

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer : _____

Product line : W40 NEMA Premium Efficiency Three-Phase Product code : 14272542
 Catalog # : 15018OT3H444TC-W40

| | |
|---------------------------------------|---|
| Frame : 444/5TC | Locked rotor time : 39s (cold) 22s (hot) |
| Output : 150 HP (110 kW) | Temperature rise : 80 K |
| Poles : 4 | Duty cycle : Cont.(S1) |
| Frequency : 60 Hz | Ambient temperature : -20°C to +40°C |
| Rated voltage : 575 V | Altitude : 1000 m.a.s.l. |
| Rated current : 136 A | Protection degree : IP23 |
| L. R. Amperes : 884 A | Cooling method : IC01 - ODP |
| LRC : 6.5x(Code G) | Mounting : F-1 |
| No load current : 46.4 A | Rotation ¹ : Both (CW and CCW) |
| Rated speed : 1784 rpm | Noise level ² : 78.0 dB(A) |
| Slip : 0.89 % | Starting method : Direct On Line |
| Rated torque : 442 ft.lb | Approx. weight ³ : 1429 lb |
| Locked rotor torque : 200 % | |
| Breakdown torque : 240 % | |
| Insulation class : F | |
| Service factor : 1.25 | |
| Moment of inertia (J) : 42.1 sq.ft.lb | |
| Design : B | |

| | | | | | |
|----------------|------|------|------|------|----------------------------|
| Output | 25% | 50% | 75% | 100% | Foundation loads |
| Efficiency (%) | 95.3 | 95.4 | 95.8 | 95.8 | Max. traction : 2110 lb |
| Power Factor | 0.49 | 0.74 | 0.82 | 0.85 | Max. compression : 3539 lb |

| | | |
|------------------------|----------------------|----------------------|
| | <u>Drive end</u> | <u>Non drive end</u> |
| Bearing type : | 6319 C3 | 6314 C3 |
| Sealing : | Without Bearing Seal | Without Bearing Seal |
| Lubrication interval : | 20000 h | 20000 h |
| Lubricant amount : | 45 g | 27 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 | | Page | | Revision |
| Checked by | | 1 / 6 | | |
| Date | 13/04/2022 | | | |

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



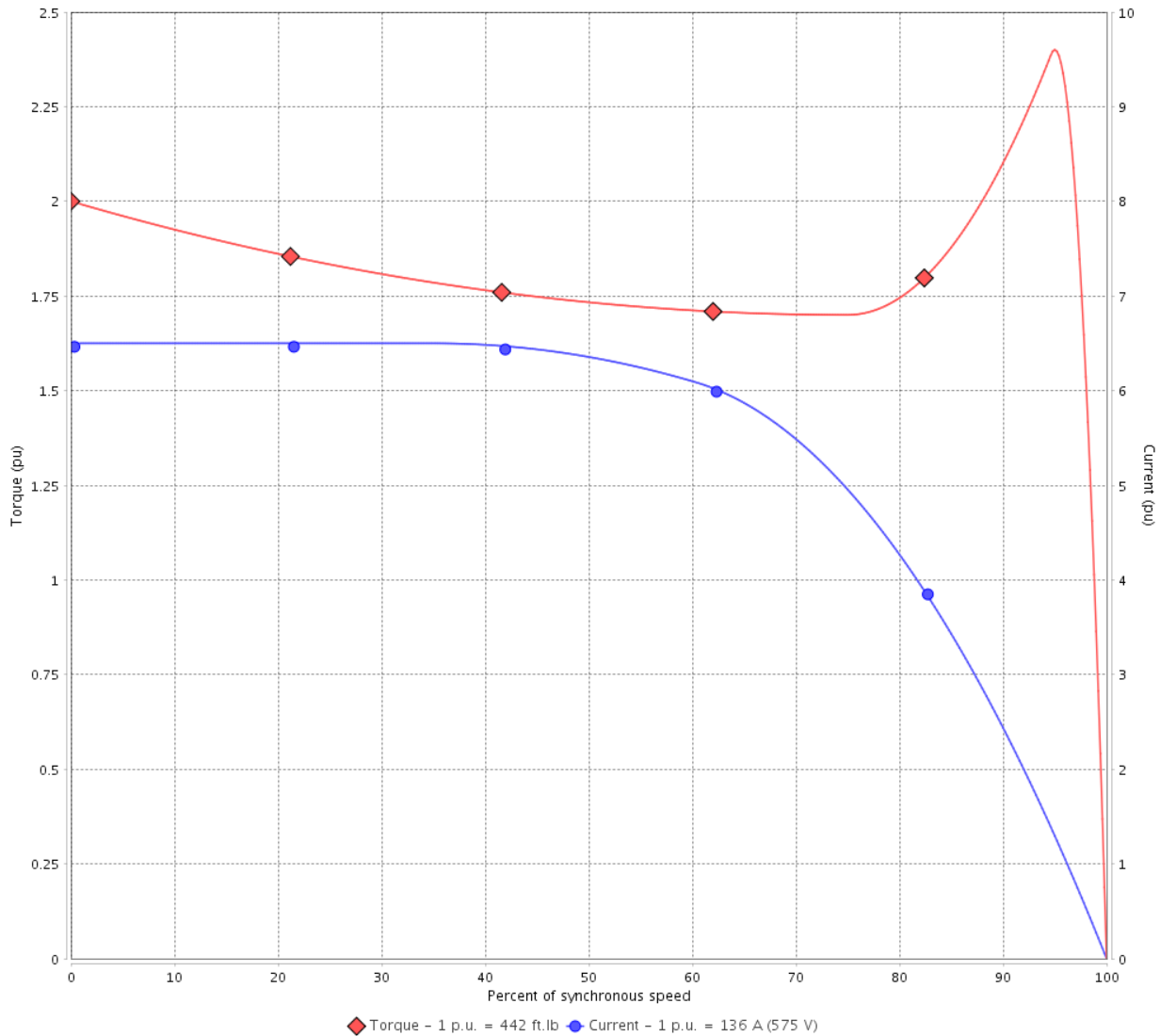
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272542

Catalog # : 15018OT3H444TC-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 4P

| | | | |
|---------------------|-------------|-----------------------|-----------------|
| Rated current | : 136 A | Moment of inertia (J) | : 42.1 sq.ft.lb |
| LRC | : 6.5 | Duty cycle | : Cont.(S1) |
| Rated torque | : 442 ft.lb | Insulation class | : F |
| Locked rotor torque | : 200 % | Service factor | : 1.25 |
| Breakdown torque | : 240 % | Temperature rise | : 80 K |
| Rated speed | : 1784 rpm | Design | : B |

Locked rotor time : 39s (cold) 22s (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

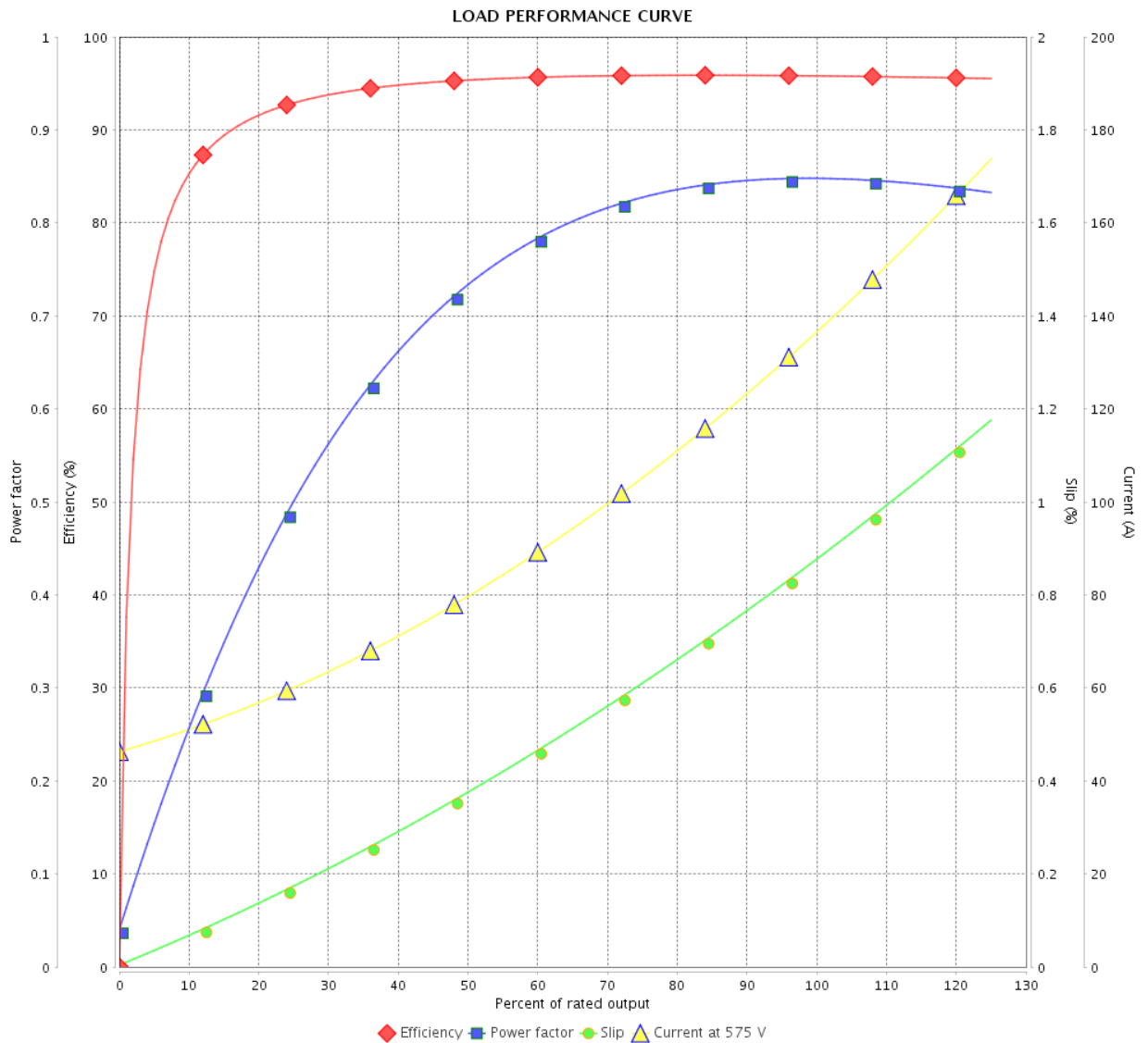


Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14272542

Catalog # : 15018OT3H444TC-W40



Performance : 575 V 60 Hz 4P

Rated current : 136 A
 LRC : 6.5
 Rated torque : 442 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 240 %
 Rated speed : 1784 rpm

Moment of inertia (J) : 42.1 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 | | | | |
| Date | | | | |
| | | | 3 / 6 | |

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272542

Catalog # : 15018OT3H444TC-W40

Performance : 575 V 60 Hz 4P

| | | | |
|---------------------|-------------|-----------------------|-----------------|
| Rated current | : 136 A | Moment of inertia (J) | : 42.1 sq.ft.lb |
| LRC | : 6.5 | Duty cycle | : Cont.(S1) |
| Rated torque | : 442 ft.lb | Insulation class | : F |
| Locked rotor torque | : 200 % | Service factor | : 1.25 |
| Breakdown torque | : 240 % | Temperature rise | : 80 K |
| Rated speed | : 1784 rpm | Design | : B |

Heating constant

Cooling constant

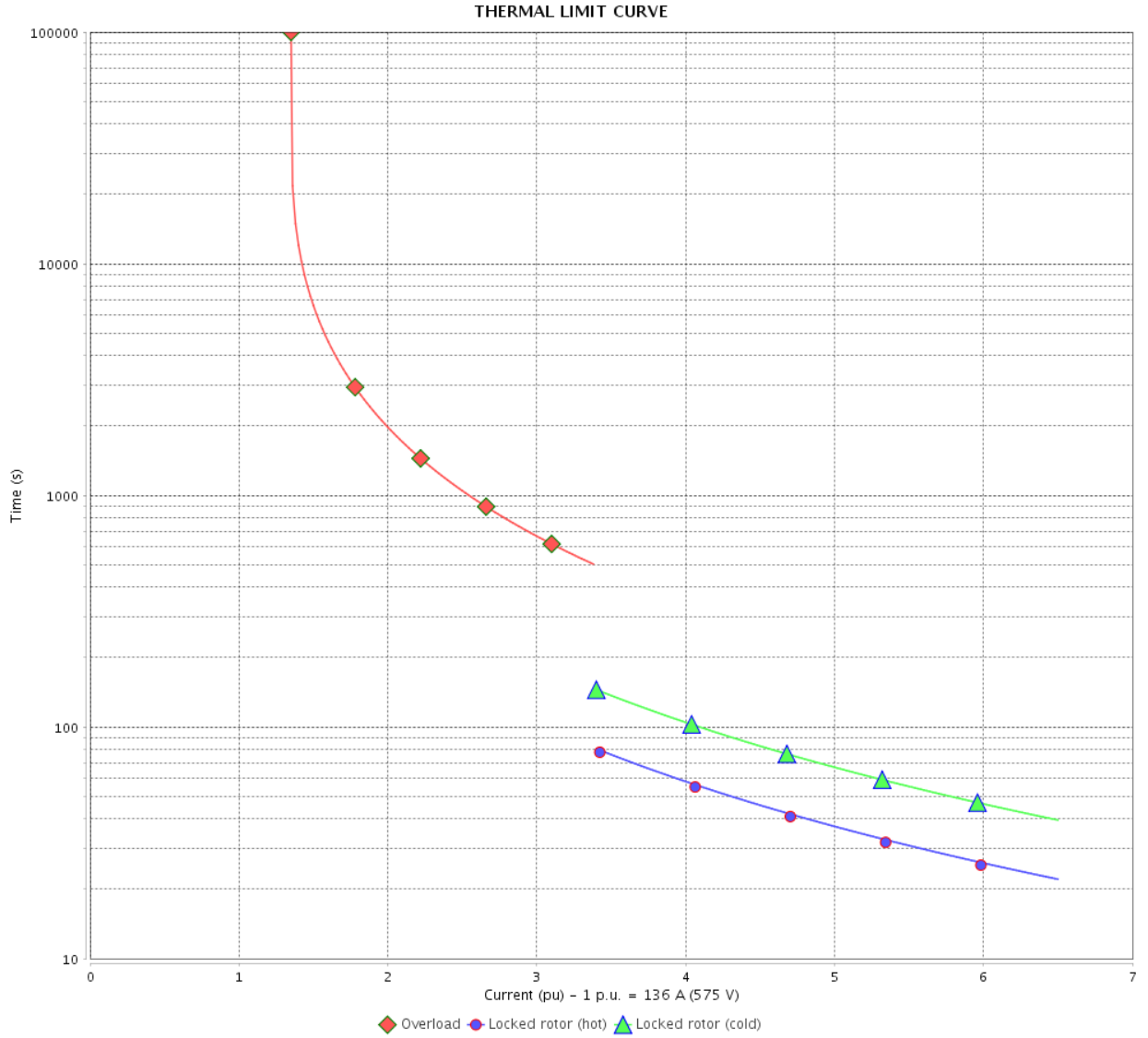
| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| Performed by | | | | |
| Checked by | | | Page | Revision |
| Date | 13/04/2022 | | 4 / 6 | |

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



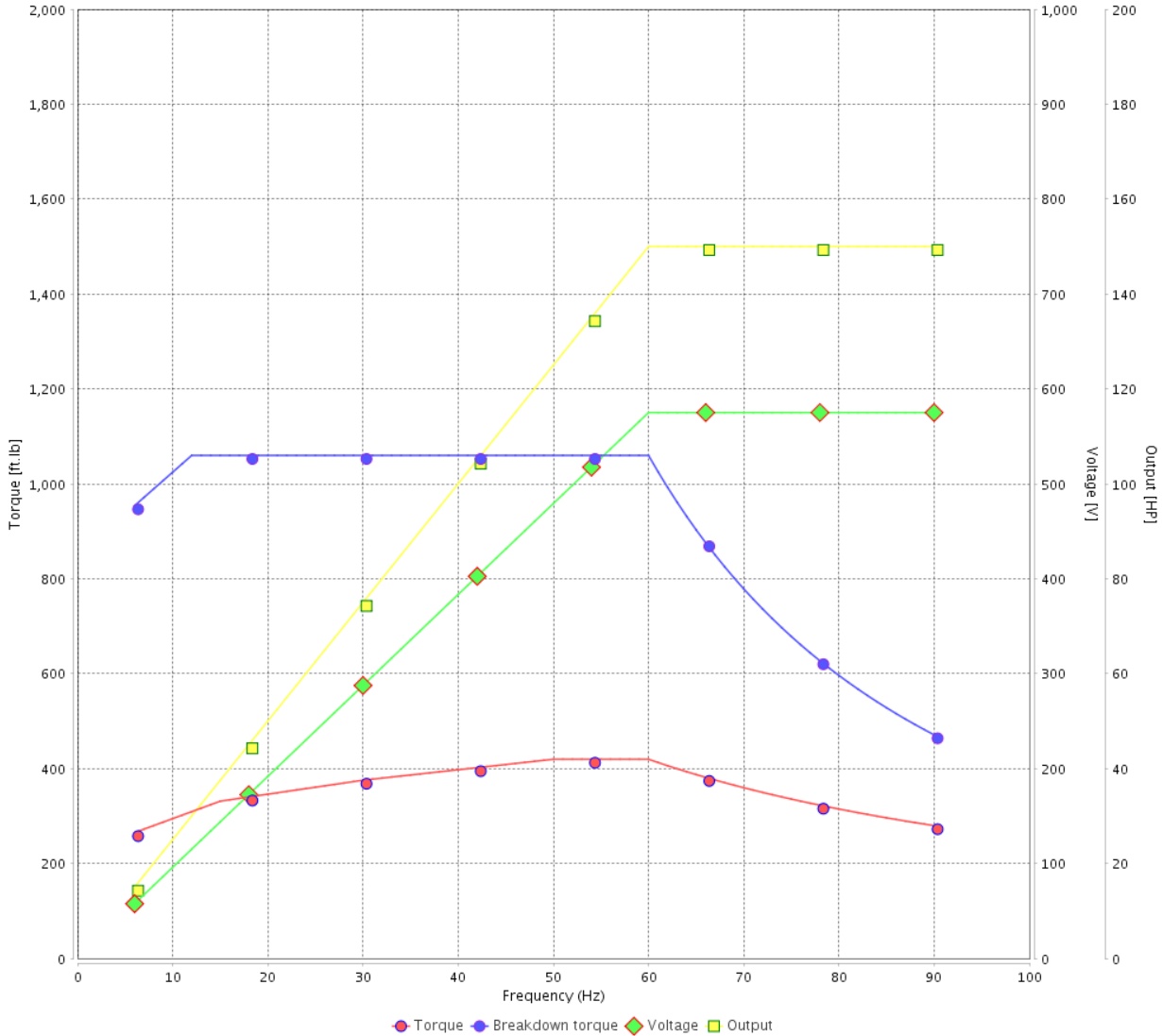
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272542

Catalog # : 15018OT3H444TC-W40

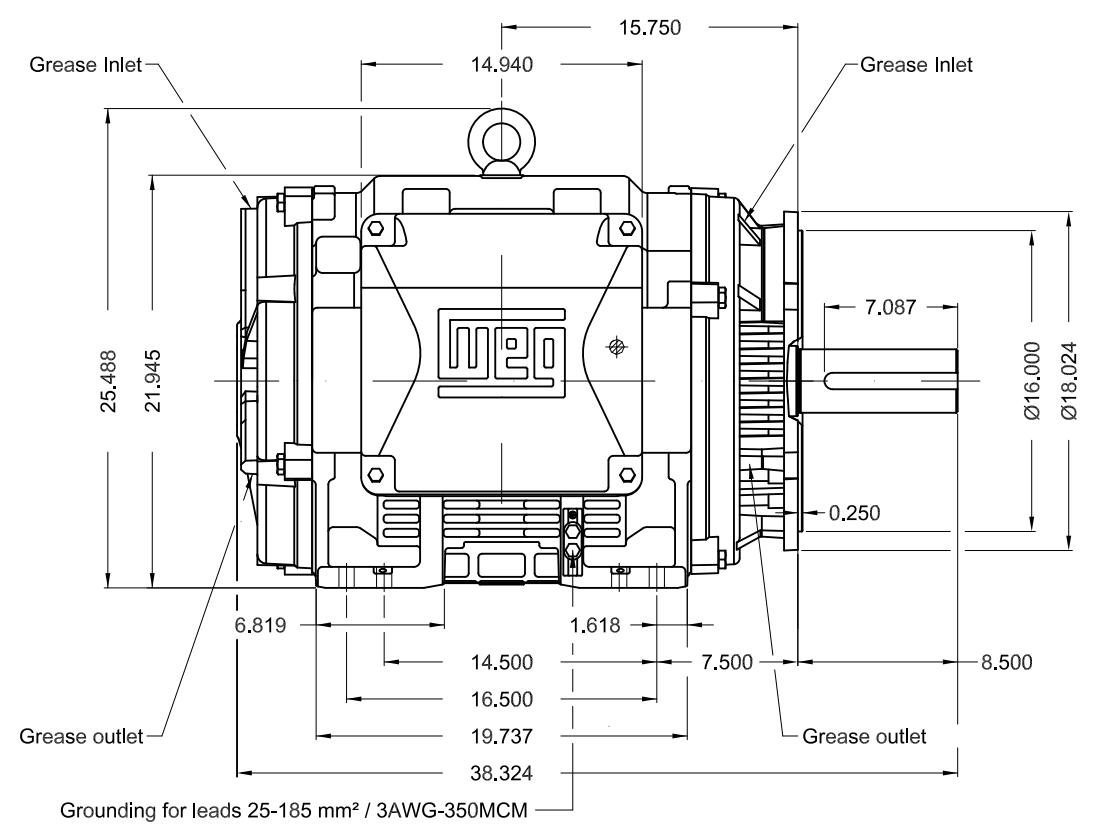
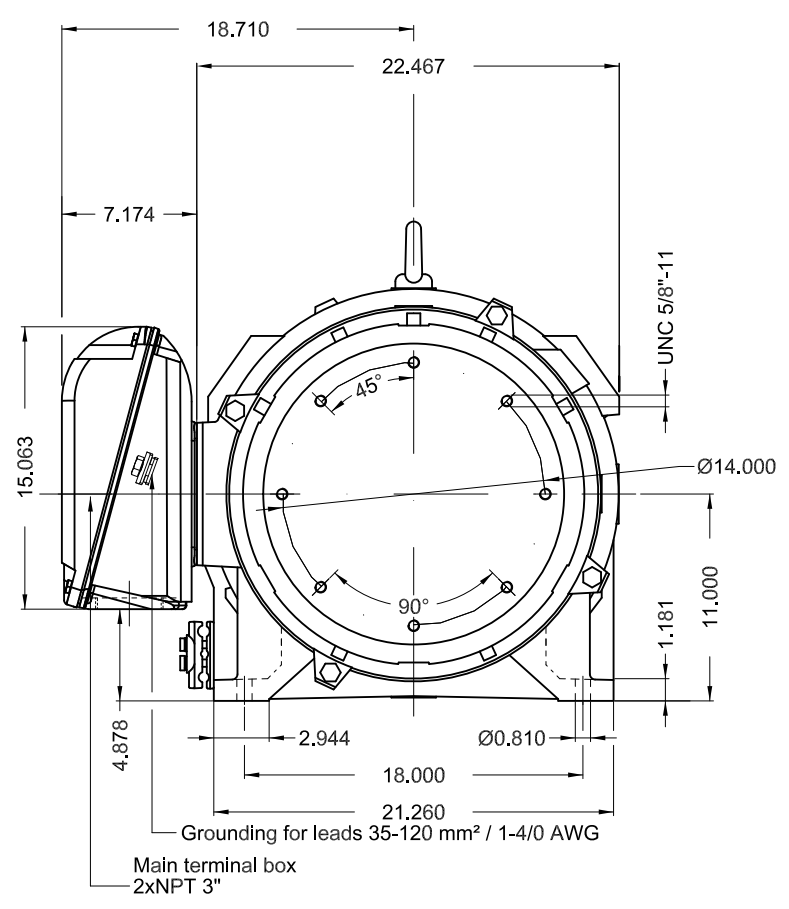
VFD OPERATION CURVE



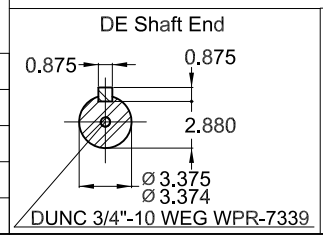
Performance : 575 V 60 Hz 4P

| | | | |
|---------------------|-------------|-----------------------|-----------------|
| Rated current | : 136 A | Moment of inertia (J) | : 42.1 sq.ft.lb |
| LRC | : 6.5 | Duty cycle | : Cont.(S1) |
| Rated torque | : 442 ft.lb | Insulation class | : F |
| Locked rotor torque | : 200 % | Service factor | : 1.25 |
| Breakdown torque | : 240 % | Temperature rise | : 80 K |
| Rated speed | : 1784 rpm | Design | : B |

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



| |
|--------------------|
| C3 NDE bearing |
| Color RAL 5009 |
| Painting plan 203A |
| Mounting NEMA F-1 |
| Mounting B34R(D) |



150 HP 04 Poles 60 Hz A

| | | | | | | |
|--|--|--|--|--|--|------|
| | | | | | | 1:10 |
|--|--|--|--|--|--|------|

| ECM | LOC | SUMMARY OF MODIFICATIONS | EXECUTED | CHECKED | RELEASED | DATE | VER |
|----------|-----------|--|---------------------|---------|----------|------|-----|
| EXECUTED | PIRWBUSER | THREE PH. MOTOR W40 PREM. EFF. FRAME 444/5TC IP23 ODP | | | | | |
| CHECKED | | | | | | | |
| RELEASED | | | | | | | |
| REL DT. | | WMO Jaragua do Sul | Product Engineering | SHEET | 1 / 1 | | |

PREVIEW

WDD

MODEL 150180T3H444TC-W40
MADE IN BRAZIL
14272542

WEG **W40 NEMA**
CC029A Premium
Inverter Duty Motor

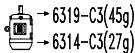
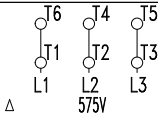


MOD.T01#FOXON



For use on PWM, VT 1000:1, CT 2:1, 1.0SF

| | | | | |
|--------------|------------|-----------------|----------------------------|-------------------|
| PH 3 | FR 444/5TC | HP(kW) 150(110) | | Hz 60 |
| V 575 | | A 136 | | IP23 |
| NEMA NOM EFF | | 95.8 | % | RPM 1784 |
| ENCL ODP | DUTY CONT. | | INS. CL. F Δ T 80 K | |
| PF 0.85 | | DES B | CODE G | AMB. 40°C |
| SF 1.25 | | SFA 170 | | ALT 1000 m.a.s.l. |



MOBIL POLYREX EM
20000 h

1429 Lbs