

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

| | | | | |
|--|---|--|------------------------|----------|
| Customer : | | | | |
| Product line | : W40 JM Pump NEMA Premium Efficiency Three-Phase | Product code : | 14484970 | |
| | | Catalog # : | 05036OT3H324JM-W40 | |
| Frame | : 324JM | Locked rotor time | : 25s (cold) 14s (hot) | |
| Output | : 50 HP (37 kW) | Temperature rise | : 80 K | |
| Poles | : 2 | 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 | : 47.5 A | Protection degree | : IP23 | |
| L. R. Amperes | : 299 A | Cooling method | : IC01 - ODP | |
| LRC | : 6.3x(Code G) | Mounting | : F-1 | |
| No load current | : 18.0 A | Rotation ¹ | : Both (CW and CCW) | |
| Rated speed | : 3560 rpm | Noise level ² | : 75.0 dB(A) | |
| Slip | : 1.11 % | Starting method | : Direct On Line | |
| Rated torque | : 73.8 ft.lb | Approx. weight ³ | : 524 lb | |
| Locked rotor torque | : 200 % | | | |
| Breakdown torque | : 220 % | | | |
| Insulation class | : F | | | |
| Service factor | : 1.25 | | | |
| Moment of inertia (J) | : 3.02 sq.ft.lb | | | |
| Design | : B | | | |
| Output | 25% 50% 75% 100% | Foundation loads | | |
| Efficiency (%) | 91.5 91.7 93.0 93.0 | Max. traction | | |
| Power Factor | 0.46 0.72 0.81 0.84 | Max. compression | | |
| | | <u>Drive end</u> | <u>Non drive end</u> | |
| Bearing type | : | 6312 Z C3 | 6211 Z C3 | |
| Sealing | : | Without Bearing Seal | Without Bearing Seal | |
| Lubrication interval | : | 19658 h | 20000 h | |
| Lubricant amount | : | 21 g | 11 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



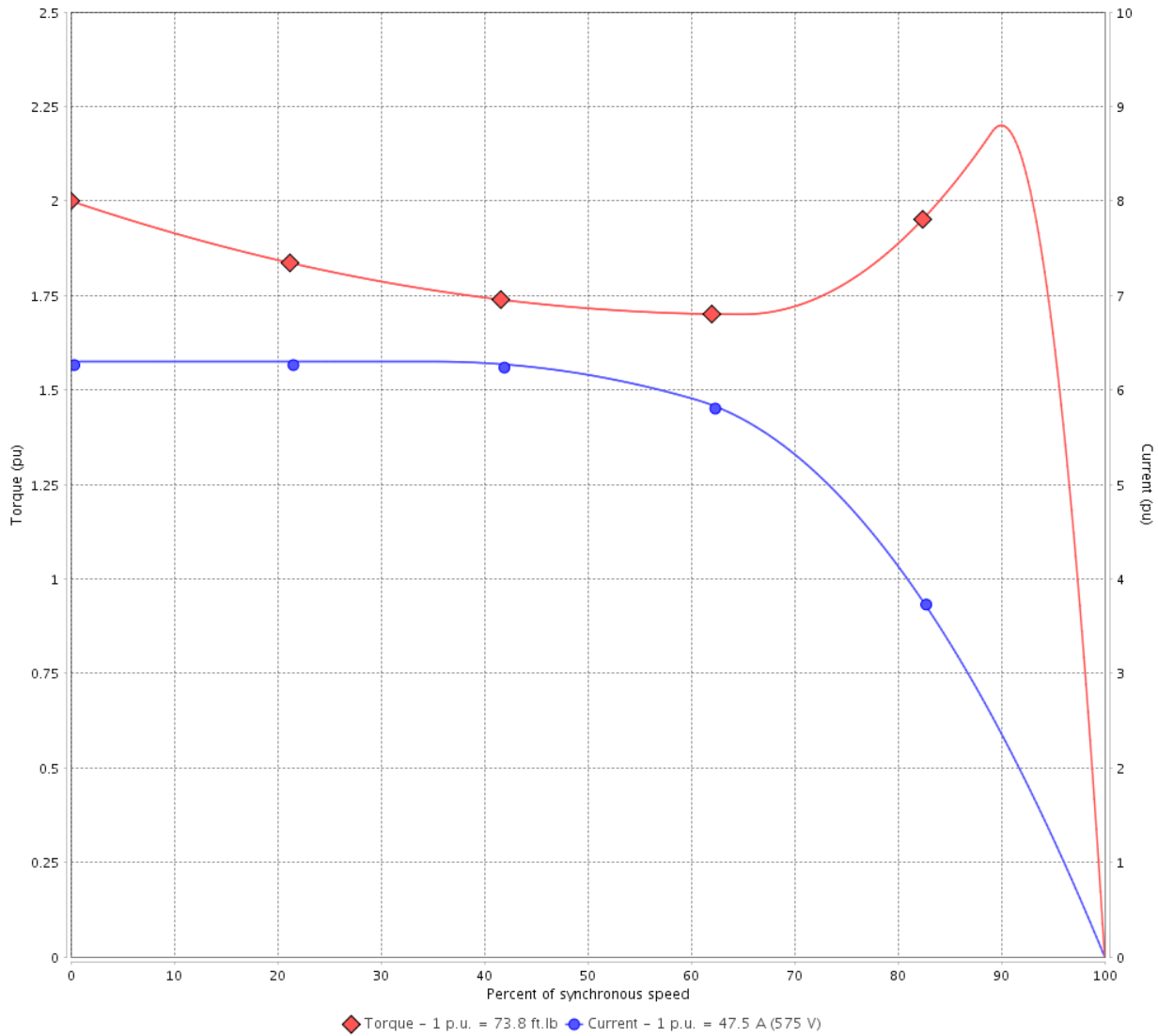
Customer :

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

Product code : 14484970

Catalog # : 05036OT3H324JM-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 2P

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 47.5 A | Moment of inertia (J) | : 3.02 sq.ft.lb |
| LRC | : 6.3 | Duty cycle | : Cont.(S1) |
| Rated torque | : 73.8 ft.lb | Insulation class | : F |
| Locked rotor torque | : 200 % | Service factor | : 1.25 |
| Breakdown torque | : 220 % | Temperature rise | : 80 K |
| Rated speed | : 3560 rpm | Design | : B |

Locked rotor time : 25s (cold) 14s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

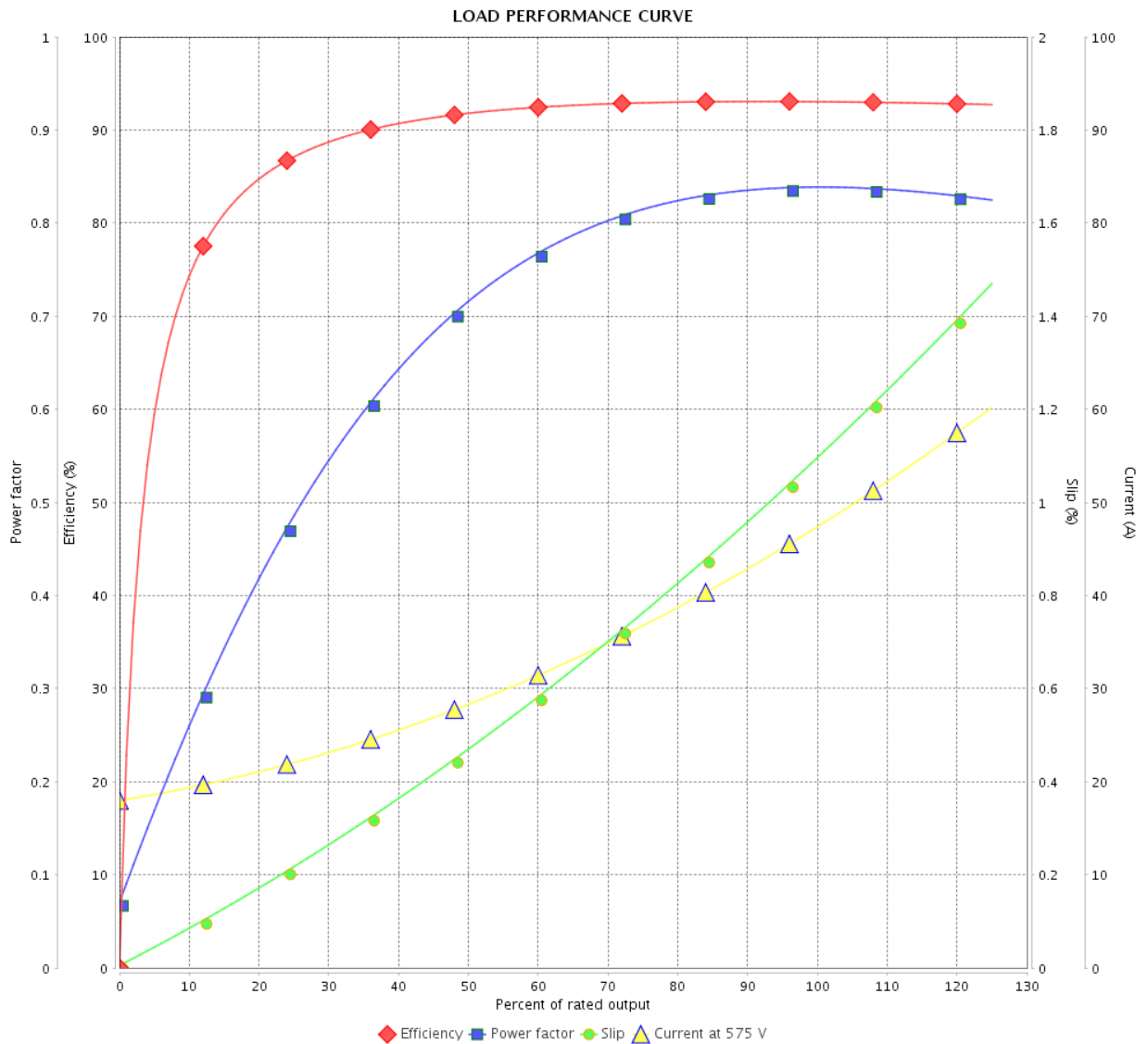


Customer :

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

Product code : 14484970

Catalog # : 05036OT3H324JM-W40



Performance : 575 V 60 Hz 2P

Rated current : 47.5 A
 LRC : 6.3
 Rated torque : 73.8 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 220 %
 Rated speed : 3560 rpm

Moment of inertia (J) : 3.02 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

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Efficiency Three-Phase

Product code : 14484970

Catalog # : 05036OT3H324JM-W40

Performance : 575 V 60 Hz 2P

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| LRC | : 6.3 | Duty cycle | : Cont.(S1) |
| Rated torque | : 73.8 ft.lb | Insulation class | : F |
| Locked rotor torque | : 200 % | Service factor | : 1.25 |
| Breakdown torque | : 220 % | Temperature rise | : 80 K |
| Rated speed | : 3560 rpm | Design | : B |

Heating constant

Cooling constant

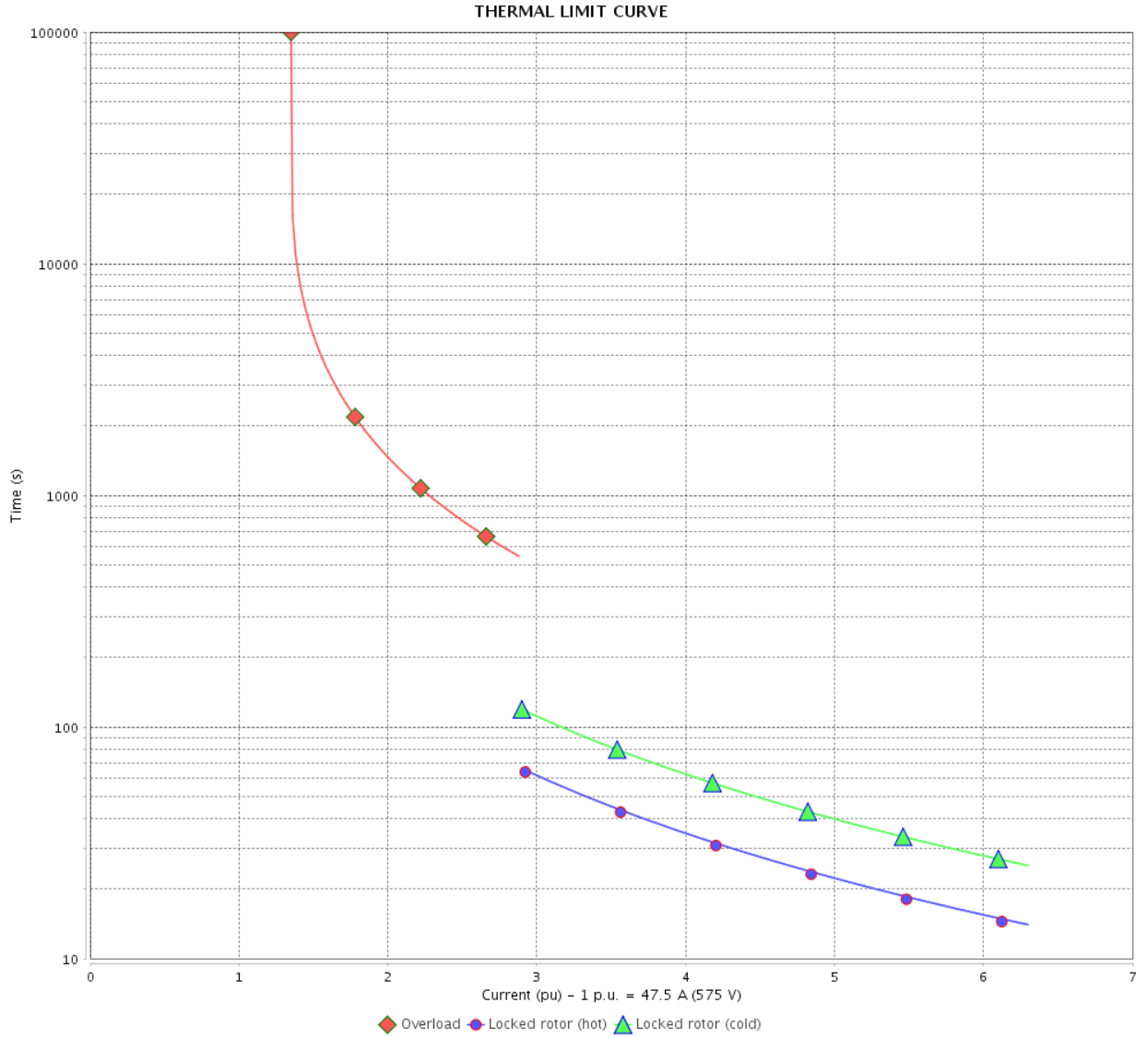
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



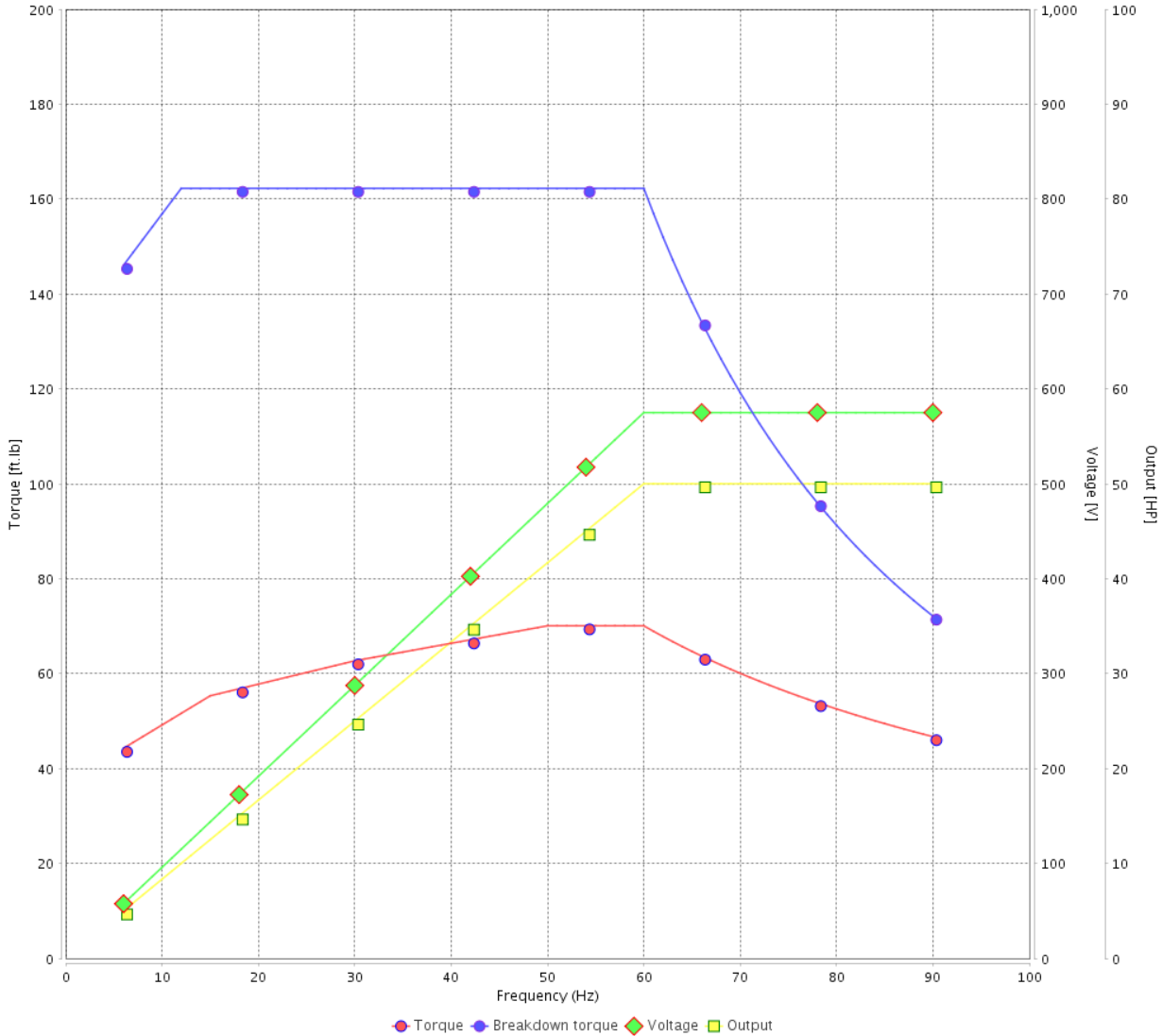
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VFD OPERATION CURVE

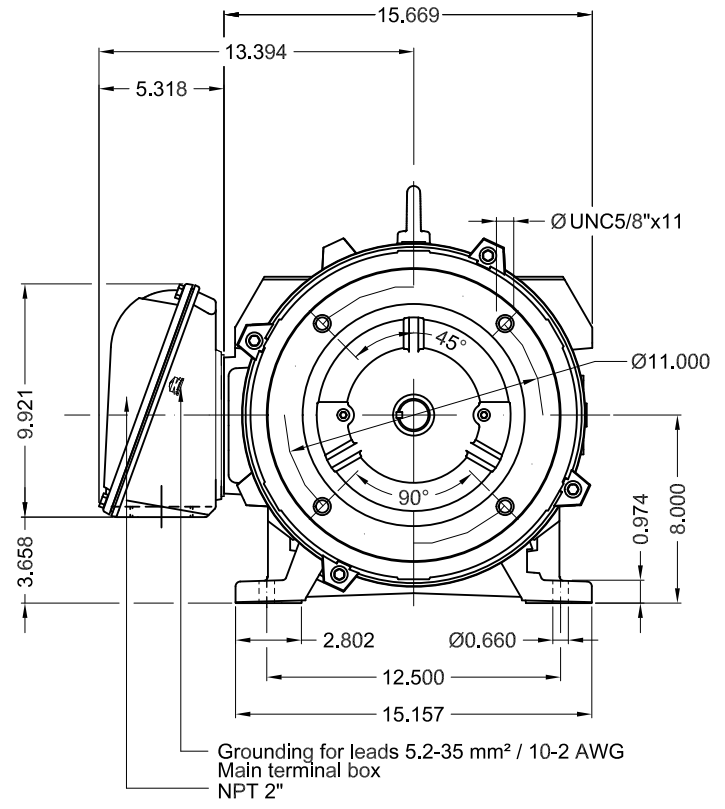


Performance : 575 V 60 Hz 2P

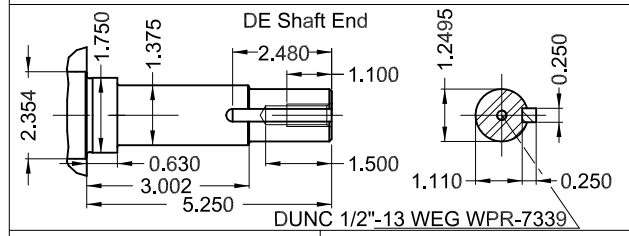
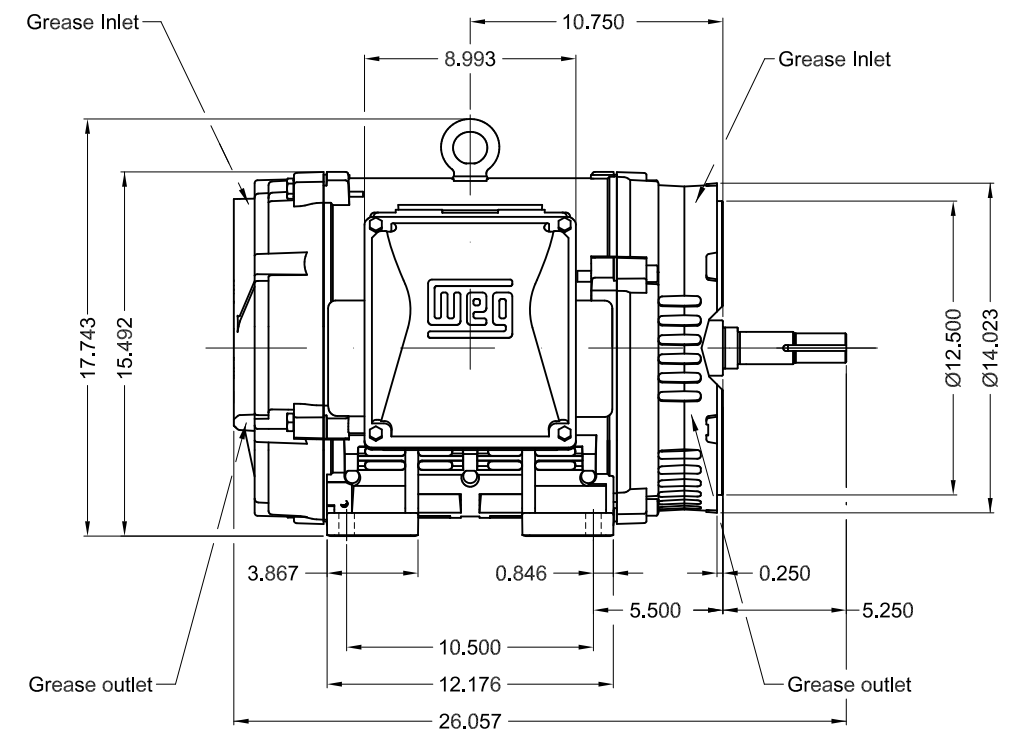
Rated current : 47.5 A
 LRC : 6.3
 Rated torque : 73.8 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 220 %
 Rated speed : 3560 rpm

Moment of inertia (J) : 3.02 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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Grounding for leads 5.2-35 mm² / 10-2 AWG
Main terminal box
NPT 2"



50 HP 02 Poles 60 Hz A

1:8

| ECM | LOC | SUMMARY OF MODIFICATIONS | EXECUTED | CHECKED | RELEASED | DATE | VER |
|----------|-----------|--|---------------------|---------|----------|------|-----|
| EXECUTED | PIRWBUSER | THREE PH. MOTOR W40 CLOSE COUPLED PUMP JM TYPE PREM-EST. | | | | | |
| CHECKED | | FRAME 324JM IP23 ODP | | | | | |
| RELEASED | | | | | | | |
| REL DT. | WMO | Jaragua do Sul | Product Engineering | SHEET | 1 / 1 | | |

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

PREVIEW
WDD

