

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12053033

Catalog # : 45009ET3G588/9-W22

| | | | |
|-----------------------|-------------------|-----------------------------|------------------------|
| Frame | : 588/9T | Locked rotor time | : 48s (cold) 27s (hot) |
| Output | : 450 HP (330 kW) | Temperature rise | : 80 K |
| Poles | : 8 | Duty cycle | : Cont.(S1) |
| Frequency | : 60 Hz | Ambient temperature | : -20°C to +40°C |
| Rated voltage | : 460 V | Altitude | : 1000 m.a.s.l. |
| Rated current | : 534 A | Protection degree | : IP55 |
| L. R. Amperes | : 3738 A | Cooling method | : IC411 - TEFC |
| LRC | : 7.0x(Code H) | Mounting | : F-1 |
| No load current | : 200 A | Rotation ¹ | : Both (CW and CCW) |
| Rated speed | : 893 rpm | Noise level ² | : 75.0 dB(A) |
| Slip | : 0.78 % | Starting method | : Direct On Line |
| Rated torque | : 2650 ft.lb | Approx. weight ³ | : 5811 lb |
| Locked rotor torque | : 160 % | | |
| Breakdown torque | : 229 % | | |
| Insulation class | : F | | |
| Service factor | : 1.00 | | |
| Moment of inertia (J) | : 617 sq.ft.lb | | |

| Output | 25% | | 50% | | 75% | | 100% | | Foundation loads | |
|----------------|------|------|------|------|------|------|------|------|------------------|------------|
| Efficiency (%) | 95.0 | 95.3 | 95.2 | 95.4 | 95.7 | 95.4 | 95.8 | 95.4 | Max. traction | : 11693 lb |
| | 95.3 | 95.3 | 95.4 | 95.4 | 95.4 | 95.4 | 95.4 | 95.4 | | |
| Power Factor | 0.42 | 0.48 | 0.65 | 0.72 | 0.75 | 0.81 | 0.81 | 0.84 | Max. compression | : 17504 lb |
| | 0.44 | 0.41 | 0.67 | 0.64 | 0.77 | 0.74 | 0.82 | 0.80 | | |

Losses at normative operating points (speed;torque), in percentage of rated output power

| | | | | | |
|------------|----------------|-----|-----|-----|-----|
| Losses (%) | P1 (0,9;1,0) | 4.7 | 5.2 | 5.2 | 5.2 |
| | P2 (0,5;1,0) | 3.7 | 4.0 | 4.0 | 4.0 |
| | P3 (0,25;1,0) | 3.1 | 3.4 | 3.4 | 3.4 |
| | P4 (0,9;0,5) | 2.6 | 2.8 | 2.8 | 2.8 |
| | P5 (0,5;0,5) | 1.8 | 2.0 | 2.0 | 2.0 |
| | P6 (0,5;0,25) | 1.3 | 1.5 | 1.5 | 1.5 |
| | P7 (0,25;0,25) | 0.8 | 0.9 | 0.9 | 0.9 |

| | | | |
|----------------------|---|--------------------|----------------------|
| | | <u>Drive end</u> | <u>Non drive end</u> |
| Bearing type | : | 6322 C3 | 6319 C3 |
| Sealing | : | Taconite Labyrinth | Taconite Labyrinth |
| Lubrication interval | : | 14000 h | 17000 h |
| Lubricant amount | : | 60 g | 45 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 | | | | |
| Date | 28/03/2024 | | | |
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Three Phase Induction Motor - Squirrel Cage



Customer :

Space heater information

Voltage: 200 - 240 V

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