

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

| | | | | | | | | | | | | | | | | | | | |
|---|--|----------------------|------------------|----------------------|----------------|---------|---------|-----------|--------|--------|------------------------|---------|---------|--------------------|------|------|------------------|------------------|--|
| Customer : | | | | | | | | | | | | | | | | | | | |
| Product line | : NEMA Premium Efficiency Three-Phase | | | | | | | | | | | | | | | | | | |
| Product code : | 12807287 | | | | | | | | | | | | | | | | | | |
| Catalog # : | 04018ET3V324T-W22G | | | | | | | | | | | | | | | | | | |
| Frame : 324/6T Output : 40 HP (30 kW) Poles : 4 Frequency : 60 Hz Rated voltage : 200/400 V Rated current : 108/54.2 A L. R. Amperes : 661/330 A LRC : 6.1x(Code G) No load current : 39.1/19.6 A Rated speed : 1770 rpm Slip : 1.67 % Rated torque : 119 ft.lb Locked rotor torque : 229 % Breakdown torque : 240 % Insulation class : F Service factor : 1.25 Moment of inertia (J) : 9.16 sq.ft.lb Design : B | Locked rotor time : 36s (cold) 20s (hot) Temperature rise : 80 K Duty cycle : Cont.(S1) Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP55 Cooling method : IC411 - TEFC Mounting : F-1 Rotation ¹ : Both (CW and CCW) Noise level ² : 66.0 dB(A) Starting method : Direct On Line Approx. weight ³ : 574 lb | | | | | | | | | | | | | | | | | | |
| Output | 25% 50% 75% 100% | | | | | | | | | | | | | | | | | | |
| Efficiency (%) | 93.4 93.6 94.1 94.1 | | | | | | | | | | | | | | | | | | |
| Power Factor | 0.46 0.72 0.80 0.85 | | | | | | | | | | | | | | | | | | |
| Foundation loads | | | | | | | | | | | | | | | | | | | |
| Max. traction : 806 lb | | | | | | | | | | | | | | | | | | | |
| Max. compression : 1380 lb | | | | | | | | | | | | | | | | | | | |
| | <table border="0"> <tr> <td></td> <td style="text-align: center;"><u>Drive end</u></td> <td style="text-align: center;"><u>Non drive end</u></td> </tr> <tr> <td>Bearing type :</td> <td style="text-align: center;">6312 C3</td> <td style="text-align: center;">6212 C3</td> </tr> <tr> <td>Sealing :</td> <td style="text-align: center;">V'Ring</td> <td style="text-align: center;">V'Ring</td> </tr> <tr> <td>Lubrication interval :</td> <td style="text-align: center;">20000 h</td> <td style="text-align: center;">20000 h</td> </tr> <tr> <td>Lubricant amount :</td> <td style="text-align: center;">21 g</td> <td style="text-align: center;">13 g</td> </tr> <tr> <td>Lubricant type :</td> <td colspan="2" style="text-align: center;">Mobil Polyrex EM</td> </tr> </table> | | <u>Drive end</u> | <u>Non drive end</u> | Bearing type : | 6312 C3 | 6212 C3 | Sealing : | V'Ring | V'Ring | Lubrication interval : | 20000 h | 20000 h | Lubricant amount : | 21 g | 13 g | Lubricant type : | Mobil Polyrex EM | |
| | <u>Drive end</u> | <u>Non drive end</u> | | | | | | | | | | | | | | | | | |
| Bearing type : | 6312 C3 | 6212 C3 | | | | | | | | | | | | | | | | | |
| Sealing : | V'Ring | V'Ring | | | | | | | | | | | | | | | | | |
| Lubrication interval : | 20000 h | 20000 h | | | | | | | | | | | | | | | | | |
| Lubricant amount : | 21 g | 13 g | | | | | | | | | | | | | | | | | |
| 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 | 12/04/2022 | | 1 / 6 | | | | | | | | | | | | | | | | |

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



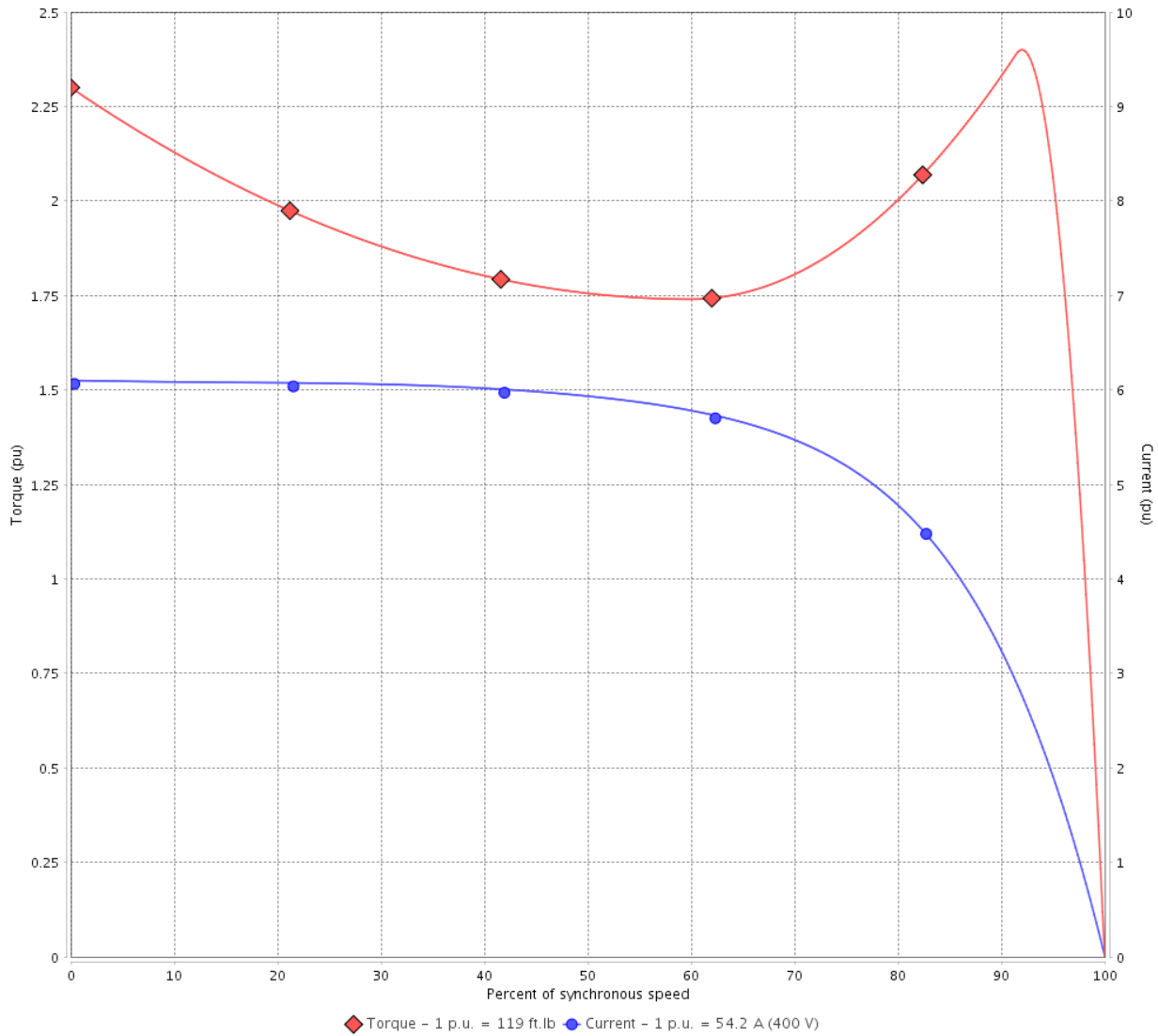
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12807287

Catalog # : 04018ET3V324T-W22G

TORQUE AND CURRENT VS SPEED CURVE



Performance : 200/400 V 60 Hz 4P

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 108/54.2 A | Moment of inertia (J) | : 9.16 sq.ft.lb |
| LRC | : 6.1 | Duty cycle | : Cont.(S1) |
| Rated torque | : 119 ft.lb | Insulation class | : F |
| Locked rotor torque | : 229 % | Service factor | : 1.25 |
| Breakdown torque | : 240 % | Temperature rise | : 80 K |
| Rated speed | : 1770 rpm | Design | : B |

Locked rotor time : 36s (cold) 20s (hot)

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

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

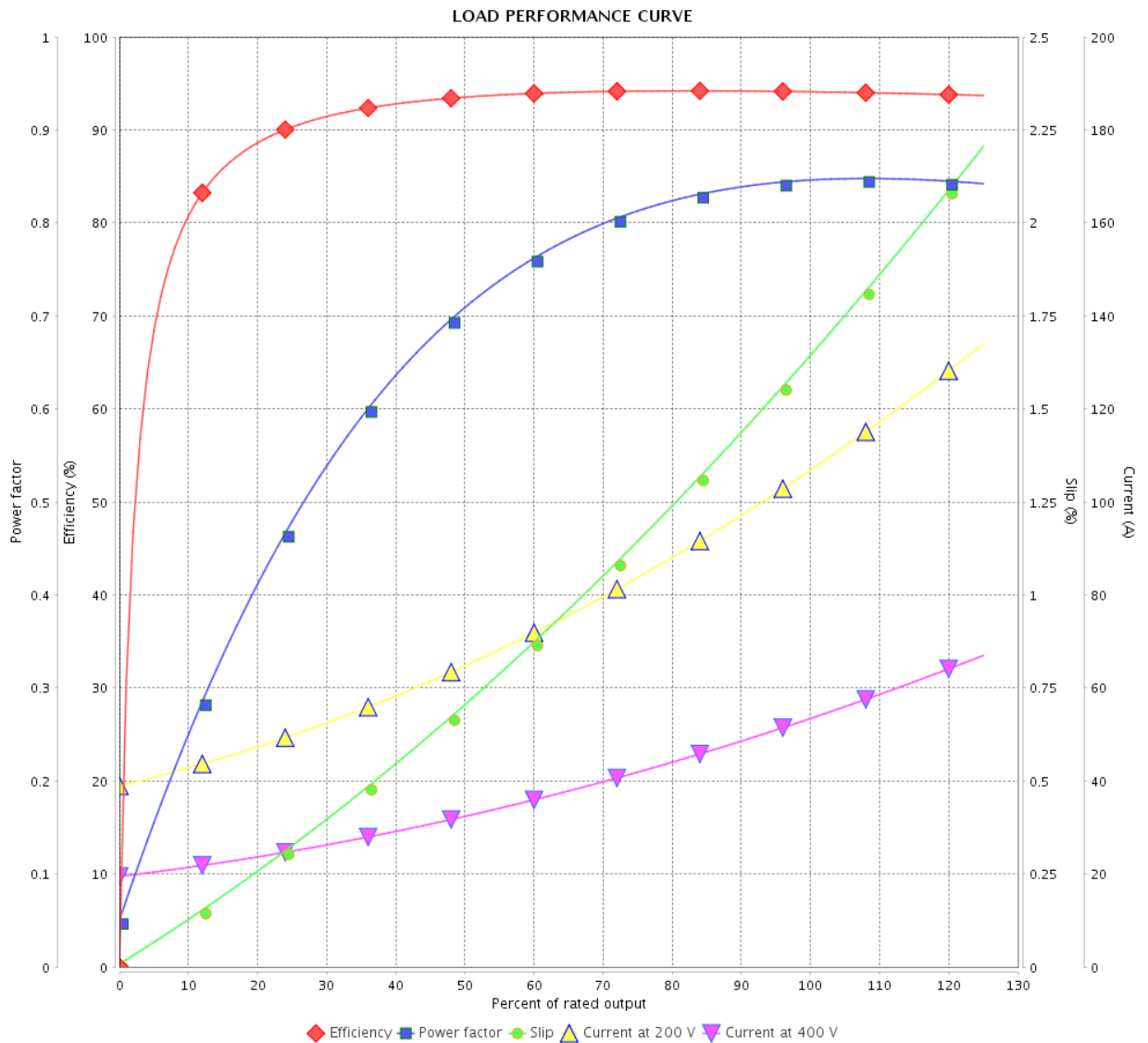


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12807287

Catalog # : 04018ET3V324T-W22G



Performance : 200/400 V 60 Hz 4P

Rated current : 108/54.2 A
 LRC : 6.1
 Rated torque : 119 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 240 %
 Rated speed : 1770 rpm

Moment of inertia (J) : 9.16 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 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 : 12807287
 Catalog # : 04018ET3V324T-W22G

Performance : 200/400 V 60 Hz 4P

| | |
|-----------------------------|---------------------------------------|
| Rated current : 108/54.2 A | Moment of inertia (J) : 9.16 sq.ft.lb |
| LRC : 6.1 | Duty cycle : Cont.(S1) |
| Rated torque : 119 ft.lb | Insulation class : F |
| Locked rotor torque : 229 % | Service factor : 1.25 |
| Breakdown torque : 240 % | Temperature rise : 80 K |
| Rated speed : 1770 rpm | Design : B |

Heating constant

Cooling constant

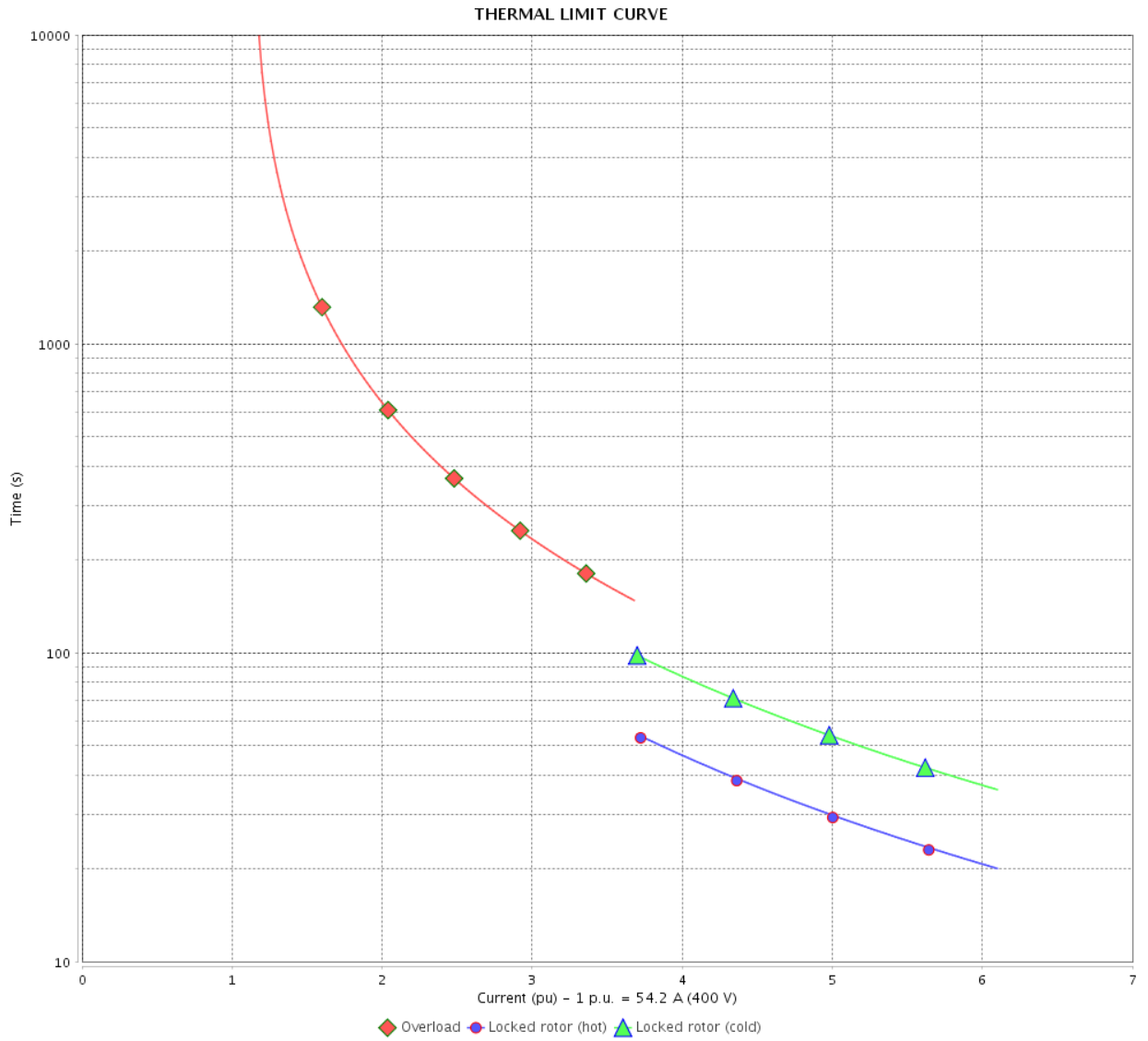
| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| | | | | |
| Performed by | | | Page | Revision |
| Checked by | | | | |
| Date | 12/04/2022 | | | |

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

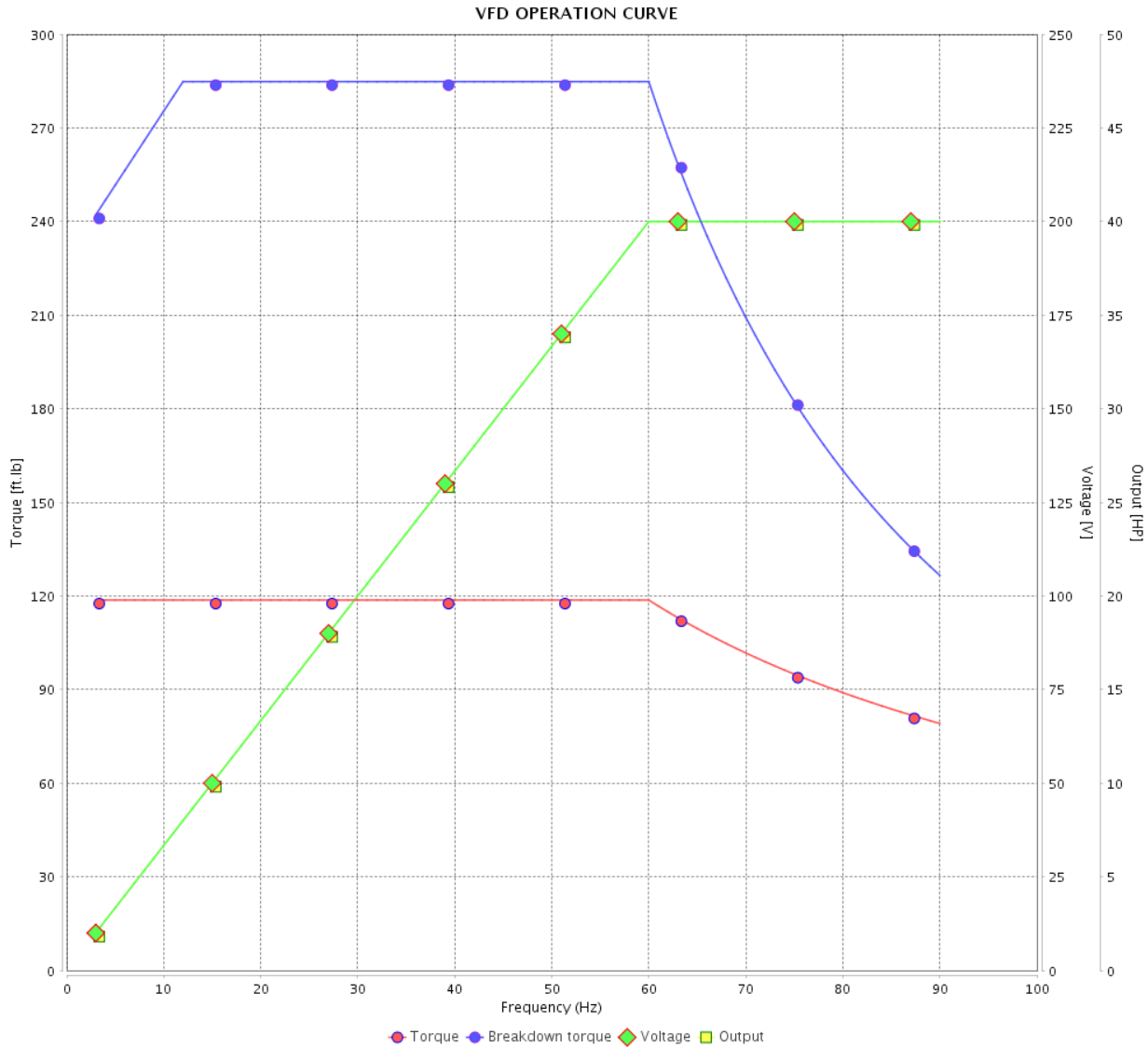


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12807287

Catalog # : 04018ET3V324T-W22G



Performance : 200/400 V 60 Hz 4P

Rated current : 108/54.2 A
 LRC : 6.1
 Rated torque : 119 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 240 %
 Rated speed : 1770 rpm

Moment of inertia (J) : 9.16 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

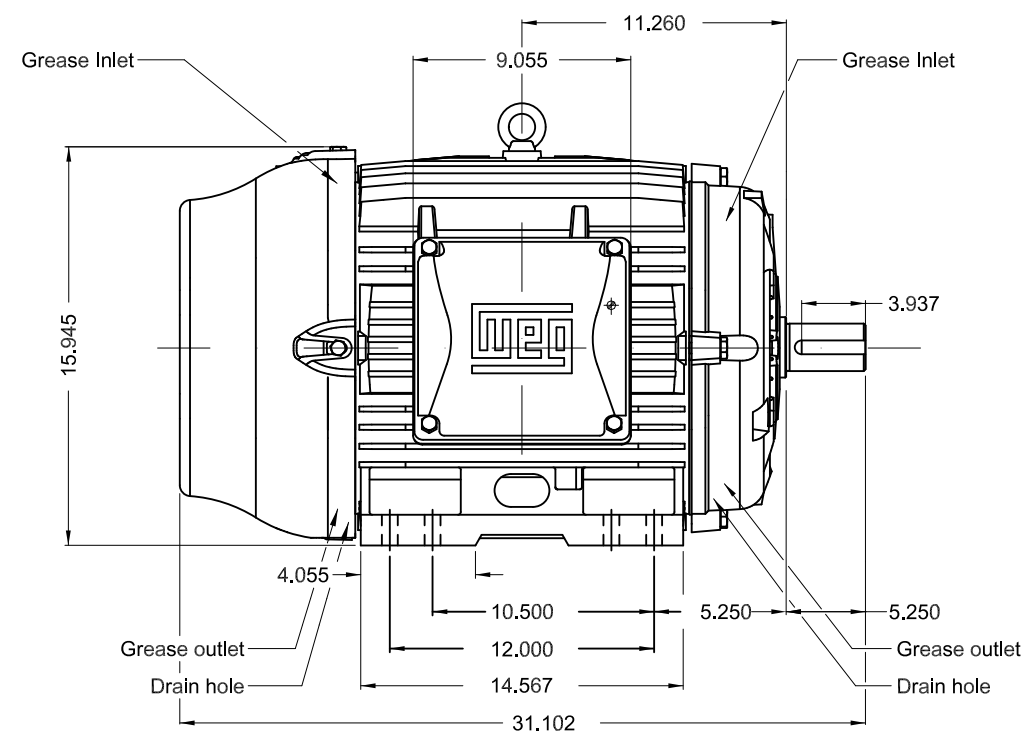
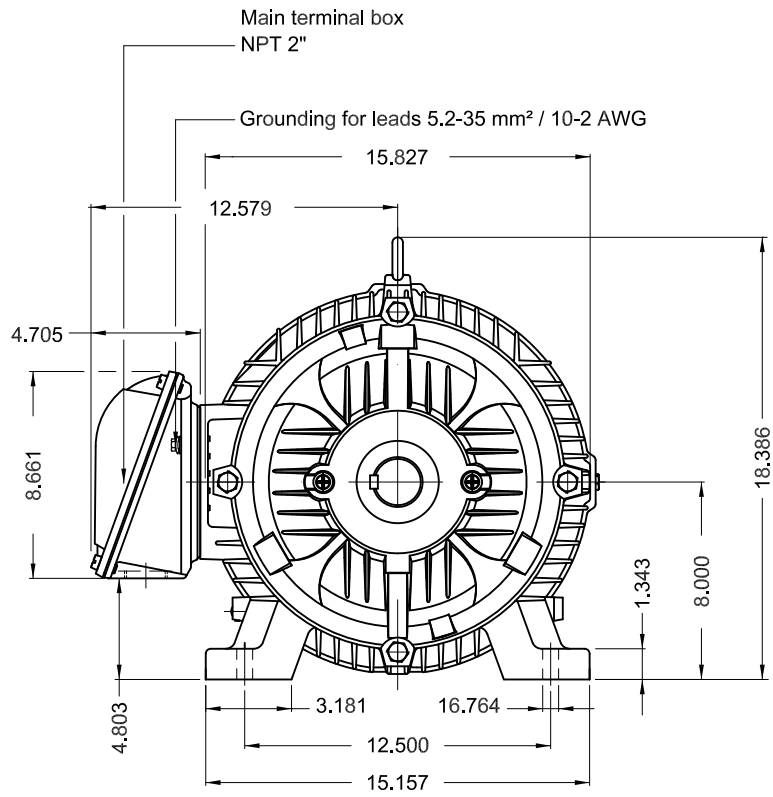
| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------------|----------|
| | | | | |
| Performed by | | | Page 6 / 6 | Revision |
| Checked by | | | | |
| Date | 12/04/2022 | | | |

1 2 3 4 5 6

A

B

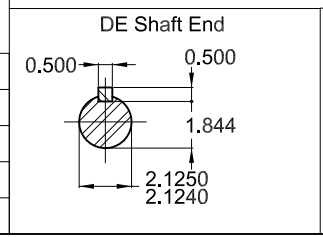
C



D

E

| |
|--------------------------------------|
| Internal AEGIS ground ring on the DE |
| Color RAL 5009 |
| Painting plan 203A |
| Mounting NEMA F-1 |
| Mounting B3R(D) |



40 HP 04 Poles 60 Hz A

| ECM | LOC | SUMMARY OF MODIFICATIONS | EXECUTED | CHECKED | RELEASED | DATE | VER |
|----------|-----------|--------------------------------|---------------------|---------|----------|------|-----|
| EXECUTED | PIRWBUSER | THREE PH. MOTOR W22 PREM. EFF. | | | | | |
| CHECKED | | FRAME 324/6T IP55 TEFC | | | | | |
| RELEASED | | | | | | | |
| REL DT. | WMO | Jaragua do Sul | Product Engineering | | | | |

PREVIEW
WDD



SHEET 1 / 1

Dimensions in inches XME A3



MODEL 04018ET3V324T-W22G

Inverter Duty Motor
Severe Duty



Mod.TE1BFOXON
CC029A

For use on PWM: VT 1000:1, CT 20:1,
1.00SF

MADE IN BRAZIL
12807287

PH3 60Hz Fr. 324/6T 1000m.a.s.l. IP55 TEFC 564lb

V 200/400

A 108/54.2

HP 40

kW 30

SF 1.25

SFA 135/67.8

RPM 1775

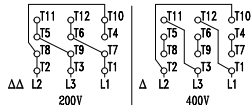
PF 0.85

AMB 40°C

INS cl. F DT80K NEMA NOM EFF 94.1%

DUTY CONT.

DES B Code G



→ 6312-C3 (21g)

→ 6212-C3 (13g)



MOBIL POLYREX EM (20000h)

