

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

| | | | | | | |
|--|-----------------|--|--|-------------------------------|----------------------------|----------|
| Customer : | | | | | | |
| Product line | | : W40 NEMA Premium Efficiency Three-Phase | | Product code : 14270882 | | |
| | | | | Catalog # : 05012OT3V365T-W40 | | |
| Frame | : 364/5T | | | Locked rotor time | : 27s (cold) 15s (hot) | |
| Output | : 50 HP (37 kW) | | | Temperature rise | : 80 K | |
| Poles | : 6 | | | Duty cycle | : Cont.(S1) | |
| Frequency | : 60 Hz | | | Ambient temperature | : -20°C to +40°C | |
| Rated voltage | : 200/400 V | | | Altitude | : 1000 m.a.s.l. | |
| Rated current | : 134/66.8 A | | | Protection degree | : IP23 | |
| L. R. Amperes | : 895/448 A | | | Cooling method | : IC01 - ODP | |
| LRC | : 6.7x(Code G) | | | Mounting | : F-1 | |
| No load current | : 46.9/23.5 A | | | Rotation ¹ | : Both (CW and CCW) | |
| Rated speed | : 1185 rpm | | | Noise level ² | : 68.0 dB(A) | |
| Slip | : 1.25 % | | | Starting method | : Direct On Line | |
| Rated torque | : 222 ft.lb | | | Approx. weight ³ | : 820 lb | |
| Locked rotor torque | : 220 % | | | | | |
| Breakdown torque | : 240 % | | | | | |
| Insulation class | : F | | | | | |
| Service factor | : 1.25 | | | | | |
| Moment of inertia (J) | : 23.9 sq.ft.lb | | | | | |
| Design | : B | | | | | |
| Output | 25% | 50% | 75% | 100% | Foundation loads | |
| Efficiency (%) | 93.5 | 93.6 | 94.1 | 94.1 | Max. traction : 1412 lb | |
| Power Factor | 0.48 | 0.74 | 0.82 | 0.85 | Max. compression : 2232 lb | |
| | | <u>Drive end</u> | | <u>Non drive end</u> | | |
| Bearing type | : | | 6314 C3 | 6212 Z C3 | | |
| Sealing | : | | Without Bearing Seal | Without Bearing Seal | | |
| Lubrication interval | : | | 20000 h | 20000 h | | |
| Lubricant amount | : | | 27 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

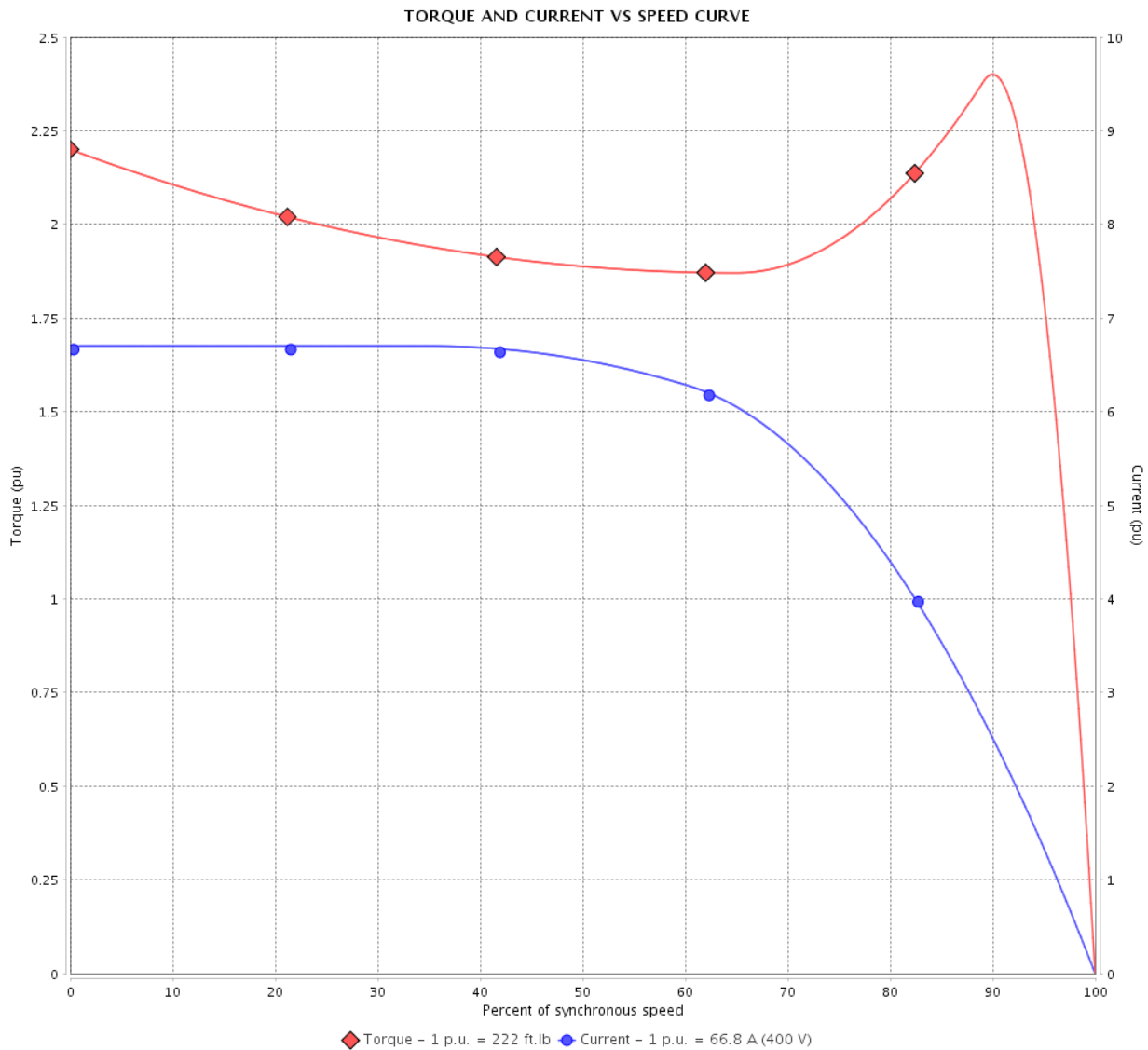


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14270882

Catalog # : 05012OT3V365T-W40



Performance : 200/400 V 60 Hz 6P

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 134/66.8 A | Moment of inertia (J) | : 23.9 sq.ft.lb |
| LRC | : 6.7 | Duty cycle | : Cont.(S1) |
| Rated torque | : 222 ft.lb | Insulation class | : F |
| Locked rotor torque | : 220 % | Service factor | : 1.25 |
| Breakdown torque | : 240 % | Temperature rise | : 80 K |
| Rated speed | : 1185 rpm | Design | : B |

Locked rotor time : 27s (cold) 15s (hot)

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------------|----------|
| | | | | |
| Performed by | | | Page 2 / 6 | Revision |
| Checked by | | | | |
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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

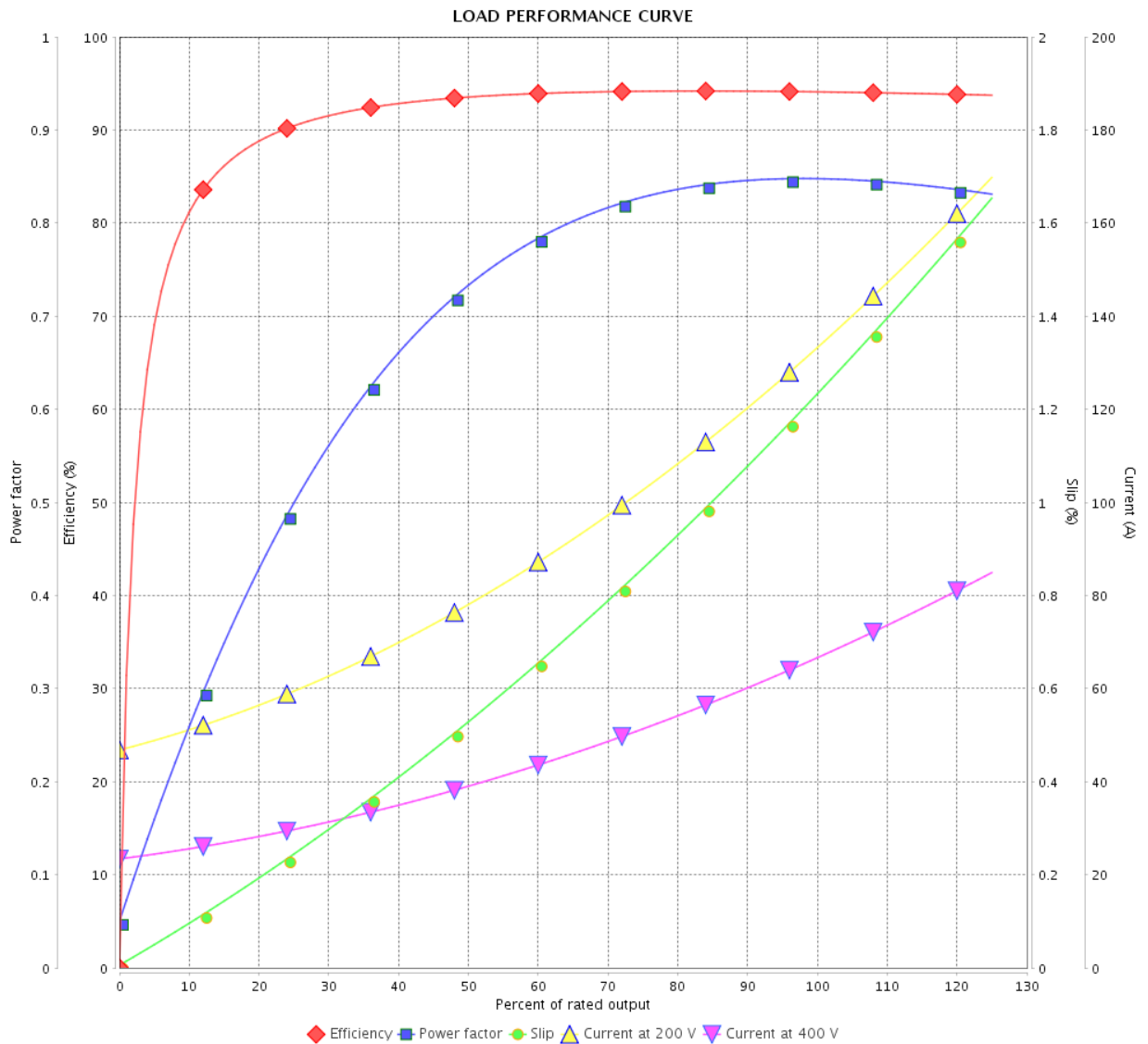


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Product code : 14270882

Catalog # : 05012OT3V365T-W40



Performance : 200/400 V 60 Hz 6P

Rated current : 134/66.8 A
 LRC : 6.7
 Rated torque : 222 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 240 %
 Rated speed : 1185 rpm

Moment of inertia (J) : 23.9 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
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THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

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Heating constant

Cooling constant

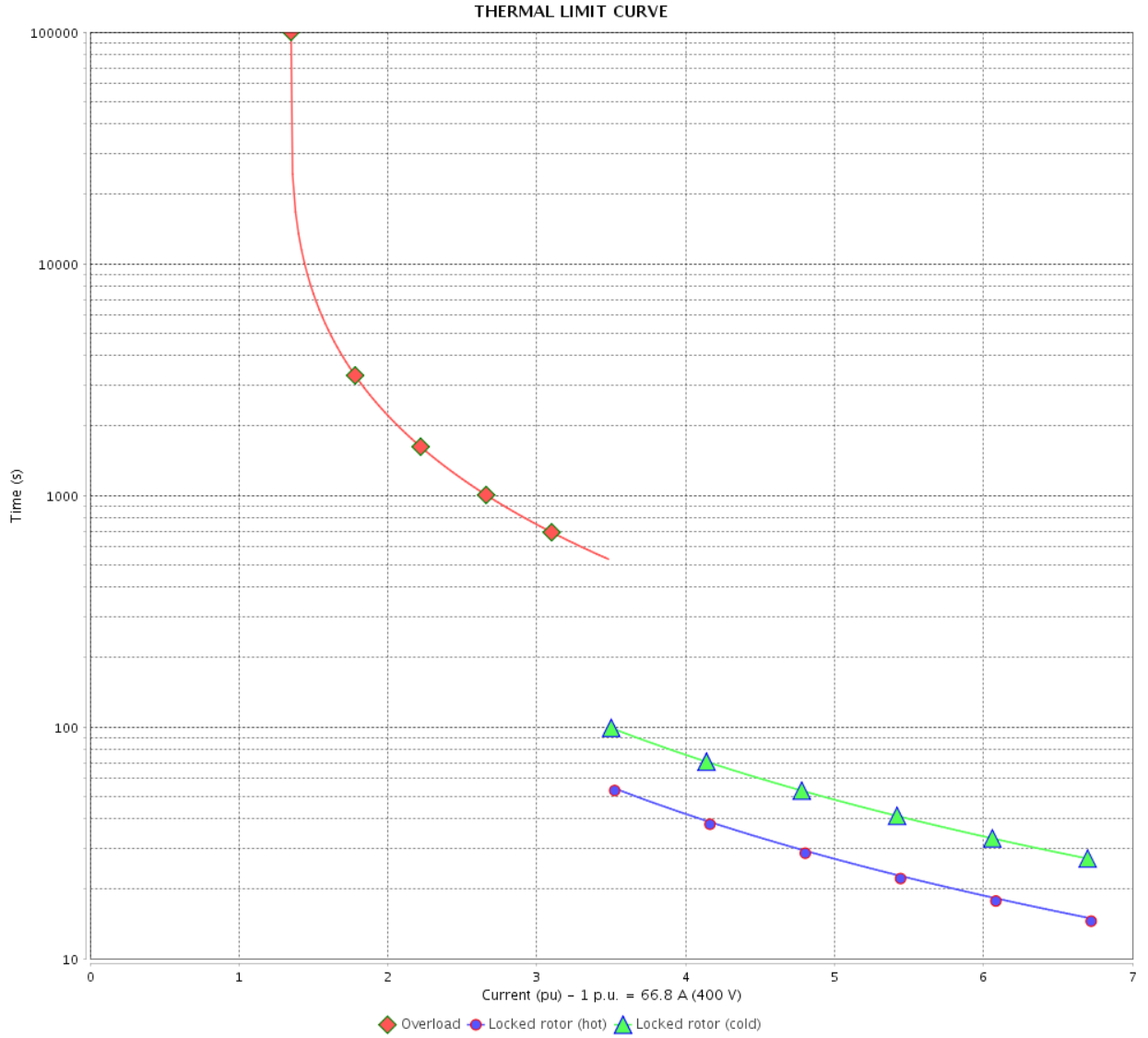
| Rev. | Changes Summary | Performed | Checked | Date |
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| Performed by | | | Page 4 / 6 | Revision |
| Checked by | | | | |
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



| Rev. | Changes Summary | Performed | Checked | Date |
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| Date | | 12/04/2022 | | |

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



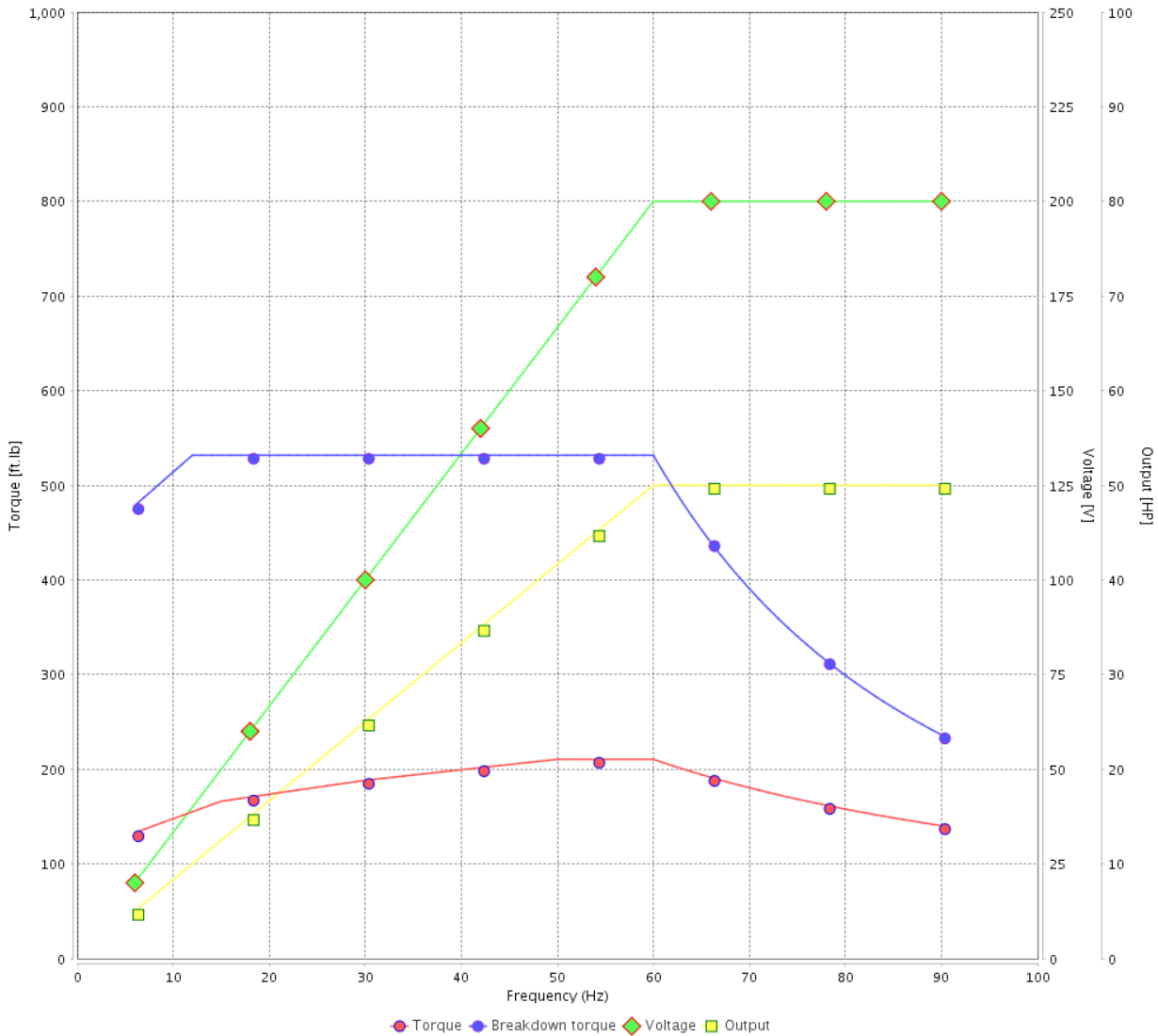
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Three-Phase

Product code : 14270882

Catalog # : 050120T3V365T-W40

VFD OPERATION CURVE

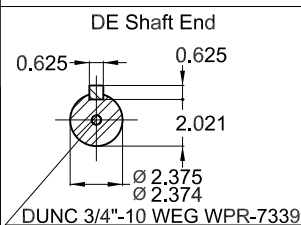
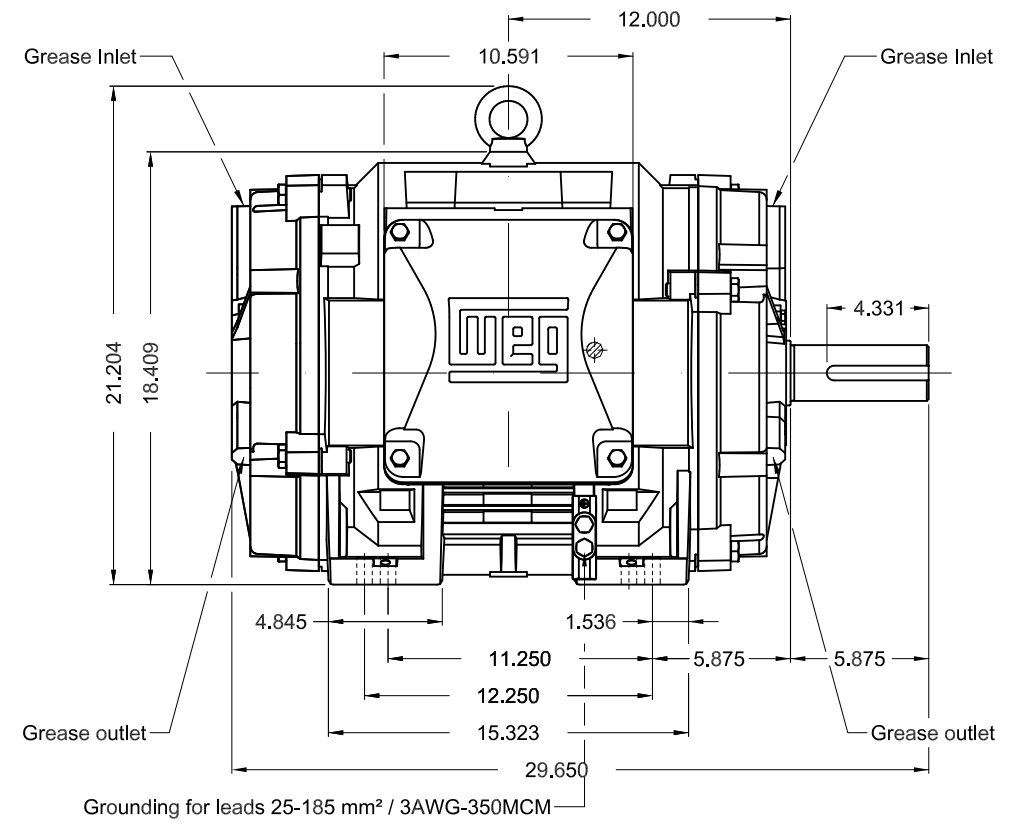
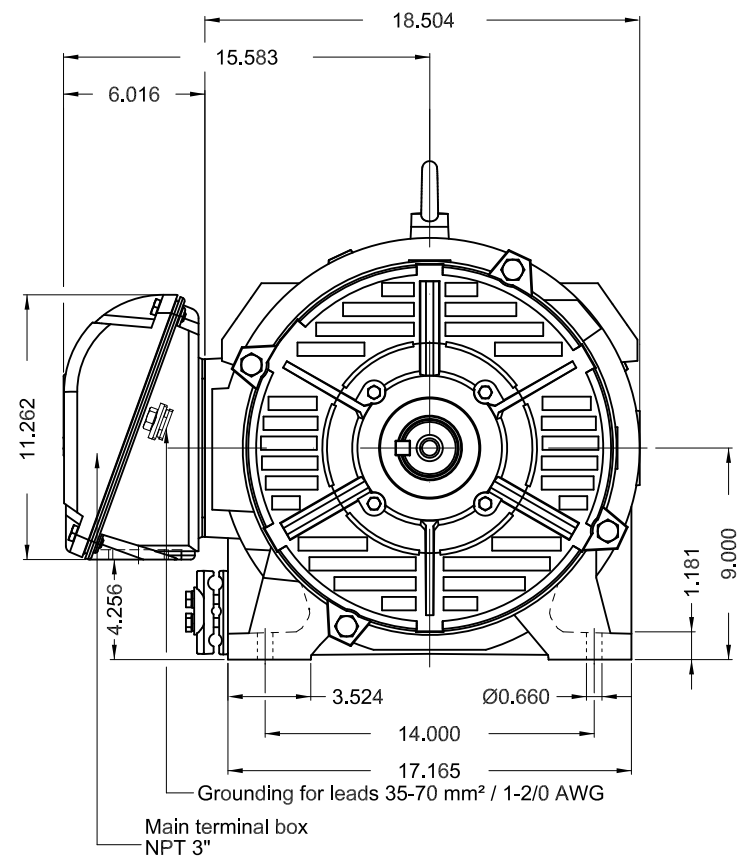


Performance : 200/400 V 60 Hz 6P

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LRC : 6.7
Rated torque : 222 ft.lb
Locked rotor torque : 220 %
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Color RAL 5009
Painting plan 203A
Mounting NEMA F-1
Mounting B3R(D)

50 HP 06 Poles 60 Hz

Dimensions in inches

1:8

| ECM | LOC | SUMMARY OF MODIFICATIONS | EXECUTED | CHECKED | RELEASED | DATE | VER |
|----------|-----------|--------------------------------|---------------------|---------|----------|------|-----|
| EXECUTED | PIRWBUSER | THREE PH. MOTOR W40 PREM. EFF. | | | | | |
| CHECKED | | FRAME 364/5T IP23 ODP | | | | | |
| RELEASED | | | | | | | |
| REL DT. | WMO | Jaragua do Sul | Product Engineering | SHEET | 1 / 1 | | |

PREVIEW
WDD

