

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

|  |   |  |                      |
|--|---|--|----------------------|
| Customer   | :   |  |                      |
| Product line   | : Premium Efficiency Three-Phase            | Product code :   | 13089807             |
|  |   | Catalog # :  | 00318OT3E56Z-S       |
| Frame  | : 56HZ                                      | Cooling method   | : IC01 - ODP         |
| 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>  | : 43.0 lb            |
| Design   | : A   | Moment of inertia (J)  |                      |
| Output [HP]  | 3   | 2  | 2                    |
| Poles  | 4   | 4  | 4                    |
| Frequency [Hz]   | 60  | 50   | 50                   |
| Rated voltage [V]  | 208-230/460                                 | 190/380  | 220/415              |
| Rated current [A]  | 8.79-7.94/3.97                              | 6.96/3.48  | 6.75/3.58            |
| L. R. Amperes [A]  | 66.8-60.3/30.2                              | 55.0/27.5  | 58.0/30.8            |
| LRC [A]  | 7.6x(Code K)                                | 7.9x(Code L)   | 8.6x(Code M)         |
| No load current [A]  | 3.62-4.20/2.10                              | 4.19/2.10  | 4.88/2.59            |
| Rated speed [RPM]  | 1735  | 1445   | 1455                 |
| Slip [%]   | 3.61  | 3.67   | 3.00                 |
| Rated torque [ft.lb]   | 9.08  | 7.27   | 7.22                 |
| Locked rotor torque [%]  | 270   | 320  | 400                  |
| Breakdown torque [%]   | 300   | 370  | 450                  |
| Service factor   | 1.15  | 1.15   | 1.15                 |
| Temperature rise   | 80 K  | 80 K   | 80 K                 |
| Locked rotor time  | 21s (cold) 12s (hot)                        | 30s (cold) 17s (hot)   | 25s (cold) 14s (hot) |
| Noise level <sup>2</sup>   | 52.0 dB(A)                                  | 49.0 dB(A)   | 49.0 dB(A)           |
| Efficiency (%)   | 25%   | 0.000  | 0.000                |
|  | 50%   | 86.5   | 85.1                 |
|  | 75%   | 86.5   | 86.6                 |
|  | 100%  | 86.9   | 86.2                 |
| Power Factor   | 25%   | 0.00   | 0.00                 |
|  | 50%   | 0.59   | 0.54                 |
|  | 75%   | 0.72   | 0.68                 |
|  | 100%  | 0.80   | 0.76                 |
| Bearing type   | : Drive end 6205 ZZ Non drive end 6202 ZZ   | Foundation loads   |                      |
| Sealing  | : Without Without Bearing Seal Bearing Seal | Max. traction  | : 298 lb             |
|  |   | Max. compression   | : 341 lb             |
| Lubrication interval   | : 0 h 0 h                                   |  |                      |
| Lubricant amount   | : 0 g 0 g                                   |  |                      |
| 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                 |
| Date   | 13/04/2022                                  |  | Revision             |
|  |   |  | 1 / 13               |

# TORQUE AND CURRENT VS SPEED CURVE

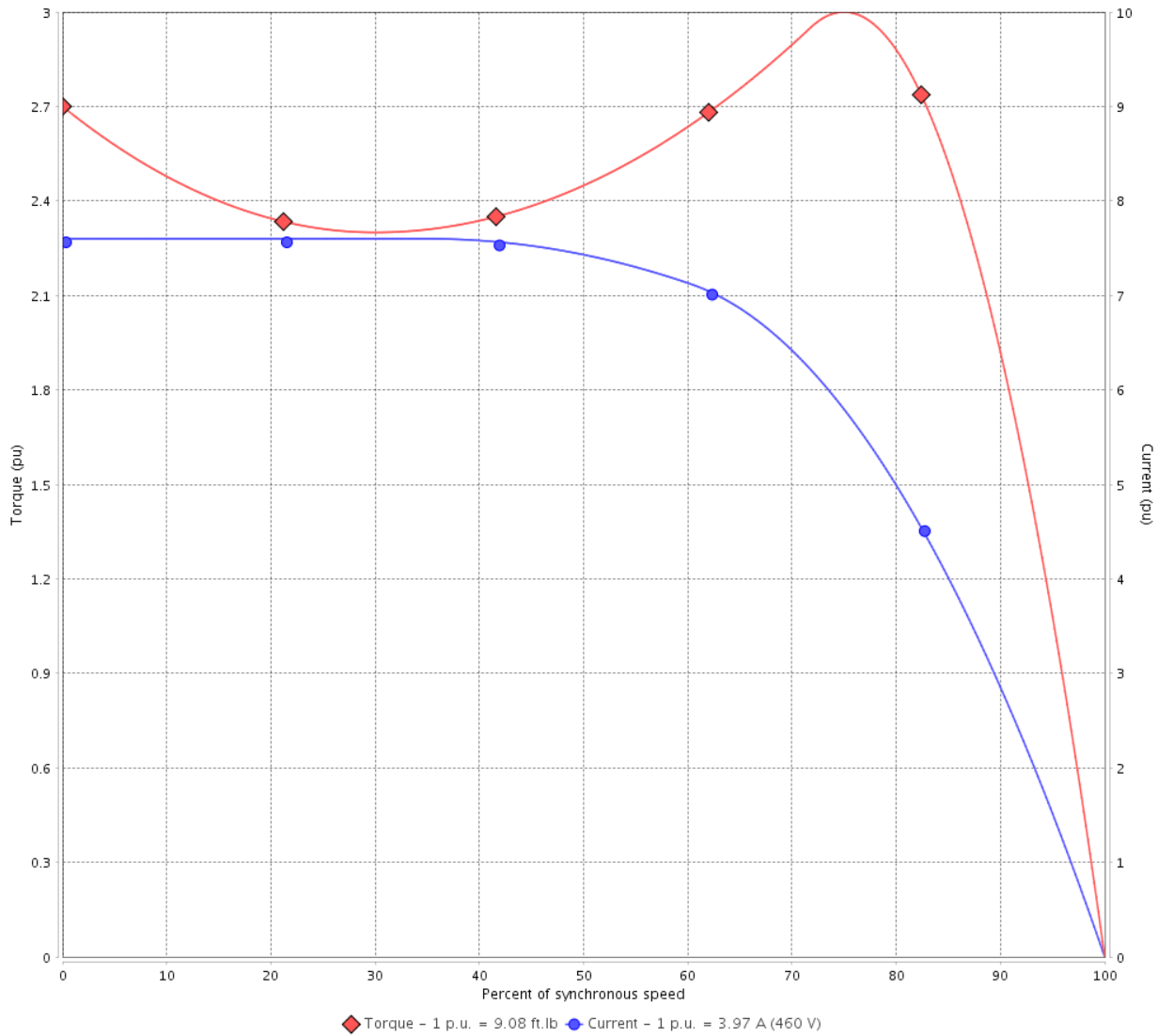
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase      Product code : 13089807  
 Catalog # : 003180T3E56Z-S

TORQUE AND CURRENT VS SPEED CURVE



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

|                     |                    |                       |             |
|---------------------|--------------------|-----------------------|-------------|
| Rated current       | : 8.79-7.94/3.97 A | Moment of inertia (J) |             |
| LRC                 | : 7.6              | Duty cycle            | : Cont.(S1) |
| Rated torque        | : 9.08 ft.lb       | Insulation class      | : F         |
| Locked rotor torque | : 270 %            | Service factor        | : 1.15      |
| Breakdown torque    | : 300 %            | Temperature rise      | : 80 K      |
| Rated speed         | : 1735 rpm         | Design                | : A         |

Locked rotor time : 21s (cold) 12s (hot)

| Rev.         | Changes Summary | Performed | Checked        | Date     |
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| Checked by   |                 |           |                |          |
| Date         | 13/04/2022      |           |                |          |

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



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

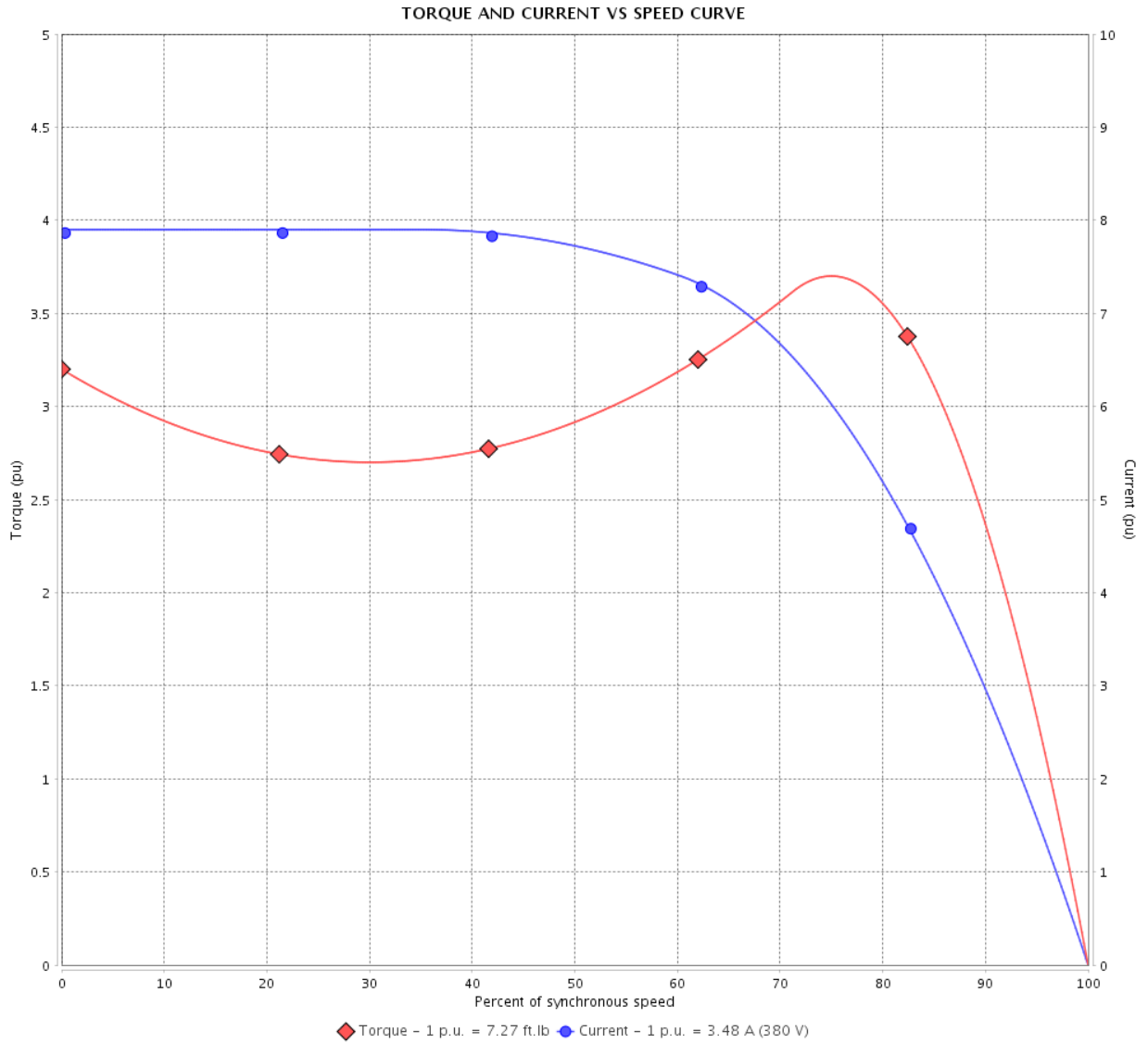
Product line : Premium Efficiency Three-Phase

Product code :

13089807

Catalog # :

00318OT3E56Z-S



Performance : 190/380 V 50 Hz 4P

Rated current : 6.96/3.48 A  
 LRC : 7.9  
 Rated torque : 7.27 ft.lb  
 Locked rotor torque : 320 %  
 Breakdown torque : 370 %  
 Rated speed : 1445 rpm

Moment of inertia (J)  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : A

Locked rotor time : 30s (cold) 17s (hot)

| Rev.         | Changes Summary | Performed | Checked        | Date     |
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| Checked by   |                 |           |                |          |
| Date         | 13/04/2022      |           |                |          |

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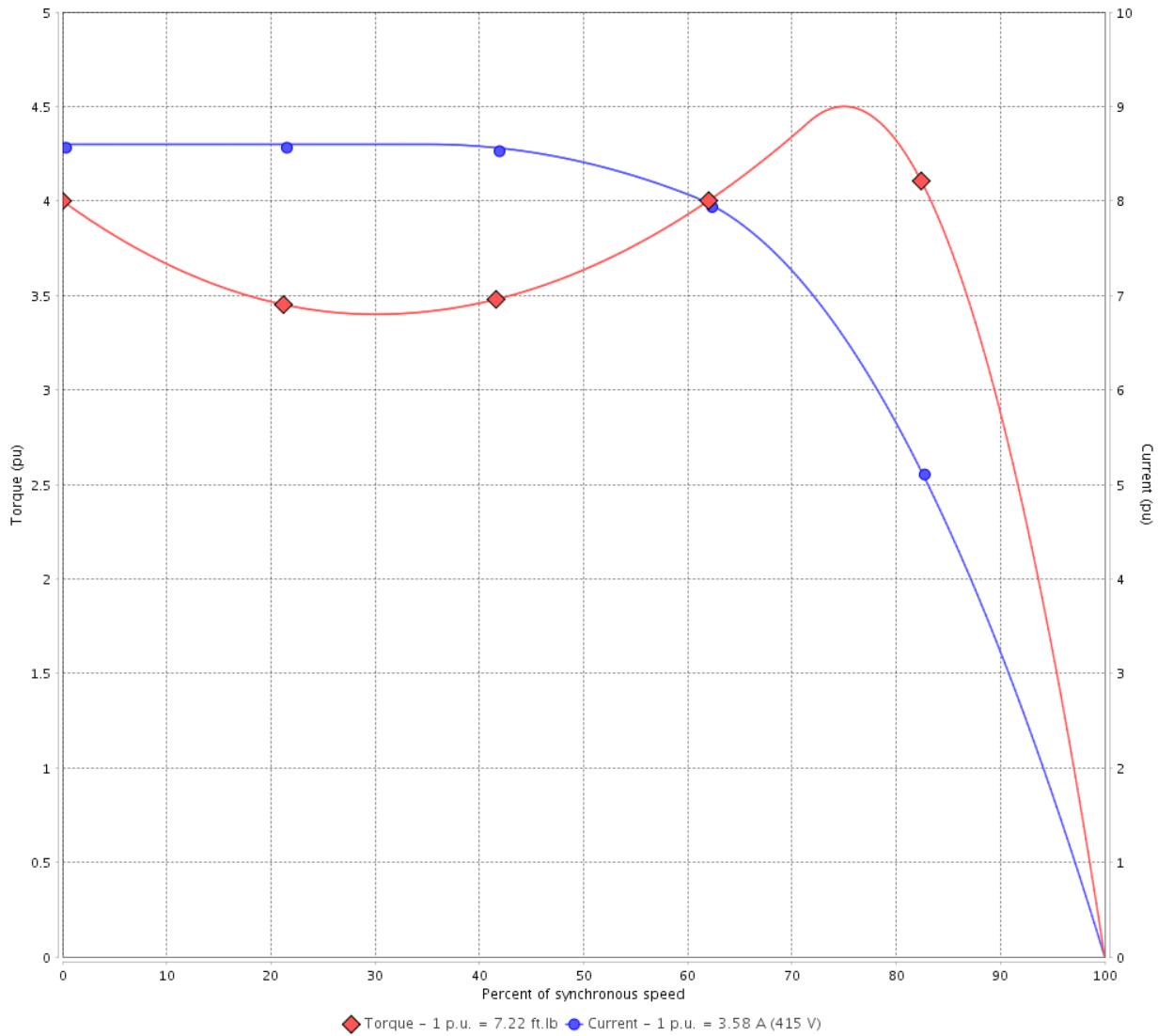
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase      Product code : 13089807  
 Catalog # : 00318OT3E56Z-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

|                     |               |                       |             |
|---------------------|---------------|-----------------------|-------------|
| Rated current       | : 6.75/3.58 A | Moment of inertia (J) |             |
| LRC                 | : 8.6         | Duty cycle            | : Cont.(S1) |
| Rated torque        | : 7.22 ft.lb  | Insulation class      | : F         |
| Locked rotor torque | : 400 %       | Service factor        | : 1.15      |
| Breakdown torque    | : 450 %       | Temperature rise      | : 80 K      |
| Rated speed         | : 1455 rpm    | Design                | : A         |

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

| Rev.         | Changes Summary | Performed | Checked        | Date     |
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| Checked by   |                 |           |                |          |
| Date         | 13/04/2022      |           |                |          |

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



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

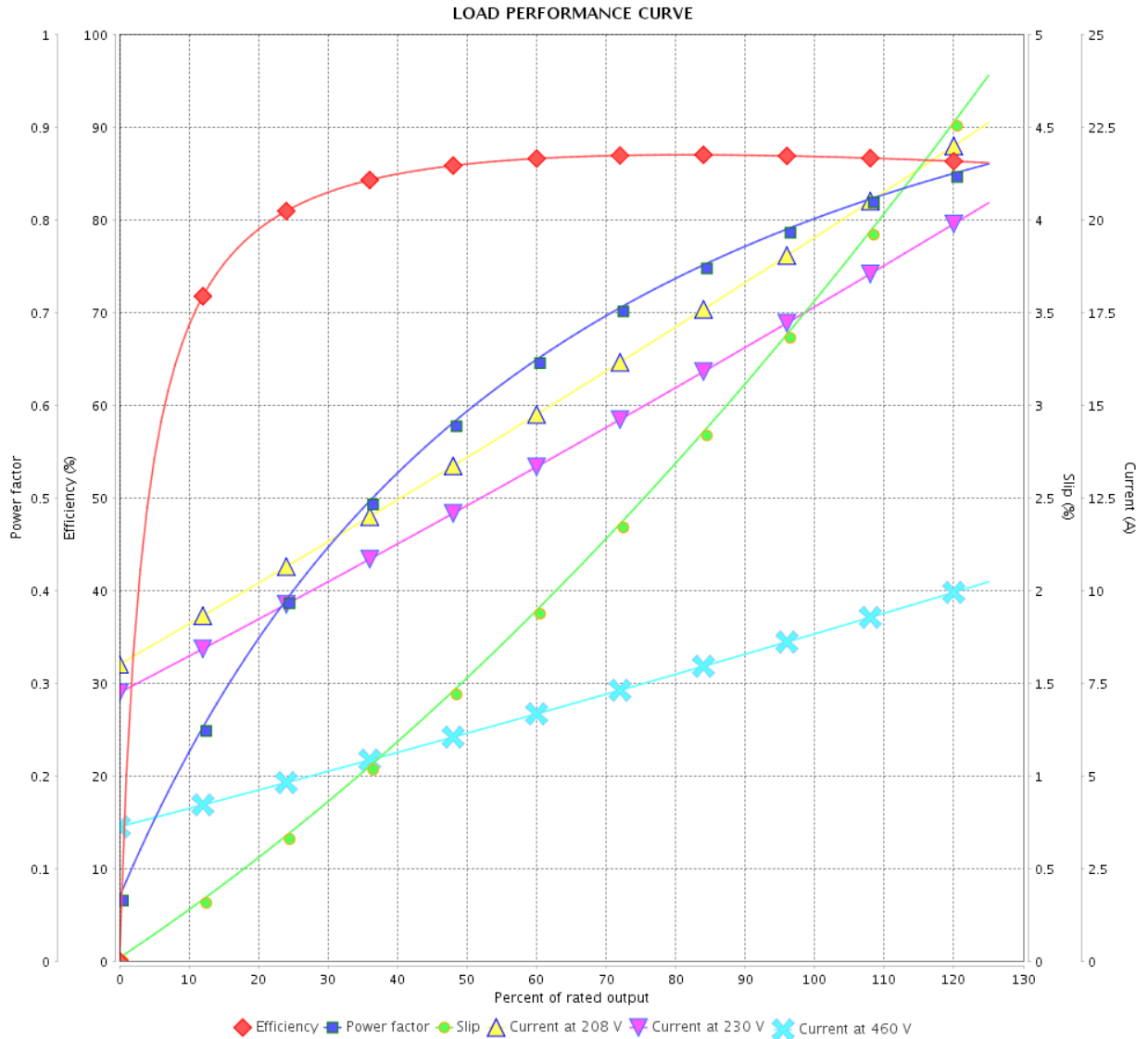
Product line : Premium Efficiency Three-Phase

Product code :

13089807

Catalog # :

00318OT3E56Z-S



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

Rated current : 8.79-7.94/3.97 A  
 LRC : 7.6  
 Rated torque : 9.08 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 300 %  
 Rated speed : 1735 rpm

Moment of inertia (J)  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : A

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

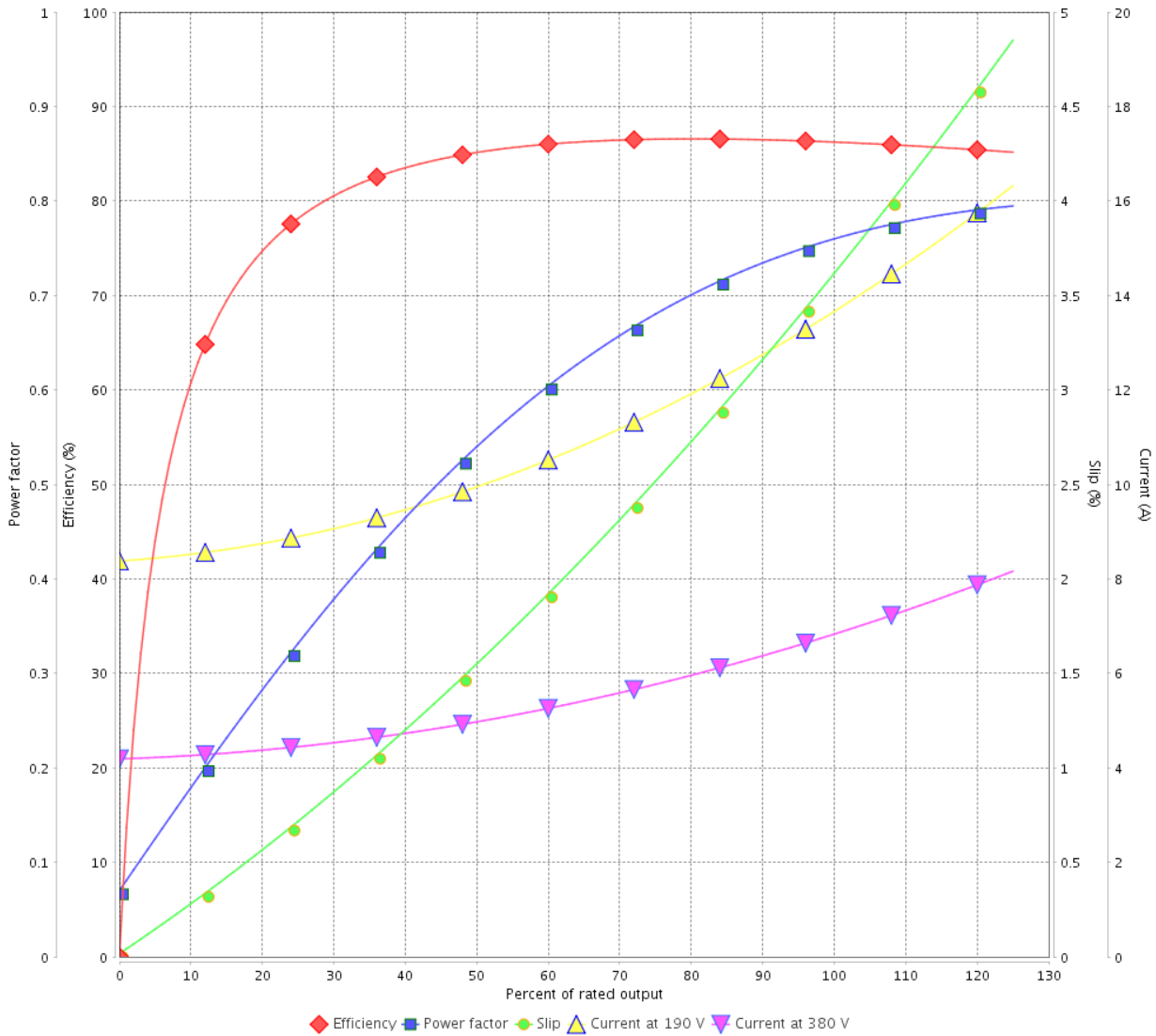
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase      Product code : 13089807  
 Catalog # : 003180T3E56Z-S

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 4P

Rated current : 6.96/3.48 A  
 LRC : 7.9  
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 Locked rotor torque : 320 %  
 Breakdown torque : 370 %  
 Rated speed : 1445 rpm

Moment of inertia (J)  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : A

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

## Three Phase Induction Motor - Squirrel Cage



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

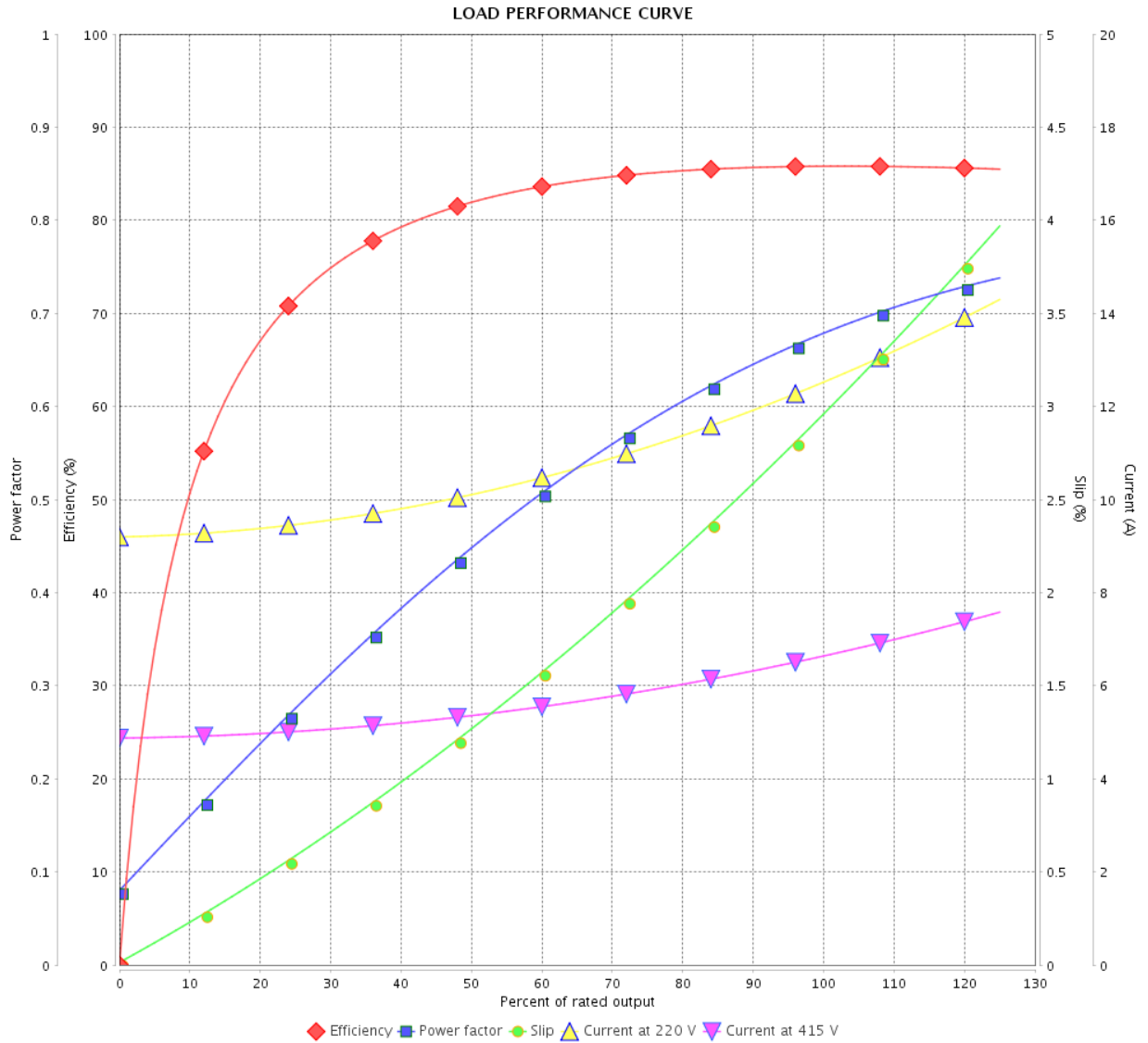
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| Checked by   |                 |           |         |          |
| Date         |                 |           |         |          |

# THERMAL LIMIT CURVE

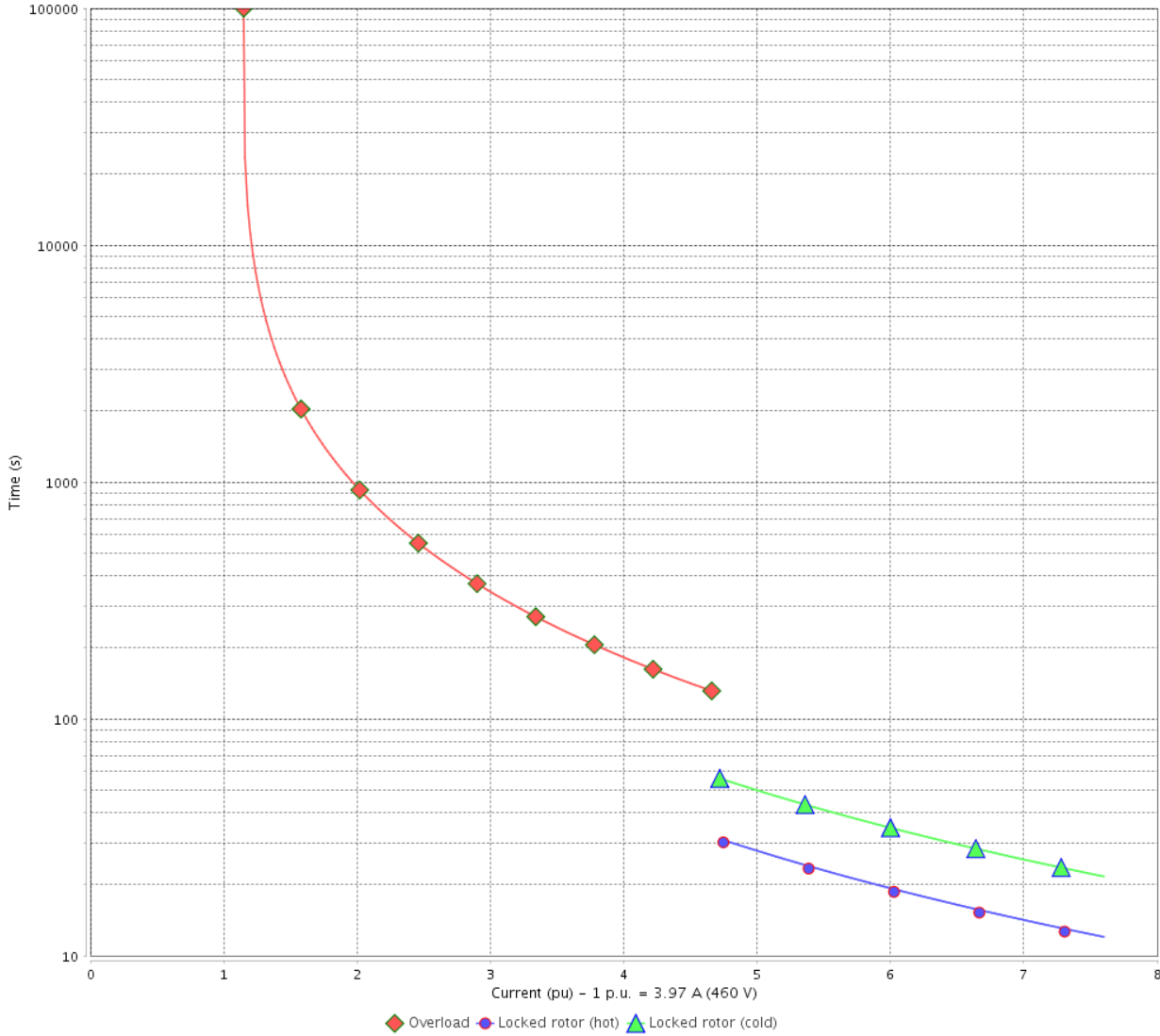
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| Locked rotor torque | : 270 %            | Service factor        | : 1.15      |
| Breakdown torque    | : 300 %            | Temperature rise      | : 80 K      |
| Rated speed         | : 1735 rpm         | Design                | : A         |

Heating constant  
Cooling constant

| Rev.         | Changes Summary | Performed | Checked        | Date     |
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| Date         | 13/04/2022      |           |                |          |



# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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

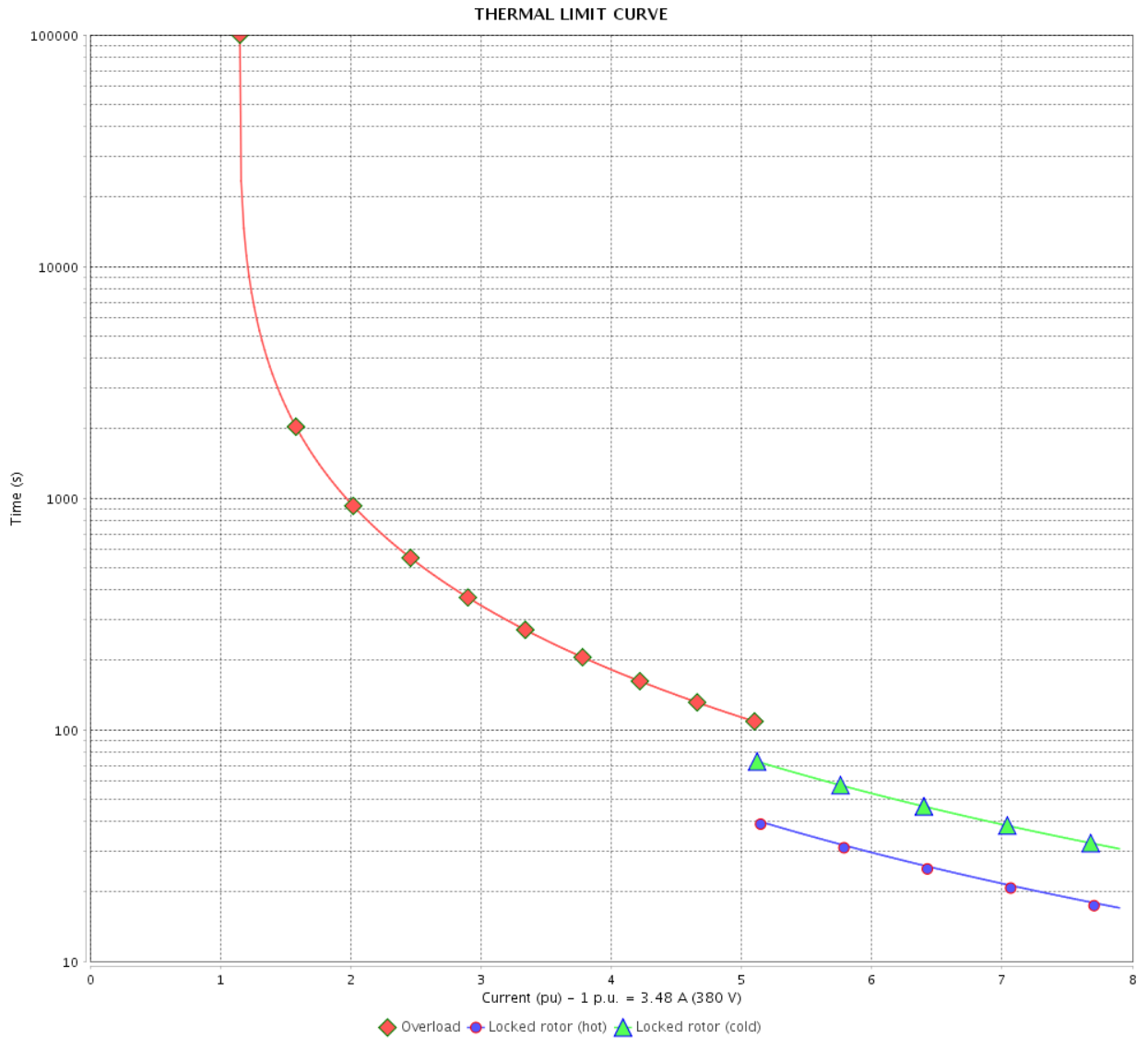
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 Temperature rise : 80 K  
 Design : A

Heating constant

Cooling constant

| Rev.         | Changes Summary | Performed | Checked  | Date |
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Three Phase Induction Motor - Squirrel Cage



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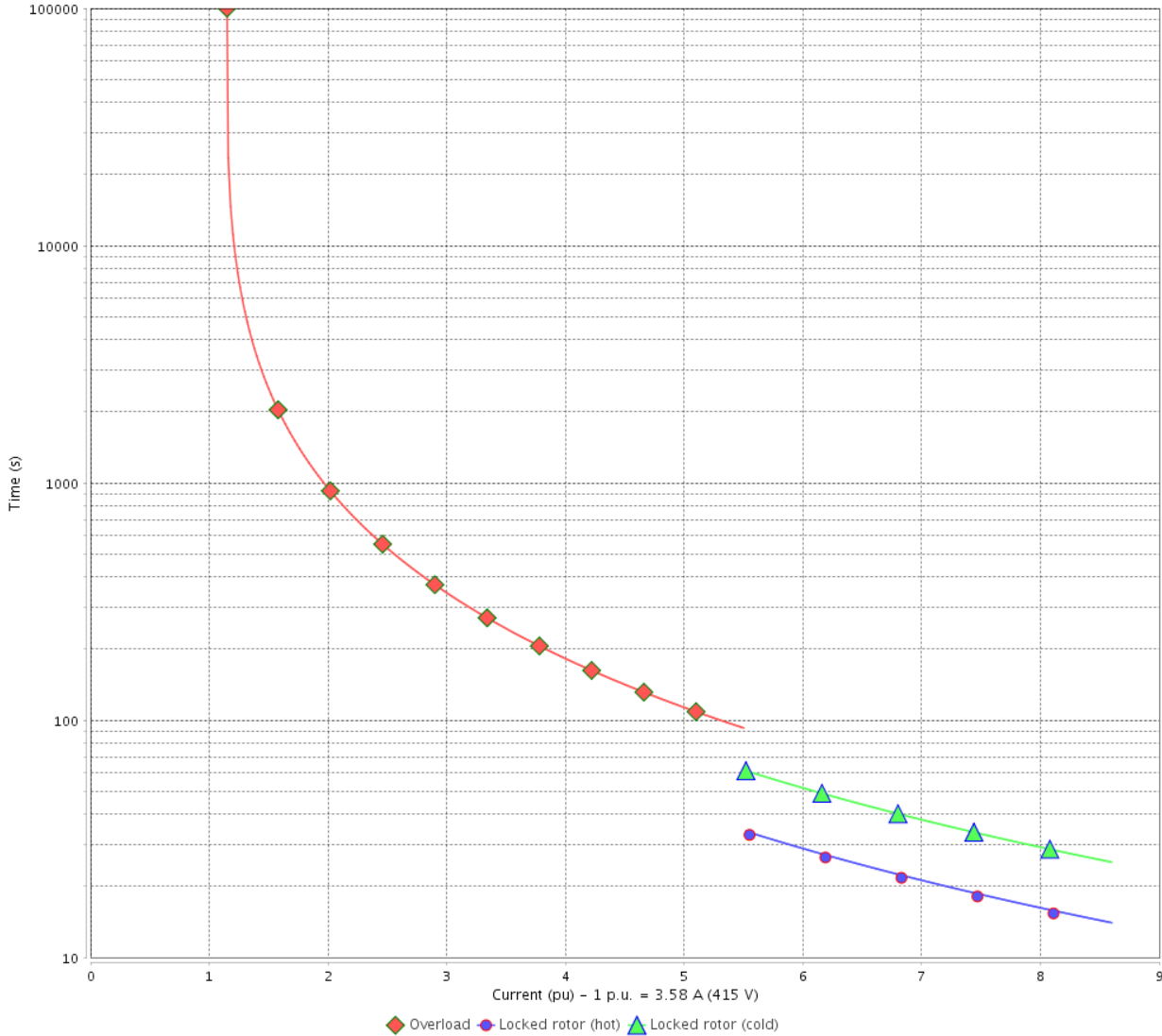
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Heating constant  
 Cooling constant

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

## Three Phase Induction Motor - Squirrel Cage

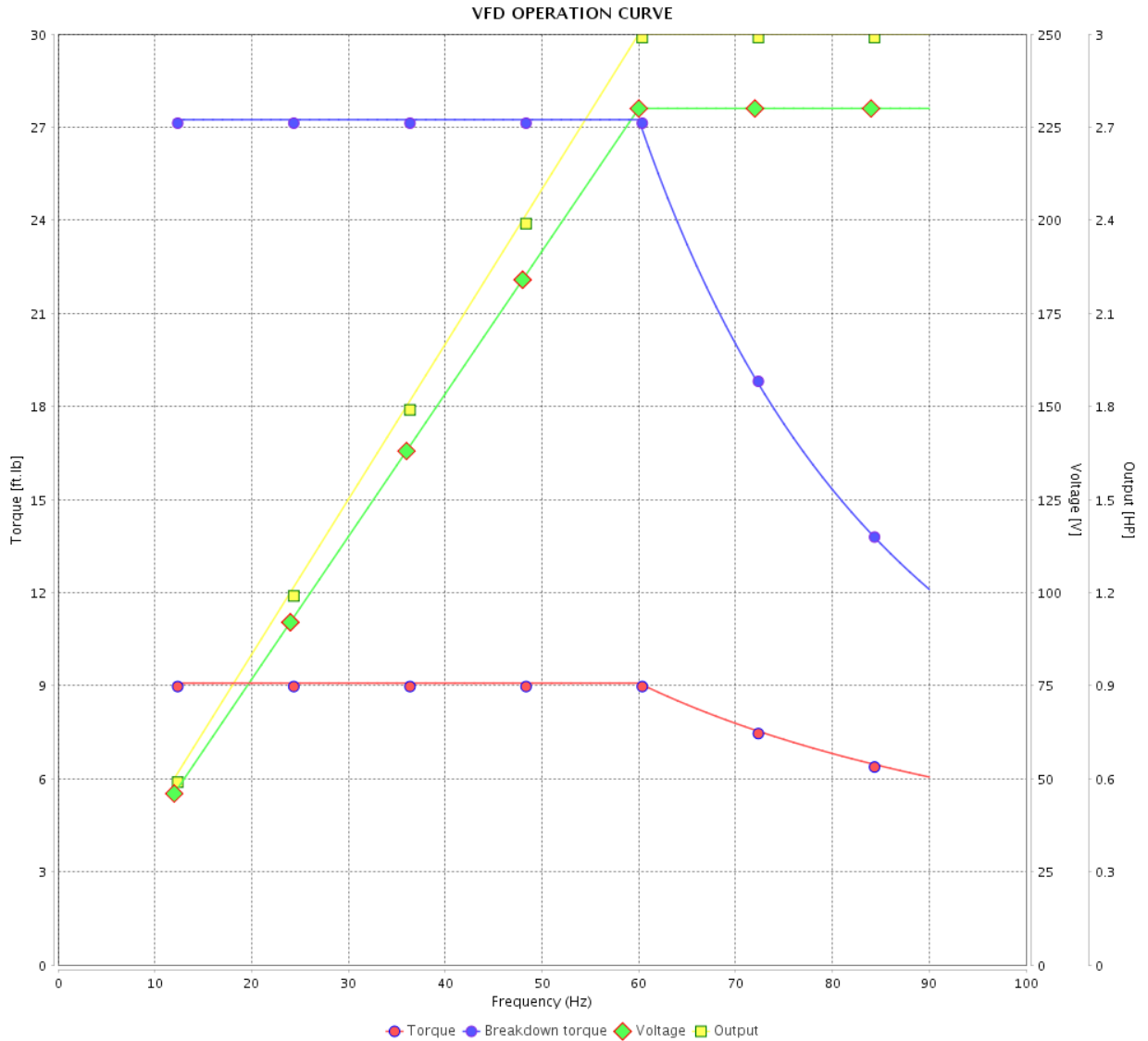


Customer : \_\_\_\_\_

Product line : Premium Efficiency Three-Phase

Product code :  
Catalog # :

13089807  
00318OT3E56Z-S



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

Rated current : 8.79-7.94/3.97 A  
 LRC : 7.6  
 Rated torque : 9.08 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 300 %  
 Rated speed : 1735 rpm

Moment of inertia (J)  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : A

| Rev.         | Changes Summary | Performed | Checked  | Date |
|--------------|-----------------|-----------|----------|------|
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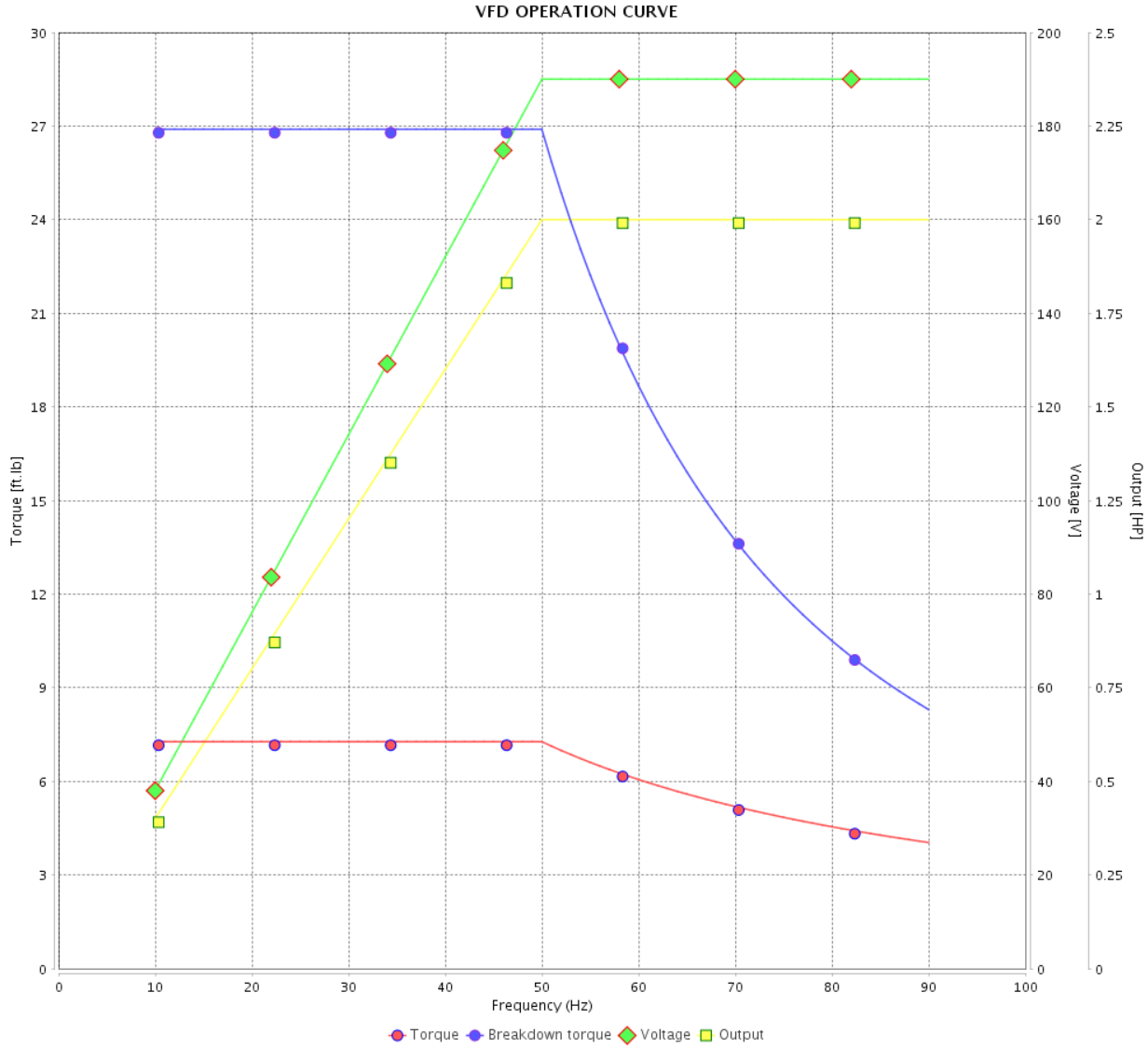
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase      Product code : 13089807  
 Catalog # : 003180T3E56Z-S



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Rated current : 6.96/3.48 A  
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 Rated torque : 7.27 ft.lb  
 Locked rotor torque : 320 %  
 Breakdown torque : 370 %  
 Rated speed : 1445 rpm

Moment of inertia (J)  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : A

| Rev.         | Changes Summary | Performed  | Checked | Date     |
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| Performed by |                 | Page       |         | Revision |
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| Date         |                 | 13/04/2022 |         |          |

# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

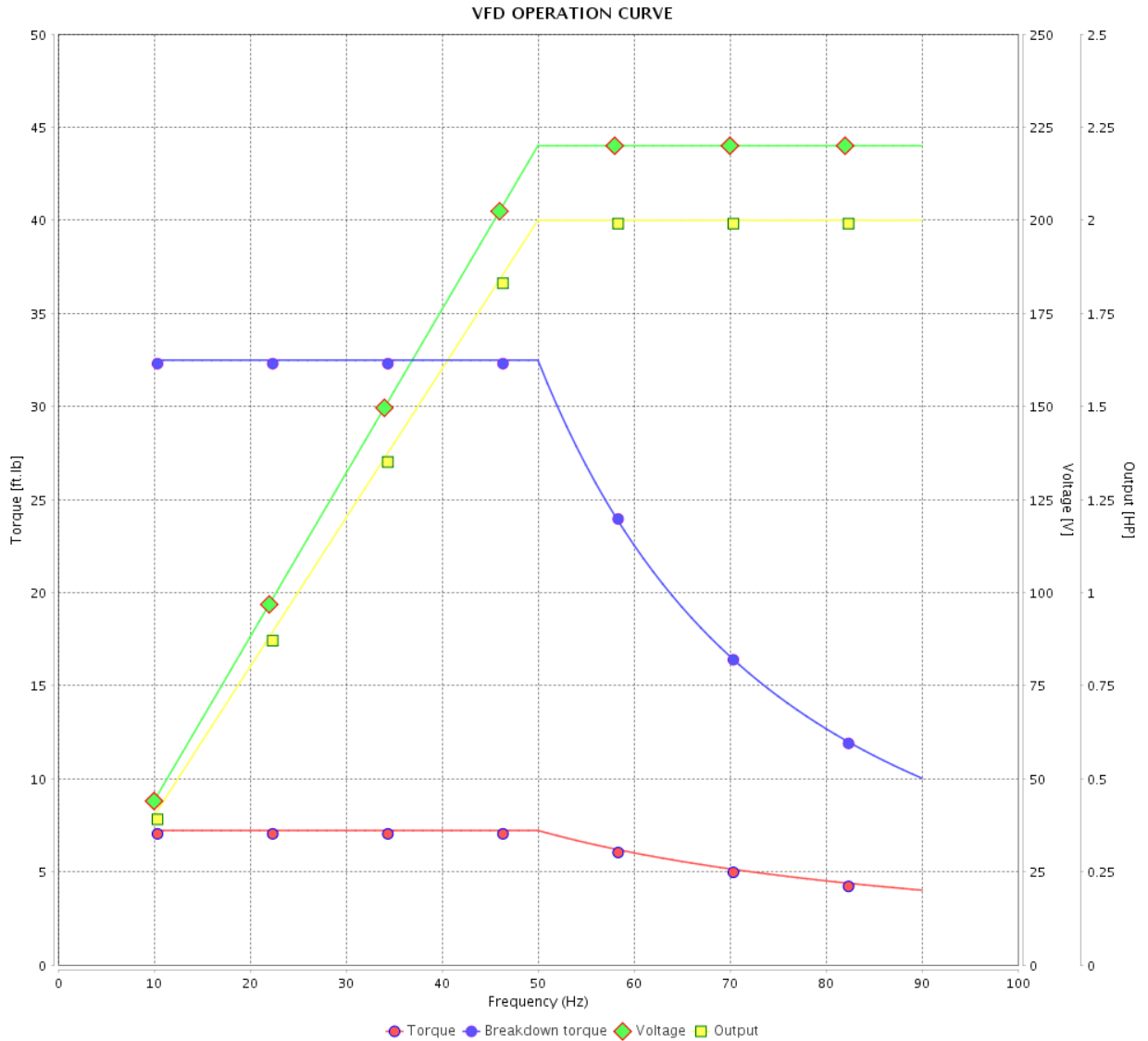


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Moment of inertia (J)  
 Duty cycle : Cont.(S1)  
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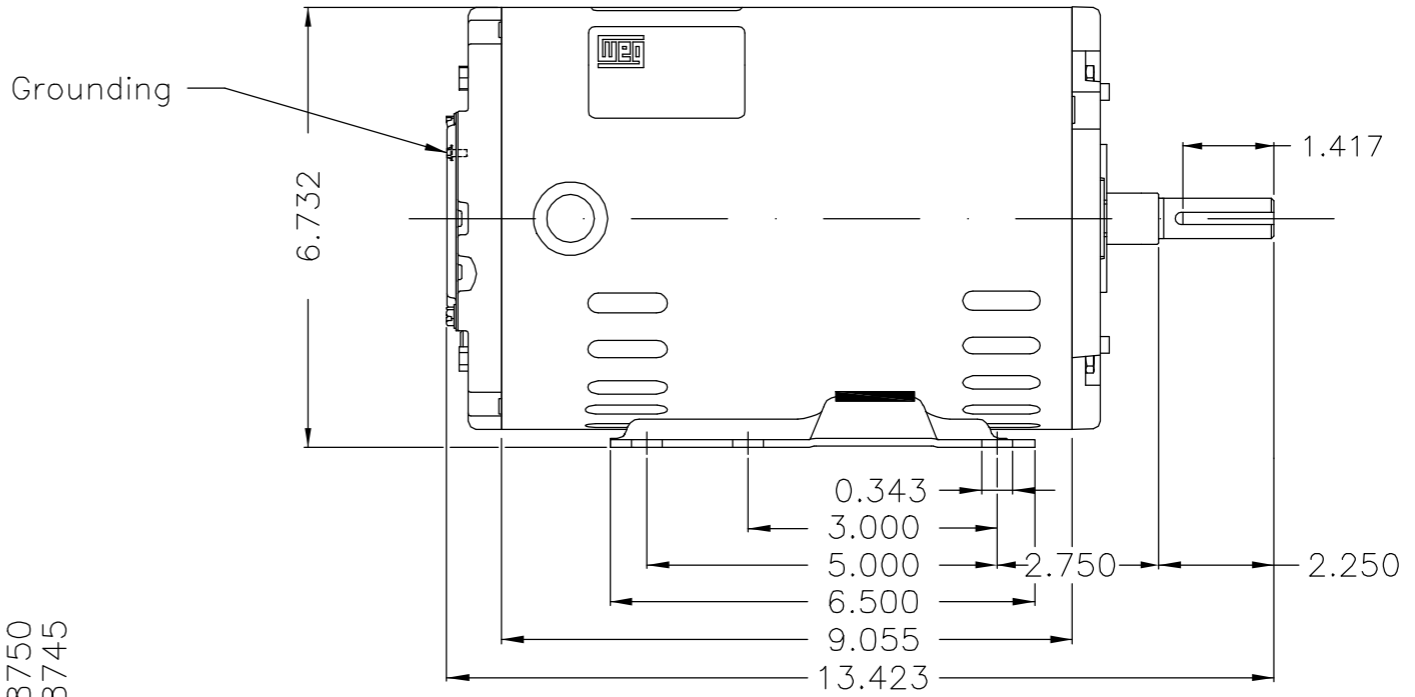
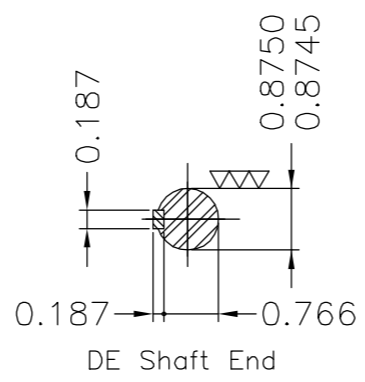
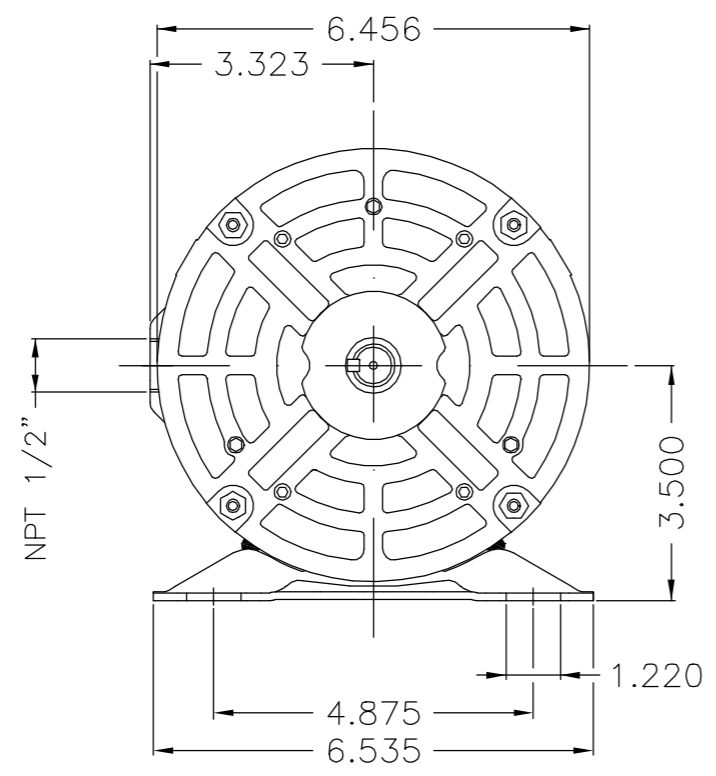
|                   |   |
|-------------------|---|
| EJE/SHAFT         |   |
| ESTÁNDAR/STANDARD |   |
| OPCIONAL/OPTIONAL |   |
| ESPECIAL/SPECIAL  | X |

Dimensiones en pulgadas  
Dimensions in inches

**CERTIFIED WEG MOTORES**  
Certified document.  
Not subject to changes.

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

A  
B  
C  
D  
E



Reforzar la pata con 2 puntos de soldadura mig / Supplied with reinforced weld on foot

Forma constructiva F-1/B3R(D) / Mounting F-1/B3R(D)

**WEG ELECTRIC CORPORATION - WEC**

|              |            |  |             |                        |            |          |
|--------------|------------|--|-------------|------------------------|------------|----------|
| 500001178683 | A-5        | CERTIFIED  | CESTRELLA   | CRISTIAN               | 20.05.2016 | 02       |
| 500001176917 | D-4        | NOTE IS ADDED  | CESTRELLA   | MARIAN                 | 13.05.2016 | 01       |
| ECM          | LOC        | SUMMARY OF MODIFICATIONS                                   | EXECUTED    | CHECKED                | RELEASED   | DATE VER |
| EXECUTED     | CESTRELLA  | THREE PHASE ODP ROLLED STEEL PREM. EFF.<br>FRAME 56HZ IP21 | 10003274089 |                        |            |          |
| CHECKED      |            |  | 000         | 02                     |            |          |
| RELEASED     | RTORRE     |  |             |                        |            |          |
| REL DT       | 17.12.2014 | WMX  | HUEHUETOCA  | INGENIERA DEL PRODUCTO | SHEET      | 1 / 1    |

3 HP 04 Poles 60Hz 413691747/0

UNCONTROLLED COPY

RELEASED

ZME A3



**NEMA**  
**Premium**



MADE IN MEXICO

**MAT: 13089807**

**W01.T00IC0X0X**

**MODEL 003180T3E56Z-S**

**18MAR2022 B/N:**

|                            |               |                       |
|----------------------------|---------------|-----------------------|
| <b>PH 3</b>                | <b>Hz 60</b>  | <b>HP 3.0</b>         |
| <b>FR 56HZ</b>             |               | <b>KW 2.2</b>         |
| <b>DUTY CONT.</b>          |               | <b>V 230/460</b>      |
| <b>ALT 1000 m.a.s.l.</b>   |               | <b>A 7.94/3.97</b>    |
| <b>INS CL F AT 80K</b>     |               | <b>SFA 9.13/4.57</b>  |
| <b>AMB 40°C</b>            | <b>DES A</b>  | <b>SF 1.15</b>        |
| <b>ENCL ODP</b>            | <b>CODE K</b> | <b>PF 0.80</b>        |
| <b>USABLE @ 208V 8.79A</b> |               | <b>RPM 1735</b>       |
| <b>SF1.00</b>              |               | <b>AVG.F.L. 86.9%</b> |

**ALTERNATE RATING: 2.0HP 50Hz 190-220/380-415V SF1.15**  
**6.96-6.75/3.48-3.58A 1445RPM EFF 85.8% (IE3) IEC 60034-1**

Inverter duty motor For 80Hz use on VPWM 1000:1 VT, 5:1 CT

|                   |                    |                         |
|-------------------|--------------------|-------------------------|
| <b>DE 6205-ZZ</b> | <b>ODE 6202-ZZ</b> | <b>MOBIL POLYREX EM</b> |
|-------------------|--------------------|-------------------------|



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.

