

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Close Coupled Pump JM  
NEMA Premium Efficiency Three-Phase

Product code : 12119370

Catalog # : 01536ET3E215JM-W22

Frame : 213/5JM  
Insulation class : F  
Duty cycle : Cont.(S1)  
Ambient temperature : -20°C to +40°C  
Altitude : 1000 m.a.s.l.  
Protection degree : IP55  
Design : B

Cooling method : IC411 - TEFC  
Mounting : F-1  
Rotation<sup>1</sup> : Both (CW and CCW)  
Starting method : Direct On Line  
Approx. weight<sup>a</sup> : 178 lb  
Moment of inertia (J) : 0.6362 sq.ft.lb

|                          |                         |                         |                         |                         |                         |                         |                         |
|--------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Output [HP]              | 15                      | 10                      | 10                      | 10                      | 15                      | 15                      | 15                      |
| Poles                    | 2                       | 2                       | 2                       | 2                       | 2                       | 2                       | 2                       |
| Frequency [Hz]           | 60                      | 50                      | 50                      | 50                      | 50                      | 50                      | 50                      |
| Rated voltage [V]        | 230/460                 | 380                     | 400                     | 415                     | 380                     | 400                     | 415                     |
| Rated current [A]        | 34.0/17.0               | 14.4                    | 14.1                    | 14.0                    | 20.6                    | 19.7                    | 19.3                    |
| L. R. Amperes [A]        | 258/129                 | 124                     | 133                     | 140                     | 124                     | 132                     | 139                     |
| LRC [A]                  | 7.6x(Code H)            | 8.6x(Code K)            | 9.4x(Code L)            | 10.0x(Code M)           | 6.0x(Code F)            | 6.7x(Code G)            | 7.2x(Code H)            |
| No load current [A]      | 10.0/5.00               | 4.89                    | 5.56                    | 6.15                    | 4.89                    | 5.56                    | 6.15                    |
| Rated speed [RPM]        | 3510                    | 2930                    | 2935                    | 2940                    | 2885                    | 2900                    | 2905                    |
| Slip [%]                 | 2.50                    | 2.33                    | 2.17                    | 2.00                    | 3.83                    | 3.33                    | 3.17                    |
| Rated torque [ft.lb]     | 22.1                    | 17.7                    | 17.7                    | 17.6                    | 26.9                    | 26.8                    | 26.8                    |
| Locked rotor torque [%]  | 240                     | 280                     | 320                     | 340                     | 190                     | 220                     | 240                     |
| Breakdown torque [%]     | 280                     | 340                     | 380                     | 420                     | 220                     | 250                     | 280                     |
| Service factor           | 1.25                    | 1.15                    | 1.15                    | 1.15                    | 1.00                    | 1.00                    | 1.00                    |
| Temperature rise         | 80 K                    | 80 K                    | 80 K                    | 80 K                    | 105 K                   | 105 K                   | 80 K                    |
| Locked rotor time        | 25s (cold)<br>14s (hot) | 21s (cold)<br>12s (hot) | 19s (cold)<br>11s (hot) | 19s (cold)<br>11s (hot) | 21s (cold)<br>12s (hot) | 19s (cold)<br>11s (hot) | 19s (cold)<br>11s (hot) |
| Noise level <sup>2</sup> | 72.0 dB(A)              | 68.0 dB(A)              | 68.0 dB(A)              | 68.0 dB(A)              | 68.0 dB(A)              | 68.0 dB(A)              | 68.0 dB(A)              |
| Efficiency (%)           | 25%                     | 90.0                    | 89.3                    | 88.8                    | 88.2                    | 88.2                    | 88.5                    |
|                          | 50%                     | 90.2                    | 89.5                    | 89.0                    | 88.5                    | 88.5                    | 89.0                    |
|                          | 75%                     | 91.0                    | 90.1                    | 90.1                    | 90.1                    | 89.0                    | 89.5                    |
|                          | 100%                    | 91.0                    | 90.1                    | 90.1                    | 90.1                    | 89.0                    | 89.7                    |
| Power Factor             | 25%                     | 0.53                    | 0.48                    | 0.43                    | 0.40                    | 0.59                    | 0.55                    |
|                          | 50%                     | 0.76                    | 0.72                    | 0.68                    | 0.64                    | 0.81                    | 0.78                    |
|                          | 75%                     | 0.85                    | 0.82                    | 0.79                    | 0.77                    | 0.88                    | 0.86                    |
|                          | 100%                    | 0.89                    | 0.88                    | 0.85                    | 0.83                    | 0.91                    | 0.90                    |

Bearing type : Drive end 6309 Z C3 Non drive end 6207 ZZ  
Sealing : V'Ring V'Ring  
Lubrication interval : 19000 h 40000 h  
Lubricant amount : 13 g 0 g  
Lubricant type : Mobil Polyrex EM

Foundation loads  
Max. traction : 339 lb  
Max. compression : 517 lb

### 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