

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line	: Premium Efficiency Three-Phase	Product code :	12809666	
		Catalog # :	00158OT3E56C-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 ³	: 38.0 lb	
Design	: A	Moment of inertia (J)	: 0.1296 sq.ft.lb	
Output [HP]	1.5	1.5	1.5	
Poles	4	4	4	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	4.20/2.10	4.94/2.47	4.56/2.42	
L. R. Amperes [A]	37.0/18.5	33.6/16.8	33.8/17.9	
LRC [A]	8.8x(Code L)	6.8x(Code J)	7.4x(Code K)	
No load current [A]	2.60/1.30	2.61/1.30	2.71/1.44	
Rated speed [RPM]	1760	1445	1450	
Slip [%]	2.22	3.67	3.33	
Rated torque [ft.lb]	4.48	5.45	5.43	
Locked rotor torque [%]	290	220	250	
Breakdown torque [%]	350	280	310	
Service factor		1.15	1.15	
Temperature rise	80 K	80 K	80 K	
Locked rotor time	25s (cold) 14s (hot)	27s (cold) 15s (hot)	25s (cold) 14s (hot)	
Noise level ²	52.0 dB(A)	49.0 dB(A)	49.0 dB(A)	
Efficiency (%)	25%	82.9	84.3	82.7
	50%	84.0	83.7	82.7
	75%	85.5	84.7	84.5
	100%	86.5	83.6	84.1
Power Factor	25%	0.30	0.36	0.32
	50%	0.53	0.61	0.56
	75%	0.66	0.74	0.70
	100%	0.76	0.81	0.78
Bearing type	: Drive end 6204 ZZ Non drive end 6202 ZZ	Foundation loads		
Sealing	: Without Without Bearing Seal Bearing Seal	Max. traction	: 146 lb	
		Max. compression	: 184 lb	
Lubrication interval	: - -			
Lubricant amount	: - -			
Lubricant type	: Mobil Polyrex EM			
Notes				
USABLE @208V 4.64A SF 1.00 SFA 4.64A				
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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Performed by				
Checked by			Page	Revision
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TORQUE AND CURRENT VS SPEED CURVE

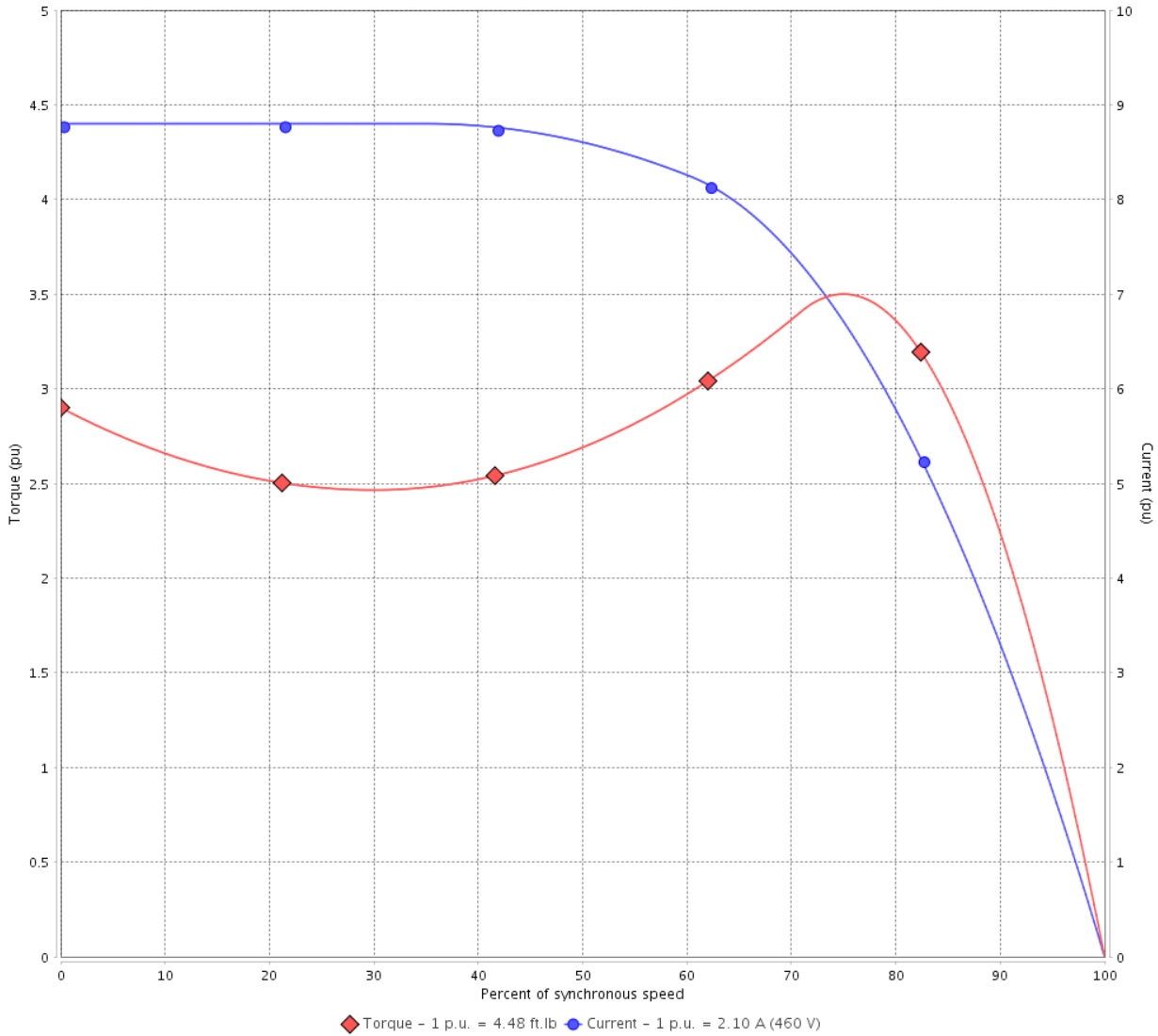
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase Product code : 12809666
 Catalog # : 00158OT3E56C-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current	: 4.20/2.10 A	Moment of inertia (J)	: 0.1296 sq.ft.lb
LRC	: 8.8	Duty cycle	: Cont.(S1)
Rated torque	: 4.48 ft.lb	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	:
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1760 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 :

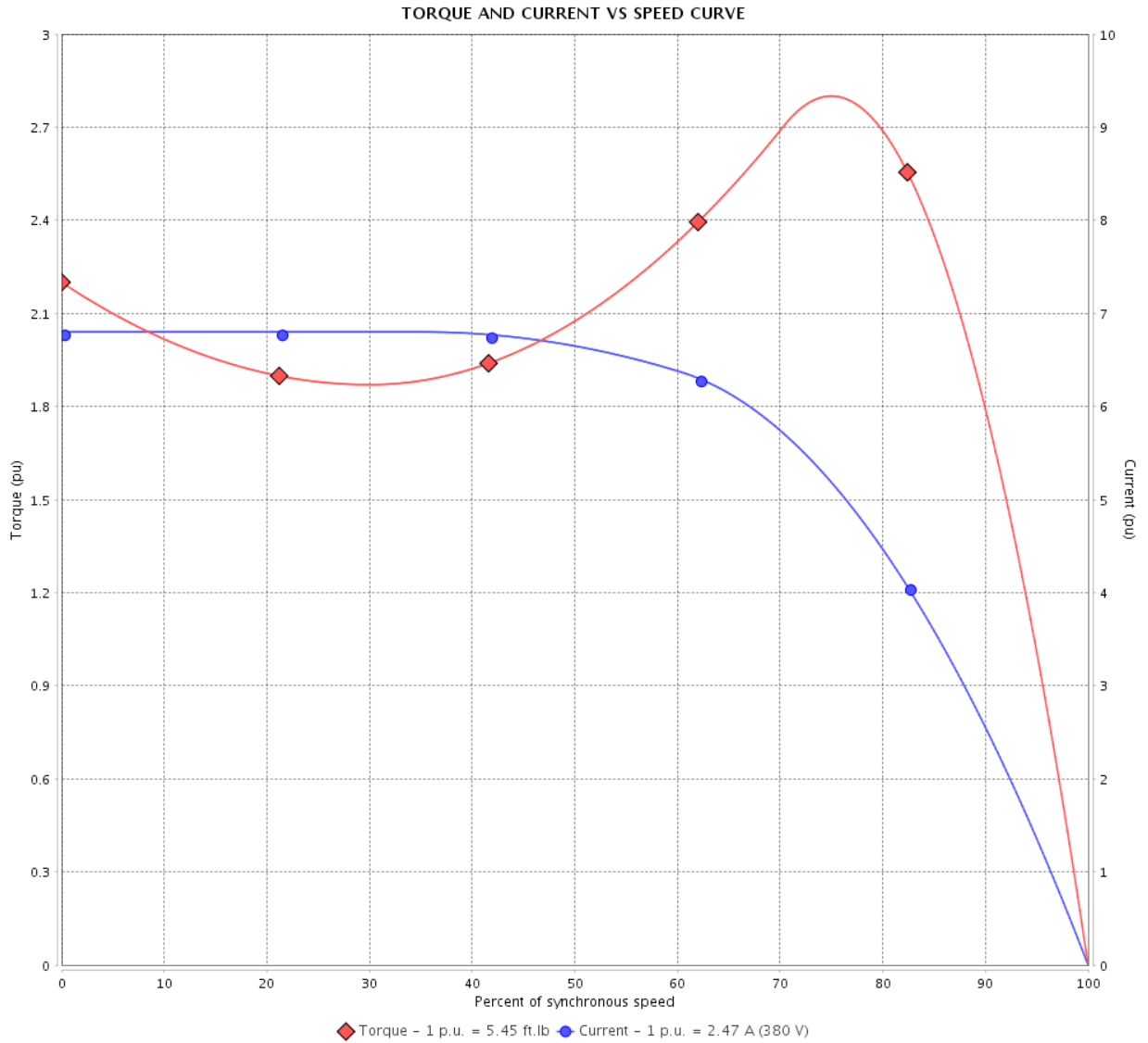
Product line : Premium Efficiency Three-Phase

Product code :

12809666

Catalog # :

00158OT3E56C-S



Performance : 190/380 V 50 Hz 4P

Rated current : 4.94/2.47 A
 LRC : 6.8
 Rated torque : 5.45 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 280 %
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.1296 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : A

Locked rotor time : 27s (cold) 15s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

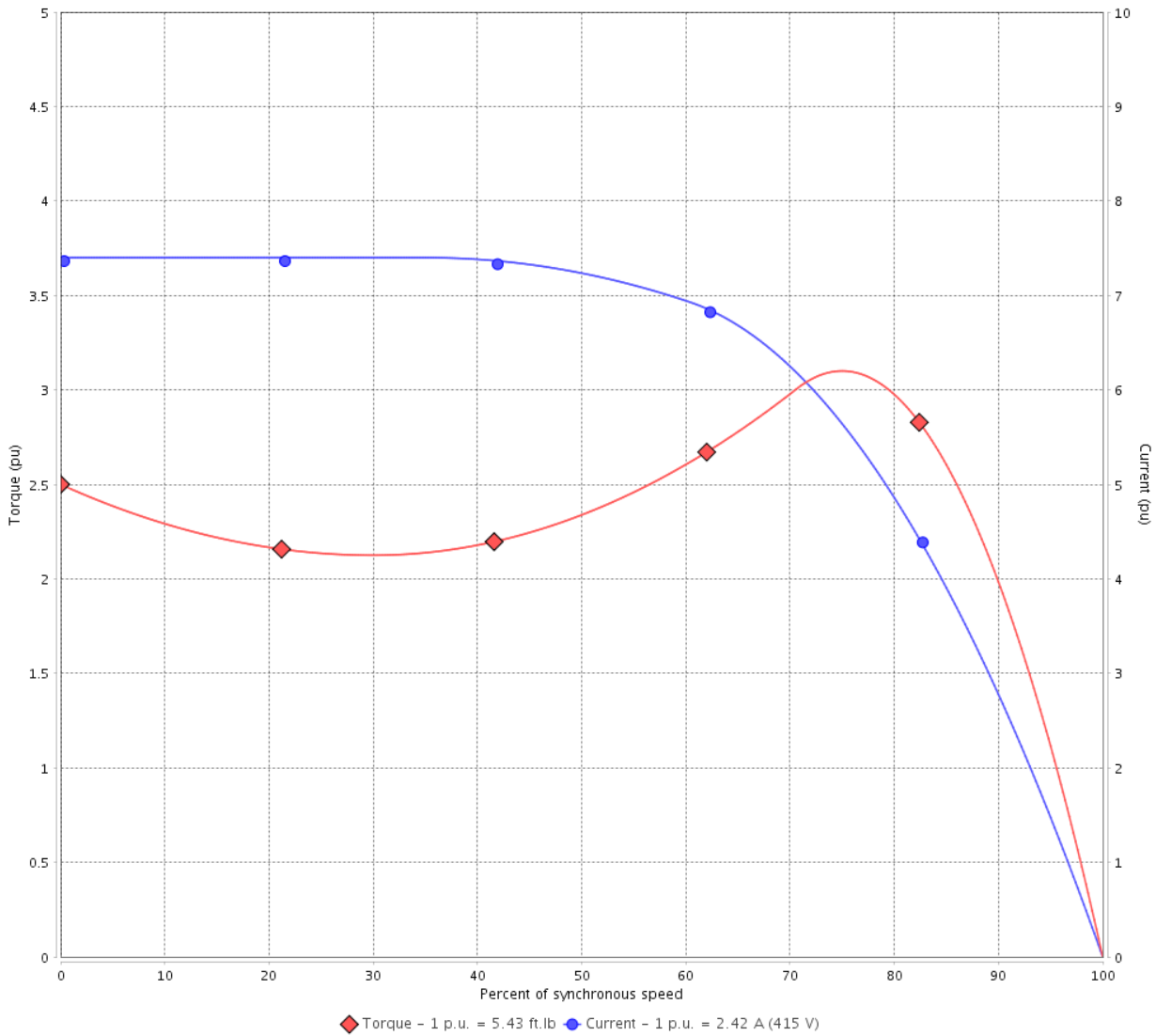
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase Product code : 12809666
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TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

Rated current	: 4.56/2.42 A	Moment of inertia (J)	: 0.1296 sq.ft.lb
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 5.43 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1450 rpm	Design	: A

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

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____

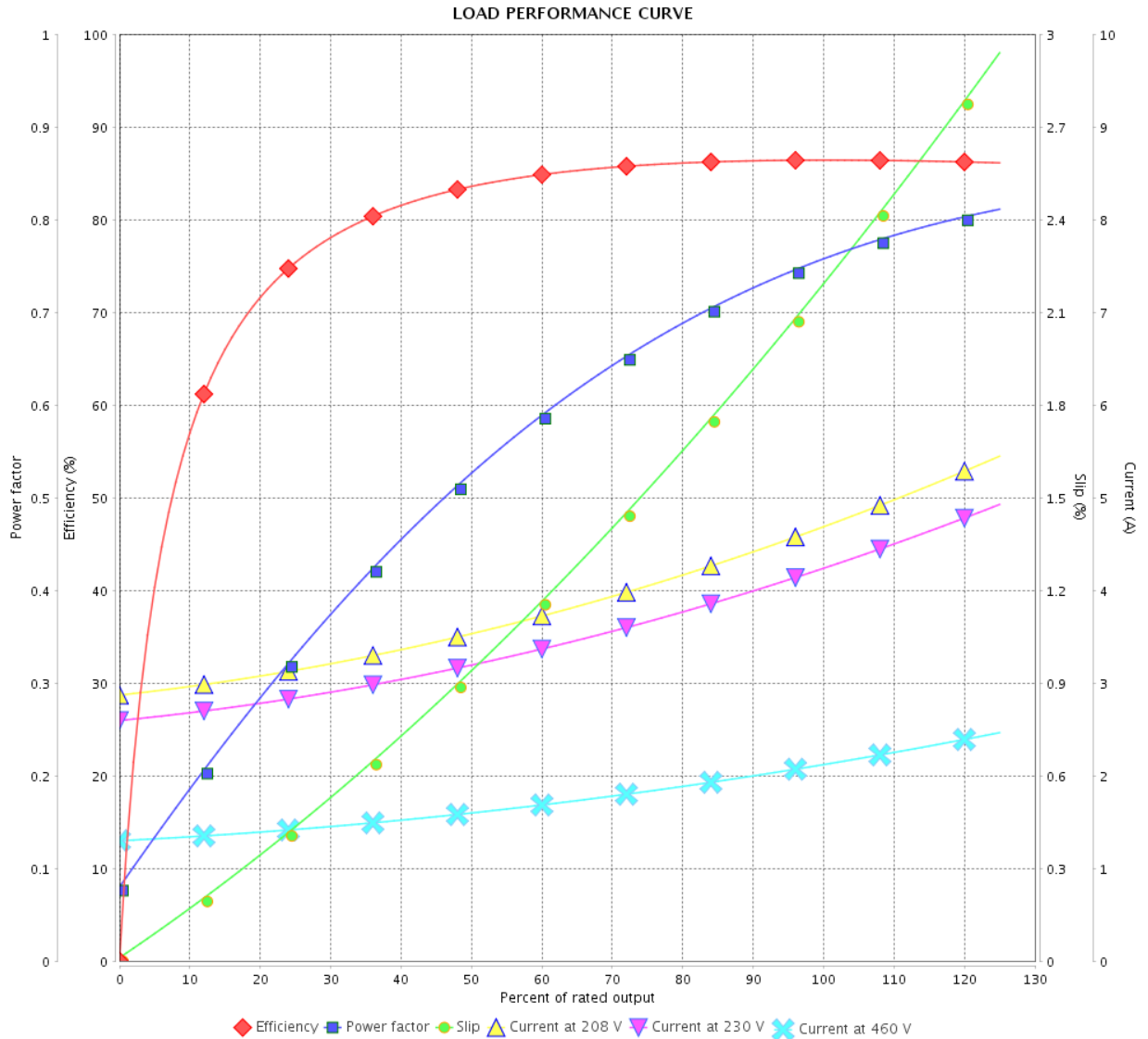
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Performance : 230/460 V 60 Hz 4P

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 Locked rotor torque : 290 %
 Breakdown torque : 350 %
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 Service factor :
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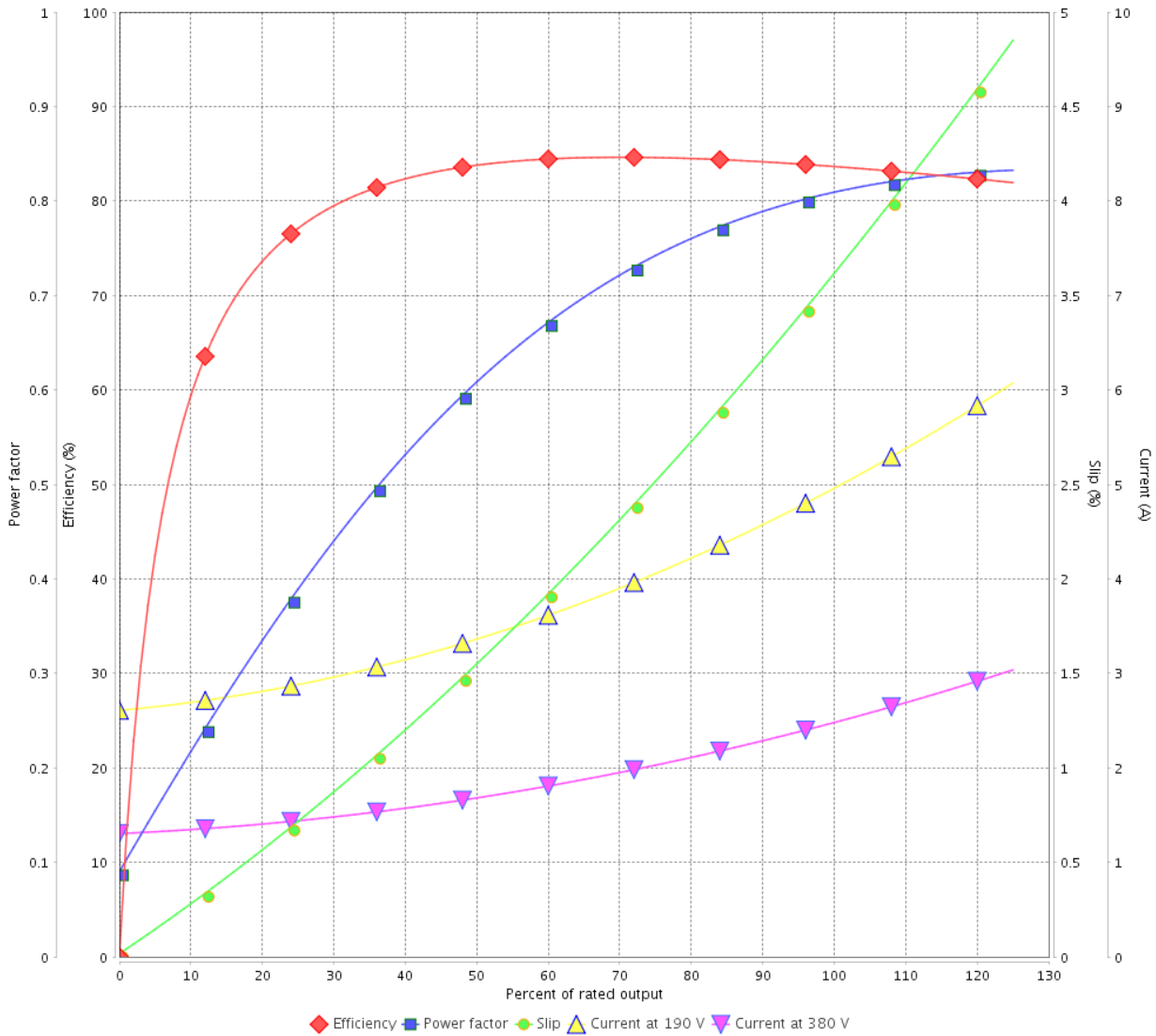
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase Product code : 12809666
 Catalog # : 001580T3E56C-S

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 4P

Rated current : 4.94/2.47 A
 LRC : 6.8
 Rated torque : 5.45 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 280 %
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.1296 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
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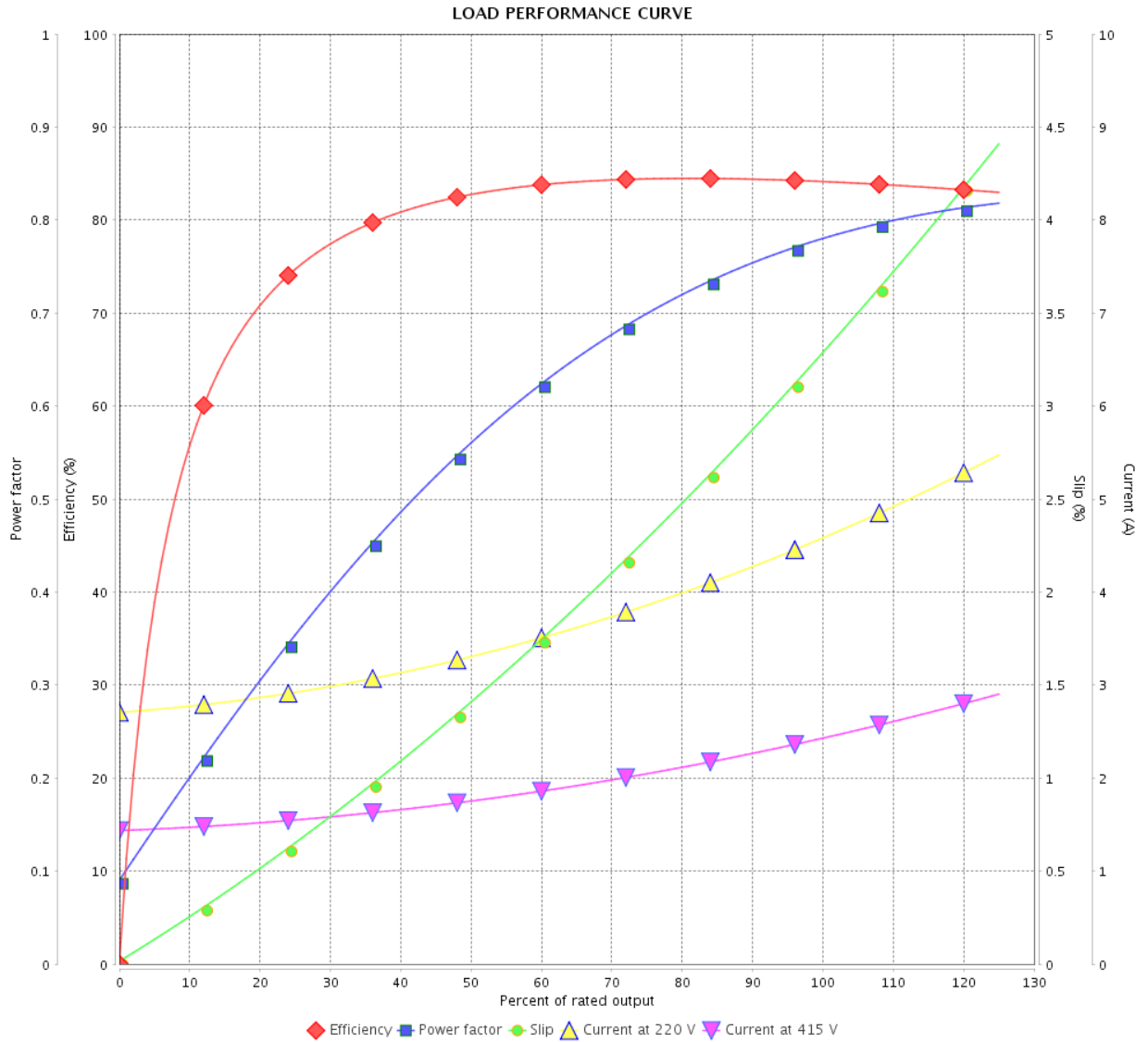
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THERMAL LIMIT CURVE

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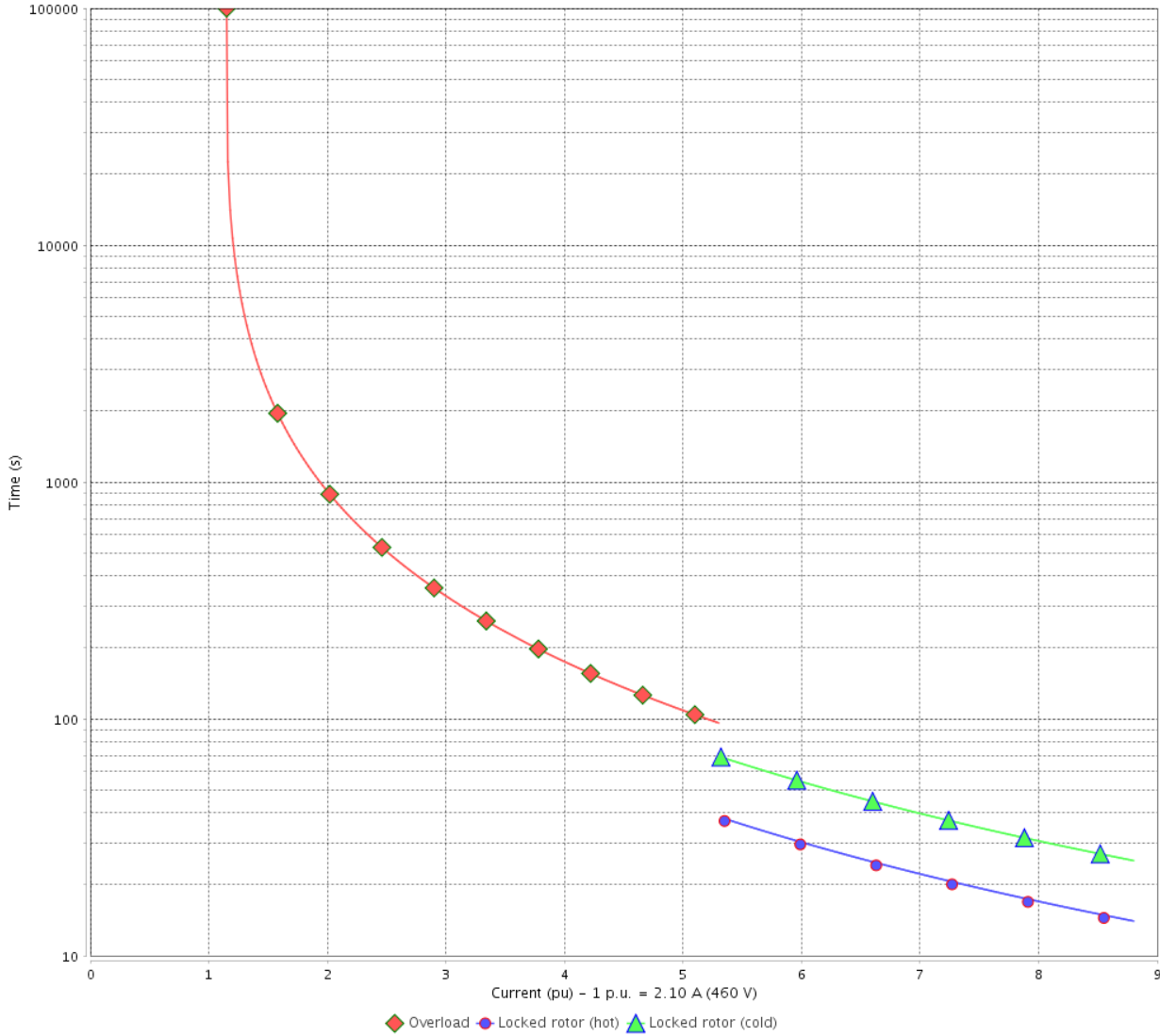
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 Insulation class : F
 Service factor :
 Temperature rise : 80 K
 Design : A

Heating constant

Cooling constant

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THERMAL LIMIT CURVE

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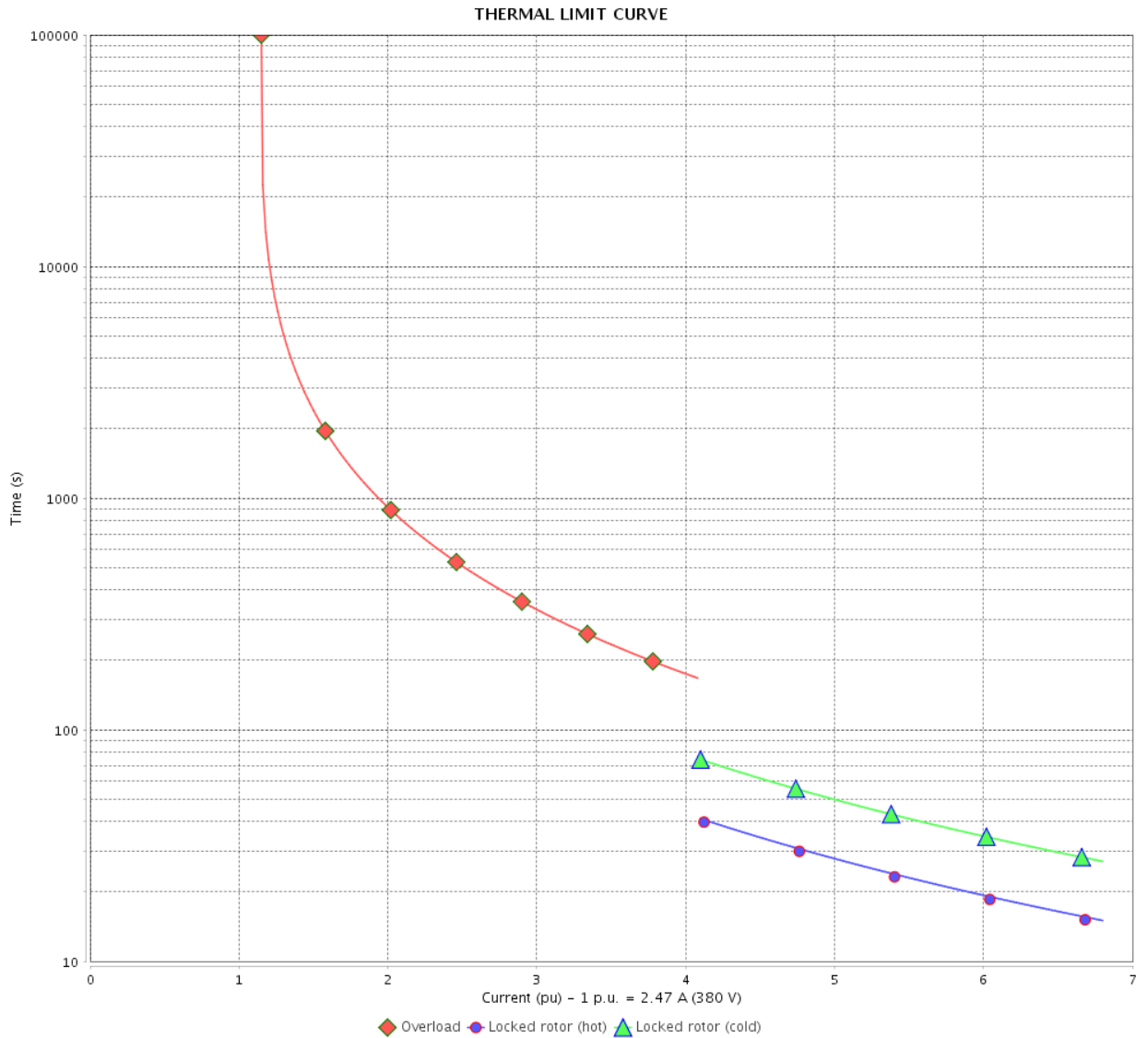
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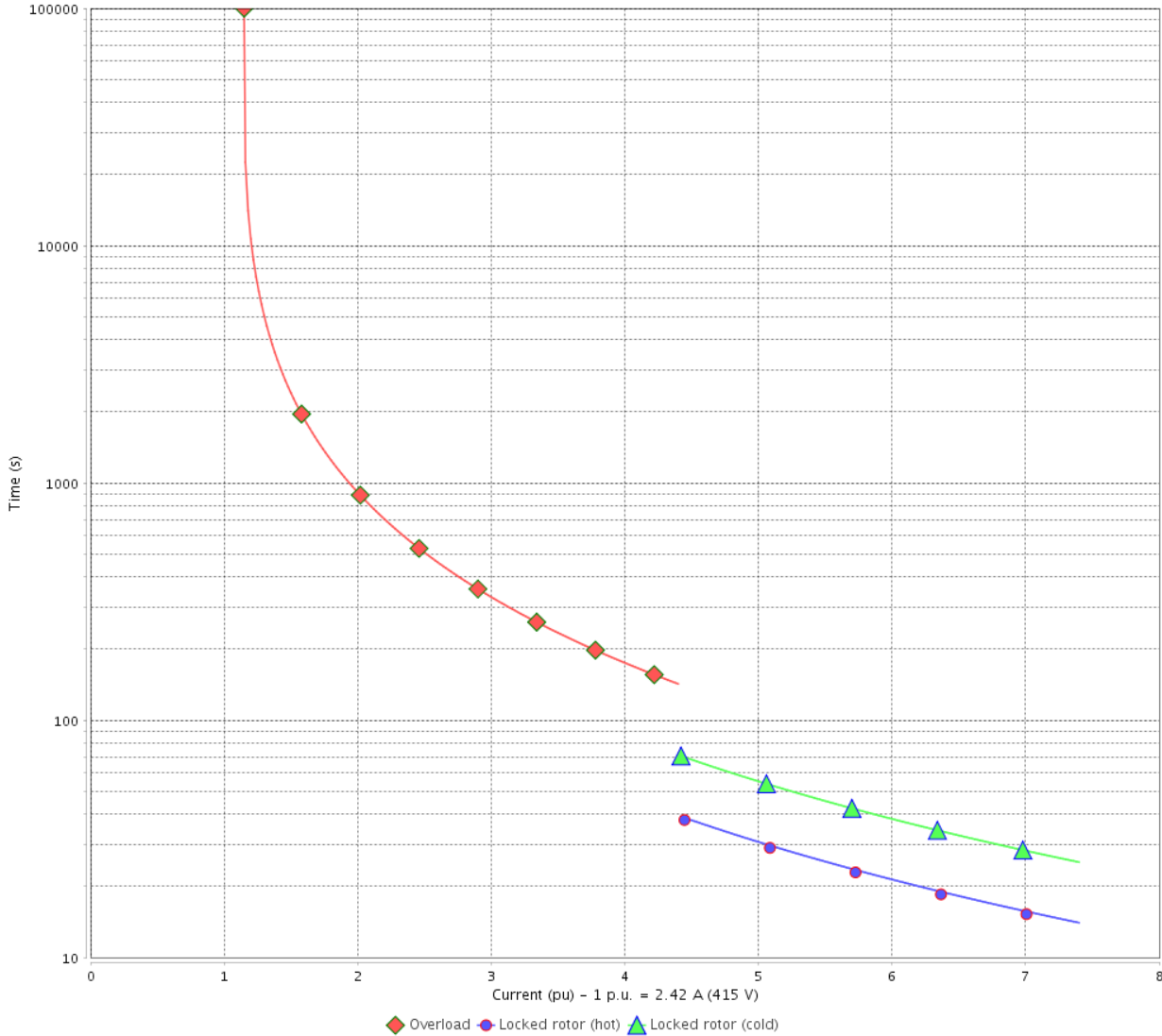
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 Temperature rise : 80 K
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

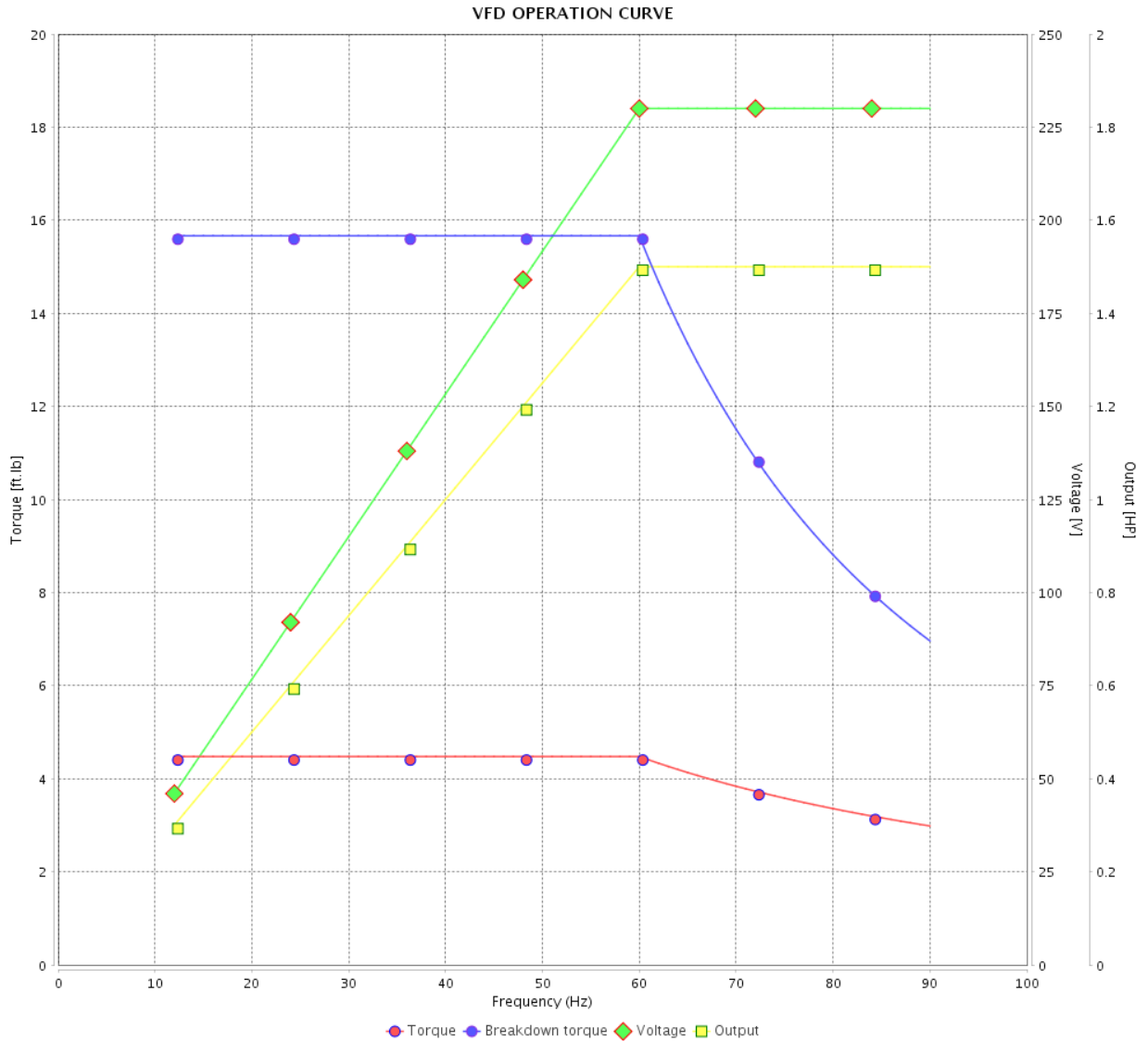


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 Insulation class : F
 Service factor :
 Temperature rise : 80 K
 Design : A

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VFD OPERATION CURVE

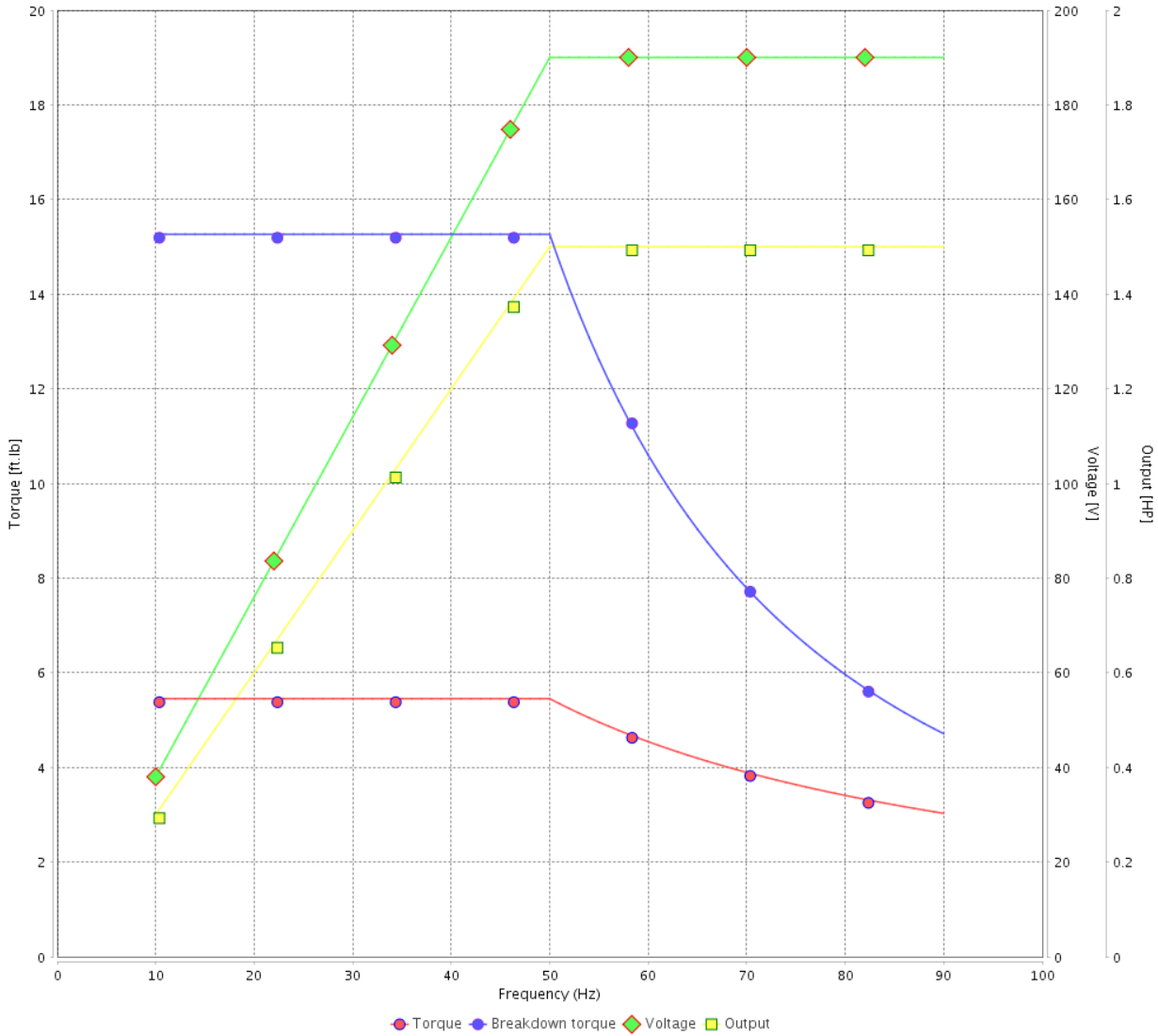
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VFD OPERATION CURVE

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Customer :

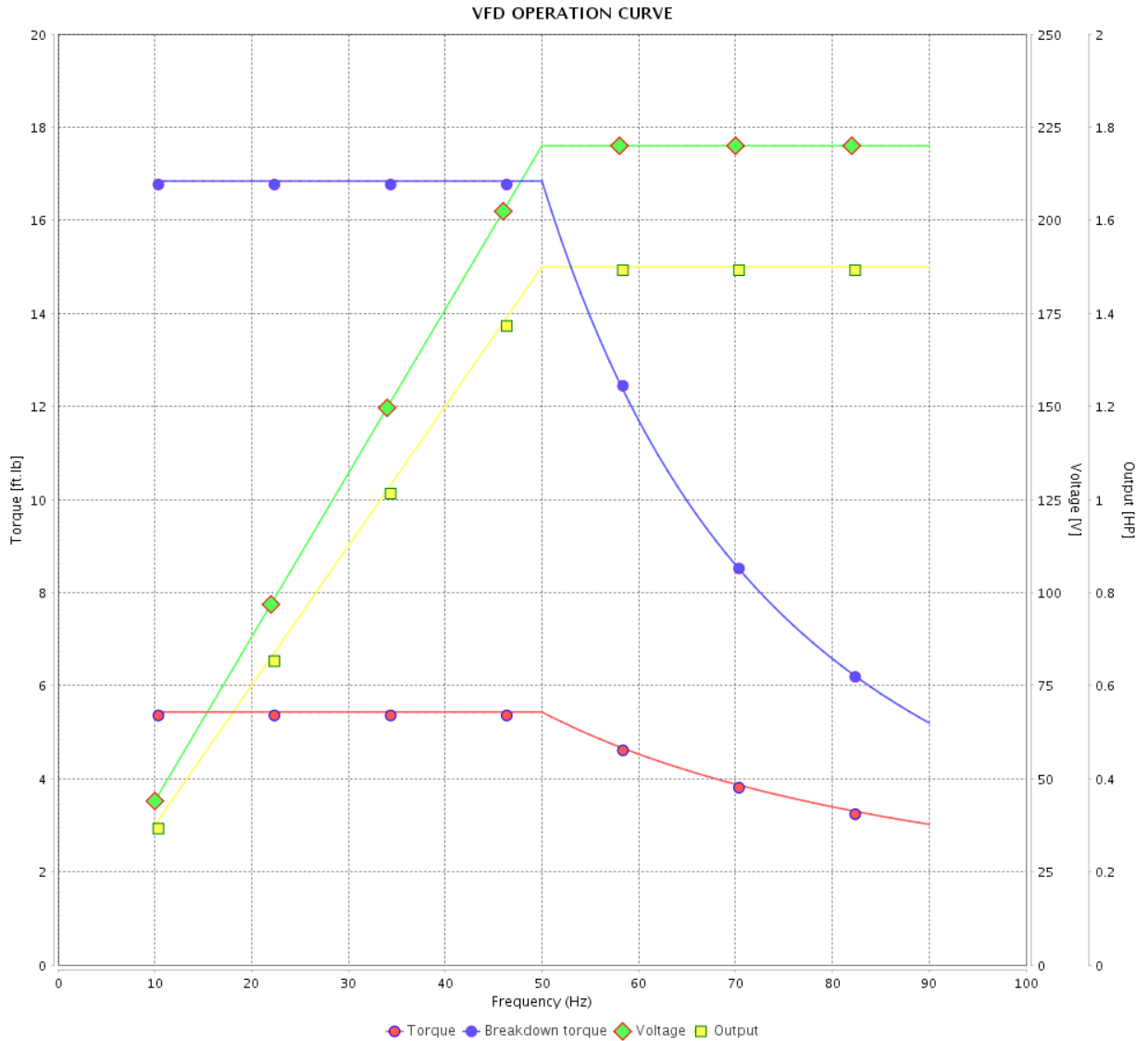
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 Duty cycle : Cont.(S1)
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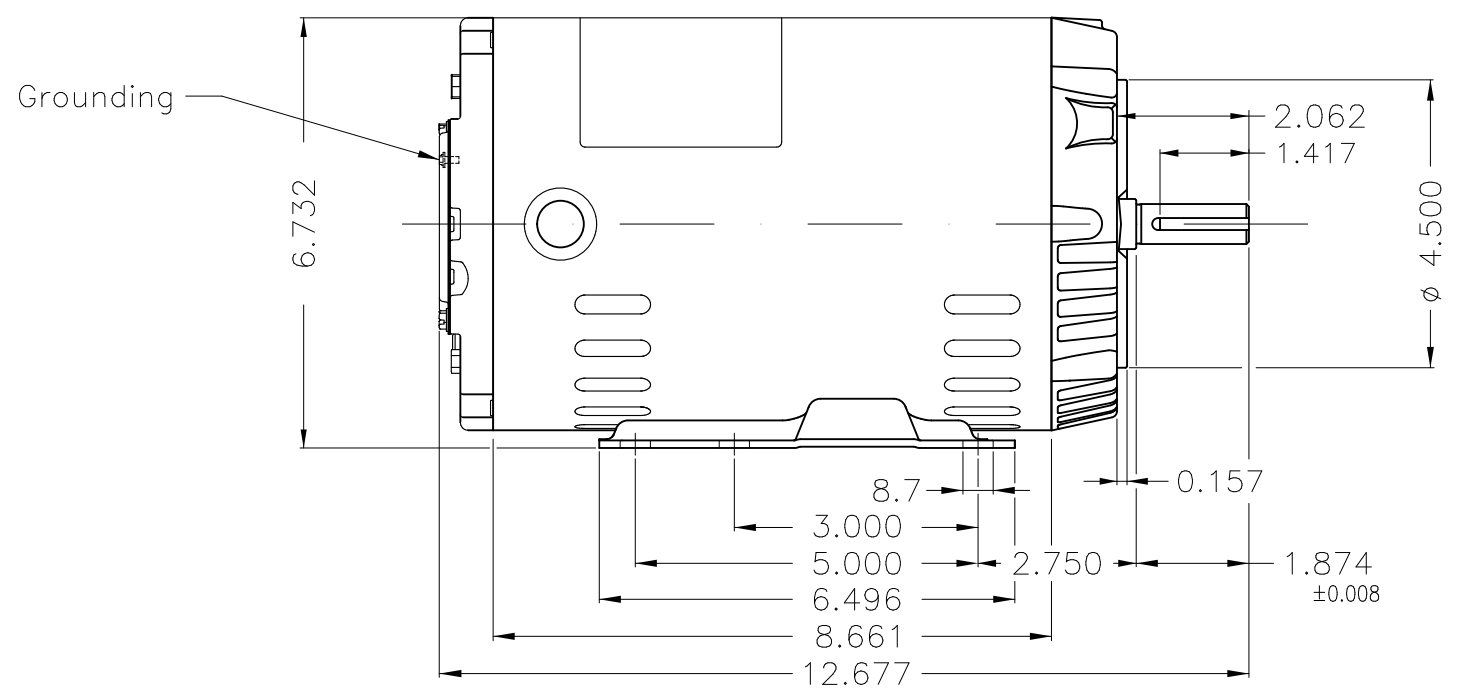
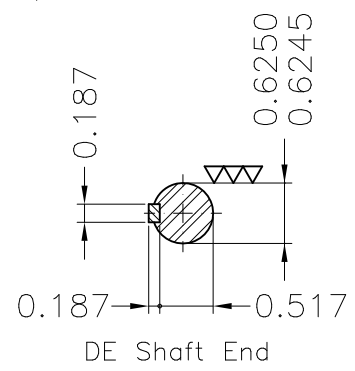
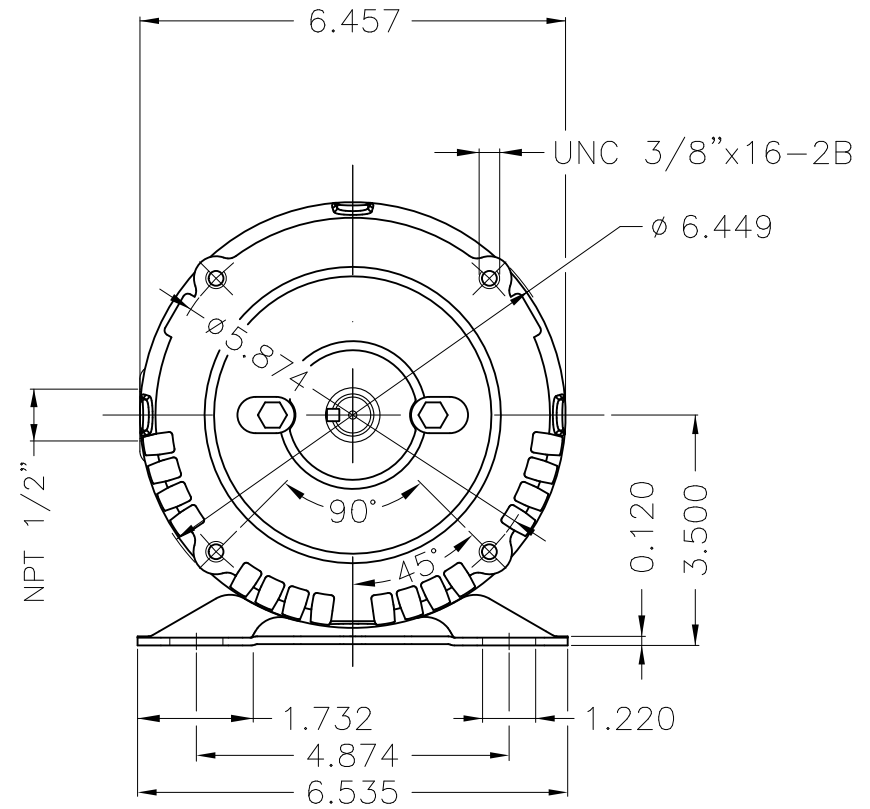
A

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						

1.5 HP 04 Poles 60 Hz

A

XME A3



NEMA
Premium



MADE IN MEXICO

MAT: 12809666

W01.T00IC0X0X

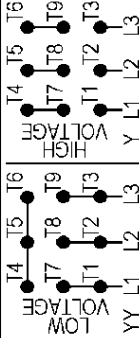
MODEL 001580T3E56C-S
23MAR2022 B/N:

PH 3	Hz 60	HP 1.5
FR 56HC		KW 1.1
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 4.20/2.10
INS CL F AT 80K		SFA 4.83/2.42
AMB 40°C	DES A	SF 1.15
ENCL ODP	CODE L	PF 0.76
USABLE @ 208V 4.84A		RPM 1760
SF1.00		NEMA NOM. EFF 86.5%

ALTERNATE RATING: 1.5HP 50Hz 190-220/380-415V SF1.15
4.94-4.51/2.47-2.39A 1445RPM EFF 83.6% (IE2) IEC 60034-1

Inverter duty motor For 80Hz use on VPWM 1000:1 VT, 5:1 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.

