

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14503931

Catalog # : 04018OT3E324TC-W40G

Frame : 324TC  
Output : 40 HP (30 kW)  
Poles : 4  
Frequency : 60 Hz  
Rated voltage : 230/460 V  
Rated current : 95.2/47.6 A  
L. R. Amperes : 590/295 A  
LRC : 6.2x(Code G)  
No load current : 37.0/18.5 A  
Rated speed : 1775 rpm  
Slip : 1.39 %  
Rated torque : 118 ft.lb  
Locked rotor torque : 200 %  
Breakdown torque : 240 %  
Insulation class : F  
Service factor : 1.25  
Moment of inertia (J) : 5.69 sq.ft.lb  
Design : B

Locked rotor time : 23s (cold) 13s (hot)  
Temperature rise : 80 K  
Duty cycle : Cont.(S1)  
Ambient temperature : -20°C to +40°C  
Altitude : 1000 m.a.s.l.  
Protection degree : IP23  
Cooling method : IC01 - ODP  
Mounting : F-1  
Rotation<sup>1</sup> : Both (CW and CCW)  
Noise level<sup>2</sup> : 66.0 dB(A)  
Starting method : Direct On Line  
Approx. weight<sup>3</sup> : 465 lb

| Output         | 25%  |      | 50%  |      | 75%  |      | 100% |      |
|----------------|------|------|------|------|------|------|------|------|
| Efficiency (%) | 93.5 | 92.4 | 93.6 | 92.6 | 94.1 | 93.0 | 94.1 | 93.0 |
|                | 92.5 | 92.4 | 92.6 | 92.5 | 93.0 | 93.0 | 93.0 | 93.0 |
| Power Factor   | 0.44 | 0.42 | 0.70 | 0.68 | 0.80 | 0.78 | 0.84 | 0.83 |
|                | 0.38 | 0.34 | 0.63 | 0.59 | 0.75 | 0.72 | 0.81 | 0.79 |

Foundation loads

Max. traction

Max. compression

|                      | Drive end            | Non drive end        |
|----------------------|----------------------|----------------------|
| Bearing type         | 6312 Z C3            | 6211 Z C3            |
| Sealing              | Without Bearing Seal | Without Bearing Seal |
| Lubrication interval | 20000 h              | 20000 h              |
| Lubricant amount     | 21 g                 | 11 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 |                 | Page<br>1 / 1 |          |      |
| Checked by   |                 |               |          |      |
| Date         | 29/03/2024      |               |          |      |
|              |                 |               | Revision |      |