

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 16832333

Catalog # : 00518ET3E184TC-W22G

Frame : 182/4TC  
 Output : 5 HP (3.7 kW)  
 Poles : 4  
 Frequency : 60 Hz  
 Rated voltage : 230/460 V  
 Rated current : 13.0/6.49 A  
 L. R. Amperes : 97.4/48.7 A  
 LRC : 7.5x(Code J)  
 No load current : 5.80/2.90 A  
 Rated speed : 1750 rpm  
 Slip : 2.78 %  
 Rated torque : 15.0 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 290 %  
 Insulation class : F  
 Service factor : 1.25  
 Moment of inertia (J) : 0.4003 sq.ft.lb  
 Design : B

Locked rotor time : 27s (cold) 15s (hot)  
 Temperature rise : 80 K  
 Duty cycle : Cont.(S1)  
 Ambient temperature : -20°C to +40°C  
 Altitude : 1000 m.a.s.l.  
 Protection degree : IP55  
 Cooling method : IC411 - TEFC  
 Mounting : F-1  
 Rotation<sup>1</sup> : Both (CW and CCW)  
 Noise level<sup>2</sup> : 56.0 dB(A)  
 Starting method : Direct On Line  
 Approx. weight<sup>3</sup> : 99.3 lb

| Output         | 25%  |      | 50%  |      | 75%  |      | 100% |      |
|----------------|------|------|------|------|------|------|------|------|
| Efficiency (%) | 88.2 | 87.7 | 88.5 | 87.5 | 89.5 | 88.2 | 89.5 | 87.7 |
|                | 86.4 | 86.2 | 86.7 | 86.5 | 88.2 | 88.2 | 88.2 | 88.2 |
|                | 89.1 | 88.0 | 88.5 | 87.5 | 87.5 | 88.5 | 86.5 | 87.5 |
|                | 88.0 |      | 87.5 |      | 88.5 |      | 87.5 |      |
| Power Factor   | 0.38 | 0.38 | 0.62 | 0.61 | 0.74 | 0.75 | 0.80 | 0.81 |
|                | 0.34 | 0.31 | 0.57 | 0.53 | 0.71 | 0.67 | 0.79 | 0.76 |
|                | 0.45 | 0.41 | 0.69 | 0.65 | 0.80 | 0.77 | 0.84 | 0.82 |
|                | 0.38 |      | 0.61 |      | 0.74 |      | 0.80 |      |

Foundation loads  
 Max. traction : 264 lb  
 Max. compression : 363 lb

Losses at normative operating points (speed;torque), in percentage of rated output power

| Losses (%) | P1 (0,9;1,0)   | 11.2 | 13.4 | 12.8 | 12.8 | 14.9 | 13.6 | 13.6 |
|------------|----------------|------|------|------|------|------|------|------|
|            | P2 (0,5;1,0)   | 9.4  | 11.2 | 10.7 | 10.7 | 12.5 | 11.4 | 11.4 |
|            | P3 (0,25;1,0)  | 8.7  | 10.3 | 9.9  | 9.9  | 11.5 | 10.5 | 10.5 |
|            | P4 (0,9;0,5)   | 5.3  | 6.4  | 6.1  | 6.1  | 7.1  | 6.5  | 6.5  |
|            | P5 (0,5;0,5)   | 3.7  | 4.4  | 4.2  | 4.2  | 4.9  | 4.4  | 4.4  |
|            | P6 (0,5;0,25)  | 2.4  | 2.9  | 2.7  | 2.7  | 3.2  | 2.9  | 2.9  |
|            | P7 (0,25;0,25) | 1.7  | 2.1  | 2.0  | 2.0  | 2.3  | 2.1  | 2.1  |

|                        | Drive end        | Non drive end |
|------------------------|------------------|---------------|
| Bearing type :         | 6207 ZZ          | 6206 ZZ       |
| Sealing :              | V'Ring           | V'Ring        |
| 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         | 26/03/2024      |           |         |      |

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 Revision