

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Super Premium Efficiency  
Three-Phase

Product code : 12604505

Catalog # : 00156EG3E143T-W22

|                     |                  |                             |                     |
|---------------------|------------------|-----------------------------|---------------------|
| Frame               | : 143/5T         | 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> | : 47.3 lb           |
| Protection degree   | : IP55           | Moment of inertia (J)       | : 0.0470 sq.ft.lb   |
| Design              | : A              |                             |                     |

|                          |                      |                      |                      |                      |
|--------------------------|----------------------|----------------------|----------------------|----------------------|
| Output [HP]              | 1.5                  | 1.5                  | 1.5                  | 1.5                  |
| Poles                    | 2                    | 2                    | 2                    | 2                    |
| Frequency [Hz]           | 60                   | 50                   | 50                   | 50                   |
| Rated voltage [V]        | 230/460              | 380                  | 400                  | 415                  |
| Rated current [A]        | 3.84/1.92            | 2.26                 | 2.16                 | 2.13                 |
| L. R. Amperes [A]        | 32.3/16.1            | 16.7                 | 17.5                 | 18.3                 |
| LRC [A]                  | 8.4x(Code K)         | 7.4x(Code J)         | 8.1x(Code K)         | 8.6x(Code K)         |
| No load current [A]      | 1.80/0.900           | 0.850                | 0.920                | 0.980                |
| Rated speed [RPM]        | 3485                 | 2860                 | 2875                 | 2885                 |
| Slip [%]                 | 3.19                 | 4.67                 | 4.17                 | 3.83                 |
| Rated torque [ft.lb]     | 2.23                 | 2.72                 | 2.70                 | 2.69                 |
| Locked rotor torque [%]  | 300                  | 260                  | 300                  | 330                  |
| Breakdown torque [%]     | 350                  | 300                  | 340                  | 380                  |
| Service factor           | 1.25                 | 1.15                 | 1.15                 | 1.15                 |
| Temperature rise         | 80 K                 | 80 K                 | 80 K                 | 80 K                 |
| Locked rotor time        | 52s (cold) 29s (hot) | 36s (cold) 20s (hot) | 36s (cold) 20s (hot) | 36s (cold) 20s (hot) |
| Noise level <sup>2</sup> | 68.0 dB(A)           | 62.0 dB(A)           | 62.0 dB(A)           | 62.0 dB(A)           |
| Efficiency (%)           | 25%                  | 82.8                 | 83.6                 | 84.1                 |
|                          | 50%                  | 84.0                 | 84.0                 | 84.5                 |
|                          | 75%                  | 85.5                 | 85.0                 | 85.5                 |
|                          | 100%                 | 86.5                 | 85.0                 | 85.5                 |
| Power Factor             | 25%                  | 0.41                 | 0.48                 | 0.43                 |
|                          | 50%                  | 0.67                 | 0.73                 | 0.69                 |
|                          | 75%                  | 0.78                 | 0.83                 | 0.80                 |
|                          | 100%                 | 0.83                 | 0.87                 | 0.86                 |

|                      |                    |                      |                  |          |
|----------------------|--------------------|----------------------|------------------|----------|
|                      | <u>Drive end</u>   | <u>Non drive end</u> | Foundation loads |          |
| Bearing type         | : 6205 ZZ          | 6204 ZZ              | Max. traction    | : 66 lb  |
| Sealing              | : V'Ring           | V'Ring               | Max. compression | : 114 lb |
| 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 NEMA MG-1.

| Rev.         | Changes Summary | Performed | Checked | Date     |
|--------------|-----------------|-----------|---------|----------|
|              |                 |           |         |          |
| Performed by |                 |           |         |          |
| Checked by   |                 |           |         |          |
| Date         | 24/01/2018      |           |         |          |
|              |                 |           | Page    | Revision |
|              |                 |           | 1 / 1   |          |