

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line : IE3 Three-Phase	Product code : 14508780			
Frame : 315S/M 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 : B3T Rotation ¹ : Both (CW and CCW) Starting method : Direct On Line Approx. weight ² : 1083 kg Moment of inertia (J) : 5.42 kgm ²			
Output [kW]	90			
Poles	6			
Frequency [Hz]	50			
Rated voltage [V]	400/690			
Rated current [A]	165/95.7			
L. R. Amperes [A]	1155/670			
LRC [A]	7.0			
No load current [A]	64.5/37.4			
Rated speed [RPM]	990			
Slip [%]	1.00			
Rated torque [kgfm]	88.5			
Locked rotor torque [%]	190			
Breakdown torque [%]	250			
Service factor	1.00			
Temperature rise	70 K			
Locked rotor time	55s (cold) 31s (hot)			
Noise level ²	67.0 dB(A)			
Efficiency (%)	25%			
	50%			
	75%			
	100%			
Power Factor	25%			
	50%			
	75%			
	100%			
Bearing type : <u>Drive end</u> 6319 C3 <u>Non drive end</u> 6316 C3 Sealing : WSeal WSeal Lubrication interval : 16000 h 18000 h Lubricant amount : 45 g 34 g Lubricant type : Mobil Polyrex EM	Foundation loads Max. traction : 908 kgf Max. compression : 1991 kgf			
Notes				
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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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

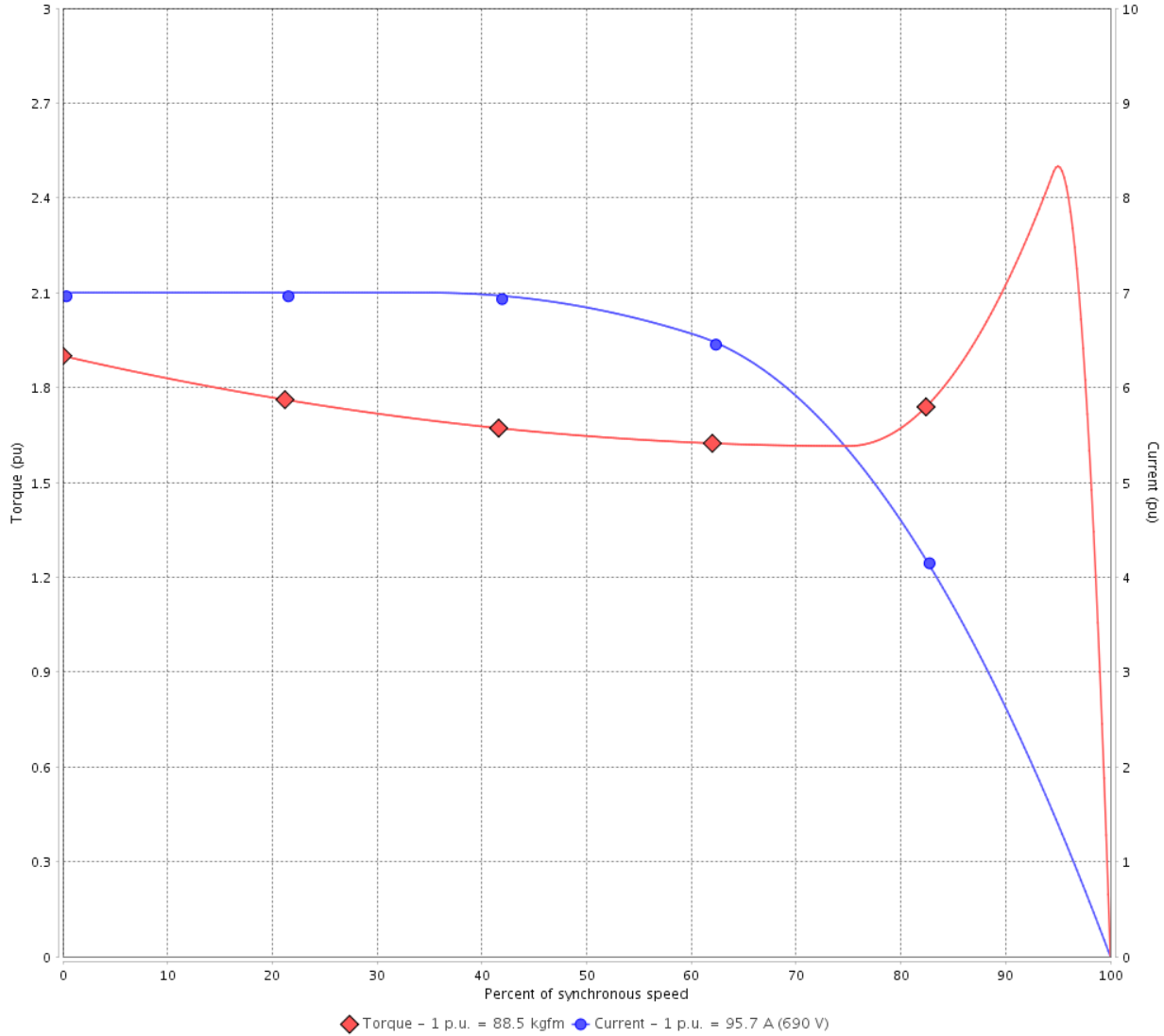


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Product line : IE3 Three-Phase

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TORQUE AND CURRENT VS SPEED CURVE



Performance : 400/690 V 50 Hz 6P

Rated current	: 165/95.7 A	Moment of inertia (J)	: 5.42 kgm ²
LRC	: 7.0	Duty cycle	: S1
Rated torque	: 88.5 kgfm	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 70 K
Rated speed	: 990 rpm	Design	: N

Locked rotor time : 55s (cold) 31s (hot)

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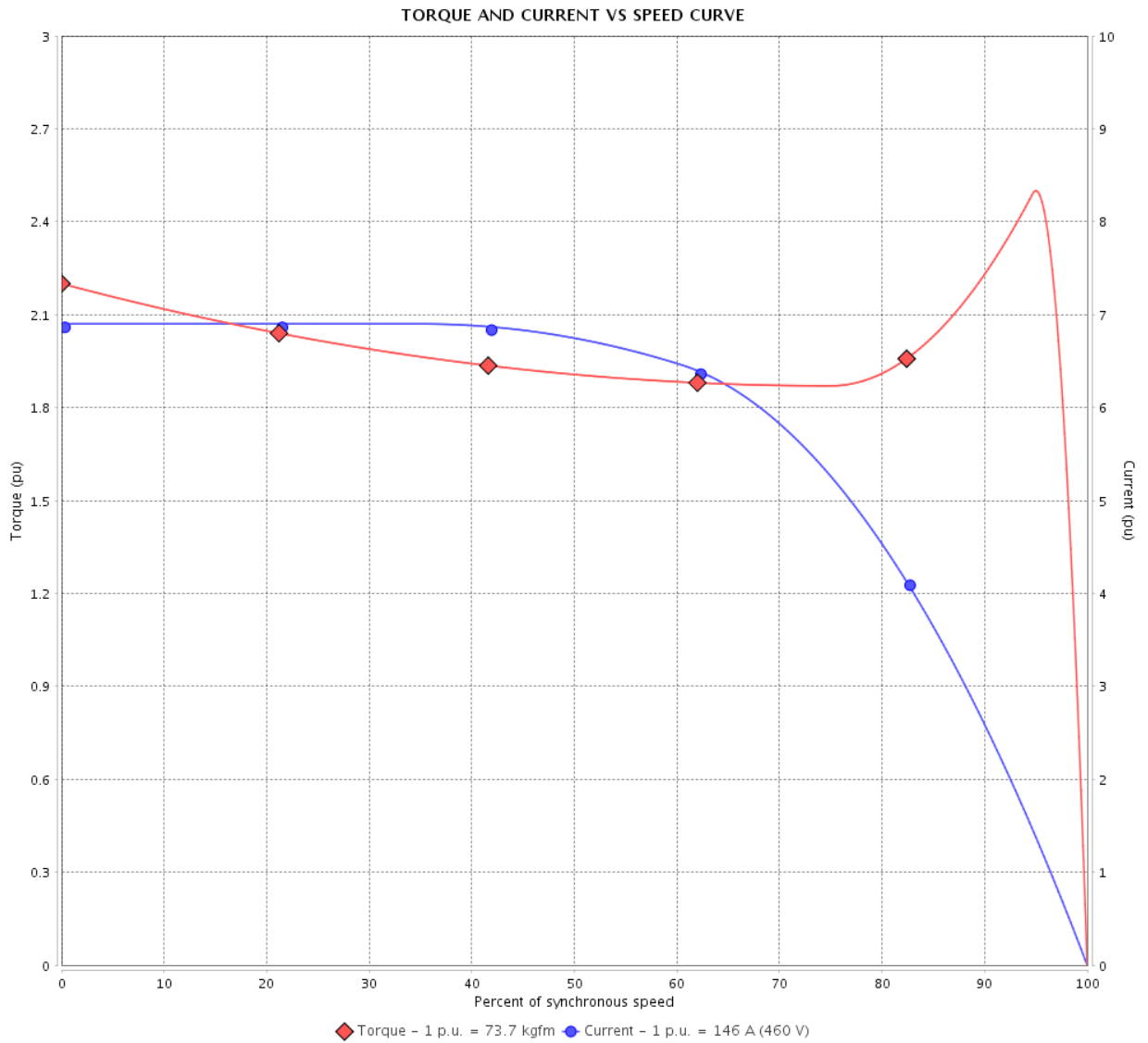
Three Phase Induction Motor - Squirrel Cage



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Product line : IE3 Three-Phase

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Performance : 460 V 60 Hz 6P

Rated current	: 146 A	Moment of inertia (J)	: 5.42 kgm ²
LRC	: 6.9	Duty cycle	: S1
Rated torque	: 73.7 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 70 K
Rated speed	: 1190 rpm	Design	: N

Locked rotor time : 55s (cold) 31s (hot)

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LOAD PERFORMANCE CURVE

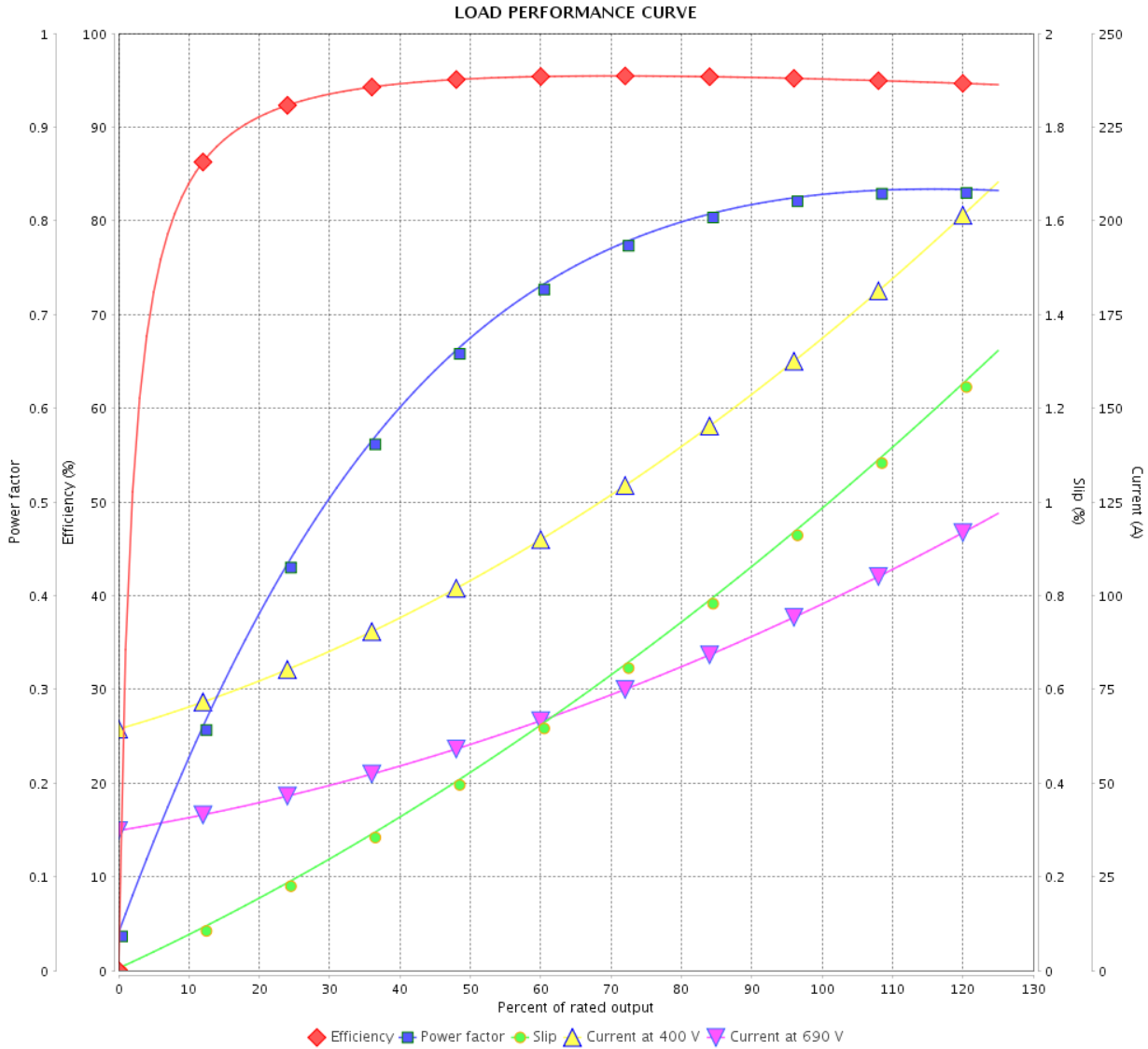
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 Rated torque : 88.5 kgfm
 Locked rotor torque : 190 %
 Breakdown torque : 250 %
 Rated speed : 990 rpm

Moment of inertia (J) : 5.42 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 70 K
 Design : N

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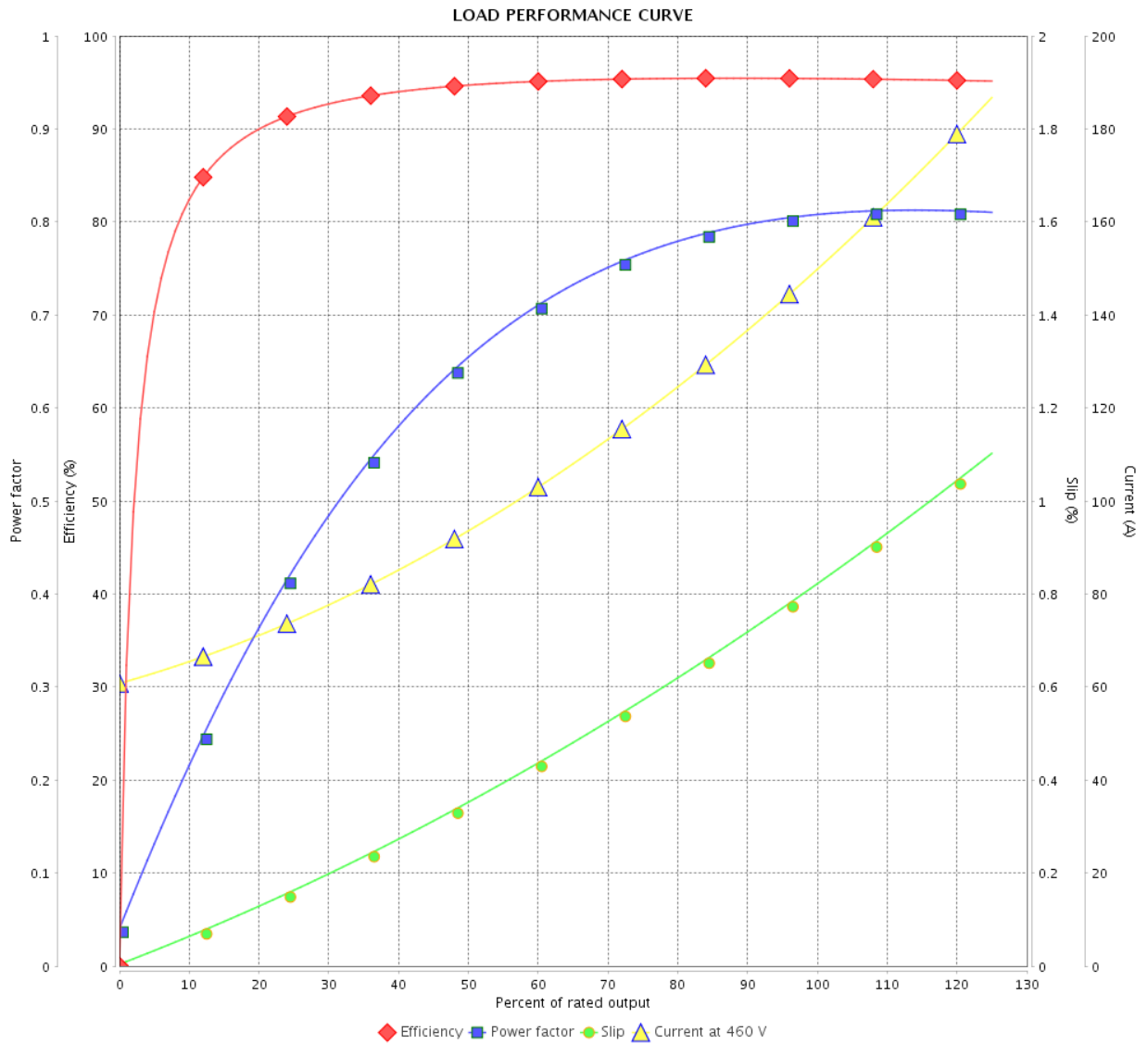
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THERMAL LIMIT CURVE

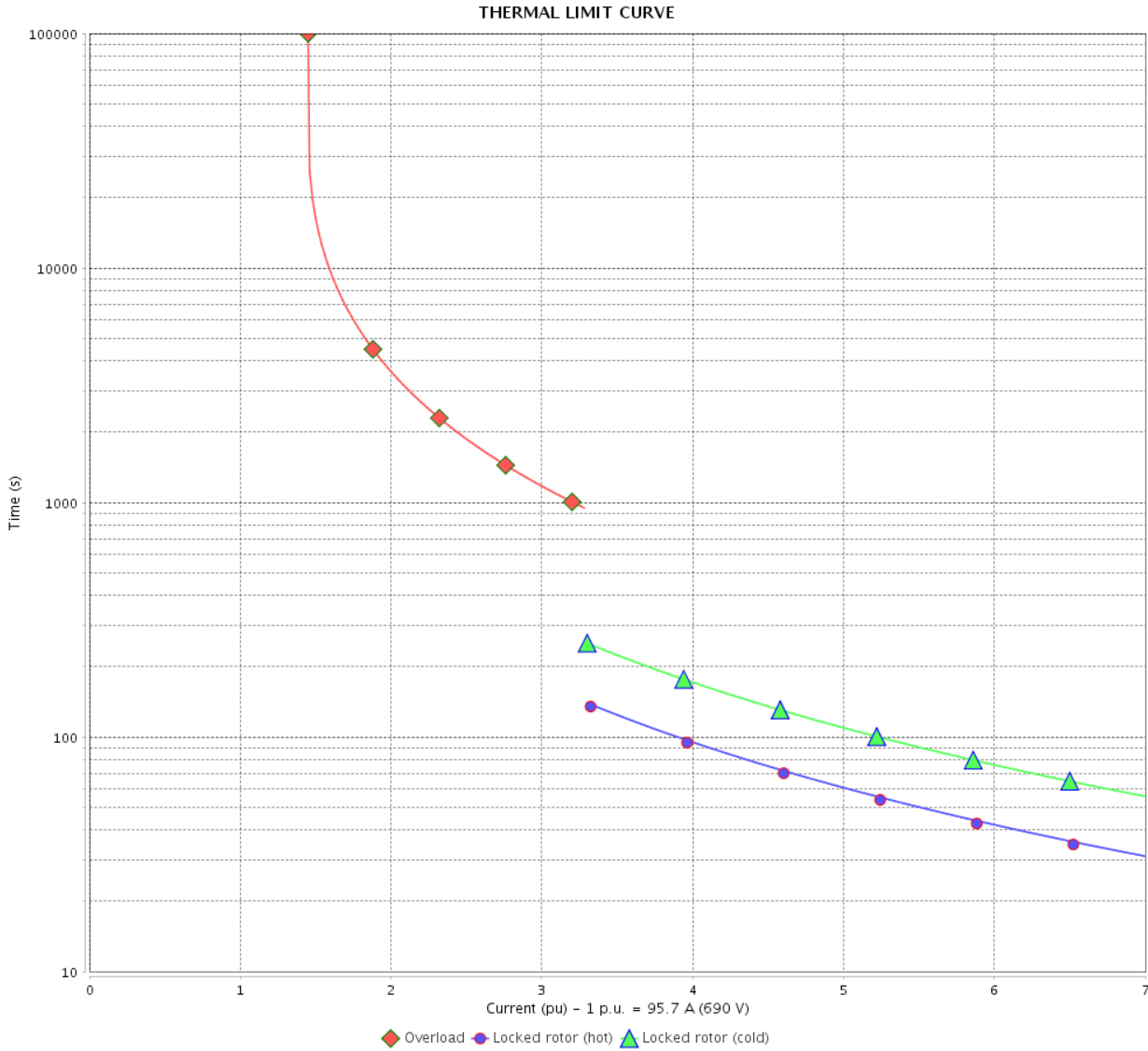
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Heating constant

Cooling constant

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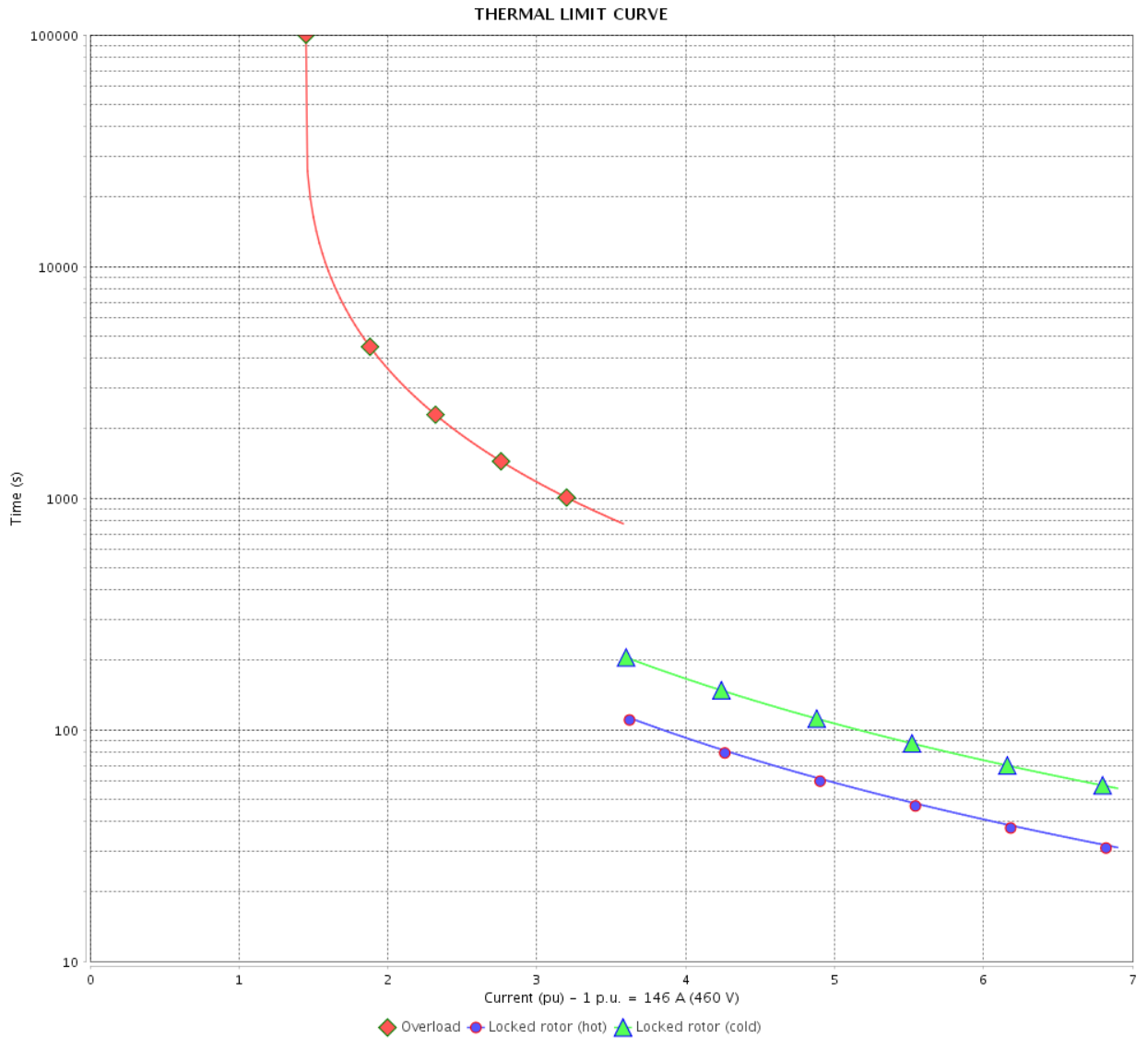
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VFD OPERATION CURVE

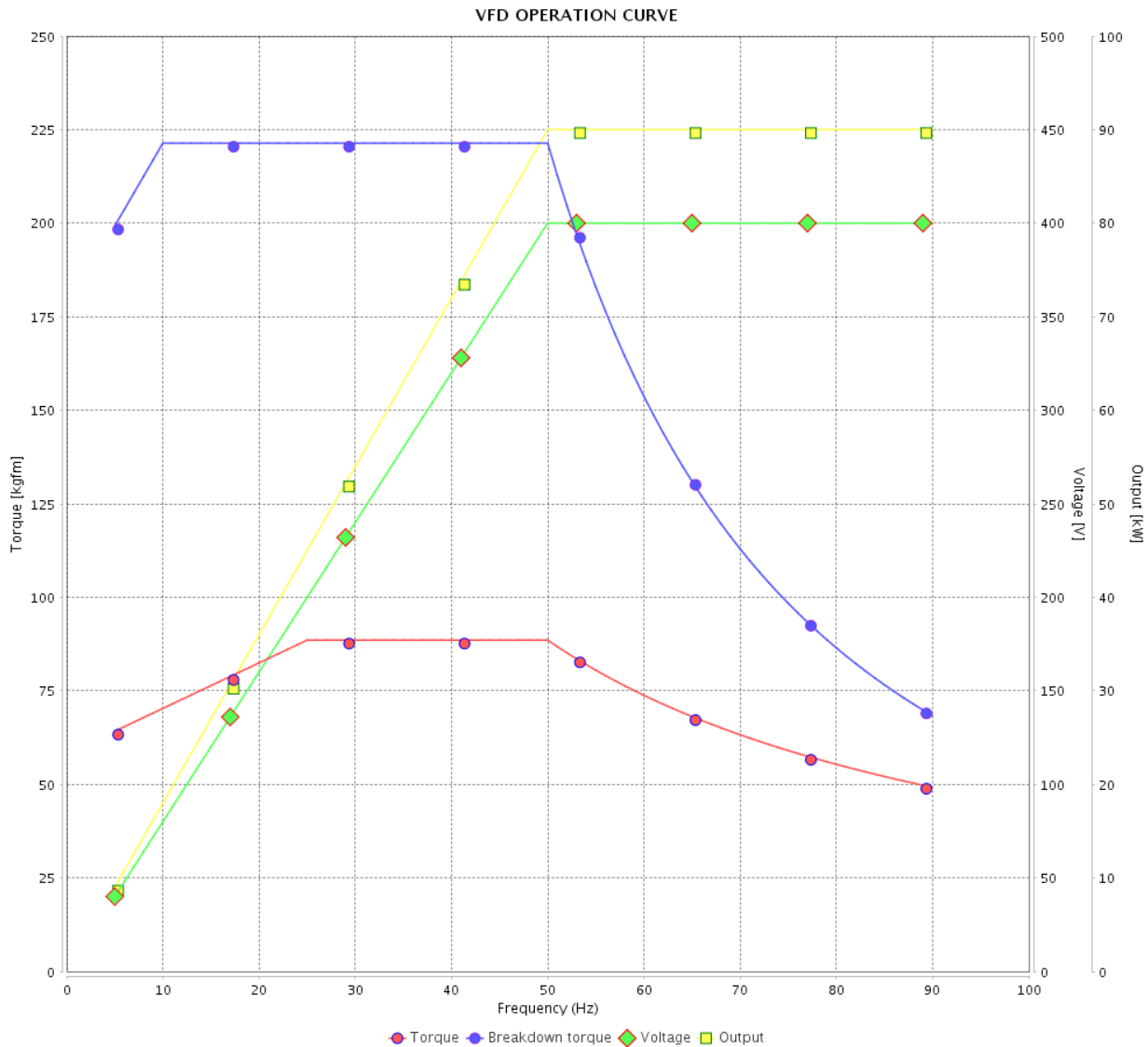
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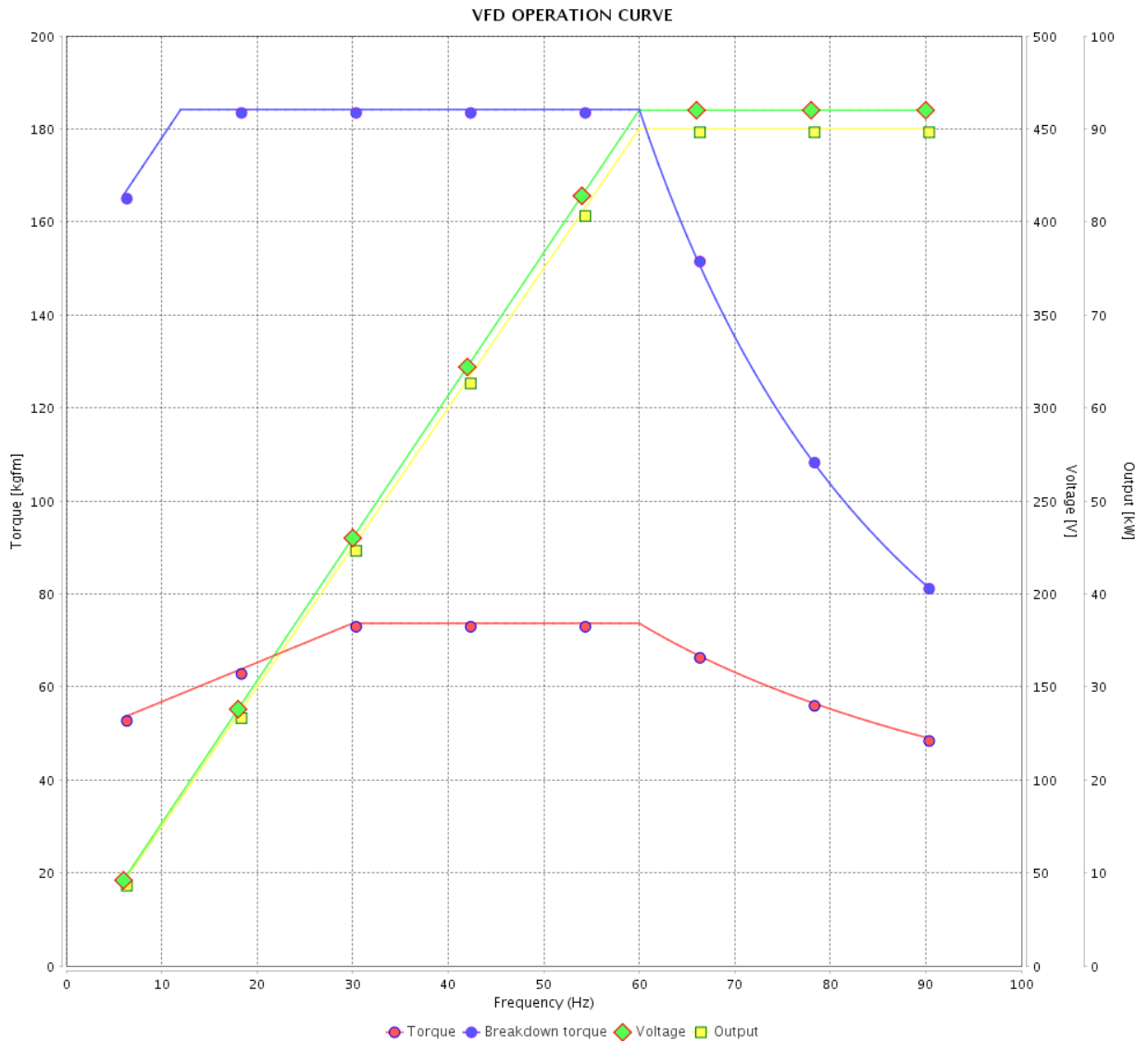
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