

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

| | | | |
|--|-----------------------------------|--|---------------------------|
| Customer | : | | |
| Product line | : Standard Efficiency Three-Phase | Product code : | 14786474 |
| | | Catalog # : | .7512ES3E56CFL-S |
| Frame | : 56C | 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 | : 29.9 lb |
| Protection degree | : IP55 | Moment of inertia (J) | : 0.1331 sq.ft.lb |
| Design | : A | | |
| Output [HP] | 0.75 | 0.75 | 0.75 |
| Poles | 6 | 6 | 6 |
| Frequency [Hz] | 60 | 50 | 50 |
| Rated voltage [V] | 208-230/460 | 190/380 | 220/415 |
| Rated current [A] | 2.96-2.68/1.34 | 2.98/1.49 | 2.77/1.47 |
| L. R. Amperes [A] | 17.2-15.5/7.77 | 13.4/6.71 | 13.6/7.20 |
| LRC [A] | 5.8x(Code K) | 4.5x(Code G) | 4.9x(Code H) |
| No load current [A] | 1.67-1.94/0.971 | 1.91/0.955 | 1.94/1.03 |
| Rated speed [RPM] | 1155 | 935 | 940 |
| Slip [%] | 3.75 | 6.50 | 6.00 |
| Rated torque [ft.lb] | 3.41 | 4.21 | 4.19 |
| Locked rotor torque [%] | 229 | 170 | 200 |
| Breakdown torque [%] | 300 | 210 | 229 |
| Service factor | | 1.00 | 1.00 |
| Temperature rise | 80 K | 105 K | 105 K |
| Locked rotor time | 37s (cold) 21s (hot) | 0s (cold) 0s (hot) | 0s (cold) 0s (hot) |
| Noise level ² | 50.0 dB(A) | 48.0 dB(A) | 48.0 dB(A) |
| Efficiency (%) | 25% | 68.4 | 67.9 |
| | 50% | 70.0 | 68.7 |
| | 75% | 74.0 | 72.9 |
| | 100% | 75.5 | 73.2 |
| Power Factor | 25% | 0.26 | 0.28 |
| | 50% | 0.46 | 0.51 |
| | 75% | 0.59 | 0.64 |
| | 100% | 0.68 | 0.74 |
| Bearing type | : <u>Drive end</u> 6203 ZZ | <u>Non drive end</u> 6202 ZZ | Foundation loads |
| Sealing | : V'Ring | Without Bearing Seal | Max. traction : 79 lb |
| Lubrication interval | : - | - | Max. compression : 109 lb |
| Lubricant amount | : - | - | |
| Lubricant type | : Mobil Polyrex EM | | |
| Notes USABLE @208V SF 1.00 | | | |
| 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 | 11/04/2022 | | Revision |
| | | | 1 / 13 |

TORQUE AND CURRENT VS SPEED CURVE

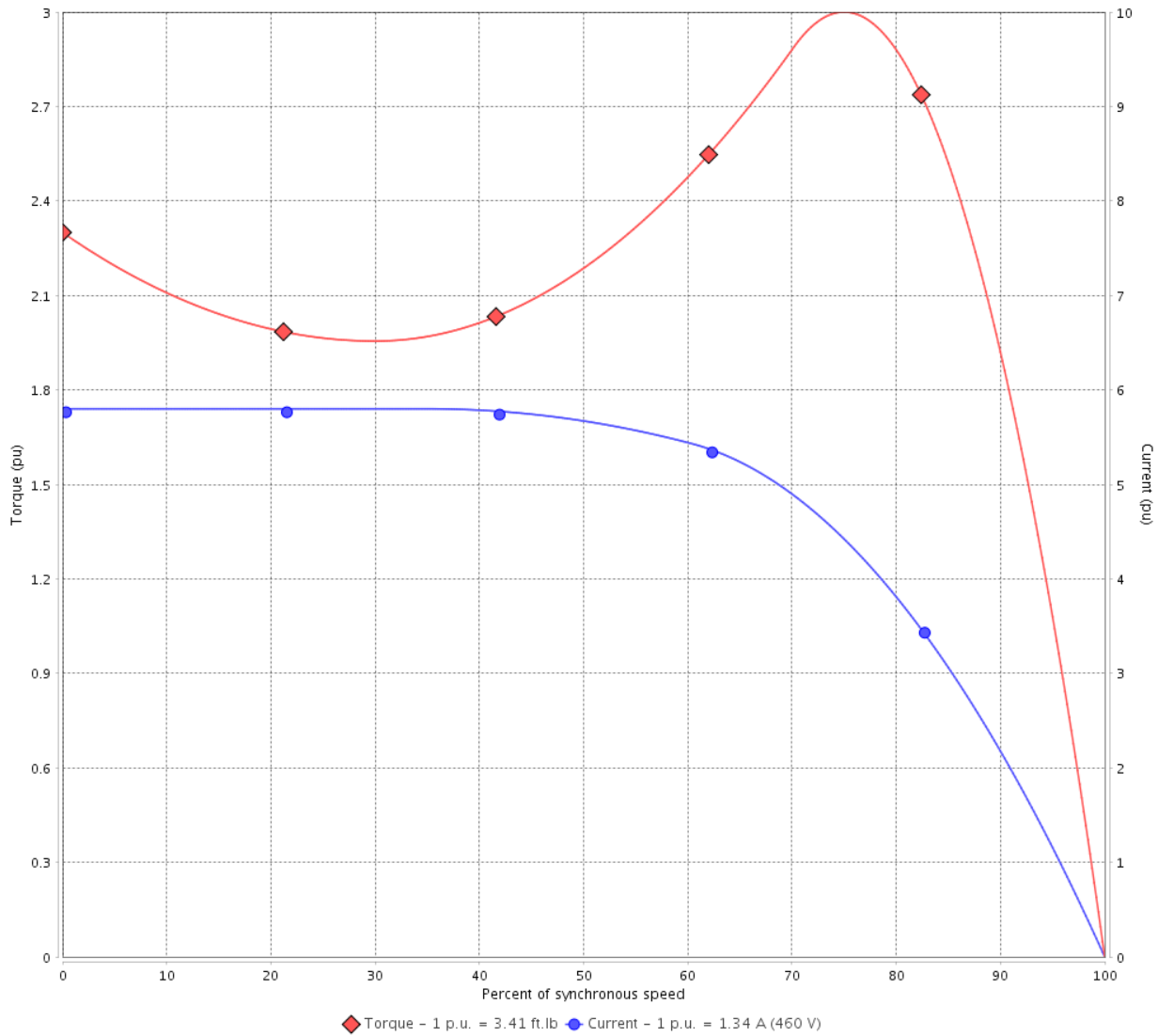
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Standard Efficiency Three-Phase Product code : 14786474
 Catalog # : .7512ES3E56CFL-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 208-230/460 V 60 Hz 6P

| | | | |
|---------------------|--------------------|-----------------------|-------------------|
| Rated current | : 2.96-2.68/1.34 A | Moment of inertia (J) | : 0.1331 sq.ft.lb |
| LRC | : 5.8 | Duty cycle | : Cont.(S1) |
| Rated torque | : 3.41 ft.lb | Insulation class | : F |
| Locked rotor torque | : 229 % | Service factor | : |
| Breakdown torque | : 300 % | Temperature rise | : 80 K |
| Rated speed | : 1155 rpm | Design | : A |

Locked rotor time : 37s (cold) 21s (hot)

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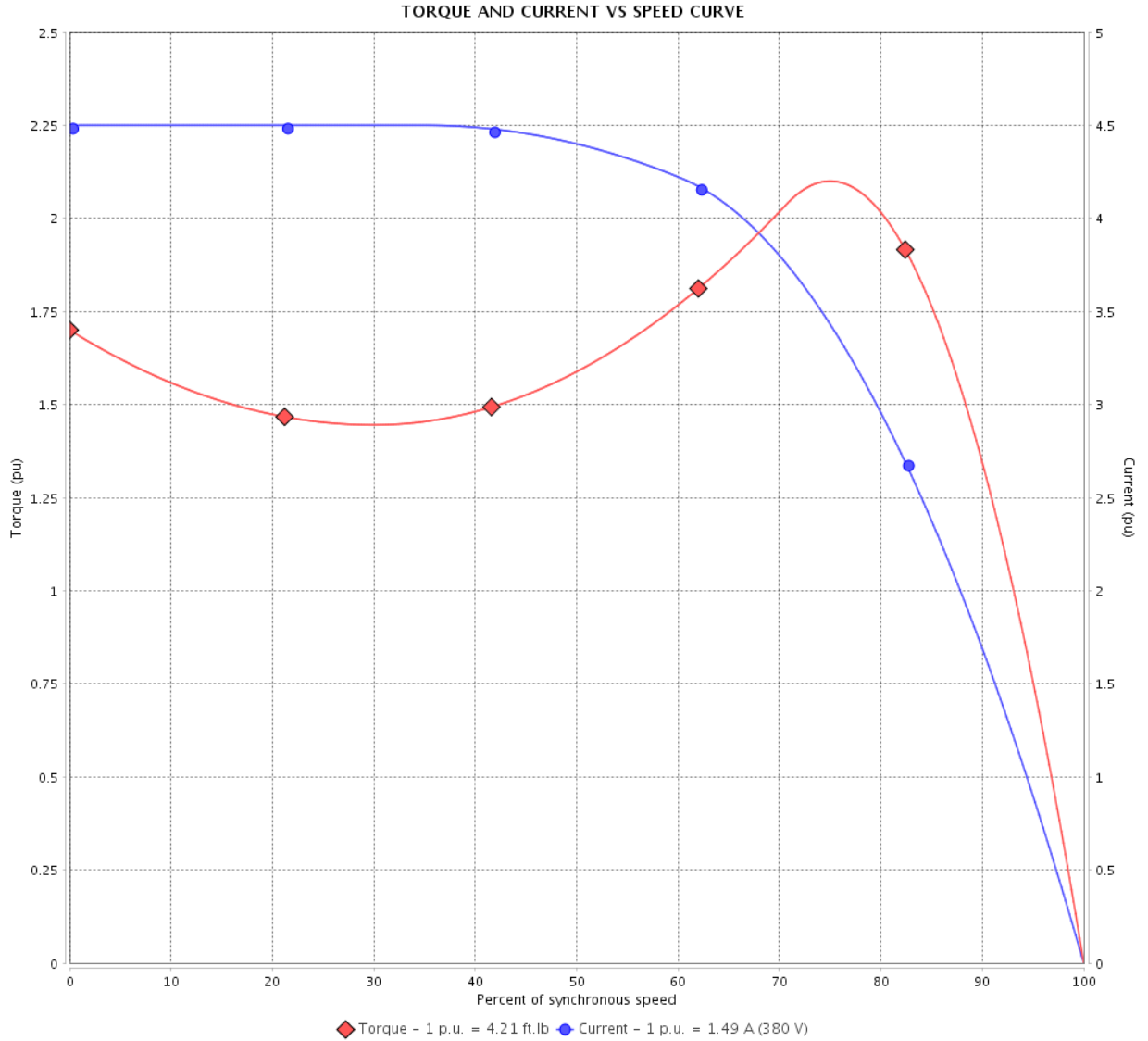
TORQUE AND CURRENT VS SPEED CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : Standard Efficiency Three-Phase Product code : 14786474
 Catalog # : .7512ES3E56CFL-S



Performance : 190/380 V 50 Hz 6P

| | | | |
|---------------------|---------------|-----------------------|-------------------|
| Rated current | : 2.98/1.49 A | Moment of inertia (J) | : 0.1331 sq.ft.lb |
| LRC | : 4.5 | Duty cycle | : Cont.(S1) |
| Rated torque | : 4.21 ft.lb | Insulation class | : F |
| Locked rotor torque | : 170 % | Service factor | : 1.00 |
| Breakdown torque | : 210 % | Temperature rise | : 105 K |
| Rated speed | : 935 rpm | Design | : A |

Locked rotor time : 0s (cold) 0s (hot)

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

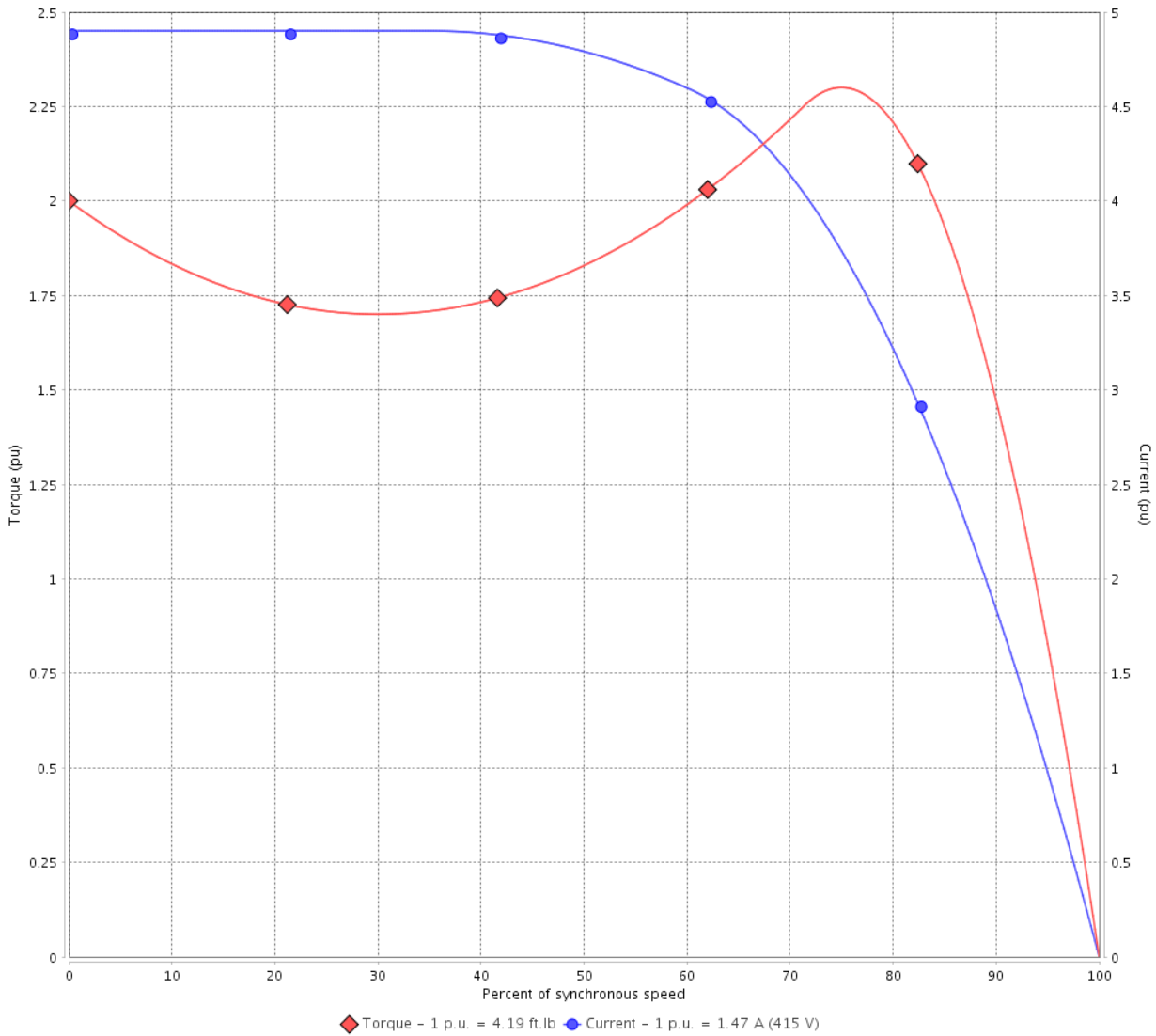
Three Phase Induction Motor - Squirrel Cage



Customer :

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 Catalog # : .7512ES3E56CFL-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 6P

| | | | |
|---------------------|---------------|-----------------------|-------------------|
| Rated current | : 2.77/1.47 A | Moment of inertia (J) | : 0.1331 sq.ft.lb |
| LRC | : 4.9 | Duty cycle | : Cont.(S1) |
| Rated torque | : 4.19 ft.lb | Insulation class | : F |
| Locked rotor torque | : 200 % | Service factor | : 1.00 |
| Breakdown torque | : 229 % | Temperature rise | : 105 K |
| Rated speed | : 940 rpm | Design | : A |

Locked rotor time : 0s (cold) 0s (hot)

| Rev. | Changes Summary | Performed | Checked | Date |
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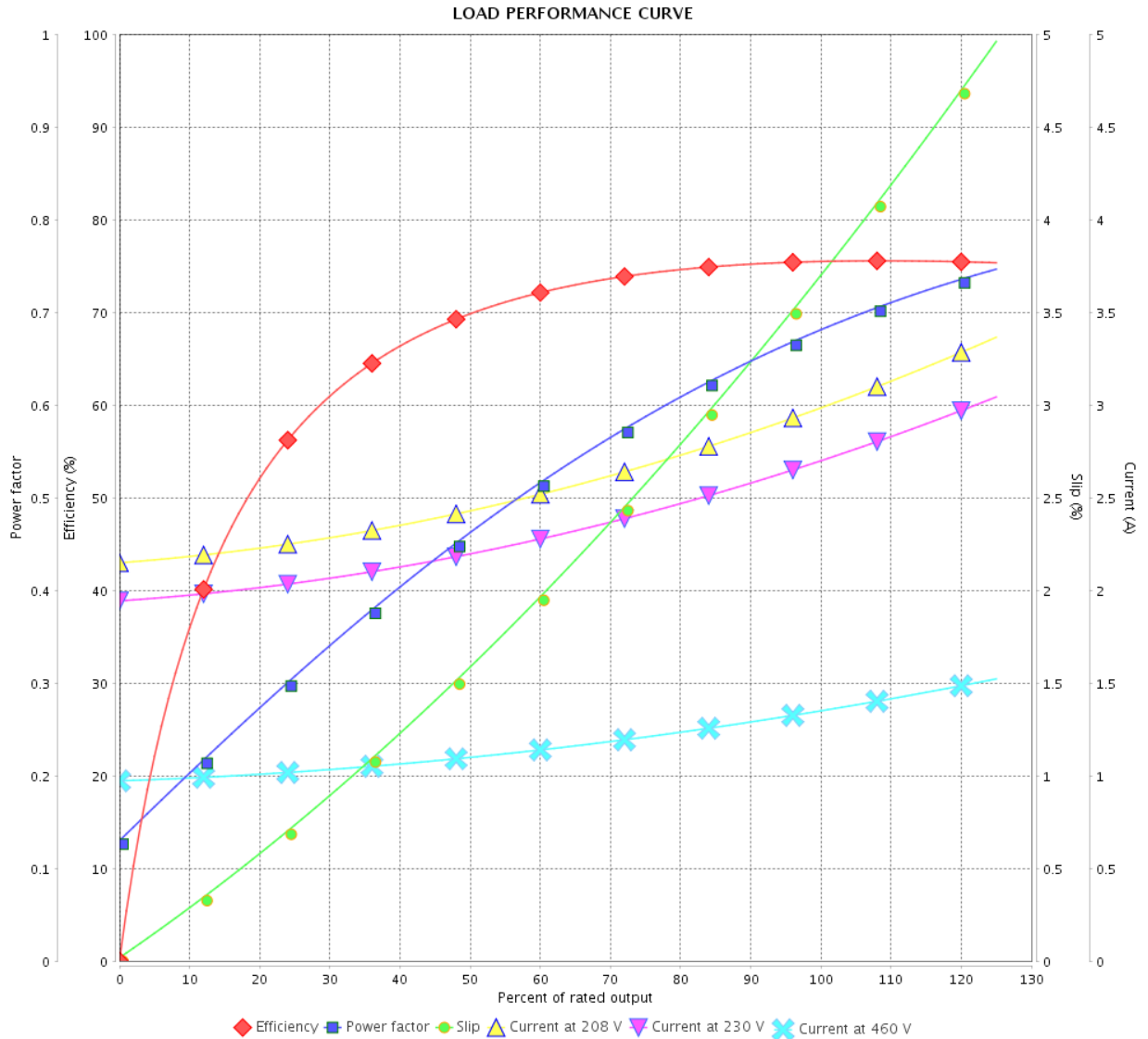
LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : Standard Efficiency Three-Phase Product code : 14786474
 Catalog # : .7512ES3E56CFL-S



Performance : 208-230/460 V 60 Hz 6P

Rated current : 2.96-2.68/1.34 A
 LRC : 5.8
 Rated torque : 3.41 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 300 %
 Rated speed : 1155 rpm

Moment of inertia (J) : 0.1331 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 Temperature rise : 80 K
 Design : A

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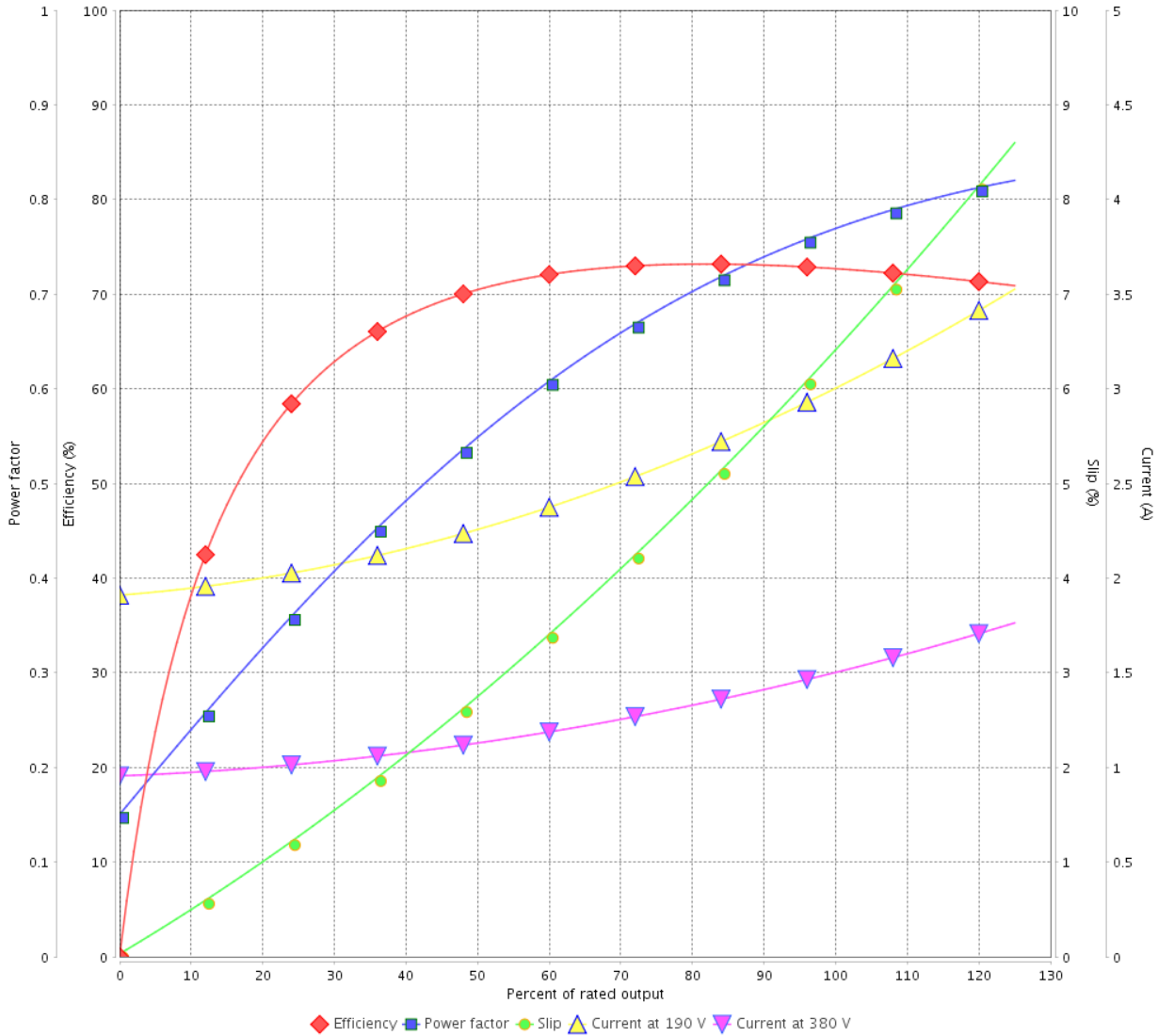
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Performance : 190/380 V 50 Hz 6P

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| Rated torque | : 4.21 ft.lb | Insulation class | : F |
| Locked rotor torque | : 170 % | Service factor | : 1.00 |
| Breakdown torque | : 210 % | Temperature rise | : 105 K |
| Rated speed | : 935 rpm | Design | : A |

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Three Phase Induction Motor - Squirrel Cage



Customer : _____

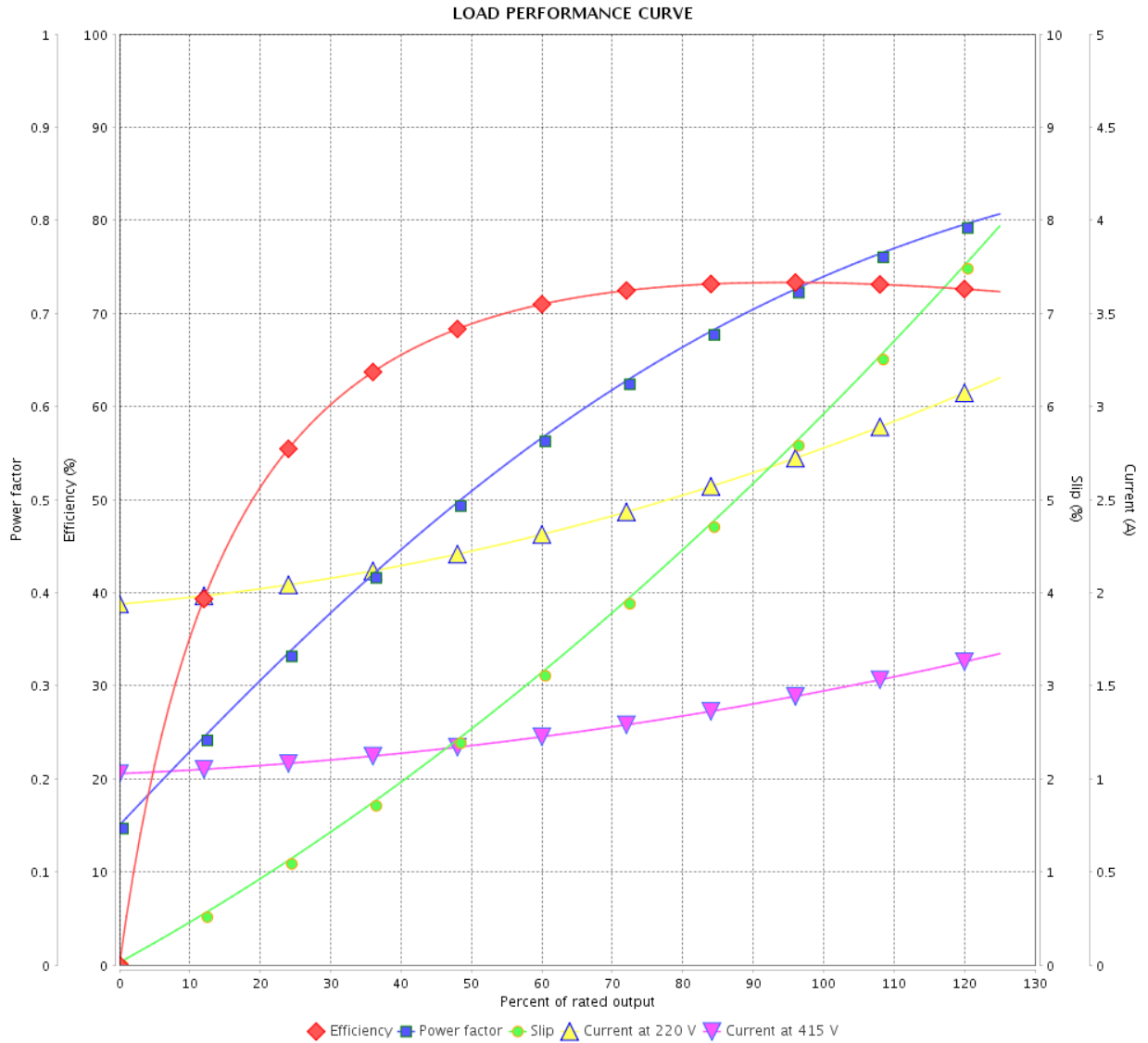
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Product code :

14786474

Catalog # :

.7512ES3E56CFL-S



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 Rated speed : 940 rpm

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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
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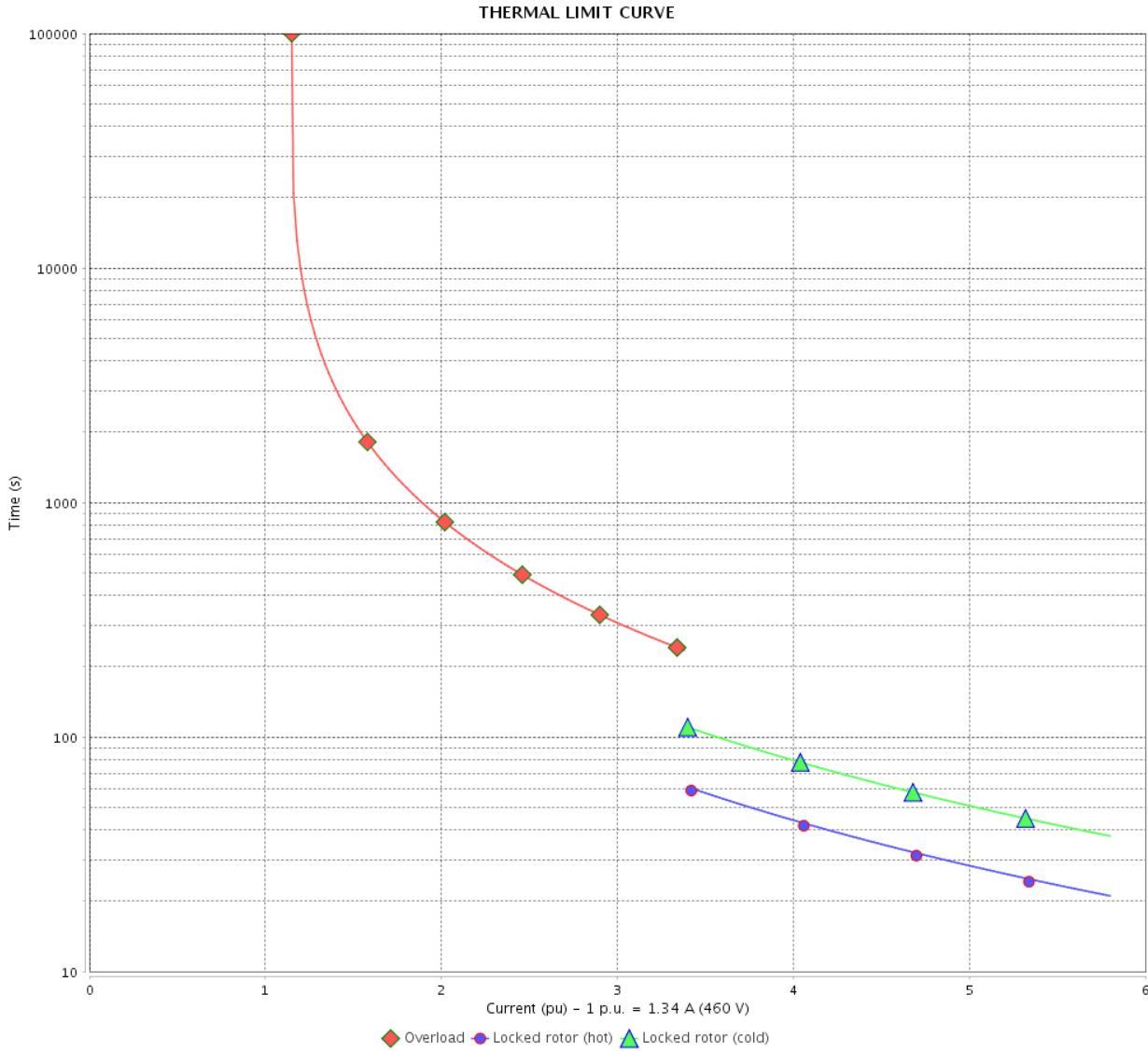
THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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 Catalog # : .7512ES3E56CFL-S



Performance : 208-230/460 V 60 Hz 6P

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|---|--|
| Rated current : 2.96-2.68/1.34 A LRC : 5.8 Rated torque : 3.41 ft.lb Locked rotor torque : 229 % Breakdown torque : 300 % Rated speed : 1155 rpm | Moment of inertia (J) : 0.1331 sq.ft.lb Duty cycle : Cont.(S1) Insulation class : F Service factor : Temperature rise : 80 K Design : A |
|---|--|

Heating constant

Cooling constant

| Rev. | Changes Summary | Performed | Checked | Date |
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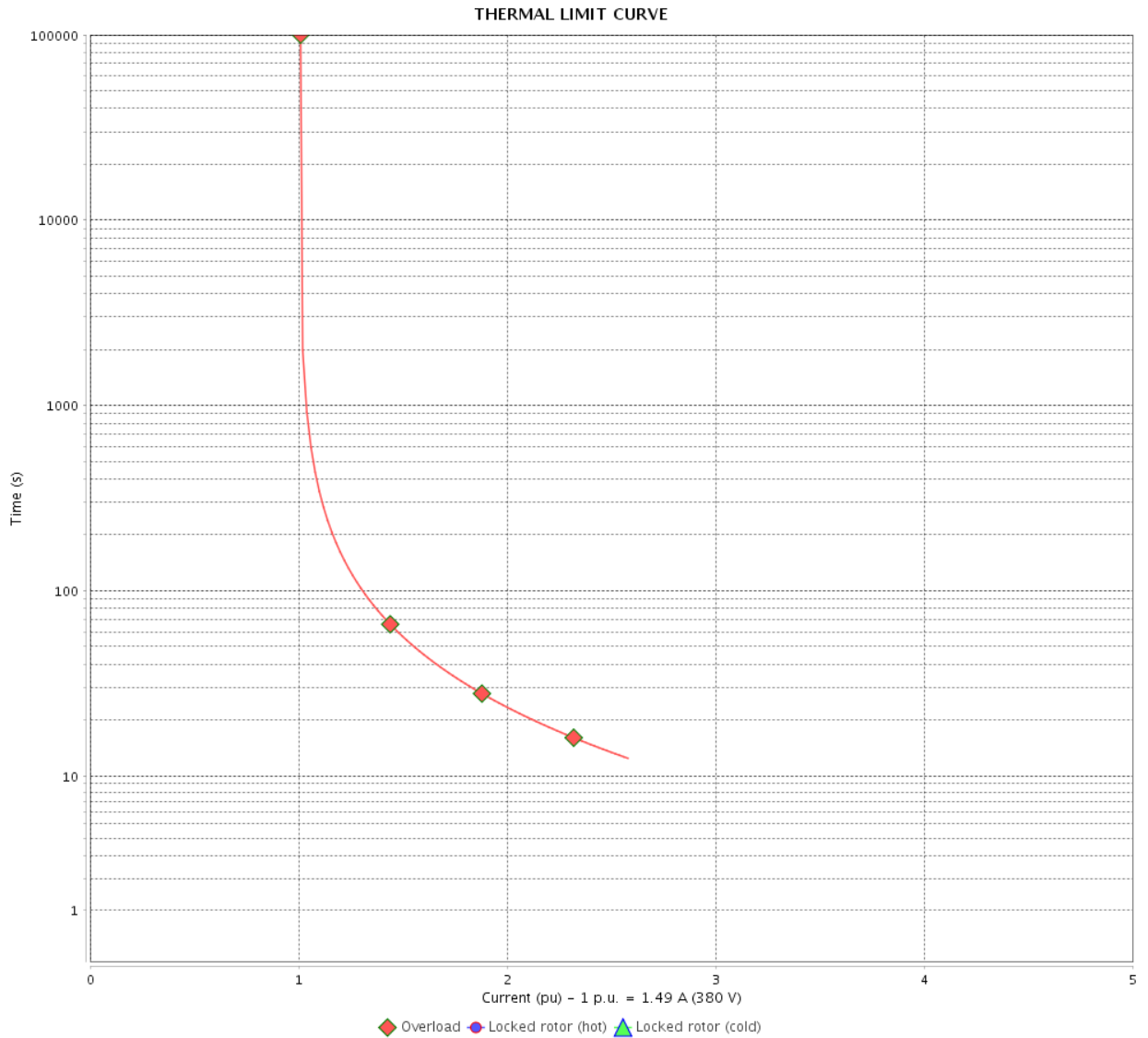
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| Rated torque : 4.21 ft.lb | Insulation class : F |
| Locked rotor torque : 170 % | Service factor : 1.00 |
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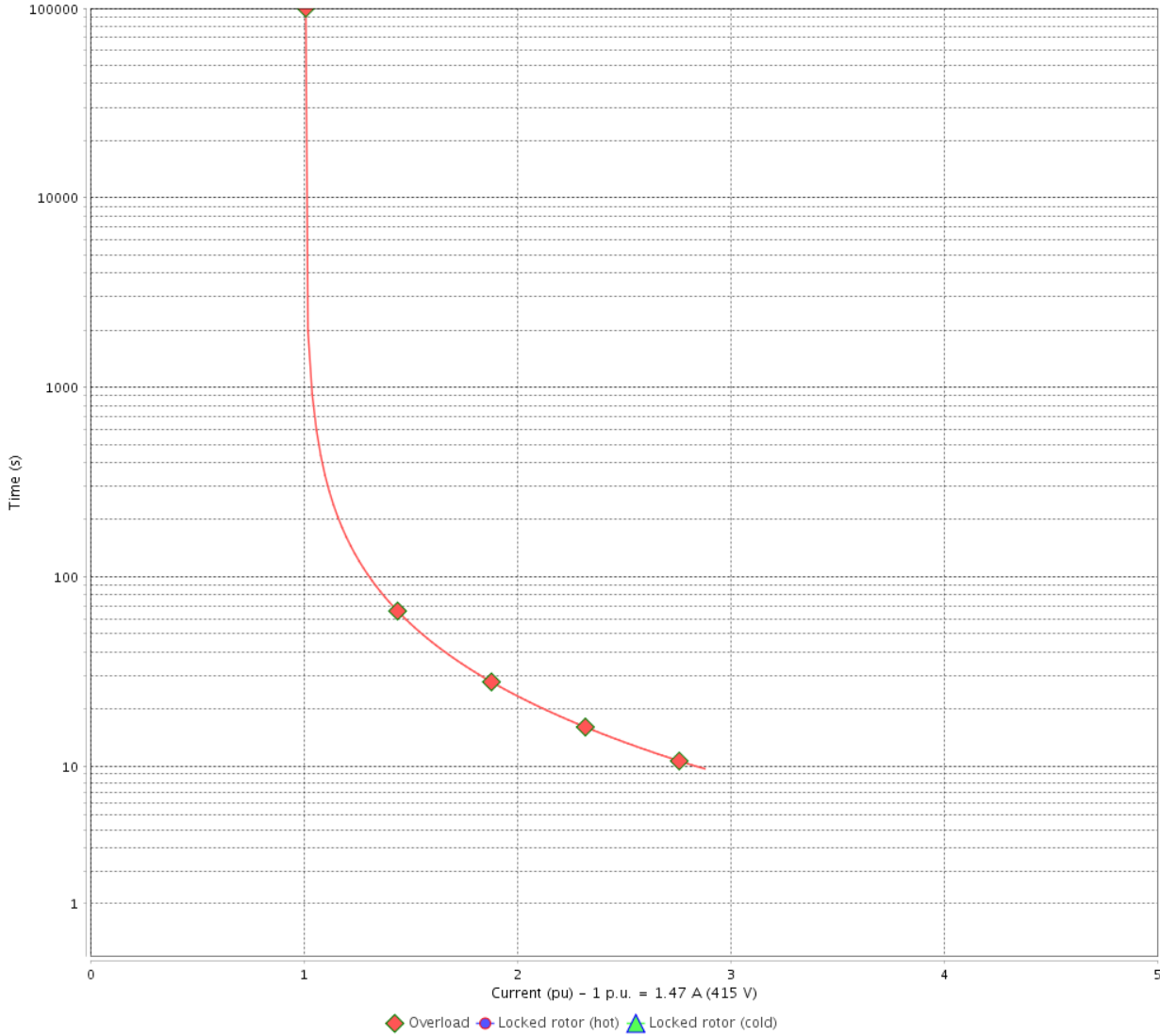
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| Locked rotor torque | : 200 % | Service factor | : 1.00 |
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Heating constant

Cooling constant

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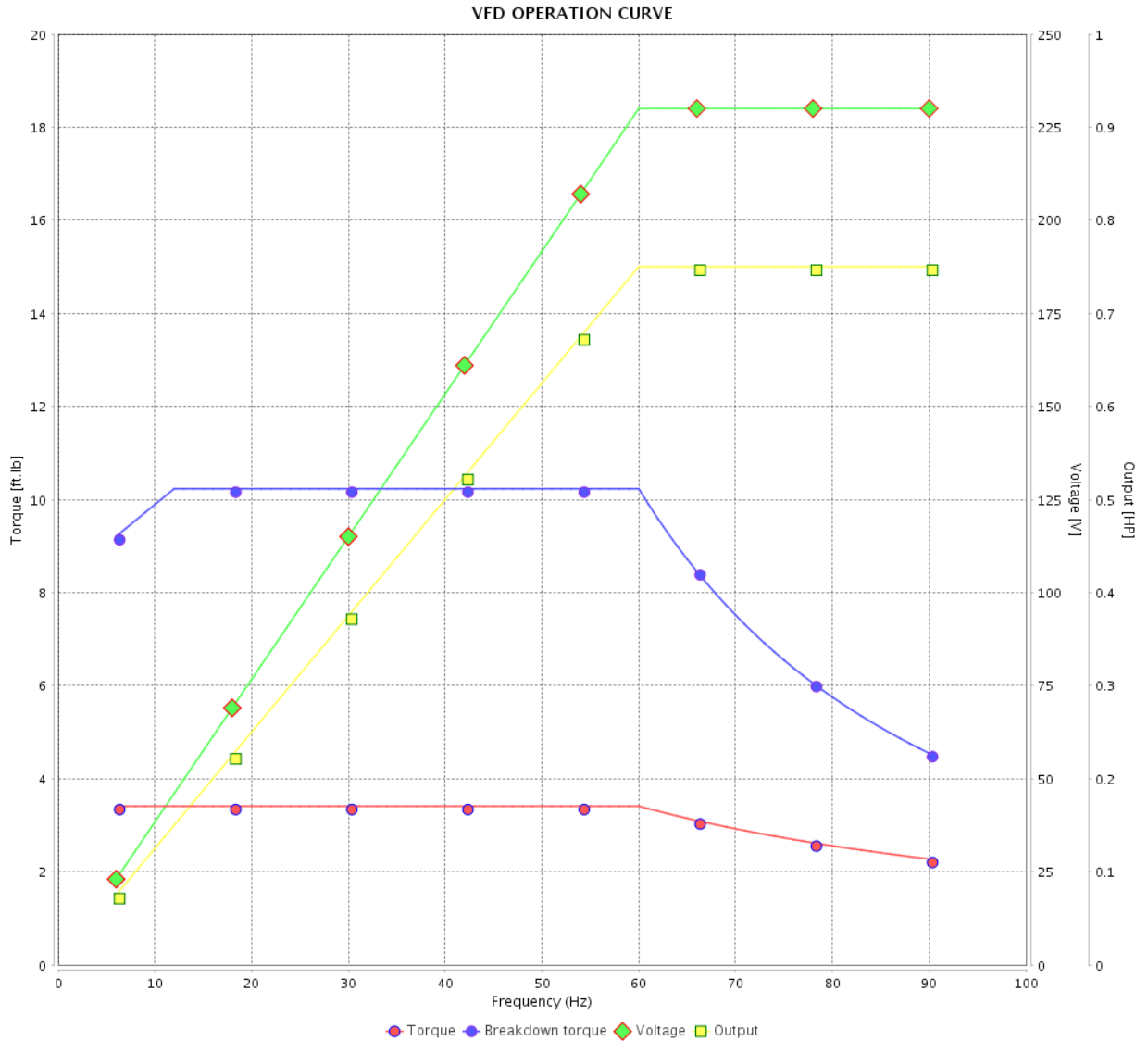
VFD OPERATION CURVE

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 Rated speed : 1155 rpm

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

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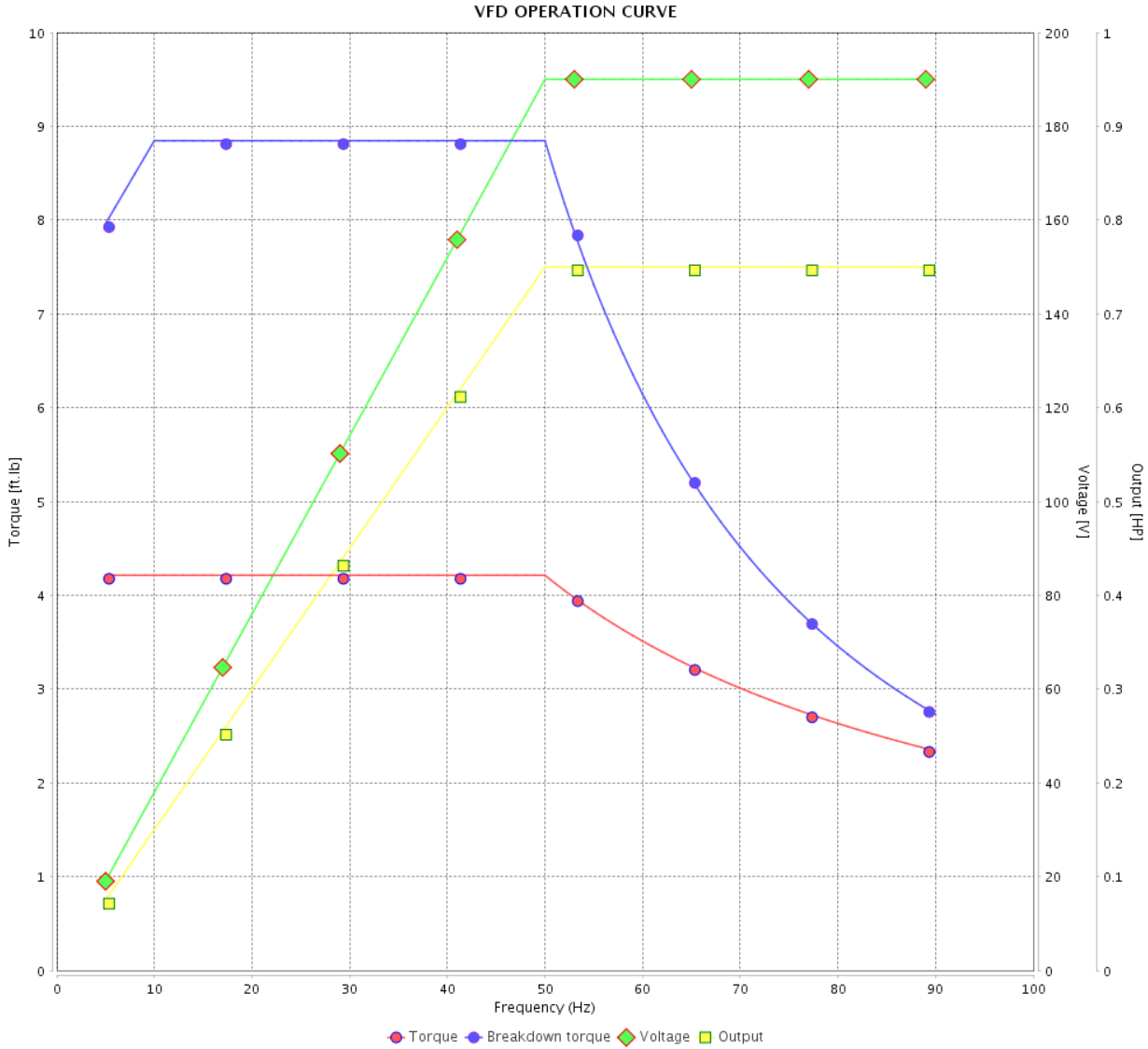
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Three Phase Induction Motor - Squirrel Cage



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| Locked rotor torque | : 170 % | Service factor | : 1.00 |
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| Rated speed | : 935 rpm | Design | : A |

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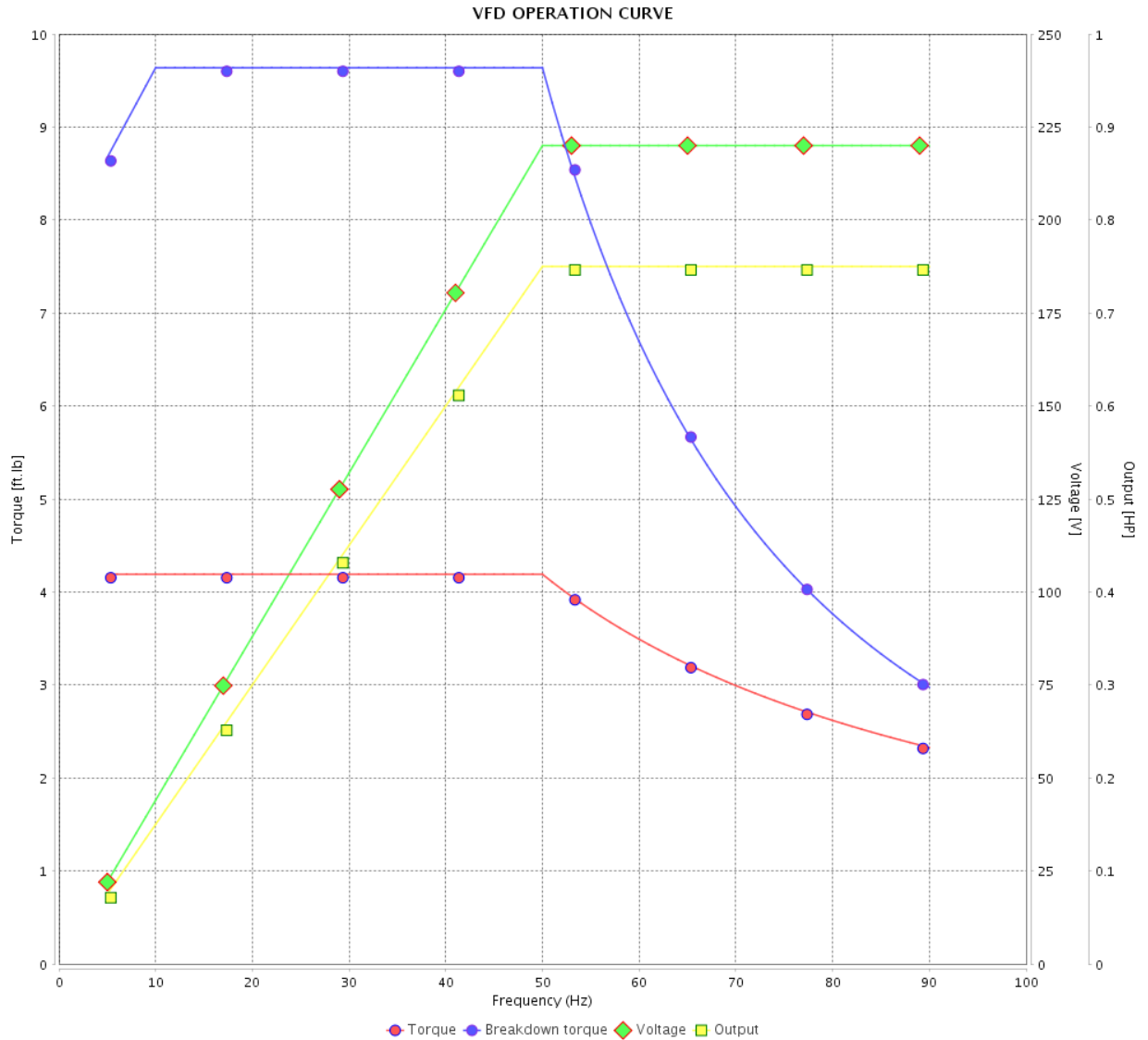
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Performance : 220/415 V 50 Hz 6P

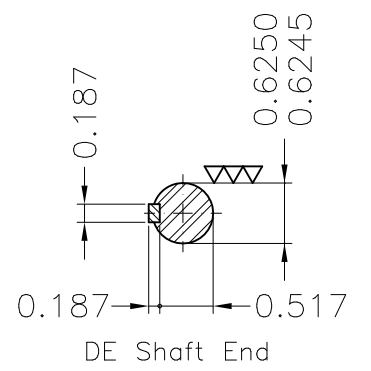
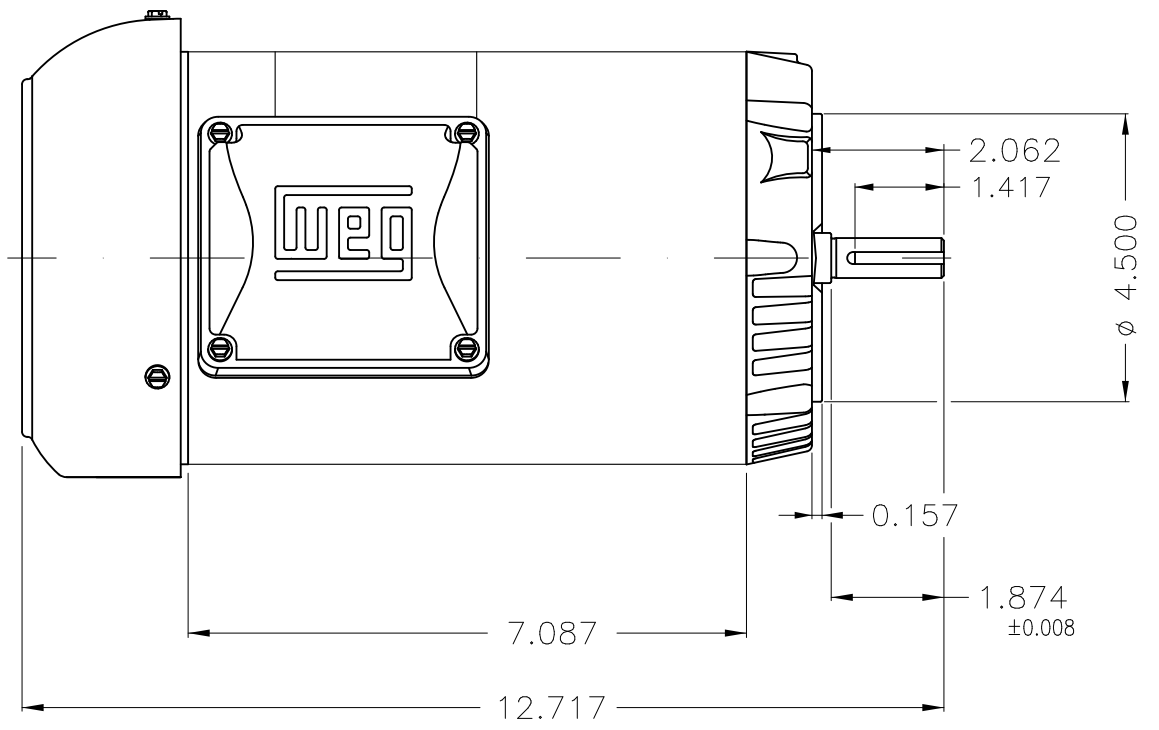
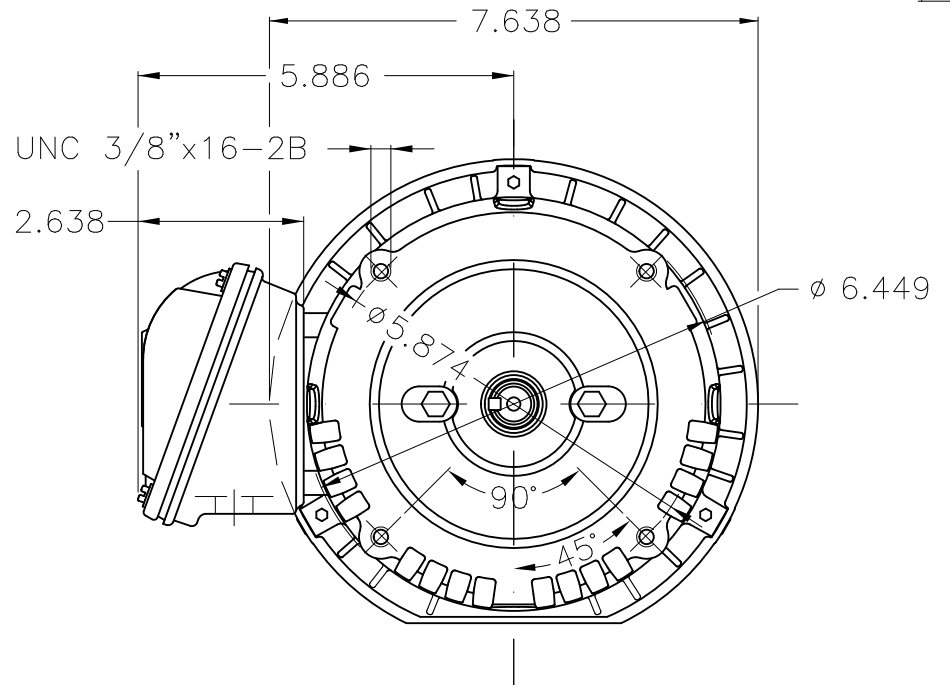
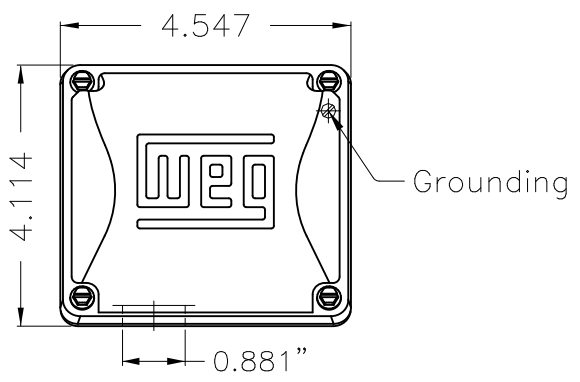
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 Breakdown torque : 229 %
 Rated speed : 940 rpm

Moment of inertia (J) : 0.1331 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : A

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| Checked by | | 13 / 13 | | |
| Date | | 11/04/2022 | | |

1 2 3 4 5 6

A
B
C
D
E



Fan cover - steel plate
 Color Munsell N 1 matte black
 Painting plan 207N
 Mounting F-1/B14R(D)

| ECM | LOC | SUMMARY OF MODIFICATIONS | EXECUTED | CHECKED | RELEASED | DATE | VER |
|----------|----------|------------------------------|---------------------|---------|----------|------|-----|
| EXECUTED | PIRWUSER | THREE PH. MOTOR ROLLED STEEL | | | | | |
| CHECKED | | FRAME 56C IP55 TEFC | | | | | |
| RELEASED | | | | | | | |
| REL DT. | WMO | Jaragua do Sul | Product Engineering | SHEET | 1 / 1 | | |

0.75 HP 06 Poles 60 Hz

PREVIEW
WDD





MADE IN MEXICO

MAT: 14786474

W01.TE0IC0X0X

MODEL 7512ES3E56CFL-S

04MAR2022 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)**

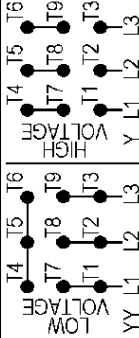
CT 2:1/VT 1000:1

| | | |
|----------------------|--------|------------------------|
| PH 3 | Hz 60 | HP 0.75 |
| FR 56C | | KW 0.55 |
| DUTY CONT. | | V 208-230/460 |
| ALT 1000 m.a.s.l. | | A 2.96-2.68/1.34 |
| INS CL F AT 80K | IP55 | SFA 2.96-3.08/1.54 |
| AMB 40°C | DES A | SF 1.15 |
| ENCL TEFC | CODE K | PF 0.68 |
| USABLE @ 208V SF1.00 | | RPM 1155 |
| | | NEMA NOM. EFF 75.5% |

| |
|---|
| ALTERNATE RATING: 0.75HP 50Hz 190-220/380-415V SF1.00 |
| 2.98-2.77/1.49-1.47A 935RPM EFF 72.6% (IE1) IEC 60034-1 |

For safe area-Inverter duty motor For 60Hz use on VPWM 1000:1 VT, 10:1 CT

| | | |
|------------|-------------|------------------|
| DE 6203-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.

