

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :	
Product line : IE2 Three-Phase	Product code : 11673112
Frame : 80 Insulation class : F Duty cycle : S1 Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP55 Design : N	Cooling method : IC411 - TEFC Mounting : B14T Rotation <sup>1</sup> : Both (CW and CCW) Starting method : Direct On Line Approx. weight <sup>3</sup> : 14.4 kg Moment of inertia (J) : 0.0029 kgm <sup>2</sup>
Output [kW]	0.550
Poles	4
Frequency [Hz]	50
Rated voltage [V]	220/380
Rated current [A]	2.40/1.39
L. R. Amperes [A]	13.2/7.64
LRC [A]	5.5
No load current [A]	1.47/0.850
Rated speed [RPM]	1430
Slip [%]	4.67
Rated torque [kgfm]	0.375
Locked rotor torque [%]	200
Breakdown torque [%]	229
Service factor	1.00
Temperature rise	80 K
Locked rotor time	32s (cold) 18s (hot)
Noise level <sup>2</sup>	44.0 dB(A)
Efficiency (%)	25%
	50%
	75%
	100%
Power Factor	25%
	50%
	75%
	100%
Losses at normative operating points (speed;torque), in percentage of rated output power	
Losses (%)	P1 (0,9;1,0)
	P2 (0,5;1,0)
	P3 (0,25;1,0)
	P4 (0,9;0,5)
	P5 (0,5;0,5)
	P6 (0,5;0,25)
	P7 (0,25;0,25)
Bearing type : Drive end 6204 ZZ Non drive end 6203 ZZ Sealing : V'Ring V'Ring Lubrication interval : - - Lubricant amount : - - Lubricant type : Mobil Polyrex EM	Foundation loads Max. traction : 27 kgf Max. compression : 41 kgf
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 : \_\_\_\_\_

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# TORQUE AND CURRENT VS SPEED CURVE

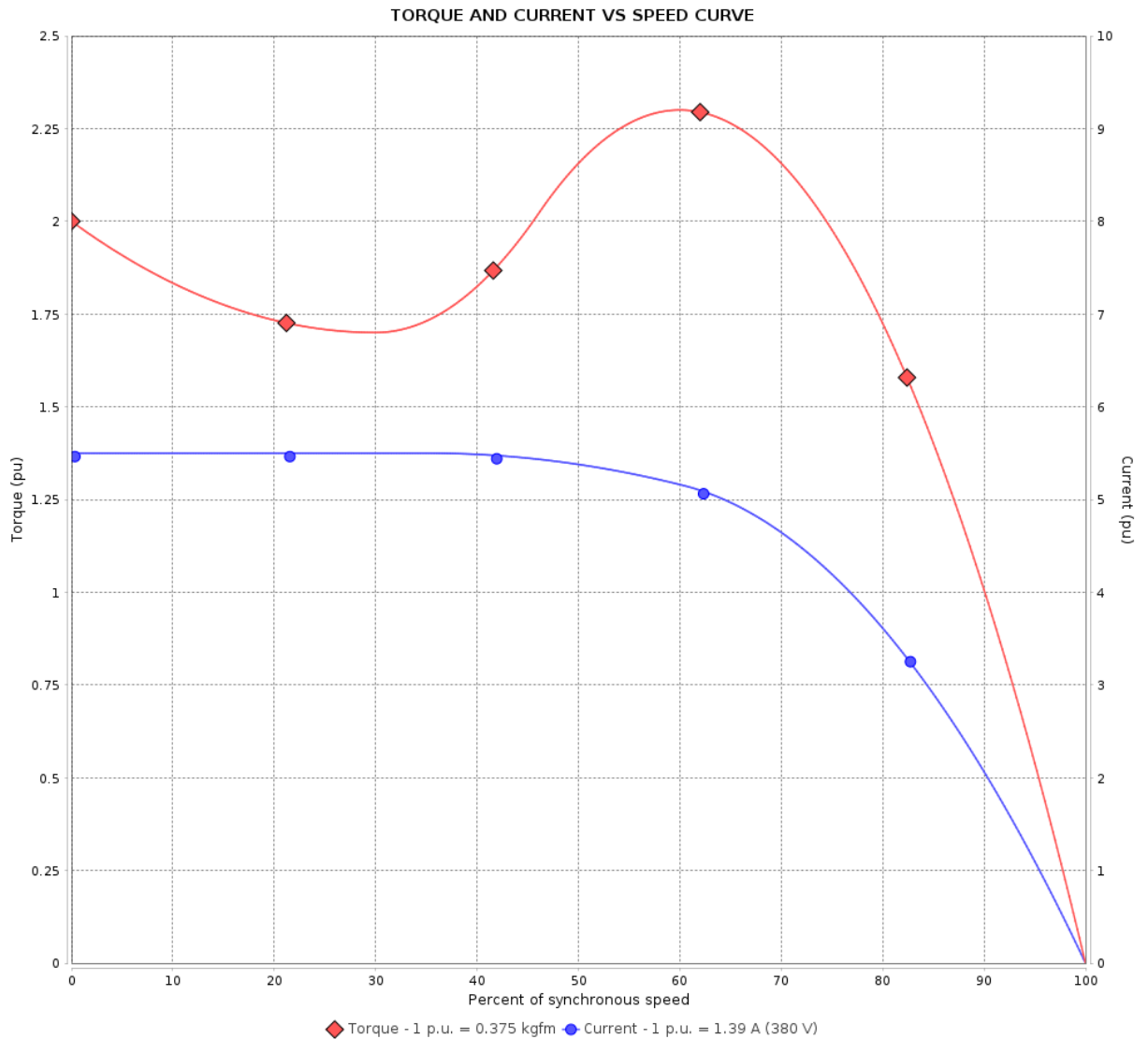
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE2 Three-Phase

Product code : 11673112



Performance : 220/380 V 50 Hz 4P

Rated current	: 2.40/1.39 A	Moment of inertia (J)	: 0.0029 kgm <sup>2</sup>
LRC	: 5.5	Duty cycle	: S1
Rated torque	: 0.375 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 1430 rpm	Design	: N

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

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# TORQUE AND CURRENT VS SPEED CURVE

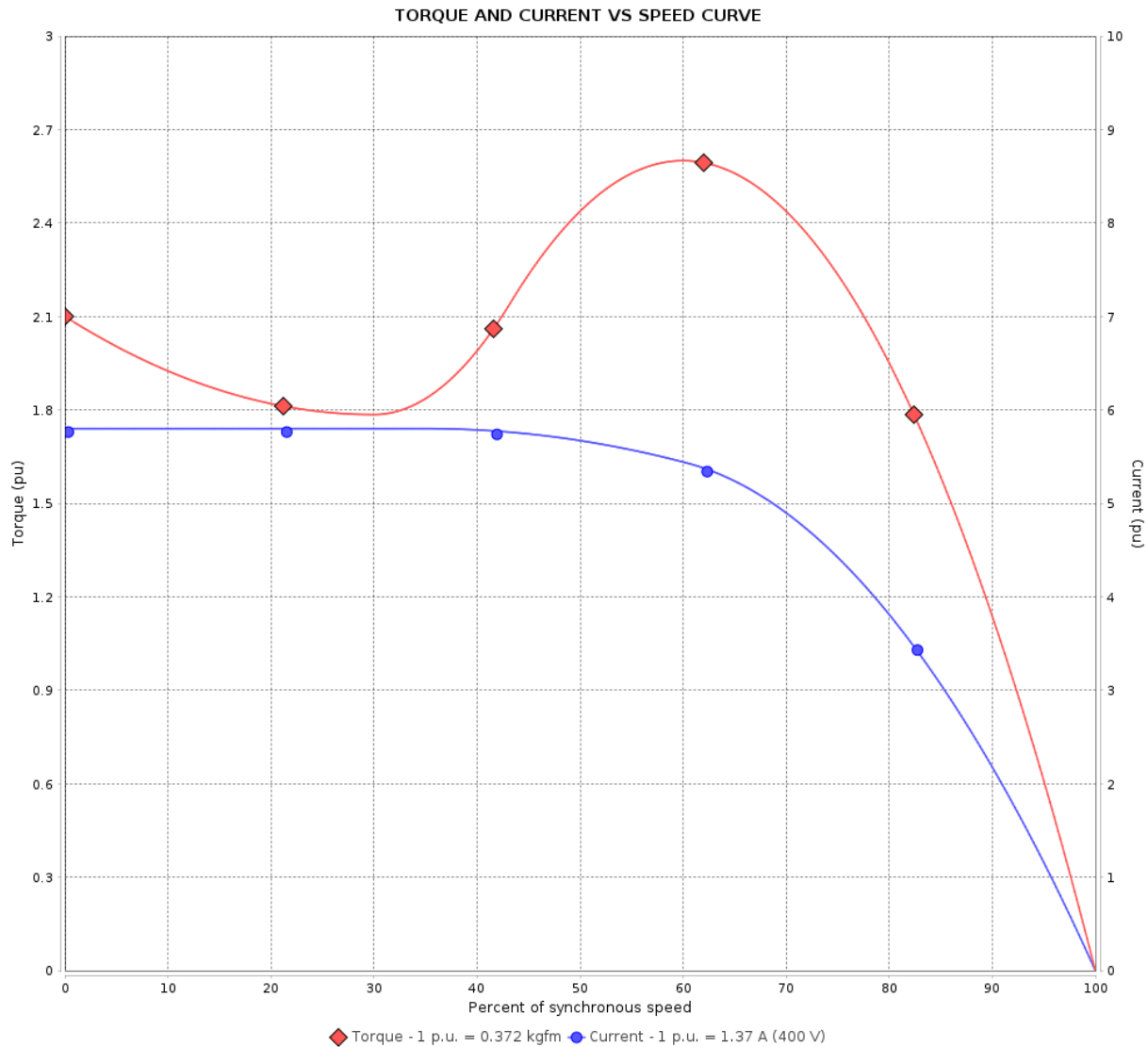
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE2 Three-Phase

Product code : 11673112



Performance : 230/400 V 50 Hz 4P

Rated current	: 2.38/1.37 A	Moment of inertia (J)	: 0.0029 kgm <sup>2</sup>
LRC	: 5.8	Duty cycle	: S1
Rated torque	: 0.372 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1440 rpm	Design	: N

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

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# TORQUE AND CURRENT VS SPEED CURVE

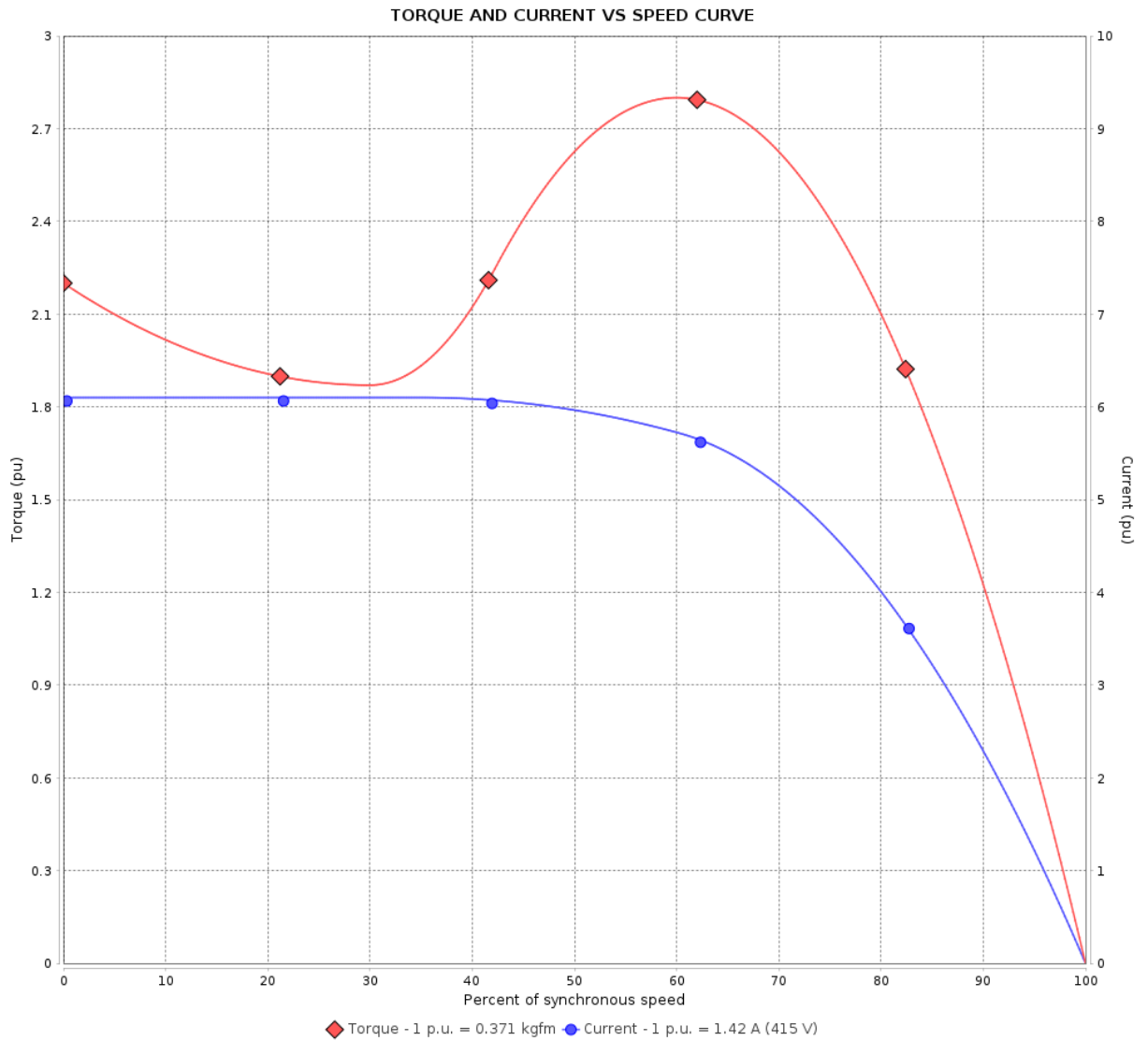
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE2 Three-Phase

Product code : 11673112



Performance : 240/415 V 50 Hz 4P

Rated current	: 2.46/1.42 A	Moment of inertia (J)	: 0.0029 kgm <sup>2</sup>
LRC	: 6.1	Duty cycle	: S1
Rated torque	: 0.371 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1445 rpm	Design	: N

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

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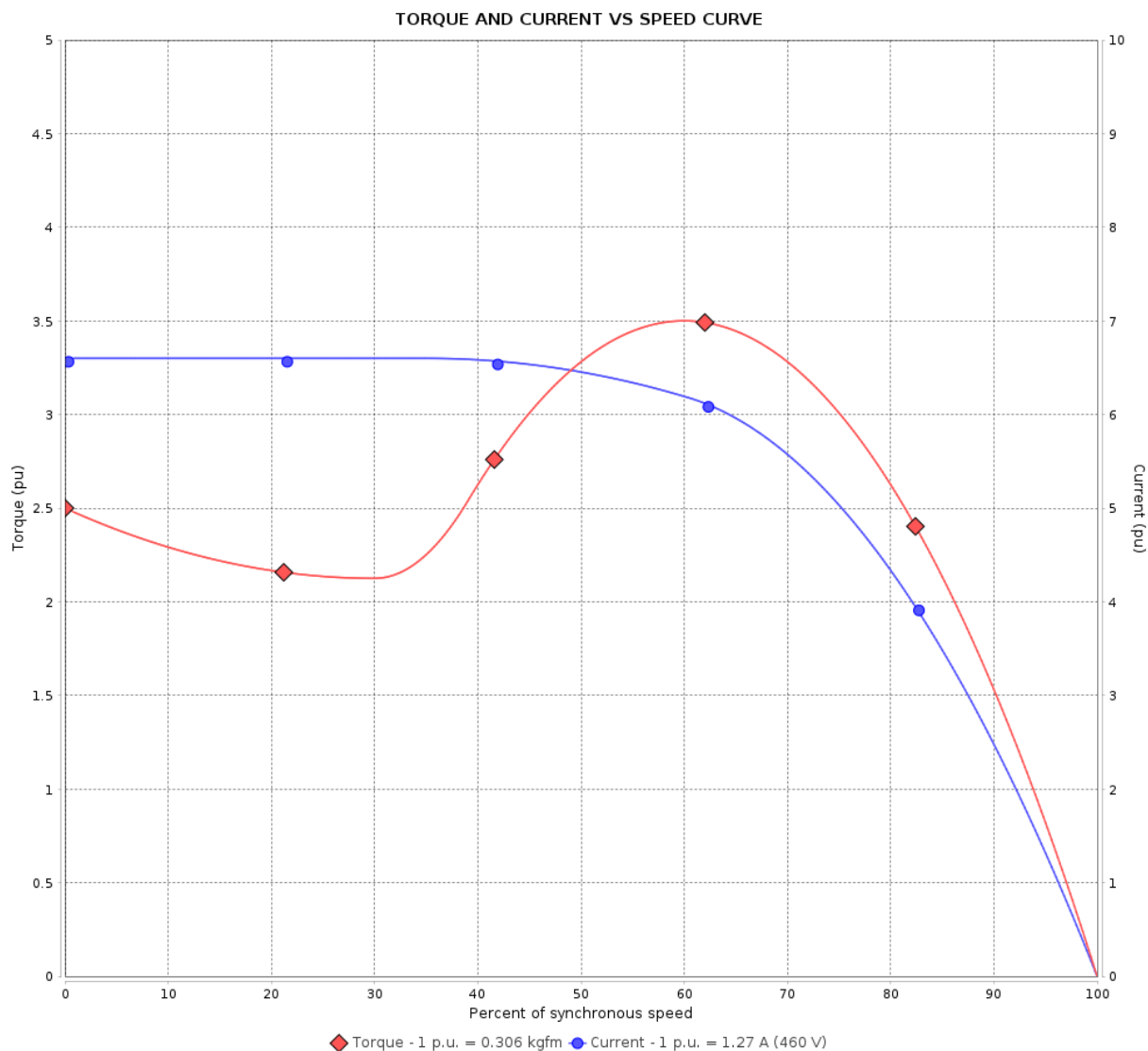
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE2 Three-Phase

Product code : 11673112



Performance : 460 V 60 Hz 4P

Rated current	: 1.27 A	Moment of inertia (J)	: 0.0029 kgm <sup>2</sup>
LRC	: 6.6	Duty cycle	: S1
Rated torque	: 0.306 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1750 rpm	Design	: N

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

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# LOAD PERFORMANCE CURVE

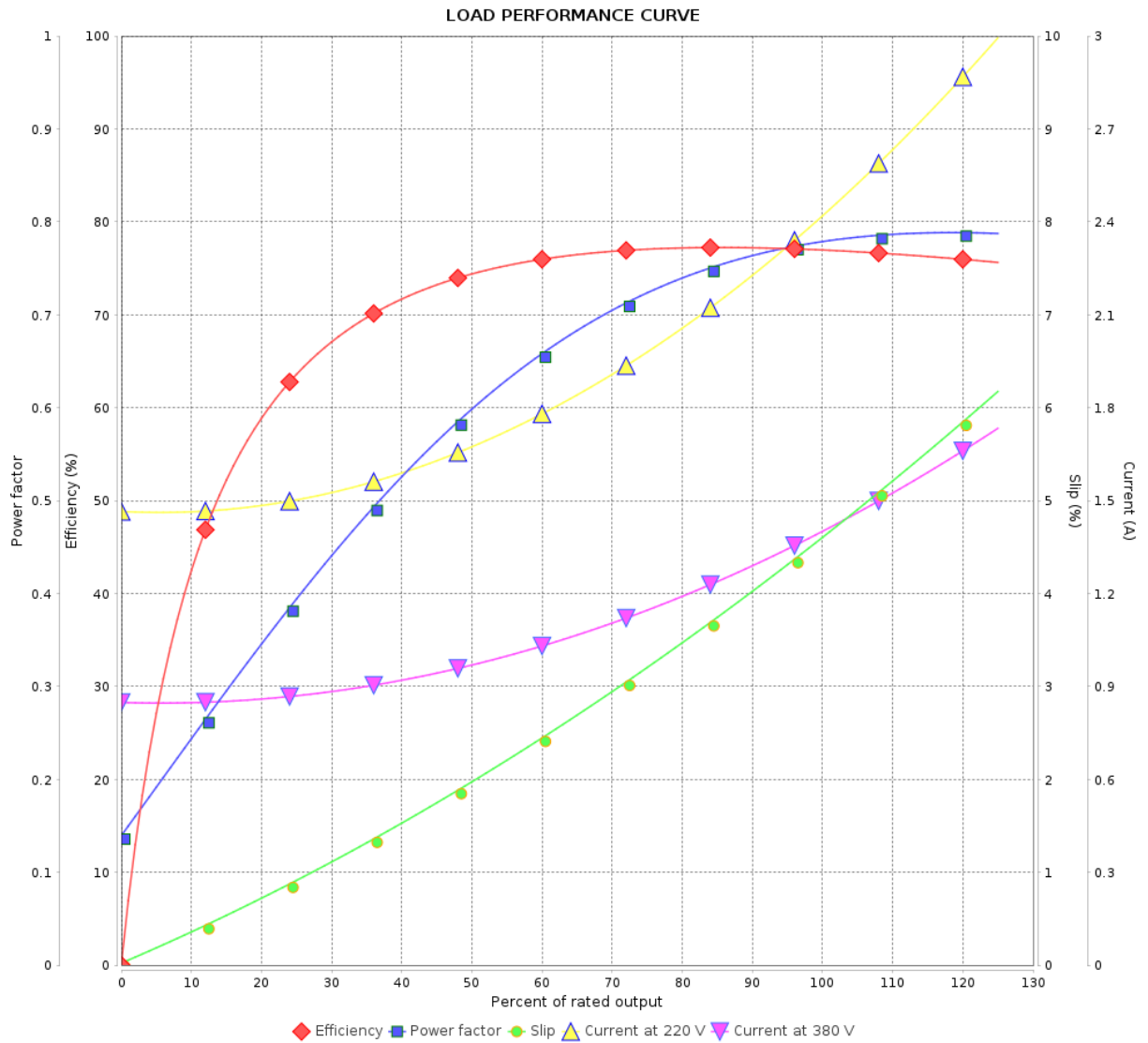
## Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

Product line : IE2 Three-Phase

Product code : 11673112



Performance : 220/380 V 50 Hz 4P

Rated current : 2.40/1.39 A  
 LRC : 5.5  
 Rated torque : 0.375 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 229 %  
 Rated speed : 1430 rpm

Moment of inertia (J) : 0.0029 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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# LOAD PERFORMANCE CURVE

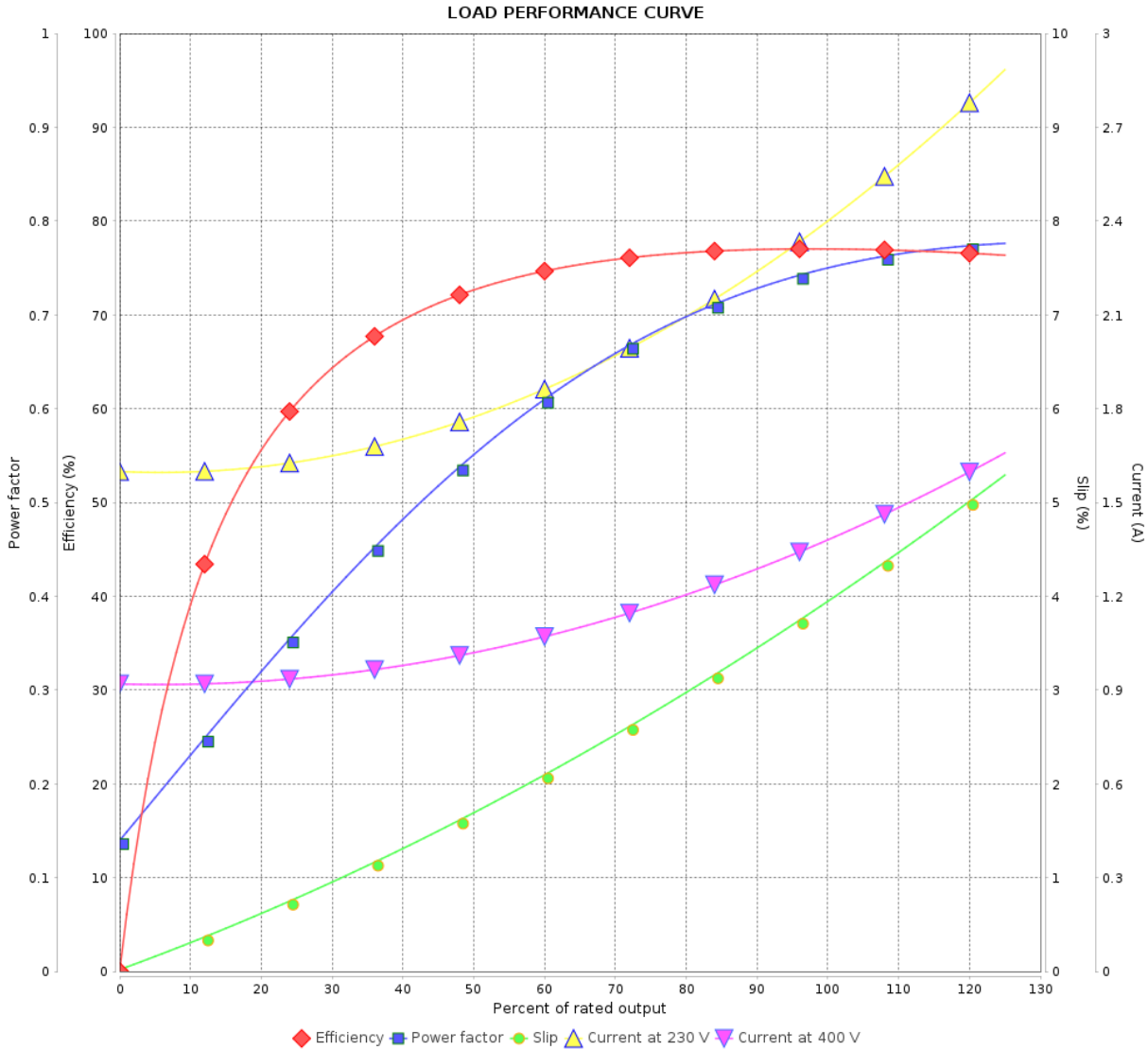
Three Phase Induction Motor - Squirrel Cage



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Performance : 230/400 V 50 Hz 4P

Rated current : 2.38/1.37 A  
 LRC : 5.8  
 Rated torque : 0.372 kgfm  
 Locked rotor torque : 210 %  
 Breakdown torque : 260 %  
 Rated speed : 1440 rpm

Moment of inertia (J) : 0.0029 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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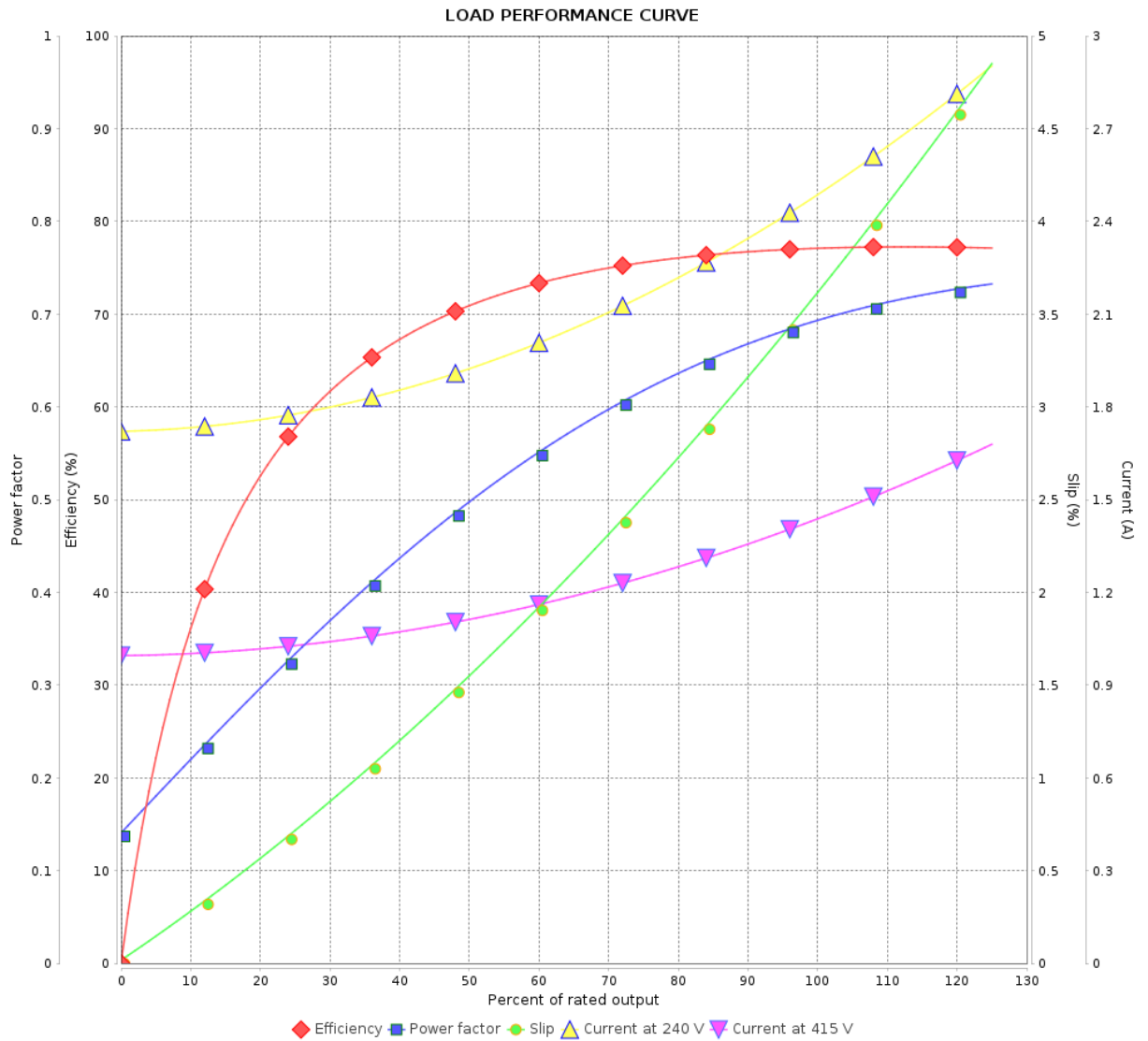
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Moment of inertia (J) : 0.0029 kgm<sup>2</sup>  
 Duty cycle : S1  
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 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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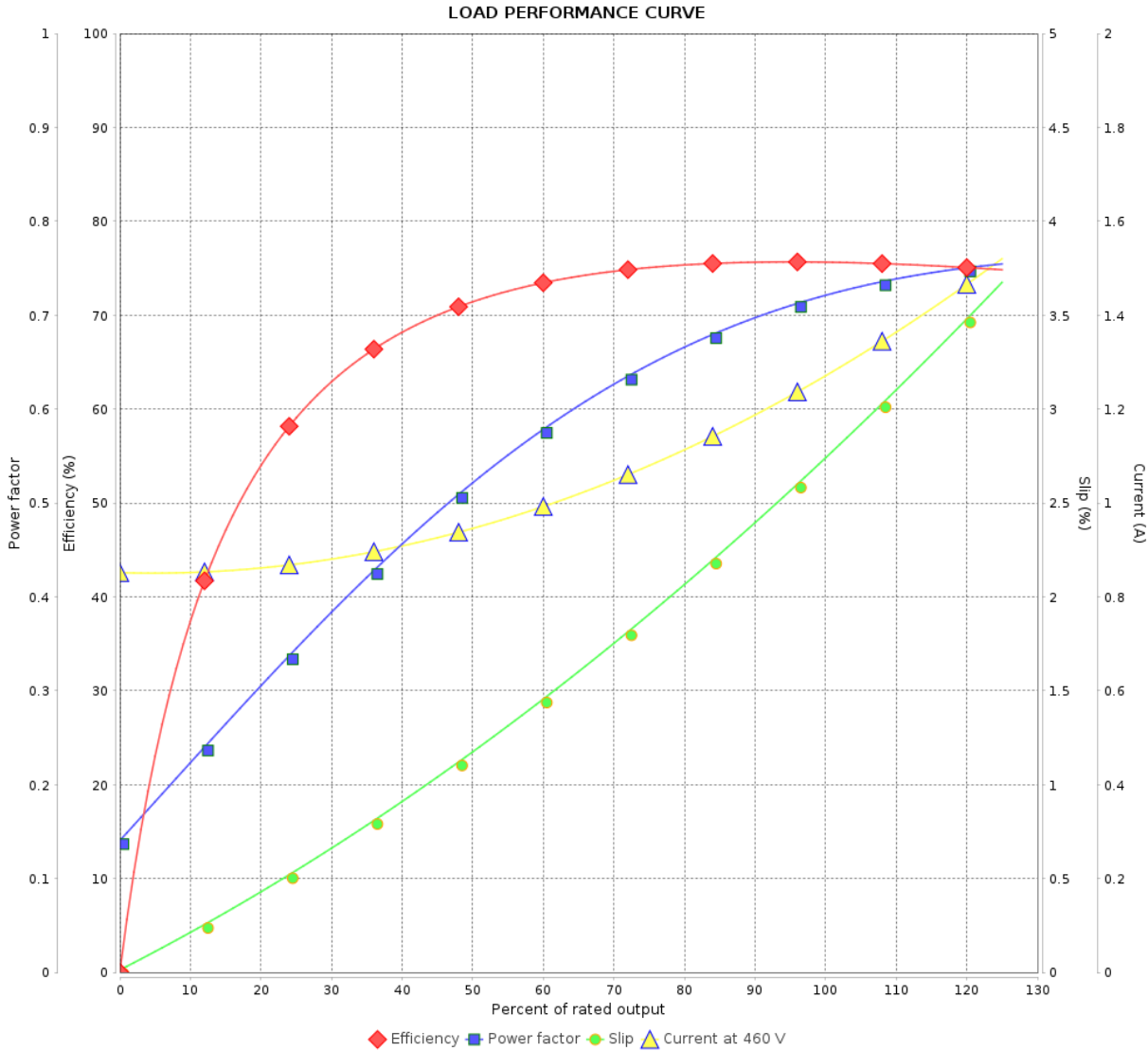
Three Phase Induction Motor - Squirrel Cage



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Performance : 460 V 60 Hz 4P

Rated current : 1.27 A  
 LRC : 6.6  
 Rated torque : 0.306 kgfm  
 Locked rotor torque : 250 %  
 Breakdown torque : 350 %  
 Rated speed : 1750 rpm

Moment of inertia (J) : 0.0029 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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# THERMAL LIMIT CURVE

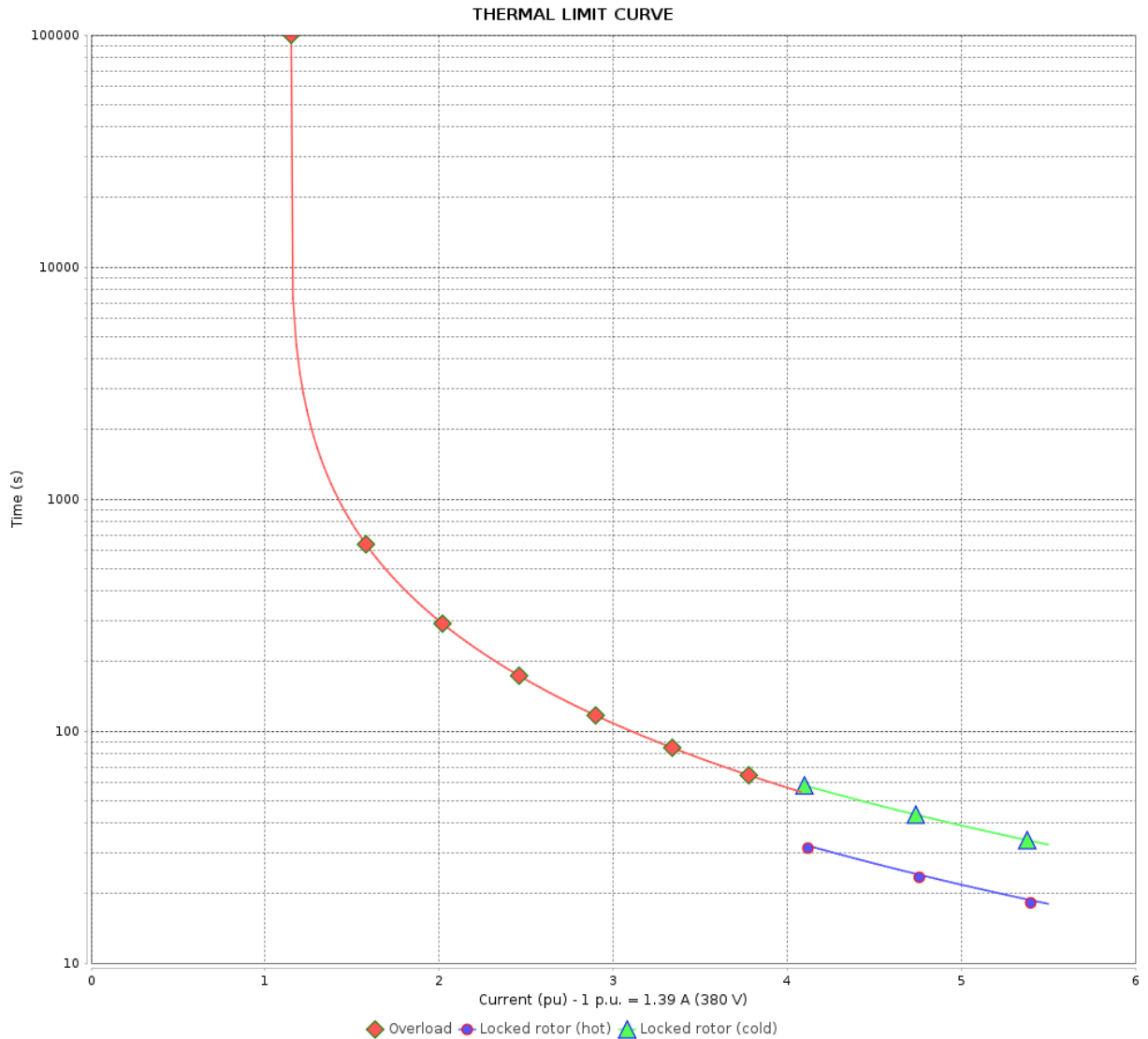
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 Rated speed : 1430 rpm

Moment of inertia (J) : 0.0029 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

Heating constant

Cooling constant

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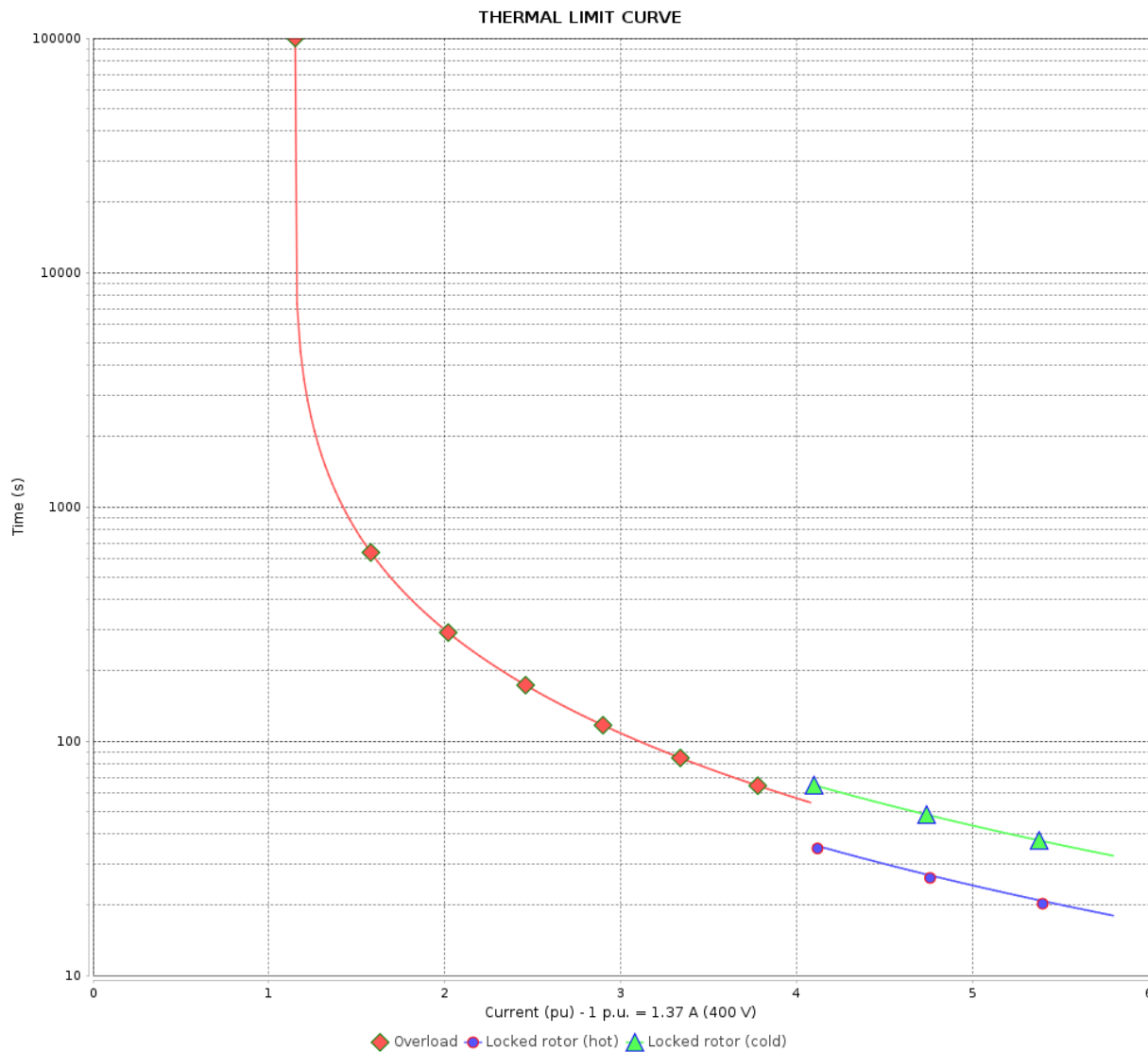
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 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

Heating constant  
 Cooling constant

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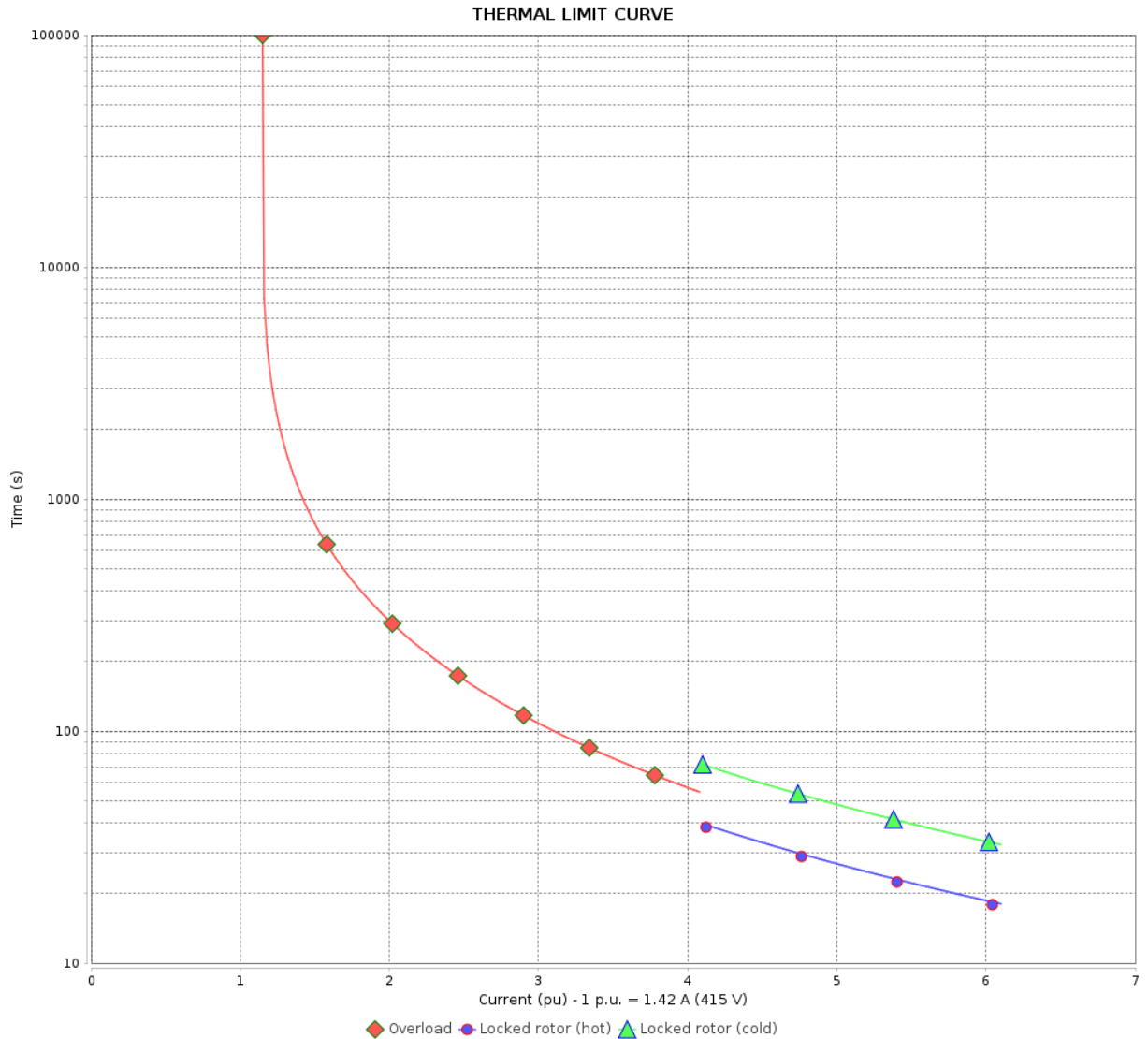
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Cooling constant

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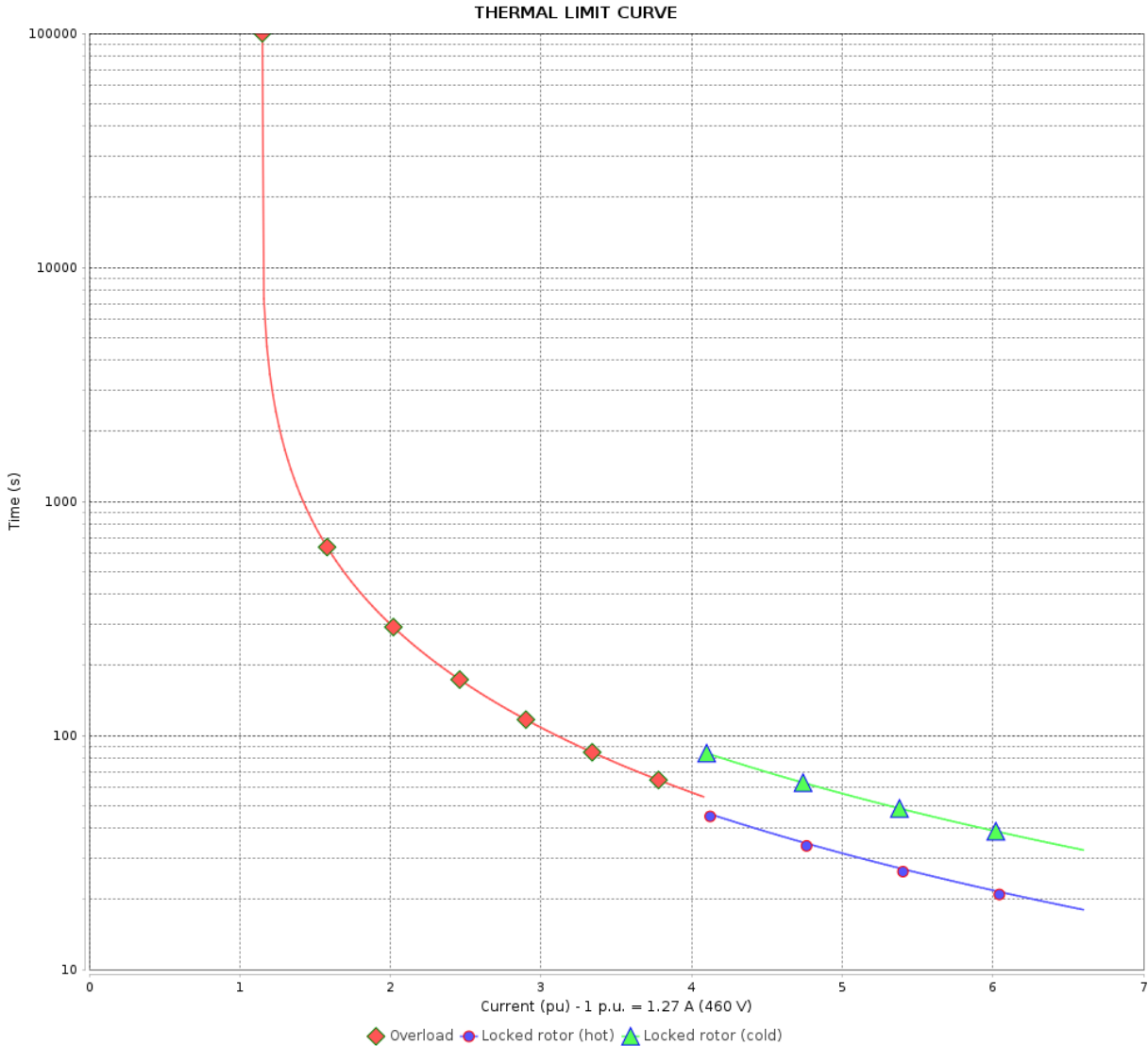
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Performance : 460 V 60 Hz 4P

Rated current	: 1.27 A	Moment of inertia (J)	: 0.0029 kgm <sup>2</sup>
LRC	: 6.6	Duty cycle	: S1
Rated torque	: 0.306 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1750 rpm	Design	: N

Heating constant

Cooling constant

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# VFD OPERATION CURVE

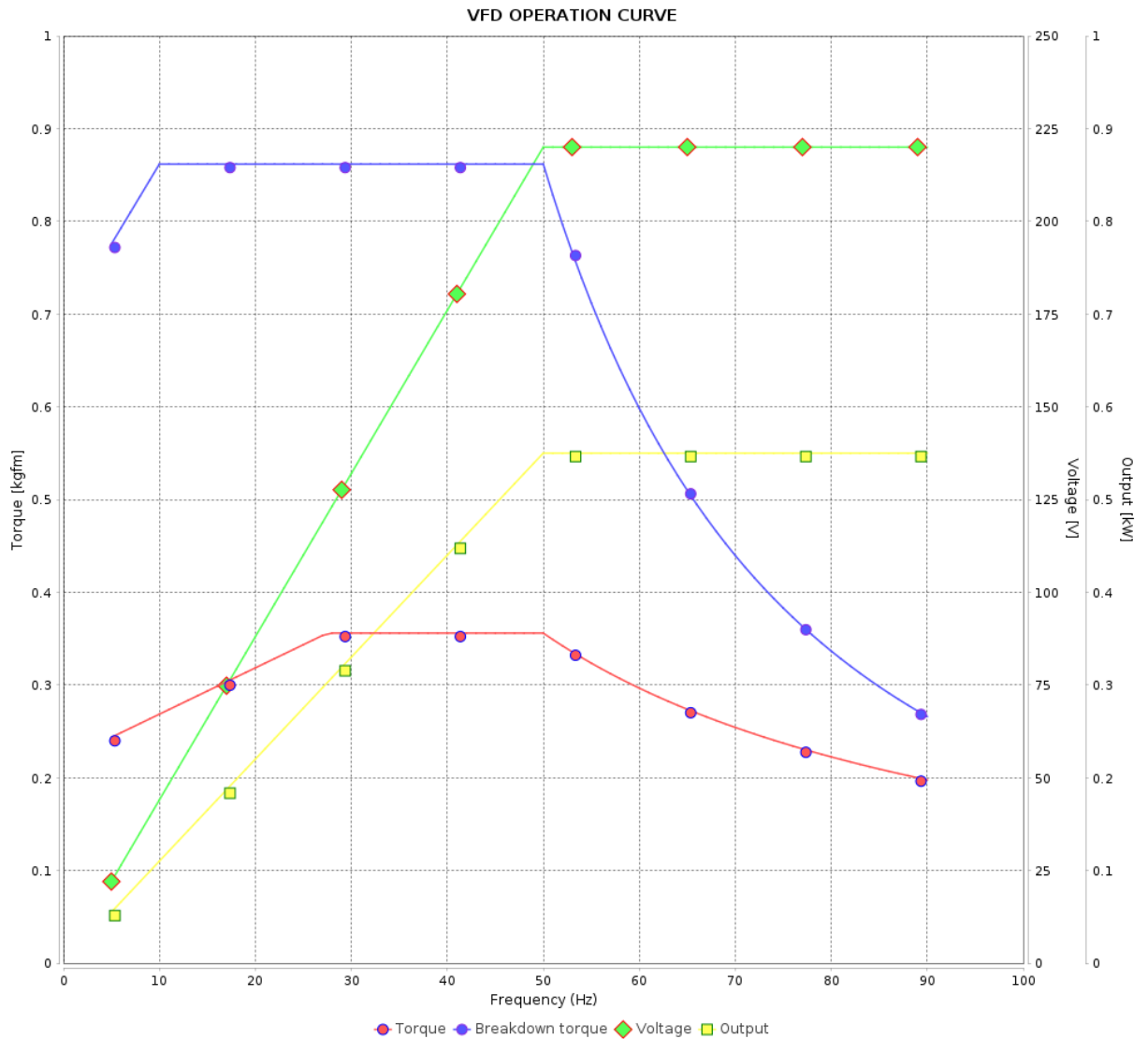
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 Rated speed : 1430 rpm

Moment of inertia (J) : 0.0029 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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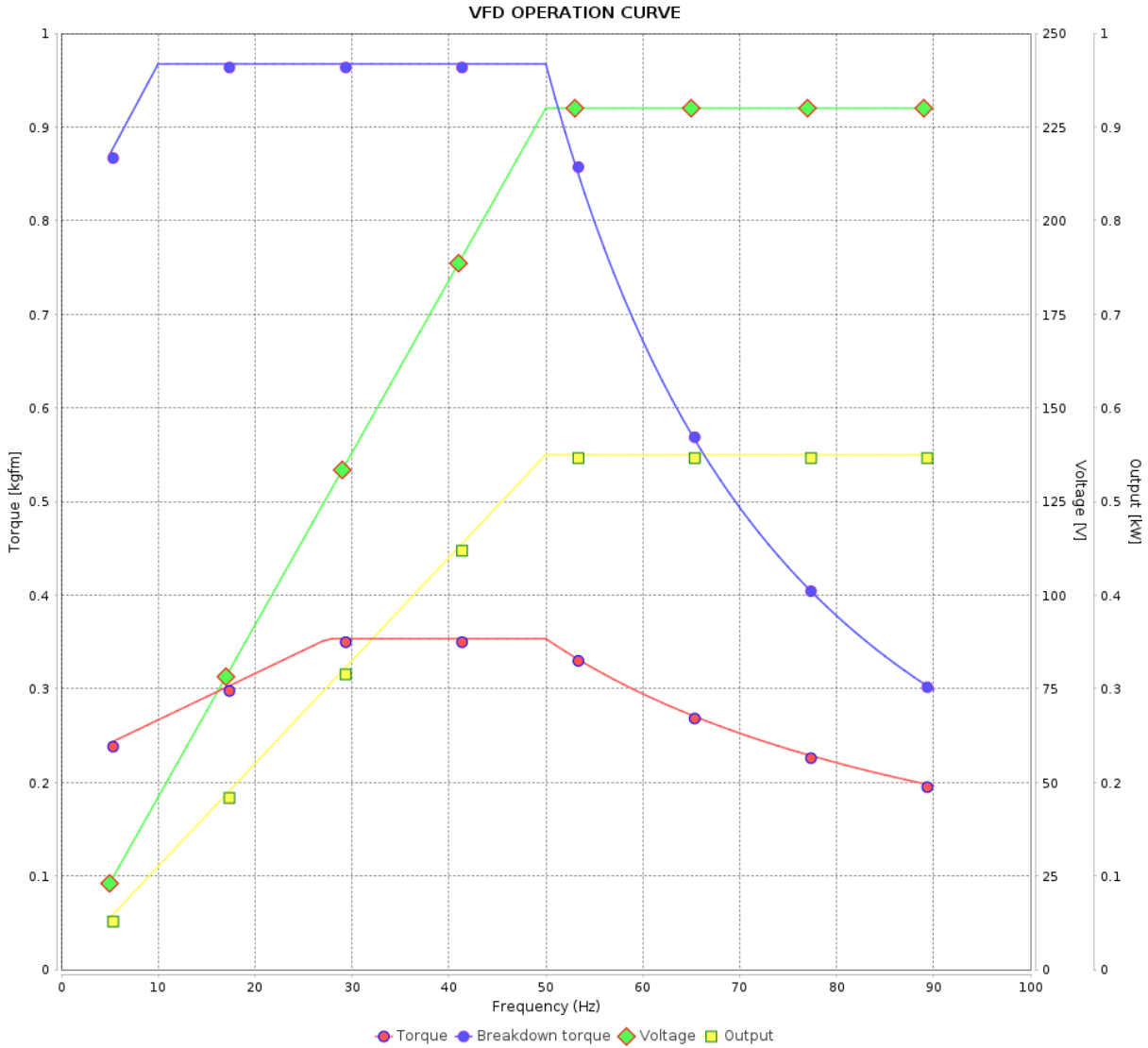
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 Locked rotor torque : 210 %  
 Breakdown torque : 260 %  
 Rated speed : 1440 rpm

Moment of inertia (J) : 0.0029 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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# VFD OPERATION CURVE

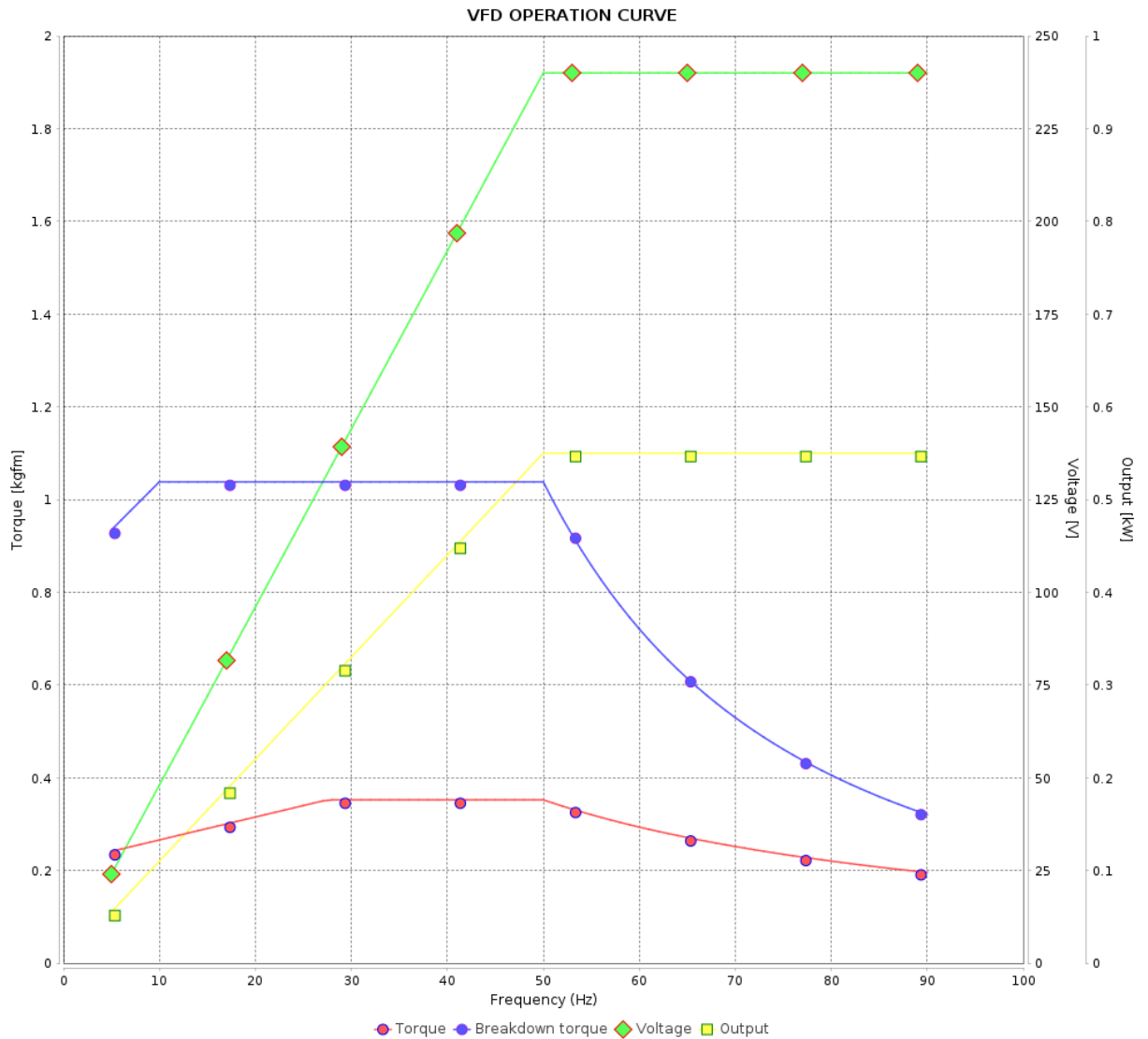
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Moment of inertia (J) : 0.0029 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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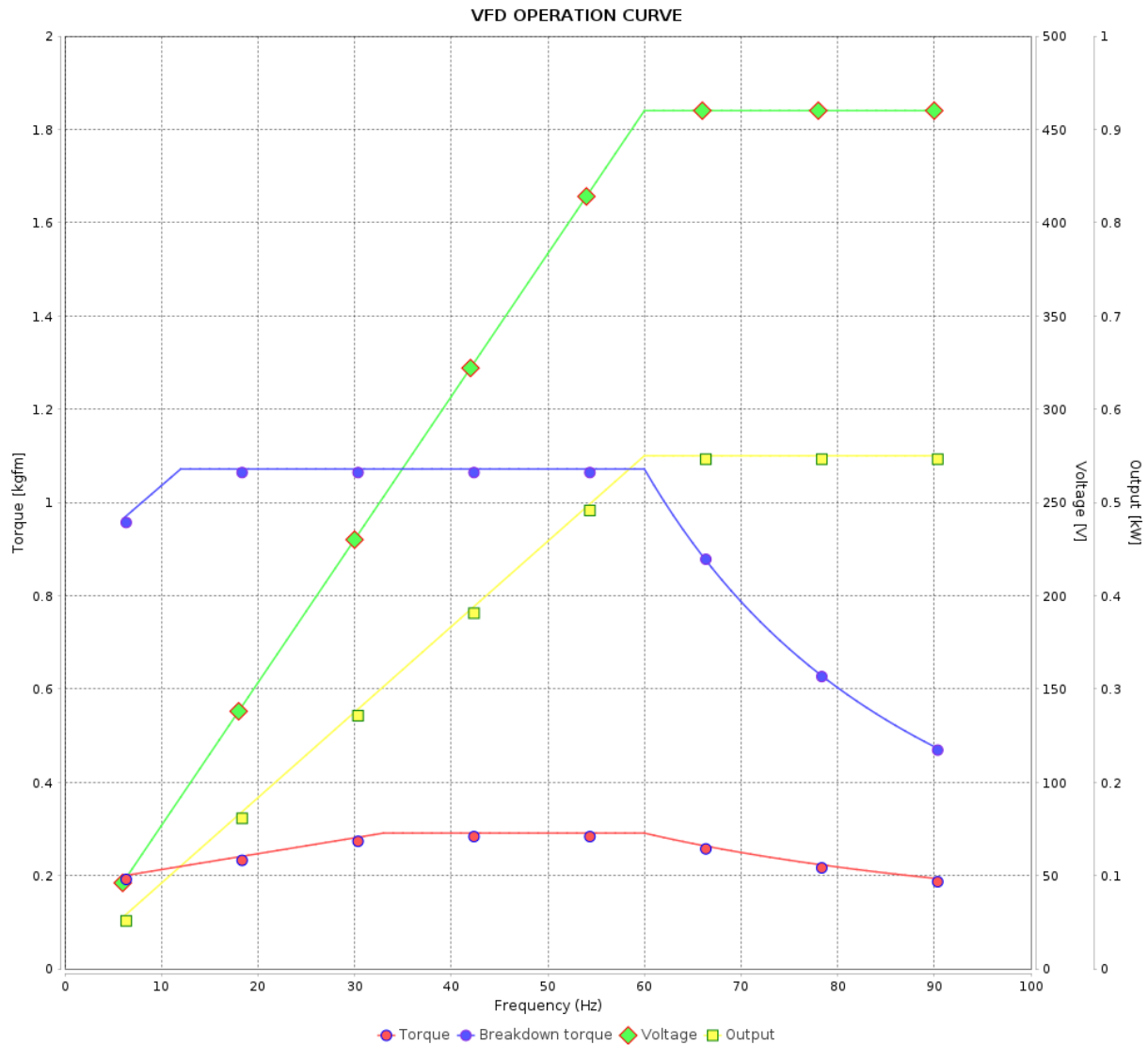
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LRC	: 6.6	Duty cycle	: S1
Rated torque	: 0.306 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1750 rpm	Design	: N

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