

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12134320

Catalog # : 30012ET3GRB449T-W22

Frame : 447/9T  
Output : 300 HP (220 kW)  
Poles : 6  
Frequency : 60 Hz  
Rated voltage : 460 V  
Rated current : 356 A  
L. R. Amperes : 2741 A  
LRC : 7.7x(Code J)  
No load current : 170 A  
Rated speed : 1189 rpm  
Slip : 0.92 %  
Rated torque : 1320 ft.lb  
Locked rotor torque : 270 %  
Breakdown torque : 300 %  
Insulation class : F  
Service factor : 1.00  
Moment of inertia (J) : 145 sq.ft.lb  
Design : A

Locked rotor time : 18s (cold) 10s (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> : 70.0 dB(A)  
Starting method : Direct On Line  
Approx. weight<sup>3</sup> : 3115 lb

| Output         | 25%  |      | 50%  |      | 75%  |      | 100% |      |
|----------------|------|------|------|------|------|------|------|------|
| Efficiency (%) | 95.3 | 94.5 | 95.4 | 95.0 | 95.8 | 95.4 | 95.8 | 95.8 |
|                | 94.0 | 93.3 | 94.5 | 94.1 | 95.4 | 95.0 | 95.8 | 95.8 |
| Power Factor   | 0.38 | 0.37 | 0.63 | 0.61 | 0.75 | 0.75 | 0.81 | 0.81 |
|                | 0.35 | 0.32 | 0.59 | 0.56 | 0.71 | 0.69 | 0.78 | 0.77 |

Foundation loads  
Max. traction : 8695 lb  
Max. compression : 11810 lb

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

|            |                |     |     |     |     |
|------------|----------------|-----|-----|-----|-----|
| Losses (%) | P1 (0,9;1,0)   | 5.2 | 5.2 | 5.2 | 5.2 |
|            | P2 (0,5;1,0)   | 4.3 | 4.3 | 4.3 | 4.3 |
|            | P3 (0,25;1,0)  | 3.7 | 3.7 | 3.7 | 3.7 |
|            | P4 (0,9;0,5)   | 3.0 | 3.0 | 3.0 | 3.0 |
|            | P5 (0,5;0,5)   | 2.3 | 2.3 | 2.3 | 2.3 |
|            | P6 (0,5;0,25)  | 1.8 | 1.8 | 1.8 | 1.8 |
|            | P7 (0,25;0,25) | 1.1 | 1.1 | 1.1 | 1.1 |

|                      |   |                  |                      |
|----------------------|---|------------------|----------------------|
|                      |   | <u>Drive end</u> | <u>Non drive end</u> |
| Bearing type         | : | NU-322 C3        | 6319 C3              |
| Sealing              | : | WSeal            | WSeal                |
| Lubrication interval | : | 7000 h           | 13000 h              |
| Lubricant amount     | : | 60 g             | 45 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