

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

| | | | |
|--|----------------------------------|--|---------------------------|
| Customer | : | | |
| Product line | : Premium Efficiency Three-Phase | Product code : | 14799098 |
| | | Catalog # : | 00218ET3E56C-S |
| Frame | : 56HC | Cooling method | : IC411 - TEFC |
| 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 | : 42.8 lb |
| Protection degree | : IP55 | Moment of inertia (J) | : 0.1296 sq.ft.lb |
| Design | : B | | |
| Output [HP] | 2 | 2 | 2 |
| Poles | 4 | 4 | 4 |
| Frequency [Hz] | 60 | 50 | 50 |
| Rated voltage [V] | 230/460 | 190/380 | 220/415 |
| Rated current [A] | 5.44/2.72 | 6.50/3.25 | 5.89/3.12 |
| L. R. Amperes [A] | 44.6/22.3 | 39.0/19.5 | 39.4/20.9 |
| LRC [A] | 8.2x(Code K) | 6.0x(Code H) | 6.7x(Code J) |
| No load current [A] | 2.80/1.40 | 2.75/1.37 | 2.87/1.52 |
| Rated speed [RPM] | 1745 | 1415 | 1425 |
| Slip [%] | 3.06 | 5.67 | 5.00 |
| Rated torque [ft.lb] | 6.02 | 7.42 | 7.37 |
| Locked rotor torque [%] | 270 | 210 | 240 |
| Breakdown torque [%] | 300 | 240 | 270 |
| Service factor | | 1.15 | 1.15 |
| Temperature rise | 80 K | 80 K | 80 K |
| Locked rotor time | 27s (cold) 15s (hot) | 25s (cold) 14s (hot) | 23s (cold) 13s (hot) |
| Noise level ² | 52.0 dB(A) | 49.0 dB(A) | 49.0 dB(A) |
| Efficiency (%) | 25% | 86.0 | 86.0 |
| | 50% | 85.5 | 84.9 |
| | 75% | 87.5 | 85.2 |
| | 100% | 86.5 | 83.6 |
| Power Factor | 25% | 0.35 | 0.38 |
| | 50% | 0.60 | 0.64 |
| | 75% | 0.73 | 0.76 |
| | 100% | 0.80 | 0.83 |
| 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 : 174 lb |
| Lubrication interval | : - | - | Max. compression : 217 lb |
| Lubricant amount | : - | - | |
| Lubricant type | : Mobil Polyrex EM | | |
| Notes USABLE @208V 6.02A SF 1.00 SFA 6.02A | | | |
| 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. | |
| Rev. | Changes Summary | Performed | Checked |
| | | | Date |
| Performed by | | | |
| Checked by | | | Page |
| Date | 13/04/2022 | | Revision |
| | | | 1 / 13 |

TORQUE AND CURRENT VS SPEED CURVE

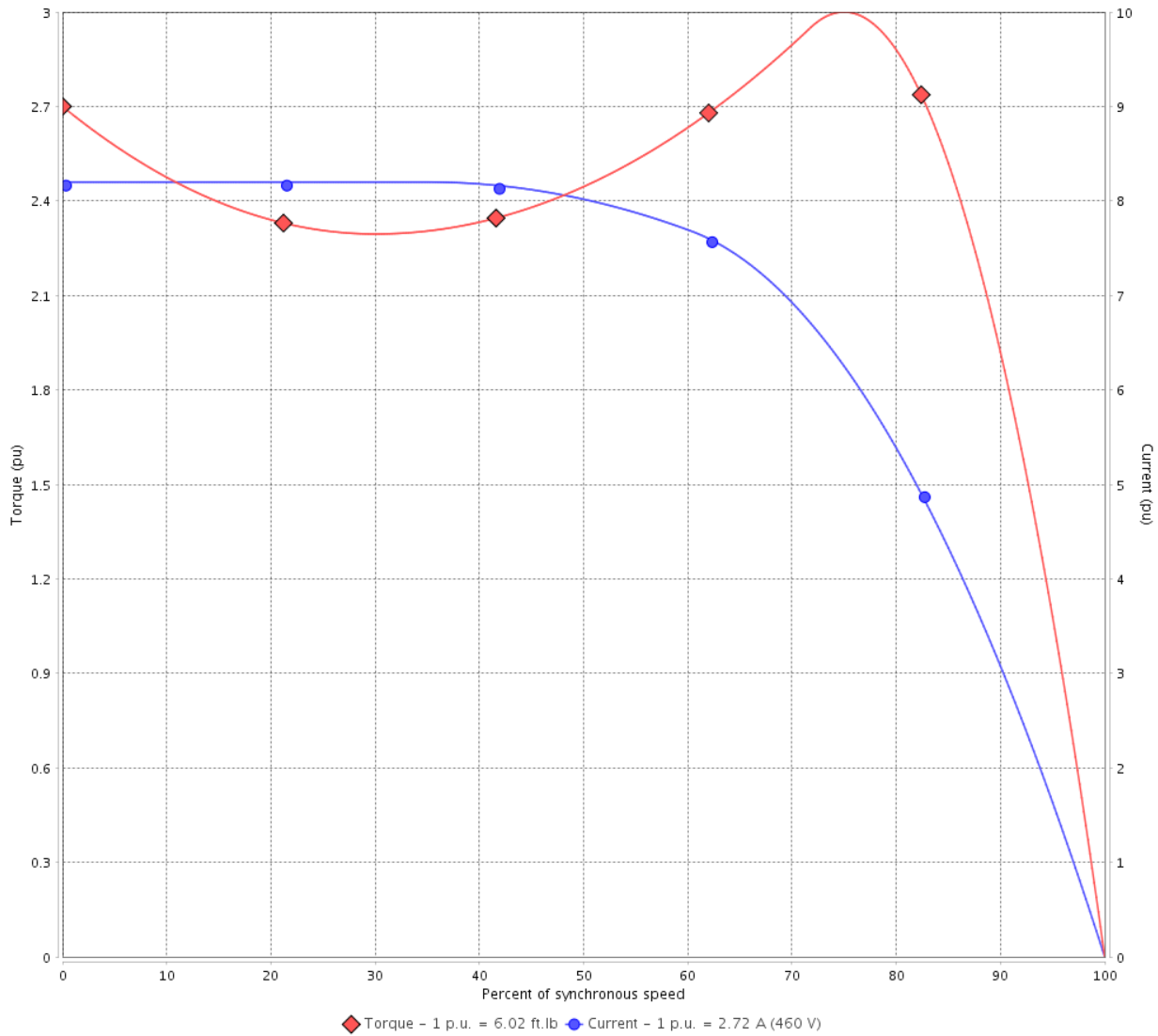
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase Product code : 14799098
 Catalog # : 00218ET3E56C-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

| | | | |
|---------------------|---------------|-----------------------|-------------------|
| Rated current | : 5.44/2.72 A | Moment of inertia (J) | : 0.1296 sq.ft.lb |
| LRC | : 8.2 | Duty cycle | : Cont.(S1) |
| Rated torque | : 6.02 ft.lb | Insulation class | : F |
| Locked rotor torque | : 270 % | Service factor | : |
| Breakdown torque | : 300 % | Temperature rise | : 80 K |
| Rated speed | : 1745 rpm | Design | : B |

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

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____

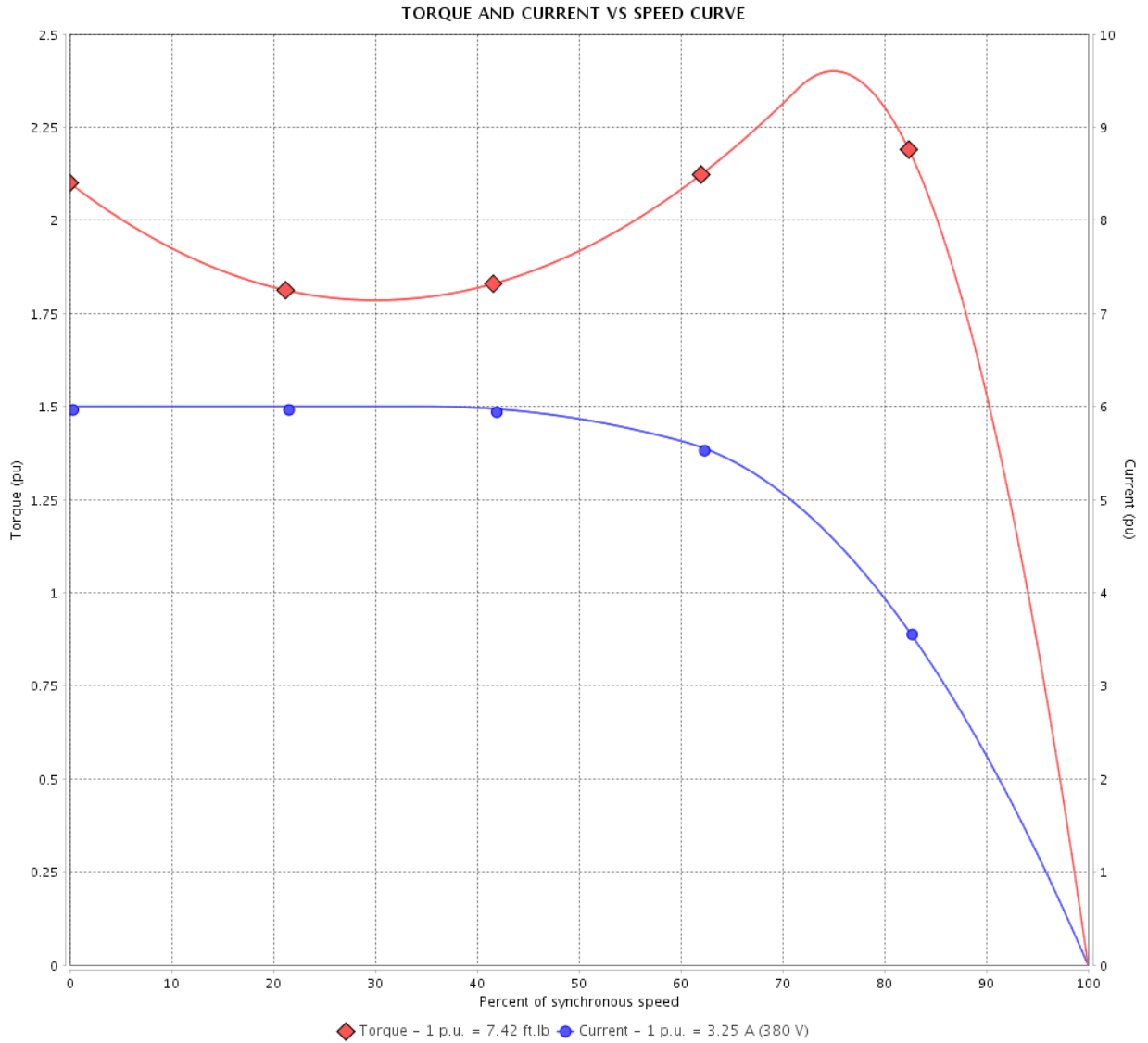
Product line : Premium Efficiency Three-Phase

Product code :

14799098

Catalog # :

00218ET3E56C-S



Performance : 190/380 V 50 Hz 4P

Rated current : 6.50/3.25 A
 LRC : 6.0
 Rated torque : 7.42 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 240 %
 Rated speed : 1415 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 : B

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

| Rev. | Changes Summary | Performed | Checked | Date |
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TORQUE AND CURRENT VS SPEED CURVE

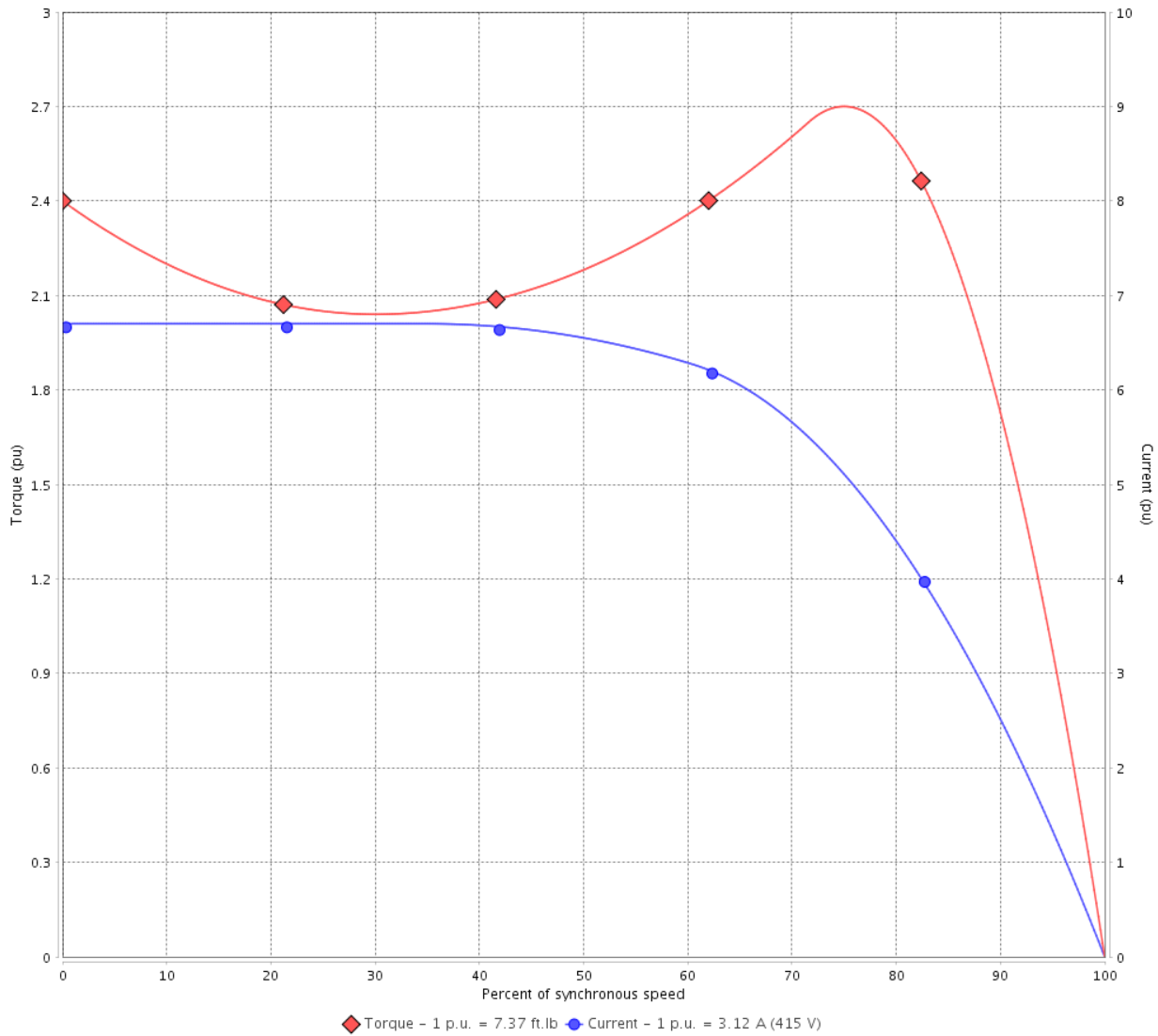
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase Product code : 14799098
 Catalog # : 00218ET3E56C-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

| | | | |
|---------------------|---------------|-----------------------|-------------------|
| Rated current | : 5.89/3.12 A | Moment of inertia (J) | : 0.1296 sq.ft.lb |
| LRC | : 6.7 | Duty cycle | : Cont.(S1) |
| Rated torque | : 7.37 ft.lb | Insulation class | : F |
| Locked rotor torque | : 240 % | Service factor | : 1.15 |
| Breakdown torque | : 270 % | Temperature rise | : 80 K |
| Rated speed | : 1425 rpm | Design | : B |

Locked rotor time : 23s (cold) 13s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



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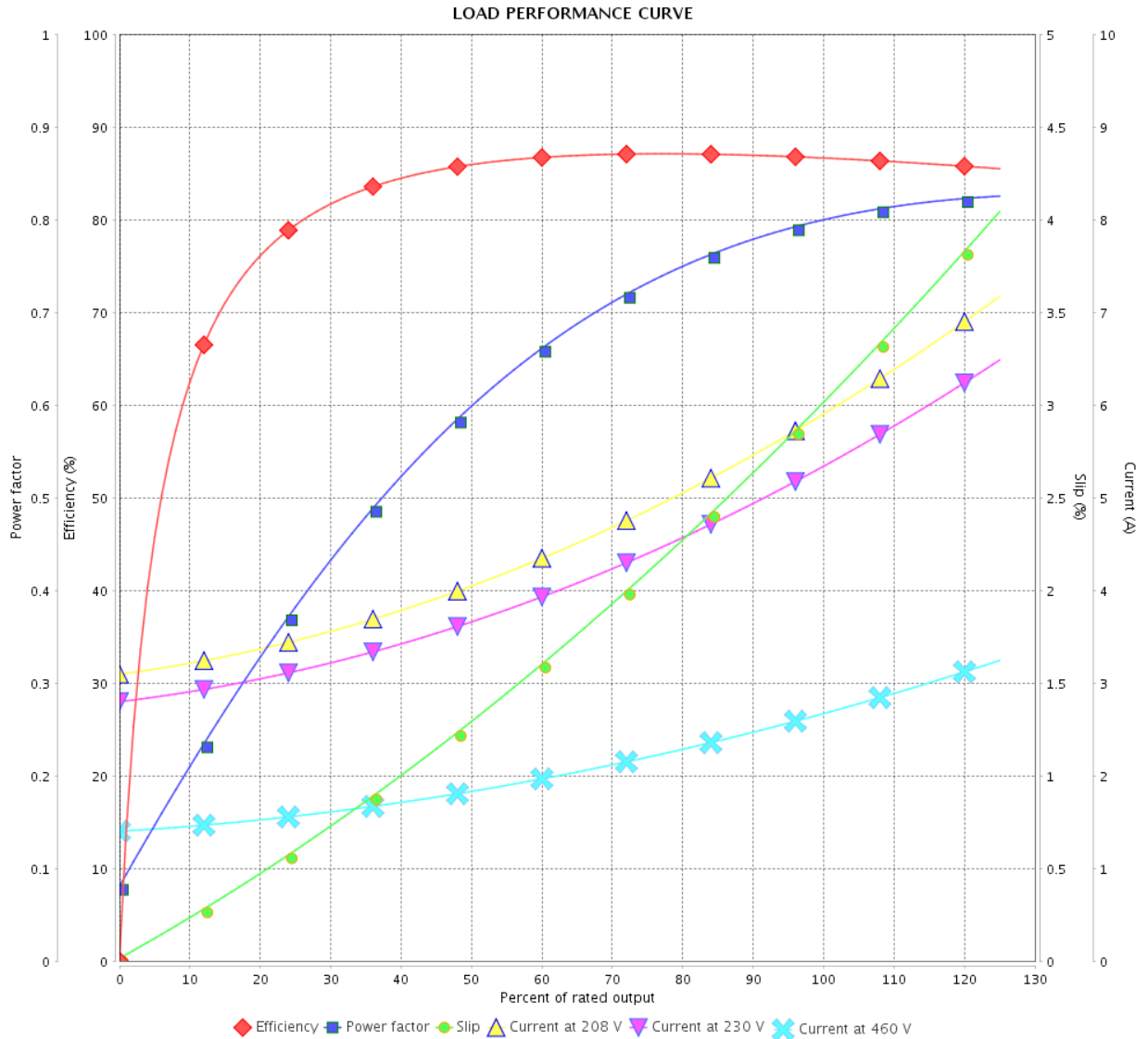
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Product code :

14799098

Catalog # :

00218ET3E56C-S



Performance : 230/460 V 60 Hz 4P

Rated current : 5.44/2.72 A
 LRC : 8.2
 Rated torque : 6.02 ft.lb
 Locked rotor torque : 270 %
 Breakdown torque : 300 %
 Rated speed : 1745 rpm

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

| Rev. | Changes Summary | Performed | Checked | Date |
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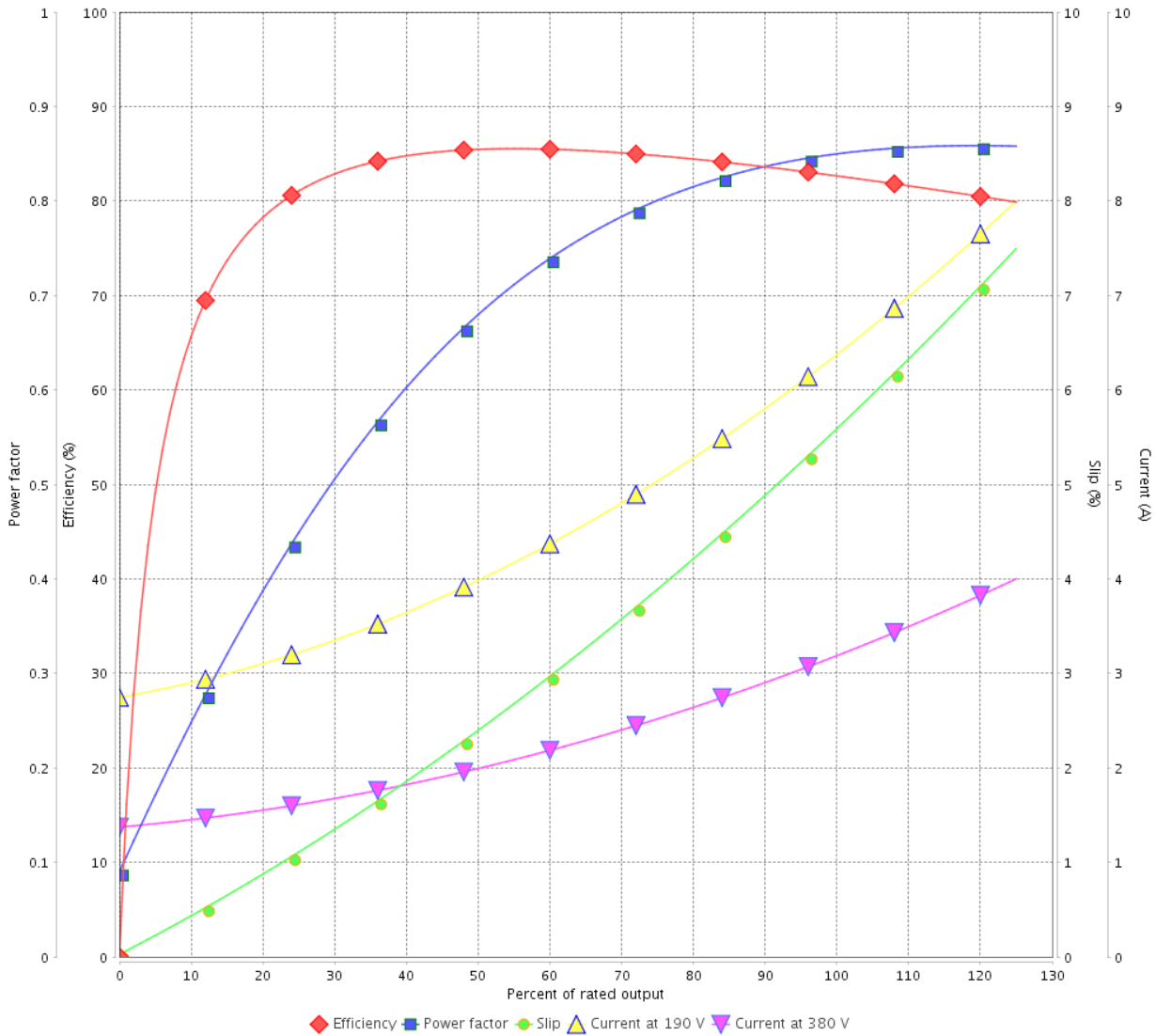
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Customer :

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LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 4P

Rated current : 6.50/3.25 A
 LRC : 6.0
 Rated torque : 7.42 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 240 %
 Rated speed : 1415 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 : B

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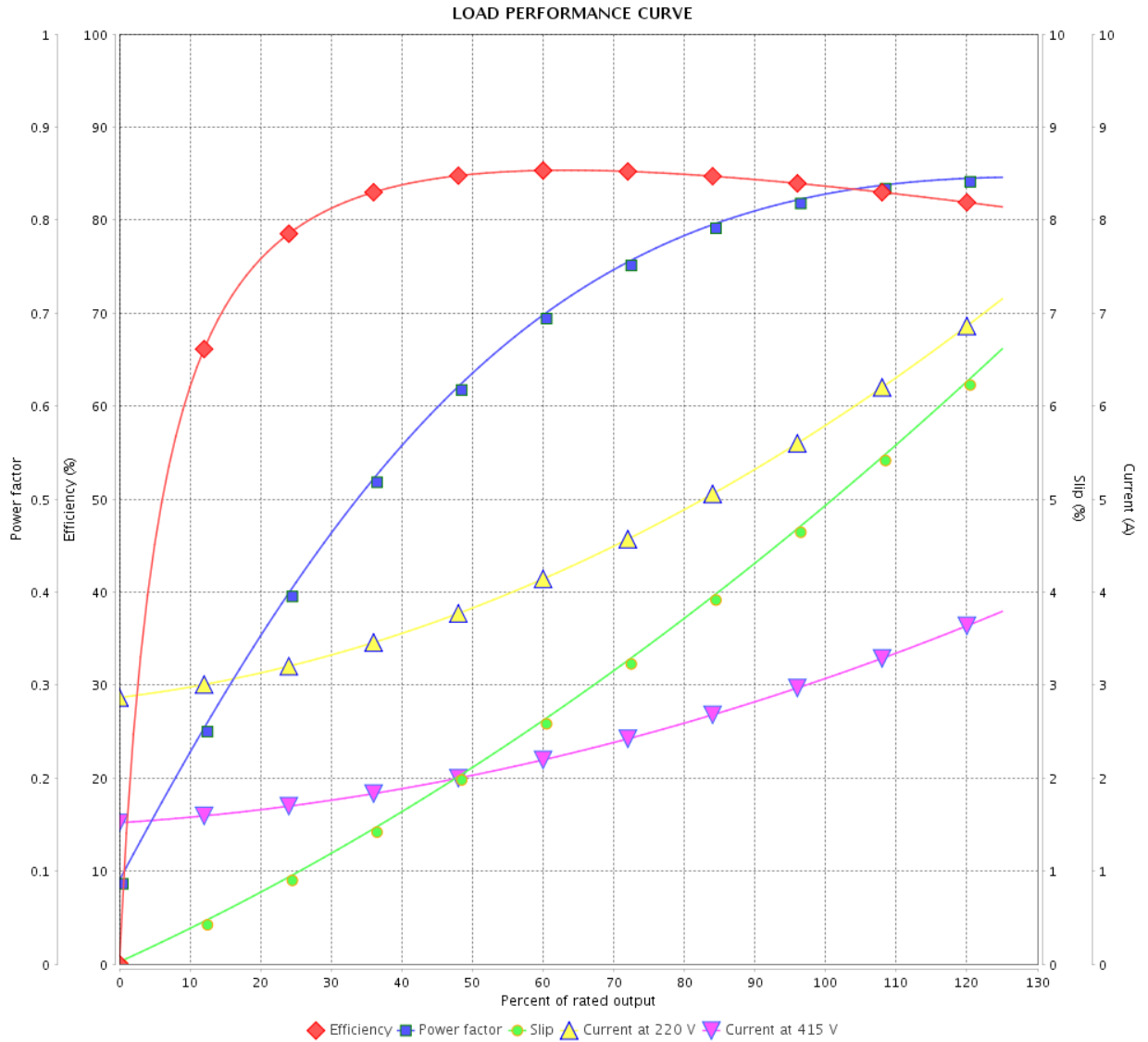
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 Locked rotor torque : 240 %
 Breakdown torque : 270 %
 Rated speed : 1425 rpm

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 : B

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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

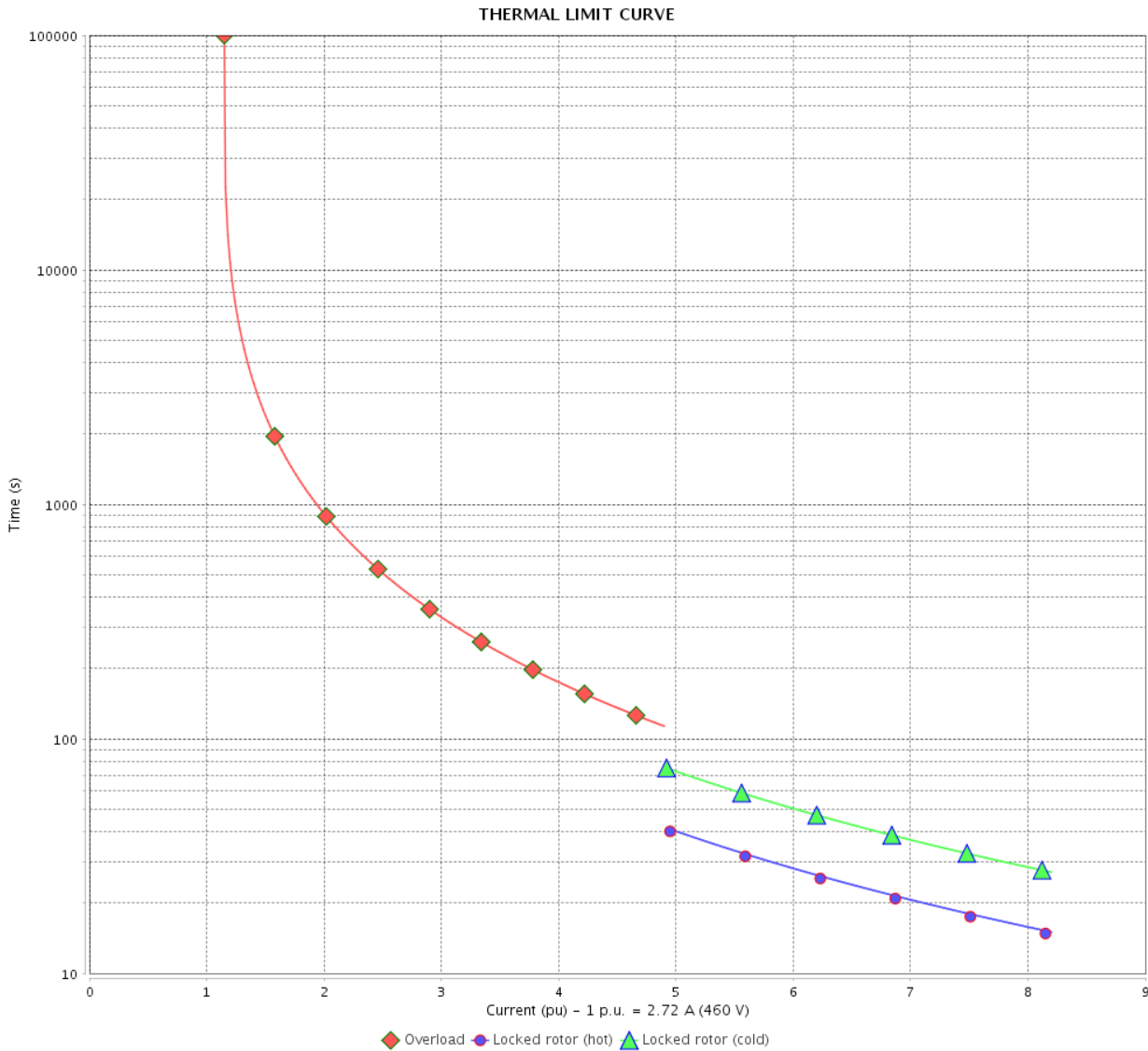
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Catalog # :

00218ET3E56C-S



Performance : 230/460 V 60 Hz 4P

Rated current : 5.44/2.72 A
 LRC : 8.2
 Rated torque : 6.02 ft.lb
 Locked rotor torque : 270 %
 Breakdown torque : 300 %
 Rated speed : 1745 rpm

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

Heating constant

Cooling constant

| Rev. | Changes Summary | Performed | Checked | Date |
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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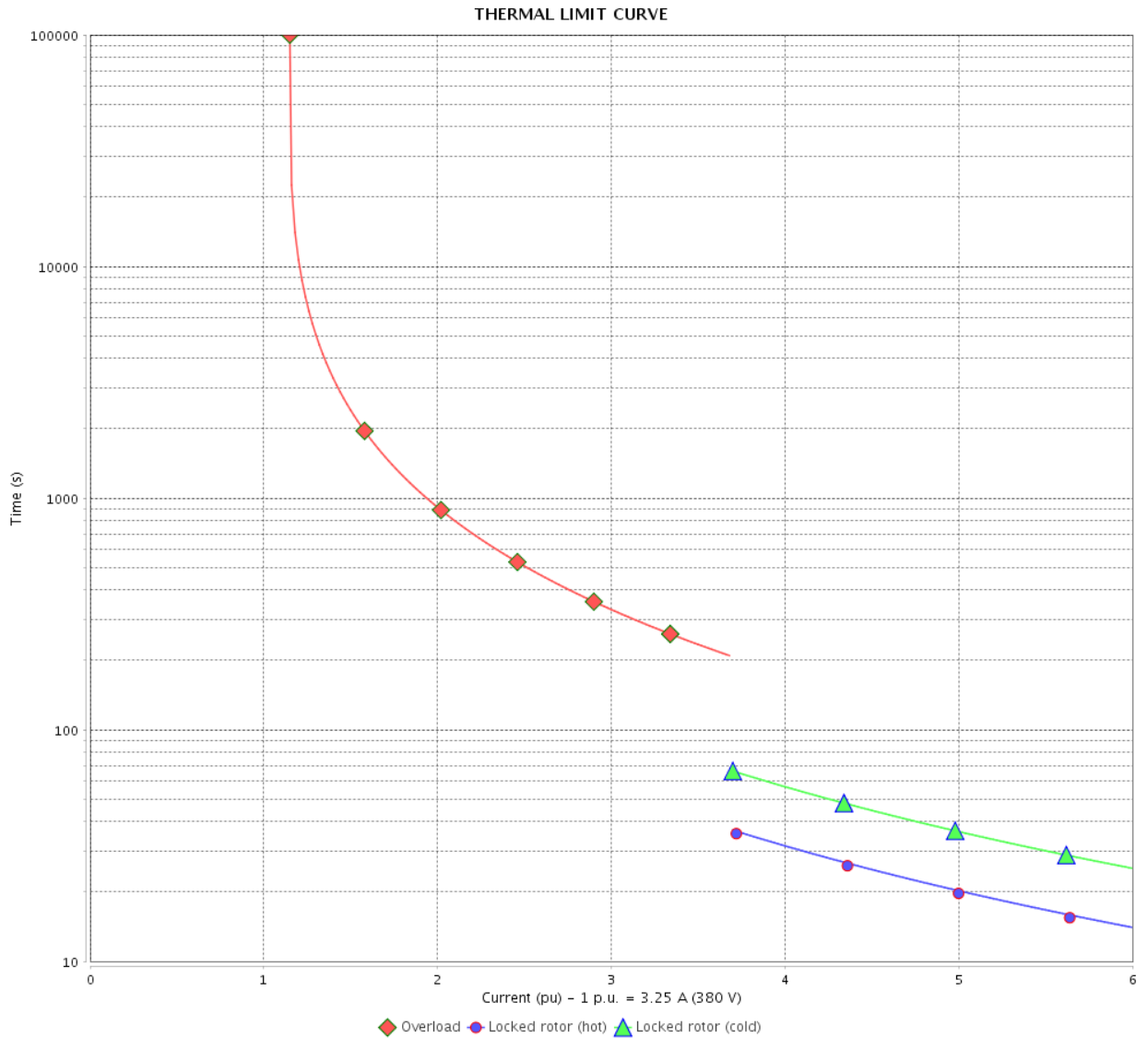
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 Breakdown torque : 240 %
 Rated speed : 1415 rpm

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 : B

Heating constant

Cooling constant

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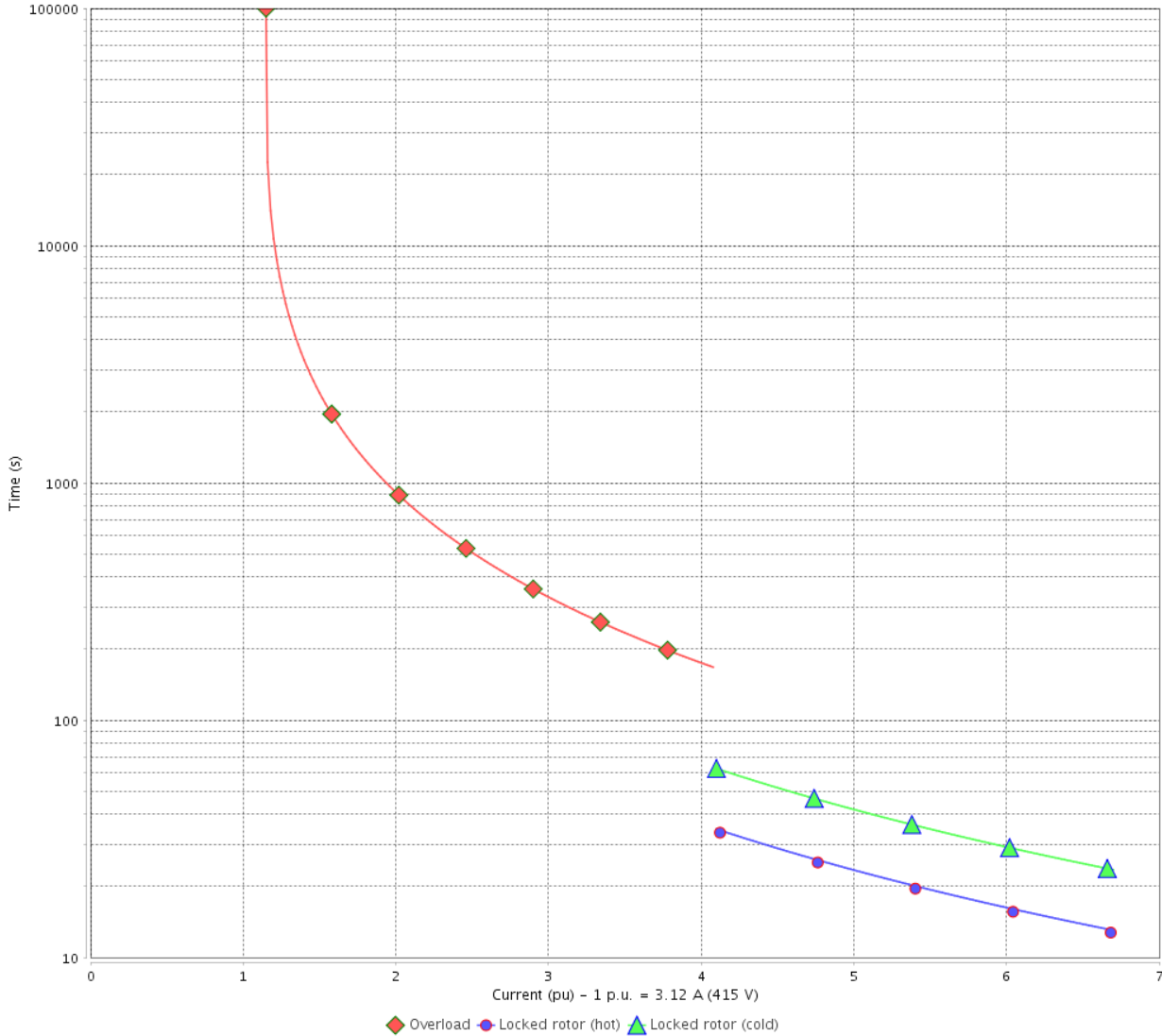
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 Locked rotor torque : 240 %
 Breakdown torque : 270 %
 Rated speed : 1425 rpm

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 : B

Heating constant

Cooling constant

| Rev. | Changes Summary | Performed | Checked | Date |
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

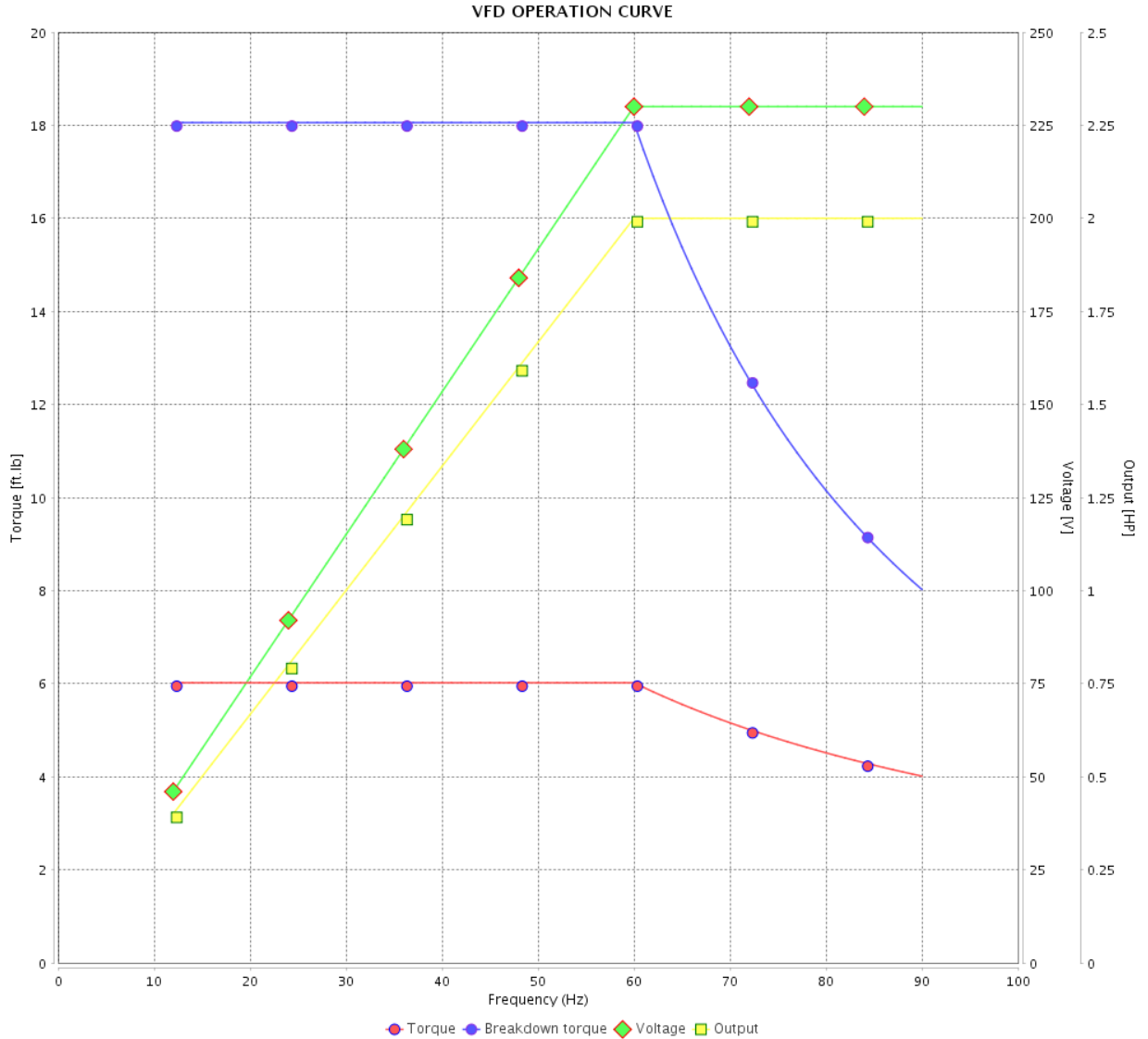
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 Rated torque : 6.02 ft.lb
 Locked rotor torque : 270 %
 Breakdown torque : 300 %
 Rated speed : 1745 rpm

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

| Rev. | Changes Summary | Performed | Checked | Date |
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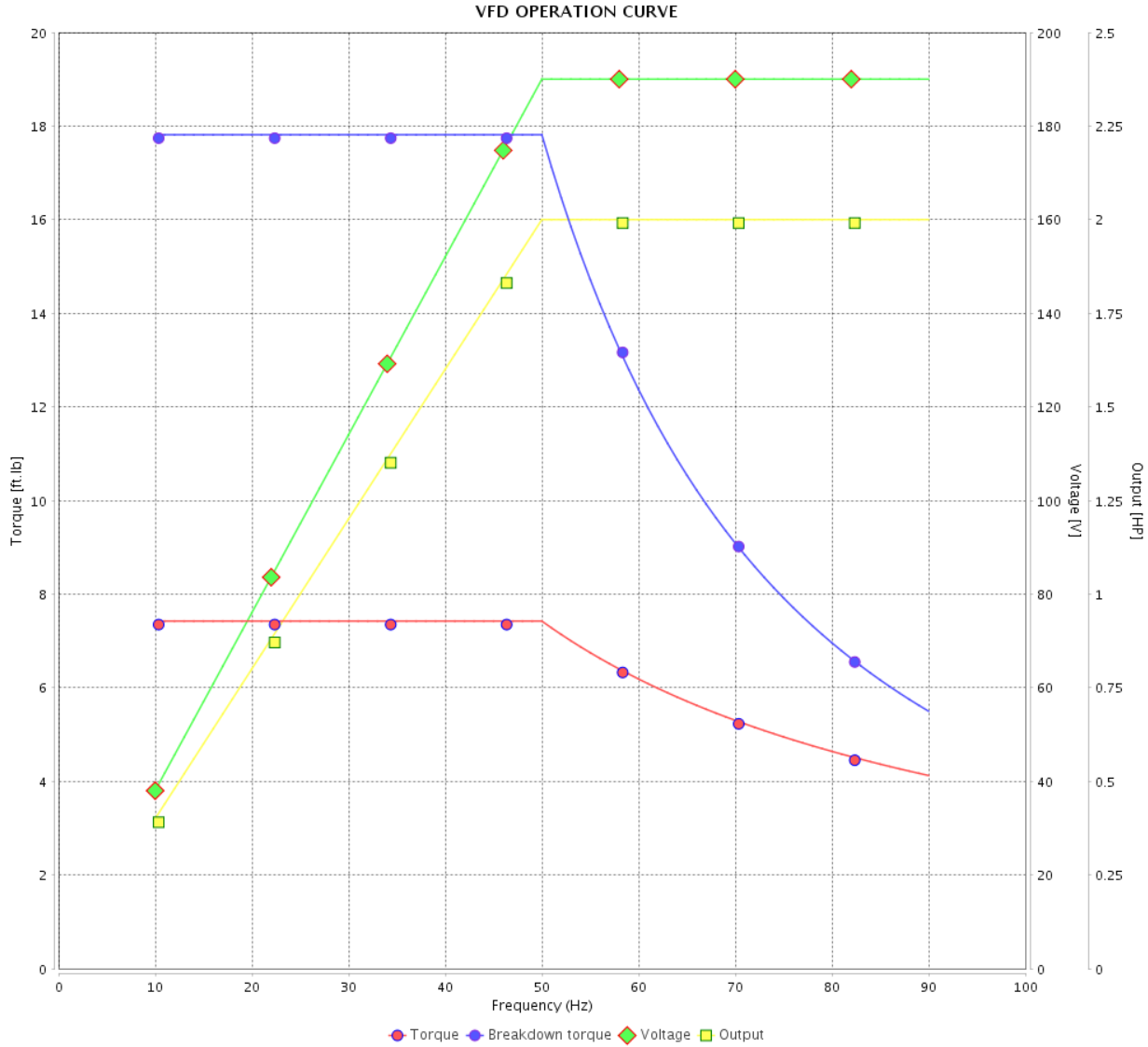
VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase Product code : 14799098
 Catalog # : 00218ET3E56C-S



Performance : 190/380 V 50 Hz 4P

| | | | |
|---------------------|---------------|-----------------------|-------------------|
| Rated current | : 6.50/3.25 A | Moment of inertia (J) | : 0.1296 sq.ft.lb |
| LRC | : 6.0 | Duty cycle | : Cont.(S1) |
| Rated torque | : 7.42 ft.lb | Insulation class | : F |
| Locked rotor torque | : 210 % | Service factor | : 1.15 |
| Breakdown torque | : 240 % | Temperature rise | : 80 K |
| Rated speed | : 1415 rpm | Design | : B |

| Rev. | Changes Summary | Performed | Checked | Date |
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

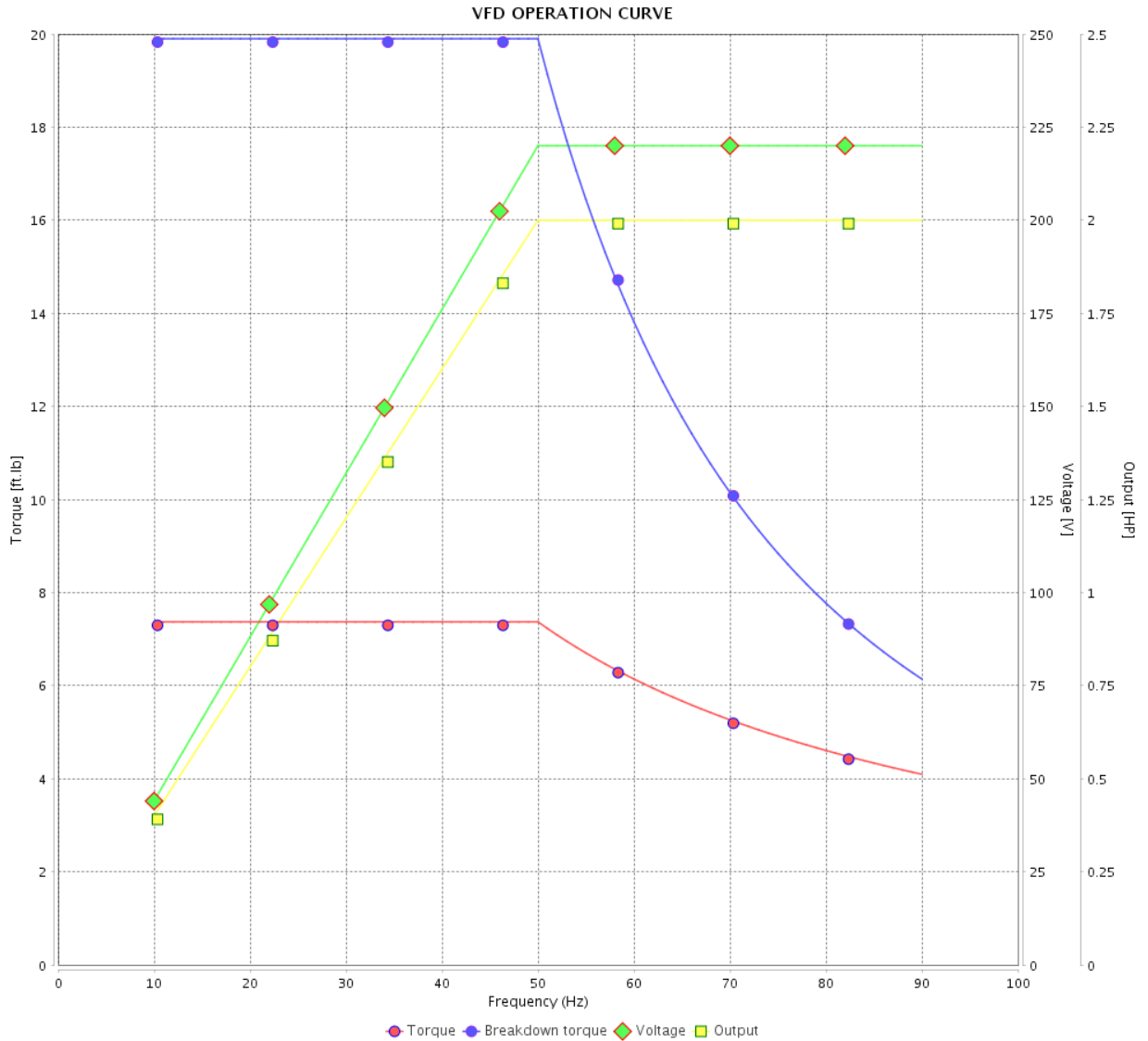


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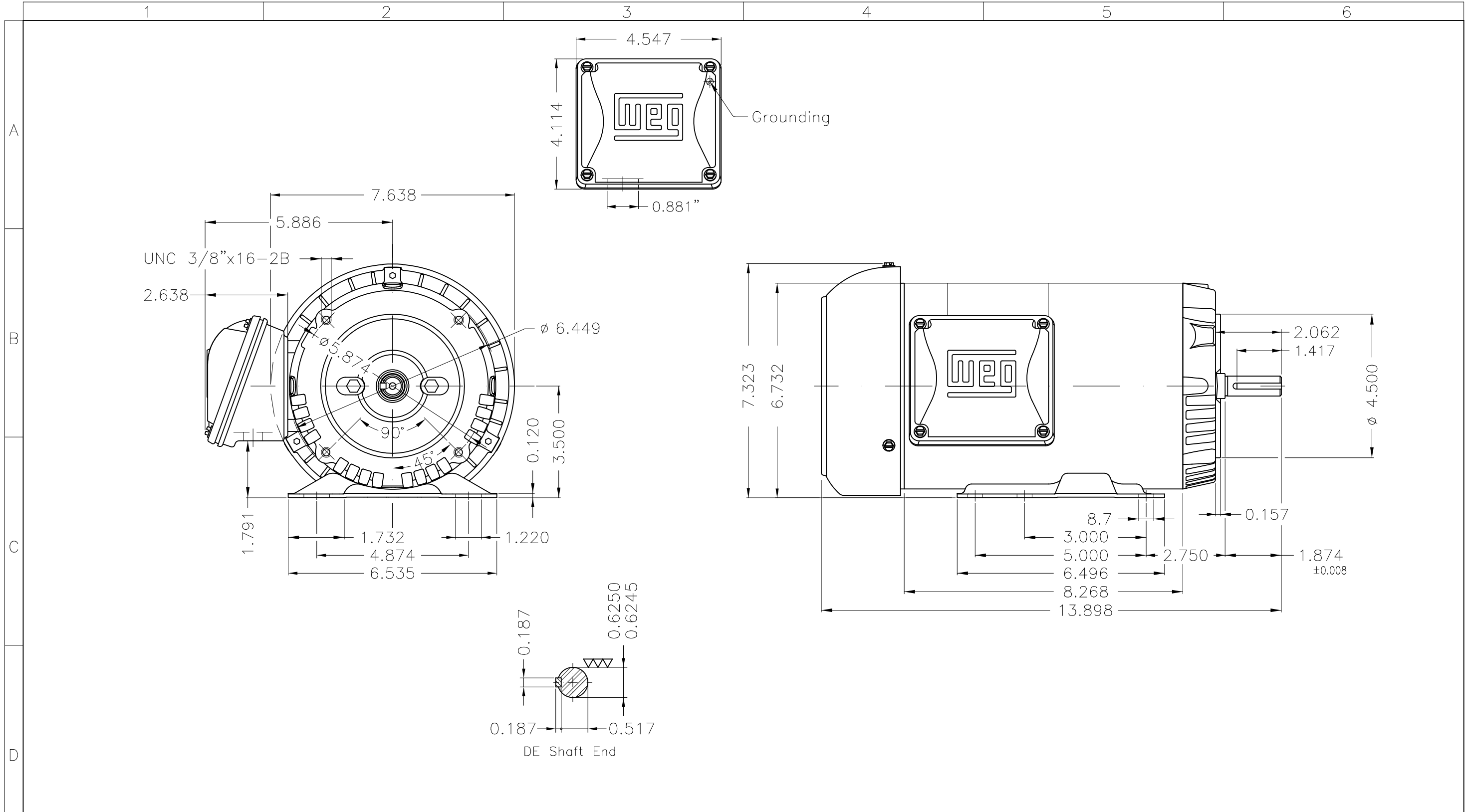



Performance : 220/415 V 50 Hz 4P

Rated current : 5.89/3.12 A
 LRC : 6.7
 Rated torque : 7.37 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 270 %
 Rated speed : 1425 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 : B

| Rev. | Changes Summary | Performed | Checked | Date |
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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 | | | |
| CHECKED | | FRAME 56HC IP55 TEFC | | | | | | | | |
| RELEASED | | | | | | | | | | |
| REL DT. | WMO | Jaragua do Sul | Product Engineering | | | SHEET | 1 / 1 | | | |

2 HP 04 Poles 60 Hz

Dimensions in inches XME A3



NEMA
Premium

®



3PT9

US LISTED
FOR SAFE AREA



US
Energy Verified

MADE IN BRAZIL

MAT: 14799098 CC029A
W01.TE0IC0X0X
MODEL 00218ET3E56C-S
12APR2022 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 2.0 |
| FR 56HC | | KW 1.5 |
| DUTY CONT. | | V 230/460 |
| ALT 1000 m.a.s.l. | | A 5.44/2.72 |
| INS CL F AT 80K | IP55 | SFA 6.26/3.13 |
| AMB 40°C | DES B | SF 1.15 |
| ENCL TEFC | CODE K | PF 0.80 |
| USABLE @ 208V 6.02A | | RPM 1745 |
| SF1.00 | | NEMA NOM. EFF 86.5% |

| | | | |
|-------------------------|---------|------------------|-------------------|
| ALTERNATE RATING: 2.0HP | 50Hz | 190-220/380-415V | SF1.15 |
| 6.50-5.79/3.25-3.07A | 1415RPM | EFF 82.6% | (IE1) 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 |
|------------|-------------|------------------|



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.

