

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Tru-Metric IE3 Three-Phase

Product code : 12541472  
Catalog # : 01809ET3Y225S/M-W22

|                       |                   |                             |                        |
|-----------------------|-------------------|-----------------------------|------------------------|
| Frame                 | : 225S/M          | Locked rotor time           | : 50s (cold) 28s (hot) |
| Output                | : 25 HP (18.5 kW) | Temperature rise            | : 80 K                 |
| Poles                 | : 8               | Duty cycle                  | : S1                   |
| Frequency             | : 50 Hz           | Ambient temperature         | : -20°C to +40°C       |
| Rated voltage         | : 380 V           | Altitude                    | : 1000 m.a.s.l.        |
| Rated current         | : 38.1 A          | Protection degree           | : IP55                 |
| L. R. Amperes         | : 248 A           | Cooling method              | : IC411 - TEFC         |
| LRC                   | : 6.5             | Mounting                    | : B3L(E)               |
| No load current       | : 15.5 A          | Rotation <sup>1</sup>       | : Both (CW and CCW)    |
| Rated speed           | : 732 rpm         | Noise level <sup>2</sup>    | : 56.0 dB(A)           |
| Slip                  | : 2.40 %          | Starting method             | : Direct On Line       |
| Rated torque          | : 179 ft.lb       | Approx. weight <sup>3</sup> | : 790 lb               |
| Locked rotor torque   | : 170 %           |                             |                        |
| Breakdown torque      | : 220 %           |                             |                        |
| Insulation class      | : F               |                             |                        |
| Service factor        | : 1.25            |                             |                        |
| Moment of inertia (J) | : 26.3 sq.ft.lb   |                             |                        |
| Design                | : N               |                             |                        |

|                |           |           |           |                  |           |
|----------------|-----------|-----------|-----------|------------------|-----------|
| Output         | 50%       | 75%       | 100%      | Foundation loads |           |
| Efficiency (%) | 90.5 90.5 | 91.0 91.0 | 91.0 91.0 | Max. traction    | : 1125 lb |
|                | 90.5      | 91.0      | 91.0      |                  |           |
| Power Factor   | 0.67 0.58 | 0.77 0.71 | 0.81 0.77 | Max. compression | : 1915 lb |
|                | 0.60      | 0.72      | 0.79      |                  |           |

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

|            |                |     |     |     |
|------------|----------------|-----|-----|-----|
| Losses (%) | P1 (0,9;1,0)   | 9.3 | 9.3 | 9.3 |
|            | P2 (0,5;1,0)   | 7.2 | 7.2 | 7.2 |
|            | P3 (0,25;1,0)  | 6.6 | 6.6 | 6.6 |
|            | P4 (0,9;0,5)   | 5.1 | 5.1 | 5.1 |
|            | P5 (0,5;0,5)   | 3.3 | 3.3 | 3.3 |
|            | P6 (0,5;0,25)  | 2.4 | 2.4 | 2.4 |
|            | P7 (0,25;0,25) | 1.6 | 1.6 | 1.6 |

|                      |   |                  |                      |
|----------------------|---|------------------|----------------------|
|                      |   | <u>Drive end</u> | <u>Non drive end</u> |
| Bearing type         | : | 6314 C3          | 6314 C3              |
| Sealing              | : | WSeal            | WSeal                |
| Lubrication interval | : | 20000 h          | 20000 h              |
| Lubricant amount     | : | 27 g             | 27 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         | 26/03/2024      |           | Page<br>1 / 1 | Revision |