

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase      Product code : 11626903  
Catalog # : 15012ET3E447T-W22

|                                      |                                           |
|--------------------------------------|-------------------------------------------|
| Frame : 445/7T                       | Cooling method : IC411 - TEFC             |
| Insulation class : F                 | Mounting : F-1                            |
| Duty cycle : Cont.(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>2</sup> : 2304 lb     |
| Protection degree : IP55             | Moment of inertia (J) : 134 sq.ft.lb      |
| Design : B                           |                                           |

|                          |                         |                         |                         |                         |                         |                         |                         |
|--------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Output [HP]              | 150                     | 125                     | 125                     | 125                     | 150                     | 150                     | 150                     |
| Poles                    | 6                       | 6                       | 6                       | 6                       | 6                       | 6                       | 6                       |
| Frequency [Hz]           | 60                      | 50                      | 50                      | 50                      | 50                      | 50                      | 50                      |
| Rated voltage [V]        | 208-230/460             | 380                     | 400                     | 415                     | 380                     | 400                     | 415                     |
| Rated current [A]        | 389-352/176             | 177                     | 170                     | 168                     | 211                     | 201                     | 196                     |
| L. R. Amperes [A]        | 2413-2182/1091          | 1061                    | 1103                    | 1173                    | 1055                    | 1106                    | 1176                    |
| LRC [A]                  | 6.2x(Code G)            | 6.0x(Code F)            | 6.5x(Code G)            | 7.0x(Code H)            | 5.0x(Code E)            | 5.5x(Code F)            | 6.0x(Code G)            |
| No load current [A]      | 129-150/75.0            | 74.2                    | 79.2                    | 83.1                    | 74.2                    | 79.2                    | 83.1                    |
| Rated speed [RPM]        | 1185                    | 985                     | 985                     | 990                     | 985                     | 985                     | 990                     |
| Slip [%]                 | 1.25                    | 1.50                    | 1.50                    | 1.00                    | 1.50                    | 1.50                    | 1.00                    |
| Rated torque [ft.lb]     | 656                     | 657                     | 657                     | 654                     | 789                     | 789                     | 785                     |
| Locked rotor torque [%]  | 240                     | 220                     | 240                     | 260                     | 180                     | 200                     | 220                     |
| Breakdown torque [%]     | 260                     | 280                     | 300                     | 340                     | 229                     | 250                     | 280                     |
| Service factor           | 1.15                    | 1.00                    | 1.00                    | 1.00                    | 1.00                    | 1.00                    | 1.00                    |
| Temperature rise         | 80 K                    | 80 K                    | 80 K                    | 80 K                    | 105 K                   | 105 K                   | 105 K                   |
| Locked rotor time        | 36s (cold)<br>20s (hot) | 27s (cold)<br>15s (hot) | 27s (cold)<br>15s (hot) | 27s (cold)<br>15s (hot) | 27s (cold)<br>15s (hot) | 27s (cold)<br>15s (hot) | 27s (cold)<br>15s (hot) |
| Noise level <sup>2</sup> | 69.0 dB(A)              |                         |                         |                         |                         |                         |                         |
| Efficiency (%)           | 25%                     |                         |                         |                         |                         |                         |                         |
|                          | 50%                     | 95.0                    | 94.8                    | 94.5                    | 94.5                    | 95.0                    | 95.0                    |
|                          | 75%                     | 95.4                    | 95.1                    | 95.1                    | 95.1                    | 95.0                    | 95.0                    |
|                          | 100%                    | 95.8                    | 94.9                    | 95.1                    | 95.1                    | 94.5                    | 95.0                    |
| Power Factor             | 25%                     |                         |                         |                         |                         |                         |                         |
|                          | 50%                     | 0.67                    | 0.67                    | 0.64                    | 0.60                    | 0.73                    | 0.67                    |
|                          | 75%                     | 0.78                    | 0.79                    | 0.76                    | 0.74                    | 0.82                    | 0.78                    |
|                          | 100%                    | 0.82                    | 0.83                    | 0.82                    | 0.80                    | 0.84                    | 0.83                    |

|                        |                  |                      |                            |
|------------------------|------------------|----------------------|----------------------------|
|                        | <u>Drive end</u> | <u>Non drive end</u> | Foundation loads           |
| Bearing type :         | 6319 C3          | 6316 C3              | Max. traction : 4787 lb    |
| Sealing :              | WSeal            | WSeal                | Max. compression : 7091 lb |
| Lubrication interval : | 13000 h          | 16000 h              |                            |
| Lubricant amount :     | 45 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         | 27/01/2018      |           |         |      |

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