

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency
Three-Phase

Product code : 12376315

Catalog # : 00209ST3QIE213TC-W22

Frame : 213/5TC
Output : 2 HP (1.5 kW)
Poles : 8
Frequency : 60 Hz
Rated voltage : 460 V
Rated current : 3.39 A
L. R. Amperes : 23.4 A
LRC : 6.9x(Code L)
No load current : 2.30 A
Rated speed : 875 rpm
Slip : 2.78 %
Rated torque : 12.0 ft.lb
Locked rotor torque : 220 %
Breakdown torque : 290 %
Insulation class : F
Service factor : 1.25
Moment of inertia (J) : 1.79 sq.ft.lb
Design : B

Locked rotor time : 70s (cold) 39s (hot)
Temperature rise : 80 K
Duty cycle : Cont.(S1)
Ambient temperature : -20°C to +40°C
Altitude : 1000 m.a.s.l.
Protection degree : IP56
Cooling method : IC411 - TEFC
Mounting : F-1
Rotation¹ : Both (CW and CCW)
Noise level² : 52.0 dB(A)
Starting method : Direct On Line
Approx. weight³ : 170 lb

| Output | 25% | | 50% | | 75% | | 100% | |
|----------------|------|------|------|------|------|------|------|------|
| Efficiency (%) | 81.0 | 81.2 | 82.5 | 81.5 | 84.0 | 82.0 | 85.5 | 82.0 |
| | 81.2 | 81.2 | 81.5 | 81.5 | 82.5 | 82.5 | 82.5 | 82.5 |
| Power Factor | 0.24 | 0.29 | 0.45 | 0.52 | 0.55 | 0.62 | 0.65 | 0.71 |
| | 0.27 | 0.25 | 0.49 | 0.46 | 0.59 | 0.56 | 0.69 | 0.67 |

Foundation loads
Max. traction : 143 lb
Max. compression : 314 lb

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

| | | | | | |
|------------|----------------|------|------|------|------|
| Losses (%) | P1 (0,9;1,0) | 16.1 | 20.8 | 20.1 | 20.1 |
| | P2 (0,5;1,0) | 13.5 | 17.5 | 16.9 | 16.9 |
| | P3 (0,25;1,0) | 13.2 | 17.1 | 16.5 | 16.5 |
| | P4 (0,9;0,5) | 9.6 | 12.4 | 12.0 | 12.0 |
| | P5 (0,5;0,5) | 7.0 | 9.0 | 8.7 | 8.7 |
| | P6 (0,5;0,25) | 5.6 | 7.2 | 7.0 | 7.0 |
| | P7 (0,25;0,25) | 4.4 | 5.7 | 5.5 | 5.5 |

| | | | |
|----------------------|---|------------------|----------------------|
| | | <u>Drive end</u> | <u>Non drive end</u> |
| Bearing type | : | 6308 C3 | 6207 C3 |
| Sealing | : | Inpro/Seal | Inpro/Seal |
| Lubrication interval | : | 20000 h | 20000 h |
| Lubricant amount | : | 11 g | 7 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 | 25/03/2024 | | Page 1 / 1 | Revision |