

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase Product code : 14836794
Catalog # : 06018OT3E364JPV-W40

| | | | |
|-----------------------|-----------------|-----------------------------|------------------------|
| Frame | : 364/5JP | Locked rotor time | : 34s (cold) 19s (hot) |
| Output | : 60 HP (45 kW) | Temperature rise | : 80 K |
| Poles | : 4 | Duty cycle | : Cont.(S1) |
| Frequency | : 60 Hz | Ambient temperature | : -20°C to +40°C |
| Rated voltage | : 230/460 V | Altitude | : 1000 m.a.s.l. |
| Rated current | : 140/69.9 A | Protection degree | : IP23 |
| L. R. Amperes | : 909/454 A | Cooling method | : IC01 - ODP |
| LRC | : 6.5x(Code G) | Mounting | : W-6 |
| No load current | : 49.4/24.7 A | Rotation ¹ | : Both (CW and CCW) |
| Rated speed | : 1780 rpm | Noise level ² | : 69.0 dB(A) |
| Slip | : 1.11 % | Starting method | : Direct On Line |
| Rated torque | : 177 ft.lb | Approx. weight ³ | : 754 lb |
| Locked rotor torque | : 200 % | | |
| Breakdown torque | : 240 % | | |
| Insulation class | : F | | |
| Service factor | : 1.25 | | |
| Moment of inertia (J) | : 15.6 sq.ft.lb | | |
| Design | : B | | |

| | | | | | | |
|----------------|------|------|------|------|------------------|-----------|
| Output | 25% | 50% | 75% | 100% | Foundation loads | |
| Efficiency (%) | 94.4 | 94.5 | 95.0 | 95.0 | Max. traction | : 1259 lb |
| Power Factor | 0.48 | 0.73 | 0.82 | 0.85 | Max. compression | : 2013 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 | : | 19579 h | 20000 h |
| Lubricant amount | : | 27 g | 13 g |
| Lubricant type | : | Mobil Polyrex EM | |

Notes
USABLE @208V 155A SF 1.15 SFA 178A

This revision replaces and cancel the previous one, which must be eliminated.

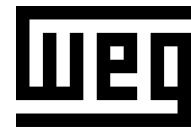
- (1) Looking the motor from the shaft end.
- (2) Measured at 1m and with tolerance of +3dB(A).
- (3) Approximate weight subject to changes after manufacturing process.
- (4) At 100% of full load.

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 1 / 6 Revision | | |
| Checked by | | | | |
| Date | 10/04/2020 | | | |

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

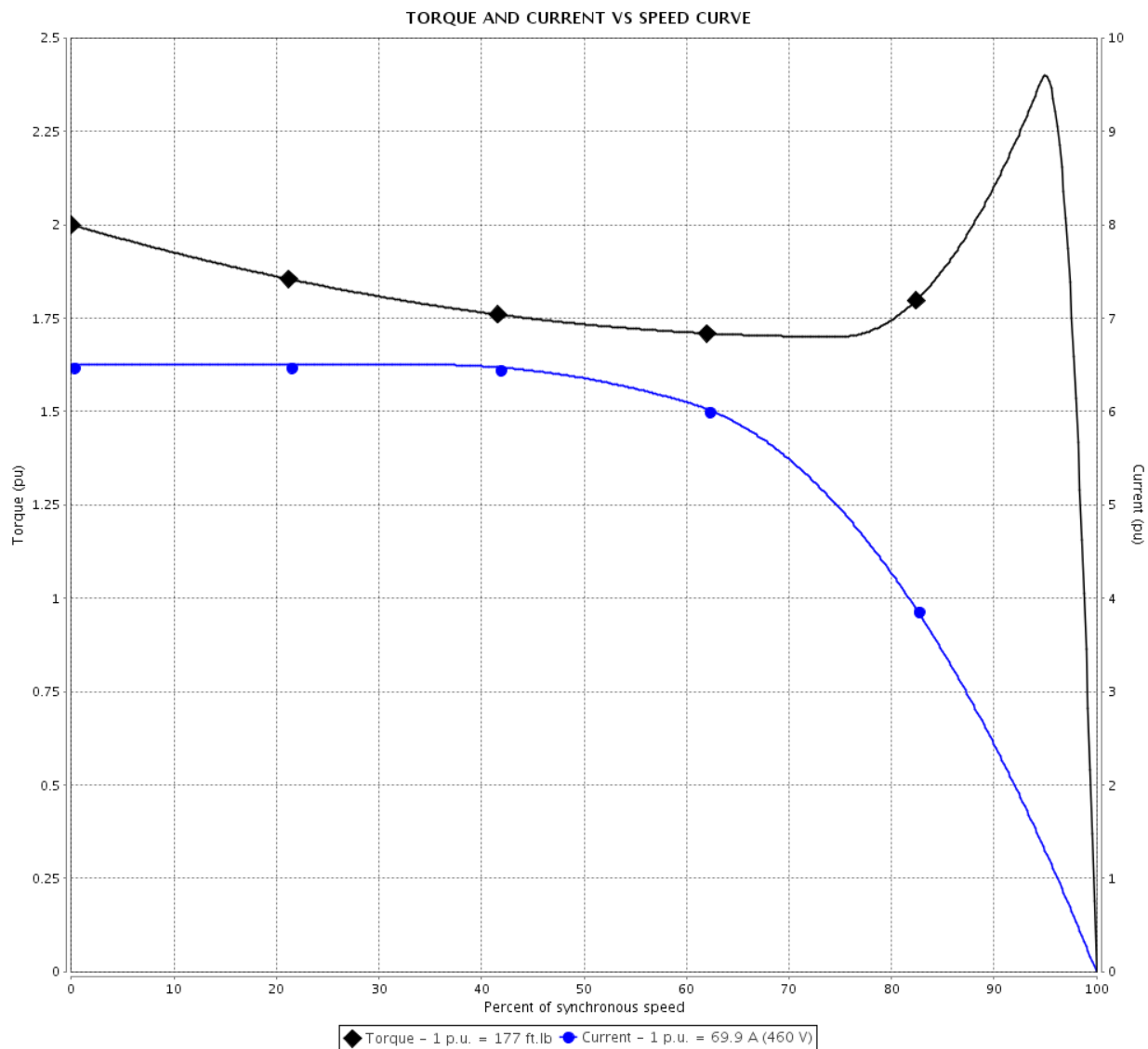


Customer :

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14836794

Catalog # : 06018OT3E364JPV-W40



Performance : 230/460 V 60 Hz 4P

Rated current : 140/69.9 A
LRC : 6.5
Rated torque : 177 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 240 %
Rated speed : 1780 rpm

Moment of inertia (J) : 15.6 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Locked rotor time : 34s (cold) 19s (hot)

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|---|---------|------|
| | | | | |
| Performed by | | <div>Page 2 / 6</div> <div>Revision</div> | | |
| Checked by | | | | |
| Date | 10/04/2020 | | | |

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

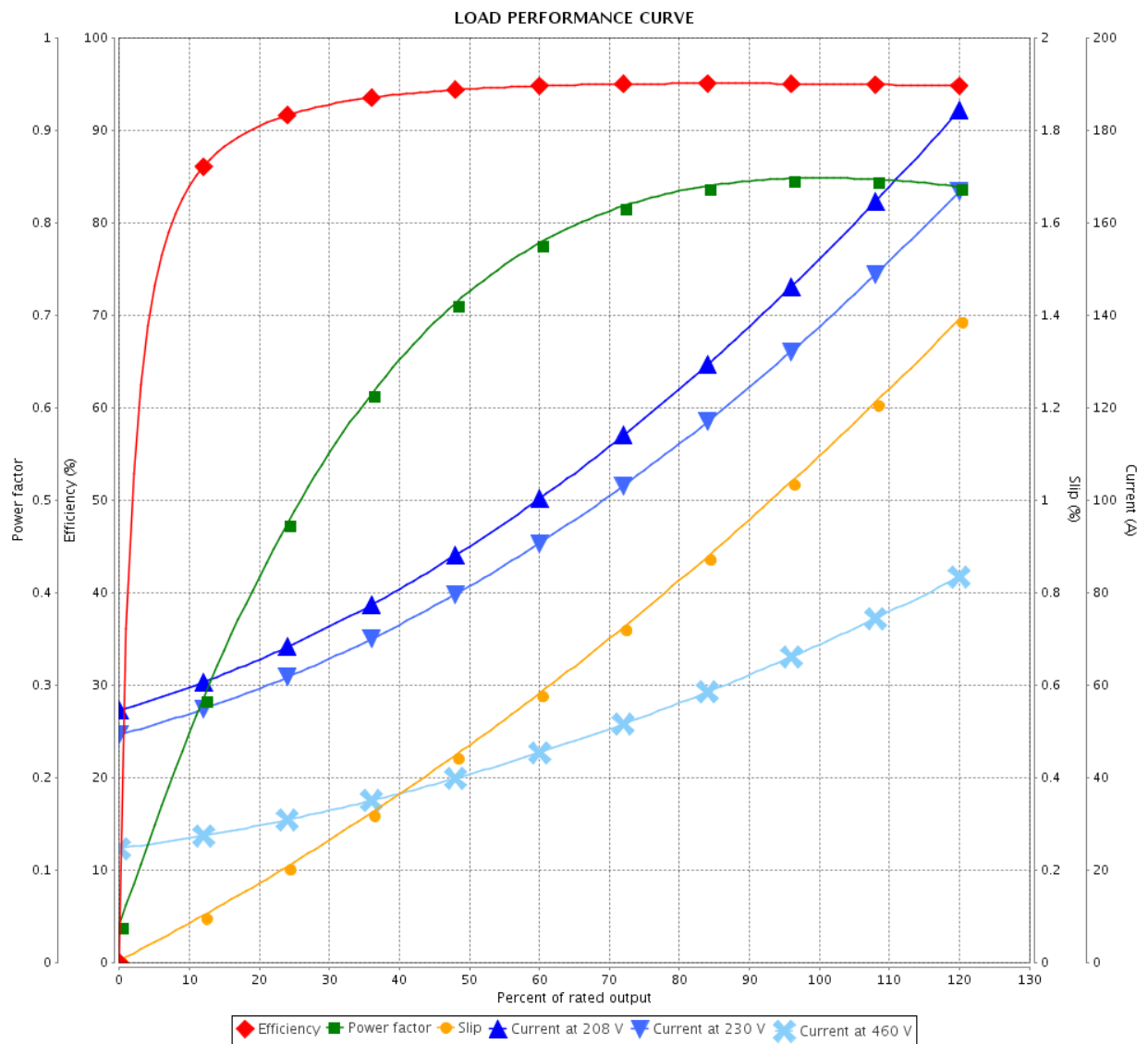


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| | | Revision | | |

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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Breakdown torque : 240 %

Rated speed : 1780 rpm

Moment of inertia (J) : 15.6 sq.ft.lb

Duty cycle : Cont.(S1)

Insulation class : F

Service factor : 1.25

Temperature rise : 80 K

Design : B

Heating constant

Cooling constant

Rev.

Changes Summary

Performed

Checked

Date

Performed by

Checked by

Date

10/04/2020

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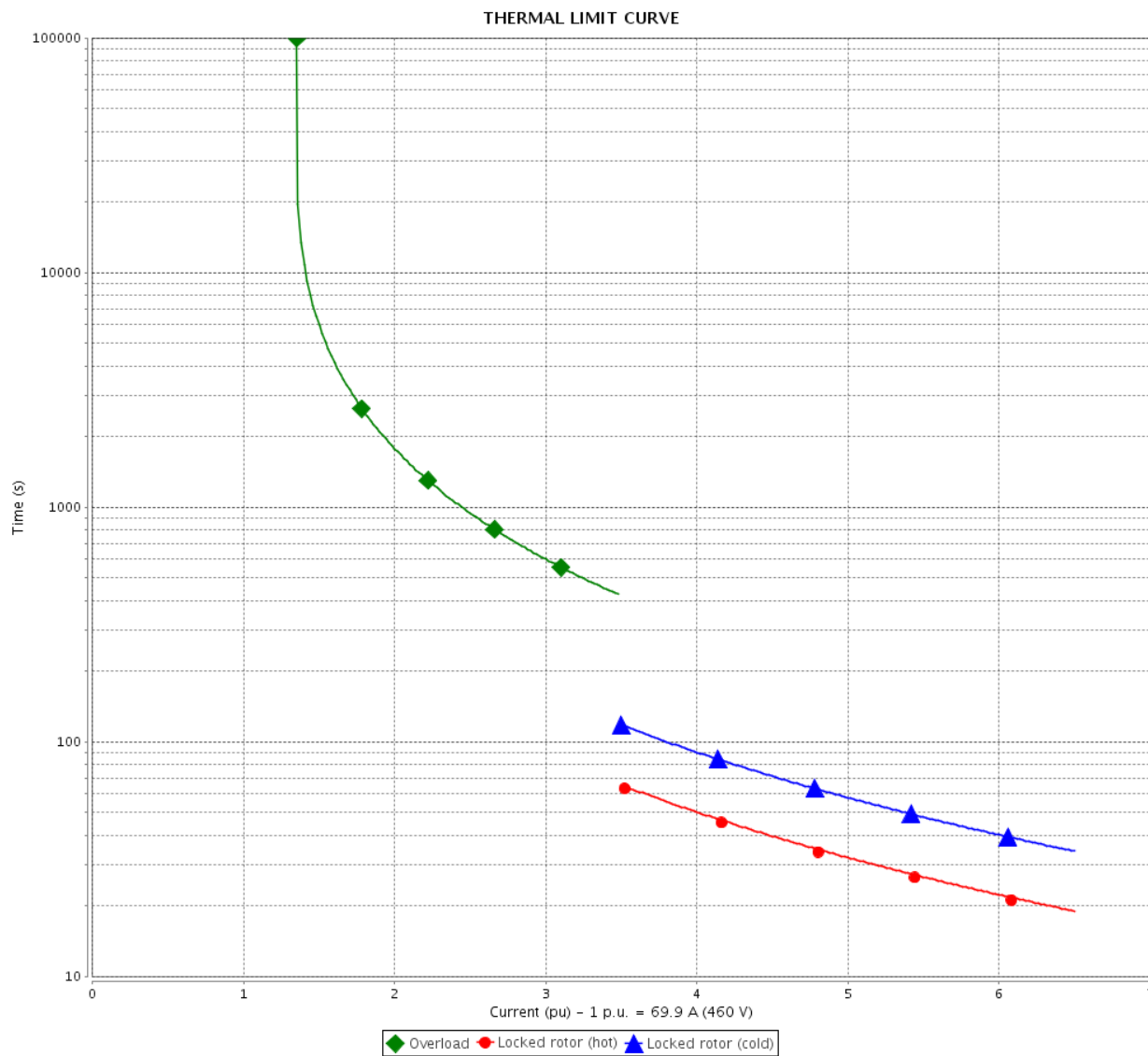
Revision

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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| Rev. | Changes Summary | | Performed | Checked | Date |
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| Performed by | | | | Page 5 / 6 | Revision |
| Checked by | | | | | |
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

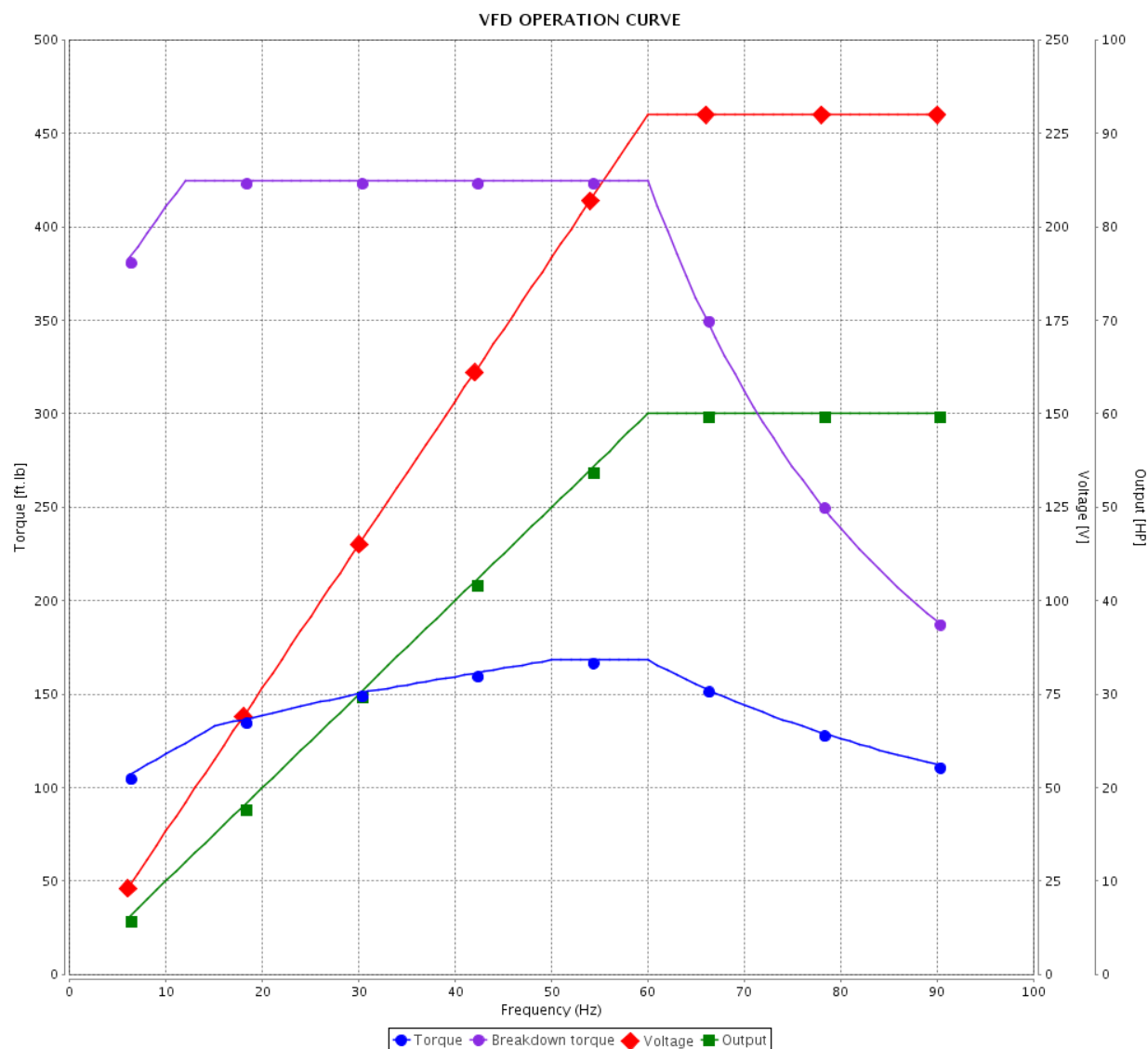


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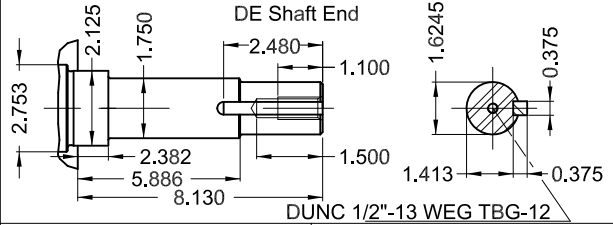
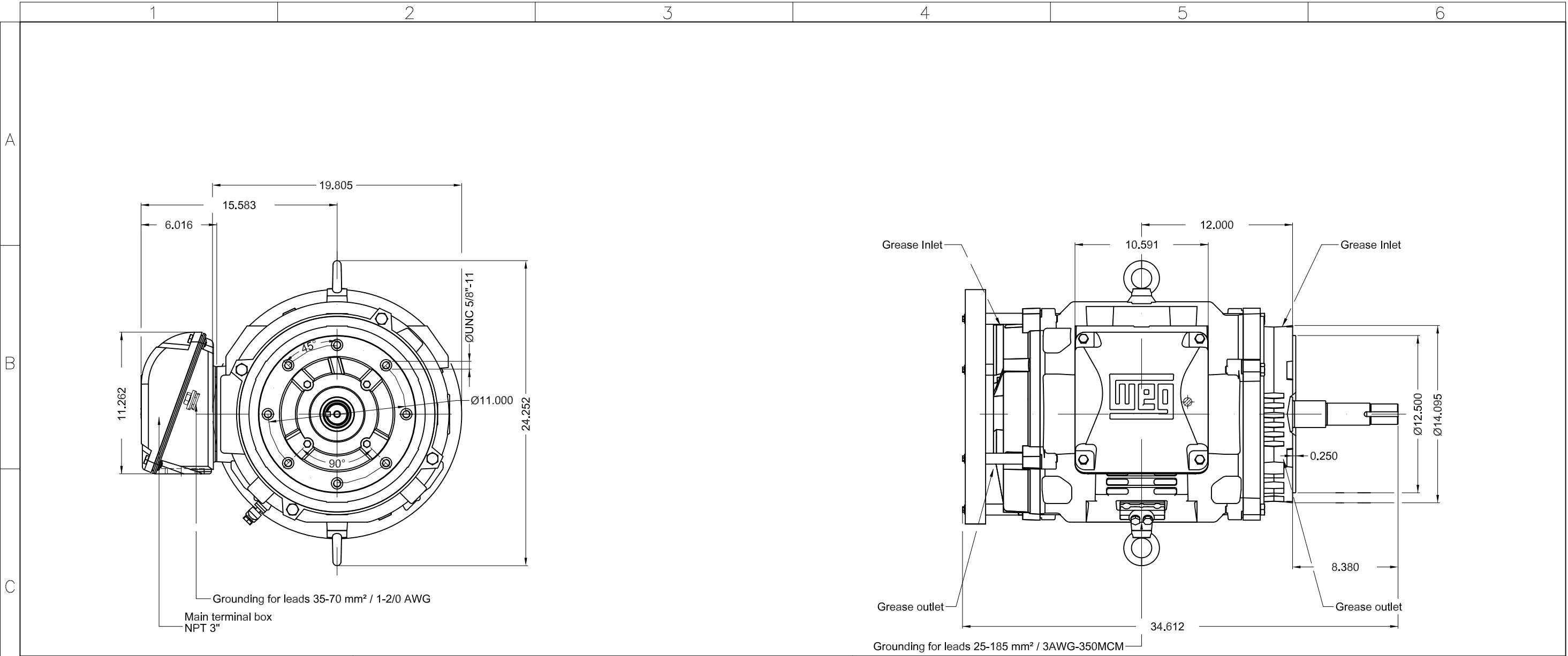


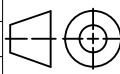

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Design : B

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| Date | 10/04/2020 | | | | |



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|---------------------|--|-----------|--|---|--|--|--|---------------------|--|----------------|----------|---|-----|
| 60 HP 04 Poles 60Hz | | | | | | | | | | A | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | 1:8 | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| ECM | | LOC | | SUMMARY OF MODIFICATIONS | | | | EXECUTED | | CHECKED | RELEASED | DATE | VER |
| EXECUTED | | PIRWBUSER | |  | | THREE PHASE W40 MOTOR NEMA PREMIUM EFF FRAME 364/5JP IP23 ODP | | | | PREVIEW WDD | |  | |
| CHECKED | | | | | | | | | | | | | |
| RELEASED | | | | | | | | | | | | | |
| REL DT. | | | | WMO | | Jaragua do Sul | | Product Engineering | | SHEET | | | |

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|--------------------|
| Color RAL 5009 |
| Painting plan 203A |
| Mounting NEMA W-6 |
| Mounting V18 |