

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

|                                                                                                                                                                                                                                                                                        |                           |                  |                         |                                                                                                                          |                        |                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------|-------------------------|--------------------------------------------------------------------------------------------------------------------------|------------------------|----------------|
| Customer :                                                                                                                                                                                                                                                                             |                           |                  |                         |                                                                                                                          |                        |                |
| Product line : W22 NEMA Premium Efficiency Three-Phase                                                                                                                                                                                                                                 |                           |                  | Product code : 12447061 |                                                                                                                          |                        |                |
| Frame                                                                                                                                                                                                                                                                                  | : 254/6TC                 |                  |                         | Locked rotor time                                                                                                        | : 36s (cold) 20s (hot) |                |
| Output                                                                                                                                                                                                                                                                                 | : 15 HP (11 kW)           |                  |                         | Temperature rise                                                                                                         | : 80 K                 |                |
| Poles                                                                                                                                                                                                                                                                                  | : 2                       |                  |                         | 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                                                                                                                                                                                                                                                                          | : 13.8 A                  |                  |                         | Protection degree                                                                                                        | : IP55                 |                |
| L. R. Amperes                                                                                                                                                                                                                                                                          | : 92.4 A                  |                  |                         | Cooling method                                                                                                           | : IC411 - TEFC         |                |
| LRC                                                                                                                                                                                                                                                                                    | : 6.7x(Code G)            |                  |                         | Mounting                                                                                                                 | : F-1                  |                |
| No load current                                                                                                                                                                                                                                                                        | : 4.24 A                  |                  |                         | Rotation <sup>1</sup>                                                                                                    | : Both (CW and CCW)    |                |
| Rated speed                                                                                                                                                                                                                                                                            | : 3532 rpm                |                  |                         | Noise level <sup>2</sup>                                                                                                 | : 72.0 dB(A)           |                |
| Slip                                                                                                                                                                                                                                                                                   | : 1.89 %                  |                  |                         | Starting method                                                                                                          | : Direct On Line       |                |
| Rated torque                                                                                                                                                                                                                                                                           | : 3.08 kgfm               |                  |                         | Approx. weight <sup>3</sup>                                                                                              | : 120 kg               |                |
| Locked rotor torque                                                                                                                                                                                                                                                                    | : 220 %                   |                  |                         |                                                                                                                          |                        |                |
| Breakdown torque                                                                                                                                                                                                                                                                       | : 270 %                   |                  |                         |                                                                                                                          |                        |                |
| Insulation class                                                                                                                                                                                                                                                                       | : F                       |                  |                         |                                                                                                                          |                        |                |
| Service factor                                                                                                                                                                                                                                                                         | : 1.25                    |                  |                         |                                                                                                                          |                        |                |
| Moment of inertia (J)                                                                                                                                                                                                                                                                  | : 0.0530 kgm <sup>2</sup> |                  |                         |                                                                                                                          |                        |                |
| Design                                                                                                                                                                                                                                                                                 | : B                       |                  |                         |                                                                                                                          |                        |                |
| Output                                                                                                                                                                                                                                                                                 | 25%                       | 50%              | 75%                     | 100%                                                                                                                     | Foundation loads       |                |
| Efficiency (%)                                                                                                                                                                                                                                                                         | 0.000                     | 89.5             | 91.0                    | 91.0                                                                                                                     | Max. traction          | : 71 kgf       |
| Power Factor                                                                                                                                                                                                                                                                           | 0.00                      | 0.77             | 0.85                    | 0.88                                                                                                                     | Max. compression       | : 190 kgf      |
| 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) |
| 9.1                                                                                                                                                                                                                                                                                    | 6.6                       | 6.2              | 5.1                     | 2.8                                                                                                                      | 1.9                    | 1.1            |
|                                                                                                                                                                                                                                                                                        |                           | <u>Drive end</u> |                         | <u>Non drive end</u>                                                                                                     |                        |                |
| Bearing type                                                                                                                                                                                                                                                                           | :                         | 6309 C3          |                         | 6209 C3                                                                                                                  |                        |                |
| Sealing                                                                                                                                                                                                                                                                                | :                         | V'Ring           |                         | V'Ring                                                                                                                   |                        |                |
| Lubrication interval                                                                                                                                                                                                                                                                   | :                         | 19000 h          |                         | 20000 h                                                                                                                  |                        |                |
| Lubricant amount                                                                                                                                                                                                                                                                       | :                         | 13 g             |                         | 9 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                                                                                                                                                                                                                                                                                   | 20/05/2024                |                  |                         |                                                                                                                          | 1 / 2                  |                |

# LOAD PERFORMANCE CURVE

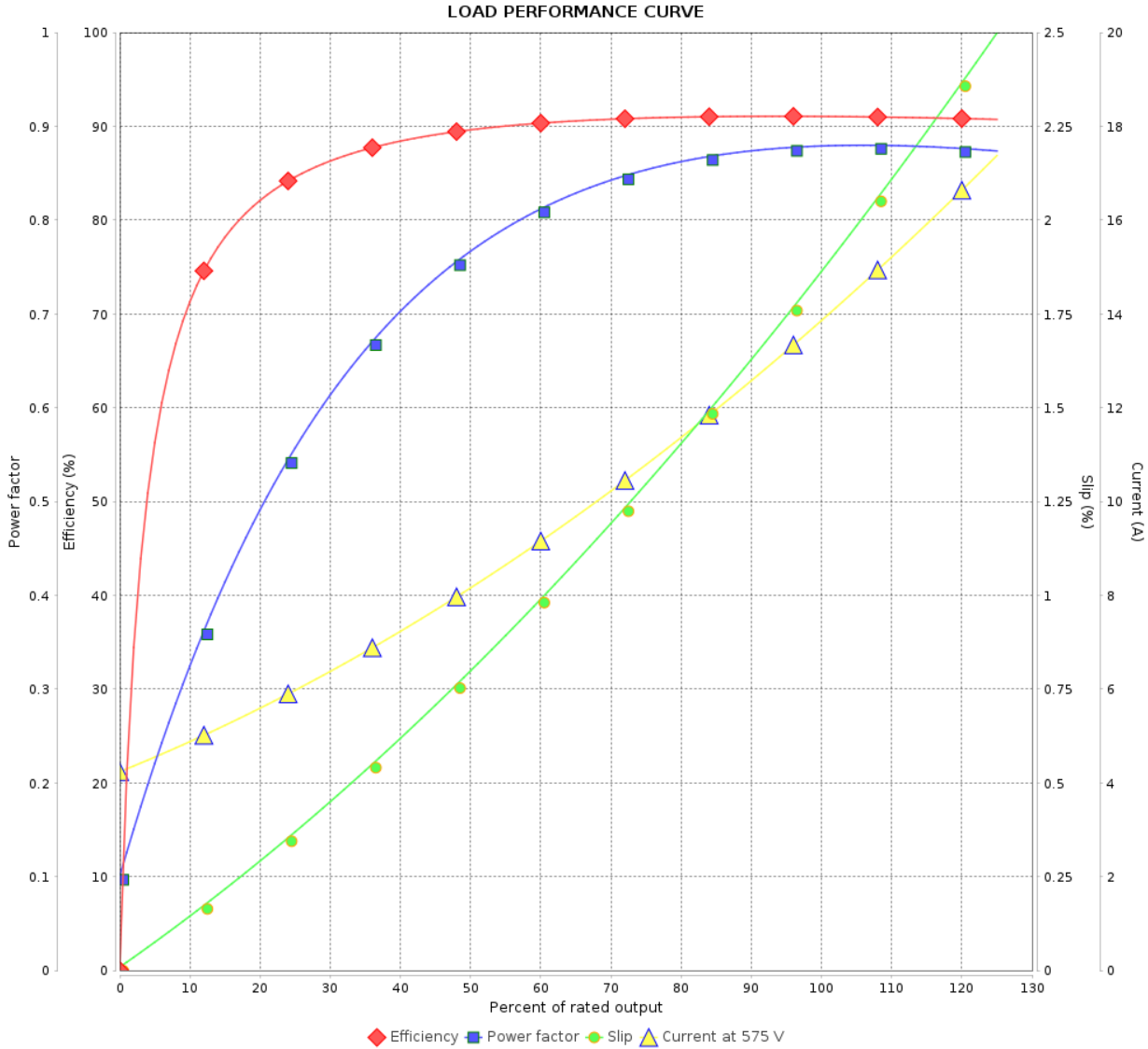
Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12447061



Performance : 575 V 60 Hz 2P

|                     |             |                       |                           |
|---------------------|-------------|-----------------------|---------------------------|
| Rated current       | : 13.8 A    | Moment of inertia (J) | : 0.0530 kgm <sup>2</sup> |
| LRC                 | : 6.7       | Duty cycle            | : Cont.(S1)               |
| Rated torque        | : 3.08 kgfm | Insulation class      | : F                       |
| Locked rotor torque | : 220 %     | Service factor        | : 1.25                    |
| Breakdown torque    | : 270 %     | Temperature rise      | : 80 K                    |
| Rated speed         | : 3532 rpm  | Design                | : B                       |

| Rev.         | Changes Summary | Performed | Checked       | Date     |
|--------------|-----------------|-----------|---------------|----------|
|              |                 |           |               |          |
| Performed by |                 |           | Page<br>2 / 2 | Revision |
| Checked by   |                 |           |               |          |
| Date         | 20/05/2024      |           |               |          |