

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

|   |   |           |         |          |
|---|---|-----------|---------|----------|
| Customer :  |   |           |         |          |
| Product line  | : NEMA Premium Efficiency Three-Phase   |           |         |          |
| Product code :  | 12674848  |           |         |          |
| Catalog # :   | 00518OT3P184T-S   |           |         |          |
| Frame : 182/4T<br>Output : 5 HP (3.7 kW)<br>Poles : 4<br>Frequency : 60 Hz<br>Rated voltage : 200 V<br>Rated current : 14.6 A<br>L. R. Amperes : 105 A<br>LRC : 7.2x(Code J)<br>No load current : 7.24 A<br>Rated speed : 1760 rpm<br>Slip : 2.22 %<br>Rated torque : 14.9 ft.lb<br>Locked rotor torque : 200 %<br>Breakdown torque : 310 %<br>Insulation class : F<br>Service factor : 1.15<br>Moment of inertia (J) : 0.4003 sq.ft.lb<br>Design : B | Locked rotor time : 21s (cold) 12s (hot)<br>Temperature rise : 80 K<br>Duty cycle : Cont.(S1)<br>Ambient temperature : -20°C to +40°C<br>Altitude : 1000 m.a.s.l.<br>Cooling method : IC01 - ODP<br>Mounting : F-1<br>Rotation <sup>1</sup> : Both (CW and CCW)<br>Noise level <sup>2</sup> : 55.0 dB(A)<br>Starting method : Direct On Line<br>Approx. weight <sup>3</sup> : 81.1 lb |           |         |          |
| Output  | 25%    50%    75%    100%   |           |         |          |
| Efficiency (%)  | 87.5    88.5    88.5    89.5  |           |         |          |
| Power Factor  | 0.38    0.63    0.76    0.82  |           |         |          |
| Foundation loads  |   |           |         |          |
| Max. traction   | : 255 lb  |           |         |          |
| Max. compression  | : 336 lb  |           |         |          |
| Bearing type  | : <u>Drive end</u> 6206 ZZ <u>Non drive end</u> 6205 ZZ   |           |         |          |
| Sealing   | : Without Bearing Seal    Without Bearing Seal  |           |         |          |
| 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  | 12/04/2022  |           | 1 / 6   |          |

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



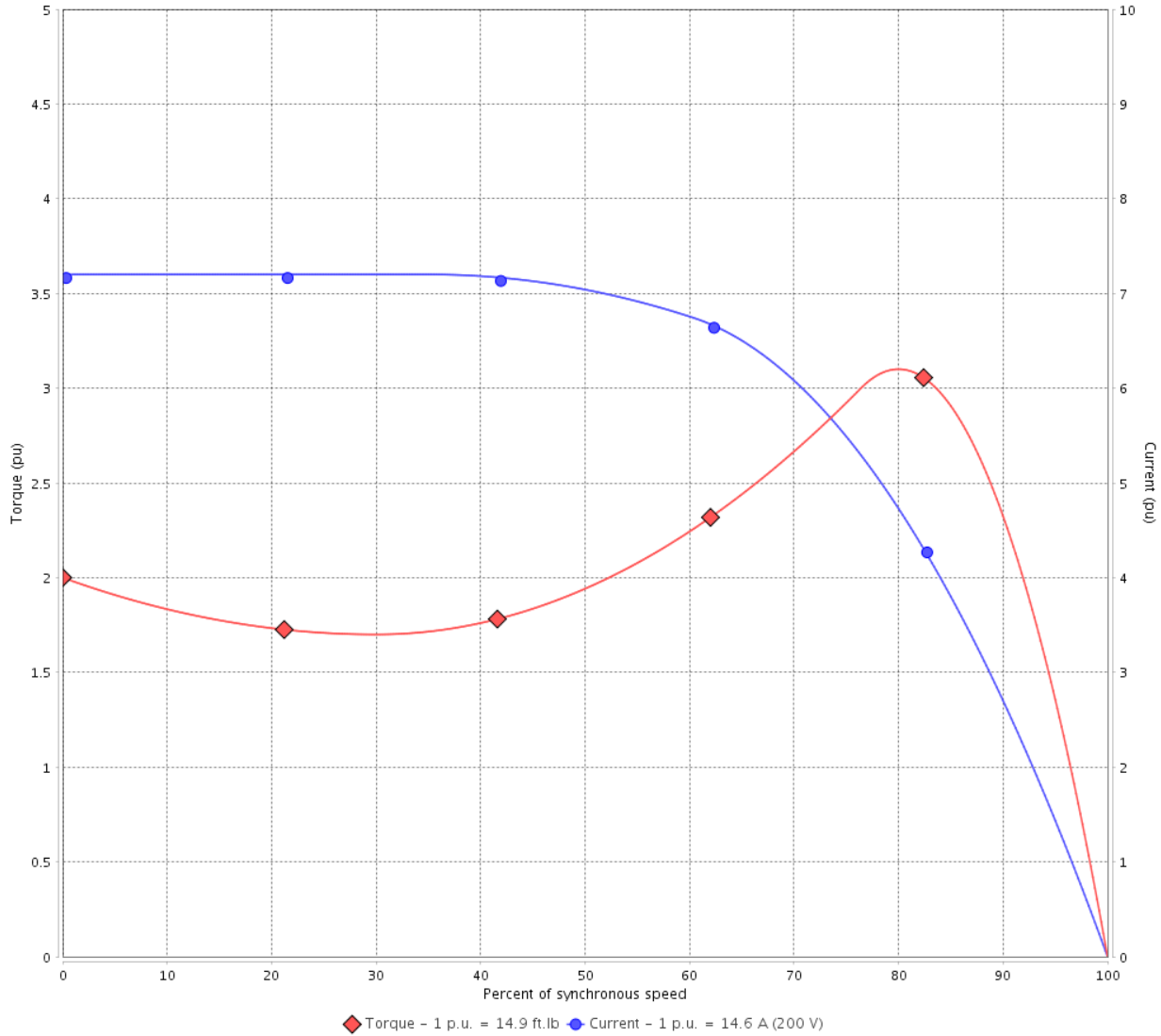
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12674848

Catalog # : 00518OT3P184T-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 200 V 60 Hz 4P

|                     |              |                       |                   |
|---------------------|--------------|-----------------------|-------------------|
| Rated current       | : 14.6 A     | Moment of inertia (J) | : 0.4003 sq.ft.lb |
| LRC                 | : 7.2        | Duty cycle            | : Cont.(S1)       |
| Rated torque        | : 14.9 ft.lb | Insulation class      | : F               |
| Locked rotor torque | : 200 %      | Service factor        | : 1.15            |
| Breakdown torque    | : 310 %      | Temperature rise      | : 80 K            |
| Rated speed         | : 1760 rpm   | Design                | : B               |

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

| Rev.         | Changes Summary | Performed | Checked       | Date     |
|--------------|-----------------|-----------|---------------|----------|
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| Performed by |                 |           | Page<br>2 / 6 | Revision |
| Checked by   |                 |           |               |          |
| Date         | 12/04/2022      |           |               |          |

# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

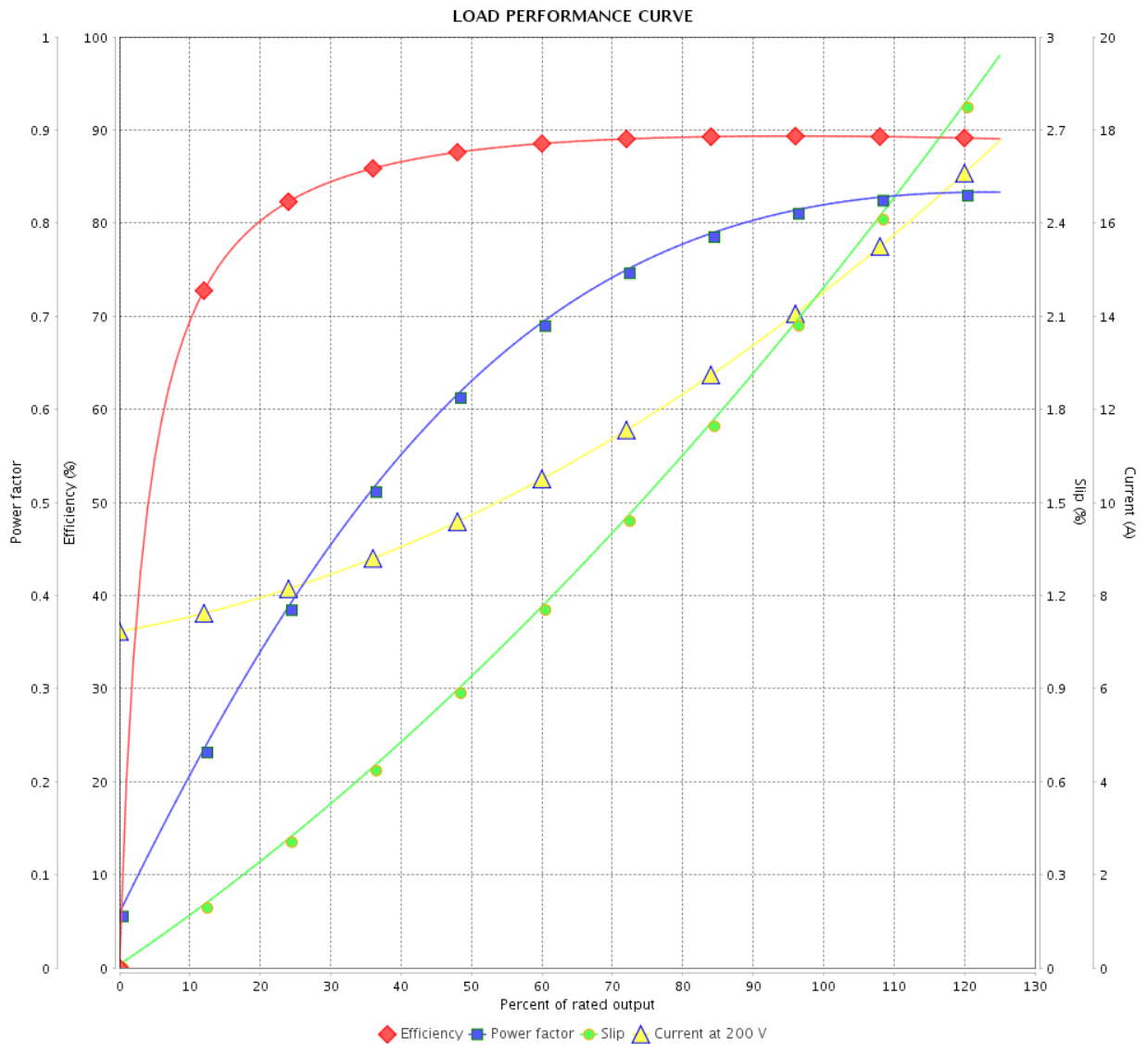


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12674848

Catalog # : 005180T3P184T-S



Performance : 200 V 60 Hz 4P

Rated current : 14.6 A  
 LRC : 7.2  
 Rated torque : 14.9 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 310 %  
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.4003 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     |
|--------------|-----------------|------------|---------|----------|
|              |                 |            |         |          |
| Performed by |                 | Page       |         | Revision |
| Checked by   |                 | 3 / 6      |         |          |
| Date         |                 | 12/04/2022 |         |          |

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 12674848  
Catalog # : 00518OT3P184T-S

Performance : 200 V 60 Hz 4P

|                     |              |                       |                   |
|---------------------|--------------|-----------------------|-------------------|
| Rated current       | : 14.6 A     | Moment of inertia (J) | : 0.4003 sq.ft.lb |
| LRC                 | : 7.2        | Duty cycle            | : Cont.(S1)       |
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| Locked rotor torque | : 200 %      | Service factor        | : 1.15            |
| Breakdown torque    | : 310 %      | Temperature rise      | : 80 K            |
| Rated speed         | : 1760 rpm   | Design                | : B               |

Heating constant

Cooling constant

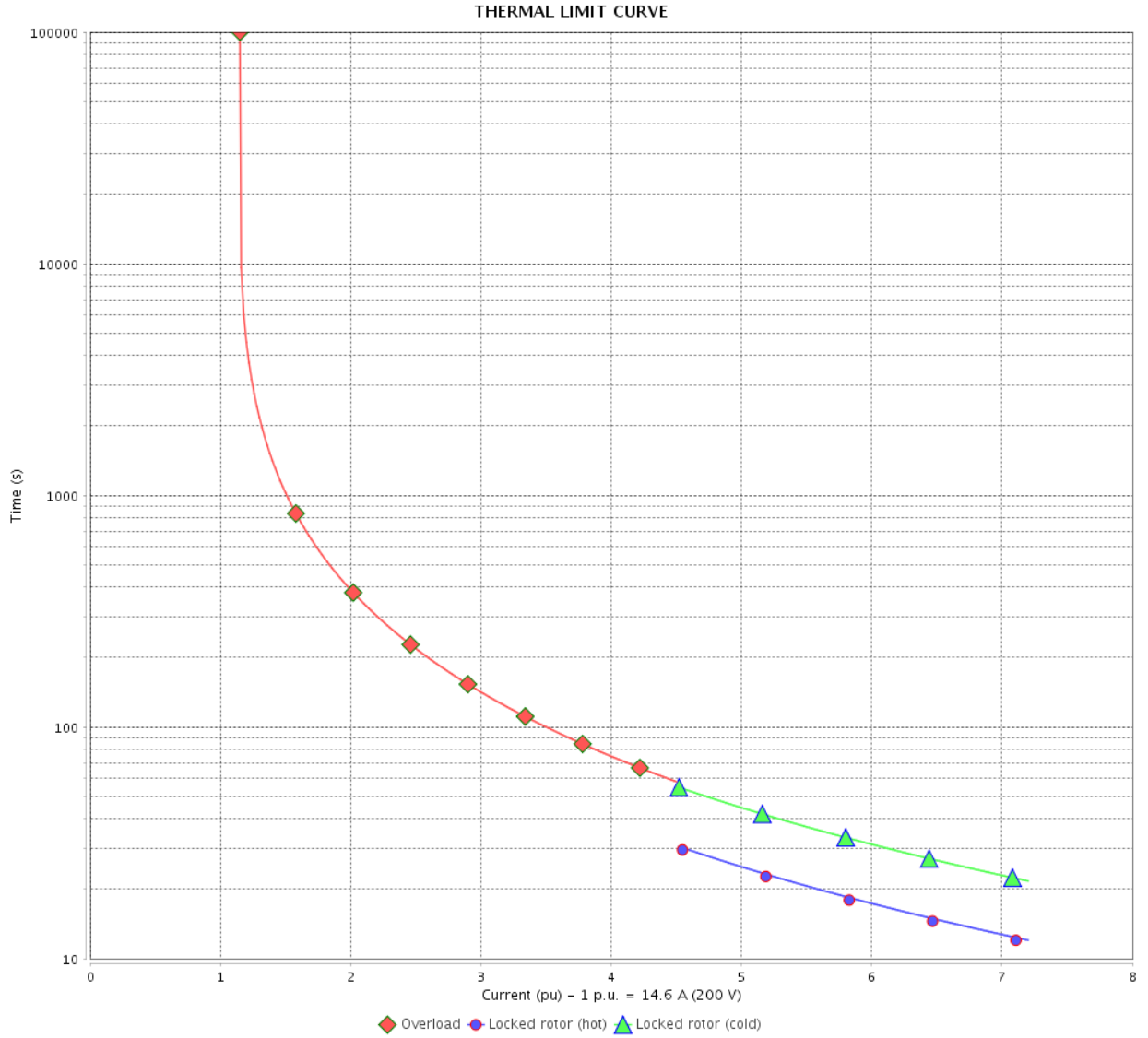
| Rev.         | Changes Summary | Performed | Checked | Date     |
|--------------|-----------------|-----------|---------|----------|
| Performed by |                 |           |         |          |
| Checked by   |                 |           | Page    | Revision |
| Date         | 12/04/2022      |           | 4 / 6   |          |

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



| Rev.         | Changes Summary | Performed  | Checked | Date     |
|--------------|-----------------|------------|---------|----------|
|              |                 |            |         |          |
| Performed by |                 | Page       |         | Revision |
| Checked by   |                 | 5 / 6      |         |          |
| Date         |                 | 12/04/2022 |         |          |

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



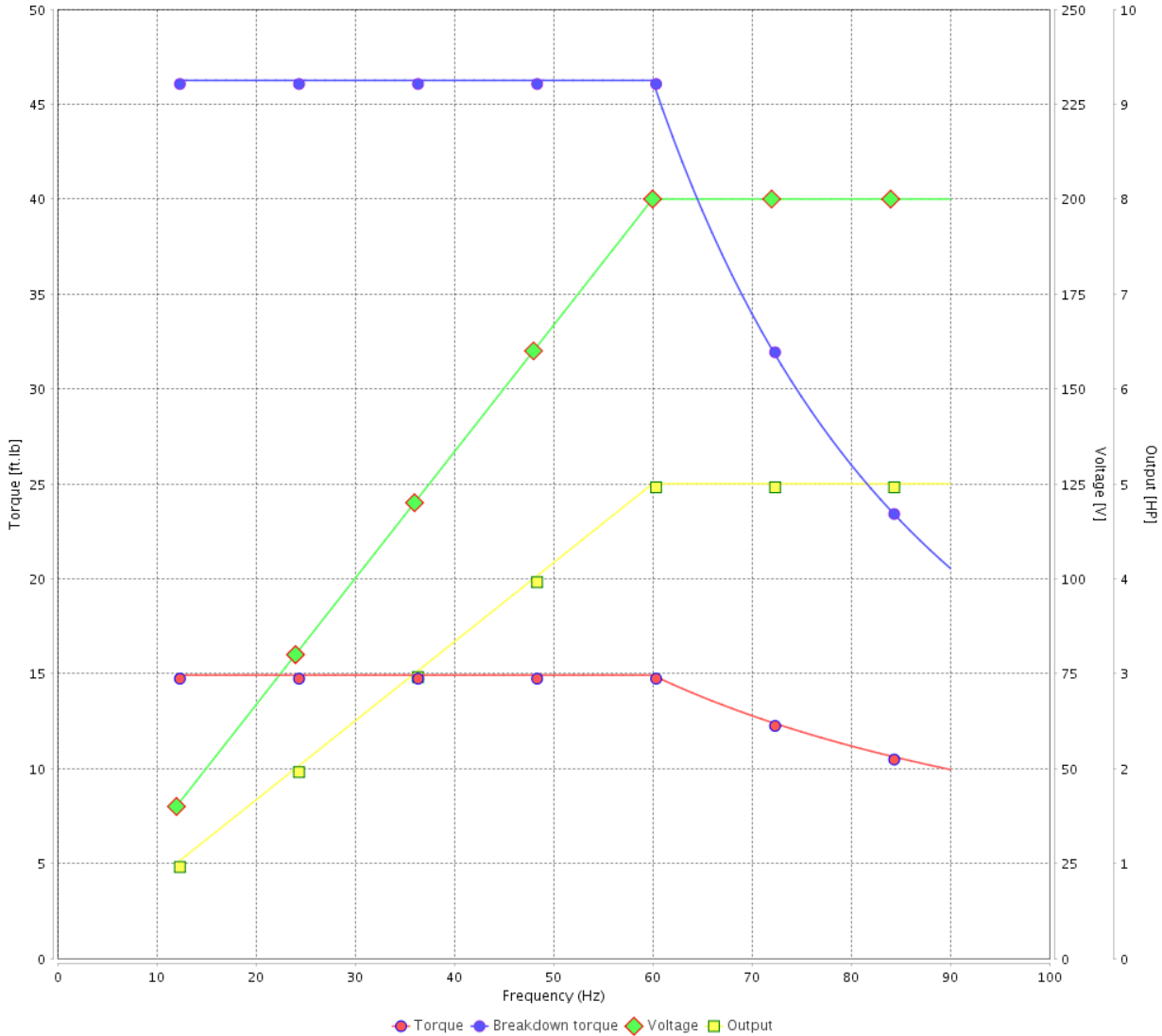
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12674848

Catalog # : 00518OT3P184T-S

VFD OPERATION CURVE



Performance : 200 V 60 Hz 4P

Rated current : 14.6 A  
 LRC : 7.2  
 Rated torque : 14.9 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 310 %  
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.4003 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     |
|--------------|-----------------|-----------|---------------|----------|
|              |                 |           |               |          |
| Performed by |                 |           | Page<br>6 / 6 | Revision |
| Checked by   |                 |           |               |          |
| Date         | 12/04/2022      |           |               |          |

1 2 3 4 5 6

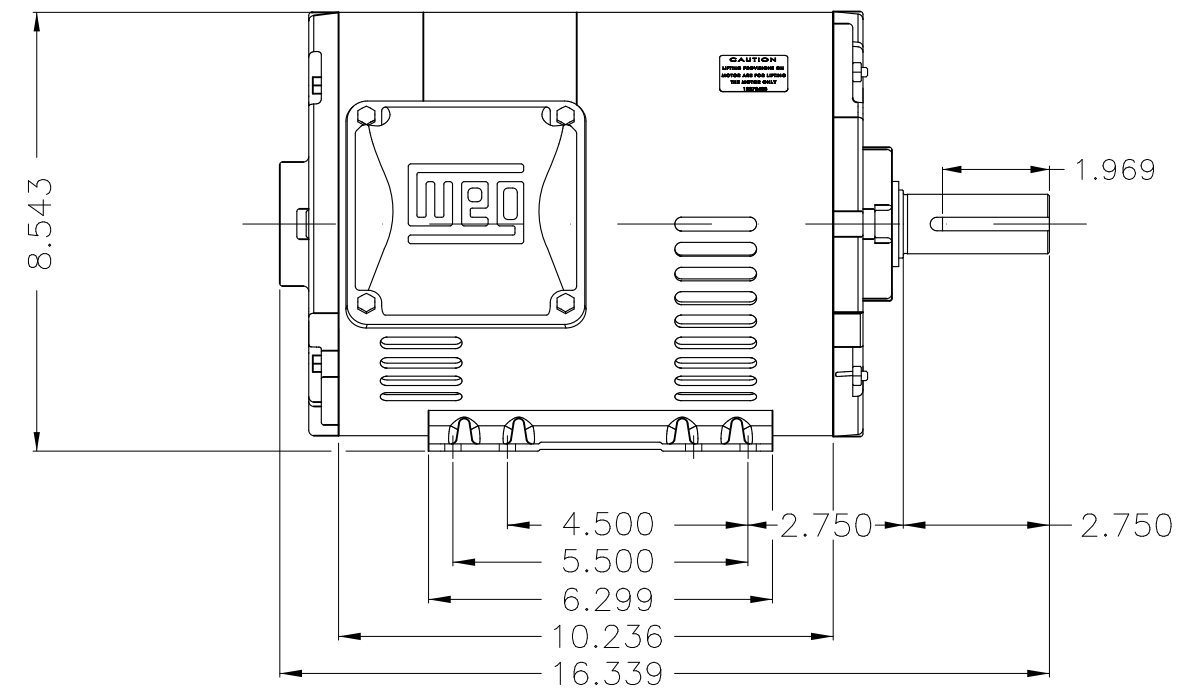
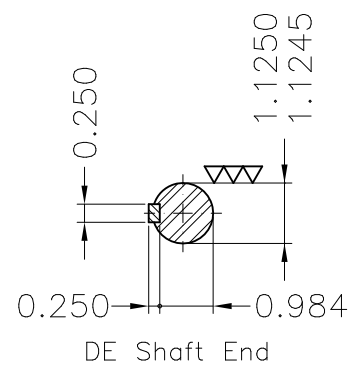
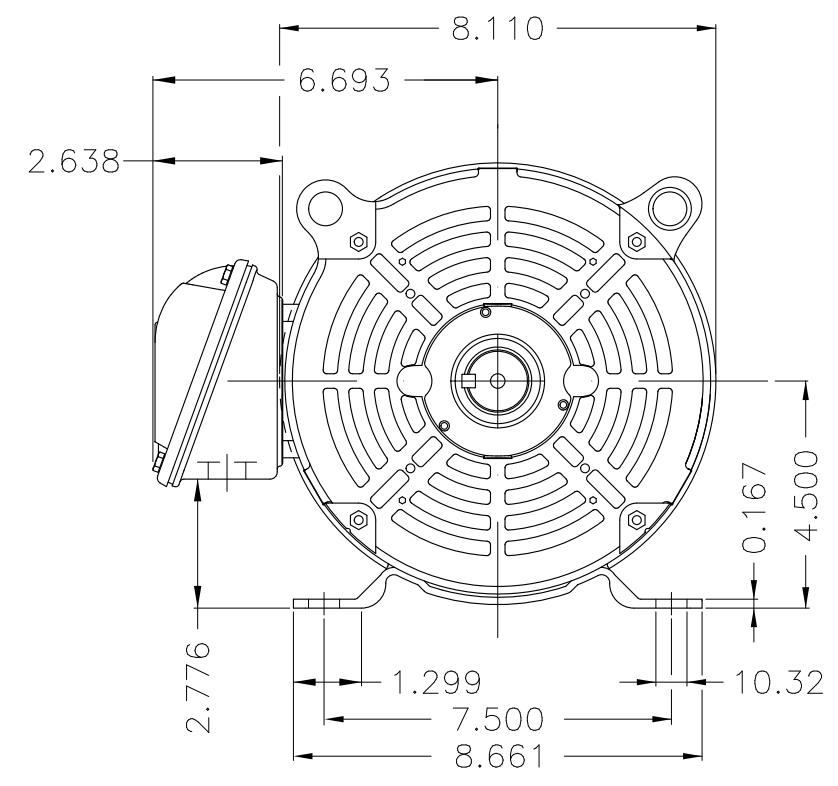
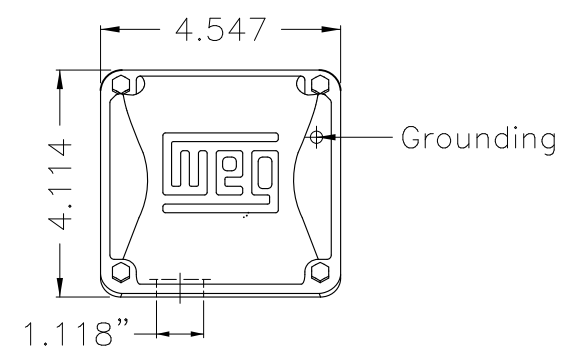
A

B

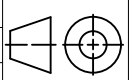

C

D

E



Color Munsell N 1 matte black  
 Painting plan 207N  
 Mounting F-1/B3R(D)

| ECM      | LOC       | SUMMARY OF MODIFICATIONS   | EXECUTED            | CHECKED     | RELEASED | DATE  | VER |
|----------|-----------|--|---------------------|-------------|----------|---|-----|
| EXECUTED | PIRWBUSER |  THREE PH. MOTOR ROLLED STEEL PREM. EFF.<br>FRAME 182/4T IP21 ODP |                     |             |          |   |     |
| CHECKED  |           |  |                     |             |          |   |     |
| RELEASED |           |  |                     |             |          |   |     |
| REL DT.  | WMO       | Jaragua do Sul   | Product Engineering | SHEET 1 / 1 |          | PREVIEW<br>WDD<br> |     |

5 HP 04 Poles 60 Hz

**NEMA**  
**Premium**

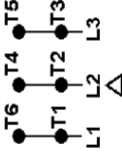
MADE IN MEXICO

**MAT:** 12674848 CC029A  
**W01.T00IC0X0N**  
**MODEL** 005180T3P184T-S  
**23MAR2022 S/N:**

|                          |               |                       |
|--------------------------|---------------|-----------------------|
| <b>PH</b> 3              | <b>Hz</b> 60  | <b>HP</b> 5.0         |
| <b>FR</b> 182/4T         |               | <b>KW</b> 3.7         |
| <b>DUTY</b> CONT.        |               | <b>V</b> 200          |
| <b>ALT</b> 1000 m.a.s.l. |               | <b>A</b> 14.6         |
| <b>INS</b> CL F AT 80K   |               | <b>SFA</b> 16.8       |
| <b>AMB</b> 40°C          | <b>DES</b> B  | <b>SF</b> 1.15        |
| <b>ENCL</b> ODP          | <b>CODE</b> J | <b>PF</b> 0.82        |
|                          |               | <b>RPM</b> 1760       |
|                          |               | <b>NEMA</b>           |
|                          |               | <b>NOM. EFF</b> 89.5% |

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

DE 6206-ZZ ODE 6205-ZZ MOBIL POLYREX EM



T1-BLU  
 T2-WHT  
 T3-ORG  
 T4-YEL  
 T5-BLK  
 T6-GRY

**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.

