

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line : IE3 Three-Phase	Product code : 13097820			
Frame : 100L 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 : B5T Rotation ¹ : Both (CW and CCW) Starting method : Direct On Line Approx. weight ³ : 66.0 lb Moment of inertia (J) : 0.2129 sq.ft.lb			
Output [kW]	2.2			
Poles	4			
Frequency [Hz]	50			
Rated voltage [V]	220/380			
Rated current [A]	8.22/4.76			
L. R. Amperes [A]	60.8/35.2			
LRC [A]	7.4			
No load current [A]	3.63/2.10			
Rated speed [RPM]	1430			
Slip [%]	4.67			
Rated torque [ft.lb]	10.8			
Locked rotor torque [%]	280			
Breakdown torque [%]	300			
Service factor	1.00			
Temperature rise	80 K			
Locked rotor time	32s (cold) 18s (hot)			
Noise level ²	53.0 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 6206 ZZ Non drive end 6205 ZZ Sealing : Oil Seal Oil Seal Lubrication interval : - - Lubricant amount : - - Lubricant type : Mobil Polyrex EM	Foundation loads Max. traction : 264 lb Max. compression : 330 lb			
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



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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

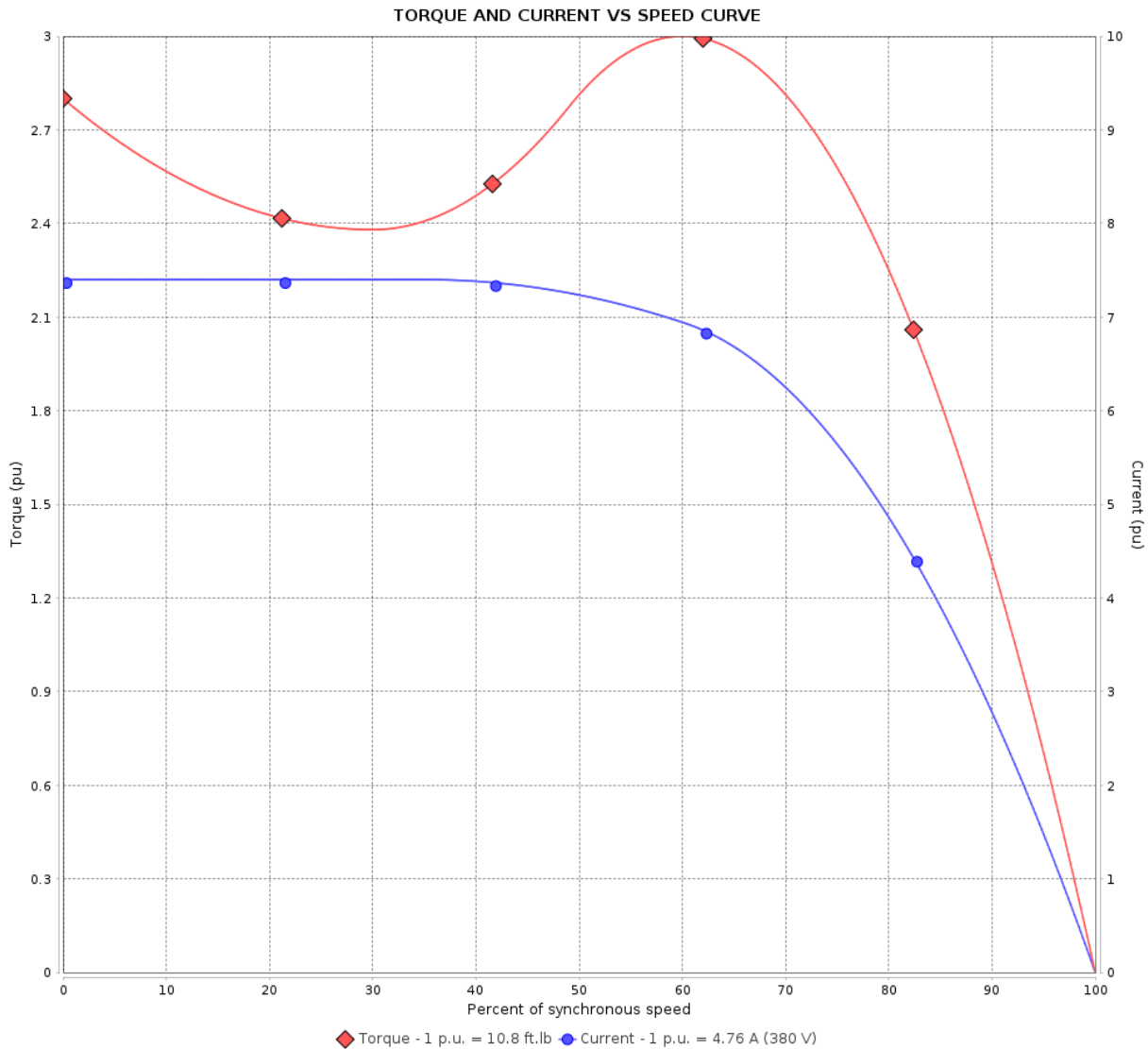
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE3 Three-Phase

Product code : 13097820



Performance : 220/380 V 50 Hz 4P

Rated current	: 8.22/4.76 A	Moment of inertia (J)	: 0.2129 sq.ft.lb
LRC	: 7.4	Duty cycle	: S1
Rated torque	: 10.8 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 300 %	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

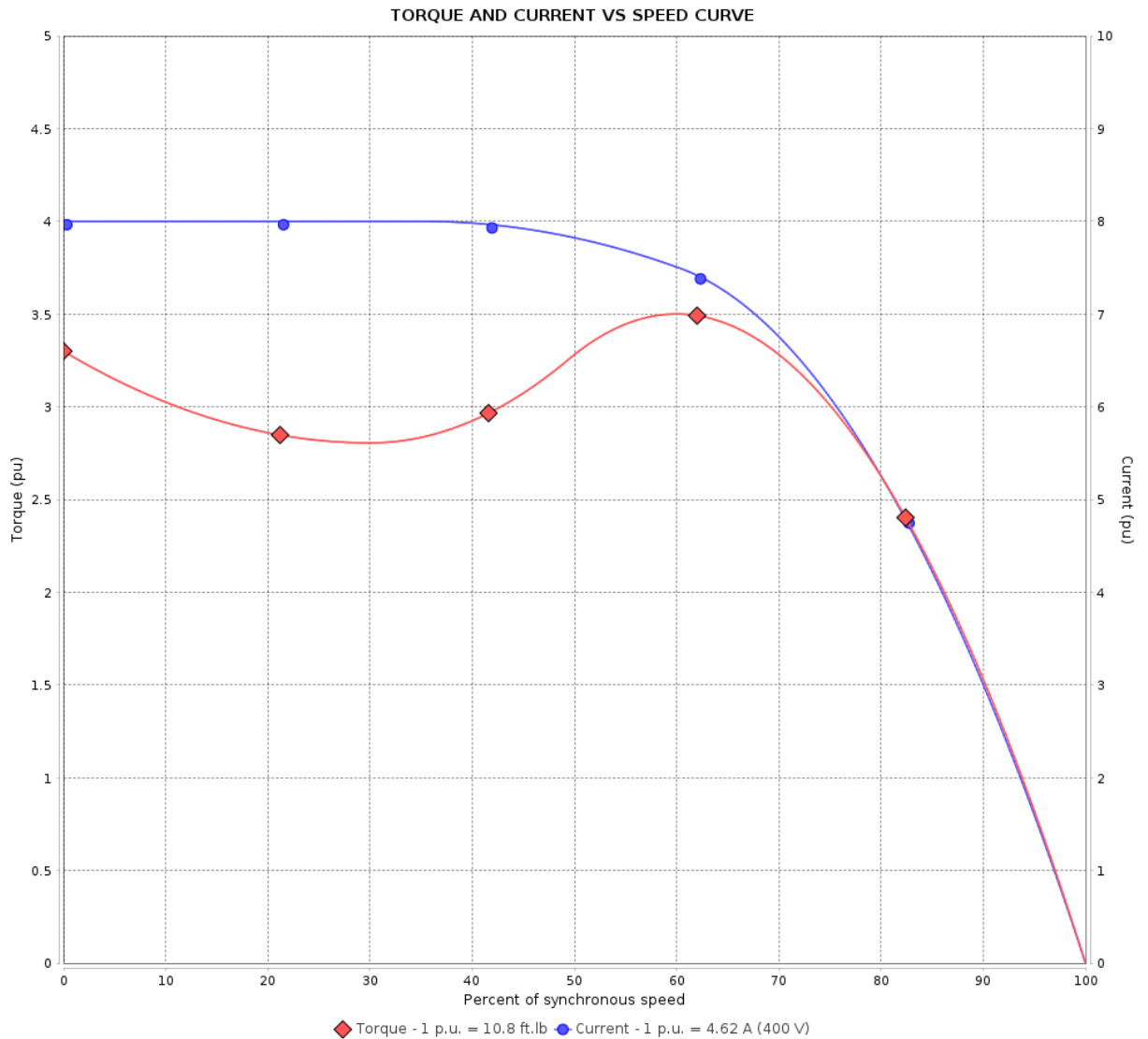


Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : IE3 Three-Phase

Product code : 13097820



Performance : 230/400 V 50 Hz 4P

Rated current	: 8.03/4.62 A	Moment of inertia (J)	: 0.2129 sq.ft.lb
LRC	: 8.0	Duty cycle	: S1
Rated torque	: 10.8 ft.lb	Insulation class	: F
Locked rotor torque	: 330 %	Service factor	: 1.00
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1435 rpm	Design	: N

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

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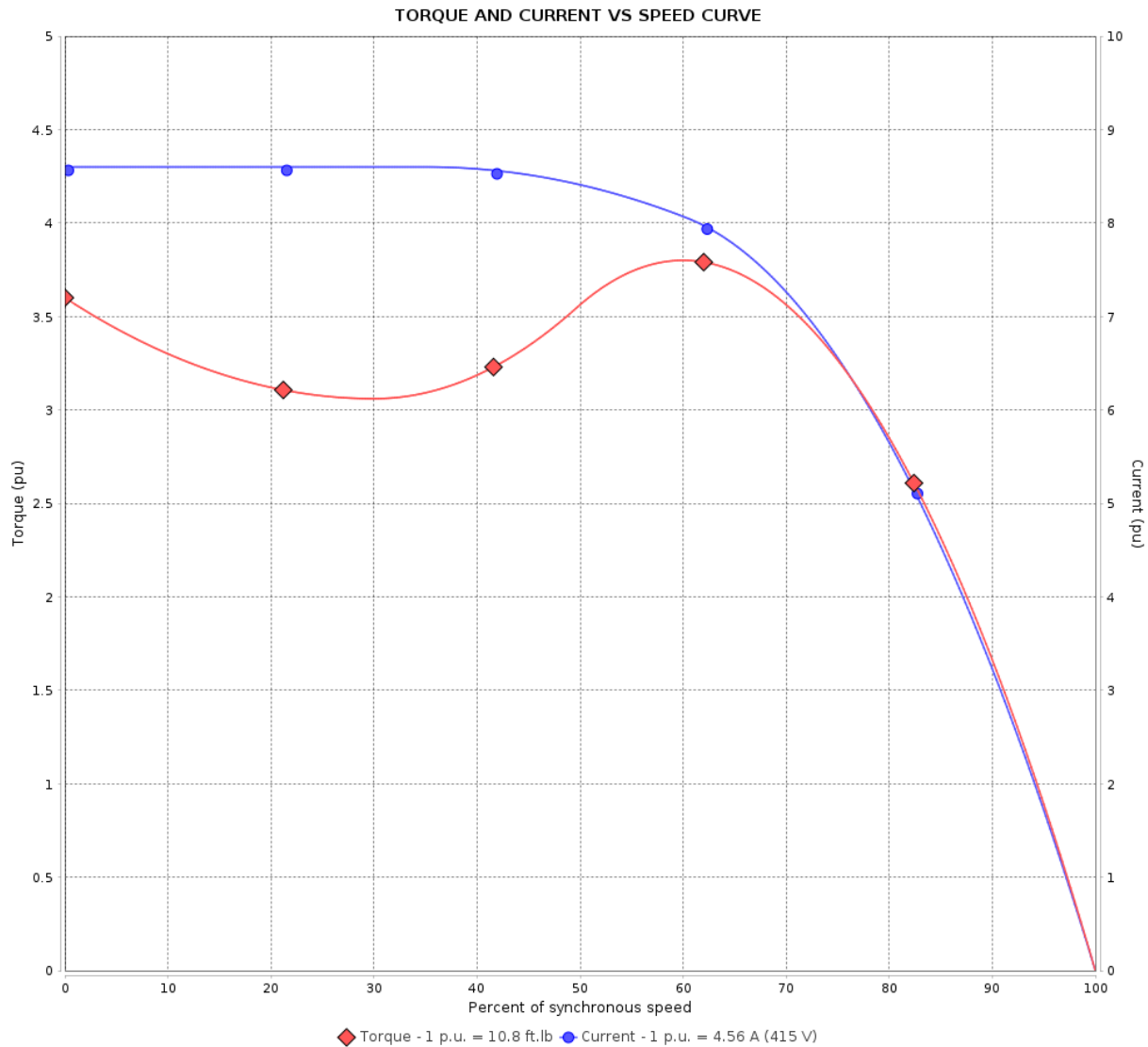
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE3 Three-Phase

Product code : 13097820



Performance : 240/415 V 50 Hz 4P

Rated current	: 7.89/4.56 A	Moment of inertia (J)	: 0.2129 sq.ft.lb
LRC	: 8.6	Duty cycle	: S1
Rated torque	: 10.8 ft.lb	Insulation class	: F
Locked rotor torque	: 360 %	Service factor	: 1.00
Breakdown torque	: 380 %	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

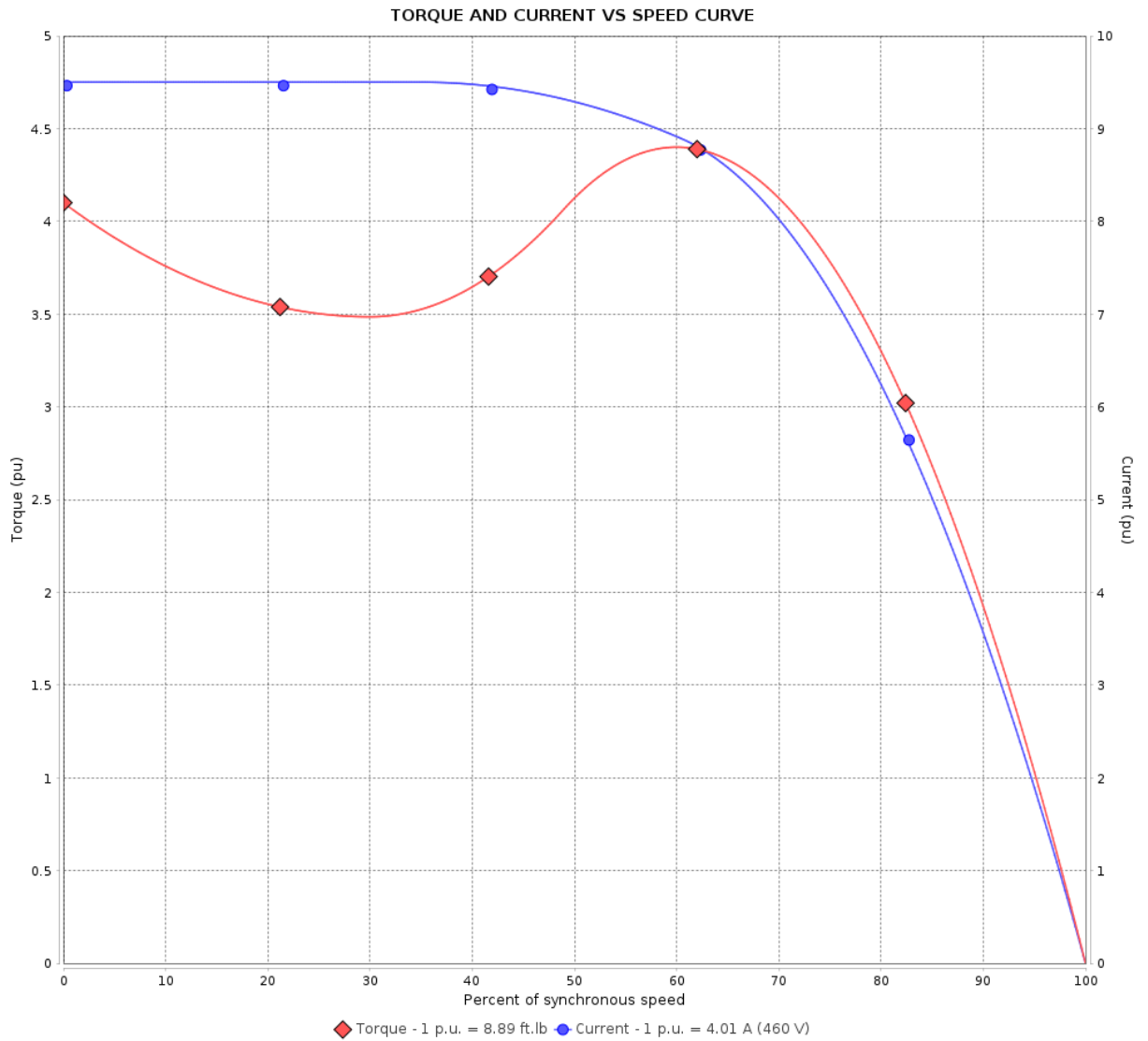


Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : IE3 Three-Phase

Product code : 13097820



Performance : 460 V 60 Hz 4P

Rated current	: 4.01 A	Moment of inertia (J)	: 0.2129 sq.ft.lb
LRC	: 9.5	Duty cycle	: S1
Rated torque	: 8.89 ft.lb	Insulation class	: F
Locked rotor torque	: 409 %	Service factor	: 1.00
Breakdown torque	: 440 %	Temperature rise	: 80 K
Rated speed	: 1745 rpm	Design	: N

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

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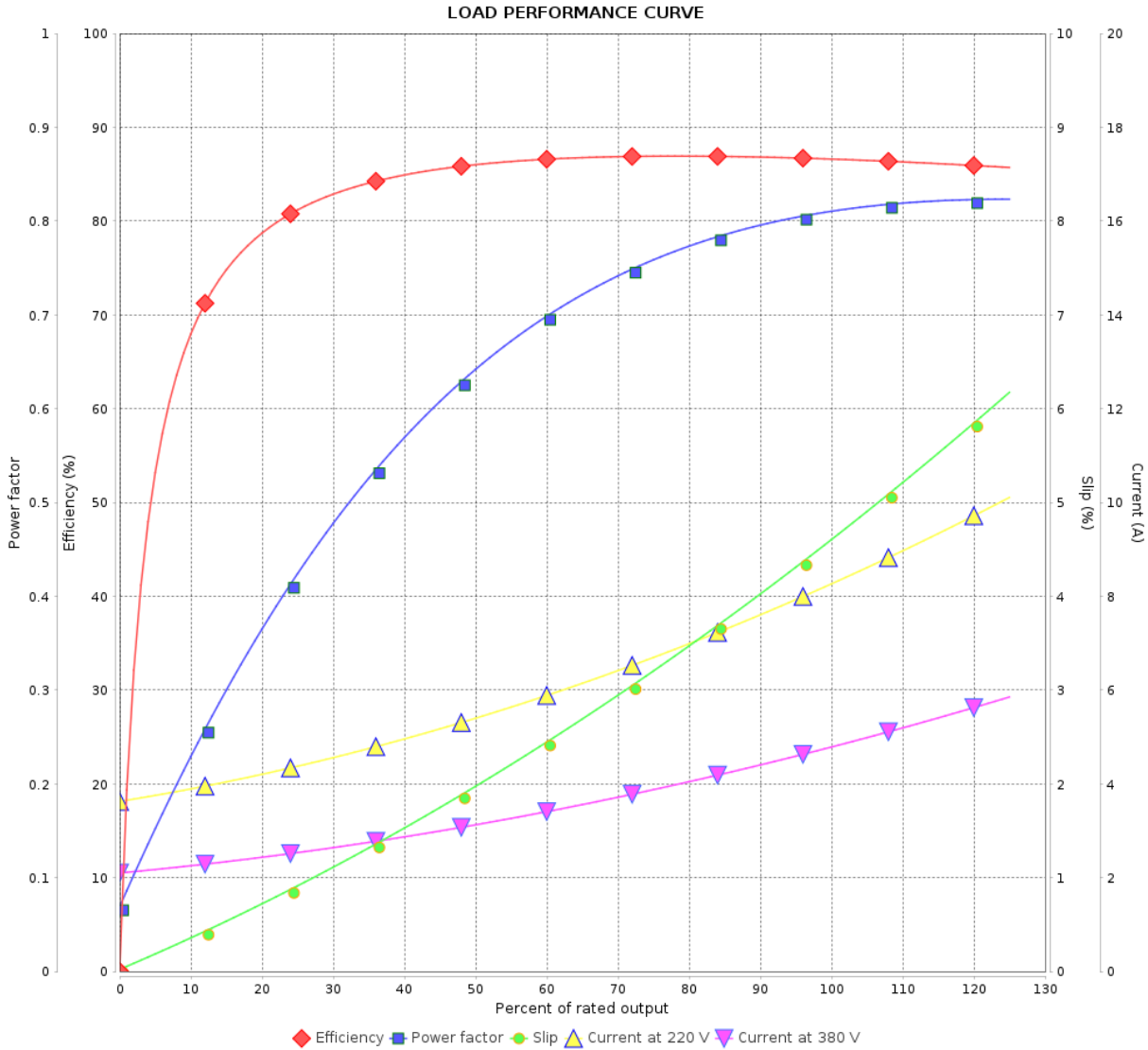
Three Phase Induction Motor - Squirrel Cage



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Product line : IE3 Three-Phase

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Performance : 220/380 V 50 Hz 4P

Rated current : 8.22/4.76 A
 LRC : 7.4
 Rated torque : 10.8 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 300 %
 Rated speed : 1430 rpm

Moment of inertia (J) : 0.2129 sq.ft.lb
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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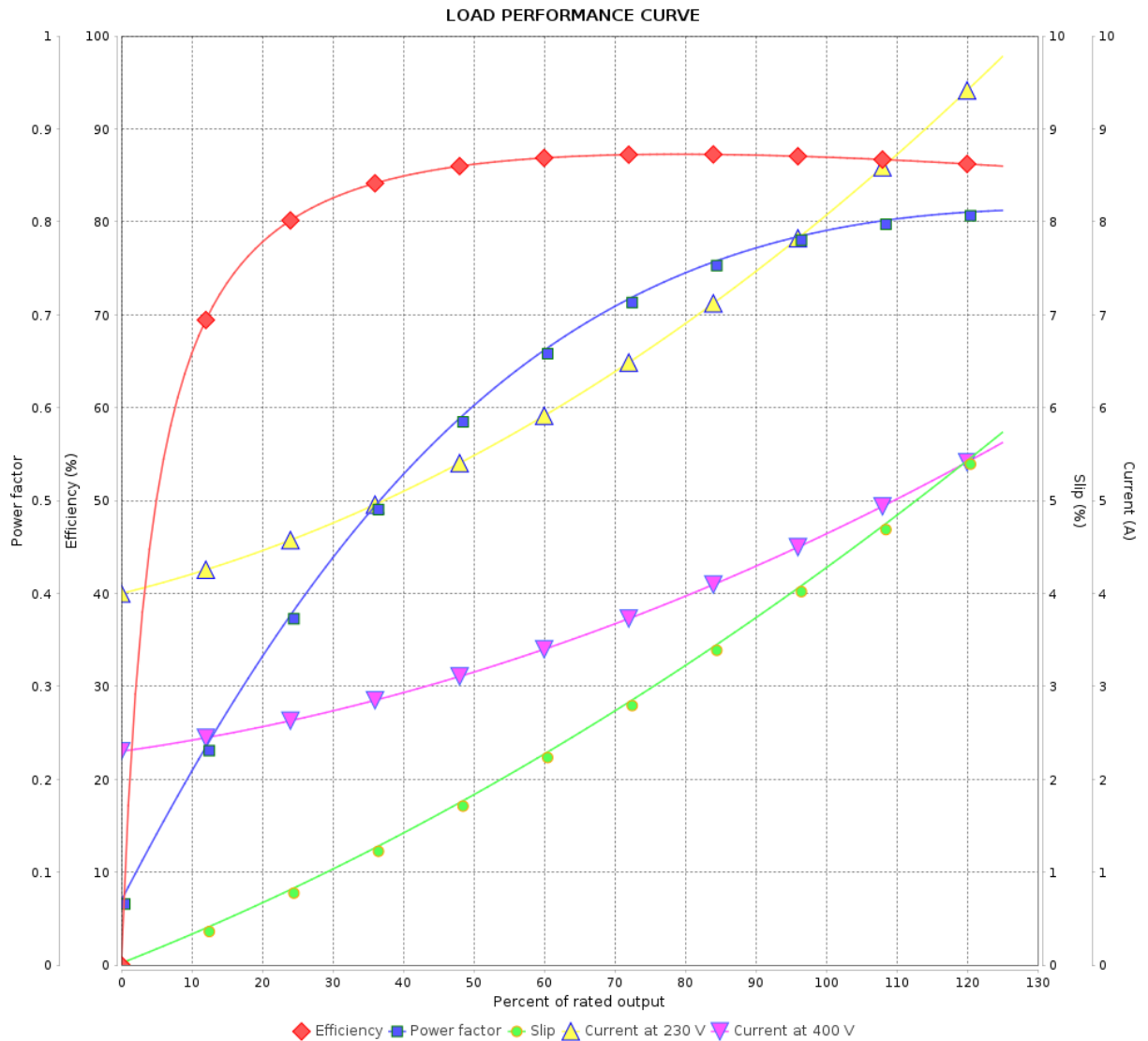
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 Rated torque : 10.8 ft.lb
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 Breakdown torque : 350 %
 Rated speed : 1435 rpm

Moment of inertia (J) : 0.2129 sq.ft.lb
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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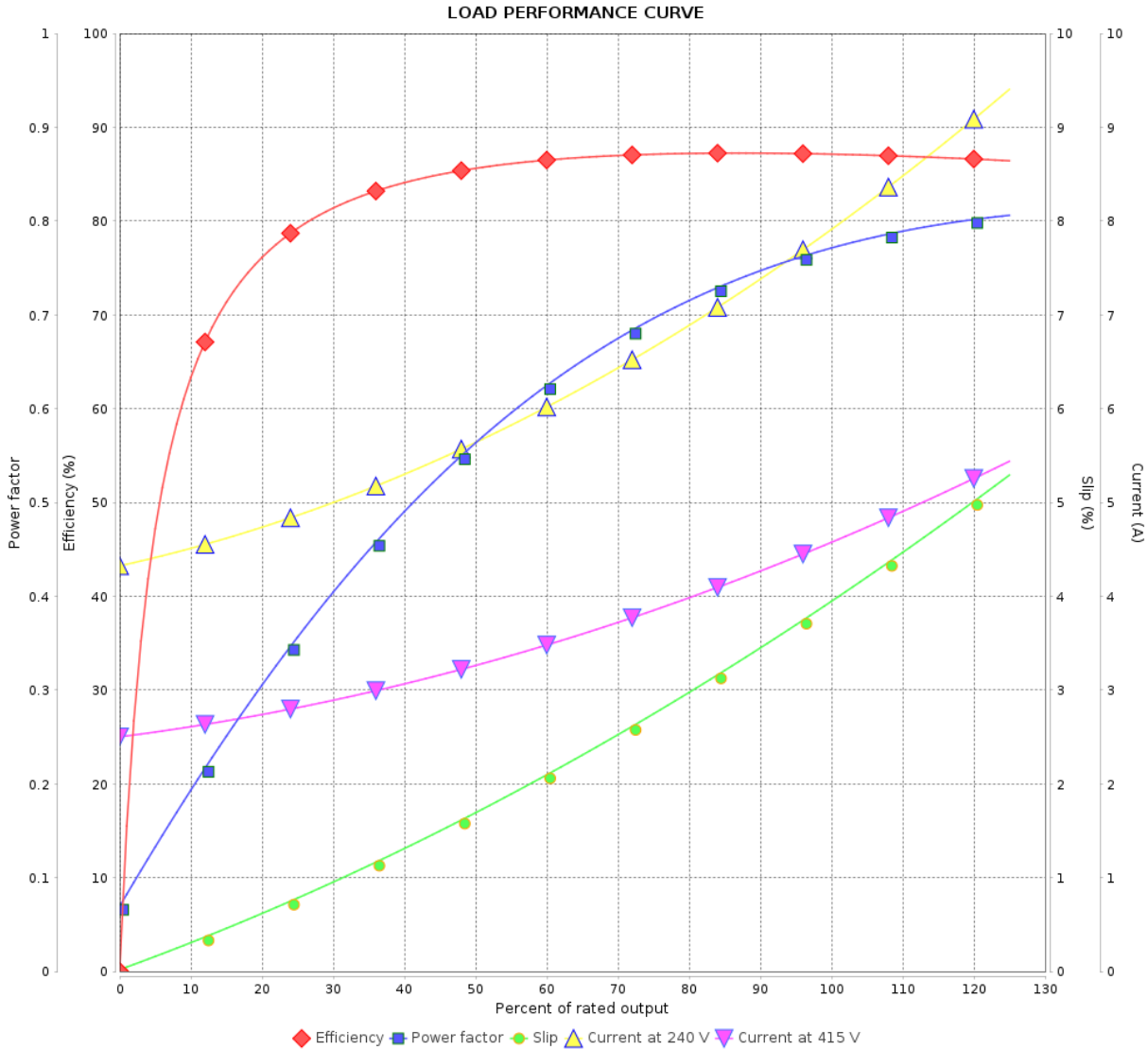
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 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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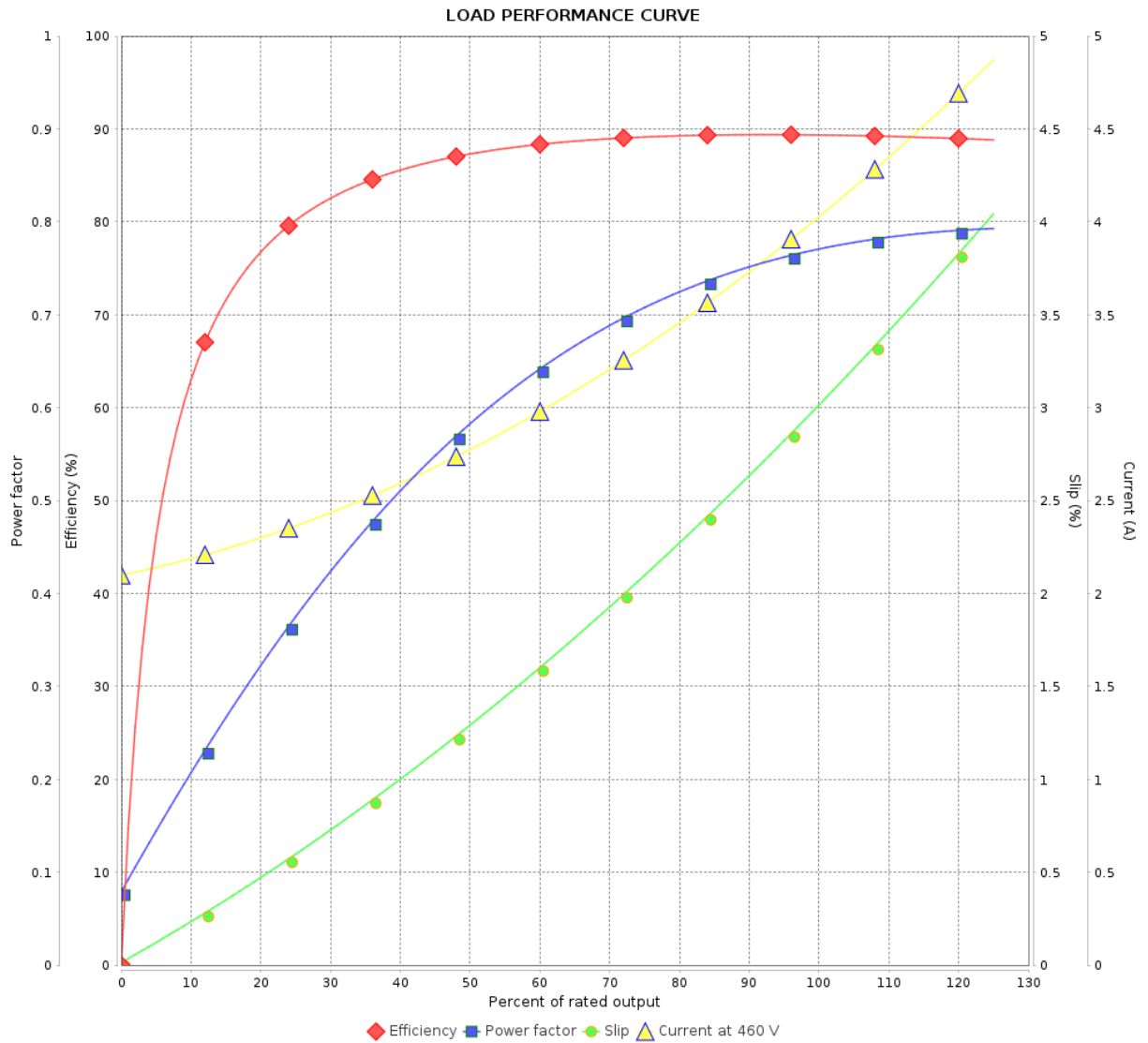
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THERMAL LIMIT CURVE

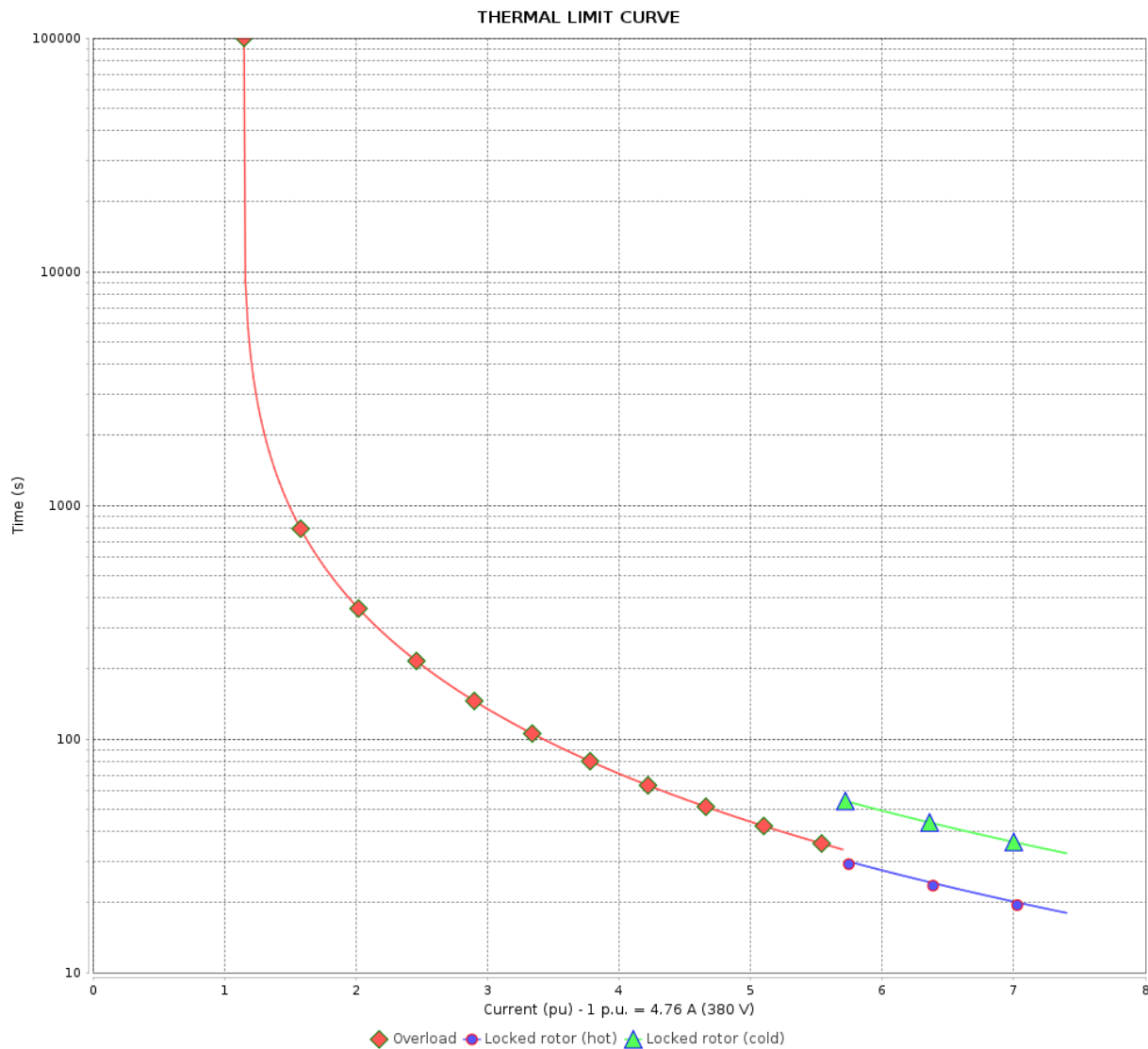
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 Temperature rise : 80 K
 Design : N

Heating constant
 Cooling constant

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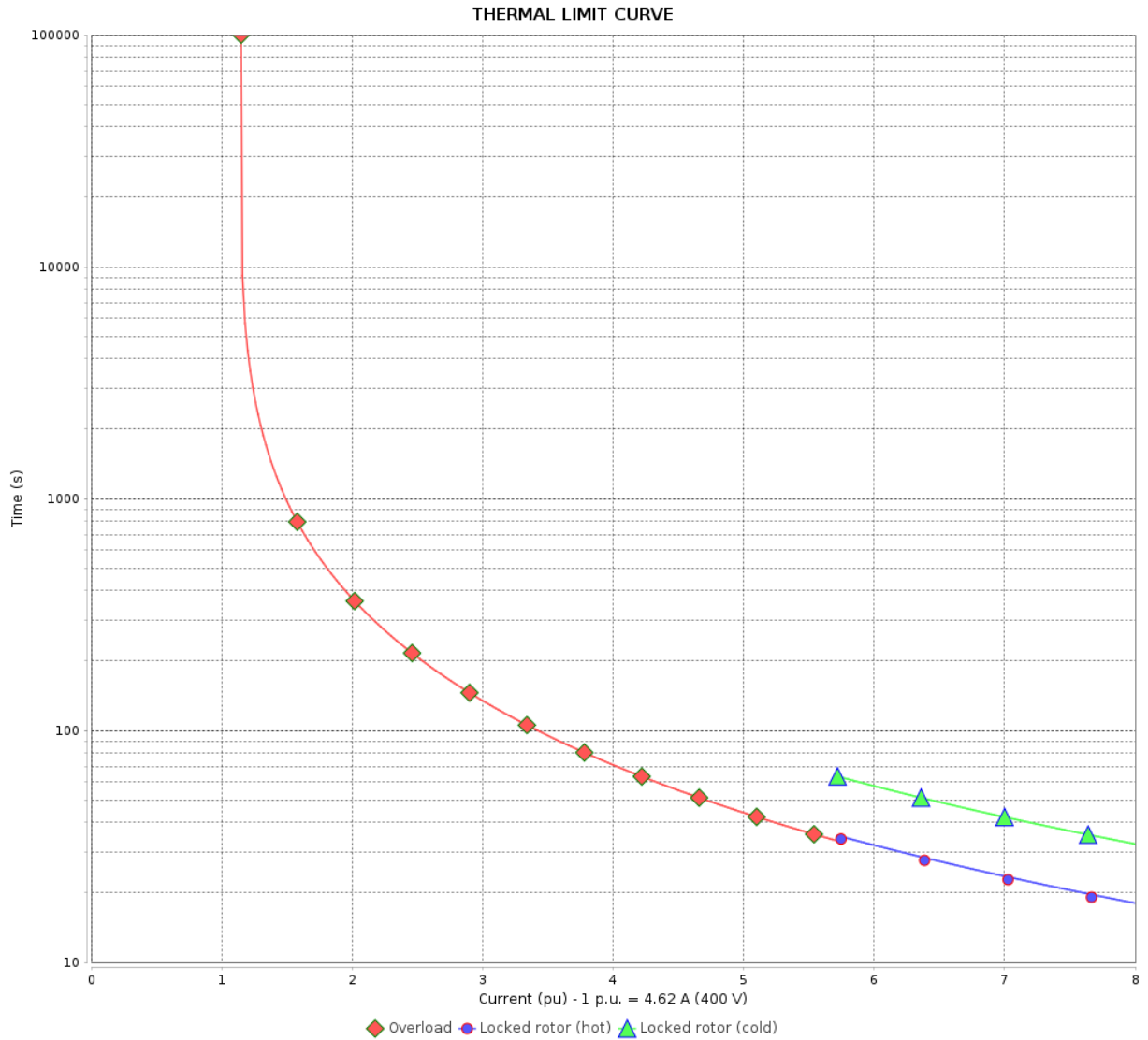
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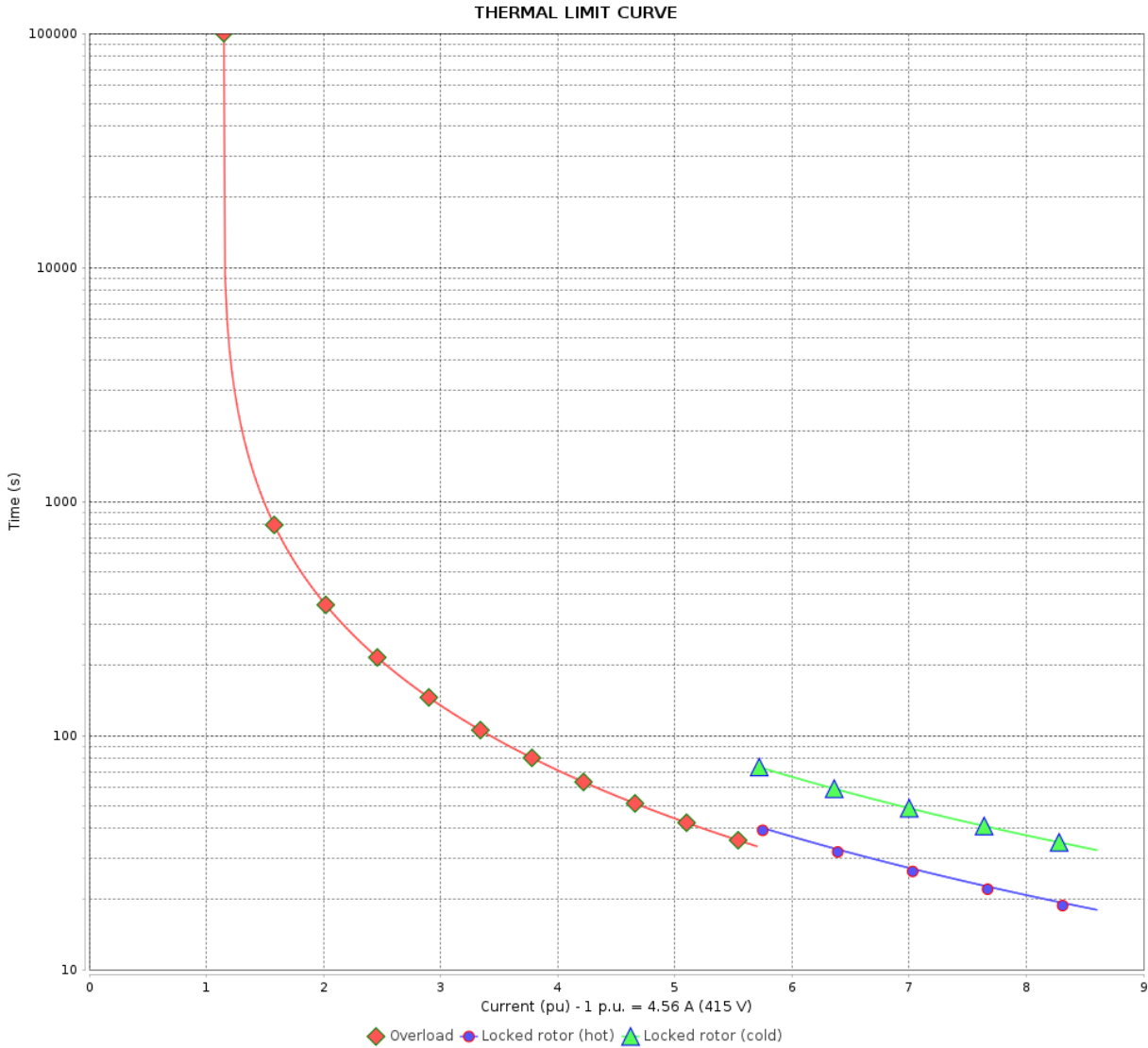
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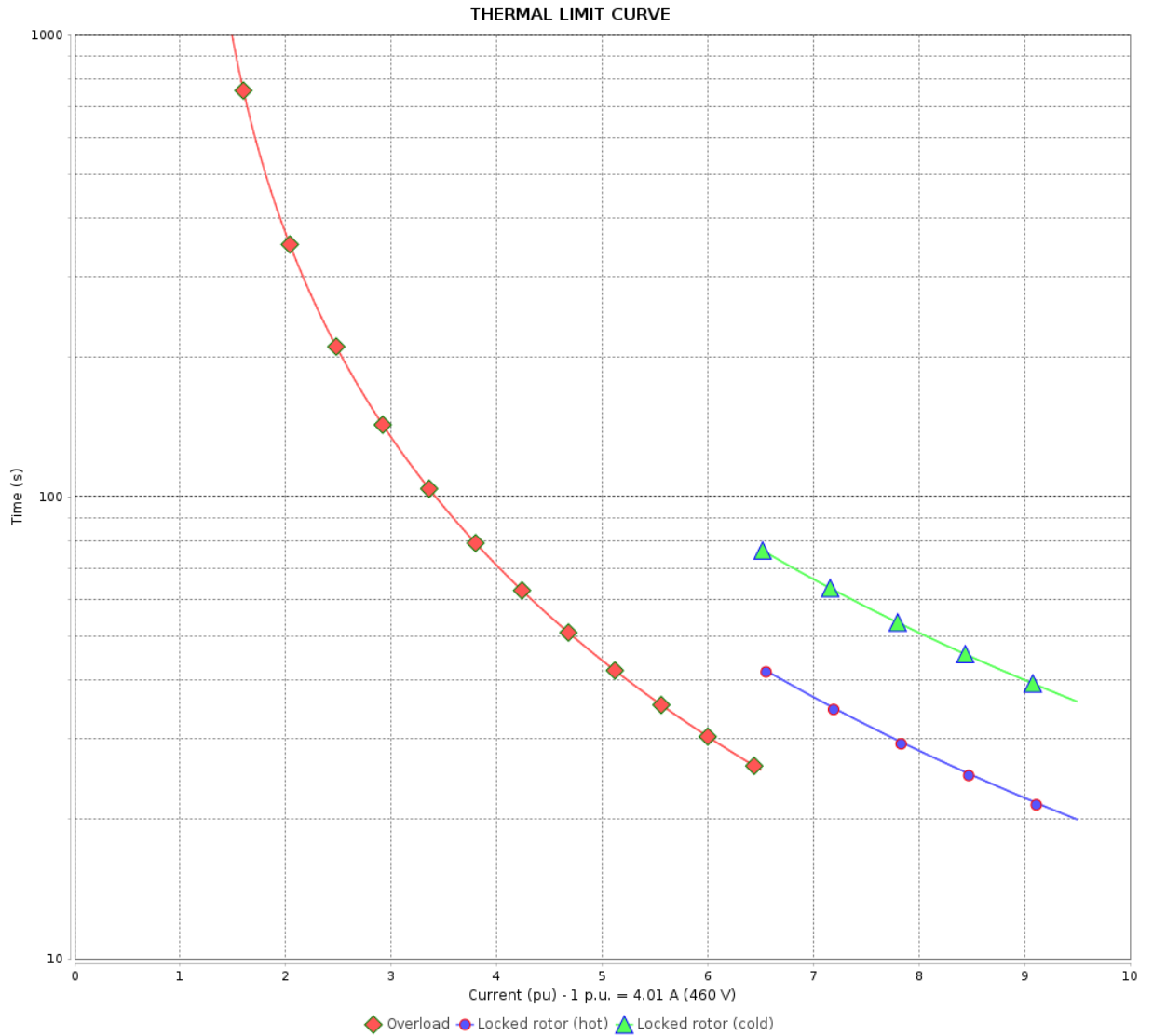
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Cooling constant

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VFD OPERATION CURVE

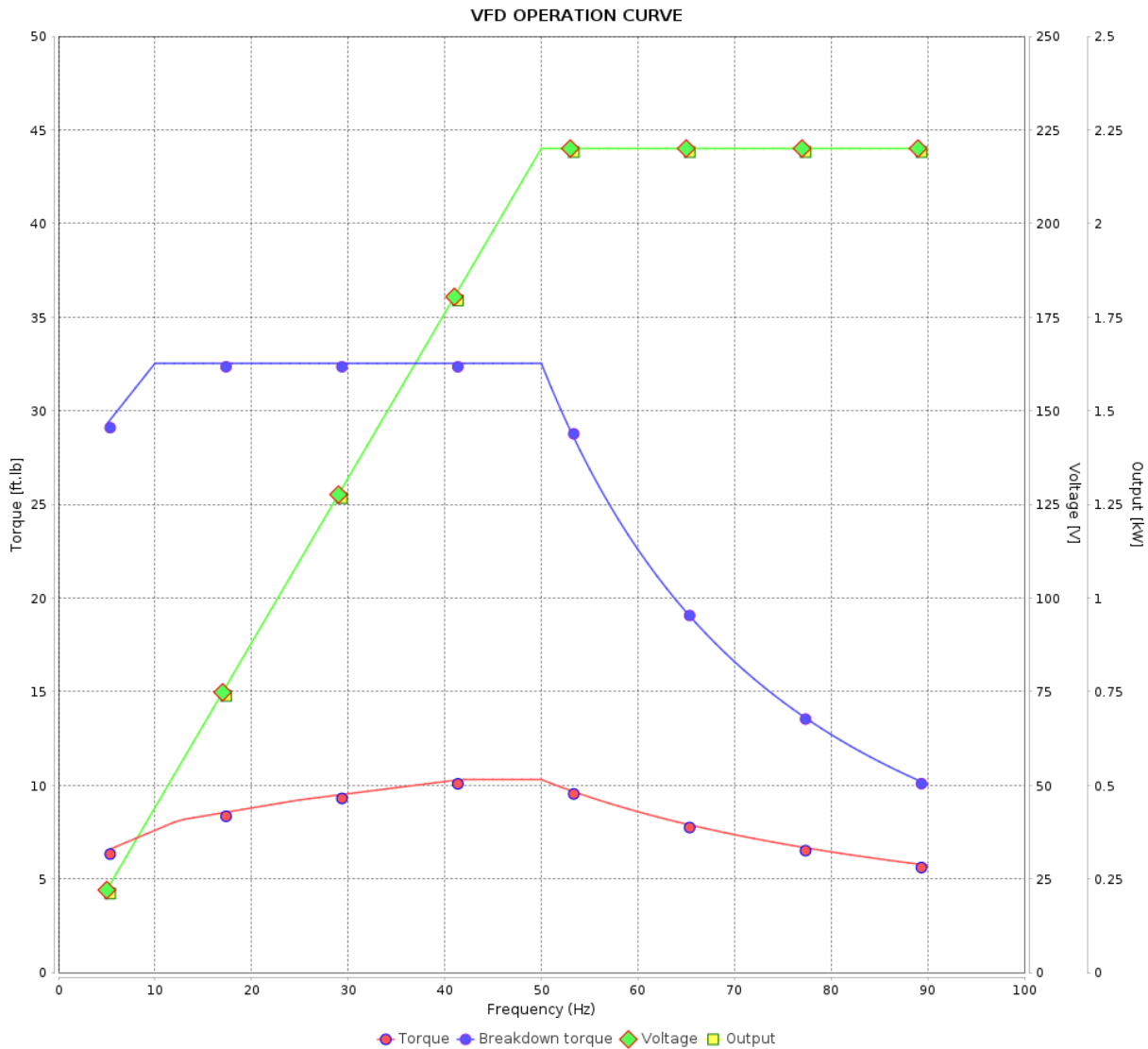
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 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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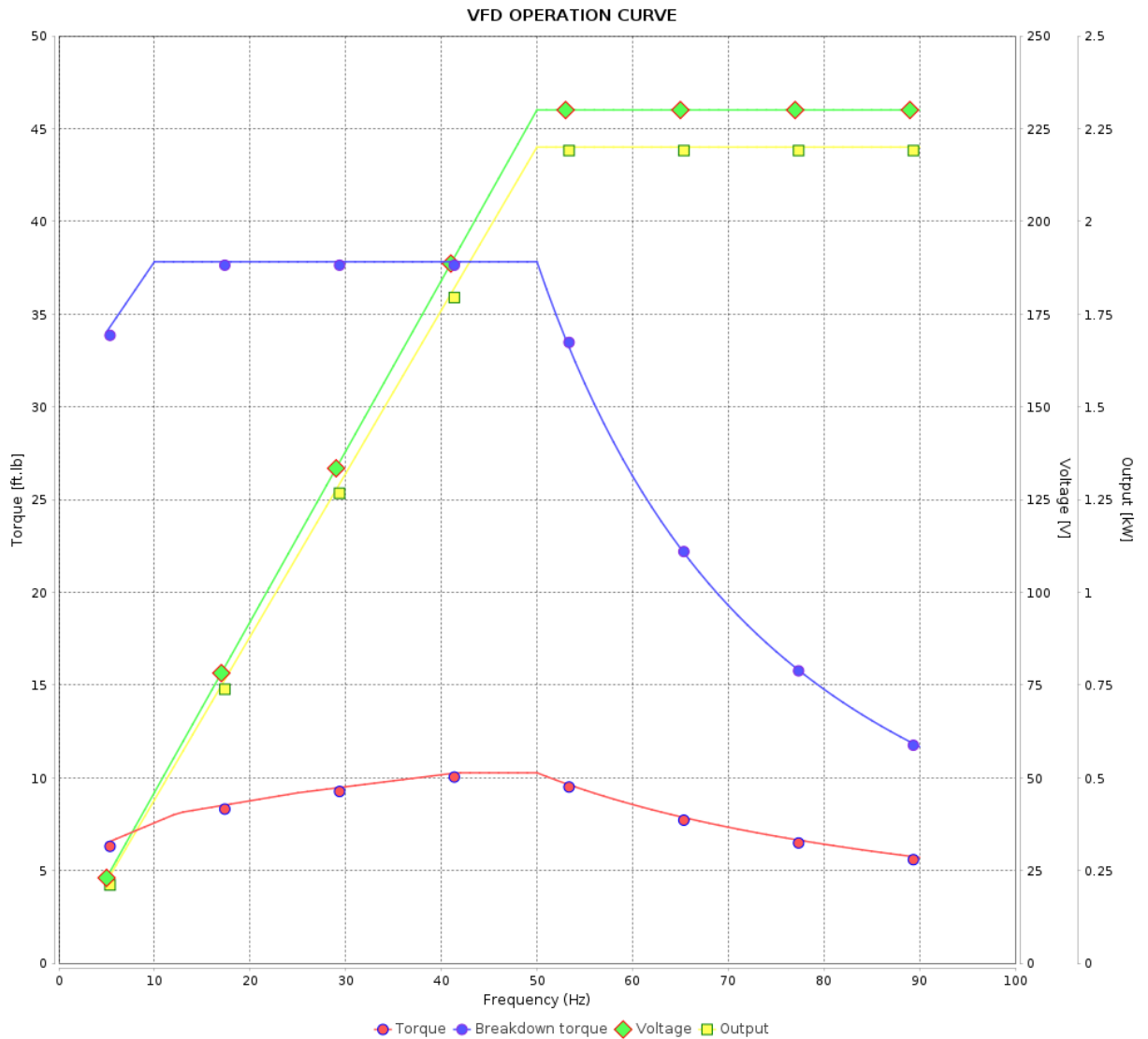
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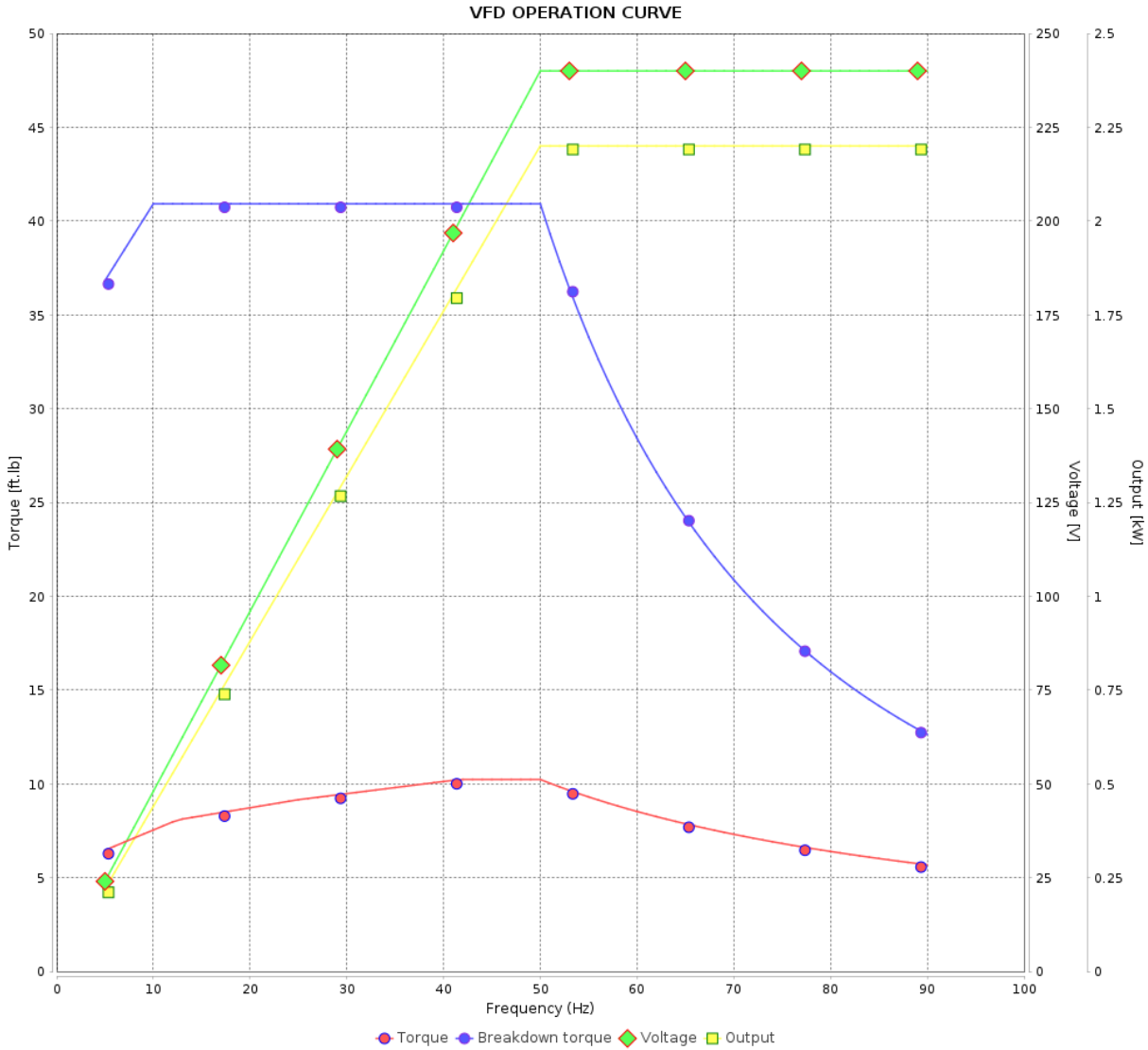
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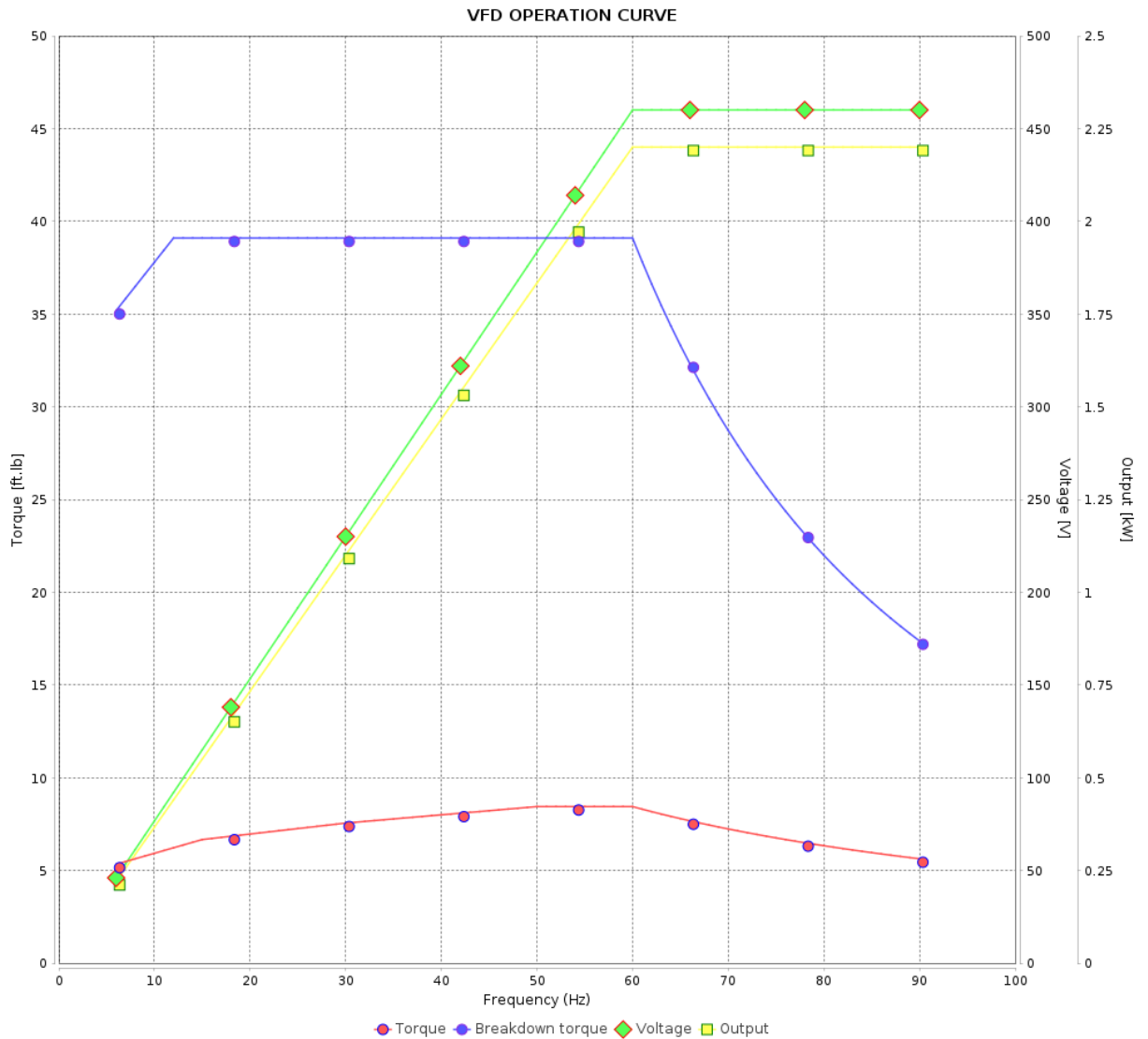
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