

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line	: Premium Efficiency Three-Phase	Product code :	12809251	
		Catalog # :	.7512OT3E56C-S	
Frame	: 56HC	Cooling method	: IC01 - ODP	
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	: 36.1 lb	
Design	: A	Moment of inertia (J)	: 0.1685 sq.ft.lb	
Output [HP]	0.75	0.75	0.75	
Poles	6	6	6	
Frequency [Hz]	60	50	50	
Rated voltage [V]	208-230/460	190/380	220/415	
Rated current [A]	2.78-2.52/1.26	2.86/1.43	2.64/1.40	
L. R. Amperes [A]	16.4-14.9/7.43	13.2/6.58	13.2/7.00	
LRC [A]	5.9x(Code J)	4.6x(Code G)	5.0x(Code H)	
No load current [A]	1.55-1.79/0.896	1.77/0.886	1.78/0.943	
Rated speed [RPM]	1160	945	950	
Slip [%]	3.33	5.50	5.00	
Rated torque [ft.lb]	3.40	4.17	4.15	
Locked rotor torque [%]	220	170	200	
Breakdown torque [%]	280	229	260	
Service factor		1.15	1.15	
Temperature rise	80 K	80 K	80 K	
Locked rotor time	59s (cold) 33s (hot)	64s (cold) 36s (hot)	57s (cold) 32s (hot)	
Noise level ²	50.0 dB(A)	48.0 dB(A)	48.0 dB(A)	
Efficiency (%)	25%	73.7	75.9	
	50%	75.5	76.2	
	75%	80.0	78.9	
	100%	81.7	78.7	
Power Factor	25%	0.25	0.27	
	50%	0.45	0.49	
	75%	0.58	0.63	
	100%	0.67	0.72	
Bearing type	: Drive end 6204 ZZ Non drive end 6202 ZZ	Foundation loads		
Sealing	: Without Without Bearing Seal Bearing Seal	Max. traction	: 88 lb	
		Max. compression	: 124 lb	
Lubrication interval	: - -			
Lubricant amount	: - -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V SF 1.00				
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

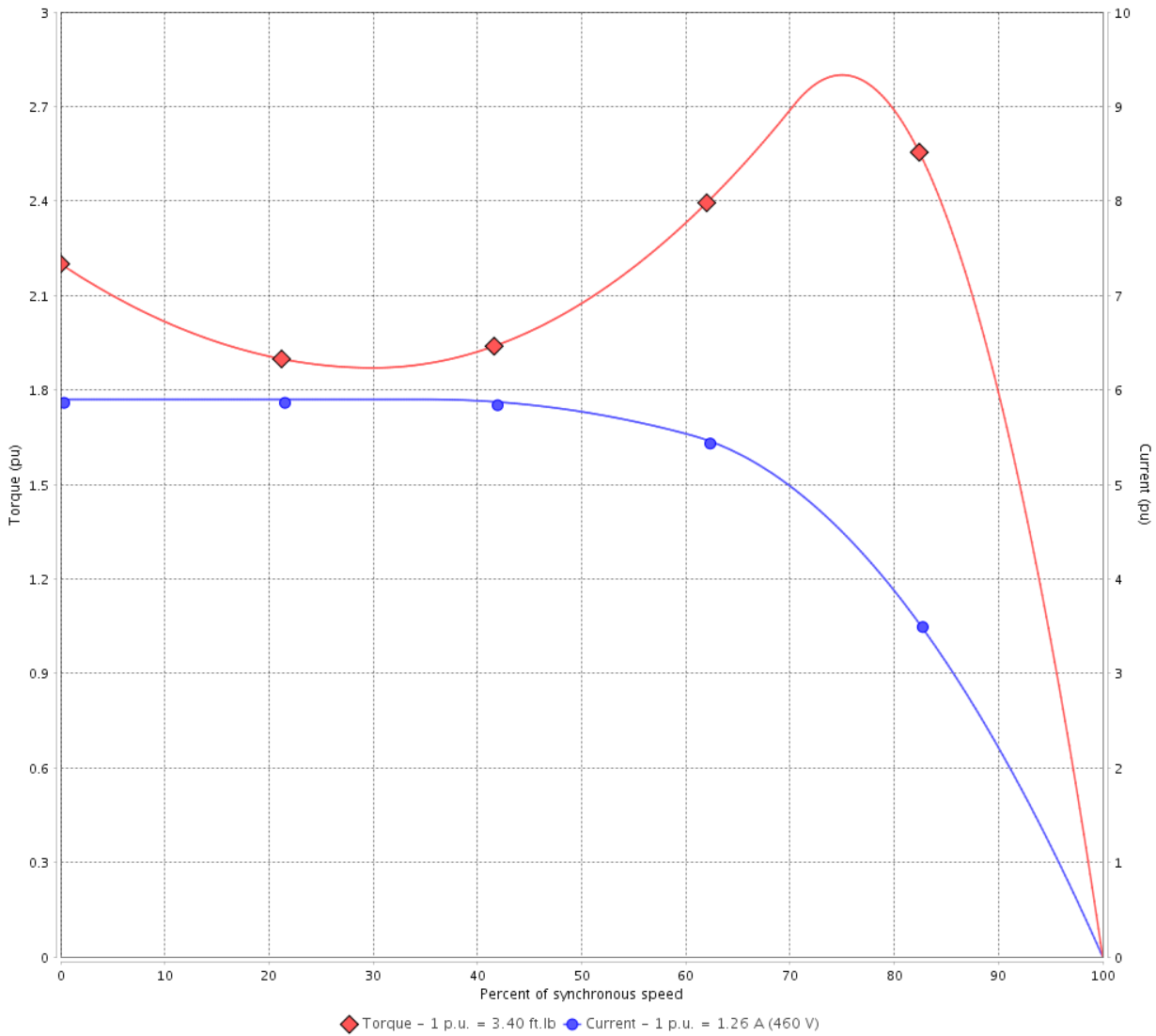
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase Product code : 12809251
 Catalog # : .7512OT3E56C-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 208-230/460 V 60 Hz 6P

Rated current	: 2.78-2.52/1.26 A	Moment of inertia (J)	: 0.1685 sq.ft.lb
LRC	: 5.9	Duty cycle	: Cont.(S1)
Rated torque	: 3.40 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	:
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1160 rpm	Design	: A

Locked rotor time : 59s (cold) 33s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

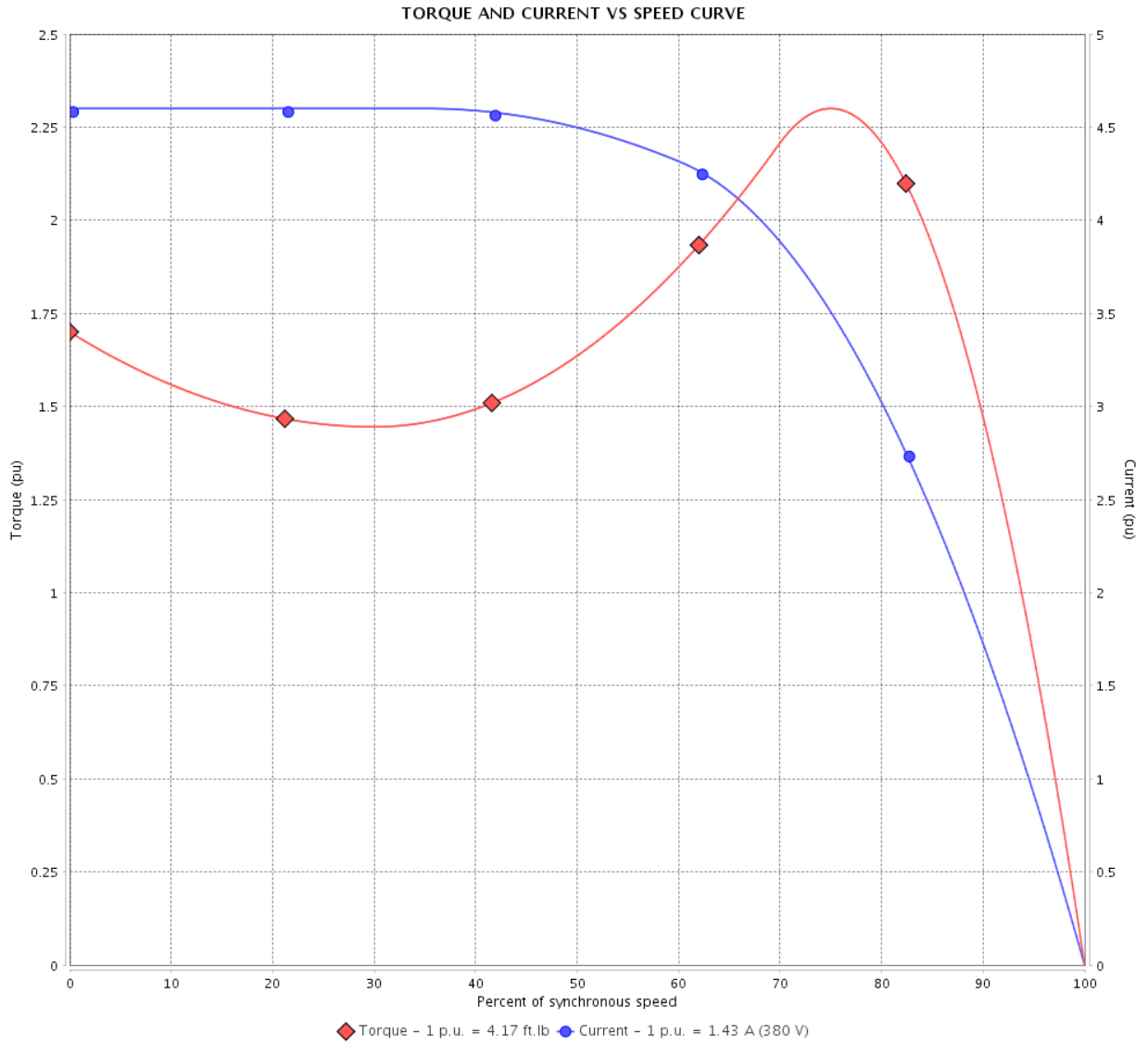
Product line : Premium Efficiency Three-Phase

Product code :

12809251

Catalog # :

.75120T3E56C-S



Performance : 190/380 V 50 Hz 6P

Rated current : 2.86/1.43 A
 LRC : 4.6
 Rated torque : 4.17 ft.lb
 Locked rotor torque : 170 %
 Breakdown torque : 229 %
 Rated speed : 945 rpm

Moment of inertia (J) : 0.1685 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : A

Locked rotor time : 64s (cold) 36s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

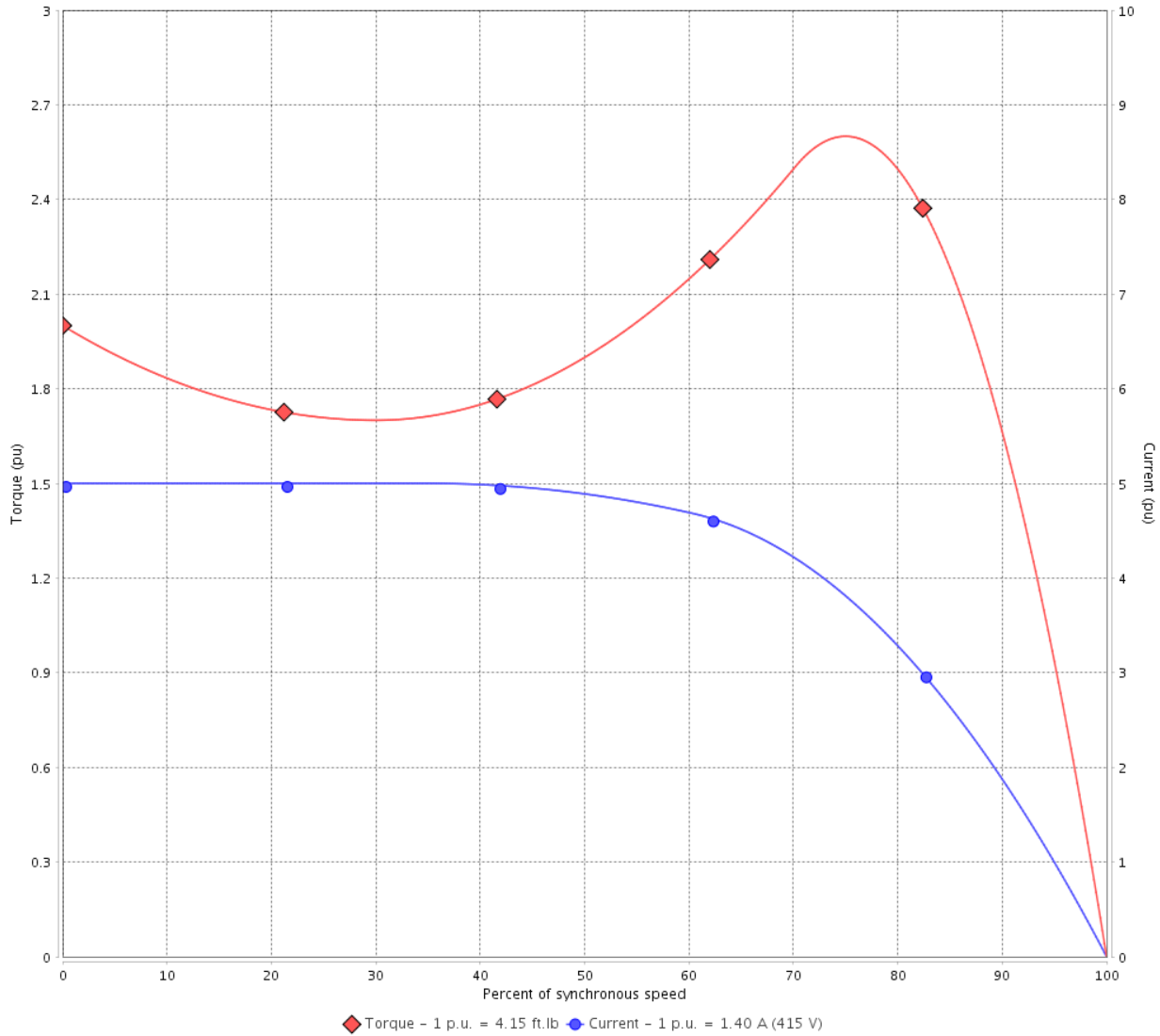
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase Product code : 12809251
 Catalog # : .7512OT3E56C-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 6P

Rated current	: 2.64/1.40 A	Moment of inertia (J)	: 0.1685 sq.ft.lb
LRC	: 5.0	Duty cycle	: Cont.(S1)
Rated torque	: 4.15 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 950 rpm	Design	: A

Locked rotor time : 57s (cold) 32s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

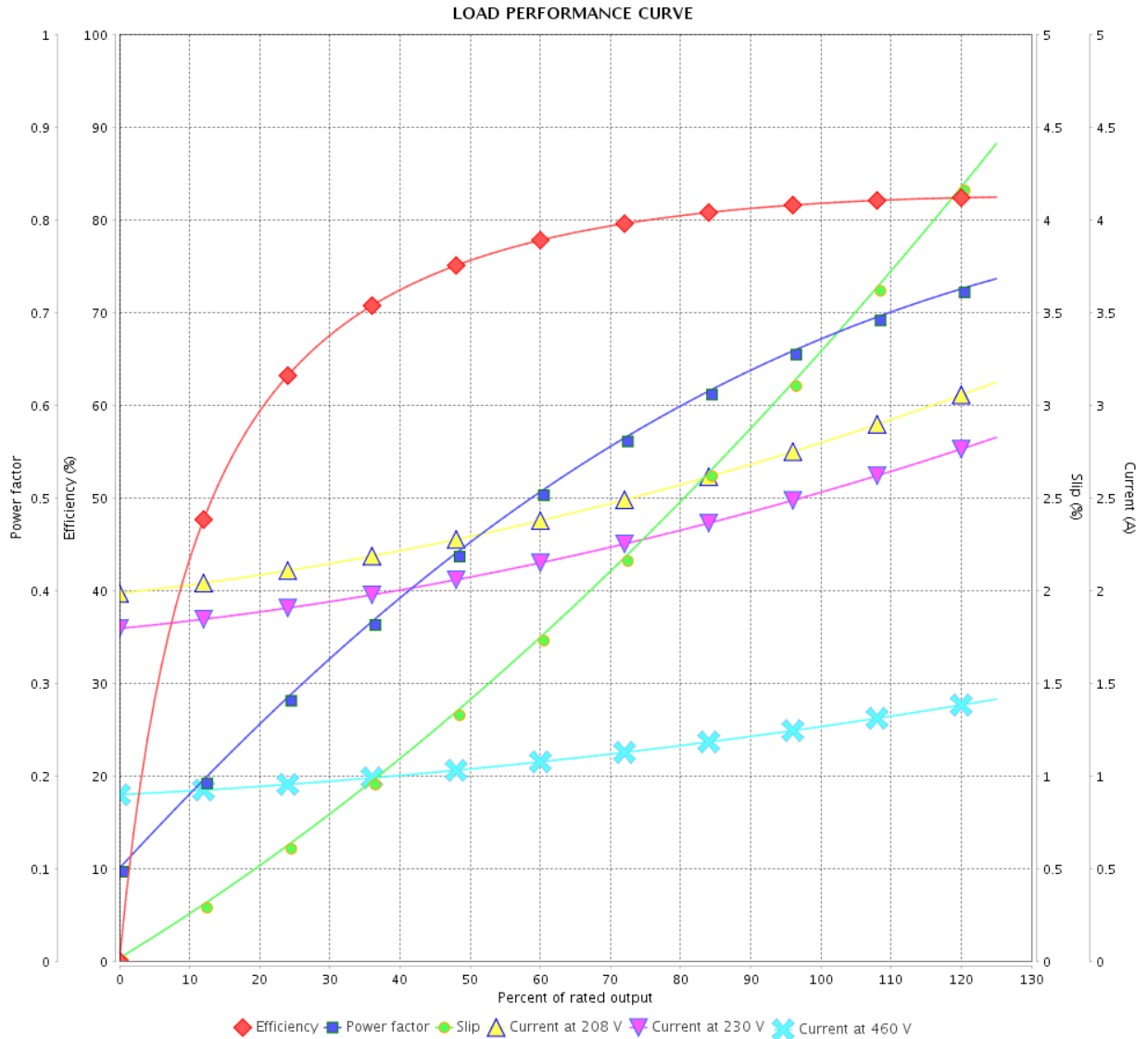
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Performance : 208-230/460 V 60 Hz 6P

Rated current : 2.78-2.52/1.26 A
 LRC : 5.9
 Rated torque : 3.40 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 280 %
 Rated speed : 1160 rpm

Moment of inertia (J) : 0.1685 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 Temperature rise : 80 K
 Design : A

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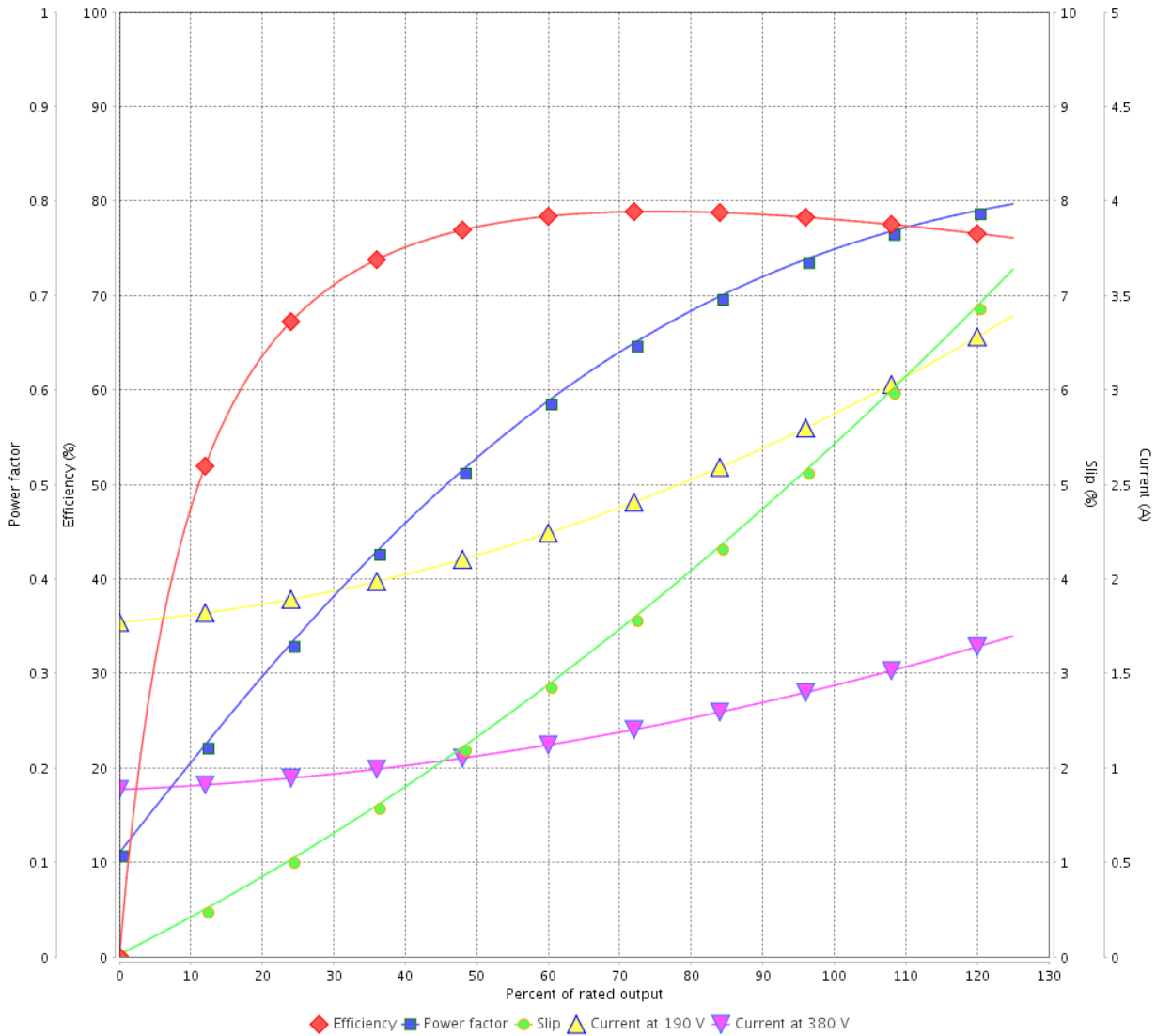
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Customer :

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LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 6P

Rated current	: 2.86/1.43 A	Moment of inertia (J)	: 0.1685 sq.ft.lb
LRC	: 4.6	Duty cycle	: Cont.(S1)
Rated torque	: 4.17 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.15
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 945 rpm	Design	: A

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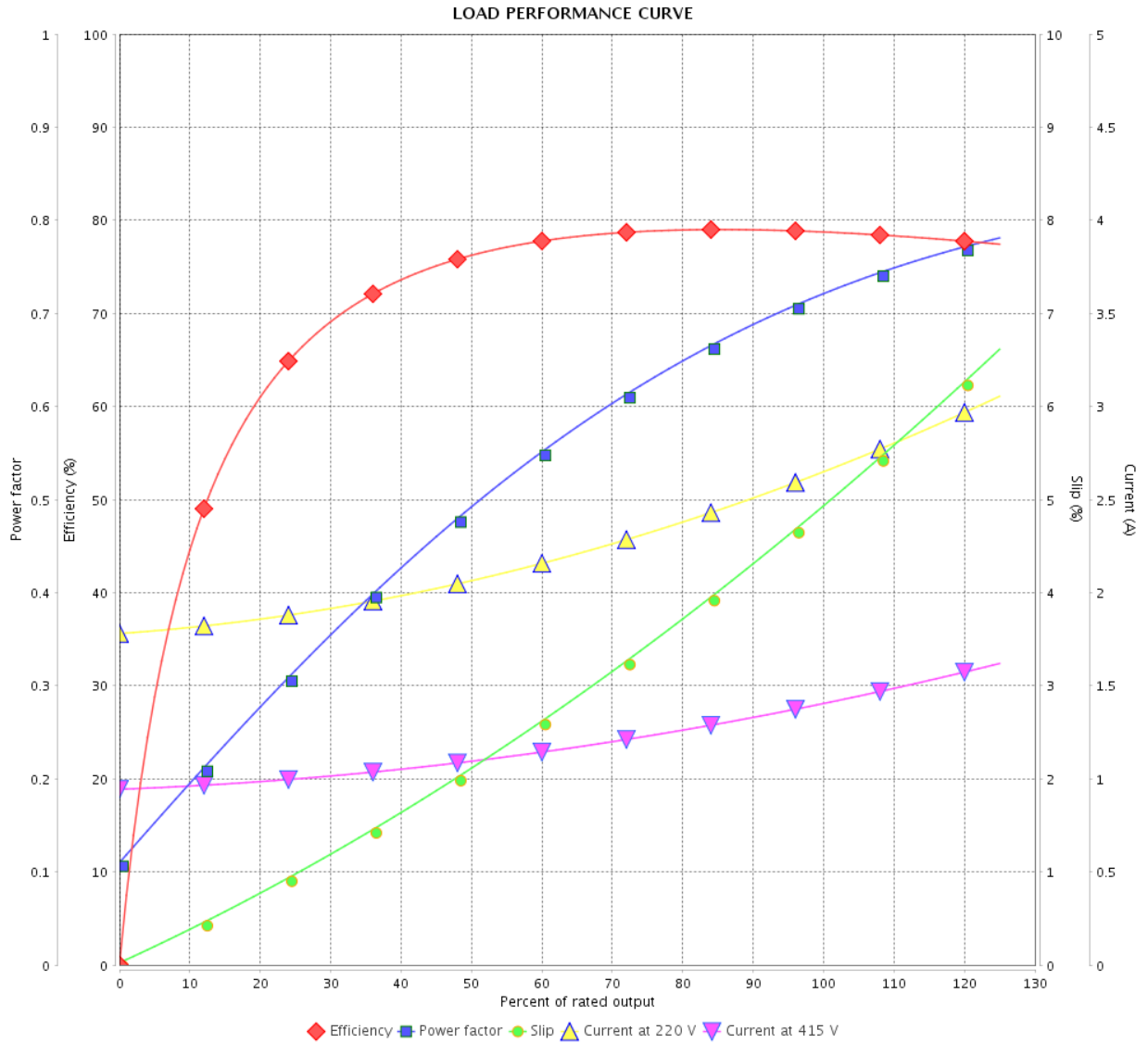
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Performance : 220/415 V 50 Hz 6P

Rated current : 2.64/1.40 A
 LRC : 5.0
 Rated torque : 4.15 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 260 %
 Rated speed : 950 rpm

Moment of inertia (J) : 0.1685 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : A

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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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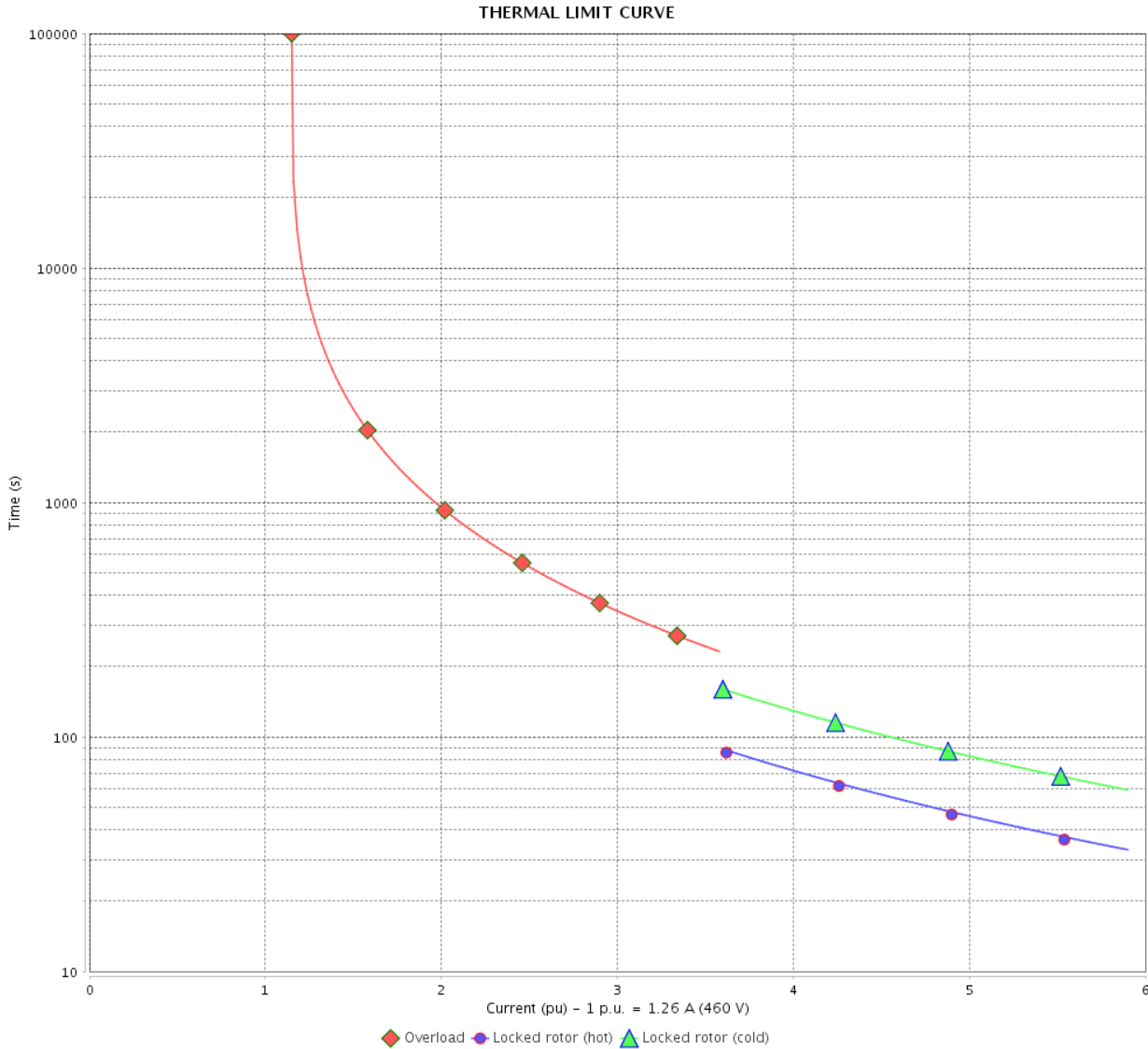
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 Locked rotor torque : 220 %
 Breakdown torque : 280 %
 Rated speed : 1160 rpm

Moment of inertia (J) : 0.1685 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 Temperature rise : 80 K
 Design : A

Heating constant

Cooling constant

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THERMAL LIMIT CURVE

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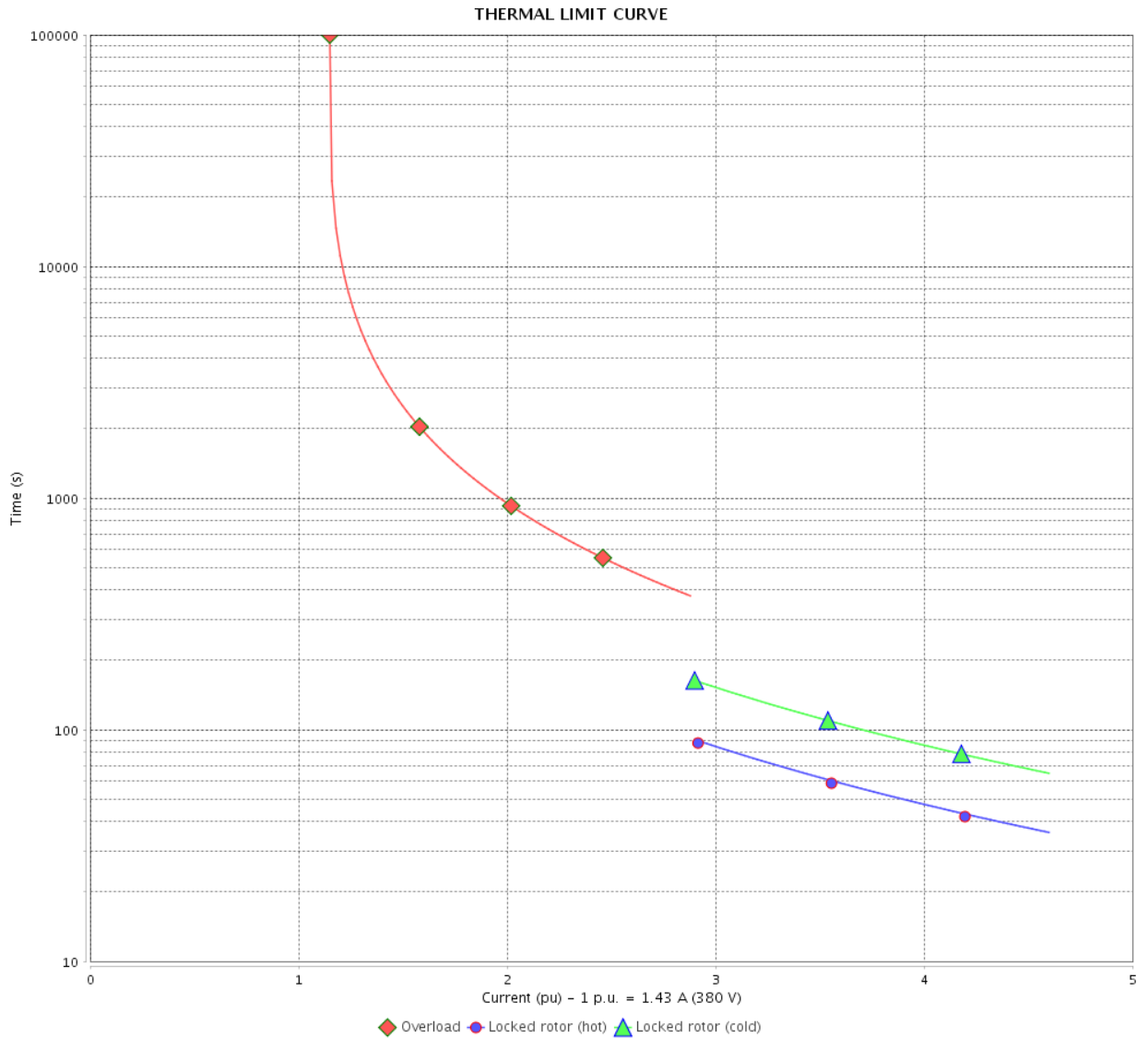
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 Duty cycle : Cont.(S1)
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 Service factor : 1.15
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Heating constant

Cooling constant

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THERMAL LIMIT CURVE

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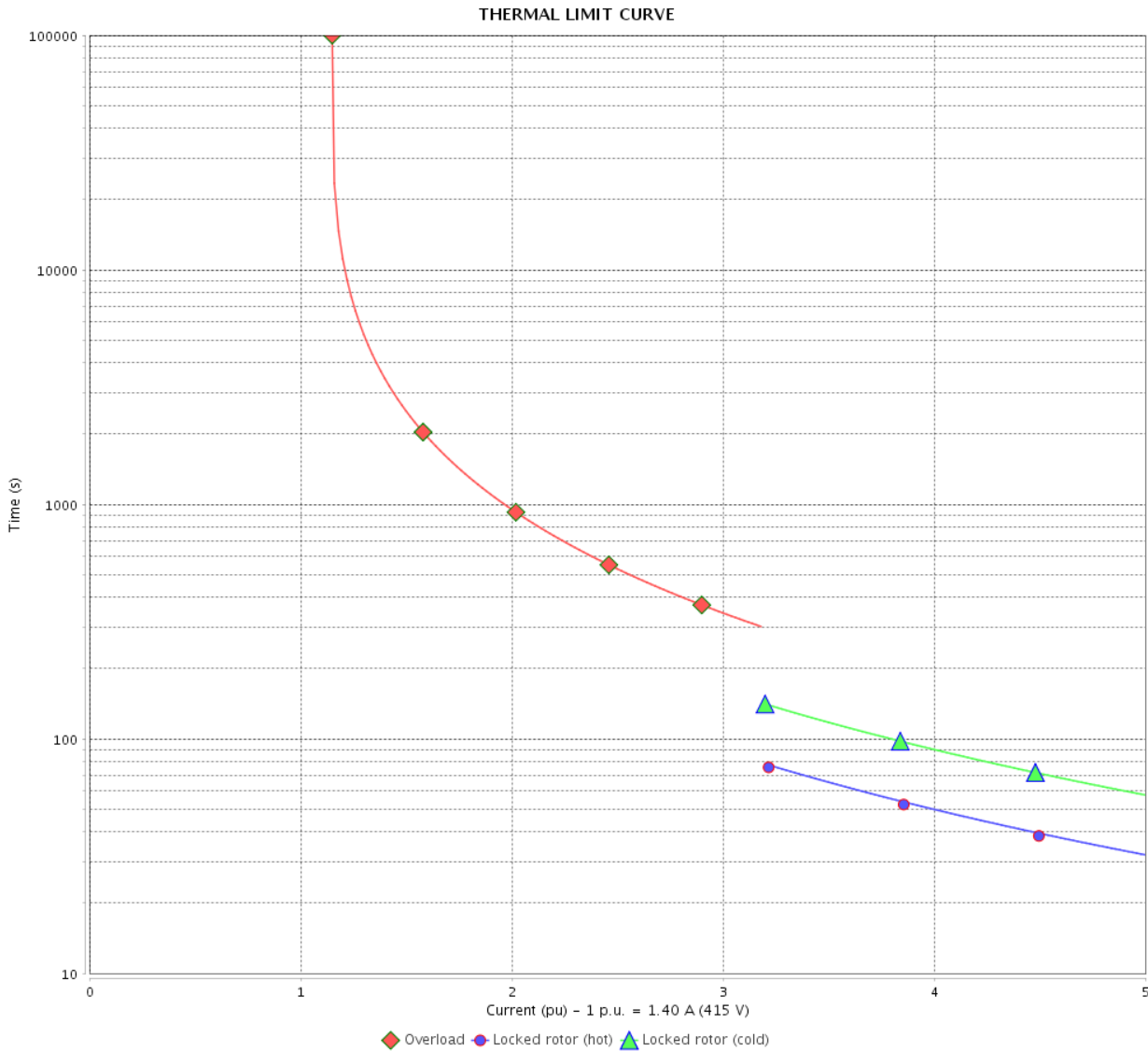
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 LRC : 5.0
 Rated torque : 4.15 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 260 %
 Rated speed : 950 rpm

Moment of inertia (J) : 0.1685 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : A

Heating constant

Cooling constant

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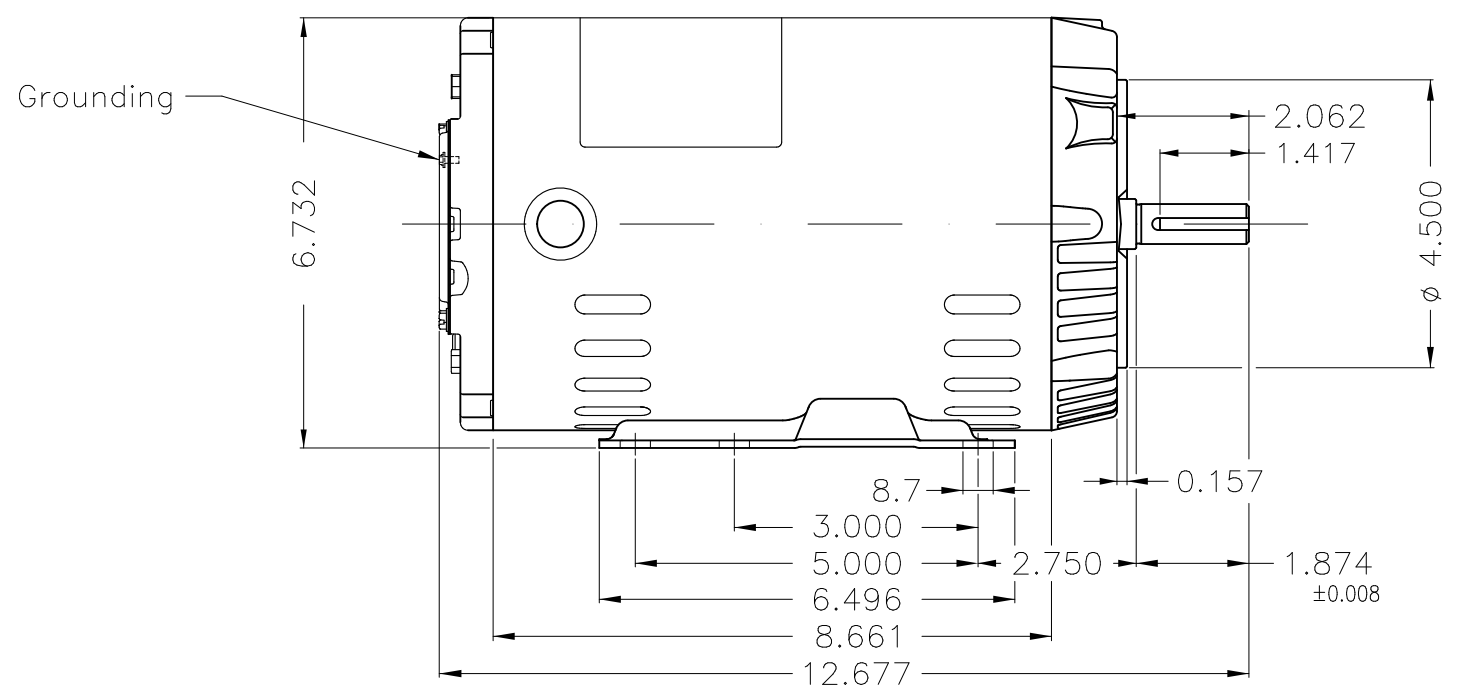
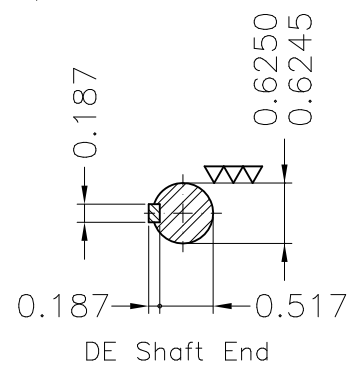
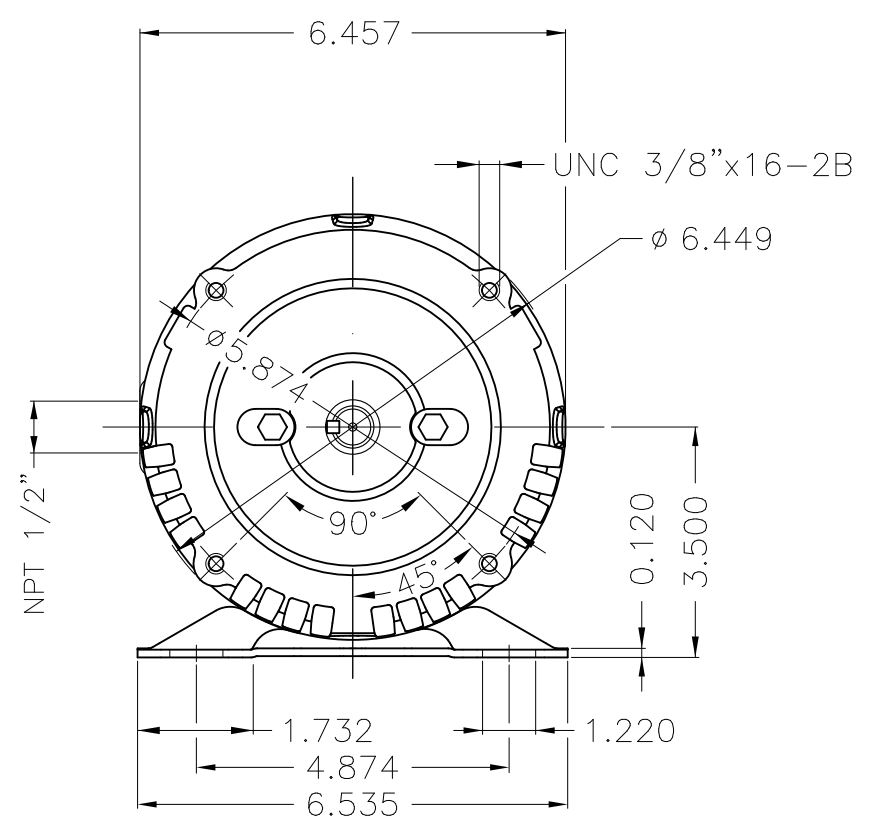
A

B

C

D

E



Dimensions in inches

Without coating										
Mounting F-1/B34R(D)										
ECM	LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWUSER	THREE PH. MOTOR ROLLED STEEL PREM. EFF.					PREVIEW WDD			
CHECKED		FRAME 56HC IP21 ODP								
RELEASED										
REL DT.		WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1				

0.75 HP 06 Poles 60 Hz

A

XME A3