

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer		: Astraprom d.o.o.			
Product line		: IE3 Three-Phase		Product code : 13749543	
Frame	: 63	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 ²	: 5.9 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.0002 kgm ²		
Design	: N				
Output [kW]	0.25	0.25	0.25	0.25	0.25
Poles	2	2	2	2	2
Frequency [Hz]	50	50	50	50	60
Rated voltage [V]	220/380	230/400	240/415	460	
Rated current [A]	1.16/0.673	1.17/0.672	1.17/0.674	0.606	
L. R. Amperes [A]	6.16/3.57	6.43/3.70	6.64/3.84	4.00	
LRC [A]	5.3	5.5	5.7	6.6	
No load current [A]	0.795/0.460	0.870/0.500	0.951/0.550	0.469	
Rated speed [RPM]	2795	2820	2830	3440	
Slip [%]	6.83	6.00	5.67	4.44	
Rated torque [kgfm]	0.087	0.086	0.086	0.071	
Locked rotor torque [%]	229	260	280	330	
Breakdown torque [%]	240	270	290	350	
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)	34s (cold) 19s (hot)	32s (cold) 18s (hot)	30s (cold) 17s (hot)	
Noise level ²	52.0 dB(A)	52.0 dB(A)	52.0 dB(A)	56.0 dB(A)	
Efficiency (%)	25%				
	50%	64.6	63.0	61.5	64.0
	75%	68.7	68.0	67.2	68.0
	100%	69.7	69.7	69.7	70.0
Power Factor	25%				
	50%	0.59	0.54	0.51	0.53
	75%	0.73	0.68	0.64	0.65
	100%	0.81	0.77	0.74	0.74
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	42.4	42.4	42.4	41.8
	P2 (0,5;1,0)	36.8	36.8	36.8	36.3
	P3 (0,25;1,0)	34.3	34.3	34.3	33.8
	P4 (0,9;0,5)	27.2	27.2	27.2	26.8
	P5 (0,5;0,5)	17.9	17.9	17.9	17.6
	P6 (0,5;0,25)	14.9	14.9	14.9	14.7
	P7 (0,25;0,25)	10.0	10.0	10.0	9.9
Bearing type	: Drive end 6201 ZZ	Non drive end 6201 ZZ	Foundation loads		
Sealing	: V'Ring	V'Ring	Max. traction	: 6 kgf	
Lubrication interval	: -	-	Max. compression	: 12 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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Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

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Three Phase Induction Motor - Squirrel Cage

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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

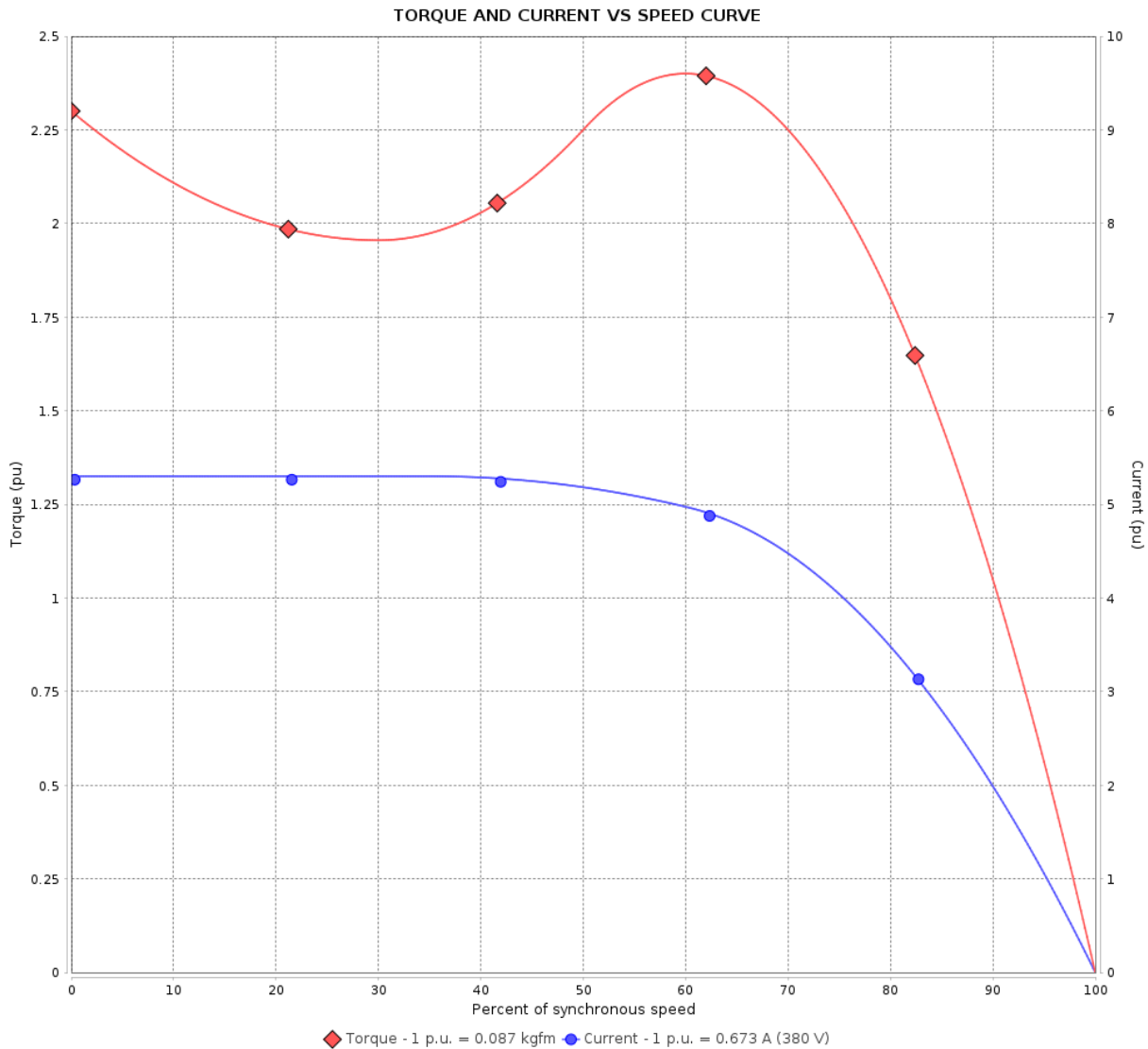
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : IE3 Three-Phase

Product code : 13749543



Performance : 220/380 V 50 Hz 2P

Rated current	: 1.16/0.673 A	Moment of inertia (J)	: 0.0002 kgm ²
LRC	: 5.3	Duty cycle	: S1
Rated torque	: 0.087 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 2795 rpm	Design	: N

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

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TORQUE AND CURRENT VS SPEED CURVE

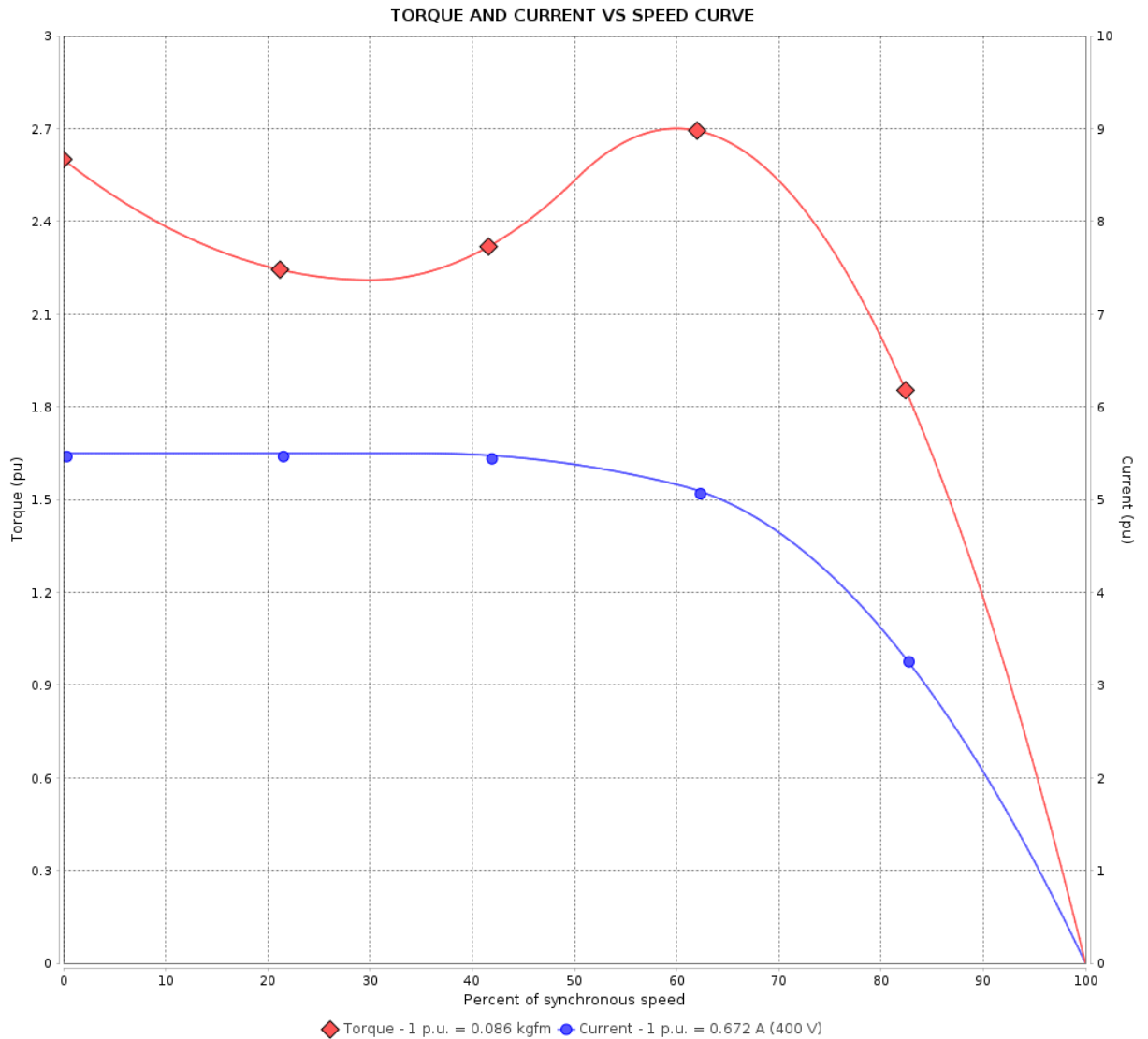


Three Phase Induction Motor - Squirrel Cage

Customer : Astraprom d.o.o.

Product line : IE3 Three-Phase

Product code : 13749543



Performance : 230/400 V 50 Hz 2P

Rated current	: 1.17/0.672 A	Moment of inertia (J)	: 0.0002 kgm ²
LRC	: 5.5	Duty cycle	: S1
Rated torque	: 0.086 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 2820 rpm	Design	: N

Locked rotor time : 34s (cold) 19s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

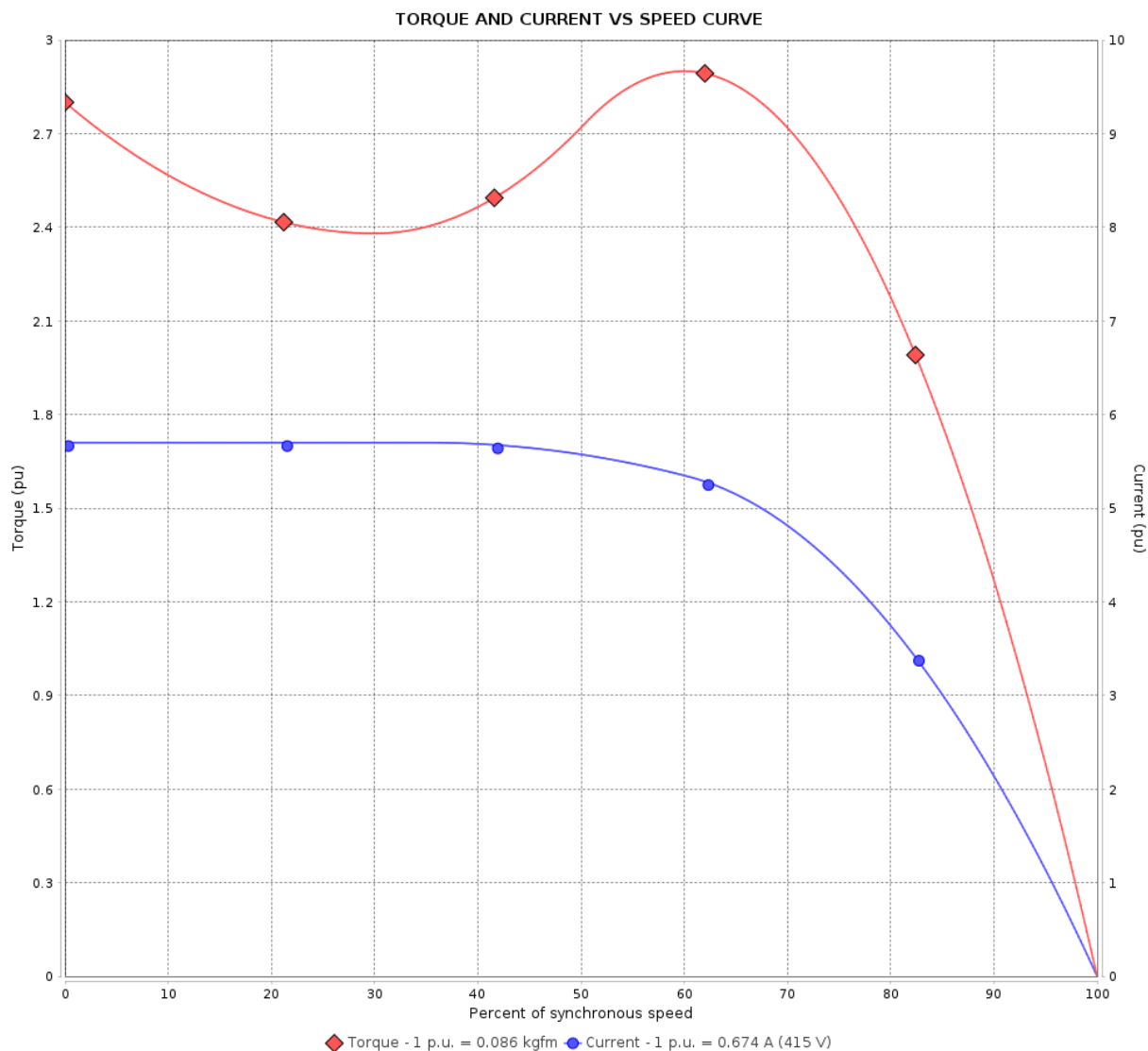
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : IE3 Three-Phase

Product code : 13749543



Performance : 240/415 V 50 Hz 2P

Rated current	: 1.17/0.674 A	Moment of inertia (J)	: 0.0002 kgm ²
LRC	: 5.7	Duty cycle	: S1
Rated torque	: 0.086 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 2830 rpm	Design	: N

Locked rotor time : 32s (cold) 18s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

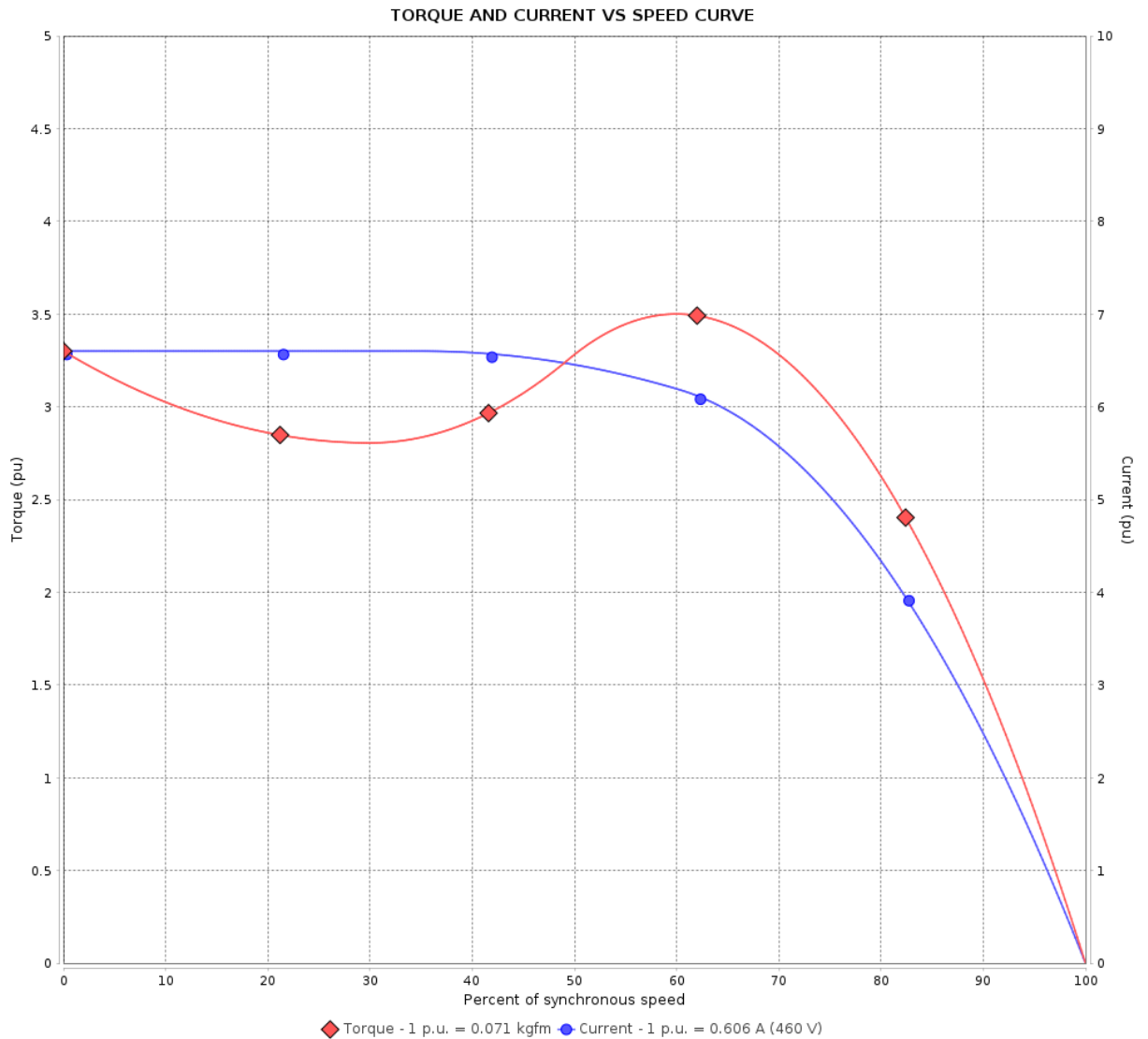


Three Phase Induction Motor - Squirrel Cage

Customer : Astraprom d.o.o.

Product line : IE3 Three-Phase

Product code : 13749543



Performance : 460 V 60 Hz 2P

Rated current	: 0.606 A	Moment of inertia (J)	: 0.0002 kgm ²
LRC	: 6.6	Duty cycle	: S1
Rated torque	: 0.071 kgfm	Insulation class	: F
Locked rotor torque	: 330 %	Service factor	: 1.00
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 3440 rpm	Design	: N

Locked rotor time : 30s (cold) 17s (hot)

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LOAD PERFORMANCE CURVE

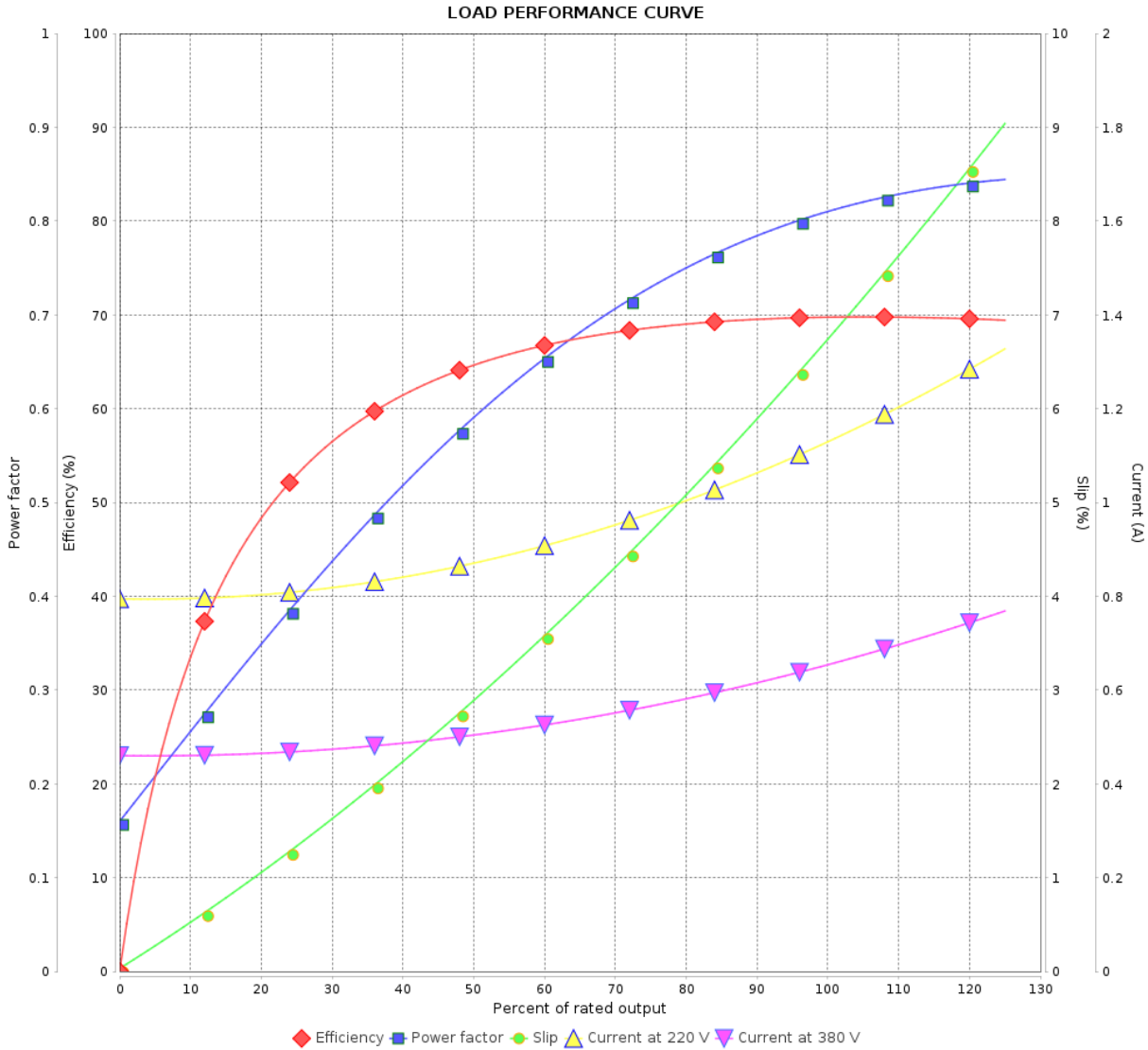
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : IE3 Three-Phase

Product code : 13749543



Performance : 220/380 V 50 Hz 2P

Rated current : 1.16/0.673 A
 LRC : 5.3
 Rated torque : 0.087 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 240 %
 Rated speed : 2795 rpm

Moment of inertia (J) : 0.0002 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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LOAD PERFORMANCE CURVE

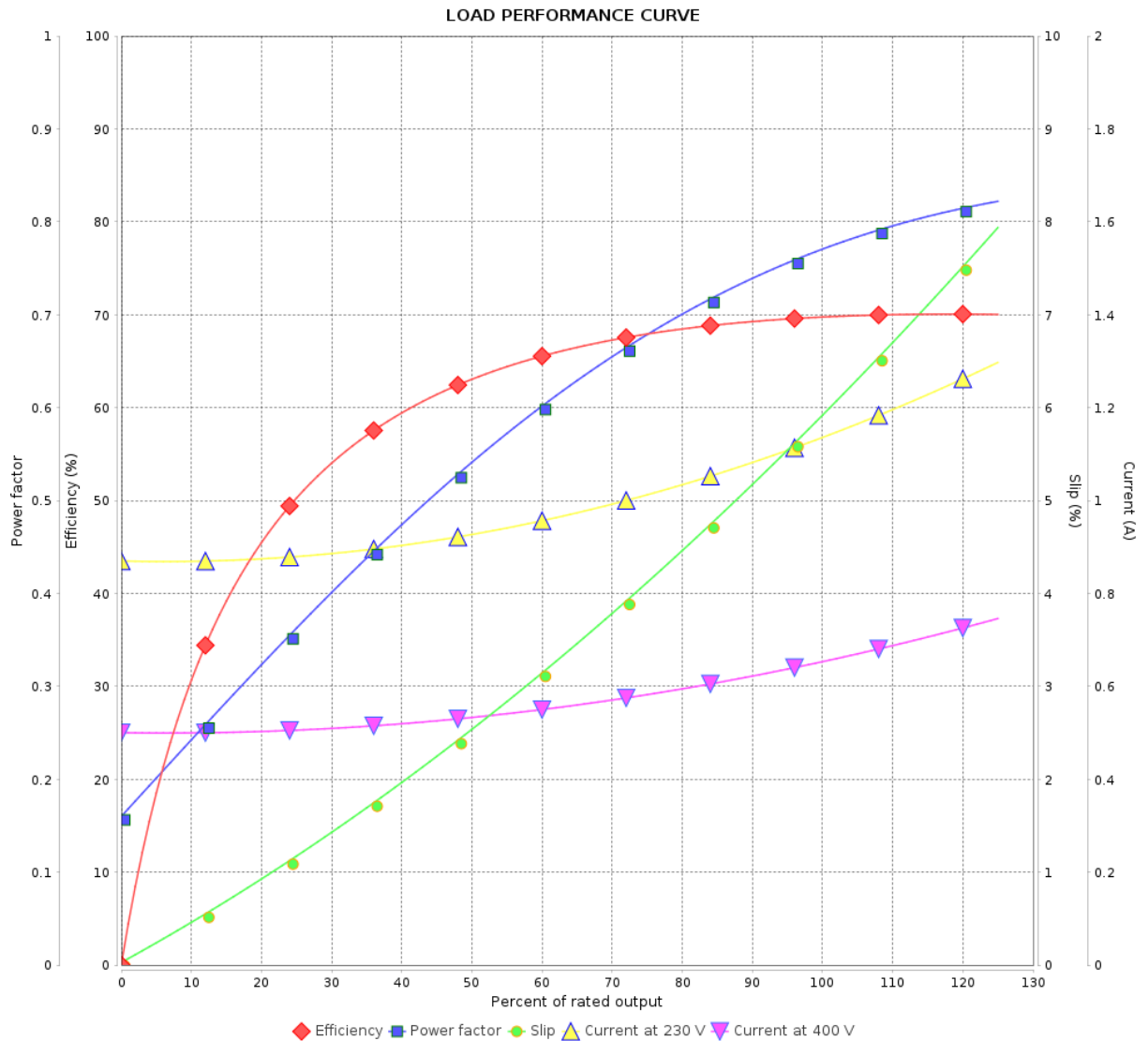
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : IE3 Three-Phase

Product code : 13749543



Performance : 230/400 V 50 Hz 2P

Rated current : 1.17/0.672 A
 LRC : 5.5
 Rated torque : 0.086 kgfm
 Locked rotor torque : 260 %
 Breakdown torque : 270 %
 Rated speed : 2820 rpm

Moment of inertia (J) : 0.0002 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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LOAD PERFORMANCE CURVE

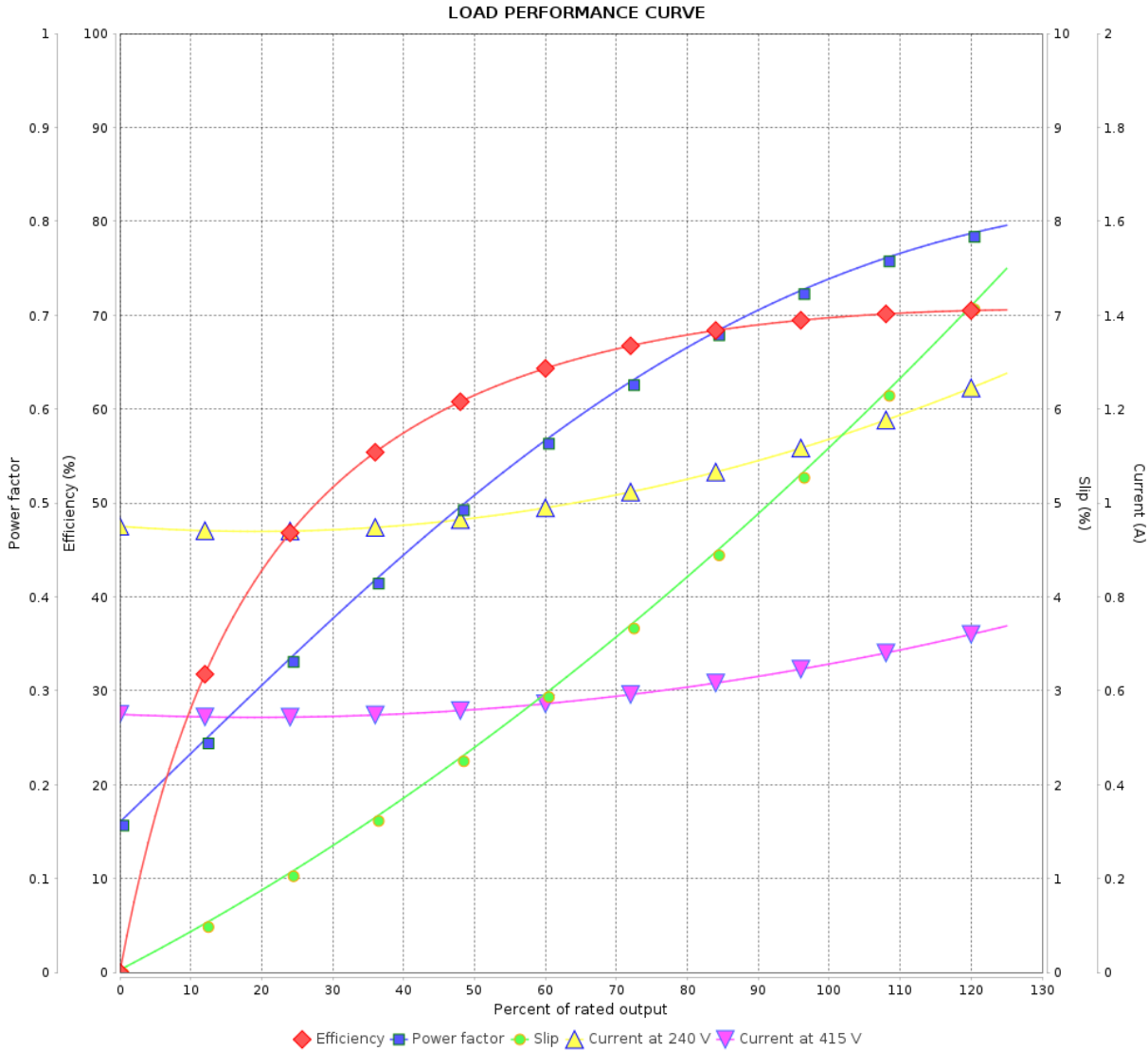
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : IE3 Three-Phase

Product code : 13749543



Performance : 240/415 V 50 Hz 2P

Rated current : 1.17/0.674 A
 LRC : 5.7
 Rated torque : 0.086 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 290 %
 Rated speed : 2830 rpm

Moment of inertia (J) : 0.0002 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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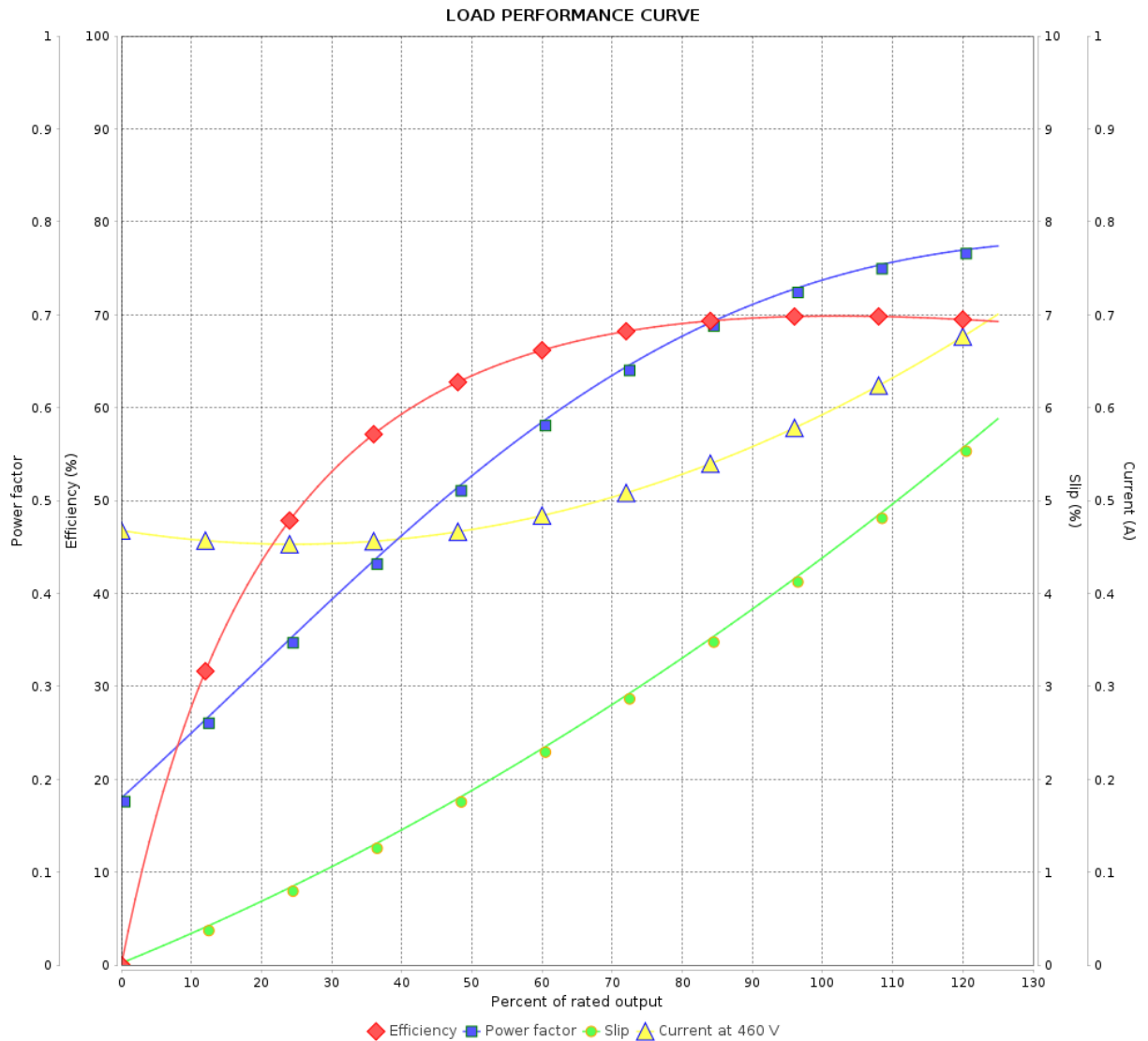
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Customer : Astraprom d.o.o.

Product line : IE3 Three-Phase

Product code : 13749543



Performance : 460 V 60 Hz 2P

Rated current : 0.606 A
 LRC : 6.6
 Rated torque : 0.071 kgfm
 Locked rotor torque : 330 %
 Breakdown torque : 350 %
 Rated speed : 3440 rpm

Moment of inertia (J) : 0.0002 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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THERMAL LIMIT CURVE

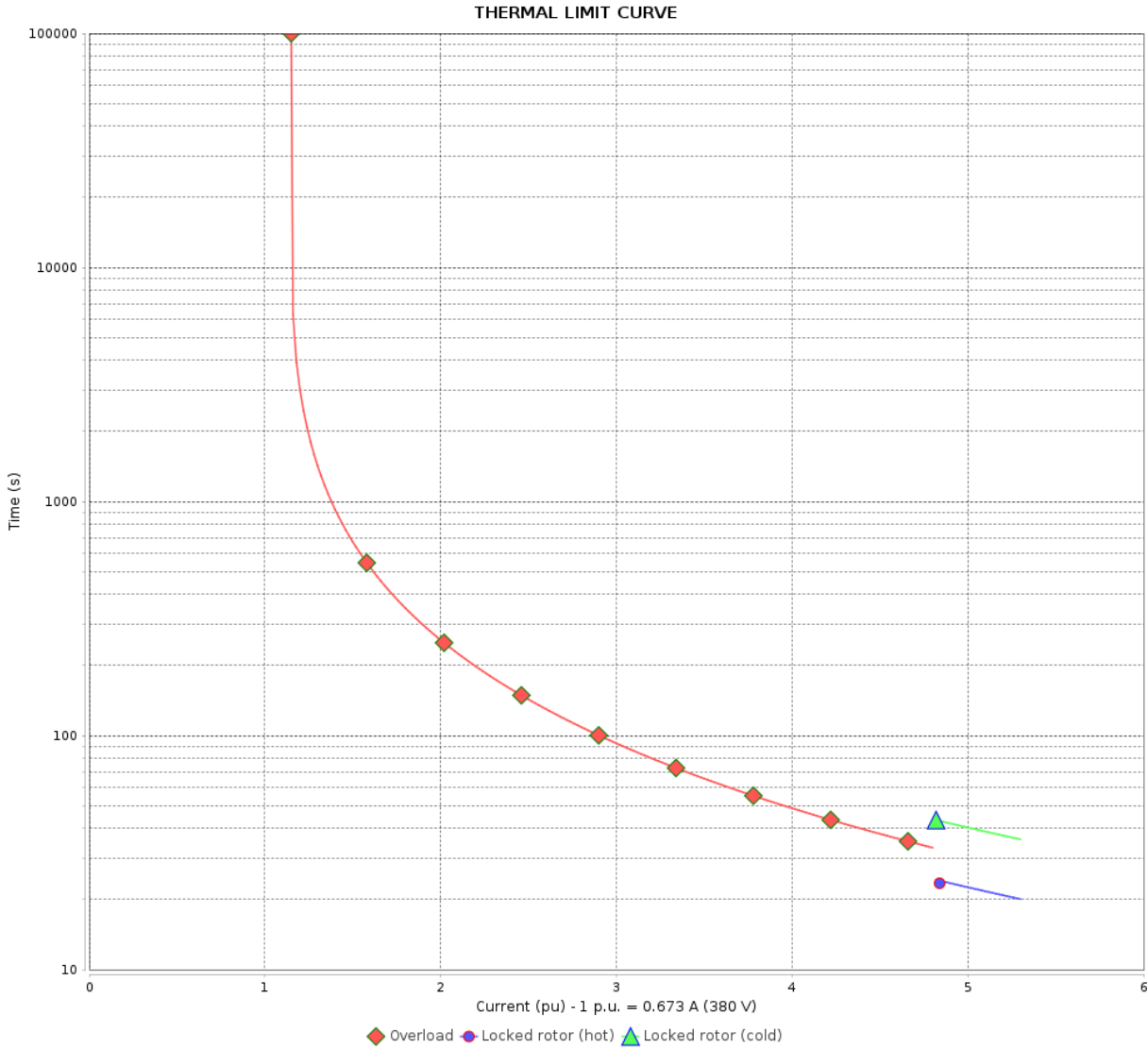
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 Locked rotor torque : 229 %
 Breakdown torque : 240 %
 Rated speed : 2795 rpm

Moment of inertia (J) : 0.0002 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

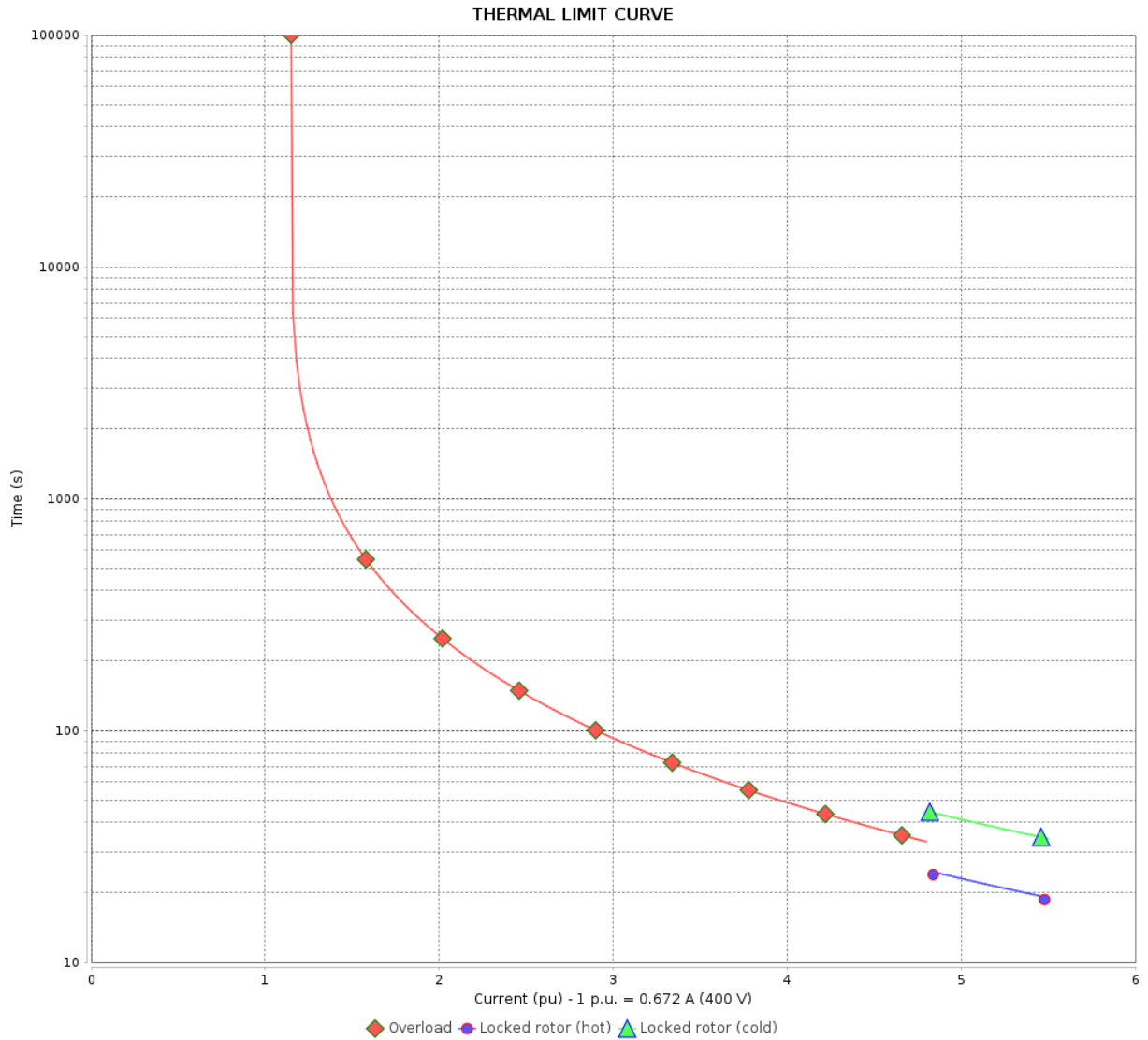
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 Rated speed : 2820 rpm

Moment of inertia (J) : 0.0002 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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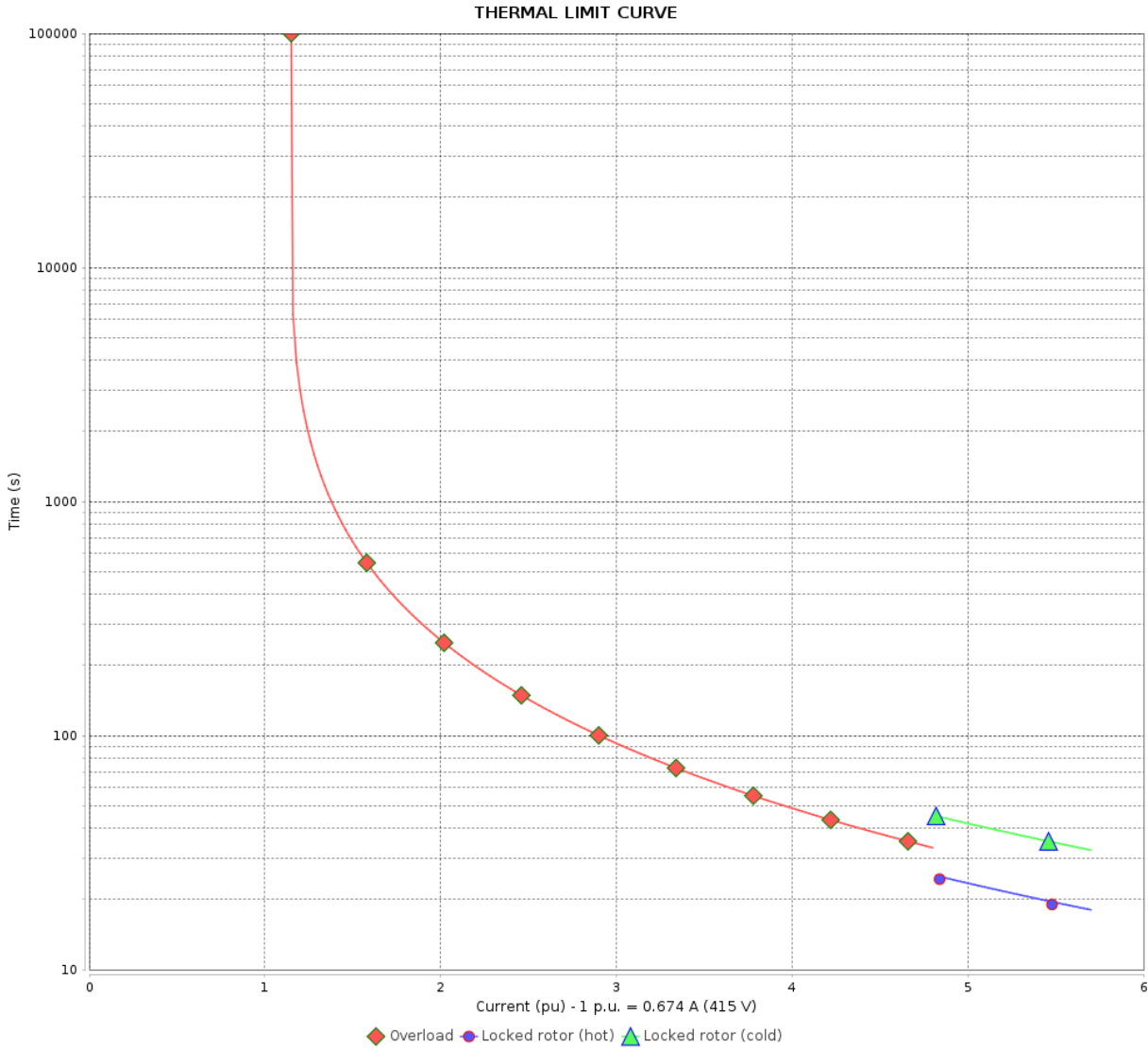
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Customer : Astraprom d.o.o.

Product line : IE3 Three-Phase

Product code : 13749543



Performance : 240/415 V 50 Hz 2P

Rated current : 1.17/0.674 A
 LRC : 5.7
 Rated torque : 0.086 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 290 %
 Rated speed : 2830 rpm

Moment of inertia (J) : 0.0002 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

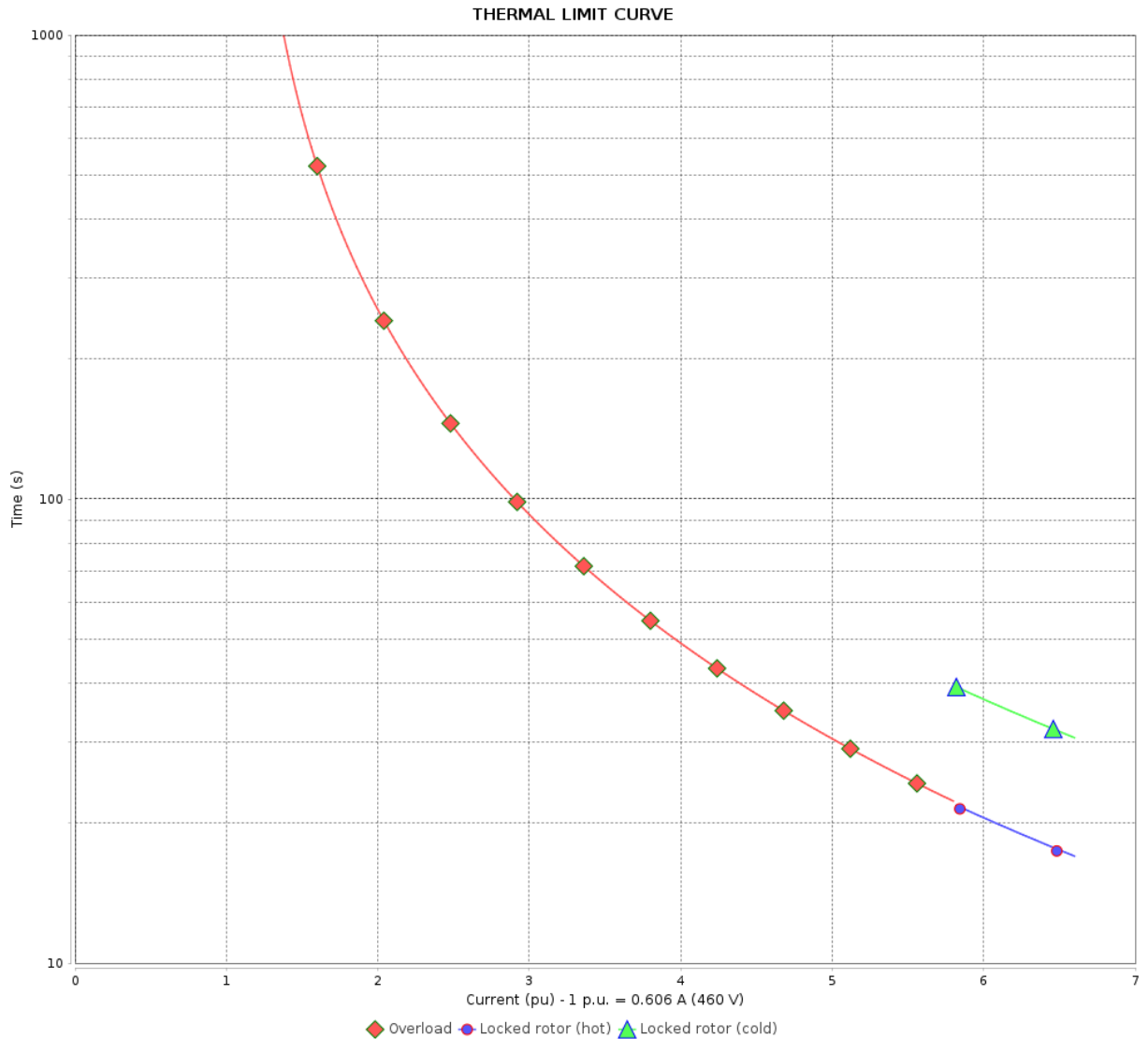
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : IE3 Three-Phase

Product code : 13749543



Performance : 460 V 60 Hz 2P

Rated current	: 0.606 A	Moment of inertia (J)	: 0.0002 kgm ²
LRC	: 6.6	Duty cycle	: S1
Rated torque	: 0.071 kgfm	Insulation class	: F
Locked rotor torque	: 330 %	Service factor	: 1.00
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 3440 rpm	Design	: N

Heating constant

Cooling constant

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VFD OPERATION CURVE

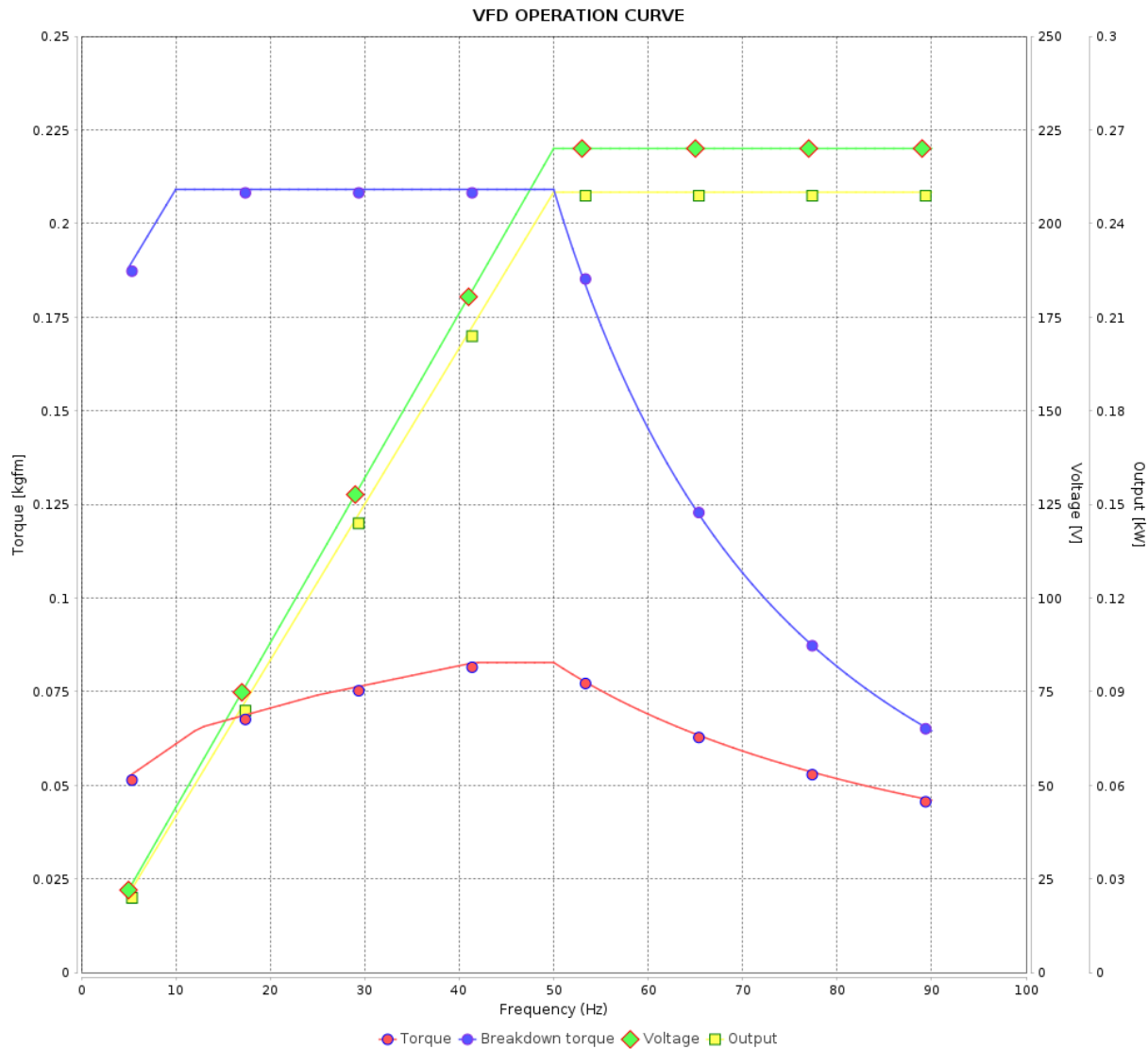
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 Rated torque : 0.087 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 240 %
 Rated speed : 2795 rpm

Moment of inertia (J) : 0.0002 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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VFD OPERATION CURVE

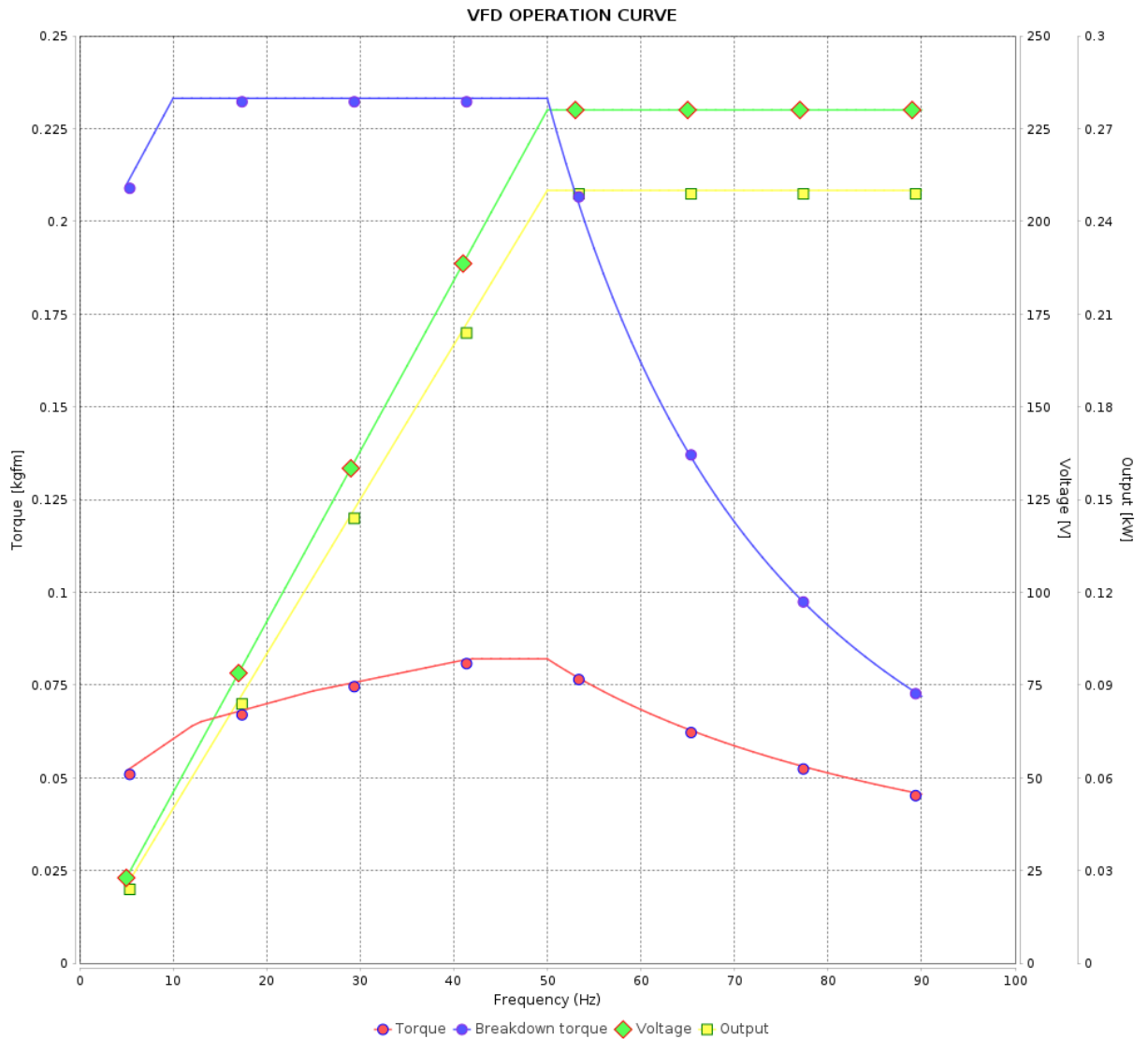
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 LRC : 5.5
 Rated torque : 0.086 kgfm
 Locked rotor torque : 260 %
 Breakdown torque : 270 %
 Rated speed : 2820 rpm

Moment of inertia (J) : 0.0002 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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VFD OPERATION CURVE

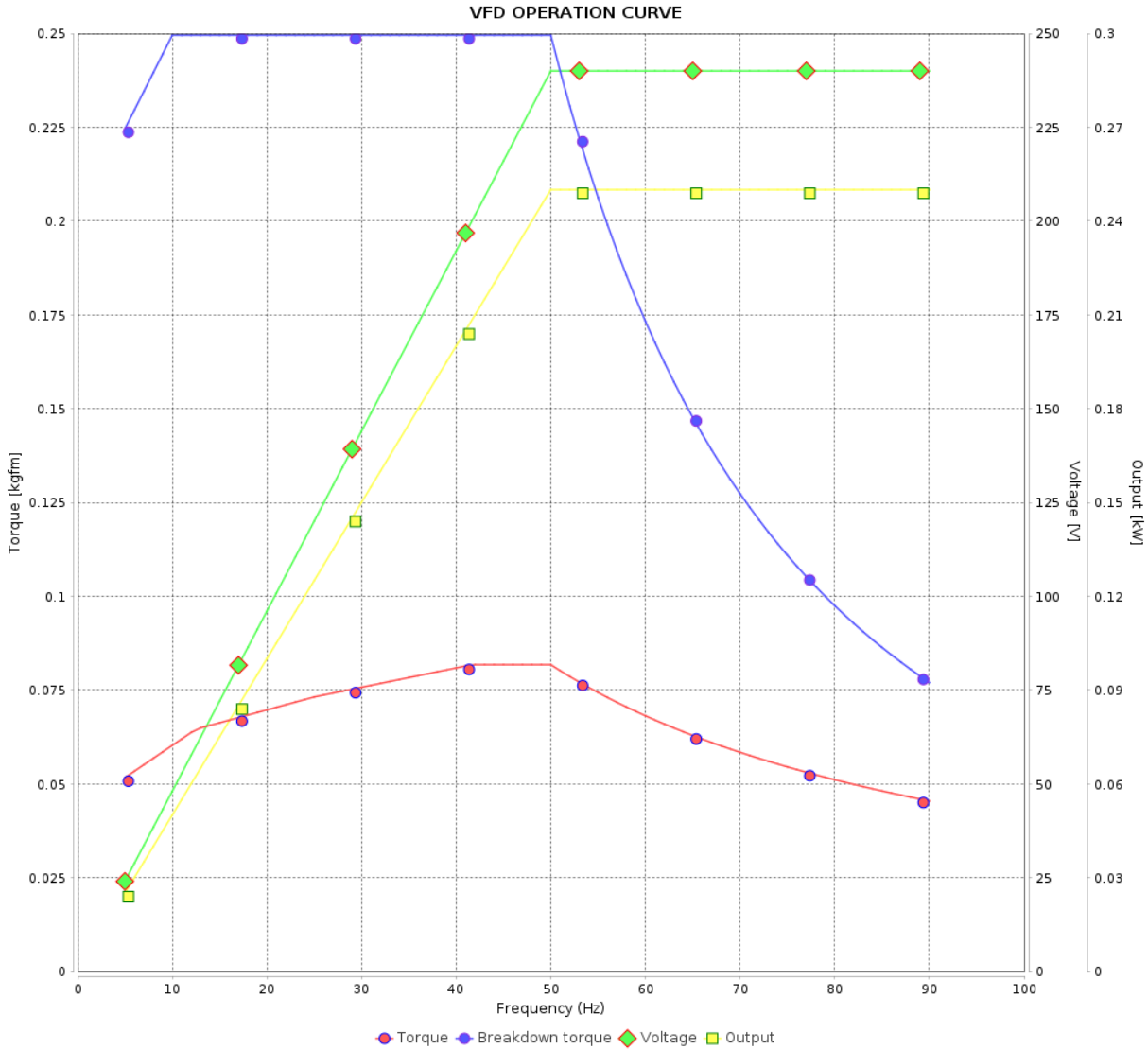
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Performance : 240/415 V 50 Hz 2P

Rated current : 1.17/0.674 A
 LRC : 5.7
 Rated torque : 0.086 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 290 %
 Rated speed : 2830 rpm

Moment of inertia (J) : 0.0002 kgm²
 Duty cycle : S1
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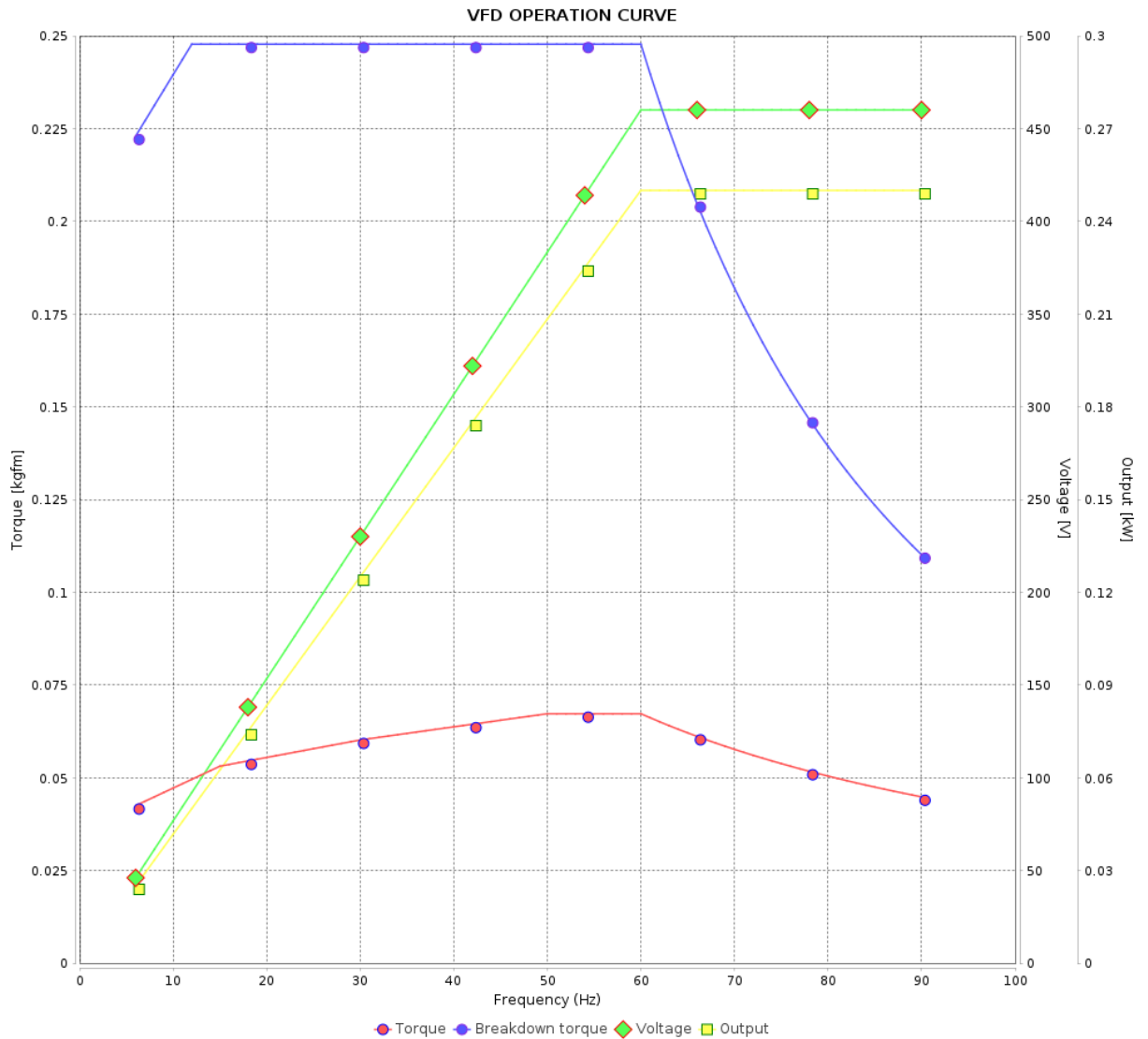
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Customer : Astraprom d.o.o.

Product line : IE3 Three-Phase

Product code : 13749543



Performance : 460 V 60 Hz 2P

Rated current : 0.606 A
 LRC : 6.6
 Rated torque : 0.071 kgfm
 Locked rotor torque : 330 %
 Breakdown torque : 350 %
 Rated speed : 3440 rpm

Moment of inertia (J) : 0.0002 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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