

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	14255321		
		Catalog # :	00118XT3E143T		
Frame	: 143/5T	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	: 68.0 lb		
Protection degree	: IP55	Moment of inertia (J)	: 0.0975 sq.ft.lb		
Design	: B				
Output [HP]	1	1	1	1	1
Poles	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	230/460	380	400	415	415
Rated current [A]	2.86/1.43	1.68	1.64	1.59	1.59
L. R. Amperes [A]	24.6/12.3	11.3	12.1	12.6	12.6
LRC [A]	8.6x(Code M)	6.7x(Code J)	7.4x(Code K)	7.9x(Code L)	7.9x(Code L)
No load current [A]	1.87/0.935	0.924	0.990	1.06	1.06
Rated speed [RPM]	1760	1440	1450	1450	1450
Slip [%]	2.22	4.00	3.33	3.33	3.33
Rated torque [ft.lb]	2.99	3.63	3.62	3.61	3.61
Locked rotor torque [%]	290	220	250	280	280
Breakdown torque [%]	370	250	280	310	310
Service factor	1.15	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	80 K
Locked rotor time	32s (cold) 18s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)
Noise level ²	51.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)
Efficiency (%)	25%	77.3	81.2	80.7	78.4
	50%	80.0	81.5	81.0	80.0
	75%	82.5	82.5	82.5	82.5
	100%	85.5	82.5	82.5	84.0
Power Factor	25%	0.32	0.37	0.34	0.32
	50%	0.57	0.65	0.61	0.58
	75%	0.70	0.77	0.74	0.72
	100%	0.77	0.82	0.80	0.78
Bearing type	: Drive end : 6205 2RS Non drive end : 6204 2RS	Foundation loads			
Sealing	: Oil Seal Lip Seal	Max. traction : 63 lb			
Lubrication interval	: - -	Max. compression : 131 lb			
Lubricant amount	: - -				
Lubricant type	: Mobil Polyrex EM				
Notes					
USABLE @208V 3.16A SF 1.15 SFA 3.64A					
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

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



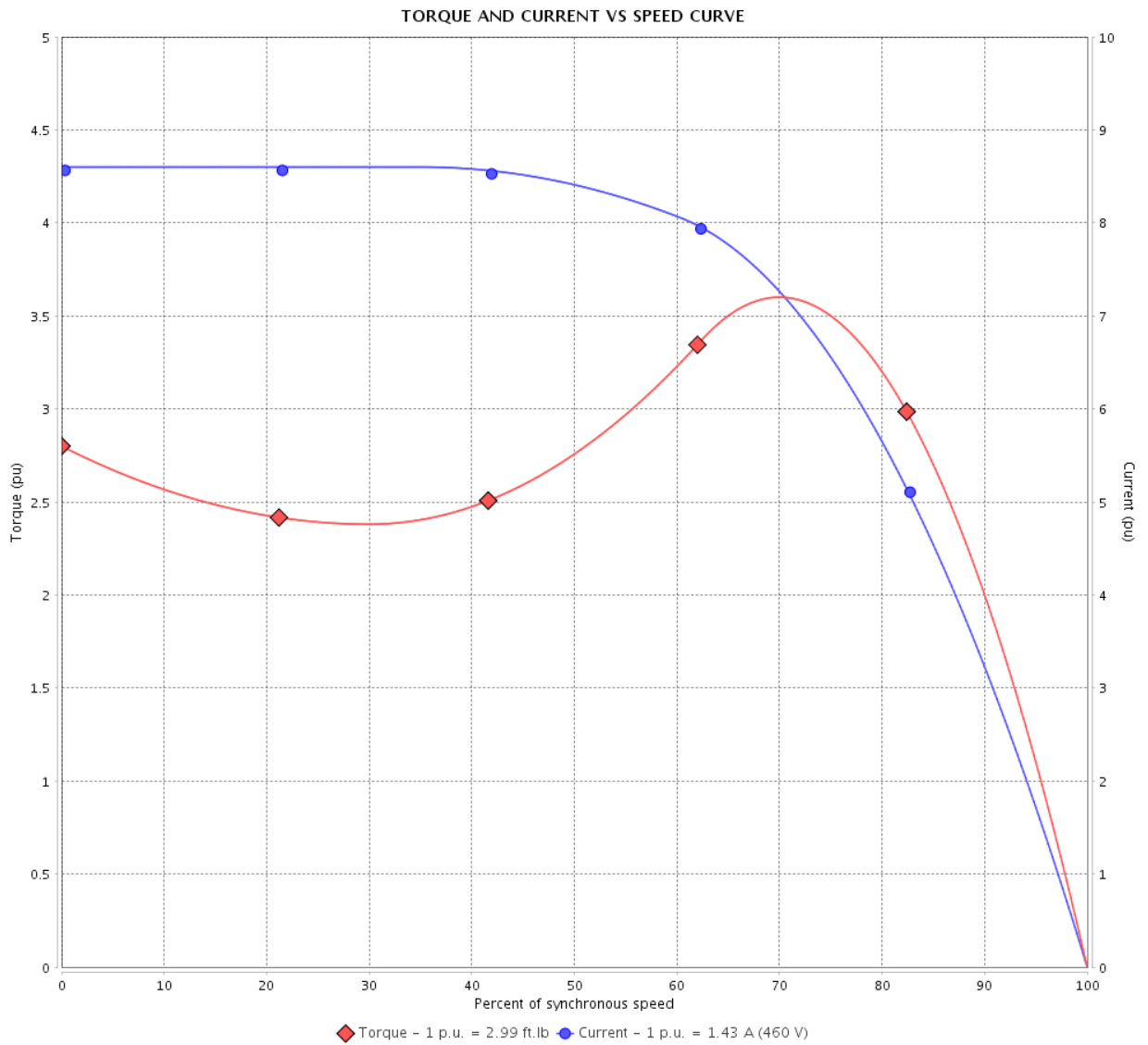
Three Phase Induction Motor - Squirrel Cage

Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14255321

Catalog # : 00118XT3E143T



Performance : 230/460 V 60 Hz 4P

Rated current : 2.86/1.43 A
 LRC : 8.6
 Rated torque : 2.99 ft.lb
 Locked rotor torque : 290 %
 Breakdown torque : 370 %
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.0975 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Locked rotor time : 32s (cold) 18s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



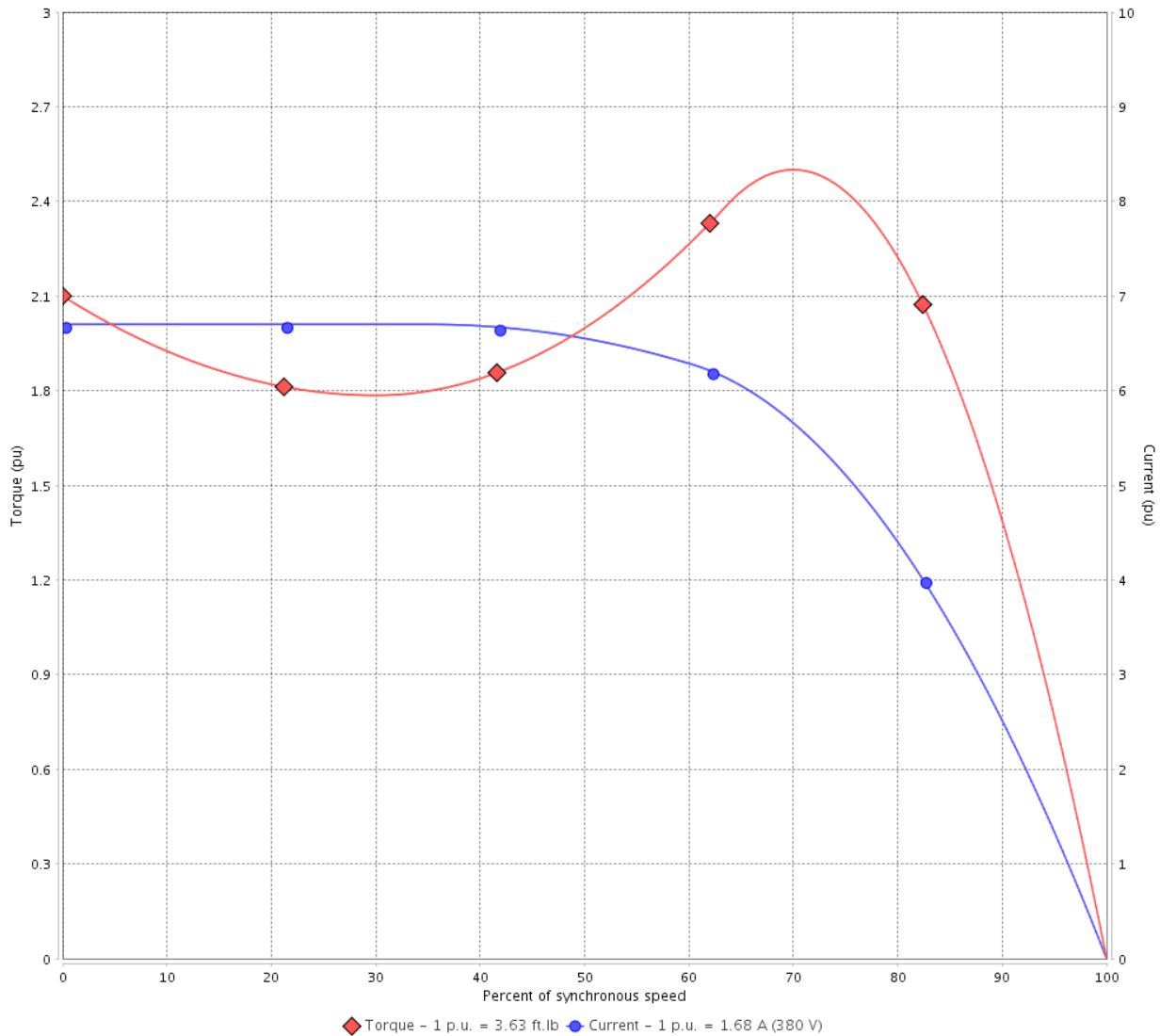
Customer :

Product line : NEMA Premium Efficiency Three-Phase

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TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 4P IE3

Rated current	: 1.68 A	Moment of inertia (J)	: 0.0975 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 3.63 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1440 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE



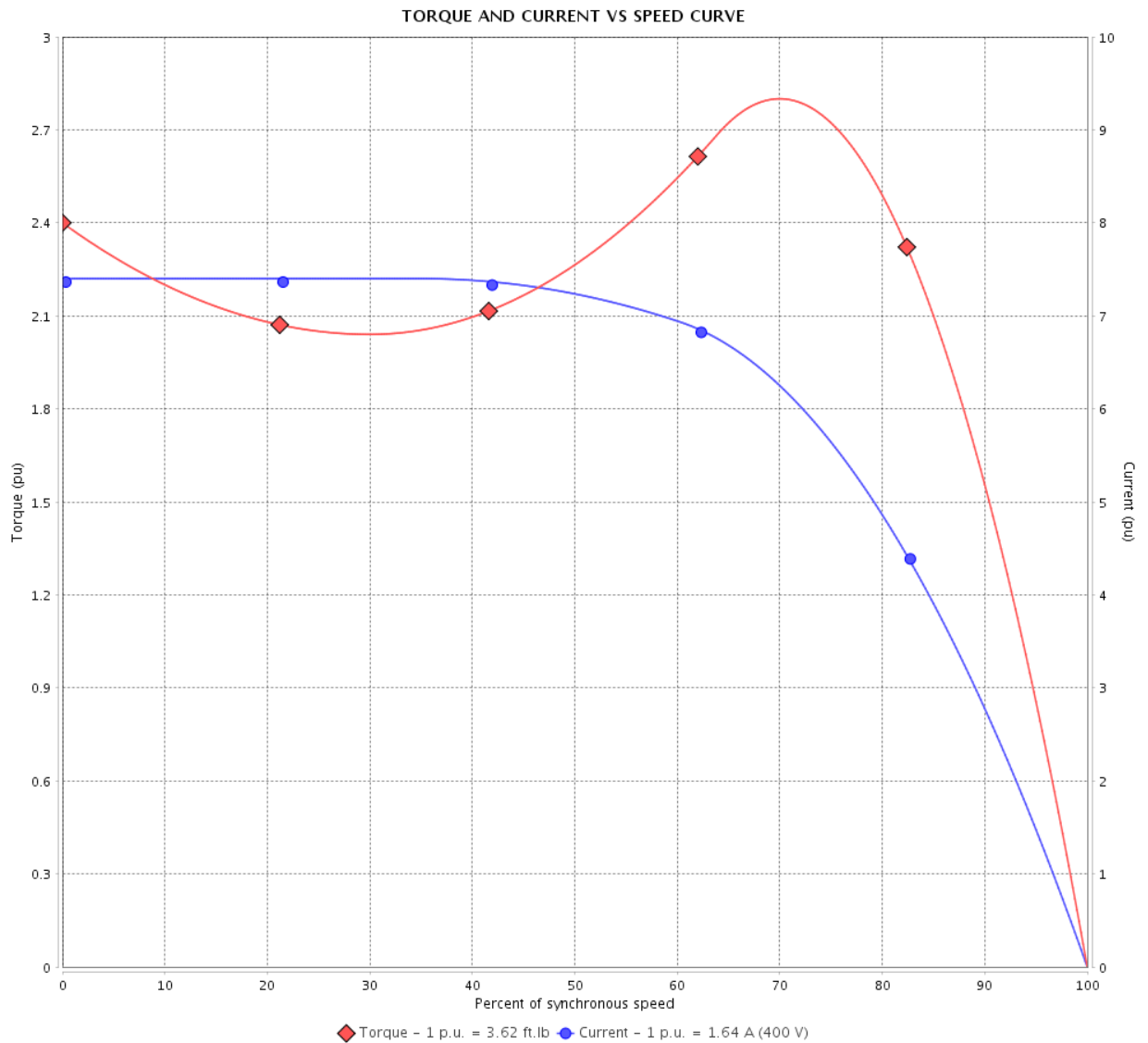
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14255321

Catalog # : 00118XT3E143T



Performance : 400 V 50 Hz 4P IE3

Rated current : 1.64 A
 LRC : 7.4
 Rated torque : 3.62 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 280 %
 Rated speed : 1450 rpm

Moment of inertia (J) : 0.0975 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 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



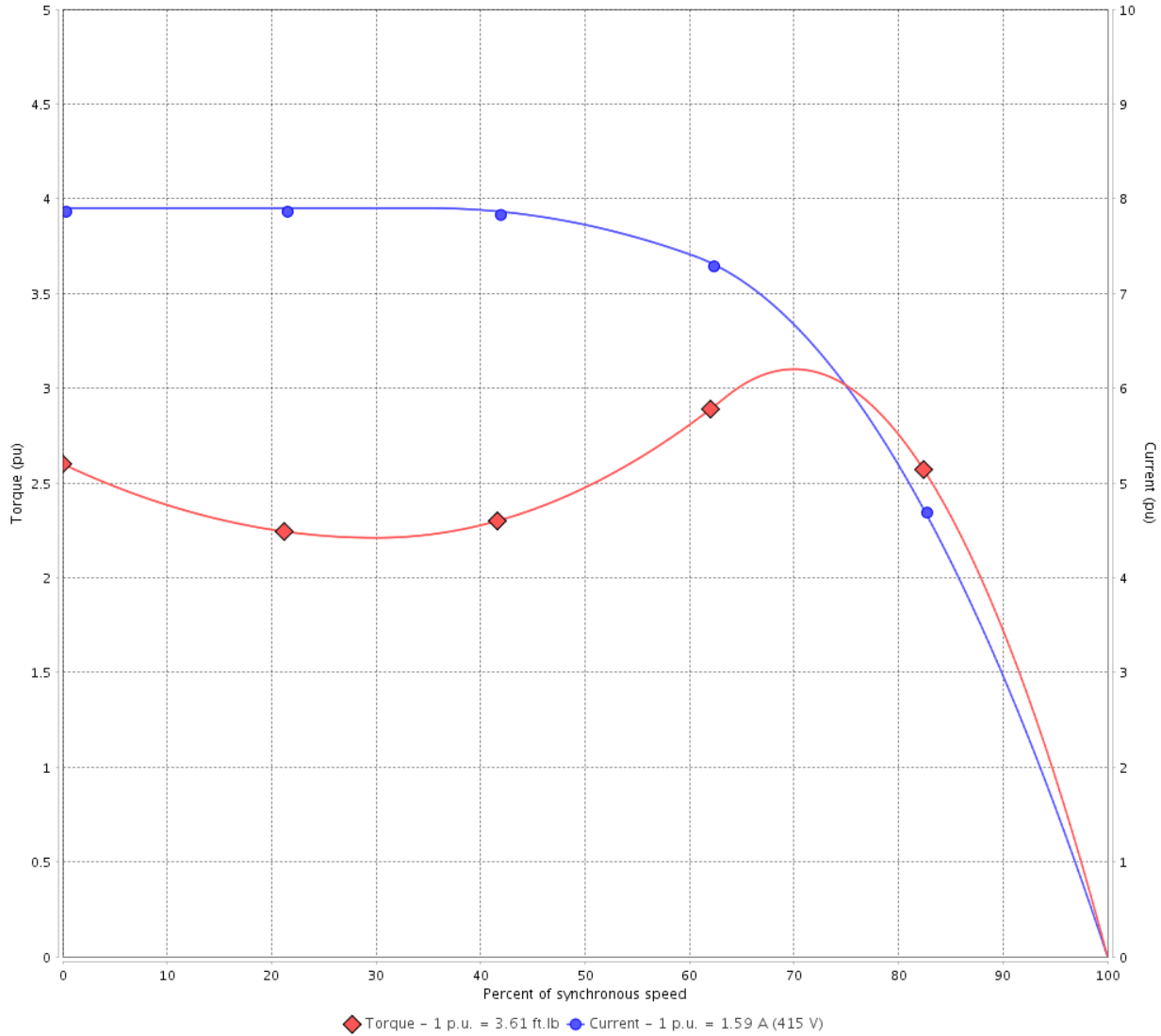
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LRC	: 7.9	Duty cycle	: Cont.(S1)
Rated torque	: 3.61 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1450 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

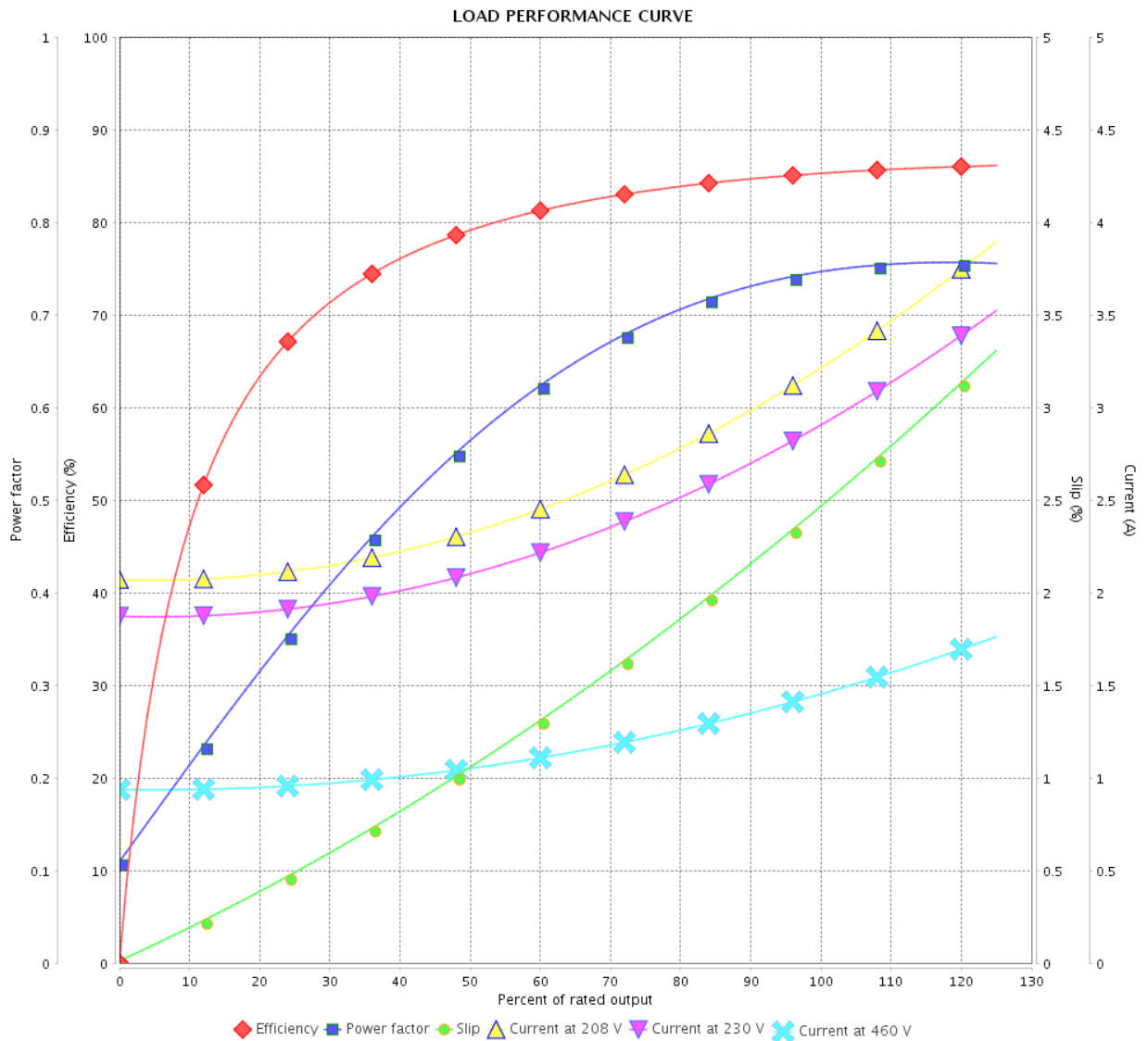


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Performance : 230/460 V 60 Hz 4P

Rated current : 2.86/1.43 A
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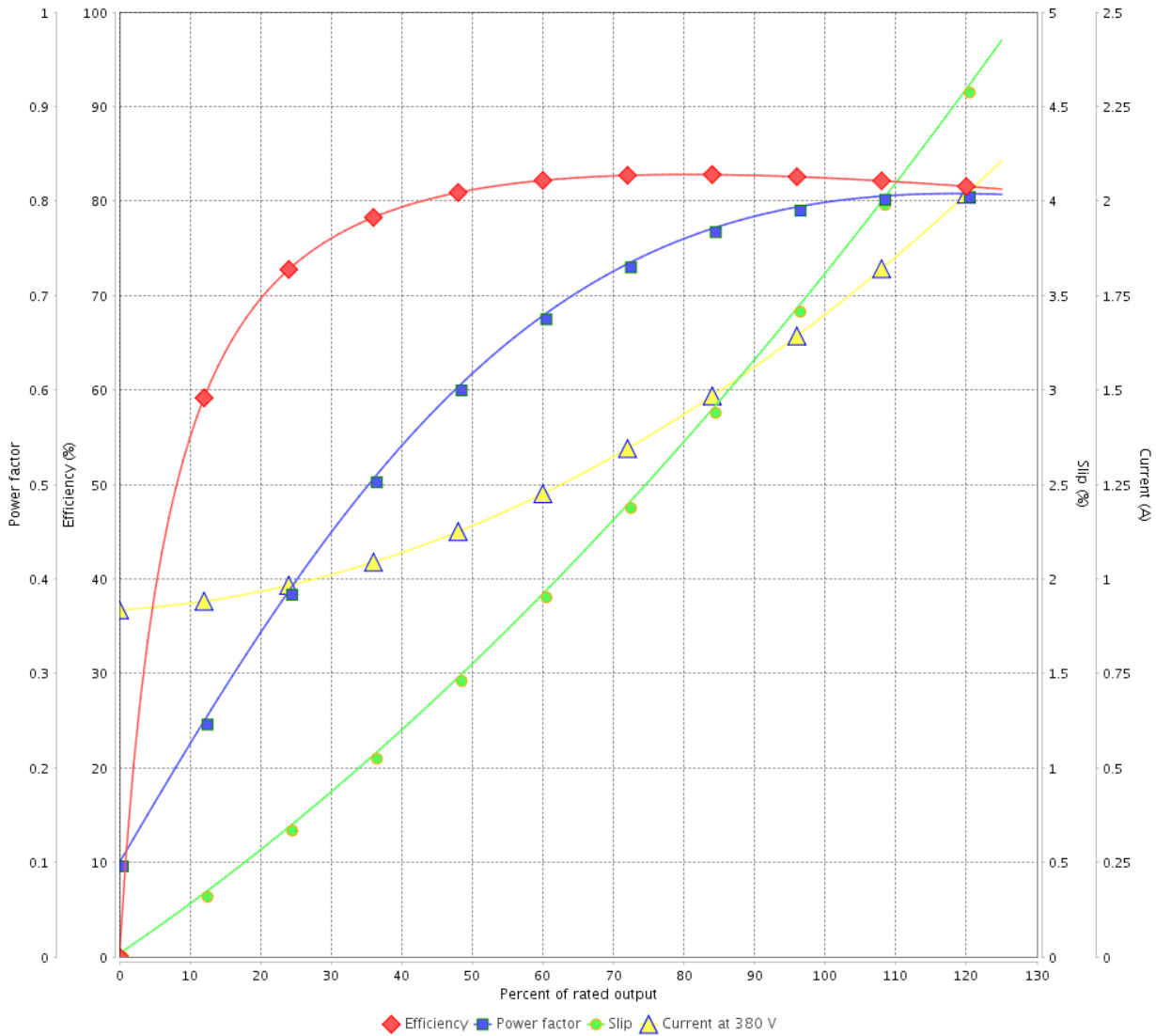
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Performance : 380 V 50 Hz 4P IE3

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 Rated torque : 3.63 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 250 %
 Rated speed : 1440 rpm

Moment of inertia (J) : 0.0975 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage

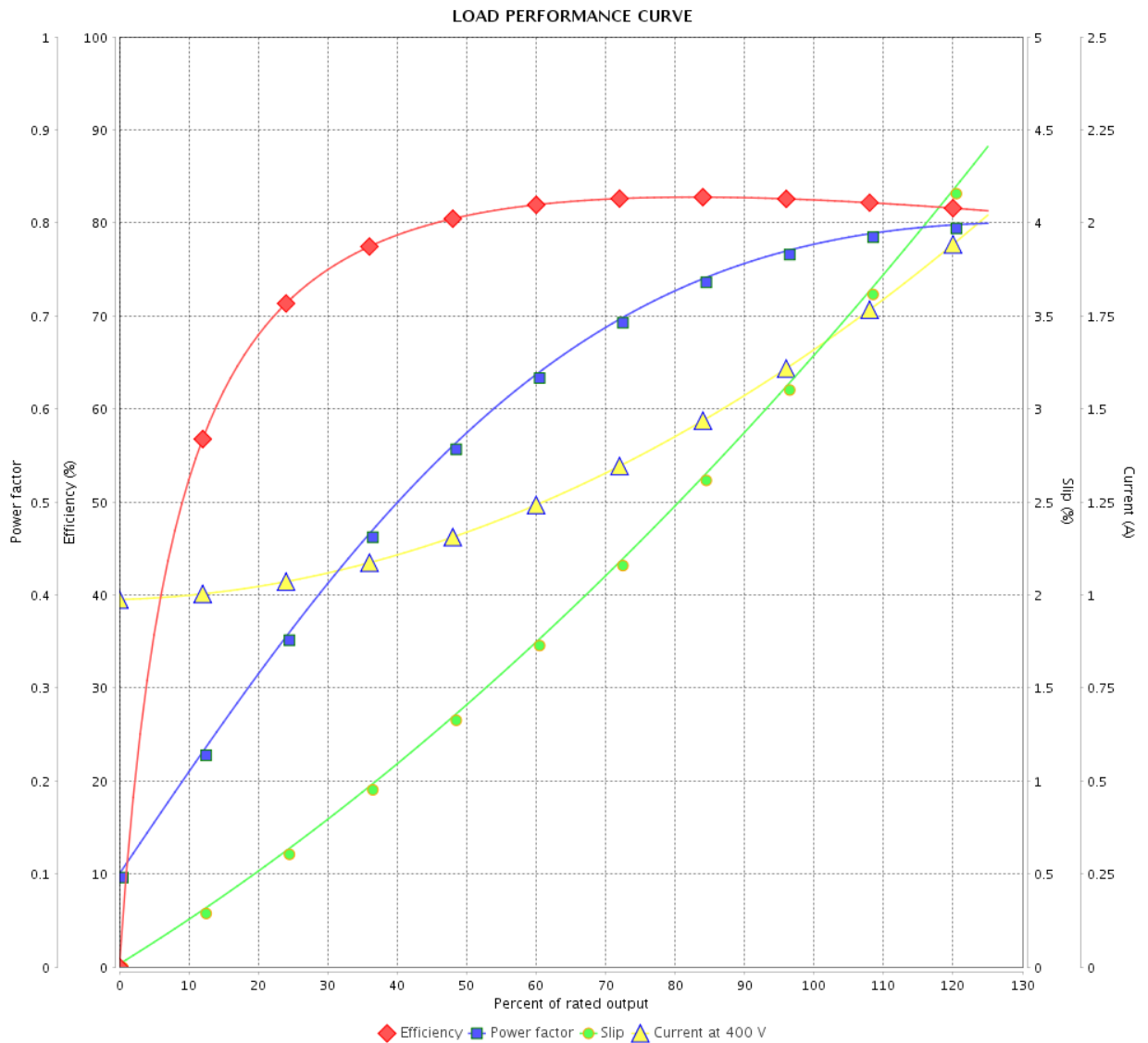


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Performance : 400 V 50 Hz 4P IE3

Rated current : 1.64 A
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 Breakdown torque : 280 %
 Rated speed : 1450 rpm

Moment of inertia (J) : 0.0975 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage



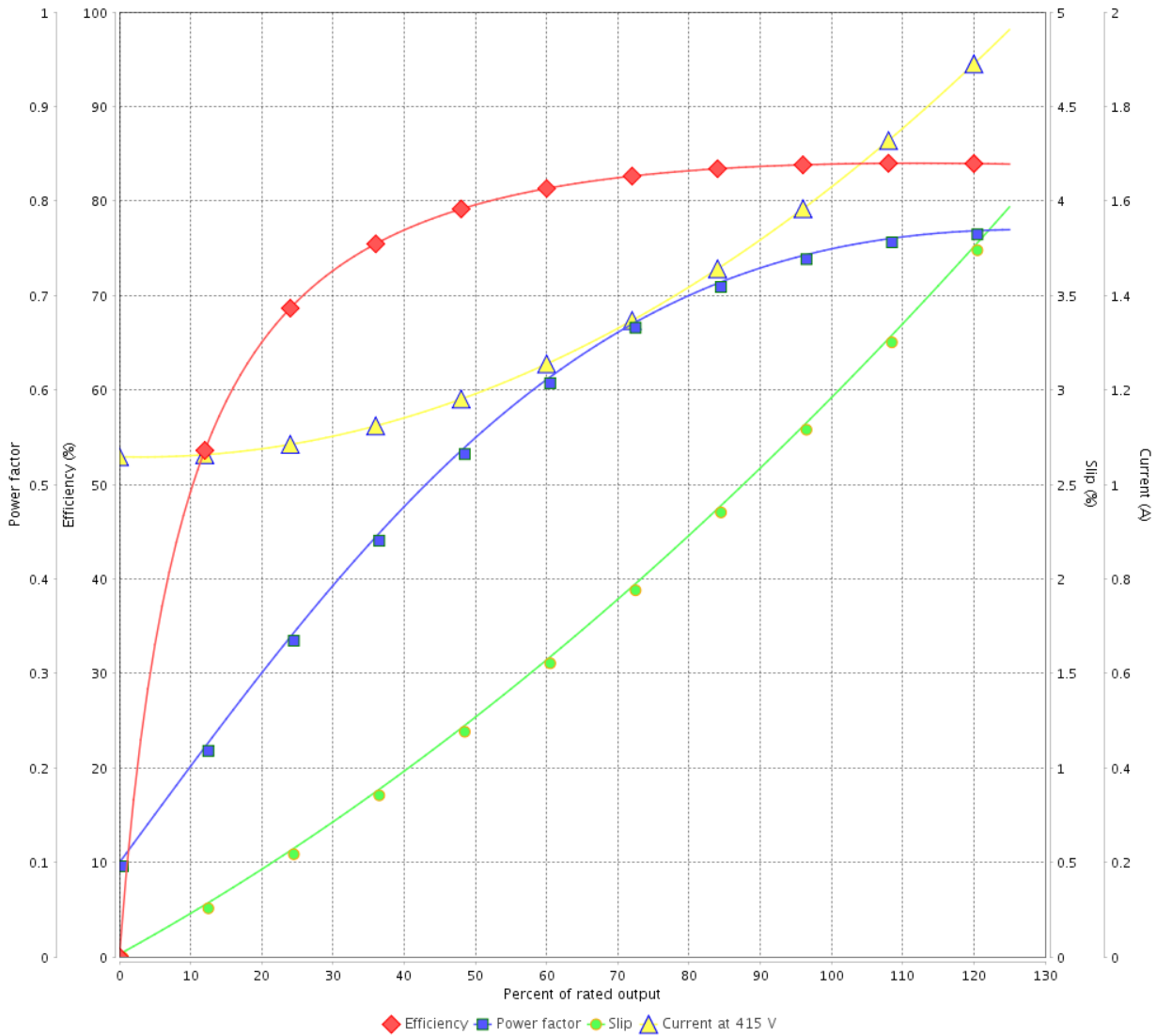
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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
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THERMAL LIMIT CURVE



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Rated speed : 1760 rpm	Design : B

Heating constant

Cooling constant

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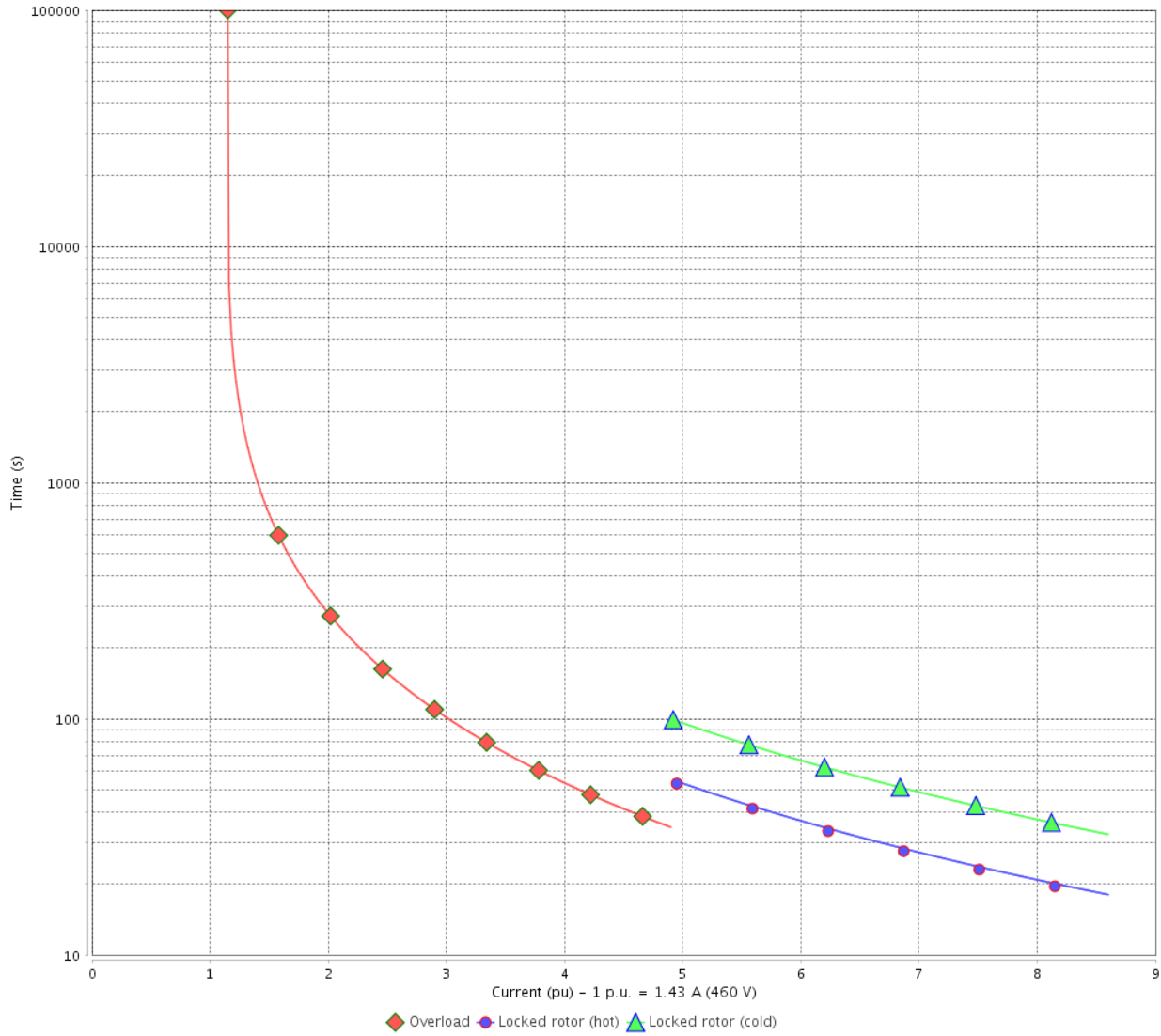
THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____

THERMAL LIMIT CURVE



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Locked rotor torque : 220 %	Service factor : 1.00
Breakdown torque : 250 %	Temperature rise : 80 K
Rated speed : 1440 rpm	Design : B

Heating constant

Cooling constant

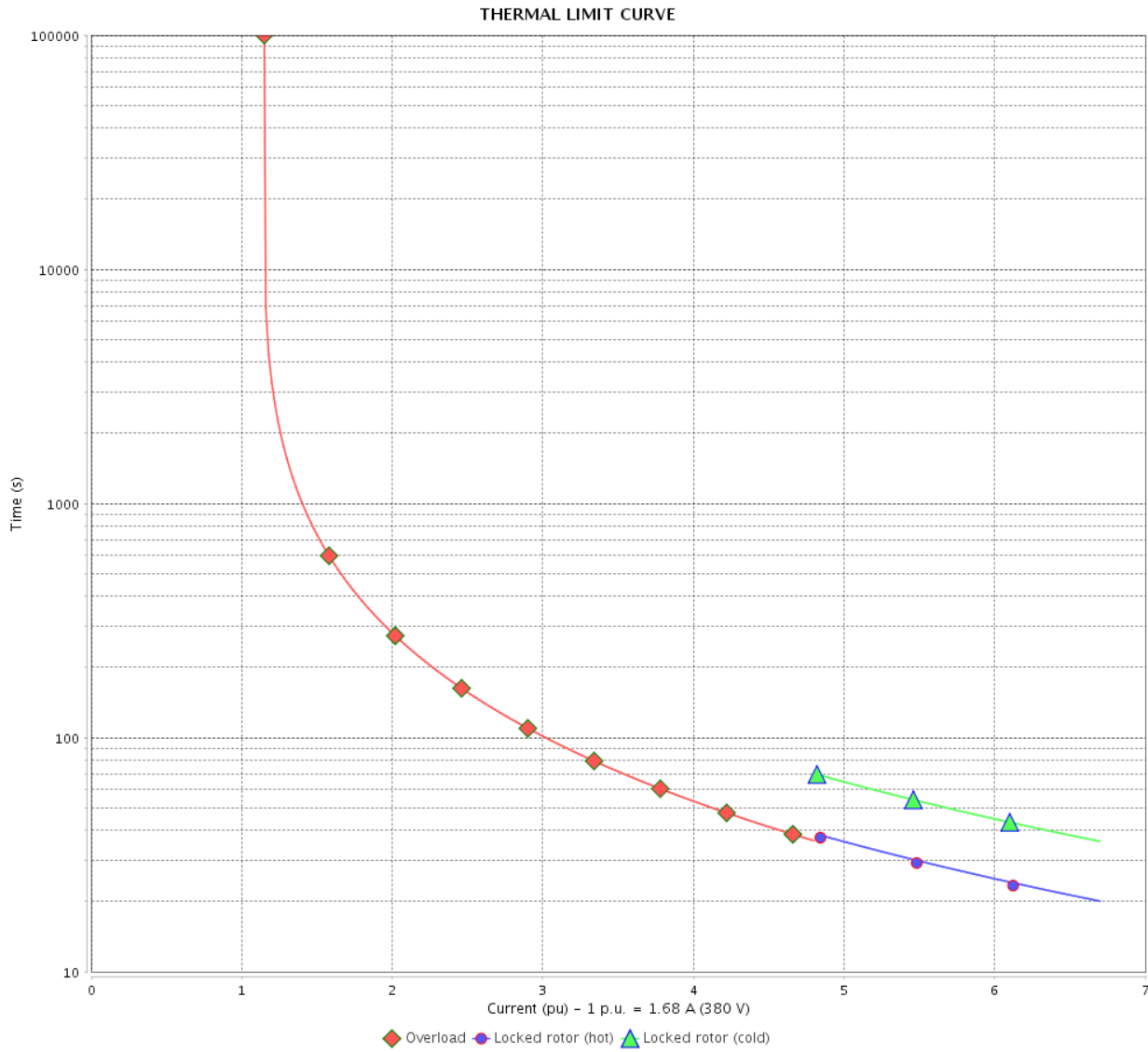
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Date	11/04/2022			

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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LRC : 7.4	Duty cycle : Cont.(S1)
Rated torque : 3.62 ft.lb	Insulation class : F
Locked rotor torque : 250 %	Service factor : 1.00
Breakdown torque : 280 %	Temperature rise : 80 K
Rated speed : 1450 rpm	Design : B

Heating constant

Cooling constant

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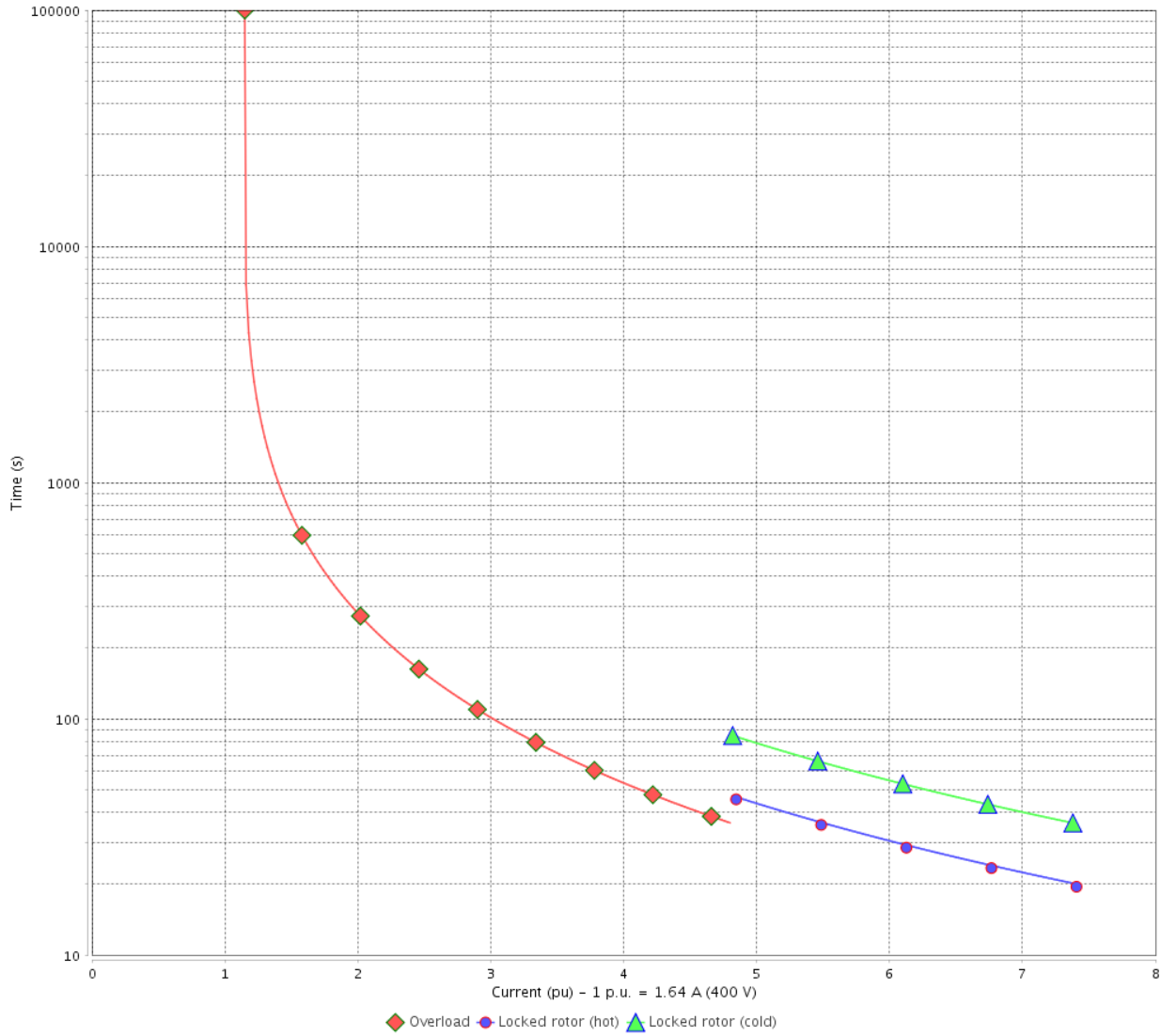
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Three Phase Induction Motor - Squirrel Cage



Customer : _____

THERMAL LIMIT CURVE



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THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

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LRC : 7.9	Duty cycle : Cont.(S1)
Rated torque : 3.61 ft.lb	Insulation class : F
Locked rotor torque : 280 %	Service factor : 1.00
Breakdown torque : 310 %	Temperature rise : 80 K
Rated speed : 1450 rpm	Design : B

Heating constant

Cooling constant

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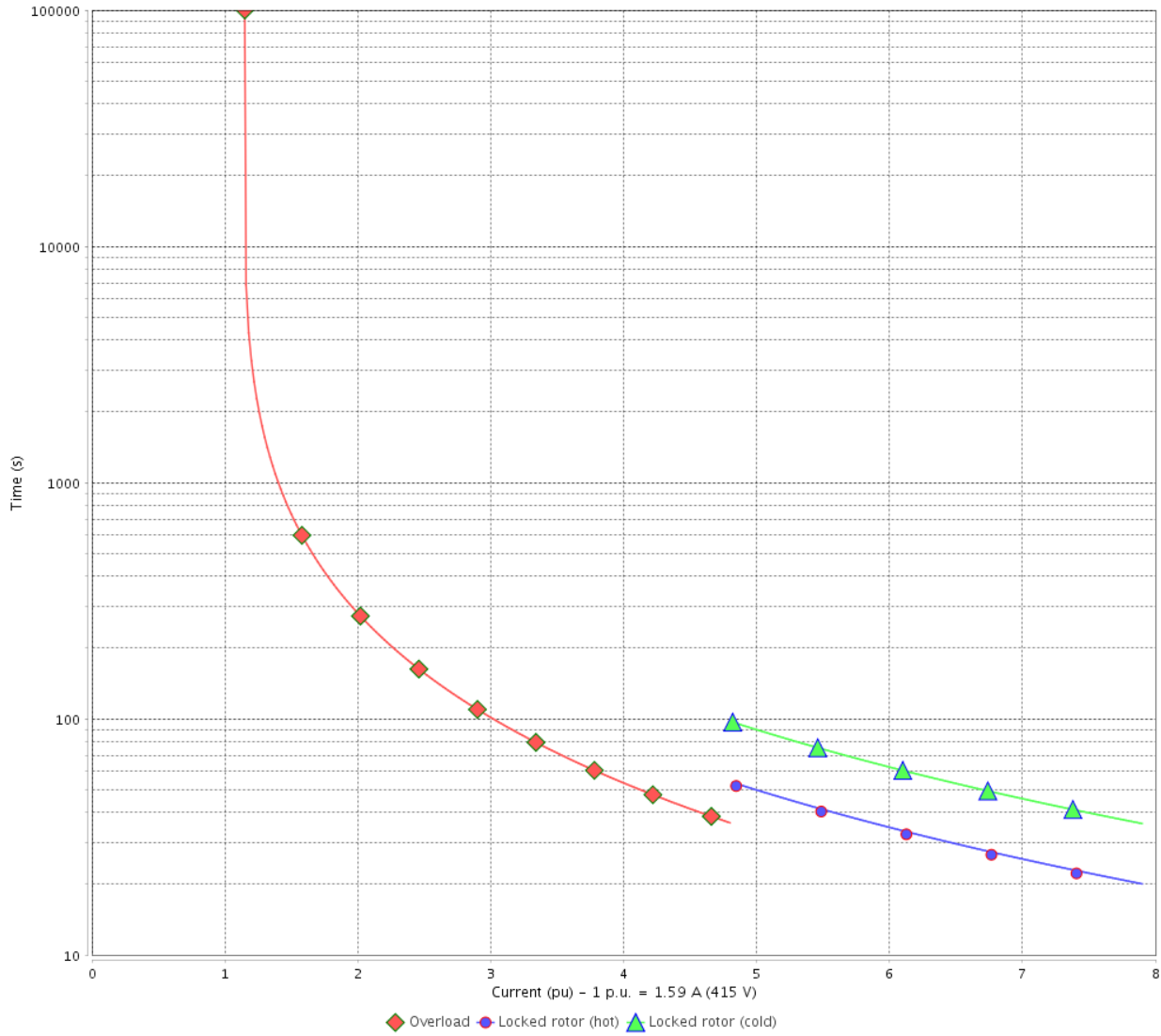
THERMAL LIMIT CURVE

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Customer : _____

THERMAL LIMIT CURVE



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

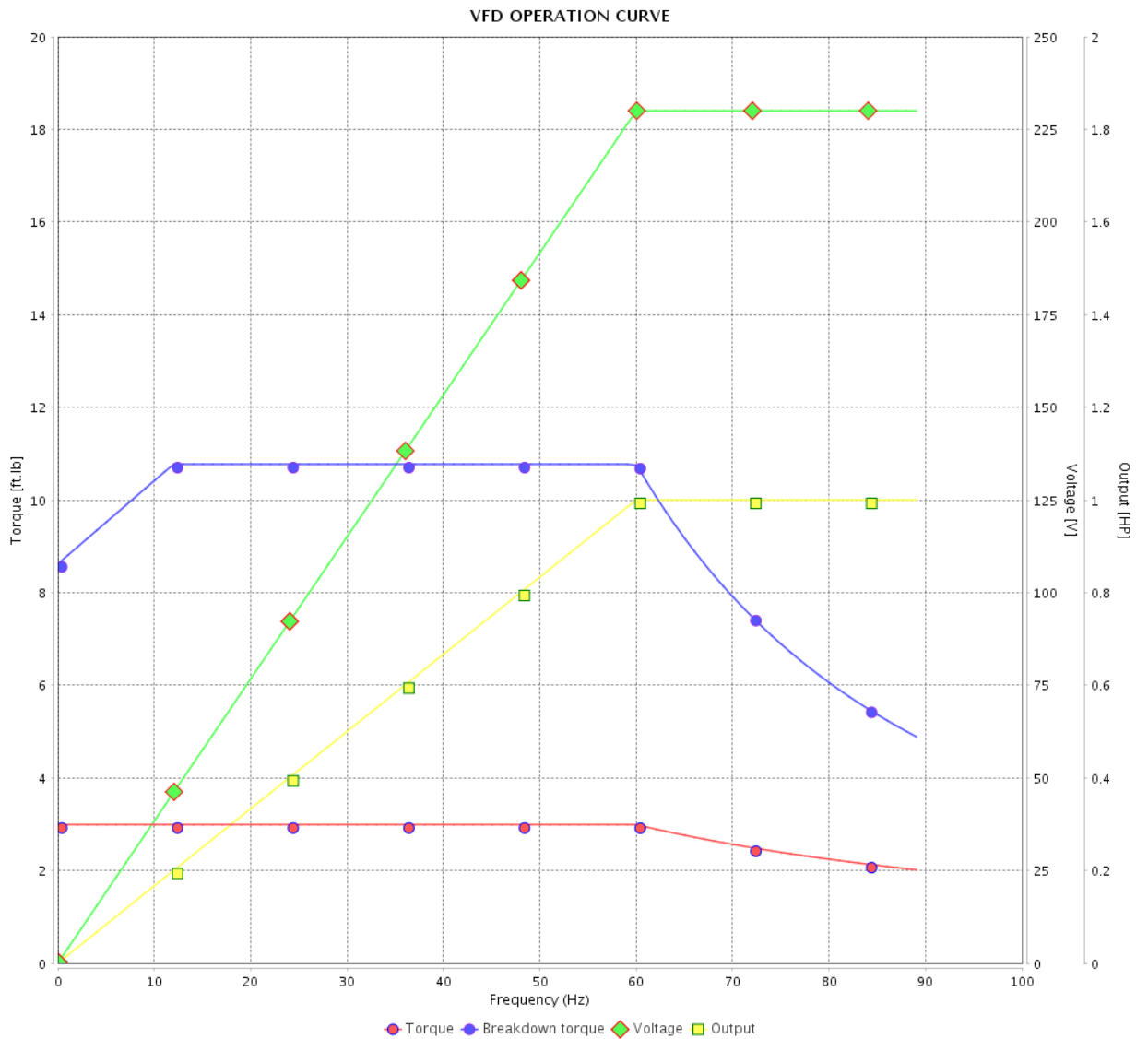


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Performance : 230/460 V 60 Hz 4P

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 Insulation class : F
 Service factor : 1.15
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 Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



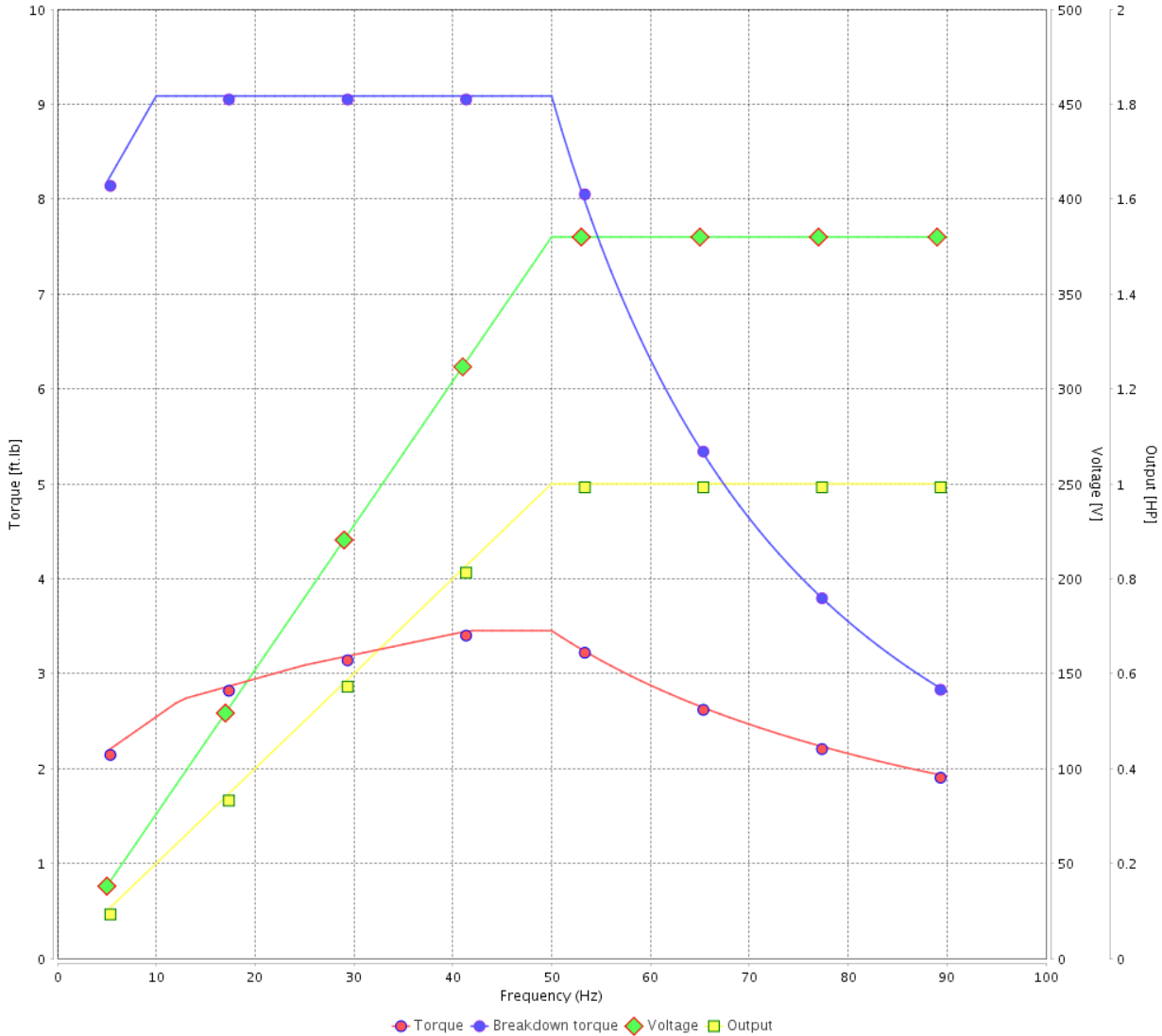
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VFD OPERATION CURVE



Performance : 380 V 50 Hz 4P IE3

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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
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 Design : B

Rev.	Changes Summary	Performed	Checked	Date
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

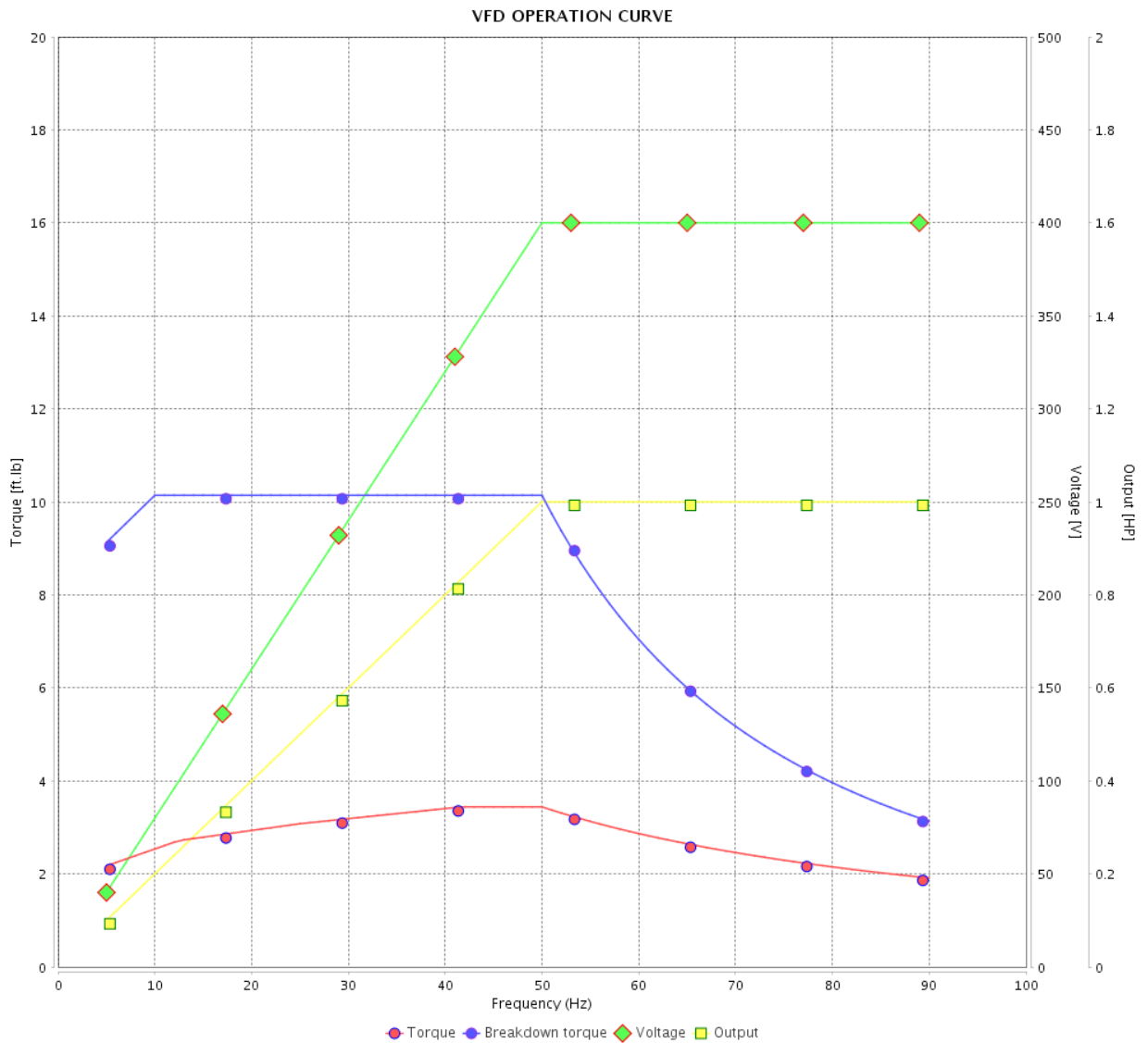


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Product line : NEMA Premium Efficiency Three-Phase

Product code : 14255321

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Performance : 400 V 50 Hz 4P IE3

Rated current : 1.64 A
 LRC : 7.4
 Rated torque : 3.62 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 280 %
 Rated speed : 1450 rpm

Moment of inertia (J) : 0.0975 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
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 Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



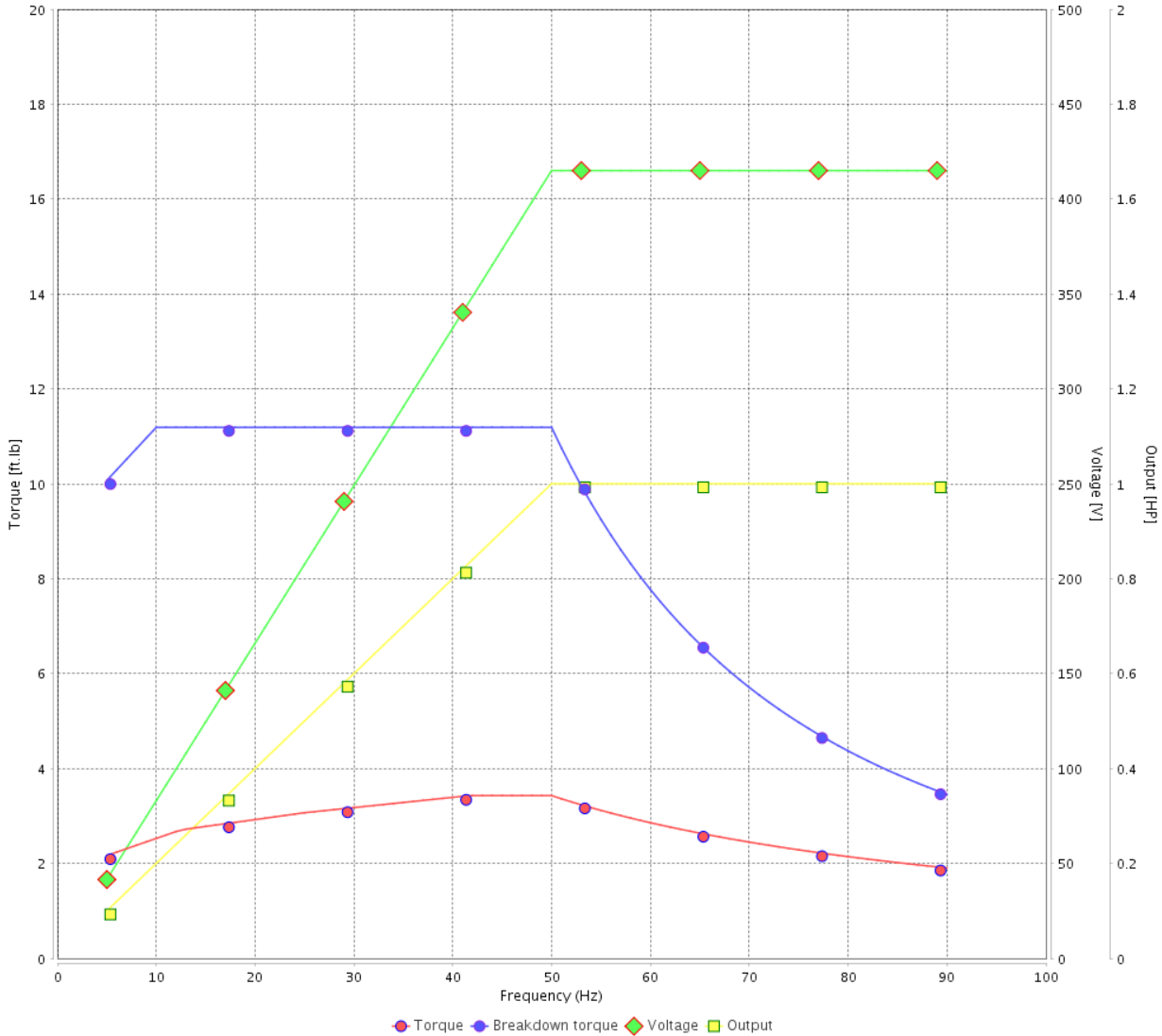
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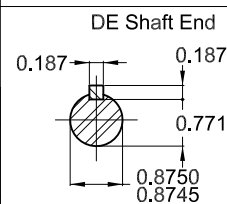
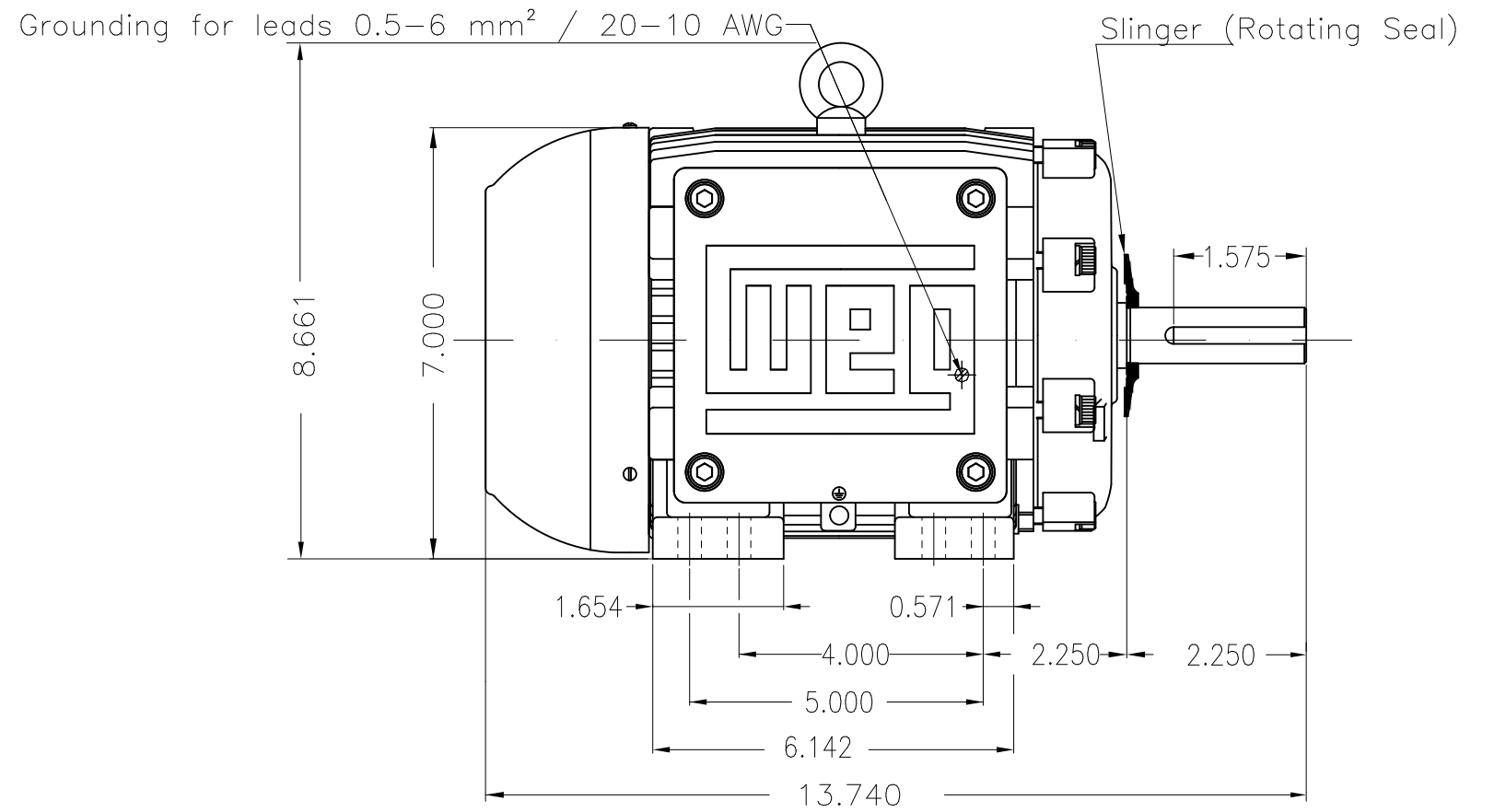
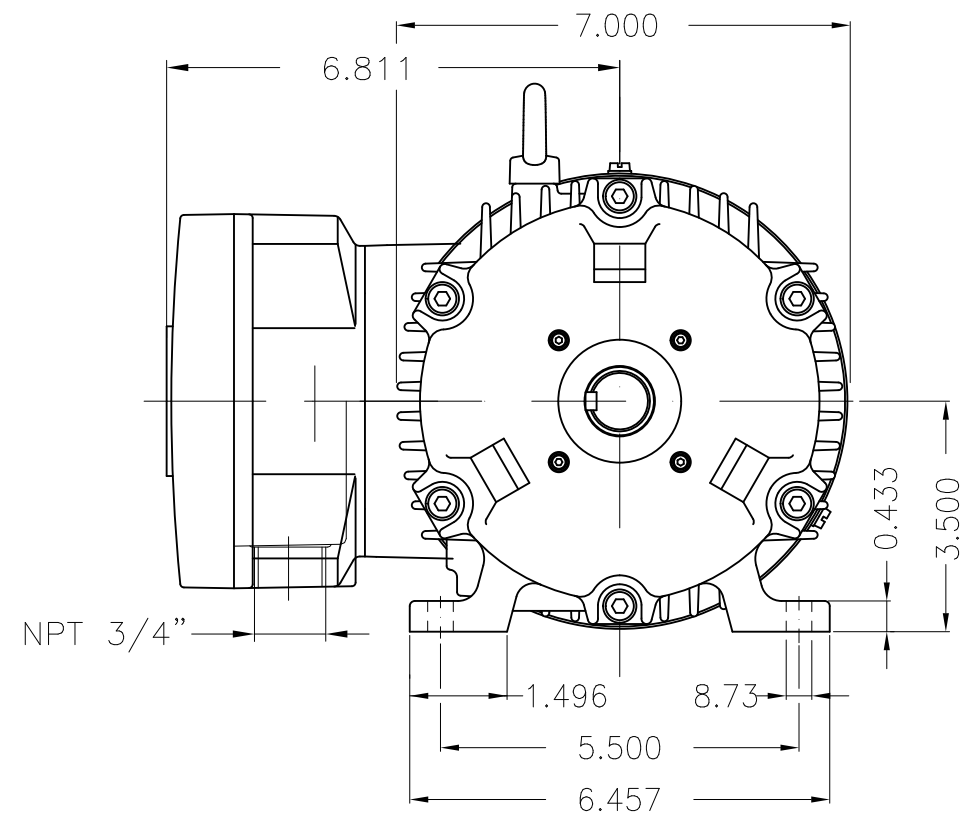


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Color RAL 5009
Painting plan 202P
Mounting NEMA F-1
Mounting B3R(D)

1 HP 04 Poles 60 Hz

Dimensions in inches

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR EXPLOSION PROOF PREM. EFF.					
CHECKED		FRAME 143/5T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

PREVIEW
WDD



SHEET 1 / 1

MADE IN BRAZIL

**W21X NEMA**
Premium

14255321

CC029A

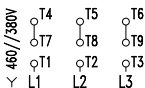
Inverter Duty Motor
Severe Duty

LISTED

MODEL 00118XT3E143T

PH 3	FR 143/5T		
HP(kW) 1.0(0.75)		HZ 60	IP55
V 230/460		A 2.94/1.47	
RPM 1755		NEMA NOM EFF 85.5%	
PF 0.75		SFA 3.38/1.69	DES B
INS CL F Δ T 80 K		SF 1.15	ENCL TEFC
DUTY CONT.		CODE M	ALT 1000 m.a.s.l.
AMB 40°C	USABLE @208V	3.16 A	SF 1.15 SFA 3.63
AMB 55°C SF1.0			

1.0HP 0.75kW 50Hz 380V 1.73A 1445RPM SF1.00 EFF 82.5% (IE3)



→ 6205-2RS MOBIL POLYREX EM
→ 6204-2RS

68 Lbs



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, 20:1CT, 1.0SF, T3C, AMB 40°C.