

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

| | | | | |
|---|--|-----------|---------|----------|
| Customer : | | | | |
| Product line | : NEMA Premium Efficiency Three-Phase | | | |
| Product code : | 13248858 | | | |
| Catalog # : | 007180T3V213TC-SG | | | |
| Frame : 213/5TC Output : 7.5 HP (5.5 kW) Poles : 4 Frequency : 60 Hz Rated voltage : 200/400 V Rated current : 21.3/10.6 A L. R. Amperes : 153/76.6 A LRC : 7.2x(Code H) No load current : 10.1/5.05 A Rated speed : 1770 rpm Slip : 1.67 % Rated torque : 22.3 ft.lb Locked rotor torque : 240 % Breakdown torque : 320 % Insulation class : F Service factor : 1.15 Moment of inertia (J) : 1.03 sq.ft.lb Design : B | Locked rotor time : 23s (cold) 13s (hot) Temperature rise : 80 K Duty cycle : Cont.(S1) Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Cooling method : IC01 - ODP Mounting : F-1 Rotation ¹ : Both (CW and CCW) Noise level ² : 59.0 dB(A) Starting method : Direct On Line Approx. weight ³ : 125 lb | | | |
| Output | 25% 50% 75% 100% | | | |
| Efficiency (%) | 88.6 89.5 90.2 91.0 | | | |
| Power Factor | 0.39 0.65 0.77 0.82 | | | |
| Foundation loads | Max. traction : 339 lb Max. compression : 464 lb | | | |
| Bearing type | : <u>Drive end</u> 6208 ZZ <u>Non drive end</u> 6206 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. (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 | Revision |
| Date | 13/04/2022 | | 1 / 6 | |

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



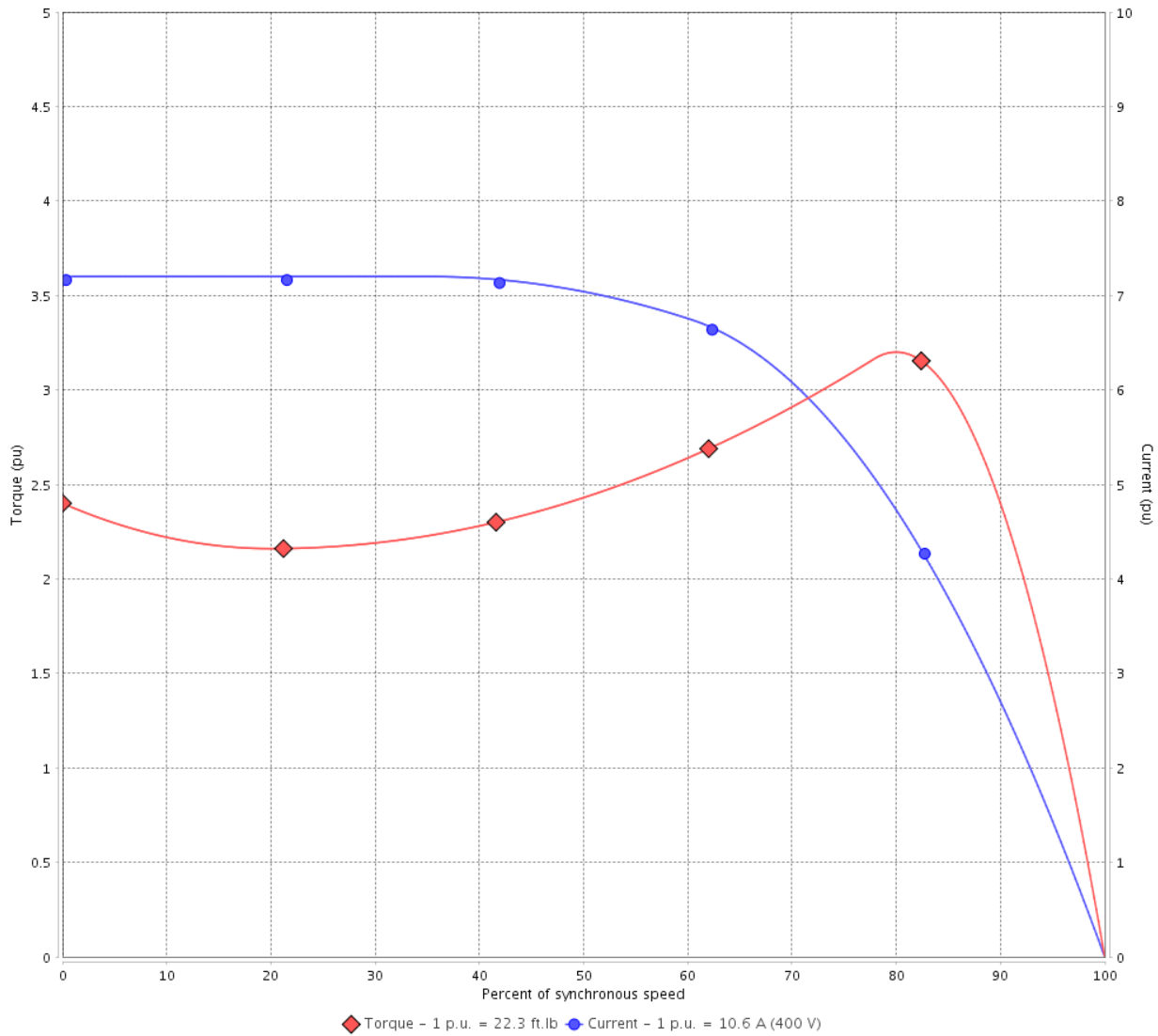
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13248858

Catalog # : 007180T3V213TC-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 200/400 V 60 Hz 4P

| | | | |
|---------------------|---------------|-----------------------|-----------------|
| Rated current | : 21.3/10.6 A | Moment of inertia (J) | : 1.03 sq.ft.lb |
| LRC | : 7.2 | Duty cycle | : Cont.(S1) |
| Rated torque | : 22.3 ft.lb | Insulation class | : F |
| Locked rotor torque | : 240 % | Service factor | : 1.15 |
| Breakdown torque | : 320 % | Temperature rise | : 80 K |
| Rated speed | : 1770 rpm | Design | : B |

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

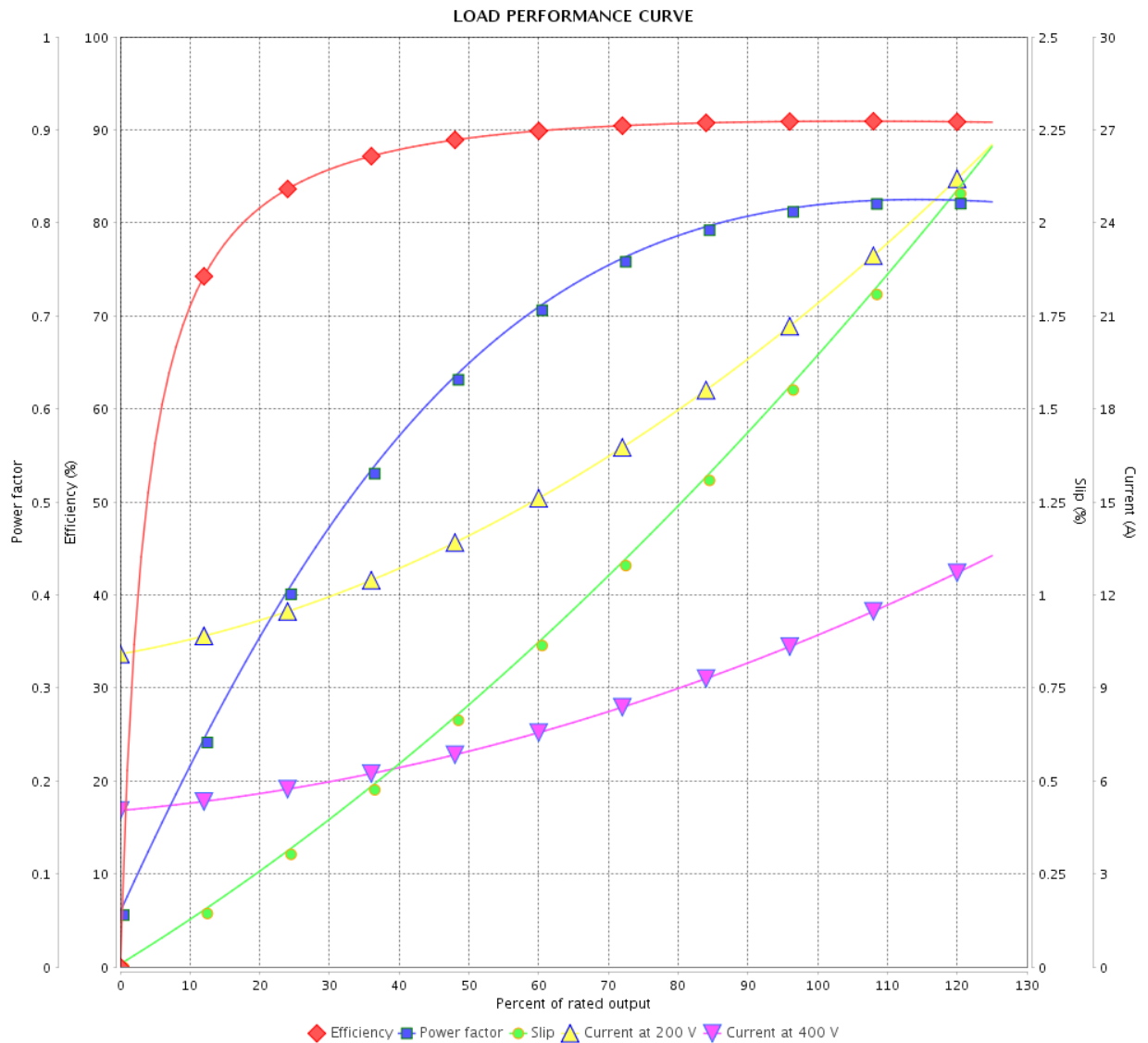


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13248858

Catalog # : 007180T3V213TC-SG



Performance : 200/400 V 60 Hz 4P

Rated current : 21.3/10.6 A
 LRC : 7.2
 Rated torque : 22.3 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 320 %
 Rated speed : 1770 rpm

Moment of inertia (J) : 1.03 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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| Date | | 13/04/2022 | | |

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 13248858
Catalog # : 00718OT3V213TC-SG

Performance : 200/400 V 60 Hz 4P

| | | | |
|---------------------|---------------|-----------------------|-----------------|
| Rated current | : 21.3/10.6 A | Moment of inertia (J) | : 1.03 sq.ft.lb |
| LRC | : 7.2 | Duty cycle | : Cont.(S1) |
| Rated torque | : 22.3 ft.lb | Insulation class | : F |
| Locked rotor torque | : 240 % | Service factor | : 1.15 |
| Breakdown torque | : 320 % | Temperature rise | : 80 K |
| Rated speed | : 1770 rpm | Design | : B |

Heating constant

Cooling constant

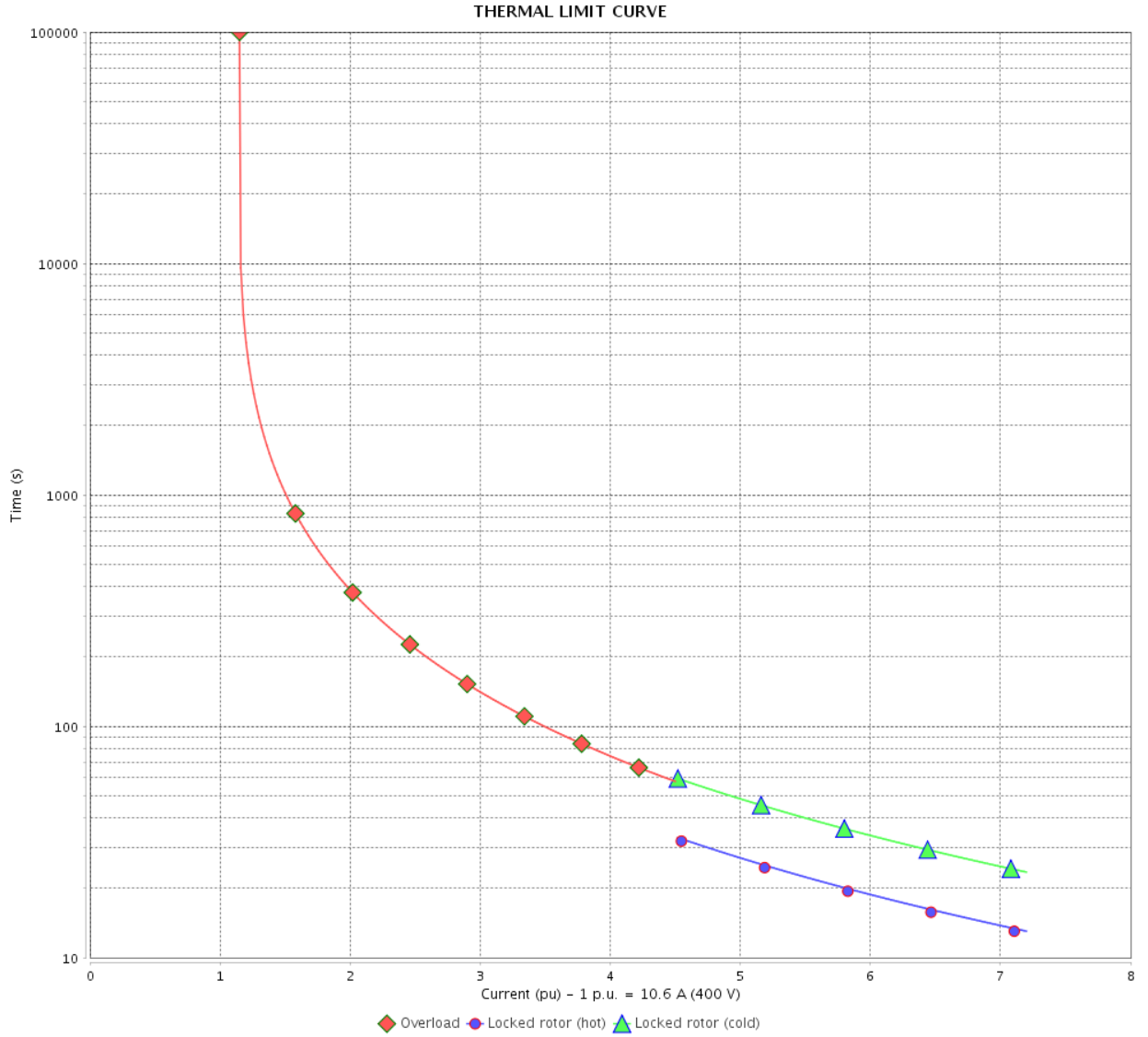
| Rev. | Changes Summary | Performed | Checked | Date |
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



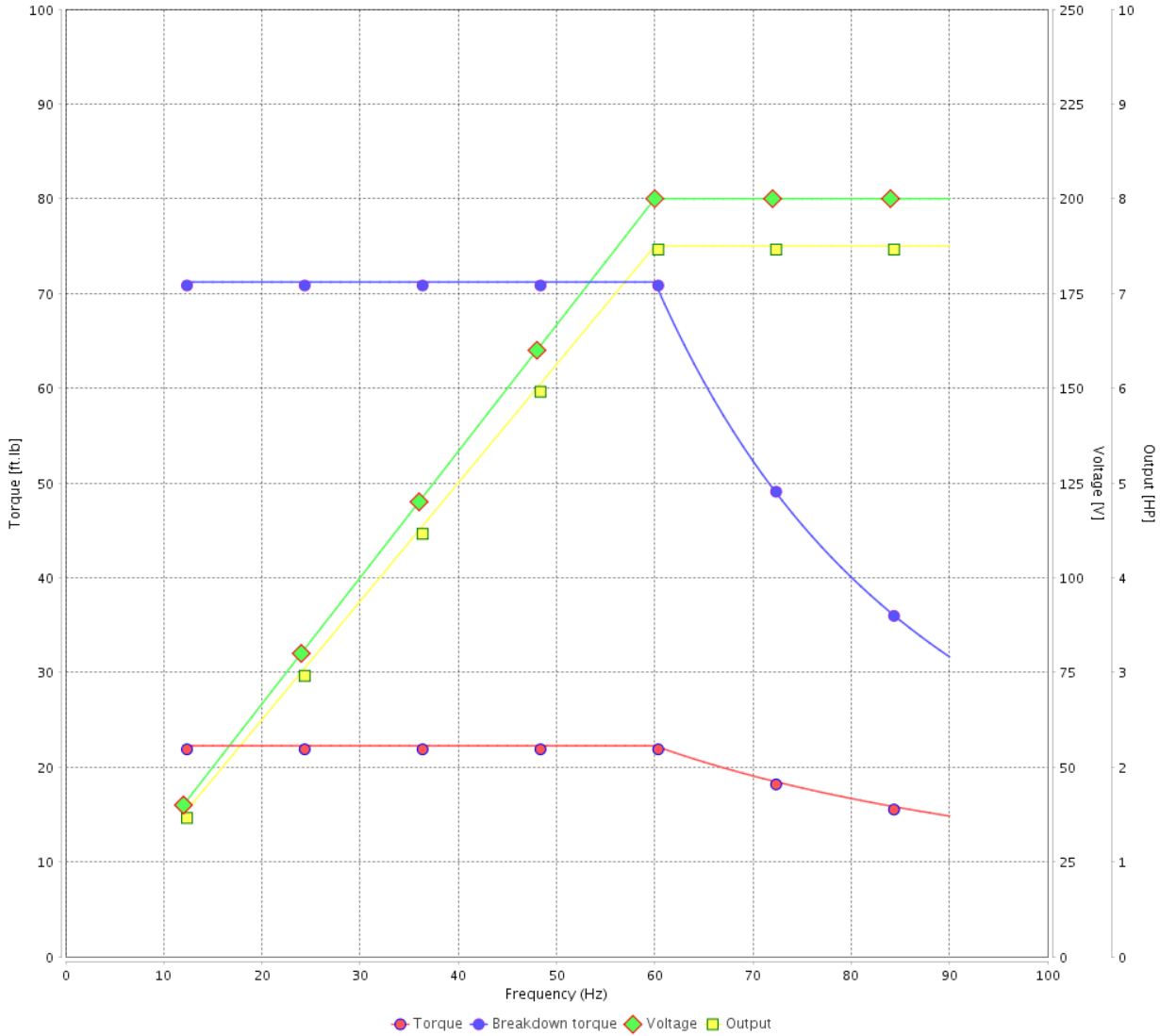
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13248858

Catalog # : 007180T3V213TC-SG

VFD OPERATION CURVE



Performance : 200/400 V 60 Hz 4P

Rated current : 21.3/10.6 A
 LRC : 7.2
 Rated torque : 22.3 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 320 %
 Rated speed : 1770 rpm

Moment of inertia (J) : 1.03 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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1 2 3 4 5 6

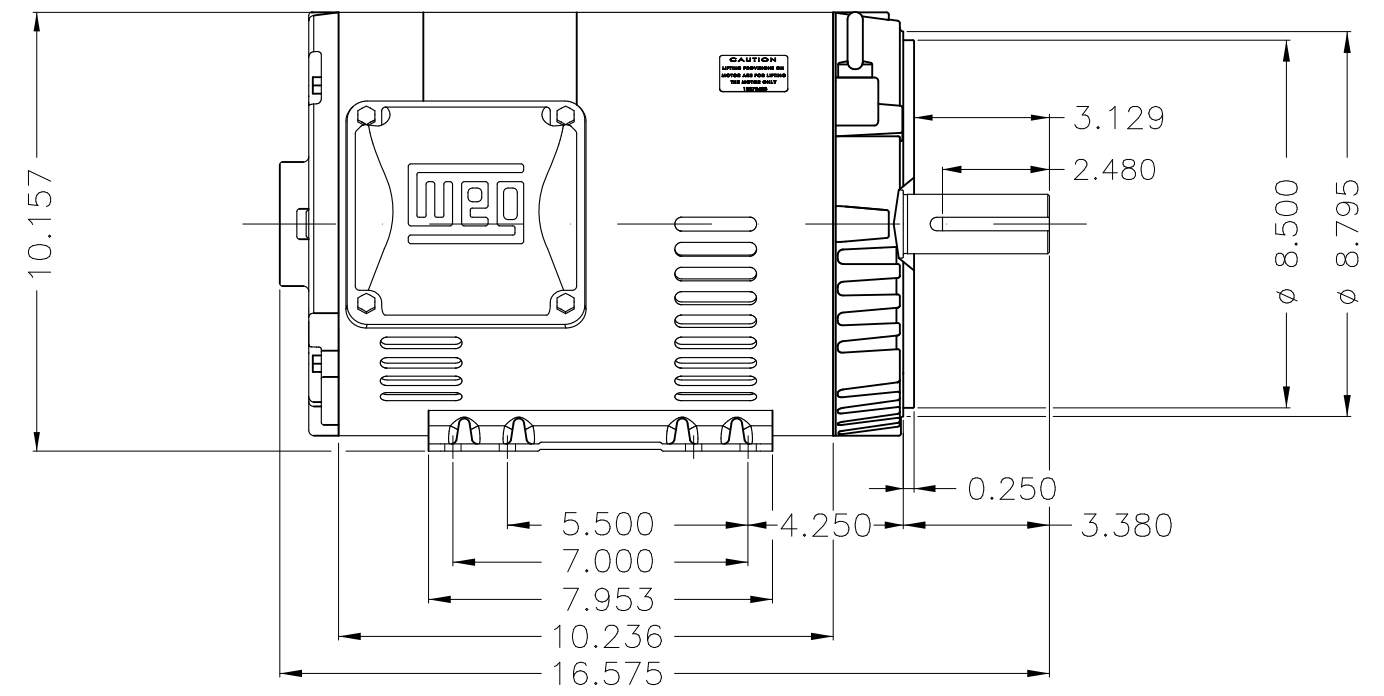
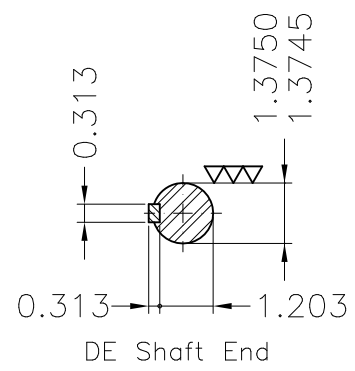
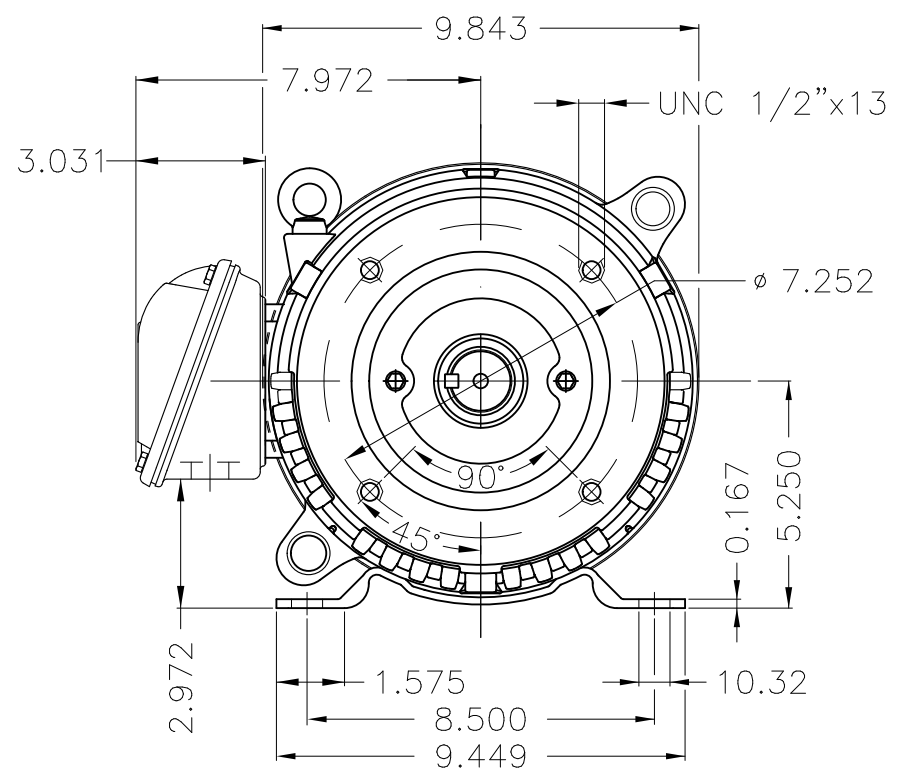
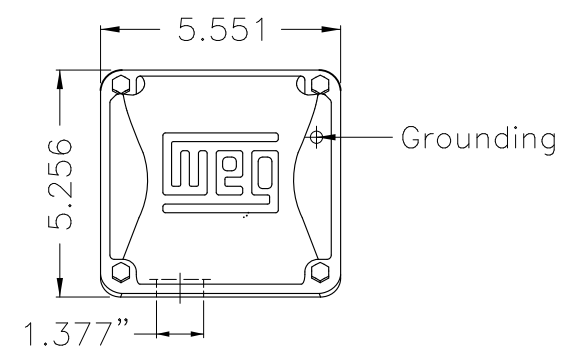
A

B

C

D

E



Internal AEGIS ground ring on the DE
 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. | | | | | |
| CHECKED | | FRAME 213/5TC IP21 ODP | | | | | |
| RELEASED | | | | | | | |
| REL DT. | WMO | Jaragua do Sul | Product Engineering | SHEET | 1 / 1 | | |

7.5 HP 04 Poles 60 Hz

A

PREVIEW
WDD





NEMA
Premium



MADE IN MEXICO

MAT: 13248858 CC029A

W01.T00IC0X0N

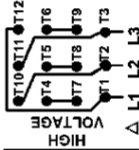
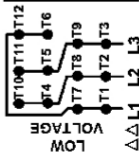
MODEL 007180T3V213TC-SG

24NOV2021 S/N:

| | | |
|--------------------------|---------------|--------------------------------|
| PH 3 | Hz 60 | HP 7.5 |
| FR 213/5TC | | KW 5.5 |
| DUTY CONT. | | V 200/400 |
| ALT 1000 m.a.s.l. | | A 21.3/10.6 |
| INS CL F AT 80K | | SFA 24.5/12.2 |
| AMB 40°C | DES B | SF 1.15 |
| ENCL ODP | CODE H | PF 0.82 |
| | | RPM 1770 |
| | | NEMA NOM. EFF 91.0% |

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

| | | |
|-------------------|--------------------|-------------------------|
| DE 6208-ZZ | ODE 6206-ZZ | MOBIL POLYREX EM |
|-------------------|--------------------|-------------------------|



T1-BLU T2-WHT
 T3-ORG T4-YEL
 T5-BLK T6-GRY
 T7-PNK T8-RED
 T9-BRK RED
 T10-CURRY
 T11-GRN T12-VLT

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.

