

# Three Phase Induction Motor - Squirrel Cage



Product line : Rolled Steel NEMA Premium Efficiency Three-Phase      Product code : 12729175

|                       |                   |                             |                        |
|-----------------------|-------------------|-----------------------------|------------------------|
| Frame                 | : 143/5T          | Locked rotor time           | : 25s (cold) 14s (hot) |
| Output                | : 2 HP (1.5 kW)   | Temperature rise            | : 80 K                 |
| Poles                 | : 2               | 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         | : 4.84/2.42 A     | Cooling method              | : IC01 - ODP           |
| L. R. Amperes         | : 43.1/21.5 A     | Mounting                    | : F-1                  |
| LRC                   | : 8.9x(Code K)    | Rotation <sup>1</sup>       | : Both (CW and CCW)    |
| No load current       | : 1.83/0.917 A    | Noise level <sup>2</sup>    | : 62.0 dB(A)           |
| Rated speed           | : 3510 rpm        | Starting method             | : Direct On Line       |
| Slip                  | : 2.50 %          | Approx. weight <sup>3</sup> | : 40.8 lb              |
| Rated torque          | : 2.99 ft.lb      |                             |                        |
| Locked rotor torque   | : 220 %           |                             |                        |
| Breakdown torque      | : 330 %           |                             |                        |
| Insulation class      | : F               |                             |                        |
| Service factor        | : 1.15            |                             |                        |
| Moment of inertia (J) | : 0.1151 sq.ft.lb |                             |                        |
| Design                | : B               |                             |                        |

| Output         | 25%  | 50%  | 75%  | 100% | Foundation loads |      |      |      |                  |          |
|----------------|------|------|------|------|------------------|------|------|------|------------------|----------|
| Efficiency (%) | 83.7 | 85.5 | 84.0 | 85.0 | 85.5             | 85.1 | 85.5 | 84.2 | Max. traction    | : 77 lb  |
|                | 85.4 | 84.7 | 84.7 | 84.3 | 85.4             | 85.5 | 84.3 | 84.7 |                  |          |
| Power Factor   | 0.49 | 0.56 | 0.77 | 0.83 | 0.86             | 0.90 | 0.91 | 0.93 | Max. compression | : 118 lb |
|                | 0.52 | 0.49 | 0.80 | 0.77 | 0.88             | 0.87 | 0.92 | 0.91 |                  |          |

|                      | <u>Drive end</u>     | <u>Non drive end</u> |
|----------------------|----------------------|----------------------|
| Bearing type         | 6205 ZZ              | 6203 ZZ              |
| Sealing              | Without Bearing Seal | Without Bearing Seal |
| Lubrication interval | -                    | -                    |
| Lubricant amount     | -                    | -                    |
| Lubricant type       | Mobil Polyrex EM     |                      |

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 |
| Checked by   |                 |  |           | 1 / 1   |          |
| Date         | 27/03/2024      |  |           |         |          |