

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



| Customer : | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|-----------------------------|------------------------|---|---------------------|----------------|--|-----------|---------------|--------------|-------------|-----------|---------|---------|---------|----------------------|----------|-----------|------------------|--------|--------|----------------|--------------------|--|--|--|--|--|
| Product line | : W22 NEMA Premium Efficiency Three-Phase | | | Product code : | 11418368 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Catalog # : | 10012ET3HRB444T-W22 | | | | | | | | | | | | | | | | | | | | | | | |
| Frame | : 444/5T | Locked rotor time | : 36s (cold) 20s (hot) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Output | : 100 HP (75 kW) | Temperature rise | : 80 K | | | | | | | | | | | | | | | | | | | | | | | | | |
| Poles | : 6 | Duty cycle | : Cont.(S1) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frequency | : 60 Hz | Ambient temperature | : -20°C to +40°C | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated voltage | : 575 V | Altitude | : 1000 m.a.s.l. | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated current | : 96.7 A | Protection degree | : IP55 | | | | | | | | | | | | | | | | | | | | | | | | | |
| L. R. Amperes | : 599 A | Cooling method | : IC411 - TEFC | | | | | | | | | | | | | | | | | | | | | | | | | |
| LRC | : 6.2x(Code G) | Mounting | : F-1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| No load current | : 36.0 A | Rotation ¹ | : Both (CW and CCW) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated speed | : 1189 rpm | Noise level ² | : 69.0 dB(A) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Slip | : 0.92 % | Starting method | : Direct On Line | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated torque | : 442 ft.lb | Approx. weight ³ | : 1553 lb | | | | | | | | | | | | | | | | | | | | | | | | | |
| Locked rotor torque | : 220 % | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Breakdown torque | : 250 % | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Insulation class | : F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Service factor | : 1.25 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Moment of inertia (J) | : 87.3 sq.ft.lb | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Design | : B | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Output | 50% | 75% | 100% | Foundation loads | | | | | | | | | | | | | | | | | | | | | | | | |
| Efficiency (%) | 94.5 | 95.0 | 95.0 | Max. traction | : 2167 lb | | | | | | | | | | | | | | | | | | | | | | | |
| Power Factor | 0.68 | 0.78 | 0.82 | Max. compression | : 3720 lb | | | | | | | | | | | | | | | | | | | | | | | |
| Losses at normative operating points (speed;torque), in percentage of rated output power | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P1 (0,9;1,0) | P2 (0,5;1,0) | P3 (0,25;1,0) | P4 (0,9;0,5) | P5 (0,5;0,5) | P6 (0,5;0,25) | P7 (0,25;0,25) | | | | | | | | | | | | | | | | | | | | | | |
| 5.2 | 4.2 | 3.8 | 2.8 | 1.8 | 1.3 | 0.9 | | | | | | | | | | | | | | | | | | | | | | |
| <table> <thead> <tr> <th></th><th>Drive end</th><th>Non drive end</th></tr> </thead> <tbody> <tr> <td>Bearing type</td><td>: NU-319 C3</td><td>: 6316 C3</td></tr> <tr> <td>Sealing</td><td>: WSeal</td><td>: WSeal</td></tr> <tr> <td>Lubrication interval</td><td>: 9000 h</td><td>: 16000 h</td></tr> <tr> <td>Lubricant amount</td><td>: 45 g</td><td>: 34 g</td></tr> <tr> <td>Lubricant type</td><td colspan="3" rowspan="3">: Mobil Polyrex EM</td><td></td><td></td><td></td></tr> </tbody> </table> | | | | | | | | Drive end | Non drive end | Bearing type | : NU-319 C3 | : 6316 C3 | Sealing | : WSeal | : WSeal | Lubrication interval | : 9000 h | : 16000 h | Lubricant amount | : 45 g | : 34 g | Lubricant type | : Mobil Polyrex EM | | | | | |
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| Notes: | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>This revision replaces and cancel the previous one, which must be eliminated.</p> <p>(1) Looking the motor from the shaft end.</p> <p>(2) Measured at 1m and with tolerance of +3dB(A).</p> <p>(3) Approximate weight subject to changes after manufacturing process.</p> <p>(4) At 100% of full load.</p> | | | | <p>These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.</p> | | | | | | | | | | | | | | | | | | | | | | | | |
| Rev. | Changes Summary | | | Performed | Checked | Date | | | | | | | | | | | | | | | | | | | | | | |
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| Performed by | | | | | Page | Revision | | | | | | | | | | | | | | | | | | | | | | |
| Checked by | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Date | 28/03/2024 | | | | 1 / 1 | | | | | | | | | | | | | | | | | | | | | | | |