

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11453264

|                       |                 |                             |                        |
|-----------------------|-----------------|-----------------------------|------------------------|
| Frame                 | : 213T          | Locked rotor time           | : 70s (cold) 39s (hot) |
| Output                | : 2 HP (1.5 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         | : 3.39 A        | Protection degree           | : IP56                 |
| L. R. Amperes         | : 23.4 A        | Cooling method              | : IC411 - TEFC         |
| LRC                   | : 6.9x(Code L)  | Mounting                    | : F-1                  |
| No load current       | : 2.30 A        | Rotation <sup>1</sup>       | : Both (CW and CCW)    |
| Rated speed           | : 875 rpm       | Noise level <sup>2</sup>    | : 52.0 dB(A)           |
| Slip                  | : 2.78 %        | Starting method             | : Direct On Line       |
| Rated torque          | : 12.0 ft.lb    | Approx. weight <sup>3</sup> | : 349 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             |                             |                        |

|                |      |      |      |      |                  |      |      |      |                  |          |
|----------------|------|------|------|------|------------------|------|------|------|------------------|----------|
| Output         | 25%  | 50%  | 75%  | 100% | Foundation loads |      |      |      |                  |          |
| Efficiency (%) | 81.0 | 81.2 | 82.5 | 81.5 | 84.0             | 82.0 | 85.5 | 82.0 | Max. traction    | : 54 lb  |
|                | 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 | Max. compression | : 403 lb |
|                | 0.27 | 0.25 | 0.49 | 0.46 | 0.59             | 0.56 | 0.69 | 0.67 |                  |          |

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 2RS C3      | 6207 2RS C3          |
| Sealing              | : | Inpro/Seal       | Inpro/Seal           |
| Lubrication interval | : | -                | -                    |
| Lubricant amount     | : | -                | -                    |
| 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         | 25/03/2024      |                        |         |      |