

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	13337942		
		Catalog # :	15009ST3QIERB447T-W2		
Frame	: 445/7T	Cooling method	: IC411 - TEFC		
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	: 2225 lb		
Protection degree	: IP55	Moment of inertia (J)	: 125 sq.ft.lb		
Design	: B				
Output [HP]	150	125	125	125	
Poles	8	8	8	8	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	185	183	177	175	
L. R. Amperes [A]	1110	1025	1097	1138	
LRC [A]	6.0x(Code G)	5.6x(Code F)	6.2x(Code G)	6.5x(Code H)	
No load current [A]	75.0	78.9	83.3	86.8	
Rated speed [RPM]	890	740	740	740	
Slip [%]	1.11	1.33	1.33	1.33	
Rated torque [ft.lb]	885	887	887	887	
Locked rotor torque [%]	190	170	200	220	
Breakdown torque [%]	210	200	229	250	
Service factor	1.15	1.15	1.15	1.15	
Temperature rise	80 K	105 K	80 K	80 K	
Locked rotor time	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	
Noise level ²	63.0 dB(A)				
Efficiency (%)	25%	94.4	94.9	94.0	93.5
	50%	94.5	94.5	94.1	93.6
	75%	94.5	94.1	94.1	94.1
	100%	94.5	93.6	94.1	94.1
Power Factor	25%	0.40	0.40	0.37	0.34
	50%	0.64	0.65	0.61	0.57
	75%	0.74	0.75	0.72	0.69
	100%	0.79	0.80	0.78	0.76
Bearing type	: <u>Drive end</u> NU-319 C3 <u>Non drive end</u> 6316 C3	Foundation loads			
Sealing	: Inpro/Seal Inpro/Seal	Max. traction	: 4799 lb		
Lubrication interval	: 15000 h 20000 h	Max. compression	: 7024 lb		
Lubricant amount	: 45 g 34 g				
Lubricant type	: Mobil Polyrex EM				
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 NEMA MG-1.		
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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



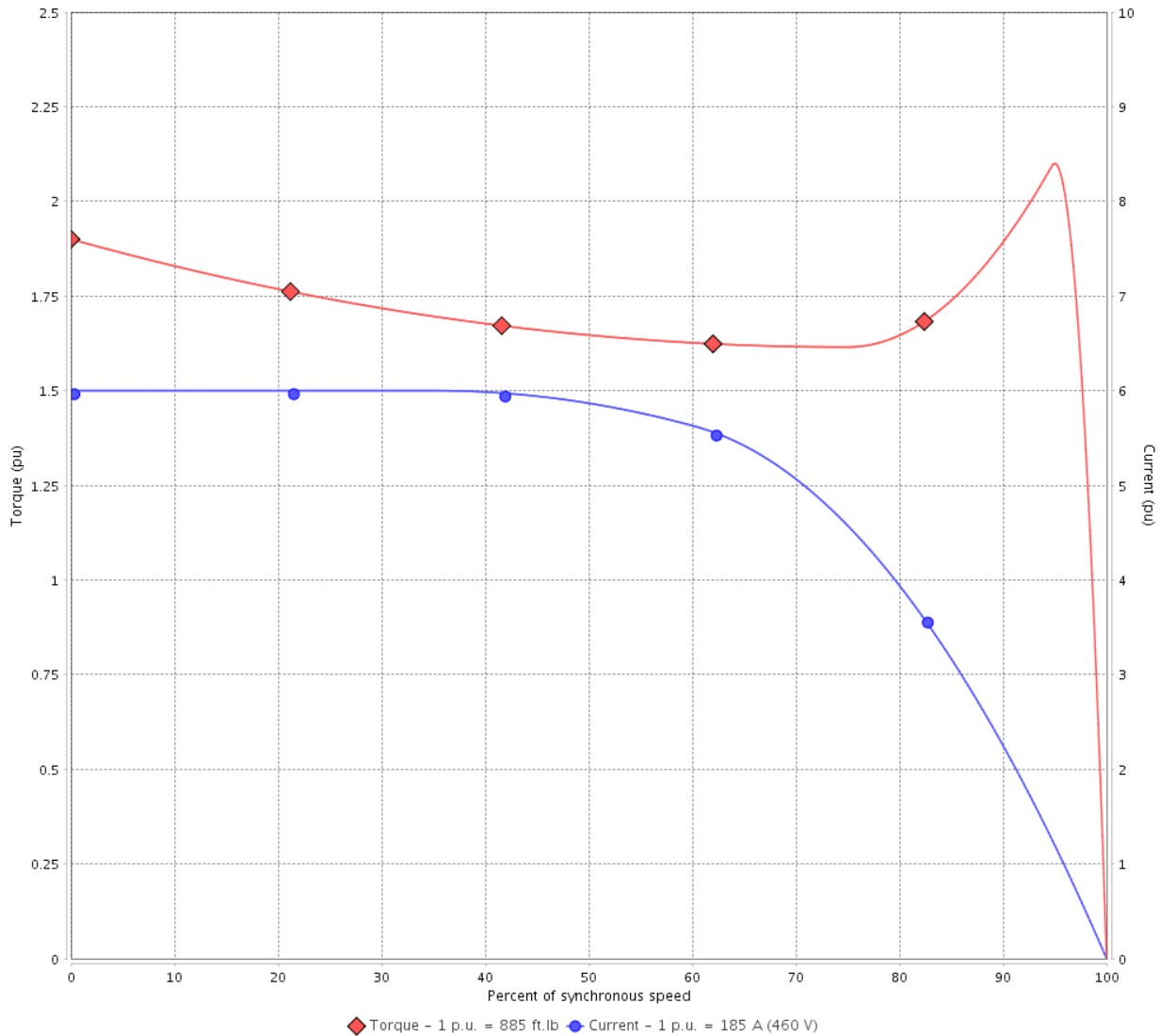
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13337942

Catalog # : 15009ST3QIERB447T-W2

TORQUE AND CURRENT VS SPEED CURVE



Performance : 460 V 60 Hz 8P

Rated current	: 185 A	Moment of inertia (J)	: 125 sq.ft.lb
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 885 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.15
Breakdown torque	: 210 %	Temperature rise	: 80 K
Rated speed	: 890 rpm	Design	: B

Locked rotor time : 27s (cold) 15s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



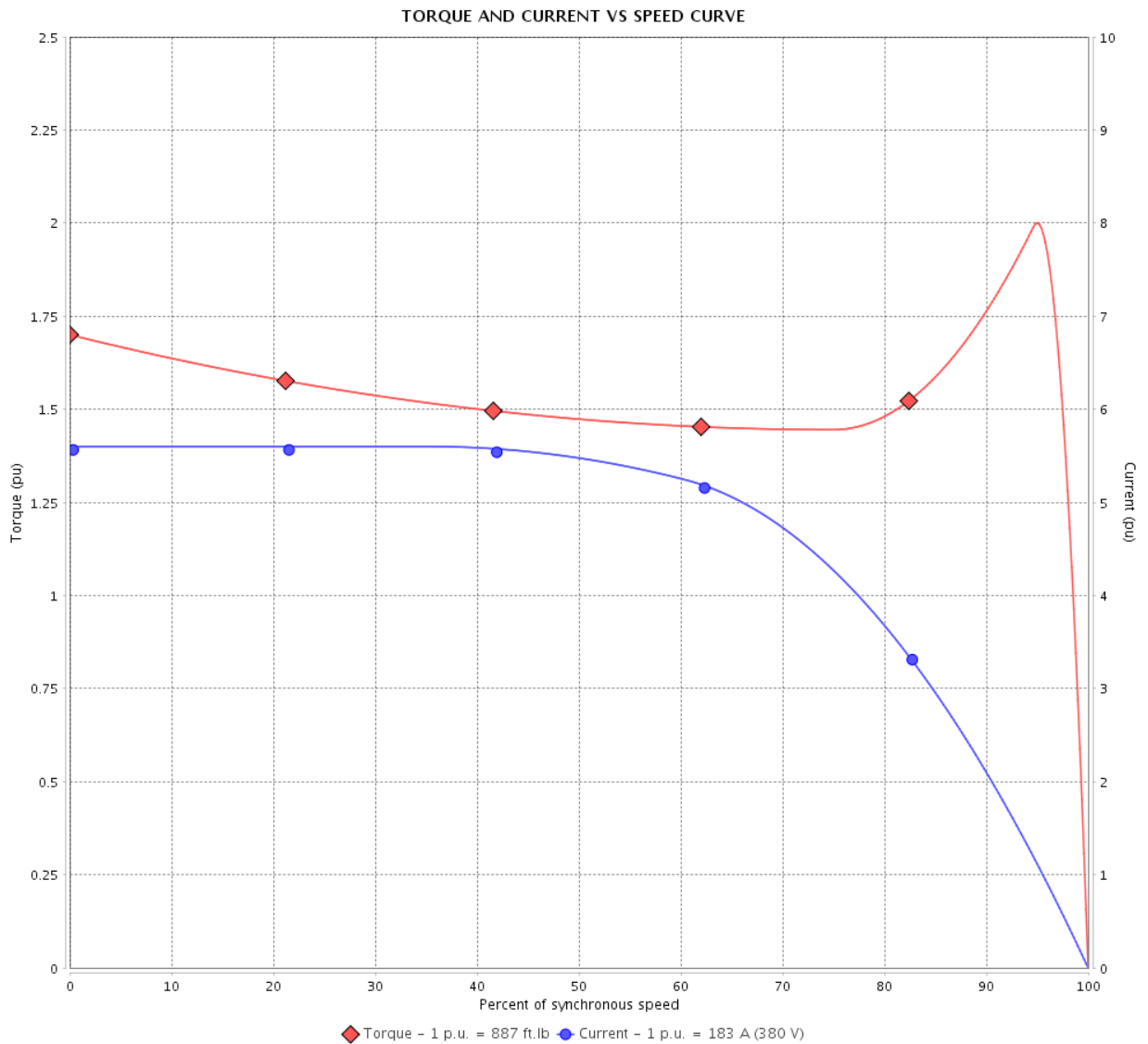
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Customer :

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Product code : 13337942

Catalog # : 15009ST3QIERB447T-W2



Performance : 380 V 50 Hz 8P IE3

Rated current	: 183 A	Moment of inertia (J)	: 125 sq.ft.lb
LRC	: 5.6	Duty cycle	: Cont.(S1)
Rated torque	: 887 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.15
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 740 rpm	Design	: B

Locked rotor time : 27s (cold) 15s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

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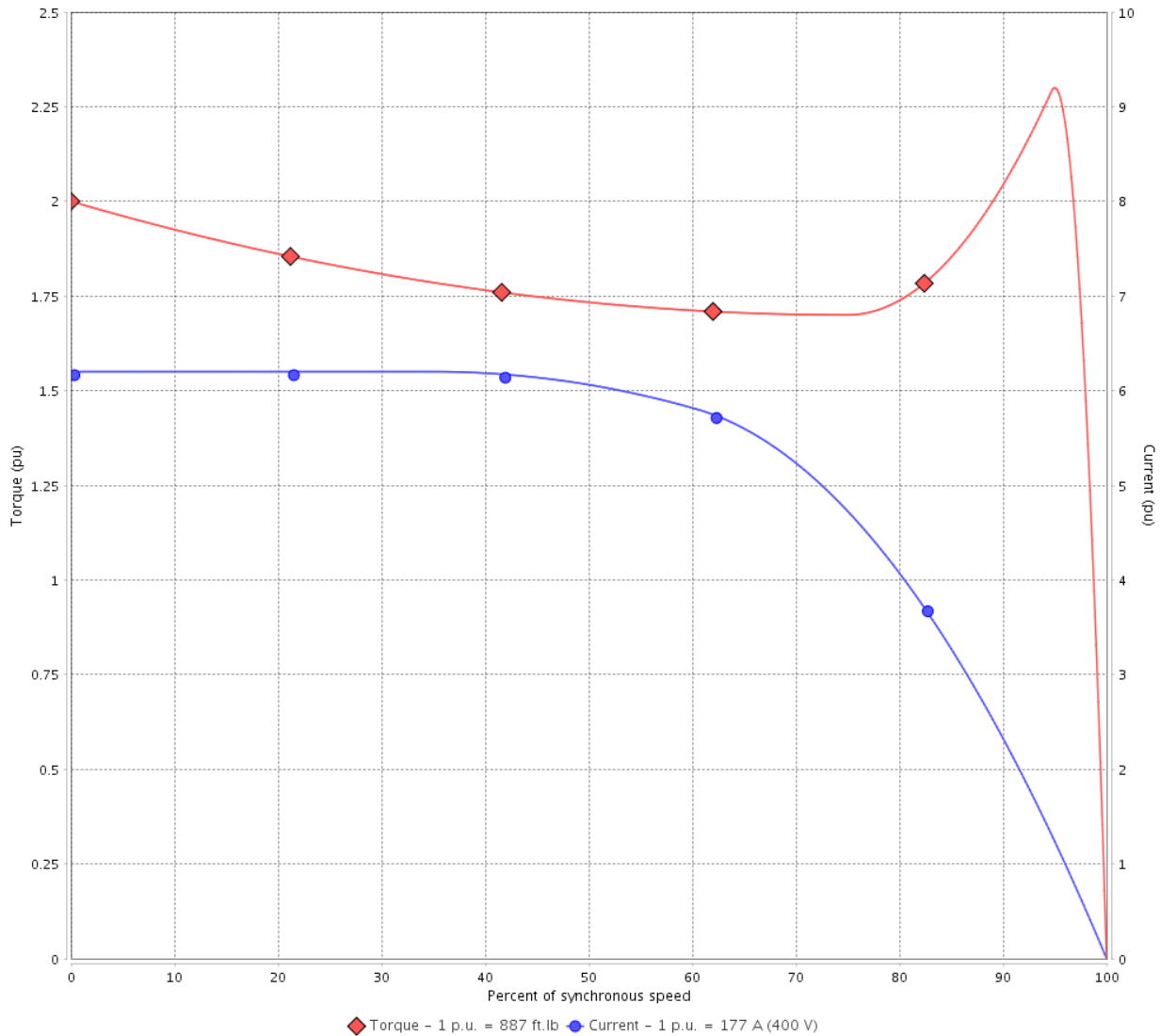
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TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 8P IE3

Rated current	: 177 A	Moment of inertia (J)	: 125 sq.ft.lb
LRC	: 6.2	Duty cycle	: Cont.(S1)
Rated torque	: 887 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 740 rpm	Design	: B

Locked rotor time : 27s (cold) 15s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



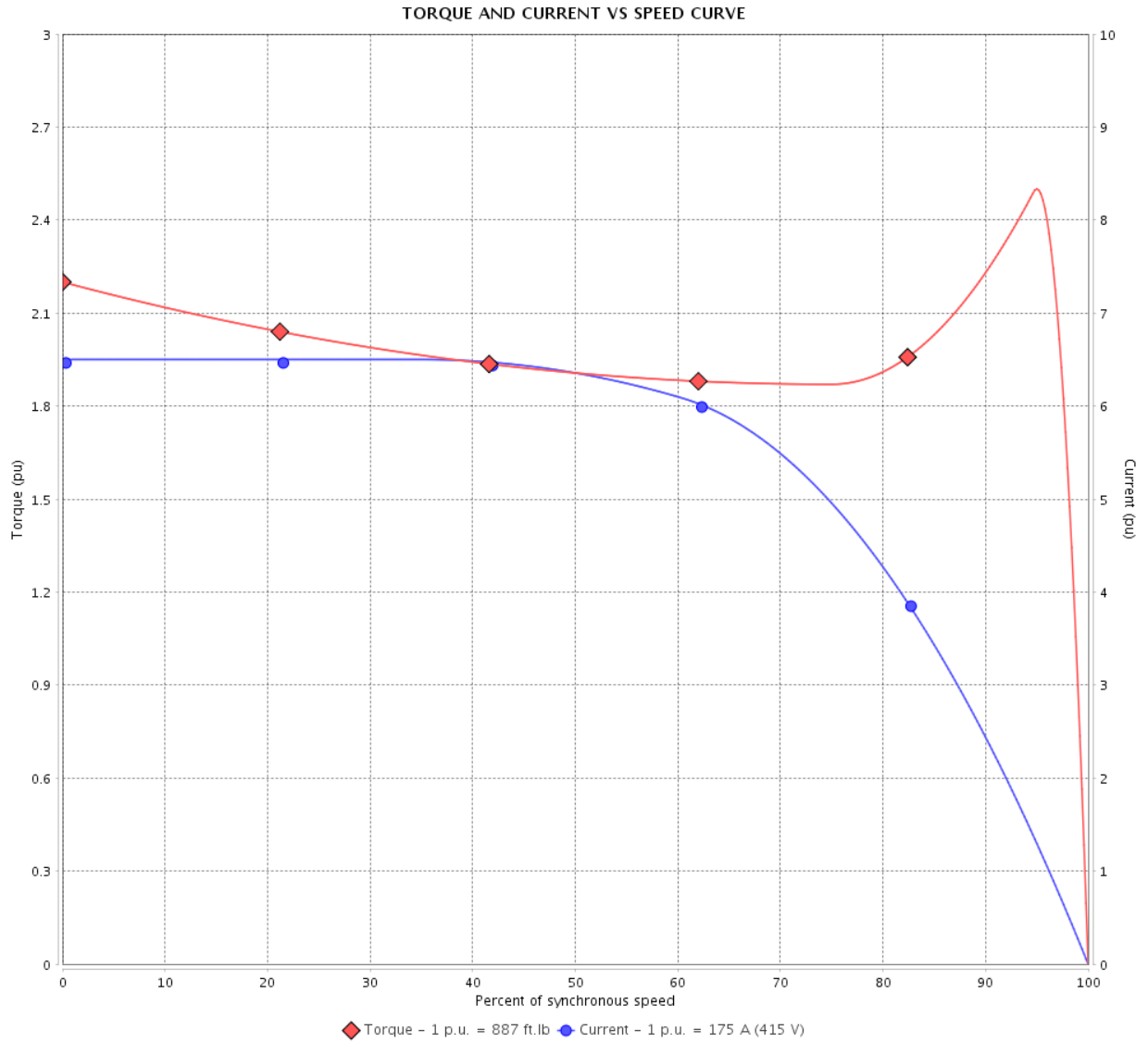
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Performance : 415 V 50 Hz 8P IE3

Rated current	: 175 A	Moment of inertia (J)	: 125 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 887 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 740 rpm	Design	: B

Locked rotor time : 27s (cold) 15s (hot)

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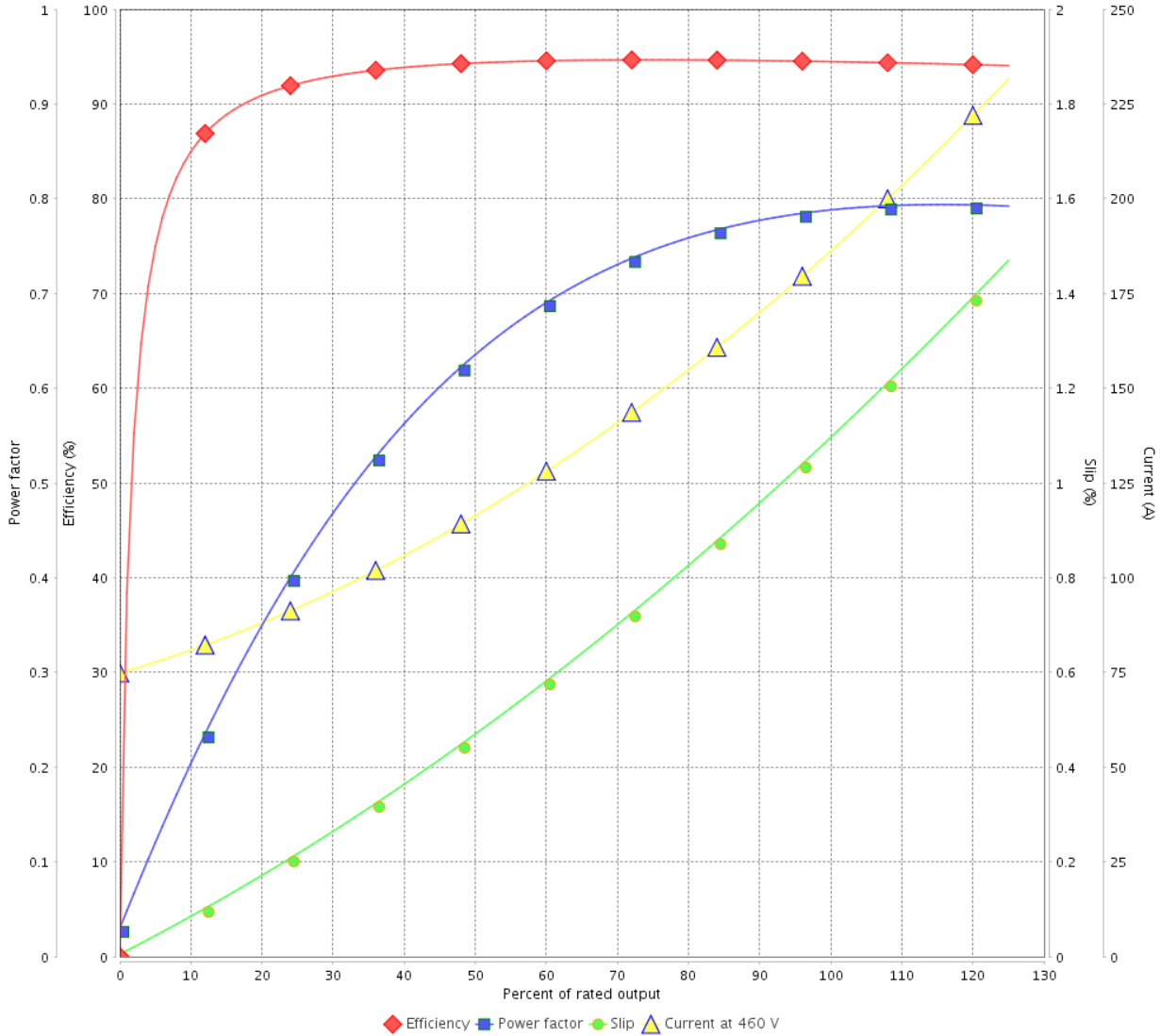
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Performance : 460 V 60 Hz 8P

Rated current : 185 A
 LRC : 6.0
 Rated torque : 885 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 210 %
 Rated speed : 890 rpm

Moment of inertia (J) : 125 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
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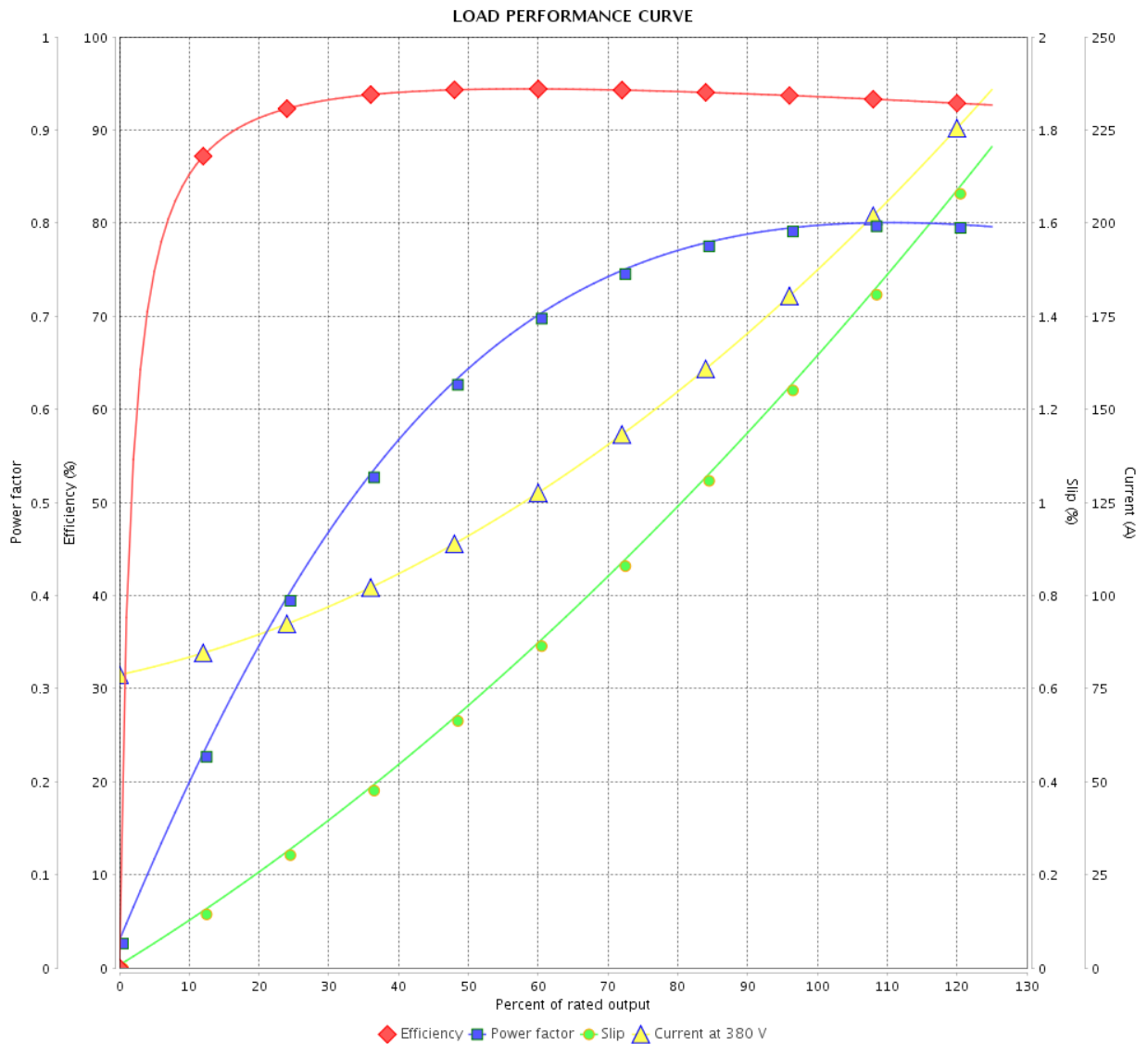


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Performance : 380 V 50 Hz 8P IE3

Rated current : 183 A
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 Locked rotor torque : 170 %
 Breakdown torque : 200 %
 Rated speed : 740 rpm

Moment of inertia (J) : 125 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 105 K
 Design : B

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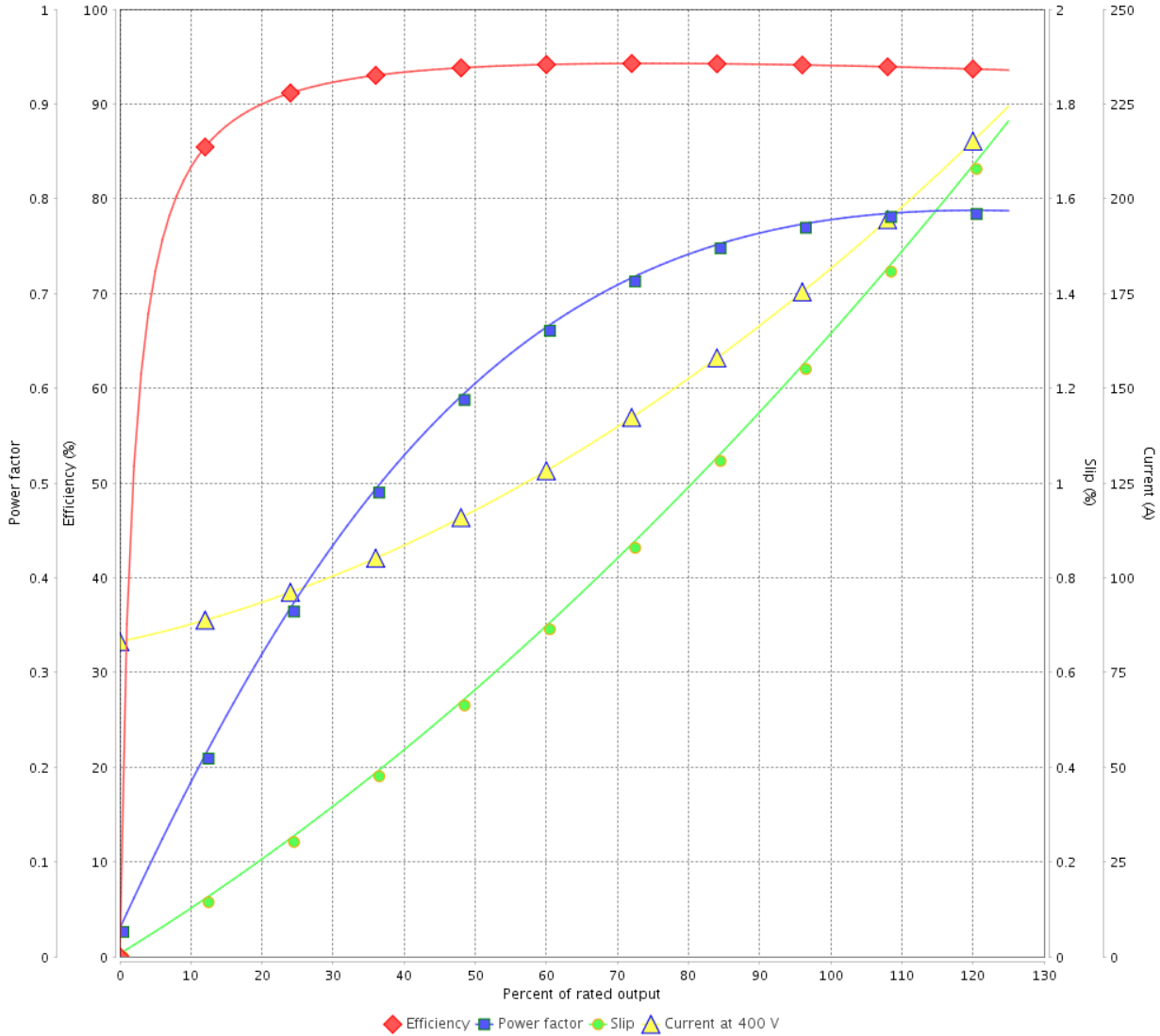
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Rated torque	: 887 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 740 rpm	Design	: B

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Three Phase Induction Motor - Squirrel Cage

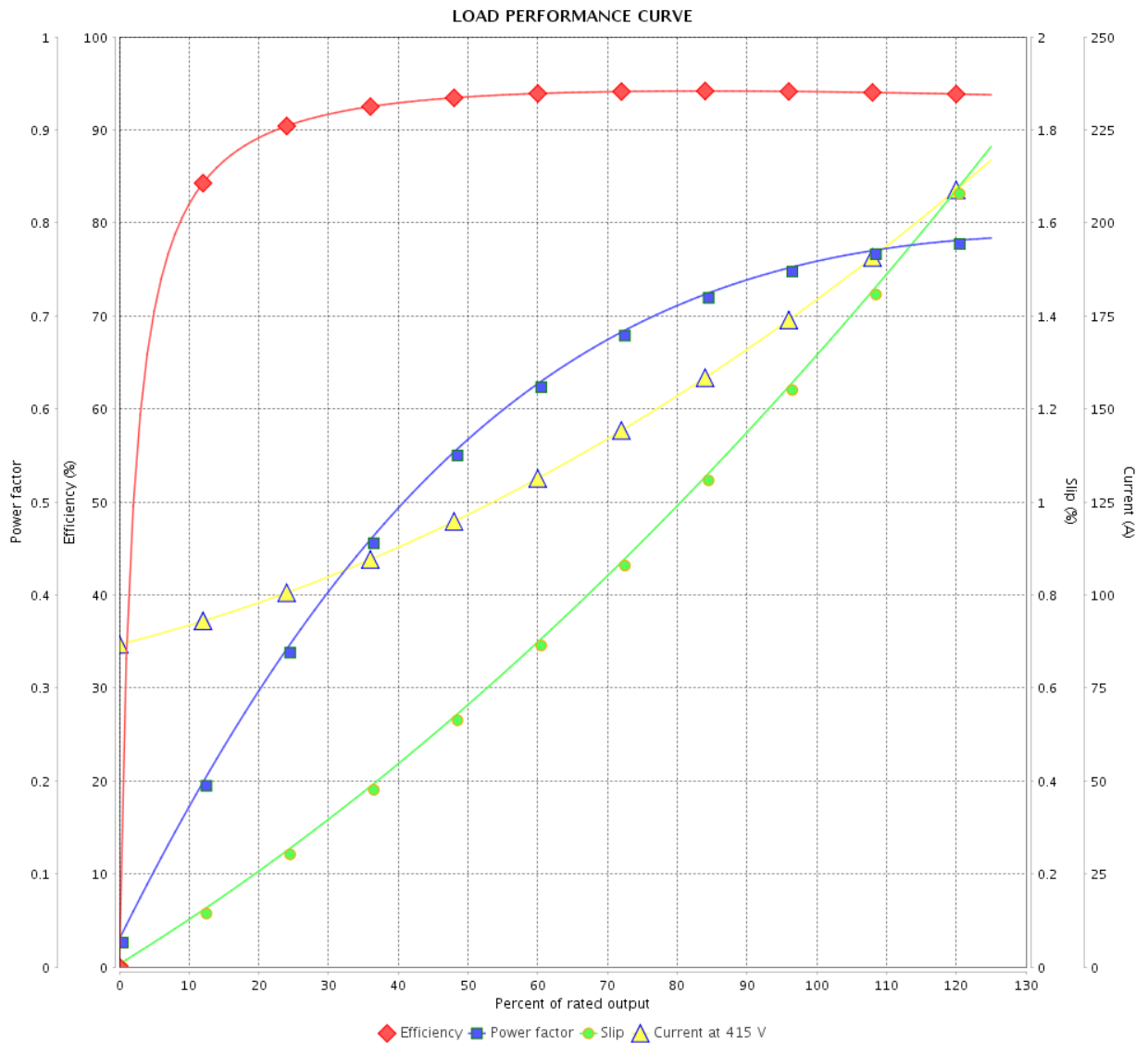


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 Service factor : 1.15
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THERMAL LIMIT CURVE



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Heating constant

Cooling constant

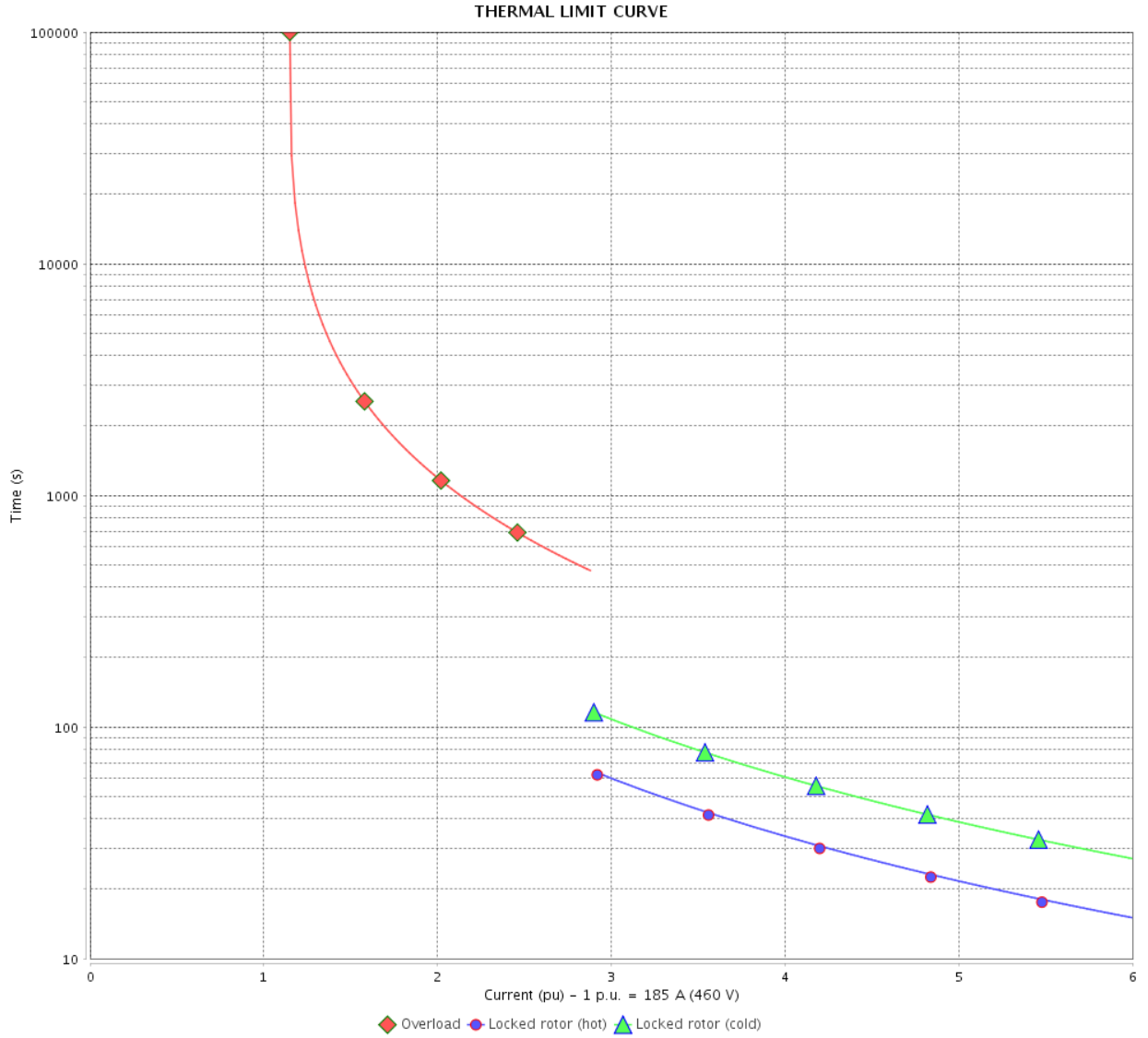
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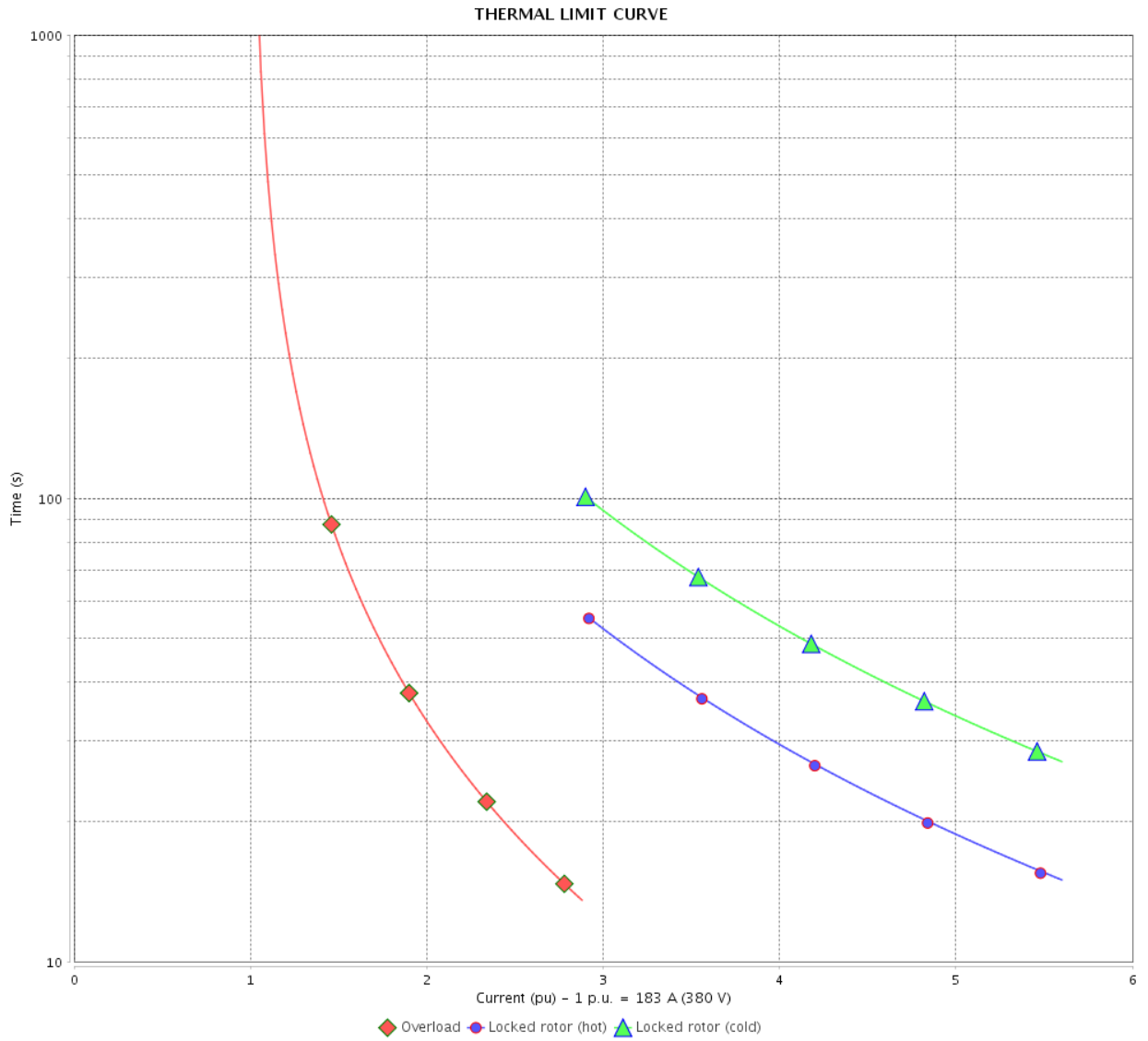
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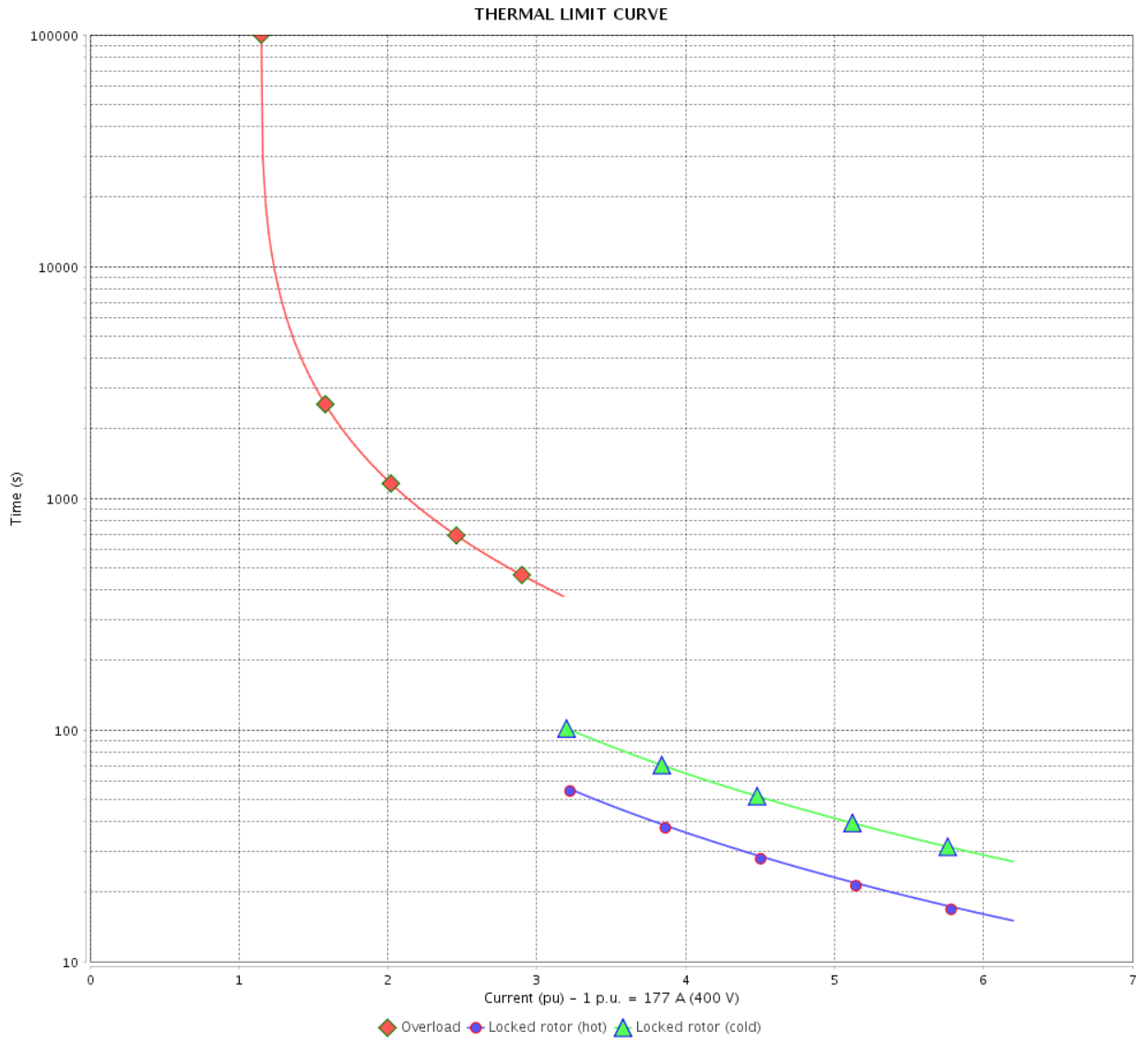
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Cooling constant

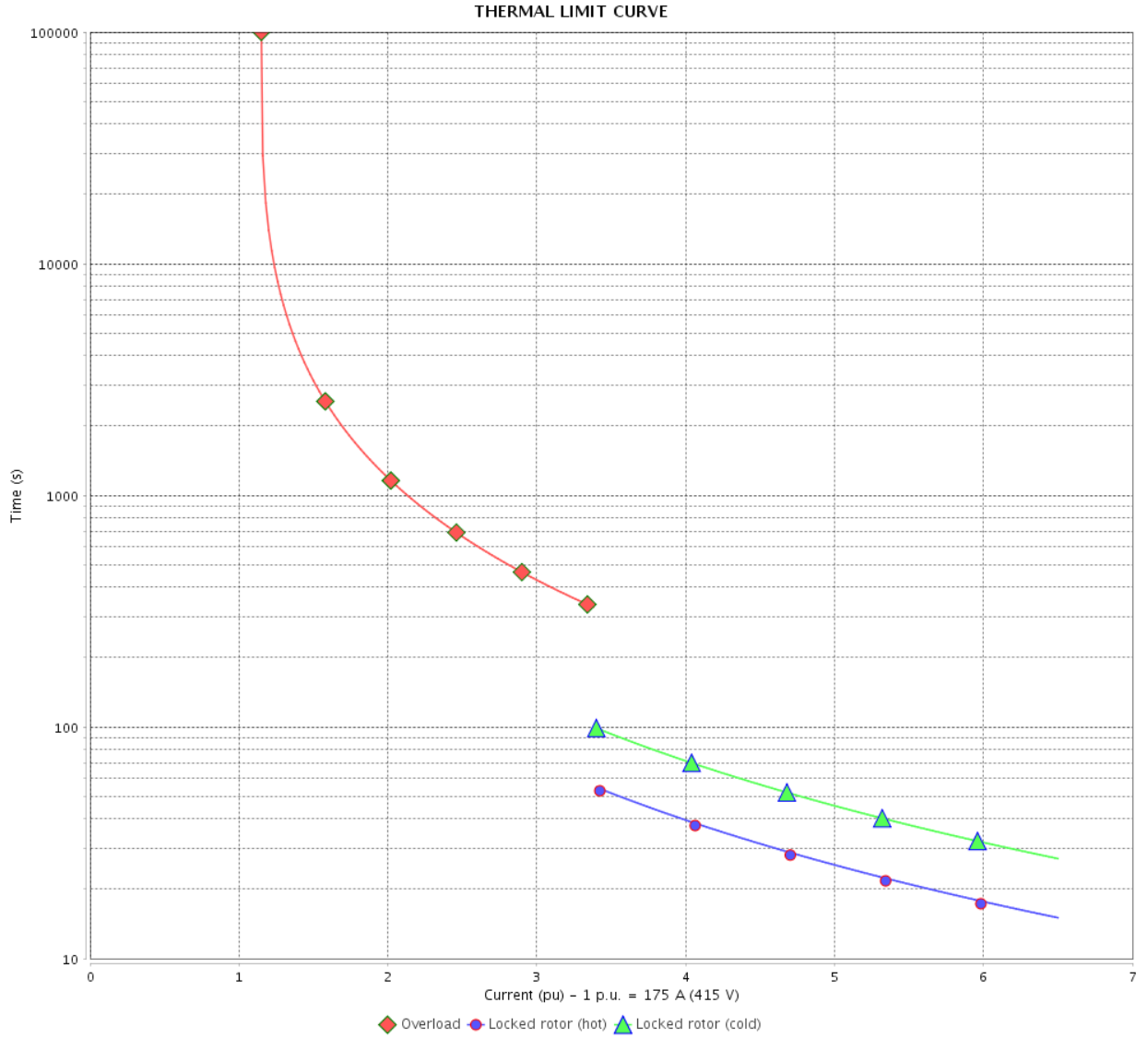
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VFD OPERATION CURVE

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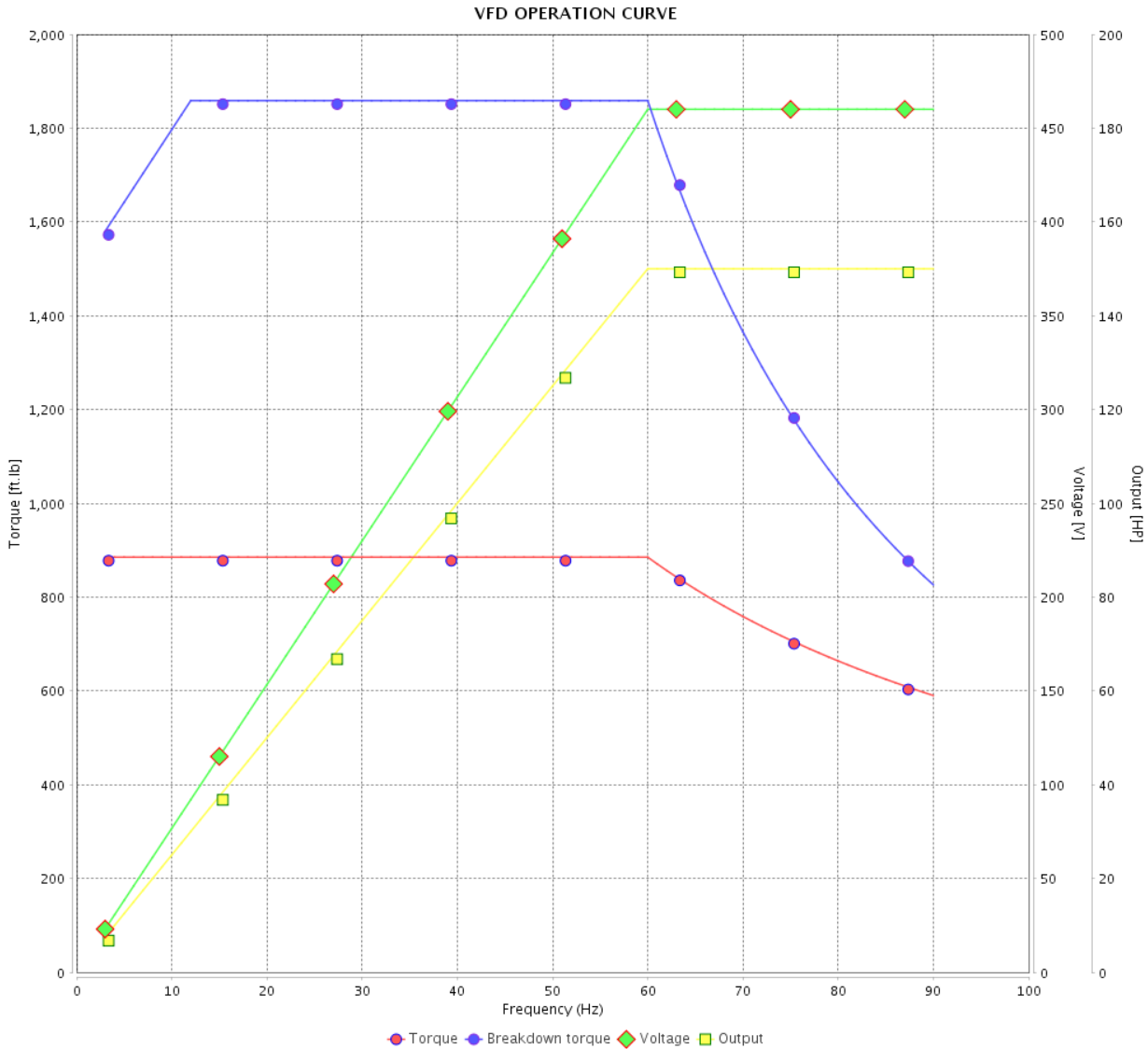


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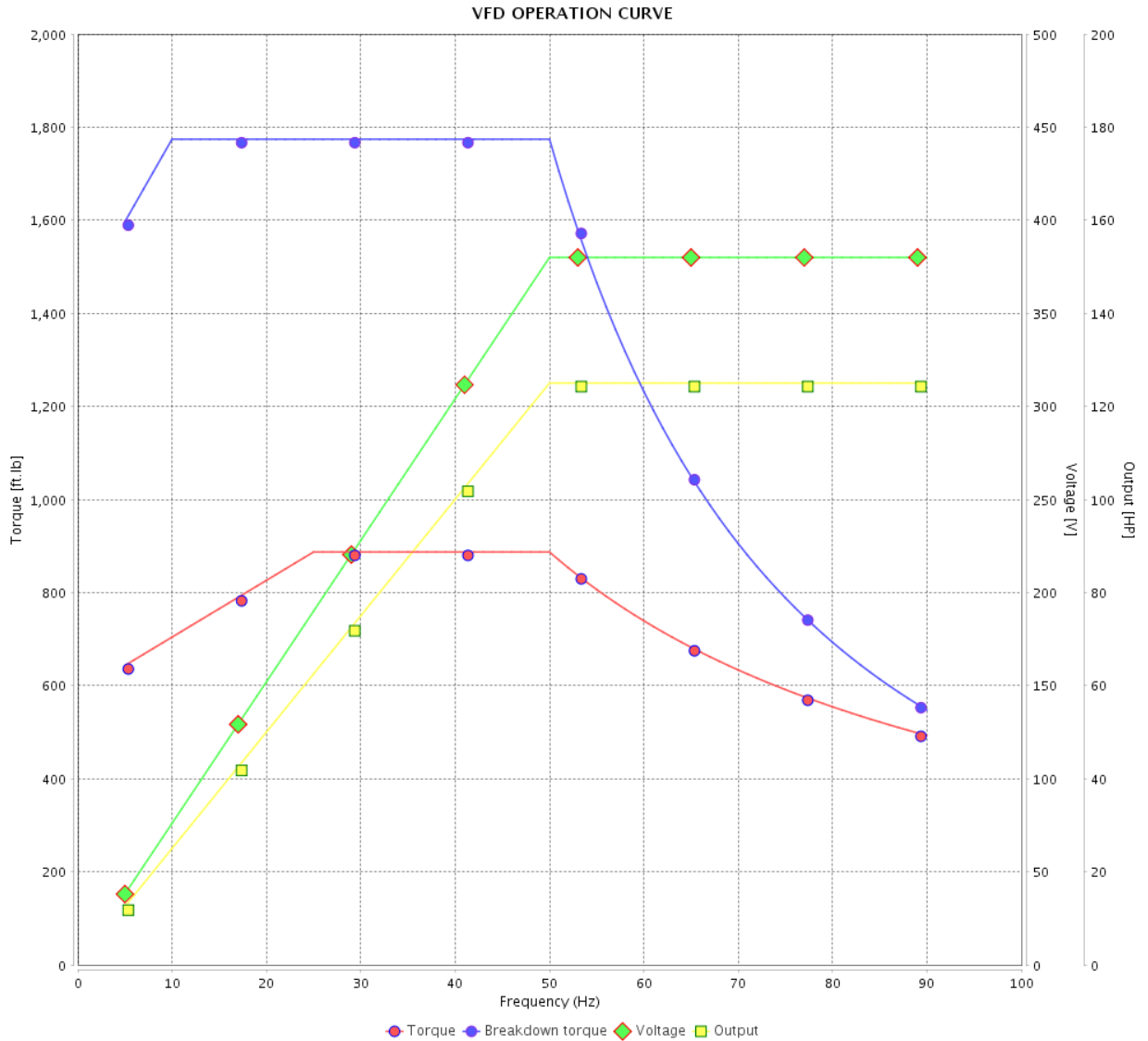


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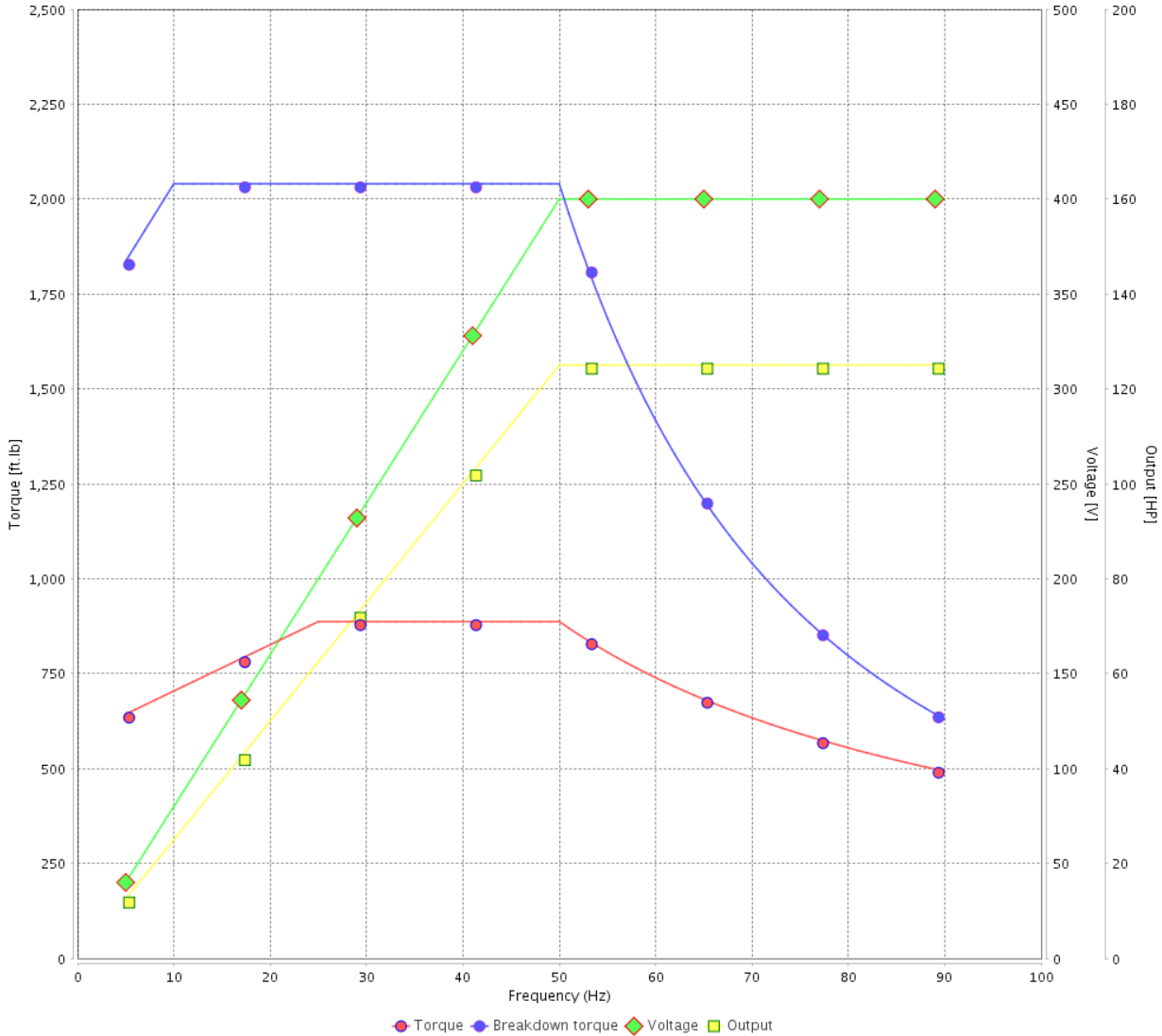
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VFD OPERATION CURVE

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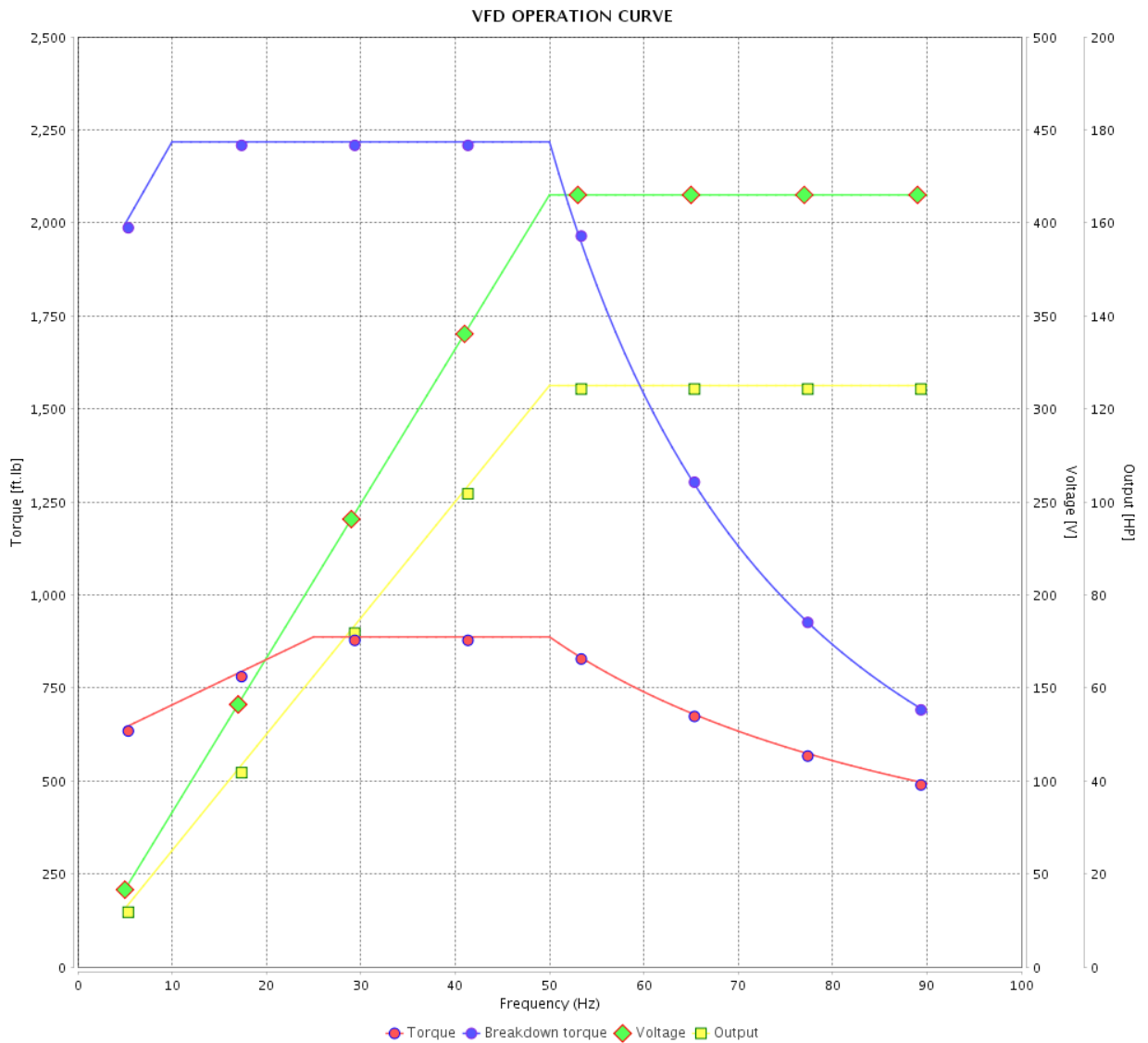


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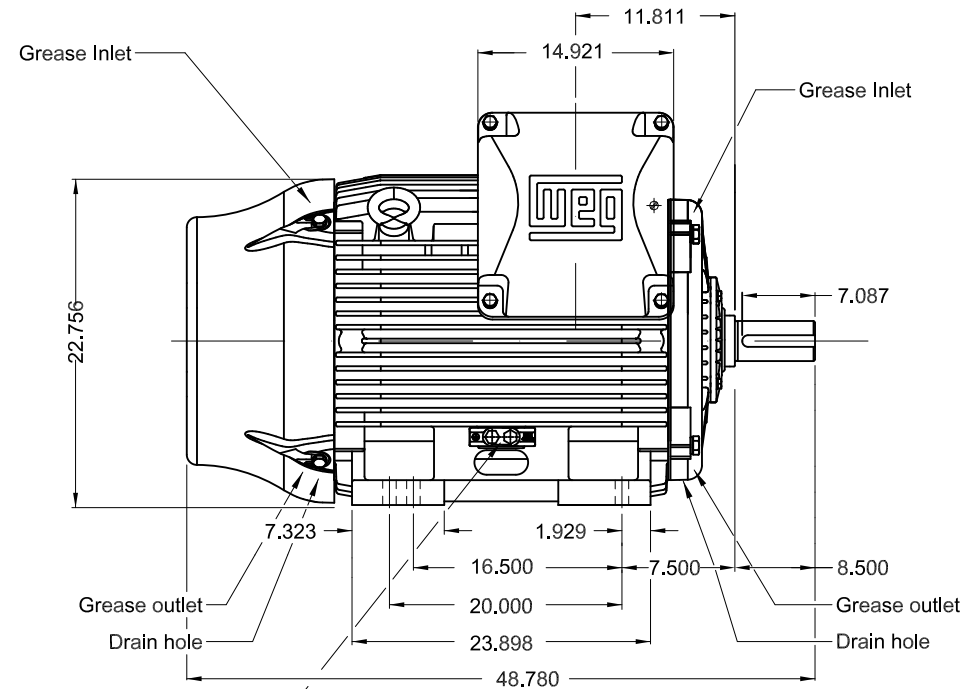
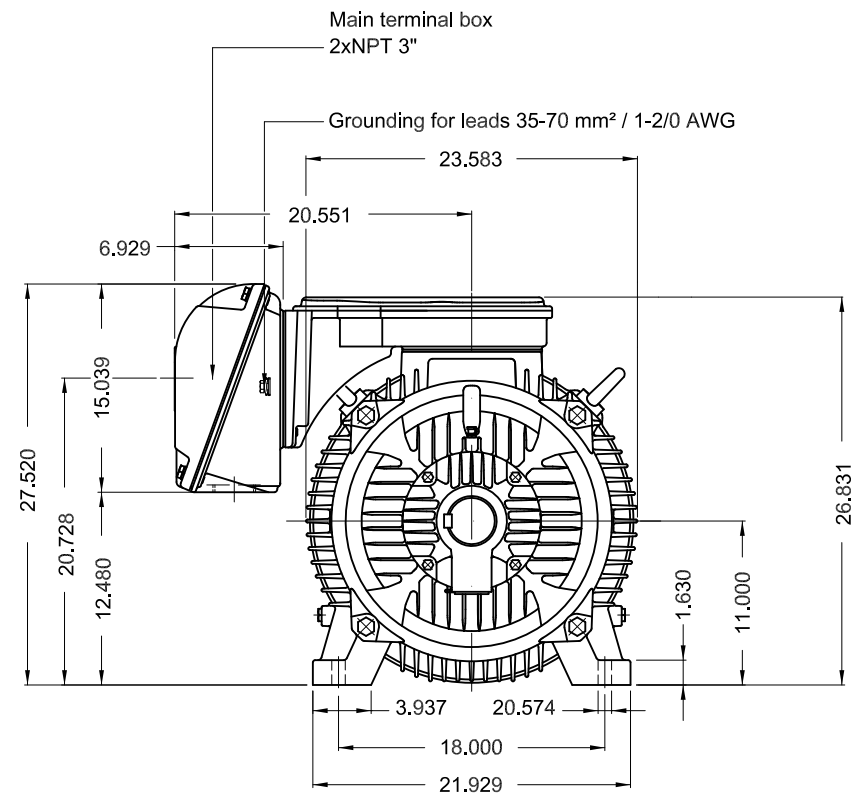


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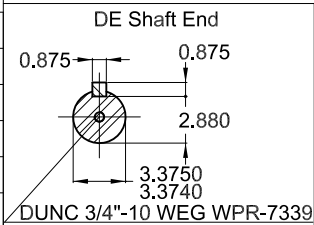


Grounding for leads 25-185 mm² / 3AWG-350MCM

150 HP 08 Poles 60 Hz

A

- DE roller bearing
- Shaft locking device
- Color RAL 5009
- Painting plan 202E
- Mounting NEMA F-1
- Mounting B3R(D)



ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWUSER	THREE PH. MOTOR IEEE 841 W22 PREM. EFF.					
CHECKED		FRAME 445/7T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW
WDD

