

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line		: NEMA Premium Efficiency Three-Phase	Product code :	14384658	
			Catalog # :	65036ET3G588/9S-W22	
Frame	: 588/9TS	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	: 4636 lb		
Protection degree	: IP55	Moment of inertia (J)	: 176 sq.ft.lb		
Output [HP]	650	550	550	550	
Poles	2	2	2	2	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	685	692	657	641	
L. R. Amperes [A]	4864	4636	4928	5128	
LRC [A]	7.1x(Code G)	6.7x(Code F)	7.5x(Code G)	8.0x(Code H)	
No load current [A]	140	138	149	158	
Rated speed [RPM]	3585	2985	2985	2985	
Slip [%]	0.42	0.50	0.50	0.50	
Rated torque [ft.lb]	952	968	968	968	
Locked rotor torque [%]	200	190	210	220	
Breakdown torque [%]	240	229	260	280	
Service factor	1.00	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	100s (cold) 56s (hot)	90s (cold) 50s (hot)	90s (cold) 50s (hot)	90s (cold) 50s (hot)	
Noise level ²	89.0 dB(A)	83.0 dB(A)	83.0 dB(A)	83.0 dB(A)	
Efficiency (%)	25%	96.0	96.1	96.1	
	50%	96.1	96.2	96.2	
	75%	96.6	96.5	96.5	
	100%	96.6	96.5	96.5	
Power Factor	25%	0.65	0.65	0.59	
	50%	0.86	0.86	0.83	
	75%	0.90	0.90	0.86	
	100%	0.91	0.91	0.90	
Bearing type	: <u>Drive end</u> 6314 C3	<u>Non drive end</u> 6314 C3	Foundation loads		
Sealing	: Taconite	Taconite	Max. traction	: 3334 lb	
	Labyrinth	Labyrinth	Max. compression	: 7970 lb	
Lubrication interval	: 4000 h	4000 h			
Lubricant amount	: 27 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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DATA SHEET

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Customer : _____

Space heater information

Voltage: 200 - 240 V

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TORQUE AND CURRENT VS SPEED CURVE



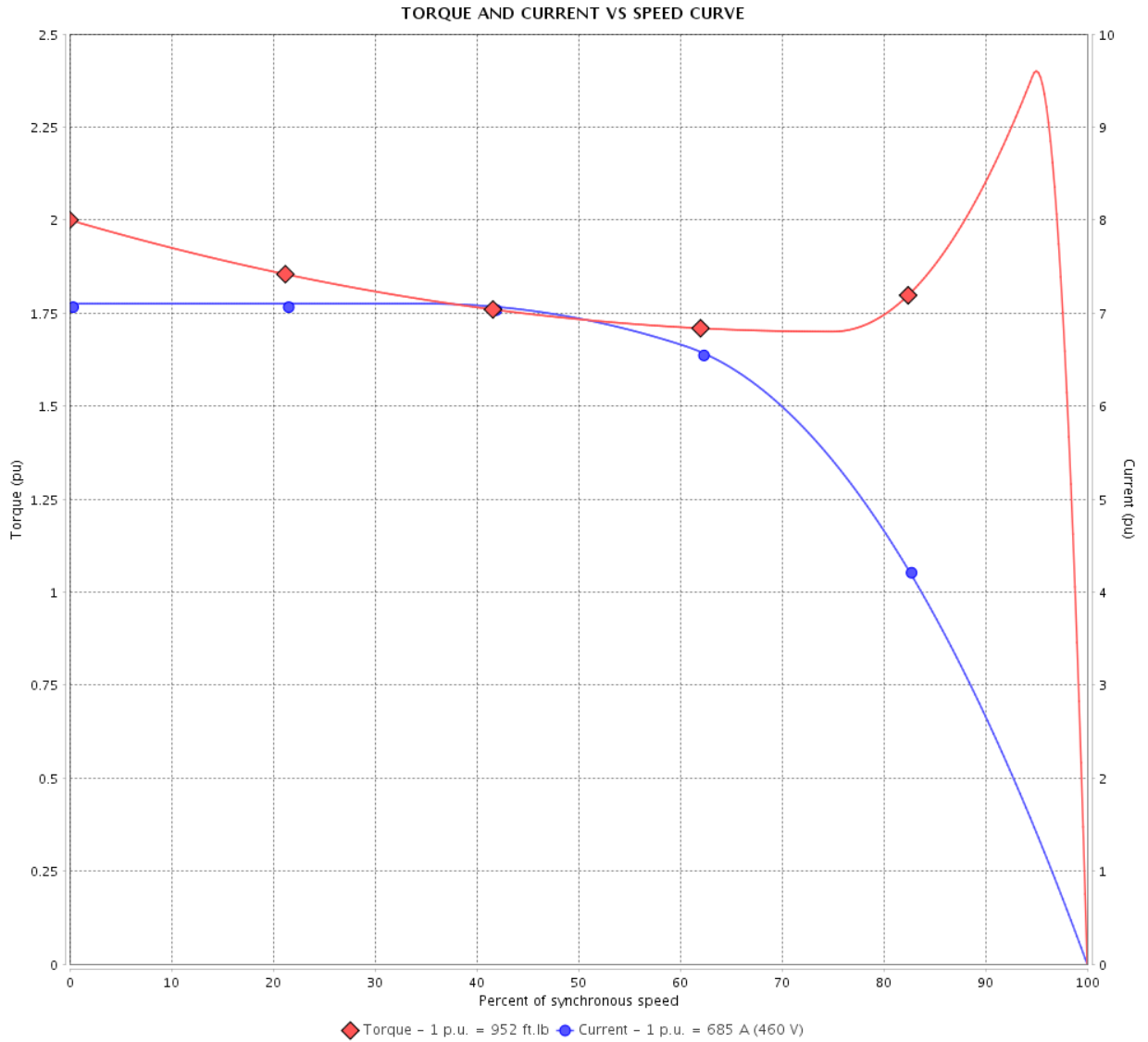
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14384658

Catalog # : 65036ET3G588/9S-W22



Performance : 460 V 60 Hz 2P

Rated current	: 685 A	Moment of inertia (J)	: 176 sq.ft.lb
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 952 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 3585 rpm		

Locked rotor time : 100s (cold) 56s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



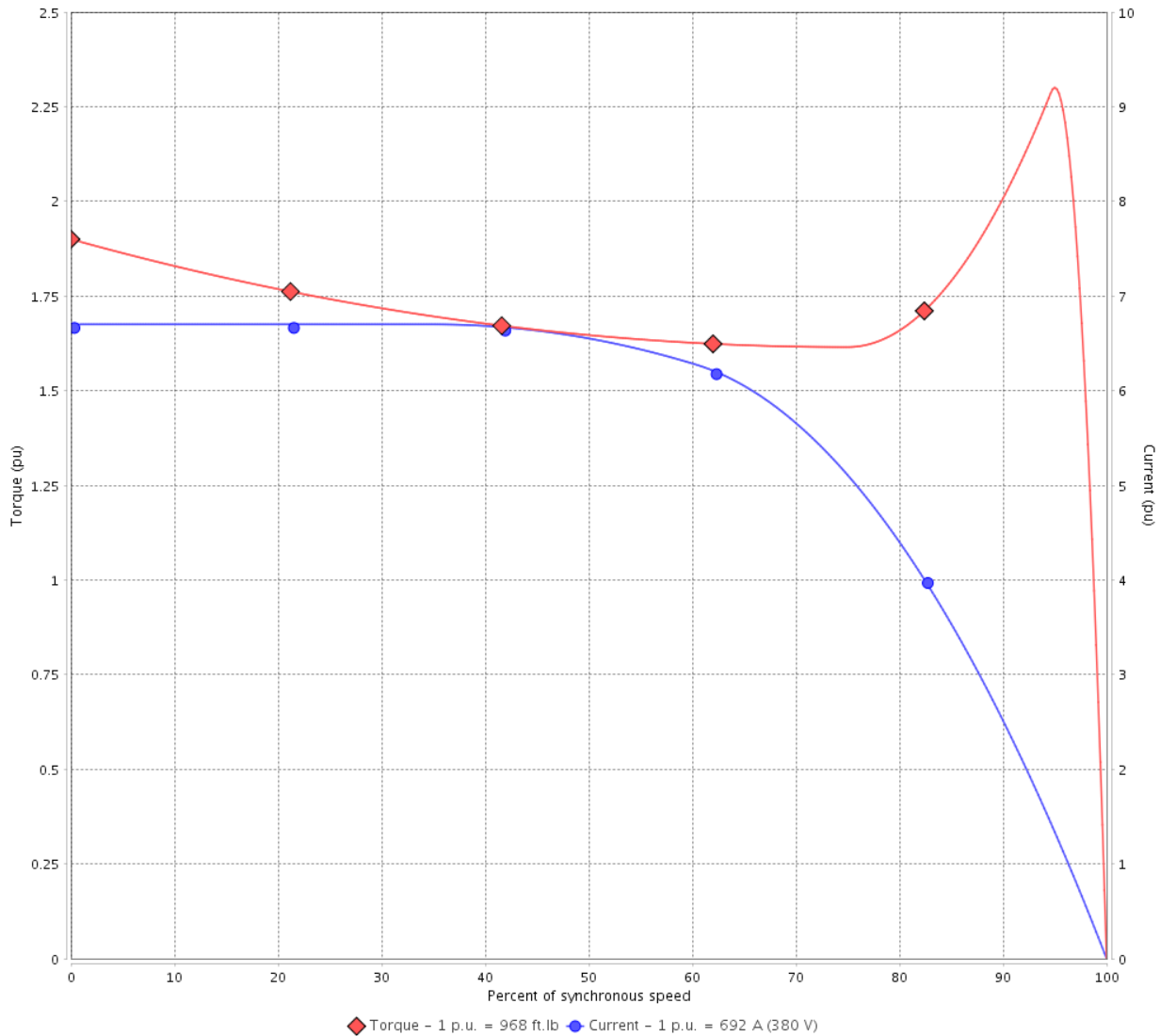
Customer :

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Catalog # : 65036ET3G588/9S-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 2P IE1

Rated current	: 692 A	Moment of inertia (J)	: 176 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 968 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 2985 rpm		

Locked rotor time : 90s (cold) 50s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



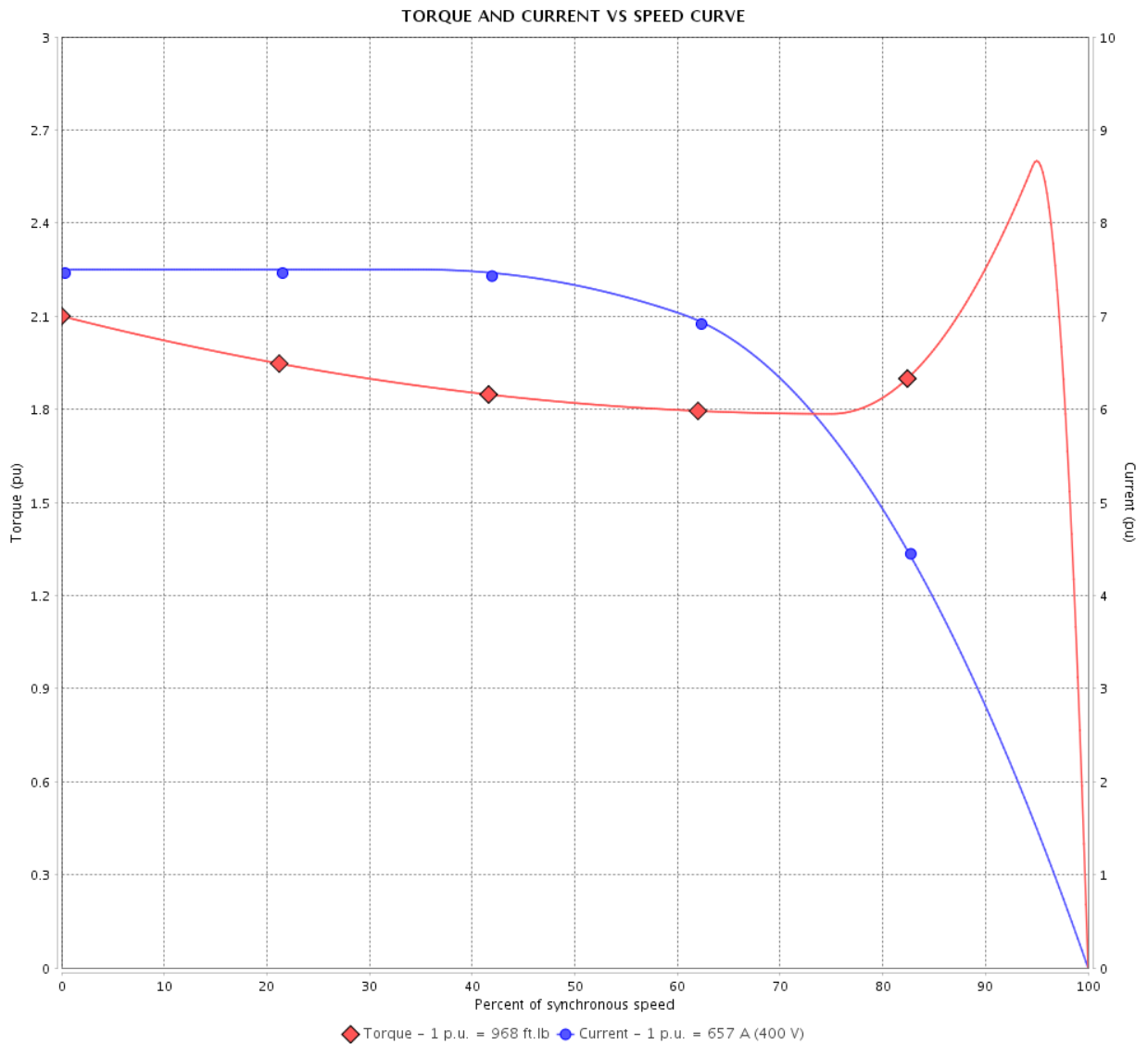
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14384658

Catalog # : 65036ET3G588/9S-W22



Performance : 400 V 50 Hz 2P IE1

Rated current	: 657 A	Moment of inertia (J)	: 176 sq.ft.lb
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 968 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 2985 rpm		

Locked rotor time : 90s (cold) 50s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



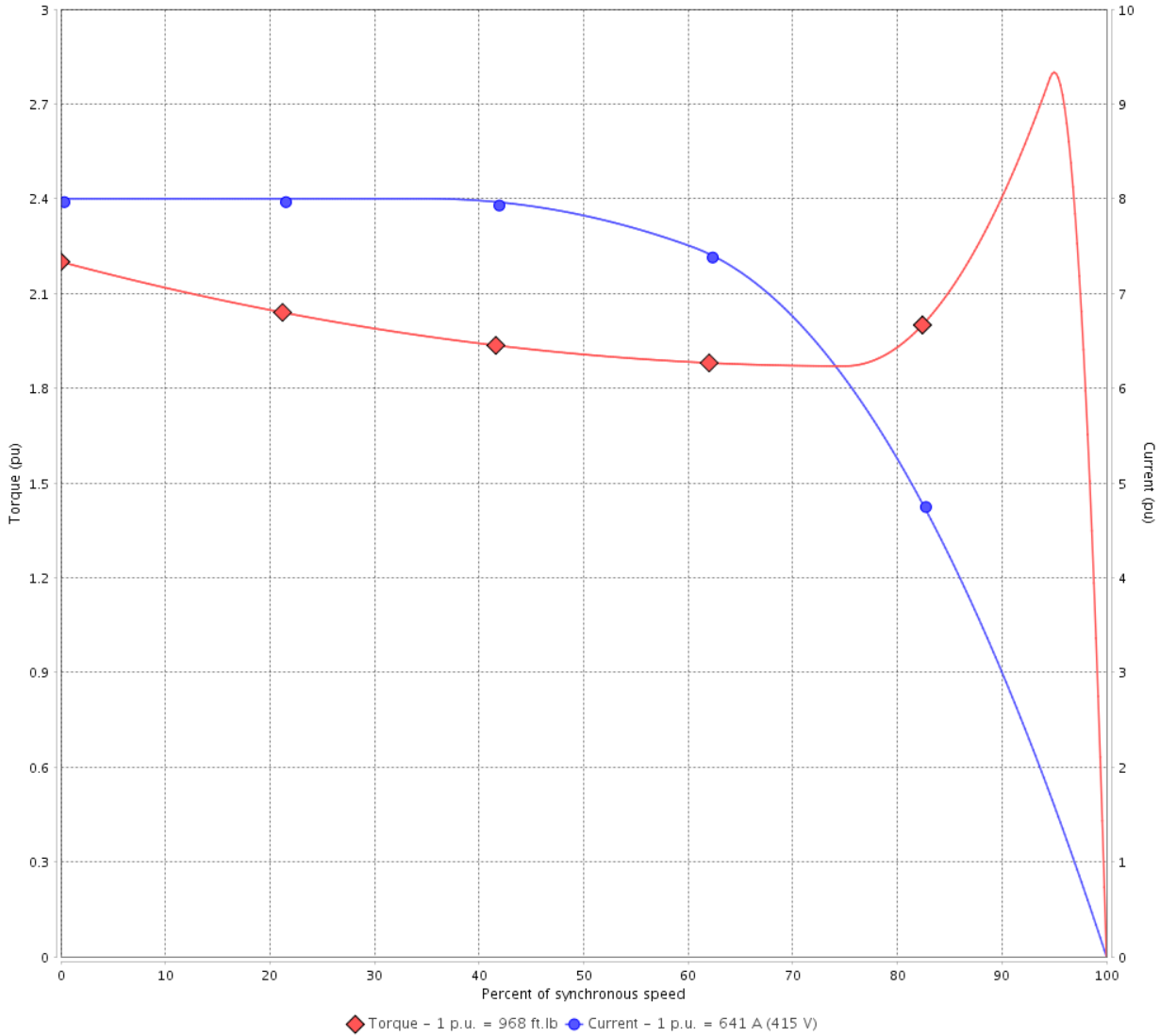
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TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 2P IE1

Rated current	: 641 A	Moment of inertia (J)	: 176 sq.ft.lb
LRC	: 8.0	Duty cycle	: Cont.(S1)
Rated torque	: 968 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2985 rpm		

Locked rotor time : 90s (cold) 50s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

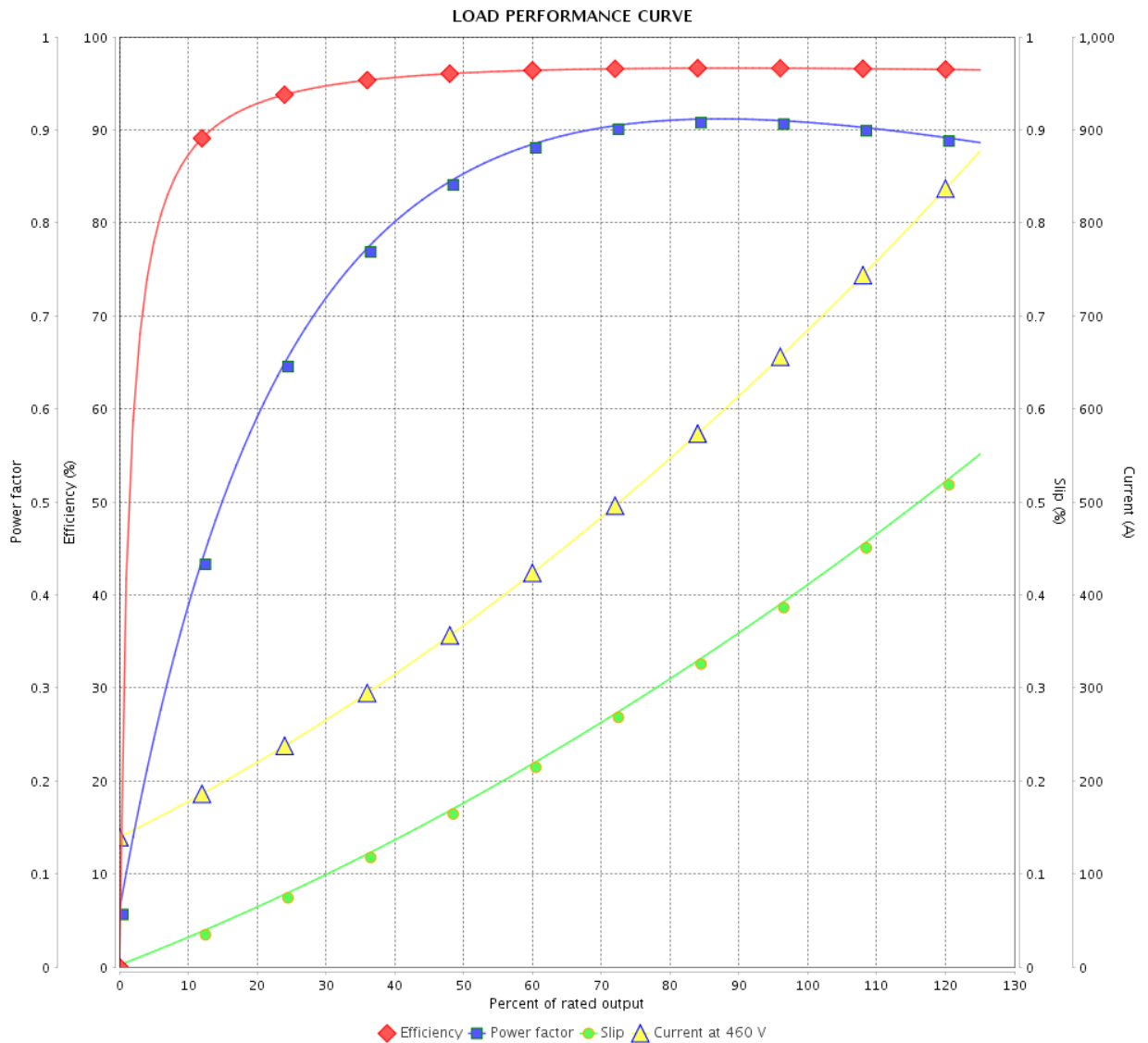


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Performance : 460 V 60 Hz 2P

Rated current : 685 A
 LRC : 7.1
 Rated torque : 952 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 240 %
 Rated speed : 3585 rpm

Moment of inertia (J) : 176 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K

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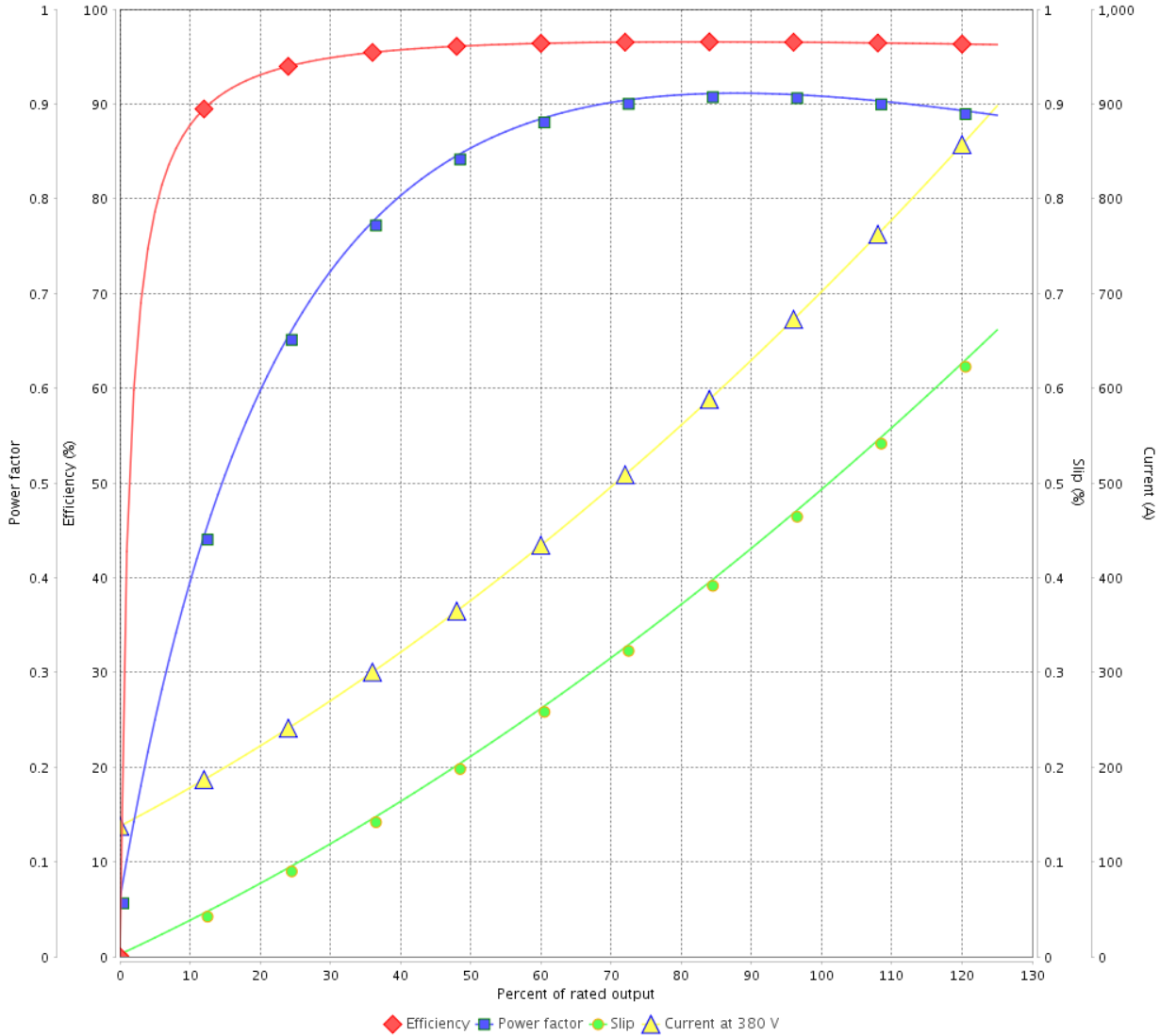
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Performance : 380 V 50 Hz 2P IE1

Rated current : 692 A
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 Breakdown torque : 229 %
 Rated speed : 2985 rpm

Moment of inertia (J) : 176 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K

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Three Phase Induction Motor - Squirrel Cage

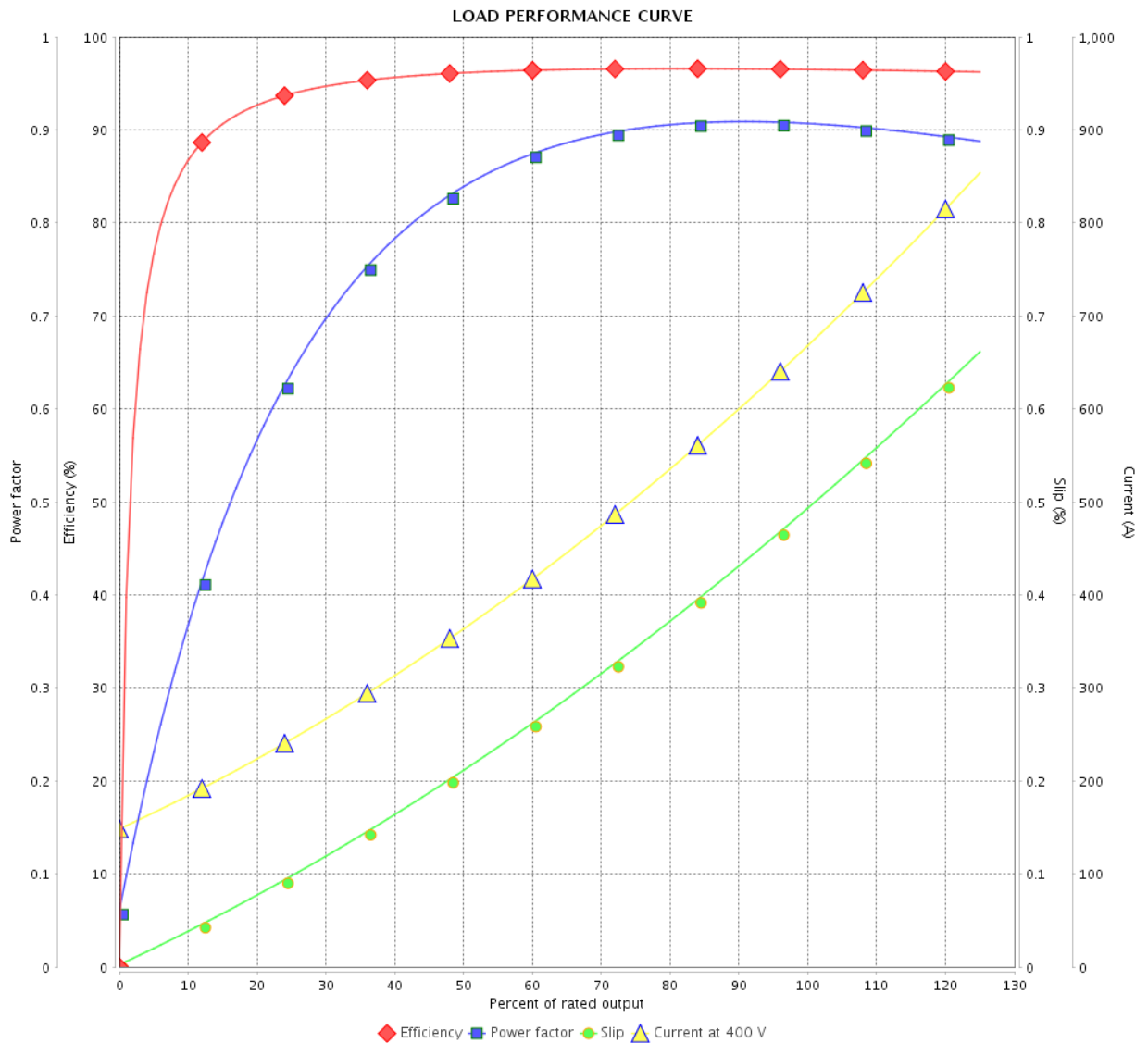


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 Breakdown torque : 260 %
 Rated speed : 2985 rpm

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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K

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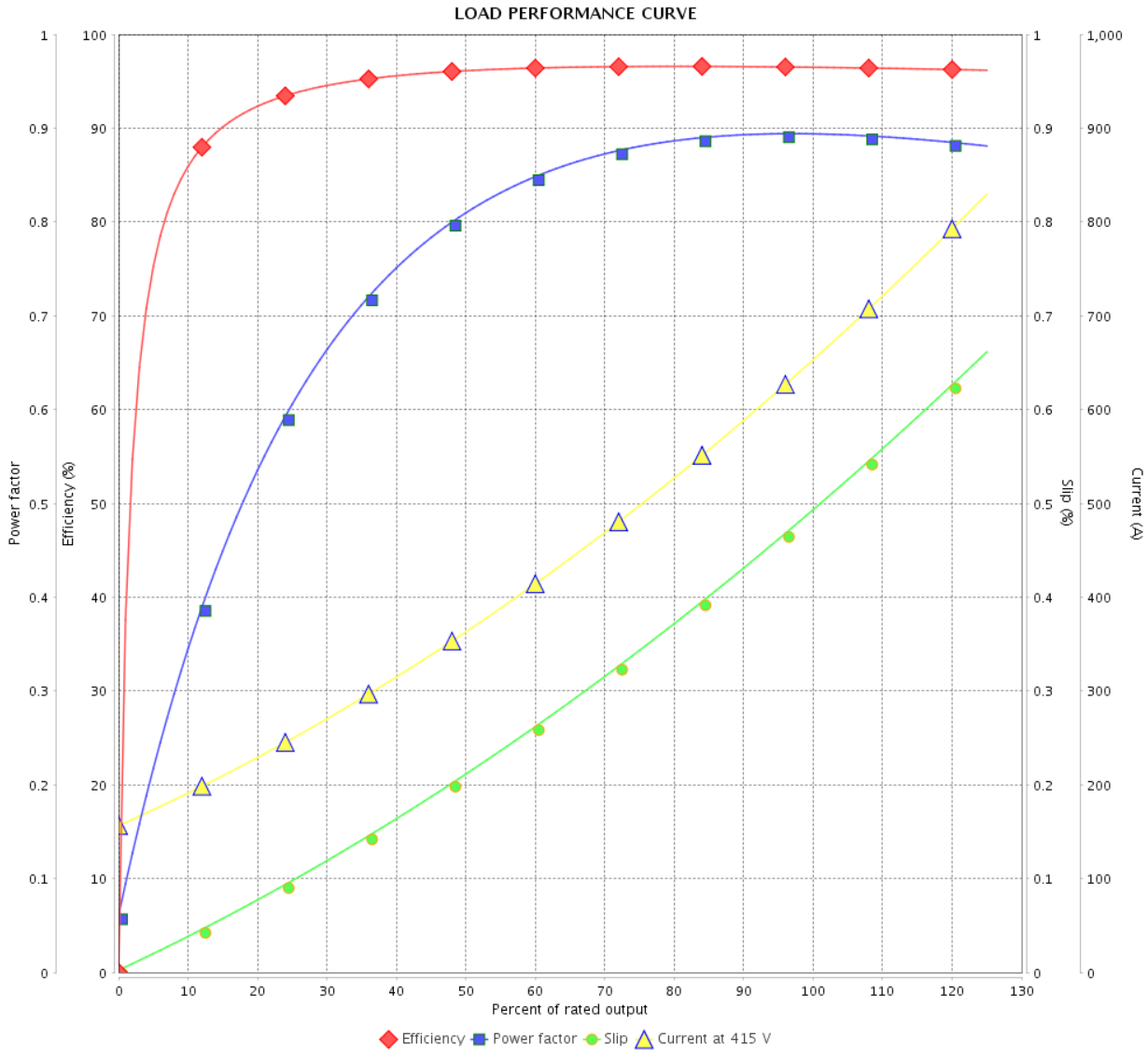


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Performance : 415 V 50 Hz 2P IE1

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 Duty cycle : Cont.(S1)
 Insulation class : F
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THERMAL LIMIT CURVE



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Heating constant

Cooling constant

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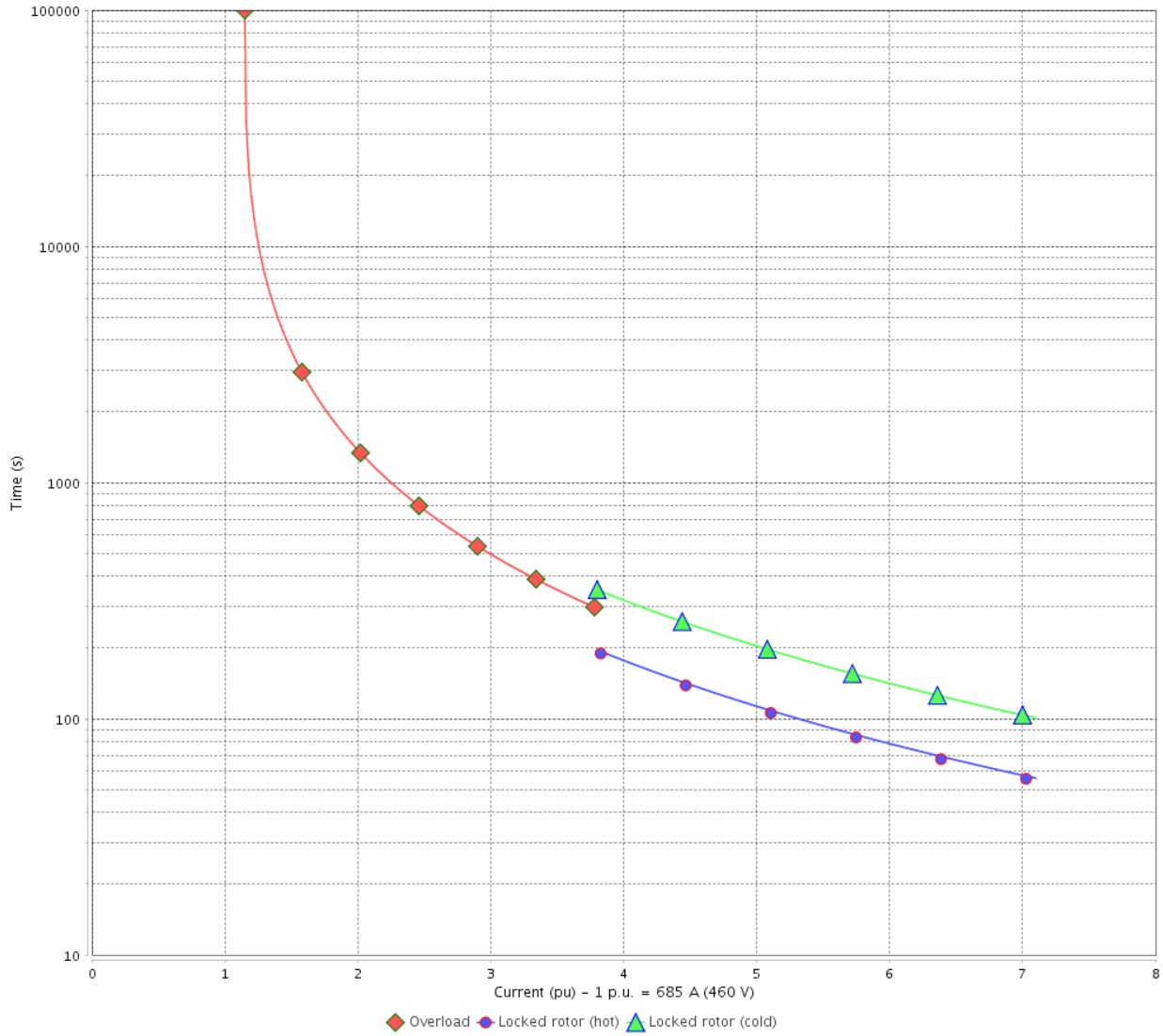
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Cooling constant

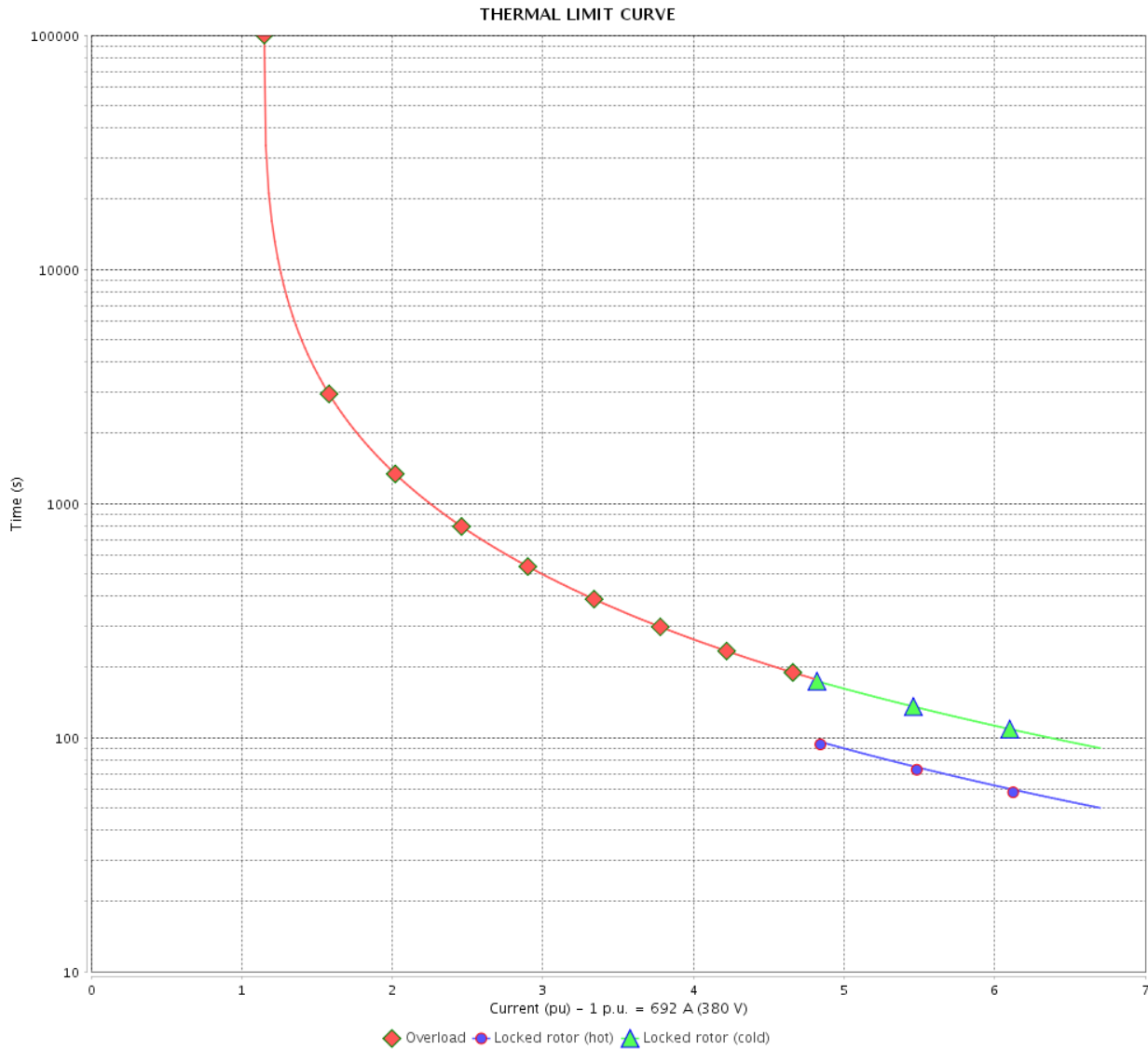
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Cooling constant

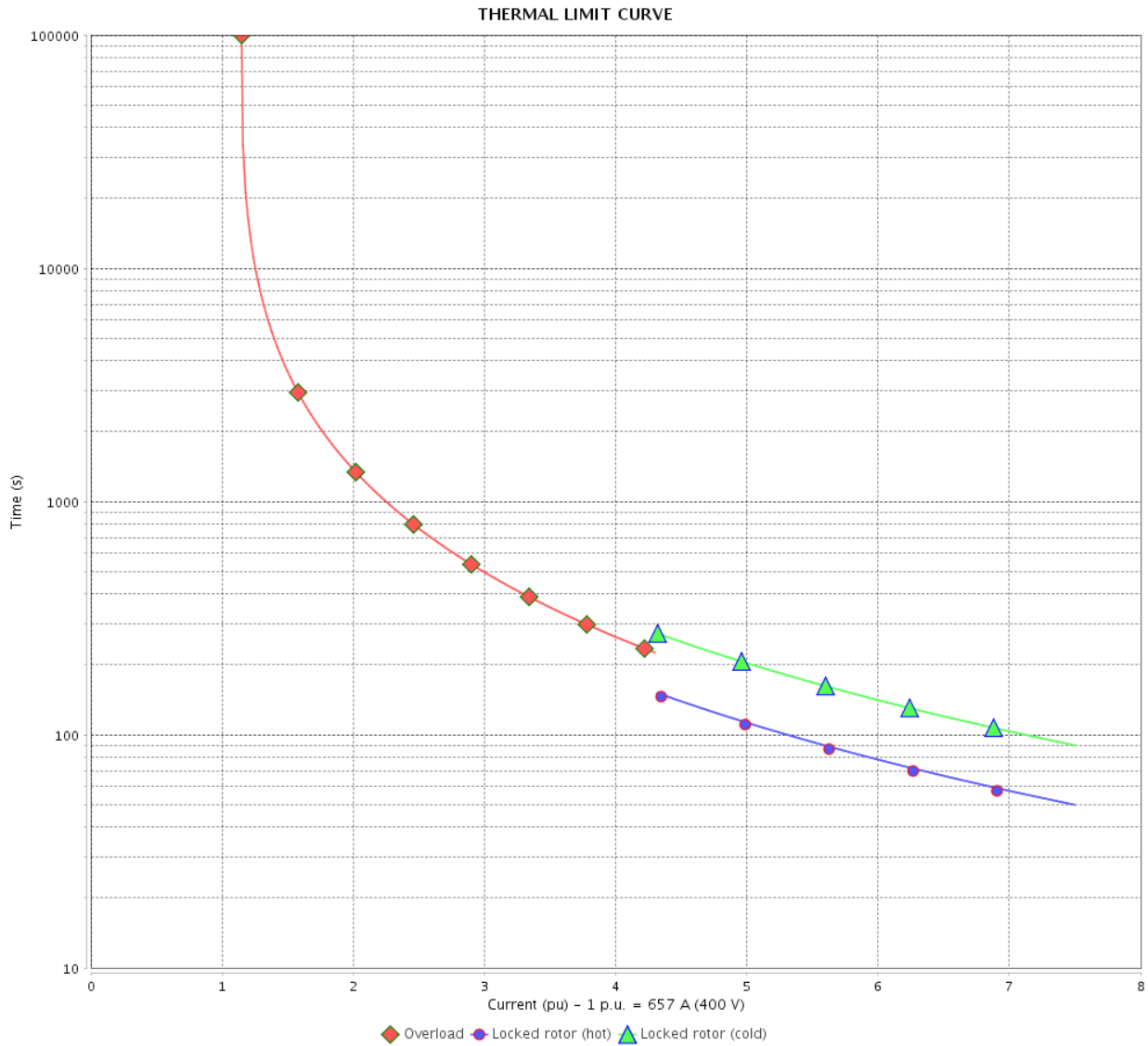
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LRC : 8.0	Duty cycle : Cont.(S1)
Rated torque : 968 ft.lb	Insulation class : F
Locked rotor torque : 220 %	Service factor : 1.00
Breakdown torque : 280 %	Temperature rise : 80 K
Rated speed : 2985 rpm	

Heating constant

Cooling constant

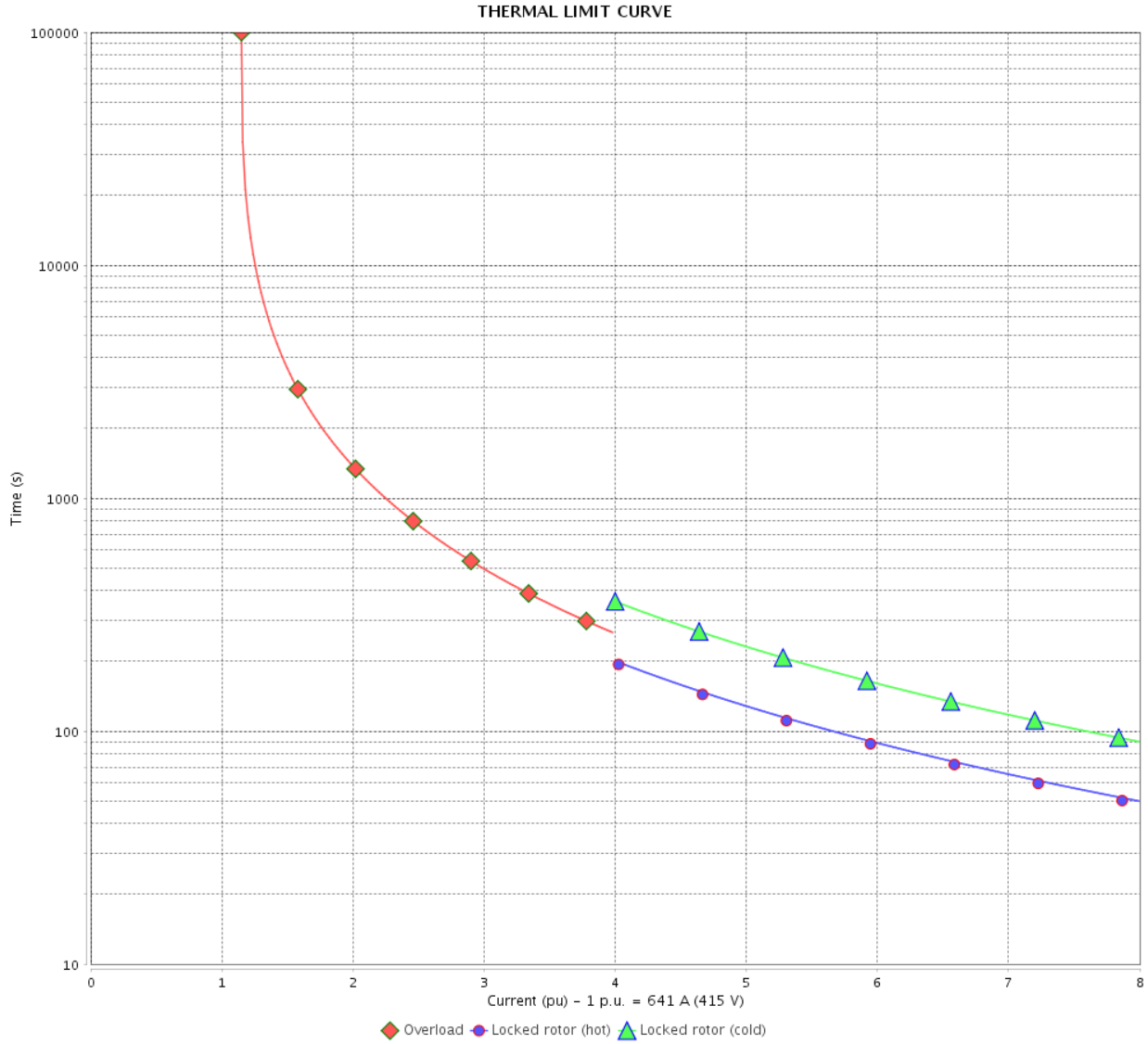
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

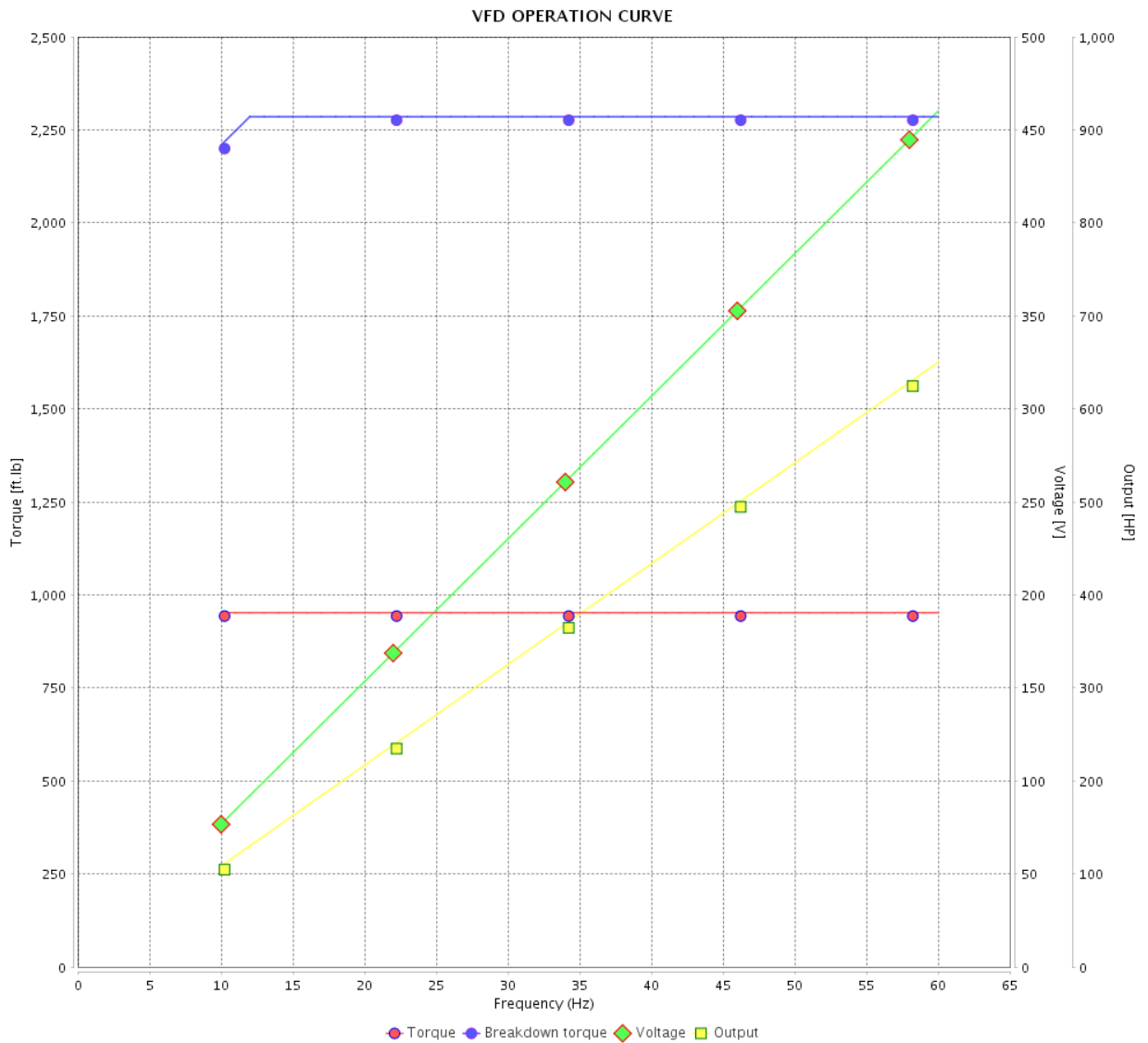


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 Insulation class : F
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VFD OPERATION CURVE

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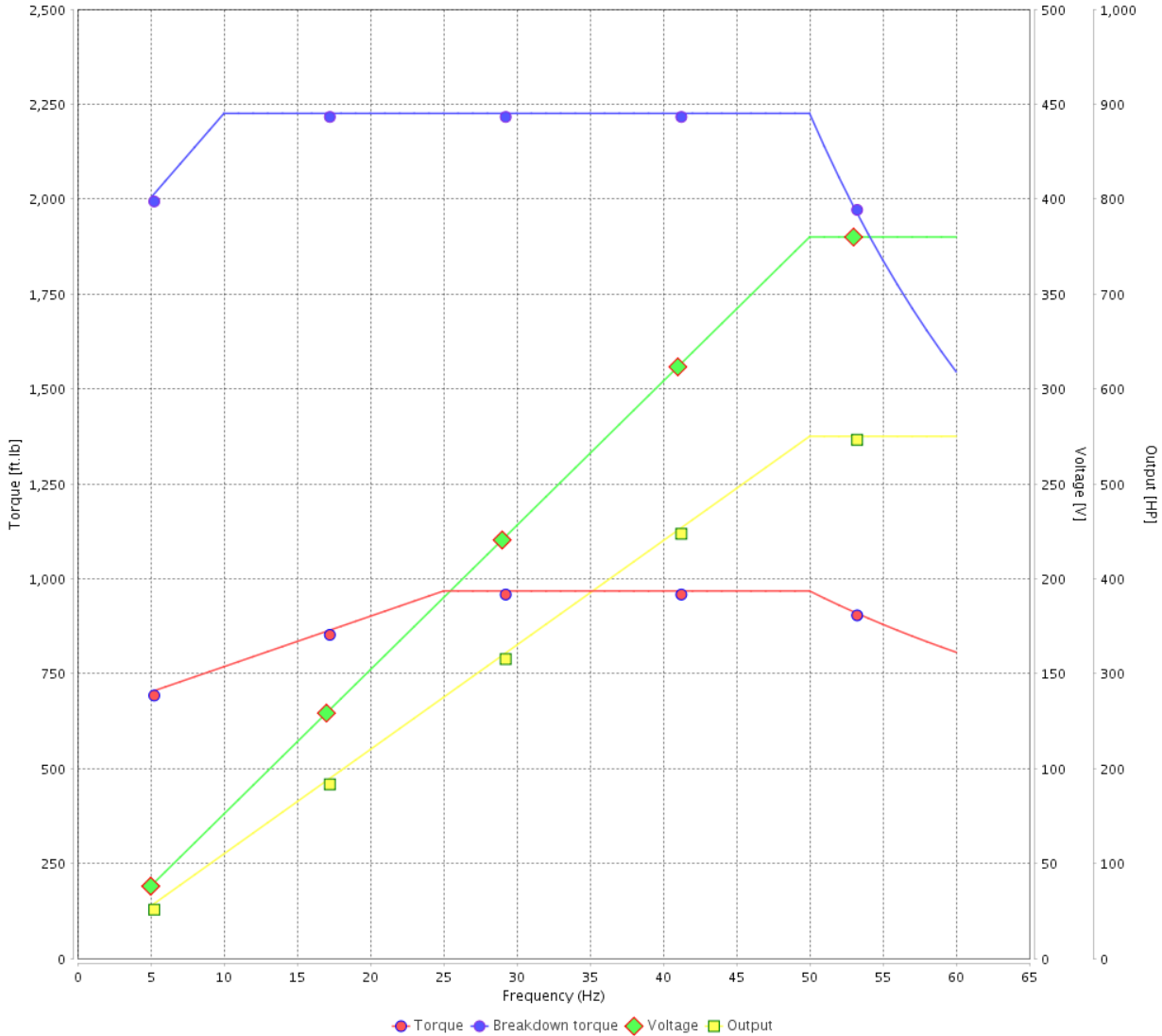
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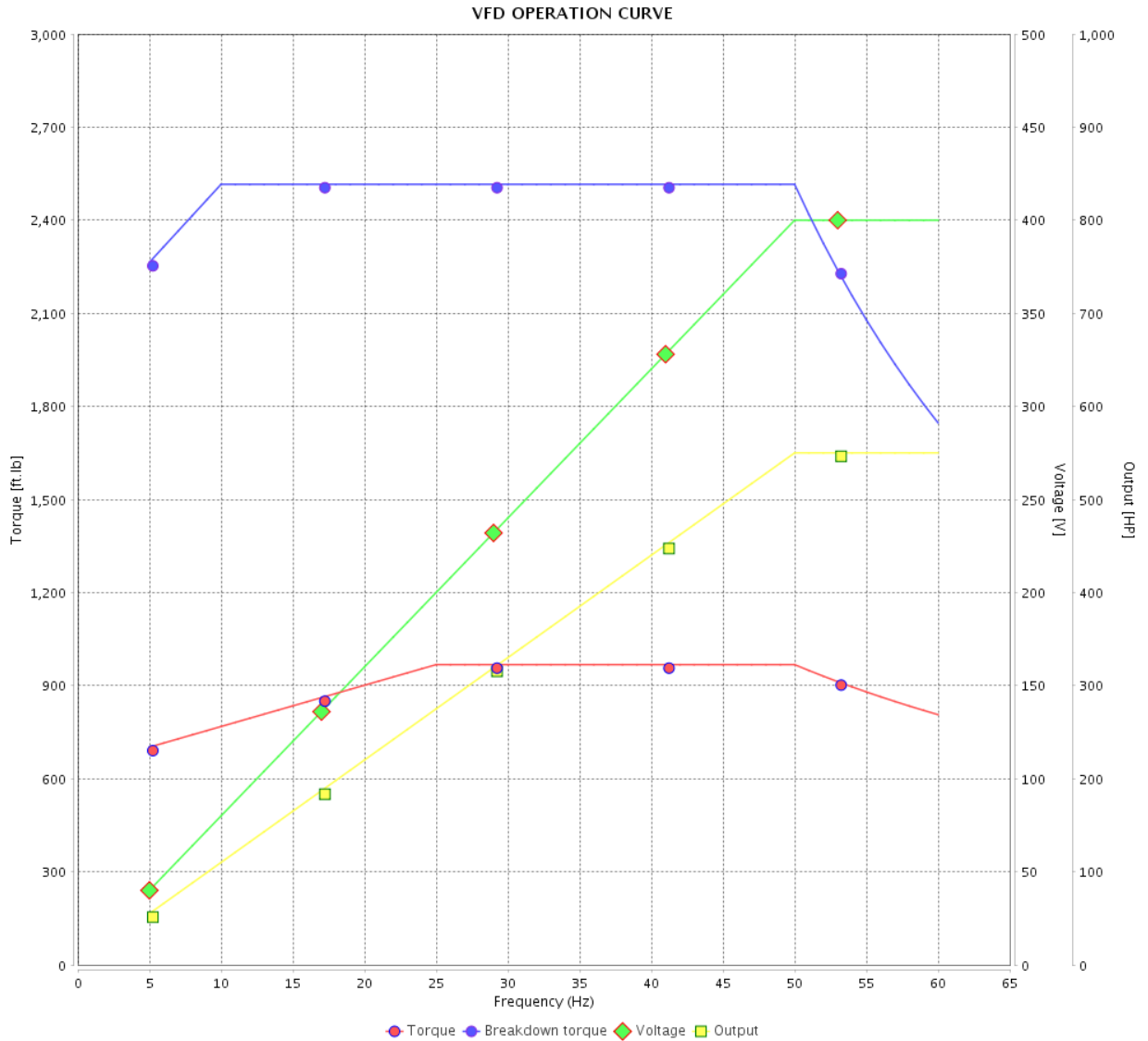


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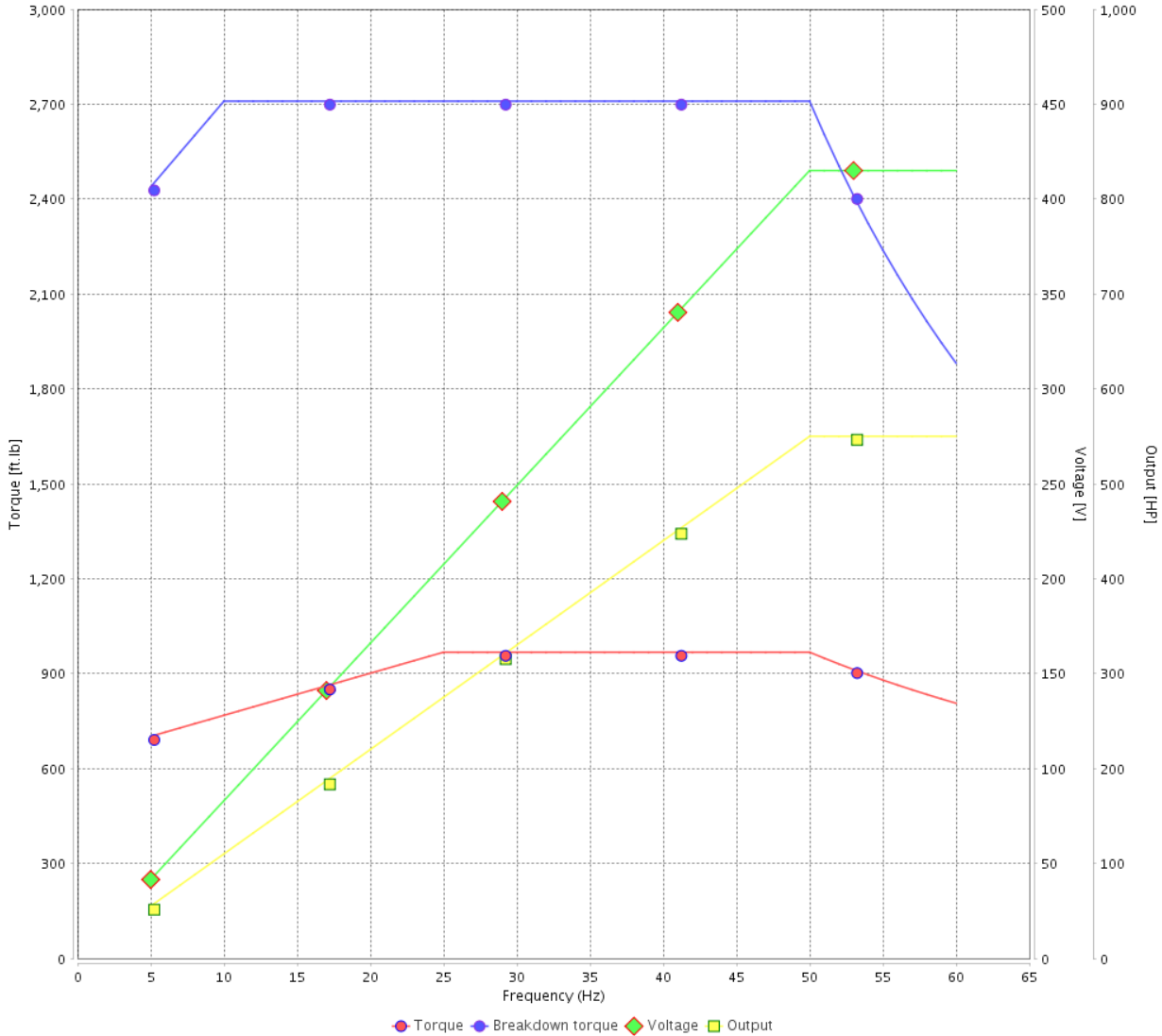
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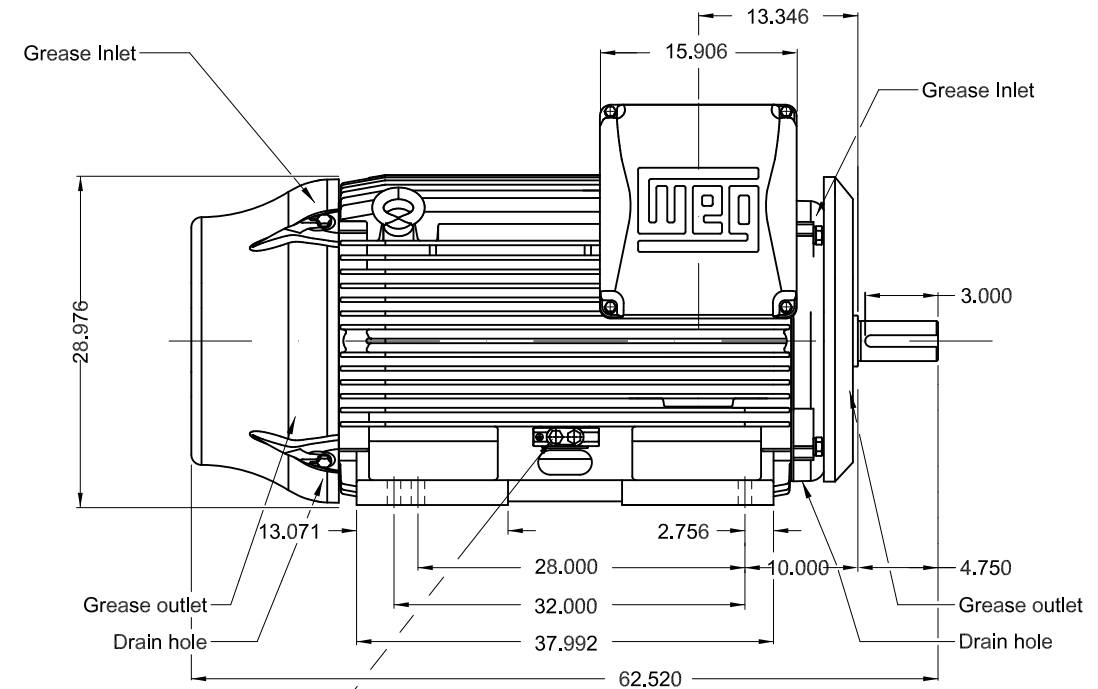
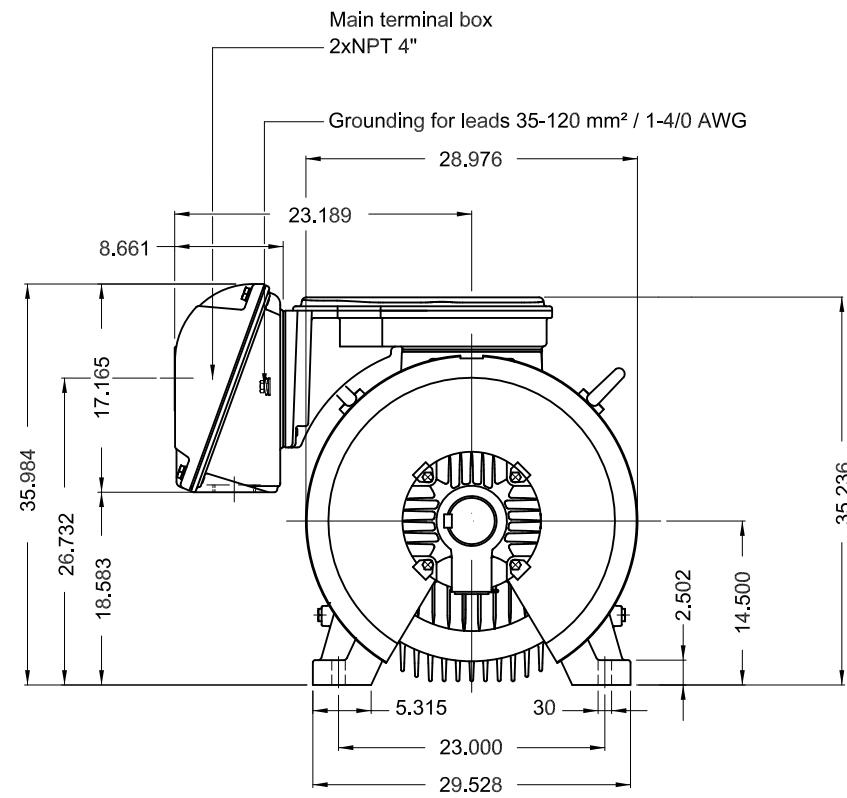


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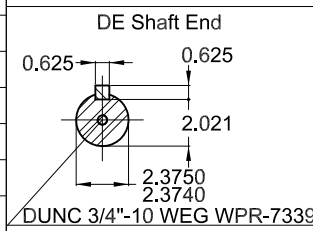


Grounding for leads 25-185 mm² / 3AWG-350MCM

650 HP 02 Poles 60 Hz

Dimensions in inches

- Without vertical jackscrews
- 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. FRAME 588/9TS IP55 TEFC					
CHECKED							
RELEASED							
REL DT.	WMO		Jaragua do Sul	Product Engineering	SHEET	1 / 1	

PREVIEW
WDD

