

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	12408985		
		Catalog # :	06018XT3E364TC		
Frame	: 364/5TC	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	: 1024 lb		
Protection degree	: IP55	Moment of inertia (J)	: 20.8 sq.ft.lb		
Design	: B				
Output [HP]	60	50	50	50	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	137/68.3	69.0	66.0	64.8	
L. R. Amperes [A]	956/478	449	482	505	
LRC [A]	7.0x(Code H)	6.5x(Code G)	7.3x(Code H)	7.8x(Code J)	
No load current [A]	44.0/22.0	21.7	23.5	24.9	
Rated speed [RPM]	1780	1480	1480	1480	
Slip [%]	1.11	1.33	1.33	1.33	
Rated torque [ft.lb]	177	177	177	177	
Locked rotor torque [%]	250	210	250	270	
Breakdown torque [%]	250	229	260	290	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	36s (cold) 20s (hot)	39s (cold) 22s (hot)	39s (cold) 22s (hot)	39s (cold) 22s (hot)	
Noise level ²	75.0 dB(A)	70.0 dB(A)	70.0 dB(A)	70.0 dB(A)	
Efficiency (%)	25%	93.5	94.5	93.5	93.1
	50%	94.1	94.1	93.6	93.6
	75%	94.5	94.1	94.1	94.1
	100%	95.0	93.6	94.1	94.5
Power Factor	25%	0.48	0.49	0.45	0.43
	50%	0.72	0.72	0.69	0.66
	75%	0.82	0.82	0.80	0.78
	100%	0.87	0.87	0.86	0.84
Bearing type	: <u>Drive end</u> 6314 C3 <u>Non drive end</u> 6314 C3	Foundation loads			
Sealing	: Oil Seal Lip Seal	Max. traction	: 1251 lb		
Lubrication interval	: 9789 h 9789 h	Max. compression	: 2275 lb		
Lubricant amount	: 27 g 27 g				
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 151A SF 1.00 SFA 151A					
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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Three Phase Induction Motor - Squirrel Cage



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



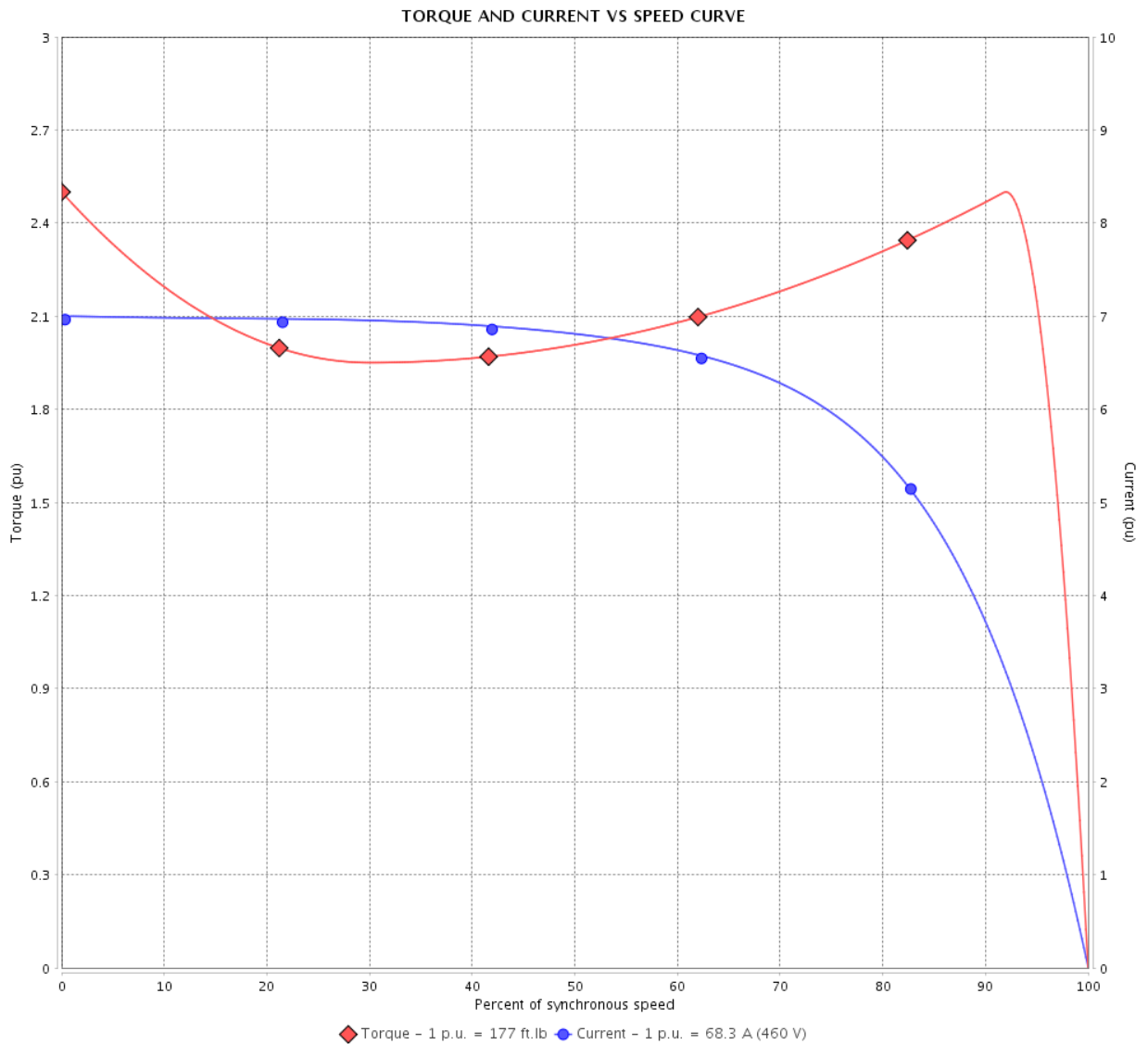
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12408985

Catalog # : 06018XT3E364TC



Performance : 230/460 V 60 Hz 4P

Rated current : 137/68.3 A
 LRC : 7.0
 Rated torque : 177 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 250 %
 Rated speed : 1780 rpm

Moment of inertia (J) : 20.8 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Locked rotor time : 36s (cold) 20s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



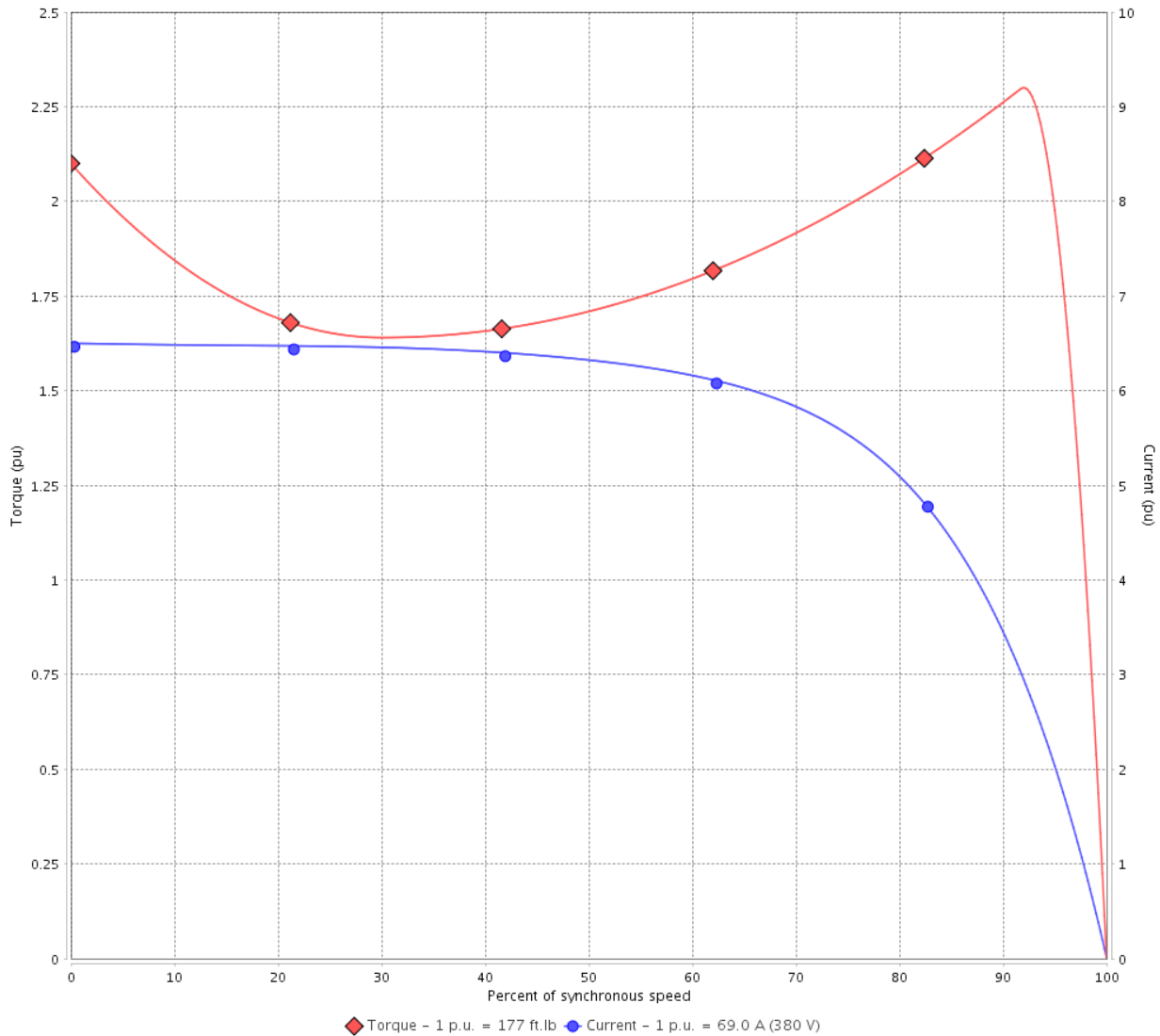
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12408985

Catalog # : 06018XT3E364TC

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 4P IE2

Rated current	: 69.0 A	Moment of inertia (J)	: 20.8 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

Locked rotor time : 39s (cold) 22s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



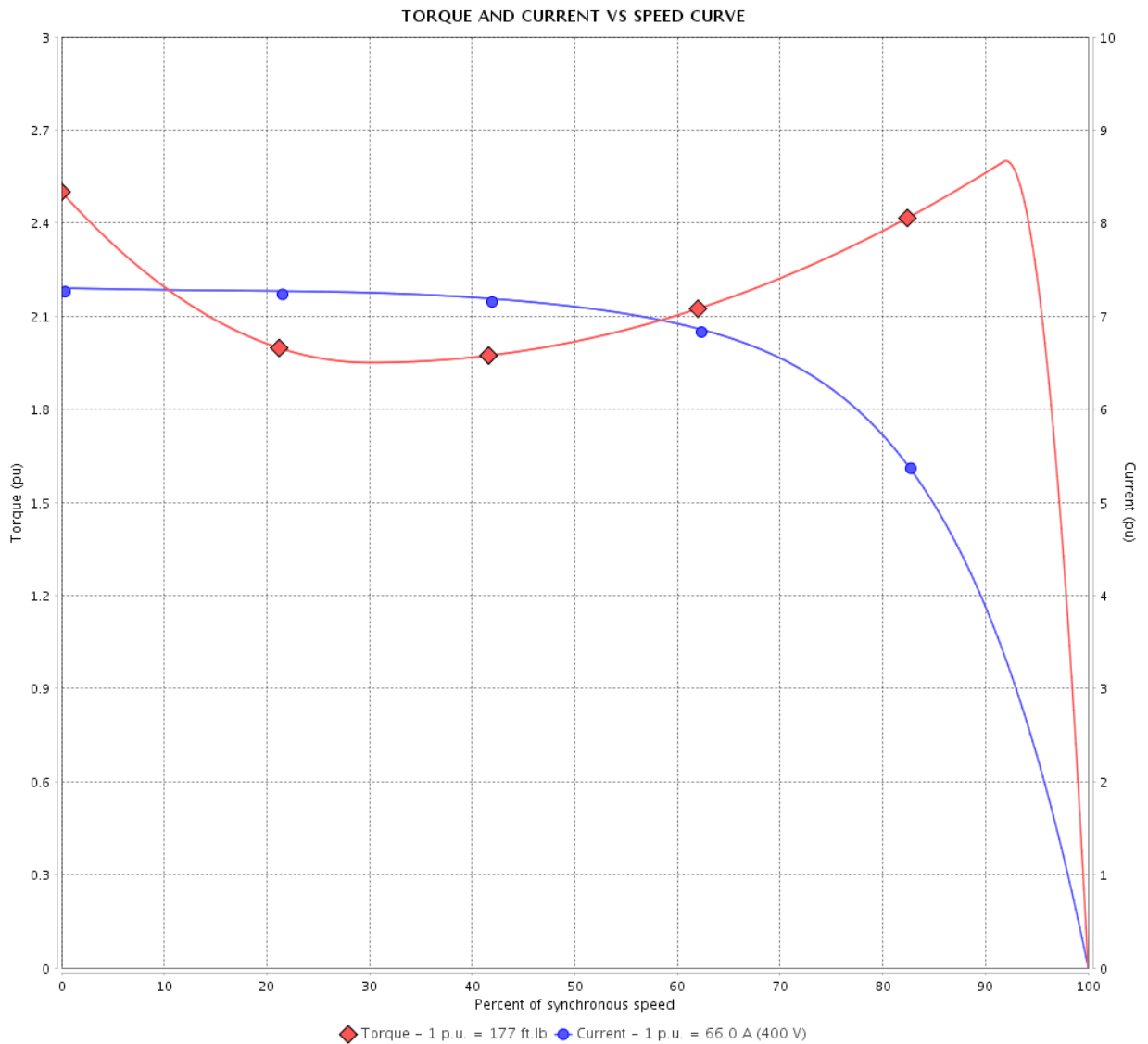
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12408985

Catalog # : 06018XT3E364TC



Performance : 400 V 50 Hz 4P IE3

Rated current : 66.0 A
 LRC : 7.3
 Rated torque : 177 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 260 %
 Rated speed : 1480 rpm

Moment of inertia (J) : 20.8 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Locked rotor time : 39s (cold) 22s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



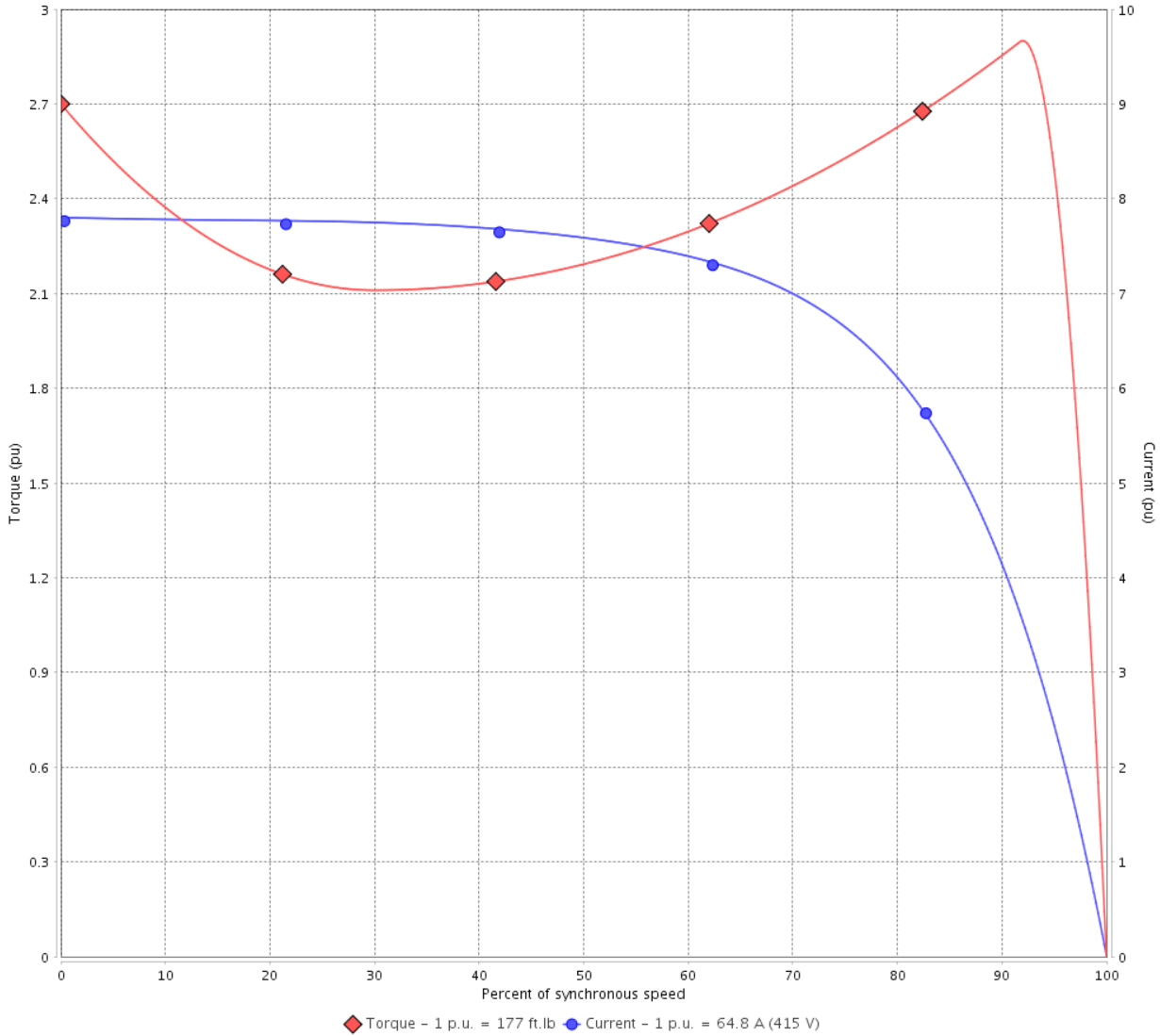
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Catalog # : 06018XT3E364TC

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 4P IE3

Rated current	: 64.8 A	Moment of inertia (J)	: 20.8 sq.ft.lb
LRC	: 7.8	Duty cycle	: Cont.(S1)
Rated torque	: 177 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

Locked rotor time : 39s (cold) 22s (hot)

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LOAD PERFORMANCE CURVE

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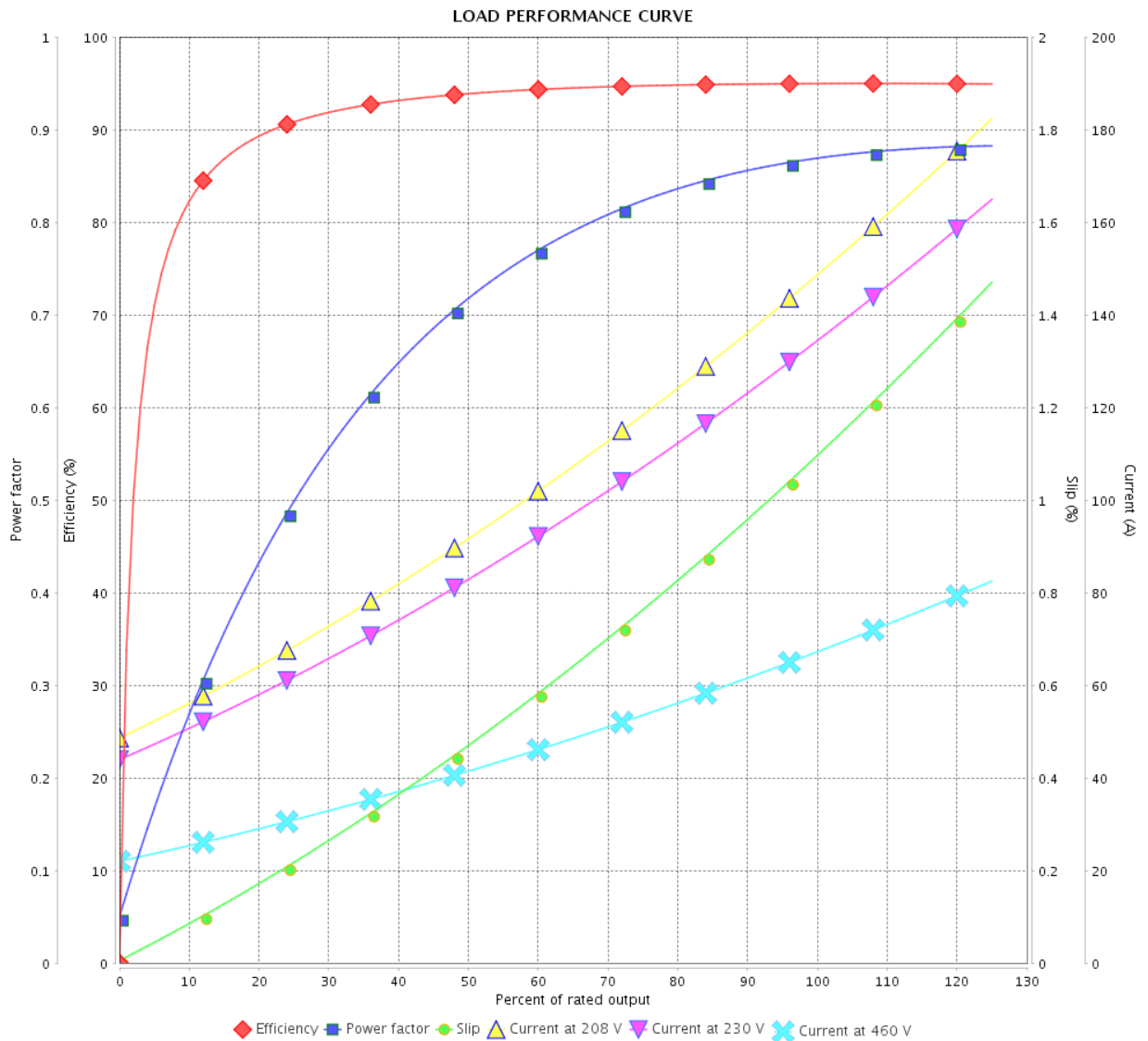


Customer :

Product line : NEMA Premium Efficiency Three-Phase

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Performance : 230/460 V 60 Hz 4P

Rated current : 137/68.3 A
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 Rated speed : 1780 rpm

Moment of inertia (J) : 20.8 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
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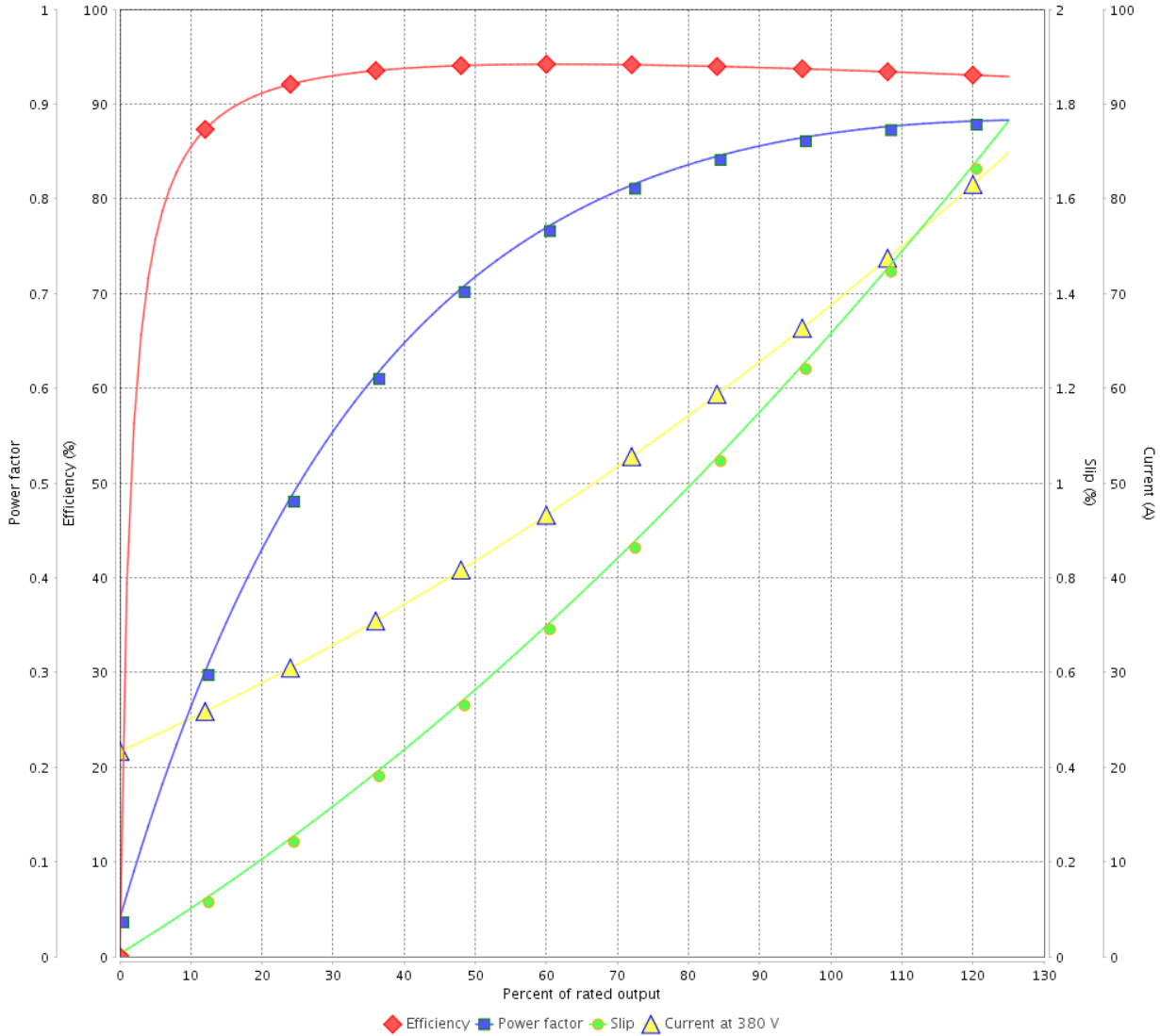
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 Rated speed : 1480 rpm

Moment of inertia (J) : 20.8 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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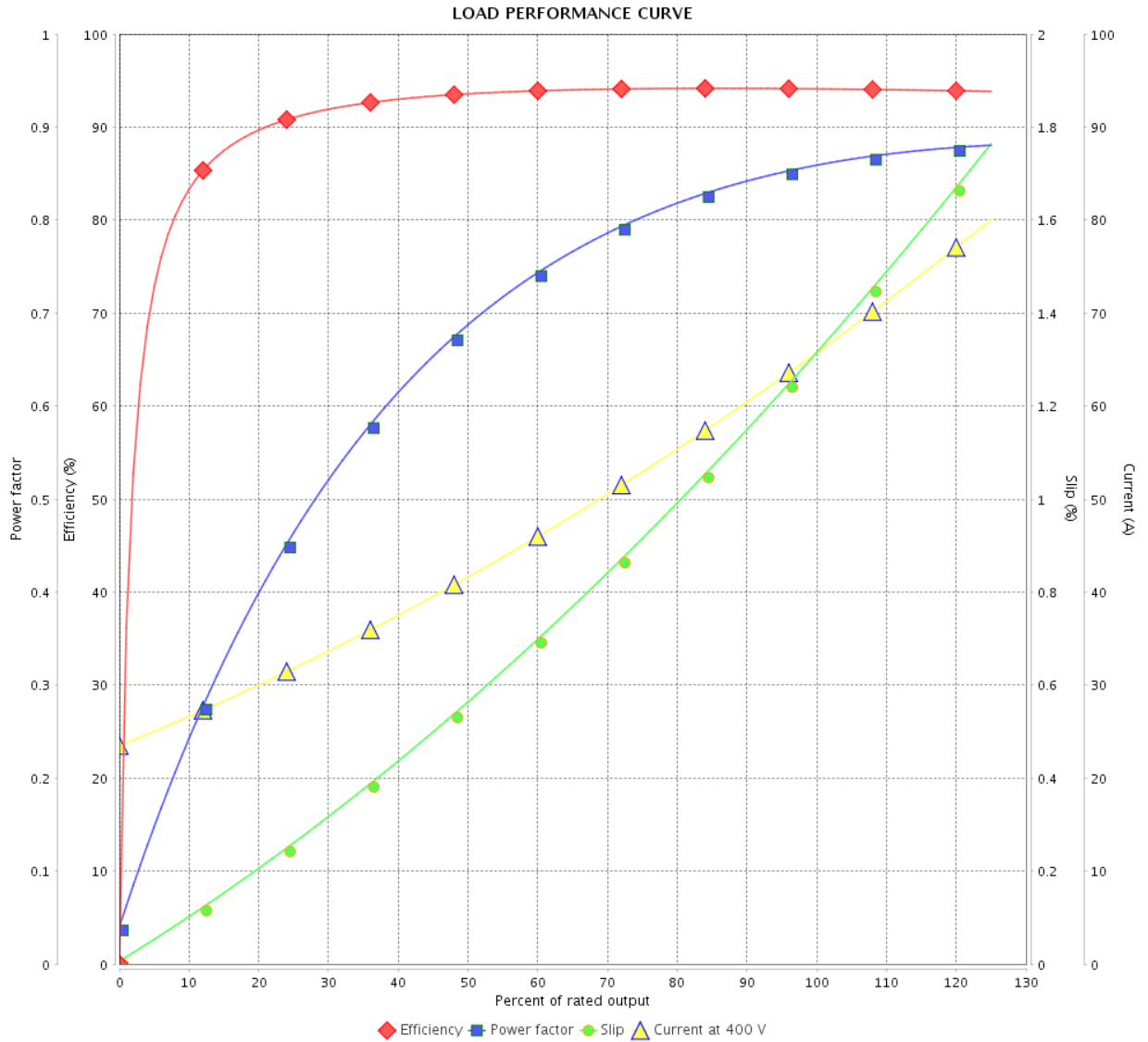


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Performance : 400 V 50 Hz 4P IE3

Rated current : 66.0 A
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 Rated torque : 177 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 260 %
 Rated speed : 1480 rpm

Moment of inertia (J) : 20.8 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
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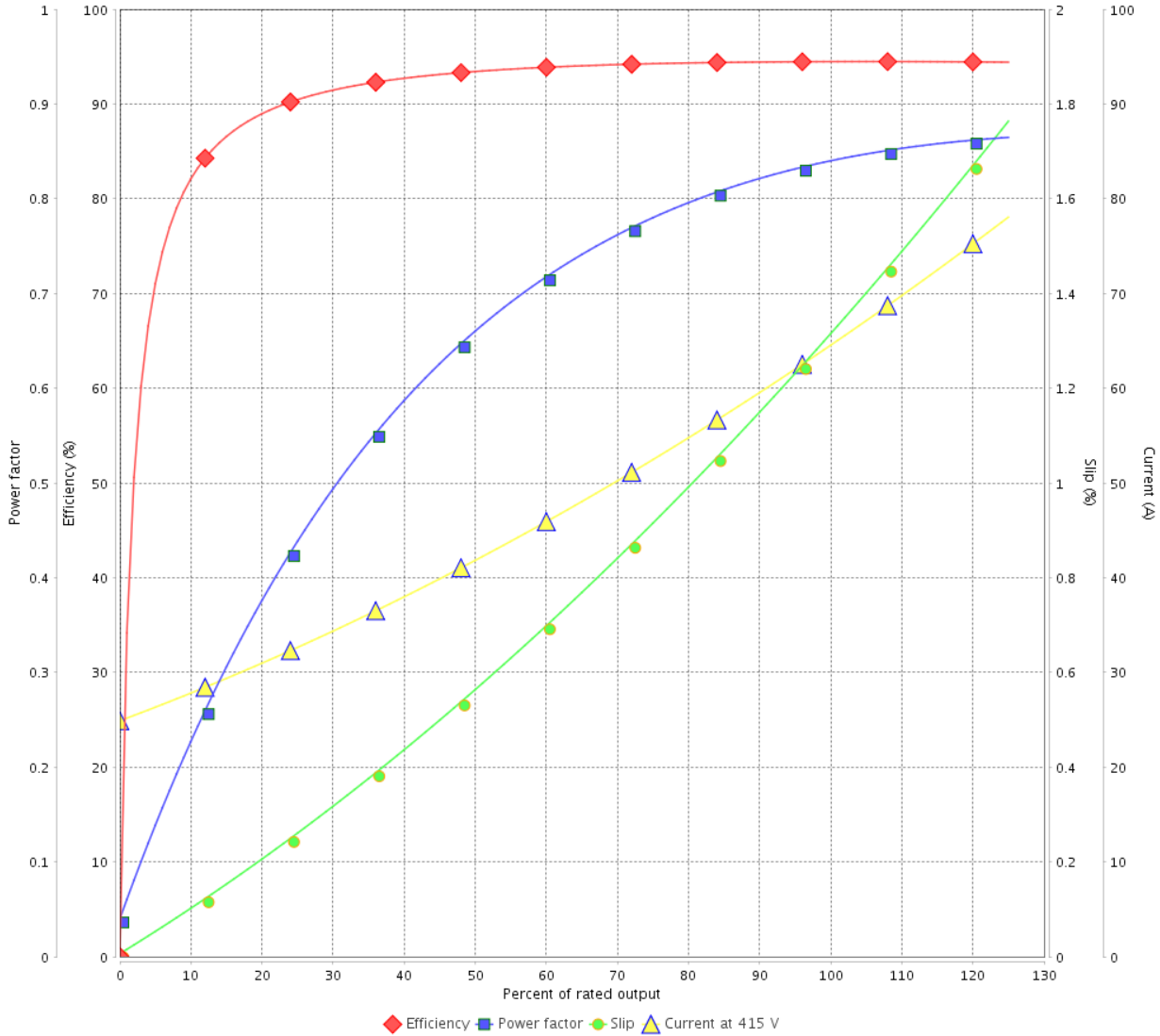
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 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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THERMAL LIMIT CURVE



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 Temperature rise : 80 K
 Design : B

Heating constant

Cooling constant

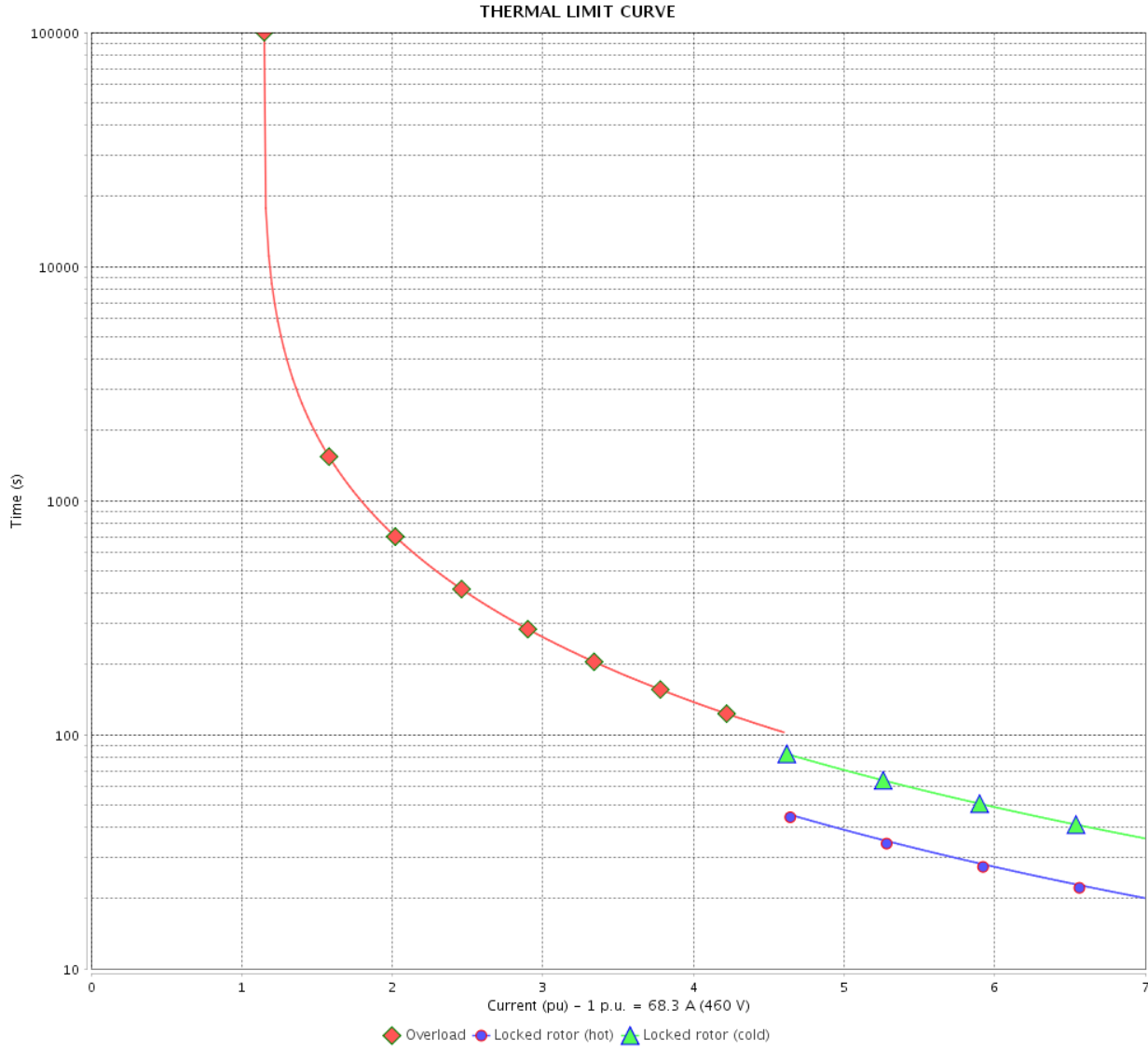
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THERMAL LIMIT CURVE

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Locked rotor torque : 210 %	Service factor : 1.00
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Rated speed : 1480 rpm	Design : B

Heating constant

Cooling constant

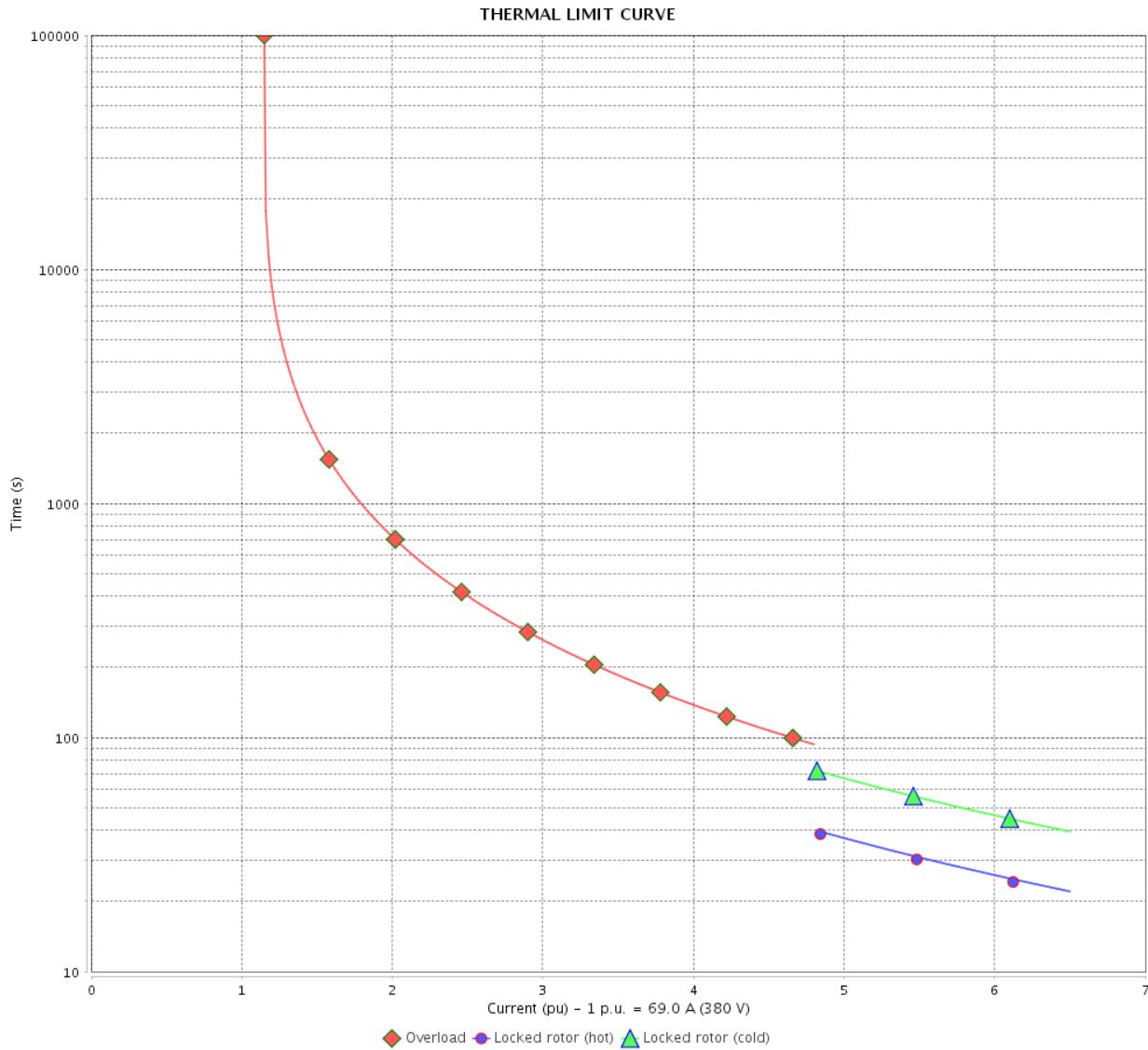
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Rated current : 66.0 A	Moment of inertia (J) : 20.8 sq.ft.lb
LRC : 7.3	Duty cycle : Cont.(S1)
Rated torque : 177 ft.lb	Insulation class : F
Locked rotor torque : 250 %	Service factor : 1.00
Breakdown torque : 260 %	Temperature rise : 80 K
Rated speed : 1480 rpm	Design : B

Heating constant

Cooling constant

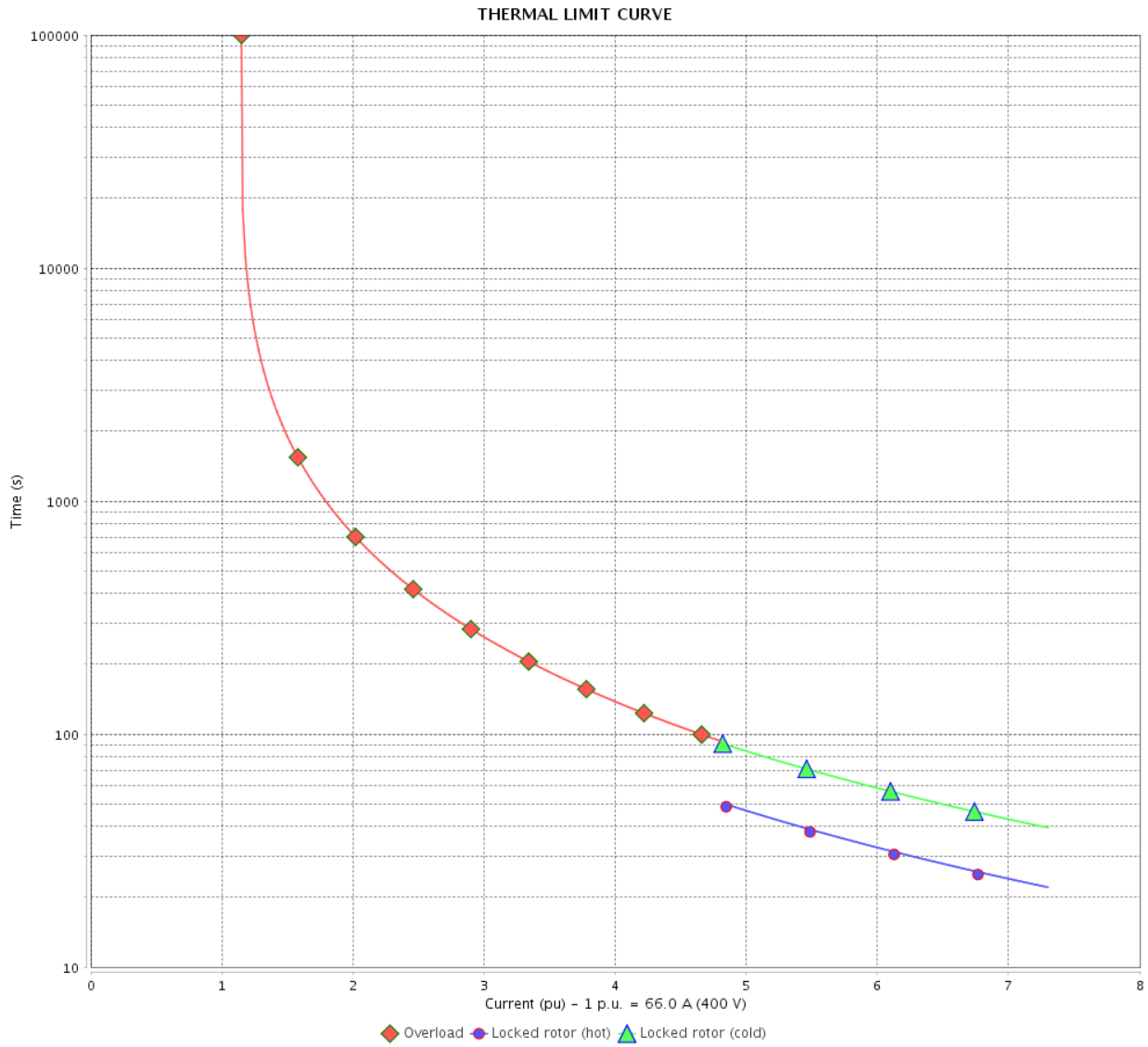
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Customer : _____



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Locked rotor torque : 270 %	Service factor : 1.00
Breakdown torque : 290 %	Temperature rise : 80 K
Rated speed : 1480 rpm	Design : B

Heating constant

Cooling constant

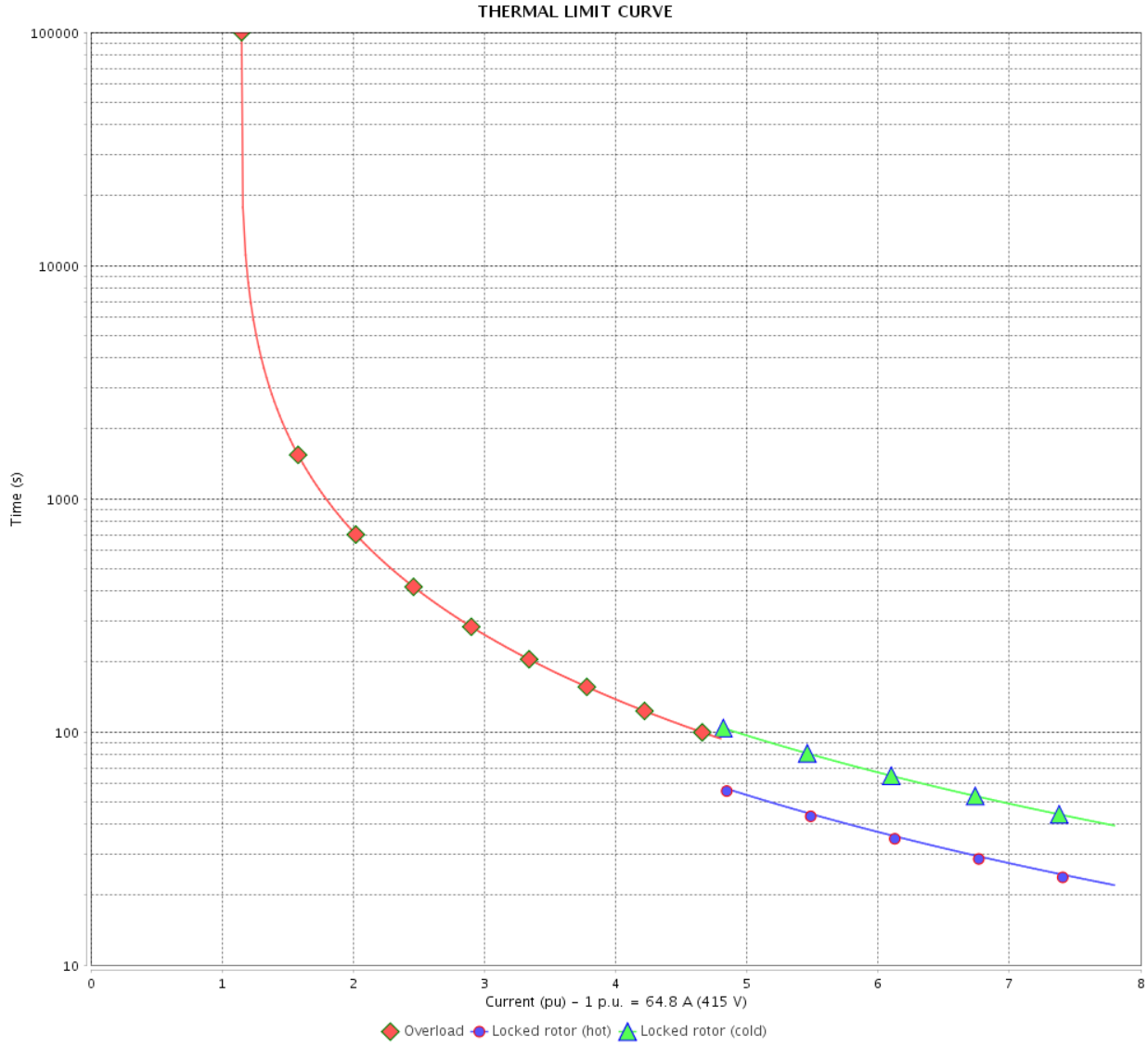
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THERMAL LIMIT CURVE

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

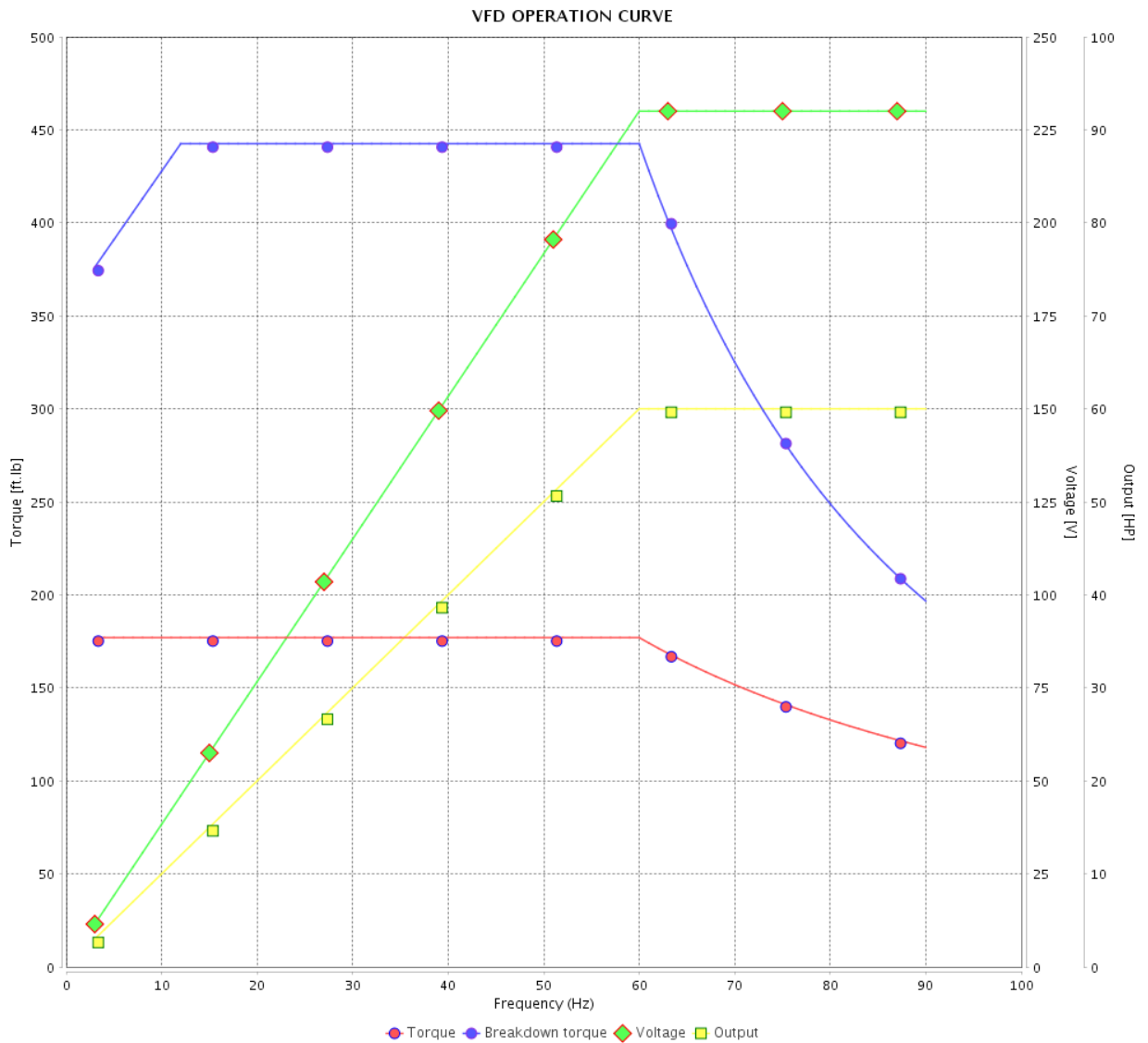


Customer :

Product line : NEMA Premium Efficiency Three-Phase

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Performance : 230/460 V 60 Hz 4P

Rated current : 137/68.3 A
 LRC : 7.0
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 Breakdown torque : 250 %
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 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



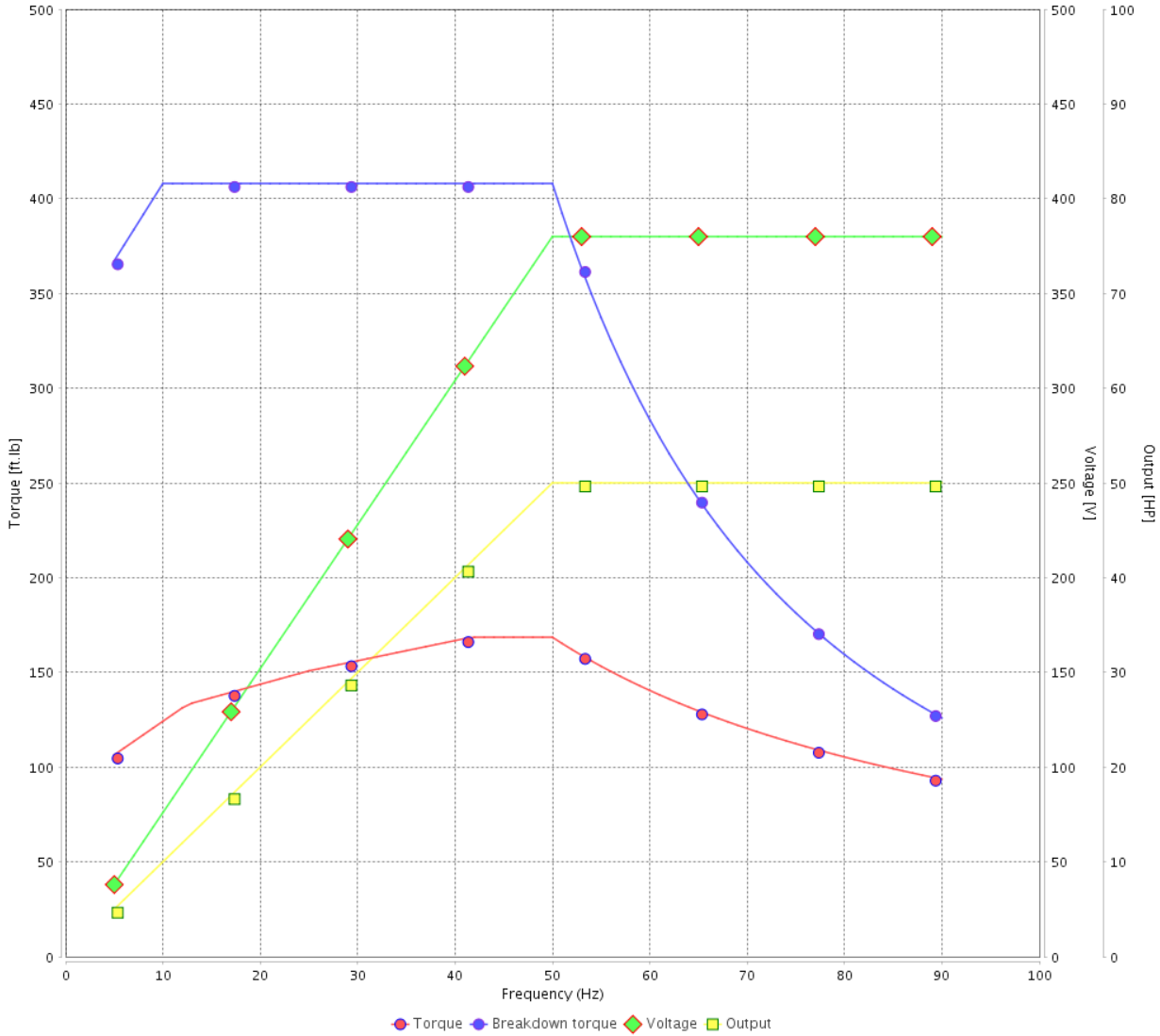
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VFD OPERATION CURVE



Performance : 380 V 50 Hz 4P IE2

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 Rated speed : 1480 rpm

Moment of inertia (J) : 20.8 sq.ft.lb
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 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

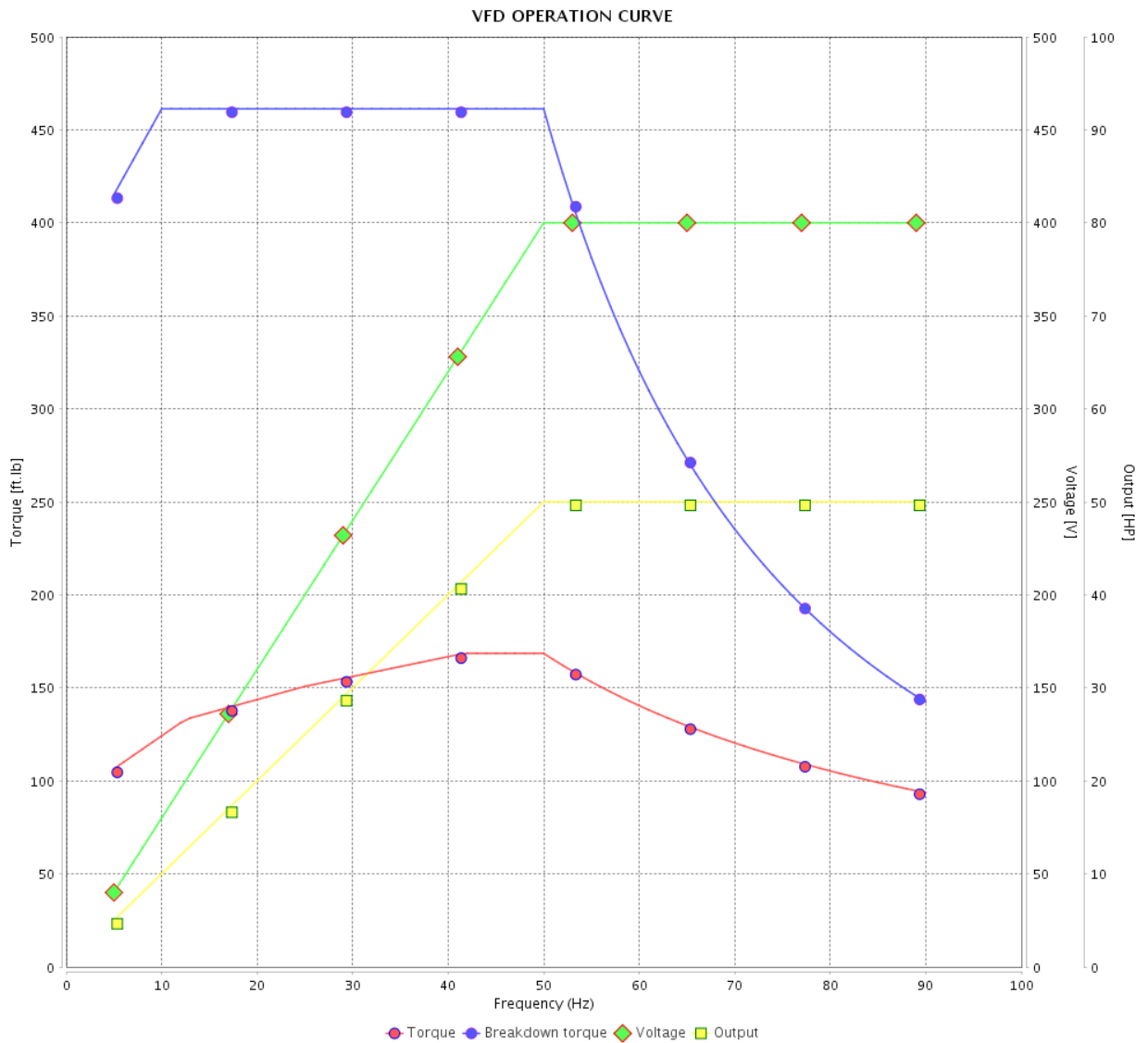


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Performance : 400 V 50 Hz 4P IE3

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VFD OPERATION CURVE

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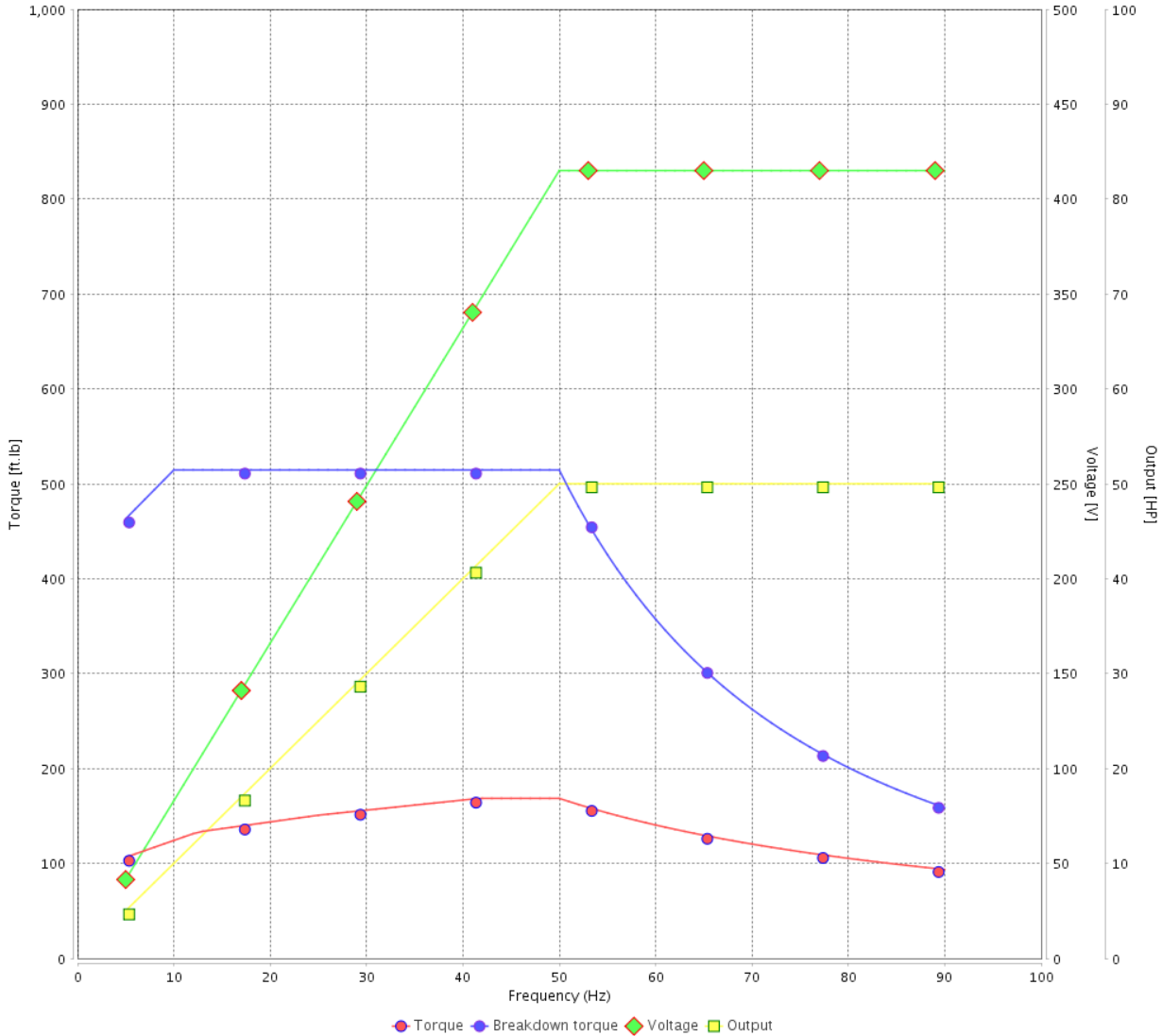
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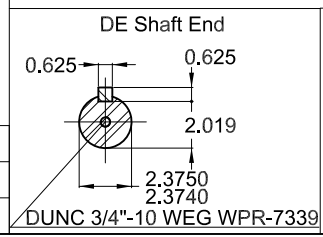
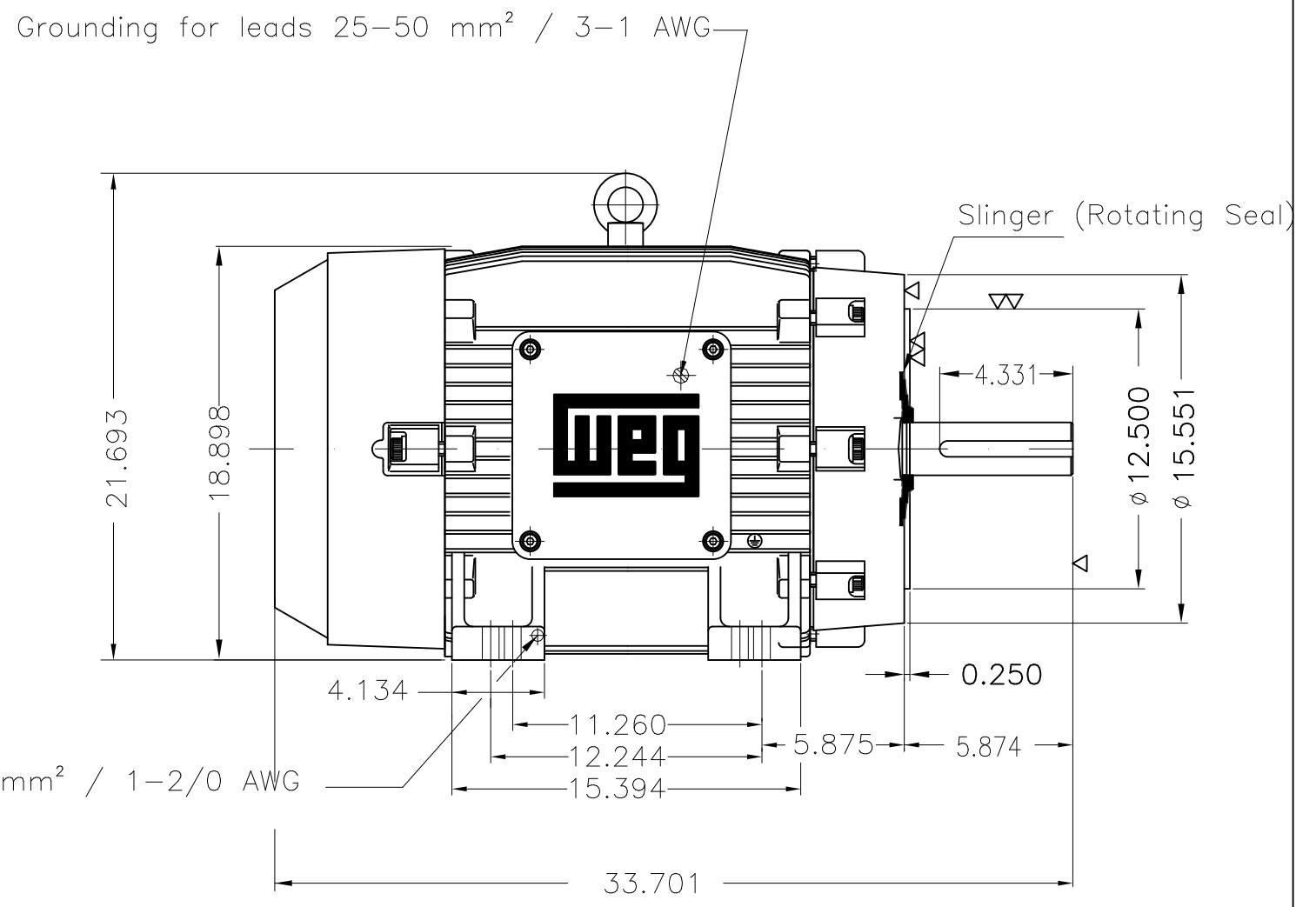
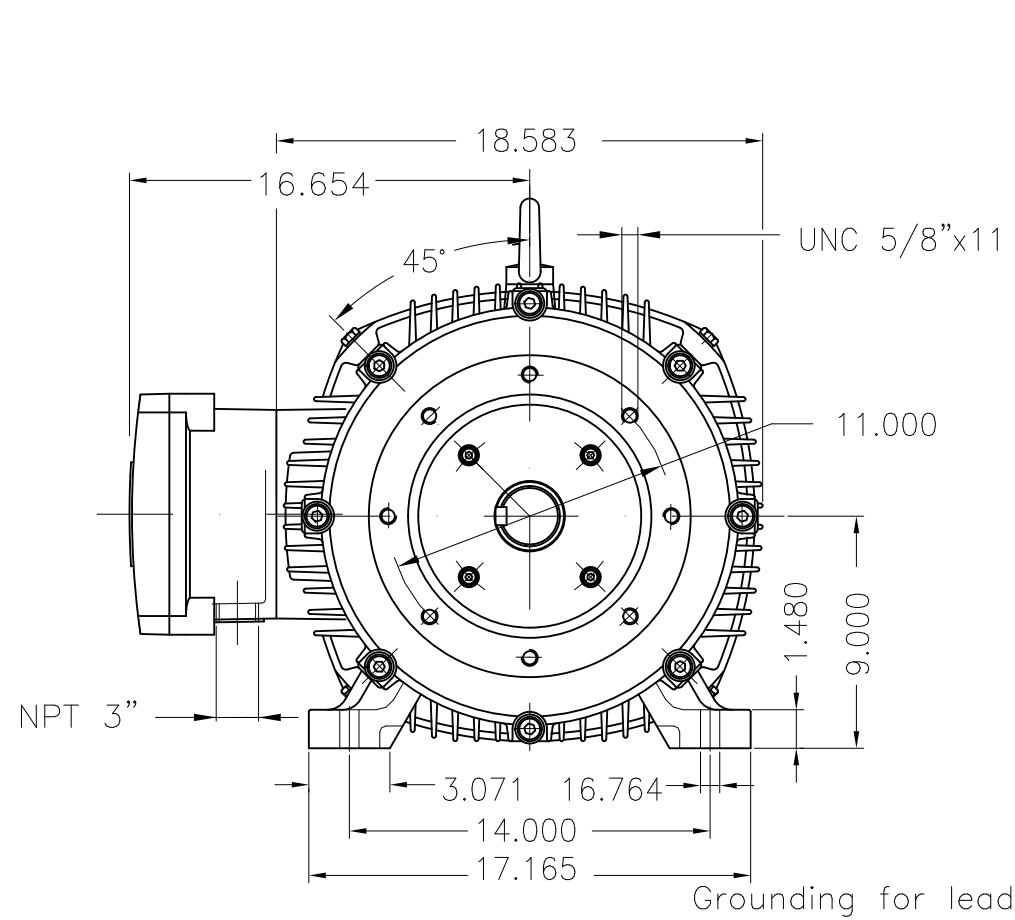


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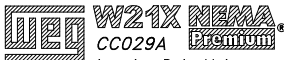


Color RAL 5009
 Painting plan 202P
 Mounting B34R(D)

60 HP 04 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWUSER	THREE PH. MOTOR EXPLOSION PROOF PREM. EFF.					
CHECKED		FRAME 364/5TC IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	WDD	SHEET	1 / 1	

PREVIEW
WDD



W21X NEMA
CC029A Premium

*Inverter Duty Motor
 Severe Duty*

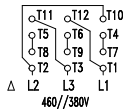
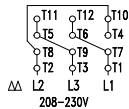


TEMP CODE T3C
 CSA/UL: Class I - Div. 1 - Groups C and D
 CSA: Class II - Div. 1 - Groups F and G
 CSA: Class I - Zone 1 - IIB
EXPLOSION PROOF MOTOR

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

MODEL 06018XT3E364TC
 MADE IN BRAZIL
 12408985

PH 3	FR 364/5TC	HP(kW) 60.0(45.0)	Hz 60
V 230/460	A 137/68.3	RPM 1780	
NEMA NOM. EFF. 95.0%	INS CL F	ΔT 80 K	IP55
PF 0.87	DUTY CONT.	CODE H	
ENCL. TEFC	SF 1.15	SFA 158/78.5	
AMB 40°C	DES B	USABLE @208V 151 A SF 1.00	
AMB 55°C SF1.0	-bearings lub interval reduced by a factor of 50%		
50HP 37kW 50Hz 380V 69.0A 1480RPM SF1.00 EFF 93.6% (IE2)			



→ 6314-C3(27g)
 → 6314-C3(27g)

MOBIL POLYREX EM
 9789 h

ALT 1000 m.a.s.l | 1027 Lbs