# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase

Product code : 11889522

| | | | |
|---|---|---|---|
| Frame | : 404/5T | Cooling method | : IC411 - TEFC |
| Insulation class | : F | Mounting | : F-1 |
| Duty cycle | : Cont.(S1) | Rotation[1] | : Both (CW and CCW) |
| Ambient temperature | : -20°C to +40°C | Starting method | : Direct On Line |
| Altitude | : 1000 m.a.s.l. | Approx. weight[3] | : 550 kg |
| Protection degree | : IP55 | Moment of inertia (J) | : 1.69 kgm² |
| Design | : B | | |

| | | | | | |
|---|---|---|---|---|---|
| Output [HP] | | 75 | 60 | 60 | 60 |
| Poles | | 6 | 6 | 6 | 6 |
| Frequency [Hz] | | 60 | 50 | 50 | 50 |
| Rated voltage [V] | | 230/460 | 380 | 400 | 415 |
| Rated current [A] | | 174/87.0 | 86.6 | 84.3 | 81.8 |
| L. R. Amperes [A] | | 1340/670 | 624 | 666 | 687 |
| LRC [A] | | 7.7x(Code J) | 7.2x(Code H) | 7.9x(Code J) | 8.4x(Code K) |
| No load current [A] | | 62.5/31.3 | 31.0 | 33.6 | 36.0 |
| Rated speed [RPM] | | 1185 | 985 | 987 | 988 |
| Slip [%] | | 1.25 | 1.50 | 1.30 | 1.20 |
| Rated torque [kgfm] | | 45.9 | 44.2 | 44.1 | 44.1 |
| Locked rotor torque [%] | | 250 | 229 | 260 | 280 |
| Breakdown torque [%] | | 260 | 250 | 280 | 300 |
| Service factor | | 1.15 | 1.00 | 1.00 | 1.00 |
| Temperature rise | | 80 K | 80 K | 80 K | 80 K |
| Locked rotor time | | 27s (cold) 15s (hot) | 27s (cold) 15s (hot) | 27s (cold) 15s (hot) | 27s (cold) 15s (hot) |
| Noise level[2] | | 65.0 dB(A) | 61.0 dB(A) | 61.0 dB(A) | 61.0 dB(A) |
| Efficiency (%) | 25% | | | | |
| | 50% | 94.1 | 94.0 | 93.6 | 93.6 |
| | 75% | 95.0 | 94.0 | 94.5 | 94.5 |
| | 100% | 94.5 | 94.0 | 94.0 | 94.5 |
| Power Factor | 25% | | | | |
| | 50% | 0.72 | 0.72 | 0.68 | 0.64 |
| | 75% | 0.81 | 0.81 | 0.78 | 0.76 |
| | 100% | 0.84 | 0.84 | 0.82 | 0.81 |

| | | Drive end | Non drive end |
|---|---|---|---|
| Bearing type | : | NU-217 C3 | 6314 C3 |
| Sealing | : | Oil Seal | Lip Seal |
| Lubrication interval | : | 10272 h | 14267 h |
| Lubricant amount | : | 21 g | 27 g |
| Lubricant type | : | Mobil Polyrex EM | |

Foundation loads

Max. traction : 1026 kgf

Max. compression : 1576 kgf

Notes

USABLE @208V 192A SF 1.00 SFA 192A

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 |
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Customer :

**Thermal protection**

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




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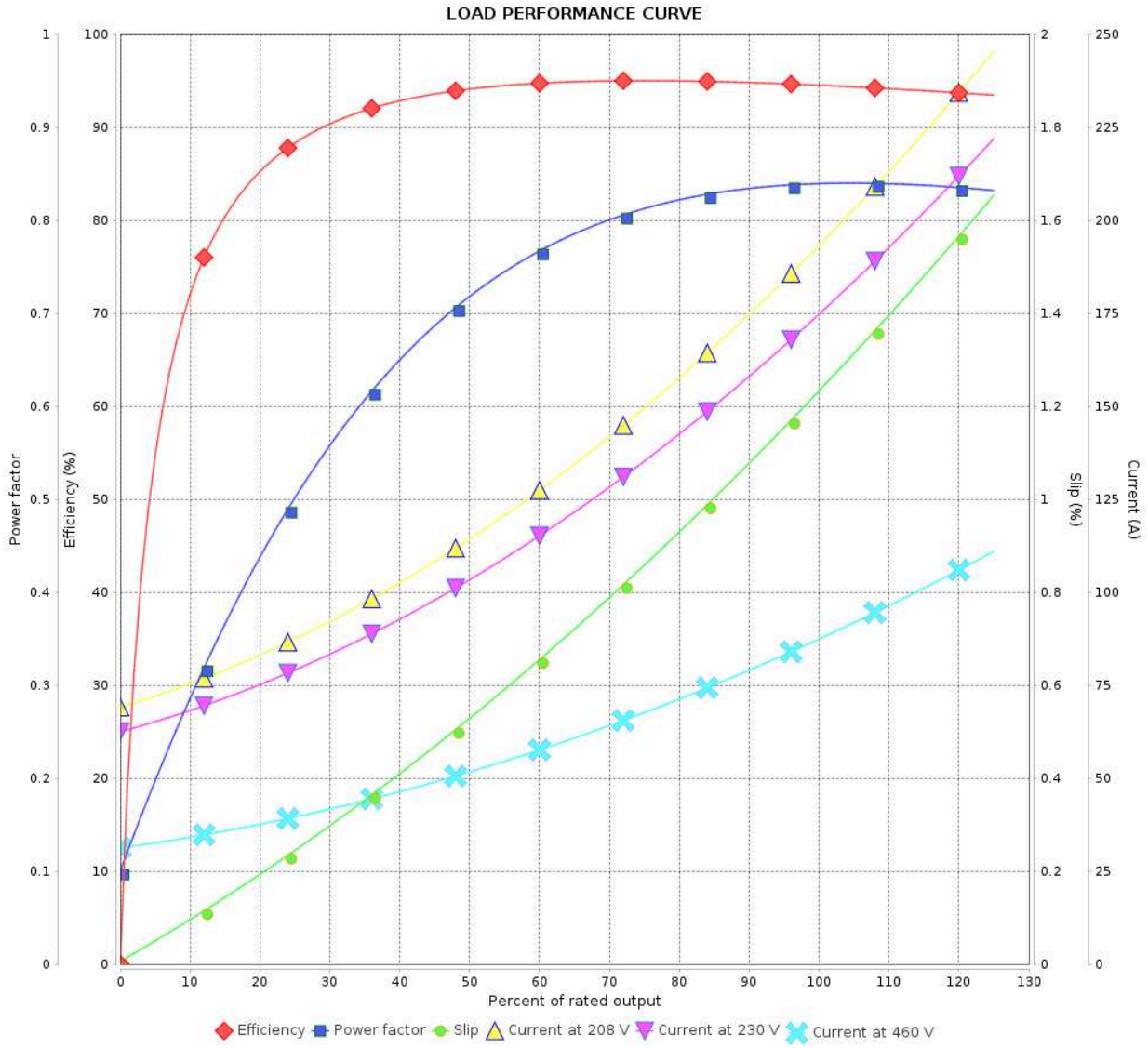
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase

Product code : 11889522




| | | | |
|---|---|---|---|
| Performance | : 230/460 V 60 Hz 6P | | |
| Rated current | : 174/87.0 A | Moment of inertia (J) | : 1.69 kgm² |
| LRC | : 7.7 | Duty cycle | : Cont.(S1) |
| Rated torque | : 45.9 kgfm | Insulation class | : F |
| Locked rotor torque | : 250 % | Service factor | : 1.15 |
| Breakdown torque | : 260 % | Temperature rise | : 80 K |
| Rated speed | : 1185 rpm | Design | : B |

| Rev. | Changes Summary | Performed | Checked | Date |
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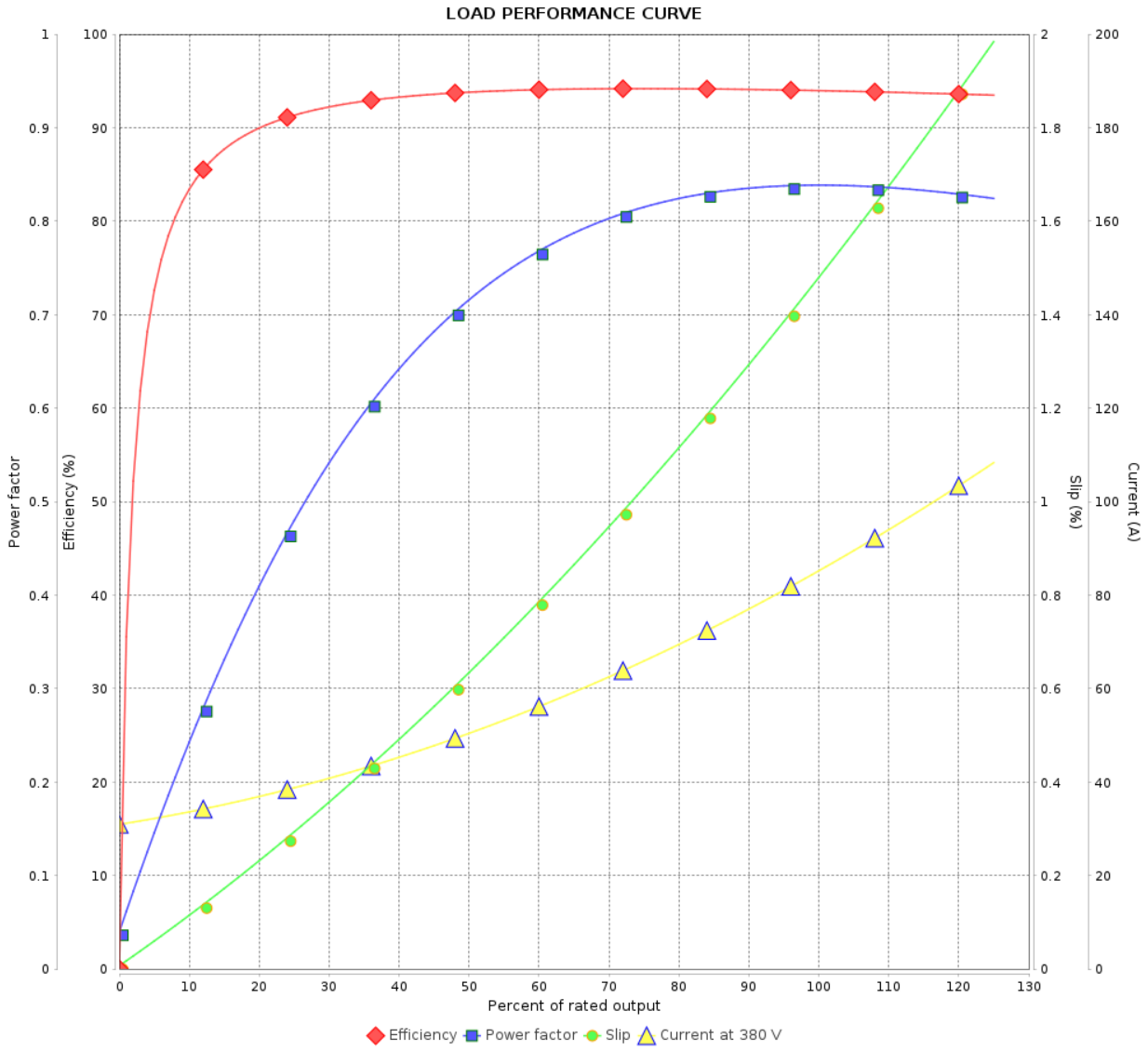
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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

| | |
|---|---|
| Customer | : |

| | | | |
|---|---|---|---|
| Product line | : W21 Explosion Proof NEMA Premium Efficiency Three-Phase | Product code : | 11889522 |




| | |
|---|---|
| Performance | : 380 V 50 Hz 6P IE3 |

| | | | |
|---|---|---|---|
| Rated current | : 86.6 A | Moment of inertia (J) | : 1.69 kgm² |
| LRC | : 7.2 | Duty cycle | : Cont.(S1) |
| Rated torque | : 44.2 kgfm | Insulation class | : F |
| Locked rotor torque | : 229 % | Service factor | : 1.00 |
| Breakdown torque | : 250 % | Temperature rise | : 80 K |
| Rated speed | : 985 rpm | Design | : B |

| Rev. | Changes Summary | Performed | Checked | Date |
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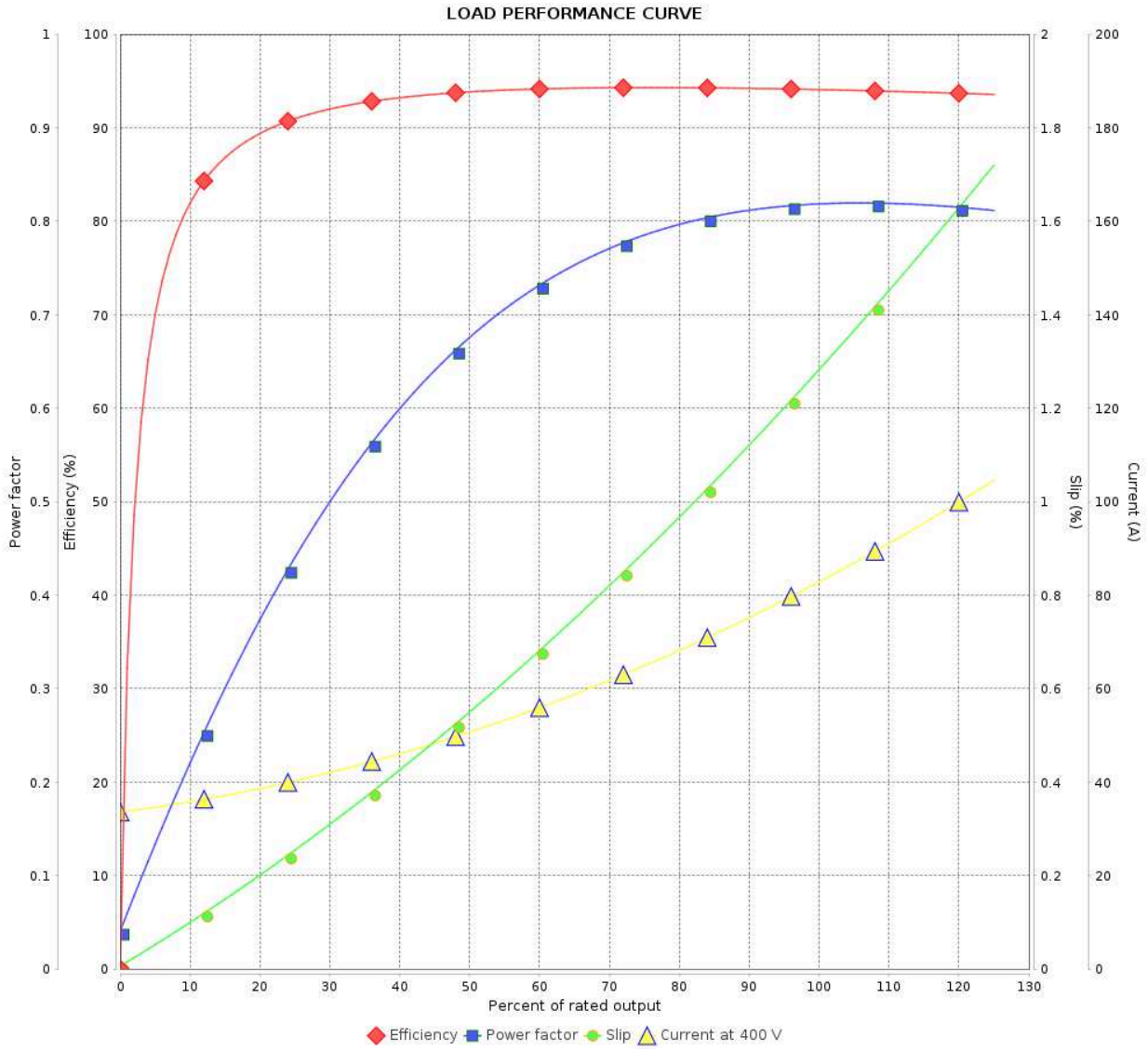
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase

Product code : 11889522




| | | | |
|---|---|---|---|
| Performance | : 400 V 50 Hz 6P IE3 | | |
| Rated current | : 84.3 A | Moment of inertia (J) | : 1.69 kgm² |
| LRC | : 7.9 | Duty cycle | : Cont.(S1) |
| Rated torque | : 44.1 kgfm | Insulation class | : F |
| Locked rotor torque | : 260 % | Service factor | : 1.00 |
| Breakdown torque | : 280 % | Temperature rise | : 80 K |
| Rated speed | : 987 rpm | Design | : B |

| Rev. | Changes Summary | Performed | Checked | Date |
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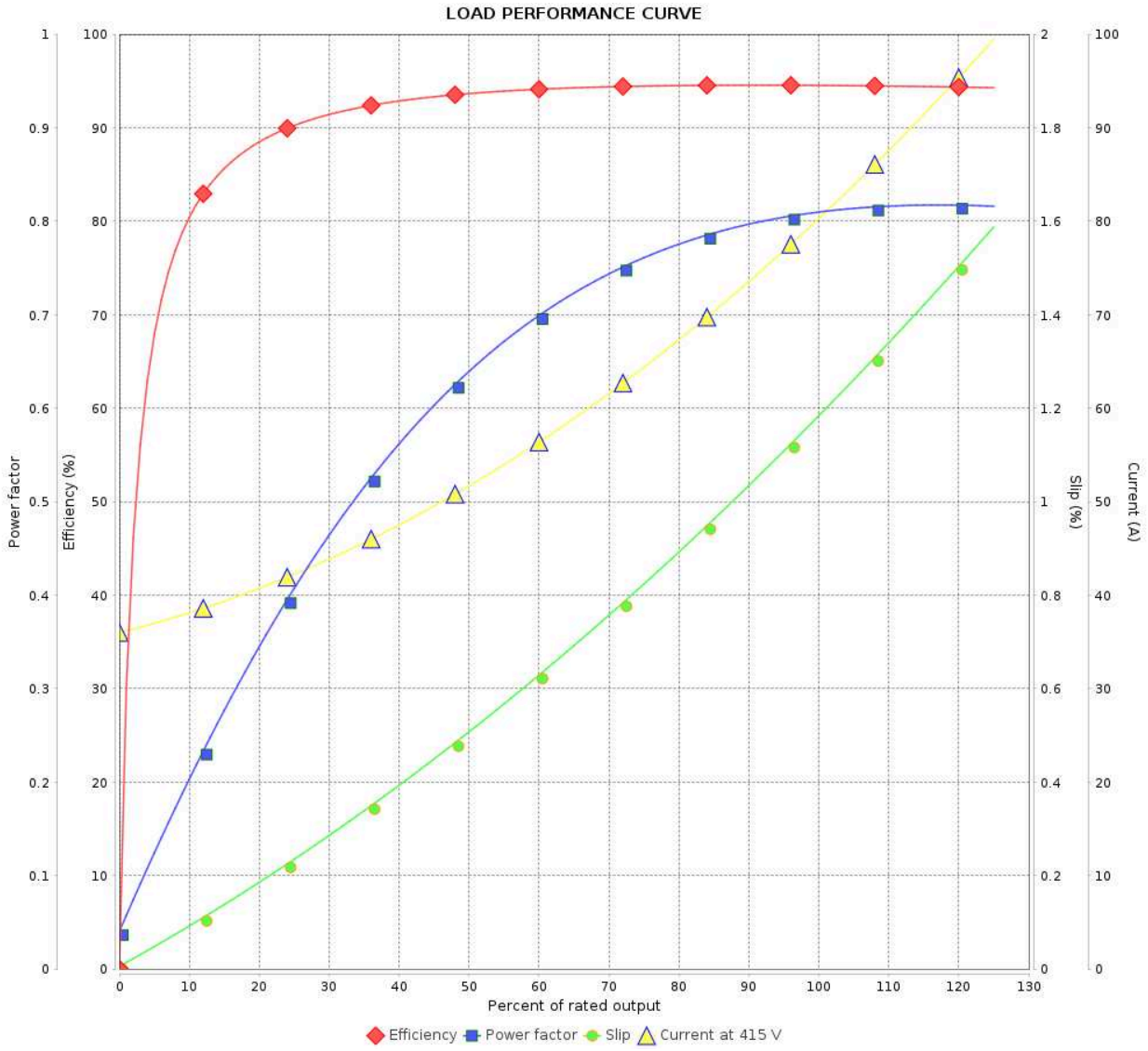
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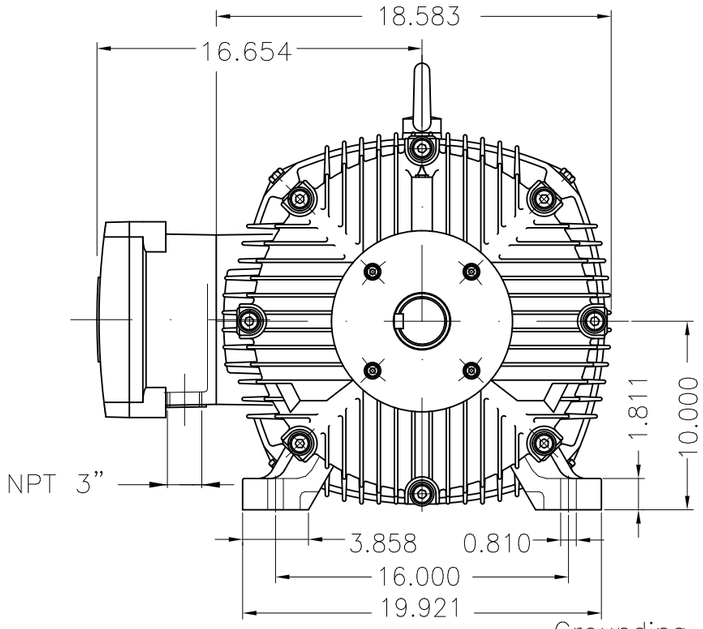


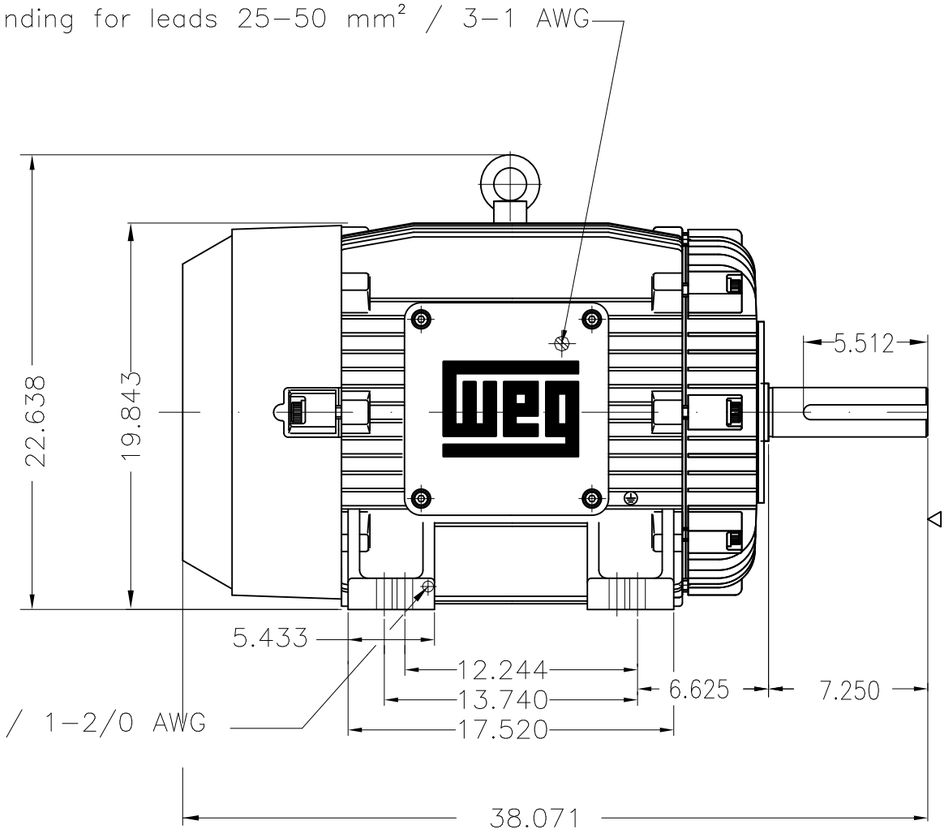

| | | | |
|---|---|---|---|
| Performance | : 415 V 50 Hz 6P IE3 | | |
| Rated current | : 81.8 A | Moment of inertia (J) | : 1.69 kgm² |
| LRC | : 8.4 | Duty cycle | : Cont.(S1) |
| Rated torque | : 44.1 kgfm | Insulation class | : F |
| Locked rotor torque | : 280 % | Service factor | : 1.00 |
| Breakdown torque | : 300 % | Temperature rise | : 80 K |
| Rated speed | : 988 rpm | Design | : B |

| Rev. | Changes Summary | Performed | Checked | Date |
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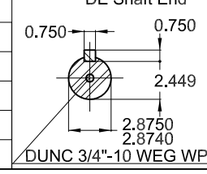
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DE roller bearing
Shaft locking device
Color RAL 5009
Painting plan 202P
Mounting B3R(D)

DE Shaft End




DUNC 3/4"-10 WEG WPR-7339

75 HP 06 Poles 60 Hz | A

| ECM | LOC | SUMMARY OF MODIFICATIONS | EXECUTED | CHECKED | RELEASED | DATE | VER |
|---|---|---|---|---|---|---|---|
| | | | HYBRISUSER | | | | 00 |

| | | | |
|---|---|---|---|
| EXECUTED | HYBRISUSER | THREE PH. MOTOR EXPLOSION PROOF NEMA PREM. EFF. | PREVIEW |
| CHECKED | | FRAME 404/5T IP55 TEFC | WDD 00 |
| RELEASED | | | |
| REL. DATE | | WMO Jaragua do Sul Product Engineering | SHEET 1 / 1 |

Dimensions in inches

XME A3

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