

# DATA SHEET

## Single Phase Induction Motor - Squirrel Cage



|                                                                                                                                                                                                                                                                                        |                                             |                                                                                                                          |                           |          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------------------|----------|
| Customer :                                                                                                                                                                                                                                                                             |                                             |                                                                                                                          |                           |          |
| Product line                                                                                                                                                                                                                                                                           |                                             | : Jet Pump - J type Single-Phase                                                                                         | Product code : 13997409   |          |
| Frame                                                                                                                                                                                                                                                                                  | : W56J                                      | Cooling method                                                                                                           | : IC411 - TEFC            |          |
| Insulation class                                                                                                                                                                                                                                                                       | : F                                         | Mounting                                                                                                                 | : F-1                     |          |
| Duty cycle                                                                                                                                                                                                                                                                             | : Cont.(S1)                                 | Rotation <sup>1</sup>                                                                                                    | : CCW                     |          |
| Ambient temperature                                                                                                                                                                                                                                                                    | : -20°C to +40°C                            | Starting method                                                                                                          | : Direct On Line          |          |
| Altitude                                                                                                                                                                                                                                                                               | : 1000 m.a.s.l.                             | Approx. weight <sup>3</sup>                                                                                              | : 9.3 kg                  |          |
| Protection degree                                                                                                                                                                                                                                                                      | : IP55                                      | Moment of inertia (J)                                                                                                    | : 0.0020 kgm <sup>2</sup> |          |
| Design                                                                                                                                                                                                                                                                                 | : N                                         |                                                                                                                          |                           |          |
| Output [HP]                                                                                                                                                                                                                                                                            | 0.5                                         |                                                                                                                          |                           |          |
| Poles                                                                                                                                                                                                                                                                                  | 4                                           |                                                                                                                          |                           |          |
| Frequency [Hz]                                                                                                                                                                                                                                                                         | 60                                          |                                                                                                                          |                           |          |
| Rated voltage [V]                                                                                                                                                                                                                                                                      | 115/208-230                                 |                                                                                                                          |                           |          |
| Rated current [A]                                                                                                                                                                                                                                                                      | 8.00/4.42-4.00                              |                                                                                                                          |                           |          |
| L. R. Amperes [A]                                                                                                                                                                                                                                                                      | 45.6/25.2-22.8                              |                                                                                                                          |                           |          |
| LRC [A]                                                                                                                                                                                                                                                                                | 5.7x(Code M)                                |                                                                                                                          |                           |          |
| No load current [A]                                                                                                                                                                                                                                                                    | 6.60/2.85-3.30                              |                                                                                                                          |                           |          |
| Rated speed [RPM]                                                                                                                                                                                                                                                                      | 1730                                        |                                                                                                                          |                           |          |
| Slip [%]                                                                                                                                                                                                                                                                               | 3.89                                        |                                                                                                                          |                           |          |
| Rated torque [kgfm]                                                                                                                                                                                                                                                                    | 0.210                                       |                                                                                                                          |                           |          |
| Locked rotor torque [%]                                                                                                                                                                                                                                                                | 320                                         |                                                                                                                          |                           |          |
| Breakdown torque [%]                                                                                                                                                                                                                                                                   | 270                                         |                                                                                                                          |                           |          |
| Service factor                                                                                                                                                                                                                                                                         |                                             |                                                                                                                          |                           |          |
| Temperature rise                                                                                                                                                                                                                                                                       | 80 K                                        |                                                                                                                          |                           |          |
| Locked rotor time                                                                                                                                                                                                                                                                      | 18s (cold) 10s (hot)                        |                                                                                                                          |                           |          |
| Noise level <sup>2</sup>                                                                                                                                                                                                                                                               | 52.0 dB(A)                                  |                                                                                                                          |                           |          |
| Efficiency (%)                                                                                                                                                                                                                                                                         | 25%                                         |                                                                                                                          |                           |          |
|                                                                                                                                                                                                                                                                                        | 50%                                         | 52.0                                                                                                                     |                           |          |
|                                                                                                                                                                                                                                                                                        | 75%                                         | 59.0                                                                                                                     |                           |          |
|                                                                                                                                                                                                                                                                                        | 100%                                        | 64.0                                                                                                                     |                           |          |
| Power Factor                                                                                                                                                                                                                                                                           | 25%                                         |                                                                                                                          |                           |          |
|                                                                                                                                                                                                                                                                                        | 50%                                         | 0.44                                                                                                                     |                           |          |
|                                                                                                                                                                                                                                                                                        | 75%                                         | 0.54                                                                                                                     |                           |          |
|                                                                                                                                                                                                                                                                                        | 100%                                        | 0.63                                                                                                                     |                           |          |
| Bearing type                                                                                                                                                                                                                                                                           | : Drive end 6203 2RS Non drive end 6202 2RS | Foundation loads                                                                                                         |                           |          |
| Sealing                                                                                                                                                                                                                                                                                | : V'Ring V'Ring                             | Max. traction : 13 kgf                                                                                                   |                           |          |
| Lubrication interval                                                                                                                                                                                                                                                                   | : - -                                       | Max. compression : 22 kgf                                                                                                |                           |          |
| Lubricant amount                                                                                                                                                                                                                                                                       | : - -                                       |                                                                                                                          |                           |          |
| 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  |
| Performed by                                                                                                                                                                                                                                                                           |                                             |                                                                                                                          |                           |          |
| Checked by                                                                                                                                                                                                                                                                             |                                             |                                                                                                                          |                           |          |
| Date                                                                                                                                                                                                                                                                                   | 16/05/2022                                  |                                                                                                                          | Page 1 / 2                | Revision |

# LOAD PERFORMANCE CURVE

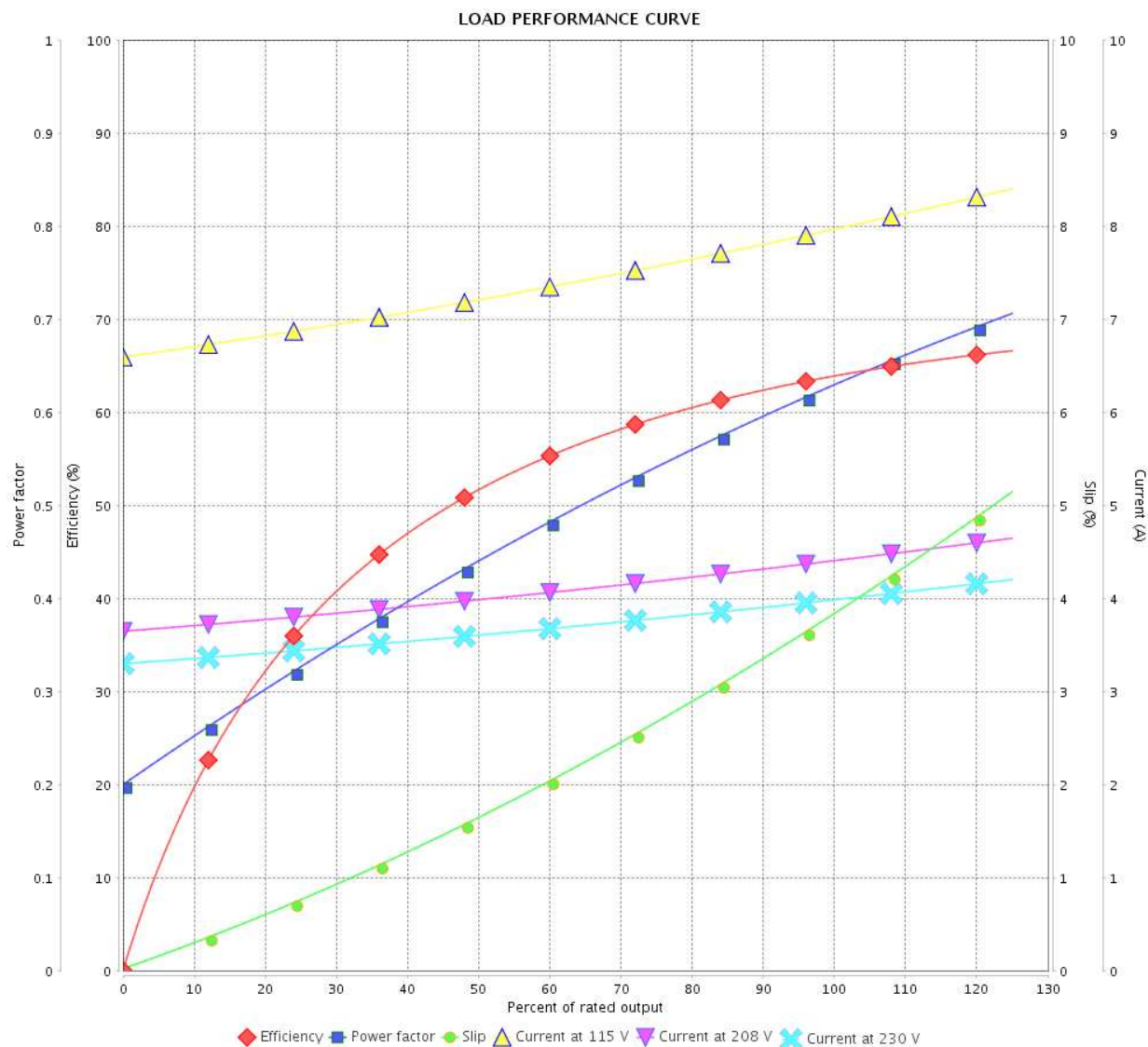
Single Phase Induction Motor - Squirrel Cage



Customer :

Product line : Jet Pump - J type Single-Phase

Product code : 13997409



Performance : 115/208-230 V 60 Hz 4P

Rated current : 8.00/4.42-4.00 A  
 LRC : 5.7  
 Rated torque : 0.210 kgfm  
 Locked rotor torque : 320 %  
 Breakdown torque : 270 %  
 Rated speed : 1730 rpm

Moment of inertia (J) : 0.0020 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K  
 Design : N

| Rev.         | Changes Summary | Performed                                 | Checked | Date |
|--------------|-----------------|-------------------------------------------|---------|------|
|              |                 |                                           |         |      |
| Performed by |                 | <div>Page 2 / 2</div> <div>Revision</div> |         |      |
| Checked by   |                 |                                           |         |      |
| Date         | 16/05/2022      |                                           |         |      |

