

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



|  |                     |                             |  |   |          |
|--|---------------------|-----------------------------|--|---|----------|
| Customer :   |                     |                             |  |   |          |
| Product line   |                     | : Rolled Steel Three-Phase  |  | Product code : 13484287<br>Catalog # : 00118ET3E56CFL-S |          |
| Frame  | : 56C               | Locked rotor time           | : 34s (cold) 19s (hot)   |   |          |
| Output   | : 1 HP (0.75 kW)    | Temperature rise            | : 80 K   |   |          |
| Poles  | : 4                 | Duty cycle                  | : Cont.(S1)  |   |          |
| Frequency  | : 60 Hz             | Ambient temperature         | : -20°C to +40°C   |   |          |
| Rated voltage  | : 208-230/460 V     | Altitude                    | : 1000 m.a.s.l.  |   |          |
| Rated current  | : 3.25-2.94/1.47 A  | Protection degree           | : IP55   |   |          |
| L. R. Amperes  | : 28.0-25.3/12.6 A  | Cooling method              | : IC411 - TEFC   |   |          |
| LRC  | : 8.6x(Code M)      | Mounting                    | : F-1  |   |          |
| No load current  | : 1.53-1.78/0.890 A | Rotation <sup>1</sup>       | : Both (CW and CCW)  |   |          |
| Rated speed  | : 1765 rpm          | Noise level <sup>2</sup>    | : 52.0 dB(A)   |   |          |
| Slip   | : 1.94 %            | Starting method             | : Direct On Line   |   |          |
| Rated torque   | : 2.94 ft.lb        | Approx. weight <sup>3</sup> | : 36.3 lb  |   |          |
| Locked rotor torque  | : 280 %             |                             |  |   |          |
| Breakdown torque   | : 300 %             |                             |  |   |          |
| Insulation class   | : F                 |                             |  |   |          |
| Service factor   | : 1.15              |                             |  |   |          |
| Moment of inertia (J)  | : 0.1232 sq.ft.lb   |                             |  |   |          |
| Design   | : B                 |                             |  |   |          |
| Output   | 50%                 | 75%                         | 100%   | Foundation loads  |          |
| Efficiency (%)   | 82.5                | 84.0                        | 85.5   | Max. traction : 98 lb                                   |          |
| Power Factor   | 0.52                | 0.66                        | 0.75   | Max. compression : 134 lb                               |          |
|  |                     | <u>Drive end</u>            | <u>Non drive end</u>   |   |          |
| Bearing type   | :                   | 6204 ZZ                     | 6202 ZZ  |   |          |
| Sealing  | :                   | V'Ring                      | V'Ring   |   |          |
| Lubrication interval   | :                   | -                           | -  |   |          |
| Lubricant amount   | :                   | -                           | -  |   |          |
| Lubricant type   | :                   | Mobil Polyrex EM            |  |   |          |
| Notes  |                     |                             |  |   |          |
| This revision replaces and cancel the previous one, which must be eliminated.<br>(1) Looking the motor from the shaft end.<br>(2) Measured at 1m and with tolerance of +3dB(A).<br>(3) Approximate weight subject to changes after manufacturing process.<br>(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  | Revision |
| Date   | 18/06/2019          |                             |  | 1 / 5   |          |

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

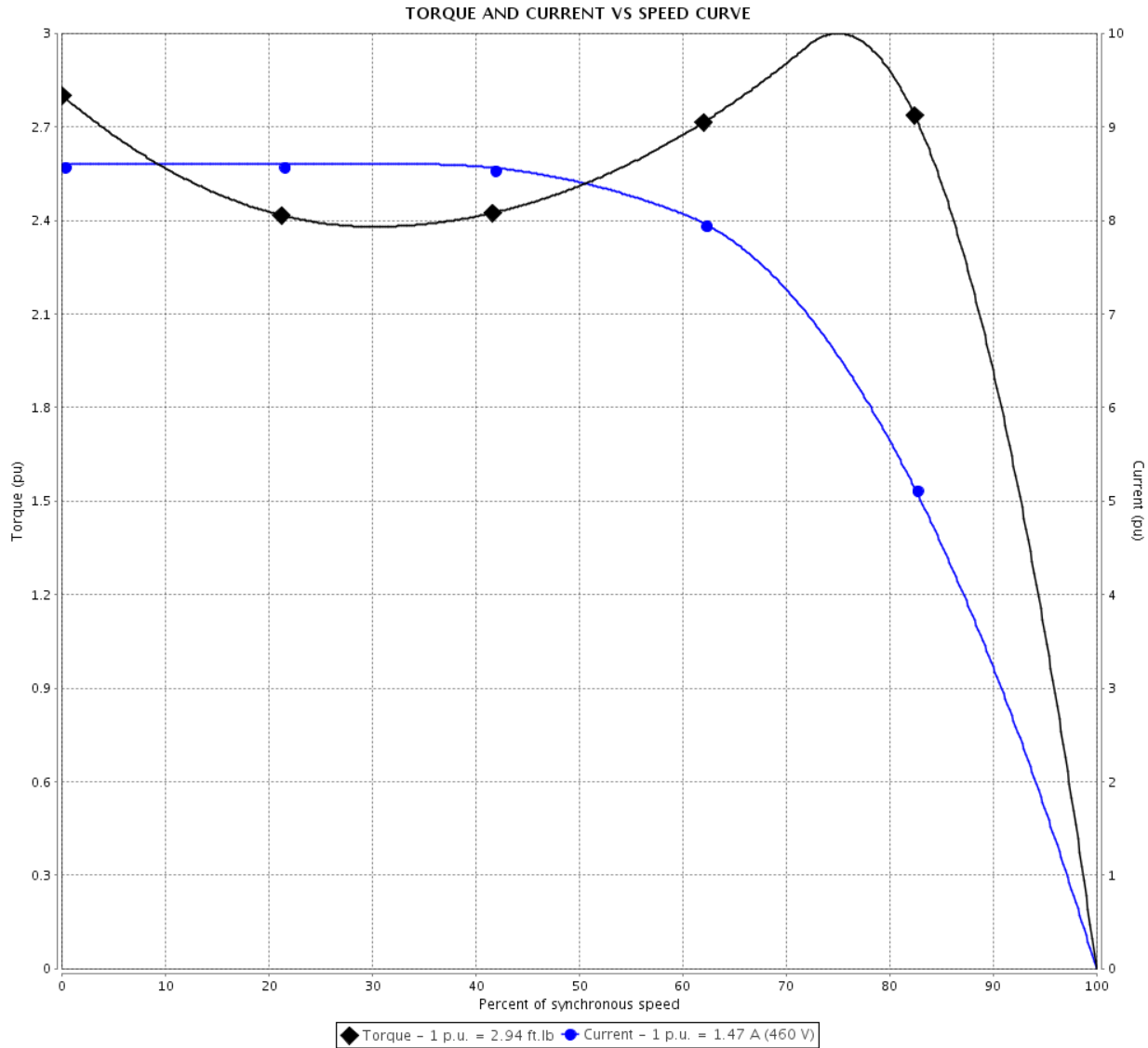
Product line : Rolled Steel Three-Phase

Product code :

13484287

Catalog # :

00118ET3E56CFL-S



Performance : 208-230/460 V 60 Hz 4P

|                     |                    |                       |                   |
|---------------------|--------------------|-----------------------|-------------------|
| Rated current       | : 3.25-2.94/1.47 A | Moment of inertia (J) | : 0.1232 sq.ft.lb |
| LRC                 | : 8.6              | Duty cycle            | : Cont.(S1)       |
| Rated torque        | : 2.94 ft.lb       | Insulation class      | : F               |
| Locked rotor torque | : 280 %            | Service factor        | :                 |
| Breakdown torque    | : 300 %            | Temperature rise      | : 80 K            |
| Rated speed         | : 1765 rpm         | Design                | : B               |

Locked rotor time : 34s (cold) 19s (hot)

| Rev.         | Changes Summary | Performed | Checked | Date     |
|--------------|-----------------|-----------|---------|----------|
|              |                 |           |         |          |
| Performed by |                 | Page      |         | Revision |
| Checked by   |                 | 2 / 5     |         |          |
| Date         | 18/06/2019      |           |         |          |

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

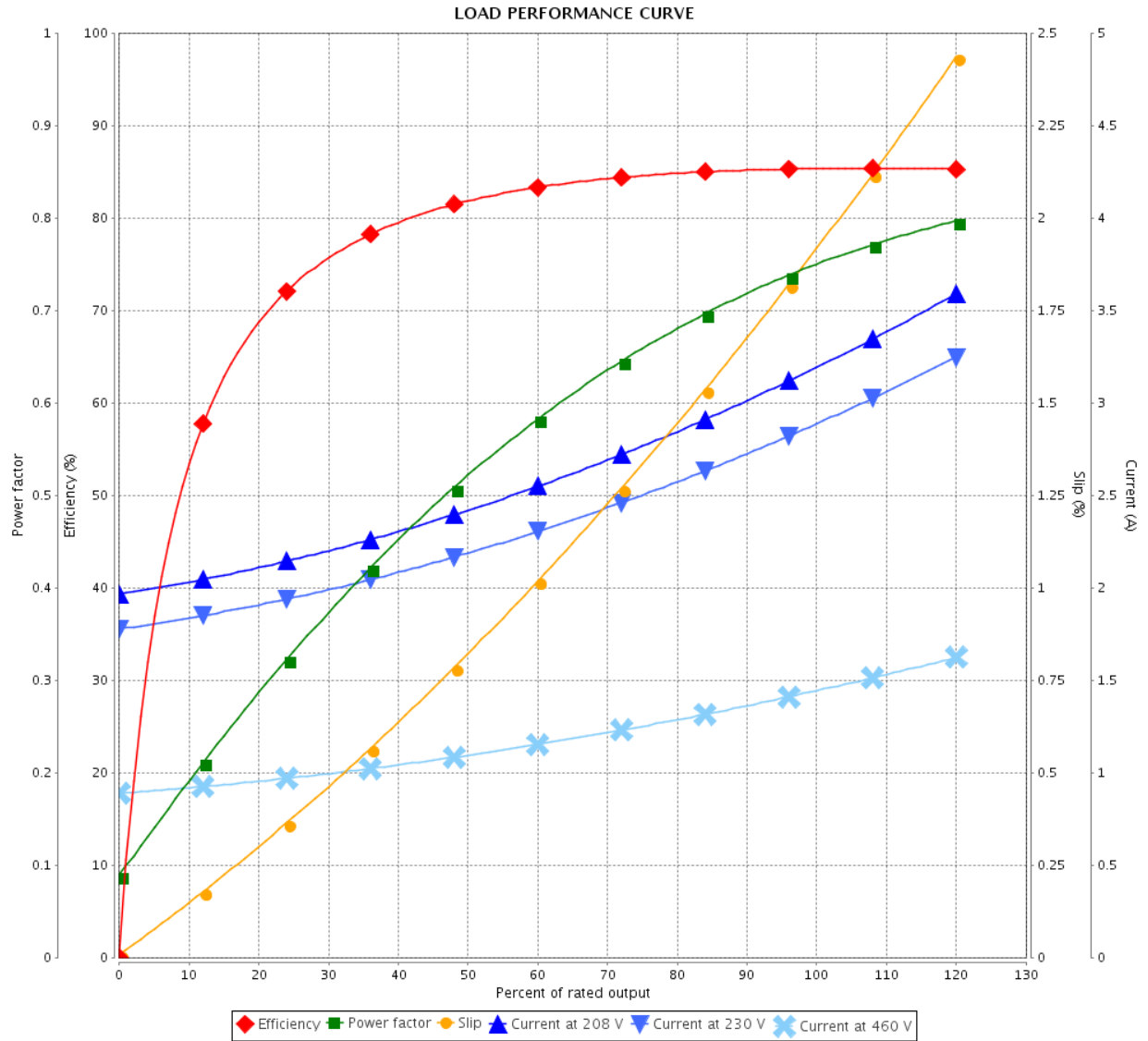
Product line : Rolled Steel Three-Phase

Product code :

13484287

Catalog # :

00118ET3E56CFL-S



Performance : 208-230/460 V 60 Hz 4P

Rated current : 3.25-2.94/1.47 A  
 LRC : 8.6  
 Rated torque : 2.94 ft.lb  
 Locked rotor torque : 280 %  
 Breakdown torque : 300 %  
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.1232 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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| Date         |                 | 18/06/2019 |         |          |

# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

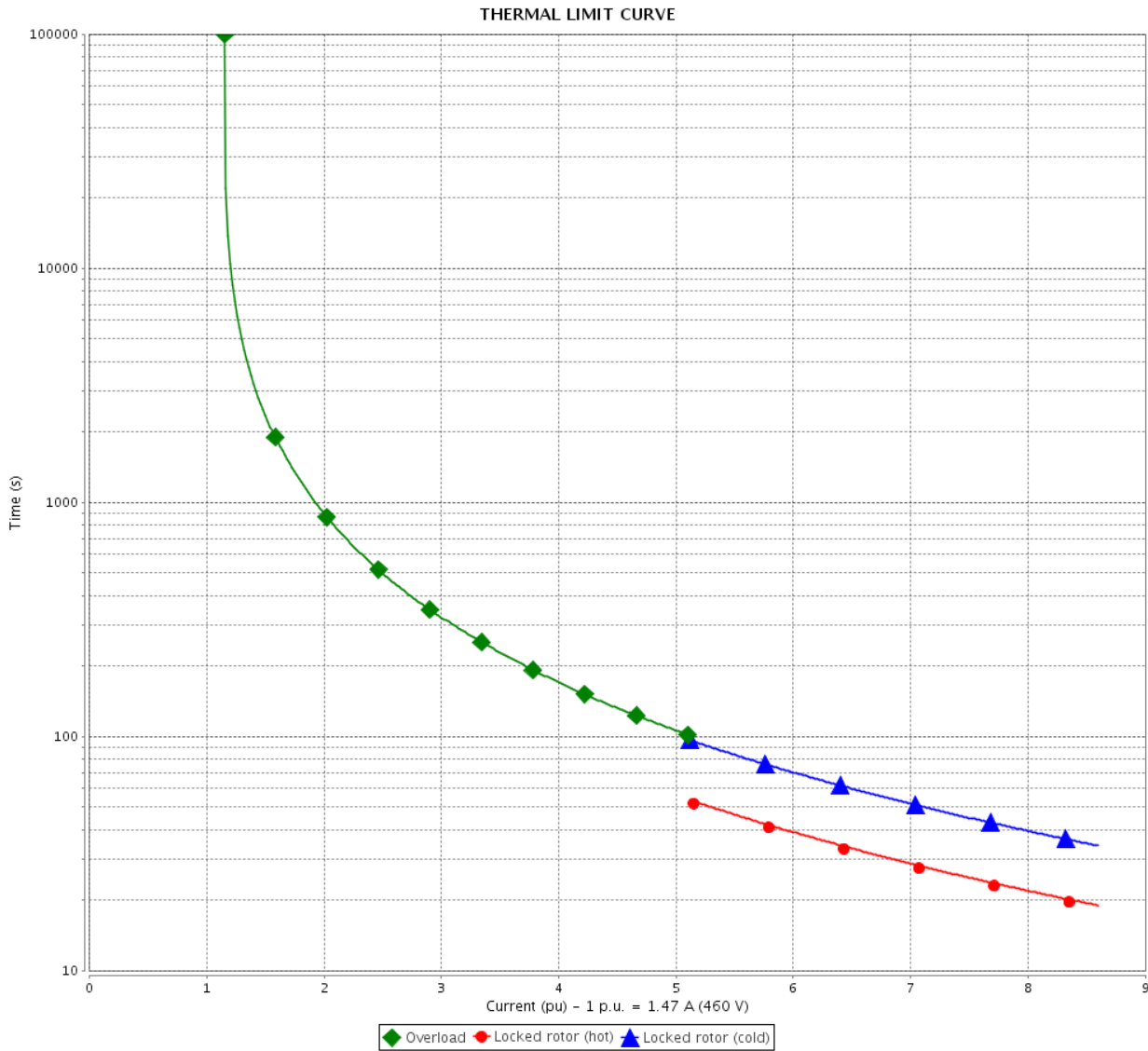
Product line : Rolled Steel Three-Phase

Product code :

13484287

Catalog # :

00118ET3E56CFL-S



Performance : 208-230/460 V 60 Hz 4P

Rated current : 3.25-2.94/1.47 A  
 LRC : 8.6  
 Rated torque : 2.94 ft.lb  
 Locked rotor torque : 280 %  
 Breakdown torque : 300 %  
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.1232 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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| Date         |                 |           |         |          |

# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

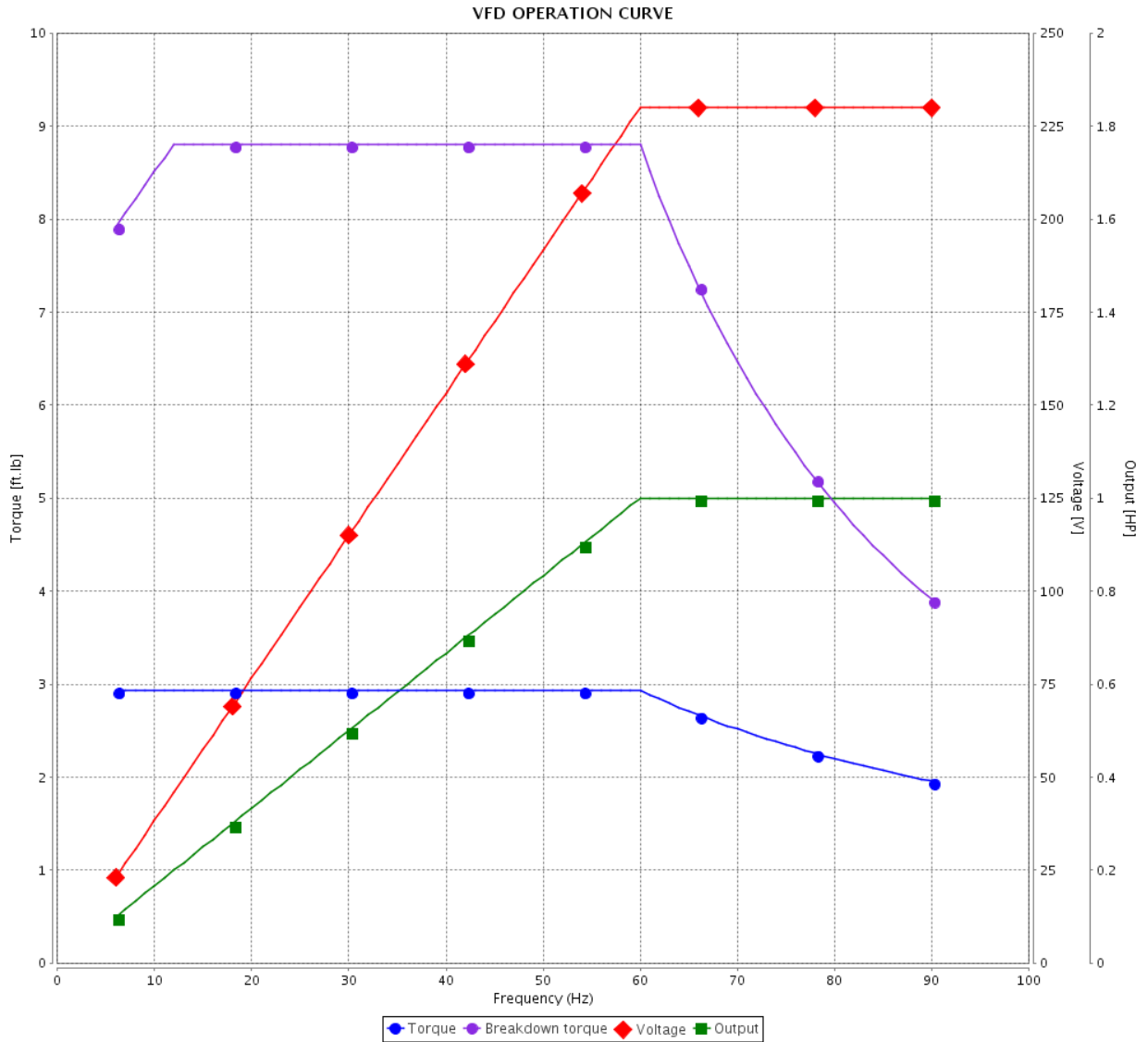
Product line : Rolled Steel Three-Phase

Product code :

13484287

Catalog # :

00118ET3E56CFL-S



Performance : 208-230/460 V 60 Hz 4P

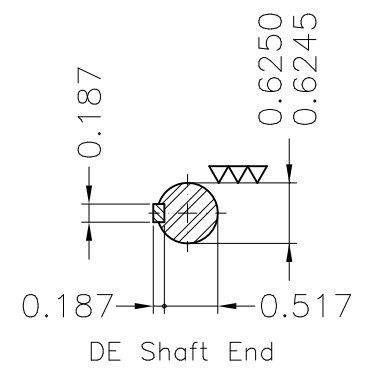
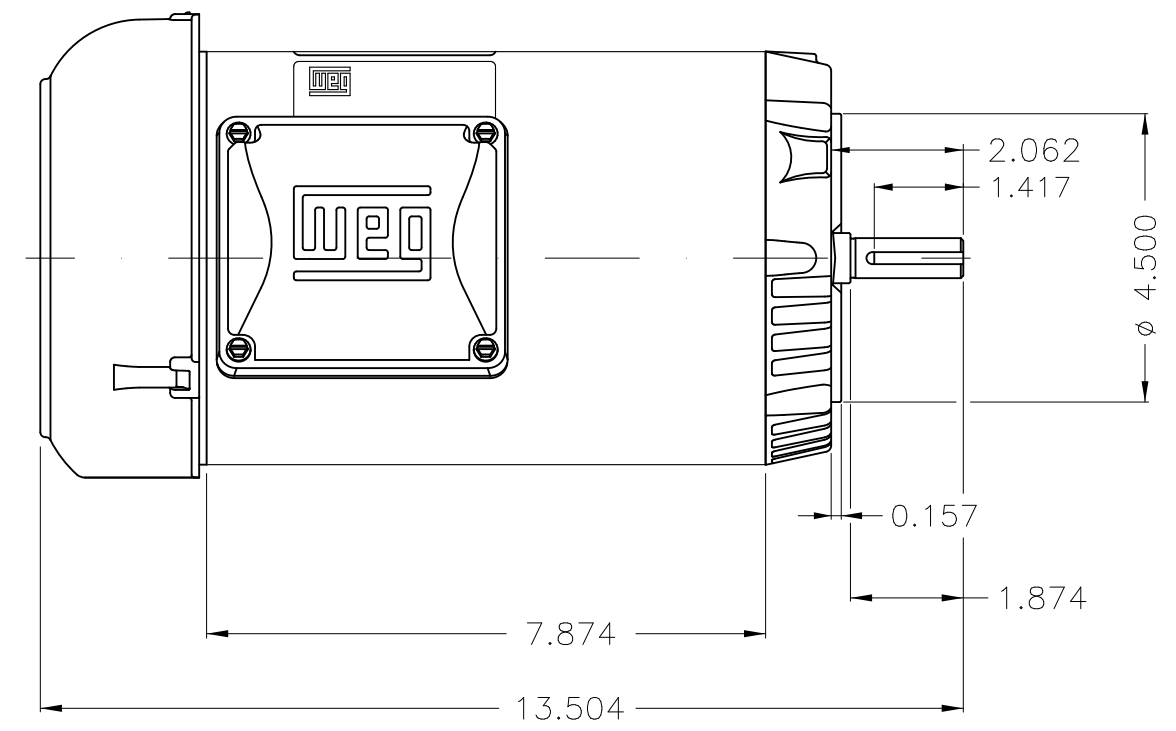
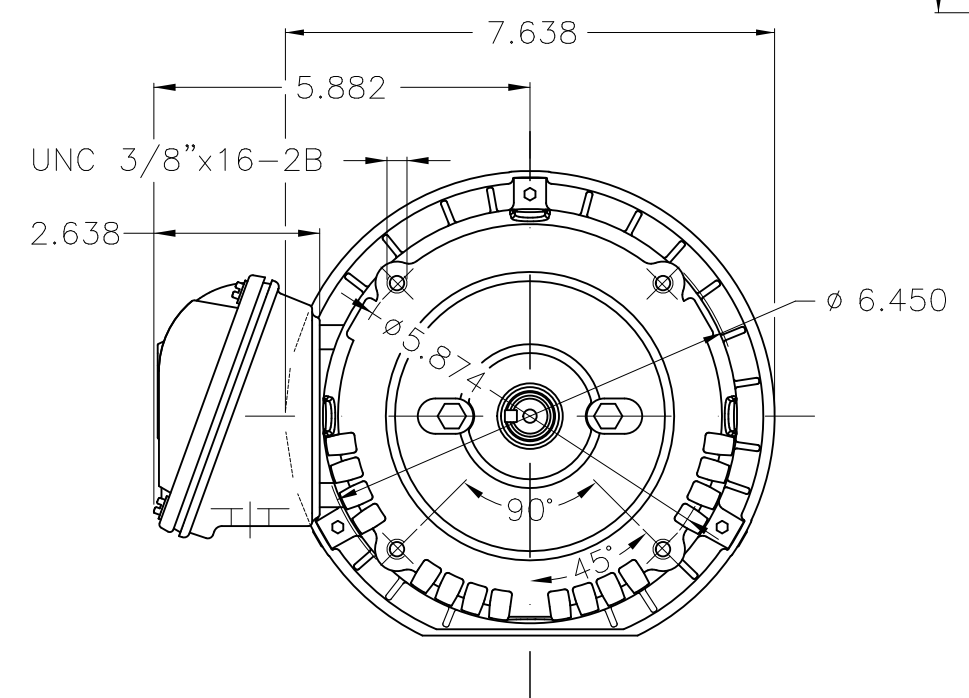
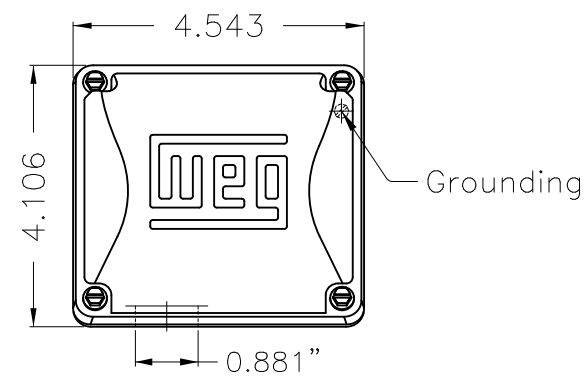
Rated current : 3.25-2.94/1.47 A  
 LRC : 8.6  
 Rated torque : 2.94 ft.lb  
 Locked rotor torque : 280 %  
 Breakdown torque : 300 %  
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.1232 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K  
 Design : B

| Rev.         | Changes Summary | Performed | Checked       | Date     |
|--------------|-----------------|-----------|---------------|----------|
|              |                 |           |               |          |
| Performed by |                 |           | Page<br>5 / 5 | Revision |
| Checked by   |                 |           |               |          |
| Date         | 18/06/2019      |           |               |          |

Dimensões em polegada  
Dimensions in inches

THIS IS AN UPDATED REVISION, THE  
PREVIOUS ONE MUST BE DISREGARDED.



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 | USERADMIN  | THREE PHASE MOTOR CLOSED ROLLED STEEL |                     |         |          |      |     |
| CHECKED  |            | FRAME 56C IP55 TEFC                   |                     |         |          |      |     |
| RELEASED |            | WEG code: 13484287                    |                     |         |          |      |     |
| REL DT   | 18.06.2019 | WMO Jaragua do Sul                    | Product Engineering | SHEET   | 1 / 1    |      |     |

1 HP 04 Poles 60Hz

A



**NEMA**  
**Premium**3PT9  
C **UL** **US LISTED**  
FOR SAFE AREA

Energy Verified

MADE IN BRAZIL

**MAT:13484287 CC029A****W01.TE0IC0X0X****MODEL 00118ET3E56CFL-S**  
**27MAI2019**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>FR</b>        | <b>56C</b> | <b>HP(KW)</b>     | <b>1.0(0.75)</b> | <b>Hz</b> | <b>60</b> |
| <b>V</b>    | <b>230/460</b>   |            | <b>RPM</b>        | <b>1765</b>      |           |           |
| <b>A</b>    | <b>2.94/1.47</b> |            | <b>DUTY CONT.</b> |                  |           |           |

|            |                  |                            |               |              |             |             |             |             |
|------------|------------------|----------------------------|---------------|--------------|-------------|-------------|-------------|-------------|
| <b>SFA</b> | <b>3.38/1.69</b> |                            | <b>CODE M</b> | <b>DES B</b> | <b>IP55</b> |             |             |             |
| <b>SF</b>  | <b>1.15</b>      | <b>INS CL F</b>            | <b>AT</b>     | <b>80K</b>   | <b>AMB</b>  | <b>40°C</b> | <b>ENCL</b> | <b>TEFC</b> |
| <b>PF</b>  | <b>0.75</b>      | <b>NEMA NOM.EFF. 85.5%</b> |               |              |             |             |             |             |

**ALT 1000 m.a.s.l. USABLE @ 208V 3.25A SF1.00****ALTERNATE RATING: 1.0HP 50Hz 190-220/380-415V SF1.00**  
**3.40-3.06/1.70-1.62A 1450RPM EFF 82.9% (IE3) IEC 60034-1**

|            |        |
|------------|--------|
| T1-BLU     | T2-WHT |
| T3-ORG     | T4-YEL |
| T5-BLK     | T6-GRY |
| T7-PNK     | T8-RED |
| T9-RED BRK |        |

INTERCHANGE ANY TWO LINE WIRES TO REVERSE THE ROTATION

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**

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.

