

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 12097710

| | | | |
|-----------------------|-------------------------|-----------------------------|------------------------|
| Frame | : 404/5TC | Locked rotor time | : 23s (cold) 13s (hot) |
| Output | : 100 HP (75 kW) | Temperature rise | : 80 K |
| Poles | : 4 | 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 | : 90.4 A | Protection degree | : IP55 |
| L. R. Amperes | : 651 A | Cooling method | : IC411 - TEFC |
| LRC | : 7.2x(Code H) | Mounting | : F-1 |
| No load current | : 31.2 A | Rotation ¹ | : Both (CW and CCW) |
| Rated speed | : 1780 rpm | Noise level ² | : 75.0 dB(A) |
| Slip | : 1.11 % | Starting method | : Direct On Line |
| Rated torque | : 40.8 kgfm | Approx. weight ³ | : 564 kg |
| Locked rotor torque | : 270 % | | |
| Breakdown torque | : 280 % | | |
| Insulation class | : F | | |
| Service factor | : 1.15 | | |
| Moment of inertia (J) | : 1.11 kgm ² | | |
| Design | : B | | |

| | | | | | |
|----------------|------|------|------|------------------|------------|
| Output | 50% | 75% | 100% | Foundation loads | |
| Efficiency (%) | 94.5 | 95.0 | 95.4 | Max. traction | : 842 kgf |
| Power Factor | 0.72 | 0.82 | 0.87 | Max. compression | : 1404 kgf |

| | Drive end | Non drive end |
|----------------------|------------------|---------------|
| Bearing type | : 6217 C3 | 6314 C3 |
| Sealing | : Oil Seal | Lip Seal |
| Lubrication interval | : 9149 h | 9789 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 |
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| Checked by | | | | |
| Date | 30/10/2024 | | | |

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Customer :

Thermal protection

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

| | | | | | |
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| Rev. | Changes Summary | | Performed | Checked | Date |
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| Date | 30/10/2024 | | | | |

LOAD PERFORMANCE CURVE

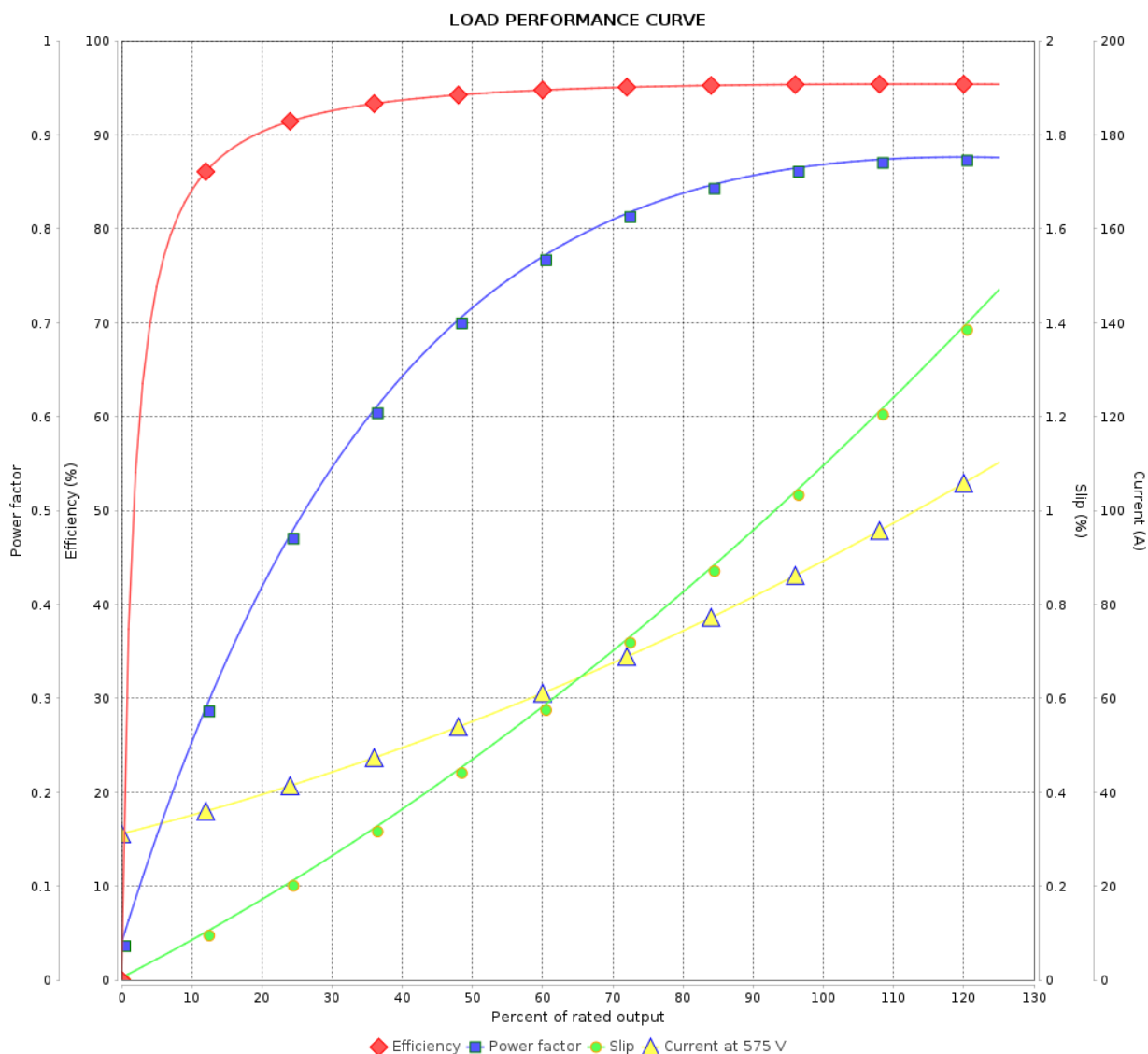
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12097710



Performance : 575 V 60 Hz 4P

Rated current : 90.4 A
LRC : 7.2
Rated torque : 40.8 kgfm
Locked rotor torque : 270 %
Breakdown torque : 280 %
Rated speed : 1780 rpm

Moment of inertia (J) : 1.11 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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