

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Rolled Steel High Efficiency Three-Phase  
Product code : 12795384  
Catalog # : 02036OP3EFP254TC-S

|                                      |   |
|--------------------------------------|---|
| Frame : 254/6TC                      | Cooling method : IC01 - ODP               |
| 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> : 181 lb      |
| Design : B                           | Moment of inertia (J) : 0.6974 sq.ft.lb   |

|                          |                     |                     |                     |
|--------------------------|---------------------|---------------------|---------------------|
| Output [HP]              | 20                  | 20                  | 20                  |
| Poles                    | 2                   | 2                   | 2                   |
| Frequency [Hz]           | 60                  | 50                  | 50                  |
| Rated voltage [V]        | 208-230/460         | 190/380             | 220/415             |
| Rated current [A]        | 52.4-47.4/23.7      | 59.0/29.5           | 51.9/27.5           |
| L. R. Amperes [A]        | 314-284/142         | 260/130             | 270/143             |
| LRC [A]                  | 6.0x(Code G)        | 4.4x(Code D)        | 5.2x(Code F)        |
| No load current [A]      | 15.7-18.2/9.12      | 17.7/8.86           | 22.1/11.7           |
| Rated speed [RPM]        | 3520                | 2885                | 2910                |
| Slip [%]                 | 2.22                | 3.83                | 3.00                |
| Rated torque [ft.lb]     | 29.4                | 35.9                | 35.6                |
| Locked rotor torque [%]  | 180                 | 110                 | 130                 |
| Breakdown torque [%]     | 240                 | 180                 | 220                 |
| Service factor           | 1.15                | 1.00                | 1.00                |
| Temperature rise         | 80 K                | 105 K               | 80 K                |
| Locked rotor time        | 16s (cold) 9s (hot) | 12s (cold) 7s (hot) | 10s (cold) 6s (hot) |
| Noise level <sup>2</sup> | 70.0 dB(A)          | 68.0 dB(A)          | 68.0 dB(A)          |
| Efficiency (%)           | 25%                 | 87.7                | 89.6                |
|                          | 50%                 | 88.5                | 88.6                |
|                          | 75%                 | 89.5                | 88.7                |
|                          | 100%                | 90.2                | 87.3                |
| Power Factor             | 25%                 | 0.48                | 0.44                |
|                          | 50%                 | 0.75                | 0.72                |
|                          | 75%                 | 0.84                | 0.82                |
|                          | 100%                | 0.88                | 0.87                |

### 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).
- (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         | 18/01/2018      |           |         |      |

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