

# DATA SHEET

## Single Phase Induction Motor - Squirrel Cage



|                                                                                                                                                                                                                                                                                        |                                                           |                                                                                                                          |                           |          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------------------|----------|
| Customer :                                                                                                                                                                                                                                                                             |                                                           |                                                                                                                          |                           |          |
| Product line                                                                                                                                                                                                                                                                           |                                                           | : Jet Pump - J type Single-Phase                                                                                         | Product code :            | 14733581 |
| Frame                                                                                                                                                                                                                                                                                  | : 56J                                                     | Cooling method                                                                                                           | : IC01 - ODP              |          |
| 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>                                                                                              | : 15.6 kg                 |          |
| Design                                                                                                                                                                                                                                                                                 | : L                                                       | Moment of inertia (J)                                                                                                    | : 0.0027 kgm <sup>2</sup> |          |
| Output [HP]                                                                                                                                                                                                                                                                            | 1.5                                                       |                                                                                                                          |                           |          |
| Poles                                                                                                                                                                                                                                                                                  | 2                                                         |                                                                                                                          |                           |          |
| Frequency [Hz]                                                                                                                                                                                                                                                                         | 60                                                        |                                                                                                                          |                           |          |
| Rated voltage [V]                                                                                                                                                                                                                                                                      | 115/208-230                                               |                                                                                                                          |                           |          |
| Rated current [A]                                                                                                                                                                                                                                                                      | 12.4/6.86-6.20                                            |                                                                                                                          |                           |          |
| L. R. Amperes [A]                                                                                                                                                                                                                                                                      | 102/56.3-50.8                                             |                                                                                                                          |                           |          |
| LRC [A]                                                                                                                                                                                                                                                                                | 8.2x(Code J)                                              |                                                                                                                          |                           |          |
| No load current [A]                                                                                                                                                                                                                                                                    | 3.20/1.38-1.60                                            |                                                                                                                          |                           |          |
| Rated speed [RPM]                                                                                                                                                                                                                                                                      | 3500                                                      |                                                                                                                          |                           |          |
| Slip [%]                                                                                                                                                                                                                                                                               | 2.78                                                      |                                                                                                                          |                           |          |
| Rated torque [kgfm]                                                                                                                                                                                                                                                                    | 0.311                                                     |                                                                                                                          |                           |          |
| Locked rotor torque [%]                                                                                                                                                                                                                                                                | 260                                                       |                                                                                                                          |                           |          |
| Breakdown torque [%]                                                                                                                                                                                                                                                                   | 270                                                       |                                                                                                                          |                           |          |
| Service factor                                                                                                                                                                                                                                                                         |                                                           |                                                                                                                          |                           |          |
| Temperature rise                                                                                                                                                                                                                                                                       | 80 K                                                      |                                                                                                                          |                           |          |
| Locked rotor time                                                                                                                                                                                                                                                                      | 18s (cold) 10s (hot)                                      |                                                                                                                          |                           |          |
| Noise level <sup>2</sup>                                                                                                                                                                                                                                                               | 58.0 dB(A)                                                |                                                                                                                          |                           |          |
| Efficiency (%)                                                                                                                                                                                                                                                                         | 25%                                                       |                                                                                                                          |                           |          |
|                                                                                                                                                                                                                                                                                        | 50%                                                       | 73.0                                                                                                                     |                           |          |
|                                                                                                                                                                                                                                                                                        | 75%                                                       | 79.0                                                                                                                     |                           |          |
|                                                                                                                                                                                                                                                                                        | 100%                                                      | 81.5                                                                                                                     |                           |          |
| Power Factor                                                                                                                                                                                                                                                                           | 25%                                                       |                                                                                                                          |                           |          |
|                                                                                                                                                                                                                                                                                        | 50%                                                       | 0.92                                                                                                                     |                           |          |
|                                                                                                                                                                                                                                                                                        | 75%                                                       | 0.95                                                                                                                     |                           |          |
|                                                                                                                                                                                                                                                                                        | 100%                                                      | 0.95                                                                                                                     |                           |          |
| Bearing type                                                                                                                                                                                                                                                                           | : <u>Drive end</u> 6203 2RS <u>Non drive end</u> 6202 2RS | Foundation loads                                                                                                         |                           |          |
| Sealing                                                                                                                                                                                                                                                                                | : Without Bearing Seal Without Bearing Seal               | Max. traction                                                                                                            | : 19 kgf                  |          |
|                                                                                                                                                                                                                                                                                        |                                                           | Max. compression                                                                                                         | : 34 kgf                  |          |
| Lubrication interval                                                                                                                                                                                                                                                                   | : -                                                       |                                                                                                                          |                           |          |
| 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                   | Date     |
| Performed by                                                                                                                                                                                                                                                                           |                                                           |                                                                                                                          |                           |          |
| Checked by                                                                                                                                                                                                                                                                             |                                                           |                                                                                                                          |                           |          |
| Date                                                                                                                                                                                                                                                                                   | 17/05/2022                                                |                                                                                                                          | Page<br>1 / 2             | Revision |

# LOAD PERFORMANCE CURVE

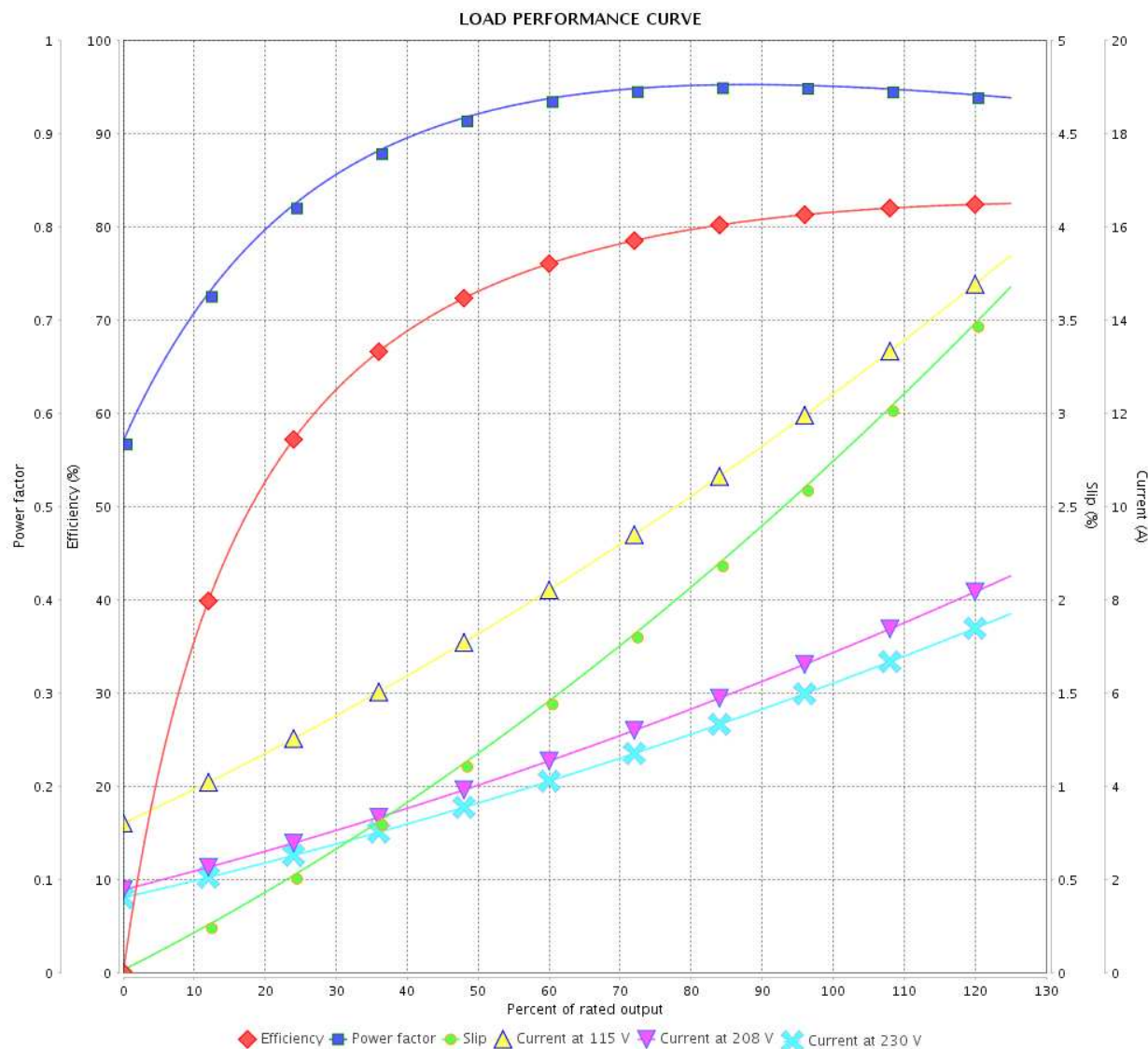
Single Phase Induction Motor - Squirrel Cage



Customer :

Product line : Jet Pump - J type Single-Phase

Product code : 14733581



Performance : 115/208-230 V 60 Hz 2P

Rated current : 12.4/6.86-6.20 A  
 LRC : 8.2  
 Rated torque : 0.311 kgfm  
 Locked rotor torque : 260 %  
 Breakdown torque : 270 %  
 Rated speed : 3500 rpm

Moment of inertia (J) : 0.0027 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K  
 Design : L

| Rev.         | Changes Summary | Performed             | Checked | Date |
|--------------|-----------------|-----------------------|---------|------|
|              |                 |                       |         |      |
| Performed by |                 | Page<br>2 / 2Revision |         |      |
| Checked by   |                 |                       |         |      |
| Date         | 17/05/2022      |                       |         |      |

