

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: NEMA Premium Efficiency Three-Phase				
Product code :	12408386				
Catalog # :	35018XT3G449T				
Frame	: 449T				
Insulation class	: F				
Duty cycle	: Cont.(S1)				
Ambient temperature	: -20°C to +40°C				
Altitude	: 1000 m.a.s.l.				
Protection degree	: IP55				
Design	: A				
Cooling method	: IC411 - TEFC				
Mounting	: F-1				
Rotation ¹	: Both (CW and CCW)				
Starting method	: Direct On Line				
Approx. weight ²	: 3297 lb				
Moment of inertia (J)	: 118 sq.ft.lb				
Output [HP]	350	300	300	300	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	404	410	399	389	
L. R. Amperes [A]	3313	3198	3431	3579	
LRC [A]	8.2x(Code J)	7.8x(Code H)	8.6x(Code J)	9.2x(Code K)	
No load current [A]	153	151	161	170	
Rated speed [RPM]	1785	1485	1485	1490	
Slip [%]	0.83	1.00	1.00	0.67	
Rated torque [ft.lb]	1030	1060	1060	1060	
Locked rotor torque [%]	280	250	280	310	
Breakdown torque [%]	290	265	300	320	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	
Noise level ²	80.0 dB(A)	80.0 dB(A)	80.0 dB(A)	80.0 dB(A)	
Efficiency (%)	25%	94.9	95.3	95.3	95.3
	50%	95.4	95.4	95.4	95.4
	75%	95.8	95.8	95.9	95.9
	100%	96.2	95.8	95.9	95.9
Power Factor	25%	0.45	0.45	0.42	0.40
	50%	0.70	0.70	0.67	0.65
	75%	0.80	0.80	0.78	0.76
	100%	0.84	0.85	0.83	0.82
Bearing type	: Drive end : 6322 C3 Non drive end : 6319 C3	Foundation loads			
Sealing	: Viton Oil Seal Viton Seal	Max. traction	: 7371 lb		
		Max. compression	: 10668 lb		
Lubrication interval	: 5138 h 7038 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 : _____

Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermostat - 2 wires	1 x Phase	155 °C

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TORQUE AND CURRENT VS SPEED CURVE



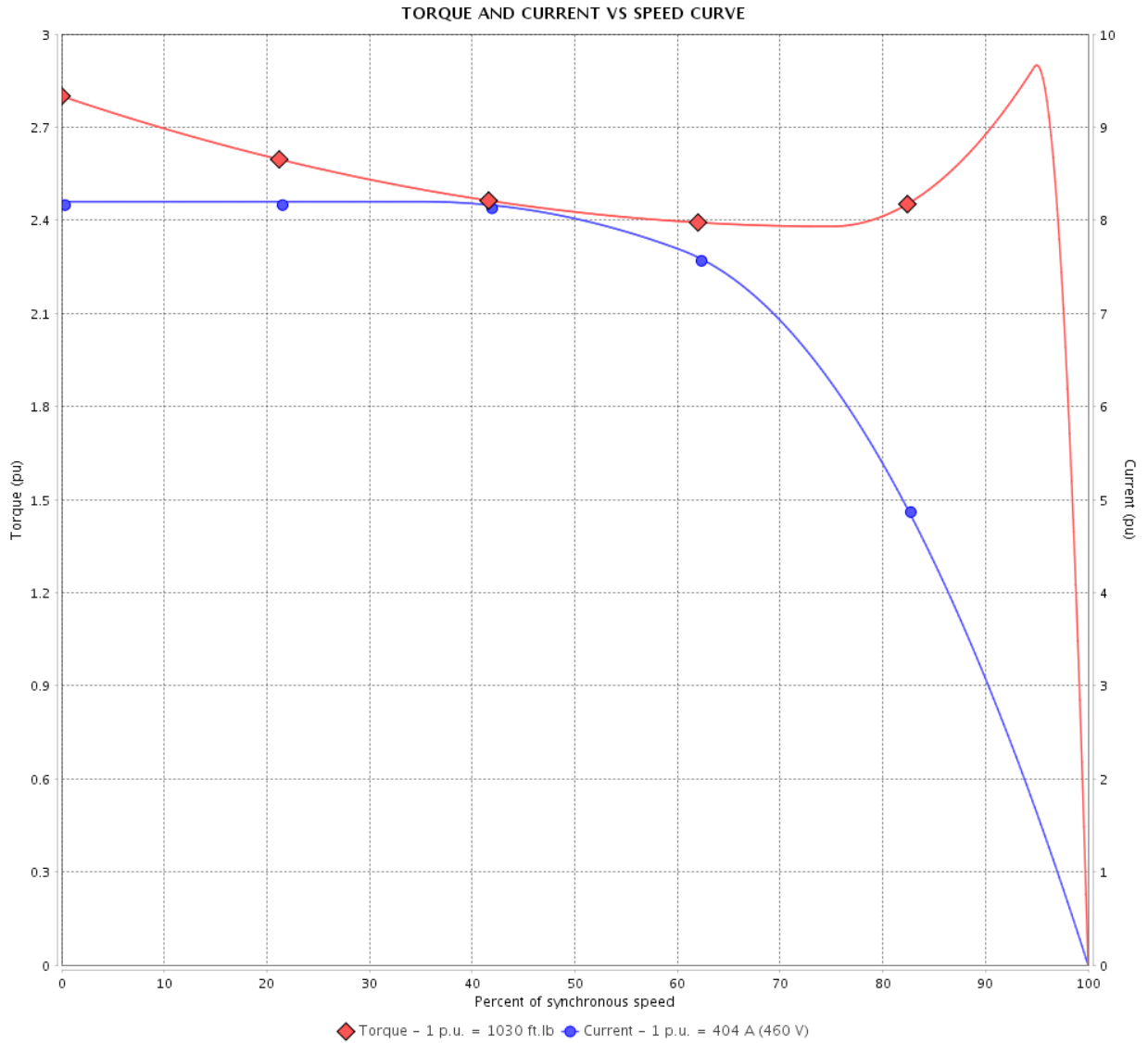
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12408386

Catalog # : 35018XT3G449T



Performance : 460 V 60 Hz 4P

Rated current	: 404 A	Moment of inertia (J)	: 118 sq.ft.lb
LRC	: 8.2	Duty cycle	: Cont.(S1)
Rated torque	: 1030 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.15
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1785 rpm	Design	: A

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

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



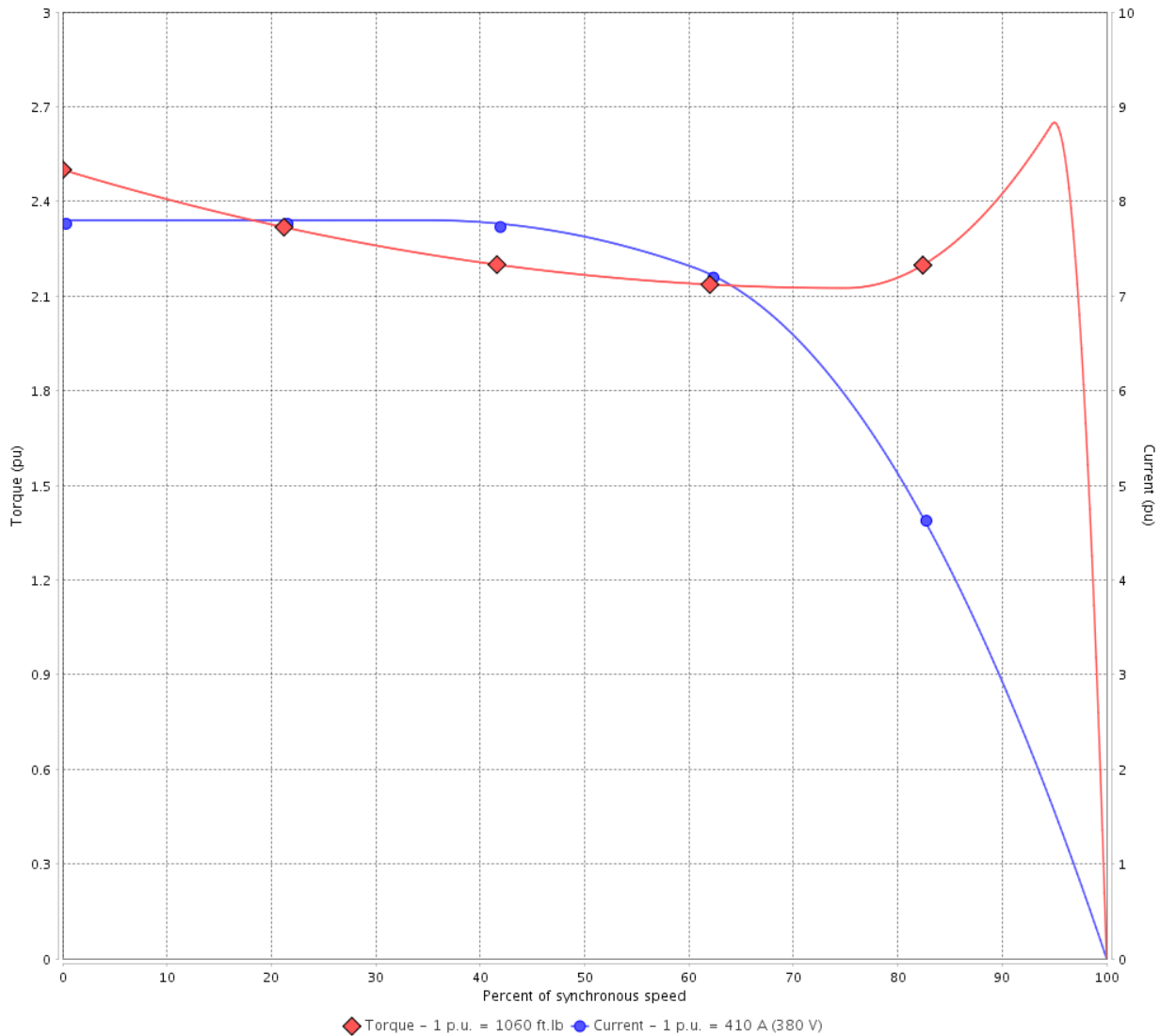
Customer :

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TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 4P IE2

Rated current	: 410 A	Moment of inertia (J)	: 118 sq.ft.lb
LRC	: 7.8	Duty cycle	: Cont.(S1)
Rated torque	: 1060 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 265 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: A

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

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TORQUE AND CURRENT VS SPEED CURVE



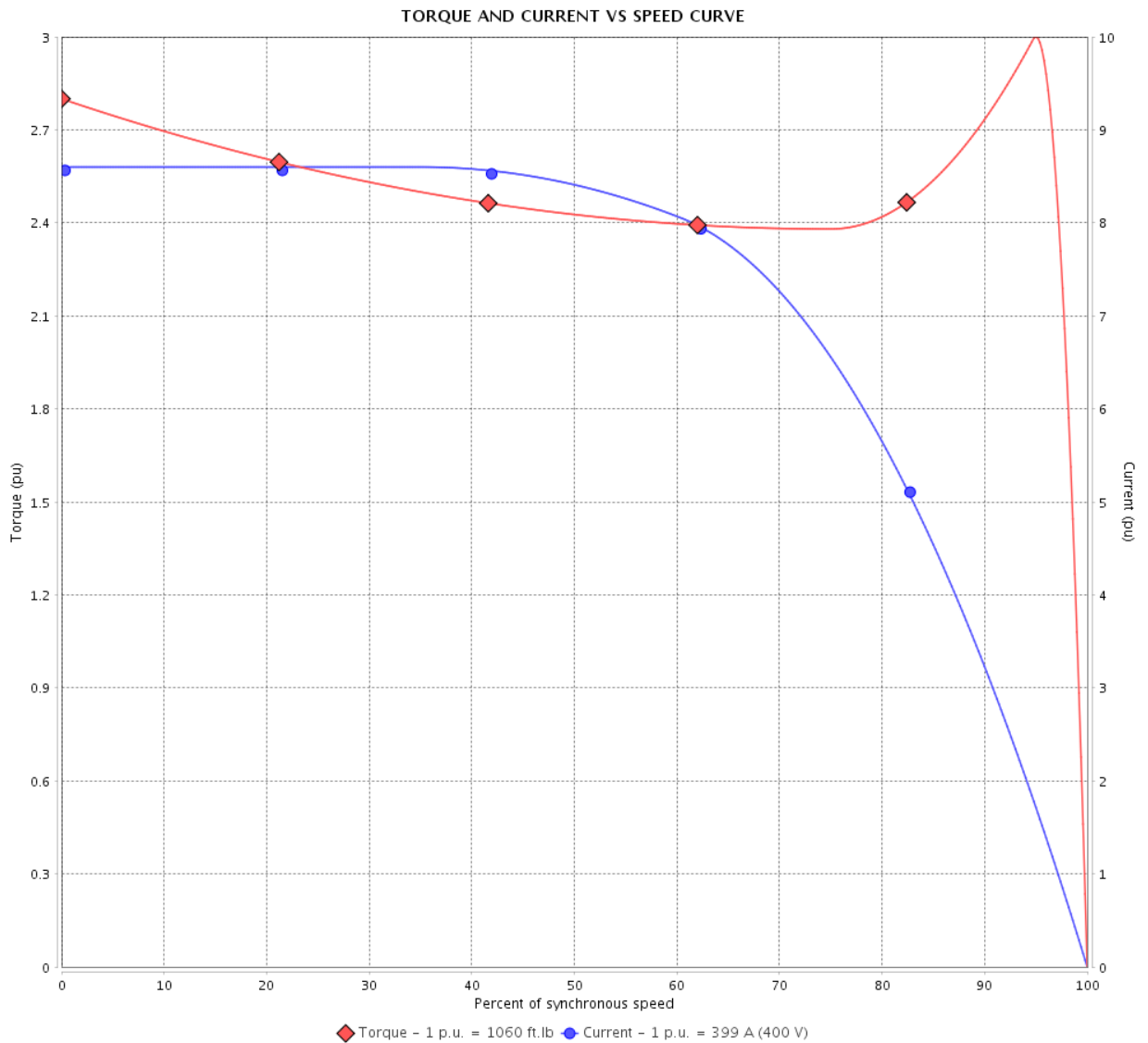
Three Phase Induction Motor - Squirrel Cage

Customer :

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Performance : 400 V 50 Hz 4P IE2

Rated current	: 399 A	Moment of inertia (J)	: 118 sq.ft.lb
LRC	: 8.6	Duty cycle	: Cont.(S1)
Rated torque	: 1060 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: A

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

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



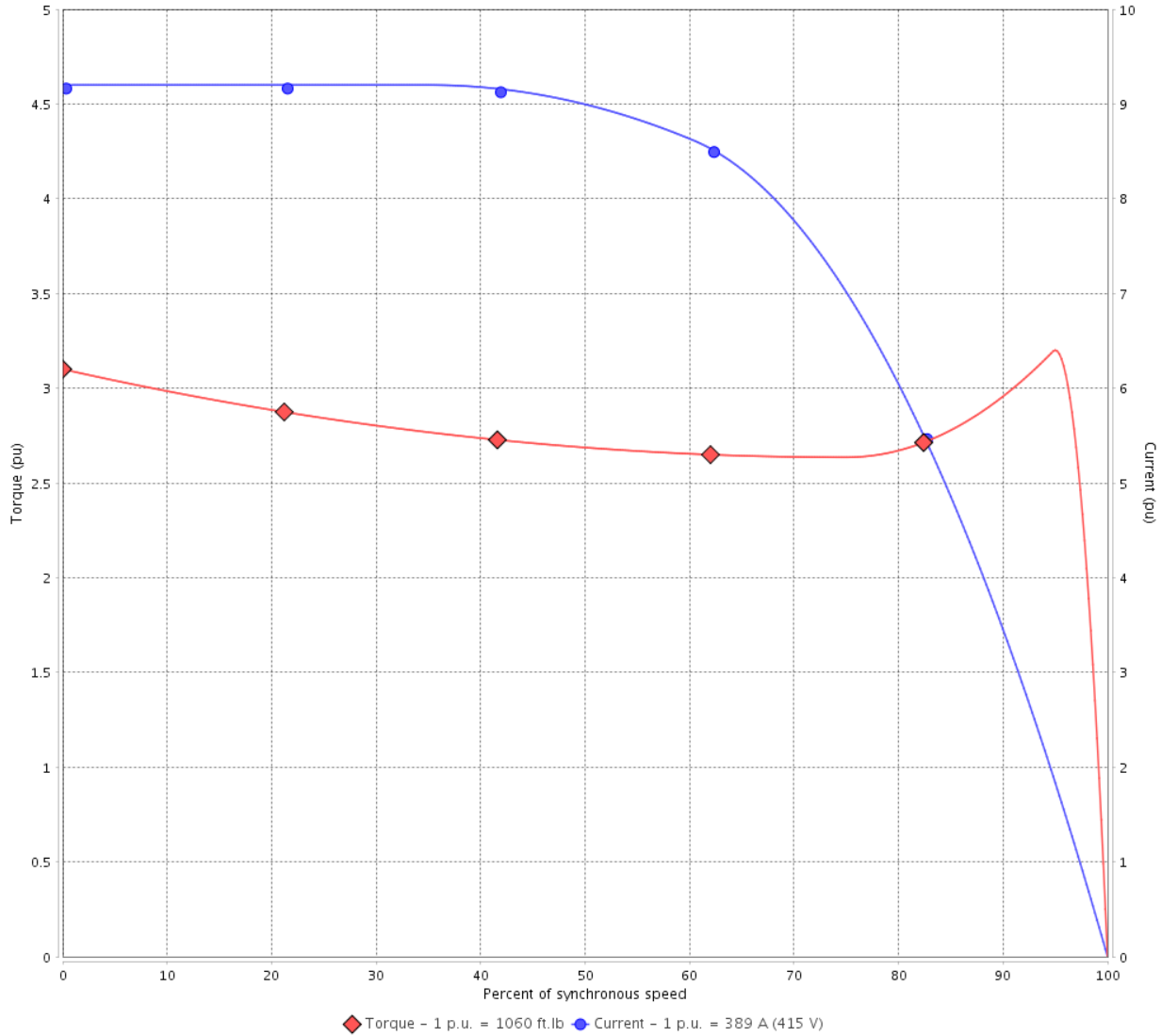
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TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 4P IE2

Rated current	: 389 A	Moment of inertia (J)	: 118 sq.ft.lb
LRC	: 9.2	Duty cycle	: Cont.(S1)
Rated torque	: 1060 ft.lb	Insulation class	: F
Locked rotor torque	: 310 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1490 rpm	Design	: A

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

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

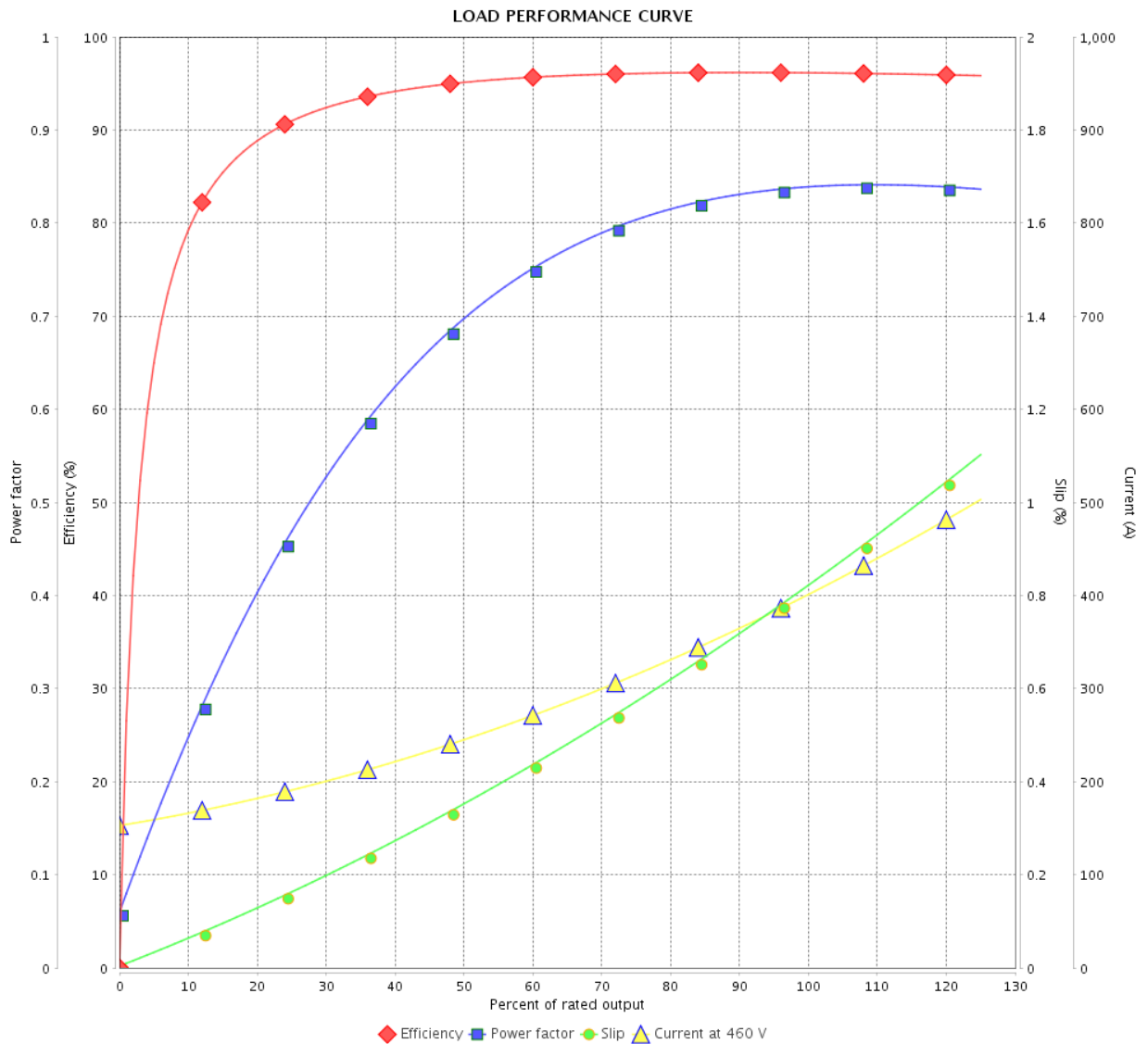


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Performance : 460 V 60 Hz 4P

Rated current : 404 A
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 Rated speed : 1785 rpm

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 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : A

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Three Phase Induction Motor - Squirrel Cage

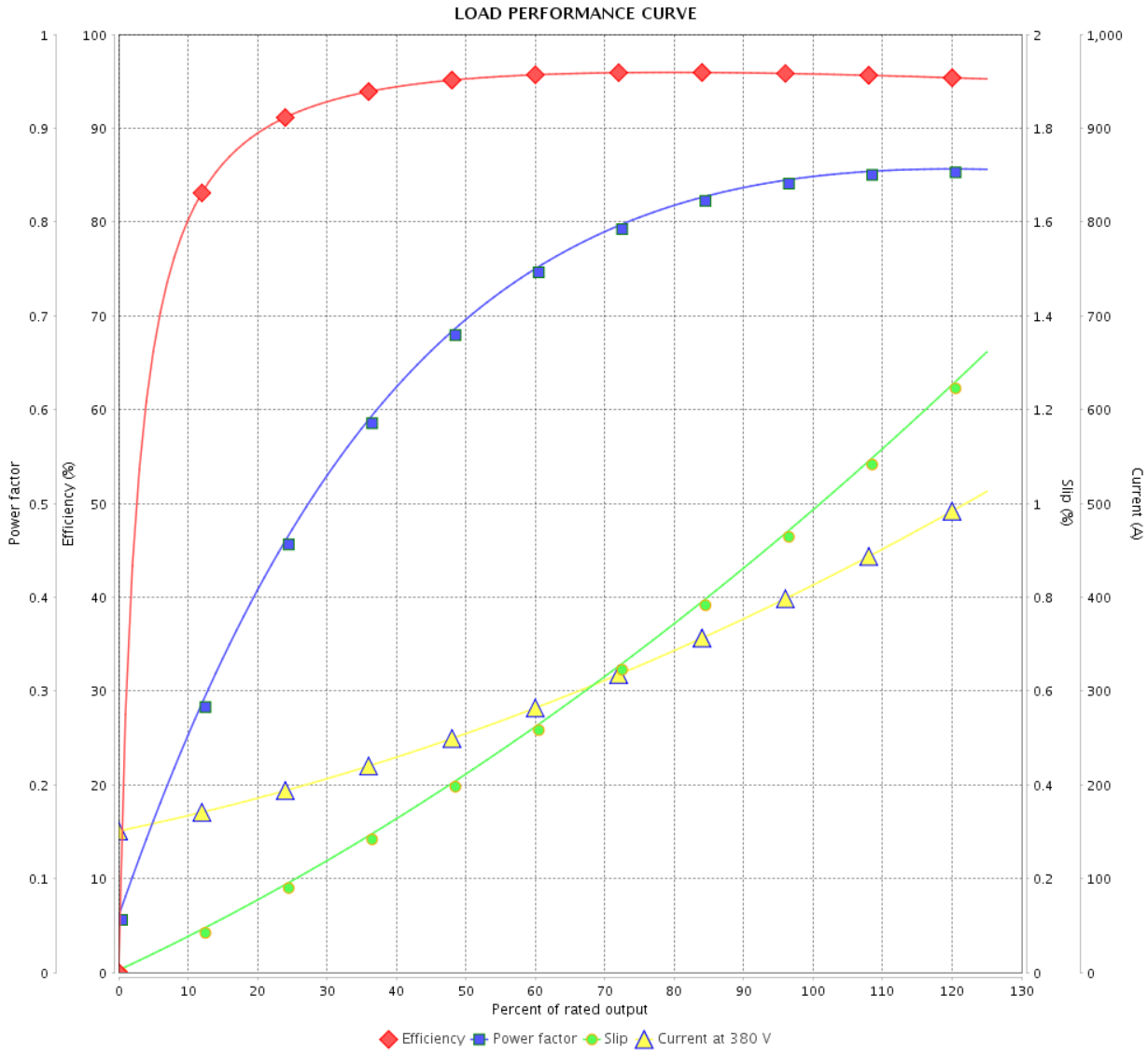


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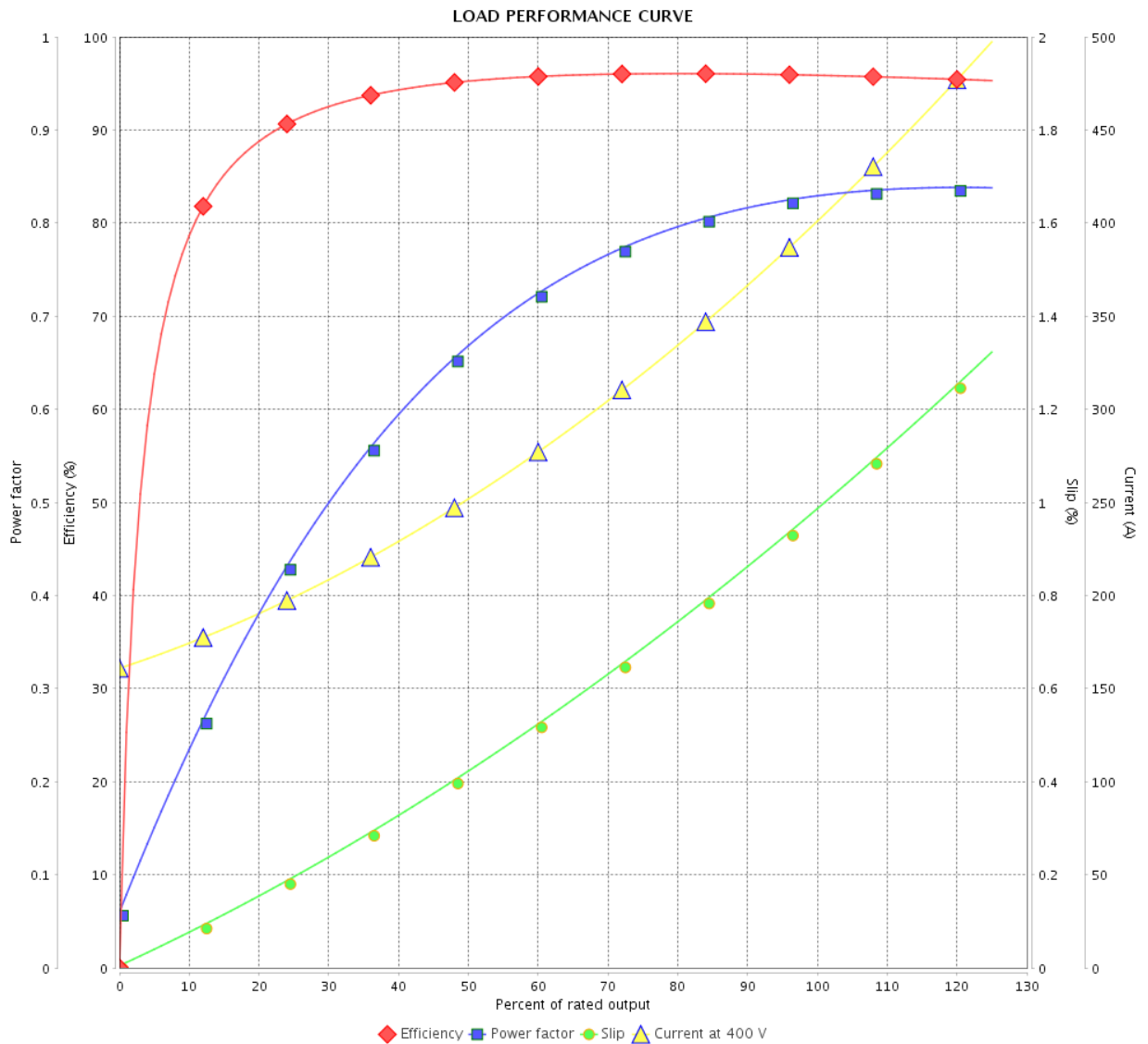


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 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : A

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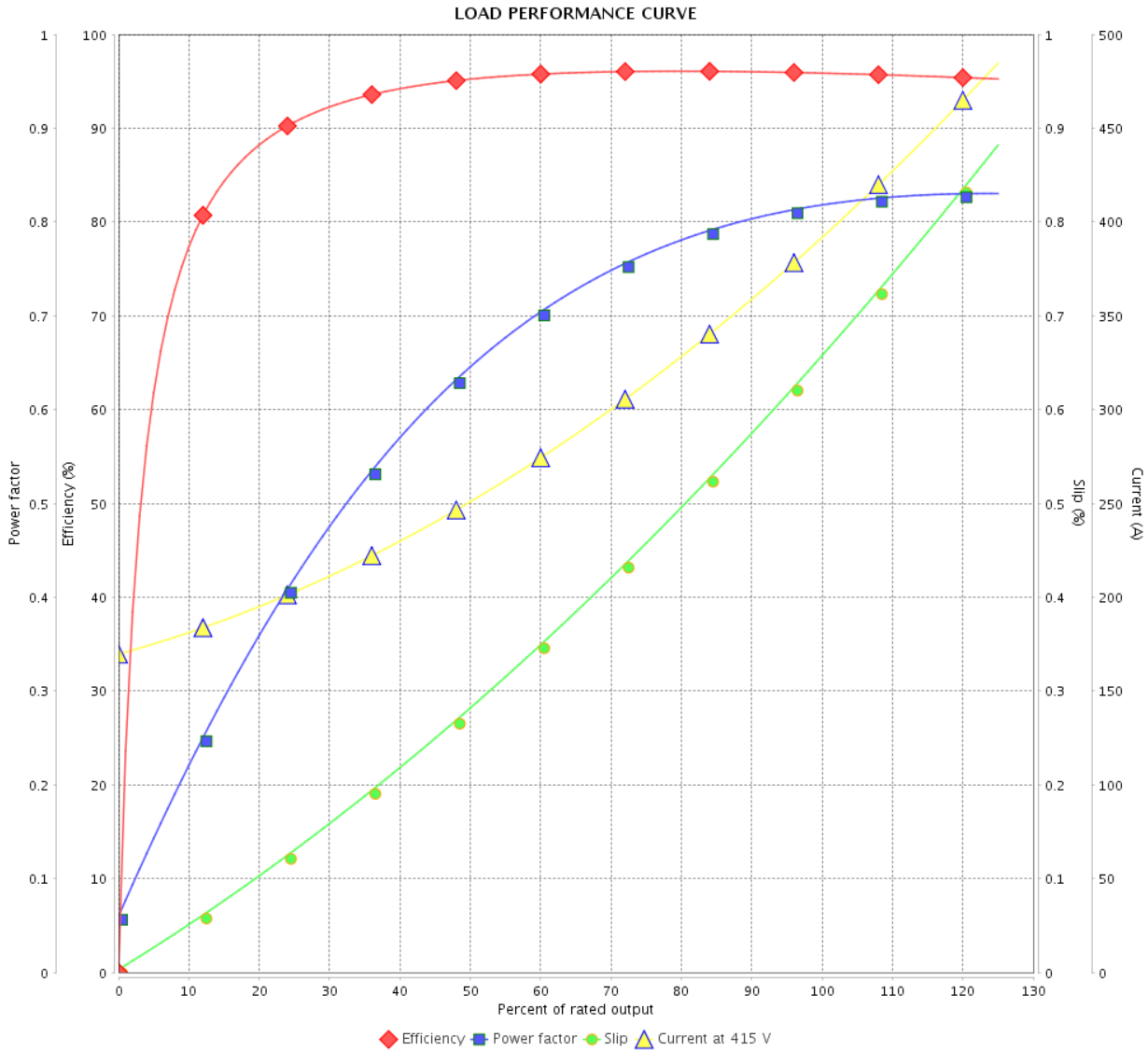


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Rated speed	: 1490 rpm	Design	: A

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THERMAL LIMIT CURVE



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Heating constant

Cooling constant

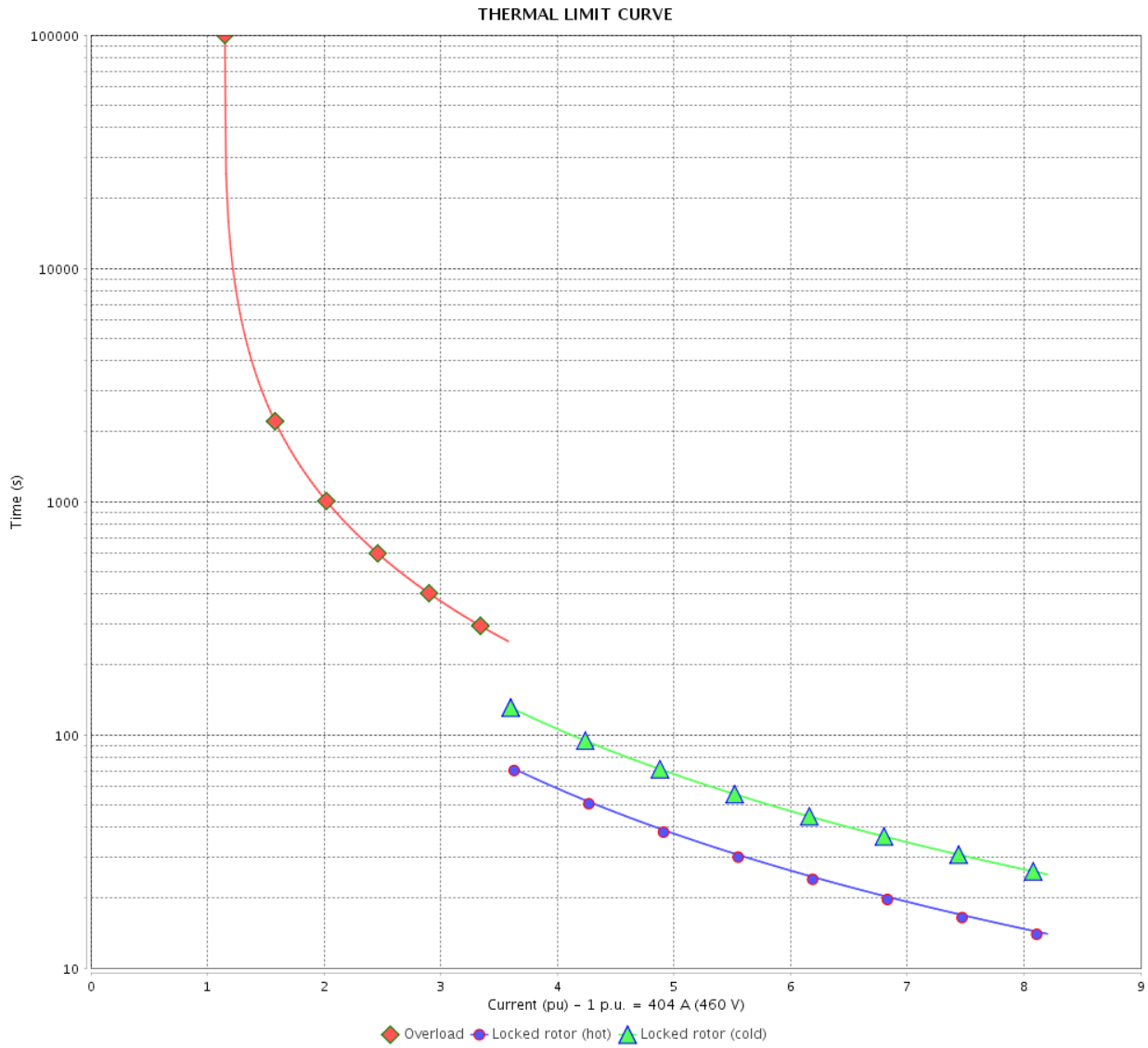
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Cooling constant

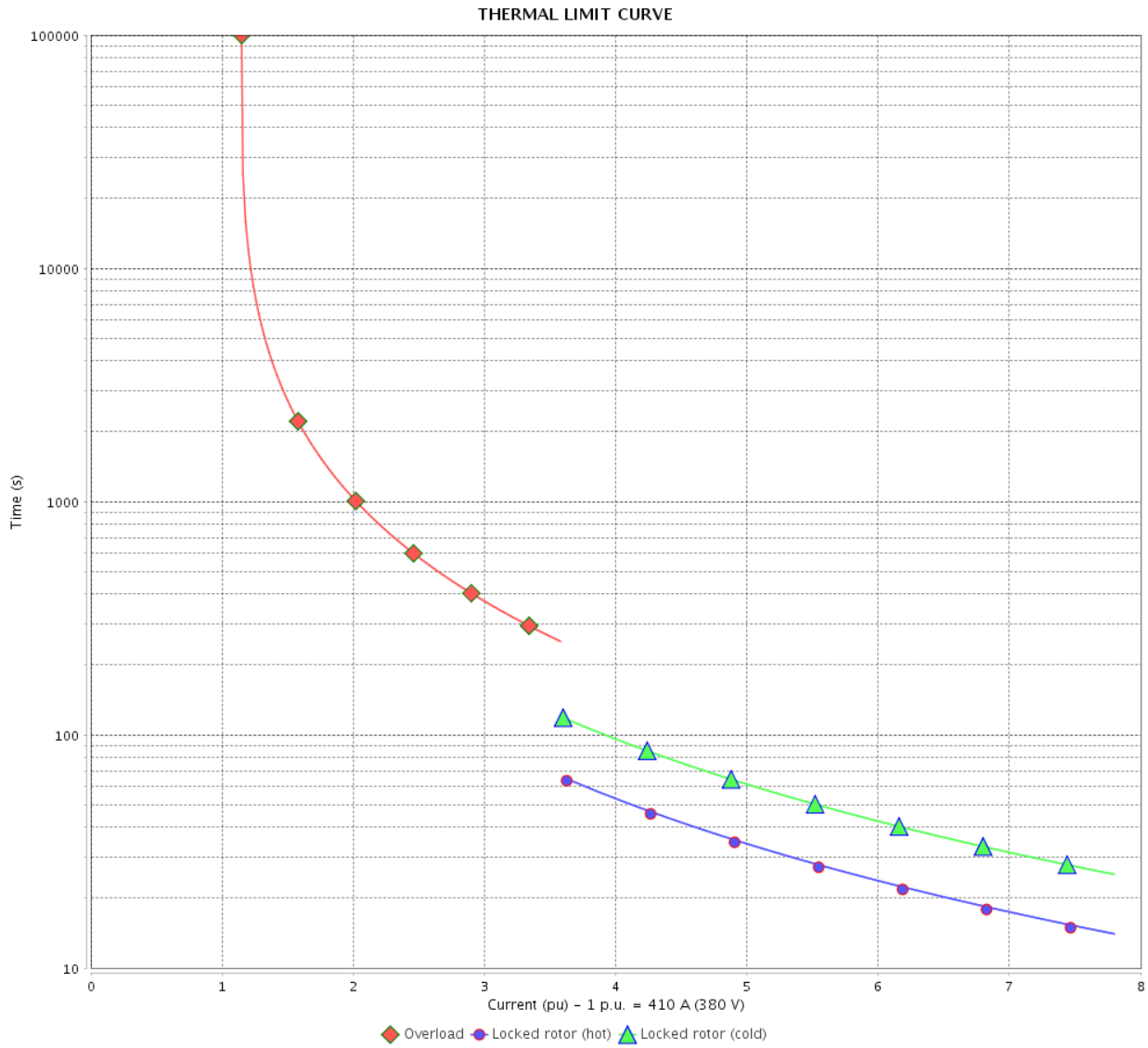
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Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
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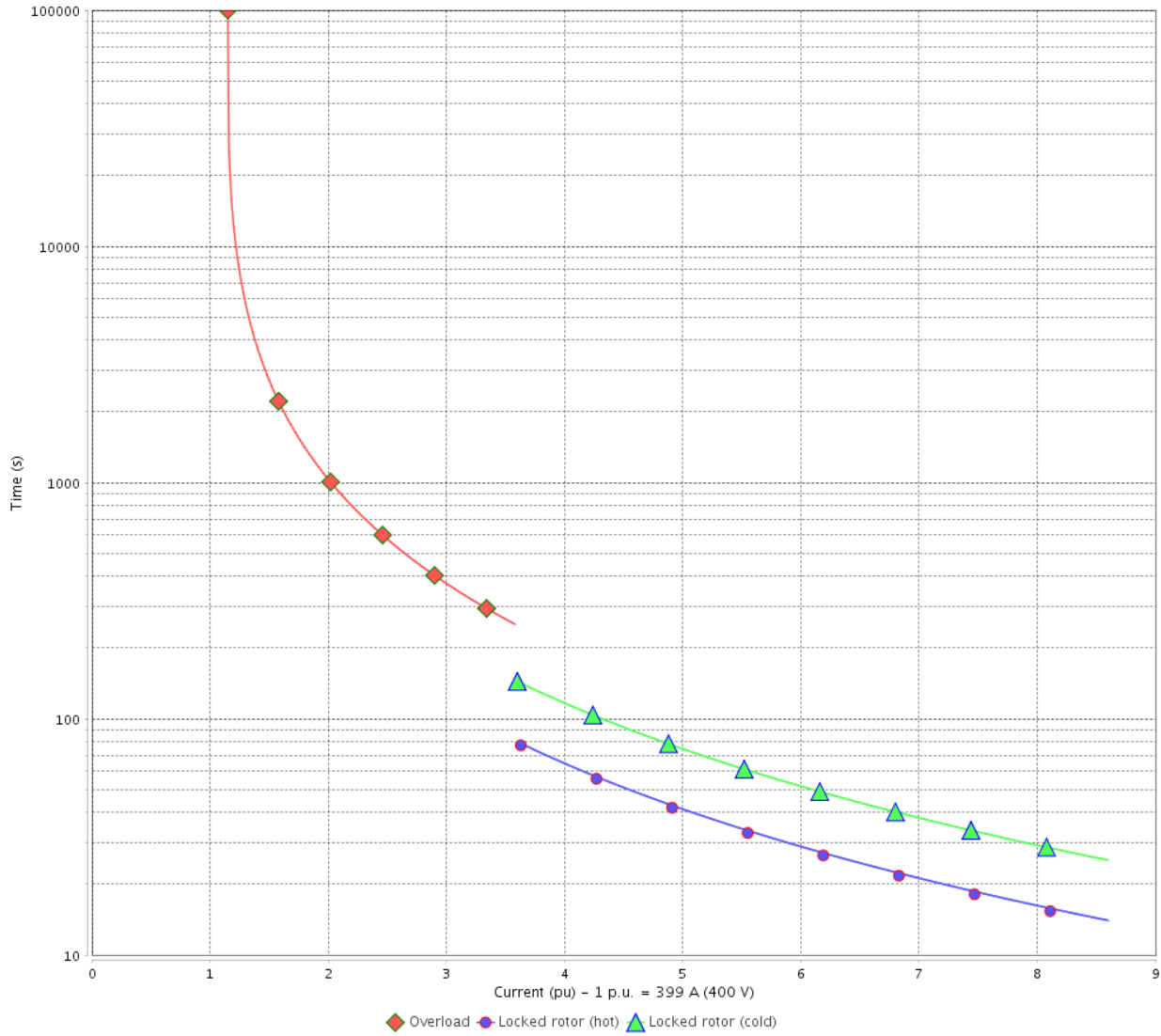
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Rated torque : 1060 ft.lb	Insulation class : F
Locked rotor torque : 310 %	Service factor : 1.00
Breakdown torque : 320 %	Temperature rise : 80 K
Rated speed : 1490 rpm	Design : A

Heating constant

Cooling constant

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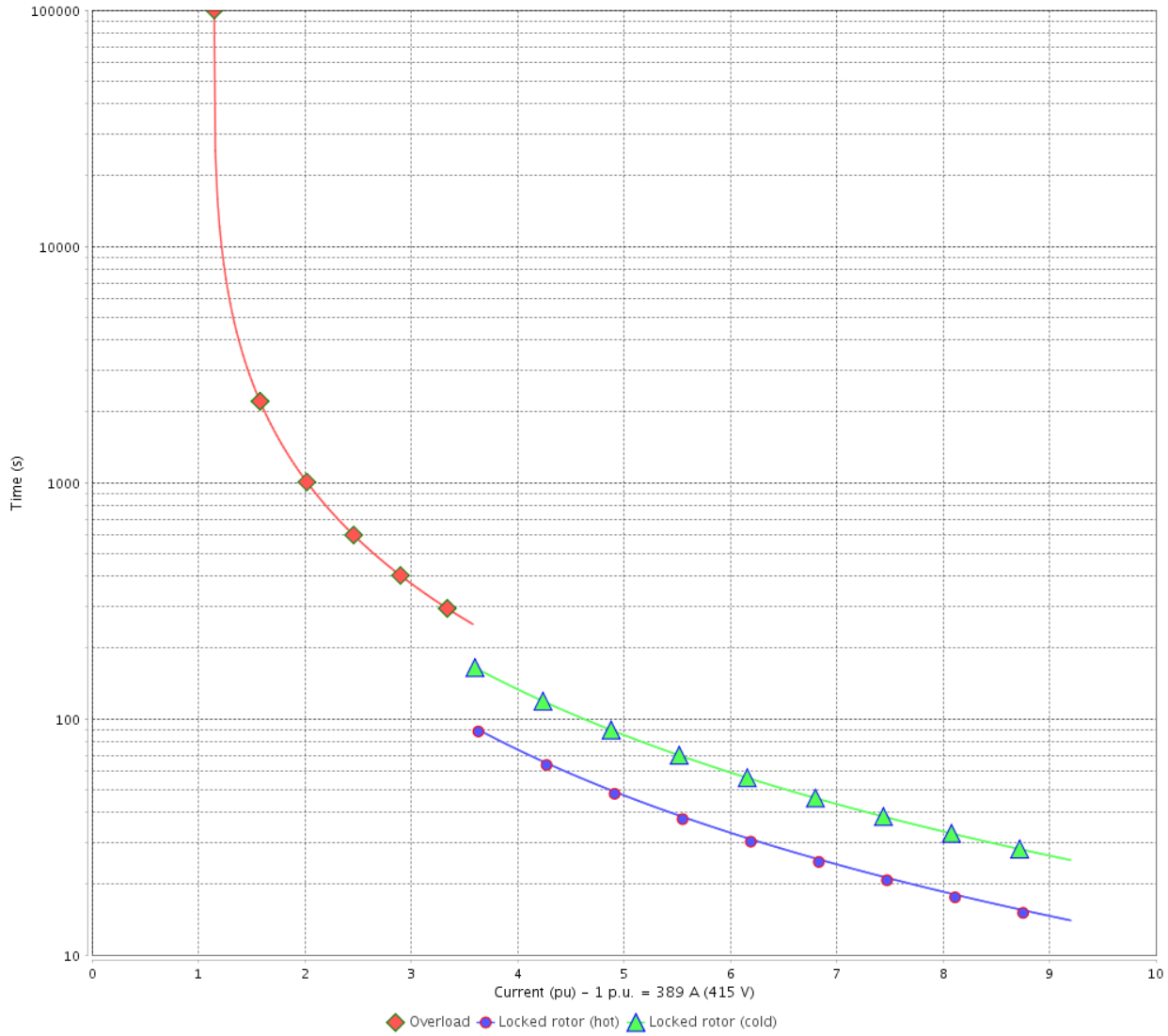
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Date				

VFD OPERATION CURVE

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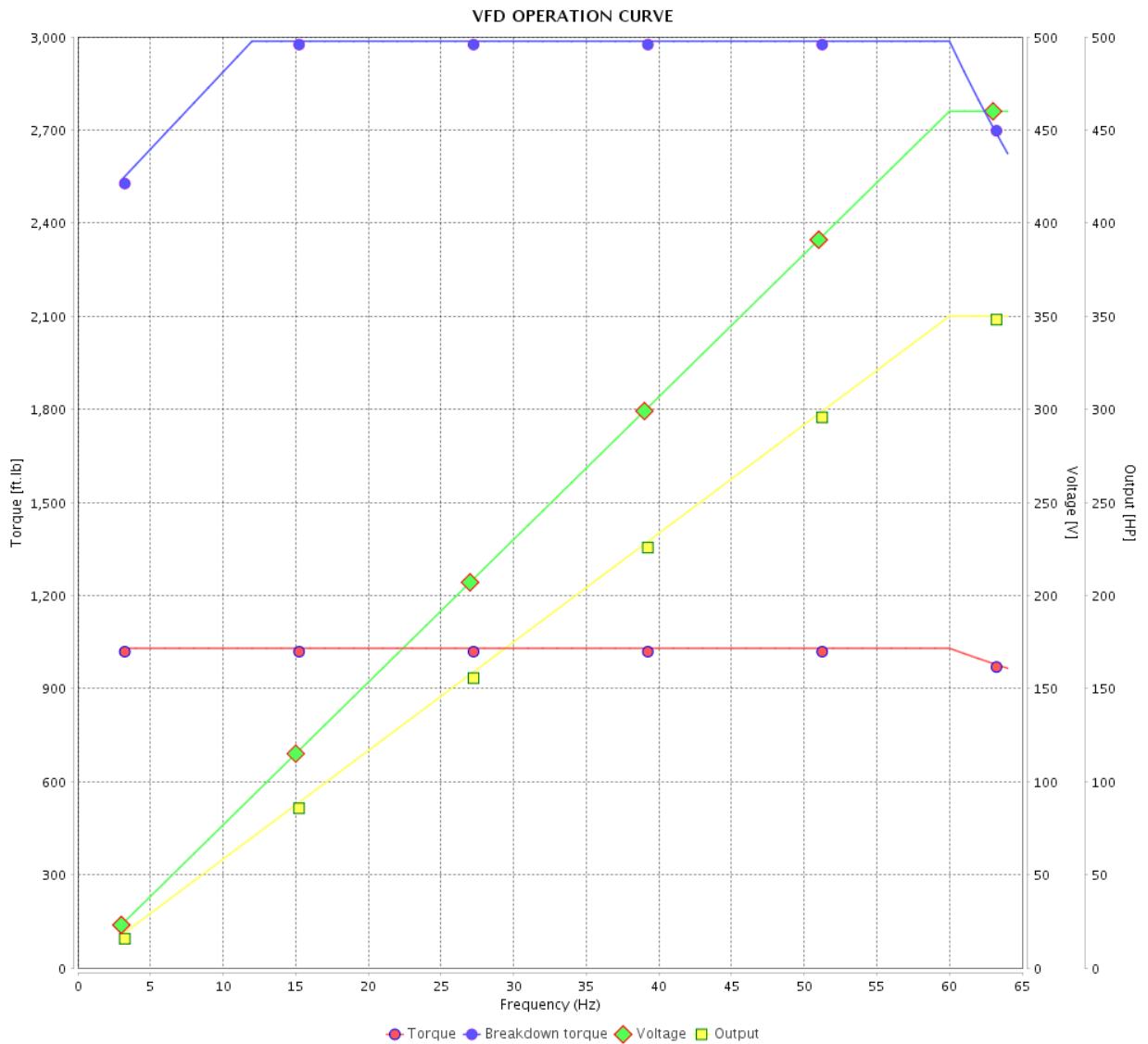


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 Rated speed : 1785 rpm

Moment of inertia (J) : 118 sq.ft.lb
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 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : A

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



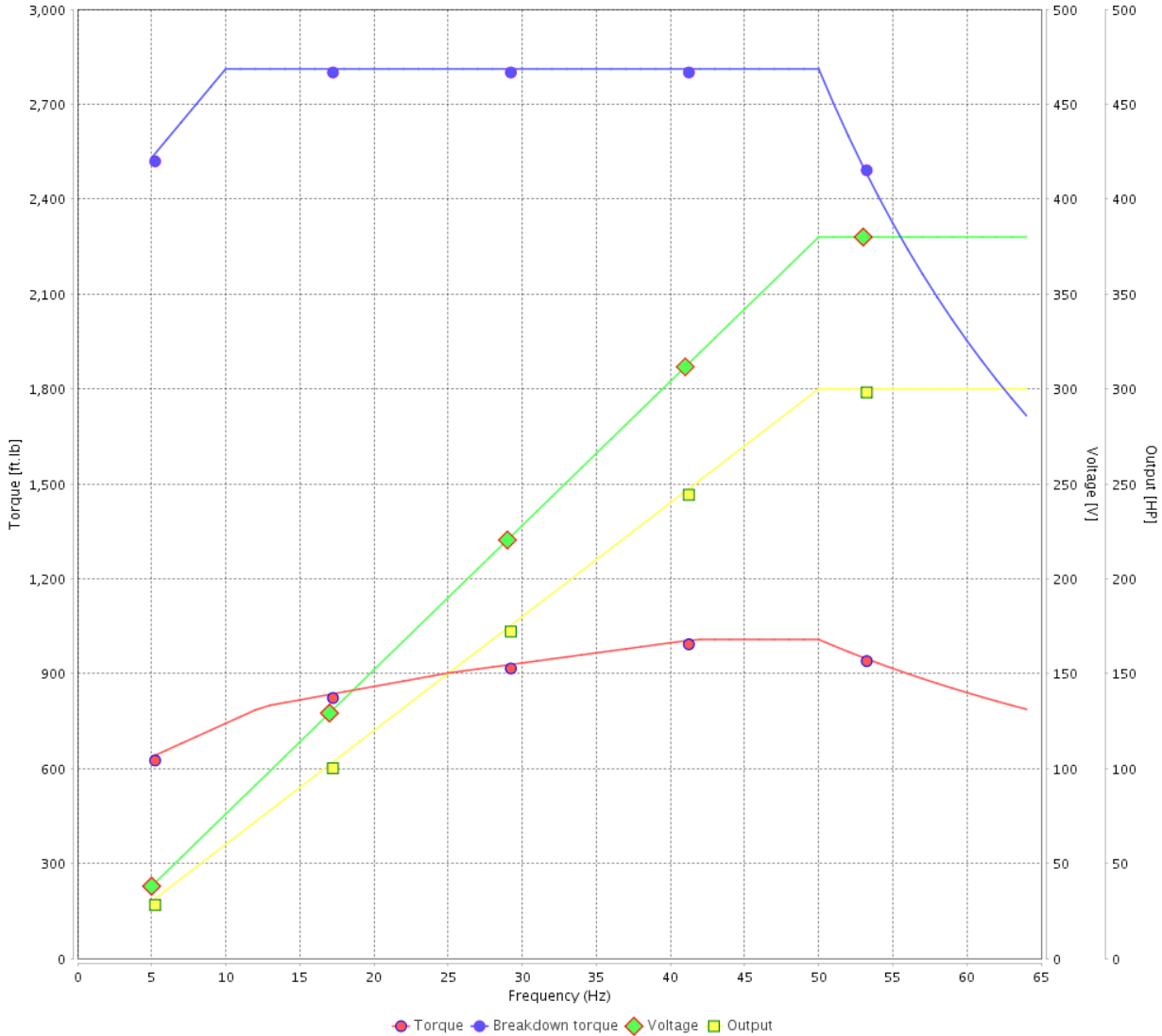
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VFD OPERATION CURVE



Performance : 380 V 50 Hz 4P IE2

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LRC	: 7.8	Duty cycle	: Cont.(S1)
Rated torque	: 1060 ft.lb	Insulation class	: F
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Breakdown torque	: 265 %	Temperature rise	: 80 K
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

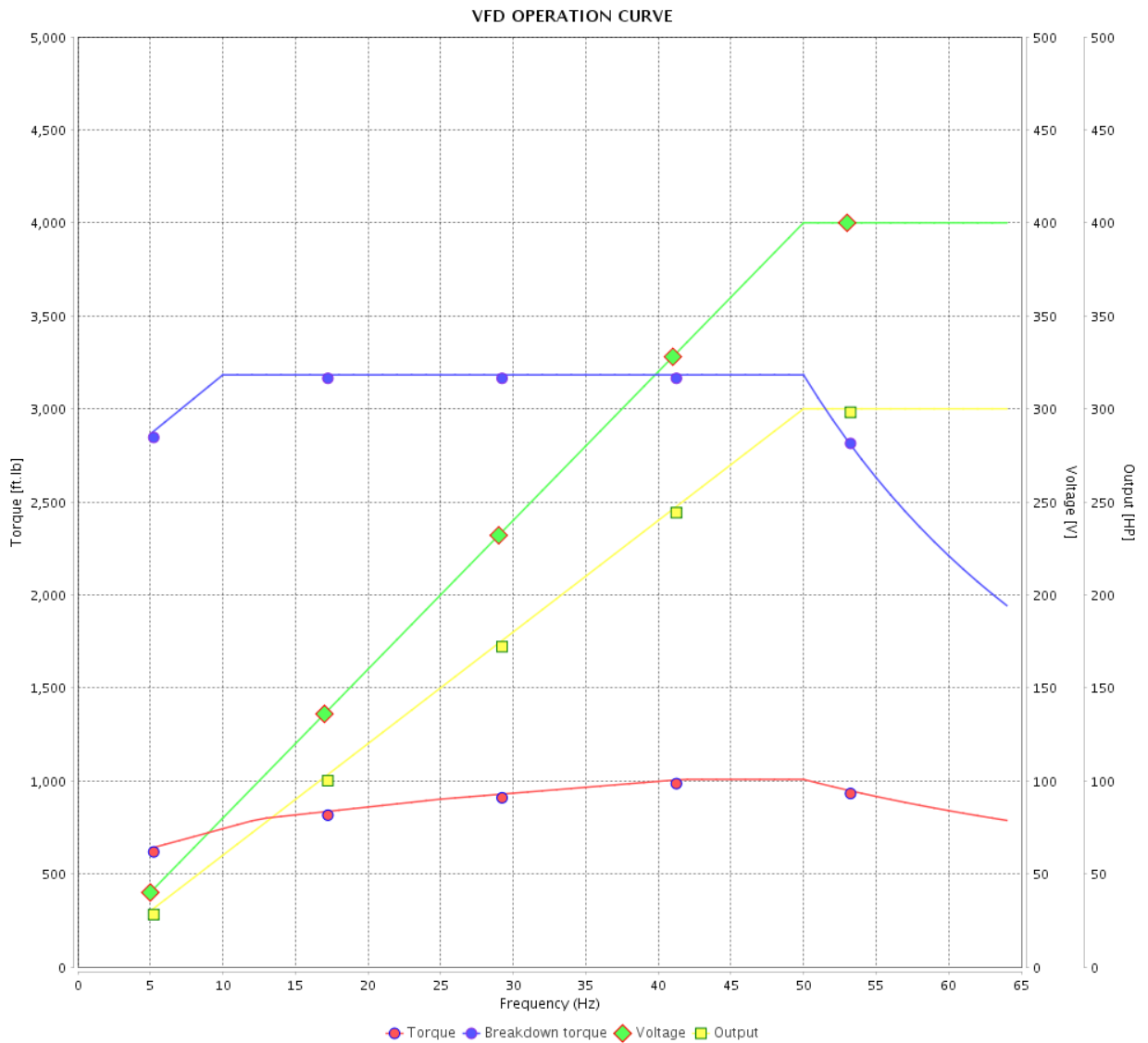


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Product line : NEMA Premium Efficiency Three-Phase

Product code : 12408386

Catalog # : 35018XT3G449T



Performance : 400 V 50 Hz 4P IE2

Rated current : 399 A
 LRC : 8.6
 Rated torque : 1060 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 300 %
 Rated speed : 1485 rpm

Moment of inertia (J) : 118 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : A

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VFD OPERATION CURVE

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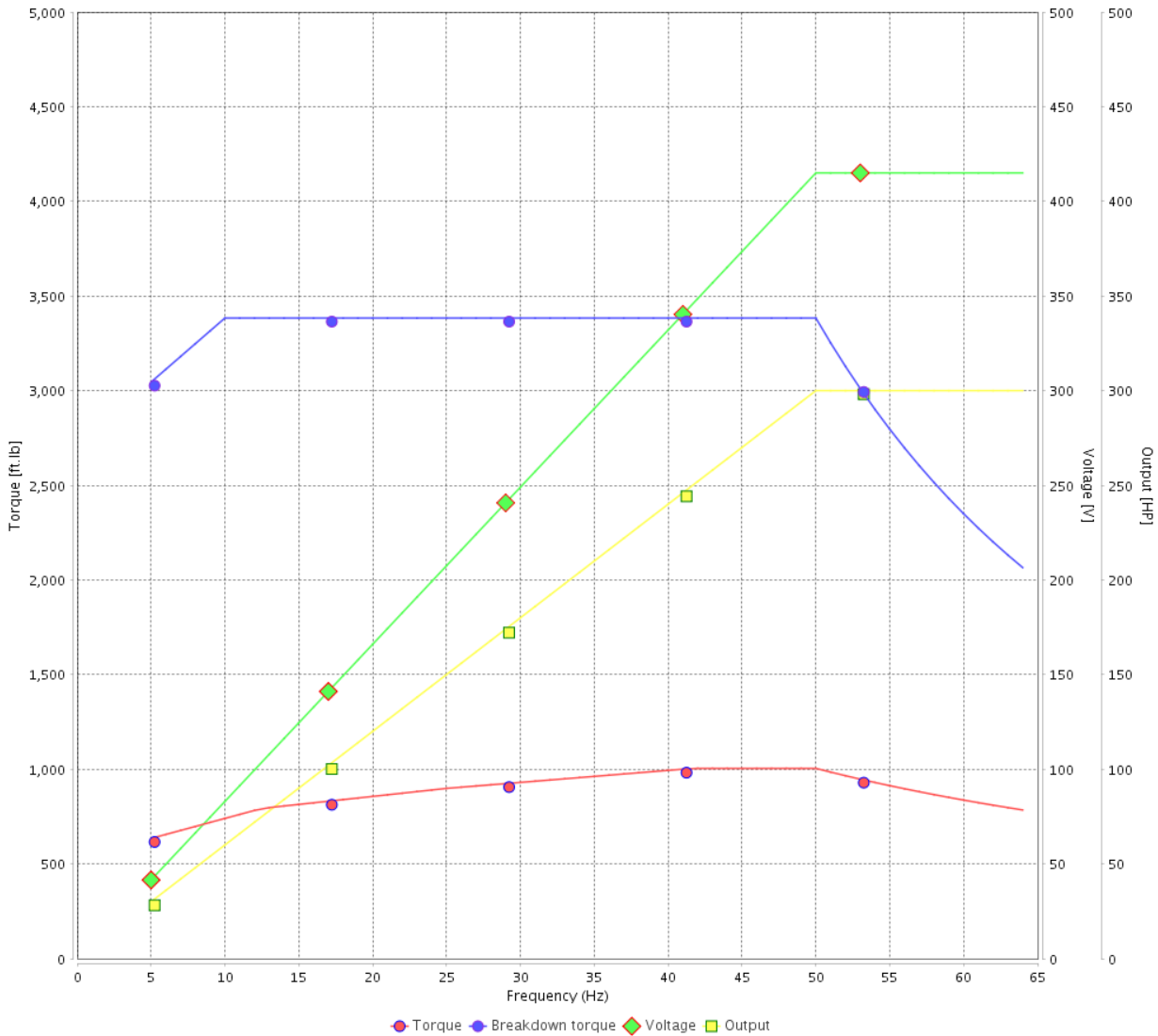
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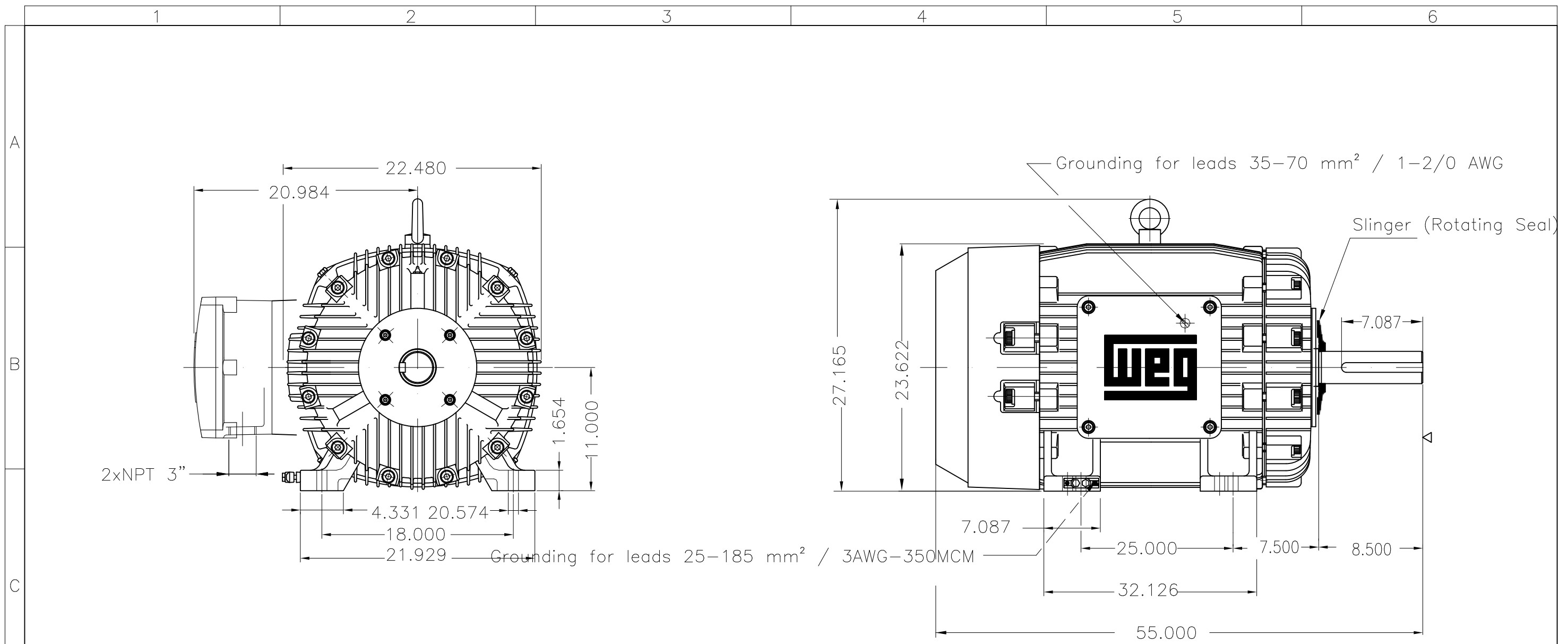
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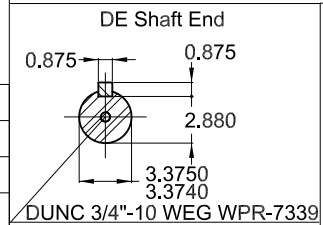


C

D

E

Color RAL 5009
 Painting plan 202P
 Mounting NEMA F-1
 Mounting B3R(D)



350 HP 04 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR EXPLOSION PROOF PREM. EFF.					
CHECKED		FRAME 449T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW
 WDD





W21X NEMA
CC029A Premium

*Inverter Duty Motor
 Severe Duty*



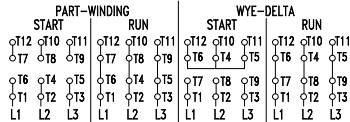
TEMP CODE T3C
 CSA/UL: Class I - Div. 1 - Groups C and D
 CSA: Class II - Div. 1 - Groups F and G
 CSA: Class I - Zone 1 - IIB

EXPLOSION PROOF MOTOR

FOR USE ON VPWM VFD 1000:1VT, 2:1CT, 1.0SF, T3C, AMB 40°C.

MODEL 35018XT3G449T
 MADE IN BRAZIL
 12408386

PH 3	FR 449T	HP(kW) 350(260)	Hz 60
V 460	A 404	RPM 1785	
NEMA NOM. EFF. 96.2%		INS CL F Δ T 80 K	IP55
PF 0.84	DUTY CONT.		CODE J
ENCL. TEFC	SF 1.15	SFA 465	
AMB 40°C	DES A		



→ 6322-C3(60g)
 → 6319-C3(45g)

MOBIL POLYREX EM
 5138 h

ALT 1000 m.a.s.l | 3296 Lbs