

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

| | | | | | | | | | | | | | | | | | | | |
|---|---|----------------------|------------------|----------------------|----------------|---------|---------|-----------|--------|--------|------------------------|---------|---------|--------------------|------|-----|------------------|------------------|--|
| Customer : | | | | | | | | | | | | | | | | | | | |
| Product line | : NEMA Premium Efficiency Three-Phase | | | | | | | | | | | | | | | | | | |
| Product code : | 12447059 | | | | | | | | | | | | | | | | | | |
| Catalog # : | 01518ET3P254T-W22 | | | | | | | | | | | | | | | | | | |
| Frame : 254/6T Output : 15 HP (11 kW) Poles : 4 Frequency : 60 Hz Rated voltage : 200 V Rated current : 41.4 A L. R. Amperes : 265 A LRC : 6.4x(Code G) No load current : 16.6 A Rated speed : 1770 rpm Slip : 1.67 % Rated torque : 44.5 ft.lb Locked rotor torque : 220 % Breakdown torque : 260 % Insulation class : F Service factor : 1.25 Moment of inertia (J) : 2.62 sq.ft.lb Design : B | Locked rotor time : 55s (cold) 31s (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 : 64.0 dB(A) Starting method : Direct On Line Approx. weight ³ : 312 lb | | | | | | | | | | | | | | | | | | |
| Output | 25% 50% 75% 100% | | | | | | | | | | | | | | | | | | |
| Efficiency (%) | 90.2 91.0 91.7 92.4 | | | | | | | | | | | | | | | | | | |
| Power Factor | 0.43 0.68 0.78 0.83 | | | | | | | | | | | | | | | | | | |
| Foundation loads | | | | | | | | | | | | | | | | | | | |
| Max. traction : 399 lb | | | | | | | | | | | | | | | | | | | |
| Max. compression : 711 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>6309 C3</td> <td>6209 C3</td> </tr> <tr> <td>Sealing :</td> <td>V'Ring</td> <td>V'Ring</td> </tr> <tr> <td>Lubrication interval :</td> <td>20000 h</td> <td>20000 h</td> </tr> <tr> <td>Lubricant amount :</td> <td>13 g</td> <td>9 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 : | 6309 C3 | 6209 C3 | Sealing : | V'Ring | V'Ring | Lubrication interval : | 20000 h | 20000 h | Lubricant amount : | 13 g | 9 g | Lubricant type : | Mobil Polyrex EM | |
| | <u>Drive end</u> | <u>Non drive end</u> | | | | | | | | | | | | | | | | | |
| Bearing type : | 6309 C3 | 6209 C3 | | | | | | | | | | | | | | | | | |
| Sealing : | V'Ring | V'Ring | | | | | | | | | | | | | | | | | |
| Lubrication interval : | 20000 h | 20000 h | | | | | | | | | | | | | | | | | |
| Lubricant amount : | 13 g | 9 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 | 13/04/2022 | | 1 / 6 | | | | | | | | | | | | | | | | |

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



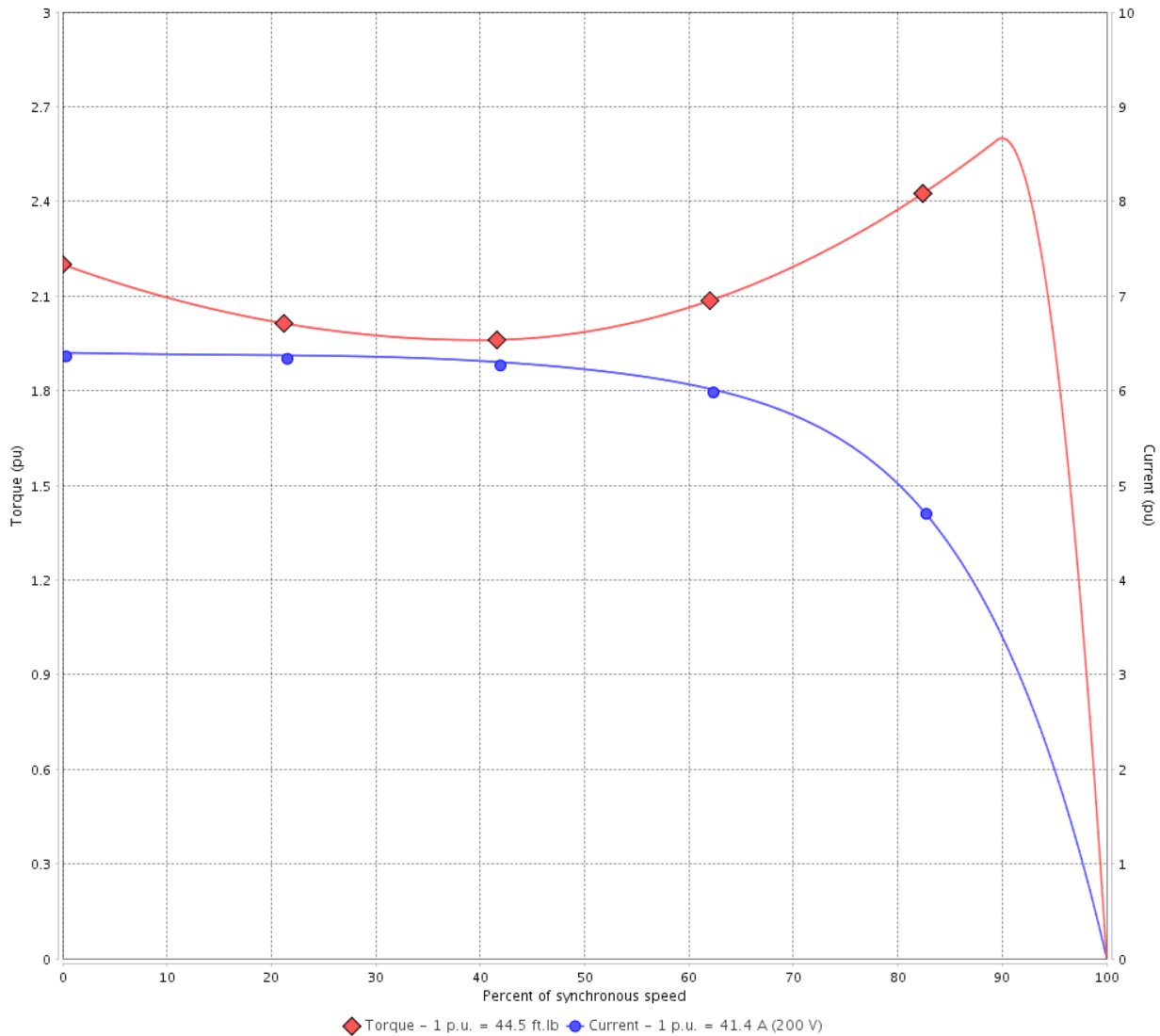
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12447059

Catalog # : 01518ET3P254T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 200 V 60 Hz 4P

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 41.4 A | Moment of inertia (J) | : 2.62 sq.ft.lb |
| LRC | : 6.4 | Duty cycle | : Cont.(S1) |
| Rated torque | : 44.5 ft.lb | Insulation class | : F |
| Locked rotor torque | : 220 % | Service factor | : 1.25 |
| Breakdown torque | : 260 % | Temperature rise | : 80 K |
| Rated speed | : 1770 rpm | Design | : B |

Locked rotor time : 55s (cold) 31s (hot)

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------------|----------|
| | | | | |
| Performed by | | | Page 2 / 6 | Revision |
| Checked by | | | | |
| Date | 13/04/2022 | | | |

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

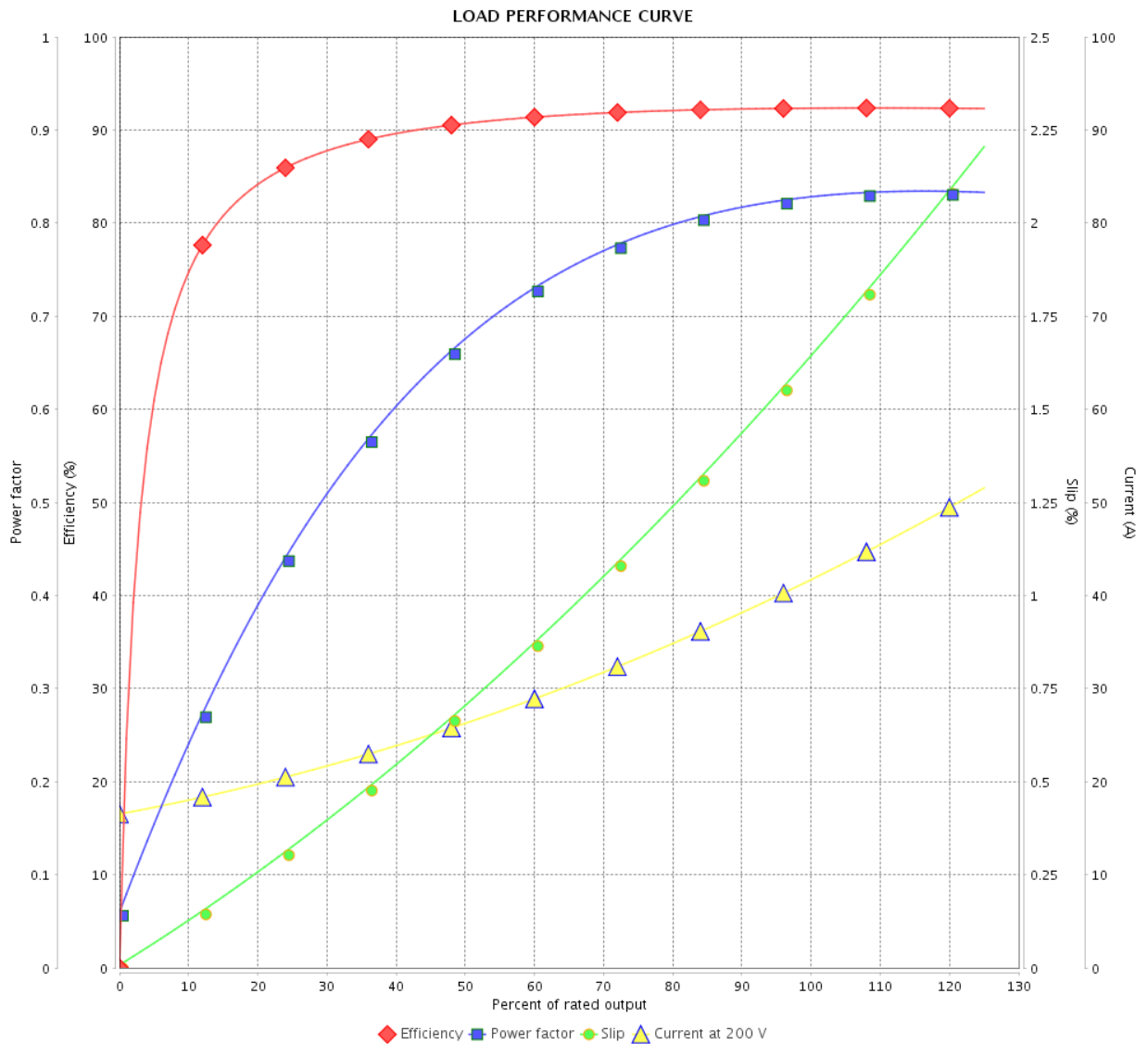


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12447059

Catalog # : 01518ET3P254T-W22



Performance : 200 V 60 Hz 4P

Rated current : 41.4 A
 LRC : 6.4
 Rated torque : 44.5 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 260 %
 Rated speed : 1770 rpm

Moment of inertia (J) : 2.62 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 | | 13/04/2022 | | |

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 12447059
Catalog # : 01518ET3P254T-W22

Performance : 200 V 60 Hz 4P

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 41.4 A | Moment of inertia (J) | : 2.62 sq.ft.lb |
| LRC | : 6.4 | Duty cycle | : Cont.(S1) |
| Rated torque | : 44.5 ft.lb | Insulation class | : F |
| Locked rotor torque | : 220 % | Service factor | : 1.25 |
| Breakdown torque | : 260 % | Temperature rise | : 80 K |
| Rated speed | : 1770 rpm | Design | : B |

Heating constant

Cooling constant

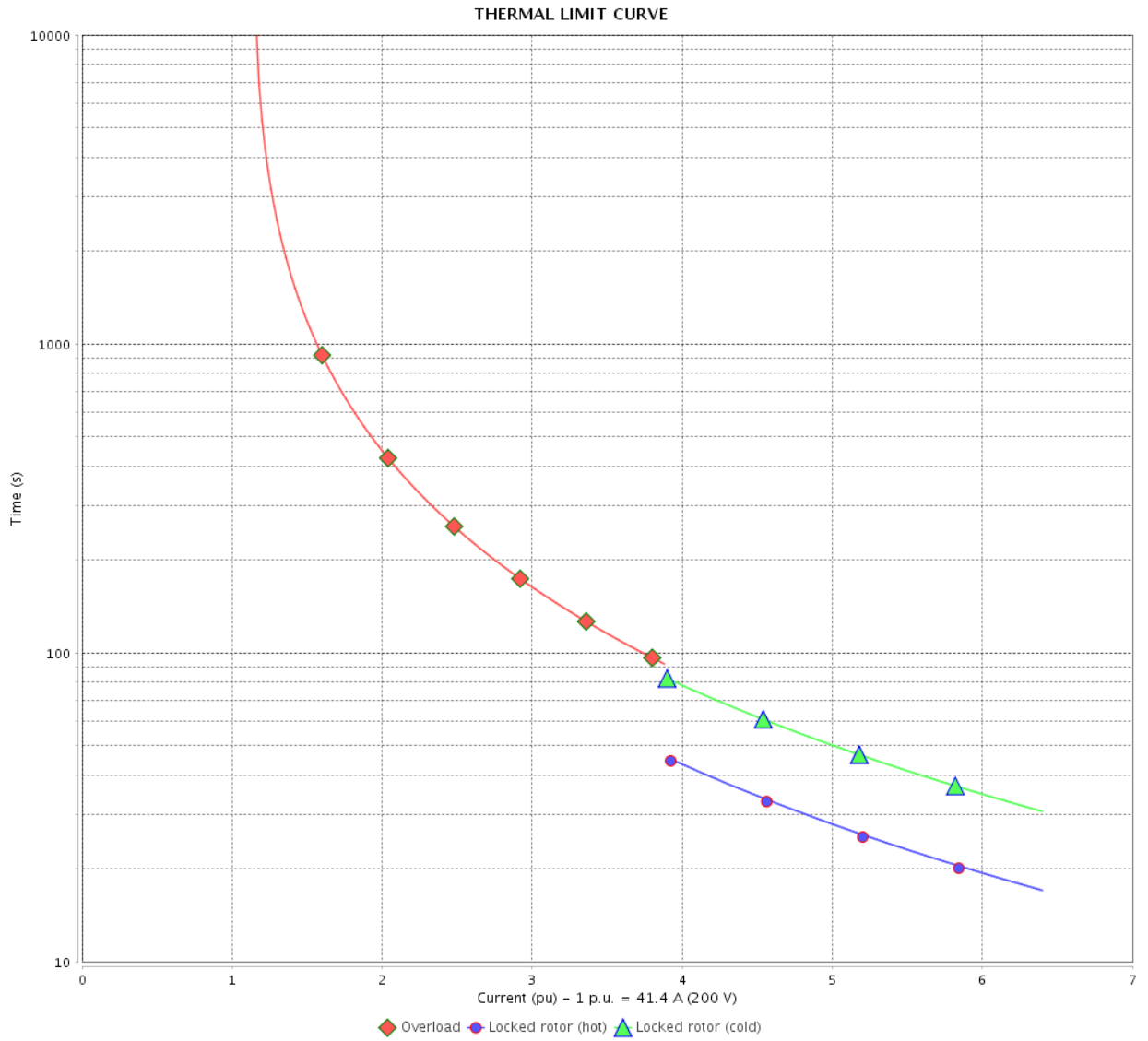
| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| | | | | |
| Performed by | | | | |
| Checked by | | | Page | Revision |
| Date | 13/04/2022 | | 4 / 6 | |

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



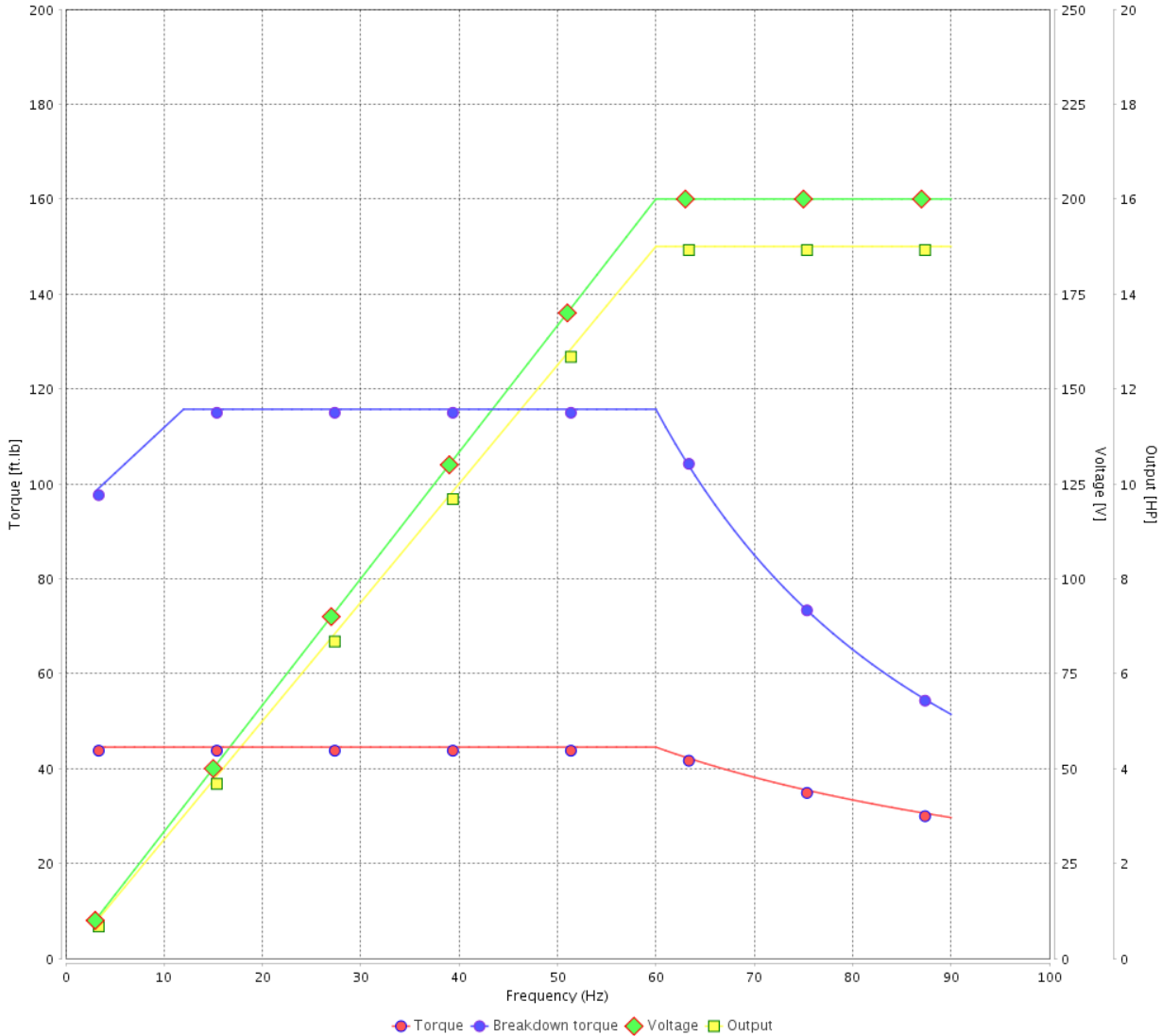
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12447059

Catalog # : 01518ET3P254T-W22

VFD OPERATION CURVE



Performance : 200 V 60 Hz 4P

Rated current : 41.4 A
 LRC : 6.4
 Rated torque : 44.5 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 260 %
 Rated speed : 1770 rpm

Moment of inertia (J) : 2.62 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

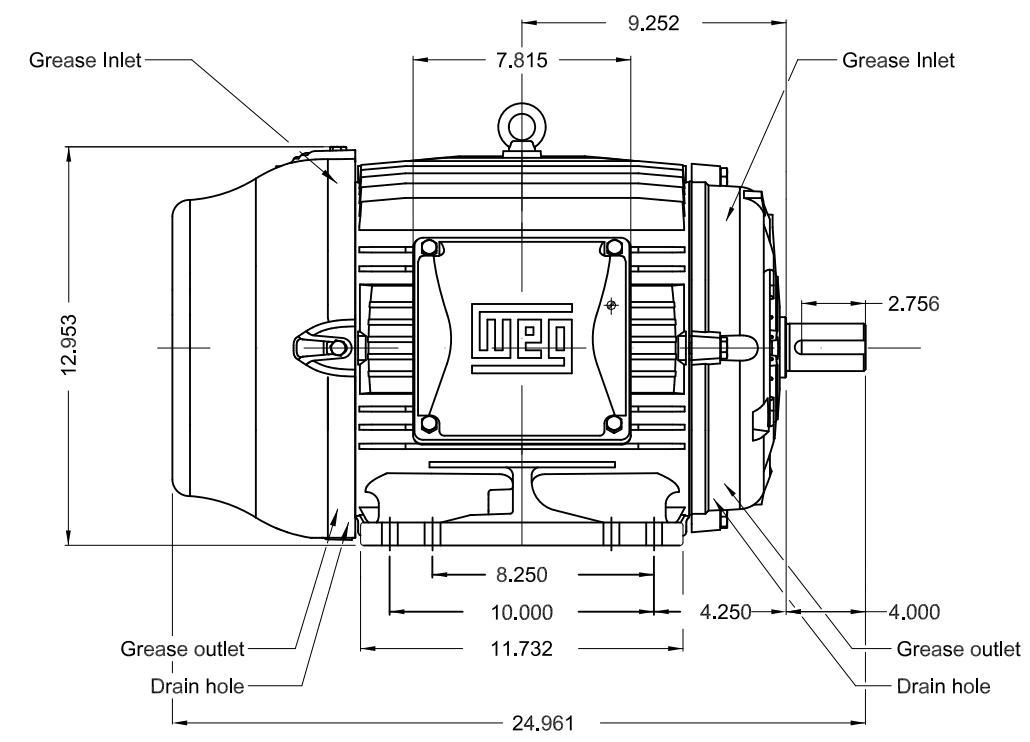
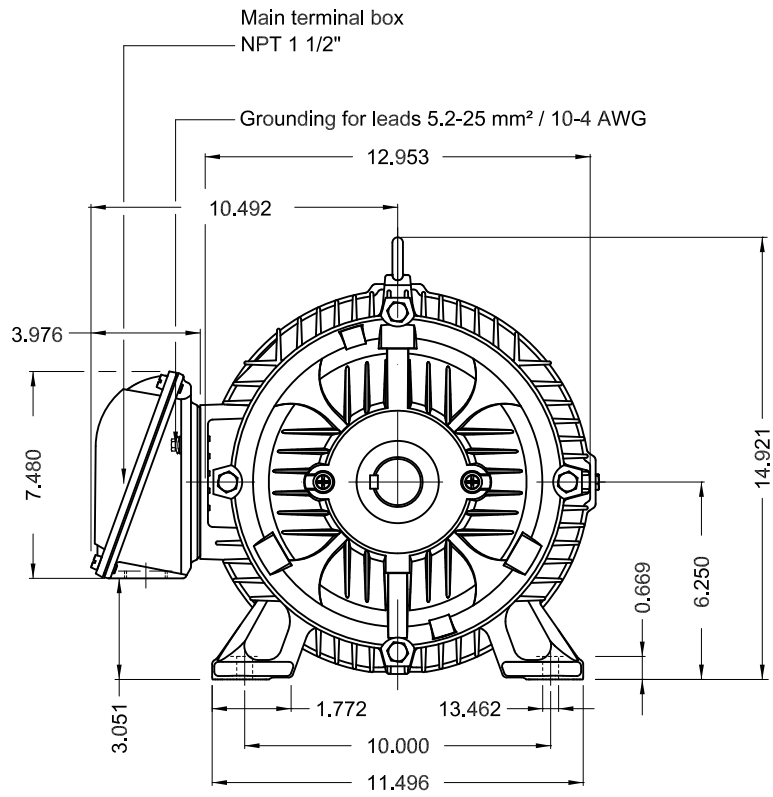
| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------------|----------|
| | | | | |
| Performed by | | | Page 6 / 6 | Revision |
| Checked by | | | | |
| Date | 13/04/2022 | | | |

1 2 3 4 5 6

A

B

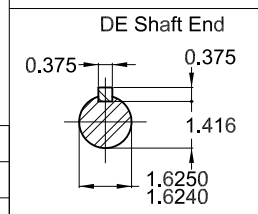
C



D

E

Color RAL 5009
 Painting plan 203A
 Mounting B3R(D)



15 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 254/6T IP55 TEFC | | | | | |
| RELEASED | | | | | | | |
| REL DT. | WMO | Jaragua do Sul | Product Engineering | SHEET | 1 / 1 | | |

PREVIEW
 WDD





NEMA
Premium
W22



FOR SAFE AREA
Mod.TE1BFOXON
CC029A



Class I, Div 2, Gr A, B, C and D - T3
Class I, Zone 2, IIC - T3
Class II, Div 2, Gr F and G - T4
For use on PWM: Gr. A, B, C, D and F,
VT 1000:1, CT 20:1, 1.00SF - T3A

MODEL 01518ET3P254T-W22

Inverter Duty Motor
Severe Duty

PH3 60Hz Fr. 254/6T 1000m.a.s.l. IP55 TEFC 314lb

V 200

A 41.4

HP 15

kW 11

SF 1.25

SFA 51.8

RPM 1770

PF 0.83

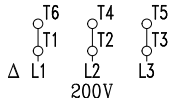
AMB 40°C

INS cl. F DT80K

NEMA NOM EFF 92.4%

DUTY CONT.

DES B Code G

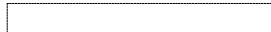


→ 6309-C3 (13g)

→ 6209-C3 (9g)



MOBIL POLYREX EM (20000h)



MADE IN MEXICO
12447059