

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

|  |   |                      |                  |                      |                |           |           |           |        |        |                        |         |         |                    |      |     |                  |                  |  |
|--|---|----------------------|------------------|----------------------|----------------|-----------|-----------|-----------|--------|--------|------------------------|---------|---------|--------------------|------|-----|------------------|------------------|--|
| Customer :   |   |                      |                  |                      |                |           |           |           |        |        |                        |         |         |                    |      |     |                  |                  |  |
| Product line   | : Rolled Steel JM Pump NEMA Premium Efficiency Three-Phase  |                      |                  |                      |                |           |           |           |        |        |                        |         |         |                    |      |     |                  |                  |  |
| Product code :   | 13289045  |                      |                  |                      |                |           |           |           |        |        |                        |         |         |                    |      |     |                  |                  |  |
| Catalog # :  | 02018ET3H256JM-S  |                      |                  |                      |                |           |           |           |        |        |                        |         |         |                    |      |     |                  |                  |  |
| Frame : 254/6JM<br>Output : 20 HP (15 kW)<br>Poles : 4<br>Frequency : 60 Hz<br>Rated voltage : 575 V<br>Rated current : 19.8 A<br>L. R. Amperes : 132 A<br>LRC : 6.7x(Code H)<br>No load current : 8.89 A<br>Rated speed : 1765 rpm<br>Slip : 1.94 %<br>Rated torque : 58.7 ft.lb<br>Locked rotor torque : 270 %<br>Breakdown torque : 300 %<br>Insulation class : F<br>Service factor : 1.15<br>Moment of inertia (J) : 2.64 sq.ft.lb<br>Design : B | Locked rotor time : 28s (cold) 16s (hot)<br>Temperature rise : 80 K<br>Duty cycle : Cont.(S1)<br>Ambient temperature : -20°C to +40°C<br>Altitude : 1000 m.a.s.l.<br>Protection degree : IP55<br>Cooling method : IC411 - TEFC<br>Mounting : F-1<br>Rotation <sup>1</sup> : Both (CW and CCW)<br>Noise level <sup>2</sup> : 68.0 dB(A)<br>Starting method : Direct On Line<br>Approx. weight <sup>3</sup> : 256 lb  |                      |                  |                      |                |           |           |           |        |        |                        |         |         |                    |      |     |                  |                  |  |
| Output   | 25%    50%    75%    100%   |                      |                  |                      |                |           |           |           |        |        |                        |         |         |                    |      |     |                  |                  |  |
| Efficiency (%)   | 91.0    91.7    92.4    93.0  |                      |                  |                      |                |           |           |           |        |        |                        |         |         |                    |      |     |                  |                  |  |
| Power Factor   | 0.40    0.66    0.77    0.82  |                      |                  |                      |                |           |           |           |        |        |                        |         |         |                    |      |     |                  |                  |  |
| Foundation loads   |   |                      |                  |                      |                |           |           |           |        |        |                        |         |         |                    |      |     |                  |                  |  |
| Max. traction : 728 lb   |   |                      |                  |                      |                |           |           |           |        |        |                        |         |         |                    |      |     |                  |                  |  |
| Max. compression : 984 lb  |   |                      |                  |                      |                |           |           |           |        |        |                        |         |         |                    |      |     |                  |                  |  |
|  | <table border="0"> <tr> <td></td> <td style="text-align: center;"><u>Drive end</u></td> <td style="text-align: center;"><u>Non drive end</u></td> </tr> <tr> <td>Bearing type :</td> <td>6309 Z C3</td> <td>6208 Z C3</td> </tr> <tr> <td>Sealing :</td> <td>V'Ring</td> <td>V'Ring</td> </tr> <tr> <td>Lubrication interval :</td> <td>20000 h</td> <td>20000 h</td> </tr> <tr> <td>Lubricant amount :</td> <td>13 g</td> <td>8 g</td> </tr> <tr> <td>Lubricant type :</td> <td colspan="2" style="text-align: center;">Mobil Polyrex EM</td> </tr> </table> |                      | <u>Drive end</u> | <u>Non drive end</u> | Bearing type : | 6309 Z C3 | 6208 Z C3 | Sealing : | V'Ring | V'Ring | Lubrication interval : | 20000 h | 20000 h | Lubricant amount : | 13 g | 8 g | Lubricant type : | Mobil Polyrex EM |  |
|  | <u>Drive end</u>  | <u>Non drive end</u> |                  |                      |                |           |           |           |        |        |                        |         |         |                    |      |     |                  |                  |  |
| Bearing type :   | 6309 Z C3   | 6208 Z C3            |                  |                      |                |           |           |           |        |        |                        |         |         |                    |      |     |                  |                  |  |
| Sealing :  | V'Ring  | V'Ring               |                  |                      |                |           |           |           |        |        |                        |         |         |                    |      |     |                  |                  |  |
| Lubrication interval :   | 20000 h   | 20000 h              |                  |                      |                |           |           |           |        |        |                        |         |         |                    |      |     |                  |                  |  |
| Lubricant amount :   | 13 g  | 8 g                  |                  |                      |                |           |           |           |        |        |                        |         |         |                    |      |     |                  |                  |  |
| Lubricant type :   | Mobil Polyrex EM  |                      |                  |                      |                |           |           |           |        |        |                        |         |         |                    |      |     |                  |                  |  |
| Notes  |   |                      |                  |                      |                |           |           |           |        |        |                        |         |         |                    |      |     |                  |                  |  |
| This revision replaces and cancel the previous one, which must be eliminated.<br>(1) Looking the motor from the shaft end.<br>(2) Measured at 1m and with tolerance of +3dB(A).<br>(3) Approximate weight subject to changes after manufacturing process.<br>(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   |   |                      | Page             | Revision             |                |           |           |           |        |        |                        |         |         |                    |      |     |                  |                  |  |
| Date   | 22/01/2018  |                      | 1 / 1            |                      |                |           |           |           |        |        |                        |         |         |                    |      |     |                  |                  |  |