

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12447064

Catalog # : 02009ET3H324T-W22

|                       |                 |                             |                        |
|-----------------------|-----------------|-----------------------------|------------------------|
| Frame                 | : 324/6T        | Locked rotor time           | : 48s (cold) 27s (hot) |
| Output                | : 20 HP (15 kW) | Temperature rise            | : 80 K                 |
| Poles                 | : 8             | 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         | : 22.6 A        | Protection degree           | : IP55                 |
| L. R. Amperes         | : 113 A         | Cooling method              | : IC411 - TEFC         |
| LRC                   | : 5.0x(Code G)  | Mounting                    | : F-1                  |
| No load current       | : 12.8 A        | Rotation <sup>1</sup>       | : Both (CW and CCW)    |
| Rated speed           | : 880 rpm       | Noise level <sup>2</sup>    | : 56.0 dB(A)           |
| Slip                  | : 2.22 %        | Starting method             | : Direct On Line       |
| Rated torque          | : 119 ft.lb     | Approx. weight <sup>3</sup> | : 507 lb               |
| Locked rotor torque   | : 190 %         |                             |                        |
| Breakdown torque      | : 220 %         |                             |                        |
| Insulation class      | : F             |                             |                        |
| Service factor        | : 1.25          |                             |                        |
| Moment of inertia (J) | : 9.37 sq.ft.lb |                             |                        |
| Design                | : B             |                             |                        |

|                |      |      |      |      |                  |           |
|----------------|------|------|------|------|------------------|-----------|
| Output         | 25%  | 50%  | 75%  | 100% | Foundation loads |           |
| Efficiency (%) | 89.2 | 89.5 | 91.0 | 91.0 | Max. traction    | : 754 lb  |
| Power Factor   | 0.31 | 0.54 | 0.66 | 0.73 | Max. compression | : 1261 lb |

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

| P1 (0,9;1,0) | P2 (0,5;1,0) | P3 (0,25;1,0) | P4 (0,9;0,5) | P5 (0,5;0,5) | P6 (0,5;0,25) | P7 (0,25;0,25) |
|--------------|--------------|---------------|--------------|--------------|---------------|----------------|
| 9.5          | 8.0          | 7.7           | 5.2          | 3.7          | 2.8           | 2.0            |

|                      | Drive end          | Non drive end |
|----------------------|--------------------|---------------|
| Bearing type         | : 6312 C3          | : 6212 C3     |
| Sealing              | : V'Ring           | : V'Ring      |
| Lubrication interval | : 20000 h          | : 20000 h     |
| Lubricant amount     | : 21 g             | : 13 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 |                 | Page Revision<br>1 / 1 |         |      |
| Checked by   |                 |                        |         |      |
| Date         | 28/03/2024      |                        |         |      |