

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line	: Premium Efficiency Three-Phase	Product code :	12812247	
		Catalog # :	00336OT3E56C-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	: 39.7 lb	
Design	: A	Moment of inertia (J)	: 0.1279 sq.ft.lb	
Output [HP]	3	3	3	
Poles	2	2	2	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	7.18/3.59	8.78/4.39	7.83/4.15	
L. R. Amperes [A]	57.4/28.7	53.6/26.8	53.2/28.2	
LRC [A]	8.0x(Code J)	6.1x(Code G)	6.8x(Code H)	
No load current [A]	2.60/1.30	2.60/1.30	2.71/1.44	
Rated speed [RPM]	3480	2825	2840	
Slip [%]	3.33	5.83	5.33	
Rated torque [ft.lb]	4.53	5.58	5.55	
Locked rotor torque [%]	229	190	220	
Breakdown torque [%]	300	229	250	
Service factor		1.00	1.00	
Temperature rise	80 K	105 K	105 K	
Locked rotor time	16s (cold) 9s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)	
Noise level ²	62.0 dB(A)	60.0 dB(A)	60.0 dB(A)	
Efficiency (%)	25%	83.7	89.4	88.4
	50%	84.0	86.6	86.5
	75%	85.5	85.0	85.6
	100%	85.5	81.8	83.2
Power Factor	25%	0.50	0.56	0.51
	50%	0.76	0.83	0.79
	75%	0.86	0.90	0.88
	100%	0.90	0.93	0.92
Bearing type	: Drive end 6204 ZZ Non drive end 6202 ZZ	Foundation loads		
Sealing	: Without Without Bearing Seal Bearing Seal	Max. traction	: 116 lb	
		Max. compression	: 156 lb	
Lubrication interval	: - -			
Lubricant amount	: - -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 7.94A SF 1.00 SFA 7.94A				
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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Date	13/04/2022		1 /	

TORQUE AND CURRENT VS SPEED CURVE

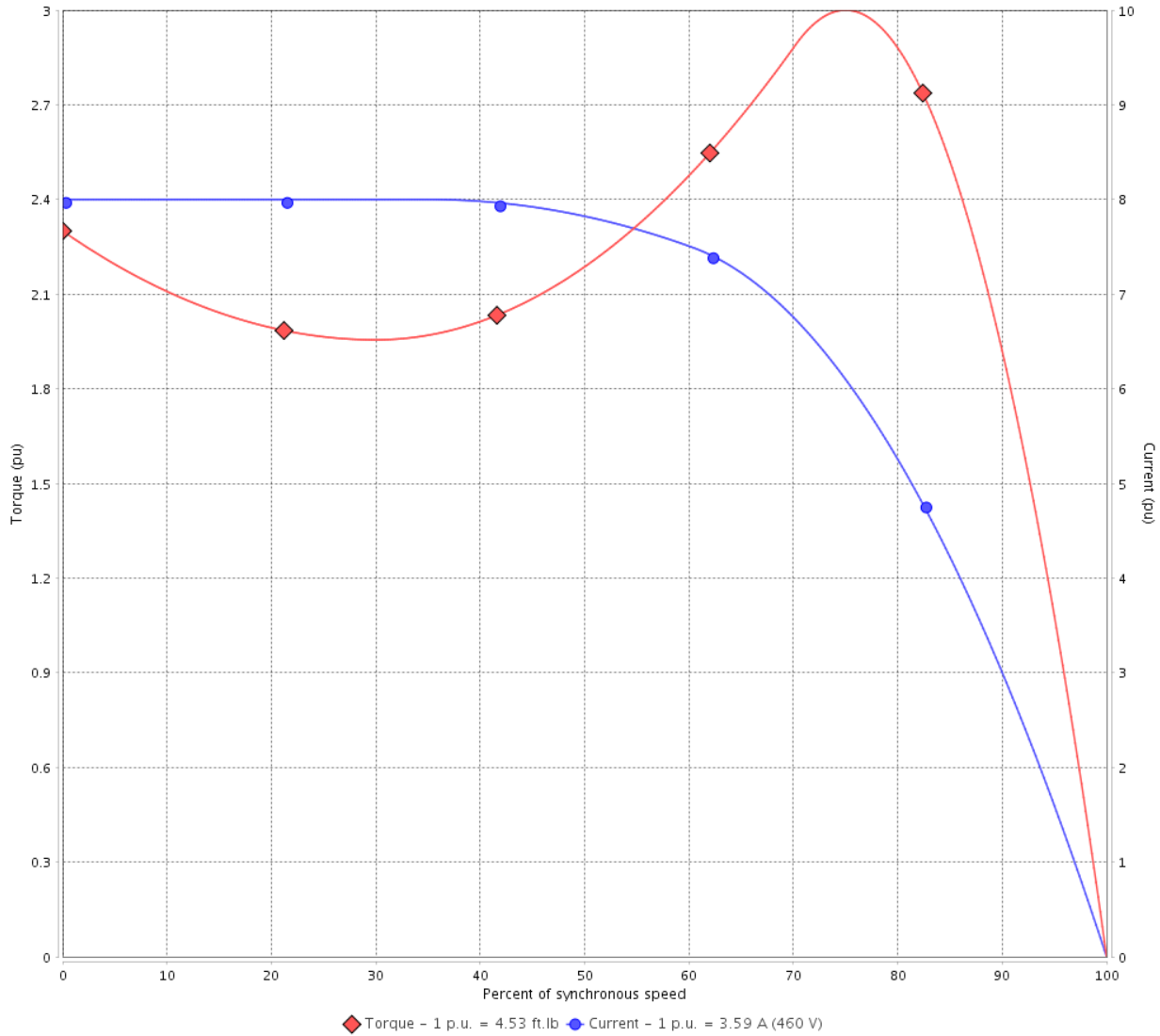
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase Product code : 12812247
 Catalog # : 003360T3E56C-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 7.18/3.59 A	Moment of inertia (J)	: 0.1279 sq.ft.lb
LRC	: 8.0	Duty cycle	: Cont.(S1)
Rated torque	: 4.53 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	:
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 3480 rpm	Design	: A

Locked rotor time : 16s (cold) 9s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

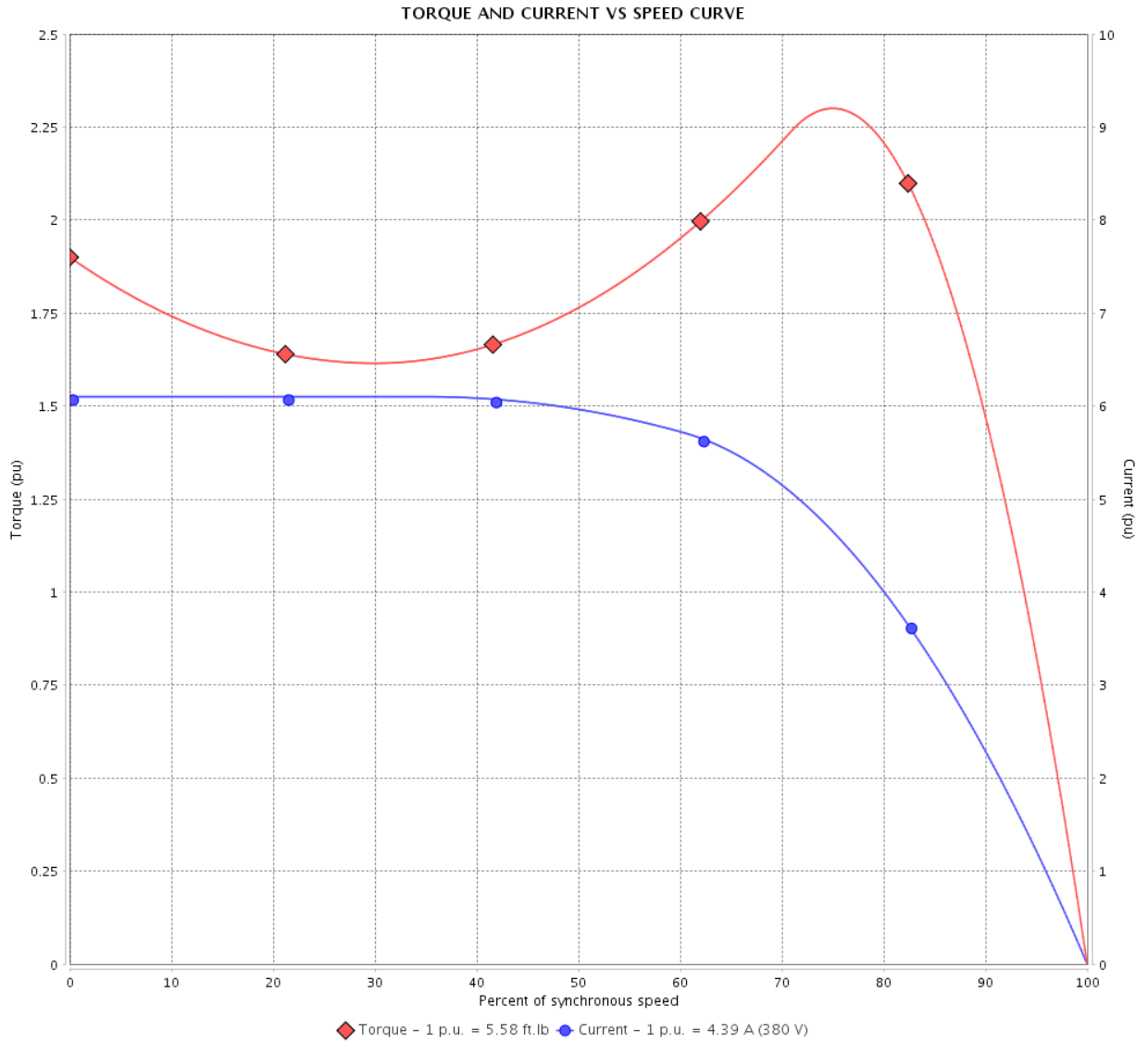
Product line : Premium Efficiency Three-Phase

Product code :

12812247

Catalog # :

00336OT3E56C-S



Performance : 190/380 V 50 Hz 2P

Rated current : 8.78/4.39 A
 LRC : 6.1
 Rated torque : 5.58 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 229 %
 Rated speed : 2825 rpm

Moment of inertia (J) : 0.1279 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : A

Locked rotor time : 16s (cold) 9s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

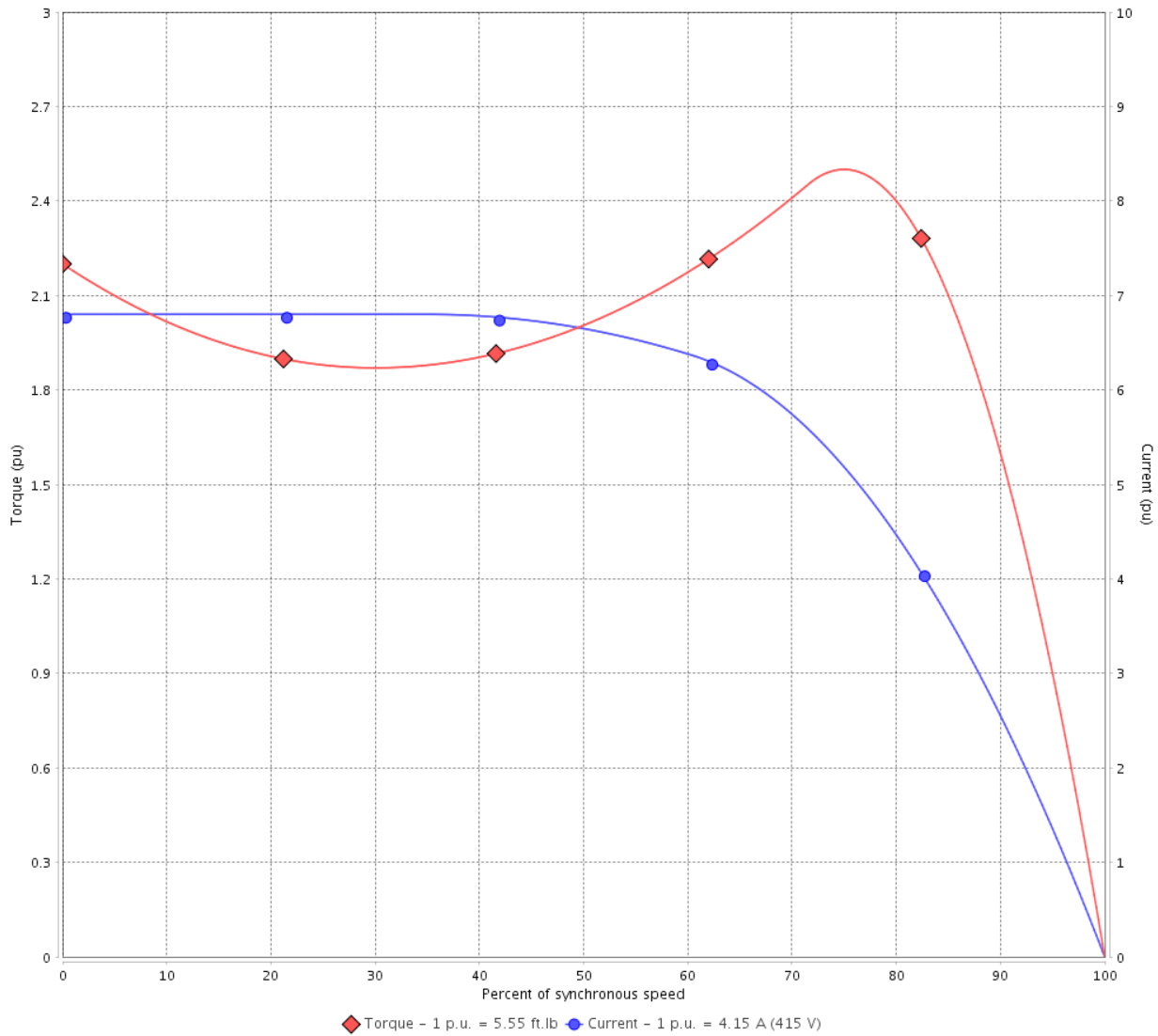
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase Product code : 12812247
 Catalog # : 003360T3E56C-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current	: 7.83/4.15 A	Moment of inertia (J)	: 0.1279 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 5.55 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 105 K
Rated speed	: 2840 rpm	Design	: A

Locked rotor time : 16s (cold) 9s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

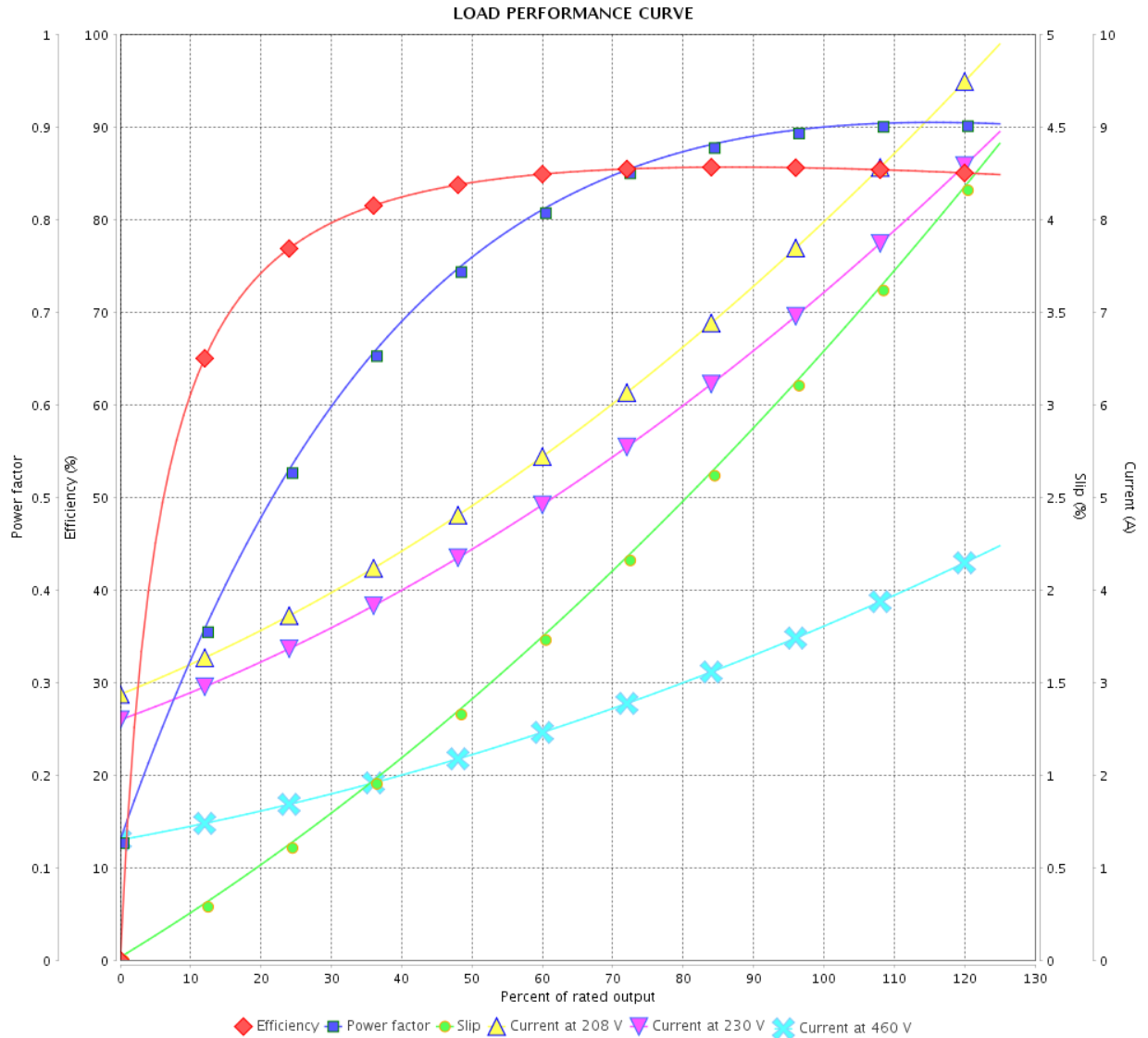
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Rated current : 7.18/3.59 A
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 Locked rotor torque : 229 %
 Breakdown torque : 300 %
 Rated speed : 3480 rpm

Moment of inertia (J) : 0.1279 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 Temperature rise : 80 K
 Design : A

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LOAD PERFORMANCE CURVE

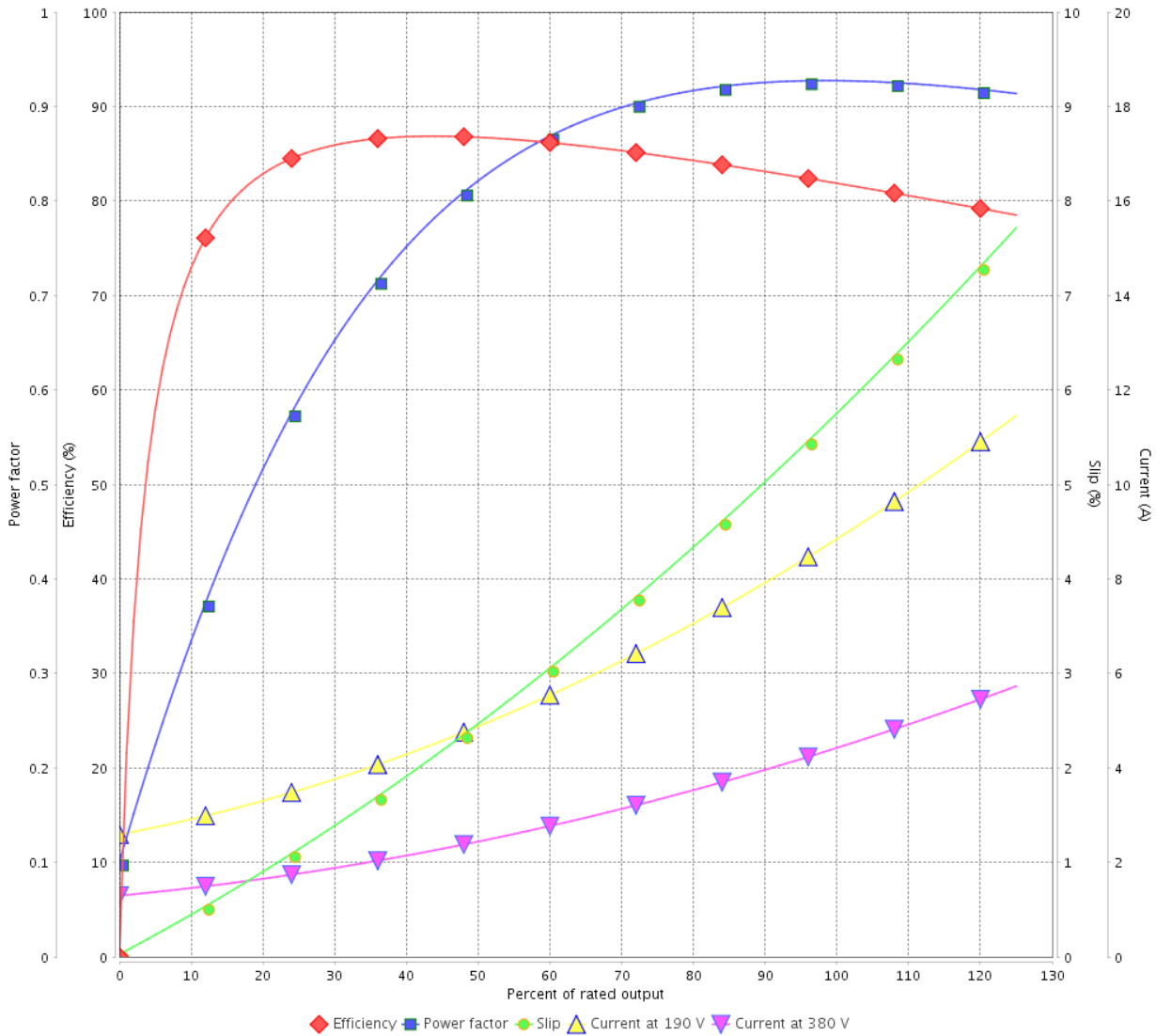
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LOAD PERFORMANCE CURVE



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 Breakdown torque : 229 %
 Rated speed : 2825 rpm

Moment of inertia (J) : 0.1279 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : A

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Three Phase Induction Motor - Squirrel Cage



Customer : _____

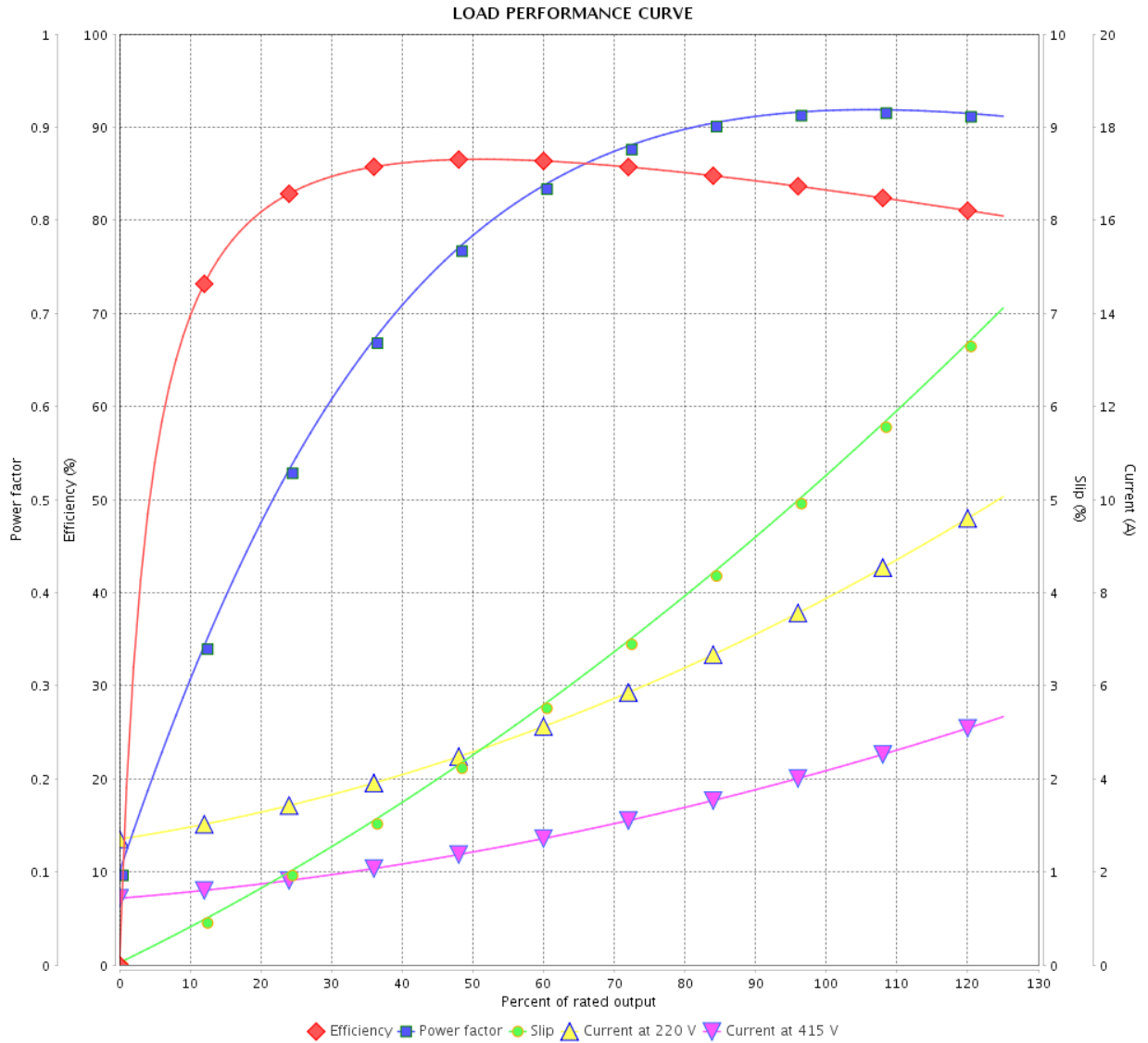
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Performance : 220/415 V 50 Hz 2P

Rated current : 7.83/4.15 A
 LRC : 6.8
 Rated torque : 5.55 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 250 %
 Rated speed : 2840 rpm

Moment of inertia (J) : 0.1279 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : A

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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

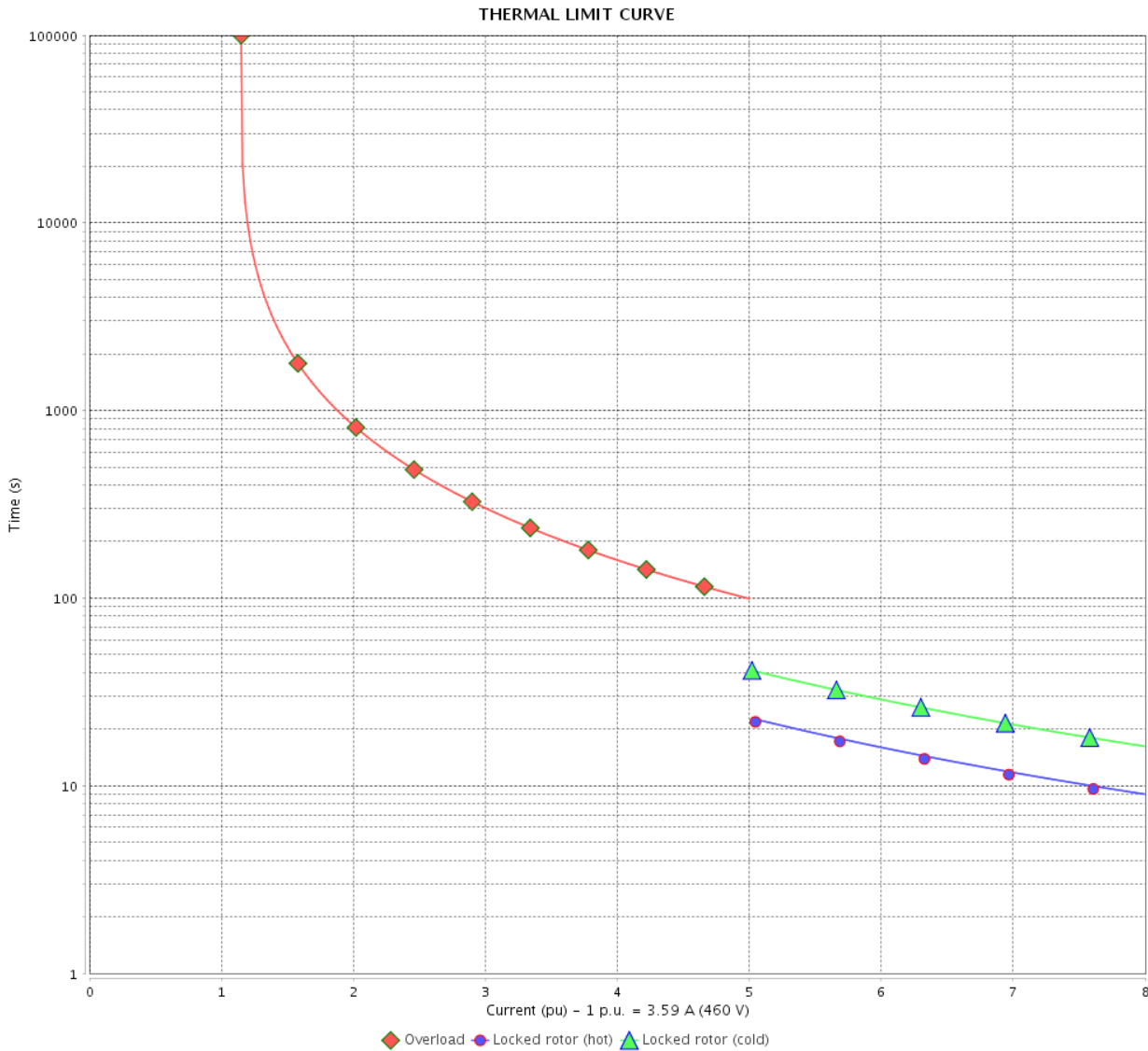
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 Rated speed : 3480 rpm

Moment of inertia (J) : 0.1279 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

Three Phase Induction Motor - Squirrel Cage



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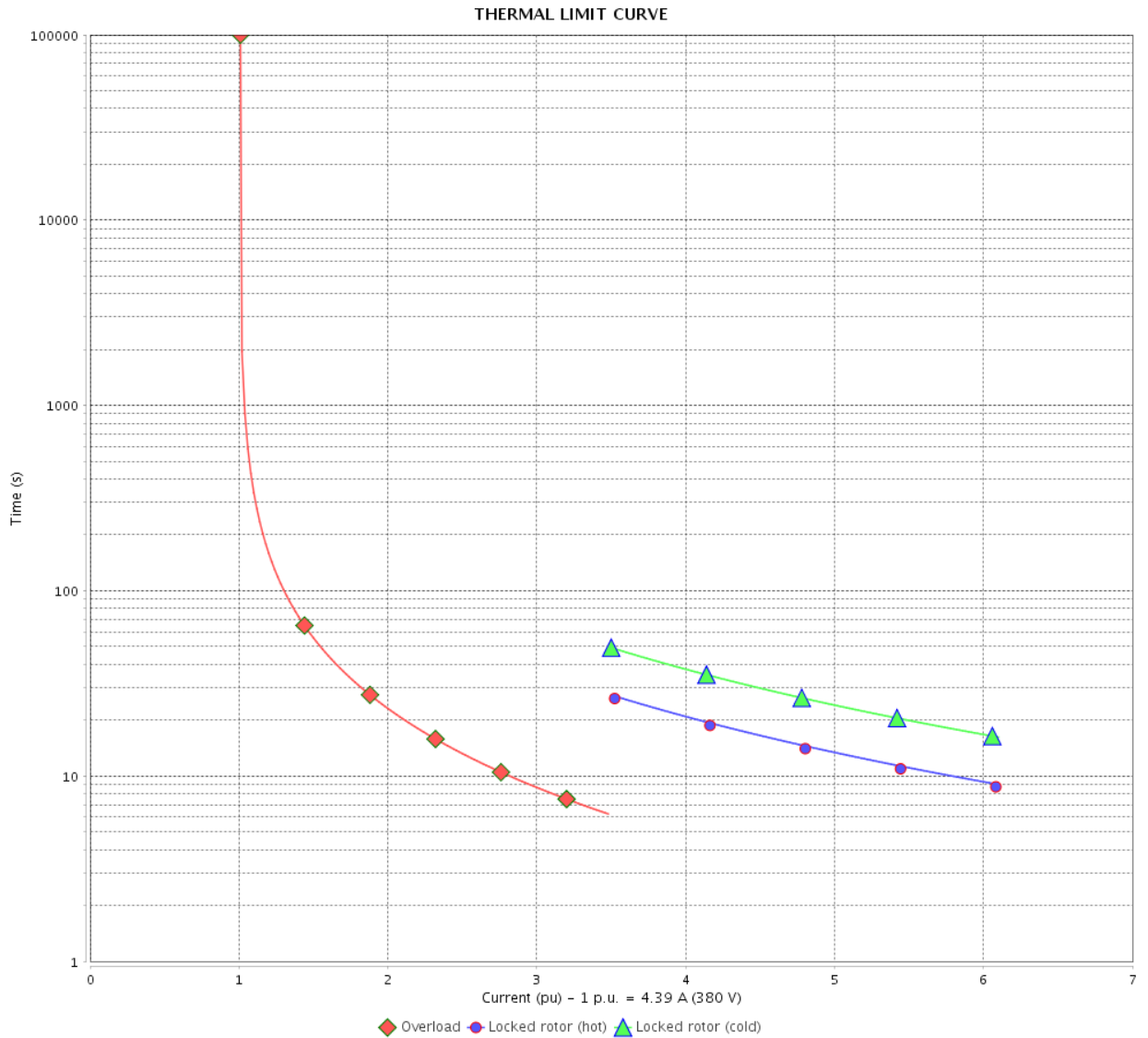
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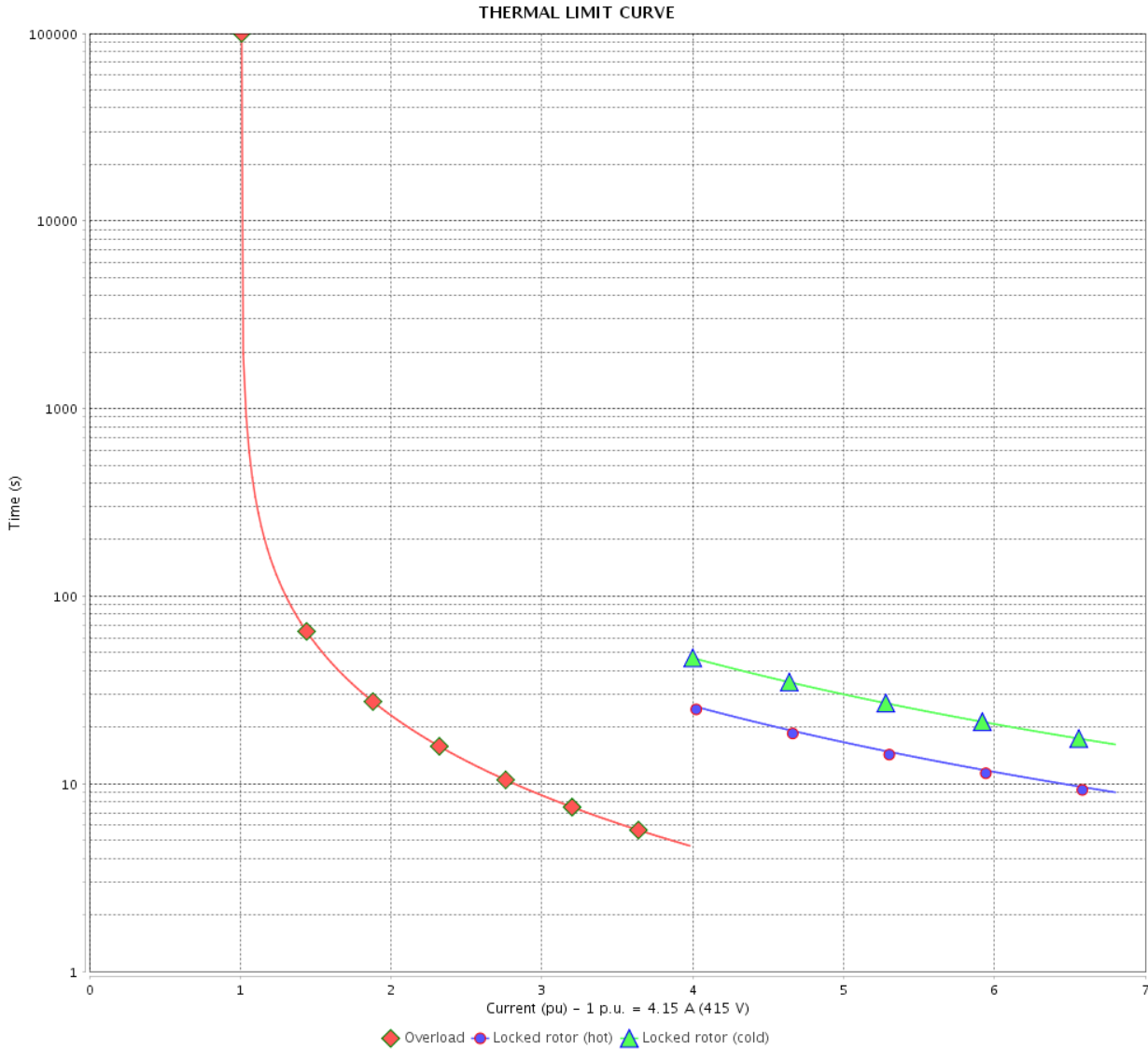
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Cooling constant

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

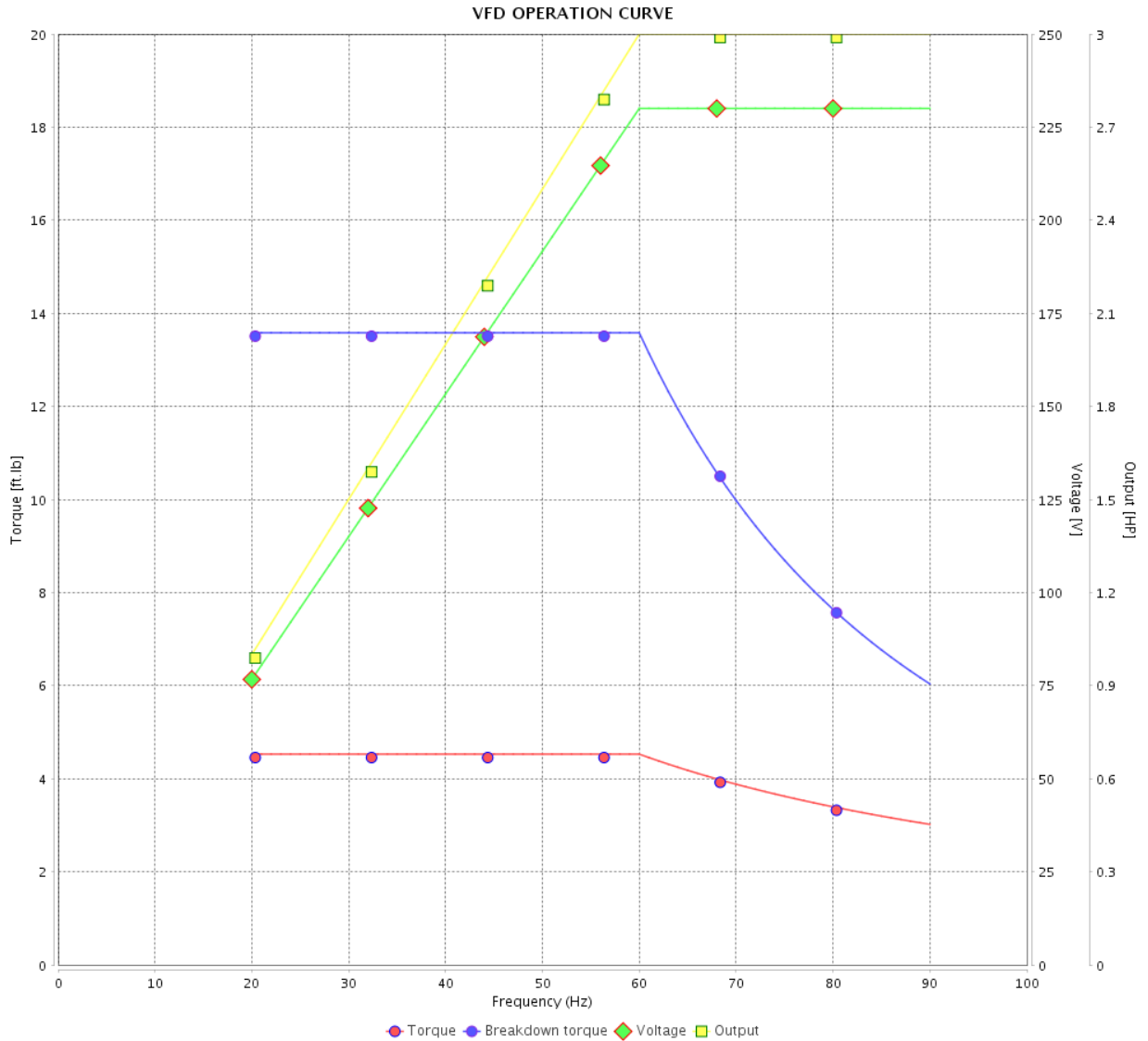
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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 Temperature rise : 80 K
 Design : A

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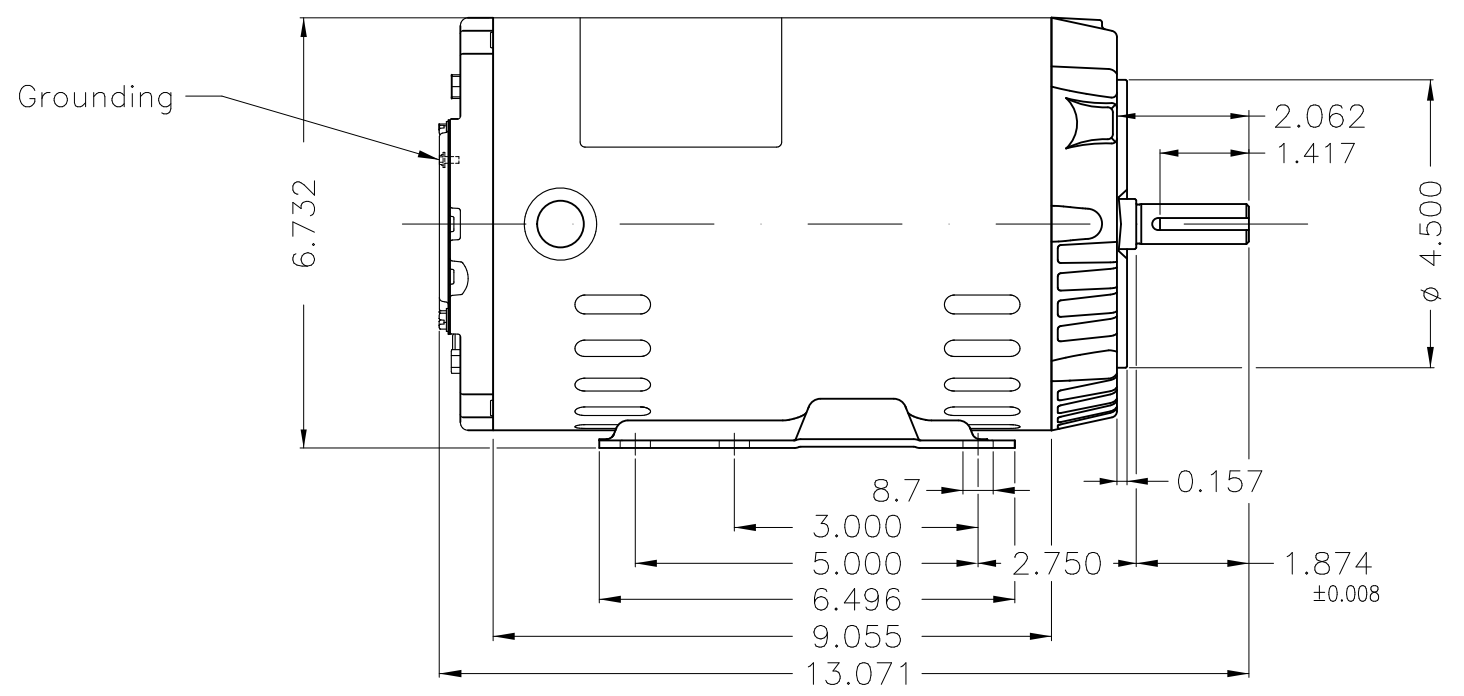
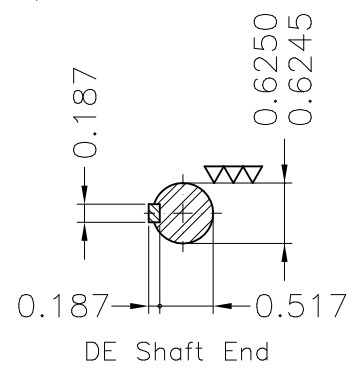
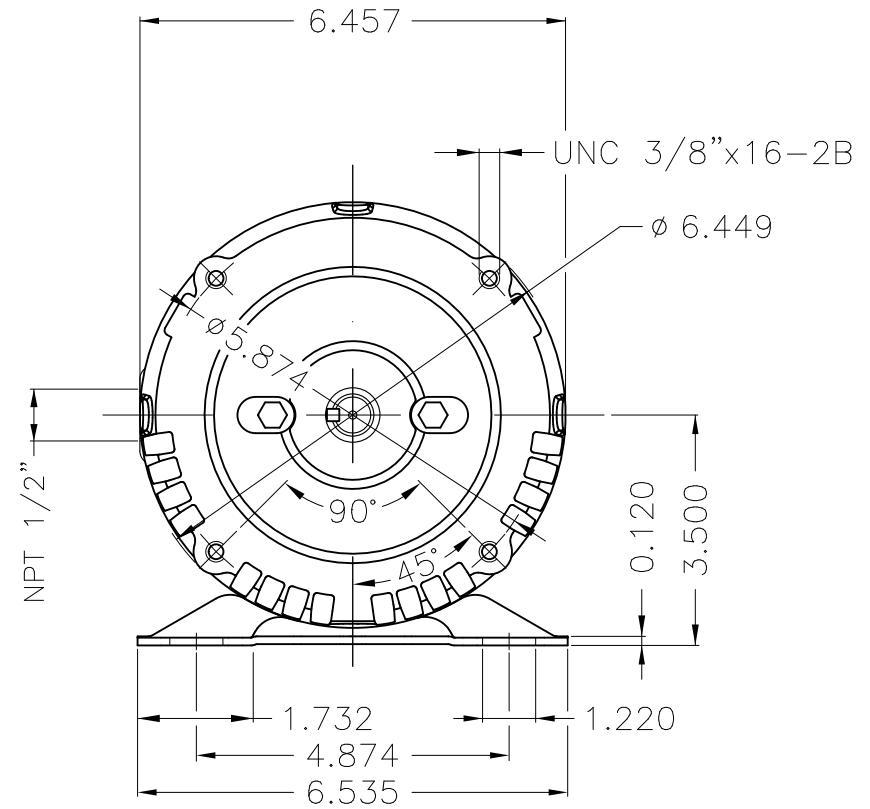
A

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	SHEET	1 / 1	
CHECKED		FRAME 56HC IP21 ODP								
RELEASED										
REL DT.	WMO	Jaragua do Sul	Product Engineering							

3 HP 02 Poles 60 Hz

A

XME A3



NEMA
Premium



MADE IN MEXICO

MAT: 12812247

W01.T00IC0X0X

MODEL 003360T3E56C-S

16DEC2021 B/N:

PH 3	Hz 60	HP 3.0
FR 56HC		KW 2.2
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 7.18/3.59
INS CL F AT 80K		SFA 8.26/4.13
AMB 40°C	DES A	SF 1.15
ENCL ODP	CODE J	PF 0.90
USABLE @ 208V 7.94A		RPM 3480
SF1.00		NEMA NOM. EFF 85.5%

ALTERNATE RATING: 3.0HP 50Hz 190-220/380-415V SF1.00
8.78-7.56/4.39-4.01A 2825RPM EFF 81.8% (IE1) IEC 60034-1

Inverter duty motor For 80Hz use on VPWM 1000:1 VT, 3:1 CT

DE 6204-ZZ	ODE 6202-ZZ	MOBIL POLYREX EM
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T1-BLU T2-WHT
 T3-ORG T4-YEL
 T5-BLK T6-GRY
 T7-PNK T8-RED
 T9-BRK RED

INTERCHANGE ANY TWO LINE WIRES TO REVERSE THE ROTATION



WARNING: Motor must be grounded in accordance with local and national electrical codes to prevent serious electrical shocks. Disconnect power source before servicing unit.

AVERTISSEMENT: Le moteur doit être mis à la terre conformément aux codes électriques locaux et nationaux afin d'éviter tout choc électrique grave. Déconnectez l'alimentation avant l'entretien de la machine.

