

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer	:		
Product line	: Premium Efficiency Three-Phase	Product code :	14799273
		Catalog # :	00336ET3E56C-S
Frame	: 56HC	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: F-1
Duty cycle	: Cont.(S1)	Rotation <sup>1</sup>	: Both (CW and CCW)
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line
Altitude	: 1000 m.a.s.l.	Approx. weight <sup>3</sup>	: 49.6 lb
Protection degree	: IP55	Moment of inertia (J)	: 0.1663 sq.ft.lb
Design	: B		
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]	7.02/3.51	8.50/4.25	7.62/4.04
L. R. Amperes [A]	66.7/33.3	62.9/31.5	63.3/33.5
LRC [A]	9.5x(Code L)	7.4x(Code J)	8.3x(Code K)
No load current [A]	2.56/1.28	2.52/1.26	2.57/1.36
Rated speed [RPM]	3500	2870	2885
Slip [%]	2.78	4.33	3.83
Rated torque [ft.lb]	4.49	5.49	5.46
Locked rotor torque [%]	300	229	270
Breakdown torque [%]	380	280	310
Service factor		1.15	1.15
Temperature rise	80 K	80 K	80 K
Locked rotor time	18s (cold) 10s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)
Noise level <sup>2</sup>	68.0 dB(A)	65.0 dB(A)	65.0 dB(A)
Efficiency (%)	25%	83.6	87.4
	50%	84.0	86.5
	75%	86.5	86.8
	100%	86.5	85.5
Power Factor	25%	0.51	0.53
	50%	0.78	0.80
	75%	0.87	0.89
	100%	0.91	0.92
Bearing type	: <u>Drive end</u> 6204 ZZ	<u>Non drive end</u> 6202 ZZ	Foundation loads
Sealing	: V'Ring	Without Bearing Seal	Max. traction : 141 lb
Lubrication interval	: -	-	Max. compression : 191 lb
Lubricant amount	: -	-	
Lubricant type	: Mobil Polyrex EM		
Notes			
USABLE @208V 7.76A SF 1.00 SFA 7.76A			
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

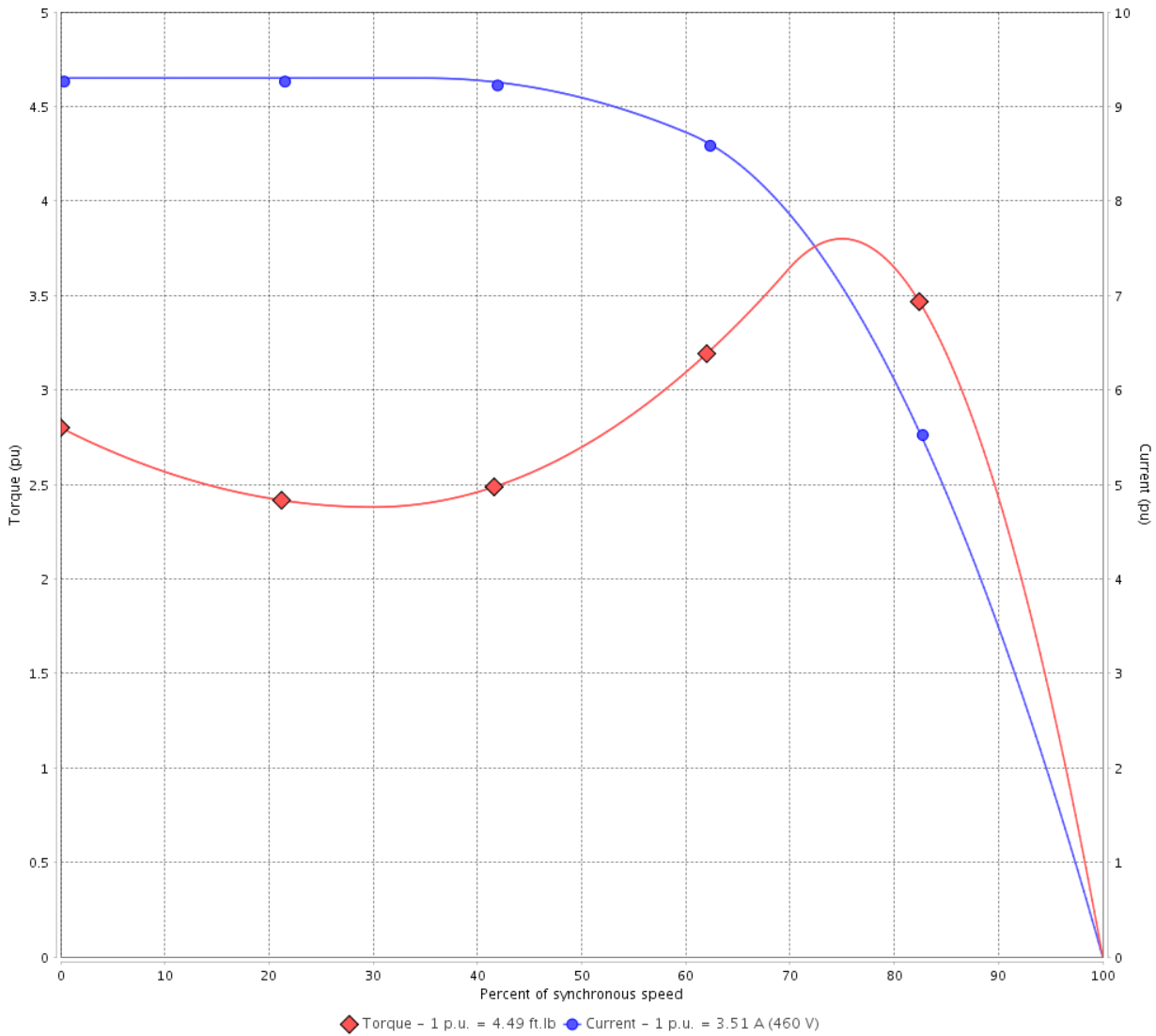
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase      Product code : 14799273  
 Catalog # : 00336ET3E56C-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 7.02/3.51 A	Moment of inertia (J)	: 0.1663 sq.ft.lb
LRC	: 9.5	Duty cycle	: Cont.(S1)
Rated torque	: 4.49 ft.lb	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	:
Breakdown torque	: 380 %	Temperature rise	: 80 K
Rated speed	: 3500 rpm	Design	: B

Locked rotor time : 18s (cold) 10s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer : \_\_\_\_\_

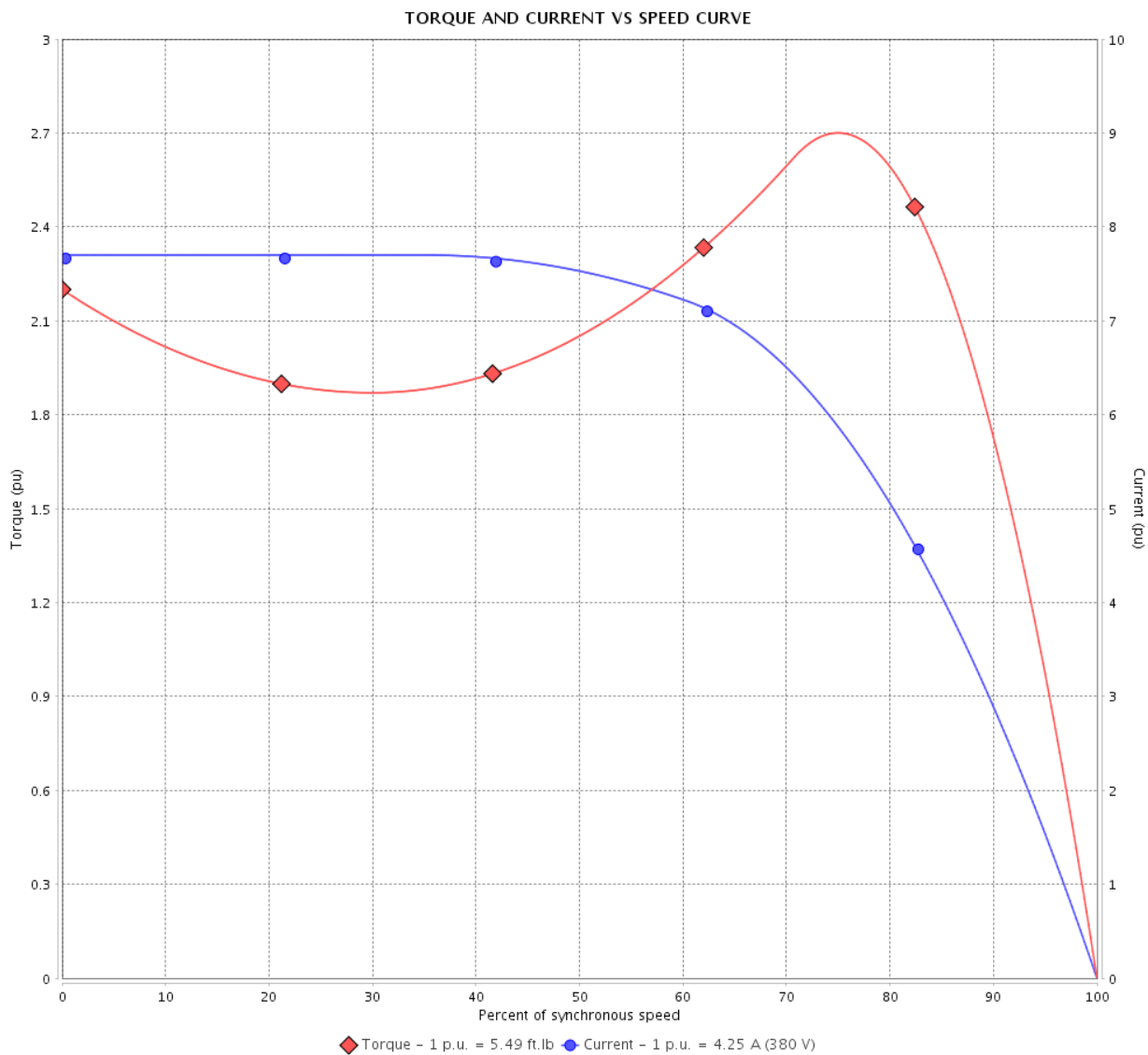
Product line : Premium Efficiency Three-Phase

Product code :

14799273

Catalog # :

00336ET3E56C-S



Performance : 190/380 V 50 Hz 2P

Rated current : 8.50/4.25 A  
 LRC : 7.4  
 Rated torque : 5.49 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 280 %  
 Rated speed : 2870 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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

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# TORQUE AND CURRENT VS SPEED CURVE

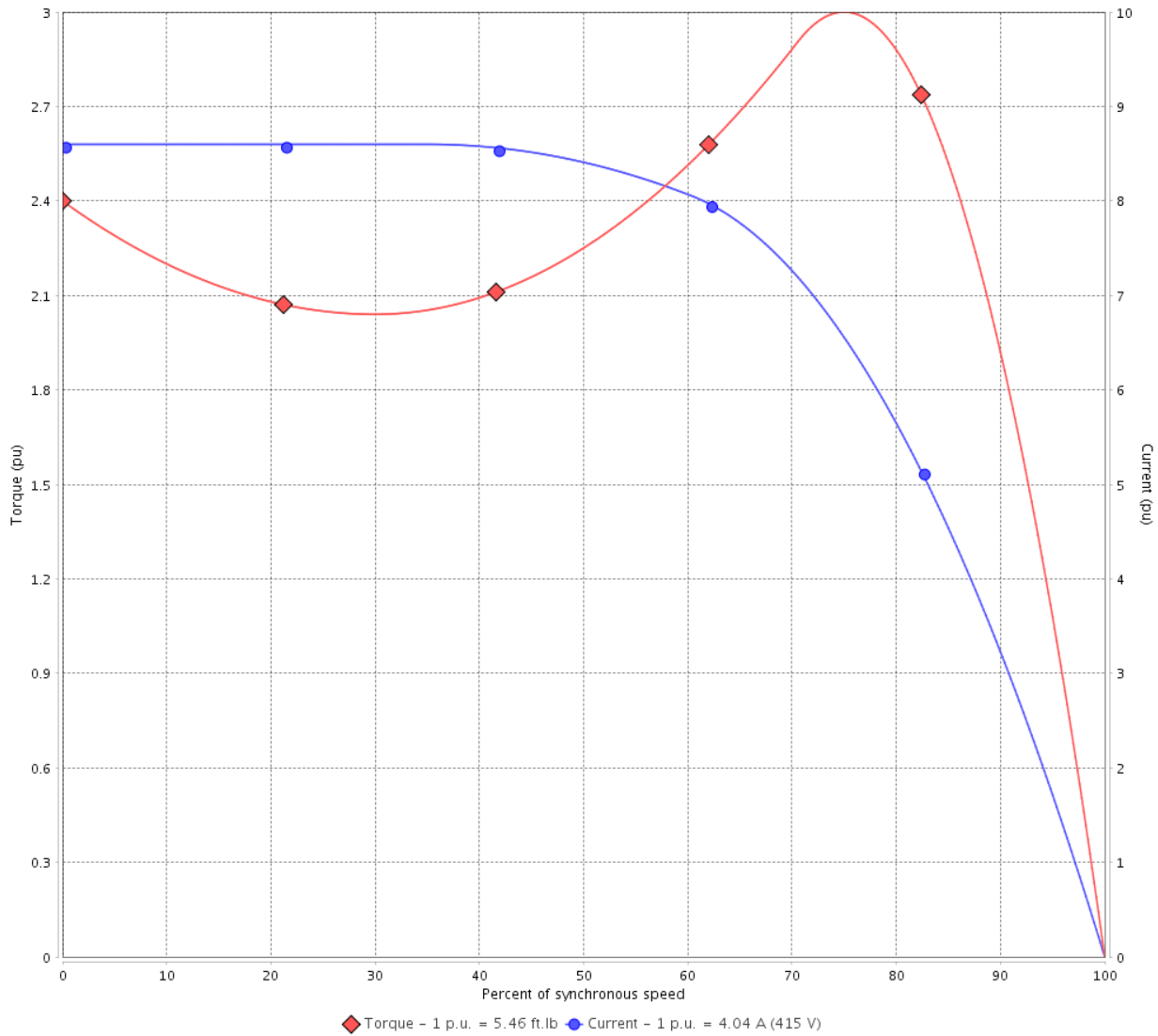
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase      Product code : 14799273  
 Catalog # : 00336ET3E56C-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current	: 7.62/4.04 A	Moment of inertia (J)	: 0.1663 sq.ft.lb
LRC	: 8.3	Duty cycle	: Cont.(S1)
Rated torque	: 5.46 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.15
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 2885 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

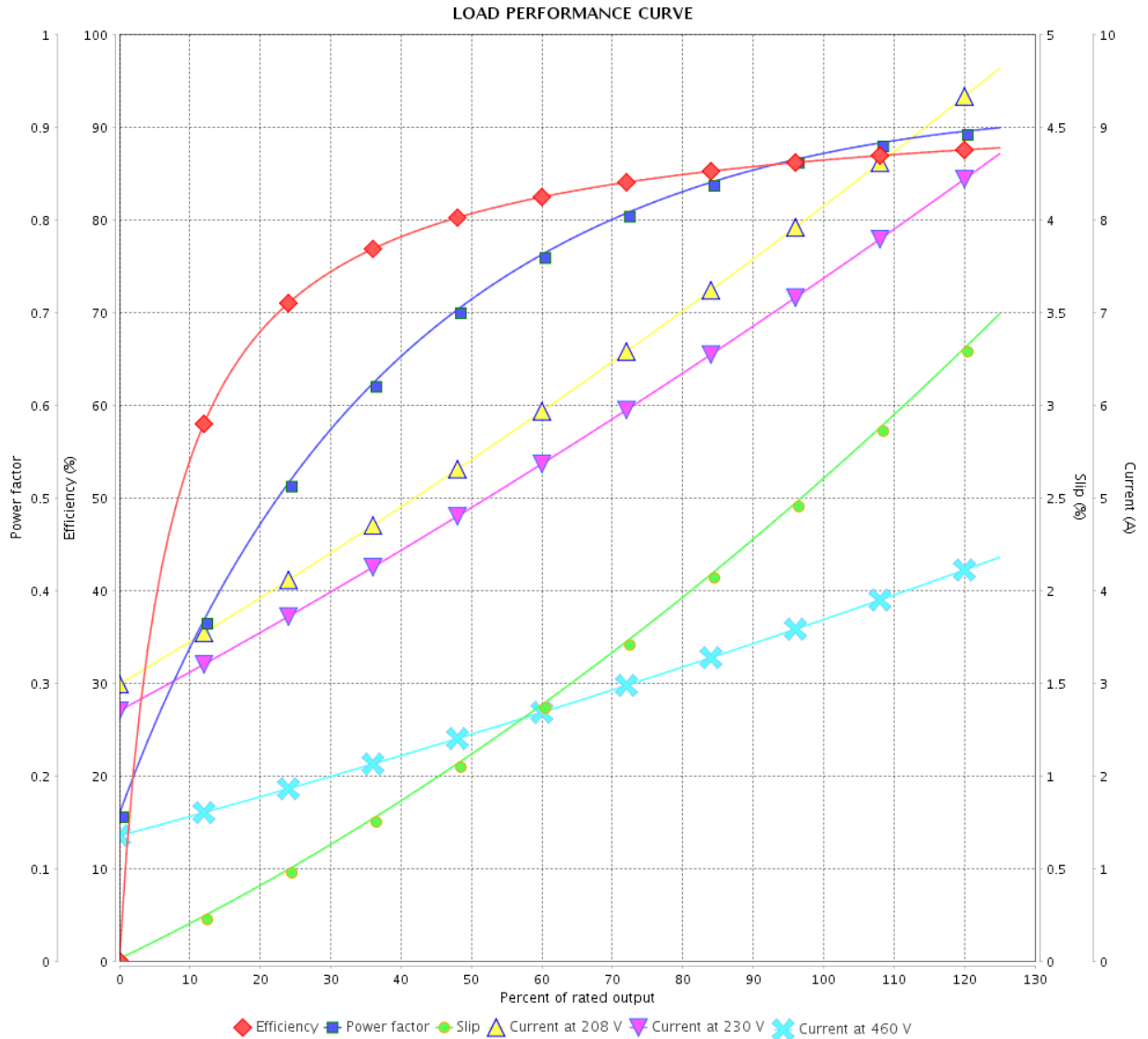
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Product code :

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Catalog # :

00336ET3E56C-S



Performance : 230/460 V 60 Hz 2P

Rated current : 7.02/3.51 A  
 LRC : 9.5  
 Rated torque : 4.49 ft.lb  
 Locked rotor torque : 300 %  
 Breakdown torque : 380 %  
 Rated speed : 3500 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K  
 Design : B

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Date				

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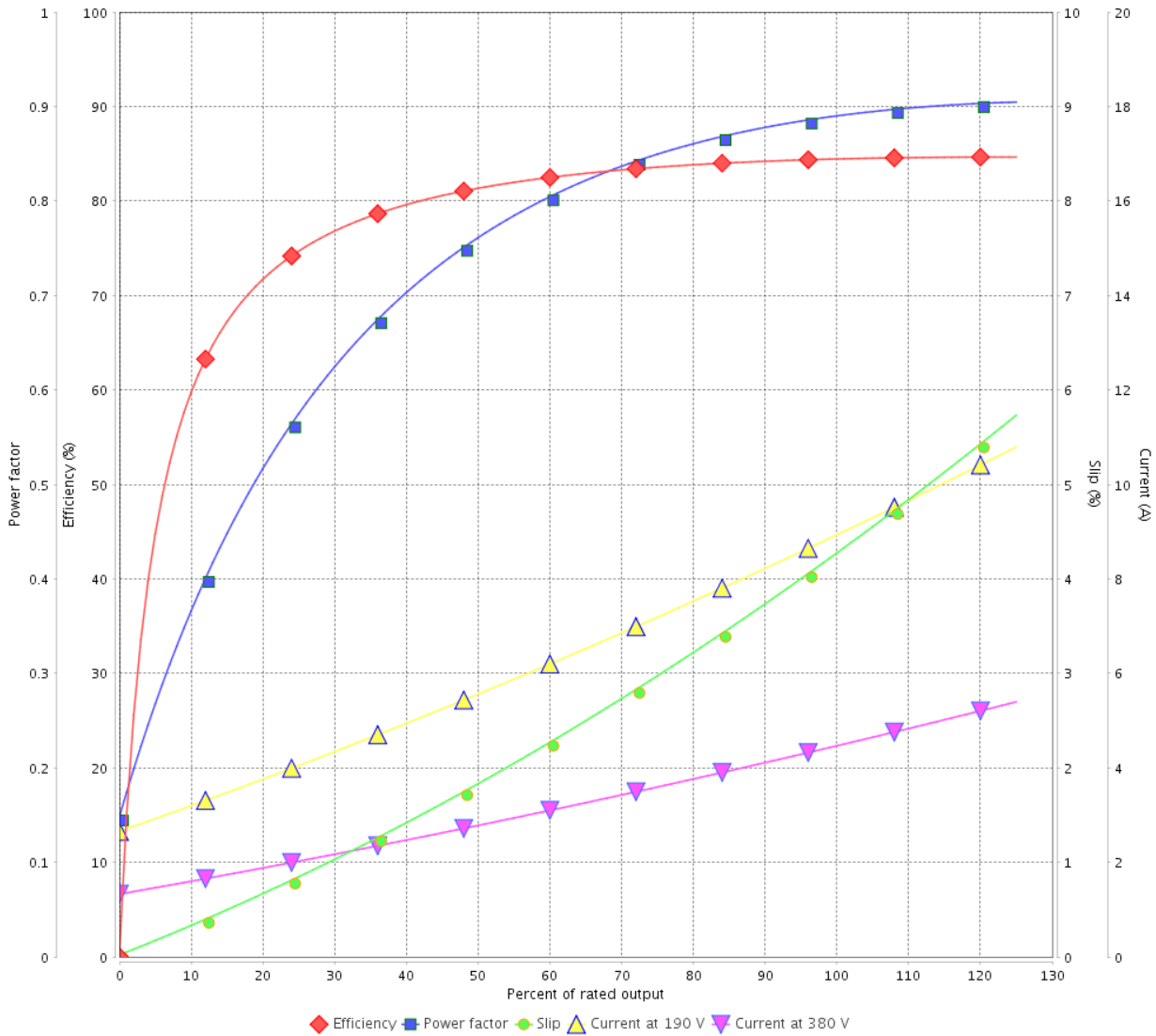
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase      Product code : 14799273  
 Catalog # : 00336ET3E56C-S

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 2P

Rated current : 8.50/4.25 A  
 LRC : 7.4  
 Rated torque : 5.49 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 280 %  
 Rated speed : 2870 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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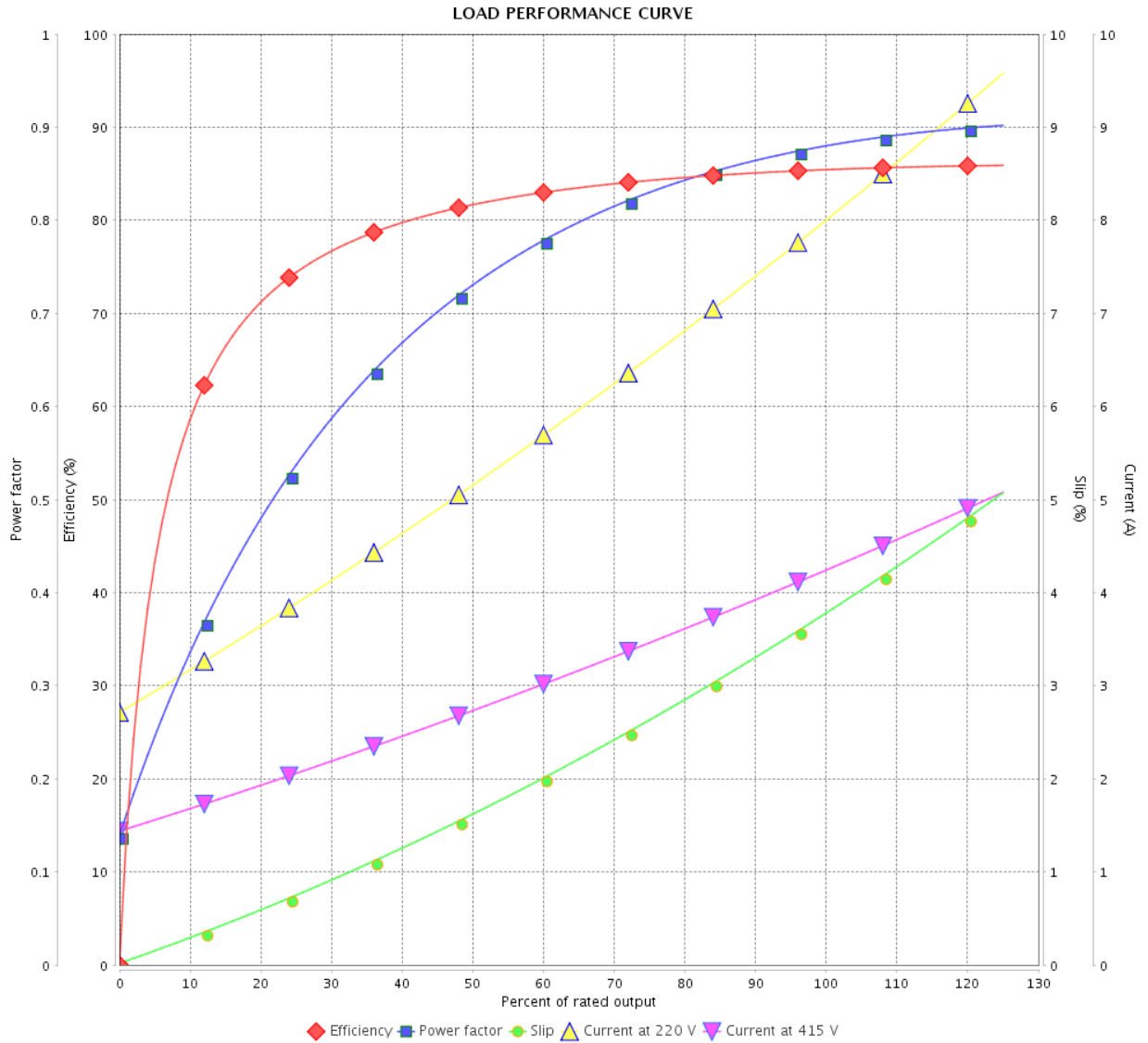
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Performance : 220/415 V 50 Hz 2P

Rated current : 7.62/4.04 A  
 LRC : 8.3  
 Rated torque : 5.46 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 310 %  
 Rated speed : 2885 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb  
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 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

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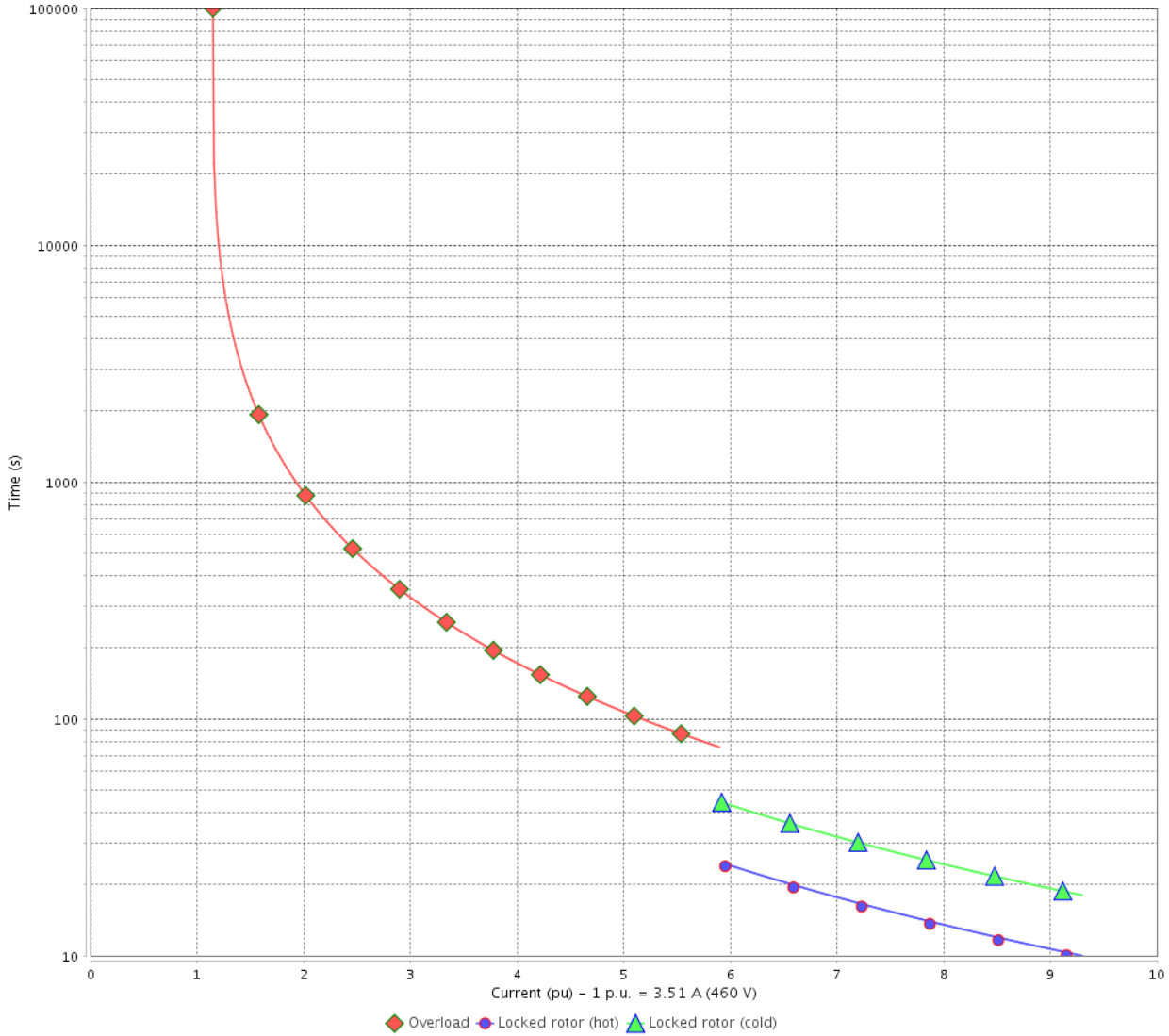
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THERMAL LIMIT CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 7.02/3.51 A  
 LRC : 9.5  
 Rated torque : 4.49 ft.lb  
 Locked rotor torque : 300 %  
 Breakdown torque : 380 %  
 Rated speed : 3500 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K  
 Design : B

Heating constant

Cooling constant

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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

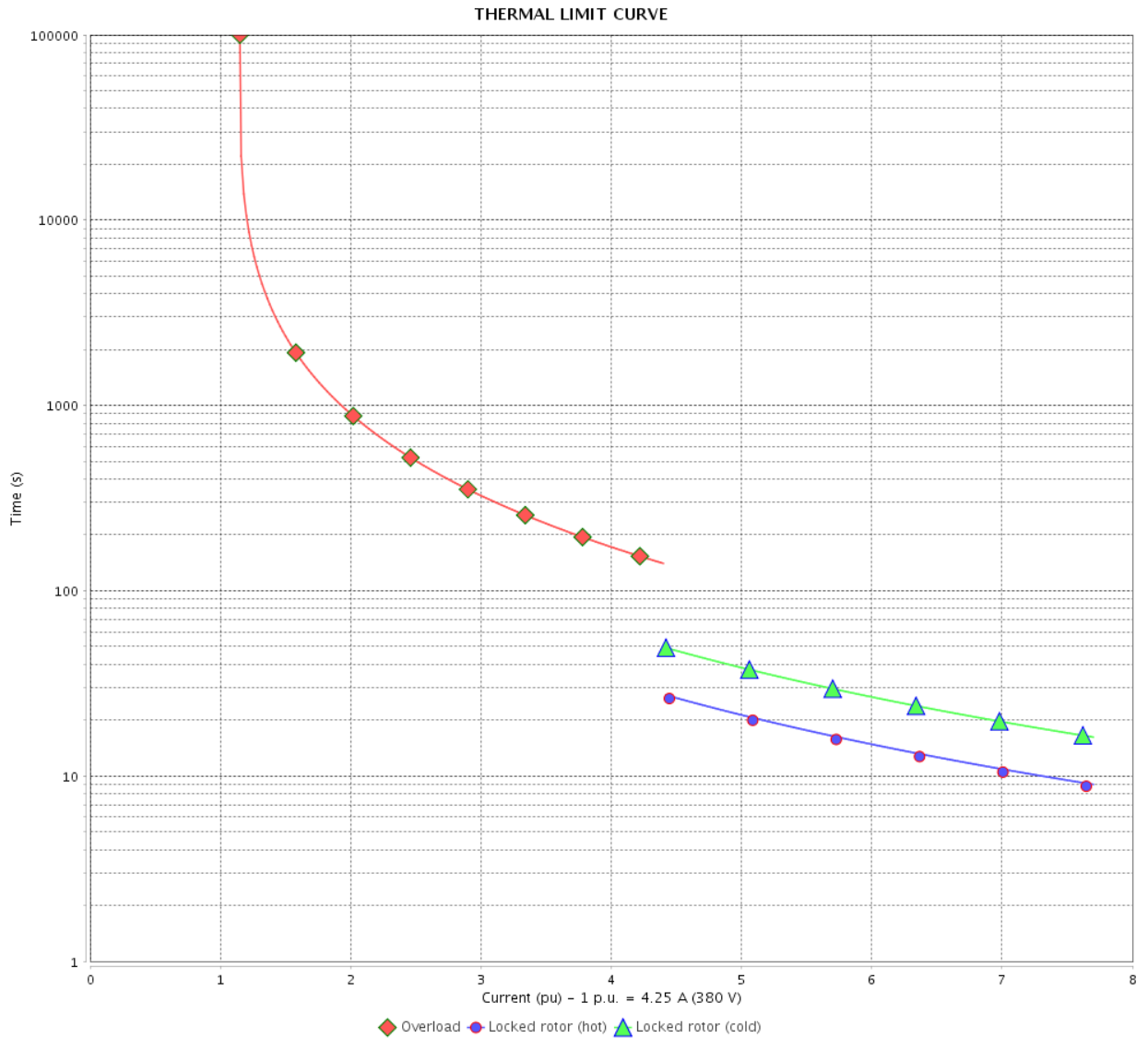
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Performance : 190/380 V 50 Hz 2P

Rated current : 8.50/4.25 A  
 LRC : 7.4  
 Rated torque : 5.49 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 280 %  
 Rated speed : 2870 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

Heating constant

Cooling constant

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# THERMAL LIMIT CURVE

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Customer :

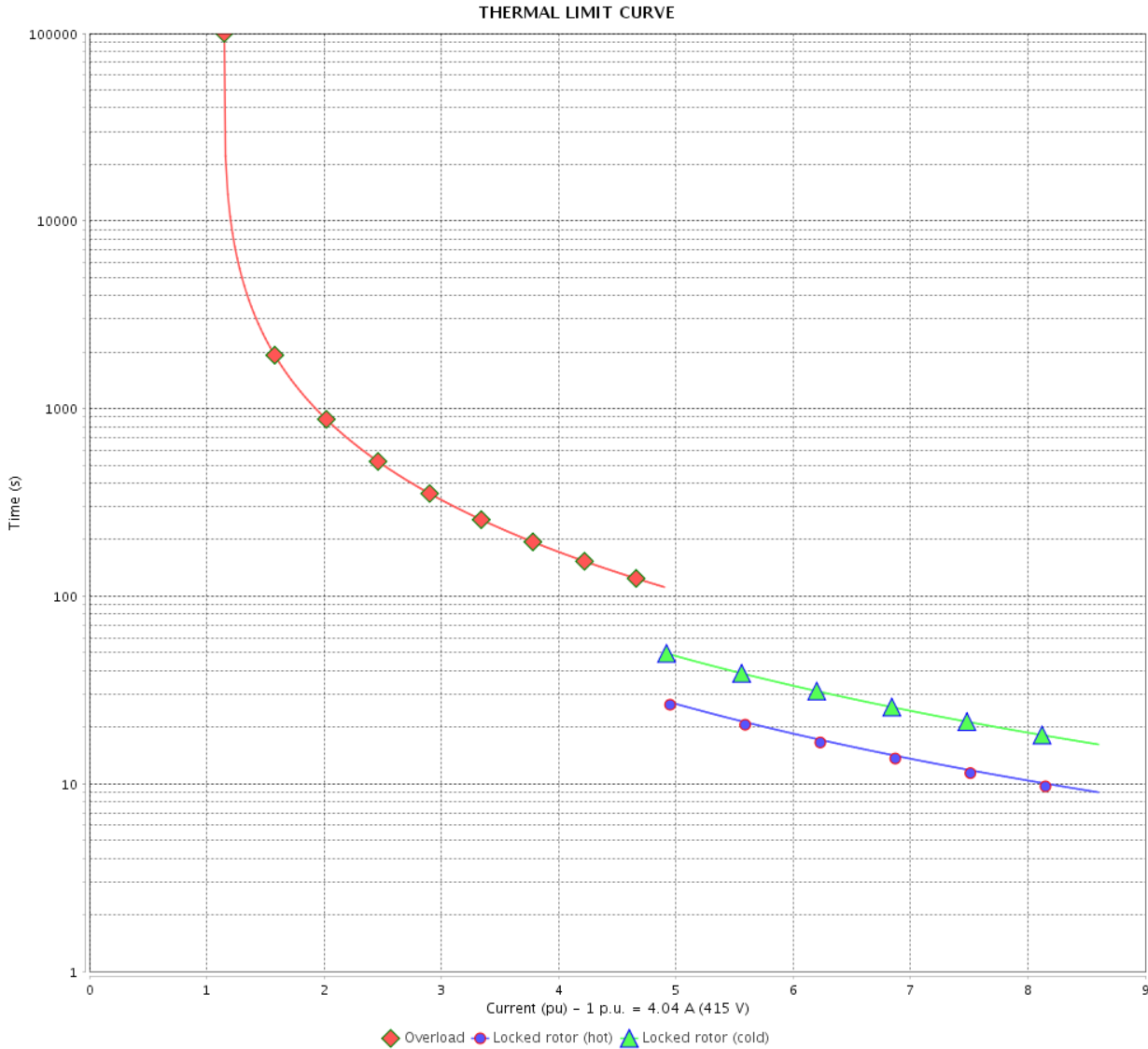
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Rated current : 7.62/4.04 A  
 LRC : 8.3  
 Rated torque : 5.46 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 310 %  
 Rated speed : 2885 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

Heating constant

Cooling constant

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# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

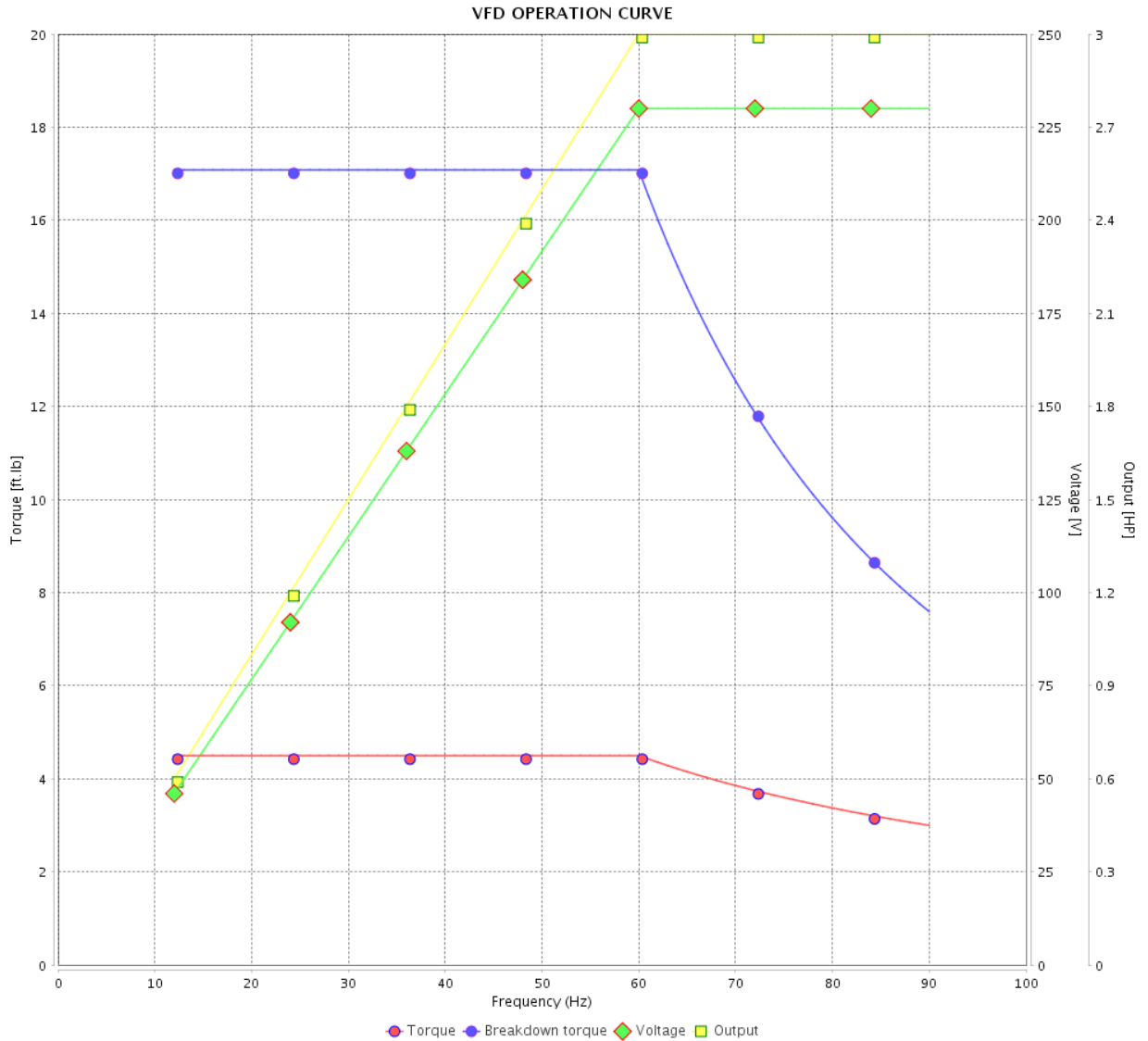
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 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K  
 Design : B

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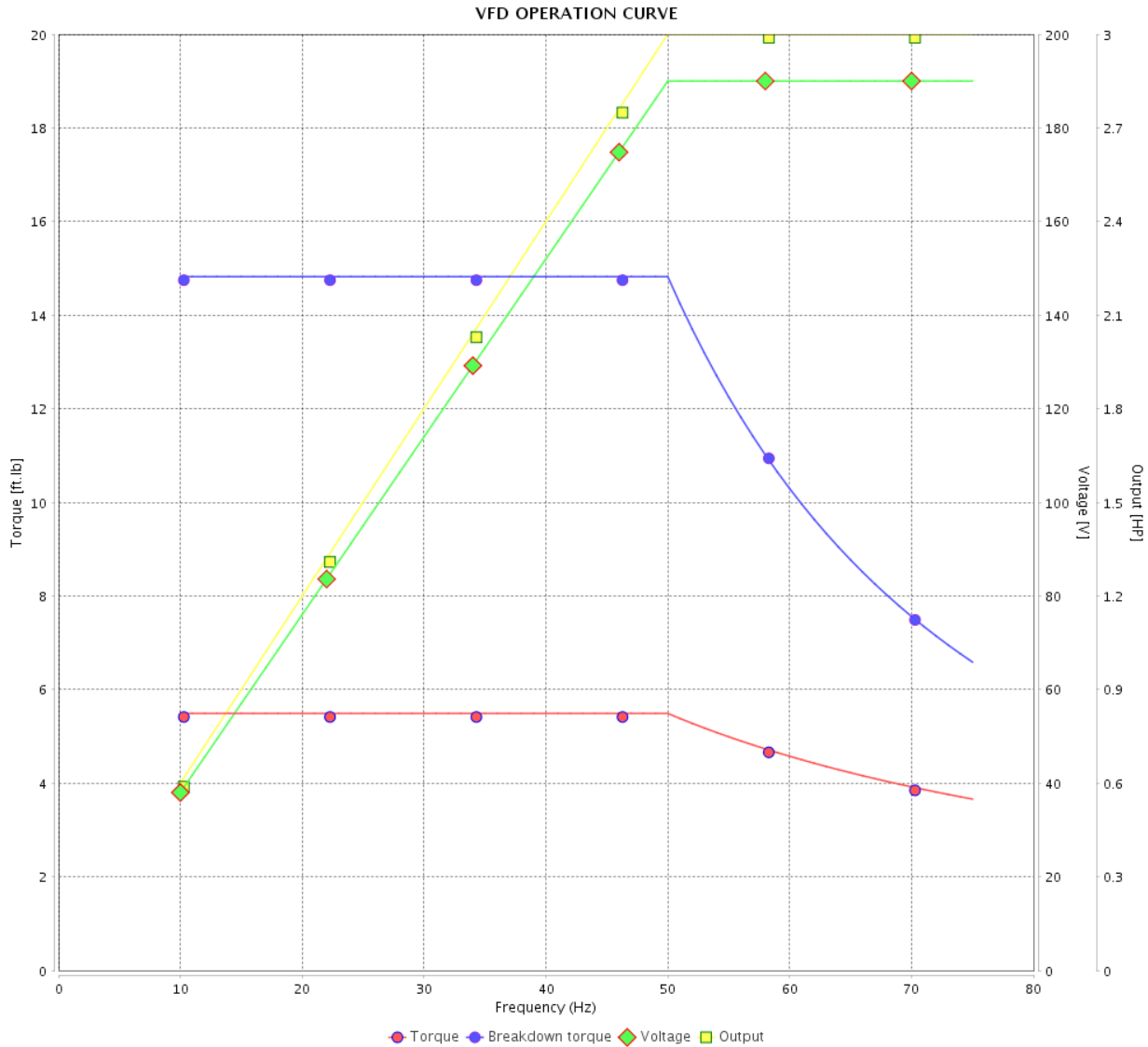
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 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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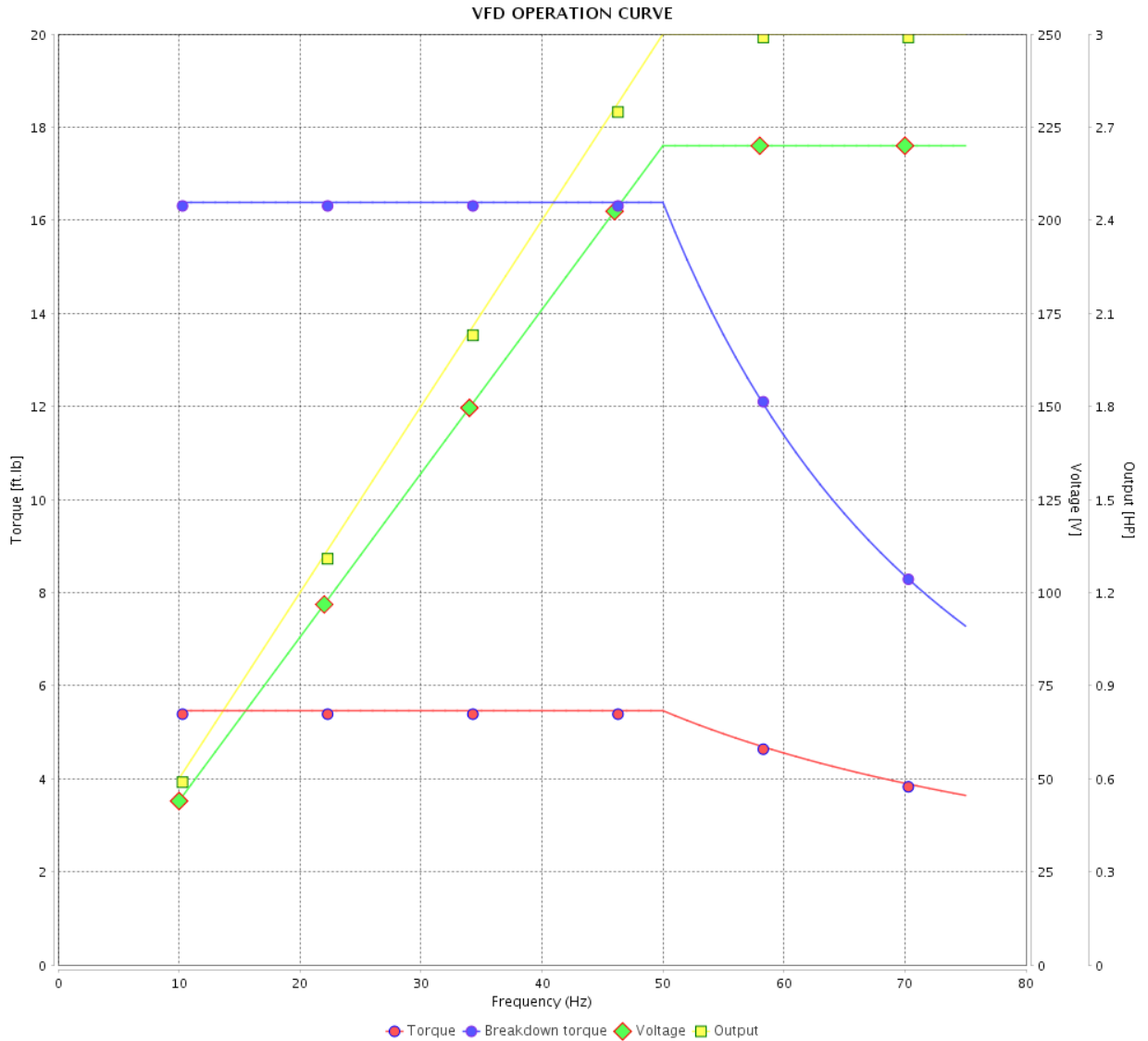
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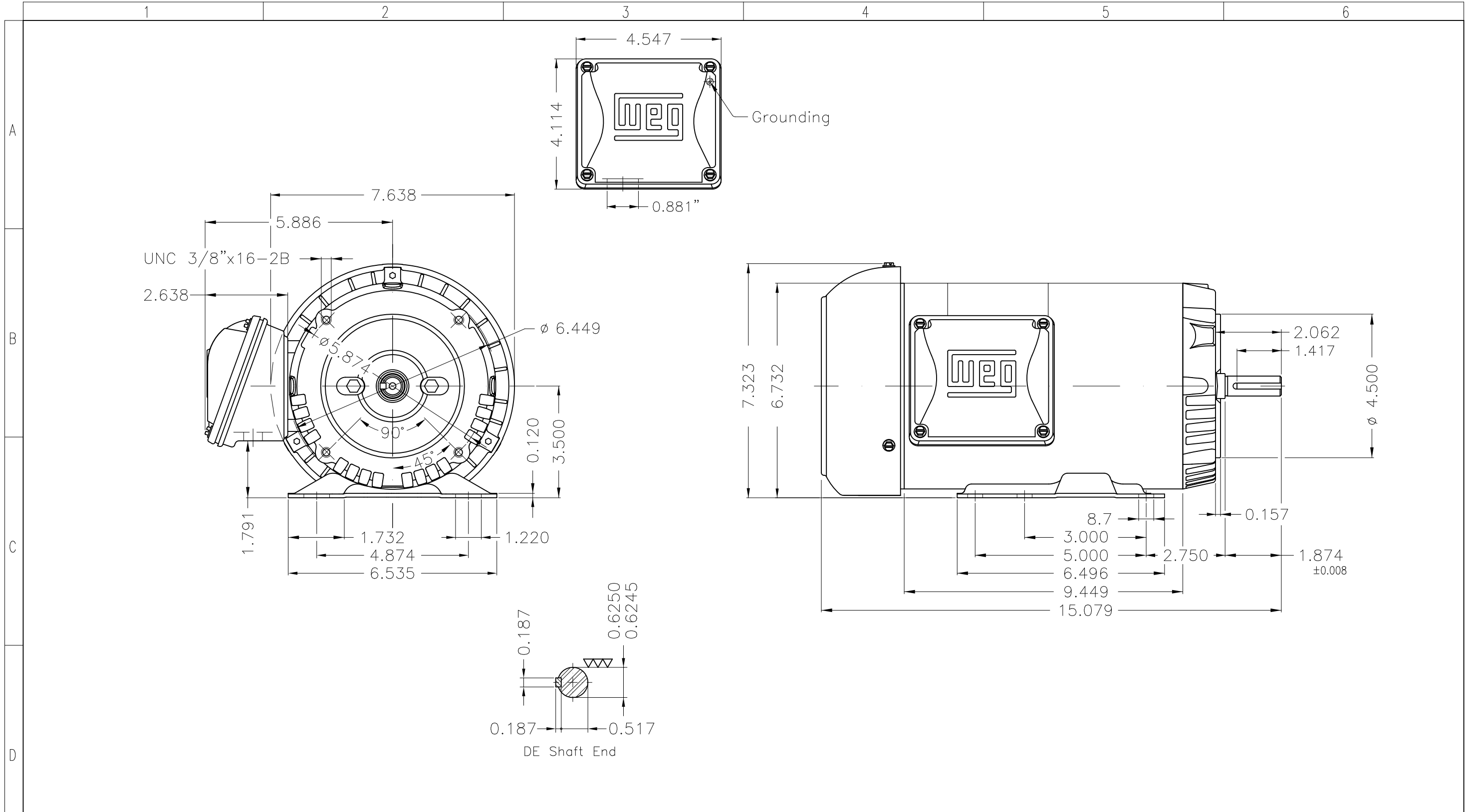


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Fan cover - steel plate											
Color Munsell N 1 matte black											
Painting plan 207N											
Mounting F-1/B34R(D)											
ECM	LOC	SUMMARY OF MODIFICATIONS					EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR ROLLED STEEL PREM. EFF.					PREVIEW	WDD	SHEET	1 / 1	
CHECKED		FRAME 56HC IP55 TEFC									
RELEASED											
REL DT.		WMO	Jaragua do Sul	Product Engineering							

3 HP 02 Poles 60 Hz

Dimensions in inches XME A3



**NEMA**  
**Premium**



MADE IN BRAZIL

**MAT: 14799273 CC029A**

**W01.TE0IC0X0X**

**MODEL 00336ET3E56C-S**

**11APR2022 B/N:**

**For 60Hz: Class I, Zone 2, IIC**  
**Class I, Div.2, Gr. A,B,C,D - T3**

**Div 2 Inverter Duty (SF1.00)**  
**CT 2:1/VT 1000:1**

PH 3	Hz 60	HP 3.0
FR 56HC		KW 2.2
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 7.34/3.67
INS CL F AT 80K	IP55	SFA 8.44/4.22
AMB 40°C	DES B	SF 1.15
ENCL TEFC	CODE L	PF 0.87
USABLE @ 208V 7.76A		RPM 3505
SF1.00		NEMA NOM. EFF 86.5%

ALTERNATE RATING: 3.0HP	50Hz	190-220/380-415V	SF1.15
8.88-7.72/4.44-4.09A	2870RPM	EFF 84.6% (IE2)	IEC 60034-1

For safe area-inverter duty motor For 60Hz 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.

