

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	14031103		
		Catalog # :	35009ET3G586/7-W22		
Frame	: 586/7T	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	: 4635 lb		
Protection degree	: IP55	Moment of inertia (J)	: 484 sq.ft.lb		
Output [HP]	350	300	300	300	
Poles	8	8	8	8	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	426	433	421	417	
L. R. Amperes [A]	2726	2598	2779	2961	
LRC [A]	6.4x(Code G)	6.0x(Code G)	6.6x(Code H)	7.1x(Code H)	
No load current [A]	170	188	205	220	
Rated speed [RPM]	895	745	745	745	
Slip [%]	0.56	0.67	0.67	0.67	
Rated torque [ft.lb]	2060	2120	2120	2120	
Locked rotor torque [%]	160	150	180	200	
Breakdown torque [%]	229	220	250	270	
Service factor	1.00	1.00	1.00	1.00	
Temperature rise	80 K	105 K	105 K	105 K	
Locked rotor time	61s (cold) 34s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)	
Noise level ²	75.0 dB(A)	70.0 dB(A)	70.0 dB(A)	70.0 dB(A)	
Efficiency (%)	25%	95.3	95.3	94.9	94.9
	50%	95.4	95.4	95.0	95.0
	75%	95.8	95.4	95.4	95.4
	100%	95.8	95.4	95.4	95.4
Power Factor	25%	0.40	0.40	0.36	0.33
	50%	0.64	0.65	0.61	0.57
	75%	0.75	0.76	0.73	0.70
	100%	0.80	0.81	0.79	0.77
Bearing type	: <u>Drive end</u> 6322 C3	<u>Non drive end</u> 6319 C3	Foundation loads		
Sealing	: Taconite	Taconite	Max. traction	: 9595 lb	
	Labyrinth	Labyrinth	Max. compression	: 14230 lb	
Lubrication interval	: 14000 h	17000 h			
Lubricant amount	: 60 g	45 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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Customer : _____

Space heater information

Voltage: 200 - 240 V

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TORQUE AND CURRENT VS SPEED CURVE



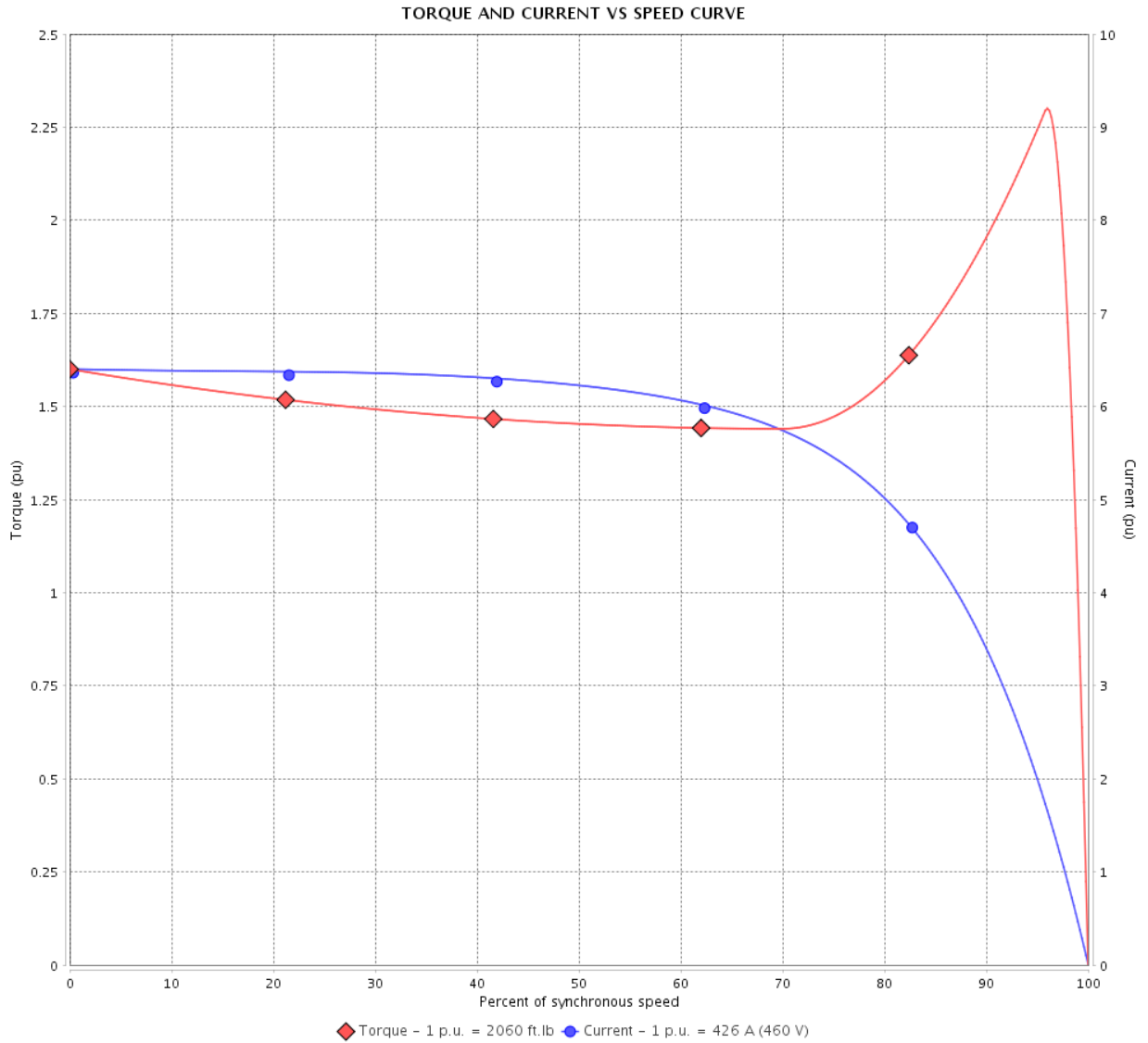
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14031103

Catalog # : 35009ET3G586/7-W22



Performance : 460 V 60 Hz 8P

Rated current : 426 A
 LRC : 6.4
 Rated torque : 2060 ft.lb
 Locked rotor torque : 160 %
 Breakdown torque : 229 %
 Rated speed : 895 rpm

Moment of inertia (J) : 484 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K

Locked rotor time : 61s (cold) 34s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



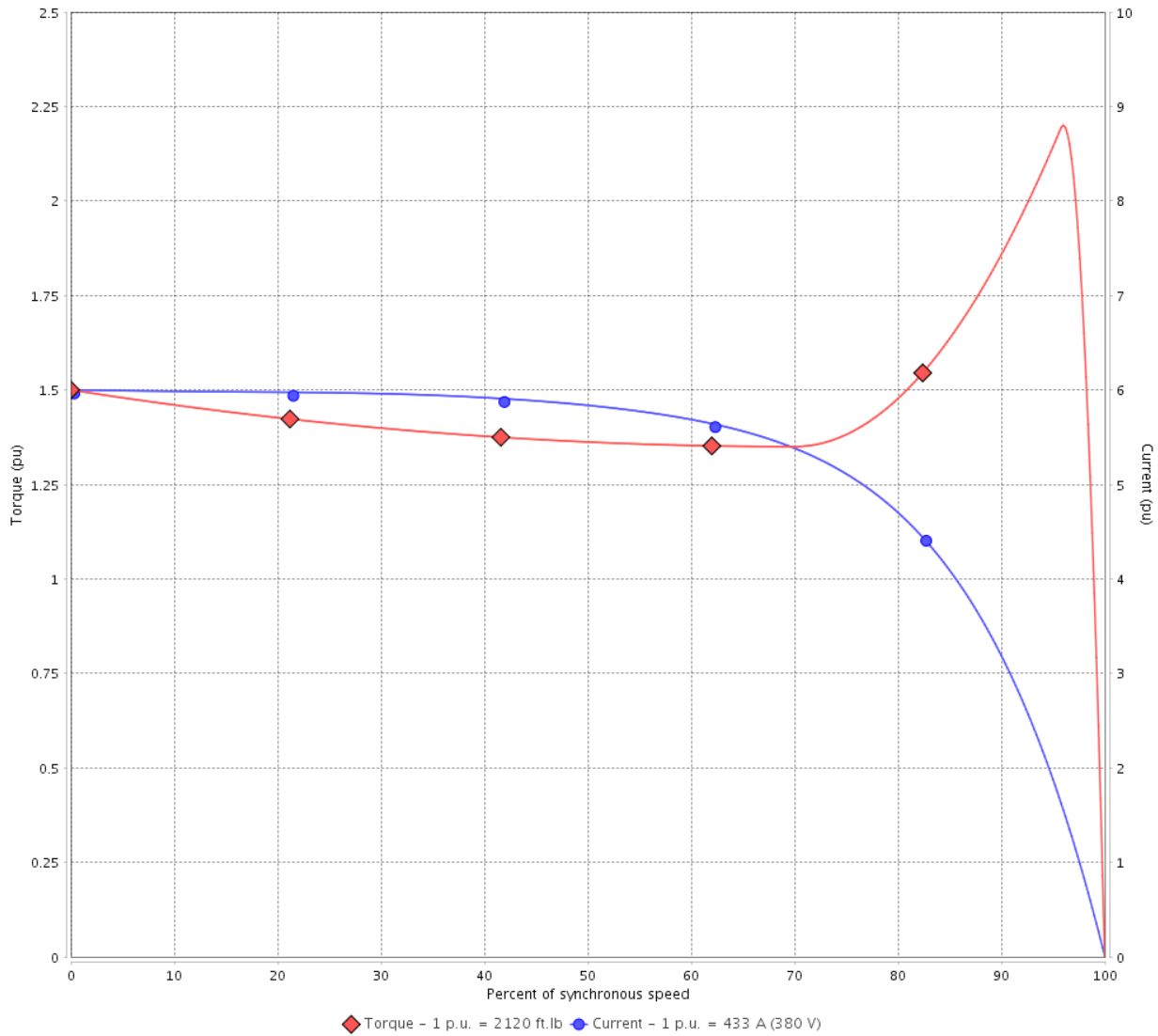
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TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 8P IE3

Rated current	: 433 A	Moment of inertia (J)	: 484 sq.ft.lb
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 2120 ft.lb	Insulation class	: F
Locked rotor torque	: 150 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 745 rpm		

Locked rotor time : 54s (cold) 30s (hot)

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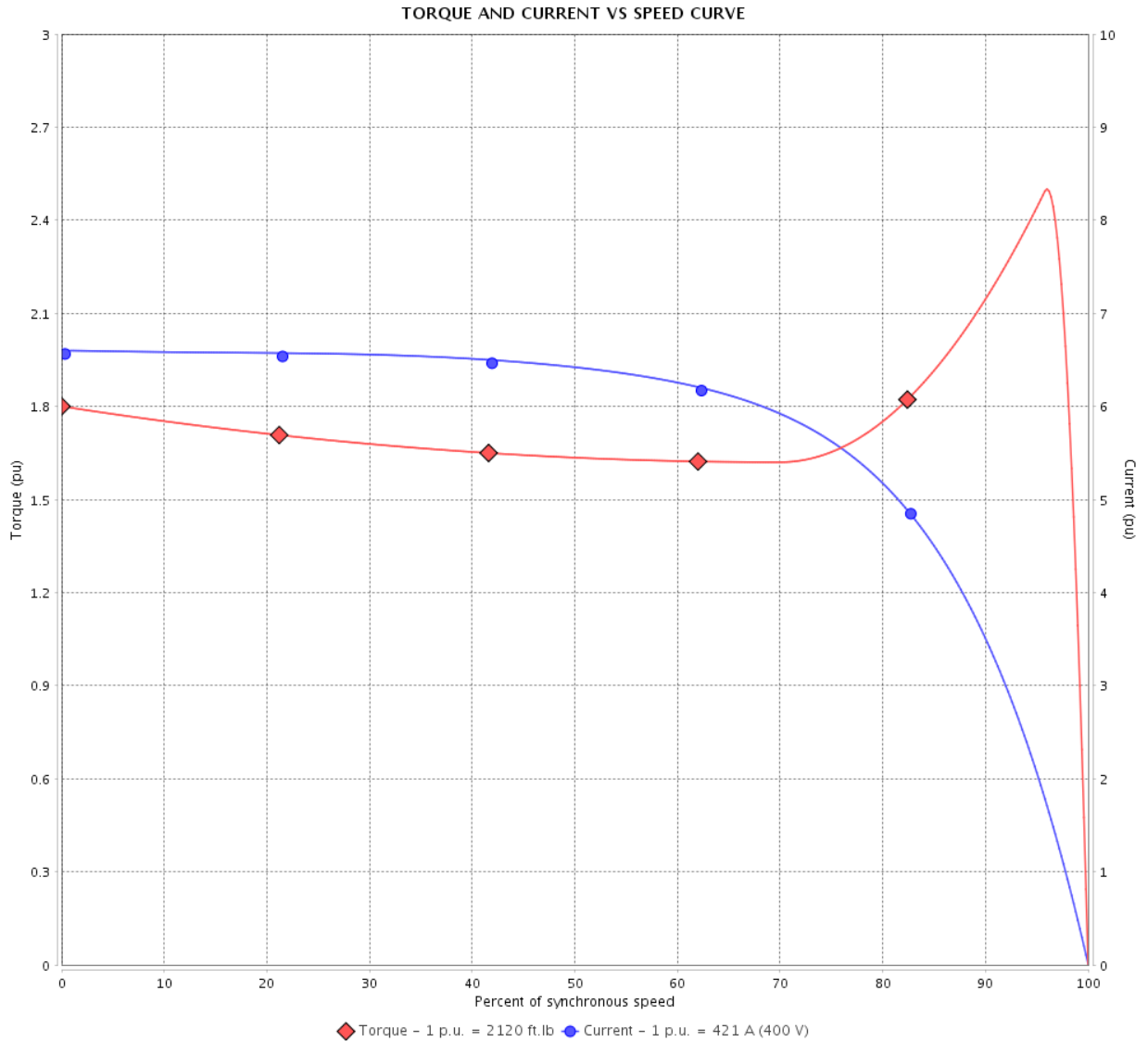
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Three Phase Induction Motor - Squirrel Cage

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 Product code : 14031103
 Catalog # : 35009ET3G586/7-W22



Performance : 400 V 50 Hz 8P IE3

Rated current : 421 A	Moment of inertia (J) : 484 sq.ft.lb
LRC : 6.6	Duty cycle : Cont.(S1)
Rated torque : 2120 ft.lb	Insulation class : F
Locked rotor torque : 180 %	Service factor : 1.00
Breakdown torque : 250 %	Temperature rise : 105 K
Rated speed : 745 rpm	

Locked rotor time : 54s (cold) 30s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

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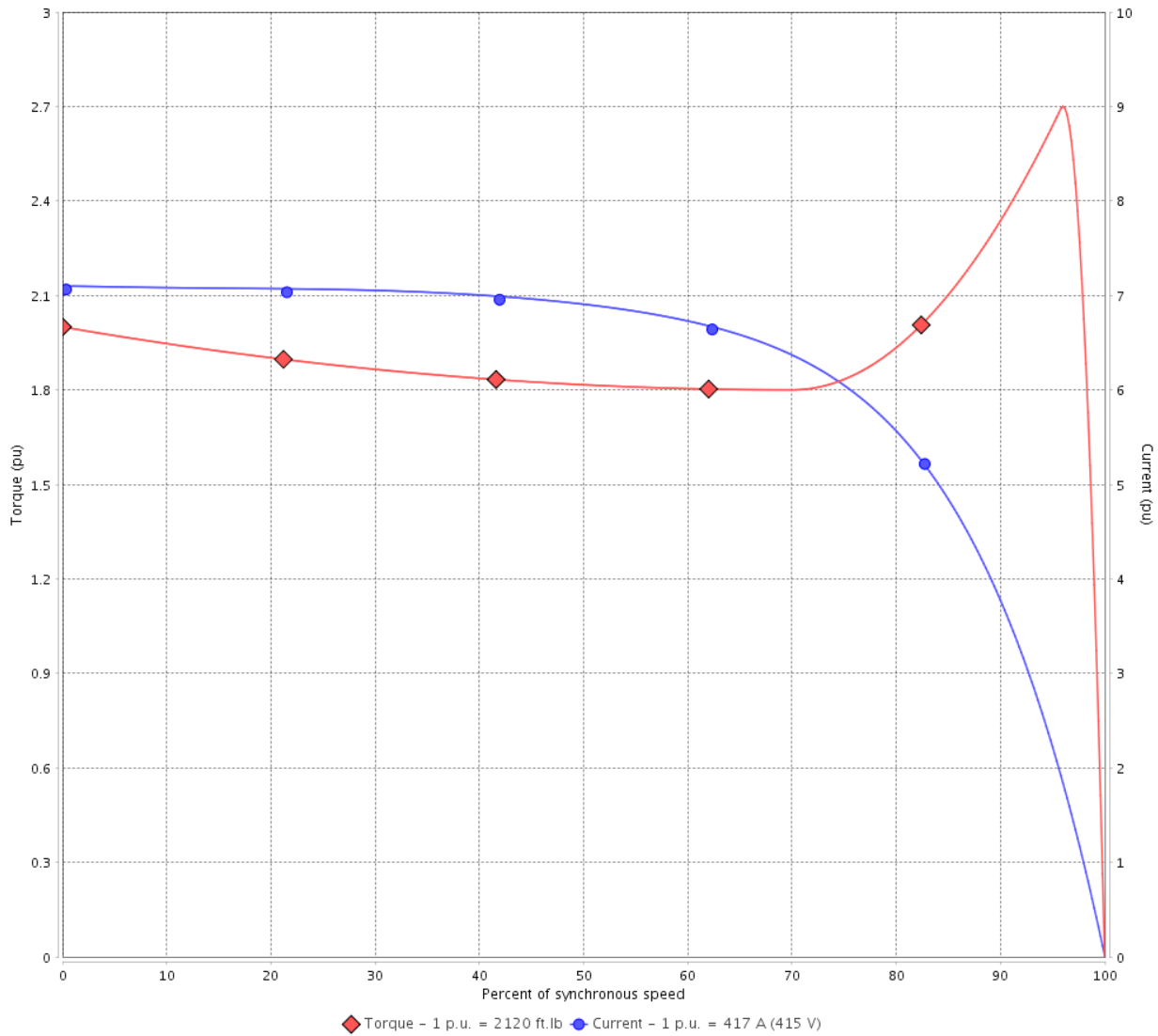
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TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 8P IE3

Rated current	: 417 A	Moment of inertia (J)	: 484 sq.ft.lb
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 2120 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 105 K
Rated speed	: 745 rpm		

Locked rotor time : 54s (cold) 30s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

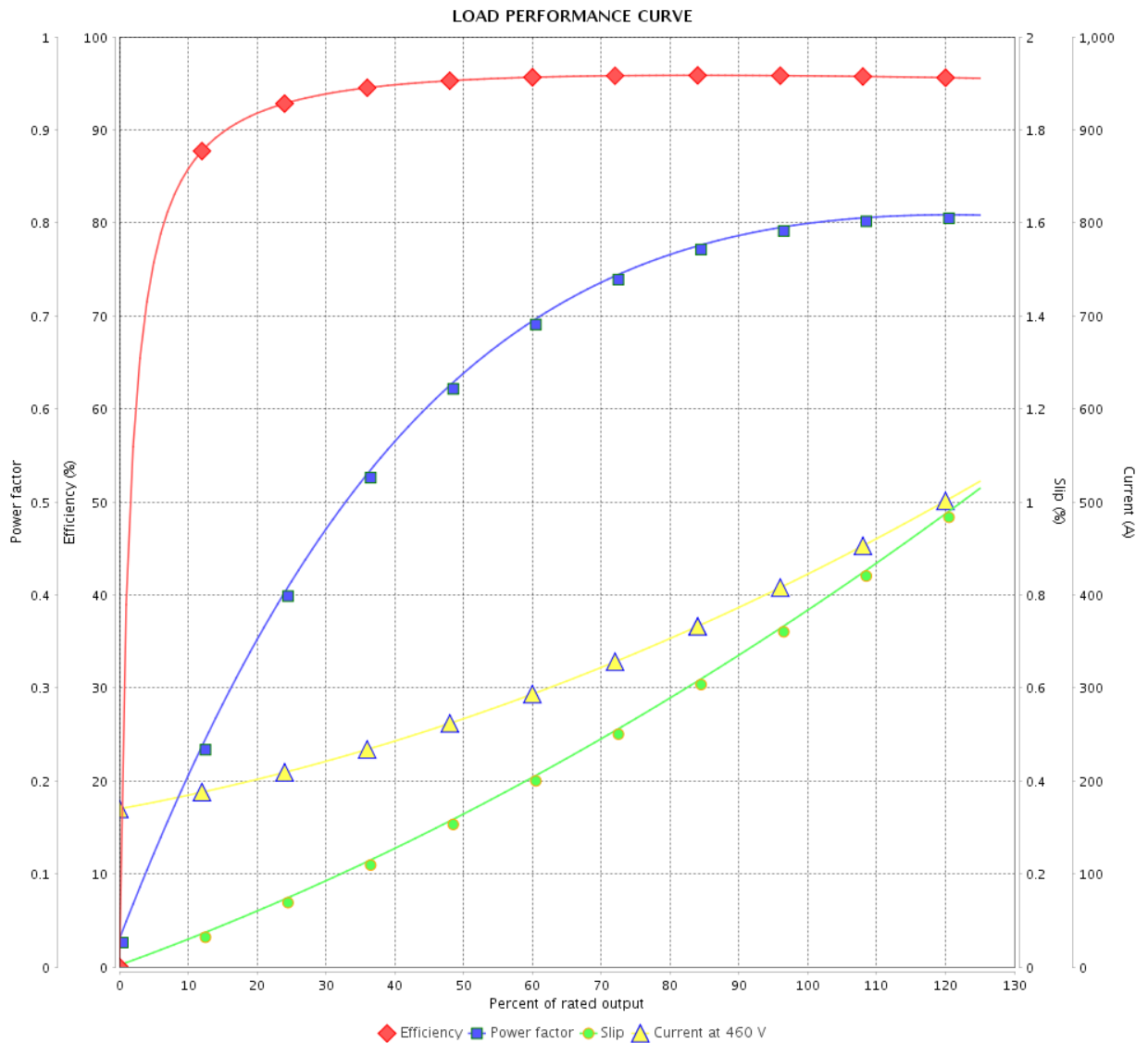


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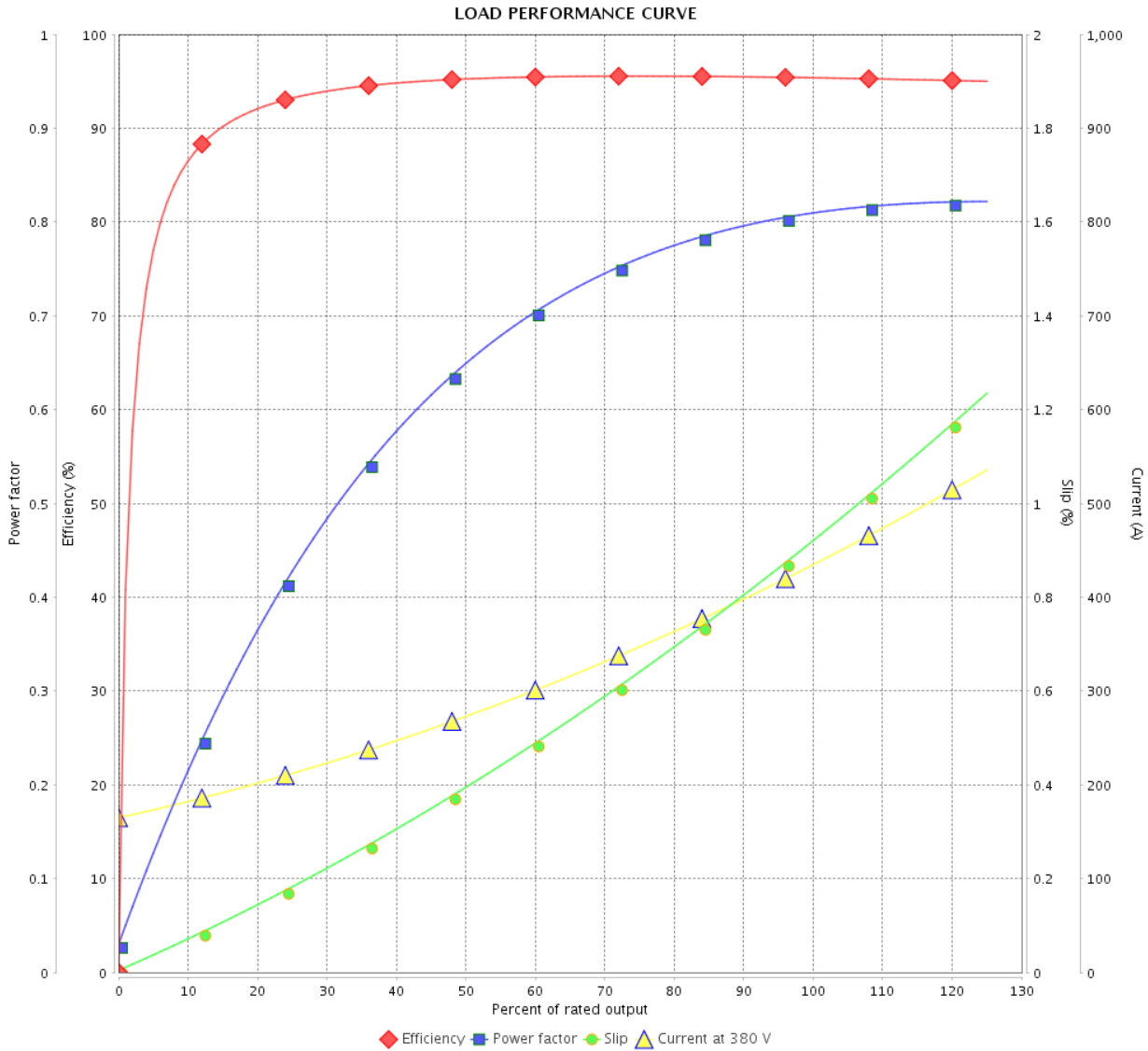


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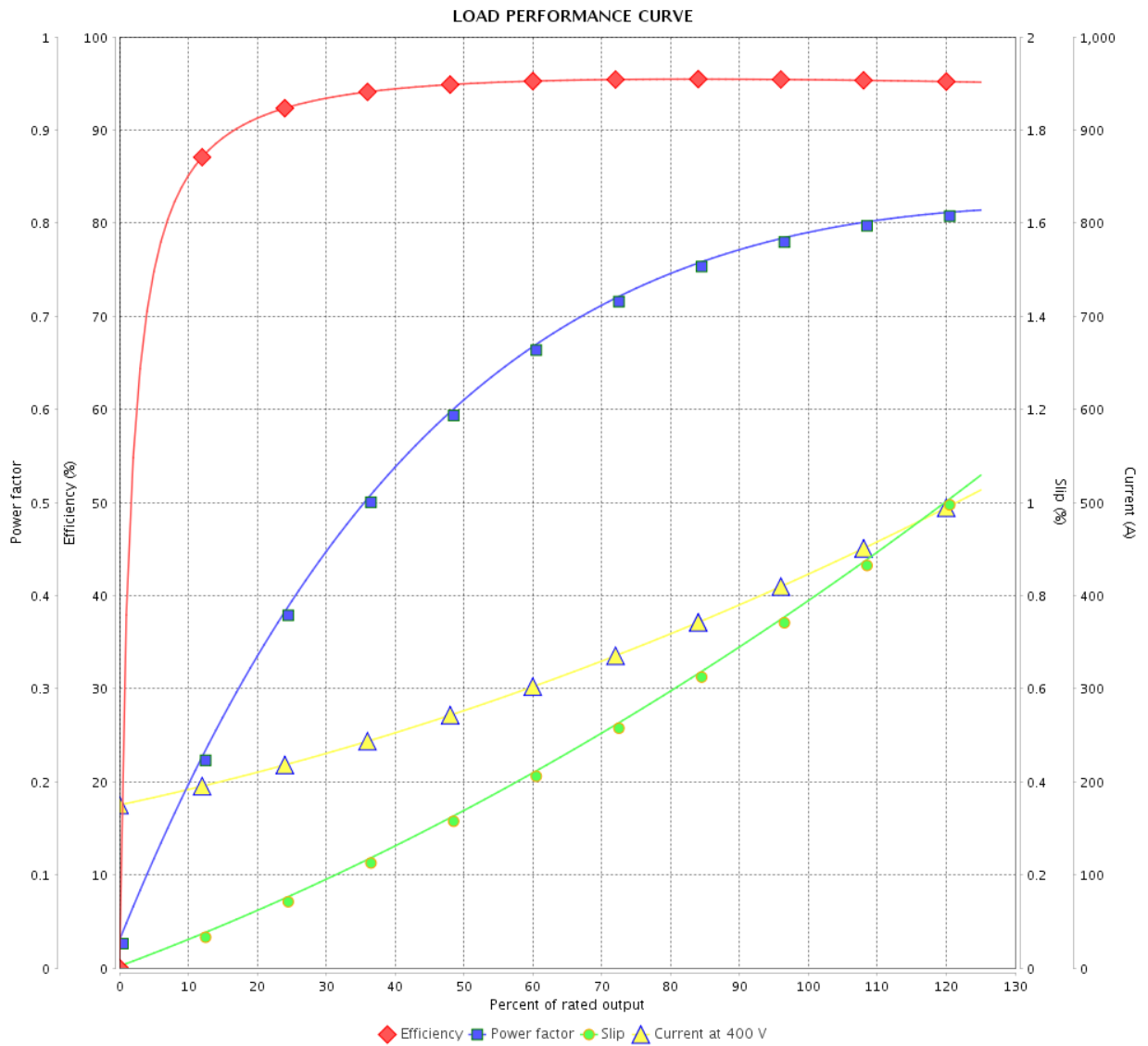


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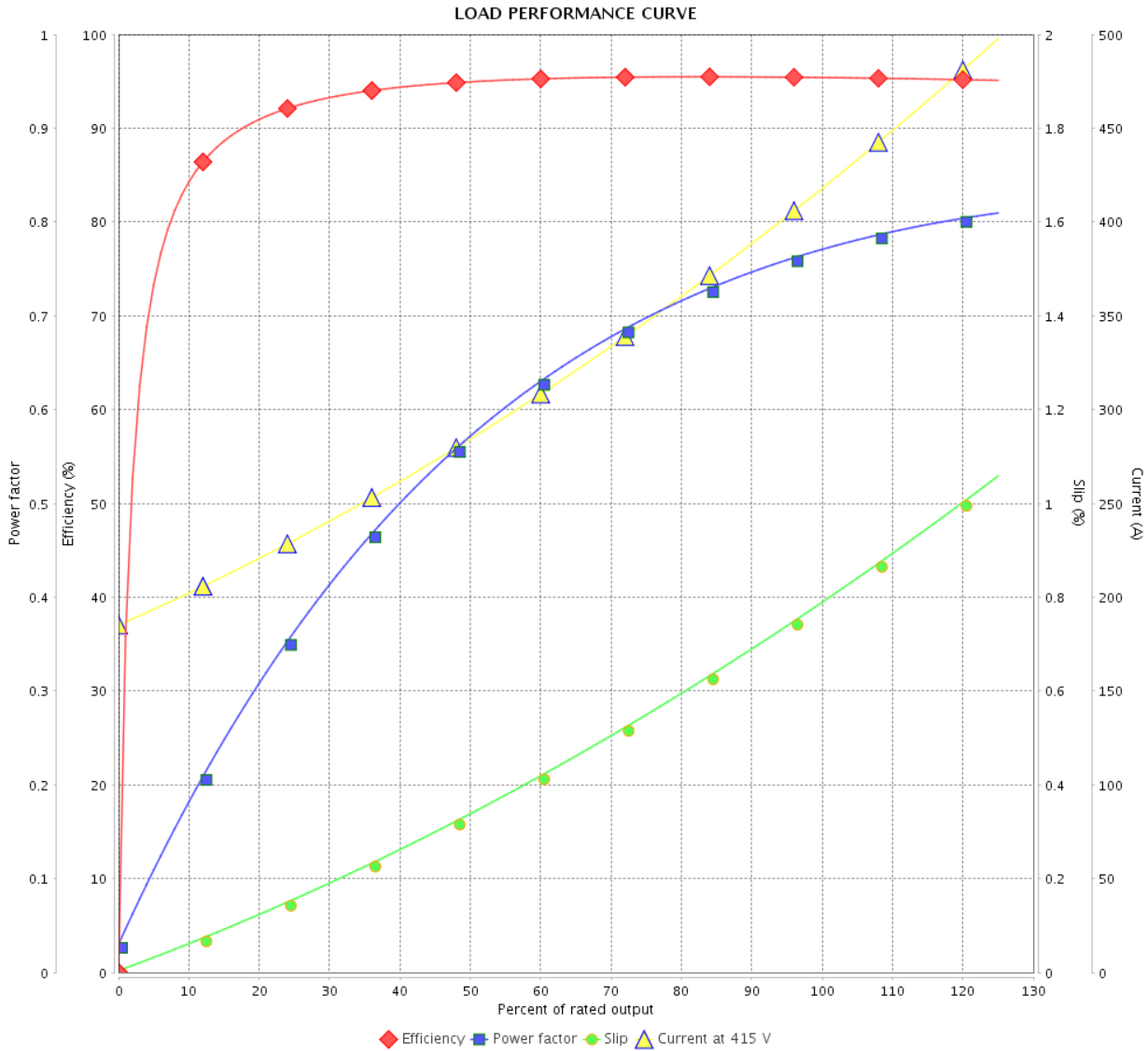


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Heating constant

Cooling constant

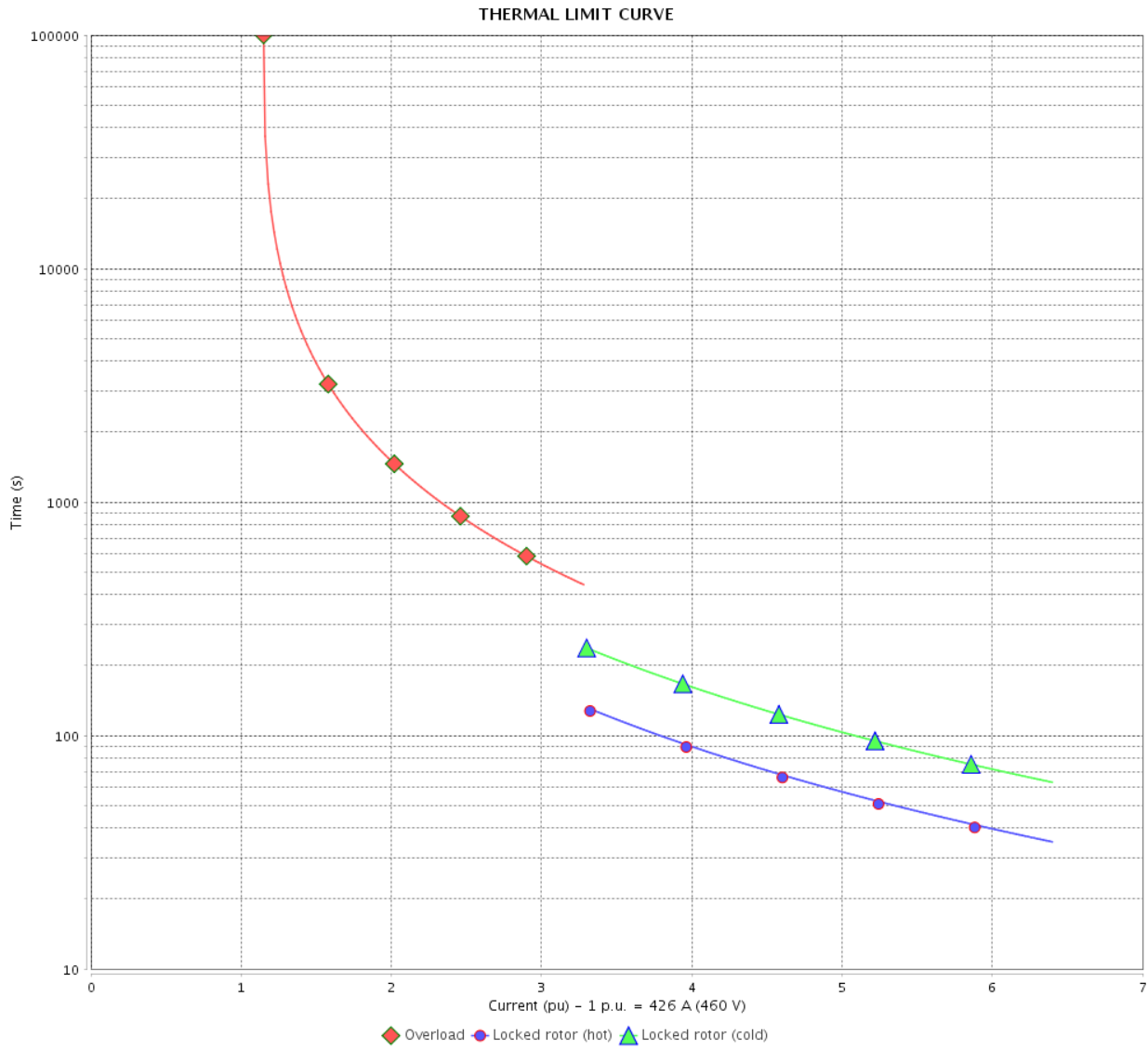
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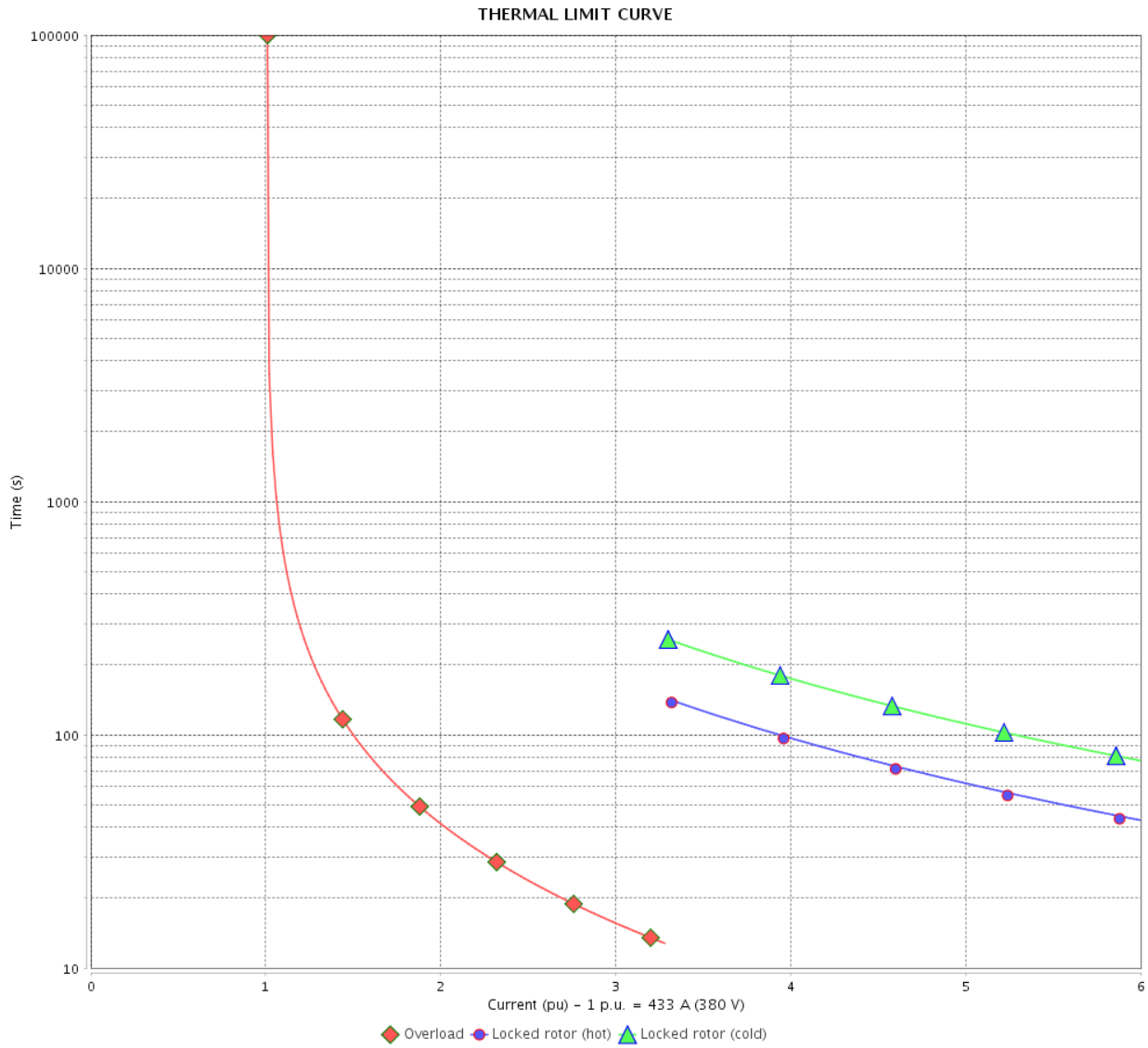
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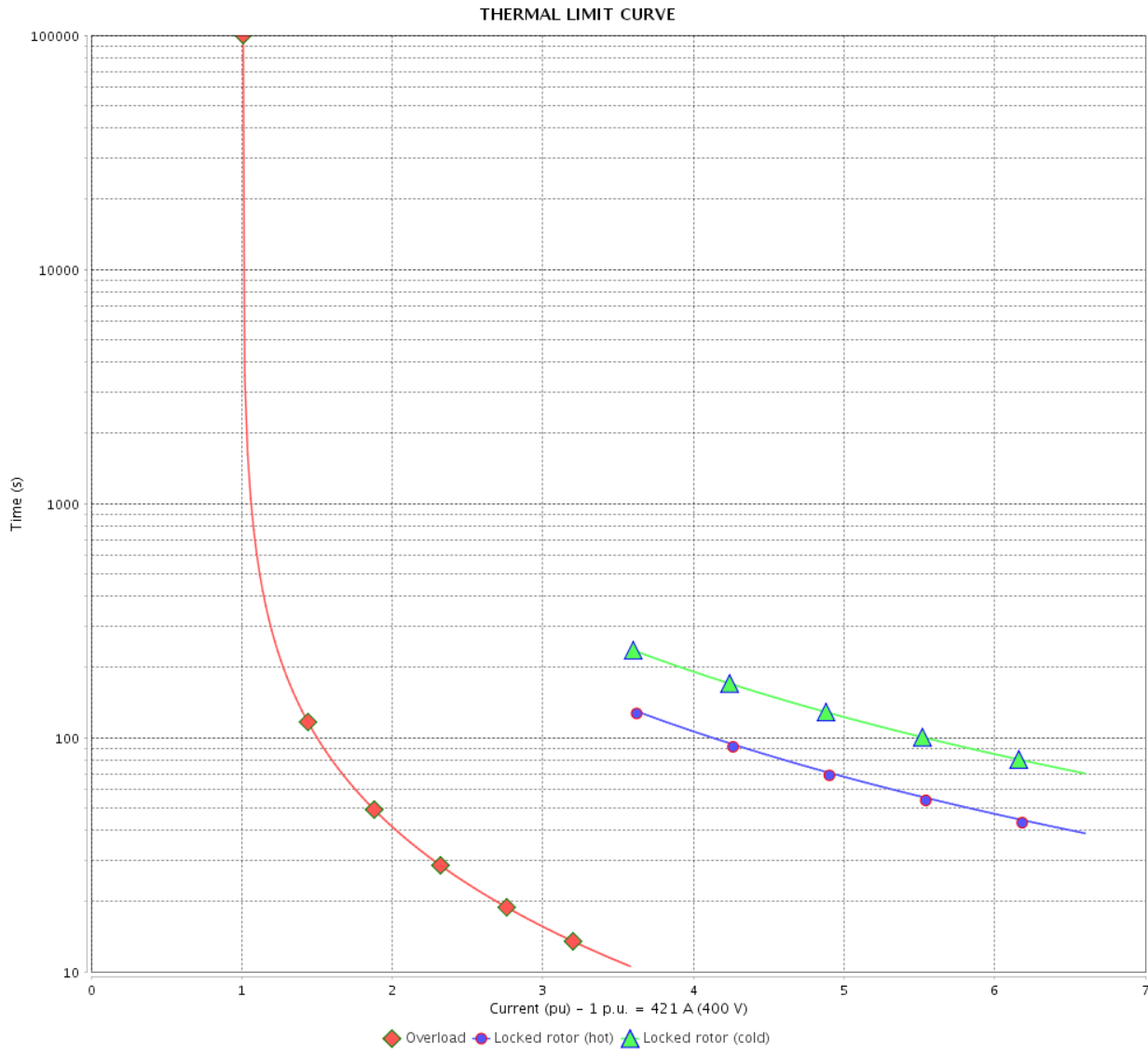
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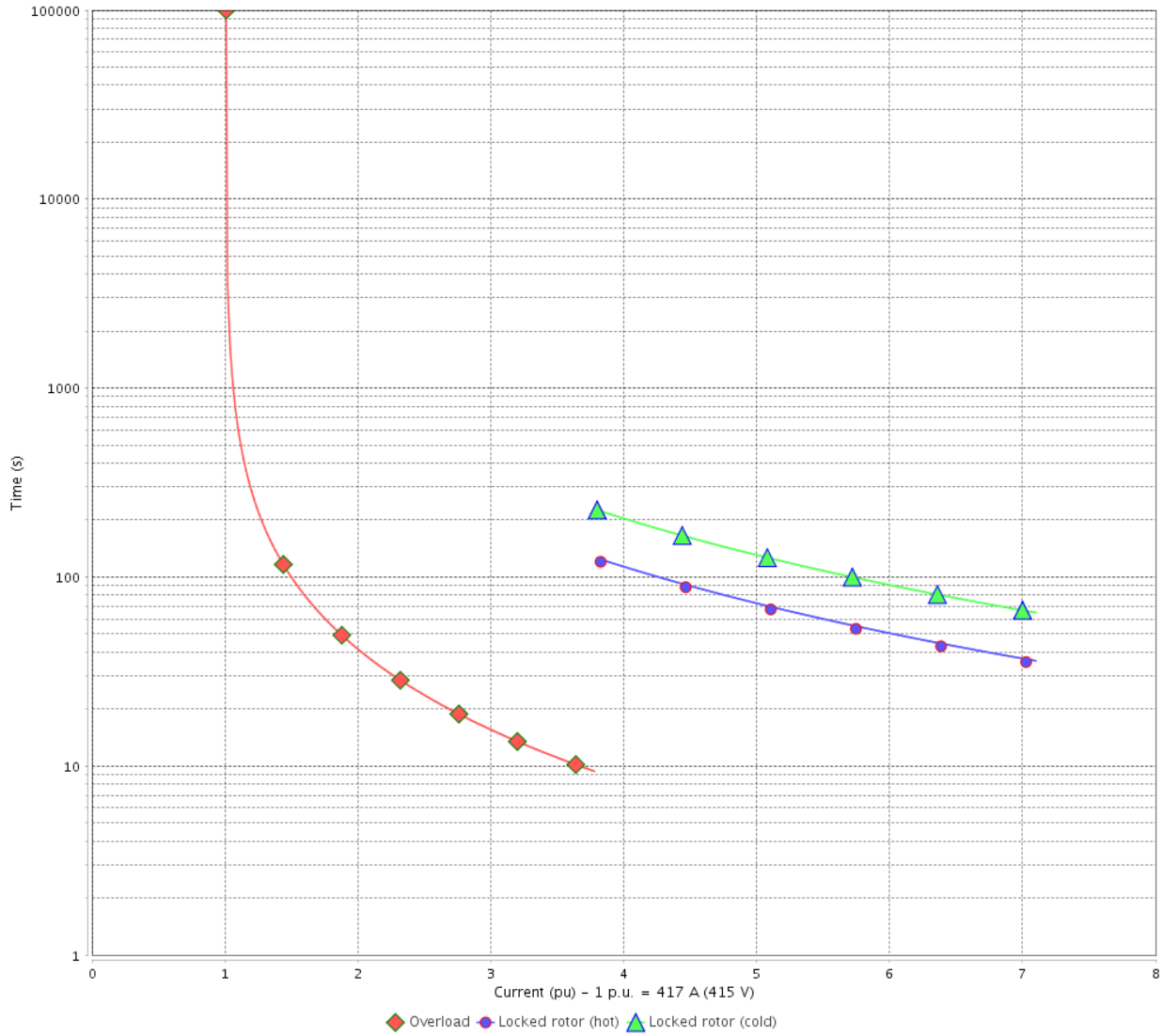
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THERMAL LIMIT CURVE



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VFD OPERATION CURVE

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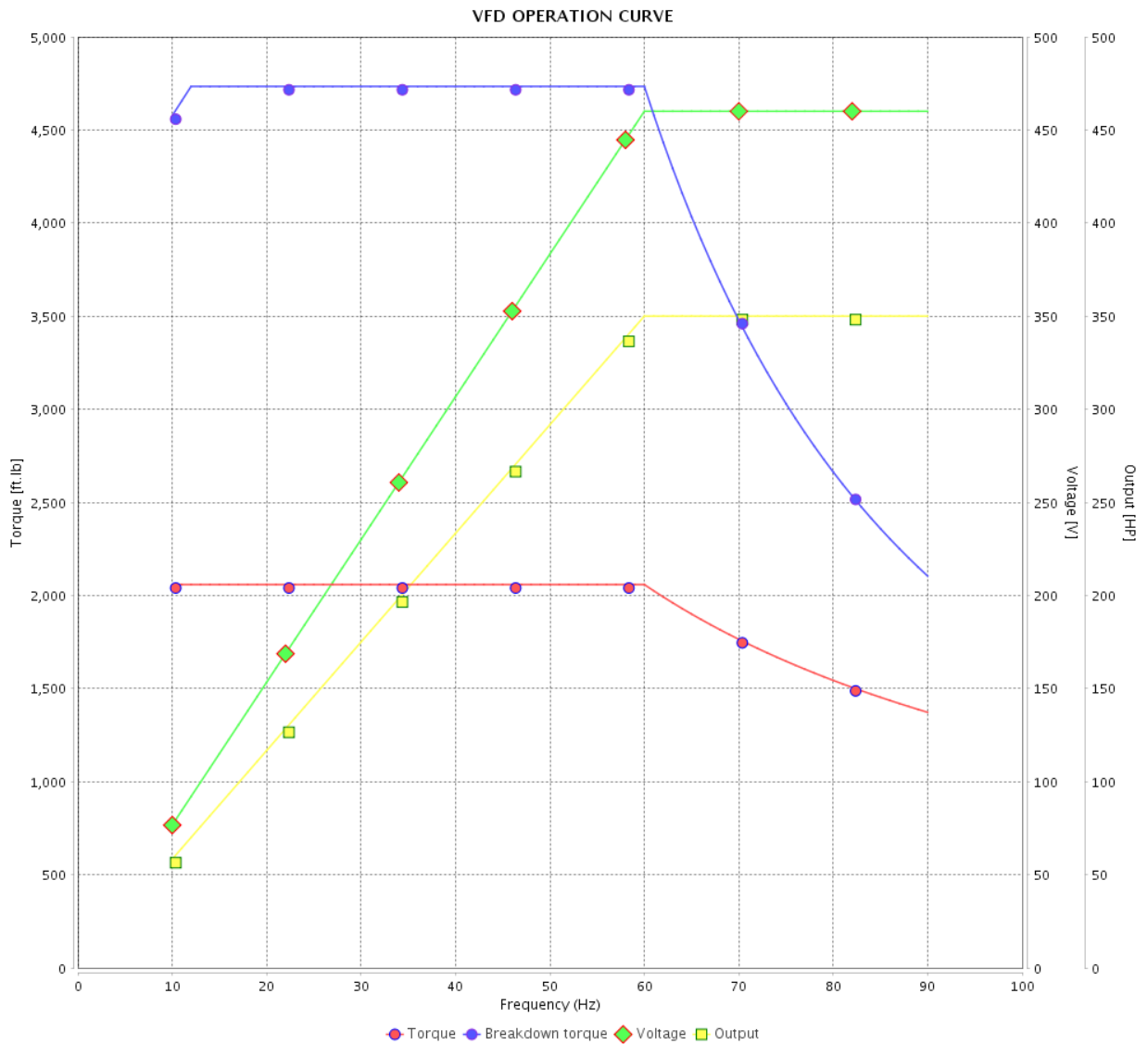


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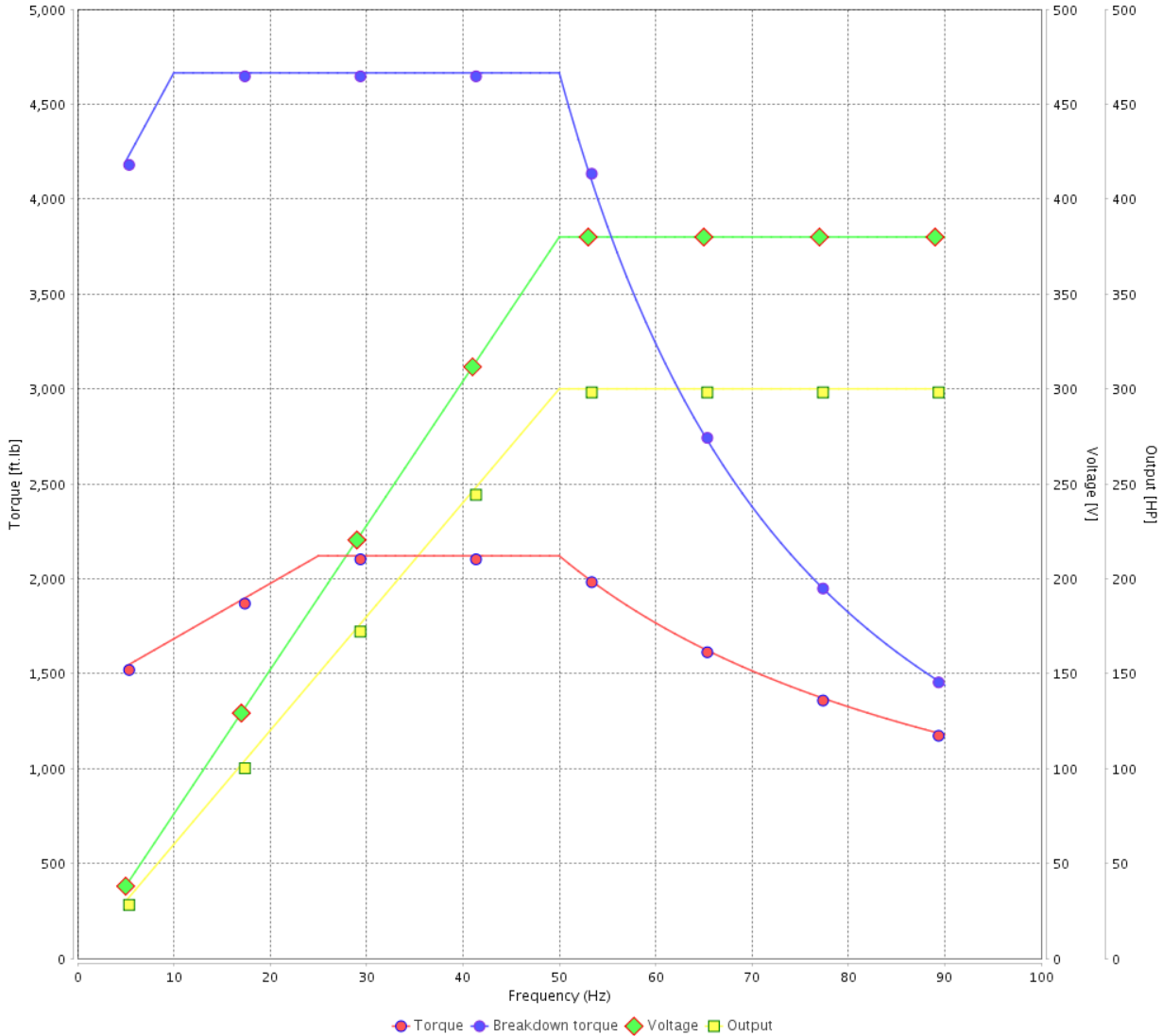
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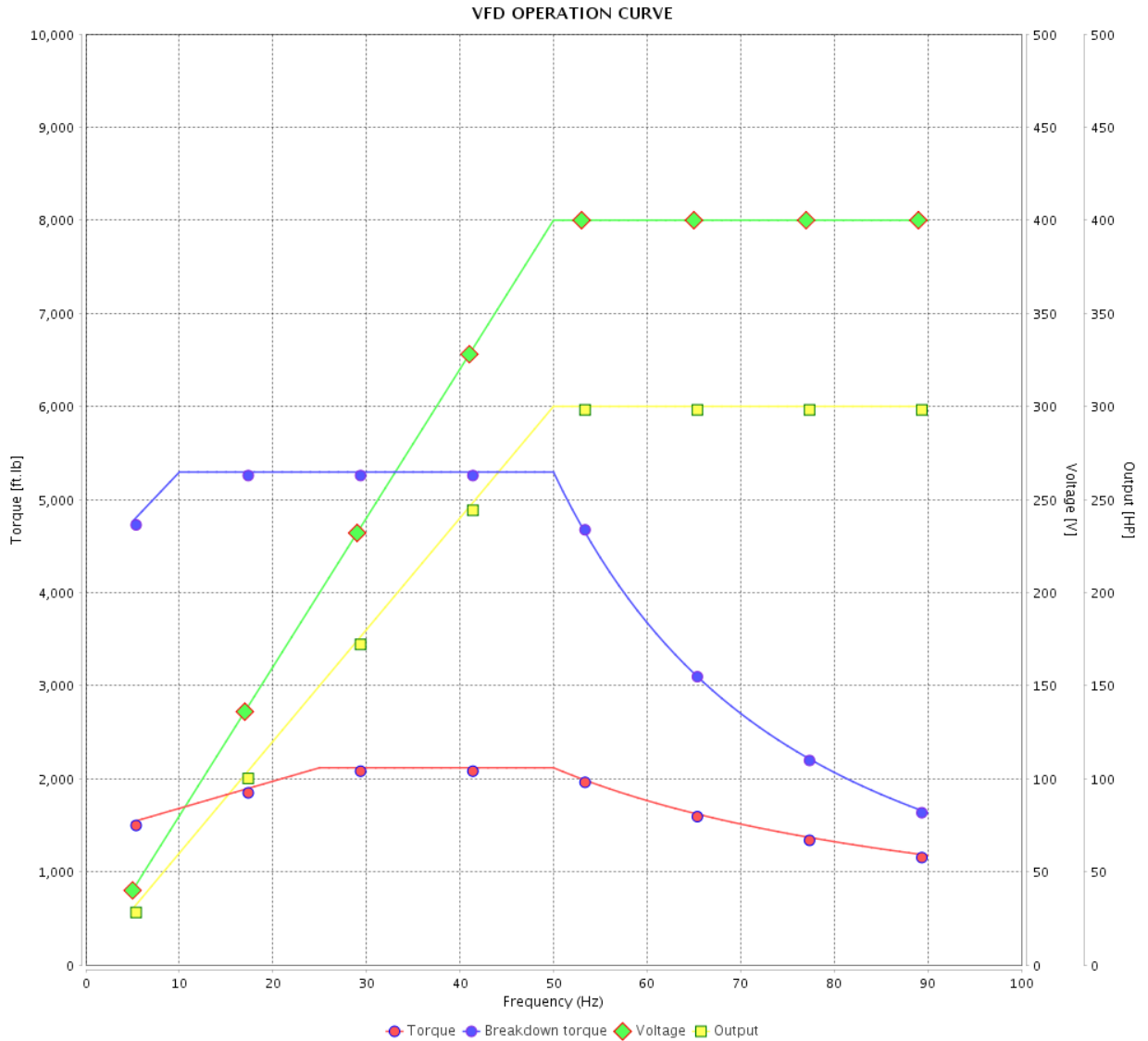


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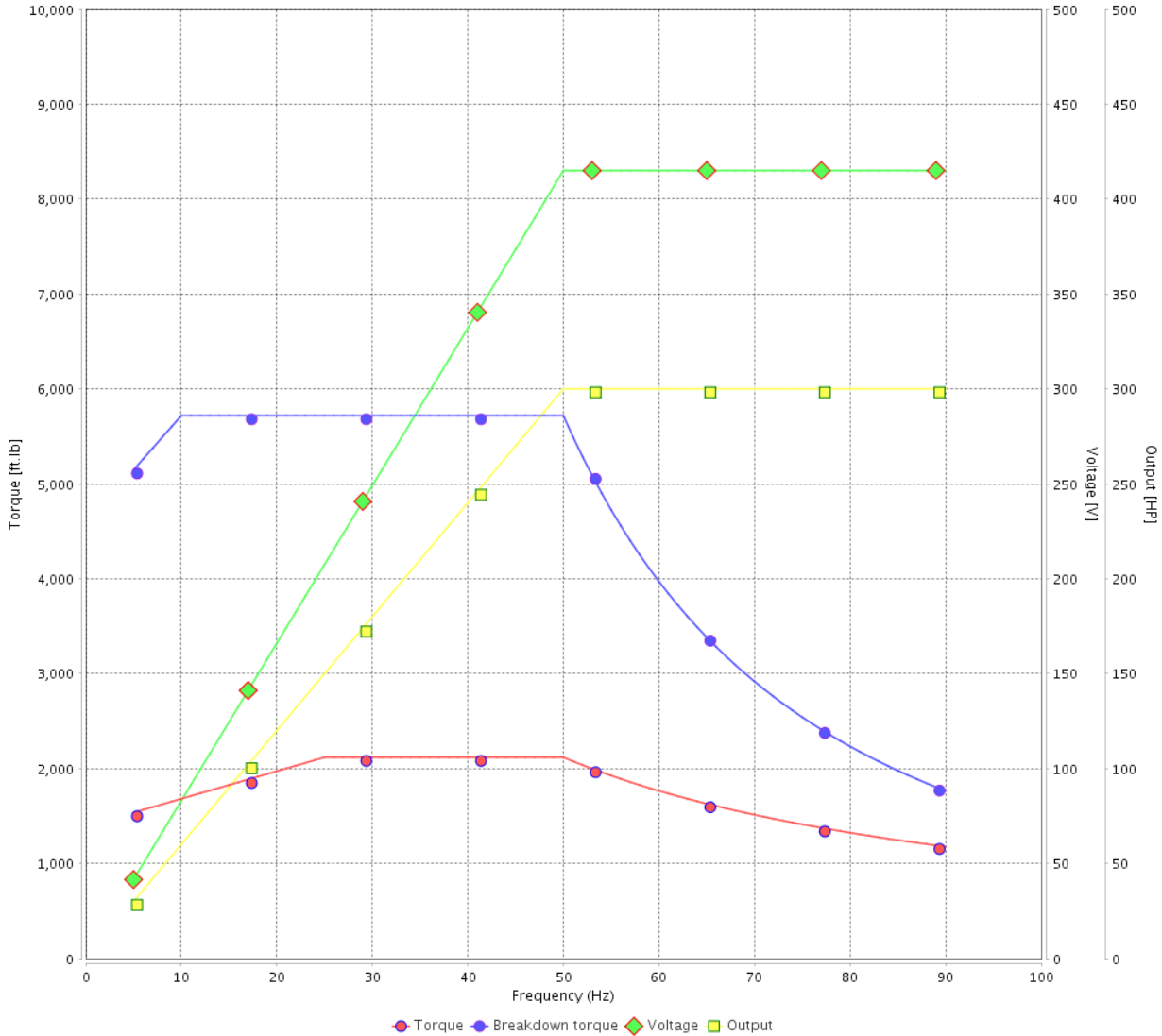
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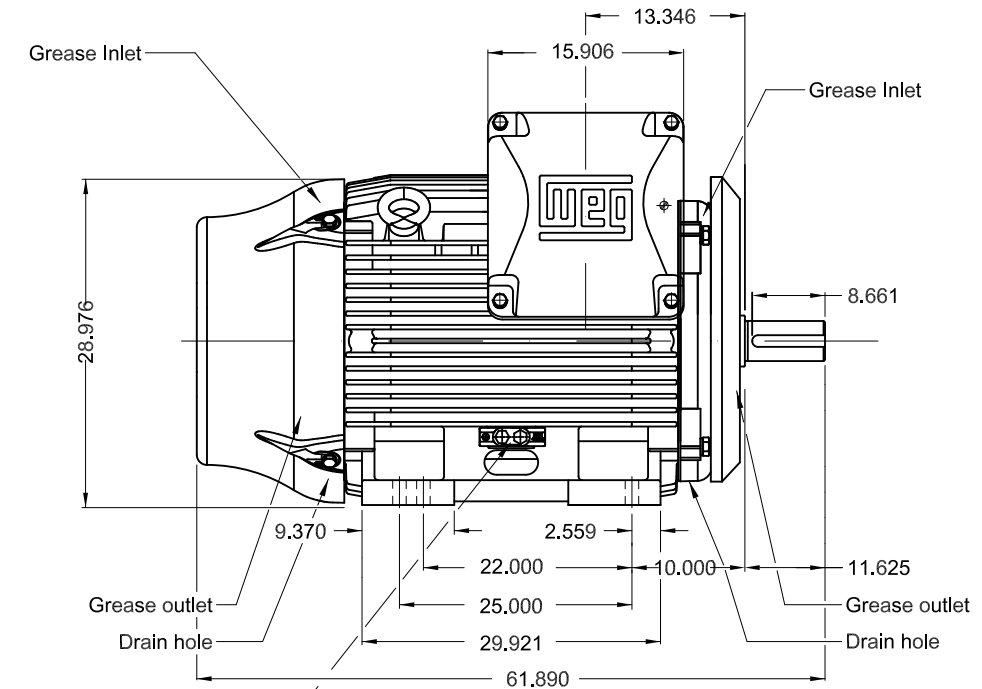
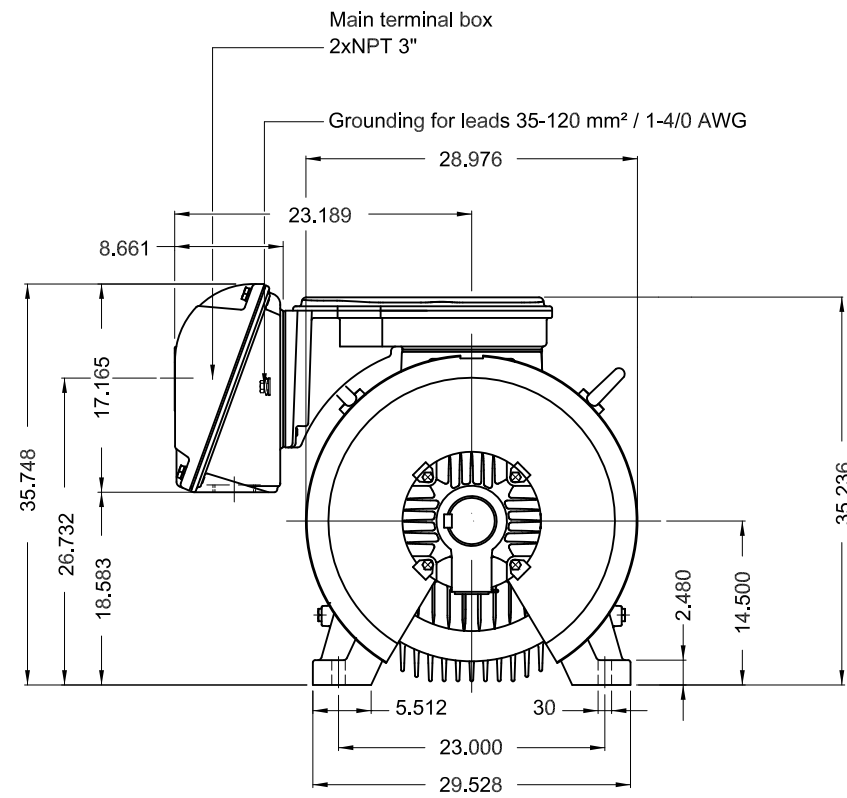


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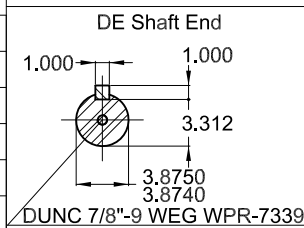


Grounding for leads 25-185 mm² / 3AWG-350MCM

350 HP 08 Poles 60 Hz

Dimensions in inches

- NDE endshield with electrically insulated bearing hub
- Drive-End Air Deflector
- Color RAL 5009
- Painting plan 203A
- Mounting NEMA F-1
- Mounting B3R(D)



ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W22 PREM. EFF.					
CHECKED		FRAME 586/7T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW
WDD



MADE IN BRAZIL
14031103



MODEL 35009ET3G586/7-W22



FOR SAFE AREA
Mod.TE1BFOXON



Class I, Div 2, Gr A, B, C and D - T3
Class I, Zone 2, IIC - T3
Class II, Div 2, Gr F and G - T4
For use on PWM: Gr. A, B, C and D,
VT 1000:1, CT 6:1, 1.00SF - T2B

Inverter Duty Motor
Severe Duty

PH3 60Hz Fr. 586/7T 1000m.a.s.l. IP55 TEFC 4484lb

V 460

A 426

HP 350

kW 260

SF 1.00

SFA -

RPM 893

PF 0.80

AMB 40°C

INS cl. F DT80K

NEMA NOM EFF 95.8%

DUTY CONT.

DES - Code G

PART-WINDING

START



RUN



WYE-DELTA

START



RUN



→ 6322-C3 (60g)

→ 6319-C3 (45g)

MOBIL POLYREX EM (14000h)

