

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Tru-Metric IE3 Three-Phase Product code : 13034185  
Catalog # : 05512ET3Y280S/M-W22

|                                      |   |
|--------------------------------------|---|
| Frame : 280S/M                       | Cooling method : IC411 - TEFC             |
| Insulation class : F                 | Mounting : B3L(E)                         |
| Duty cycle : S1                      | Rotation <sup>1</sup> : Both (CW and CCW) |
| Ambient temperature : -20°C to +40°C | Starting method : Direct On Line          |
| Altitude : 1000 m.a.s.l.             | Approx. weight <sup>3</sup> : 1707 lb     |
| Protection degree : IP55             | Moment of inertia (J) : 77.1 sq.ft.lb     |
| Design : N                           |   |

|                          |                      |                      |                      |                      |
|--------------------------|----------------------|----------------------|----------------------|----------------------|
| Output [HP]              | 75                   | 75                   | 75                   | 75                   |
| Poles                    | 6                    | 6                    | 6                    | 6                    |
| Frequency [Hz]           | 60                   | 50                   | 50                   | 50                   |
| Rated voltage [V]        | 460                  | 380                  | 400                  | 415                  |
| Rated current [A]        | 90.2                 | 106                  | 102                  | 99.0                 |
| L. R. Amperes [A]        | 631                  | 710                  | 683                  | 663                  |
| LRC [A]                  | 7.0                  | 6.7                  | 6.7                  | 6.7                  |
| No load current [A]      | 41.3                 | 41.2                 | 44.0                 | 46.3                 |
| Rated speed [RPM]        | 1190                 | 985                  | 990                  | 990                  |
| Slip [%]                 | 0.83                 | 1.50                 | 1.00                 | 1.00                 |
| Rated torque [ft.lb]     | 327                  | 394                  | 392                  | 392                  |
| Locked rotor torque [%]  | 260                  | 190                  | 220                  | 240                  |
| Breakdown torque [%]     | 330                  | 240                  | 270                  | 290                  |
| Service factor           | 1.25                 | 1.00                 | 1.00                 | 1.00                 |
| Temperature rise         | 80 K                 | 80 K                 | 80 K                 | 80 K                 |
| Locked rotor time        | 82s (cold) 46s (hot) | 50s (cold) 28s (hot) | 50s (cold) 28s (hot) | 50s (cold) 28s (hot) |
| Noise level <sup>2</sup> | 69.0 dB(A)           | 65.0 dB(A)           | 65.0 dB(A)           | 65.0 dB(A)           |
| Efficiency (%)           | 25%                  | 93.5                 | 94.4                 | 94.1                 |
|                          | 50%                  | 93.6                 | 94.6                 | 94.5                 |
|                          | 75%                  | 94.5                 | 94.9                 | 95.0                 |
|                          | 100%                 | 94.5                 | 95.0                 | 95.3                 |
| Power Factor             | 25%                  | 0.39                 | 0.45                 | 0.41                 |
|                          | 50%                  | 0.64                 | 0.70                 | 0.67                 |
|                          | 75%                  | 0.75                 | 0.79                 | 0.77                 |
|                          | 100%                 | 0.81                 | 0.83                 | 0.82                 |

|                        |                  |                      |                            |
|------------------------|------------------|----------------------|----------------------------|
|                        | <u>Drive end</u> | <u>Non drive end</u> | Foundation loads           |
| Bearing type :         | 6316 C3          | 6316 C3              | Max. traction : 2223 lb    |
| Sealing :              | WSeal            | WSeal                | Max. compression : 3930 lb |
| Lubrication interval : | 16000 h          | 16000 h              |                            |
| Lubricant amount :     | 34 g             | 34 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         | 22/01/2018      |           |         |      |

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Revision