

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

| | | | |
|--------------|---------------------------------------|----------------|---------------|
| Product line | : NEMA Premium Efficiency Three-Phase | Product code : | 12408371 |
| | | Catalog # : | 06012XT3H404T |

Frame : 404/5T
 Output : 60 HP (45 kW)
 Poles : 6
 Frequency : 60 Hz
 Rated voltage : 575 V
 Rated current : 56.2 A
 L. R. Amperes : 388 A
 LRC : 6.9x(Code H)
 No load current : 20.0 A
 Rated speed : 1185 rpm
 Slip : 1.25 %
 Rated torque : 266 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 270 %
 Insulation class : F
 Service factor : 1.15
 Moment of inertia (J) : 36.9 sq.ft.lb
 Design : B

Locked rotor time : 52s (cold) 29s (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
 Rotation¹ : Both (CW and CCW)
 Noise level² : 65.0 dB(A)
 Starting method : Direct On Line
 Approx. weight³ : 1171 lb

| | | | | |
|----------------|------|------|------|------|
| Output | 25% | 50% | 75% | 100% |
| Efficiency (%) | 93.4 | 93.6 | 94.5 | 94.5 |
| Power Factor | 0.48 | 0.73 | 0.82 | 0.85 |

Foundation loads
 Max. traction : 1567 lb
 Max. compression : 2738 lb

| | | | |
|------------------------|--|------------------|----------------------|
| | | <u>Drive end</u> | <u>Non drive end</u> |
| Bearing type : | | 6217 C3 | 6314 C3 |
| Sealing : | | Oil Seal | Lip Seal |
| Lubrication interval : | | 13507 h | 14267 h |
| Lubricant amount : | | 21 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 | | | | |
| Date | 12/04/2022 | | | |

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Thermal protection

| ID | Application | Type | Quantity | Sensing Temperature |
|----|-------------|----------------------|-----------|---------------------|
| 1 | Winding | Thermostat - 2 wires | 1 x Phase | 155 °C |

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|--------------|-----------------|-----------|---------|----------|
| Performed by | | | | |
| Checked by | | | Page | Revision |
| Date | 12/04/2022 | | 2 / 7 | |

TORQUE AND CURRENT VS SPEED CURVE



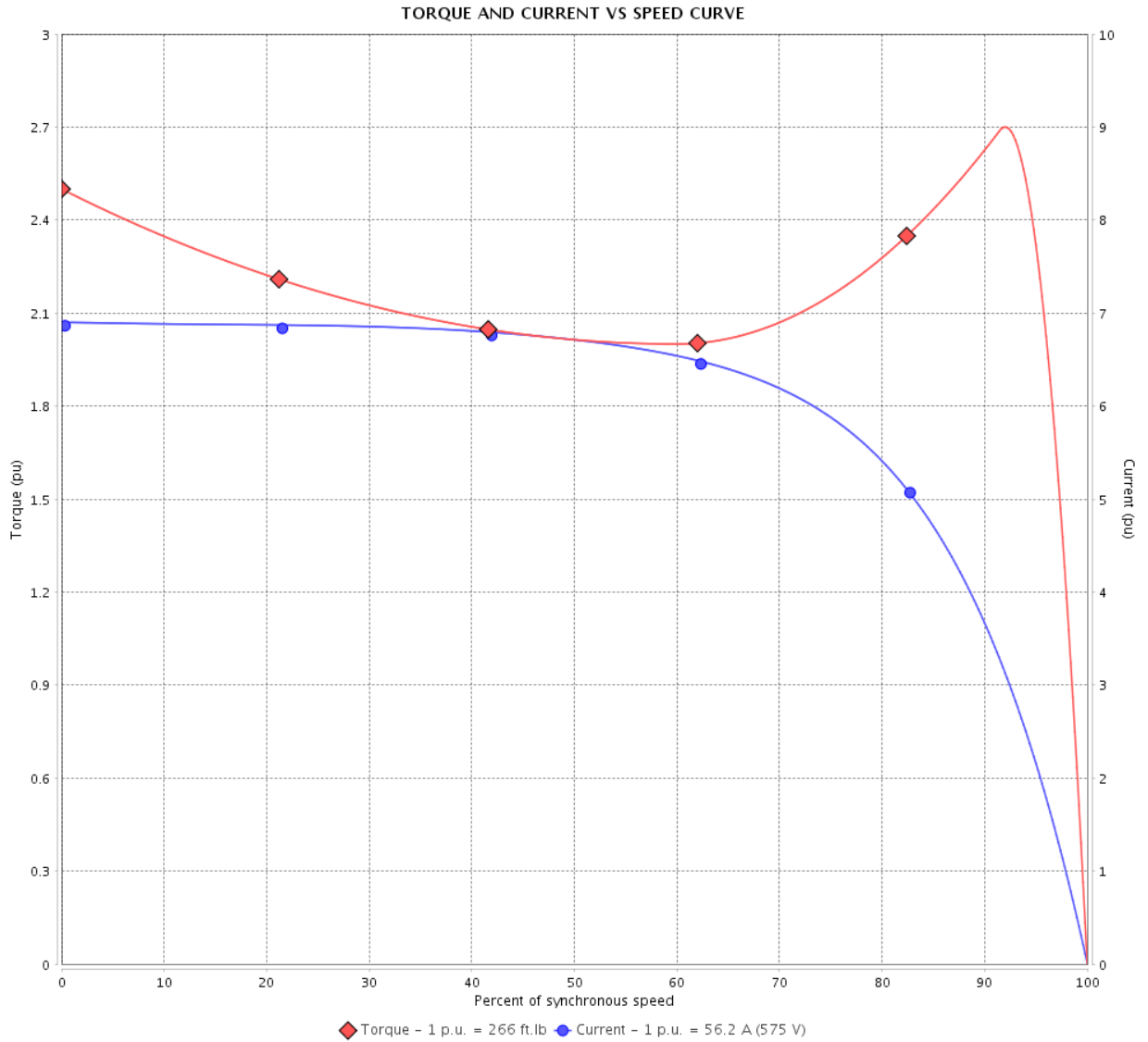
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12408371

Catalog # : 06012XT3H404T



Performance : 575 V 60 Hz 6P

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|---------------------|-------------|-----------------------|-----------------|
| Rated current | : 56.2 A | Moment of inertia (J) | : 36.9 sq.ft.lb |
| LRC | : 6.9 | Duty cycle | : Cont.(S1) |
| Rated torque | : 266 ft.lb | Insulation class | : F |
| Locked rotor torque | : 250 % | Service factor | : 1.15 |
| Breakdown torque | : 270 % | Temperature rise | : 80 K |
| Rated speed | : 1185 rpm | Design | : B |

Locked rotor time : 52s (cold) 29s (hot)

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|--------------|-----------------|-----------|---------------|----------|
| | | | | |
| Performed by | | | Page 3 / 7 | Revision |
| Checked by | | | | |
| Date | 12/04/2022 | | | |

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



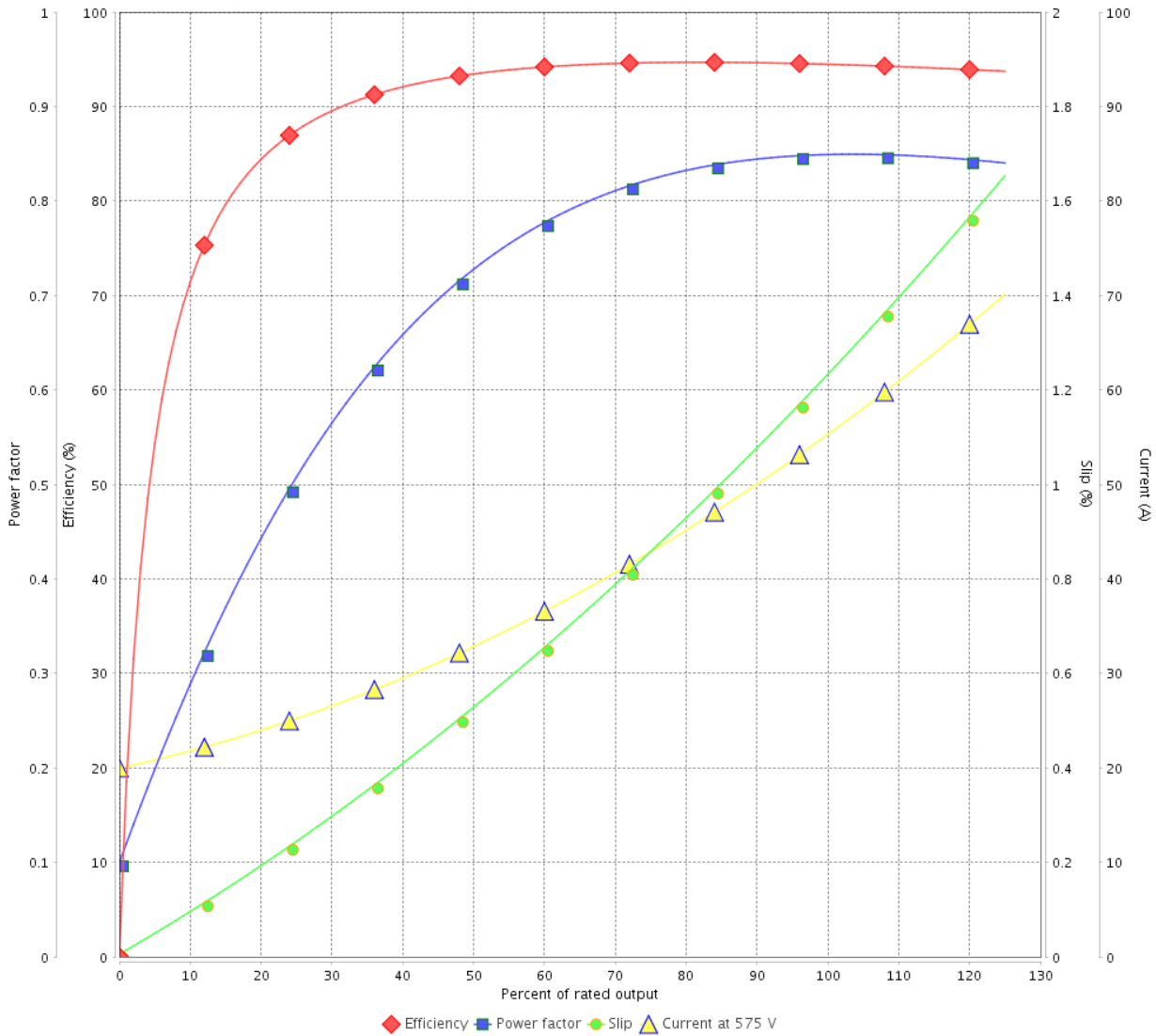
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|--------------|-----------------|-----------|---------------|----------|
| | | | | |
| Performed by | | | Page 4 / 7 | Revision |
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THERMAL LIMIT CURVE



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| Rated speed : 1185 rpm | Design : B |

Heating constant

Cooling constant

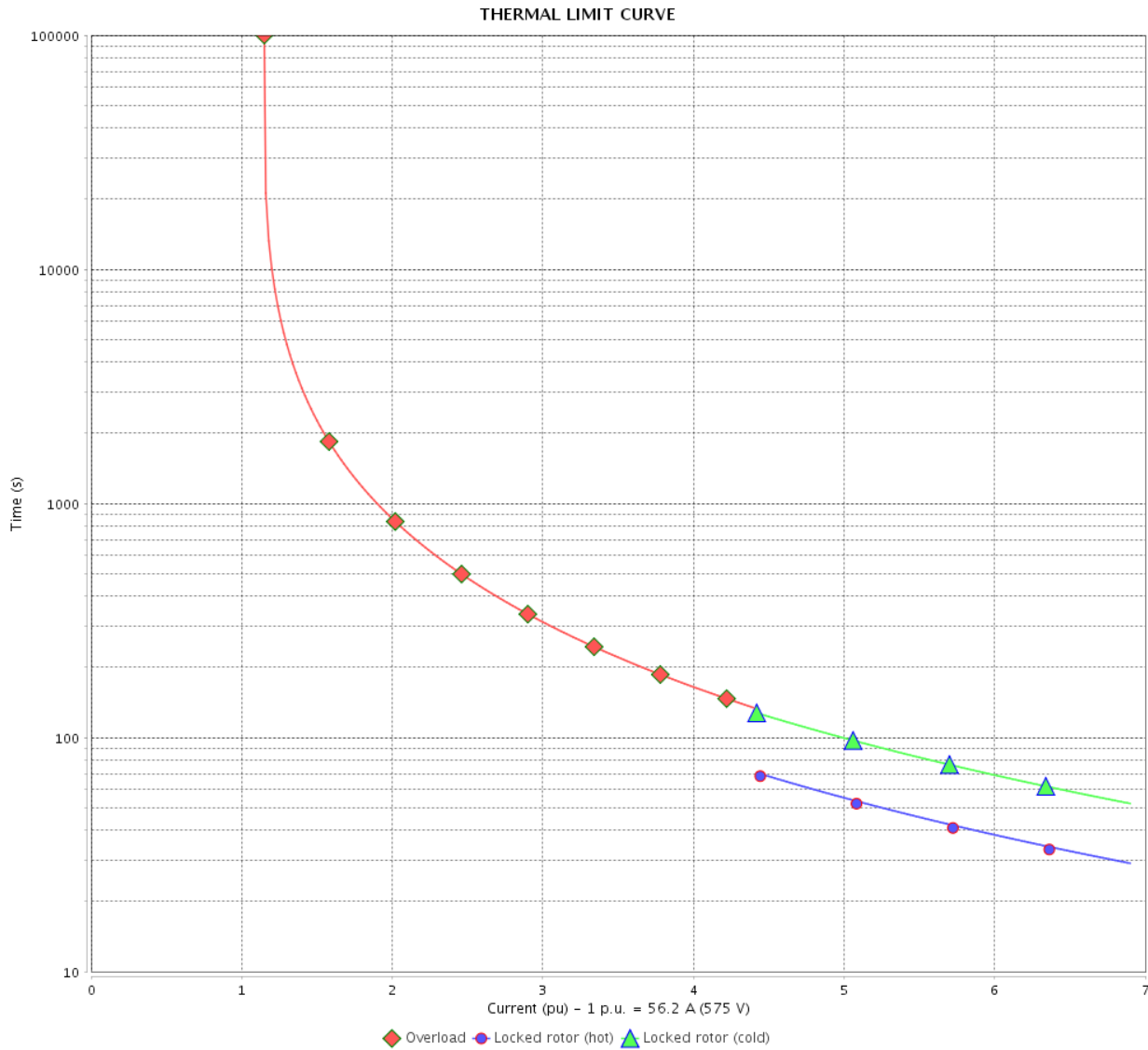
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|--------------|-----------------|-----------|---------------|----------|
| | | | | |
| Performed by | | | Page 5 / 7 | Revision |
| Checked by | | | | |
| Date | 12/04/2022 | | | |

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|------------|---------|----------|
| | | | | |
| Performed by | | Page | | Revision |
| Checked by | | 6 / 7 | | |
| Date | | 12/04/2022 | | |

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

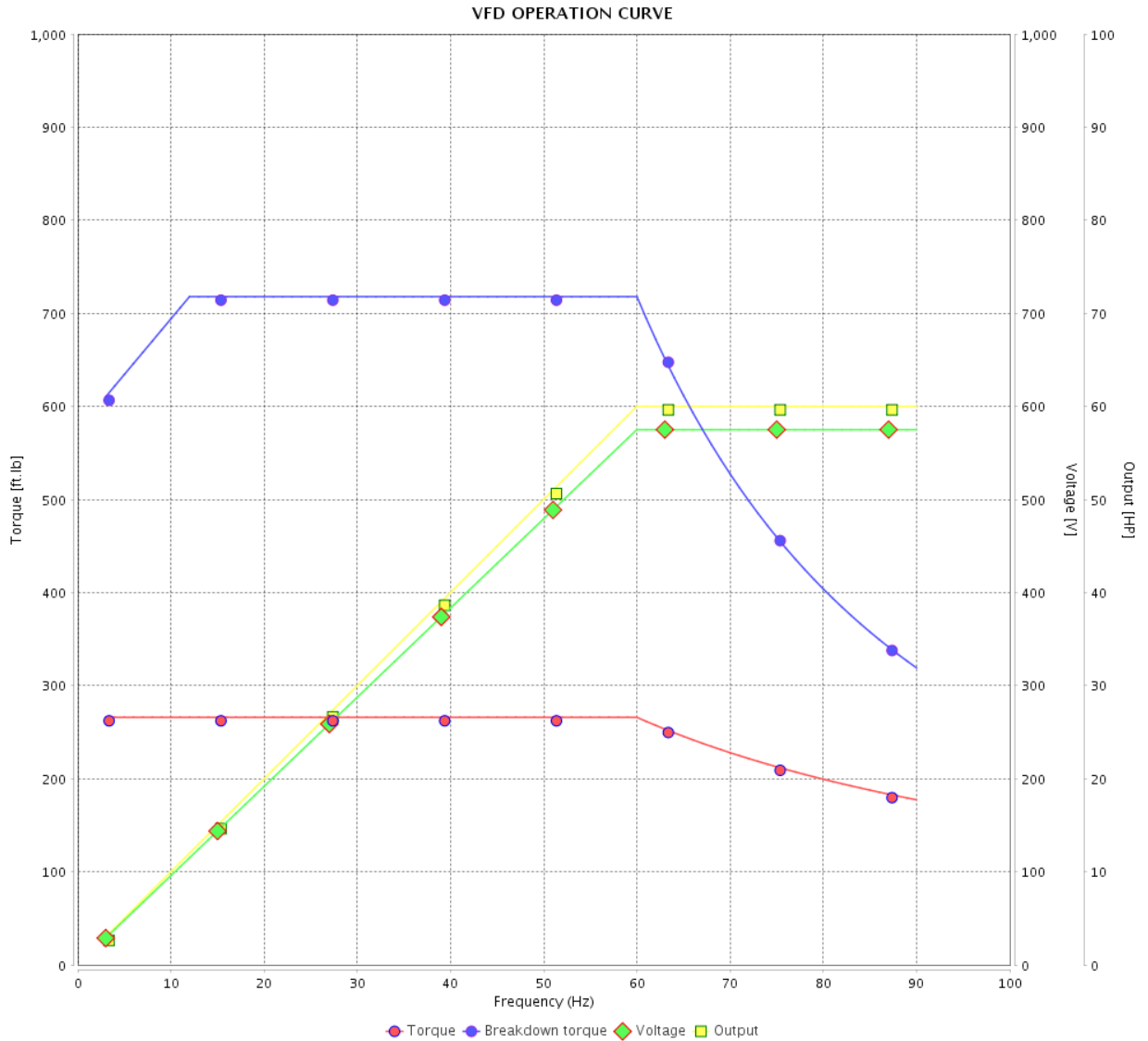


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Product code : 12408371

Catalog # : 06012XT3H404T

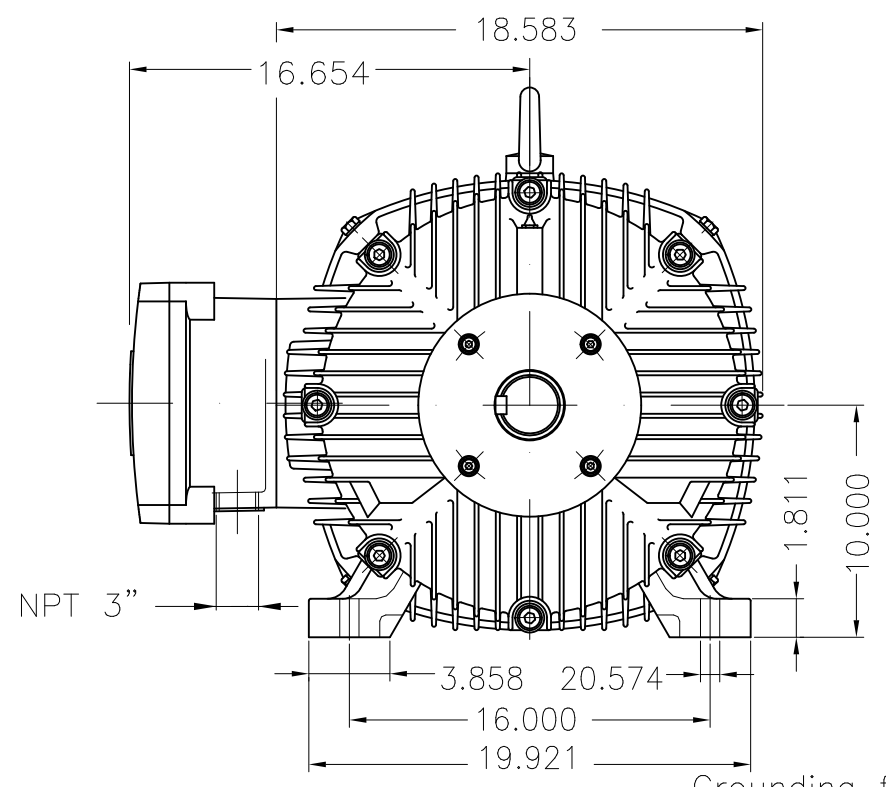


Performance : 575 V 60 Hz 6P

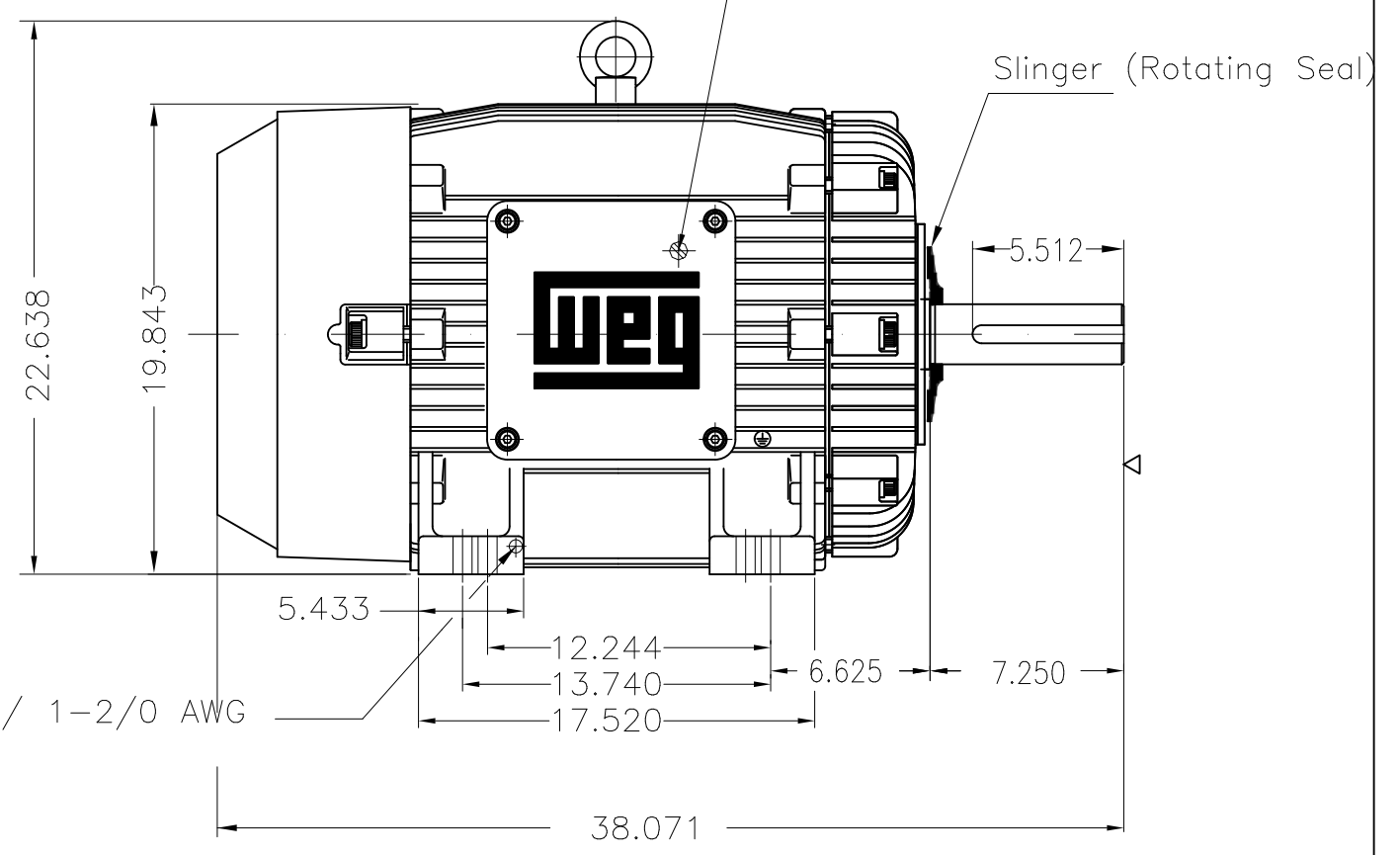
Rated current : 56.2 A
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 Rated speed : 1185 rpm

Moment of inertia (J) : 36.9 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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|--------------|-----------------|-----------|---------|---------------|
| | | | | |
| Performed by | | | | Page 7 / 7 |
| Checked by | | | | |
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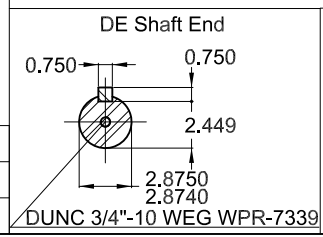
Grounding for leads 25-50 mm² / 3-1 AWG



Grounding for leads 35-70 mm² / 1-2/0 AWG

60 HP 06 Poles 60 Hz A

Color RAL 5009
 Painting plan 202P
 Mounting B3R(D)



| ECM | LOC | SUMMARY OF MODIFICATIONS | EXECUTED | CHECKED | RELEASED | DATE | VER |
|----------|-----------|--|---------------------|---------|----------|------|-----|
| EXECUTED | PIRWBUSER | THREE PH. MOTOR EXPLOSION PROOF PREM. EFF. | | | | | |
| CHECKED | | FRAME 404/5T IP55 TEFC | | | | | |
| RELEASED | | | | | | | |
| REL DT. | WMO | Jaragua do Sul | Product Engineering | | | | |

PREVIEW
 WDD



SHEET 1 / 1