

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer	:		
Product line	: Premium Efficiency Three-Phase	Product code :	14797781
		Catalog # :	00112ET3E56C-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>	: 38.6 lb
Protection degree	: IP55	Moment of inertia (J)	: 0.1597 sq.ft.lb
Design	: B		
Output [HP]	1	1	1
Poles	6	6	6
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190/380	220/415
Rated current [A]	3.16/1.58	3.74/1.87	3.41/1.81
L. R. Amperes [A]	18.3/9.16	16.5/8.23	16.7/8.87
LRC [A]	5.8x(Code J)	4.4x(Code F)	4.9x(Code G)
No load current [A]	2.03/1.01	2.00/1.00	2.02/1.07
Rated speed [RPM]	1145	915	930
Slip [%]	4.58	8.50	7.00
Rated torque [ft.lb]	4.59	5.74	5.65
Locked rotor torque [%]	229	170	200
Breakdown torque [%]	280	200	229
Service factor		1.00	1.00
Temperature rise	80 K	105 K	105 K
Locked rotor time	55s (cold) 31s (hot)	54s (cold) 30s (hot)	50s (cold) 28s (hot)
Noise level <sup>2</sup>	50.0 dB(A)	48.0 dB(A)	48.0 dB(A)
Efficiency (%)	25%	79.5	80.4
	50%	80.0	79.4
	75%	82.5	80.4
	100%	82.5	78.6
Power Factor	25%	0.28	0.31
	50%	0.50	0.54
	75%	0.63	0.68
	100%	0.72	0.76
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 : 108 lb
Lubrication interval	: -	-	Max. compression : 147 lb
Lubricant amount	: -	-	
Lubricant type	: Mobil Polyrex EM		
Notes			
USABLE @208V 3.50A SF 1.00 SFA 3.50A			
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

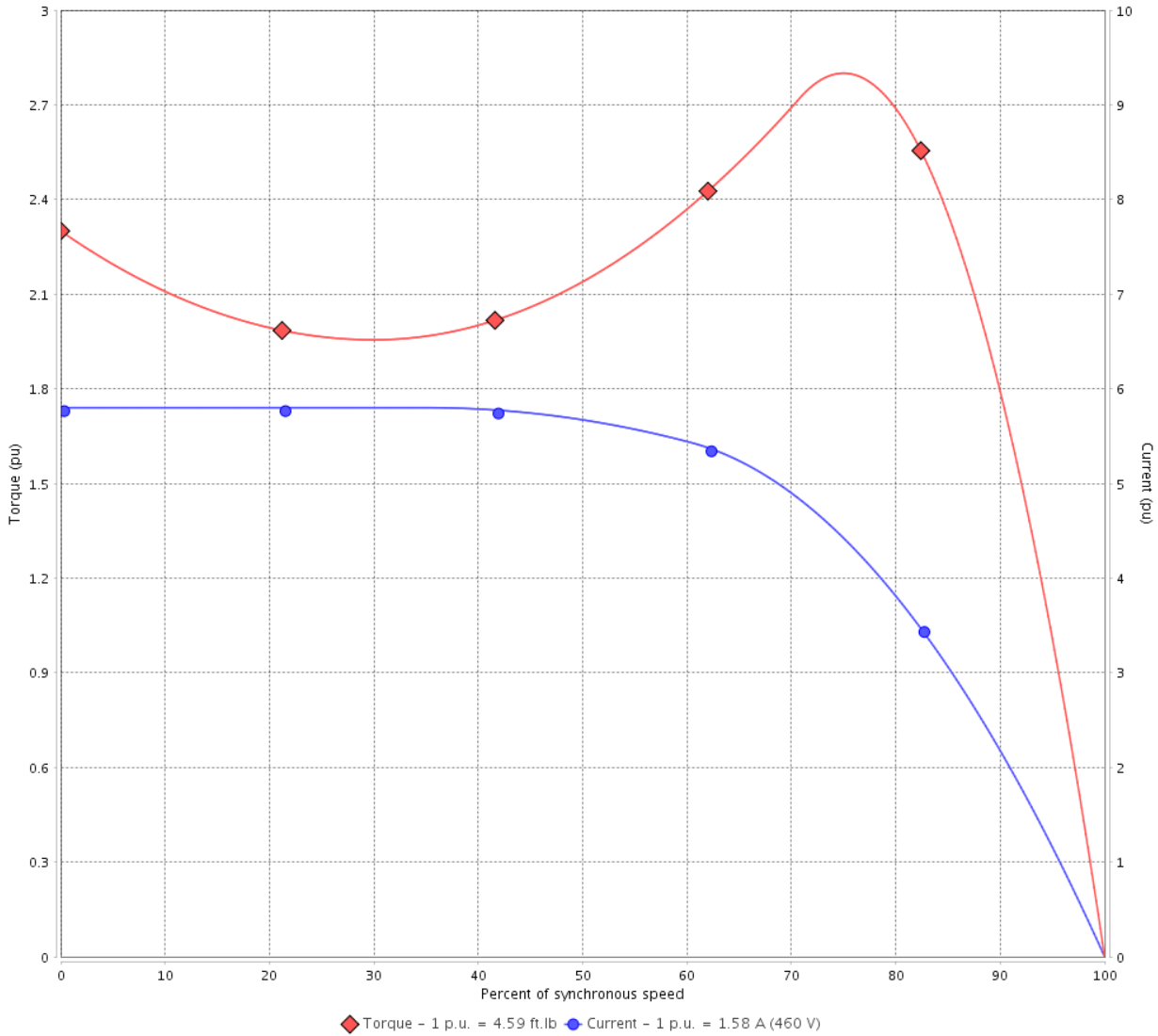
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase      Product code : 14797781  
 Catalog # : 00112ET3E56C-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current	: 3.16/1.58 A	Moment of inertia (J)	: 0.1597 sq.ft.lb
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 4.59 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	:
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1145 rpm	Design	: B

Locked rotor time : 55s (cold) 31s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



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

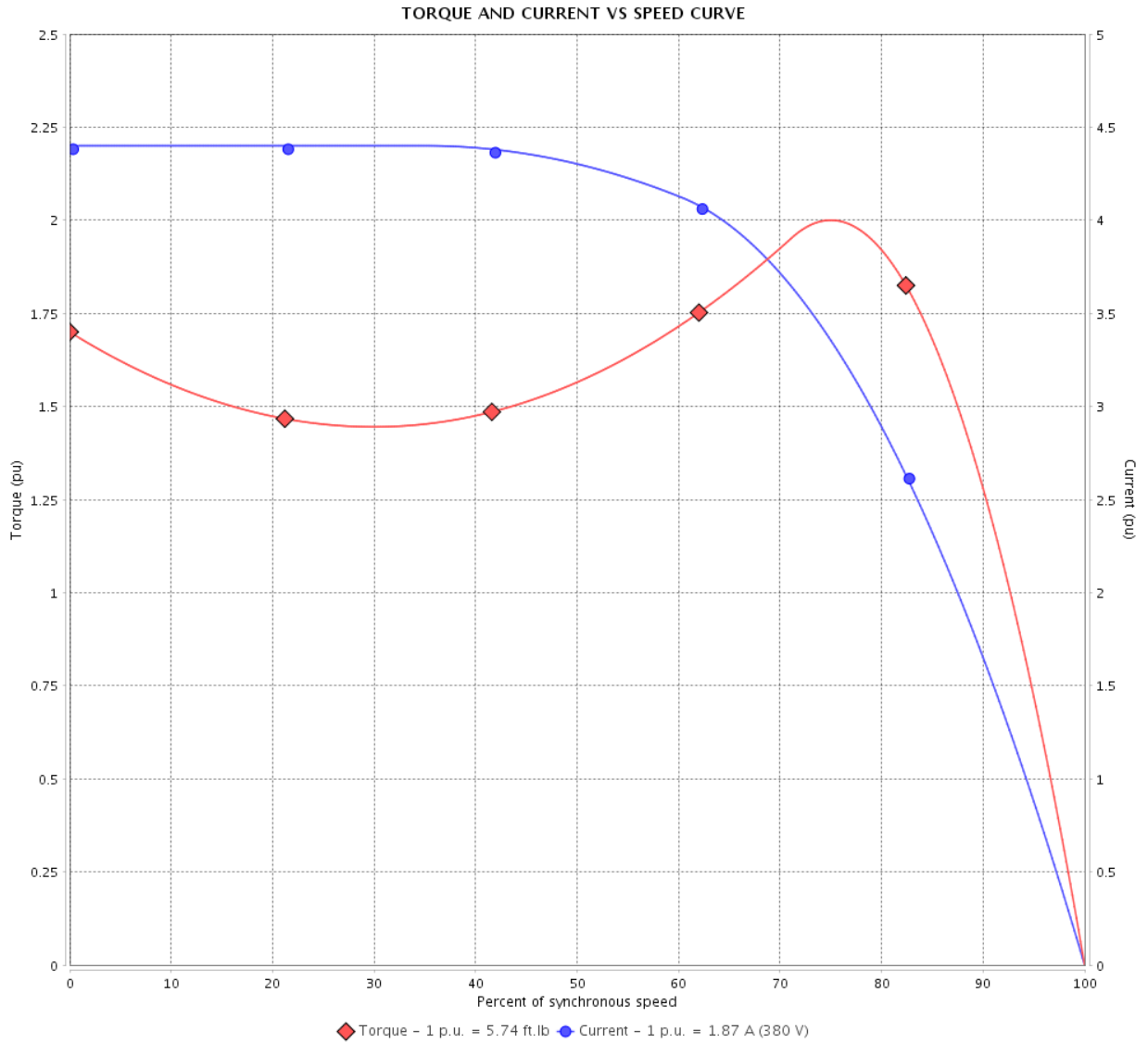
Product line : Premium Efficiency Three-Phase

Product code :

14797781

Catalog # :

00112ET3E56C-S



Performance : 190/380 V 50 Hz 6P

Rated current : 3.74/1.87 A  
 LRC : 4.4  
 Rated torque : 5.74 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 200 %  
 Rated speed : 915 rpm

Moment of inertia (J) : 0.1597 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

Locked rotor time : 54s (cold) 30s (hot)

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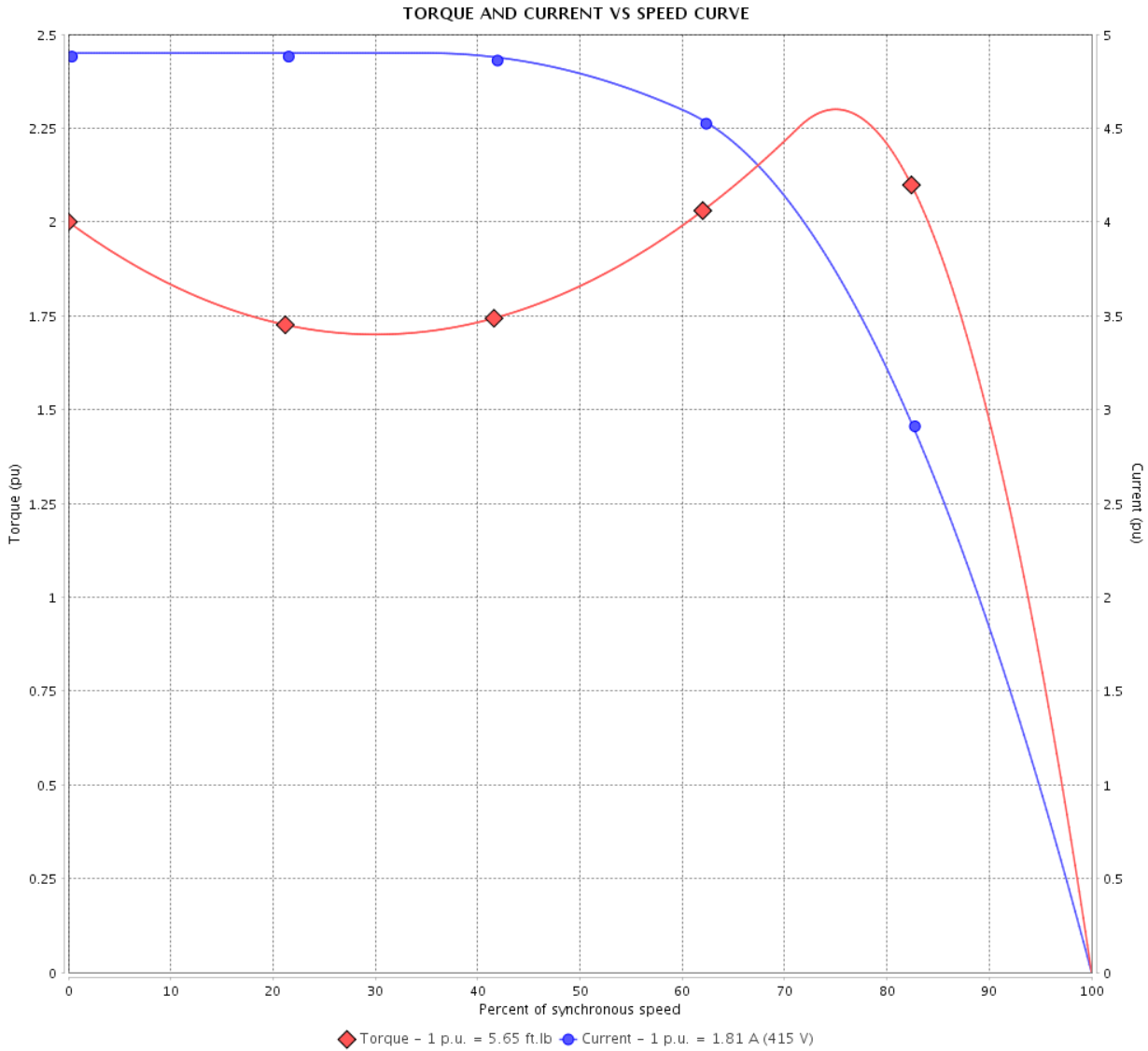
# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase      Product code : 14797781  
 Catalog # : 00112ET3E56C-S



Performance : 220/415 V 50 Hz 6P

Rated current	: 3.41/1.81 A	Moment of inertia (J)	: 0.1597 sq.ft.lb
LRC	: 4.9	Duty cycle	: Cont.(S1)
Rated torque	: 5.65 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 105 K
Rated speed	: 930 rpm	Design	: B

Locked rotor time : 50s (cold) 28s (hot)

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Date	11/04/2022			

# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



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

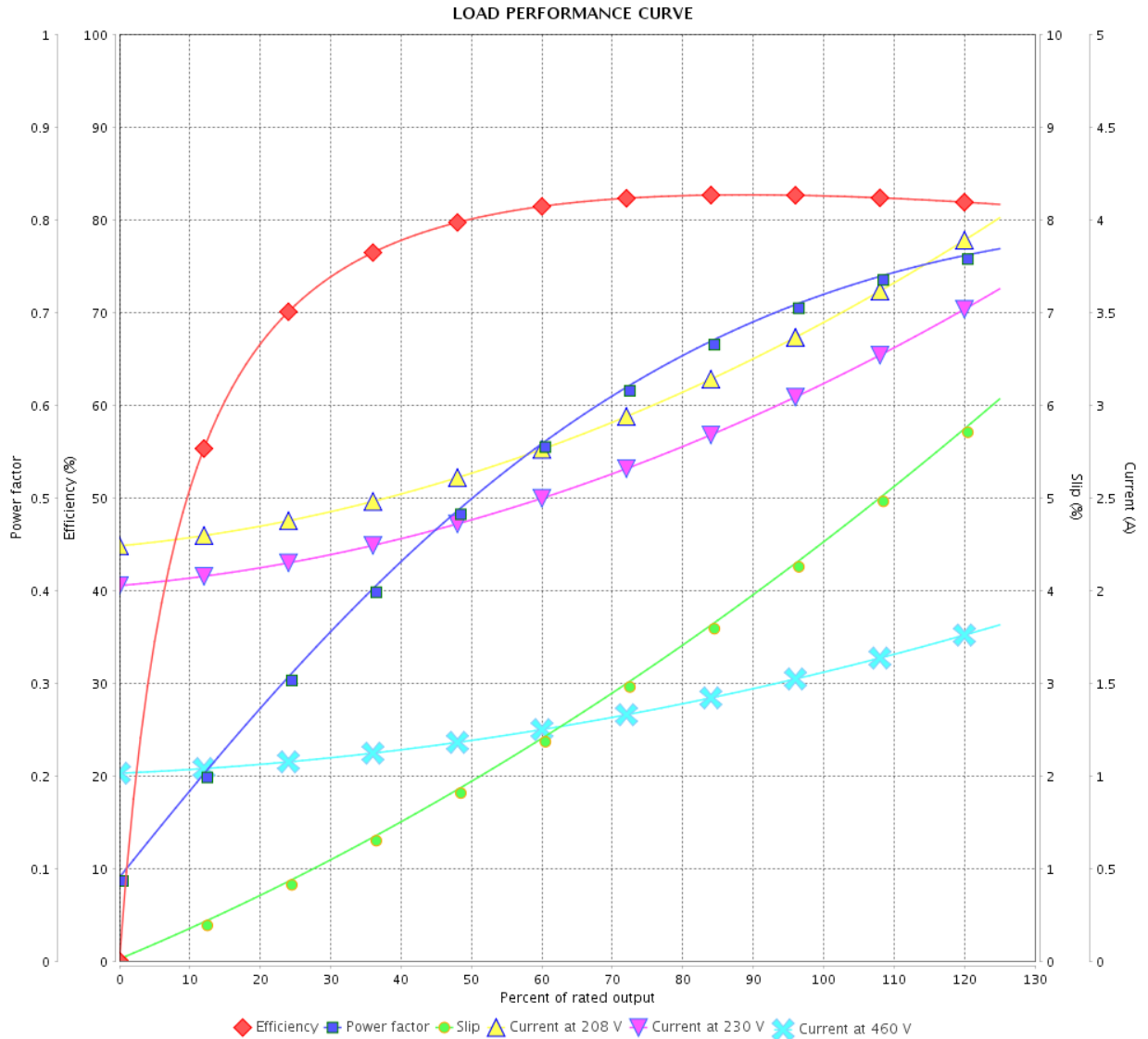
Product line : Premium Efficiency Three-Phase

Product code :

14797781

Catalog # :

00112ET3E56C-S



Performance : 230/460 V 60 Hz 6P

Rated current : 3.16/1.58 A  
 LRC : 5.8  
 Rated torque : 4.59 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 280 %  
 Rated speed : 1145 rpm

Moment of inertia (J) : 0.1597 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K  
 Design : B

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Performed by			Page	Revision
Checked by				
Date				

# LOAD PERFORMANCE CURVE

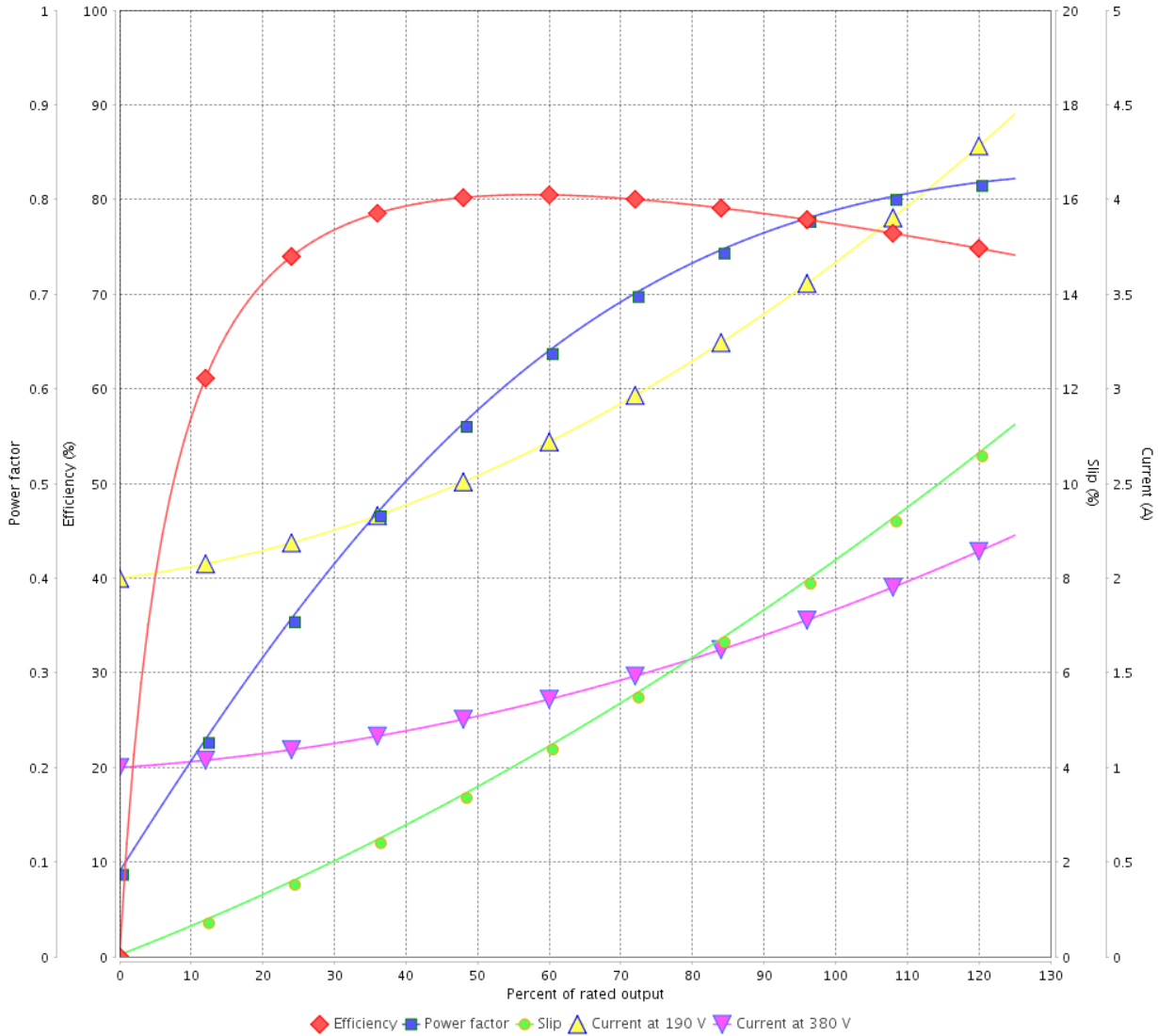
Three Phase Induction Motor - Squirrel Cage



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

Product line : Premium Efficiency Three-Phase      Product code : 14797781  
 Catalog # : 00112ET3E56C-S

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 6P

Rated current	: 3.74/1.87 A	Moment of inertia (J)	: 0.1597 sq.ft.lb
LRC	: 4.4	Duty cycle	: Cont.(S1)
Rated torque	: 5.74 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 915 rpm	Design	: B

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



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

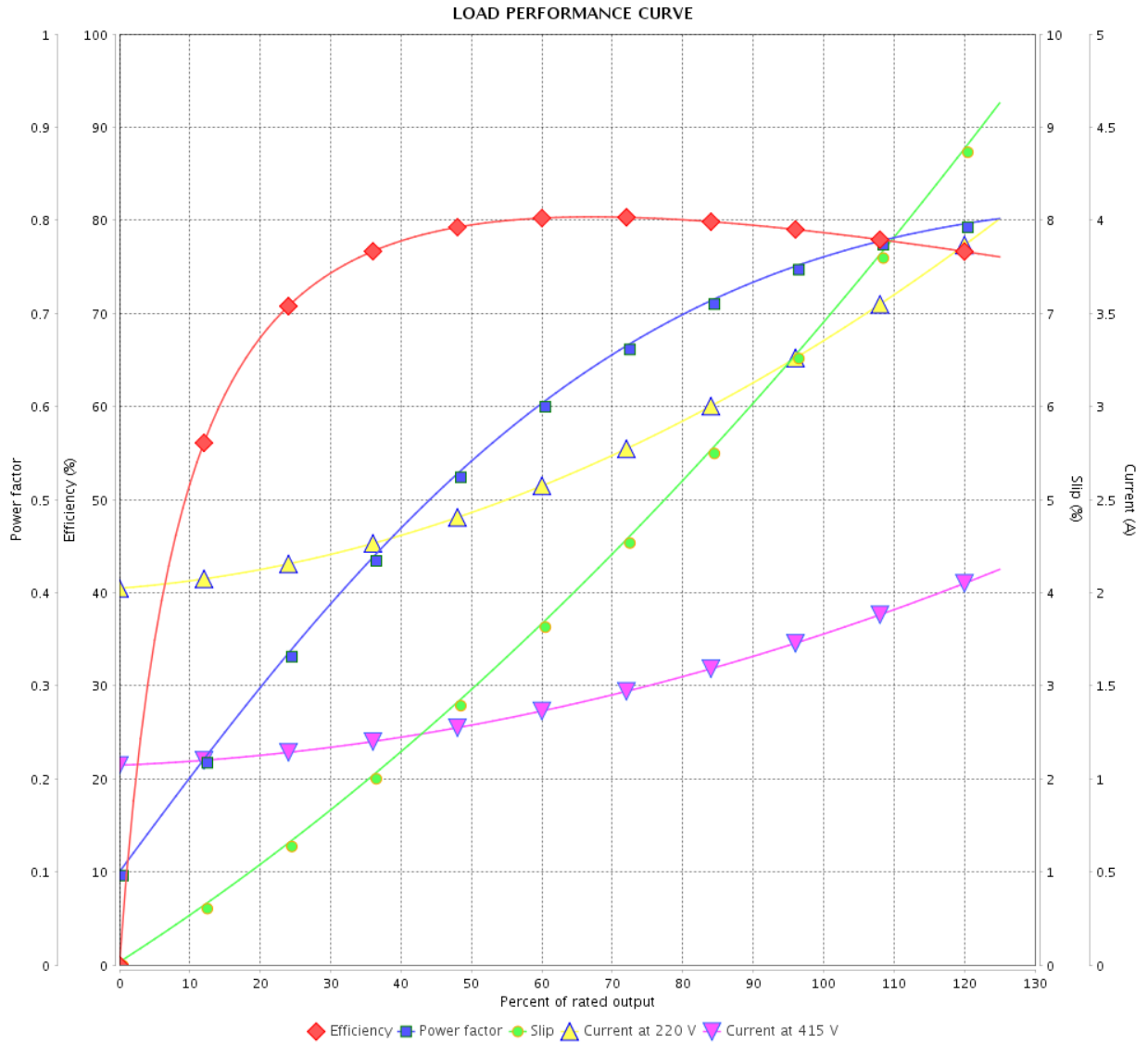
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Moment of inertia (J) : 0.1597 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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Date		11/04/2022		

# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase

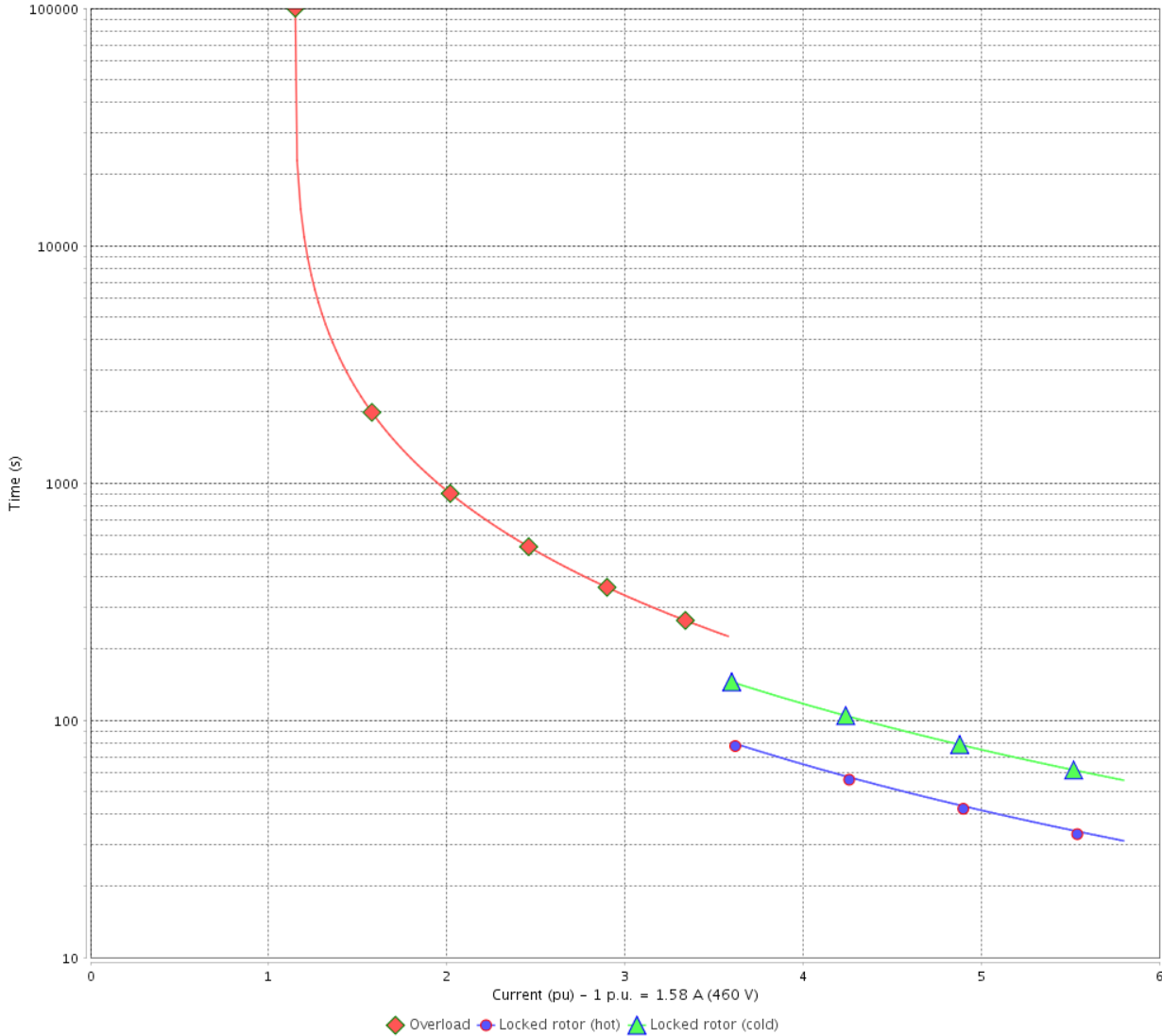
Product code :

14797781

Catalog # :

00112ET3E56C-S

THERMAL LIMIT CURVE



Performance : 230/460 V 60 Hz 6P

Rated current : 3.16/1.58 A  
 LRC : 5.8  
 Rated torque : 4.59 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 280 %  
 Rated speed : 1145 rpm

Moment of inertia (J) : 0.1597 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 : \_\_\_\_\_

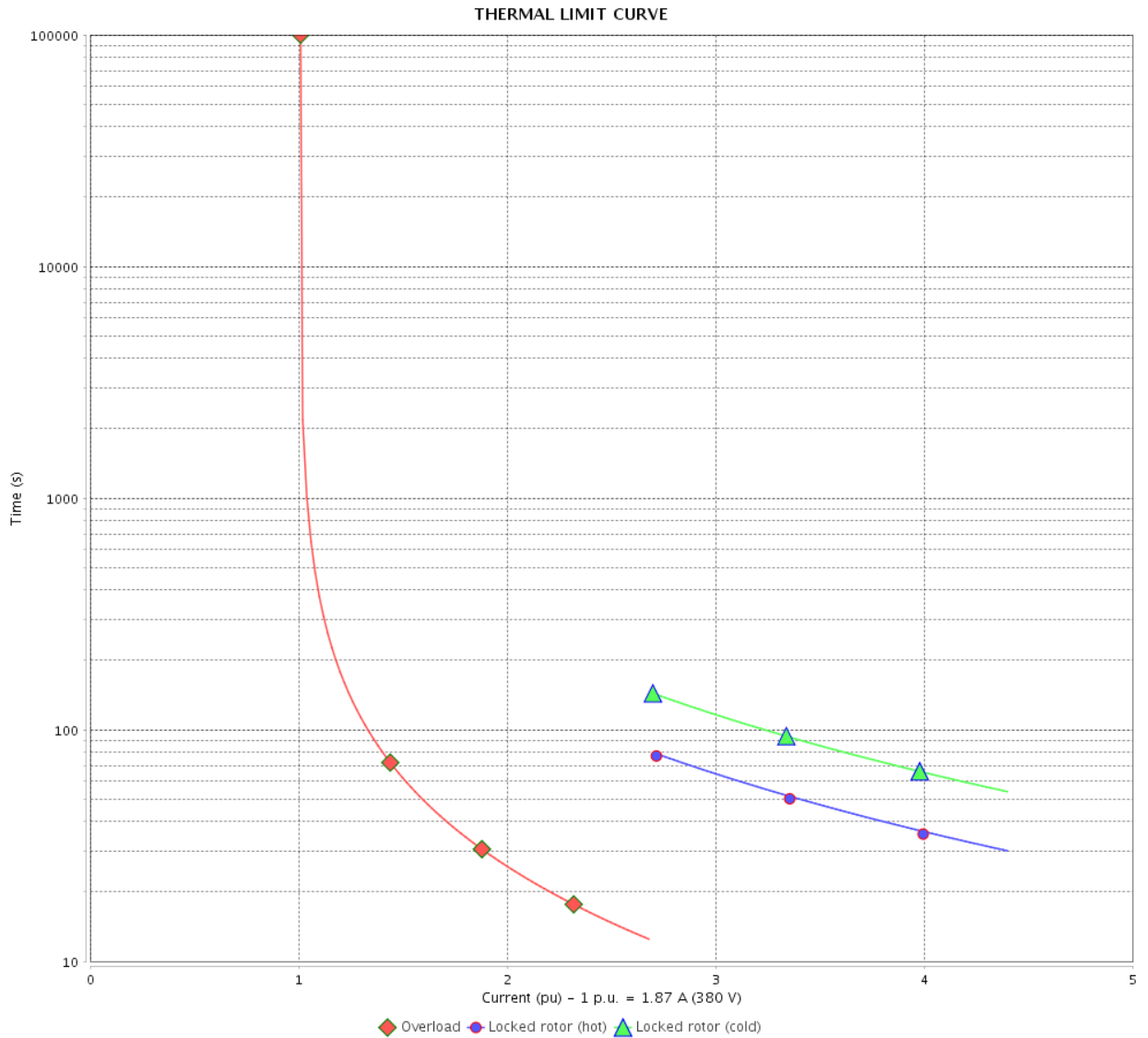
Product line : Premium Efficiency Three-Phase

Product code :

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Catalog # :

00112ET3E56C-S



Performance : 190/380 V 50 Hz 6P

Rated current : 3.74/1.87 A  
 LRC : 4.4  
 Rated torque : 5.74 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 200 %  
 Rated speed : 915 rpm

Moment of inertia (J) : 0.1597 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

Heating constant

Cooling constant

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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase

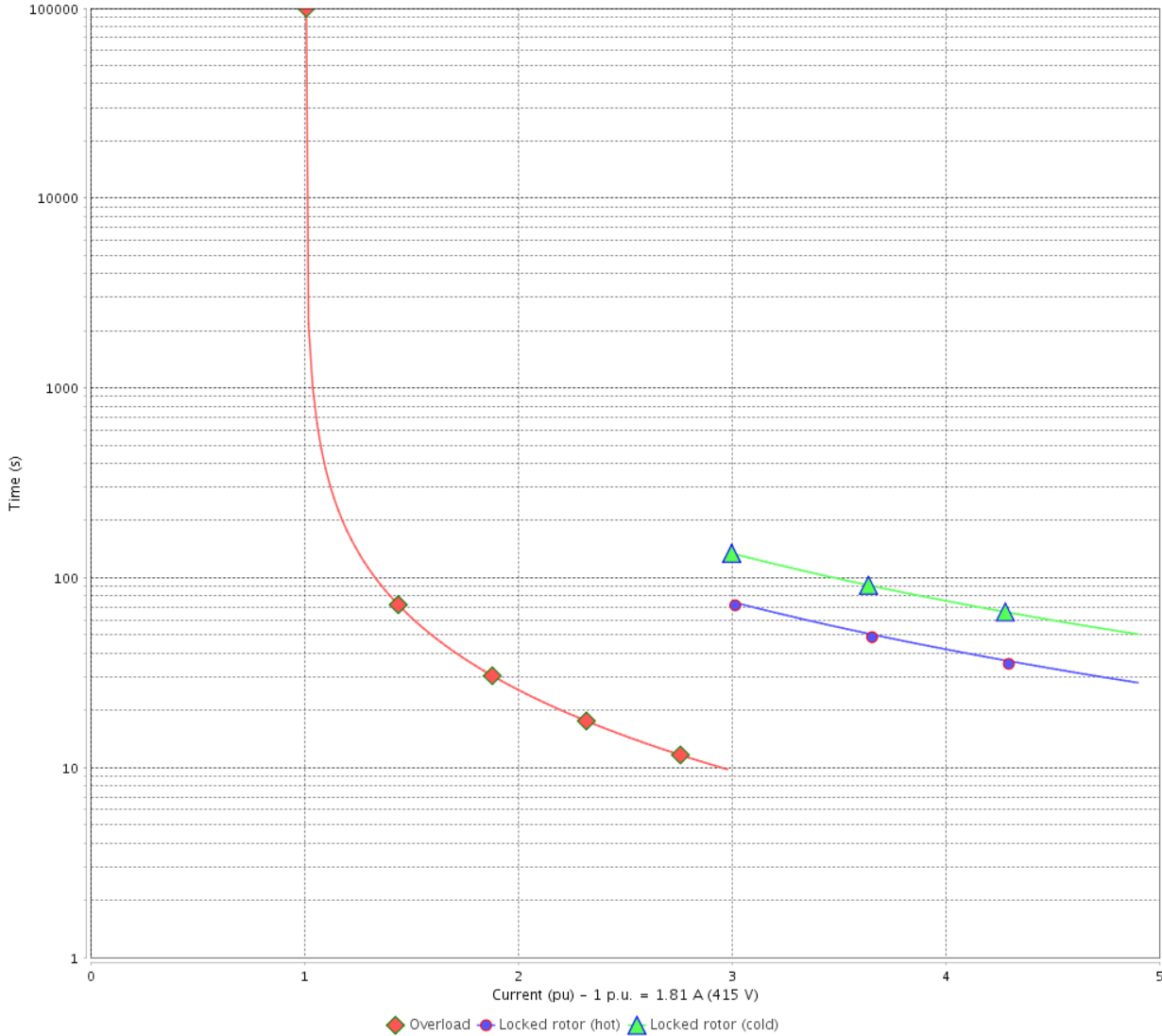
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THERMAL LIMIT CURVE



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 Breakdown torque : 229 %  
 Rated speed : 930 rpm

Moment of inertia (J) : 0.1597 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

Heating constant

Cooling constant

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# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage



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

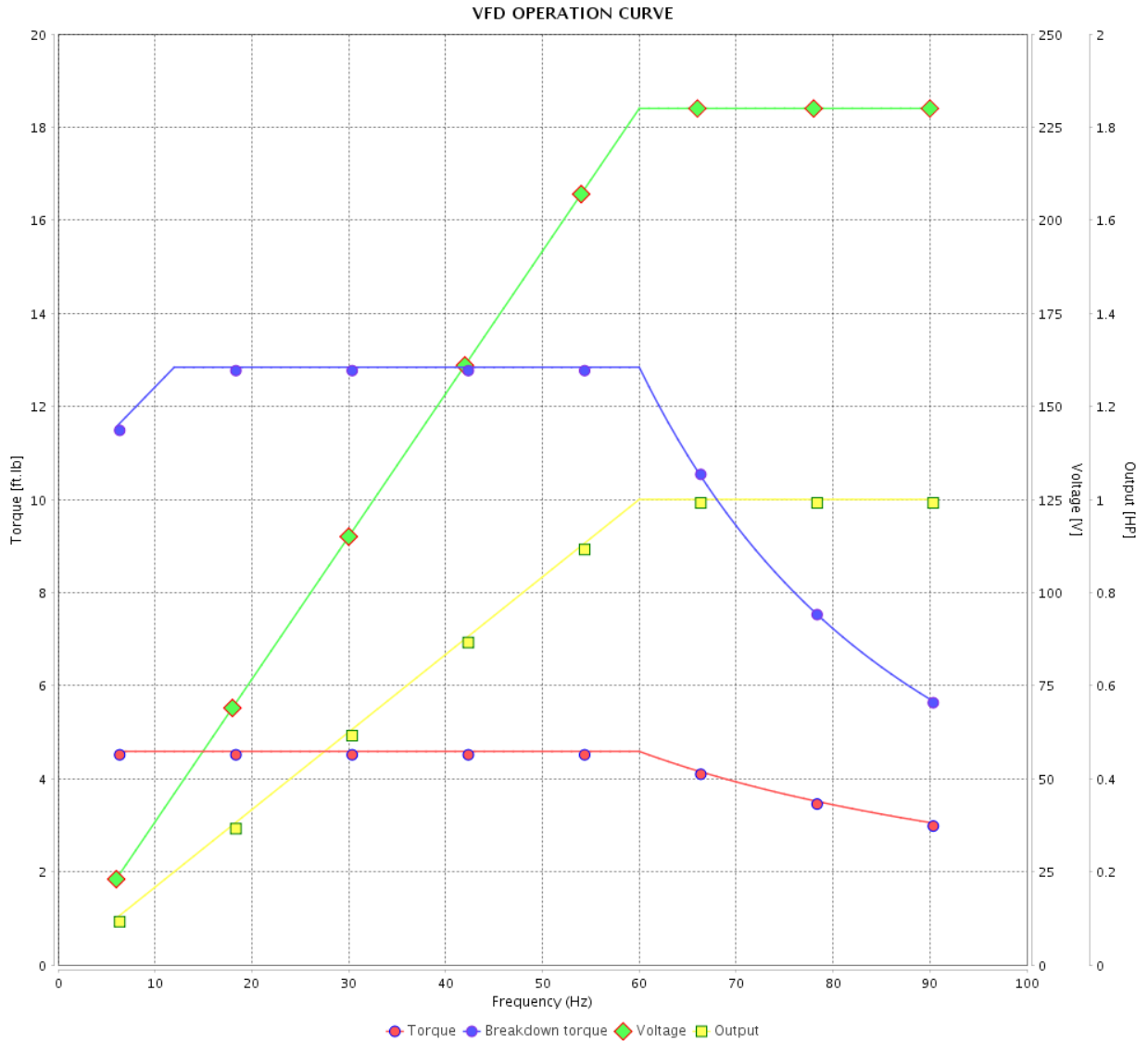
Product line : Premium Efficiency Three-Phase

Product code :

14797781

Catalog # :

00112ET3E56C-S



Performance : 230/460 V 60 Hz 6P

Rated current : 3.16/1.58 A  
 LRC : 5.8  
 Rated torque : 4.59 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 280 %  
 Rated speed : 1145 rpm

Moment of inertia (J) : 0.1597 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K  
 Design : B

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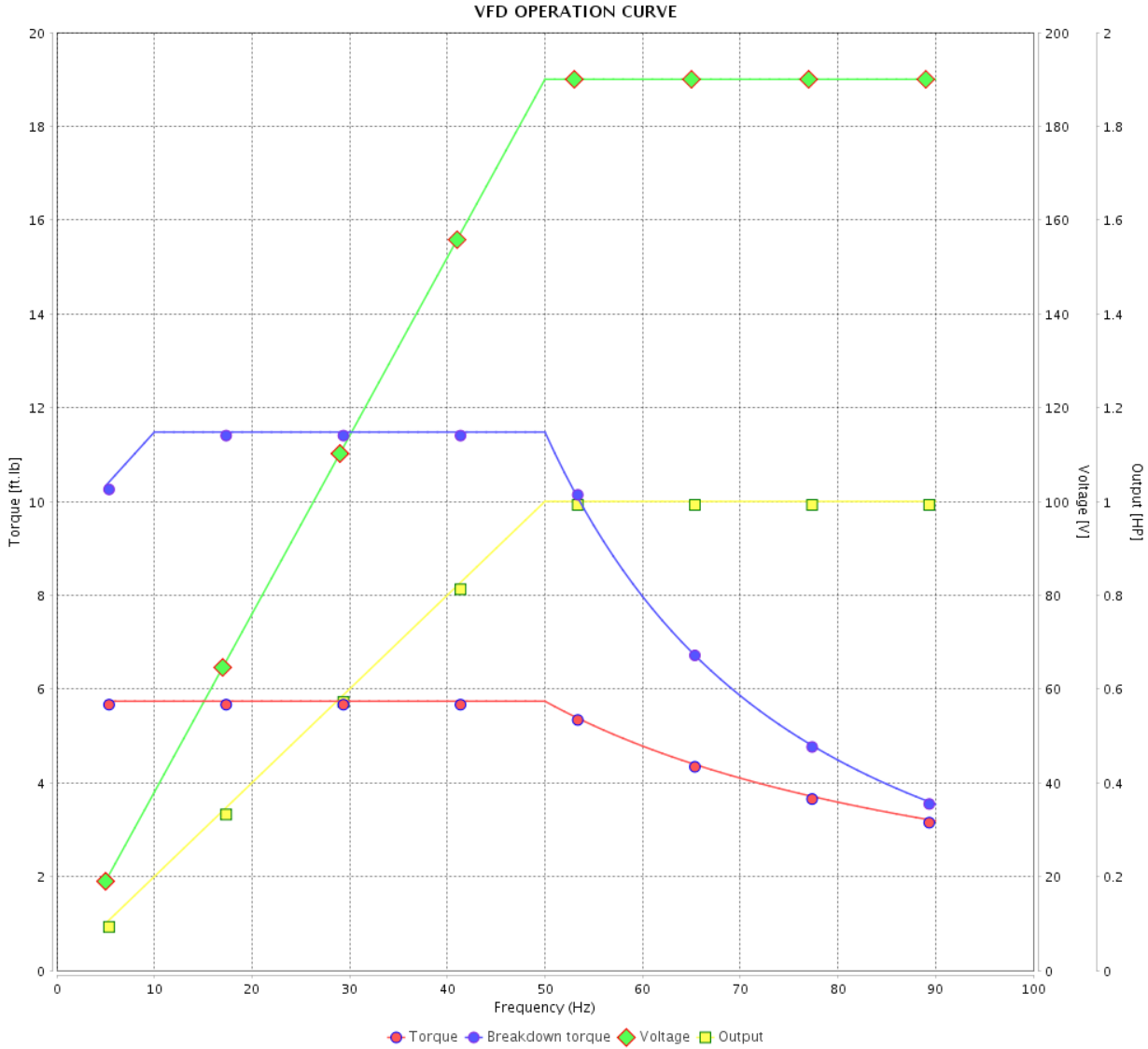
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Three Phase Induction Motor - Squirrel Cage



Customer :

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 Catalog # : 00112ET3E56C-S



Performance : 190/380 V 50 Hz 6P

Rated current	: 3.74/1.87 A	Moment of inertia (J)	: 0.1597 sq.ft.lb
LRC	: 4.4	Duty cycle	: Cont.(S1)
Rated torque	: 5.74 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 915 rpm	Design	: B

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# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

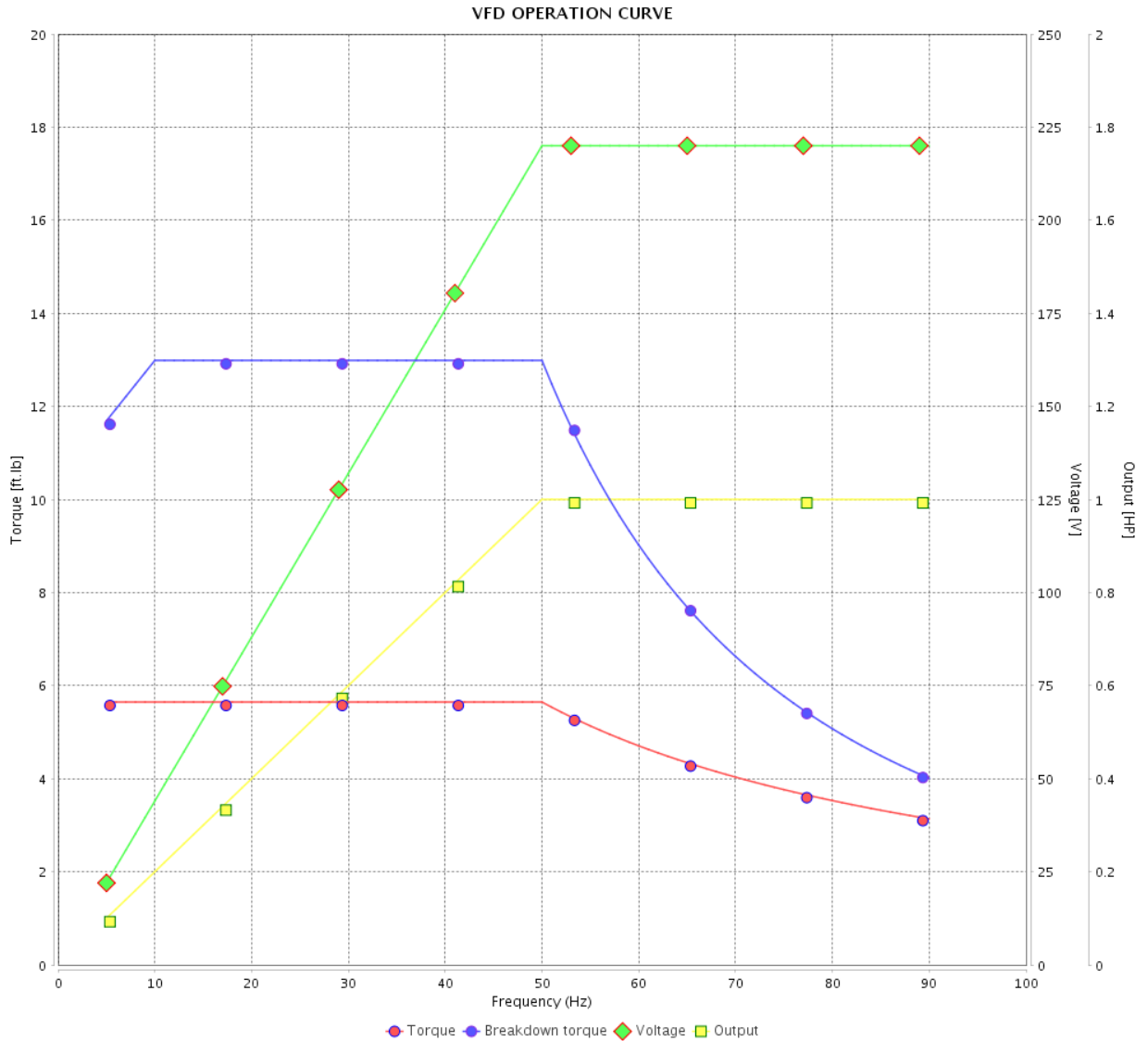
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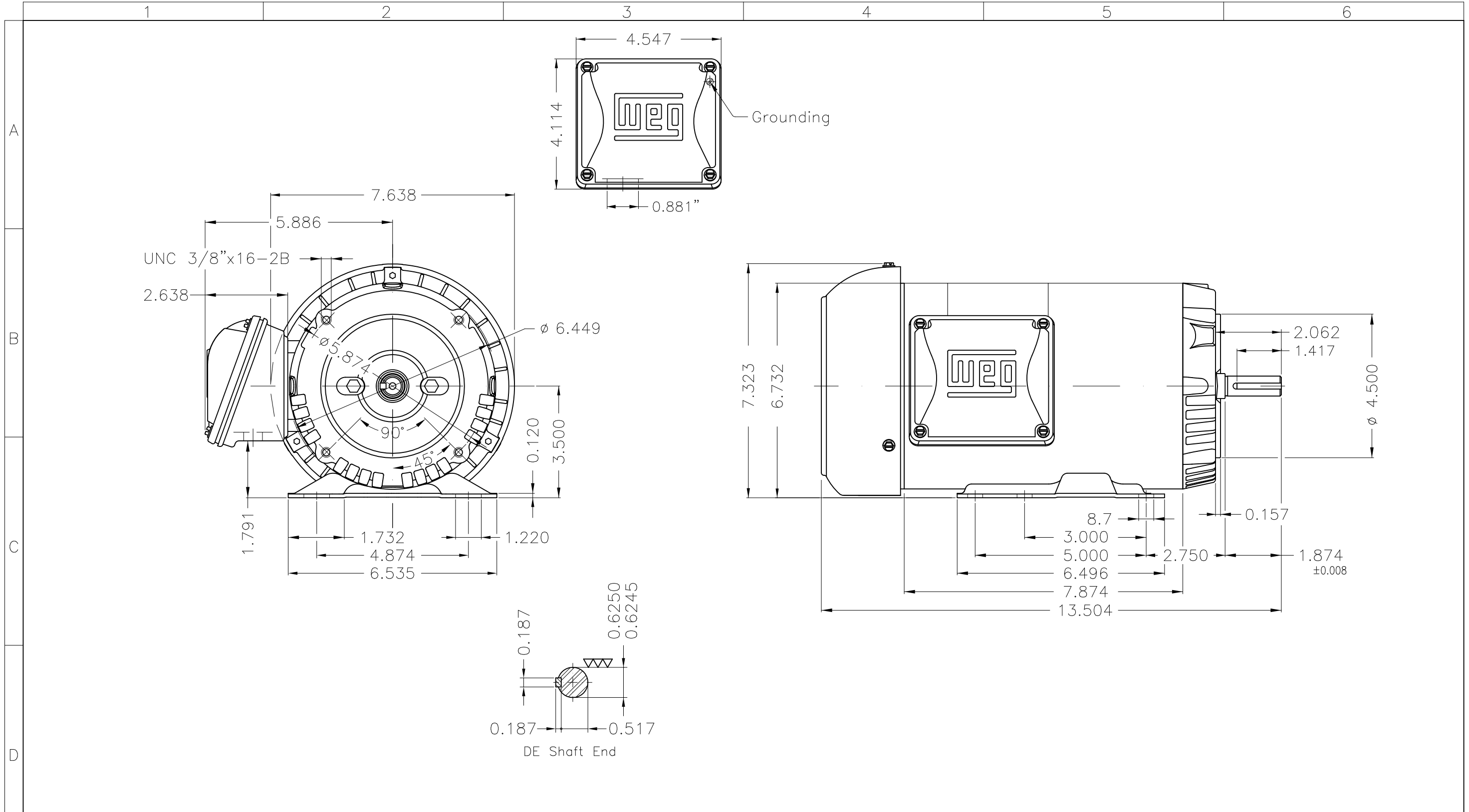


Performance : 220/415 V 50 Hz 6P

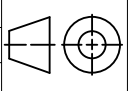
Rated current : 3.41/1.81 A  
 LRC : 4.9  
 Rated torque : 5.65 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 229 %  
 Rated speed : 930 rpm

Moment of inertia (J) : 0.1597 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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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. FRAME 56HC IP55 TEFC					
CHECKED							
RELEASED							
REL DT.		WMO Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW  
 WDD



1 HP 06 Poles 60 Hz

Dimensions in inches XME A3



**NEMA**  
**Premium**



3PT9



Energy Verified

MADE IN MEXICO

**MAT: 14797781 CC029A**

**W01.TE0IC0X0X**

**MODEL 00112ET3E56C-S**

**01APR2022 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**

<b>PH 3</b>	<b>Hz 60</b>	<b>HP 1.0</b>
<b>FR 56HC</b>		<b>KW 0.75</b>
<b>DUTY CONT.</b>		<b>V 230/460</b>
<b>ALT 1000 m.a.s.l.</b>		<b>A 3.16/1.58</b>
<b>INS CL F AT 80K</b>	<b>IP55</b>	<b>SFA 3.63/1.82</b>
<b>AMB 40°C</b>	<b>DES B</b>	<b>SF 1.15</b>
<b>ENCL TEFC</b>	<b>CODE J</b>	<b>PF 0.72</b>
<b>USABLE @ 208V 3.50A</b>		<b>RPM 1145</b>
<b>SF1.00</b>		<b>NEMA</b>
		<b>NOM. EFF 82.5%</b>

<b>ALTERNATE RATING: 1.0HP</b>	<b>50Hz</b>	<b>190-220/380-415V</b>	<b>SF1.00</b>
<b>3.74-3.36/1.87-1.78A</b>	<b>915RPM</b>	<b>EFF 77.3% (IE2)</b>	<b>IEC 60034-1</b>

For safe area-inverter duty motor For 60Hz use on VPWM 1000:1 VT, 5:1 CT

<b>DE 6204-ZZ</b>	<b>ODE 6202-ZZ</b>	<b>MOBIL POLYREX EM</b>
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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.

