

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer		: Astraprom d.o.o.			
Product line		: MULTIMOUNTING		Product code : 13096354	
Frame	: 100L	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 ³	: 30.4 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.0143 kgm ²		
Design	: N				
Output [kW]	1.5	1.5	1.5		
Poles	6	6	6		
Frequency [Hz]	50	50	50		
Rated voltage [V]	220/380	230/400	240/415		
Rated current [A]	6.44/3.73	6.43/3.70	6.42/3.71		
L. R. Amperes [A]	32.2/18.6	35.4/20.4	38.5/22.3		
LRC [A]	5.0	5.5	6.0		
No load current [A]	3.97/2.30	4.43/2.55	4.76/2.75		
Rated speed [RPM]	945	955	960		
Slip [%]	5.50	4.50	4.00		
Rated torque [kgfm]	1.55	1.53	1.52		
Locked rotor torque [%]	210	250	280		
Breakdown torque [%]	229	260	290		
Service factor	1.00	1.00	1.00		
Temperature rise	80 K	80 K	80 K		
Locked rotor time	70s (cold) 39s (hot)	63s (cold) 35s (hot)	57s (cold) 32s (hot)		
Noise level ²	44.0 dB(A)	44.0 dB(A)	44.0 dB(A)		
Efficiency (%)	25%				
	50%	82.0	81.0	79.8	
	75%	82.6	82.5	82.3	
	100%	82.5	82.5	82.8	
Power Factor	25%				
	50%	0.53	0.49	0.46	
	75%	0.66	0.62	0.59	
	100%	0.74	0.71	0.68	
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	20.4	20.4	20.0	
	P2 (0,5;1,0)	18.9	18.9	18.5	
	P3 (0,25;1,0)	19.7	19.7	19.2	
	P4 (0,9;0,5)	10.3	10.3	10.1	
	P5 (0,5;0,5)	8.0	8.0	7.9	
	P6 (0,5;0,25)	5.9	5.9	5.7	
	P7 (0,25;0,25)	4.6	4.6	4.5	
Bearing type	: Drive end 6206 ZZ	Non drive end 6205 ZZ	Foundation loads		
Sealing	: Oil Seal	Oil Seal	Max. traction : 95 kgf		
Lubrication interval	: -	-	Max. compression : 125 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

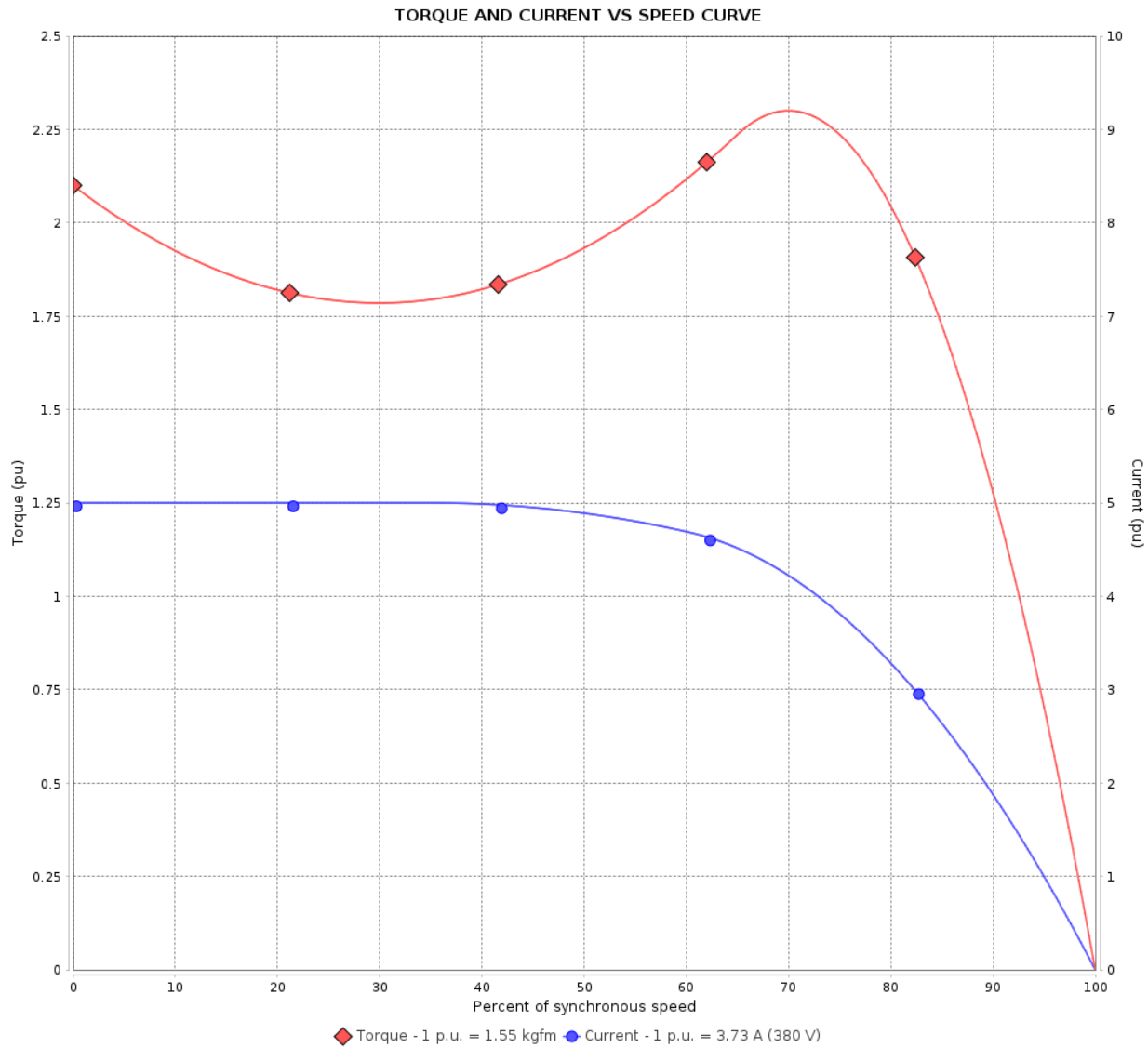
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : MULTIMOUNTING

Product code : 13096354



Performance : 220/380 V 50 Hz 6P

Rated current	: 6.44/3.73 A	Moment of inertia (J)	: 0.0143 kgm ²
LRC	: 5.0	Duty cycle	: S1
Rated torque	: 1.55 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 945 rpm	Design	: N

Locked rotor time : 70s (cold) 39s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

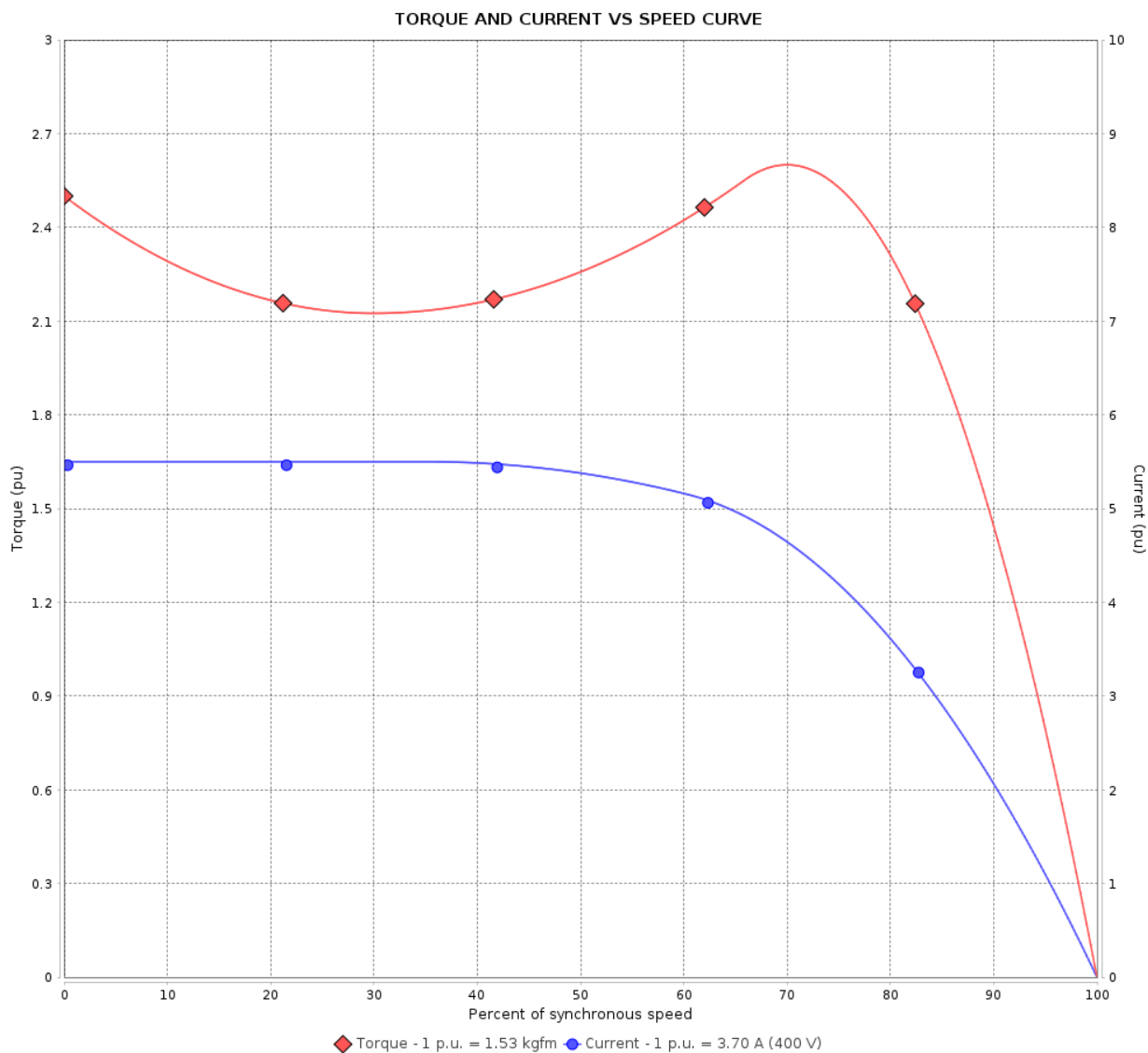


Three Phase Induction Motor - Squirrel Cage

Customer : Astraprom d.o.o.

Product line : MULTIMOUNTING

Product code : 13096354



Performance : 230/400 V 50 Hz 6P

Rated current : 6.43/3.70 A
 LRC : 5.5
 Rated torque : 1.53 kgfm
 Locked rotor torque : 250 %
 Breakdown torque : 260 %
 Rated speed : 955 rpm

Moment of inertia (J) : 0.0143 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Locked rotor time : 63s (cold) 35s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

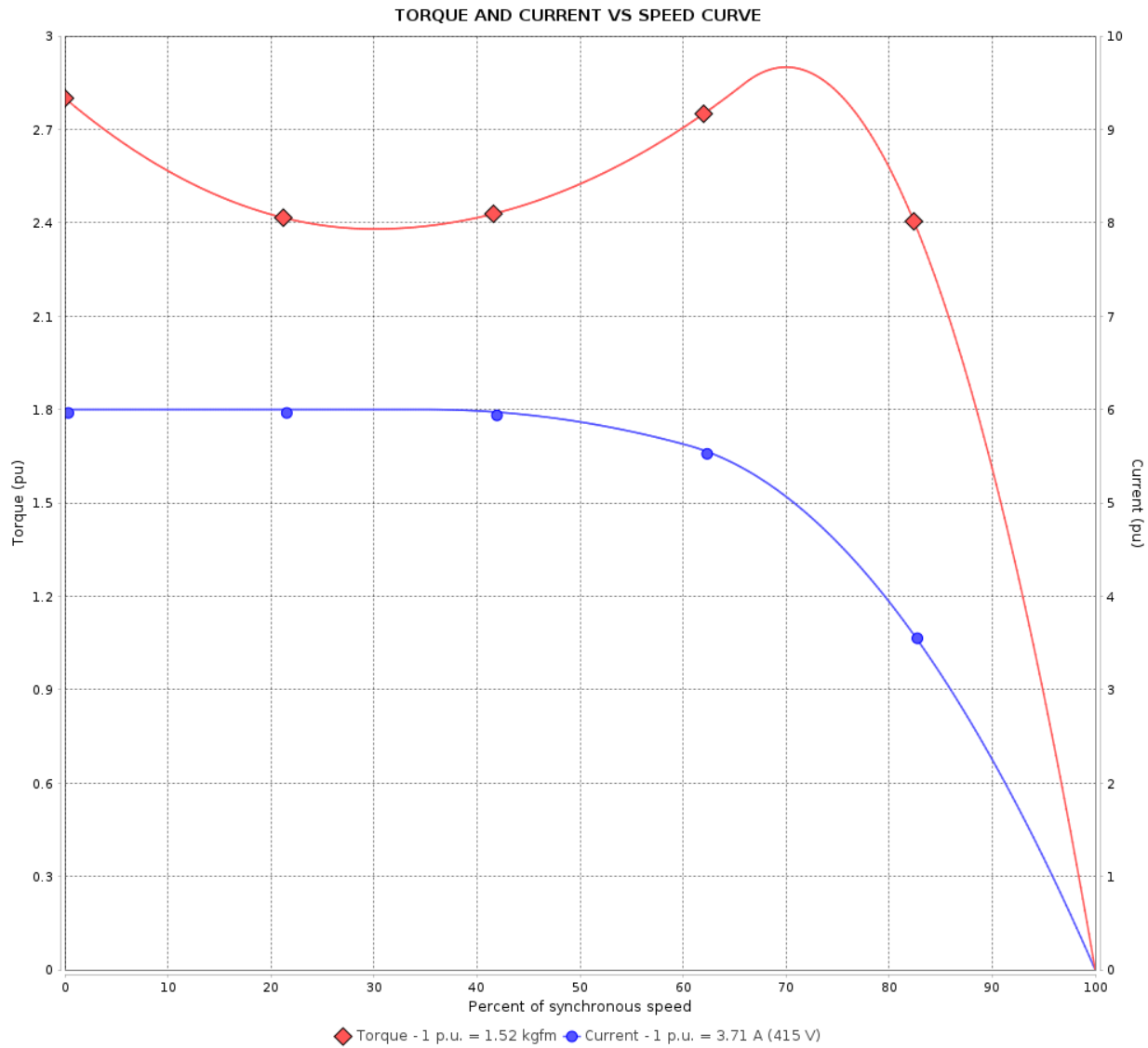
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

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Performance : 240/415 V 50 Hz 6P

Rated current	: 6.42/3.71 A	Moment of inertia (J)	: 0.0143 kgm ²
LRC	: 6.0	Duty cycle	: S1
Rated torque	: 1.52 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 960 rpm	Design	: N

Locked rotor time : 57s (cold) 32s (hot)

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LOAD PERFORMANCE CURVE

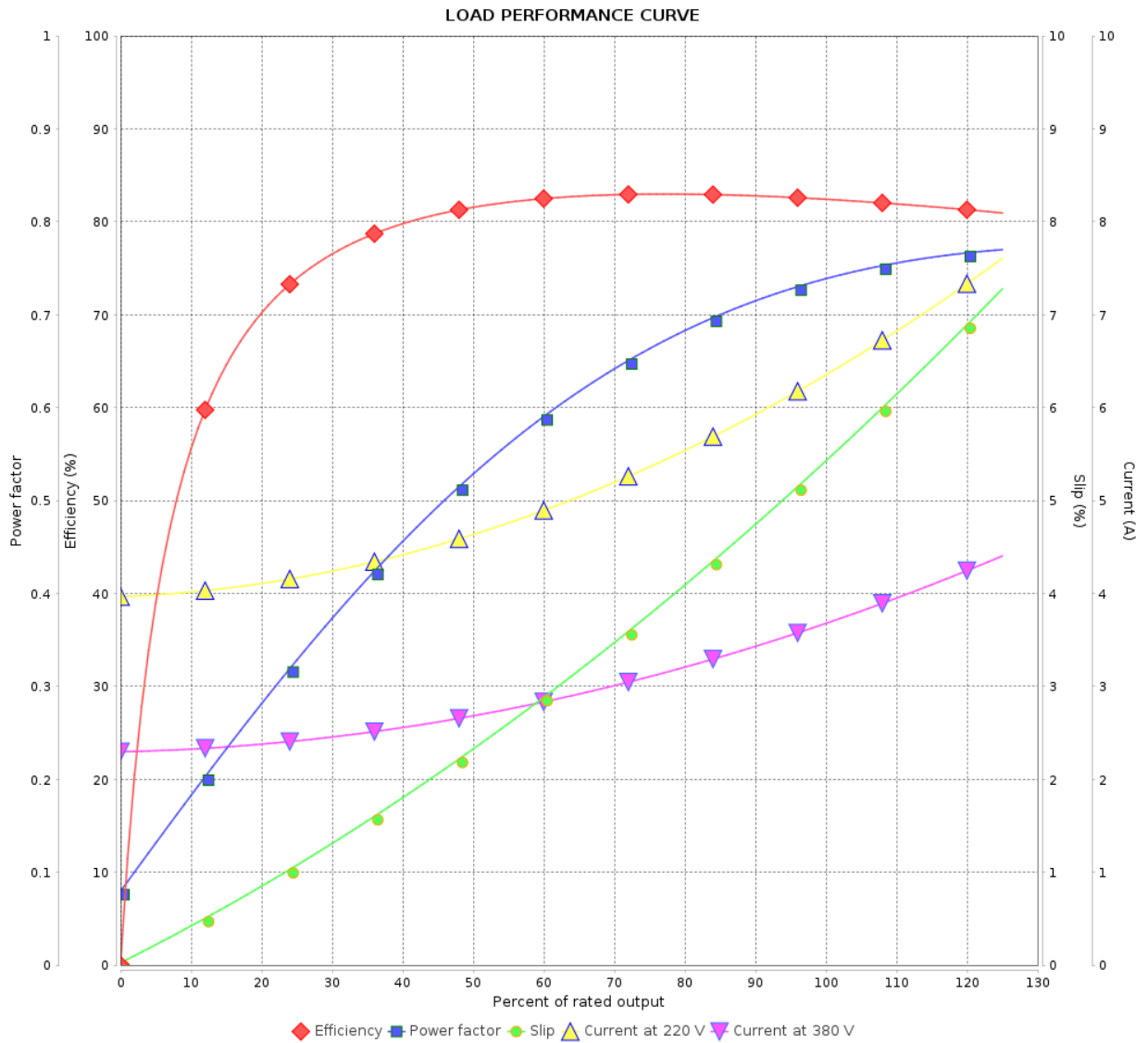
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Customer : Astraprom d.o.o.

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Performance : 220/380 V 50 Hz 6P

Rated current : 6.44/3.73 A
 LRC : 5.0
 Rated torque : 1.55 kgfm
 Locked rotor torque : 210 %
 Breakdown torque : 229 %
 Rated speed : 945 rpm

Moment of inertia (J) : 0.0143 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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LOAD PERFORMANCE CURVE

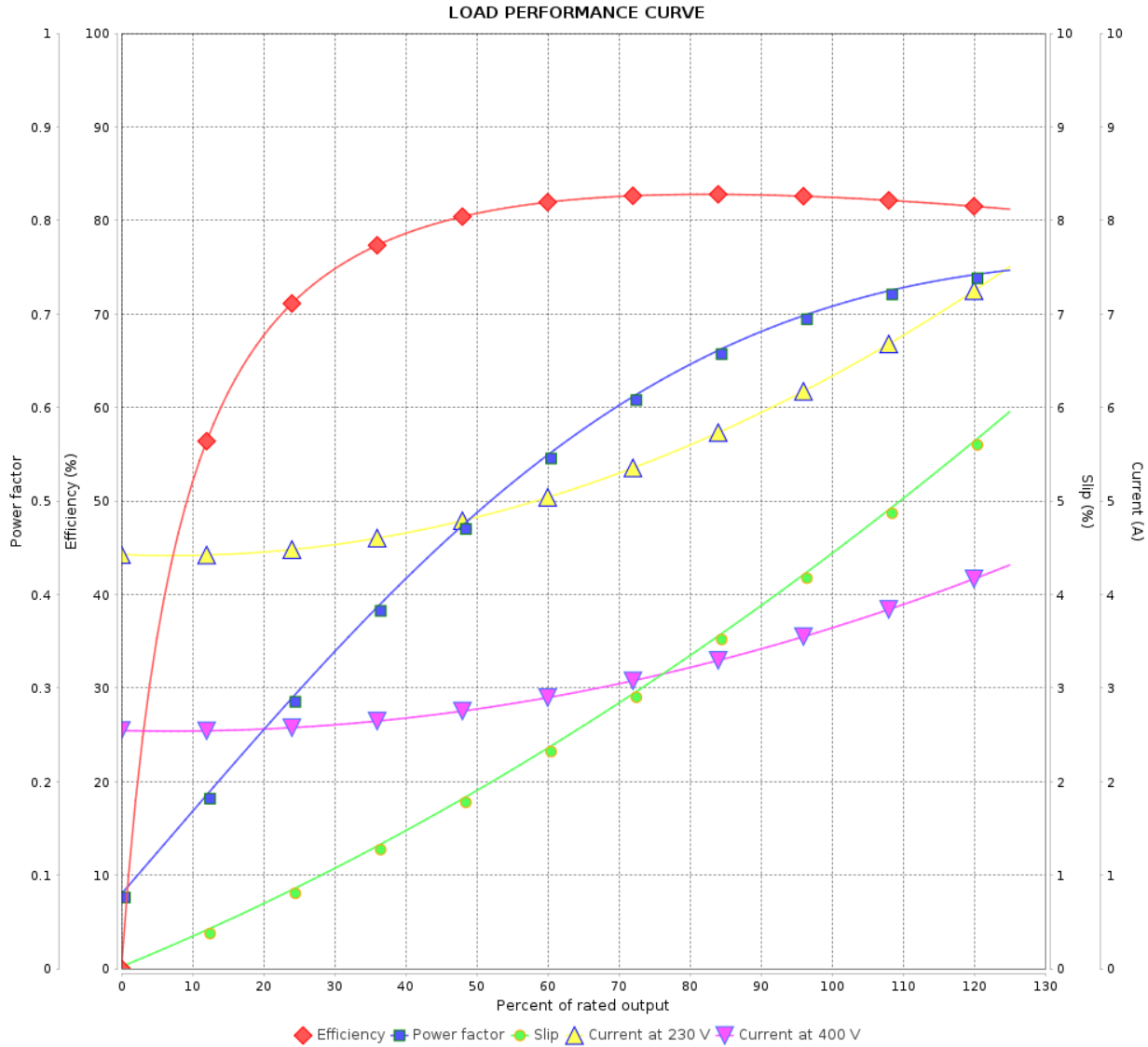
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Performance : 230/400 V 50 Hz 6P

Rated current : 6.43/3.70 A
 LRC : 5.5
 Rated torque : 1.53 kgfm
 Locked rotor torque : 250 %
 Breakdown torque : 260 %
 Rated speed : 955 rpm

Moment of inertia (J) : 0.0143 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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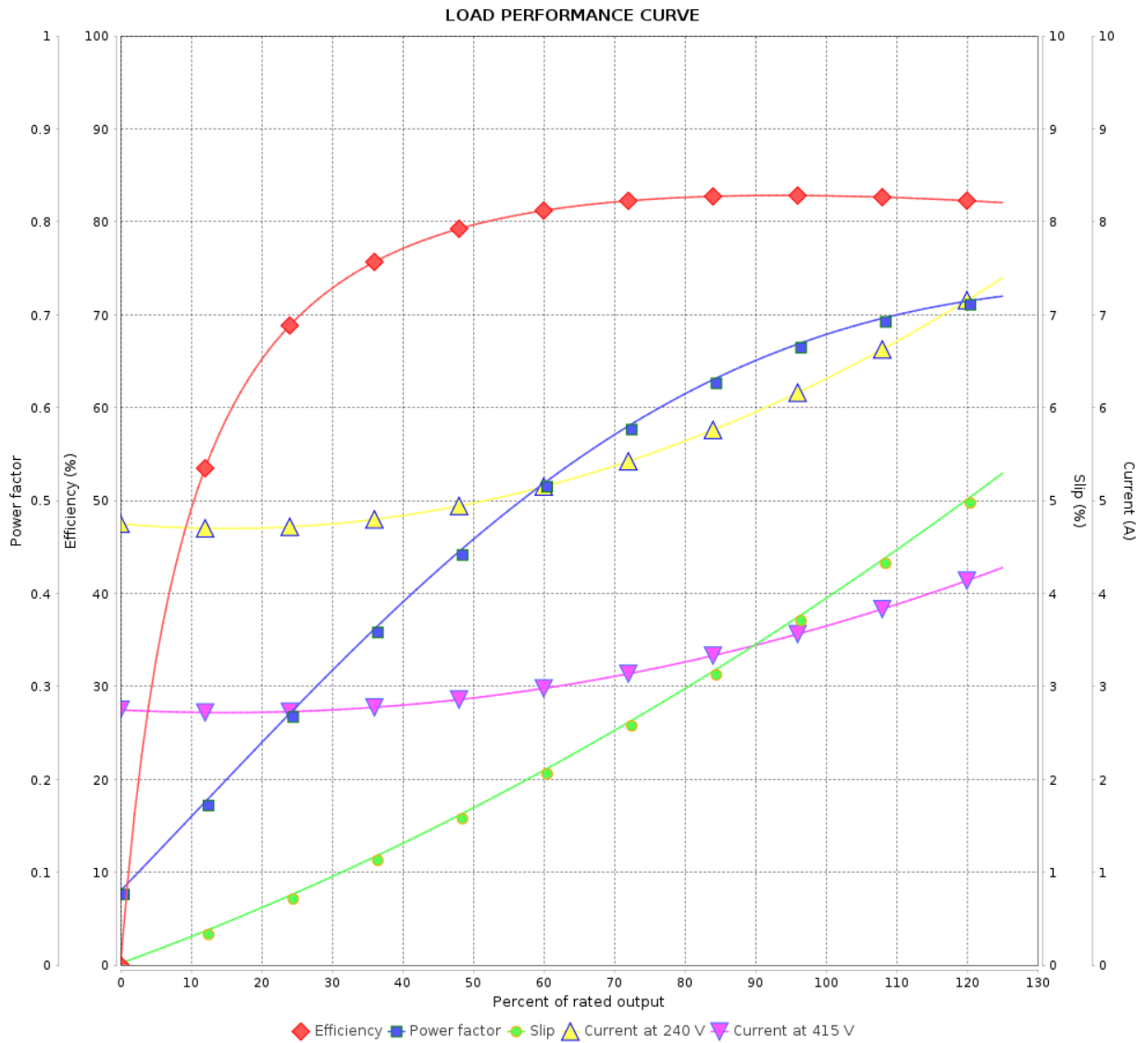
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Performance : 240/415 V 50 Hz 6P

Rated current : 6.42/3.71 A
 LRC : 6.0
 Rated torque : 1.52 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 290 %
 Rated speed : 960 rpm

Moment of inertia (J) : 0.0143 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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THERMAL LIMIT CURVE

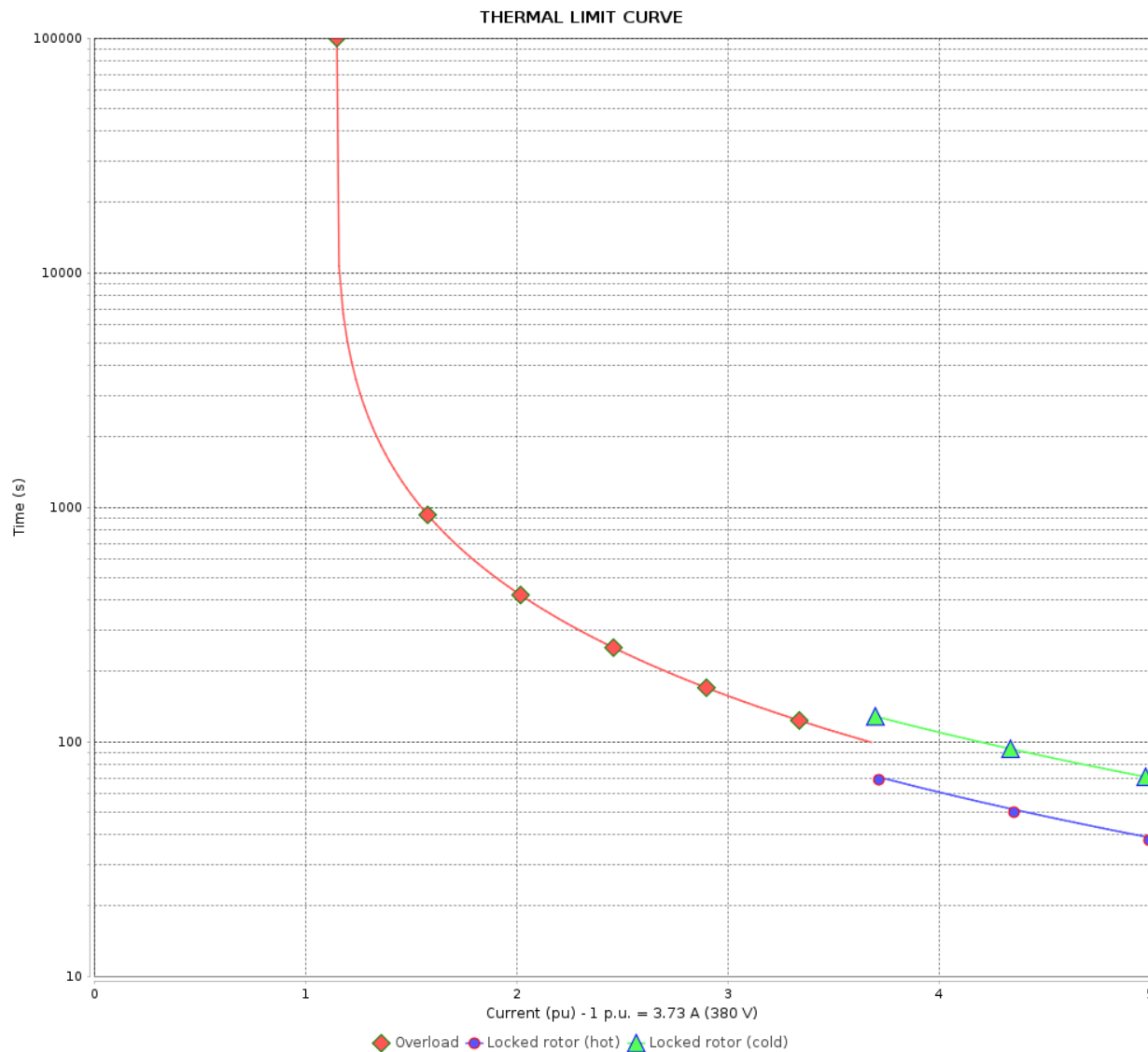
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Moment of inertia (J) : 0.0143 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Heating constant
 Cooling constant

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THERMAL LIMIT CURVE

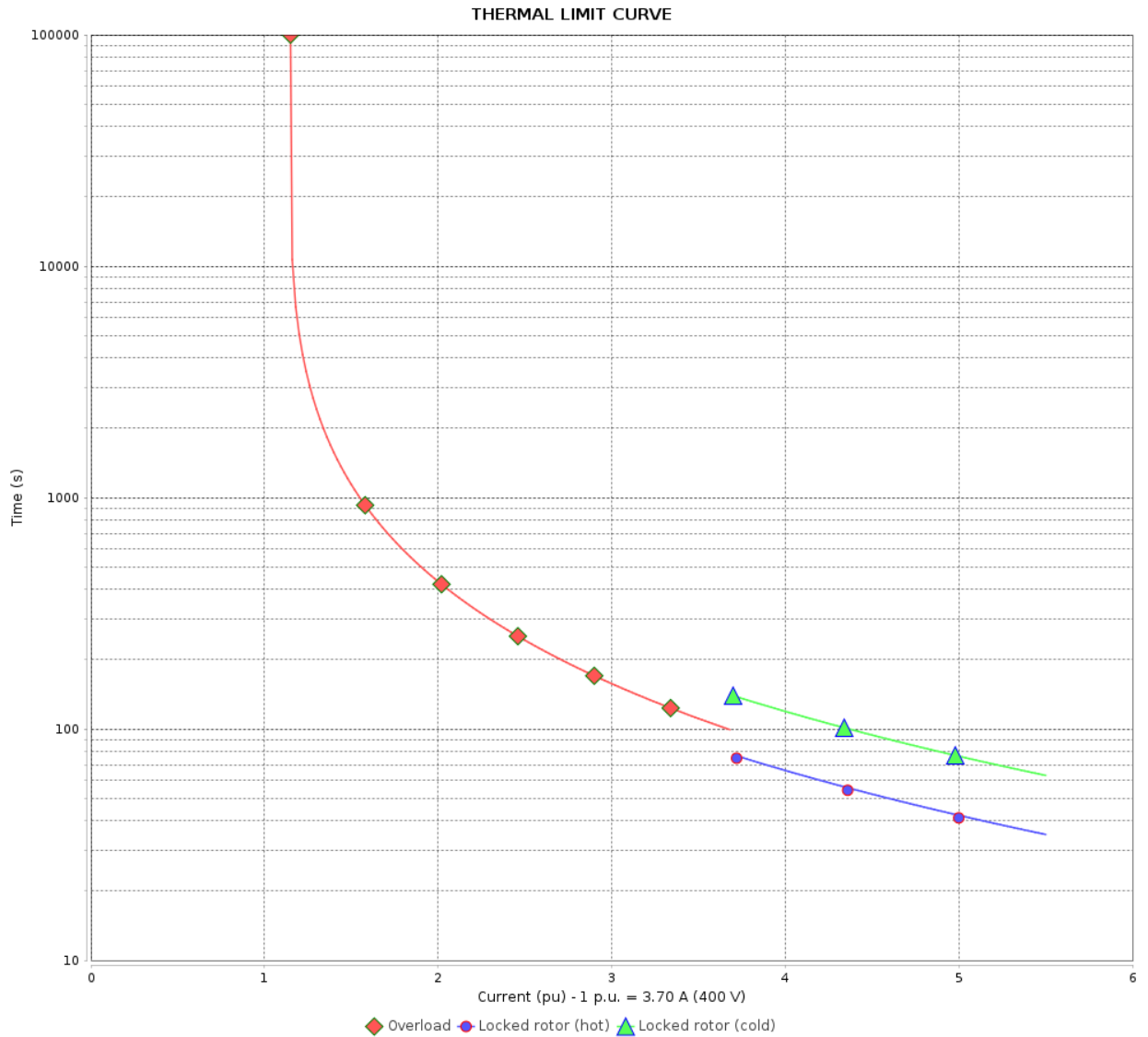
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 Locked rotor torque : 250 %
 Breakdown torque : 260 %
 Rated speed : 955 rpm

Moment of inertia (J) : 0.0143 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
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Heating constant

Cooling constant

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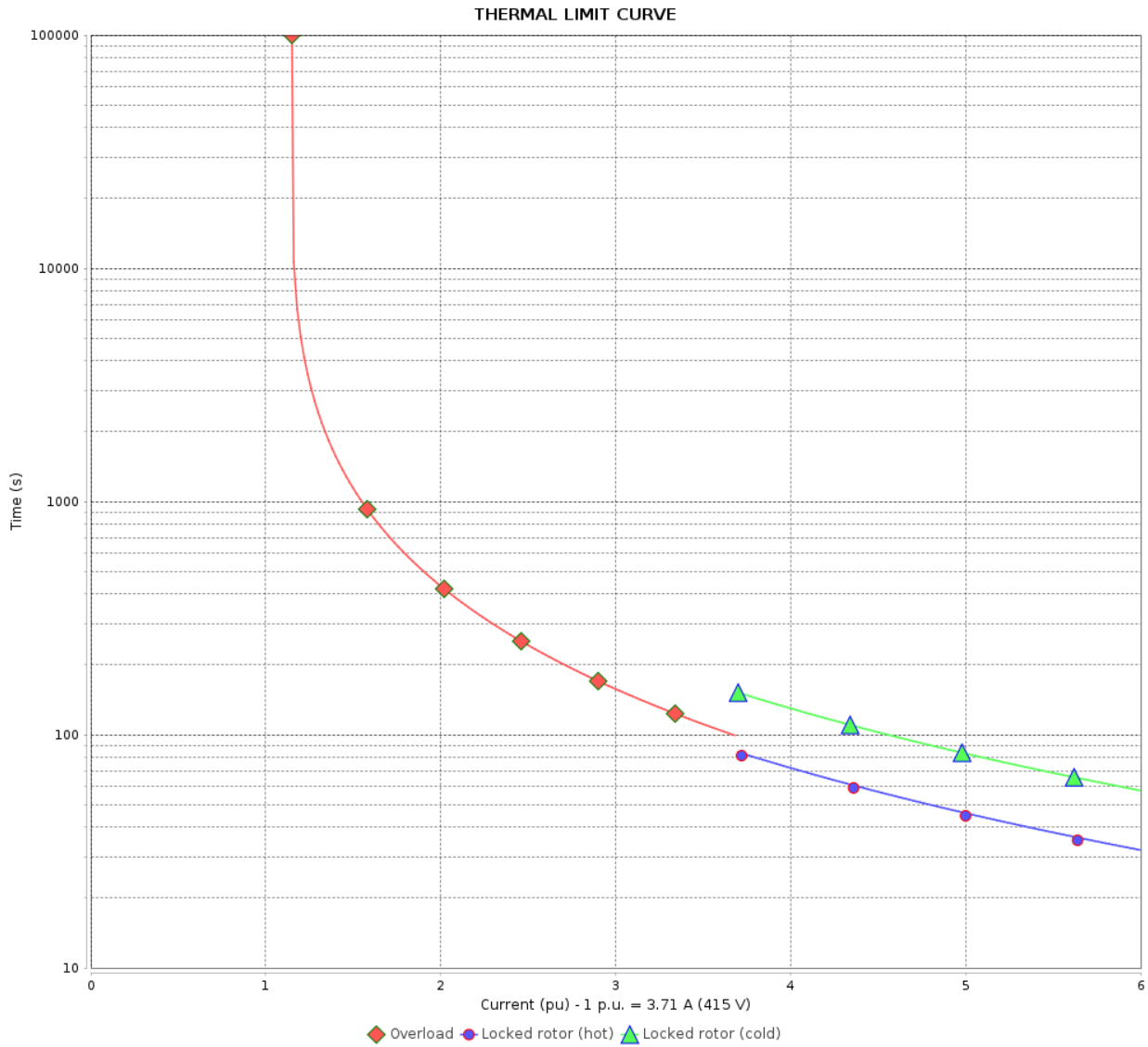
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 LRC : 6.0
 Rated torque : 1.52 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 290 %
 Rated speed : 960 rpm

Moment of inertia (J) : 0.0143 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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VFD OPERATION CURVE

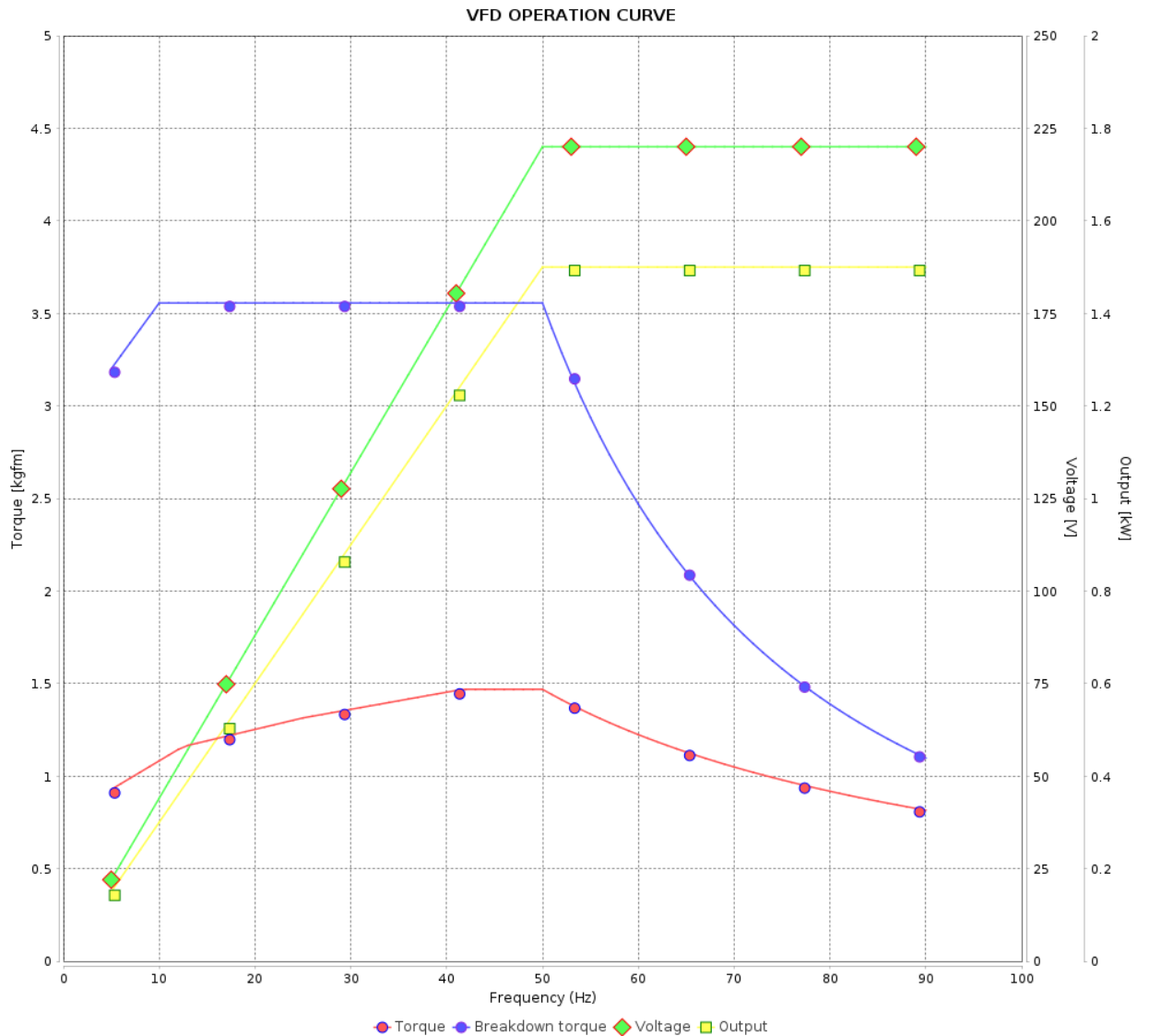
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 Service factor : 1.00
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VFD OPERATION CURVE

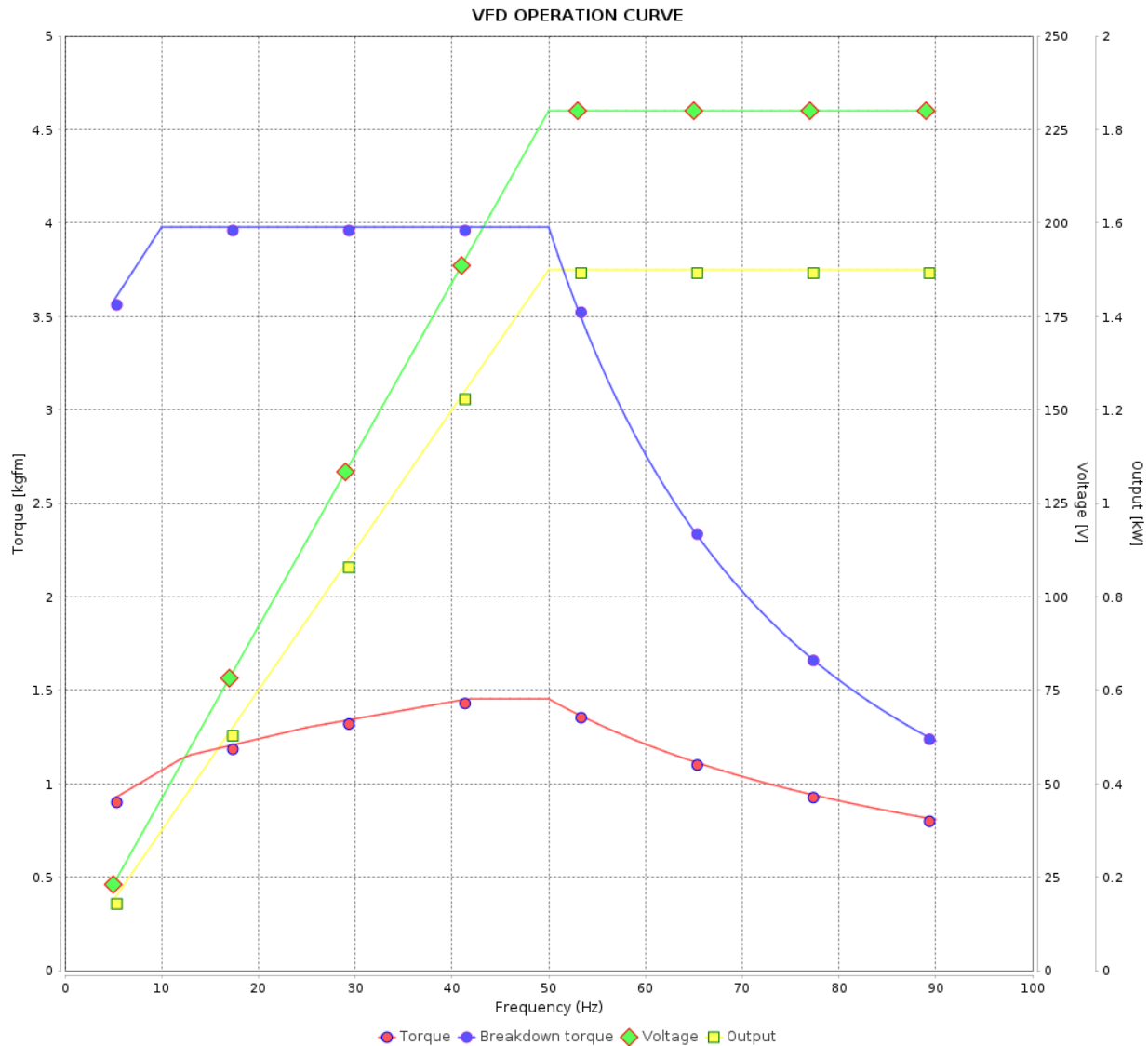
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 Service factor : 1.00
 Temperature rise : 80 K
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VFD OPERATION CURVE

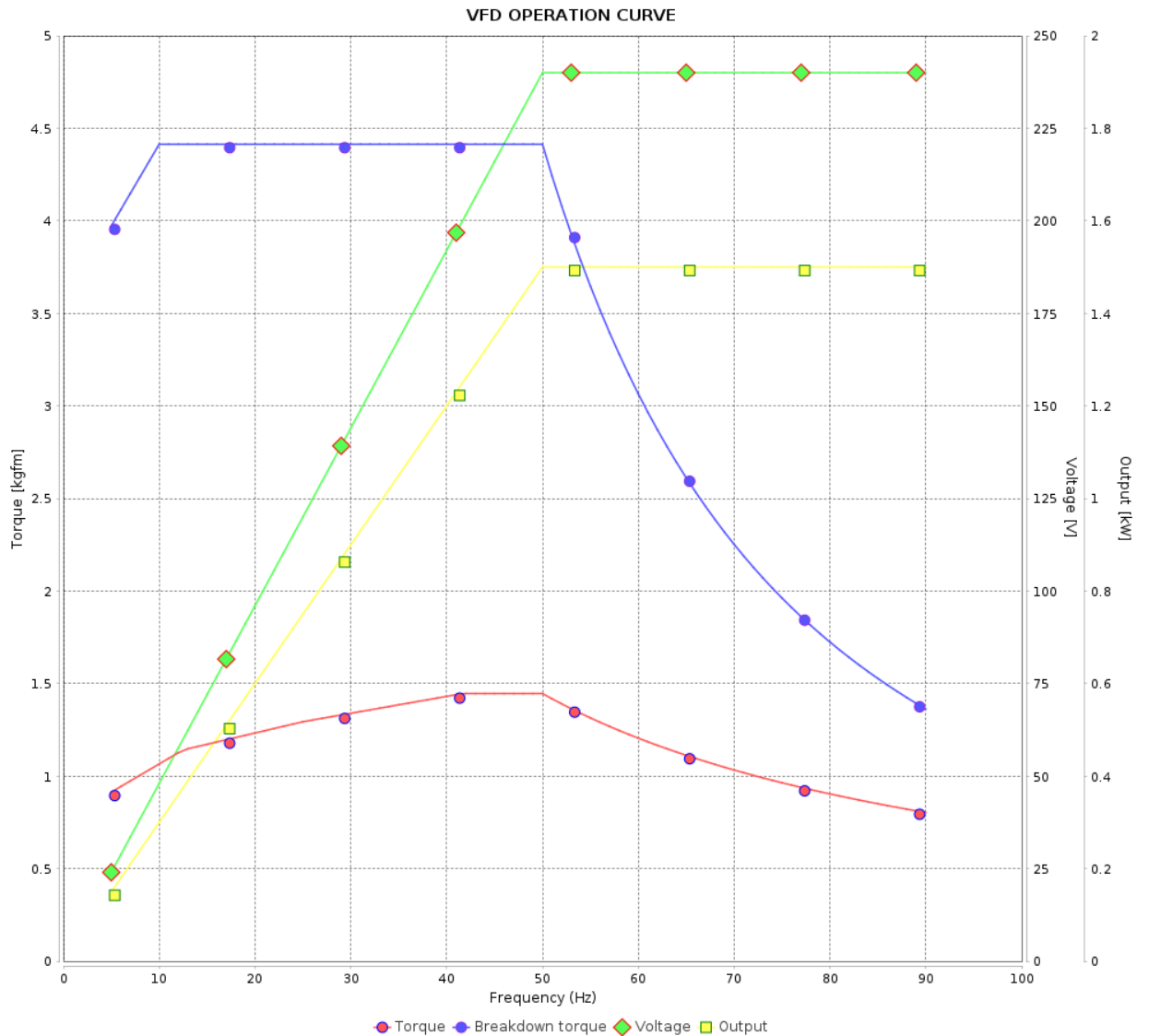
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 Locked rotor torque : 280 %
 Breakdown torque : 290 %
 Rated speed : 960 rpm

Moment of inertia (J) : 0.0143 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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