

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer		: Astraprom d.o.o.			
Product line		: W22 IE2 Three-Phase		Product code : 11398492	
Frame	: 71	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	: 11.2 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.0008 kgm ²		
Design	: N				
Output [kW]	0.37	0.37	0.37	0.37	0.37
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]	1.76/1.02	1.77/1.02	1.78/1.03	0.949	
L. R. Amperes [A]	7.22/4.18	7.63/4.39	8.01/4.63	4.84	
LRC [A]	4.1	4.3	4.5	5.1	
No load current [A]	1.12/0.650	1.27/0.730	1.35/0.780	0.660	
Rated speed [RPM]	1370	1385	1400	1710	
Slip [%]	8.67	7.67	6.67	5.00	
Rated torque [kgfm]	0.263	0.260	0.257	0.211	
Locked rotor torque [%]	200	220	240	250	
Breakdown torque [%]	200	220	240	270	
Service factor	1.00	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	86s (cold) 48s (hot)	86s (cold) 48s (hot)	86s (cold) 48s (hot)	86s (cold) 48s (hot)	
Noise level ²	43.0 dB(A)	43.0 dB(A)	43.0 dB(A)	47.0 dB(A)	
Efficiency (%)	25%				
	50%	66.0	63.0	63.0	62.0
	75%	68.5	68.0	68.0	67.0
	100%	72.7	72.7	72.7	72.0
Power Factor	25%				
	50%	0.55	0.50	0.46	0.48
	75%	0.66	0.62	0.58	0.60
	100%	0.76	0.72	0.69	0.68
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	44.8	44.8	44.8	46.4
	P2 (0,5;1,0)	39.0	39.0	39.0	40.3
	P3 (0,25;1,0)	37.5	37.5	37.5	38.8
	P4 (0,9;0,5)	27.5	27.5	27.5	28.8
	P5 (0,5;0,5)	18.9	18.9	18.9	19.8
	P6 (0,5;0,25)	15.5	15.5	15.5	16.3
	P7 (0,25;0,25)	10.9	10.9	10.9	11.4
Bearing type	: Drive end 6202 ZZ	Non drive end 6202 ZZ	Foundation loads		
Sealing	: Oil Seal	Lip Seal	Max. traction	: 14 kgf	
Lubrication interval	: -	-	Max. compression	: 25 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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Notes

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TORQUE AND CURRENT VS SPEED CURVE

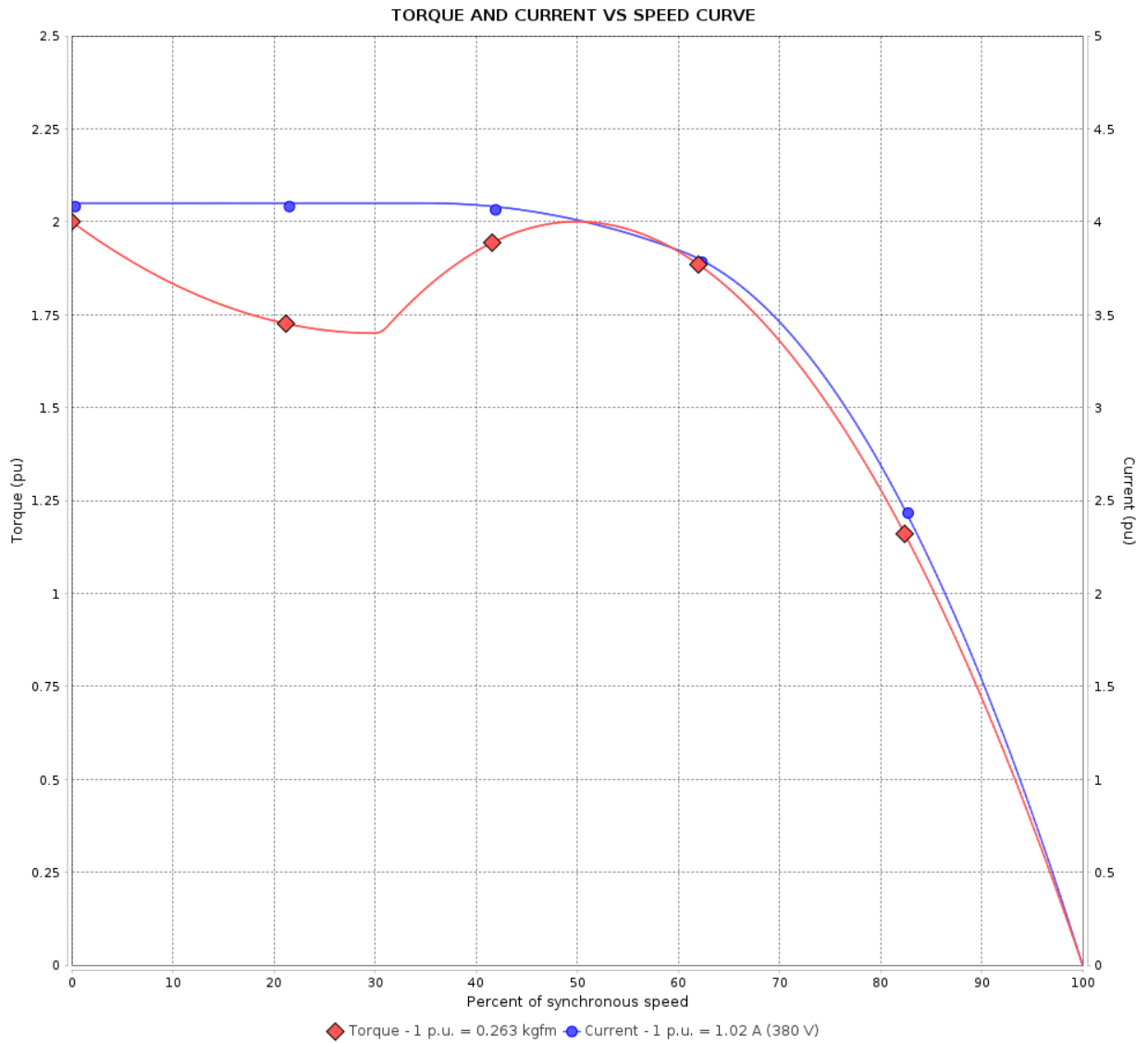


Three Phase Induction Motor - Squirrel Cage

Customer : Astraprom d.o.o.

Product line : W22 IE2 Three-Phase

Product code : 11398492



Performance : 220/380 V 50 Hz 4P

Rated current	: 1.76/1.02 A	Moment of inertia (J)	: 0.0008 kgm ²
LRC	: 4.1	Duty cycle	: S1
Rated torque	: 0.263 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 80 K
Rated speed	: 1370 rpm	Design	: N

Locked rotor time : 86s (cold) 48s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

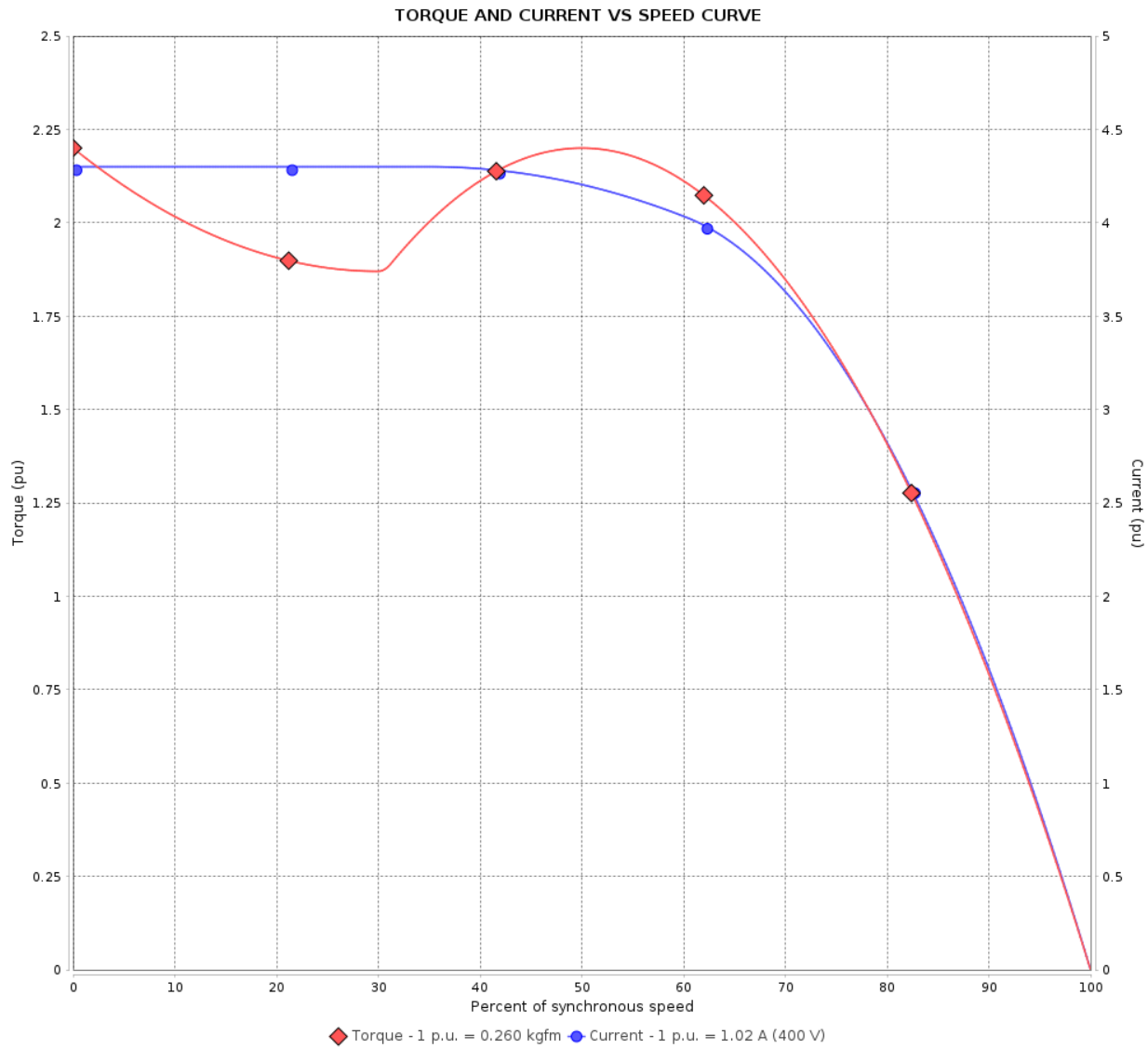
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE2 Three-Phase

Product code : 11398492



Performance : 230/400 V 50 Hz 4P

Rated current	: 1.77/1.02 A	Moment of inertia (J)	: 0.0008 kgm ²
LRC	: 4.3	Duty cycle	: S1
Rated torque	: 0.260 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 1385 rpm	Design	: N

Locked rotor time : 86s (cold) 48s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

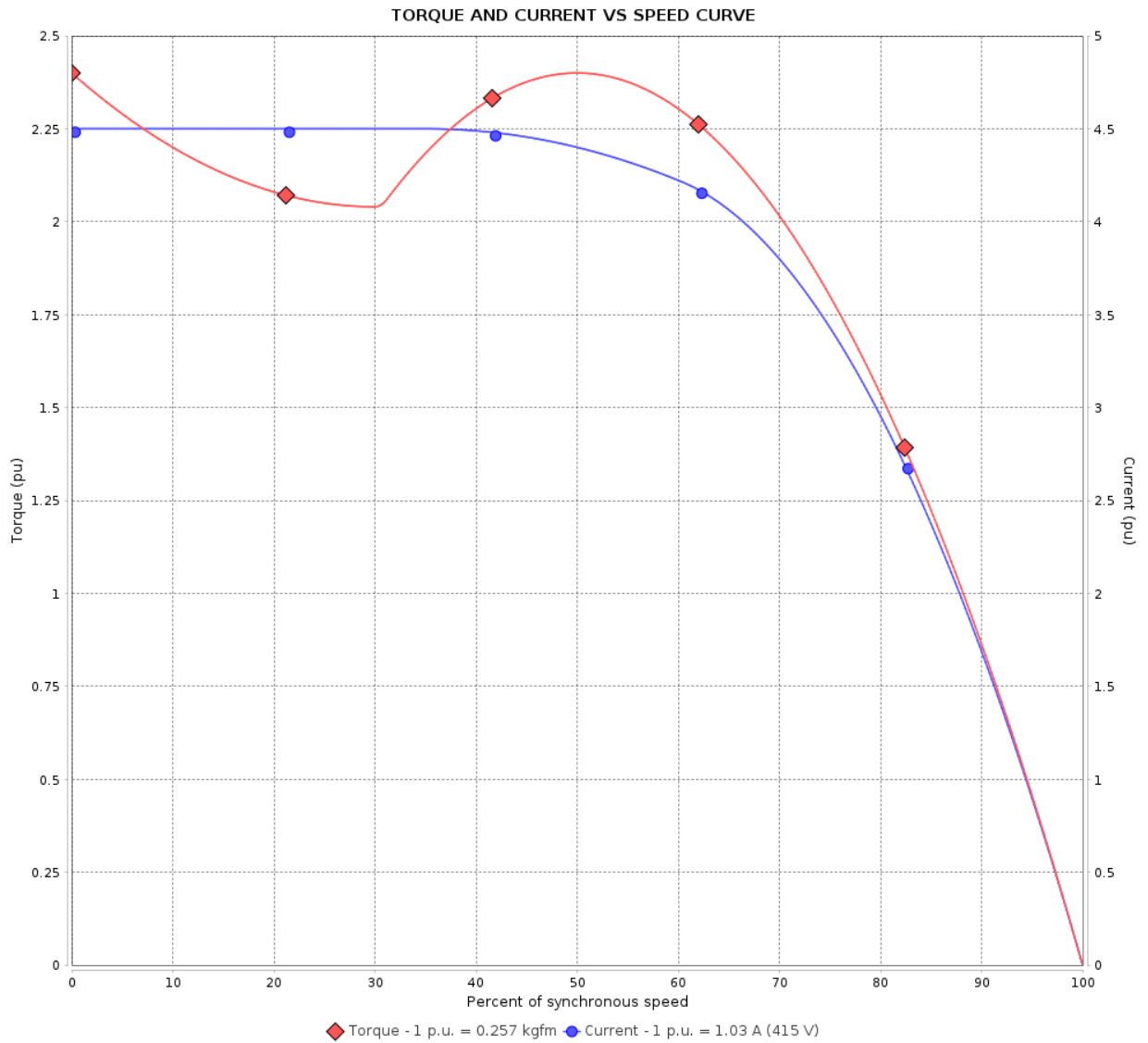


Three Phase Induction Motor - Squirrel Cage

Customer : Astraprom d.o.o.

Product line : W22 IE2 Three-Phase

Product code : 11398492



Performance : 240/415 V 50 Hz 4P

Rated current	: 1.78/1.03 A	Moment of inertia (J)	: 0.0008 kgm ²
LRC	: 4.5	Duty cycle	: S1
Rated torque	: 0.257 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1400 rpm	Design	: N

Locked rotor time : 86s (cold) 48s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

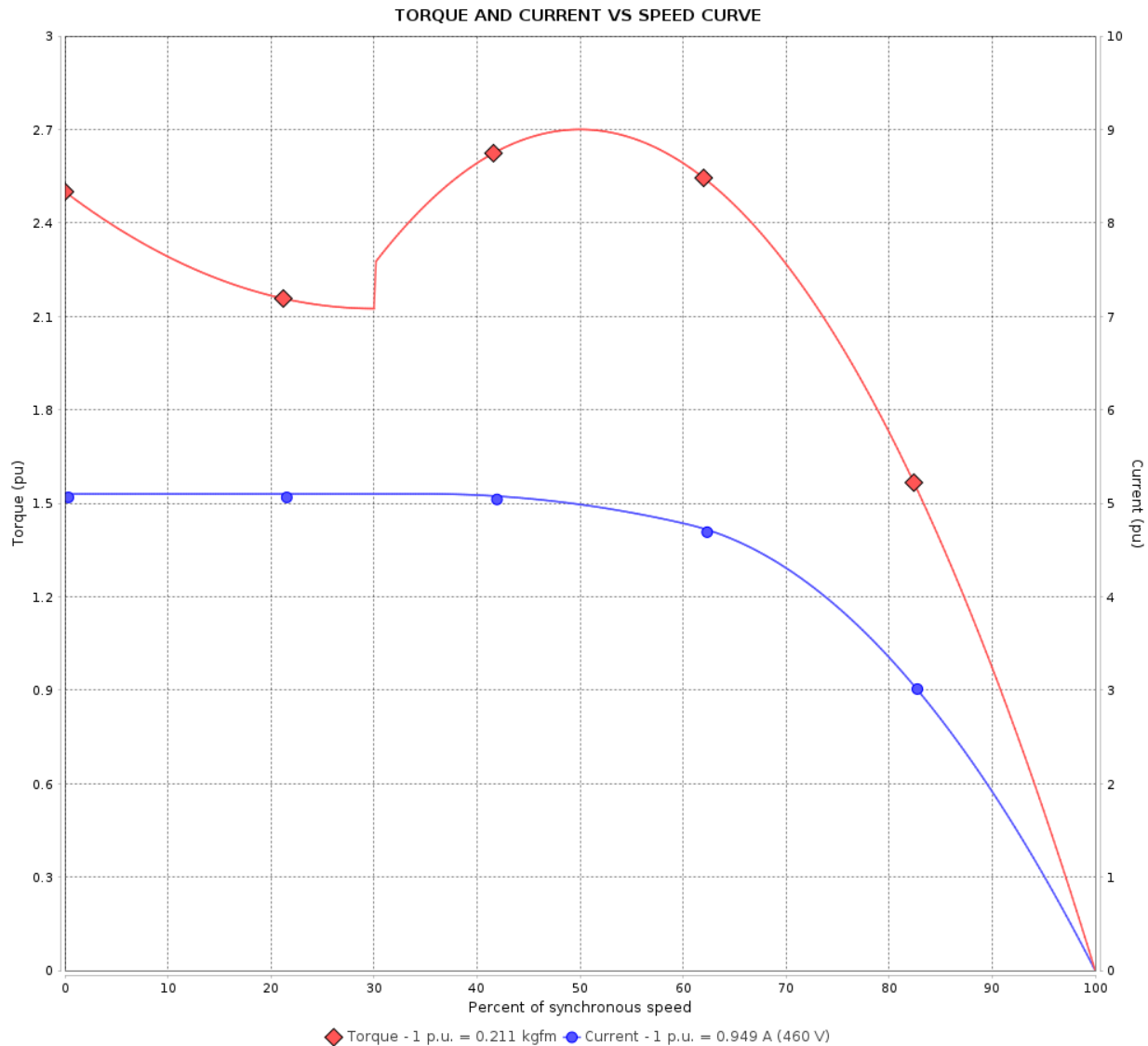
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE2 Three-Phase

Product code : 11398492



Performance : 460 V 60 Hz 4P

Rated current	: 0.949 A	Moment of inertia (J)	: 0.0008 kgm ²
LRC	: 5.1	Duty cycle	: S1
Rated torque	: 0.211 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1710 rpm	Design	: N

Locked rotor time : 86s (cold) 48s (hot)

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LOAD PERFORMANCE CURVE

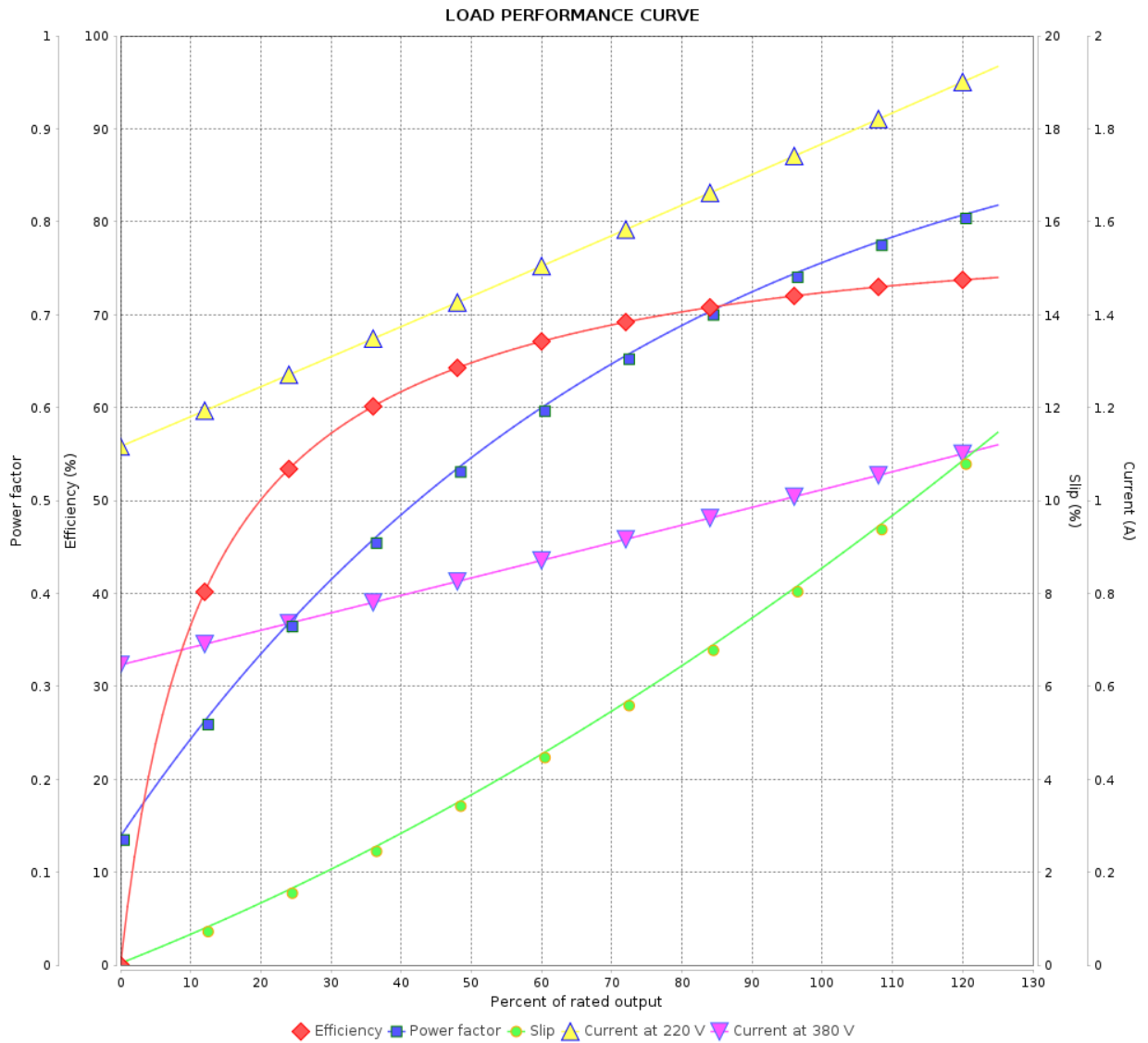
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE2 Three-Phase

Product code : 11398492



Performance : 220/380 V 50 Hz 4P

Rated current : 1.76/1.02 A
 LRC : 4.1
 Rated torque : 0.263 kgfm
 Locked rotor torque : 200 %
 Breakdown torque : 200 %
 Rated speed : 1370 rpm

Moment of inertia (J) : 0.0008 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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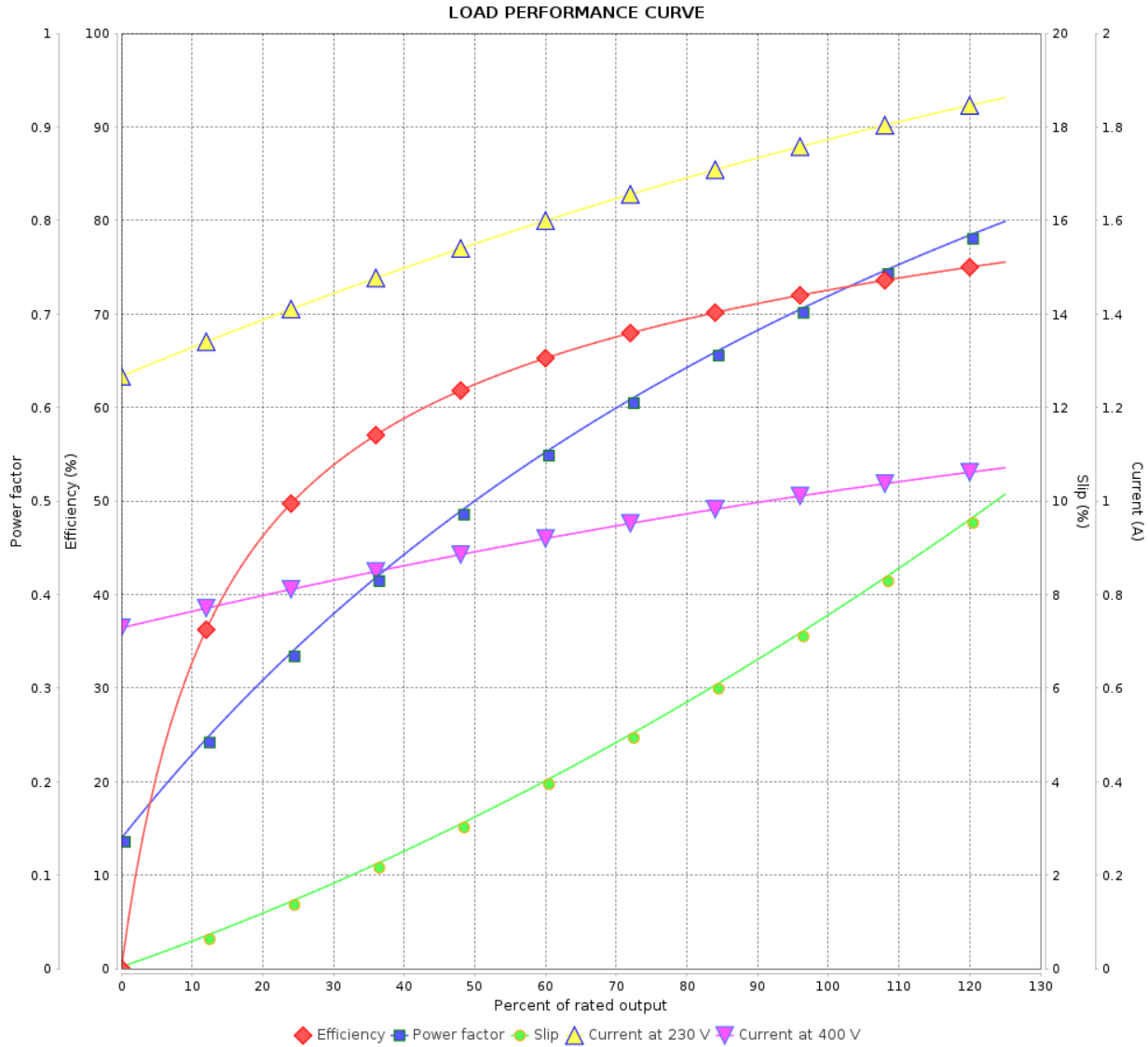
Three Phase Induction Motor - Squirrel Cage



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Product line : W22 IE2 Three-Phase

Product code : 11398492



Performance : 230/400 V 50 Hz 4P

Rated current : 1.77/1.02 A
 LRC : 4.3
 Rated torque : 0.260 kgfm
 Locked rotor torque : 220 %
 Breakdown torque : 220 %
 Rated speed : 1385 rpm

Moment of inertia (J) : 0.0008 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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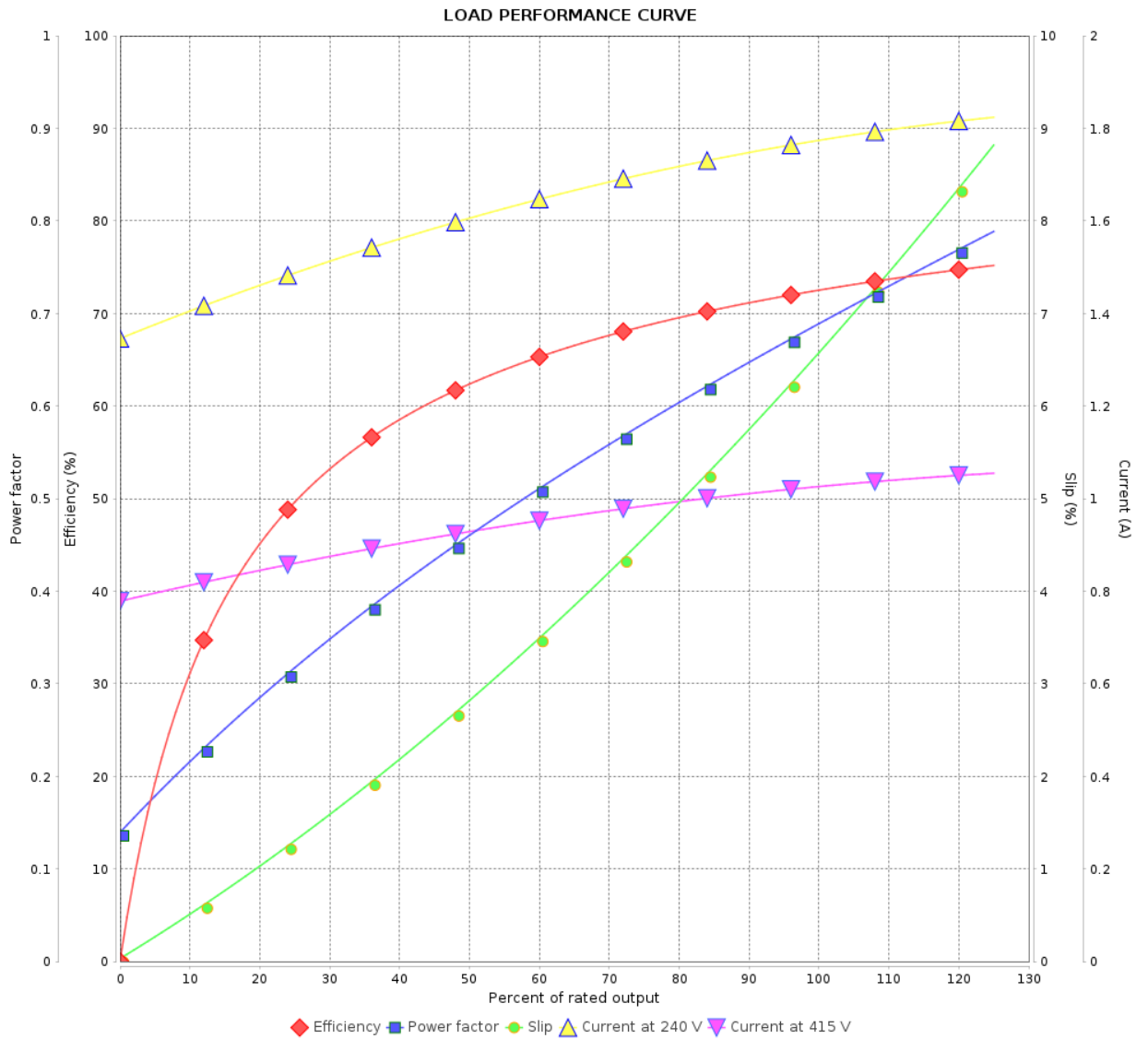
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

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Product code : 11398492



Performance : 240/415 V 50 Hz 4P

Rated current : 1.78/1.03 A
 LRC : 4.5
 Rated torque : 0.257 kgfm
 Locked rotor torque : 240 %
 Breakdown torque : 240 %
 Rated speed : 1400 rpm

Moment of inertia (J) : 0.0008 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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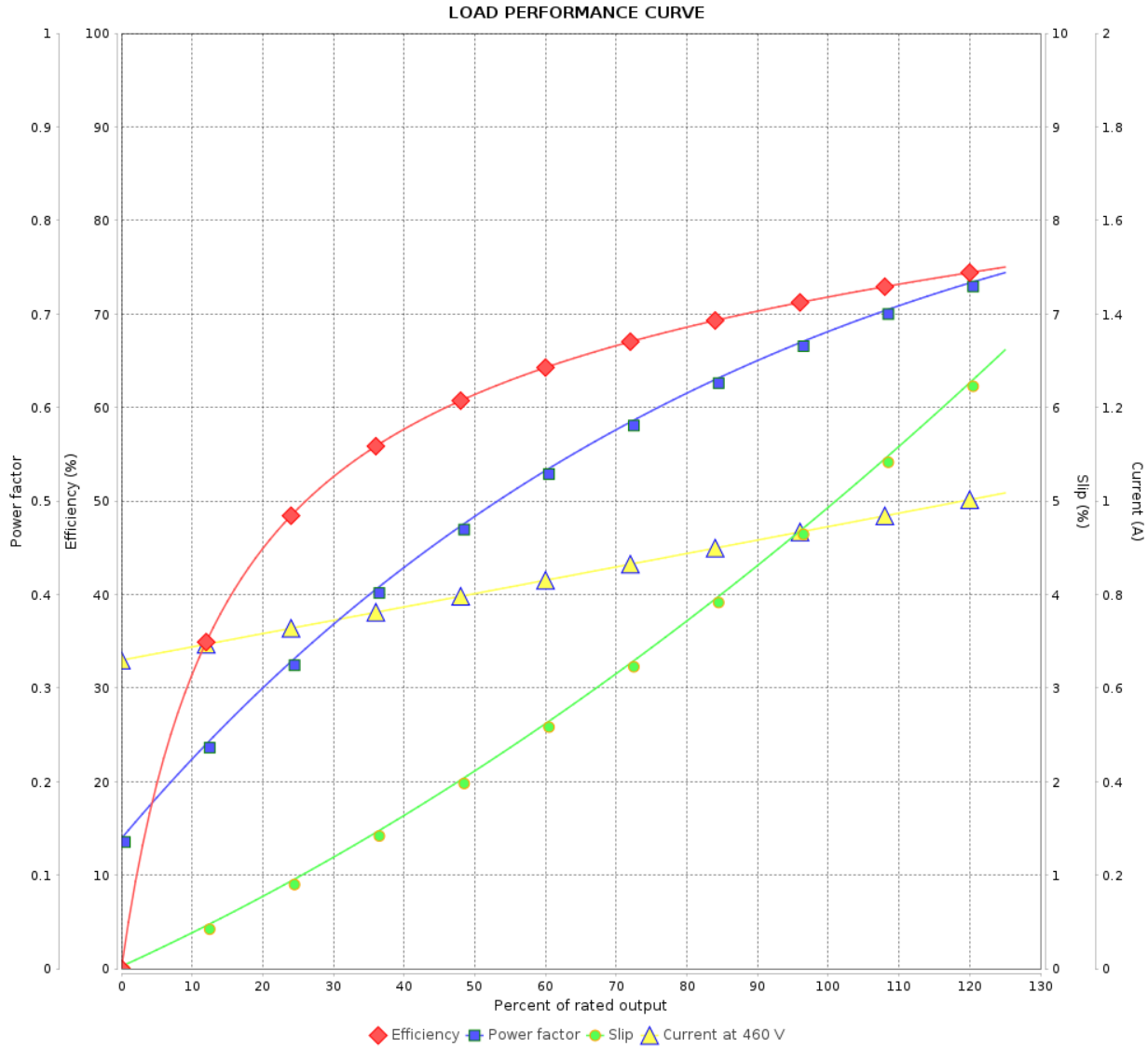
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Moment of inertia (J) : 0.0008 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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THERMAL LIMIT CURVE

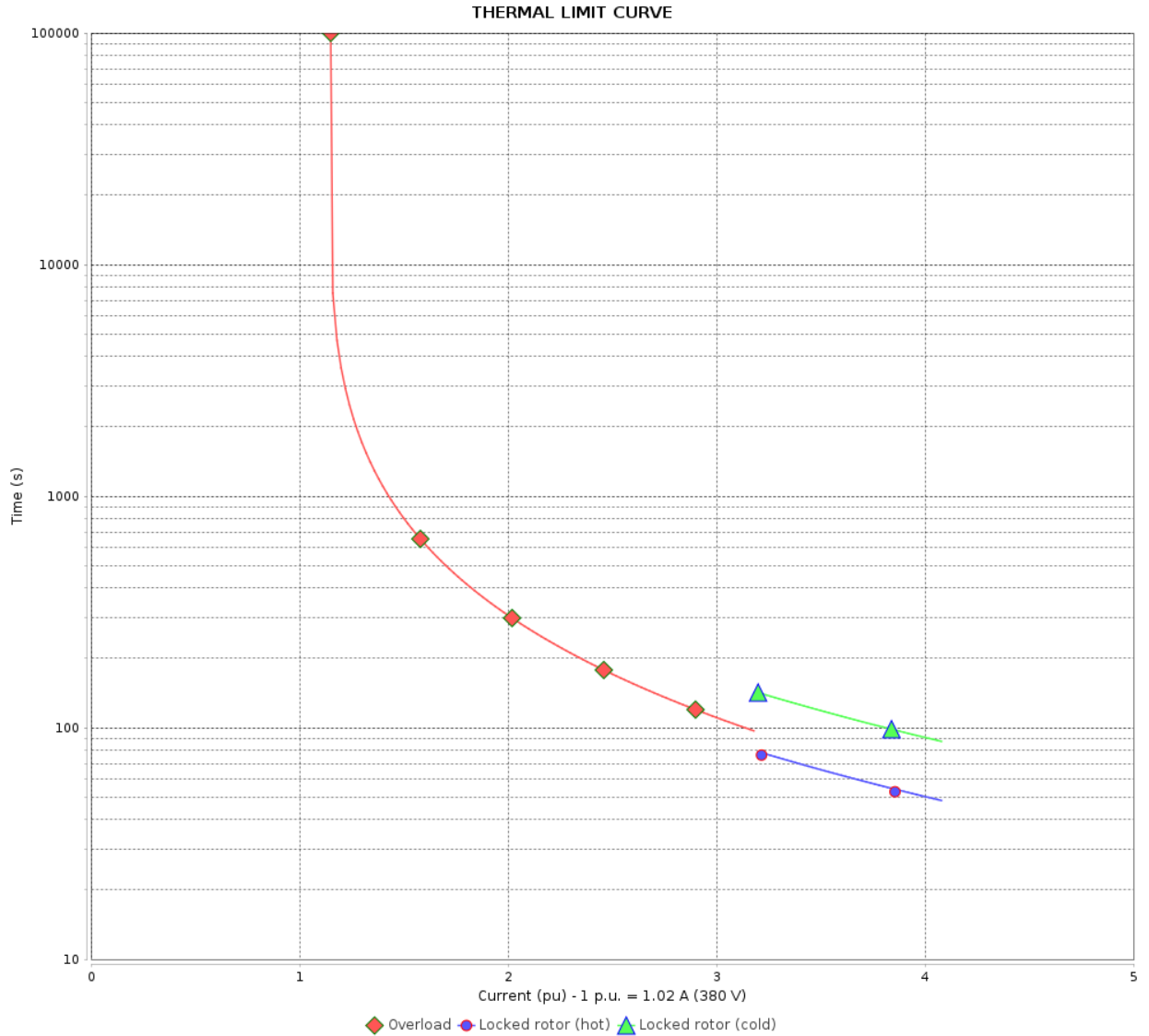
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Moment of inertia (J) : 0.0008 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Heating constant
 Cooling constant

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THERMAL LIMIT CURVE

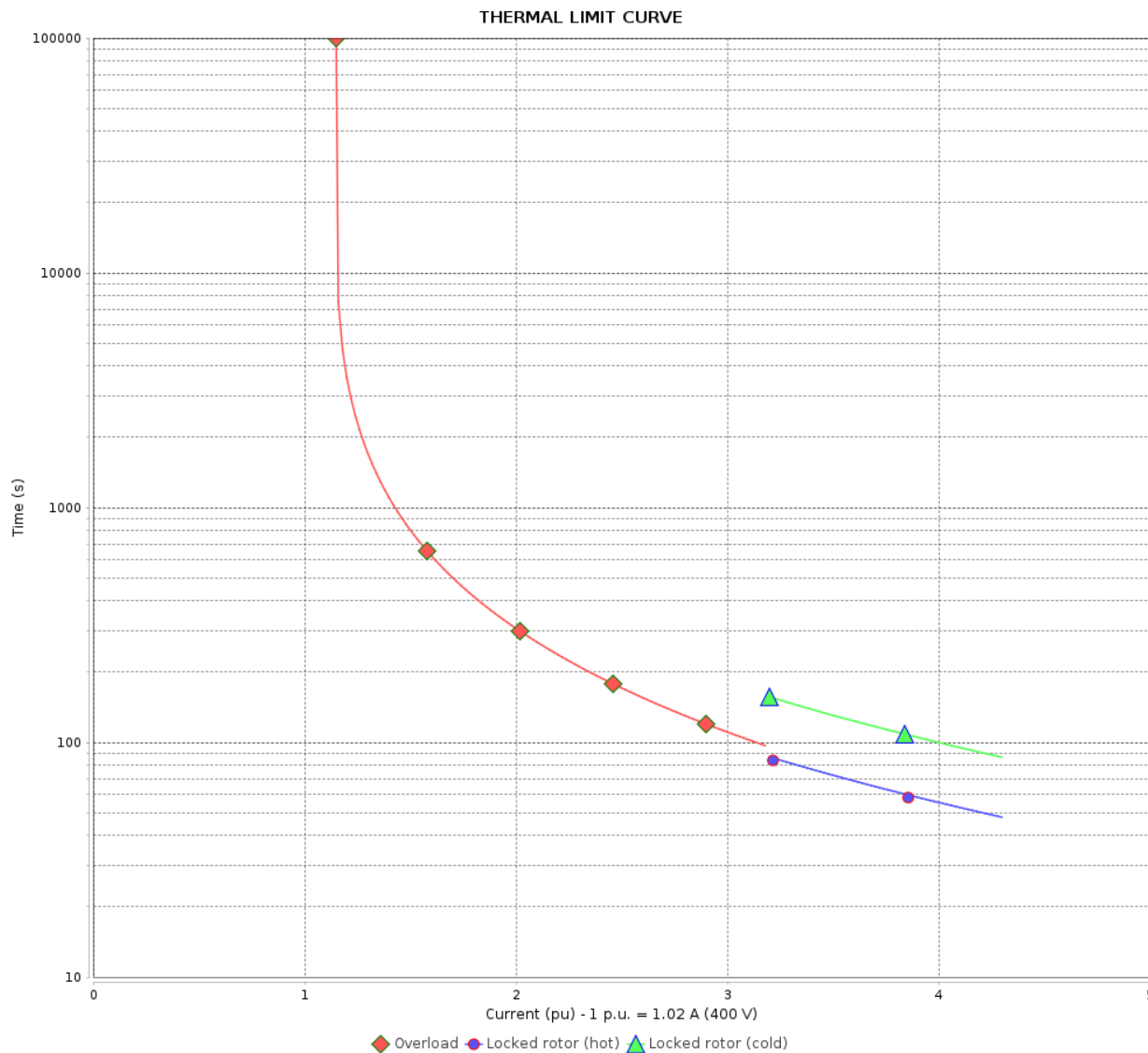
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 Rated speed : 1385 rpm

Moment of inertia (J) : 0.0008 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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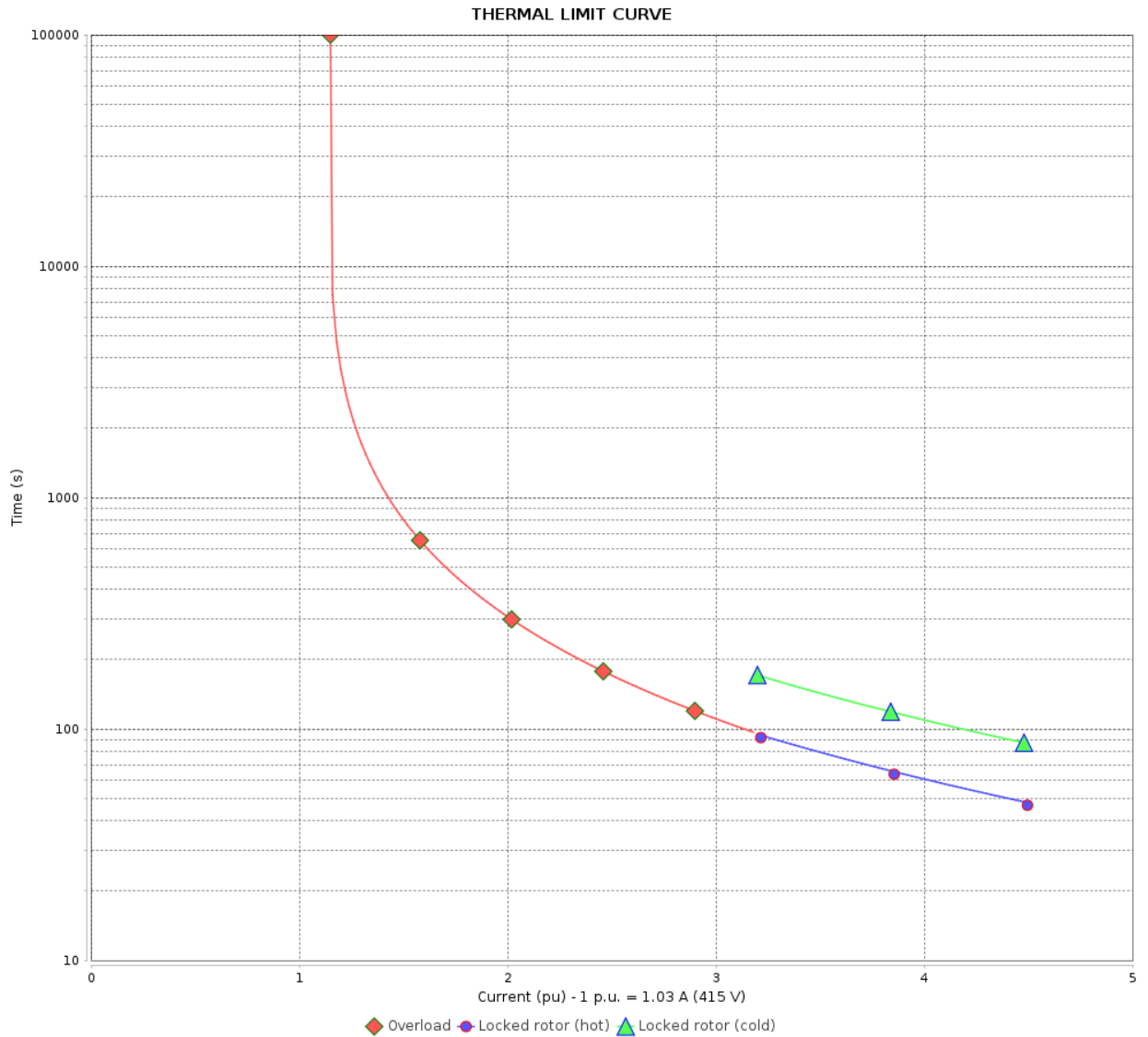


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Moment of inertia (J) : 0.0008 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Heating constant

Cooling constant

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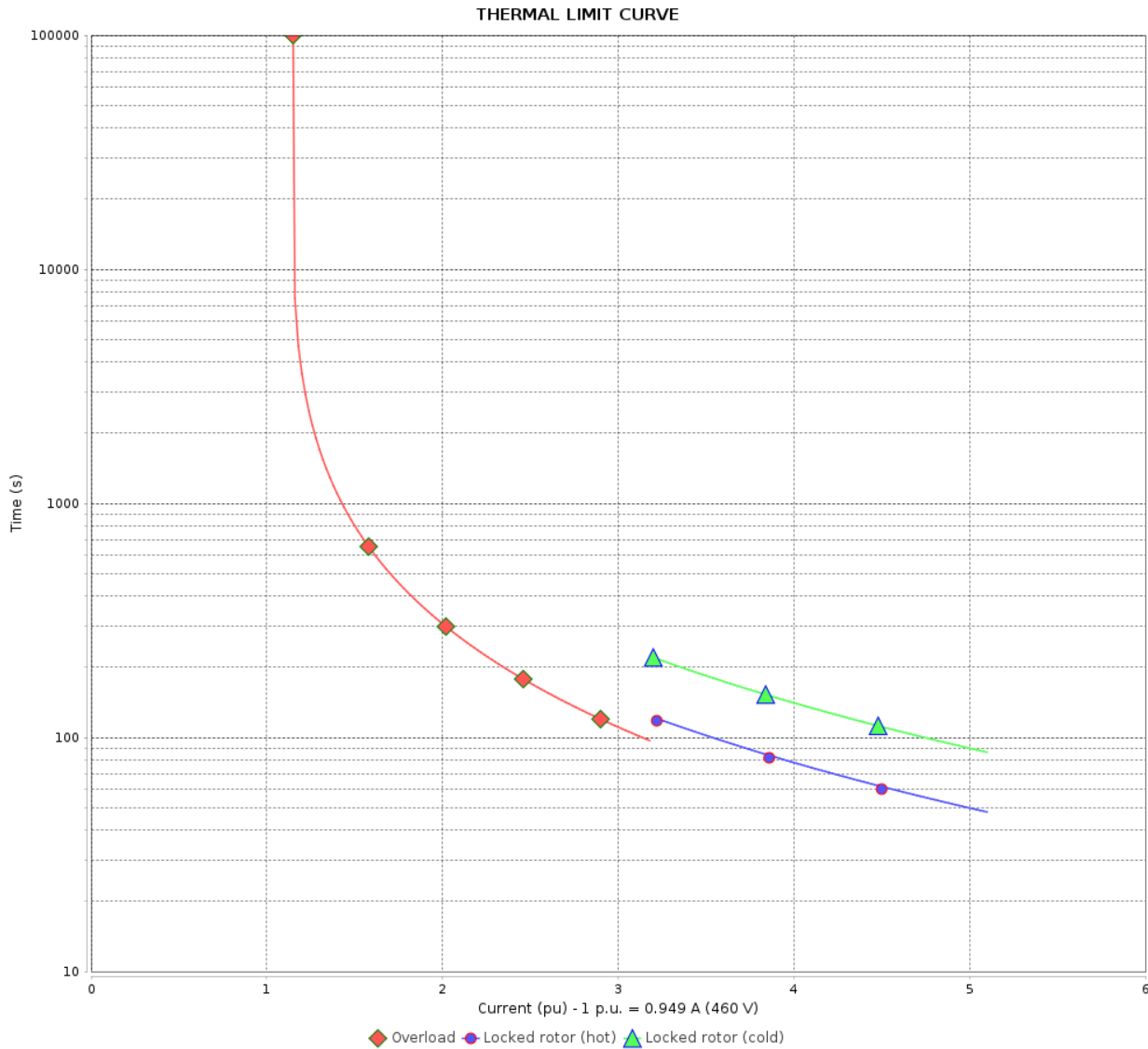
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LRC	: 5.1	Duty cycle	: S1
Rated torque	: 0.211 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1710 rpm	Design	: N

Heating constant

Cooling constant

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VFD OPERATION CURVE

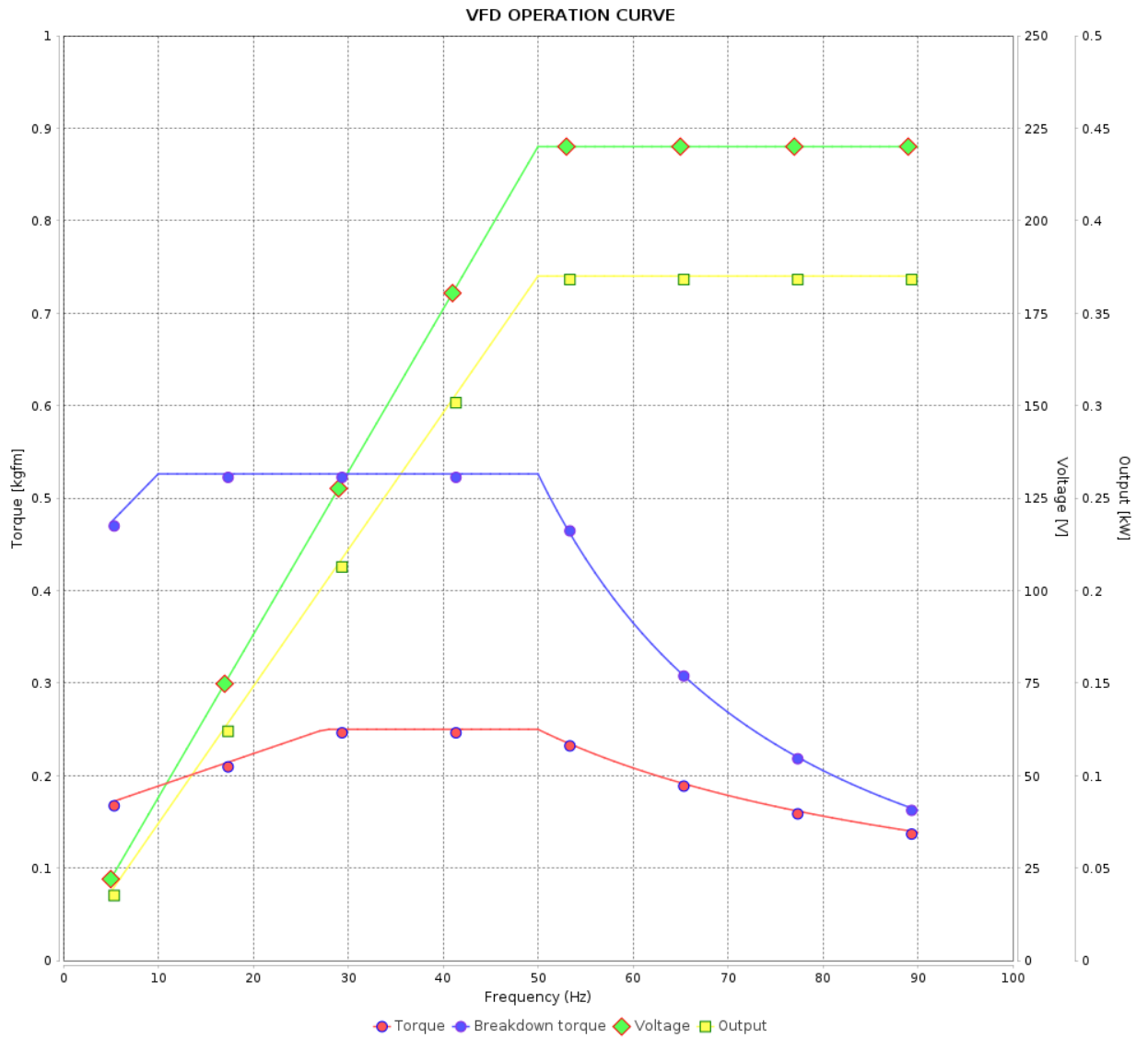
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Moment of inertia (J) : 0.0008 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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VFD OPERATION CURVE

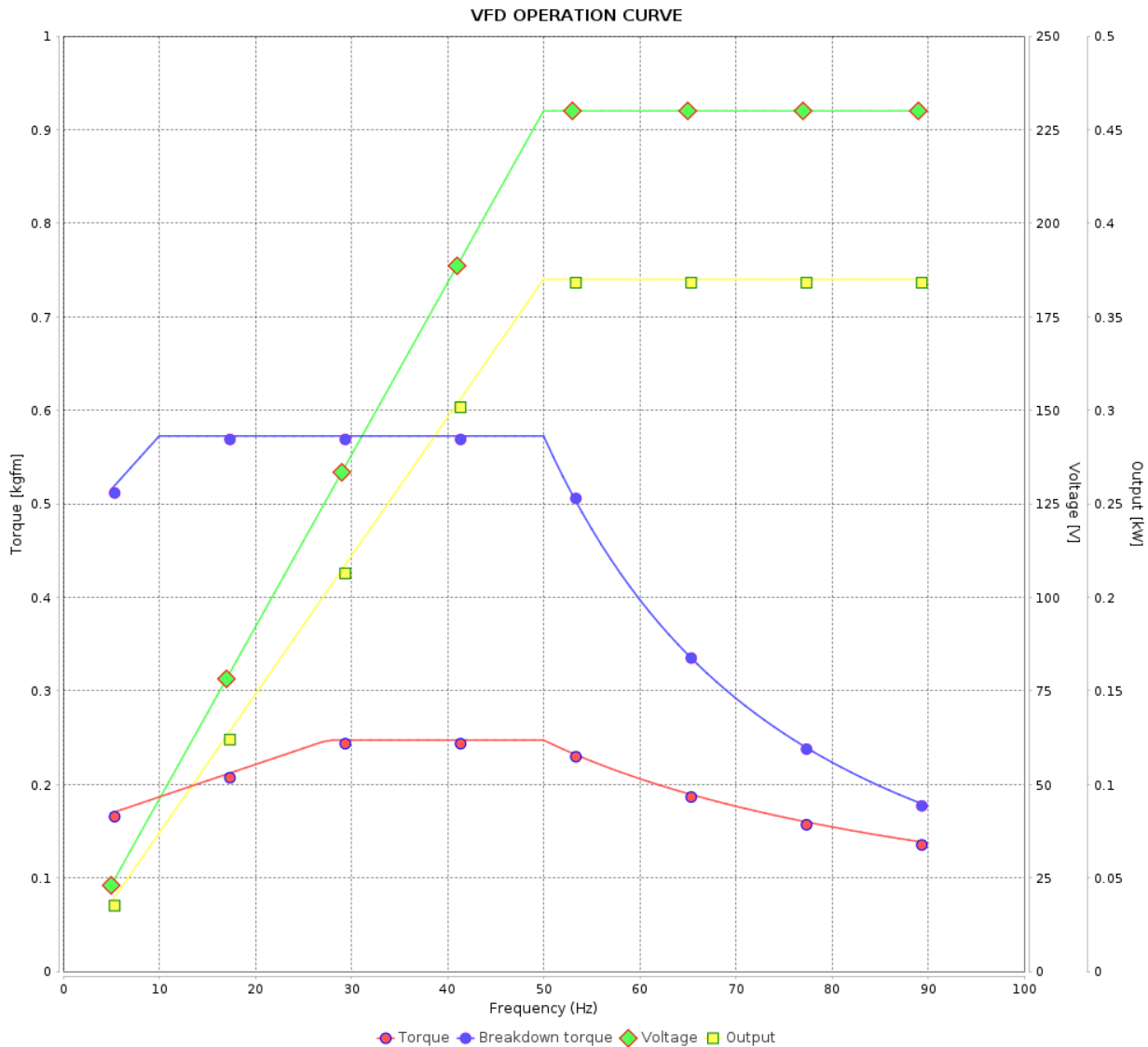
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 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
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 Design : N

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VFD OPERATION CURVE

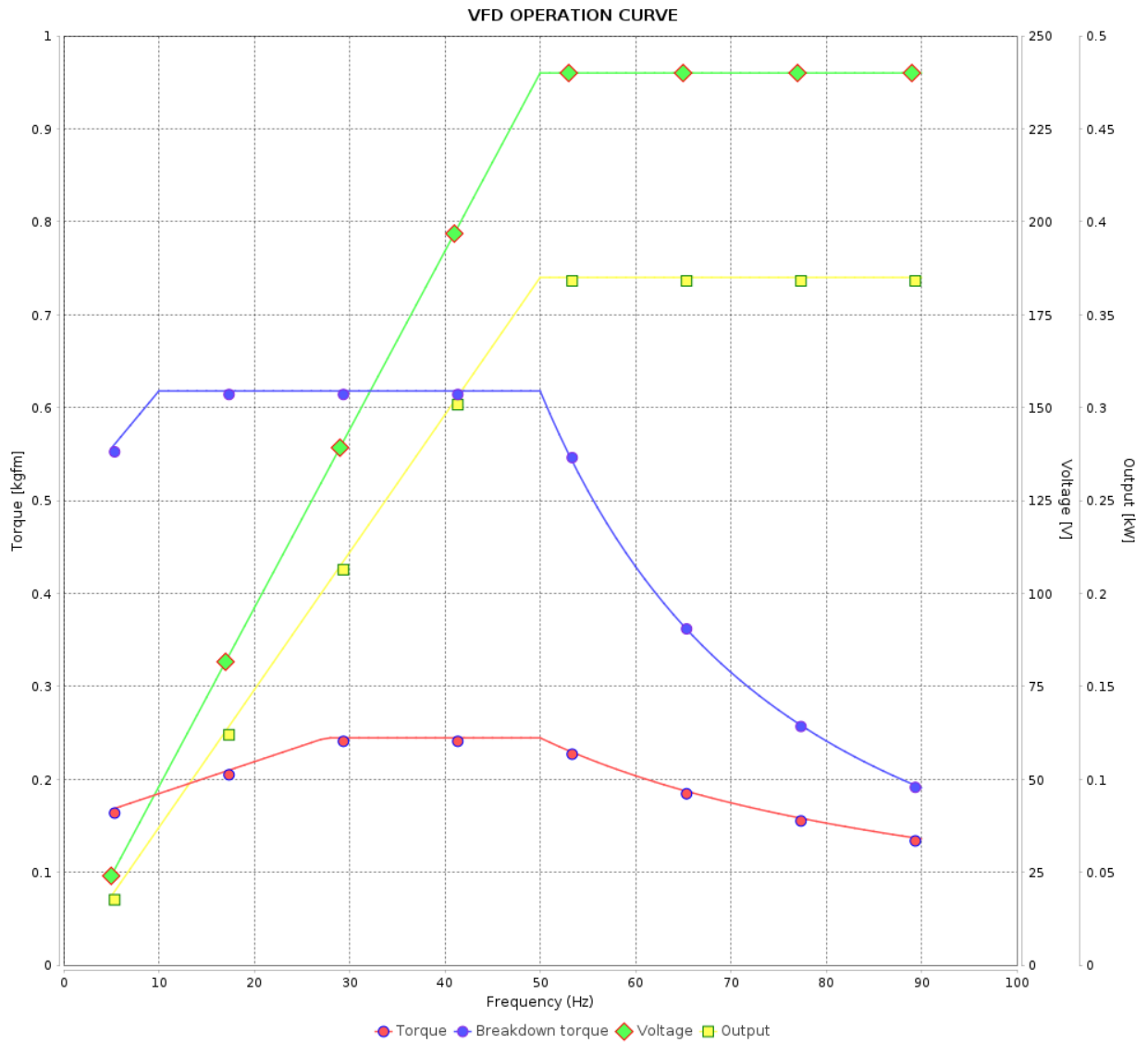
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : W22 IE2 Three-Phase

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Performance : 240/415 V 50 Hz 4P

Rated current : 1.78/1.03 A
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 Rated torque : 0.257 kgfm
 Locked rotor torque : 240 %
 Breakdown torque : 240 %
 Rated speed : 1400 rpm

Moment of inertia (J) : 0.0008 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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VFD OPERATION CURVE

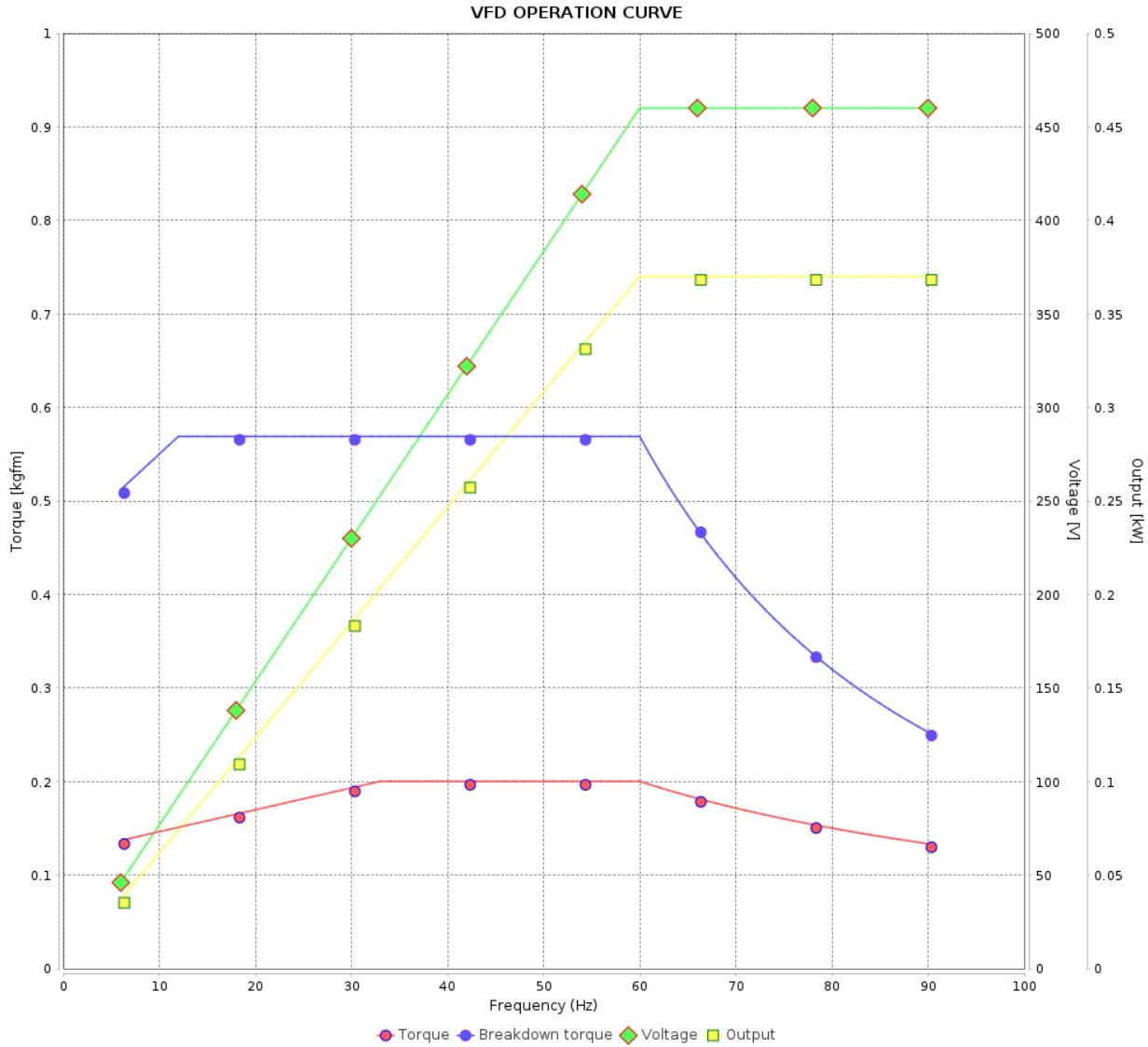
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