

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer		: Astraprom d.o.o.			
Product line		: Multimounting IE3 Three-Phase		Product code : 13749547	
Frame	: 71	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	: 8.8 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.0007 kgm ²		
Design	: N				
Output [kW]	0.25	0.25	0.25	0.25	0.25
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]	1.24/0.720	1.23/0.710	1.23/0.710	0.640	
L. R. Amperes [A]	5.10/2.95	5.93/3.41	5.89/3.41	3.39	
LRC [A]	4.1	4.8	4.8	5.3	
No load current [A]	0.760/0.440	0.887/0.510	0.934/0.540	0.490	
Rated speed [RPM]	1405	1415	1420	1725	
Slip [%]	6.33	5.67	5.33	4.17	
Rated torque [kgfm]	0.173	0.172	0.171	0.141	
Locked rotor torque [%]	210	240	270	280	
Breakdown torque [%]	220	260	290	310	
Service factor	1.00	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	54s (cold) 30s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)	122s (cold) 68s (hot)	
Noise level ²	43.0 dB(A)	43.0 dB(A)	43.0 dB(A)	47.0 dB(A)	
Efficiency (%)	25%				
	50%	67.0	69.0	65.1	70.0
	75%	69.1	72.0	68.6	72.0
	100%	73.5	73.5	73.4	74.0
Power Factor	25%				
	50%	0.50	0.50	0.48	0.47
	75%	0.63	0.60	0.57	0.57
	100%	0.72	0.69	0.67	0.66
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	34.4	34.4	34.6	33.6
	P2 (0,5;1,0)	31.8	31.8	32.0	31.0
	P3 (0,25;1,0)	34.1	34.1	34.3	33.2
	P4 (0,9;0,5)	19.6	19.6	19.7	19.1
	P5 (0,5;0,5)	15.1	15.1	15.2	14.7
	P6 (0,5;0,25)	11.9	11.9	12.0	11.6
	P7 (0,25;0,25)	9.3	9.3	9.4	9.1
Bearing type	: Drive end 6203 ZZ	Non drive end 6202 ZZ	Foundation loads		
Sealing	: V'Ring	V'Ring	Max. traction	: 11 kgf	
Lubrication interval	: -	-	Max. compression	: 20 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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Customer : Astraprom d.o.o.

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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

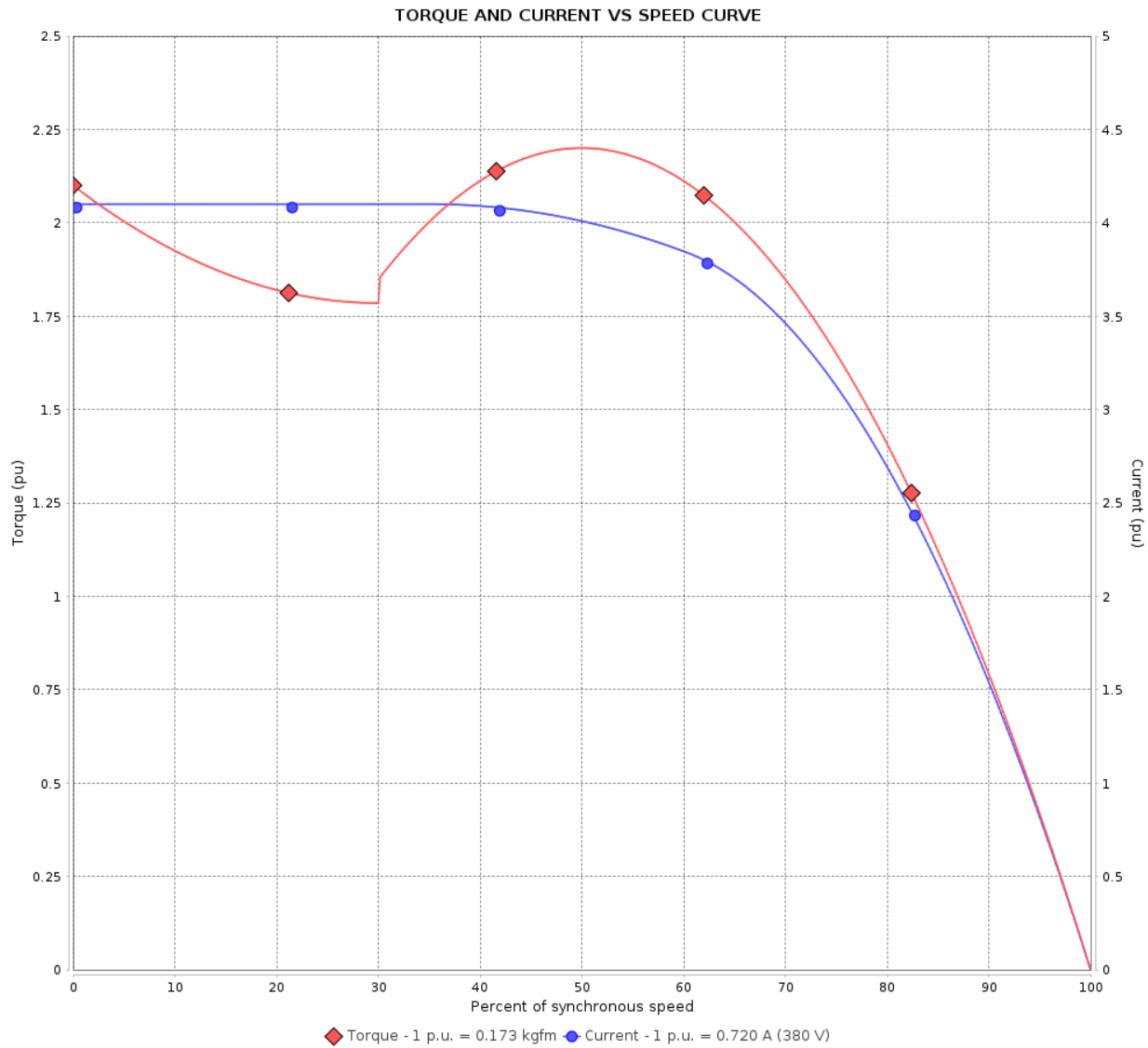
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code : 13749547



Performance : 220/380 V 50 Hz 4P

Rated current	: 1.24/0.720 A	Moment of inertia (J)	: 0.0007 kgm ²
LRC	: 4.1	Duty cycle	: S1
Rated torque	: 0.173 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 1405 rpm	Design	: N

Locked rotor time : 54s (cold) 30s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



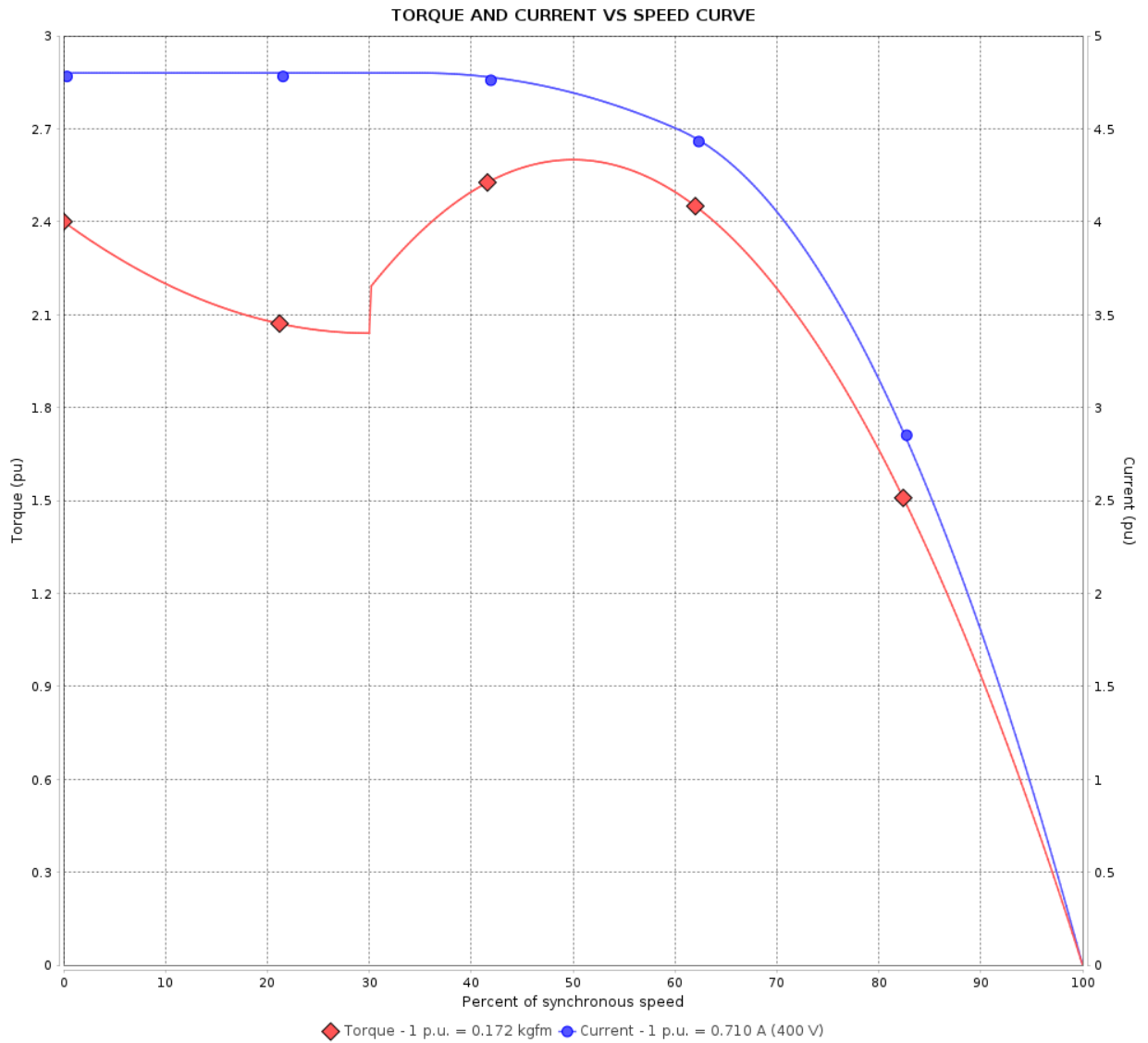
Three Phase Induction Motor - Squirrel Cage

Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code :

13749547



Performance : 230/400 V 50 Hz 4P

Rated current : 1.23/0.710 A
 LRC : 4.8
 Rated torque : 0.172 kgfm
 Locked rotor torque : 240 %
 Breakdown torque : 260 %
 Rated speed : 1415 rpm

Moment of inertia (J) : 0.0007 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Locked rotor time : 54s (cold) 30s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

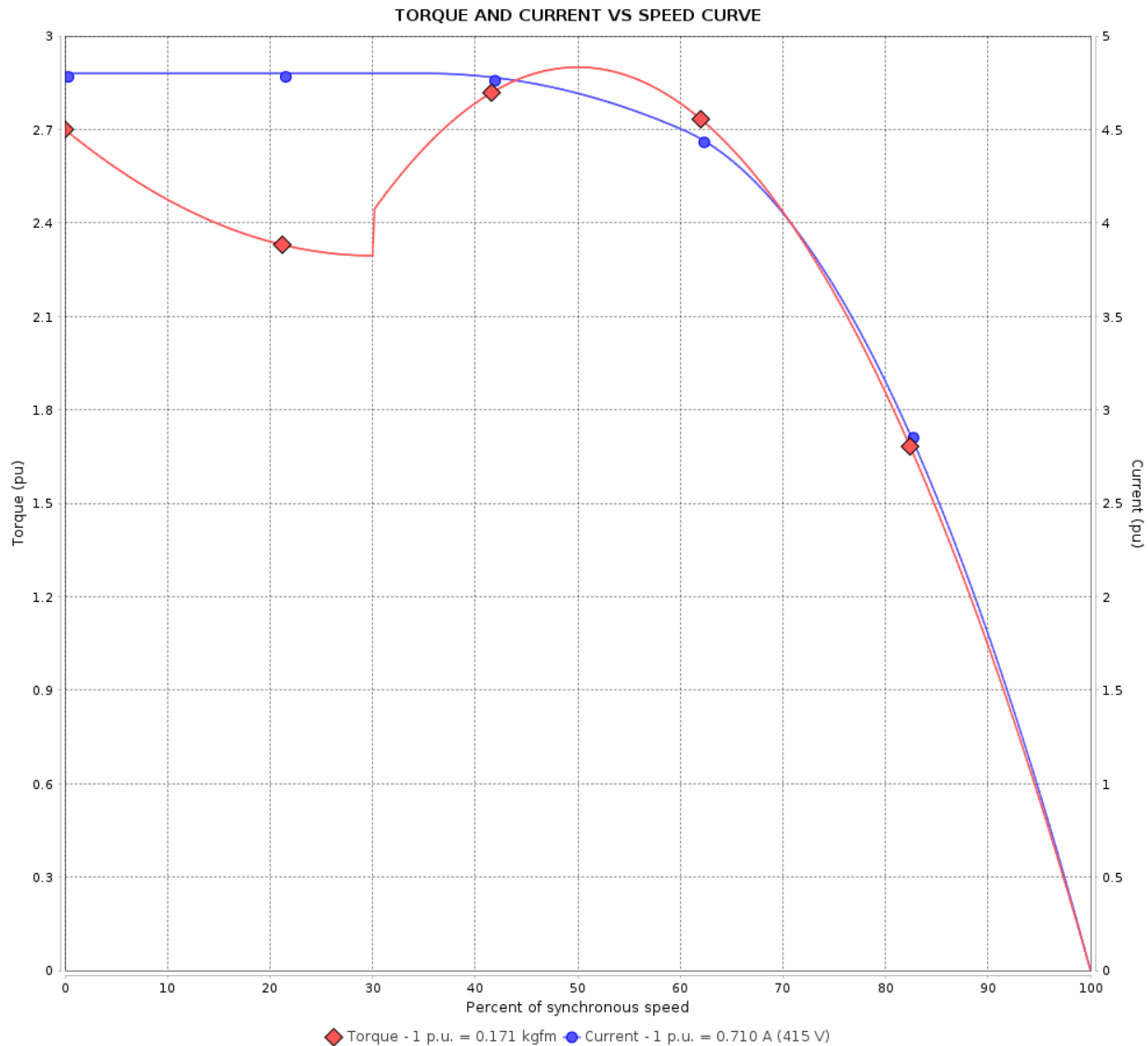
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code : 13749547



Performance : 240/415 V 50 Hz 4P

Rated current	: 1.23/0.710 A	Moment of inertia (J)	: 0.0007 kgm ²
LRC	: 4.8	Duty cycle	: S1
Rated torque	: 0.171 kgfm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1420 rpm	Design	: N

Locked rotor time : 54s (cold) 30s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

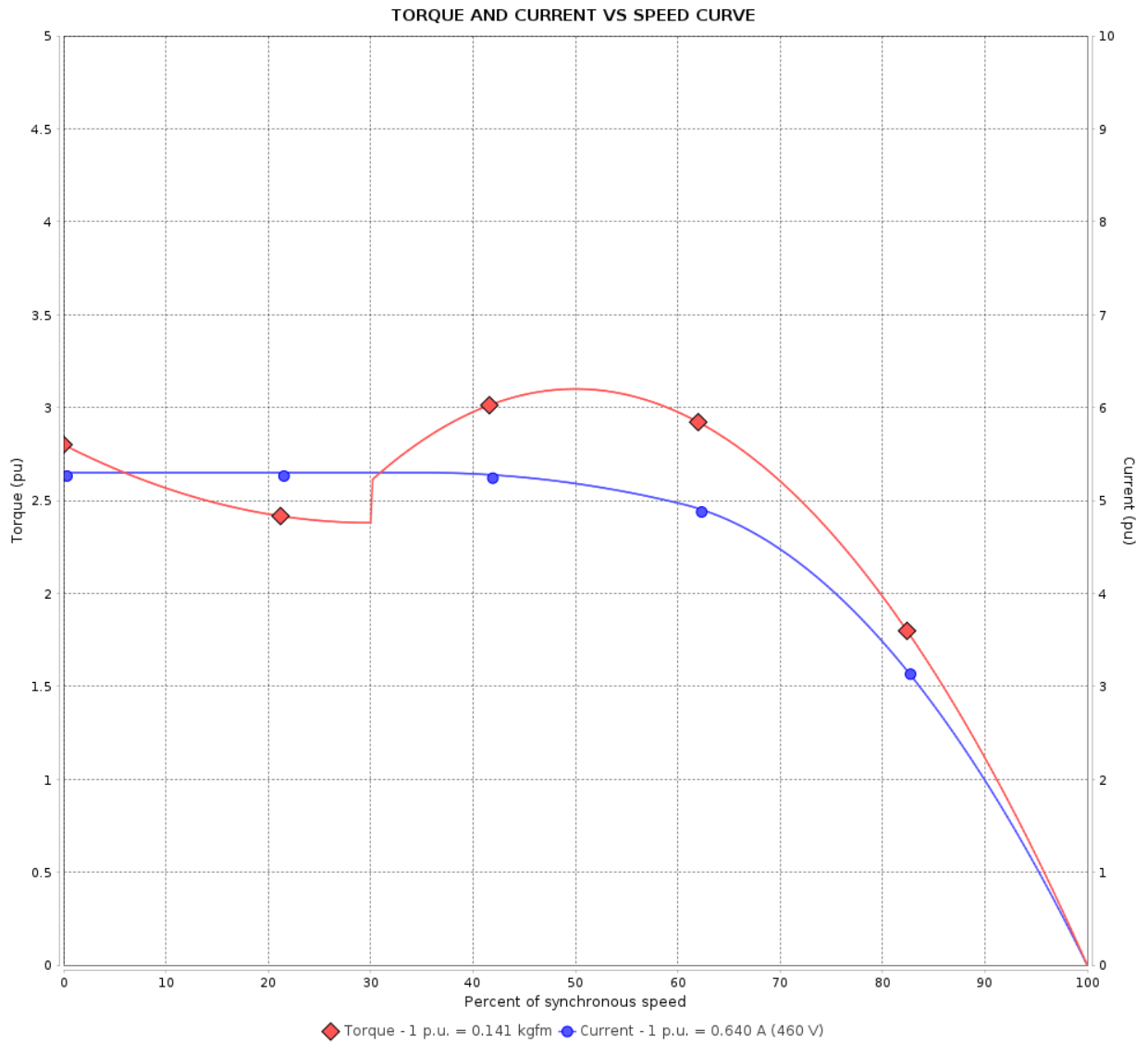


Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code :

13749547



Performance : 460 V 60 Hz 4P

Rated current	: 0.640 A	Moment of inertia (J)	: 0.0007 kgm ²
LRC	: 5.3	Duty cycle	: S1
Rated torque	: 0.141 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1725 rpm	Design	: N

Locked rotor time : 122s (cold) 68s (hot)

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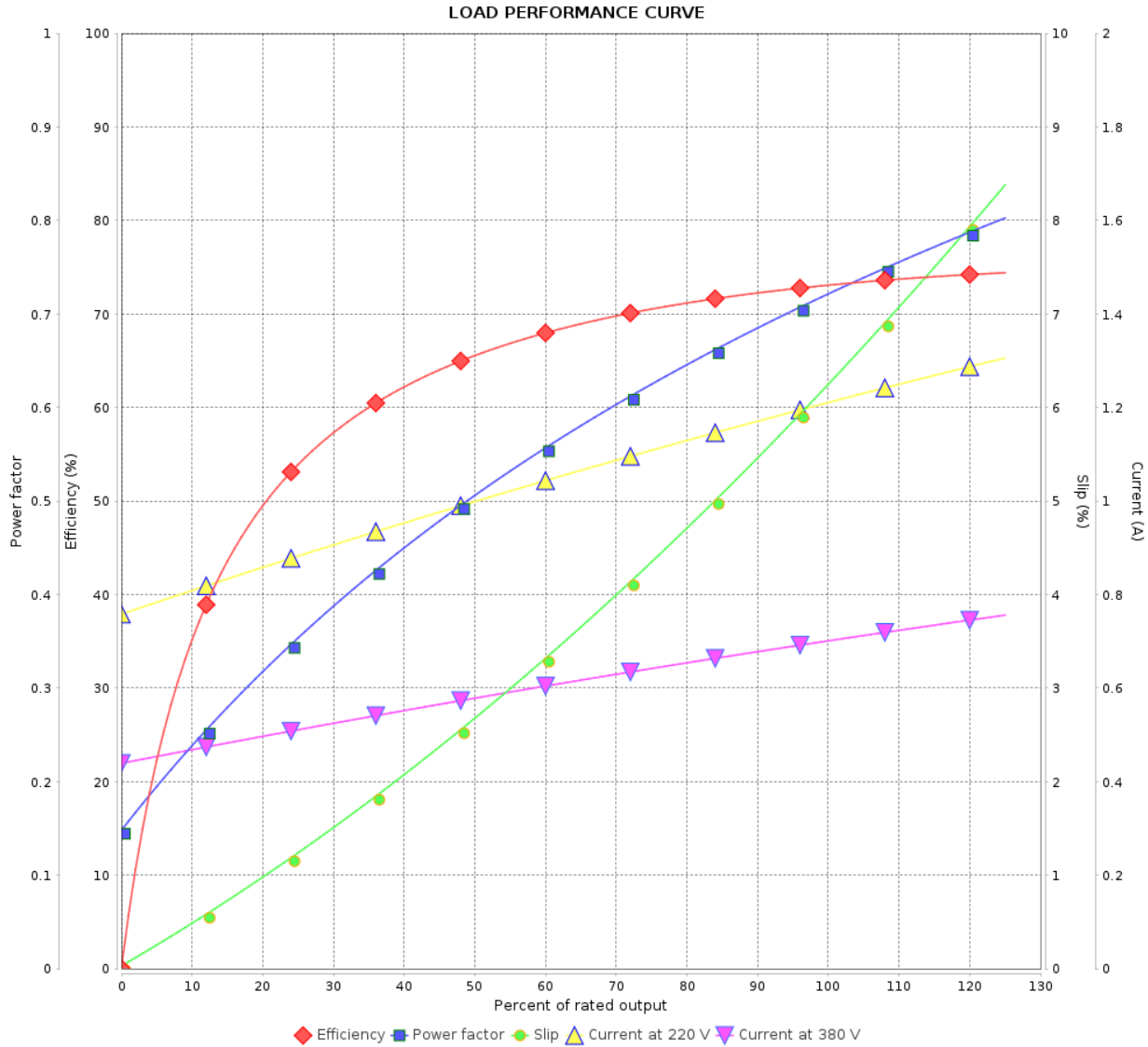
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code : 13749547



Performance : 220/380 V 50 Hz 4P

Rated current : 1.24/0.720 A
 LRC : 4.1
 Rated torque : 0.173 kgfm
 Locked rotor torque : 210 %
 Breakdown torque : 220 %
 Rated speed : 1405 rpm

Moment of inertia (J) : 0.0007 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

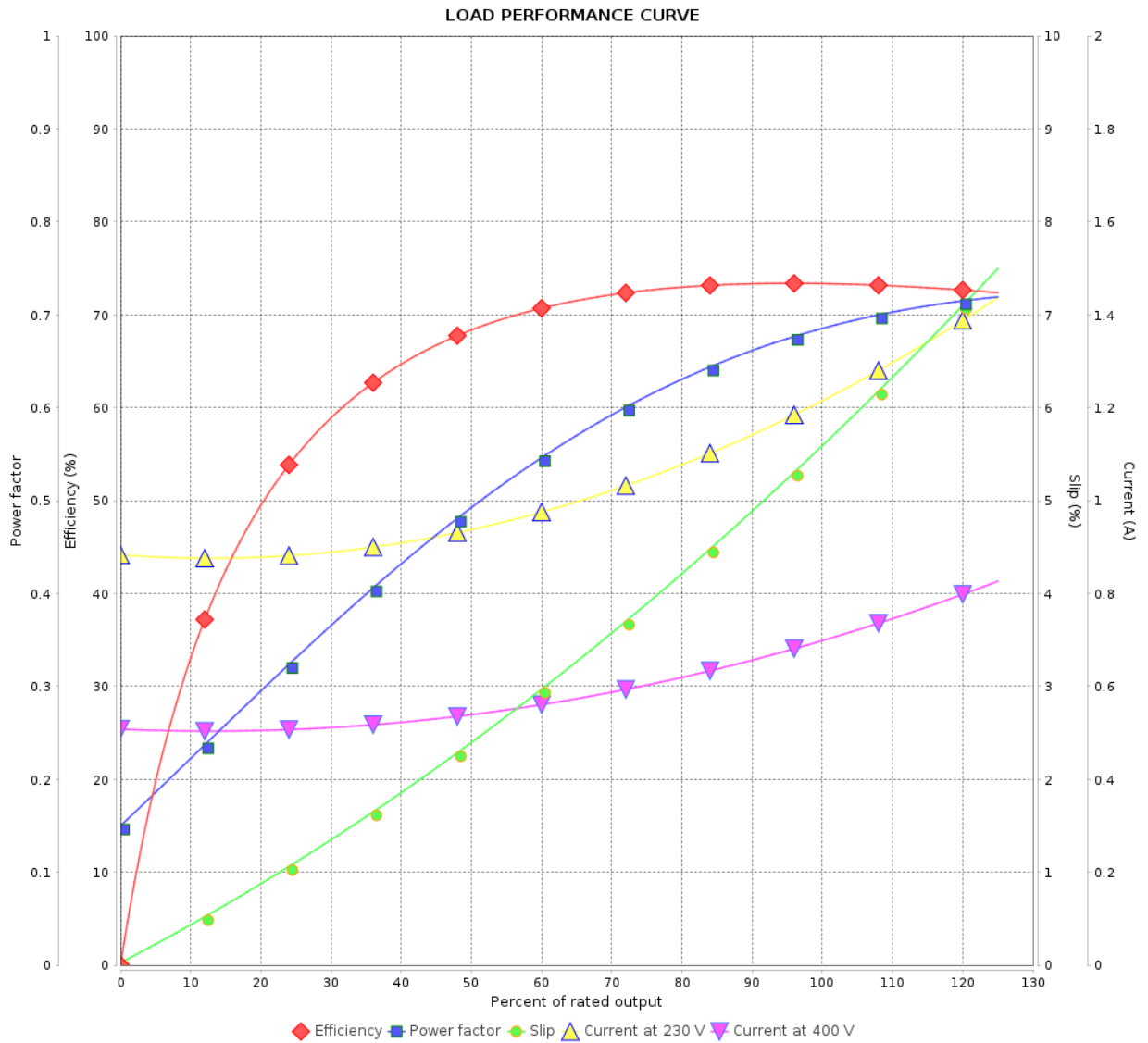


Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code :

13749547



Performance : 230/400 V 50 Hz 4P

Rated current : 1.23/0.710 A
 LRC : 4.8
 Rated torque : 0.172 kgfm
 Locked rotor torque : 240 %
 Breakdown torque : 260 %
 Rated speed : 1415 rpm

Moment of inertia (J) : 0.0007 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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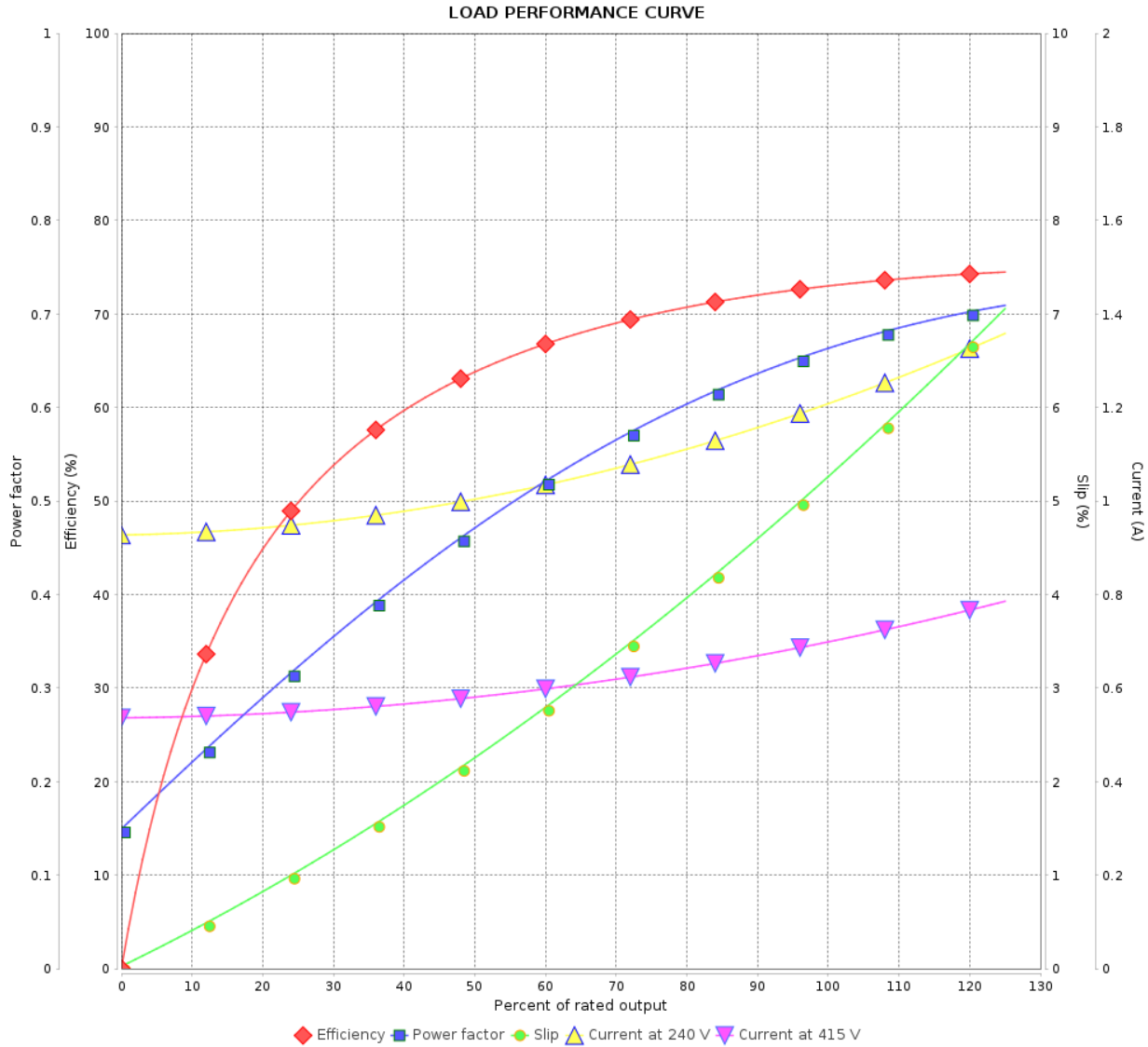
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code : 13749547



Performance : 240/415 V 50 Hz 4P

Rated current : 1.23/0.710 A
 LRC : 4.8
 Rated torque : 0.171 kgfm
 Locked rotor torque : 270 %
 Breakdown torque : 290 %
 Rated speed : 1420 rpm

Moment of inertia (J) : 0.0007 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

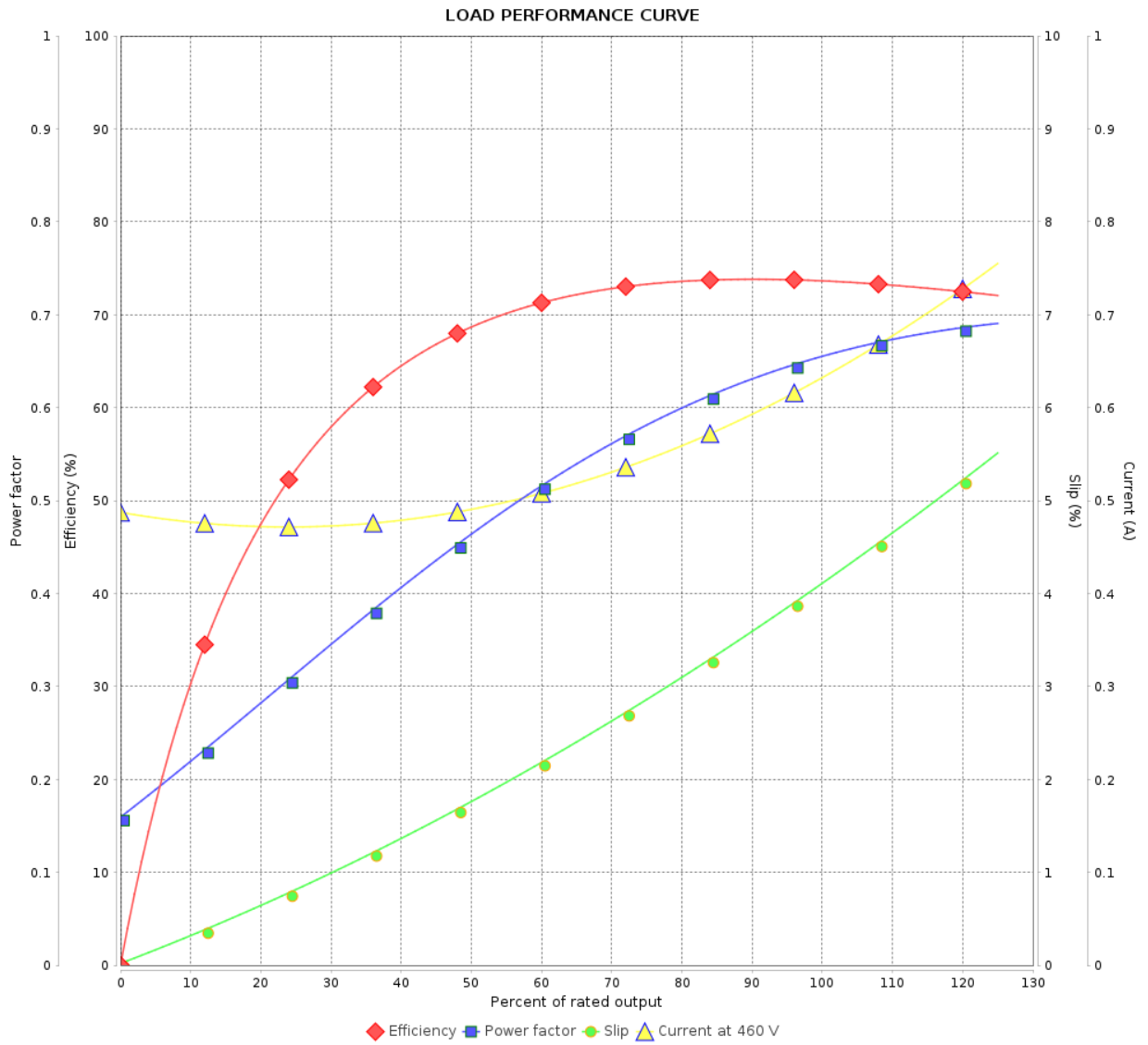


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Product code :

13749547



Performance : 460 V 60 Hz 4P

Rated current : 0.640 A
 LRC : 5.3
 Rated torque : 0.141 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 310 %
 Rated speed : 1725 rpm

Moment of inertia (J) : 0.0007 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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THERMAL LIMIT CURVE

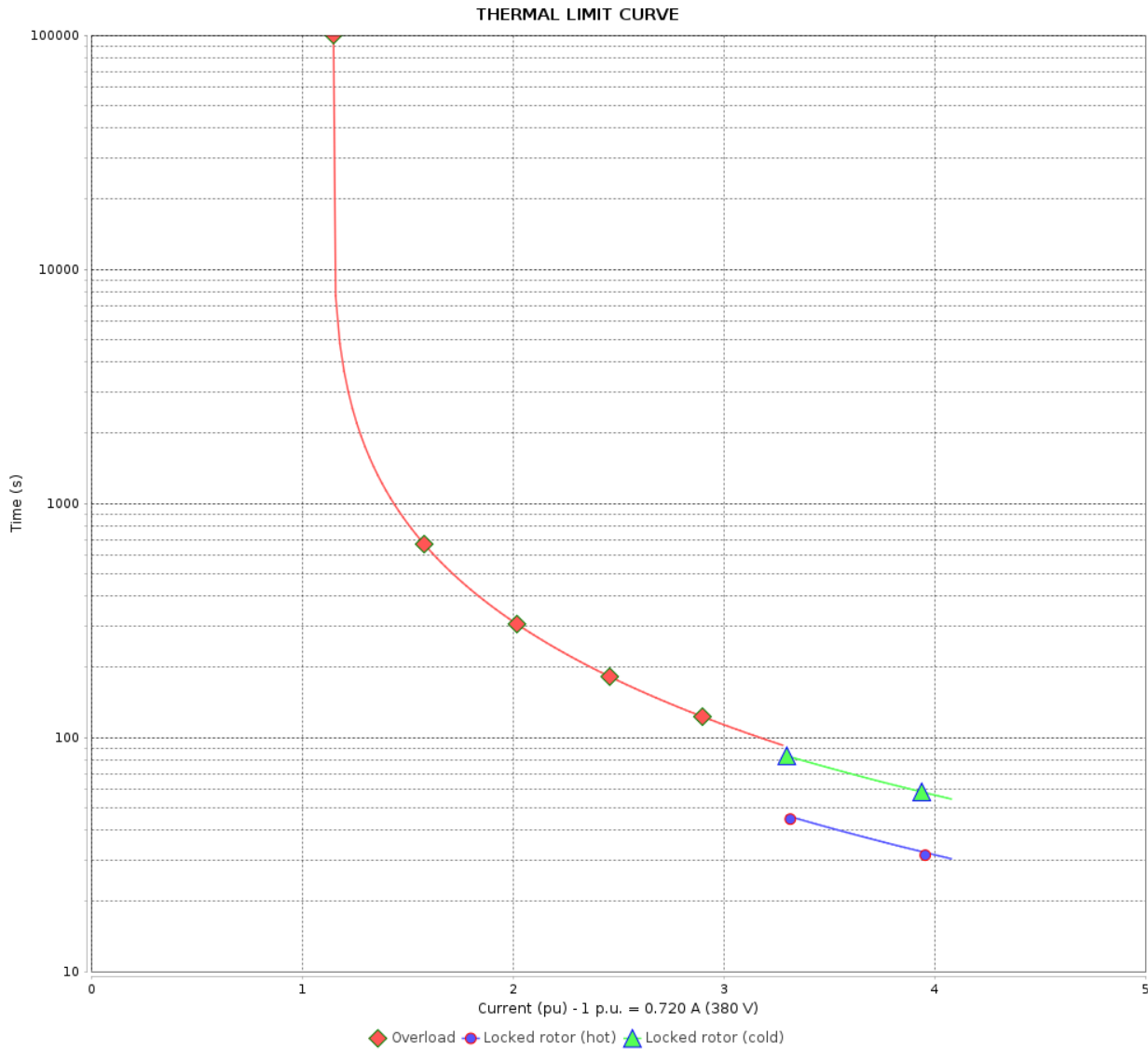
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LRC	: 4.1	Duty cycle	: S1
Rated torque	: 0.173 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 1405 rpm	Design	: N

Heating constant

Cooling constant

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THERMAL LIMIT CURVE

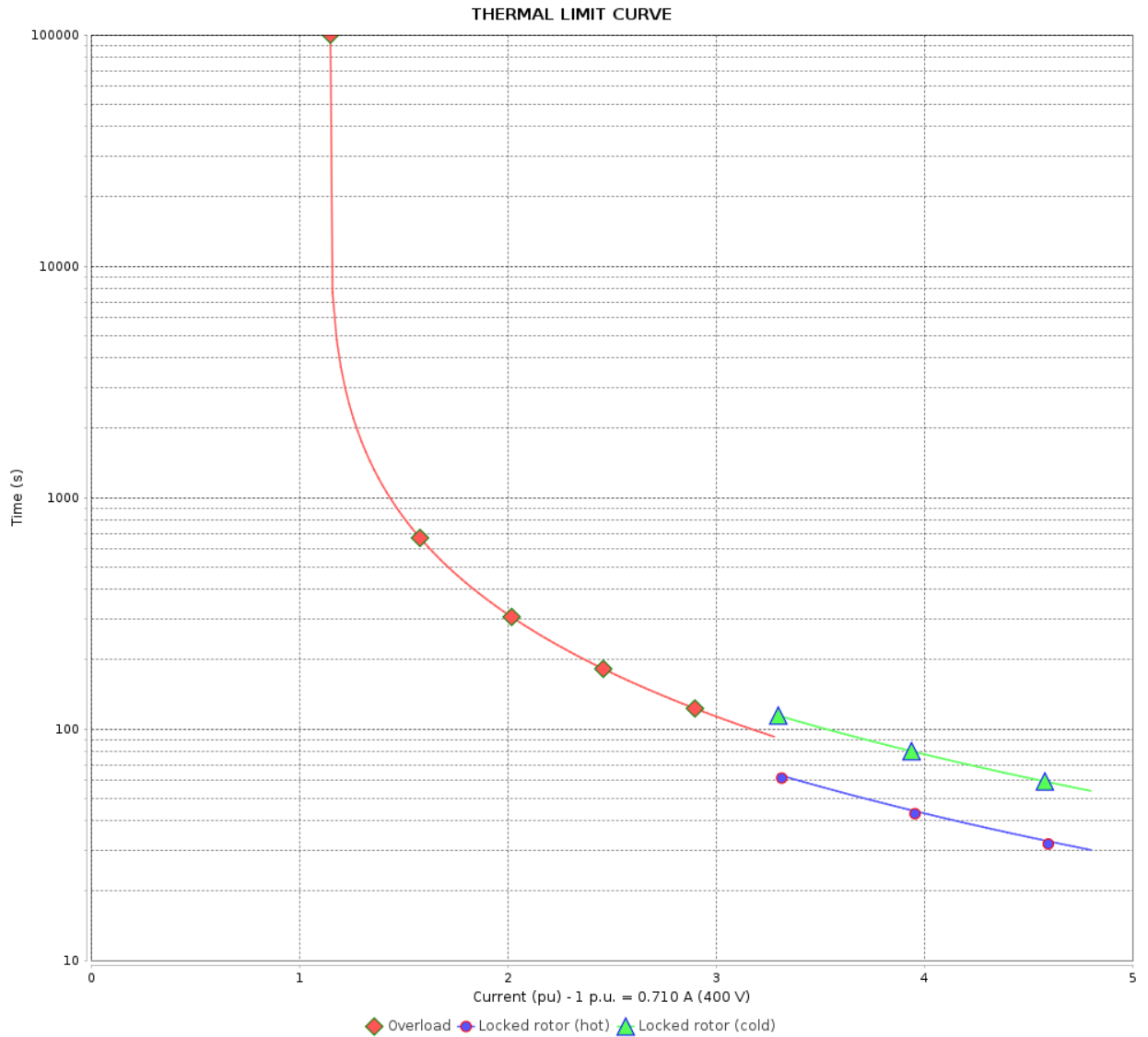
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 Rated speed : 1415 rpm

Moment of inertia (J) : 0.0007 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

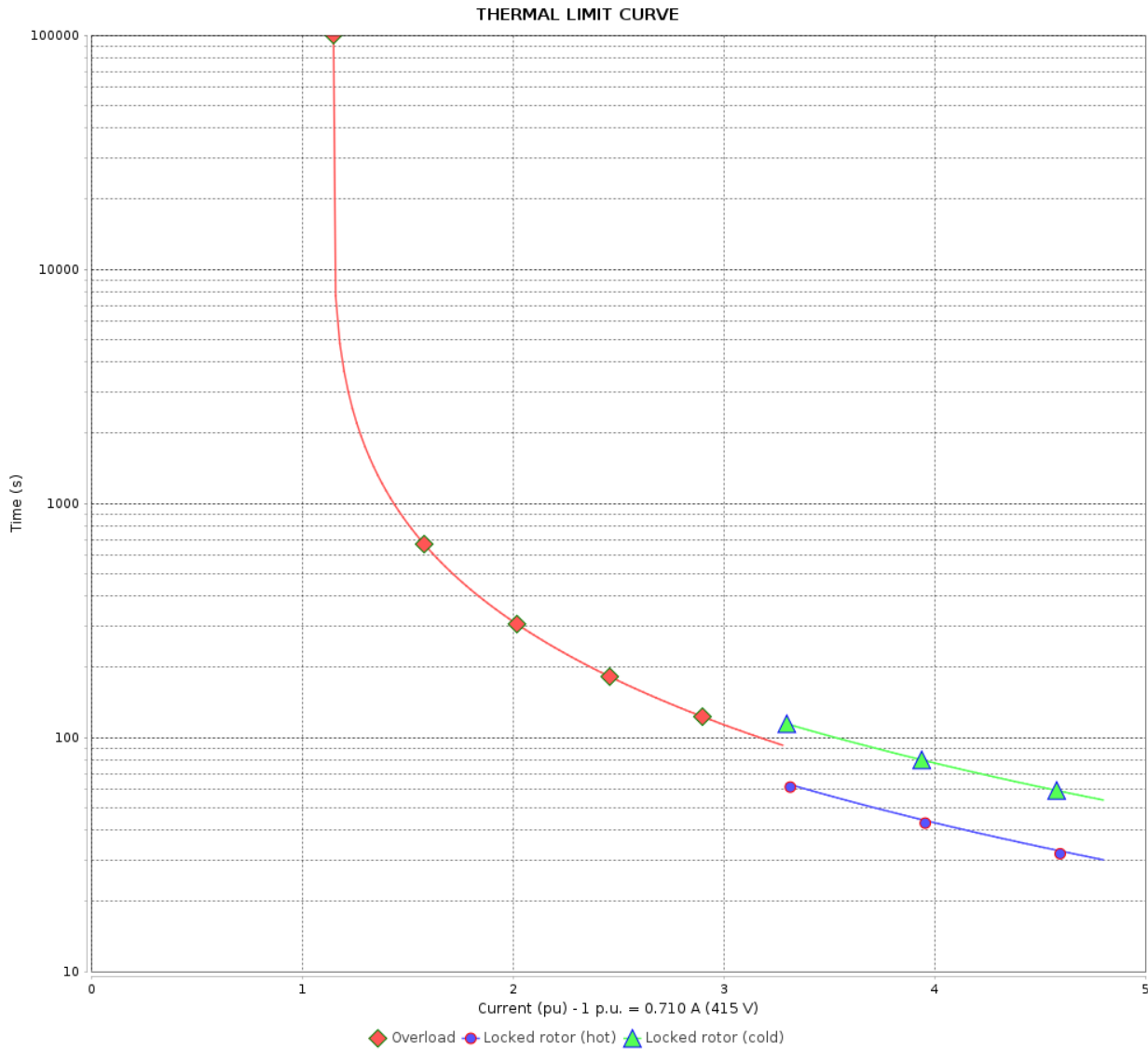
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 Rated speed : 1420 rpm

Moment of inertia (J) : 0.0007 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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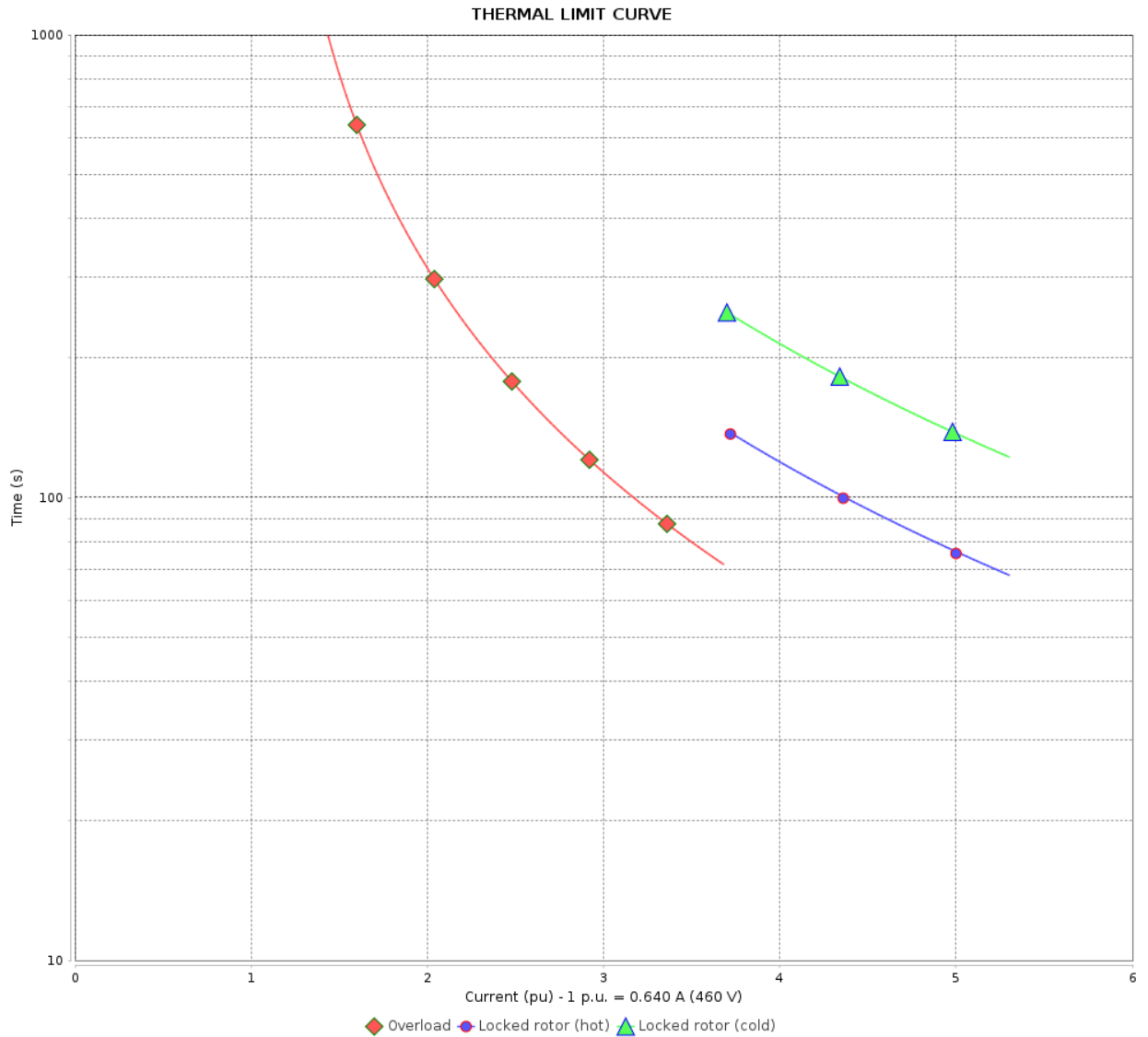
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code : 13749547



Performance : 460 V 60 Hz 4P

Rated current : 0.640 A
 LRC : 5.3
 Rated torque : 0.141 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 310 %
 Rated speed : 1725 rpm

Moment of inertia (J) : 0.0007 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

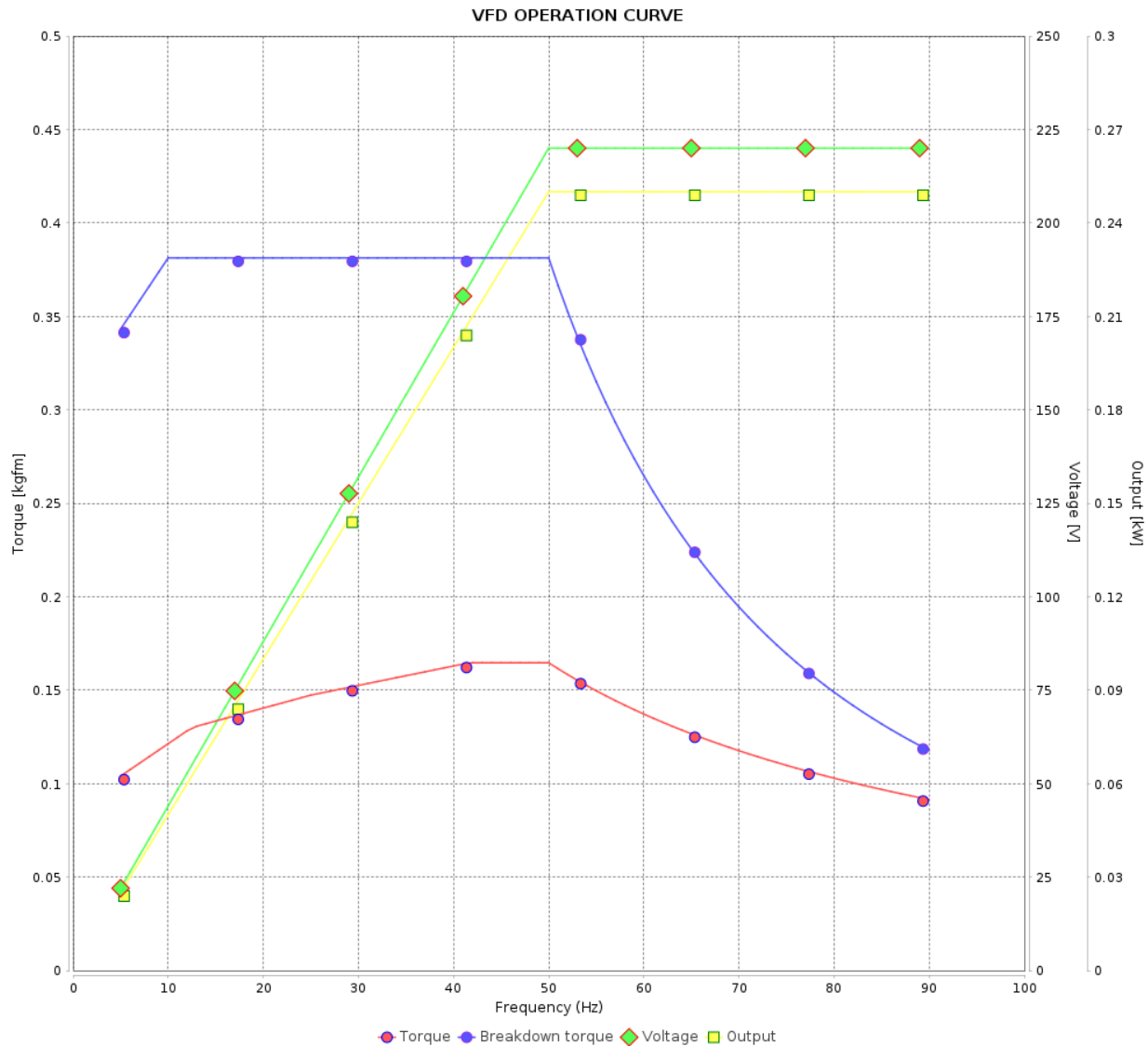
Three Phase Induction Motor - Squirrel Cage



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Performance : 220/380 V 50 Hz 4P

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 LRC : 4.1
 Rated torque : 0.173 kgfm
 Locked rotor torque : 210 %
 Breakdown torque : 220 %
 Rated speed : 1405 rpm

Moment of inertia (J) : 0.0007 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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VFD OPERATION CURVE

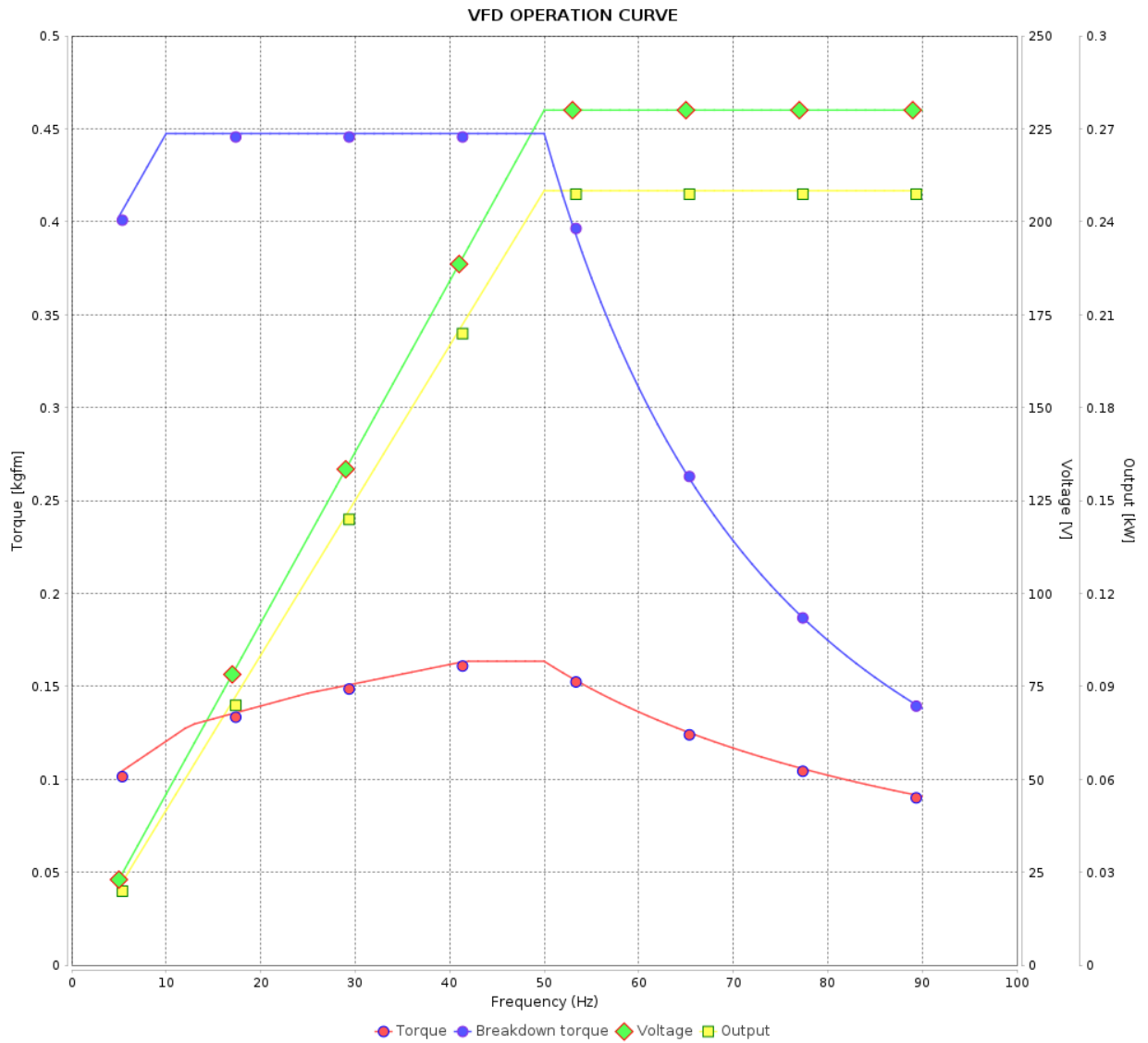
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code : 13749547



Performance : 230/400 V 50 Hz 4P

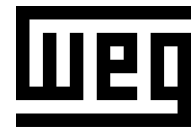
Rated current : 1.23/0.710 A
 LRC : 4.8
 Rated torque : 0.172 kgfm
 Locked rotor torque : 240 %
 Breakdown torque : 260 %
 Rated speed : 1415 rpm

Moment of inertia (J) : 0.0007 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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VFD OPERATION CURVE

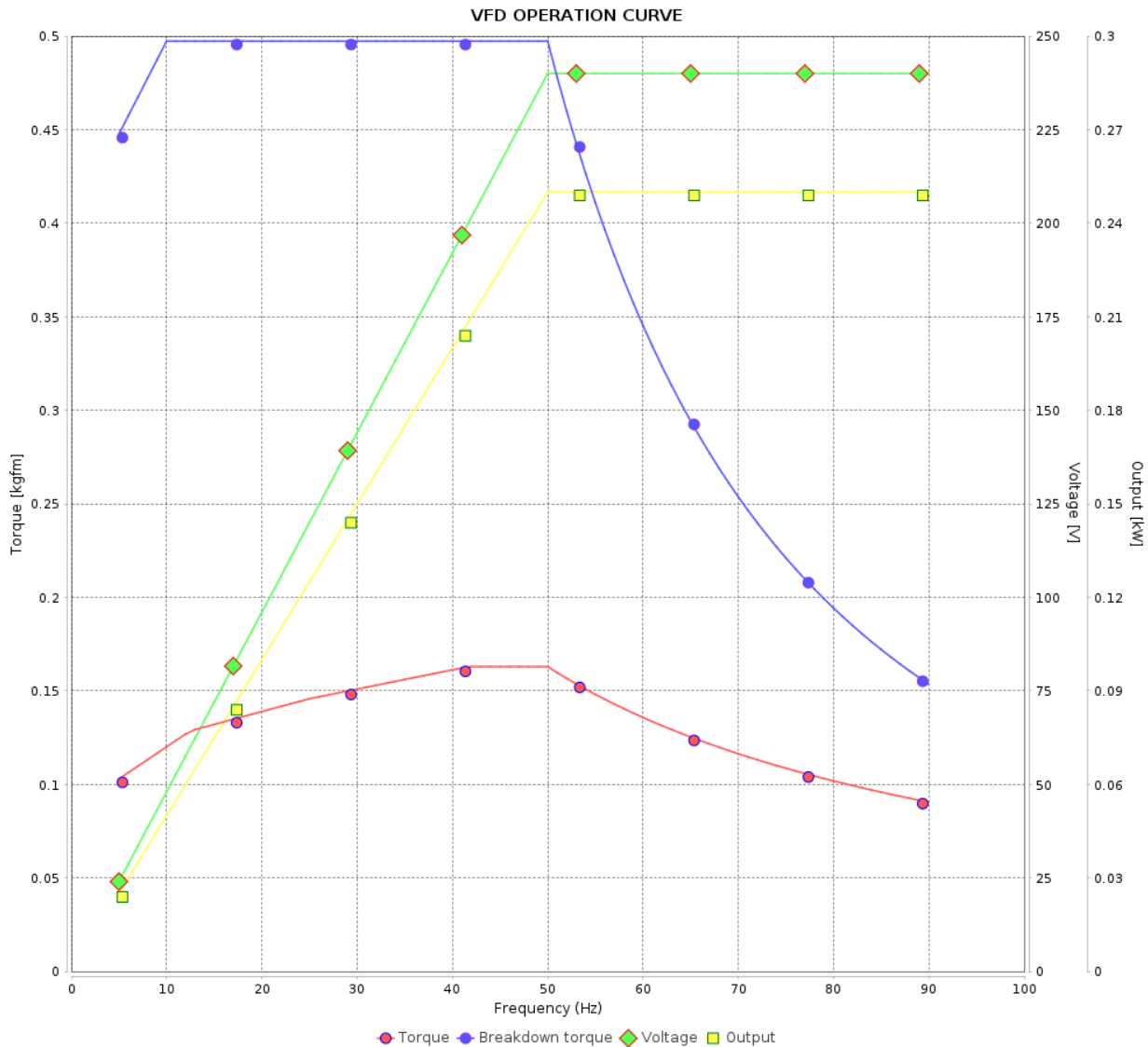
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Customer : Astraprom d.o.o.

Product line : Multimounting IE3 Three-Phase

Product code : 13749547



Performance : 240/415 V 50 Hz 4P

Rated current : 1.23/0.710 A
 LRC : 4.8
 Rated torque : 0.171 kgfm
 Locked rotor torque : 270 %
 Breakdown torque : 290 %
 Rated speed : 1420 rpm

Moment of inertia (J) : 0.0007 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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VFD OPERATION CURVE

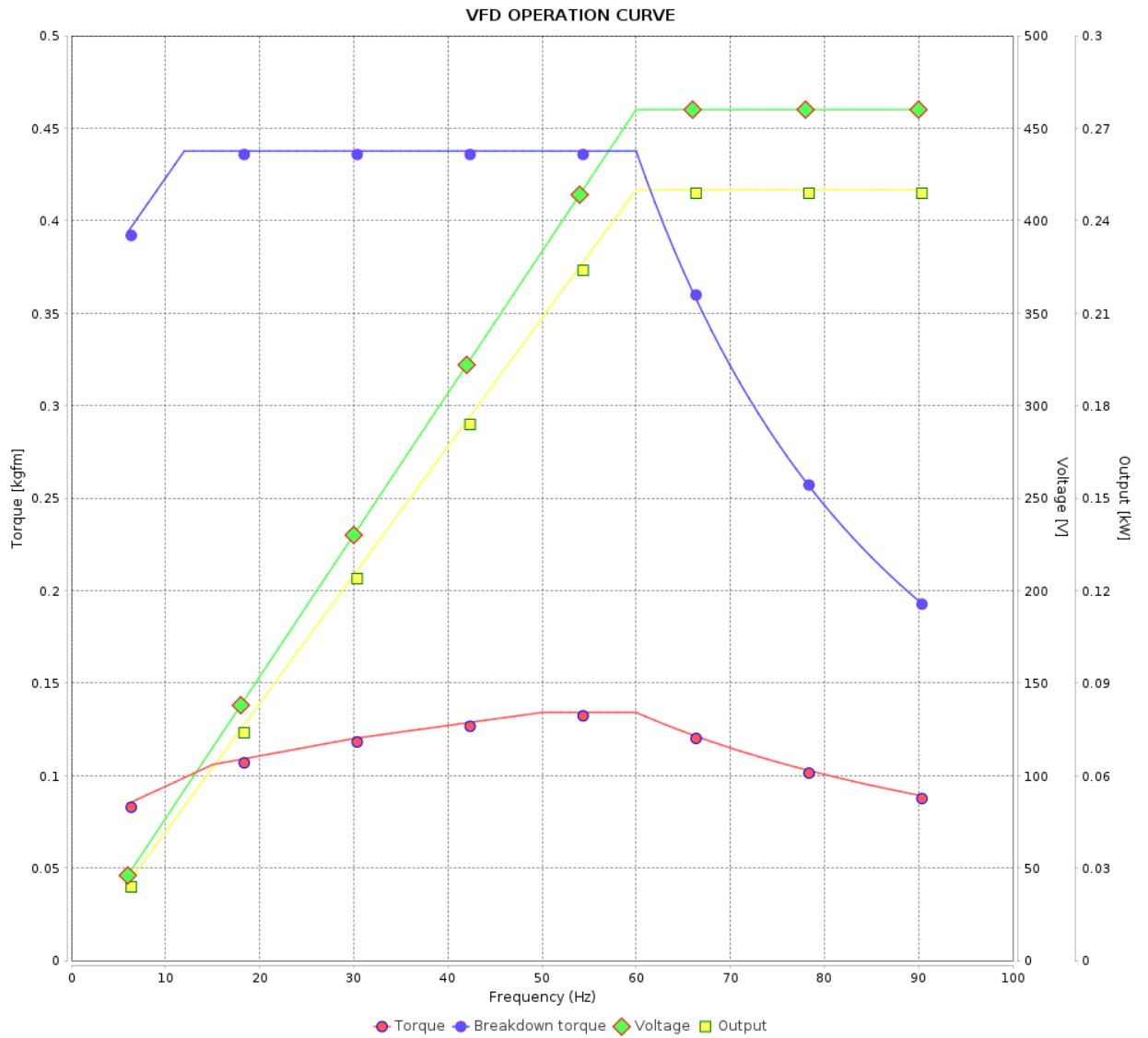
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Product line : Multimounting IE3 Three-Phase

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Performance : 460 V 60 Hz 4P

Rated current : 0.640 A
 LRC : 5.3
 Rated torque : 0.141 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 310 %
 Rated speed : 1725 rpm

Moment of inertia (J) : 0.0007 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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