

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium  
Efficiency Three-Phase

Product code : 11485817

Catalog # : 10018XT3G405T

Frame : 404/5T  
Output : 100 HP (75 kW)  
Poles : 4  
Frequency : 60 Hz  
Rated voltage : 460 V  
Rated current : 113 A  
L. R. Amperes : 814 A  
LRC : 7.2x(Code H)  
No load current : 39.0 A  
Rated speed : 1780 rpm  
Slip : 1.11 %  
Rated torque : 295 ft.lb  
Locked rotor torque : 270 %  
Breakdown torque : 280 %  
Insulation class : F  
Service factor : 1.15  
Moment of inertia (J) : 26.4 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 : IP55  
Cooling method : IC411 - TEFC  
Mounting : F-1  
Rotation<sup>1</sup> : Both (CW and CCW)  
Noise level<sup>2</sup> : 75.0 dB(A)  
Starting method : Direct On Line  
Approx. weight<sup>3</sup> : 1230 lb

| Output         | 25%  |      | 50%  |      | 75%  |      | 100% |      |
|----------------|------|------|------|------|------|------|------|------|
| Efficiency (%) | 94.0 | 93.9 | 94.5 | 94.0 | 95.0 | 94.5 | 95.4 | 94.5 |
|                | 93.4 | 93.4 | 93.6 | 93.6 | 94.5 | 94.5 | 94.5 | 94.5 |
| Power Factor   | 0.47 | 0.44 | 0.72 | 0.69 | 0.82 | 0.80 | 0.87 | 0.86 |
|                | 0.41 | 0.38 | 0.65 | 0.62 | 0.77 | 0.75 | 0.84 | 0.82 |

Foundation loads  
Max. traction : 2337 lb  
Max. compression : 3548 lb

|                      | Drive end        | Non drive end |
|----------------------|------------------|---------------|
| Bearing type         | : 6217 C3        | 6314 C3       |
| Sealing              | : Oil Seal       | Lip Seal      |
| Lubrication interval | : 9149 h         | 9789 h        |
| Lubricant amount     | : 21 g           | 27 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 |                 |           |         |      |
| Checked by   |                 |           |         |      |
| Date         | 28/03/2024      |           |         |      |

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Revision

Customer :

Thermal protection

| ID | Application | Type                 | Quantity  | Sensing Temperature |
|----|-------------|----------------------|-----------|---------------------|
| 1  | Winding     | Thermostat - 2 wires | 1 x Phase | 155 °C              |

|              |                 |  |           |         |          |
|--------------|-----------------|--|-----------|---------|----------|
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|              |                 |  |           |         |          |
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