

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line		: W40 NEMA Premium Efficiency Three-Phase		Product code : 14272922	
			Catalog # :	12512OT3G445T-W40	
Frame : 444/5T		Cooling method : IC01 - ODP			
Insulation class : F		Mounting : F-1			
Duty cycle : Cont.(S1)		Rotation <sup>1</sup> : Both (CW and CCW)			
Ambient temperature : -20°C to +40°C		Starting method : Direct On Line			
Altitude : 1000 m.a.s.l.		Approx. weight <sup>2</sup> : 1391 lb			
Protection degree : IP23		Moment of inertia (J) : 63.2 sq.ft.lb			
Design : B					
Output [HP]	125	100	100	100	
Poles	6	6	6	6	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	154	152	151	151	
L. R. Amperes [A]	970	1003	1042	1042	
LRC [A]	6.3x(Code G)	6.6x(Code H)	6.9x(Code J)	6.9x(Code J)	
No load current [A]	66.0	66.0	72.0	78.0	
Rated speed [RPM]	1189	989	990	991	
Slip [%]	0.92	1.10	1.00	0.90	
Rated torque [ft.lb]	552	531	530	530	
Locked rotor torque [%]	210	180	210	220	
Breakdown torque [%]	250	250	280	300	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	19s (cold) 11s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)	
Noise level <sup>2</sup>	69.0 dB(A)				
Efficiency (%)	25%	94.4	94.1	93.4	
	50%	94.5	94.2	93.7	
	75%	95.0	94.6	94.4	
	100%	95.0	94.6	94.6	
Power Factor	25%	0.37	0.37	0.33	
	50%	0.59	0.60	0.55	
	75%	0.71	0.73	0.68	
	100%	0.77	0.79	0.76	
Bearing type		<u>Drive end</u> 6319 C3	<u>Non drive end</u> 6314 C3	Foundation loads	
Sealing		Without	Without	Max. traction : 3542 lb	
Lubrication interval		Bearing Seal 20000 h	Bearing Seal 20000 h	Max. compression : 4933 lb	
Lubricant amount		45 g	27 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



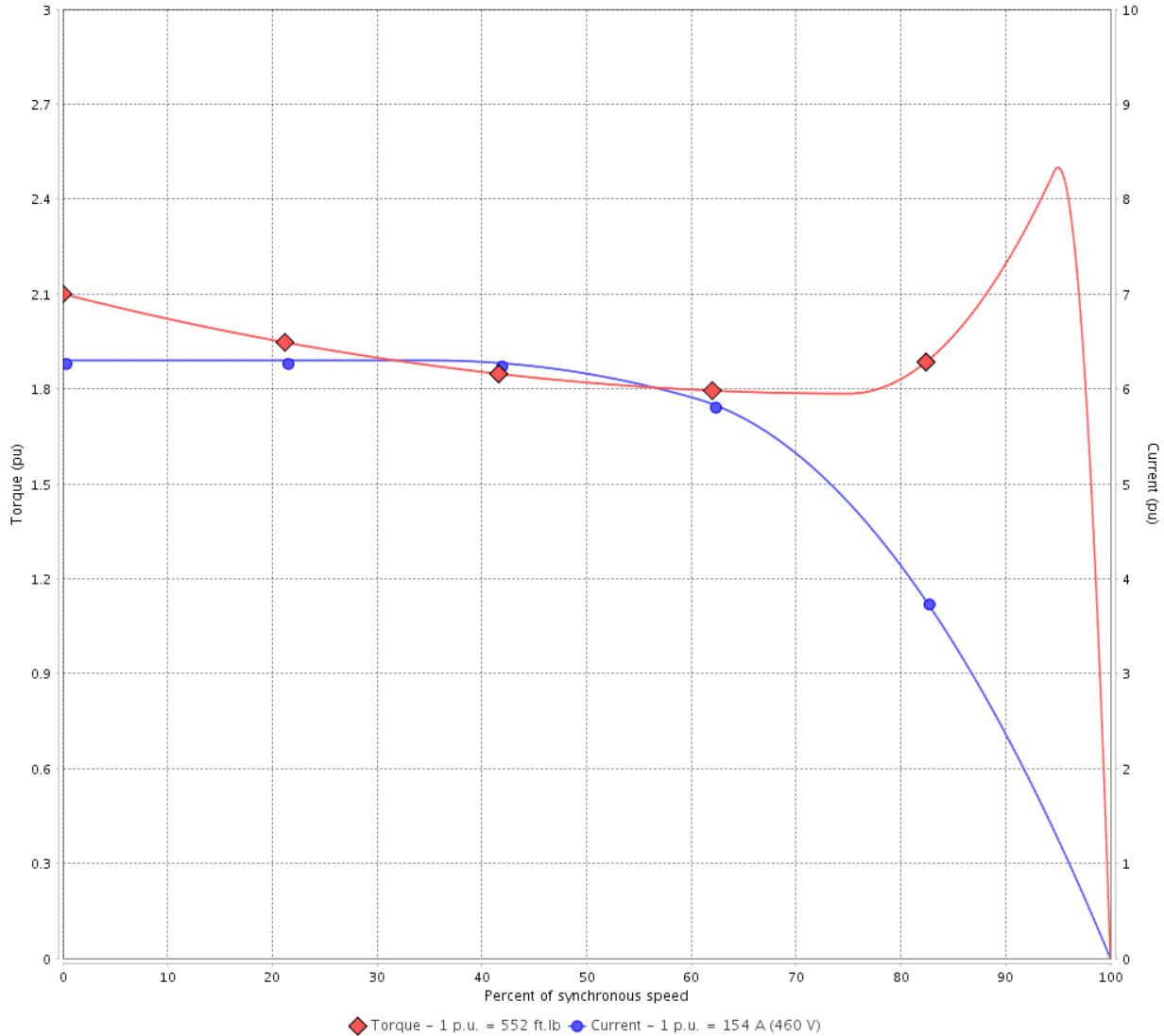
Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14272922

Catalog # : 125120T3G445T-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 460 V 60 Hz 6P

Rated current	: 154 A	Moment of inertia (J)	: 63.2 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 552 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1189 rpm	Design	: B

Locked rotor time : 19s (cold) 11s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



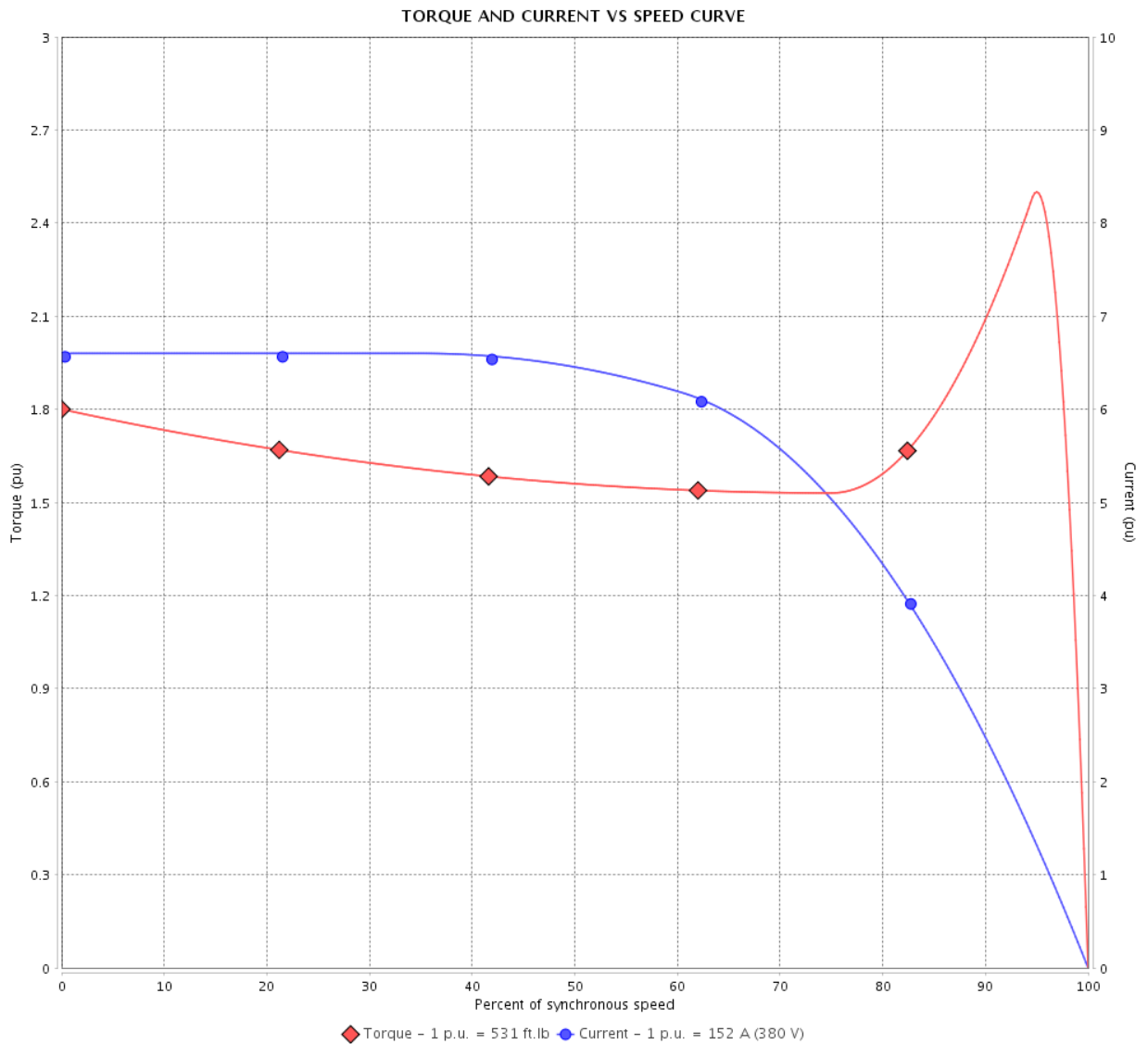
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 14272922

Catalog # : 12512OT3G445T-W40



Performance : 380 V 50 Hz 6P IE3

Rated current	: 152 A	Moment of inertia (J)	: 63.2 sq.ft.lb
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 531 ft.lb	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 989 rpm	Design	: B

Locked rotor time : 16s (cold) 9s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



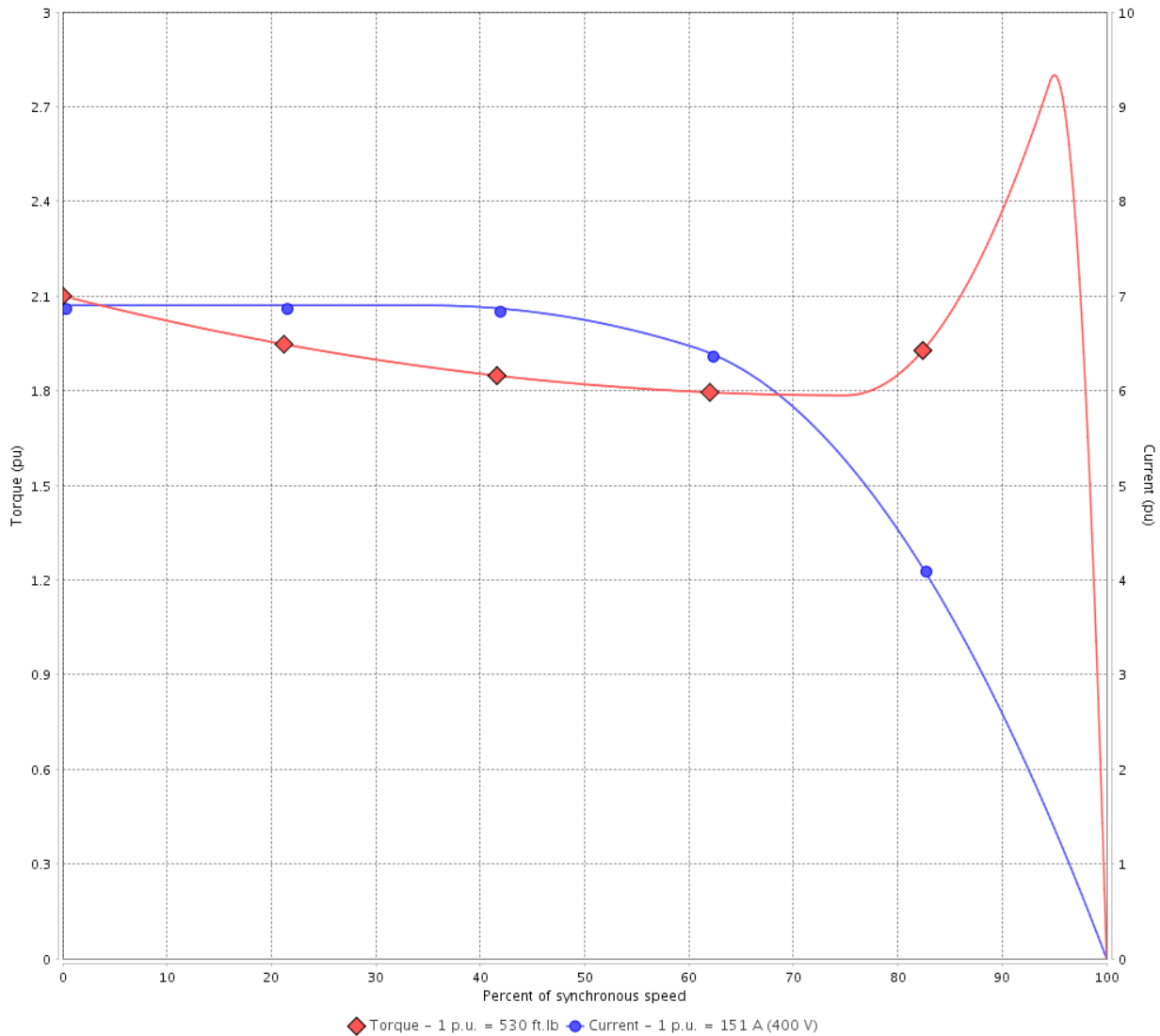
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Product code : 14272922

Catalog # : 125120T3G445T-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 6P IE3

Rated current	: 151 A	Moment of inertia (J)	: 63.2 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 530 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 990 rpm	Design	: B

Locked rotor time : 16s (cold) 9s (hot)

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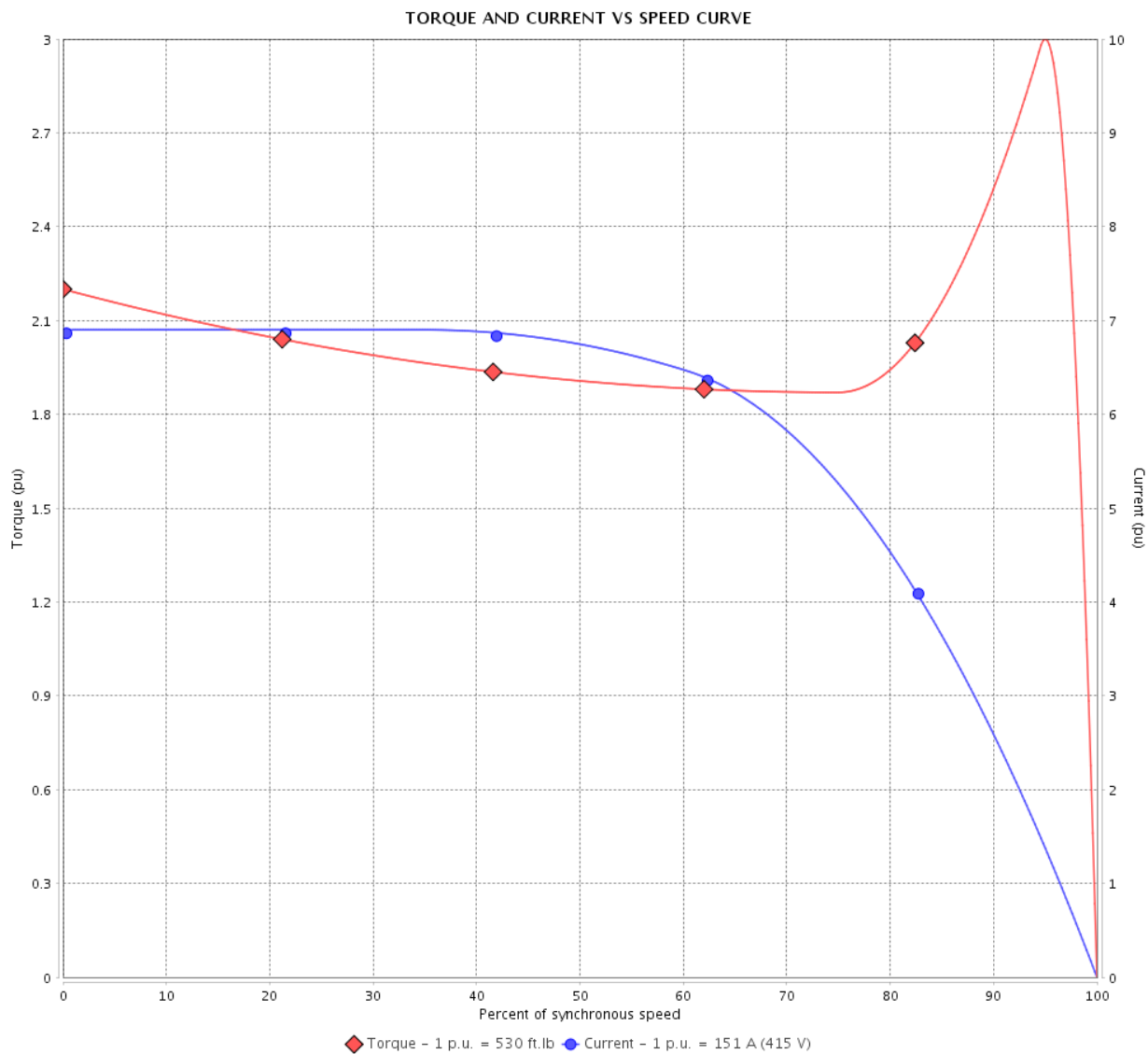
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Locked rotor time : 16s (cold) 9s (hot)

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

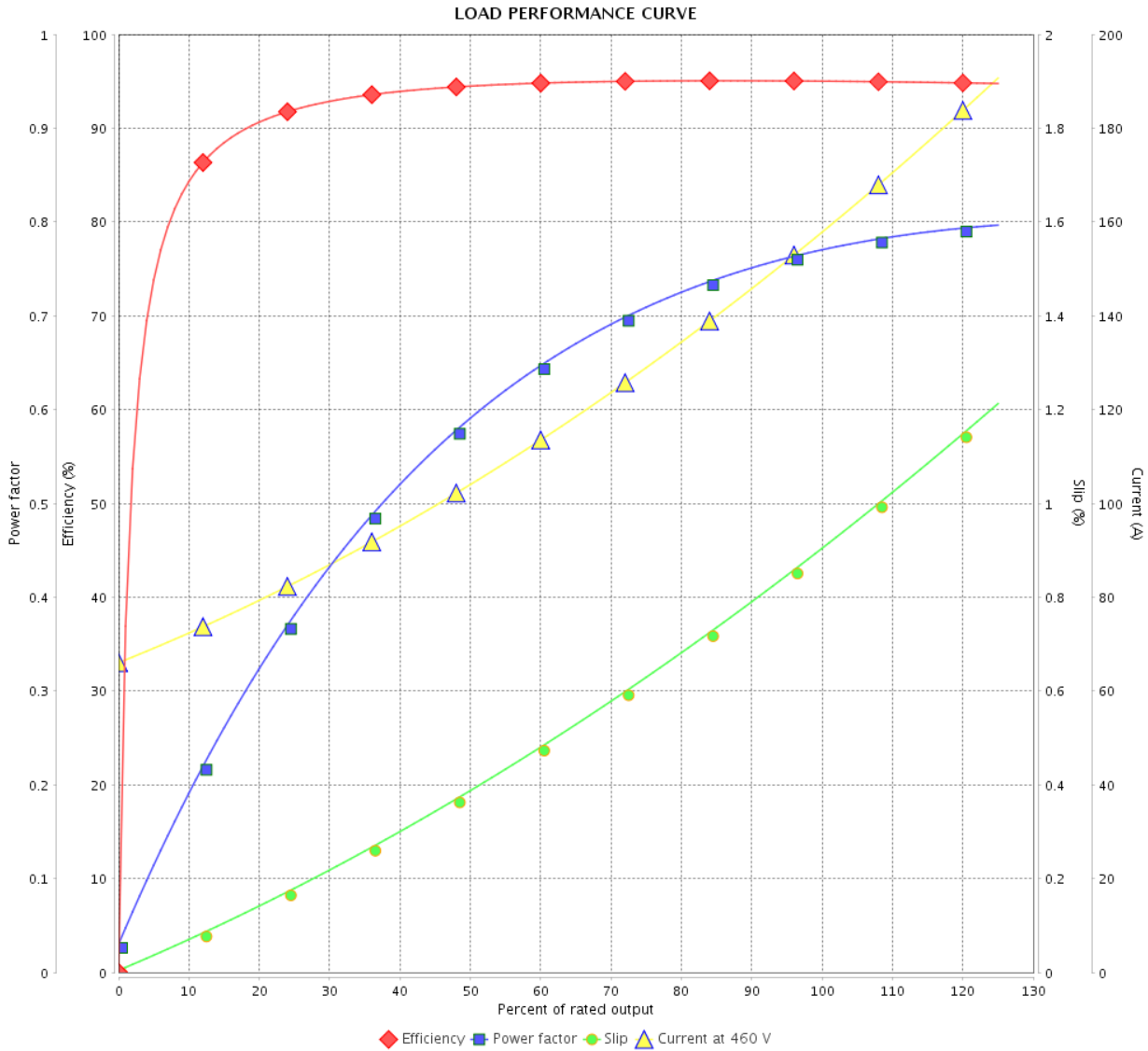


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Three-Phase

Product code : 14272922

Catalog # : 125120T3G445T-W40



Performance : 460 V 60 Hz 6P

Rated current : 154 A  
 LRC : 6.3  
 Rated torque : 552 ft.lb  
 Locked rotor torque : 210 %  
 Breakdown torque : 250 %  
 Rated speed : 1189 rpm

Moment of inertia (J) : 63.2 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
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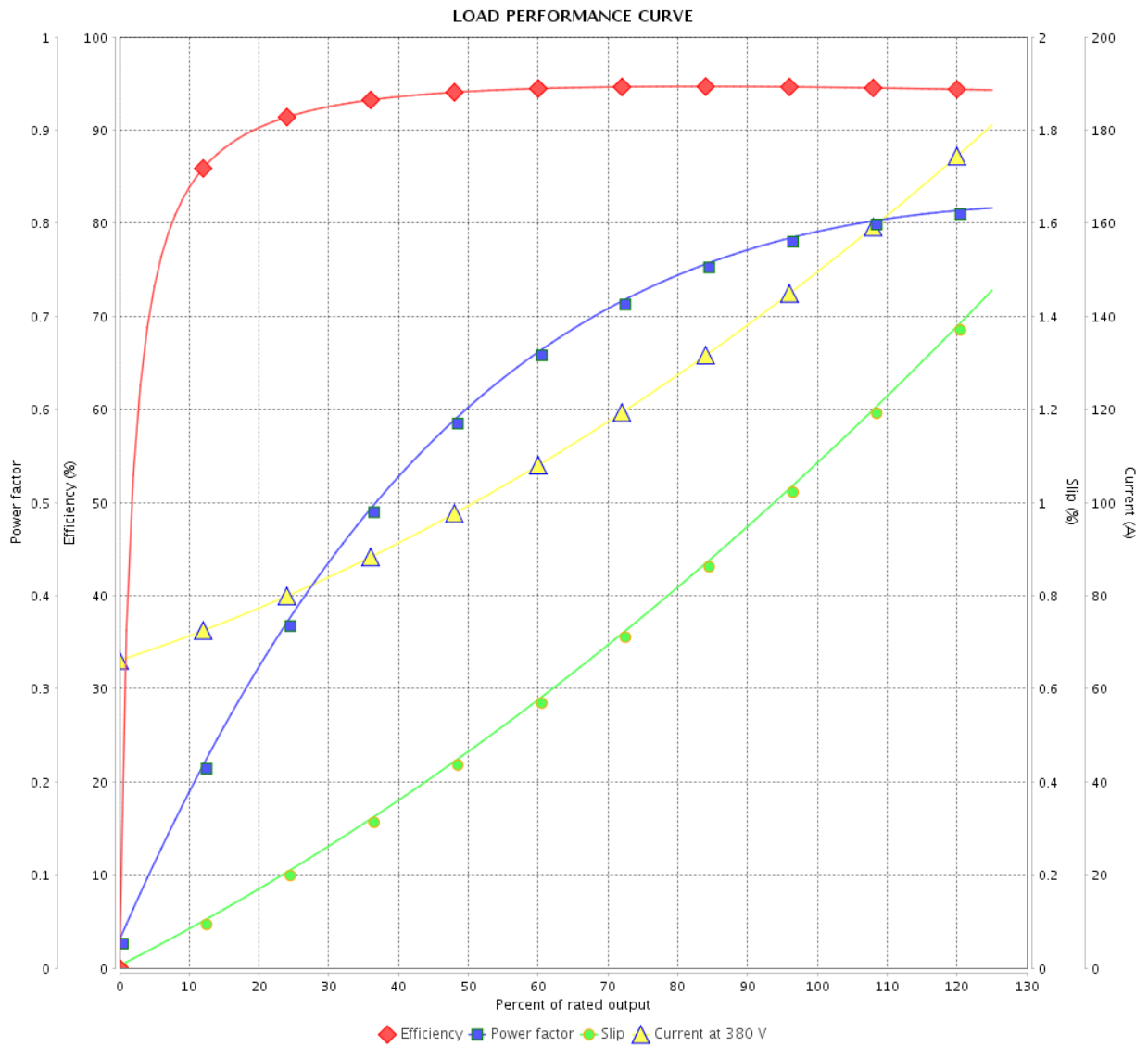


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Performance : 380 V 50 Hz 6P IE3

Rated current : 152 A  
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 Rated torque : 531 ft.lb  
 Locked rotor torque : 180 %  
 Breakdown torque : 250 %  
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Moment of inertia (J) : 63.2 sq.ft.lb  
 Duty cycle : Cont.(S1)  
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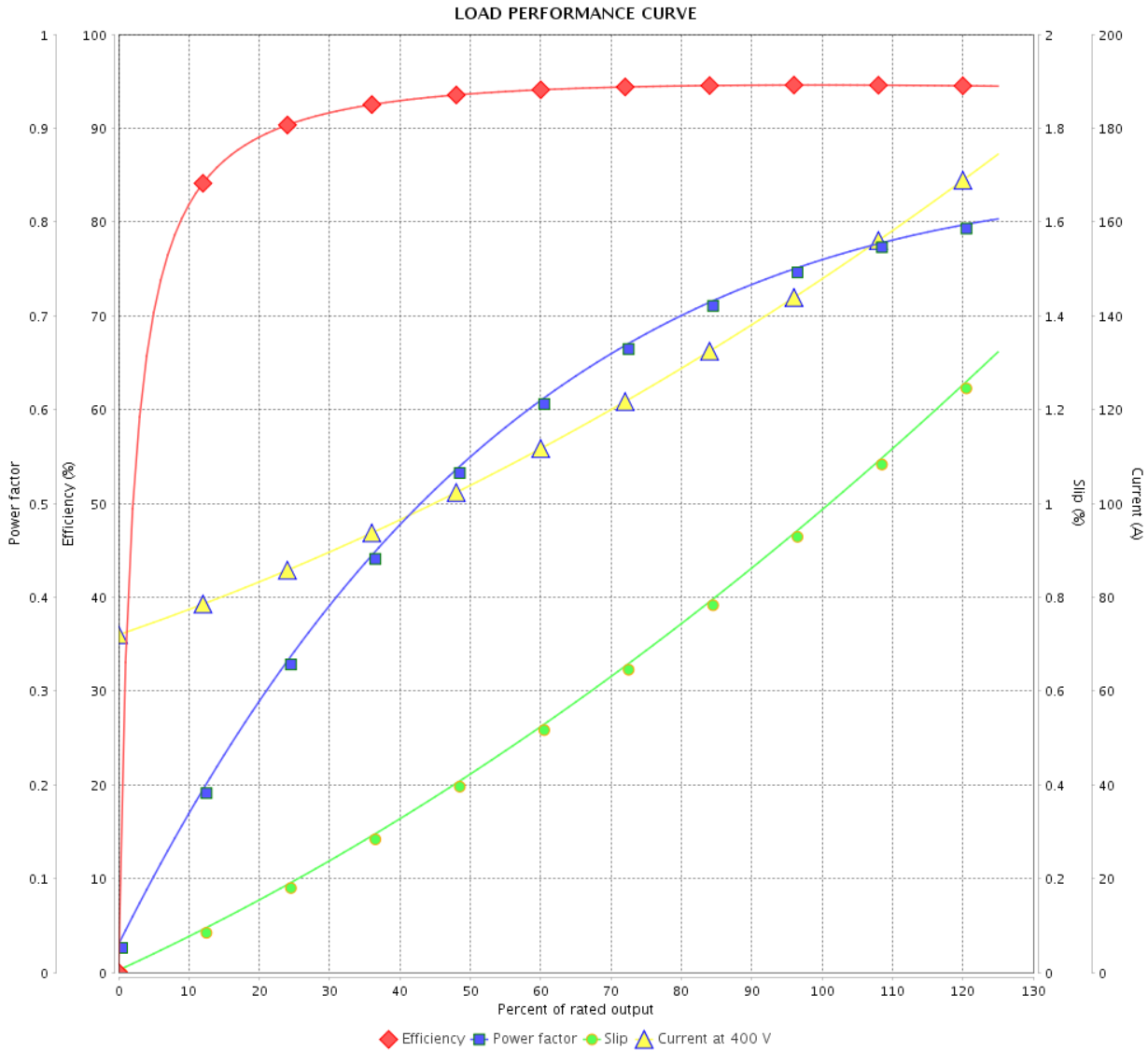


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Performance : 400 V 50 Hz 6P IE3

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 Breakdown torque : 280 %  
 Rated speed : 990 rpm

Moment of inertia (J) : 63.2 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
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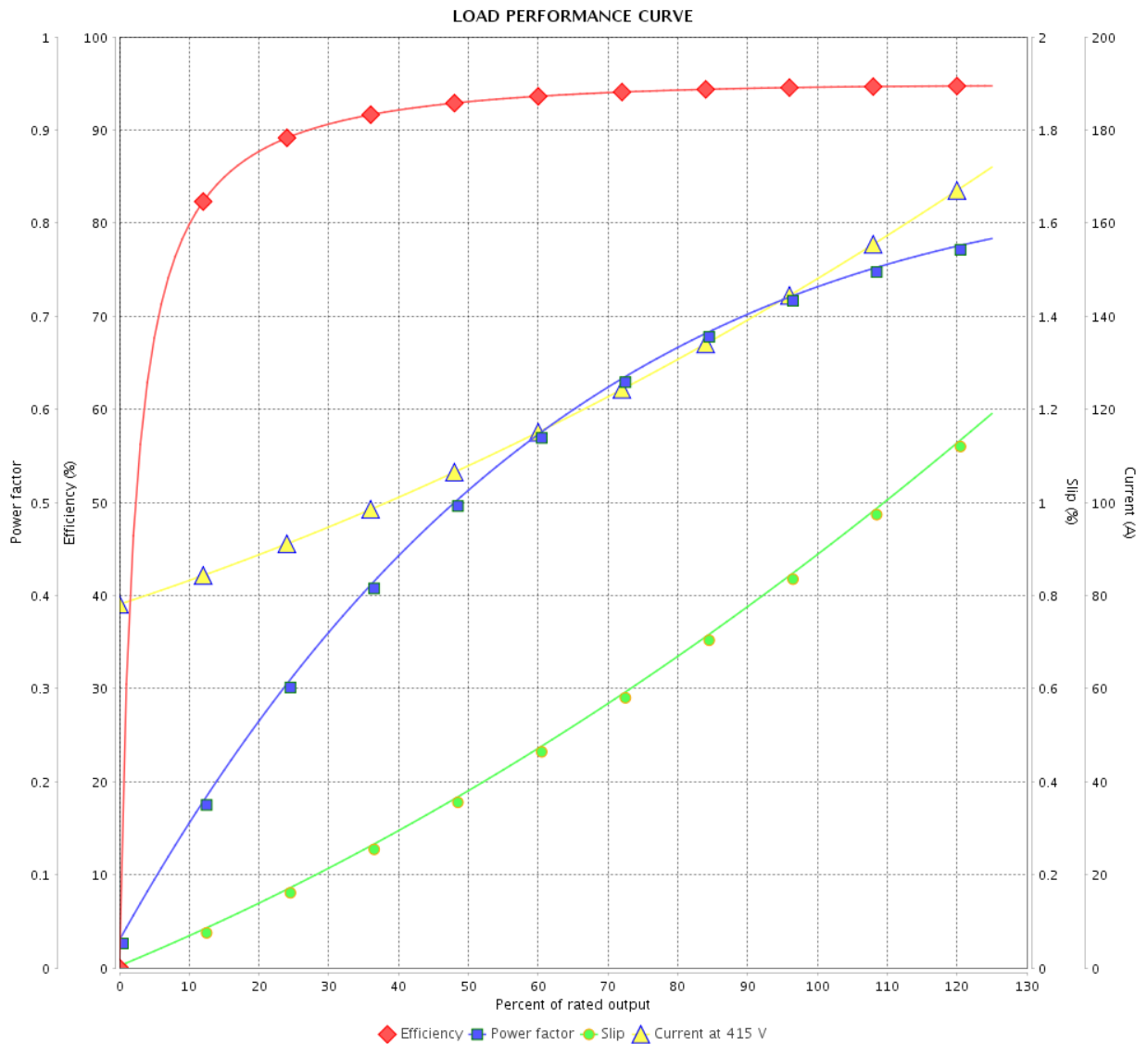


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Heating constant

Cooling constant

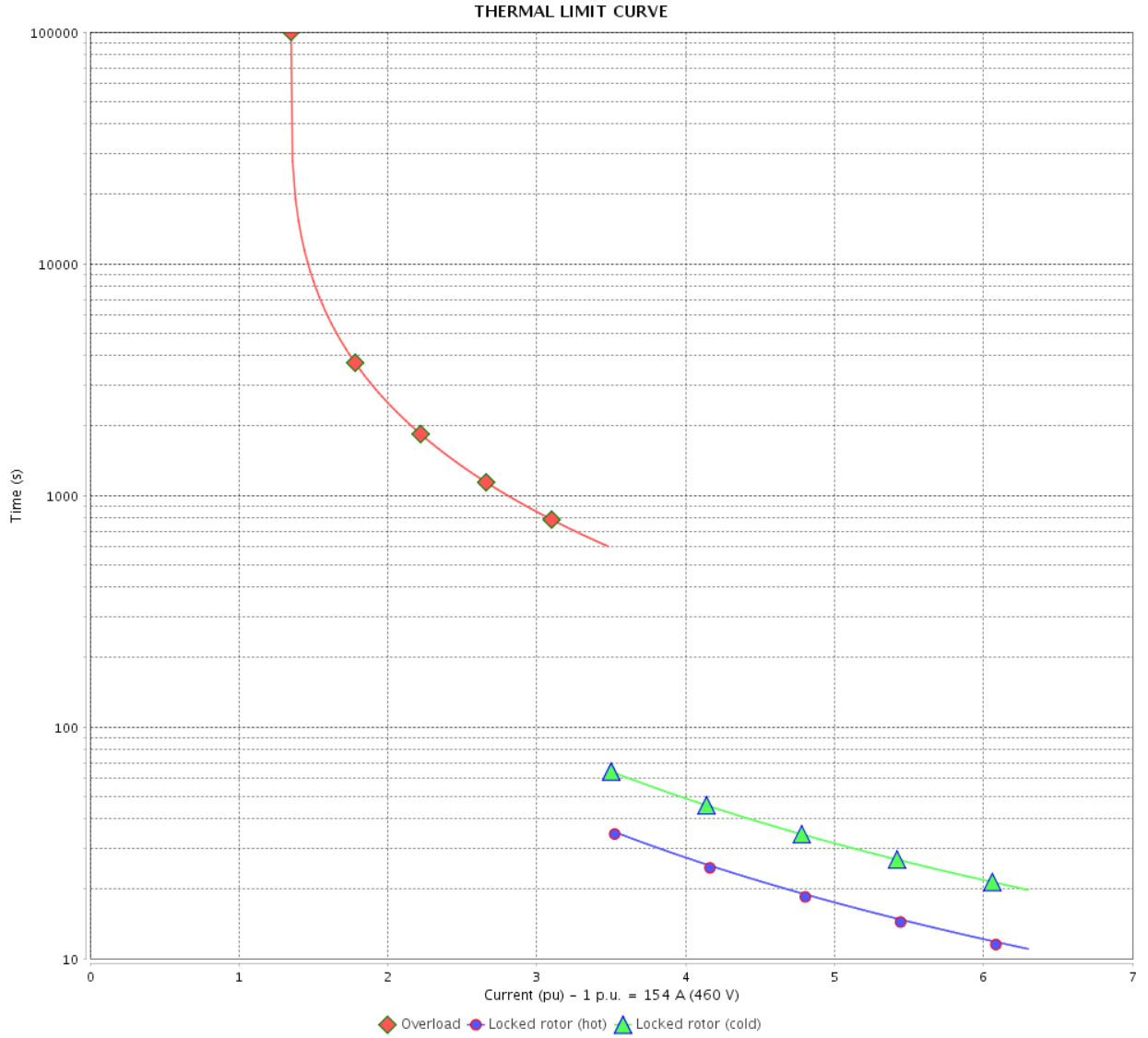
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Cooling constant

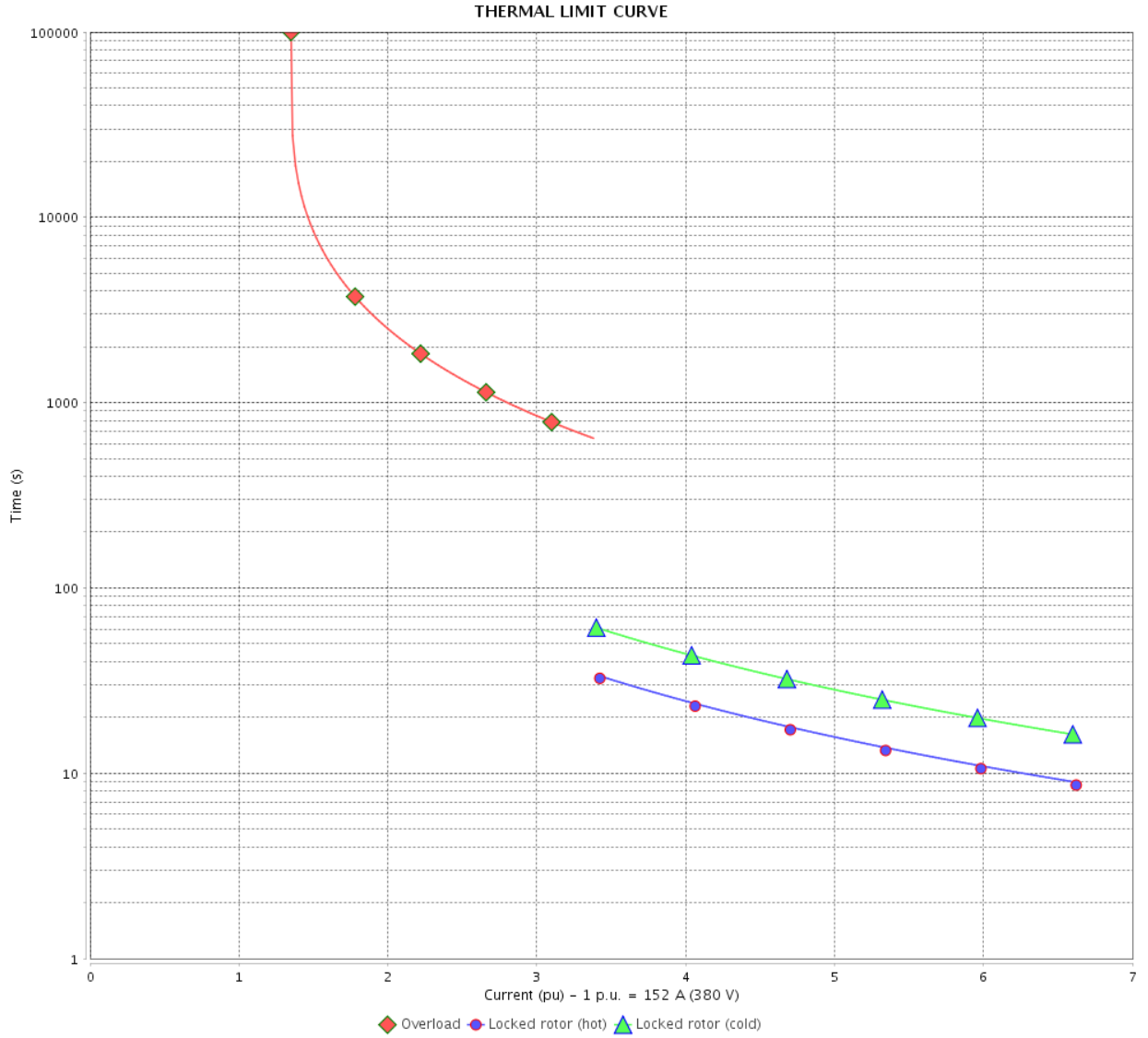
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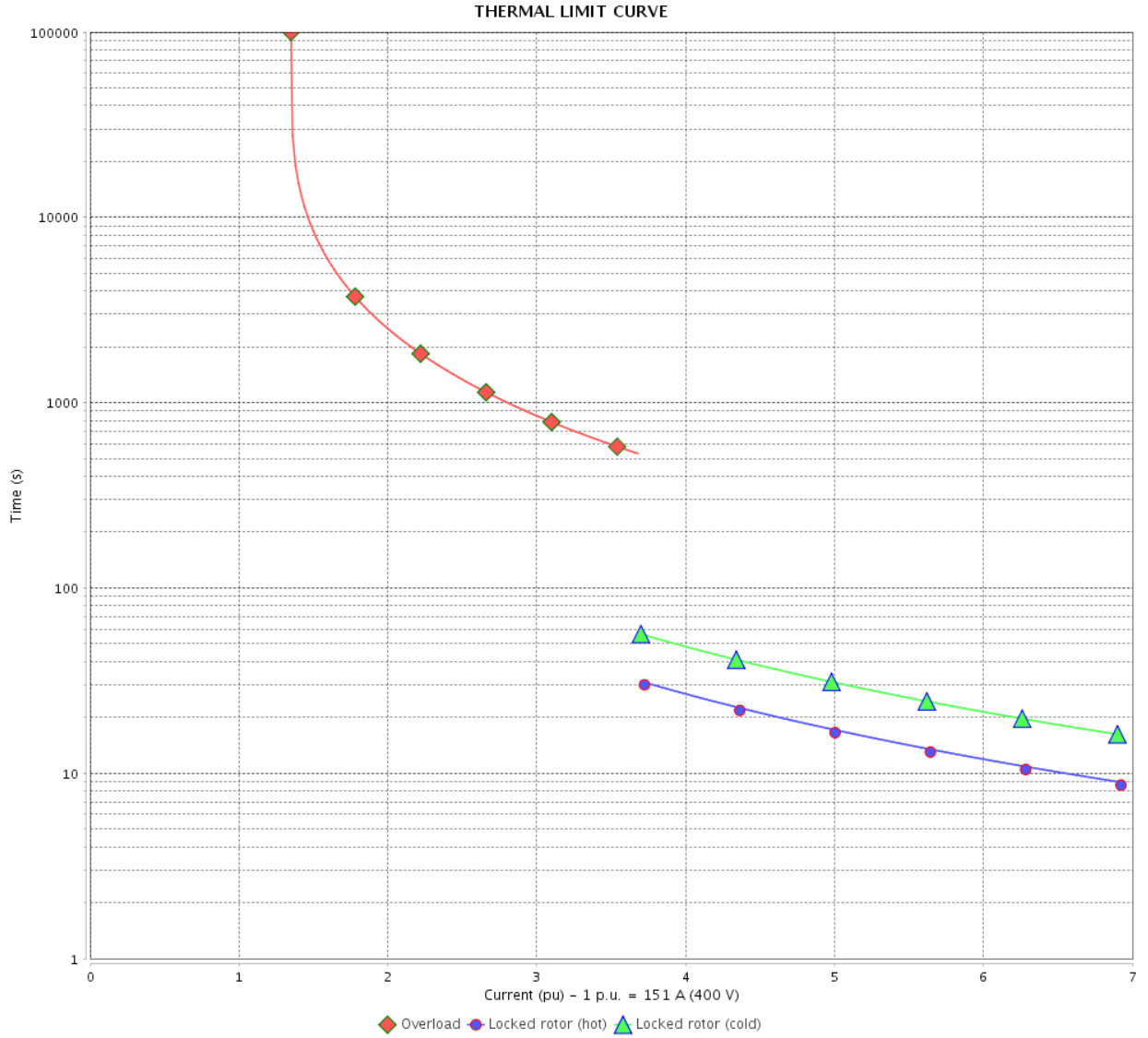
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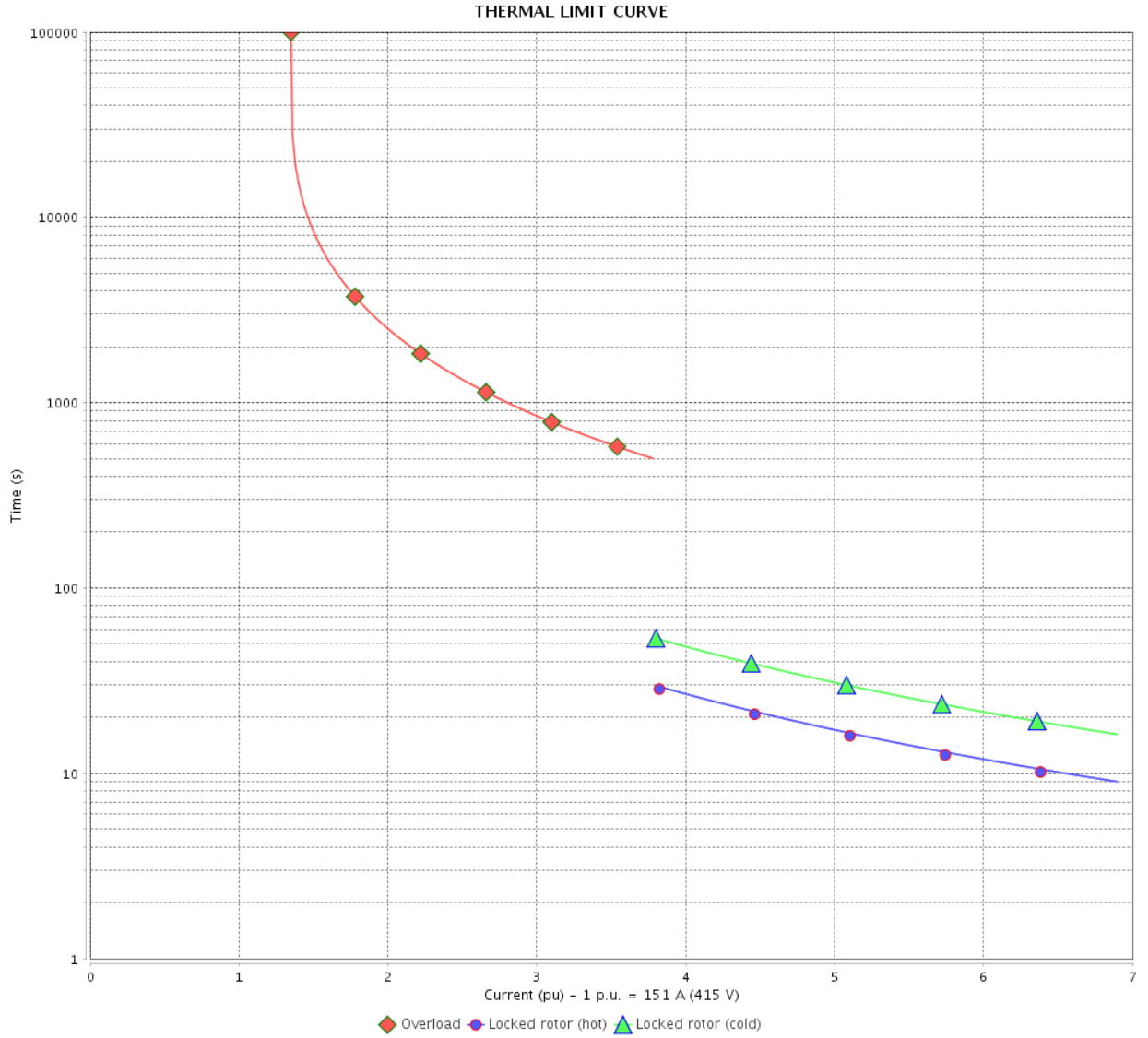


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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



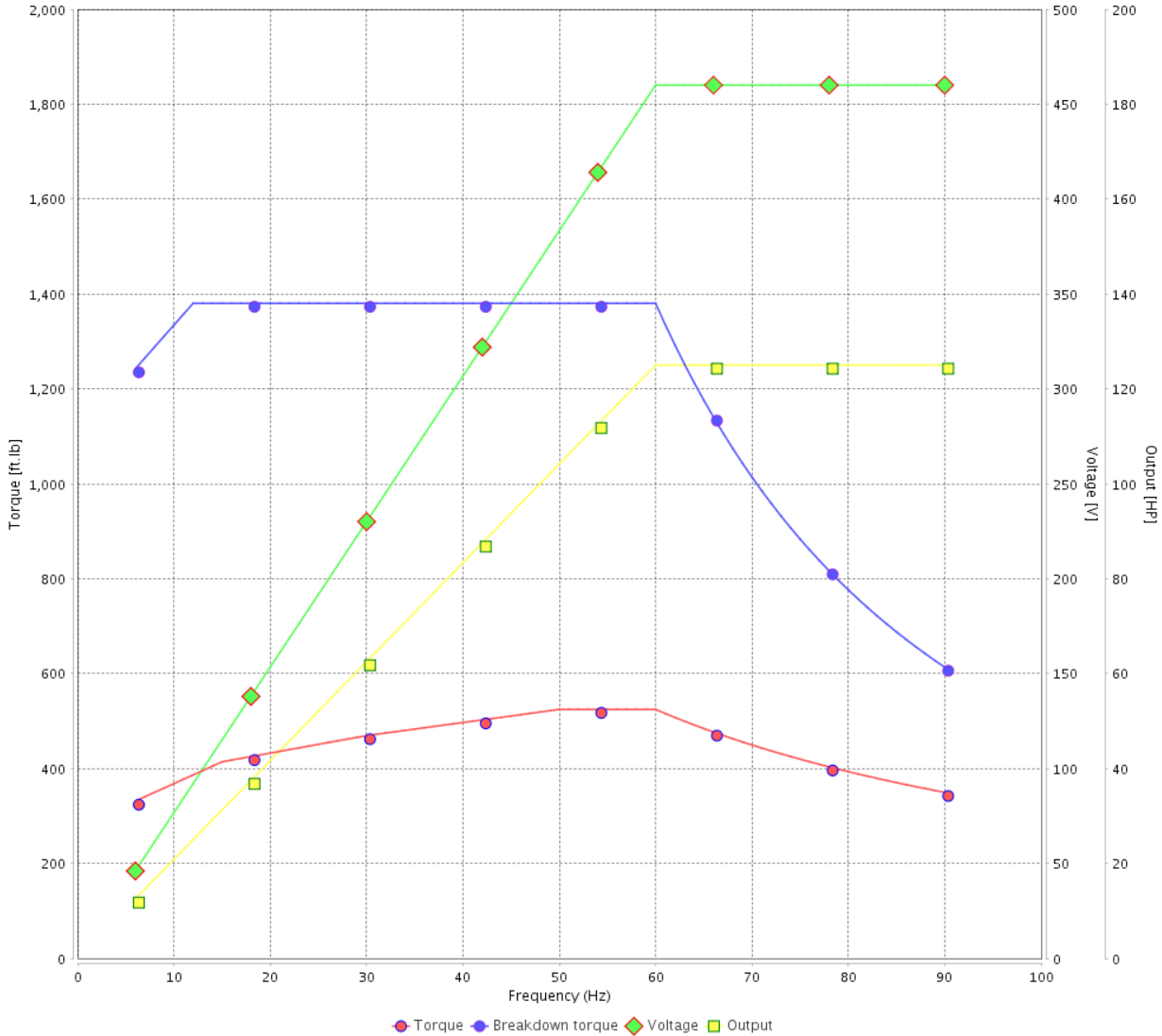
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VFD OPERATION CURVE



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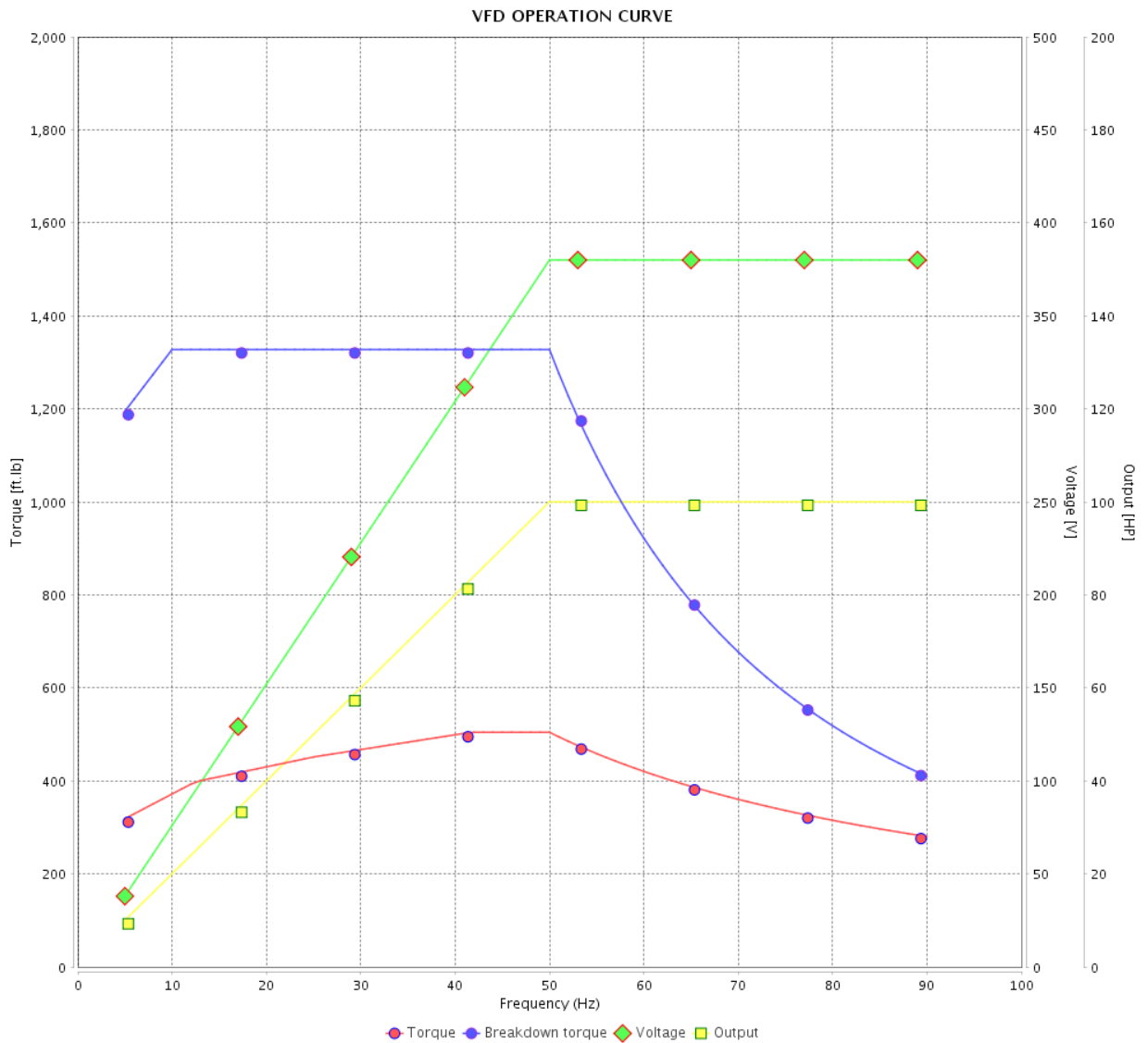


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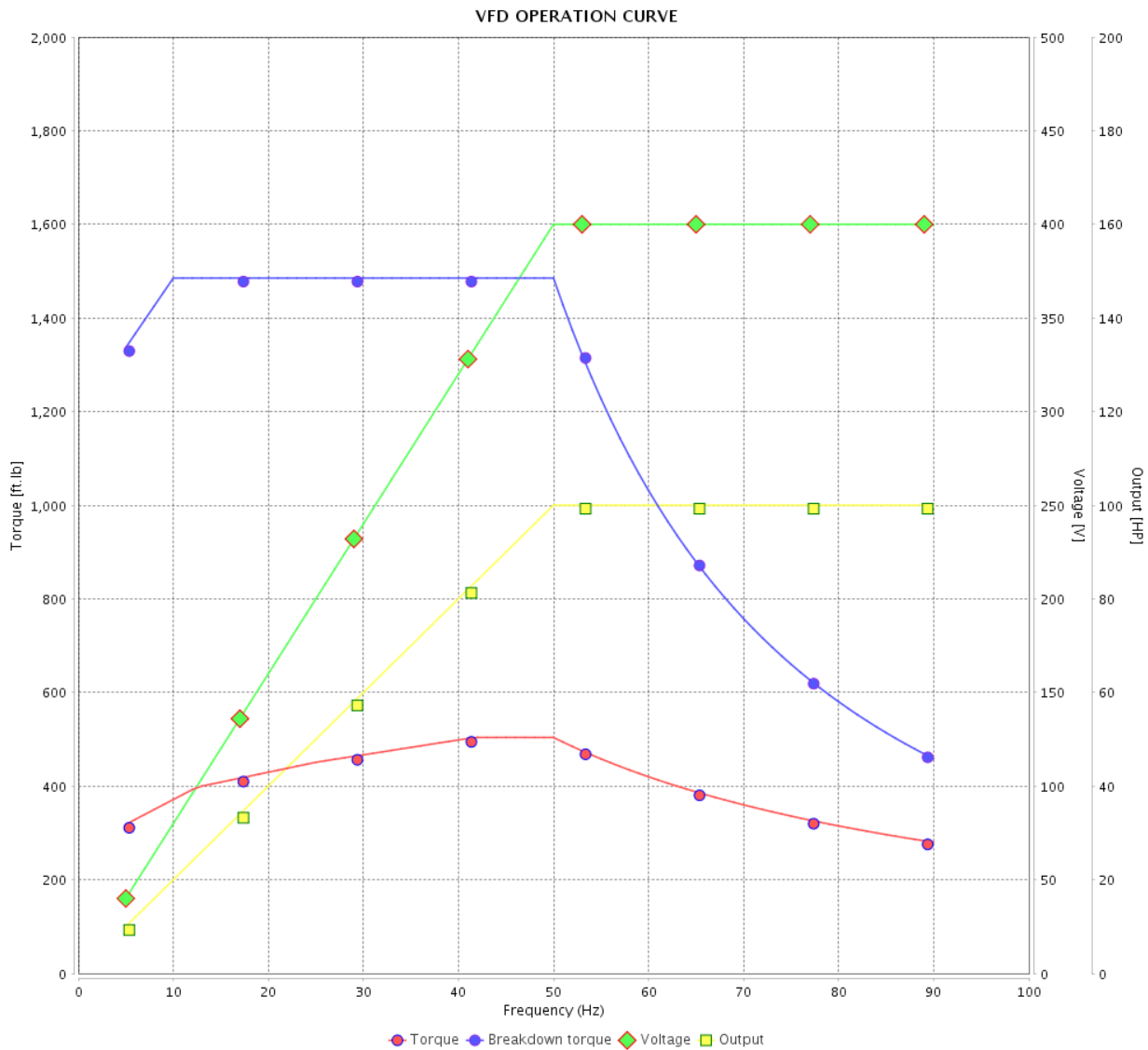


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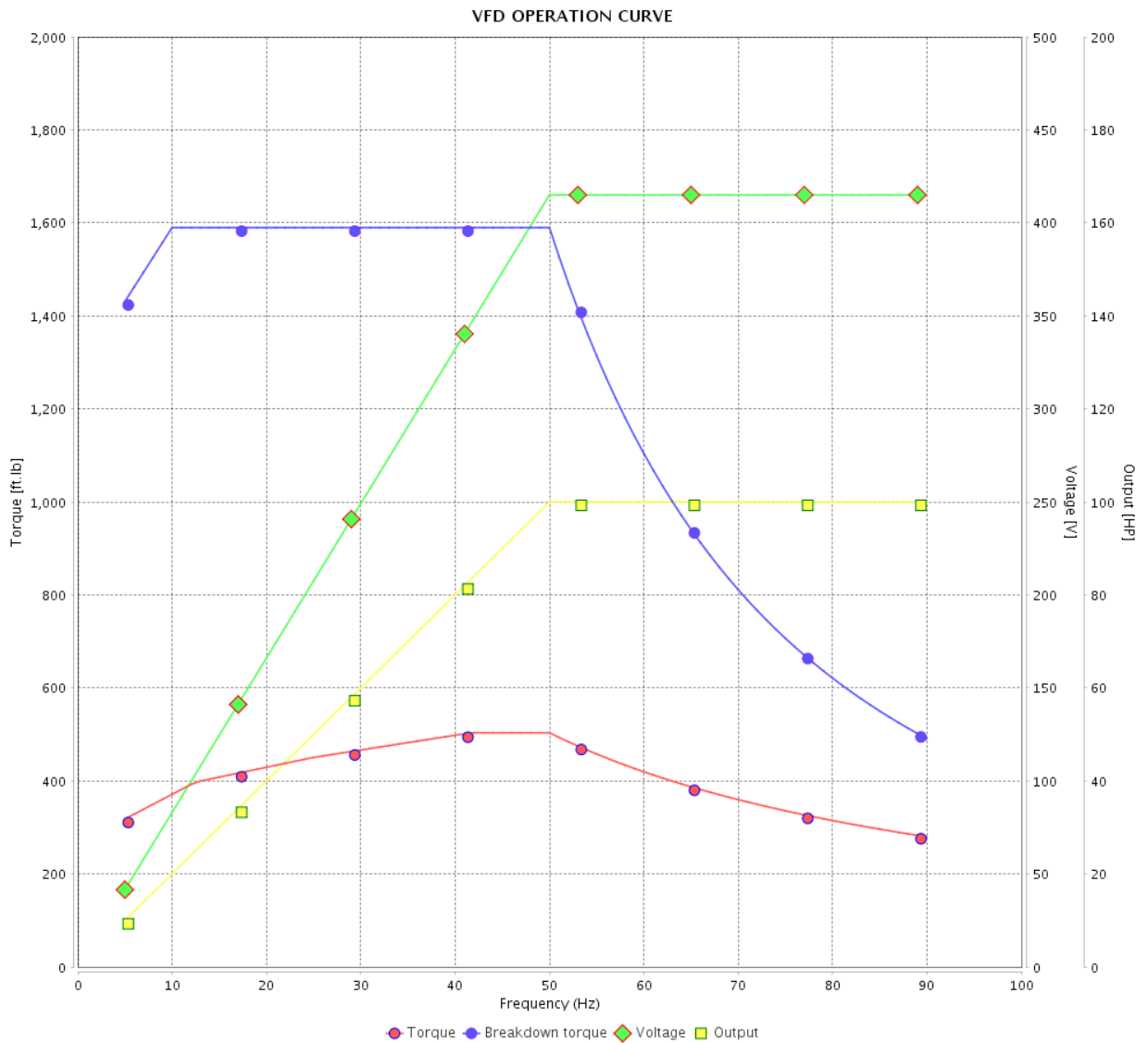


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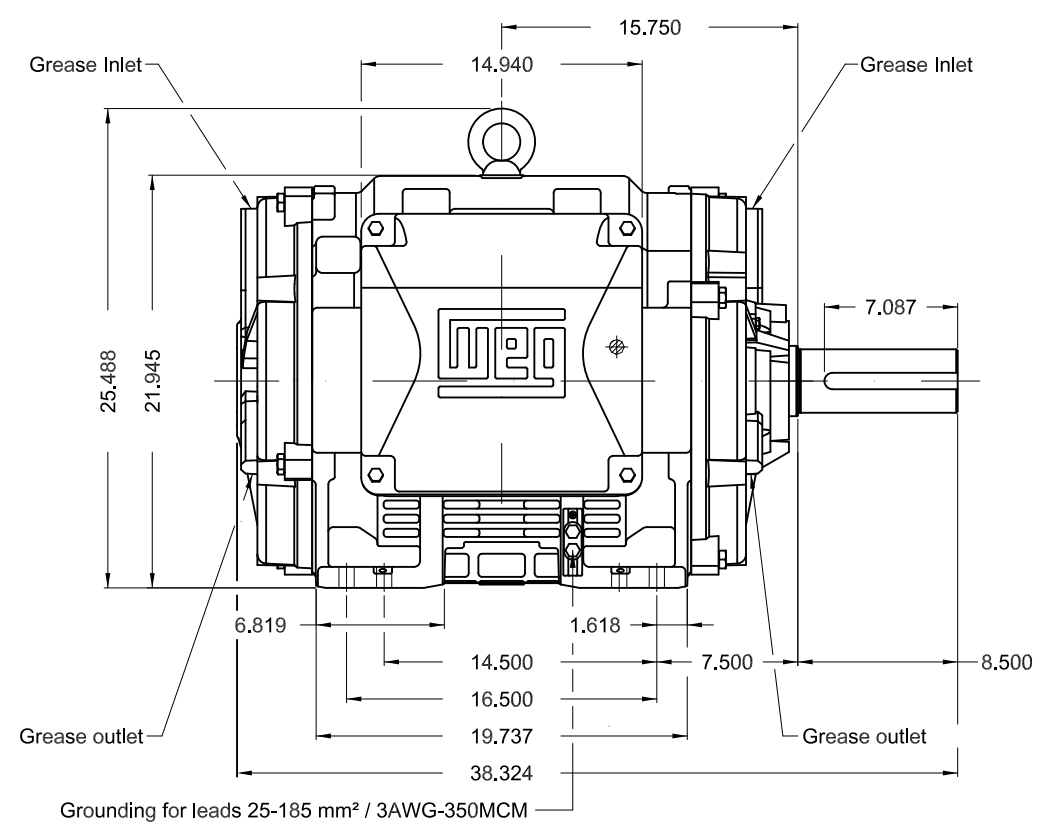
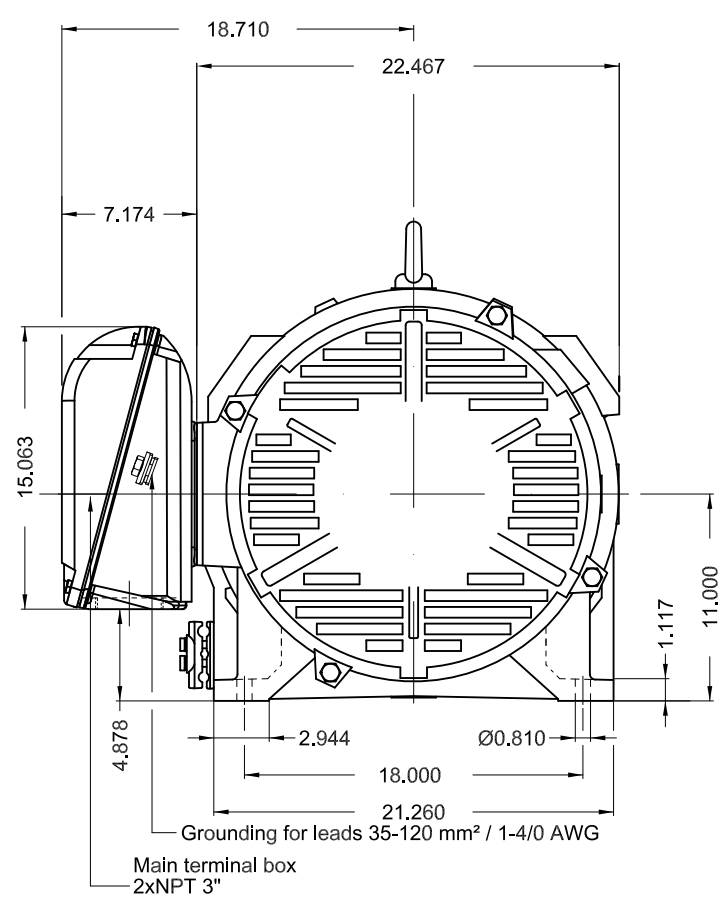


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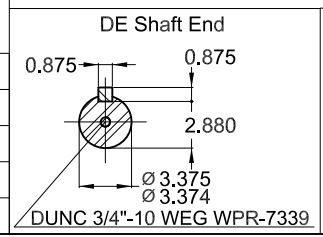
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- C3 NDE bearing
- Color RAL 5009
- Painting plan 203A
- Mounting NEMA F-1
- Mounting B3R(D)



125 HP 06 Poles 60 Hz A

1:10

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

**PREVIEW**  
WDD



MODEL 125120T3G445T-W40  
MADE IN BRAZIL  
14272922

**WEG** **W40 NEMA**  
**CC029A Premium**  
Inverter Duty Motor

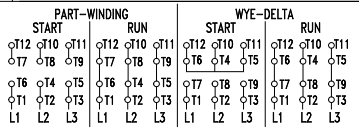


IEC 60034-1  
MOD.T01#FOXON



For 60Hz use on PWM, VT 1000:1, CT 2:1, 1.0SF

PH 3	FR 444/5T	HP(kW) 125(90)	Hz 60
V 460	A 154	IP23	
NEMA NOM EFF	95.0 %	RPM 1189	
ENCL ODP	DUTY CONT.	INS. CL. F ΔT 80 K	
PF 0.77	DES B	CODE G	AMB. 40°C
SF 1.25	SFA 193	ALT 1000 m.a.s.l.	
100HP 75kW 50Hz 380V 152A 989RPM SF1.00 EFF 94.6% (IE3)			



→ 6319-C3(45g)      MOBIL POLYREX EM  
→ 6314-C3(27g)      20000 h

1391 Lbs