

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : GOL PUMP TECHNOLOGY, INC.

Product line : W22 - IE3 Premium Efficiency

| | | | |
|-----------------------|-----------------|-----------------------------|--------------------------|
| Frame | : 160M | Locked rotor time | : 19 s (hot) 34 s (cold) |
| Output | : 15 kW | Temperature rise | : 80 K |
| Poles | : 4 | Duty cycle | : S1 |
| Frequency | : 60 Hz | Ambient temperature | : -20 °C to +40 °C |
| Rated voltage | : 230/460 V | Altitude | : 3280 ft |
| Rated current | : 49.4/24.7 A | Protection degree | : IP55 |
| L. R. Amperes | : 444/222 A | Cooling method | : IC411 - TEFC |
| LRC | : 9.0 | Mounting | : B35T |
| No load current | : 21.0/10.5 A | Rotation ¹ | : Both |
| Rated speed | : 1775 rpm | Noise level ² | : 64.0 dB(A) |
| Slip | : 1.39 % | Vibration class | : A |
| Rated torque | : 80.7 Nm | Starting method | : Direct On Line |
| Locked rotor torque | : 300 % | Coupling | : Direct |
| Pull up torque | : 255 % | Approx. weight ³ | : 293 lb |
| Breakdown torque | : 300 % | Painting plan | : 203A |
| Insulation class | : F | Color | : RAL 5009 |
| Service factor | : 1.25 | Design | : N |
| Moment of inertia (J) | : 3.49 sq.ft.lb | | |

| | | | | | |
|----------------|------|------|------|-------------------------------------|-----|
| Output | 50% | 75% | 100% | Load type | : - |
| Efficiency (%) | 91.6 | 92.9 | 93.0 | Load torque | : - |
| Power Factor | 0.64 | 0.75 | 0.82 | Load inertia (J=GD ² /4) | : - |

| | | | | |
|----------------------|------------------|---------------|------------------|------------|
| Bearing type | Drive end | Non drive end | Foundation loads | |
| | 6309-ZZ-C3 | 6209-ZZ-C3 | Max. traction | : 3162.4 N |
| Lubrication interval | - | - | Max. compression | : 4467.2 N |
| Lubricant amount | - | - | | |
| Lubricant type | MOBIL POLYREX EM | | | |

Notes
See notes on page 2.

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 be changed 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 IEC 60034-1.

| Rev. | Changes Summary | Rev. | Checked | Date |
|--------------|-----------------|------------|---------|------|
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| Performed by | johnson | 1228358182 | | |
| Checked by | AUTOMATICO | Page | Rev. | |
| Date | 02/11/2021 | 1 / 5 | 1 | |

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Thermal protection

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

Notes

| | | | | |
|-----------|---------------|---------------|-----------|----------------|
| Standards | Specification | : IEC 60034-1 | Vibration | : IEC 60034-14 |
| | Test | : IEC 60034-2 | Tolerance | : IEC 60034-1 |
| | Noise | : IEC 60034-9 | | |

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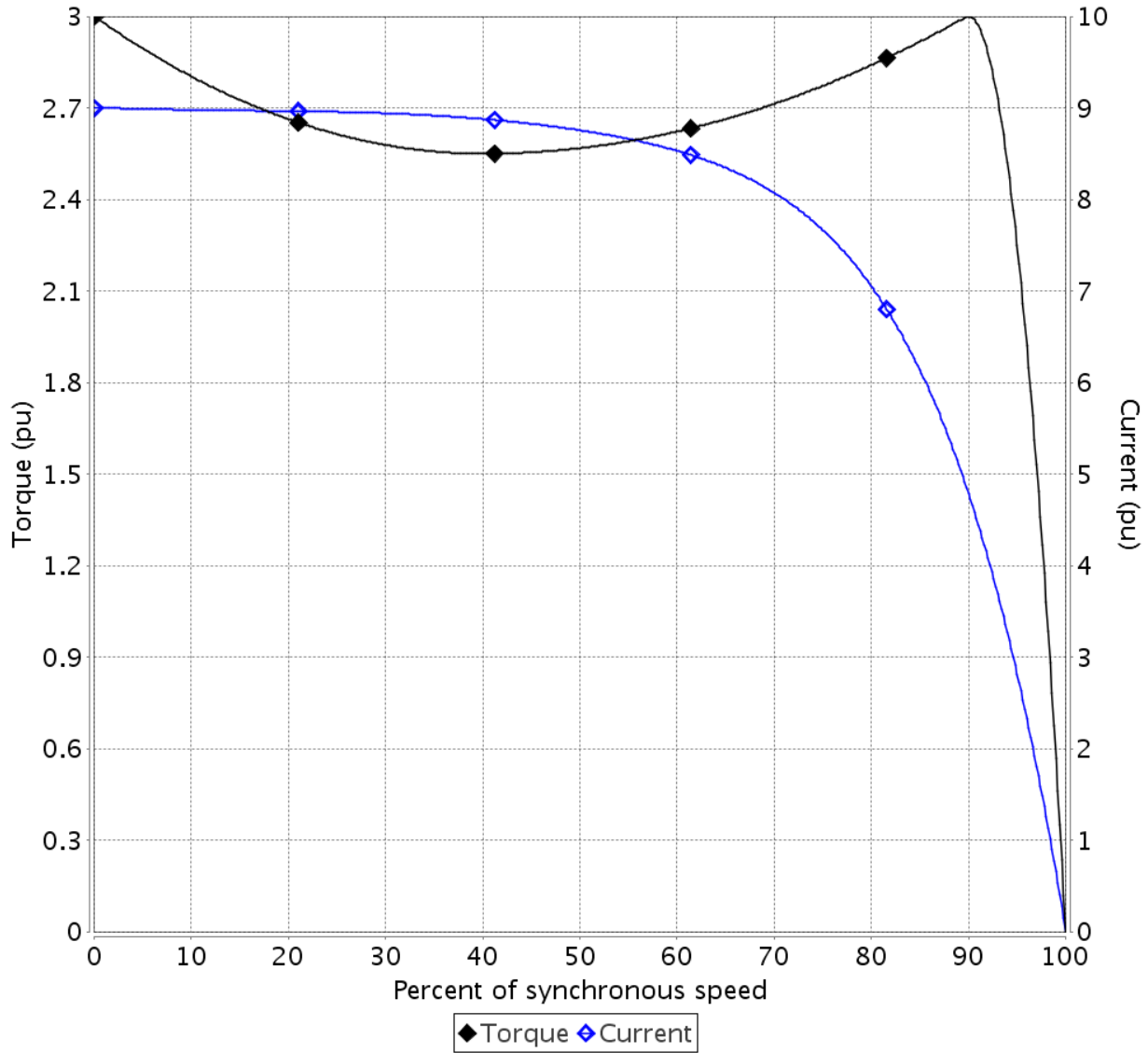
TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : GOL PUMP TECHNOLOGY, INC.

Product line : W22 - IE3 Premium Efficiency



Performance : 15 kW 230/460 V 60 Hz 4P 160M

| | | | |
|---------------------|---------------|-----------------------|-----------------|
| Rated current | : 49.4/24.7 A | Moment of inertia (J) | : 3.49 sq.ft.lb |
| LRC | : 9.0 | Duty cycle | : S1 |
| Rated torque | : 80.7 Nm | Insulation class | : F |
| Locked rotor torque | : 300 % | Service factor | : 1.25 |
| Breakdown torque | : 300 % | Temperature rise | : 80 K |
| Rated speed | : 1775 rpm | Design | : N |

Locked rotor time 100% : 19 s (hot) 34 s (cold)

Load inertia (J=GD²/4) : 3.49 sq.ft.lb

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|--------------|-----------------|--------------------------------------|---------|------|
| Performed by | johnson | 1228358182 Page 3 / 5 Rev. 1 | | |
| Checked by | AUTOMATICO | | | |
| Date | 02/11/2021 | | | |

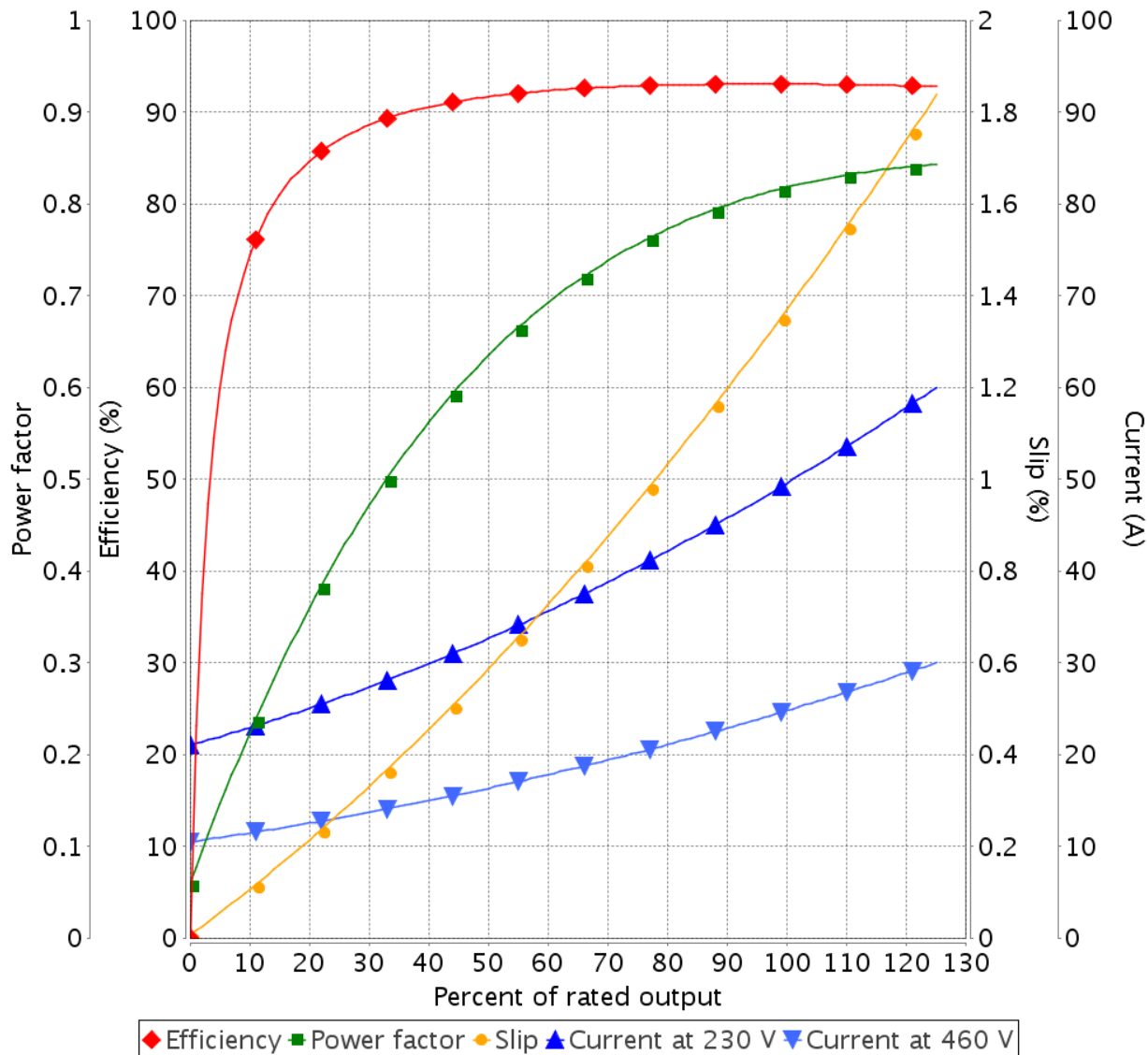
LOAD PERFORMANCE CURVE

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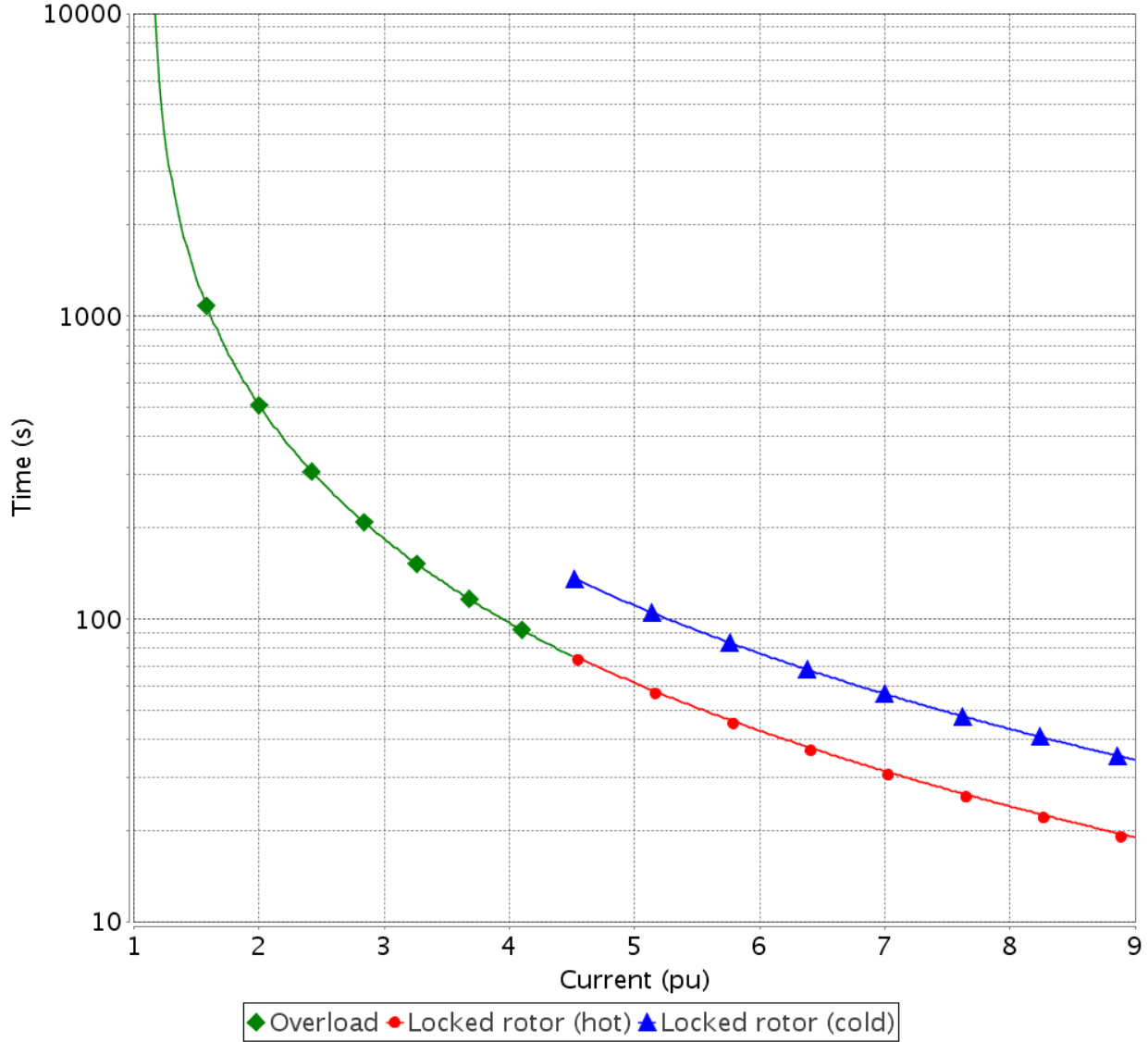
THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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Product line : W22 - IE3 Premium Efficiency

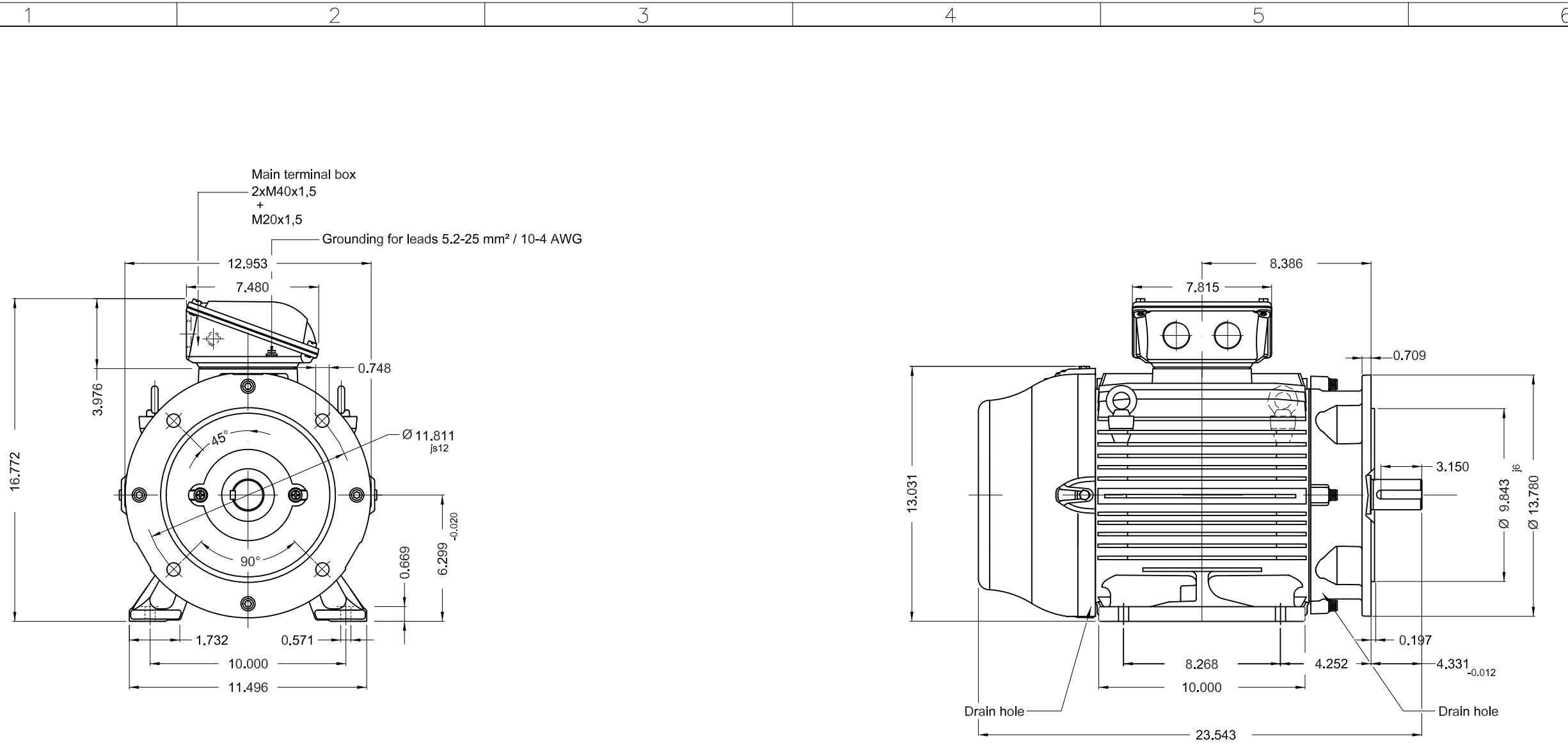


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| Rated speed | : 1775 rpm | Design | : N |

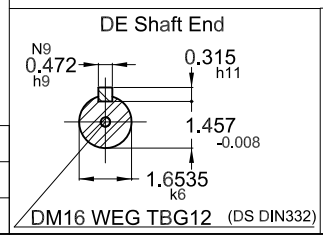
Heating constant : 24.6 min
Cooling constant : 73.8 min

| Rev. | Changes Summary | | Rev. | Checked | Date |
|--------------|-----------------|--|--------------------------------------|---------|------|
| Performed by | johnson | | 1228358182 Page 5 / 5 Rev. 1 | | |
| Checked by | | | | | |
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A
B
C
D
E

Color RAL 5009
Painting plan 203A
Mounting B35T



15 kW 04 Poles 60 Hz A

GOL PUMP TECHNOLOGY, INC.

| ECM | LOC | SUMMARY OF MODIFICATIONS | EXECUTED | CHECKED | RELEASED | DATE | VER |
|----------|-----------|-------------------------------------|---------------------|---------|----------|------|-----|
| EXECUTED | PIRWBUSER | THREE PHASE W22 MOTOR - PREMIUM EFF | | | | | |
| CHECKED | | FRAME 160M IP55 TEFC | | | | | |
| RELEASED | | | | | | | |
| REL DT. | WMO | Jaragua do Sul | Product Engineering | | | | |

PREVIEW
WDD



SHEET 1 / 1

Dimensions in inches XME A3