

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line		: W40 NEMA Premium Efficiency Three-Phase		Product code : 14285003	
			Catalog # :	10012OT3E444T-W40G	
Frame : 444/5T		Cooling method : IC01 - ODP			
Insulation class : F		Mounting : F-1			
Duty cycle : Cont.(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 : 1301 lb			
Protection degree : IP23		Moment of inertia (J) : 60.6 sq.ft.lb			
Design : B					
Output [HP]	100	75	75	75	
Poles	6	6	6	6	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	254/127	115	112	111	
L. R. Amperes [A]	1549/775	794	773	799	
LRC [A]	6.1x(Code G)	6.9x(Code H)	6.9x(Code J)	7.2x(Code J)	
No load current [A]	113/56.5	55.8	60.2	63.7	
Rated speed [RPM]	1190	990	990	990	
Slip [%]	0.83	1.00	1.00	1.00	
Rated torque [ft.lb]	441	398	398	398	
Locked rotor torque [%]	200	220	240	260	
Breakdown torque [%]	250	250	270	290	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	23s (cold) 13s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	23s (cold) 13s (hot)	
Noise level ²	69.0 dB(A)				
Efficiency (%)	25%	94.4	93.6	92.8	
	50%	94.5	93.7	93.0	
	75%	95.0	94.1	94.1	
	100%	95.0	94.1	94.1	
Power Factor	25%	0.37	0.34	0.31	
	50%	0.61	0.56	0.53	
	75%	0.71	0.69	0.65	
	100%	0.78	0.77	0.75	
Bearing type		Drive end : 6319 C3	Non drive end : 6314 C3	Foundation loads	
Sealing		Without	Without	Max. traction : 2425 lb	
Lubrication interval		Bearing Seal : 20000 h	Bearing Seal : 20000 h	Max. compression : 3726 lb	
Lubricant amount		45 g	27 g		
Lubricant type		Mobil Polyrex EM			
Notes USABLE @208V 281A SF 1.15 SFA 323A					
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 NEMA MG-1.		
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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



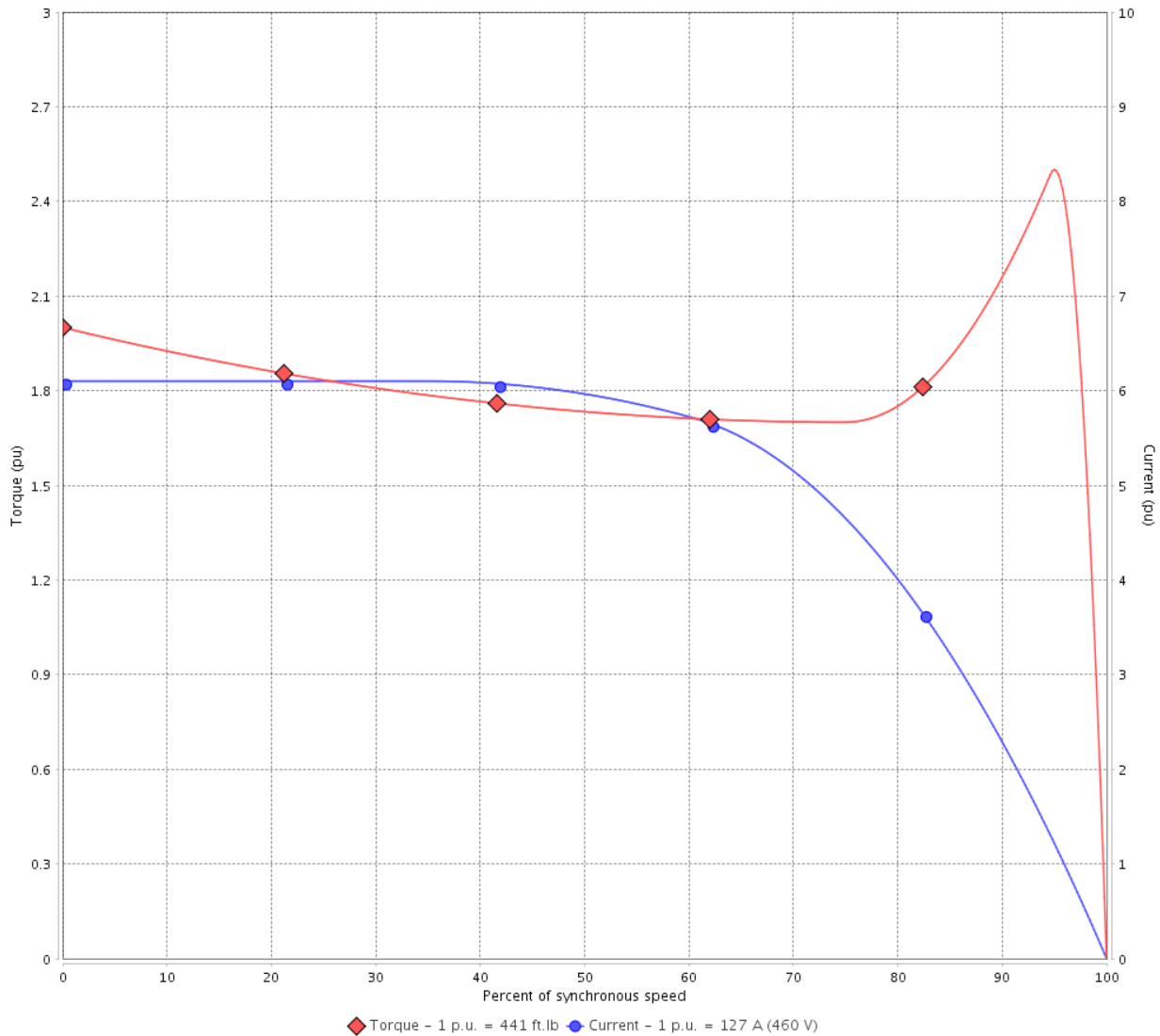
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14285003

Catalog # : 100120T3E444T-W40G

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current : 254/127 A
LRC : 6.1
Rated torque : 441 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 250 %
Rated speed : 1190 rpm

Moment of inertia (J) : 60.6 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Locked rotor time : 23s (cold) 13s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



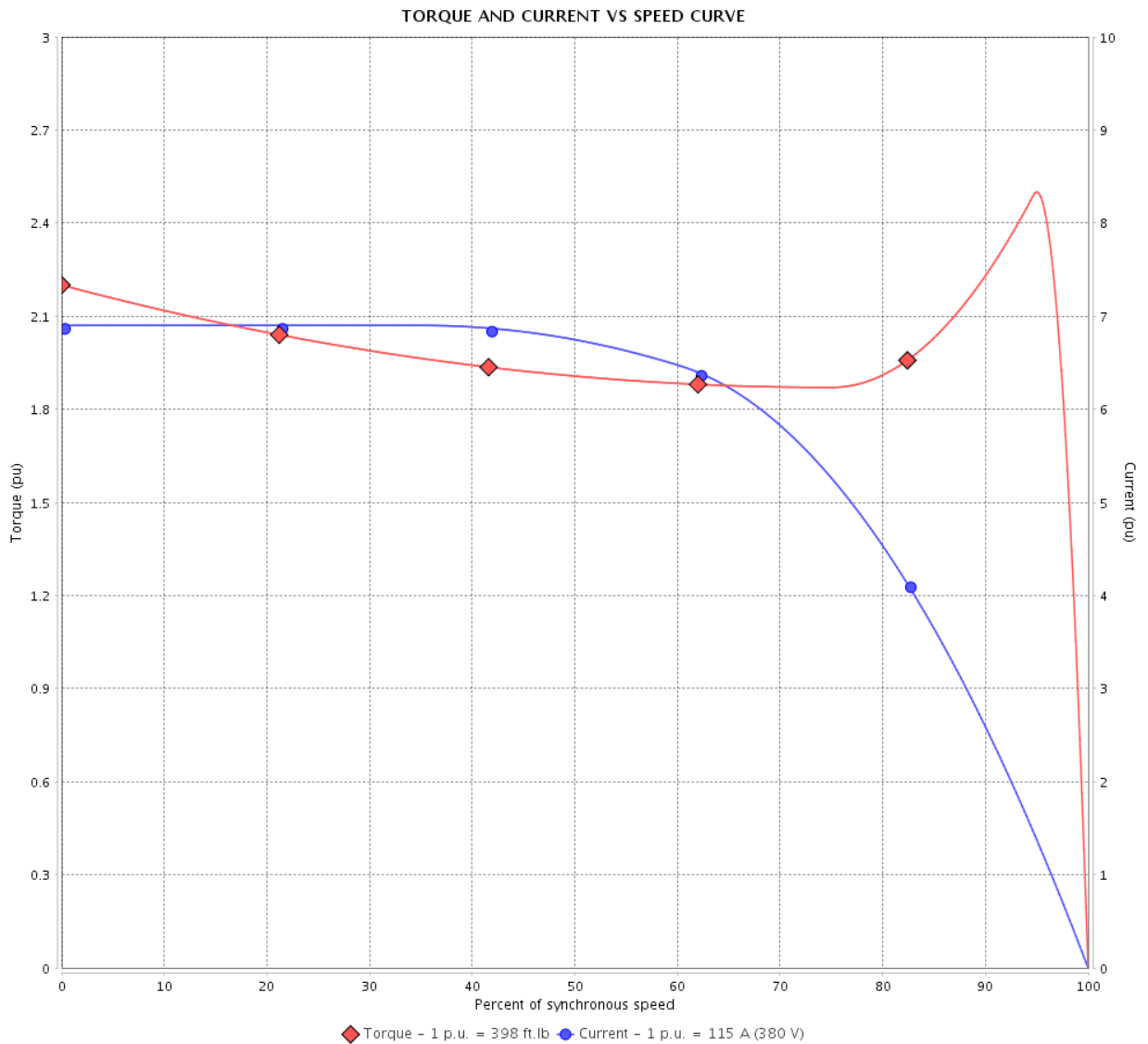
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14285003

Catalog # : 10012OT3E444T-W40G



Performance : 380 V 50 Hz 6P IE3

Rated current	: 115 A	Moment of inertia (J)	: 60.6 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 398 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 990 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



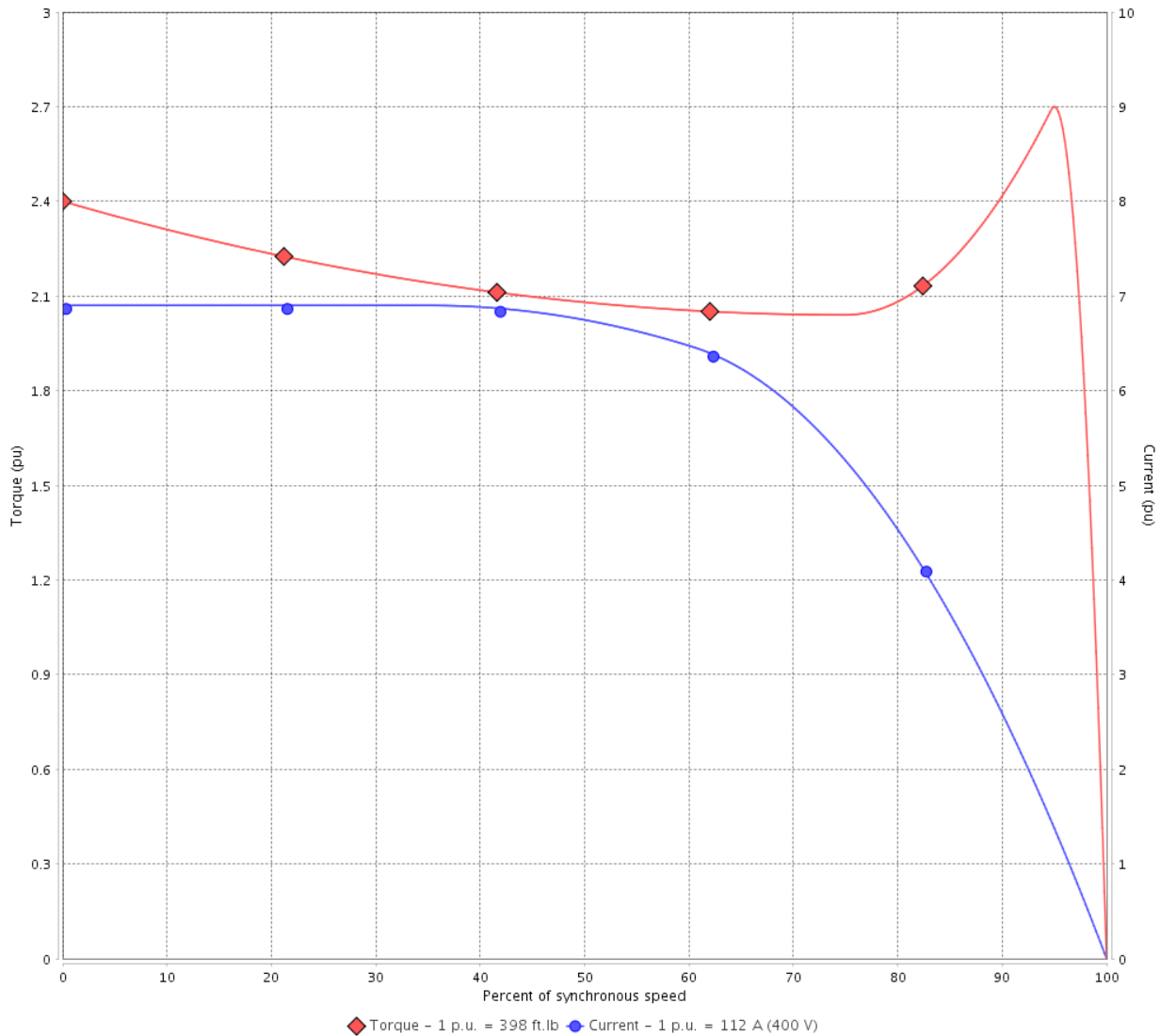
Customer :

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Product code : 14285003

Catalog # : 100120T3E444T-W40G

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 6P IE3

Rated current	: 112 A	Moment of inertia (J)	: 60.6 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 398 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 990 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



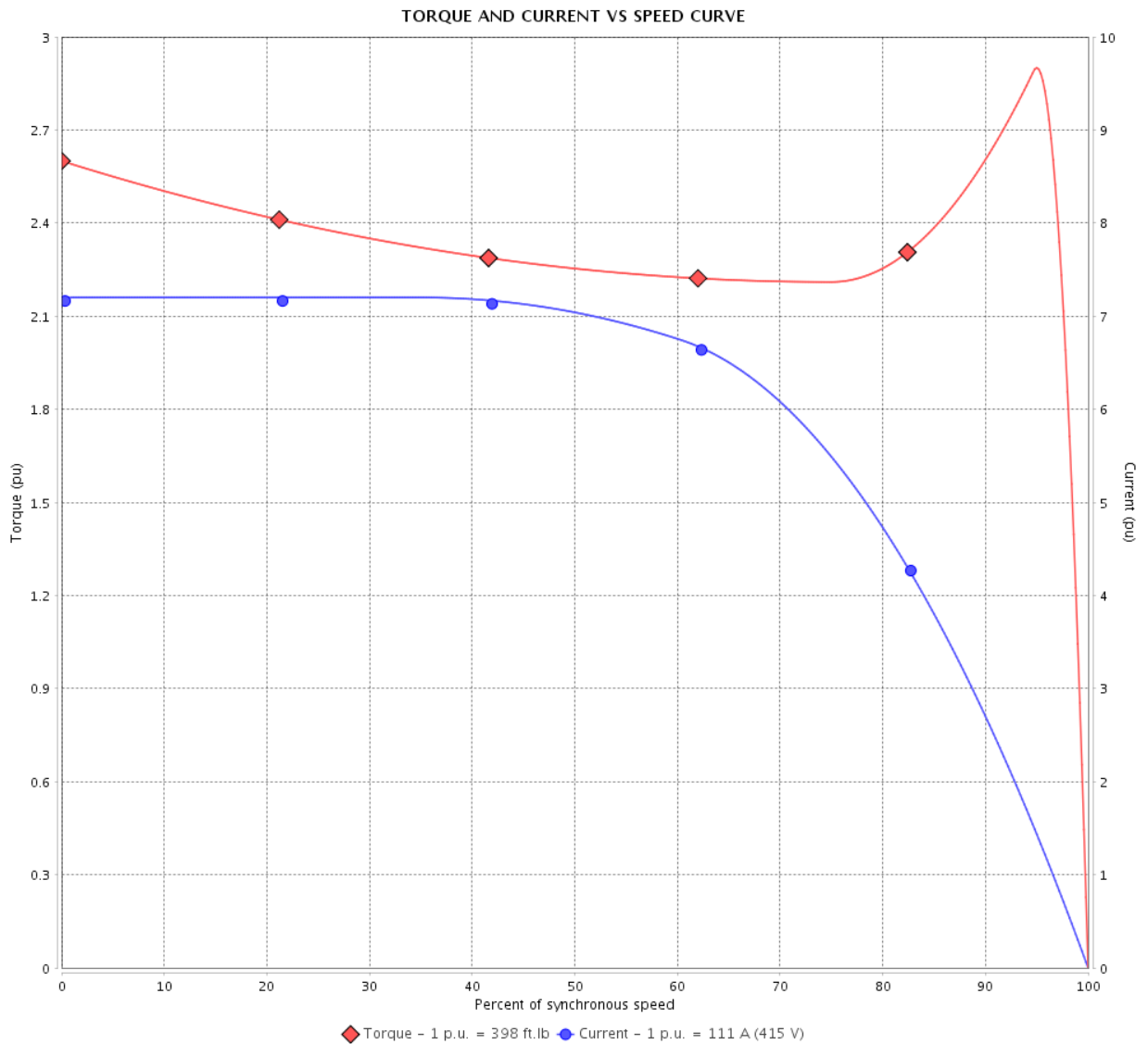
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Performance : 415 V 50 Hz 6P IE3

Rated current	: 111 A	Moment of inertia (J)	: 60.6 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 398 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 990 rpm	Design	: B

Locked rotor time : 23s (cold) 13s (hot)

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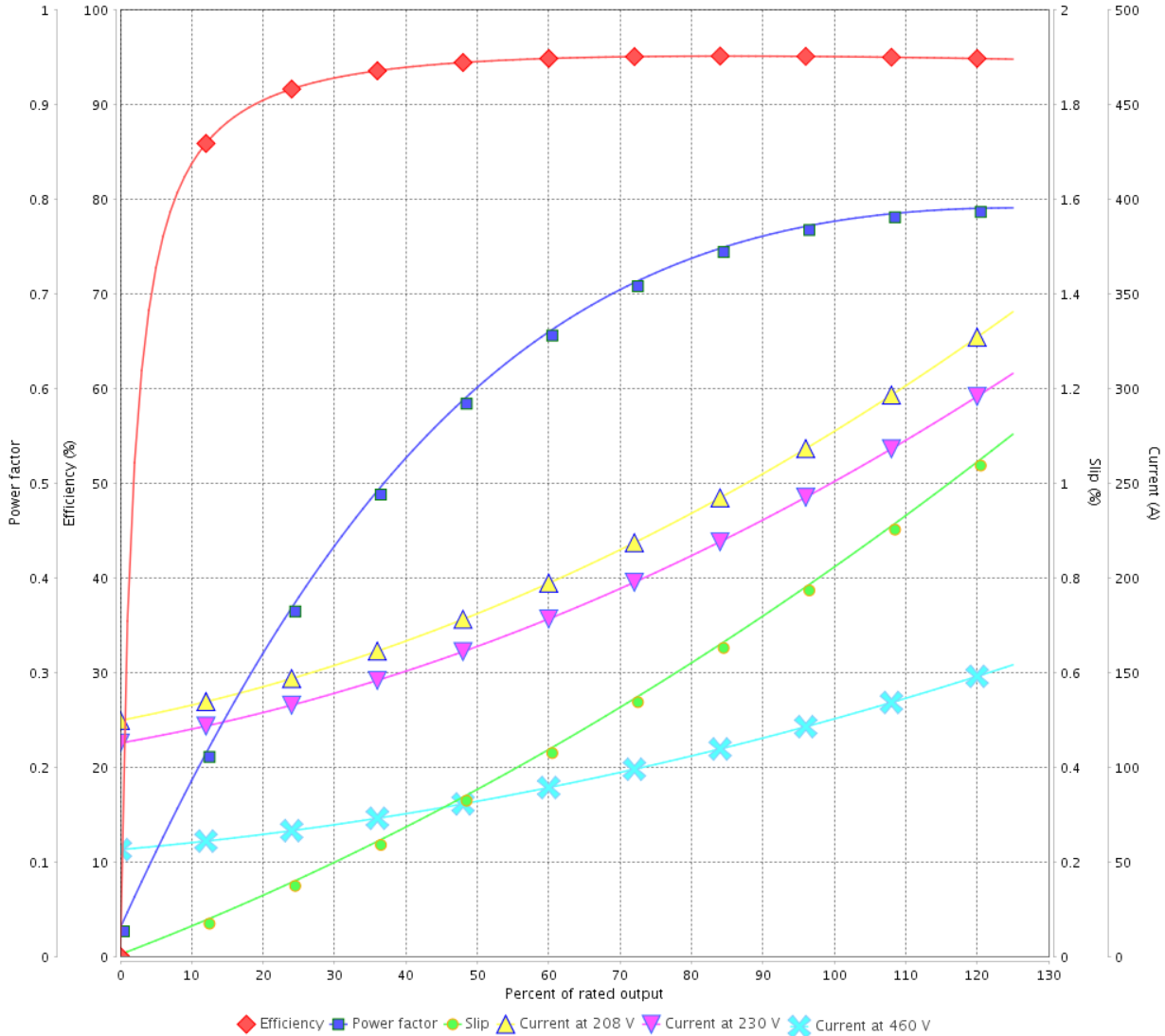
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Performance : 230/460 V 60 Hz 6P

Rated current : 254/127 A
 LRC : 6.1
 Rated torque : 441 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 250 %
 Rated speed : 1190 rpm

Moment of inertia (J) : 60.6 sq.ft.lb
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 Insulation class : F
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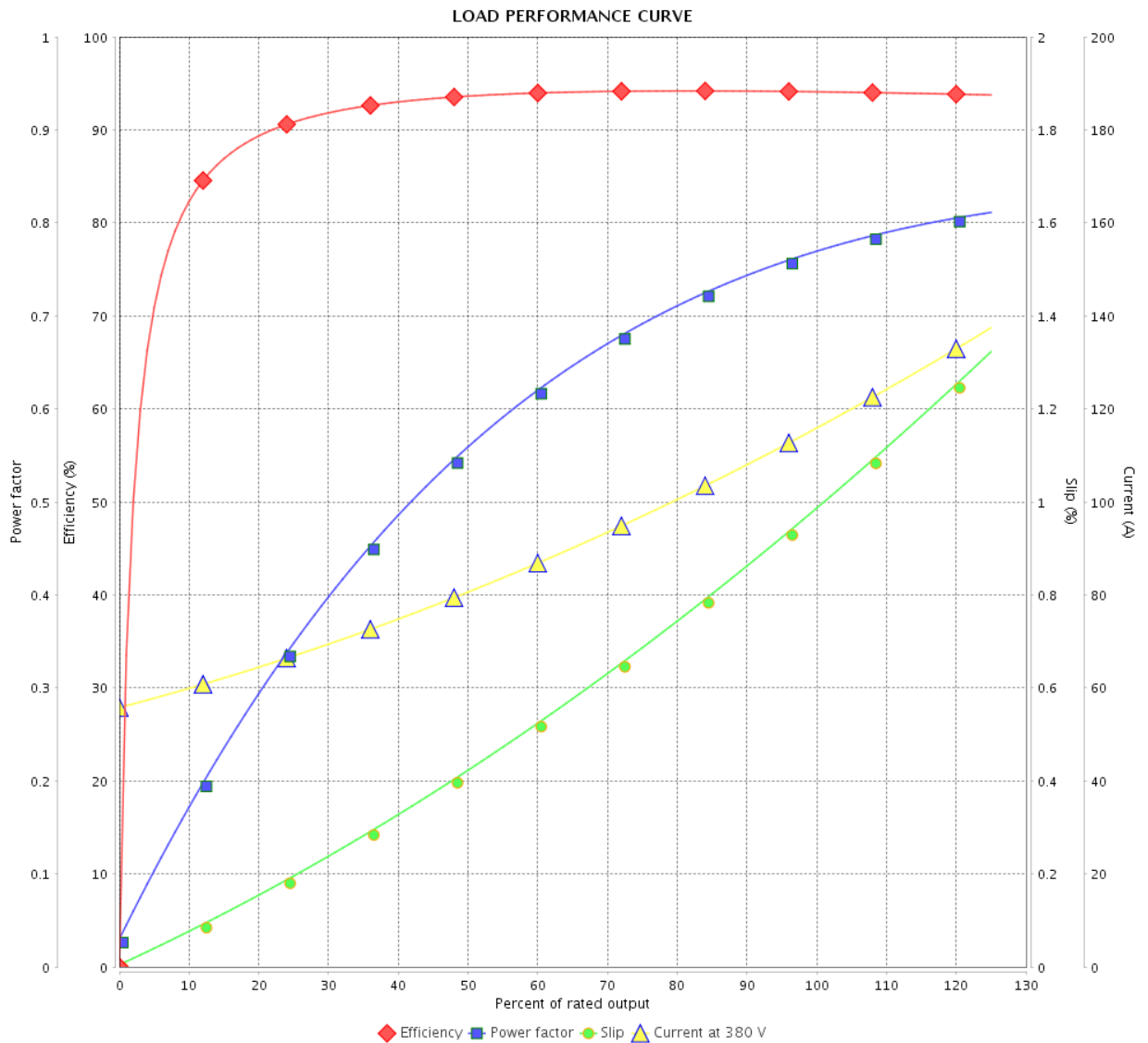


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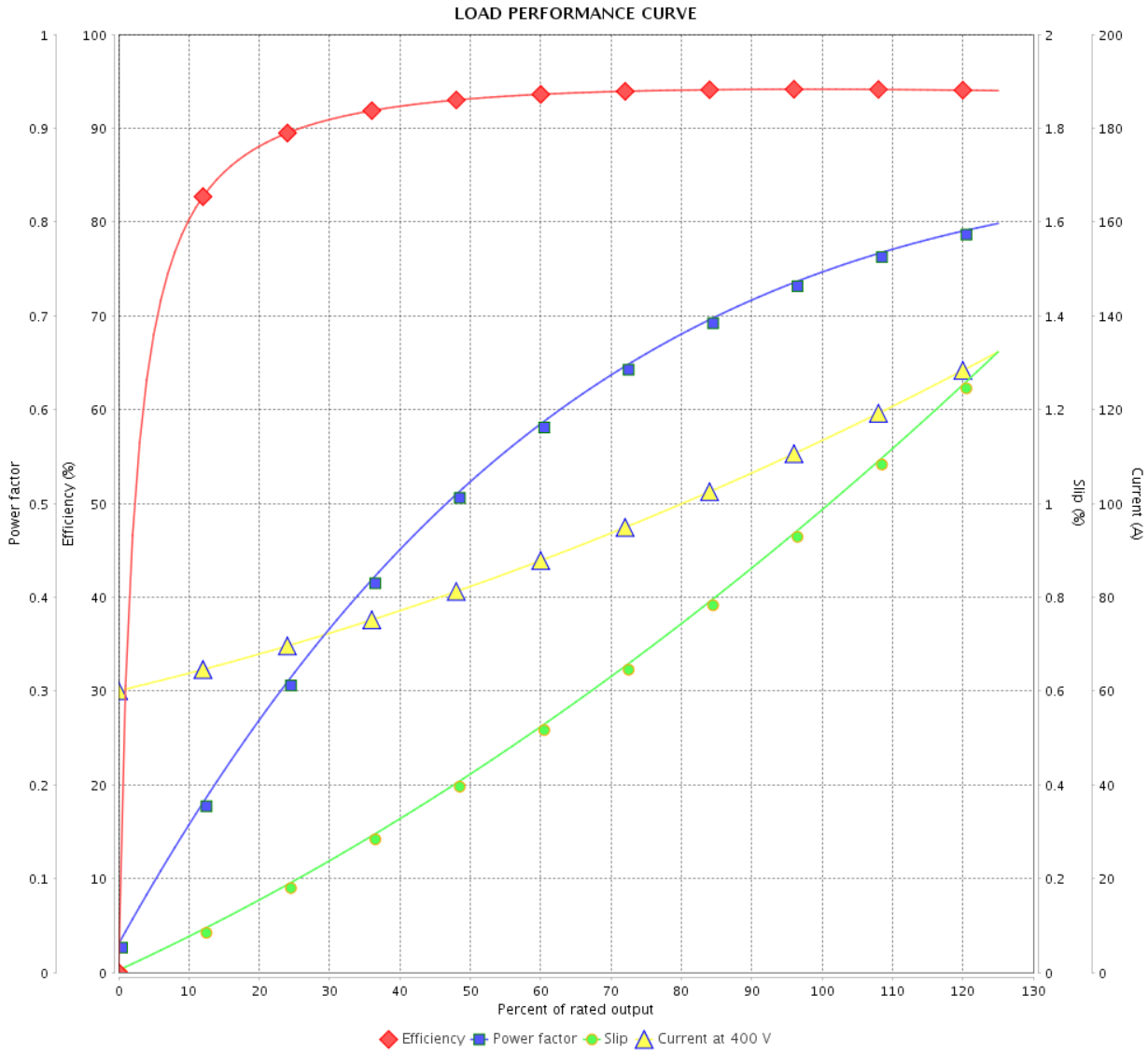


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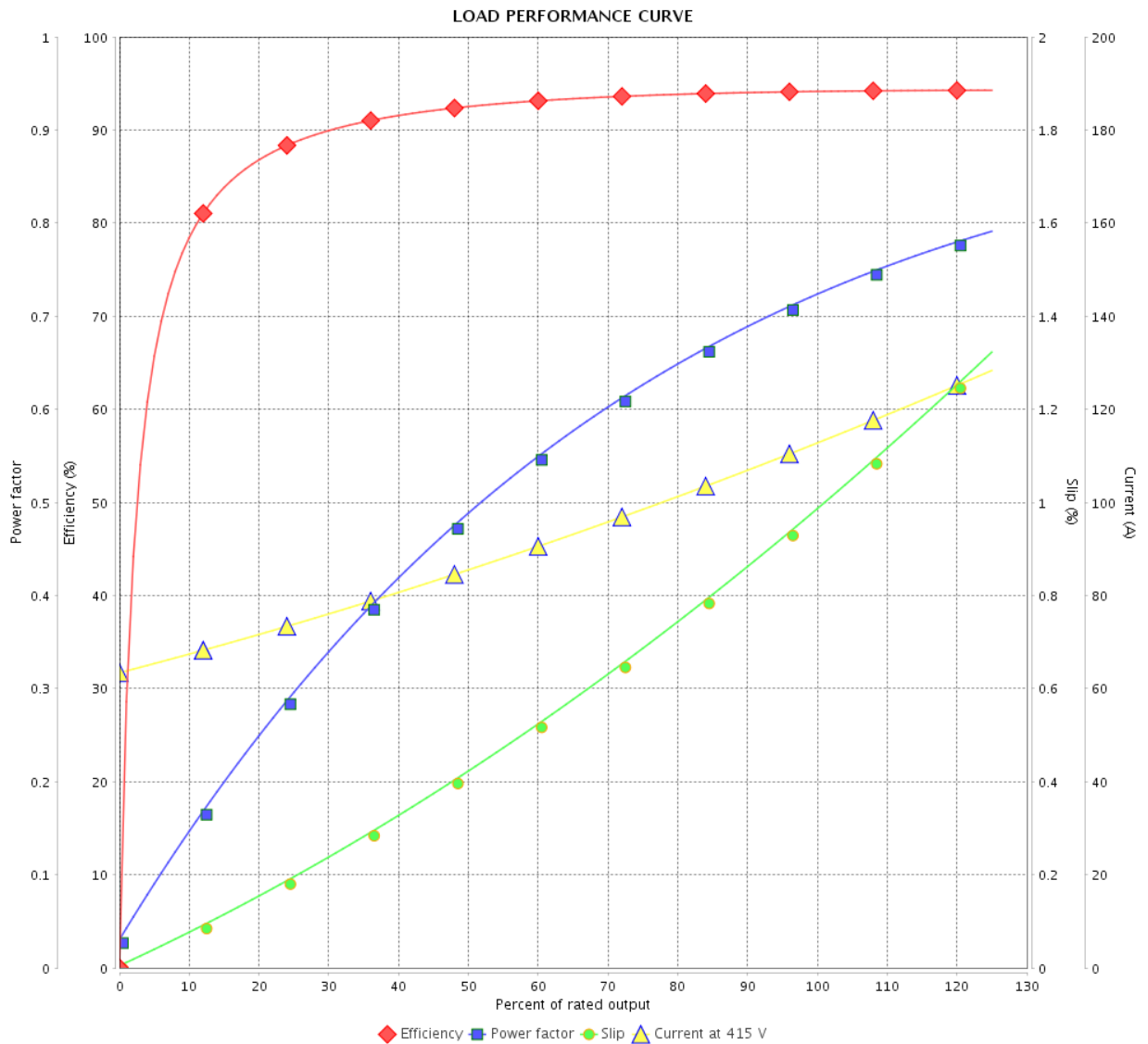


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THERMAL LIMIT CURVE

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Heating constant

Cooling constant

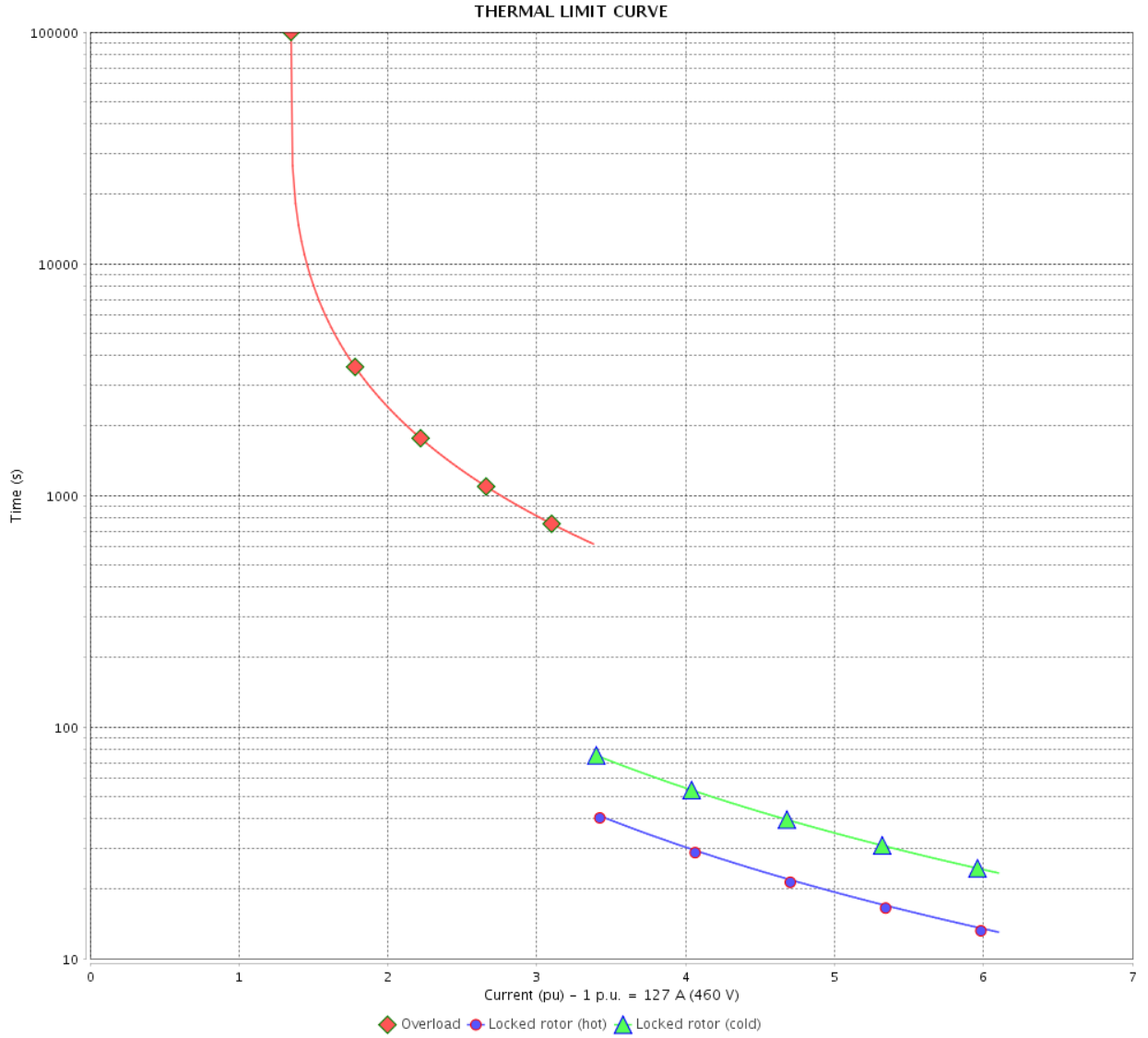
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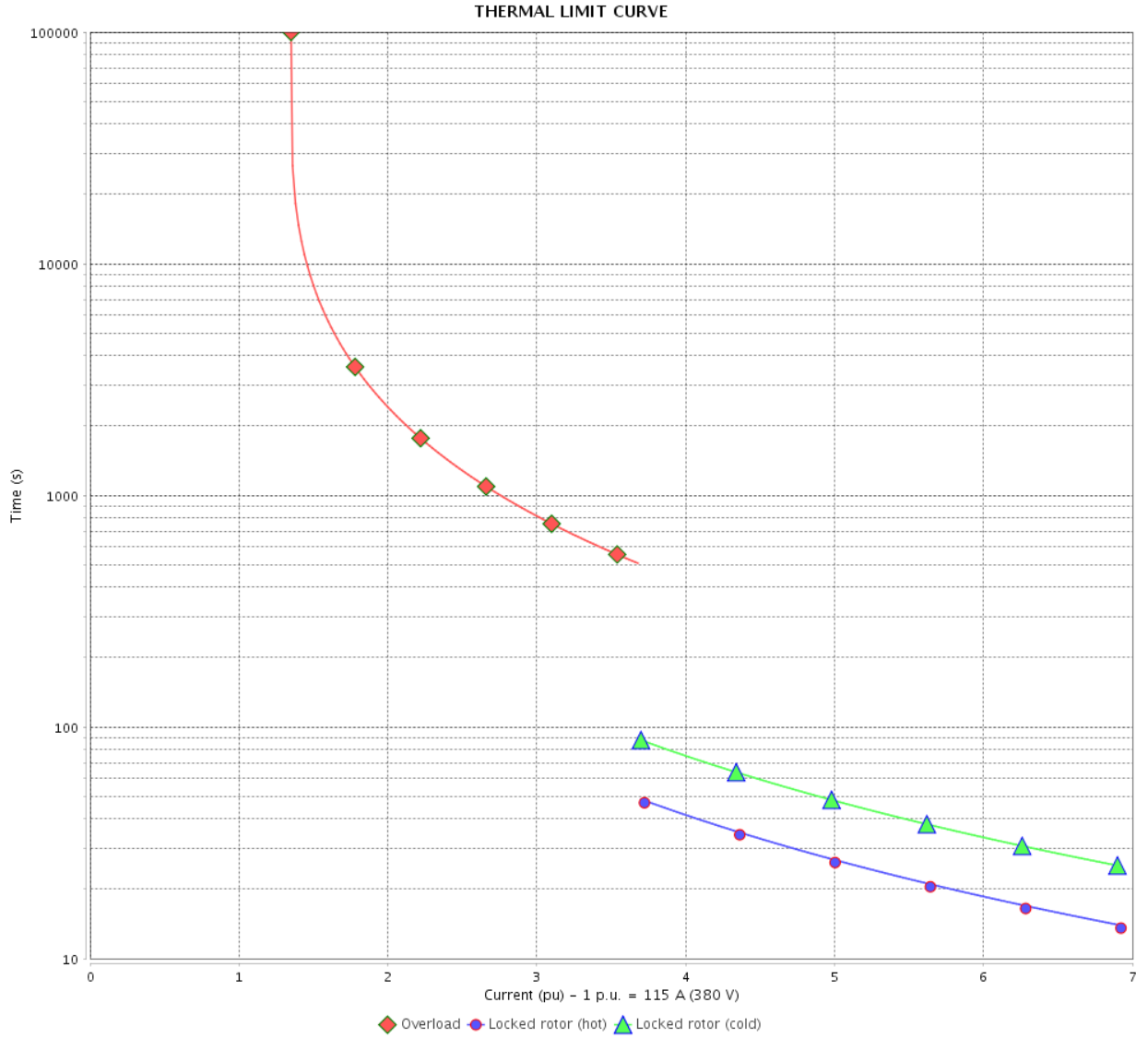
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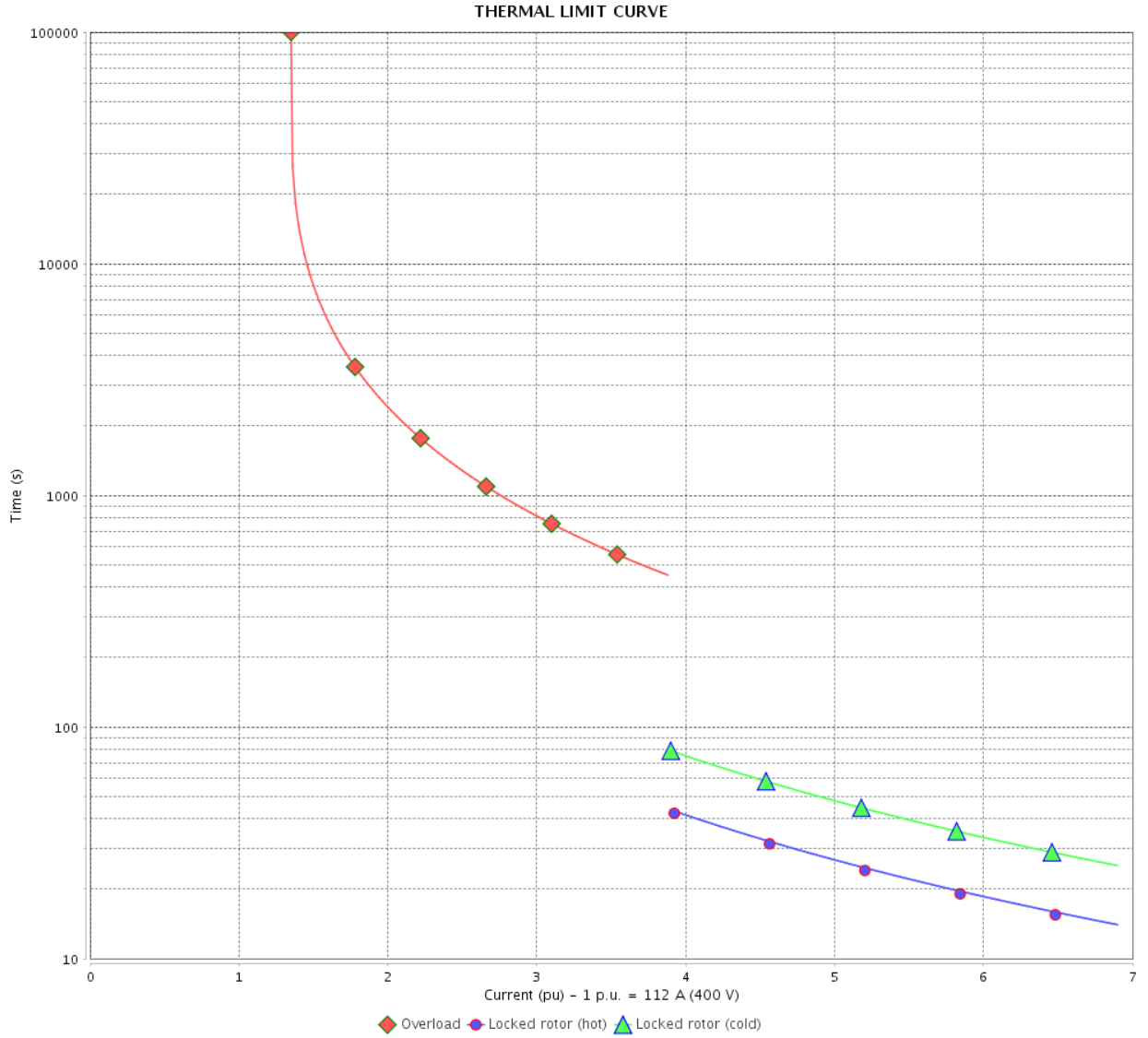
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Cooling constant

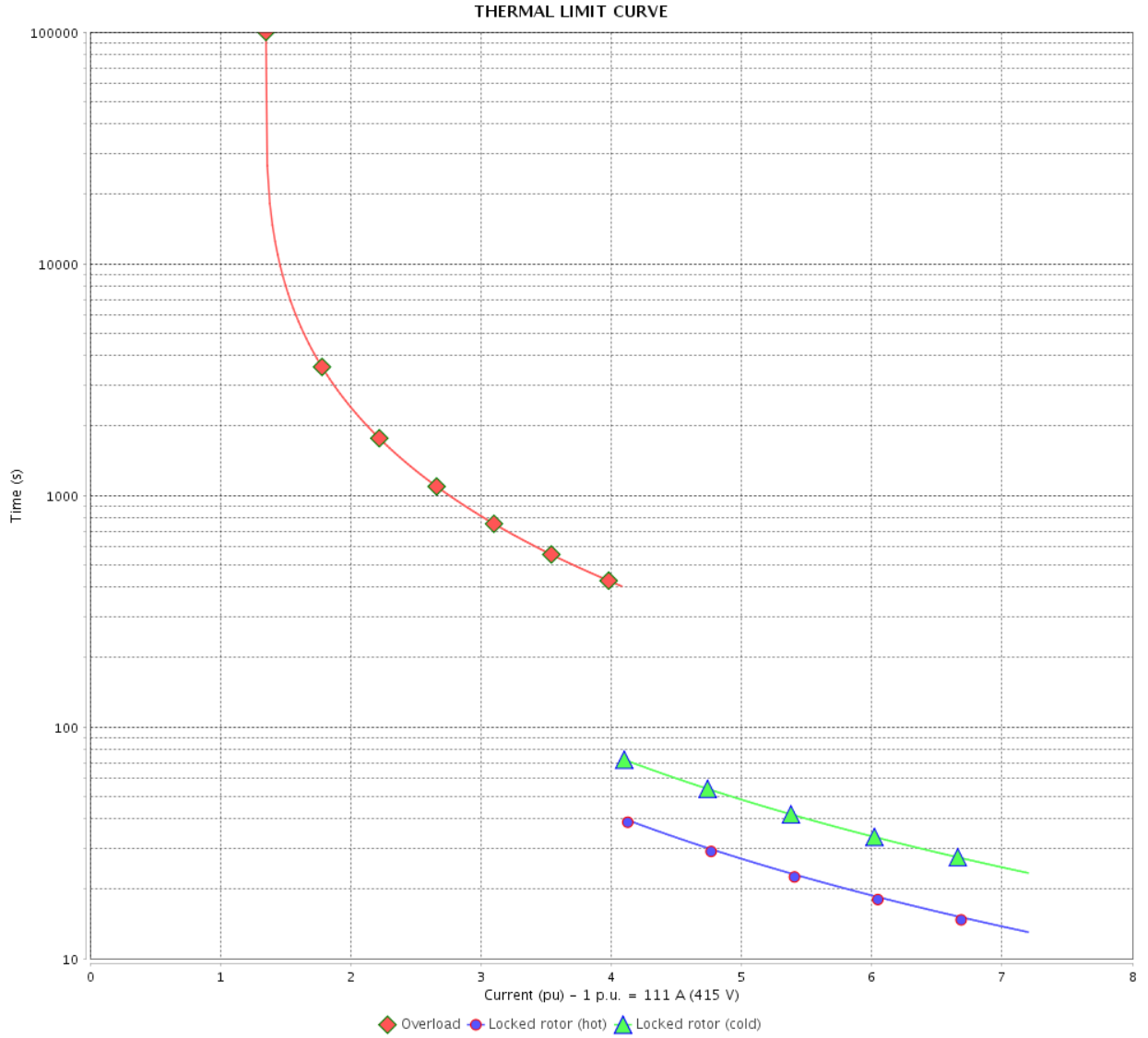
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Three Phase Induction Motor - Squirrel Cage



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VFD OPERATION CURVE

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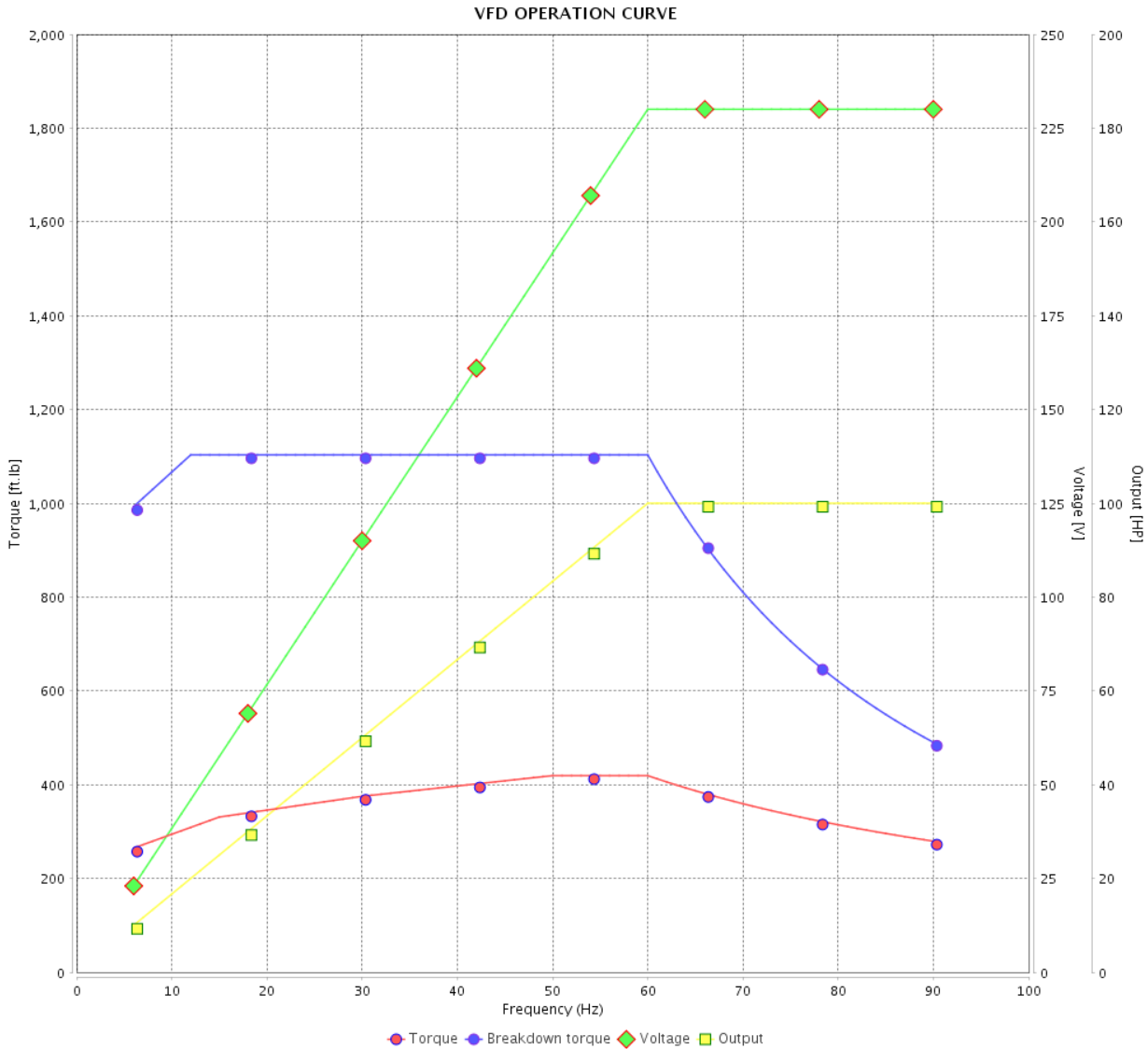


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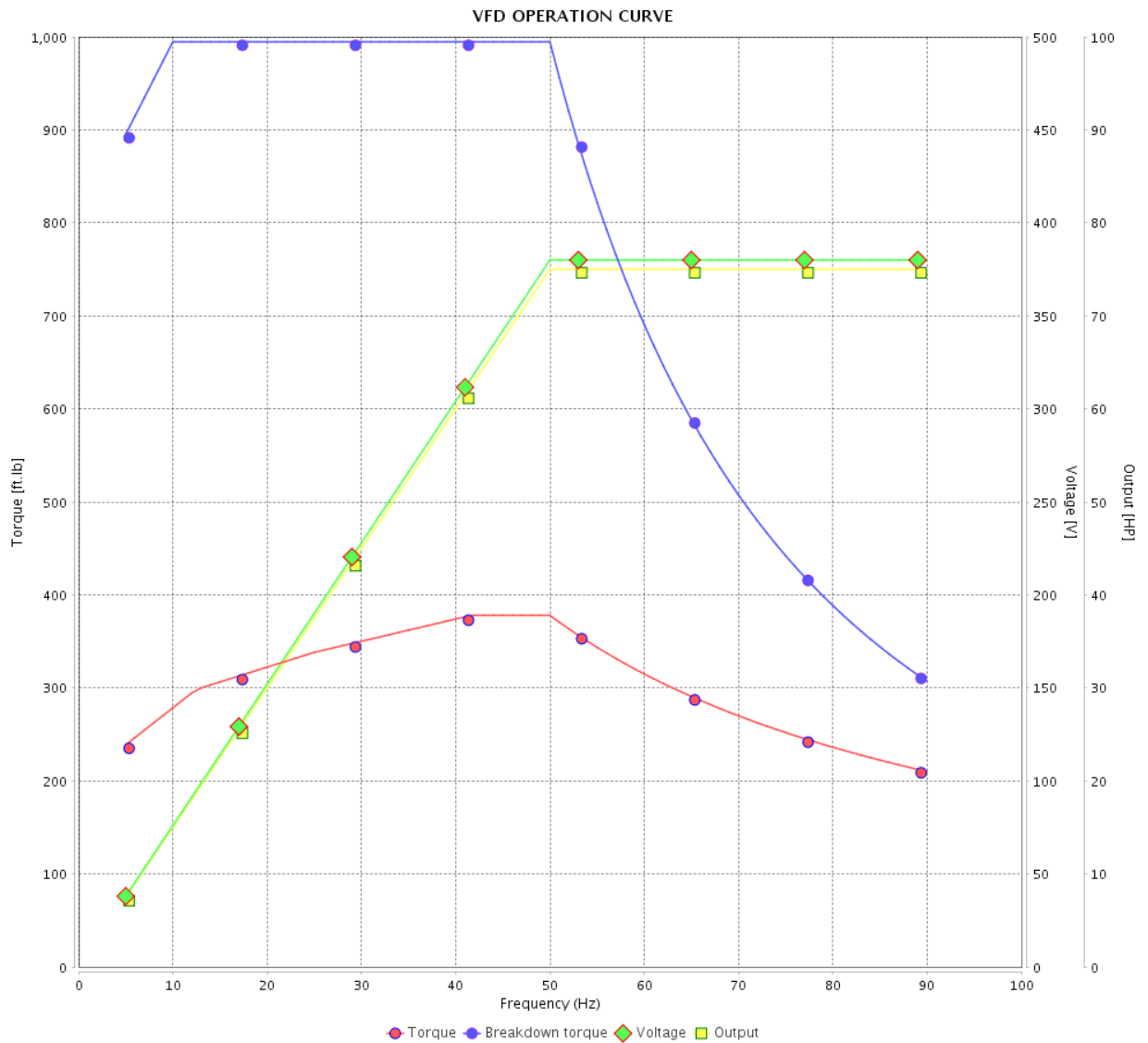


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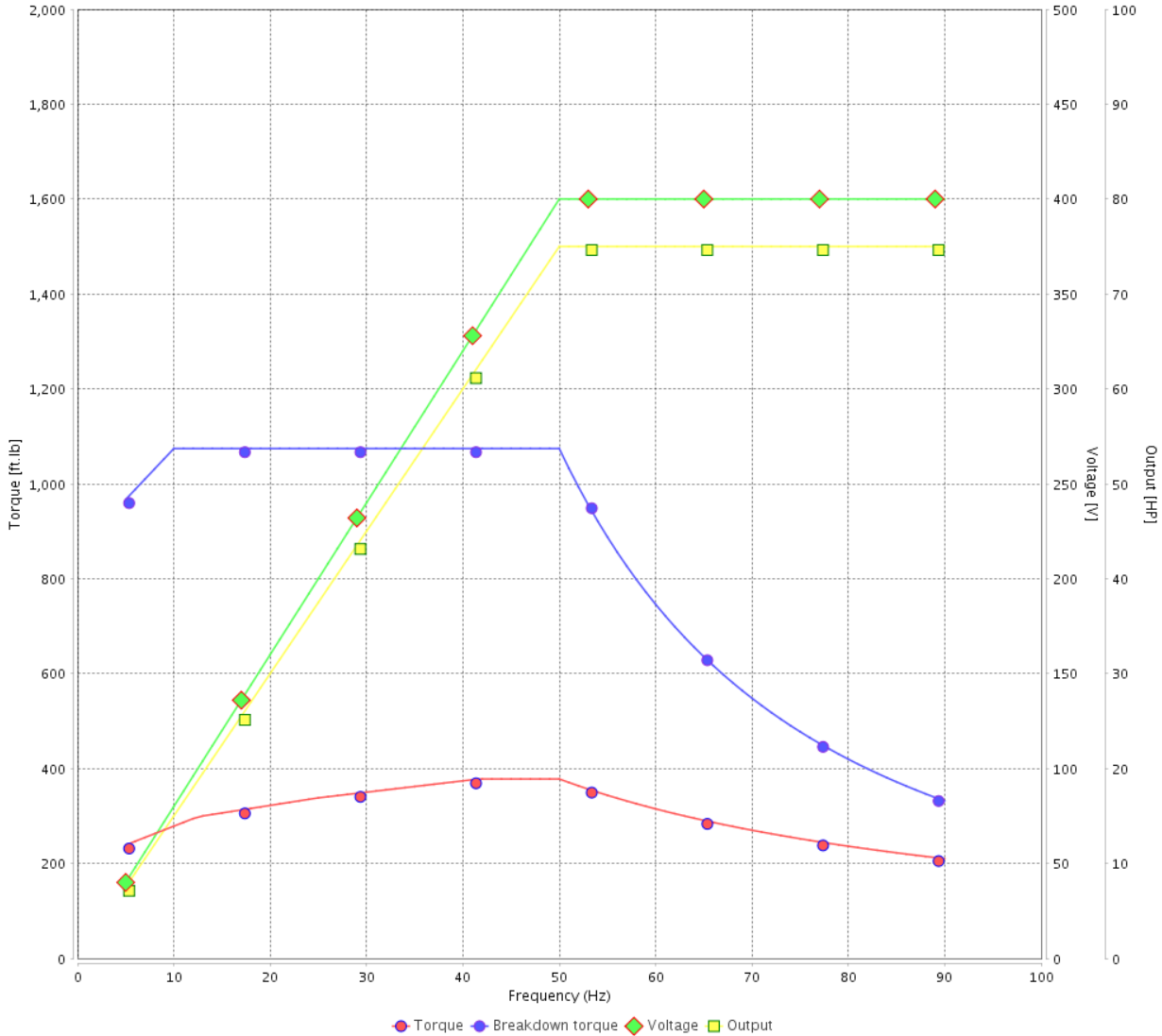
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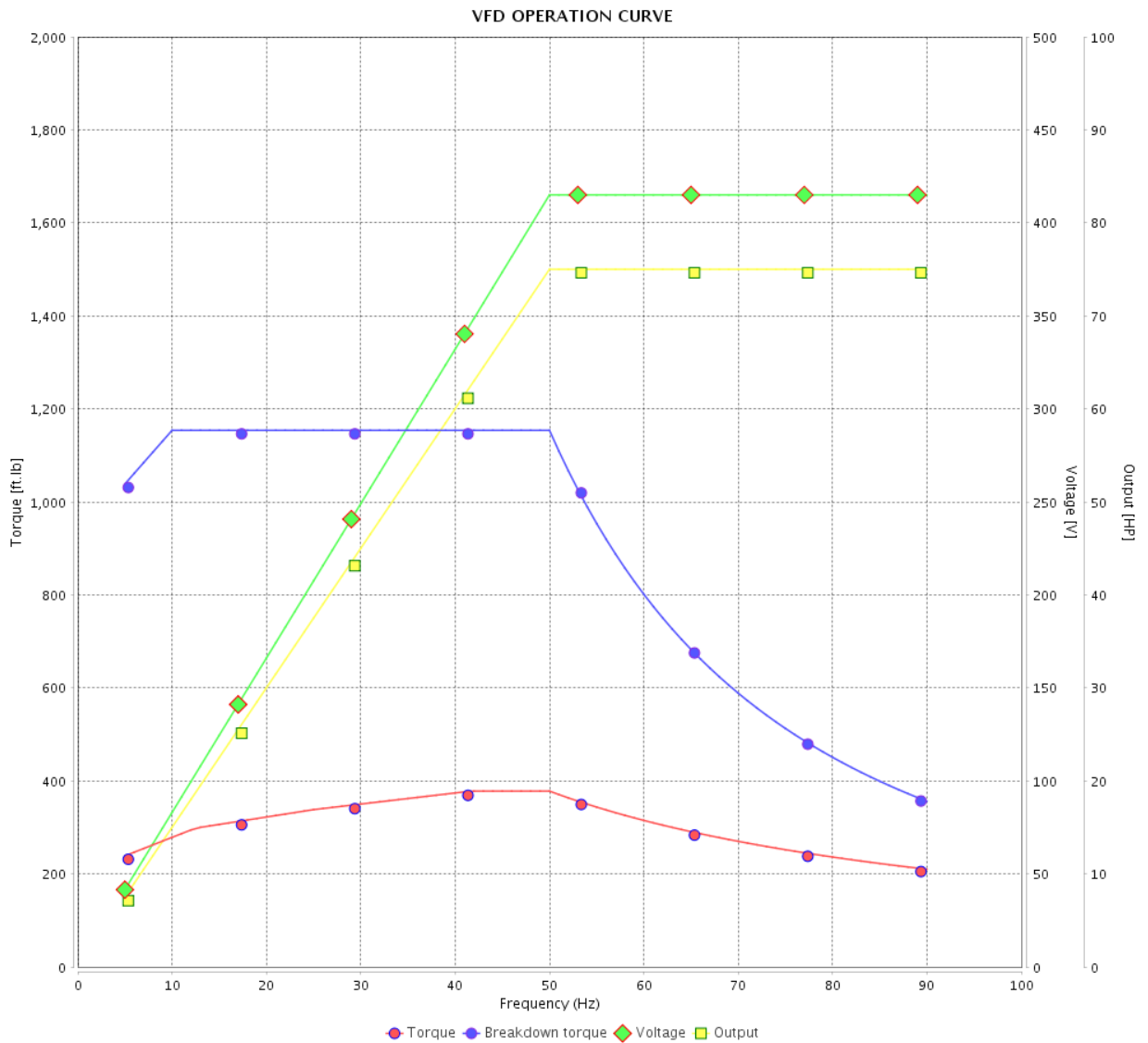


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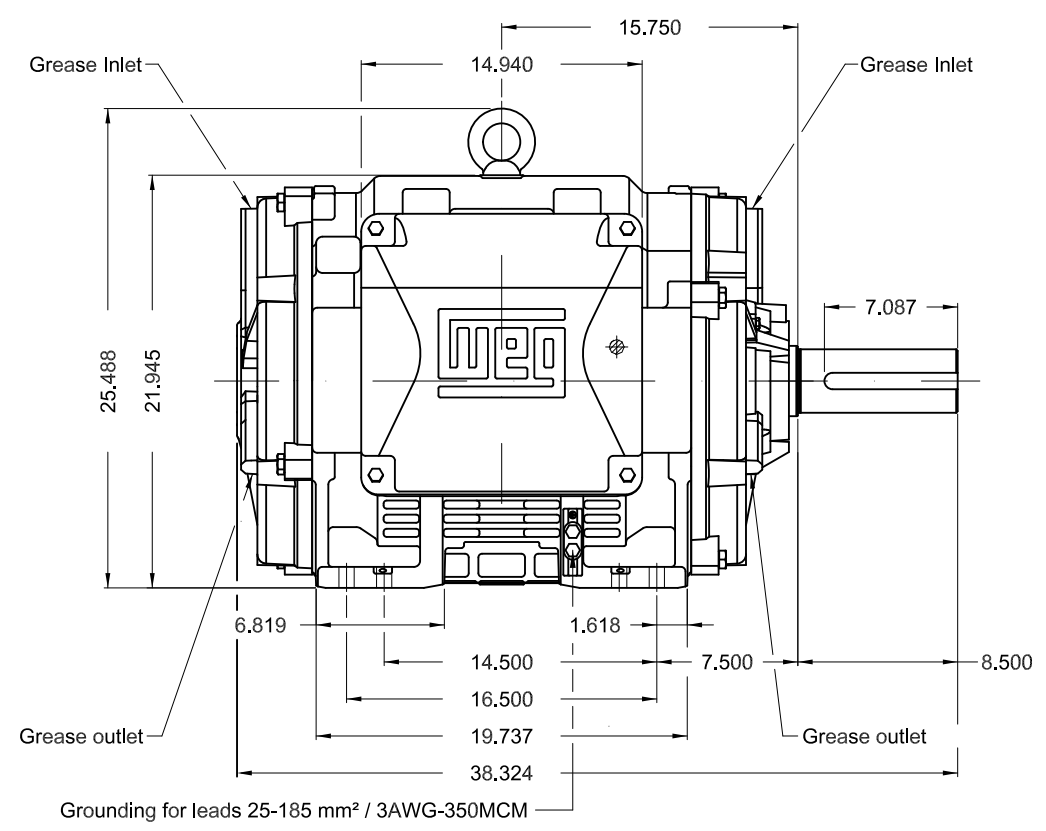
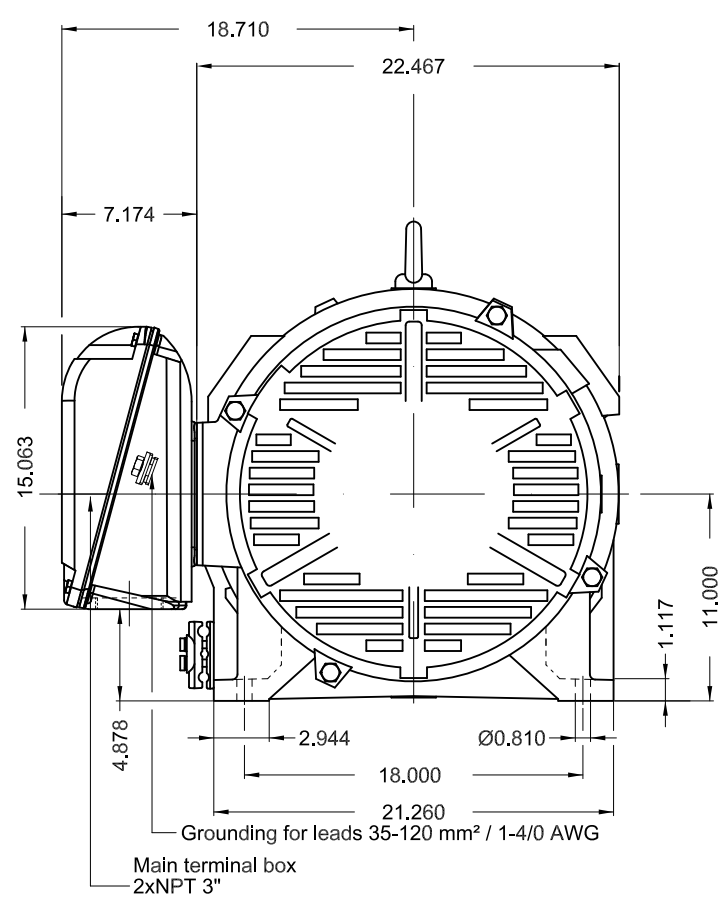


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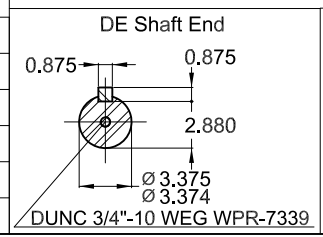
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100 HP 06 Poles 60 Hz A

1:10

- E C3 NDE bearing
- Internal AEGIS ground ring on the DE
- Color RAL 5009
- Painting plan 203A
- Mounting NEMA F-1
- Mounting B3R(D)



ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWUSER	 THREE PH. MOTOR W40 PREM. EFF. FRAME 444/5T IP23 ODP					
CHECKED							
RELEASED							
REL DT.							
		WMO Jaragua do Sul	Product Engineering		SHEET 1 / 1		

PREVIEW
WDD



Dimensions in inches XME A3