

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



| | | | | | | | | | | | | |
|--|---|-----------------------------|------------------------|--|----------------------|---------|------|--|--|--|--|--|
| Customer : | | | | | | | | | | | | |
| Product line | : W22 Cooling Tower NEMA Premium Efficiency Three-Phase | | | Product code : | 11972802 | | | | | | | |
| | | | | Catalog # : | 00518ET3ECT184TF1-W2 | | | | | | | |
| Frame | : 182/4T | Locked rotor time | : 27s (cold) 15s (hot) | | | | | | | | | |
| Output | : 5 HP (3.7 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 | : 13.0/6.49 A | Protection degree | : IP55 | | | | | | | | | |
| L. R. Amperes | : 97.4/48.7 A | Cooling method | : IC411 - TEFC | | | | | | | | | |
| LRC | : 7.5x(Code J) | Mounting | : F-1 | | | | | | | | | |
| No load current | : 5.80/2.90 A | Rotation ¹ | : Both (CW and CCW) | | | | | | | | | |
| Rated speed | : 1750 rpm | Noise level ² | : 56.0 dB(A) | | | | | | | | | |
| Slip | : 2.78 % | Starting method | : Direct On Line | | | | | | | | | |
| Rated torque | : 15.0 ft.lb | Approx. weight ³ | : 100 lb | | | | | | | | | |
| Locked rotor torque | : 229 % | | | | | | | | | | | |
| Breakdown torque | : 290 % | | | | | | | | | | | |
| Insulation class | : F | | | | | | | | | | | |
| Service factor | : 1.25 | | | | | | | | | | | |
| Moment of inertia (J) | : 0.4003 sq.ft.lb | | | | | | | | | | | |
| Design | : B | | | | | | | | | | | |
| Output | 25% | 50% | 75% | 100% | Foundation loads | | | | | | | |
| Efficiency (%) | 88.2 | 87.7 | 88.5 | 87.5 | 89.5 | 88.2 | 89.5 | | | | | |
| | 86.4 | 86.2 | 86.7 | 86.5 | 88.2 | 88.2 | 88.2 | | | | | |
| | 89.1 | 88.0 | 88.5 | 87.5 | 87.5 | 88.5 | 86.5 | | | | | |
| | 88.0 | | | | | | | | | | | |
| Power Factor | 0.38 | 0.38 | 0.62 | 0.61 | 0.74 | 0.75 | 0.80 | | | | | |
| | 0.34 | 0.31 | 0.57 | 0.53 | 0.71 | 0.67 | 0.79 | | | | | |
| | 0.45 | 0.41 | 0.69 | 0.65 | 0.80 | 0.77 | 0.84 | | | | | |
| | 0.38 | | | | | | | | | | | |
| Losses (%) | 0.61 | | 0.74 | 0.80 | | | | | | | | |
| Losses at normative operating points (speed/torque), in percentage of rated output power | | | | | | | | | | | | |
| Losses (%) | P1 (0,9;1,0) | 11.2 | 13.4 | 12.8 | 12.8 | 14.9 | 13.6 | | | | | |
| | P2 (0,5;1,0) | 9.4 | 11.2 | 10.7 | 10.7 | 12.5 | 11.4 | | | | | |
| | P3 (0,25;1,0) | 8.7 | 10.3 | 9.9 | 9.9 | 11.5 | 10.5 | | | | | |
| | P4 (0,9;0,5) | 5.3 | 6.4 | 6.1 | 6.1 | 7.1 | 6.5 | | | | | |
| | P5 (0,5;0,5) | 3.7 | 4.4 | 4.2 | 4.2 | 4.9 | 4.4 | | | | | |
| | P6 (0,5;0,25) | 2.4 | 2.9 | 2.7 | 2.7 | 3.2 | 2.9 | | | | | |
| | P7 (0,25;0,25) | 1.7 | 2.1 | 2.0 | 2.0 | 2.3 | 2.1 | | | | | |
| Drive end | | | | | | | | | | | | |
| Bearing type | : | 6207 2RS | Non drive end | | | | | | | | | |
| Sealing | : | V'Ring | 6206 2RS | | | | | | | | | |
| Lubrication interval | : | - | V'Ring | | | | | | | | | |
| Lubricant amount | : | - | - | | | | | | | | | |
| Lubricant type | : | Mobil Polyrex EM | | | | | | | | | | |
| Notes: | | | | | | | | | | | | |
| This revision replaces and cancel the previous one, which must be eliminated. | | | | These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1. | | | | | | | | |
| (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. | | | | | | | | | | | | |
| Rev. | Changes Summary | | | | Performed | Checked | Date | | | | | |
| | | | | | | | | | | | | |
| Performed by | | | | | | Page | | | | | | |
| Checked by | | | | | | | | | | | | |
| Date | | 28/03/2024 | | | | | | | | | | |

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Space heater information

Voltage: 110-127/200-240 V

| Rev. | Changes Summary | | Performed | Checked | Date |
|--------------|-----------------|--|-----------|---------|----------|
| | | | | | |
| Performed by | | | | | |
| Checked by | | | | Page | Revision |
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