

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer		: Astraprom d.o.o.			
Product line		: IE3 Three-Phase		Product code : 12862707	
Frame	: 132M/L	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 ³	: 85.9 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.0755 kgm ²		
Design	: N				
Output [kW]	5.5	5.5	5.5	5.5	5.5
Poles	6	6	6	6	6
Frequency [Hz]	50	50	50	50	60
Rated voltage [V]	380/660	400/690	415	460	460
Rated current [A]	12.7/7.31	12.9/7.48	13.0	10.8	10.8
L. R. Amperes [A]	88.9/51.2	94.2/54.6	98.8	86.4	86.4
LRC [A]	7.0	7.3	7.6	8.0	8.0
No load current [A]	7.00/4.03	7.60/4.41	8.20	6.90	6.90
Rated speed [RPM]	965	970	975	1174	1174
Slip [%]	3.50	3.00	2.50	2.17	2.17
Rated torque [kgfm]	5.55	5.52	5.49	5.22	5.22
Locked rotor torque [%]	220	260	300	270	270
Breakdown torque [%]	240	280	310	310	310
Service factor	1.00	1.00	1.00	1.25	1.25
Temperature rise	80 K	80 K	80 K	80 K	80 K
Locked rotor time	46s (cold) 26s (hot)	46s (cold) 26s (hot)	46s (cold) 26s (hot)	57s (cold) 32s (hot)	57s (cold) 32s (hot)
Noise level ²	53.0 dB(A)	53.0 dB(A)	53.0 dB(A)	55.0 dB(A)	55.0 dB(A)
Efficiency (%)	25%	0.000	0.000	0.000	0.000
	50%	87.4	86.5	85.8	85.5
	75%	88.3	88.0	87.7	88.5
	100%	88.0	88.0	88.0	91.0
Power Factor	25%	0.00	0.00	0.00	0.00
	50%	0.55	0.50	0.47	0.48
	75%	0.68	0.64	0.60	0.61
	100%	0.75	0.70	0.67	0.70
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	12.9	12.9	12.9	9.4
	P2 (0,5;1,0)	11.0	11.0	11.0	8.0
	P3 (0,25;1,0)	10.9	10.9	10.9	7.9
	P4 (0,9;0,5)	6.6	6.6	6.6	4.8
	P5 (0,5;0,5)	4.8	4.8	4.8	3.5
	P6 (0,5;0,25)	3.5	3.5	3.5	2.5
	P7 (0,25;0,25)	2.6	2.6	2.6	1.9
Bearing type	: Drive end 6308 ZZ	Non drive end 6207 ZZ	Foundation loads		
Sealing	: V'Ring	V'Ring	Max. traction	: 219 kgf	
Lubrication interval	: 0 h	0 h	Max. compression	: 304 kgf	
Lubricant amount	: 0 g	0 g			
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.

Notes

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TORQUE AND CURRENT VS SPEED CURVE

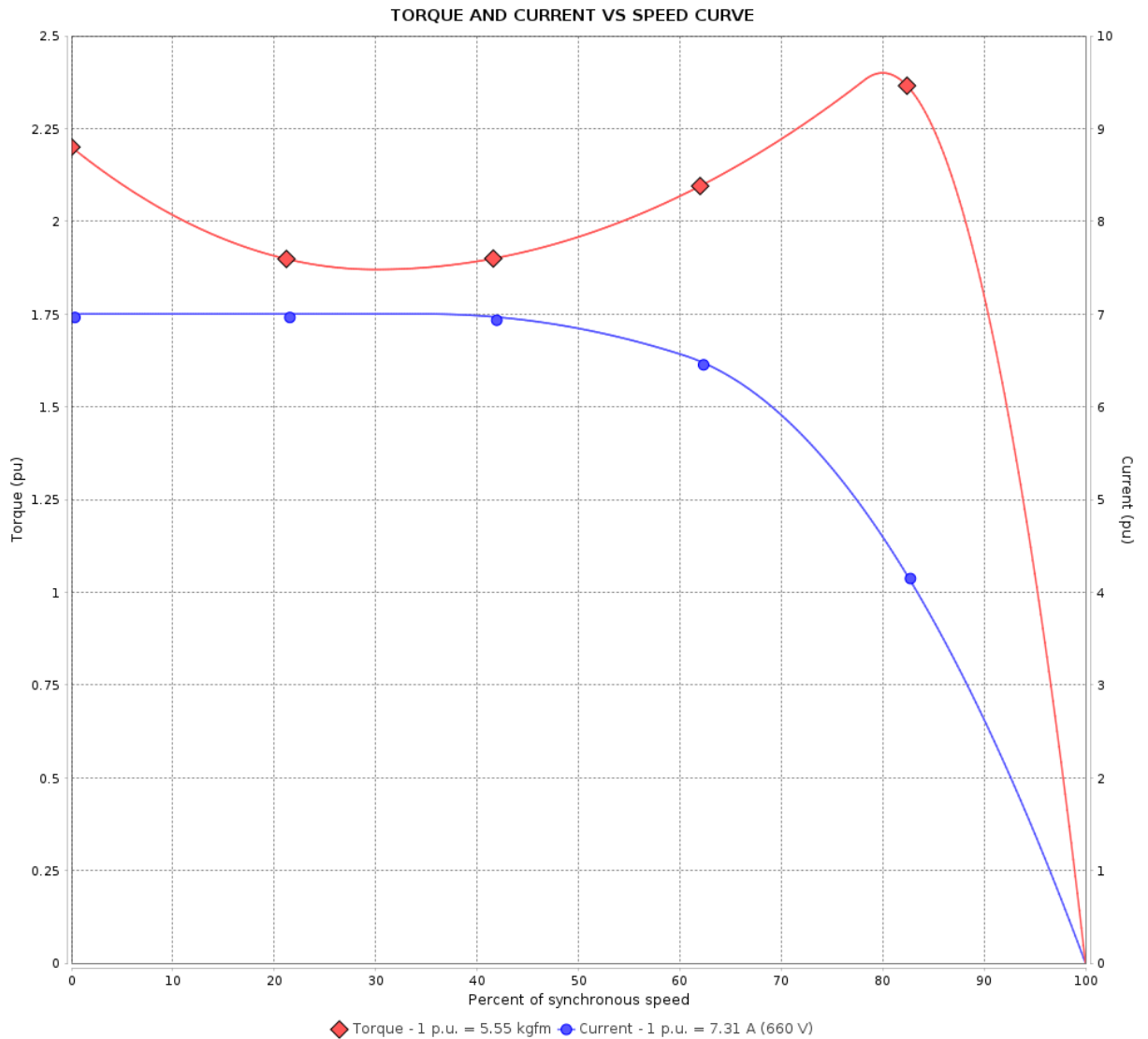


Three Phase Induction Motor - Squirrel Cage

Customer : Astraprom d.o.o.

Product line : IE3 Three-Phase

Product code : 12862707



Performance : 380/660 V 50 Hz 6P

Rated current : 12.7/7.31 A
 LRC : 7.0
 Rated torque : 5.55 kgfm
 Locked rotor torque : 220 %
 Breakdown torque : 240 %
 Rated speed : 965 rpm

Moment of inertia (J) : 0.0755 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Locked rotor time : 46s (cold) 26s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

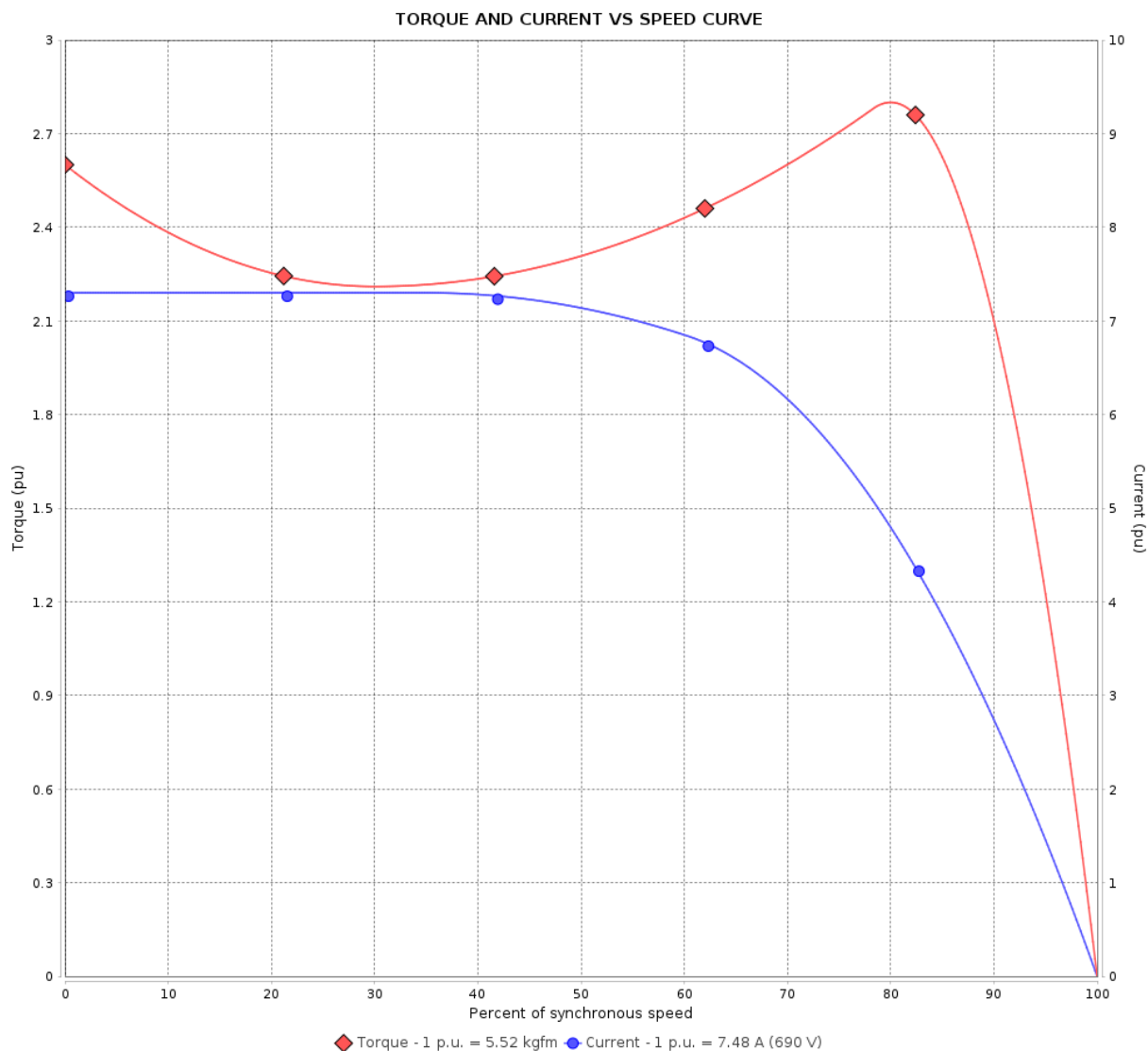
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : IE3 Three-Phase

Product code : 12862707



Performance : 400/690 V 50 Hz 6P

Rated current	: 12.9/7.48 A	Moment of inertia (J)	: 0.0755 kgm ²
LRC	: 7.3	Duty cycle	: S1
Rated torque	: 5.52 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 970 rpm	Design	: N

Locked rotor time : 46s (cold) 26s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

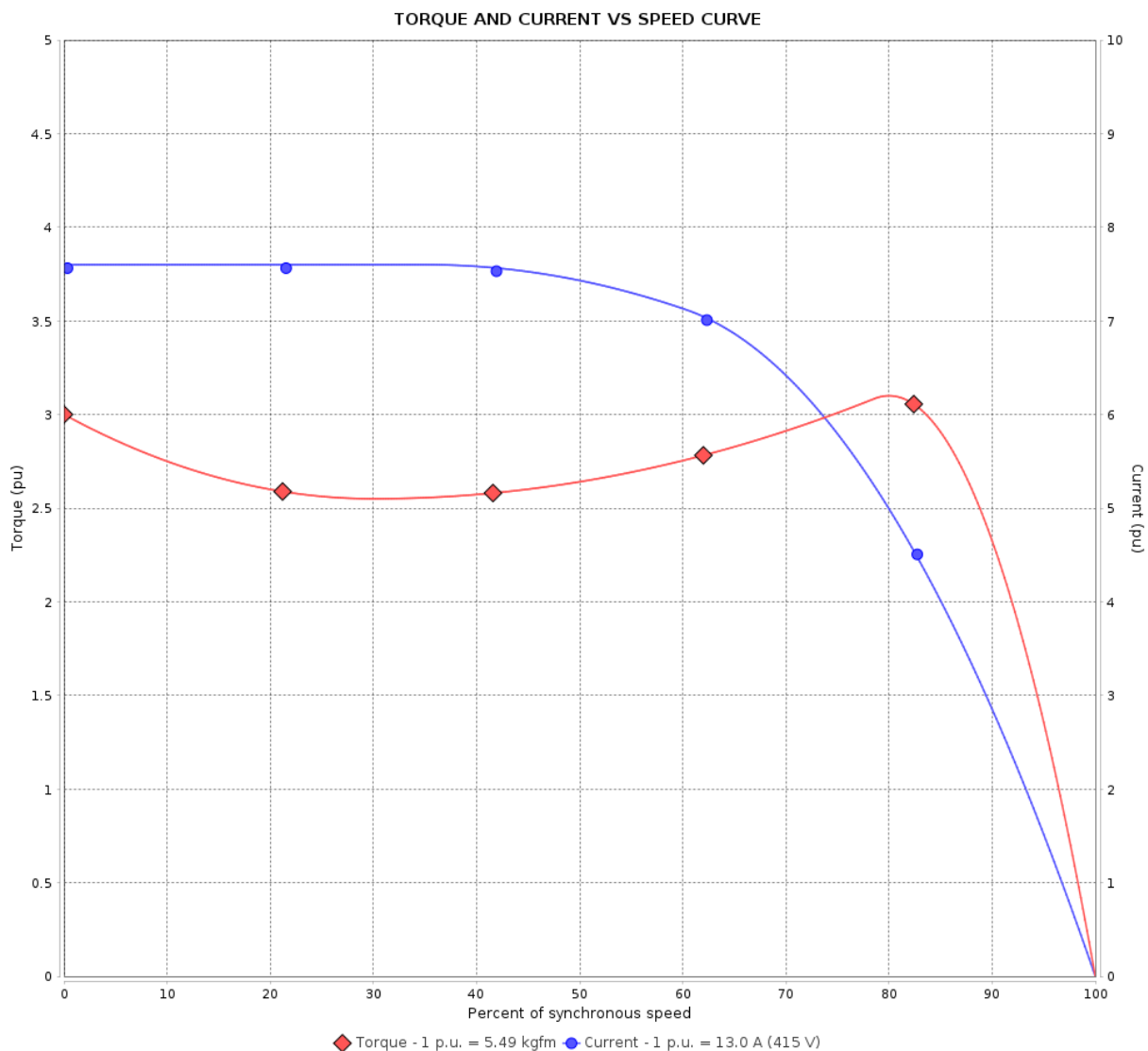


Three Phase Induction Motor - Squirrel Cage

Customer : Astraprom d.o.o.

Product line : IE3 Three-Phase

Product code : 12862707



Performance : 415 V 50 Hz 6P

Rated current	: 13.0 A	Moment of inertia (J)	: 0.0755 kgm ²
LRC	: 7.6	Duty cycle	: S1
Rated torque	: 5.49 kgfm	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 975 rpm	Design	: N

Locked rotor time : 46s (cold) 26s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

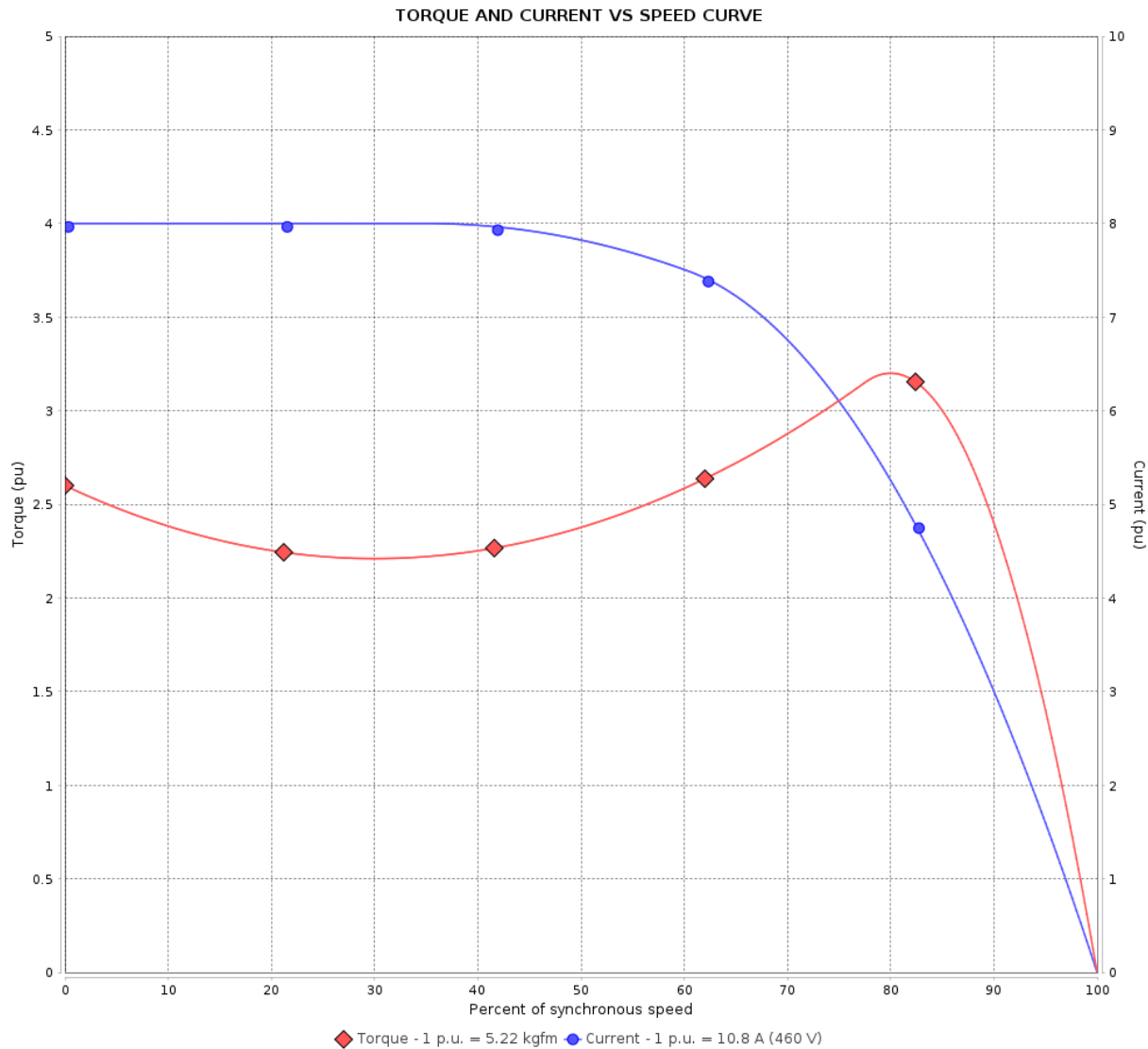
Three Phase Induction Motor - Squirrel Cage



Customer : Astraprom d.o.o.

Product line : IE3 Three-Phase

Product code : 12862707



Performance : 460 V 60 Hz 6P

Rated current	: 10.8 A	Moment of inertia (J)	: 0.0755 kgm ²
LRC	: 8.0	Duty cycle	: S1
Rated torque	: 5.22 kgfm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.25
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1174 rpm	Design	: N

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

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LOAD PERFORMANCE CURVE

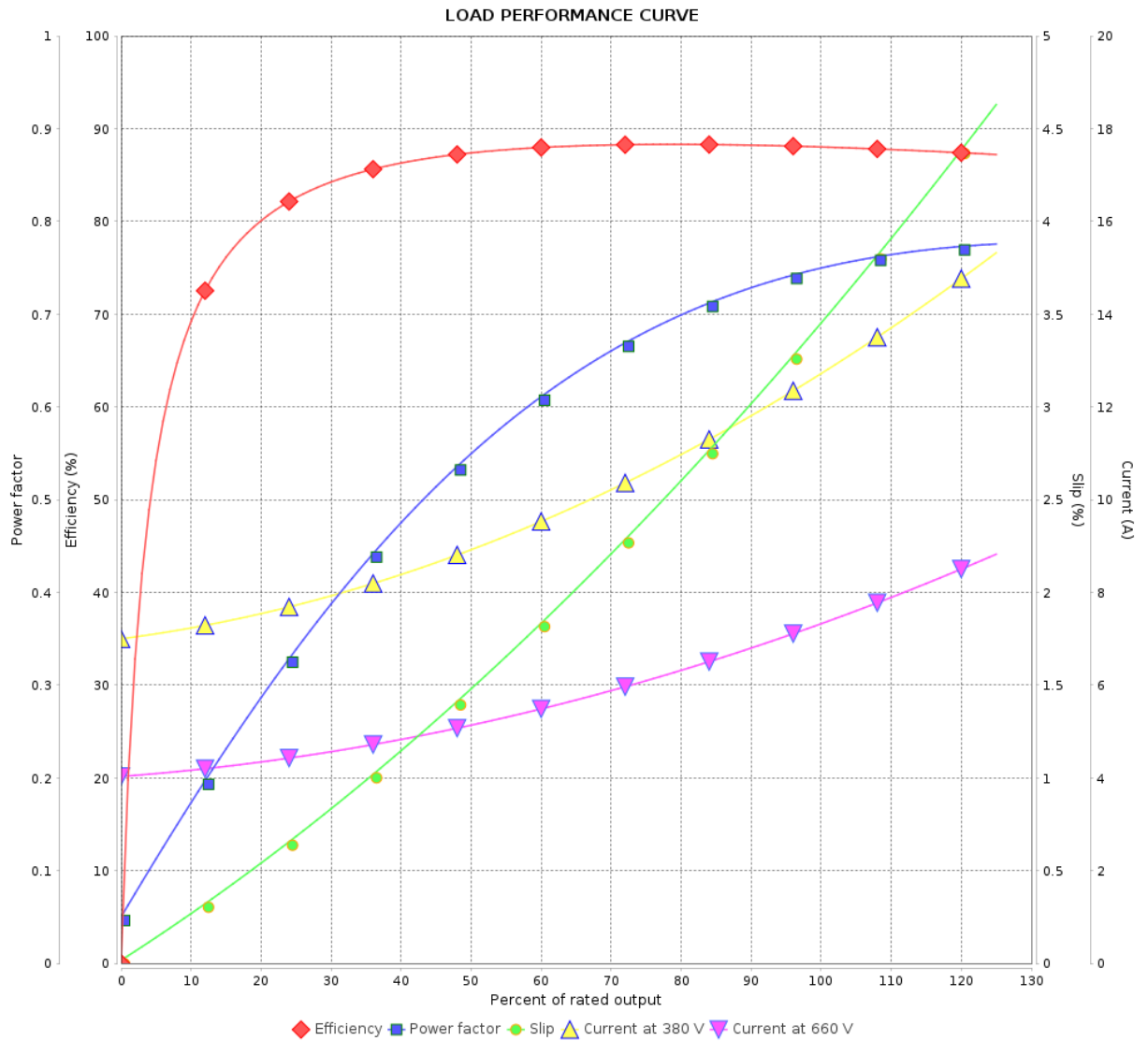
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Product line : IE3 Three-Phase

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Performance : 380/660 V 50 Hz 6P

Rated current : 12.7/7.31 A
 LRC : 7.0
 Rated torque : 5.55 kgfm
 Locked rotor torque : 220 %
 Breakdown torque : 240 %
 Rated speed : 965 rpm

Moment of inertia (J) : 0.0755 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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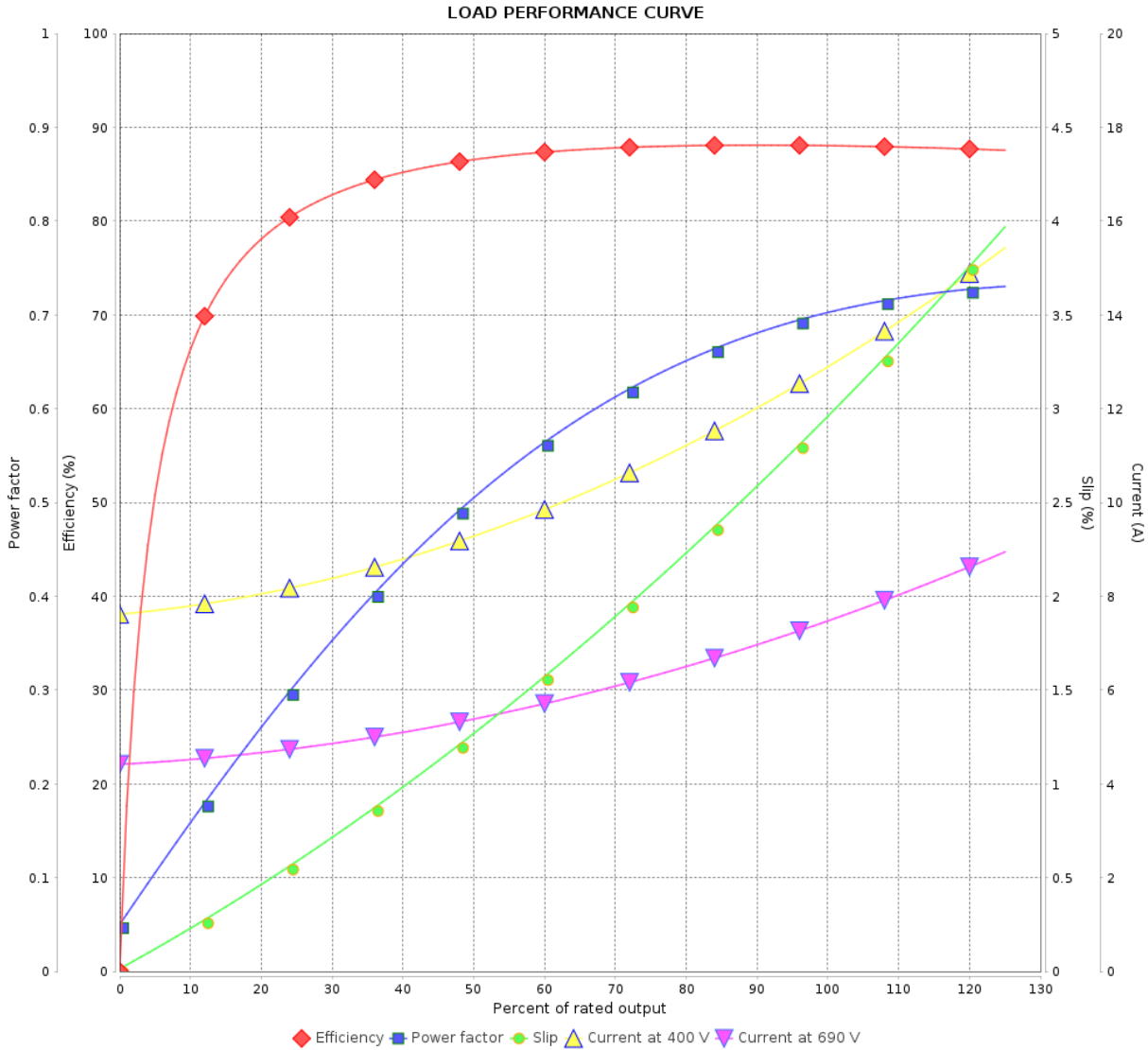
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Performance : 400/690 V 50 Hz 6P

Rated current : 12.9/7.48 A
 LRC : 7.3
 Rated torque : 5.52 kgfm
 Locked rotor torque : 260 %
 Breakdown torque : 280 %
 Rated speed : 970 rpm

Moment of inertia (J) : 0.0755 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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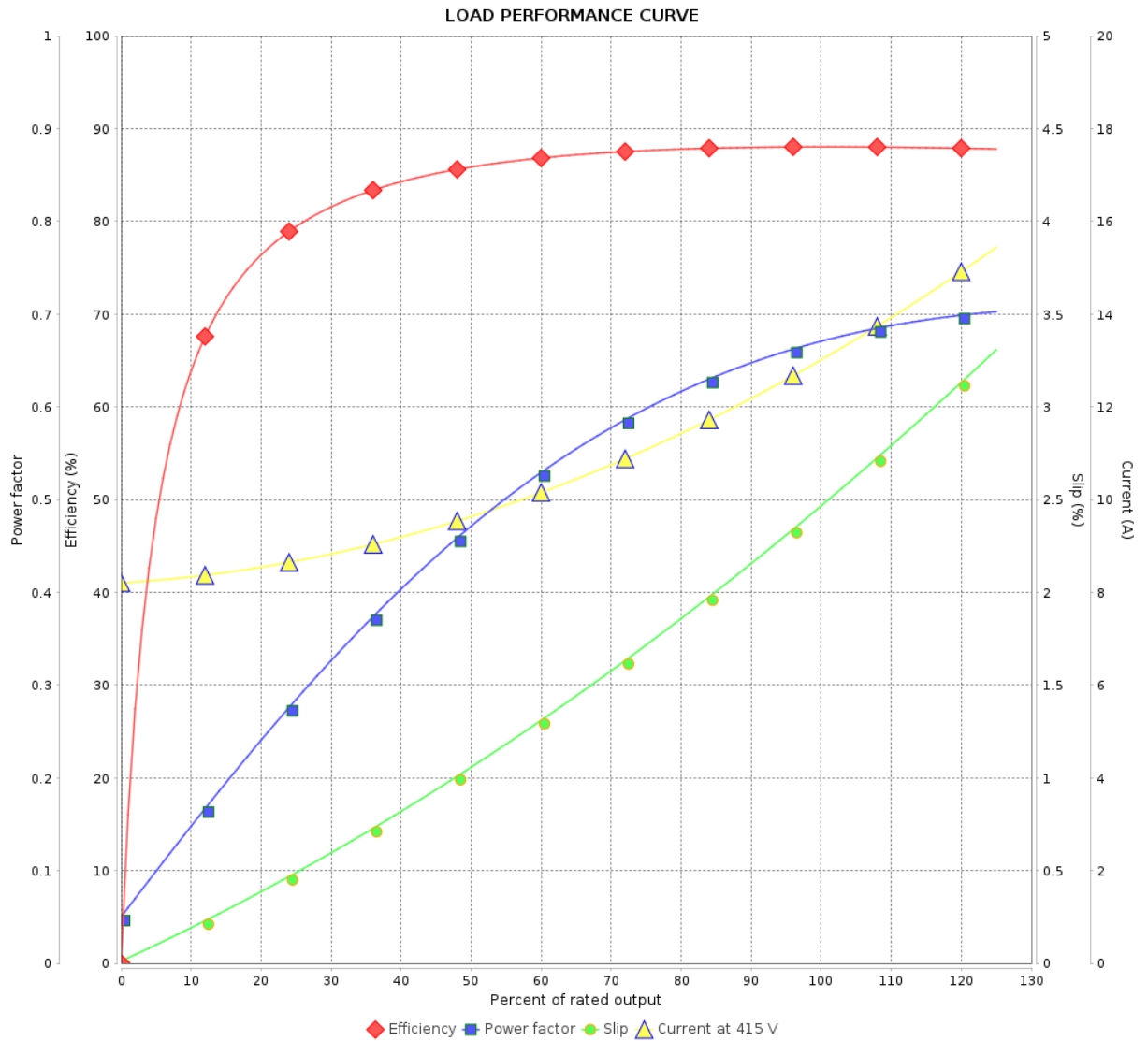
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Performance : 415 V 50 Hz 6P

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 Locked rotor torque : 300 %
 Breakdown torque : 310 %
 Rated speed : 975 rpm

Moment of inertia (J) : 0.0755 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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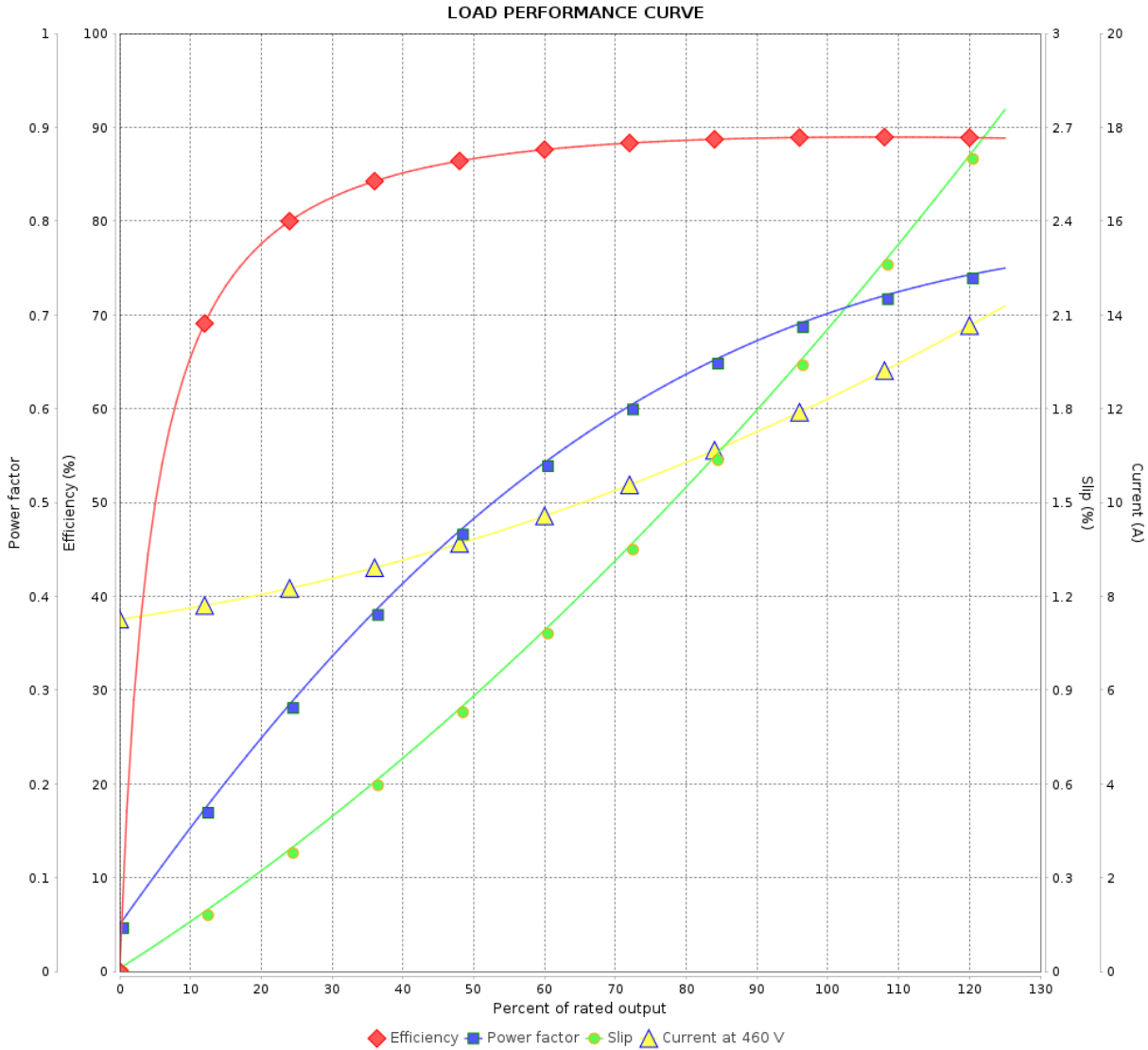
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 Locked rotor torque : 270 %
 Breakdown torque : 310 %
 Rated speed : 1174 rpm

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 Duty cycle : S1
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 Service factor : 1.25
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THERMAL LIMIT CURVE

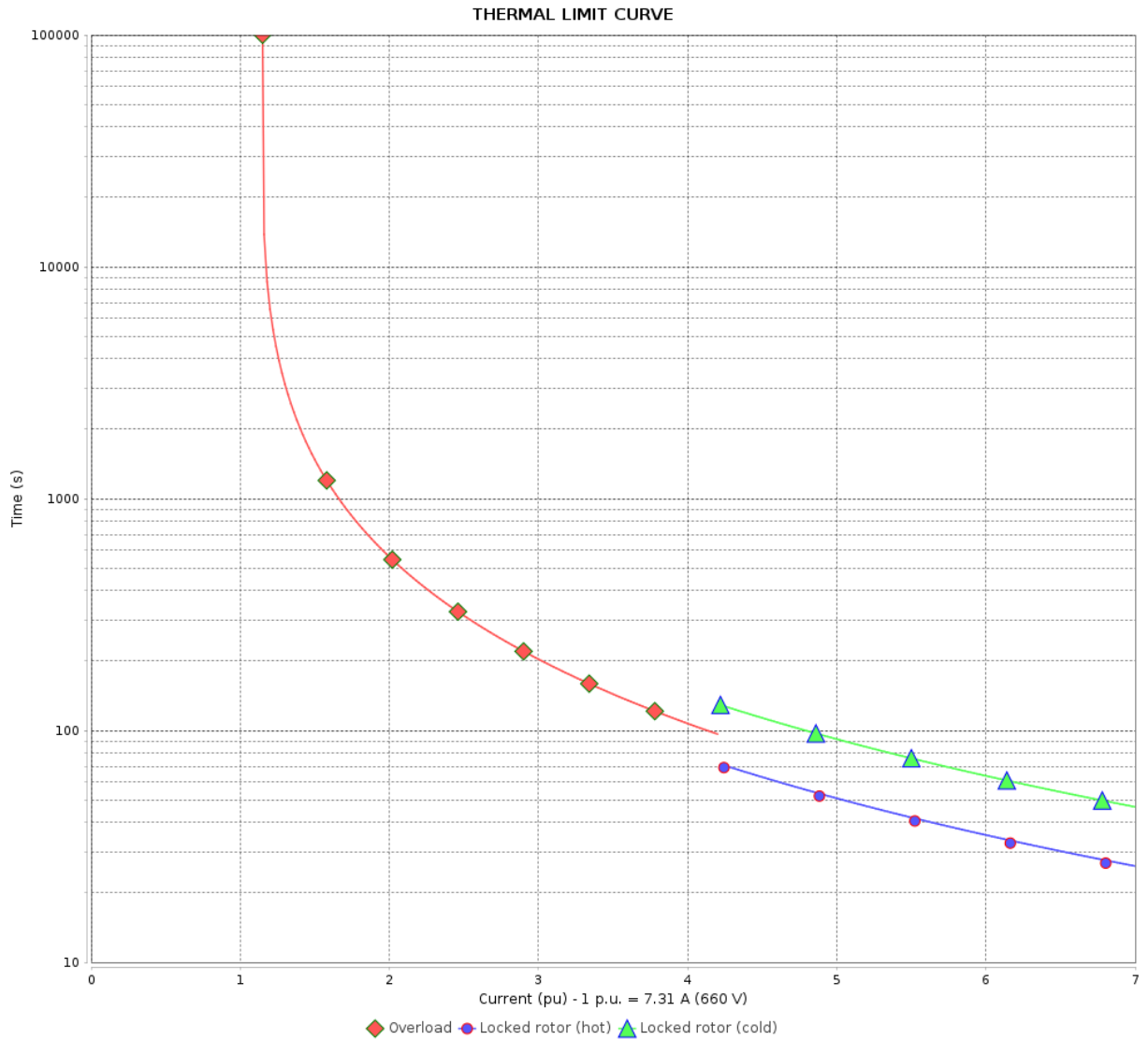
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 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Heating constant

Cooling constant

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THERMAL LIMIT CURVE

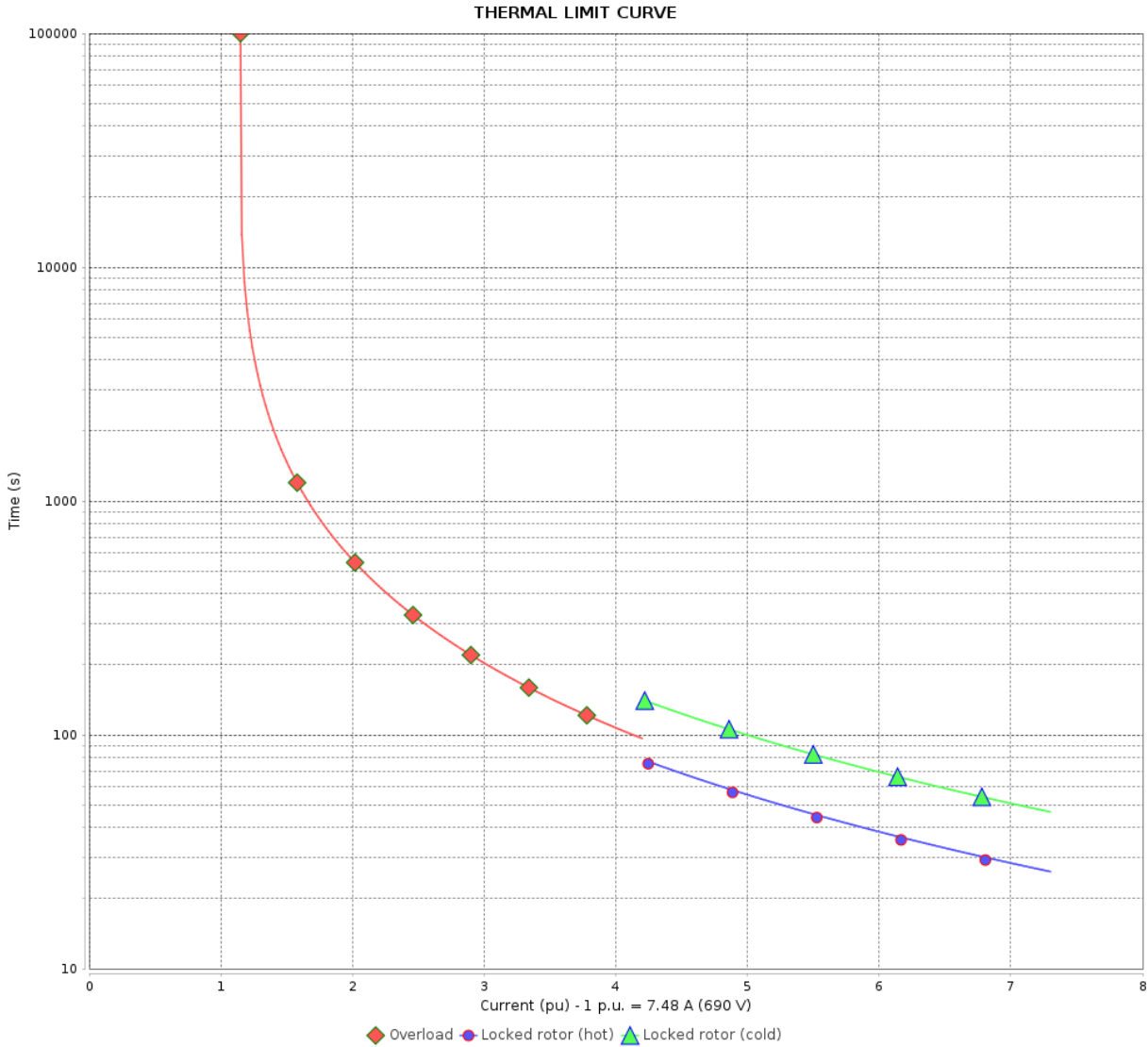
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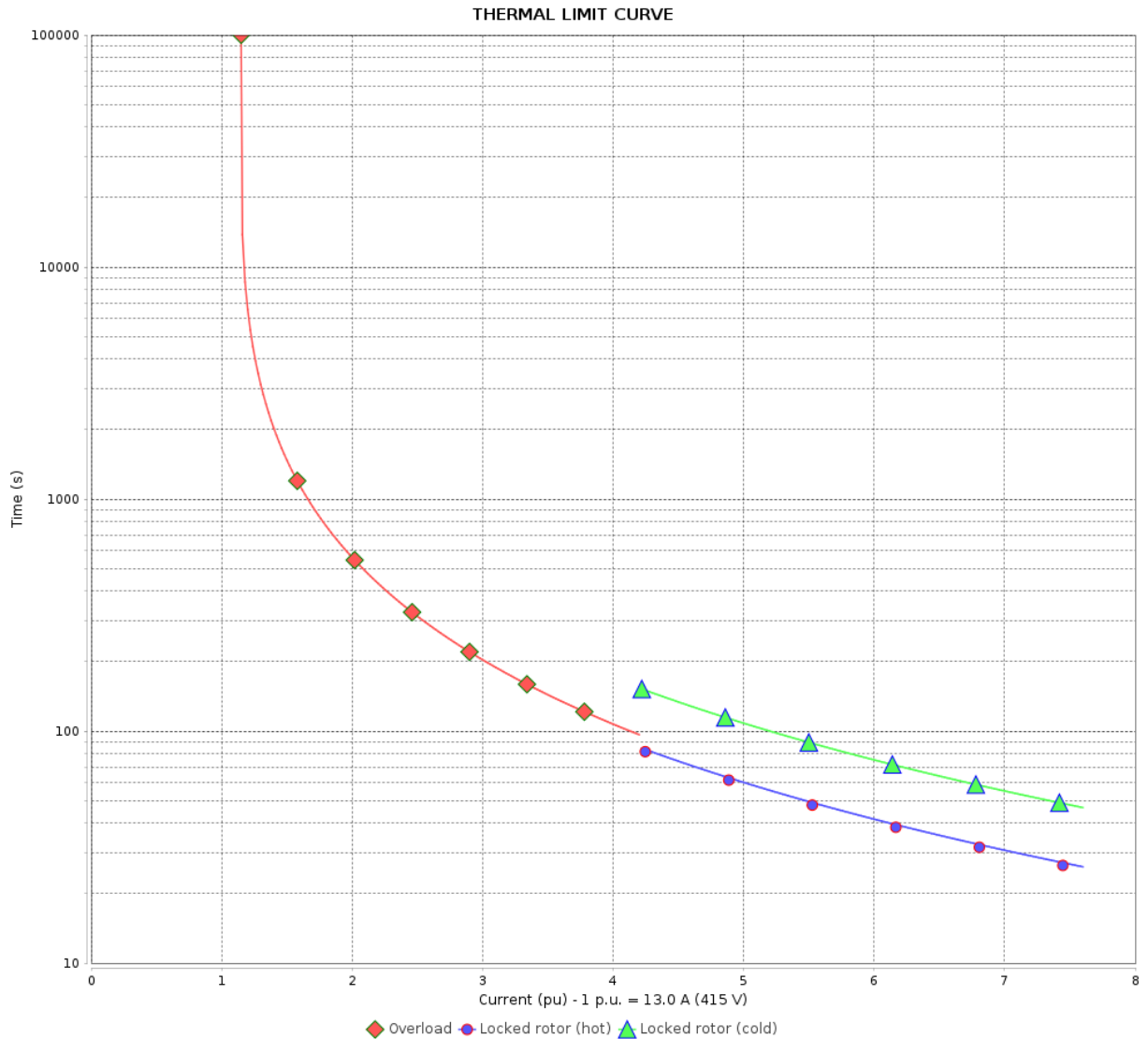
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 Rated torque : 5.49 kgfm
 Locked rotor torque : 300 %
 Breakdown torque : 310 %
 Rated speed : 975 rpm

Moment of inertia (J) : 0.0755 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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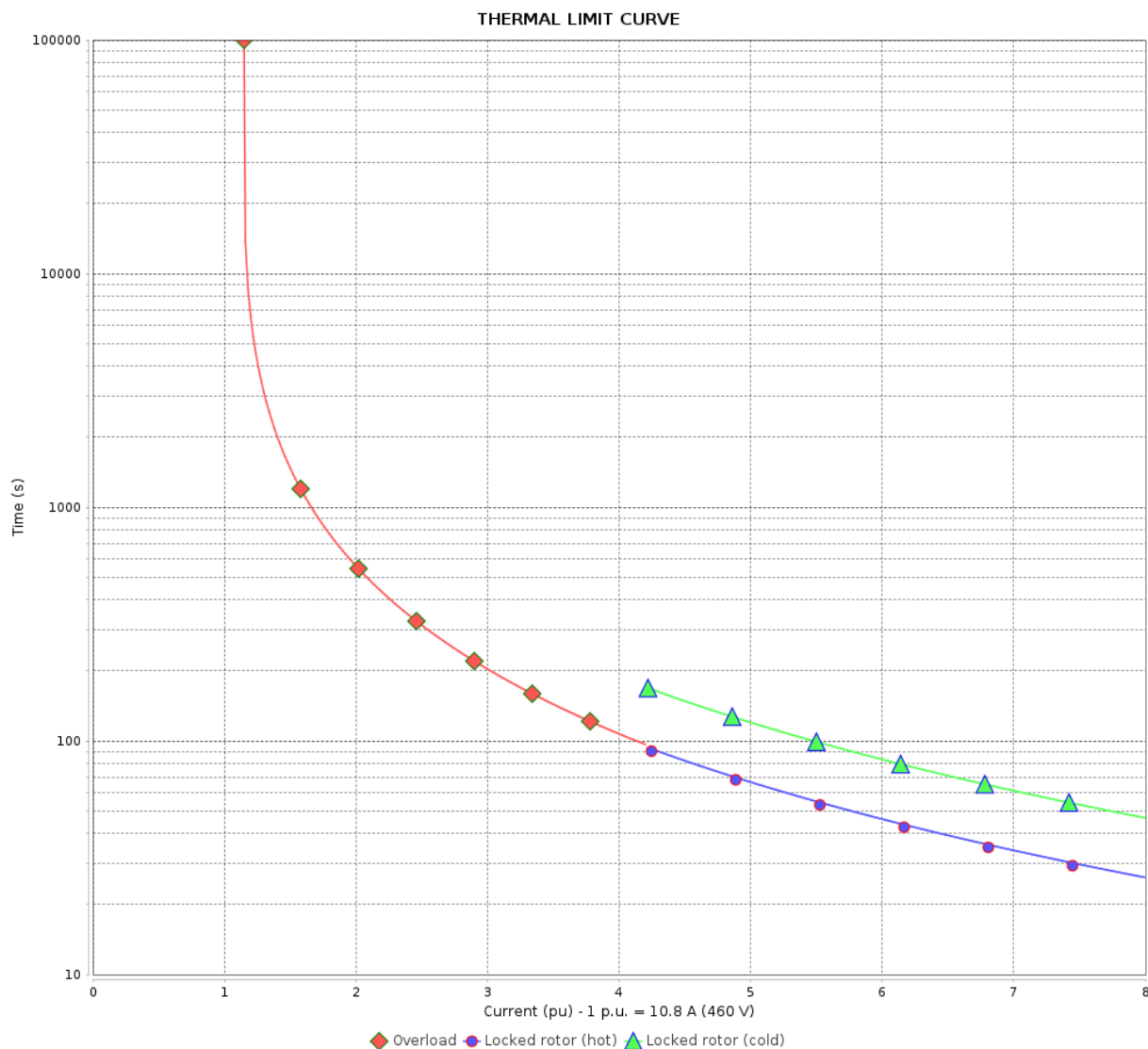
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Product line : IE3 Three-Phase

Product code : 12862707



Performance : 460 V 60 Hz 6P

Rated current	: 10.8 A	Moment of inertia (J)	: 0.0755 kgm ²
LRC	: 8.0	Duty cycle	: S1
Rated torque	: 5.22 kgfm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.25
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1174 rpm	Design	: N

Heating constant
Cooling constant

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VFD OPERATION CURVE

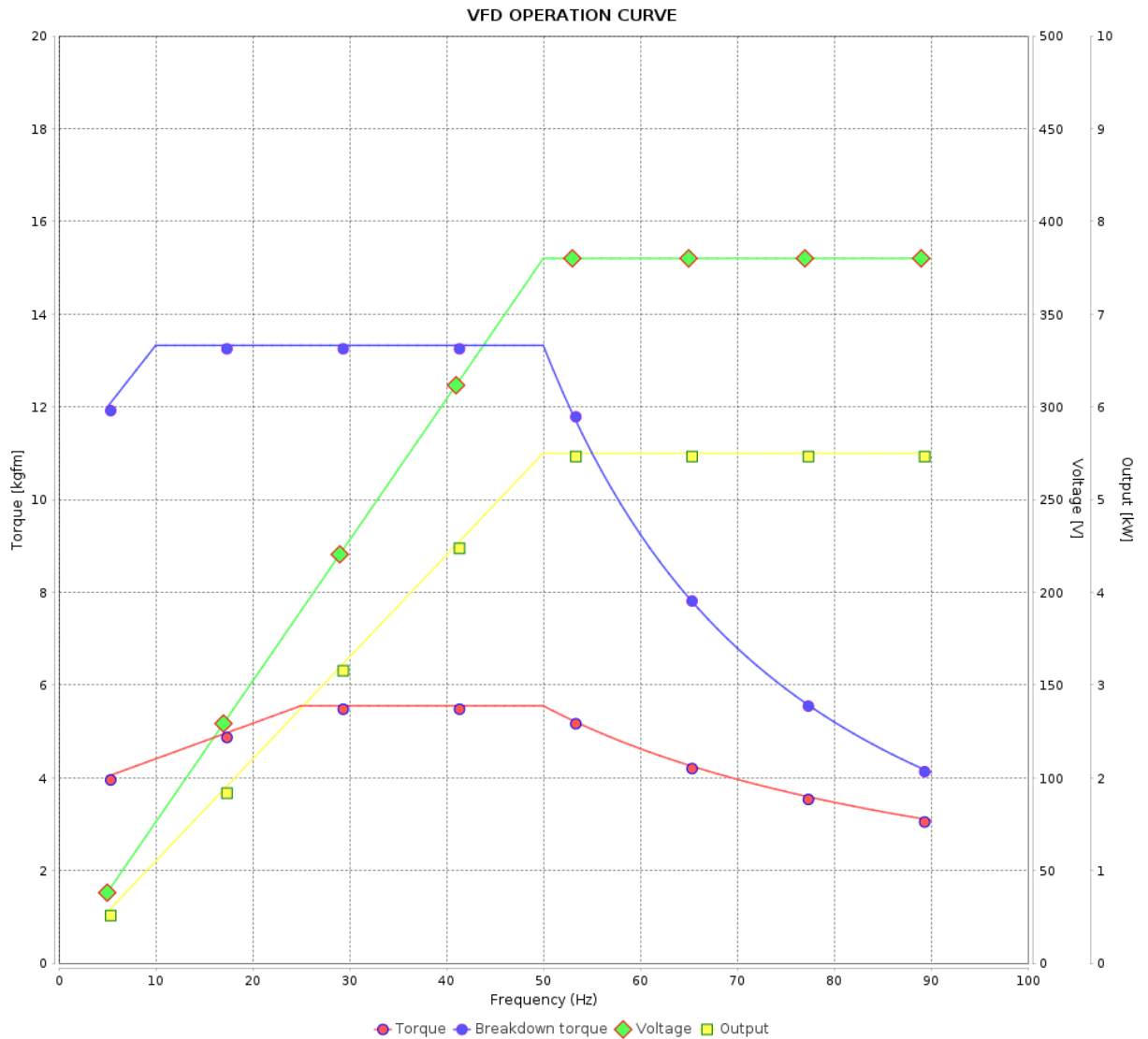
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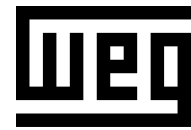
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 Rated torque : 5.55 kgfm
 Locked rotor torque : 220 %
 Breakdown torque : 240 %
 Rated speed : 965 rpm

Moment of inertia (J) : 0.0755 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
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 Design : N

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VFD OPERATION CURVE

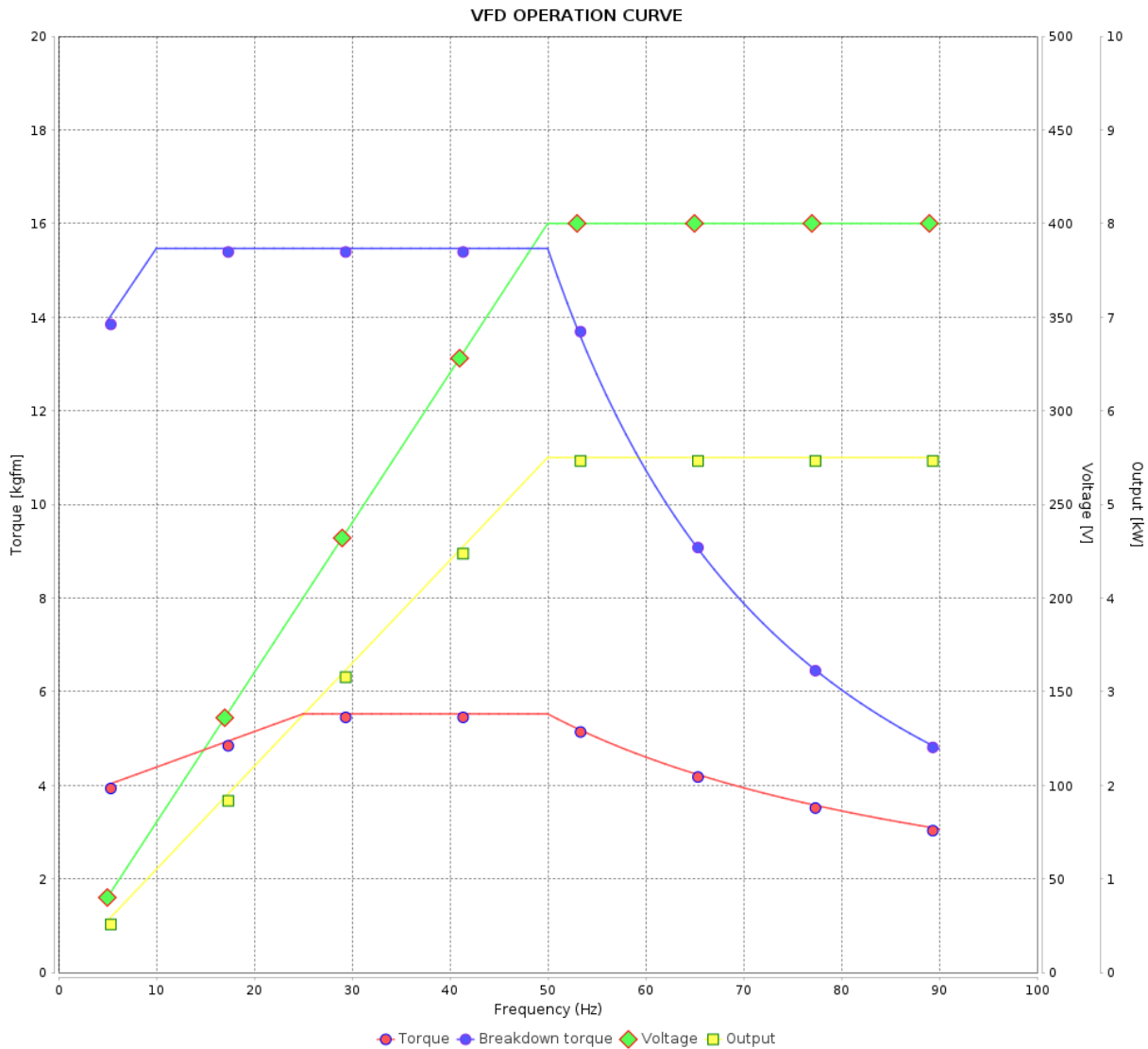
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Performance : 400/690 V 50 Hz 6P

Rated current : 12.9/7.48 A
 LRC : 7.3
 Rated torque : 5.52 kgfm
 Locked rotor torque : 260 %
 Breakdown torque : 280 %
 Rated speed : 970 rpm

Moment of inertia (J) : 0.0755 kgm²
 Duty cycle : S1
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VFD OPERATION CURVE

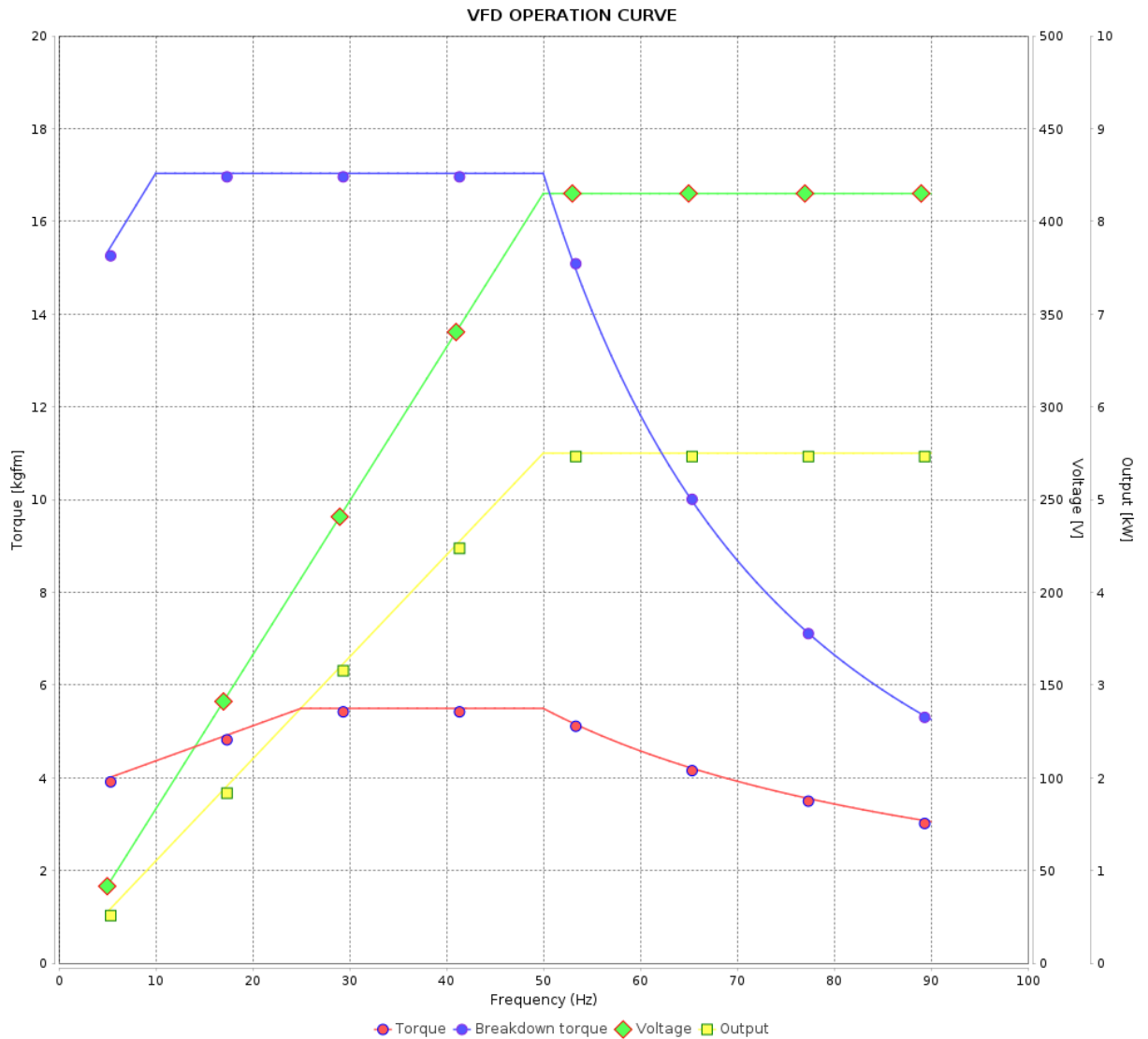
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Performance : 415 V 50 Hz 6P

Rated current	: 13.0 A	Moment of inertia (J)	: 0.0755 kgm ²
LRC	: 7.6	Duty cycle	: S1
Rated torque	: 5.49 kgfm	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 975 rpm	Design	: N

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VFD OPERATION CURVE

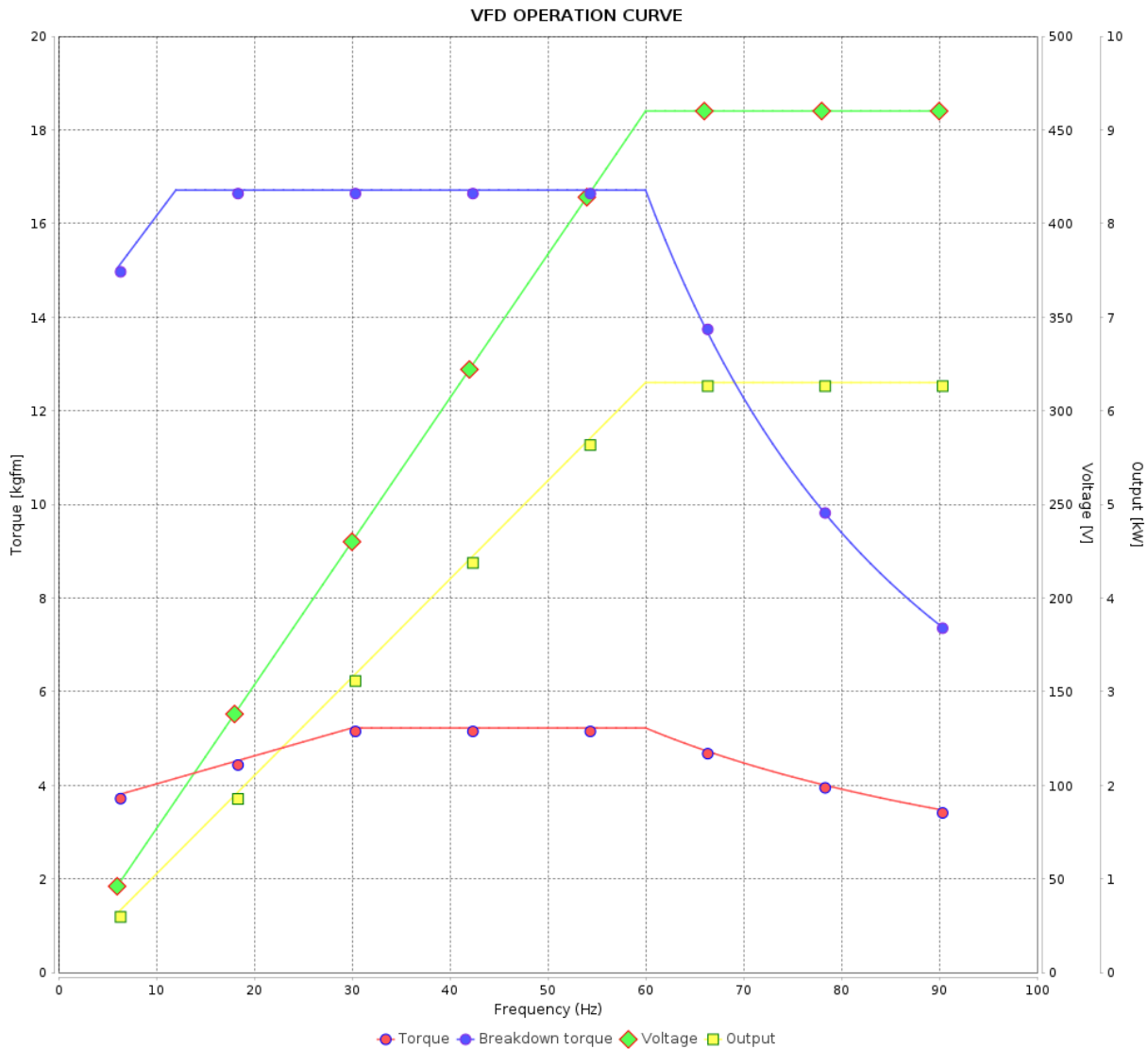
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Performance : 460 V 60 Hz 6P

Rated current	: 10.8 A	Moment of inertia (J)	: 0.0755 kgm ²
LRC	: 8.0	Duty cycle	: S1
Rated torque	: 5.22 kgfm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.25
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1174 rpm	Design	: N

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