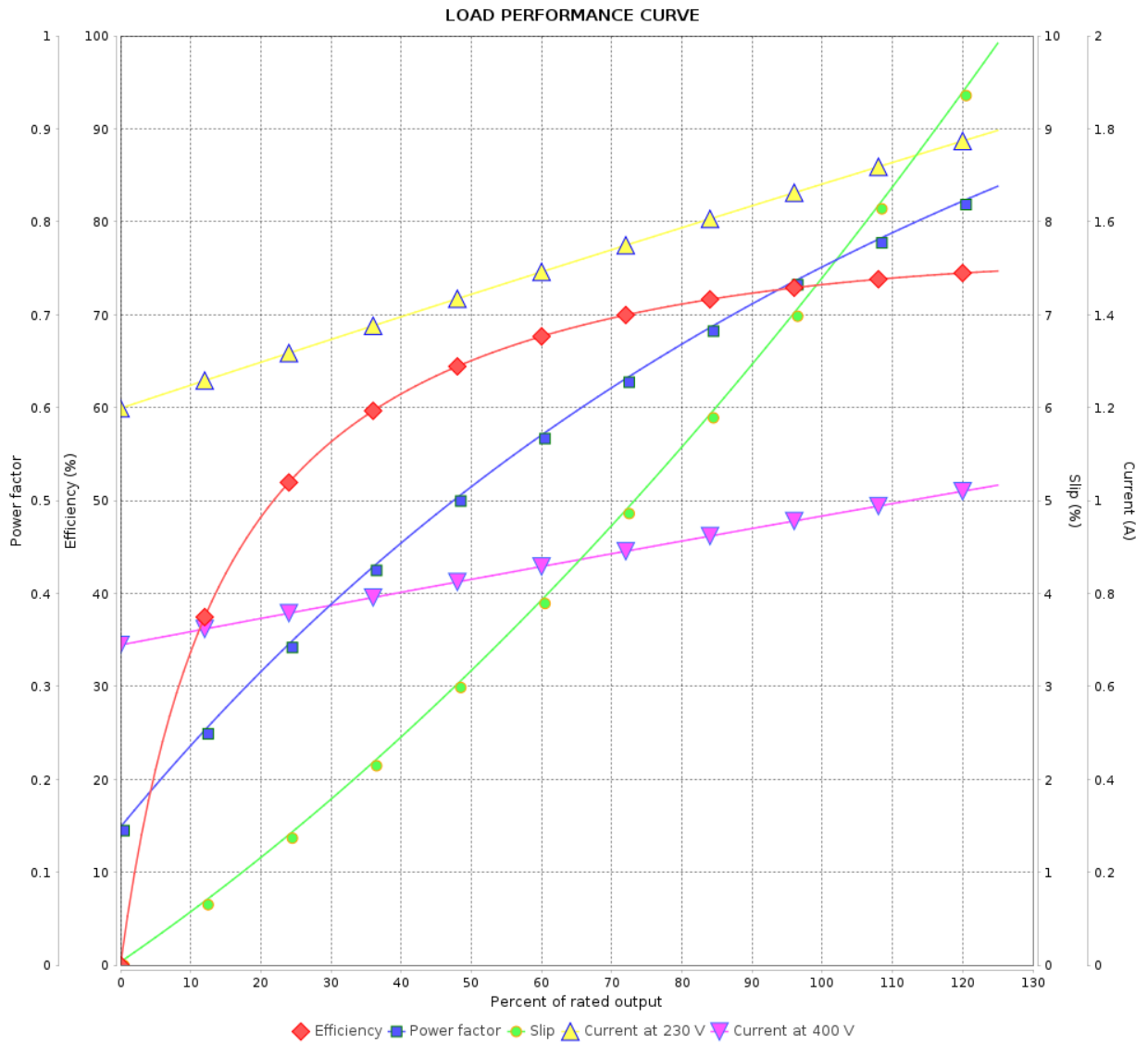


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Performance : 230/400 V 50 Hz 6P

Rated current : 1.69/0.969 A
 LRC : 4.5
 Rated torque : 0.390 kgfm
 Locked rotor torque : 190 %
 Breakdown torque : 210 %
 Rated speed : 925 rpm

Moment of inertia (J) : 0.0025 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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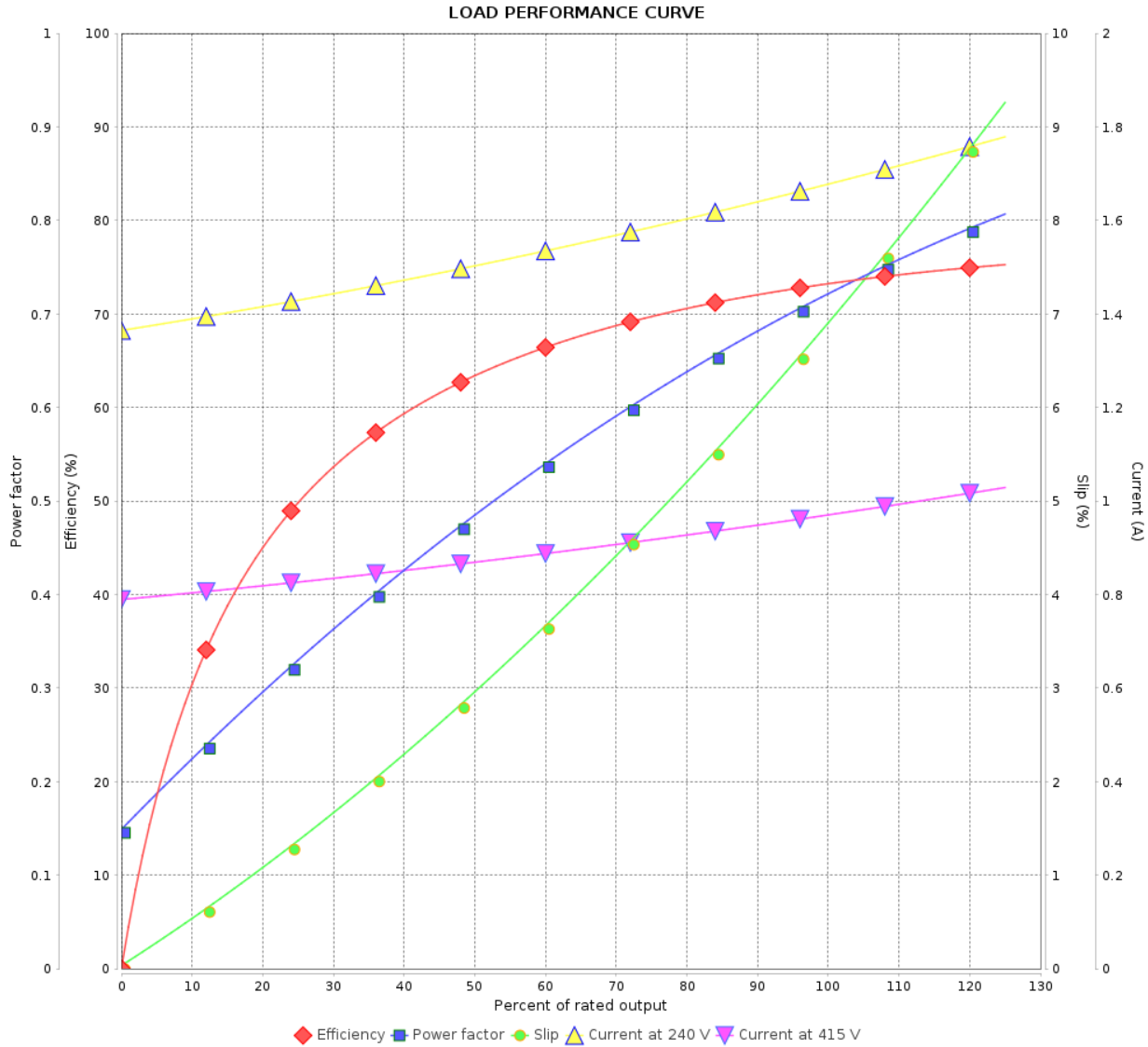
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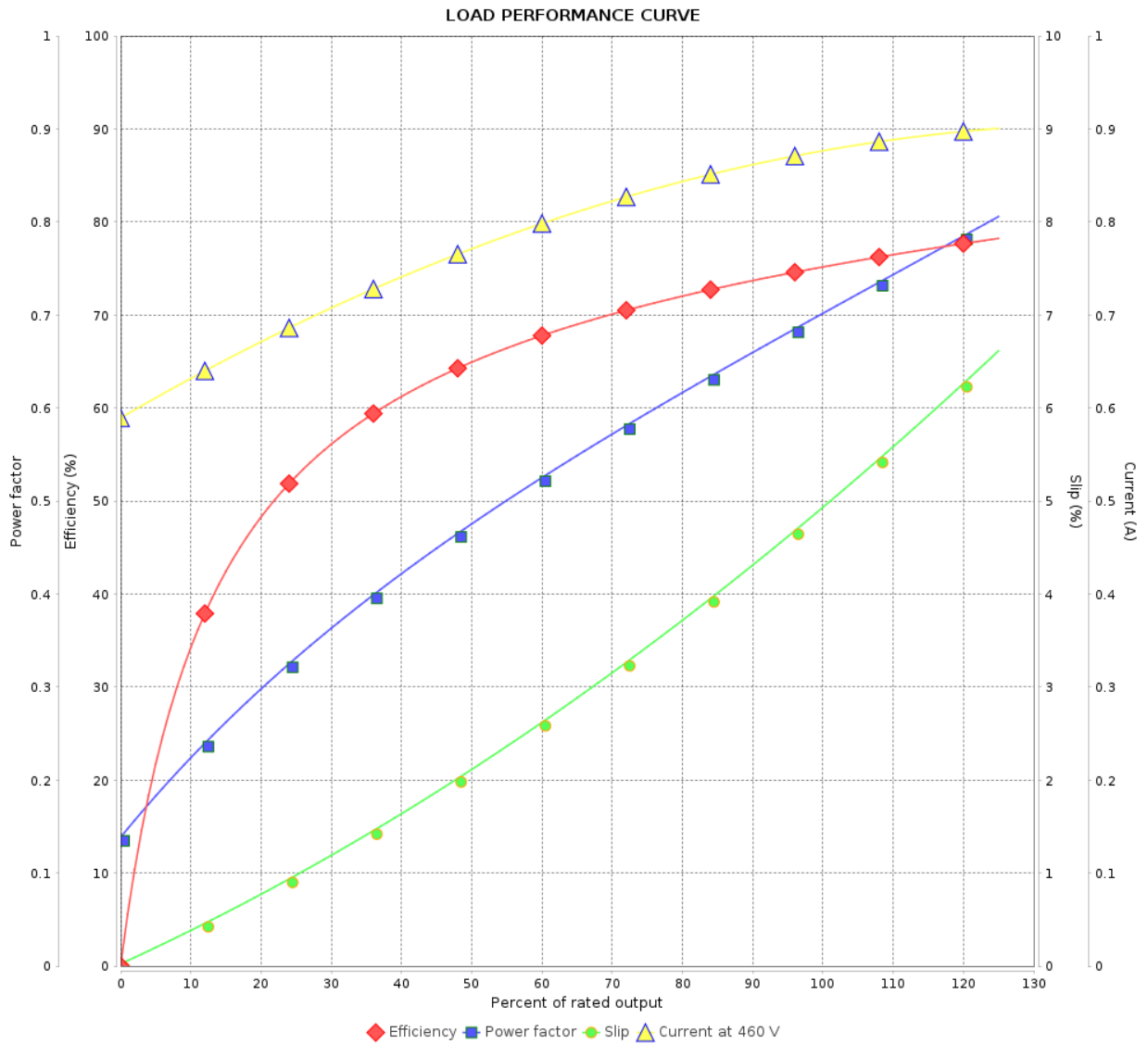


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Performance : 460 V 60 Hz 6P

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 Locked rotor torque : 240 %
 Breakdown torque : 280 %
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 Service factor : 1.00
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 Design : N

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THERMAL LIMIT CURVE

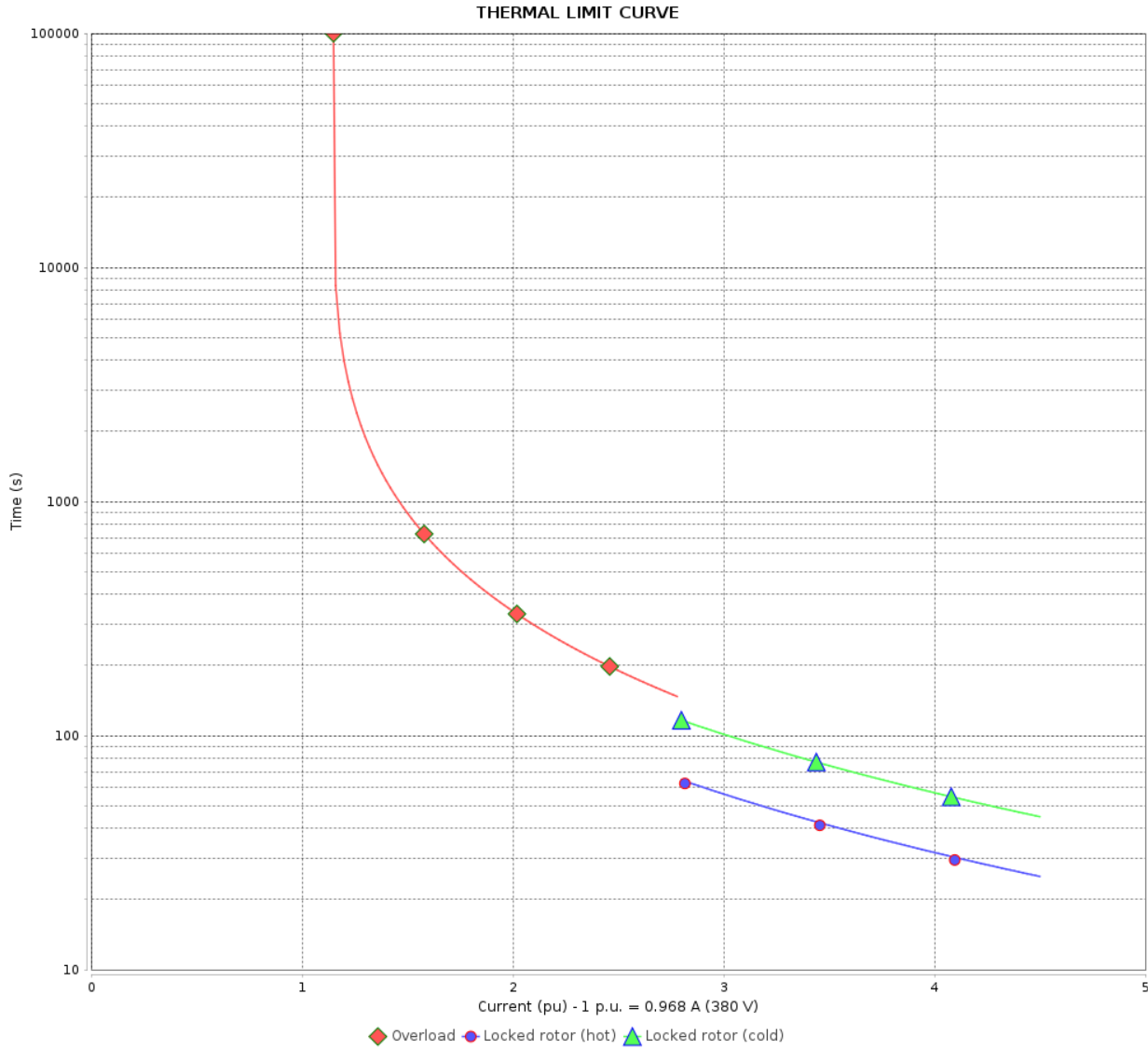
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 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Heating constant

Cooling constant

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THERMAL LIMIT CURVE

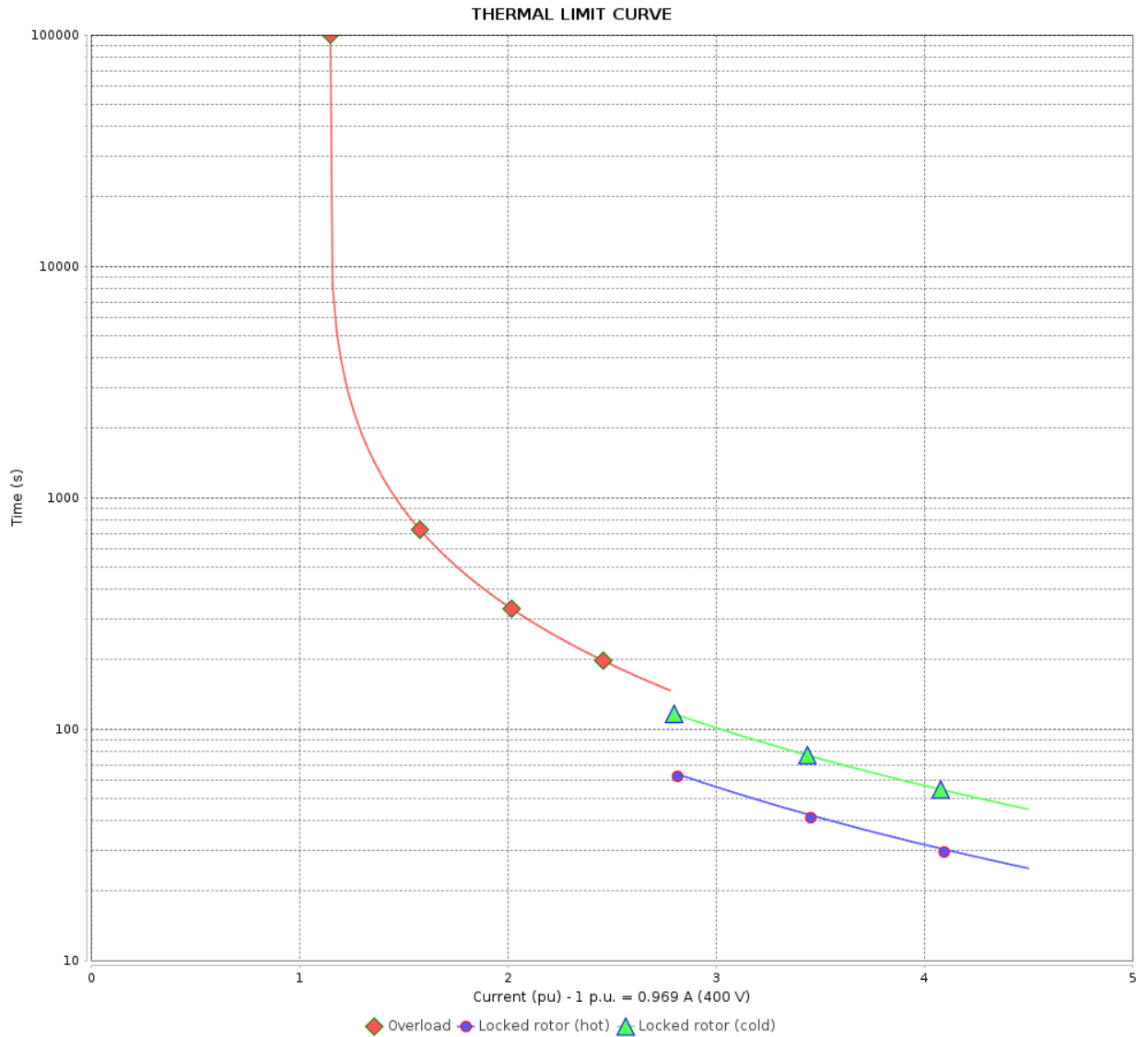
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Cooling constant

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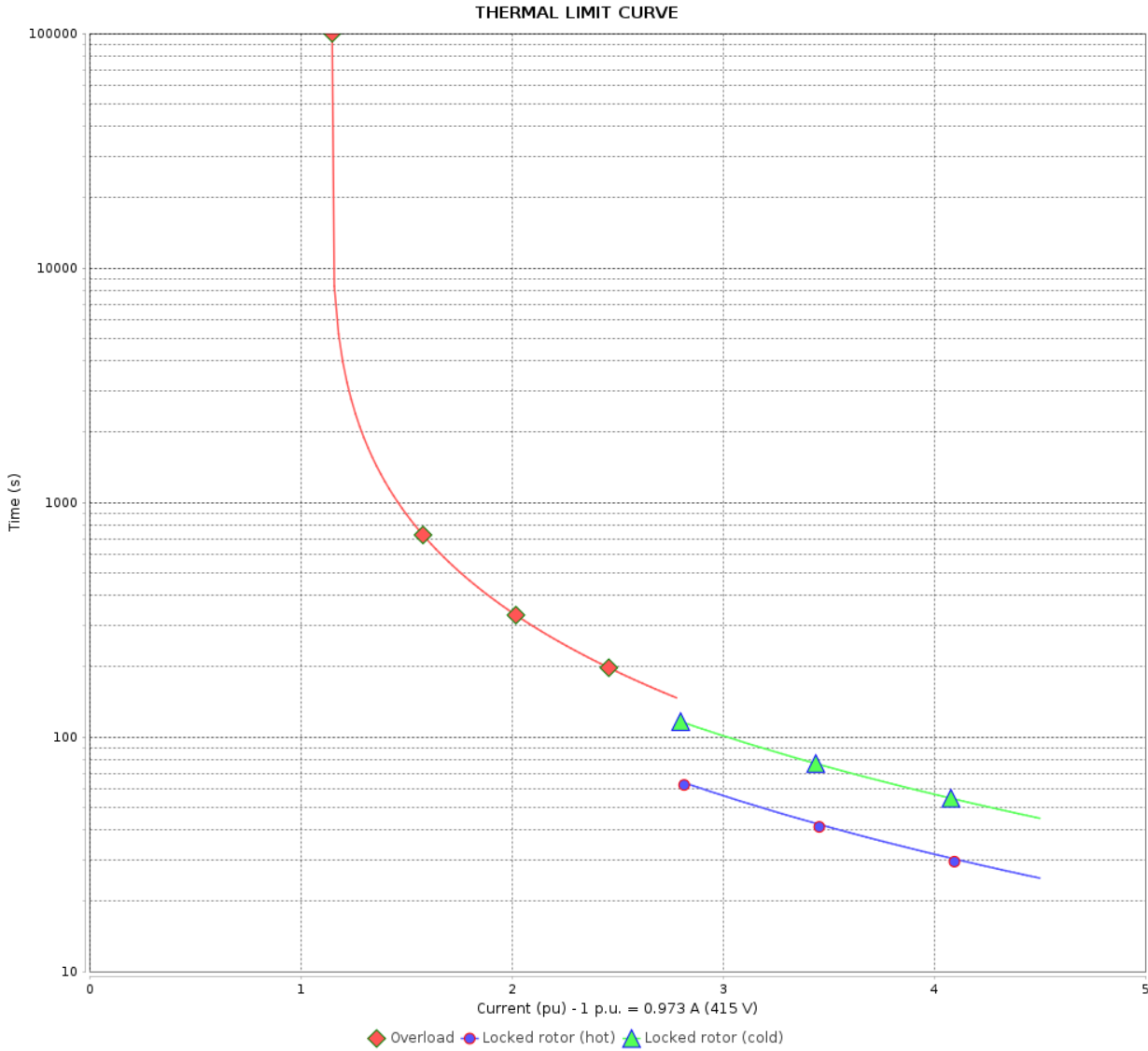
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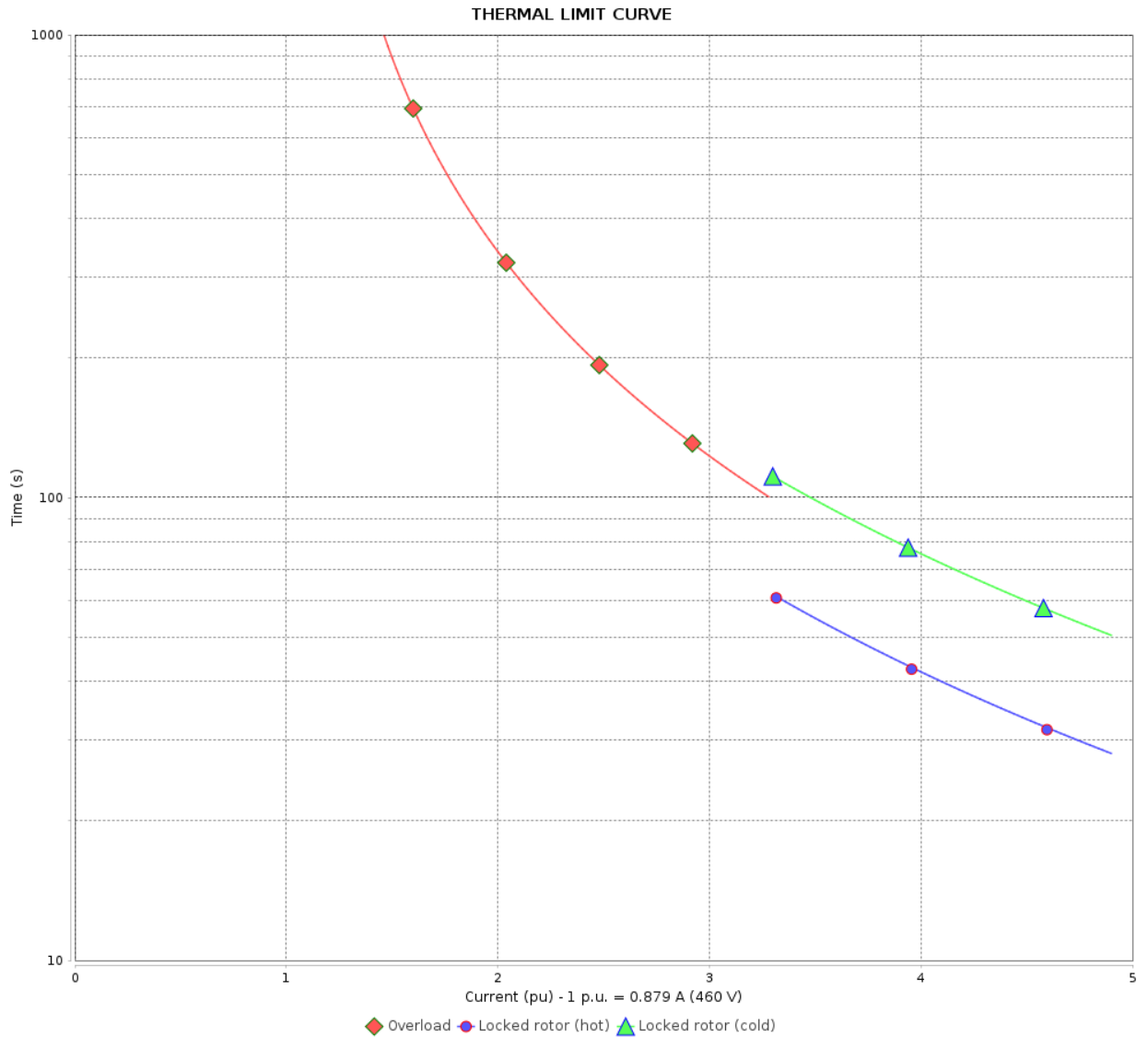
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Product code : 13749672



Performance : 460 V 60 Hz 6P

Rated current	: 0.879 A	Moment of inertia (J)	: 0.0025 kgm ²
LRC	: 4.9	Duty cycle	: S1
Rated torque	: 0.316 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1140 rpm	Design	: N

Heating constant

Cooling constant

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VFD OPERATION CURVE

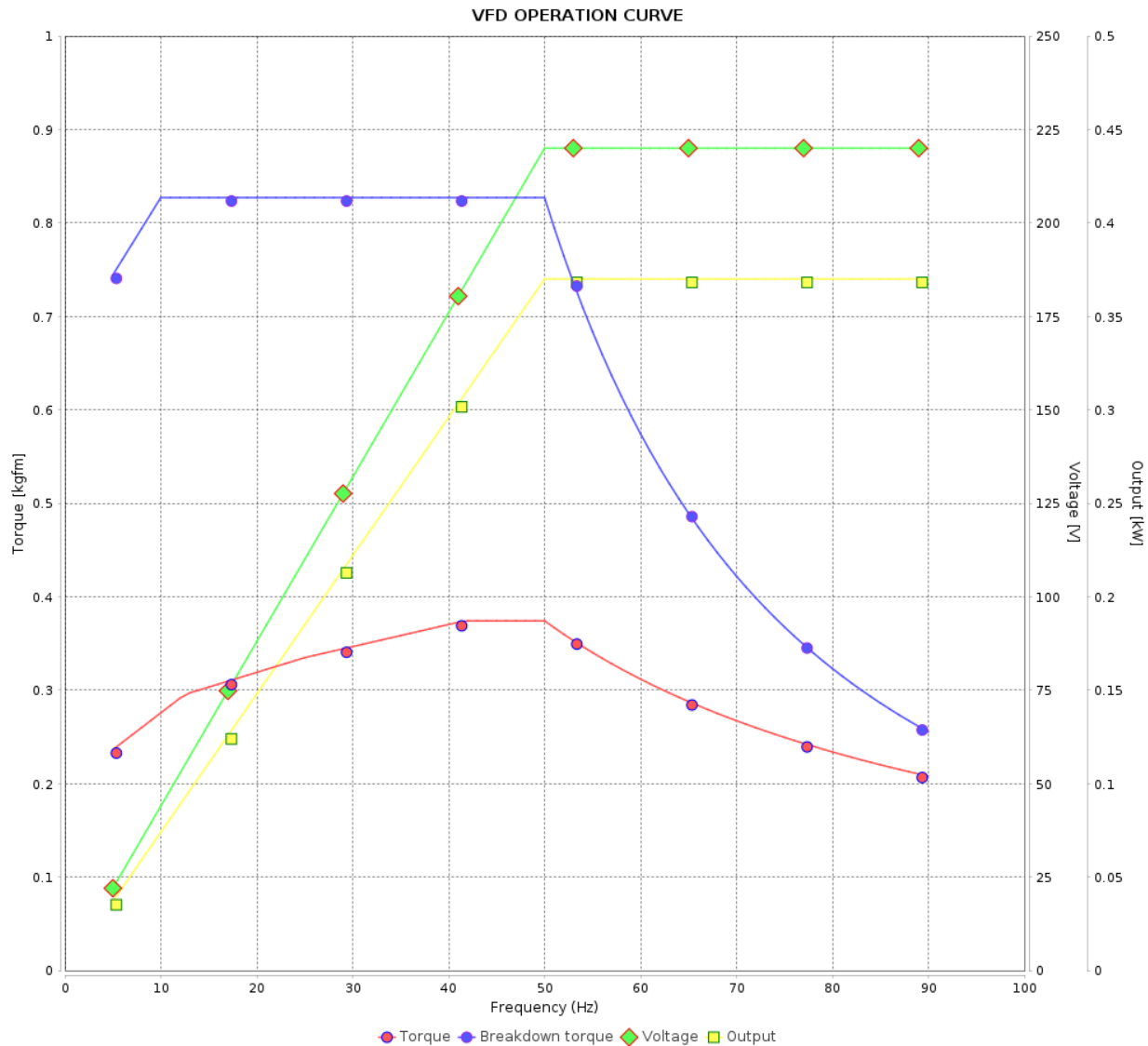
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 Breakdown torque : 210 %
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 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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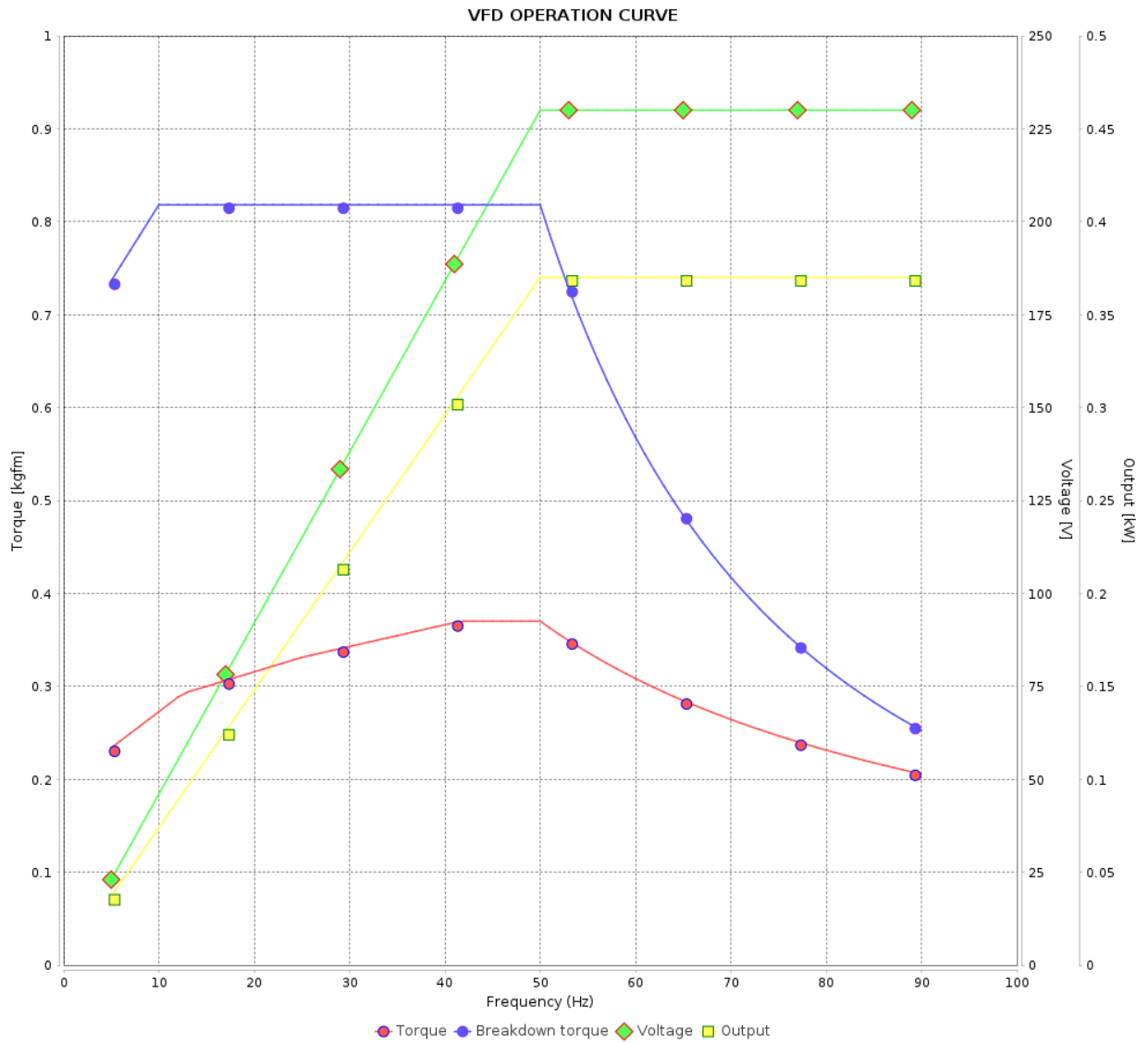
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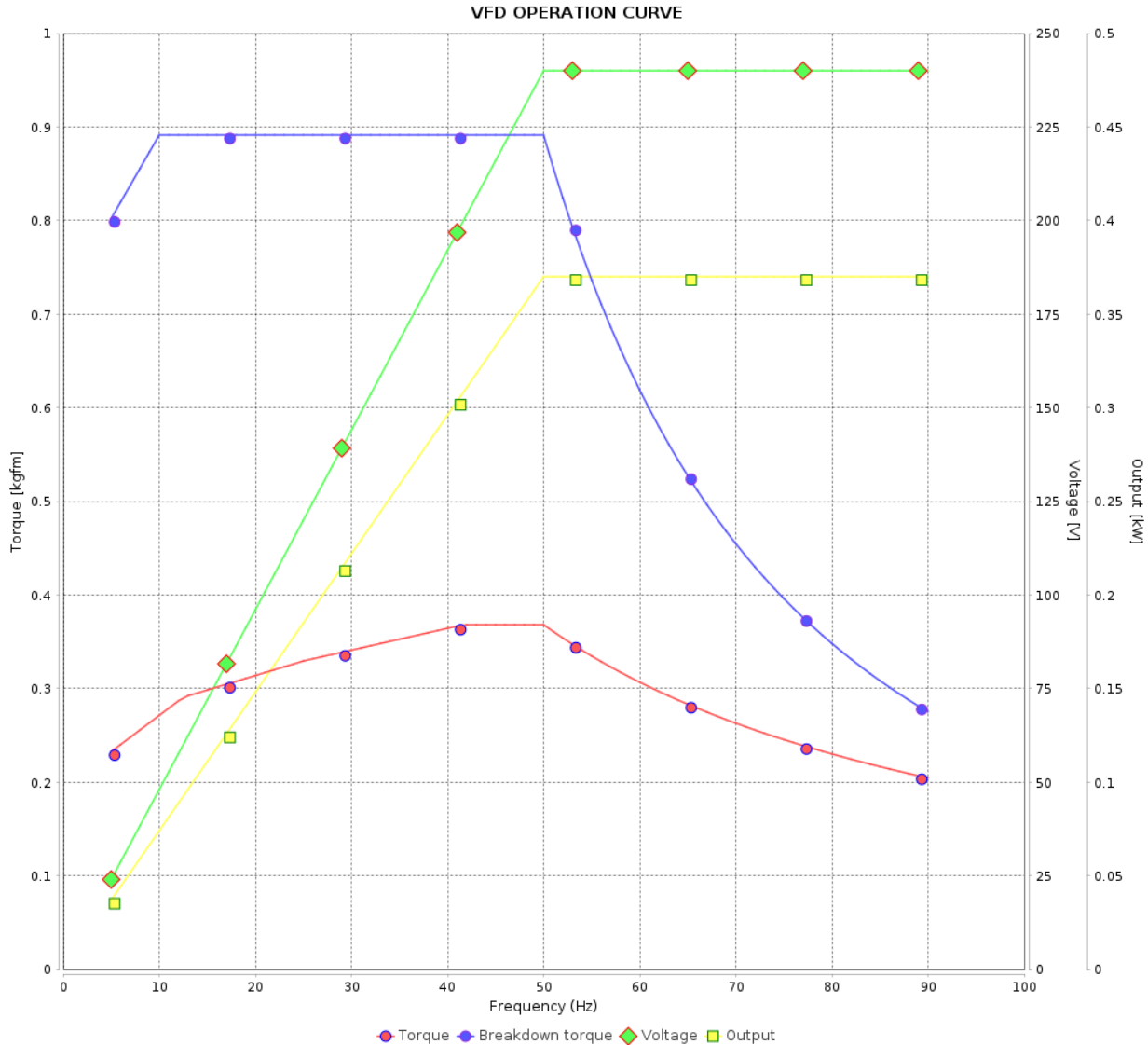
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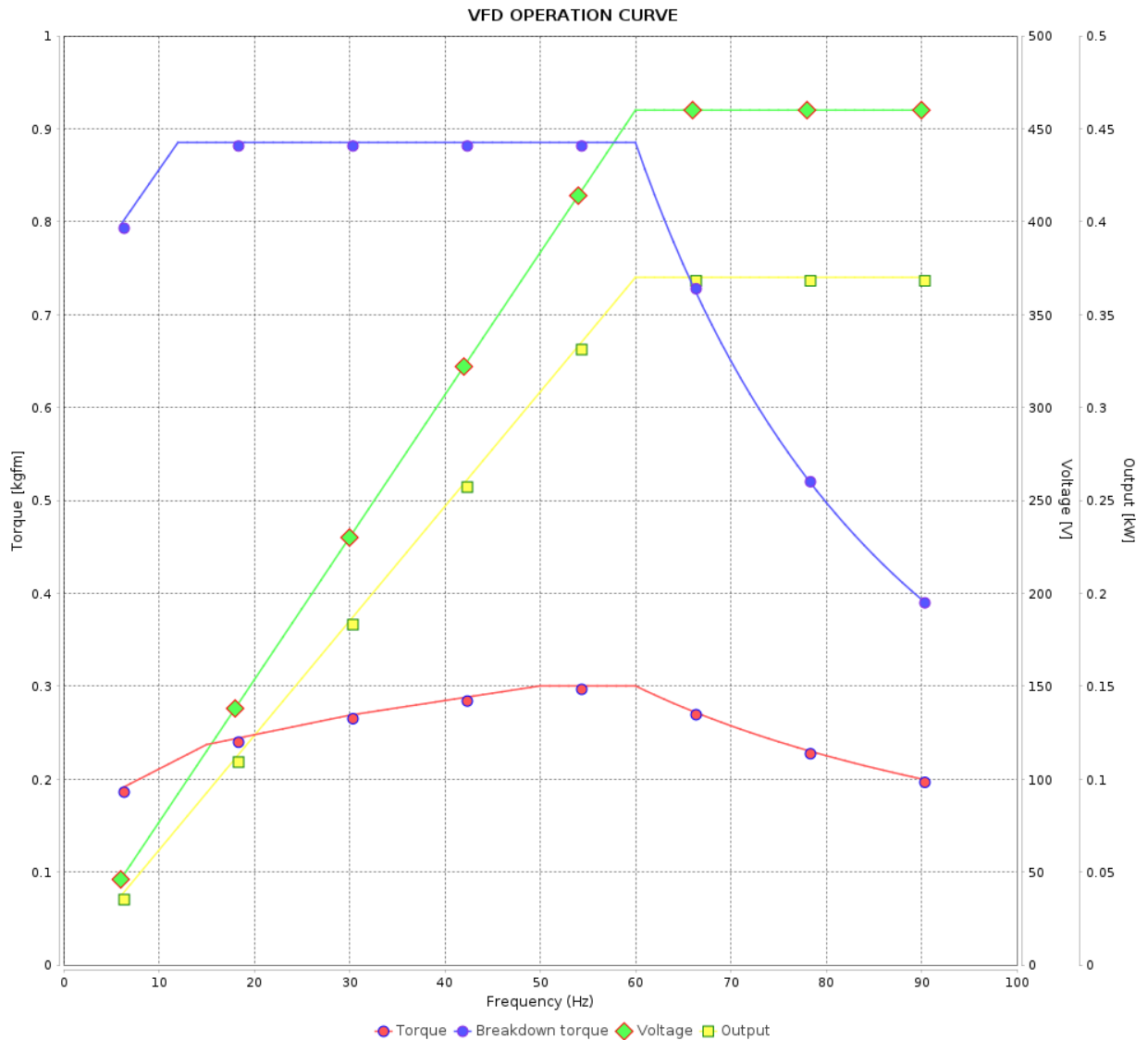
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