

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer : MGE  
Customer reference : MGE

Product line : W20 Three-Phase Product code : 16401666

|                       |                           |                             |                        |
|-----------------------|---------------------------|-----------------------------|------------------------|
| Frame                 | : L100L                   | Locked rotor time           | : 34s (cold) 19s (hot) |
| Output                | : 3 kW (4 HP)             | Temperature rise            | : 80 K                 |
| Poles                 | : 4                       | Duty cycle                  | : S1                   |
| Frequency             | : 50 Hz                   | Ambient temperature         | : -20°C to +40°C       |
| Rated voltage         | : 230/400 V               | Altitude                    | : 1000 m.a.s.l.        |
| Rated current         | : 10.7/6.18 A             | Protection degree           | : IP55                 |
| L. R. Amperes         | : 77.3/44.5 A             | Cooling method              | : IC411 - TEFC         |
| LRC                   | : 7.2                     | Mounting                    | : B3T                  |
| No load current       | : 5.79/3.33 A             | Rotation <sup>1</sup>       | : Both (CW and CCW)    |
| Rated speed           | : 1435 rpm                | Noise level <sup>2</sup>    | : 53.0 dB(A)           |
| Slip                  | : 4.33 %                  | Starting method             | : Direct On Line       |
| Rated torque          | : 20.0 Nm                 | Approx. weight <sup>3</sup> | : 32.0 kg              |
| Locked rotor torque   | : 380 %                   |                             |                        |
| Breakdown torque      | : 380 %                   |                             |                        |
| Insulation class      | : F                       |                             |                        |
| Service factor        | : 1.00                    |                             |                        |
| Moment of inertia (J) | : 0.0112 kgm <sup>2</sup> |                             |                        |
| Design                | : N                       |                             |                        |

|                |      |      |      |                  |          |
|----------------|------|------|------|------------------|----------|
| Output         | 50%  | 75%  | 100% | Foundation loads |          |
| Efficiency (%) | 85.5 | 86.5 | 87.7 | Max. traction    | : 1740 N |
| Power Factor   | 0.60 | 0.73 | 0.80 | Max. compression | : 2054 N |

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) |
|--------------|--------------|---------------|--------------|--------------|---------------|----------------|
| 13.2         | 11.4         | 11.8          | 6.5          | 4.7          | 3.2           | 2.4            |

|                      | Drive end          | Non drive end |
|----------------------|--------------------|---------------|
| Bearing type         | : 6206 ZZ          | : 6206 ZZ     |
| Sealing              | : V'Ring           | : V'Ring      |
| 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 IEC 60034-1.

| Rev.         | Changes Summary | Performed | Checked | Date     |
|--------------|-----------------|-----------|---------|----------|
|              |                 |           |         |          |
| Performed by |                 |           |         |          |
| Checked by   |                 |           |         |          |
| Date         | 29/09/2023      |           |         |          |
|              |                 | Page      |         | Revision |
|              |                 | 1 / 1     |         |          |

