

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12445723

|                       |                           |                             |                         |
|-----------------------|---------------------------|-----------------------------|-------------------------|
| Frame                 | : 213/5T                  | Locked rotor time           | : 104s (cold) 58s (hot) |
| Output                | : 3 HP (2.2 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         | : 3.53 A                  | Protection degree           | : IP55                  |
| L. R. Amperes         | : 24.7 A                  | Cooling method              | : IC411 - TEFC          |
| LRC                   | : 7.0x(Code K)            | Mounting                    | : F-1                   |
| No load current       | : 2.04 A                  | Rotation <sup>1</sup>       | : Both (CW and CCW)     |
| Rated speed           | : 1175 rpm                | Noise level <sup>2</sup>    | : 55.0 dB(A)            |
| Slip                  | : 2.08 %                  | Starting method             | : Direct On Line        |
| Rated torque          | : 1.85 kgfm               | Approx. weight <sup>3</sup> | : 69.1 kg               |
| Locked rotor torque   | : 190 %                   |                             |                         |
| Breakdown torque      | : 270 %                   |                             |                         |
| Insulation class      | : F                       |                             |                         |
| Service factor        | : 1.25                    |                             |                         |
| Moment of inertia (J) | : 0.0504 kgm <sup>2</sup> |                             |                         |
| Design                | : B                       |                             |                         |

|                |      |      |      |                  |           |
|----------------|------|------|------|------------------|-----------|
| Output         | 50%  | 75%  | 100% | Foundation loads |           |
| Efficiency (%) | 86.5 | 88.5 | 89.5 | Max. traction    | : 58 kgf  |
| Power Factor   | 0.50 | 0.63 | 0.70 | Max. compression | : 127 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) |
|--------------|--------------|---------------|--------------|--------------|---------------|----------------|
| 11.0         | 8.6          | 8.0           | 6.6          | 4.3          | 3.4           | 2.4            |

|                      |   |                  |                      |
|----------------------|---|------------------|----------------------|
|                      |   | <u>Drive end</u> | <u>Non drive end</u> |
| Bearing type         | : | 6308 ZZ          | 6207 ZZ              |
| Sealing              | : | V'Ring           | V'Ring               |
| Lubrication interval | : | -                | -                    |
| Lubricant amount     | : | -                | -                    |
| Lubricant type       | : | Mobil Polyrex EM |                      |

Notes

This revision replaces and cancel the previous one, which must be eliminated.

- (1) Looking the motor from the shaft end.
- (2) Measured at 1m and with tolerance of +3dB(A).
- (3) Approximate weight subject to changes after manufacturing process.
- (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 |                 | Page Revision<br>1 / 2 |         |      |
| Checked by   |                 |                        |         |      |
| Date         | 20/10/2024      |                        |         |      |

# LOAD PERFORMANCE CURVE

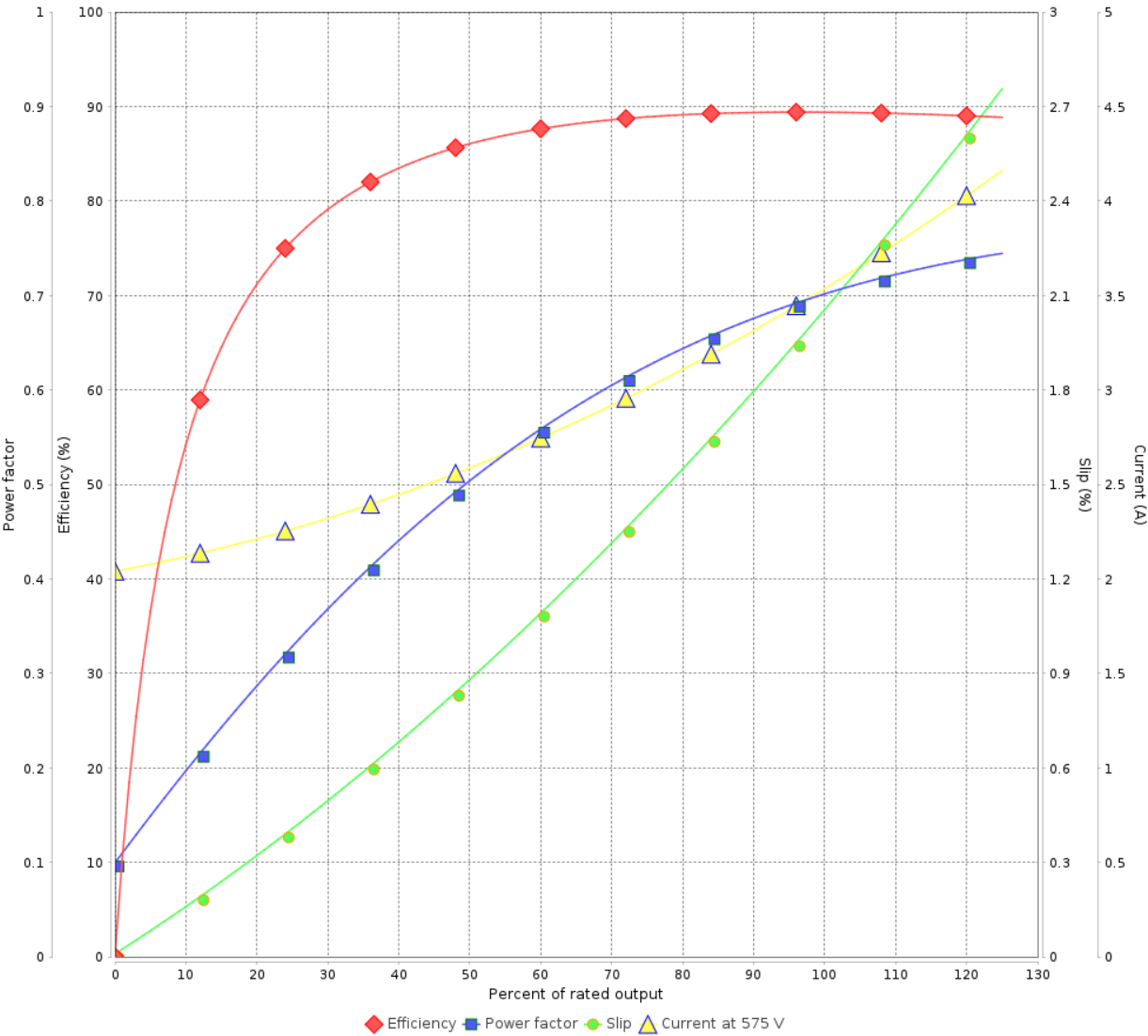
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase      Product code : 12445723

LOAD PERFORMANCE CURVE



Performance : 575 V 60 Hz 6P

|                     |             |                       |                           |
|---------------------|-------------|-----------------------|---------------------------|
| Rated current       | : 3.53 A    | Moment of inertia (J) | : 0.0504 kgm <sup>2</sup> |
| LRC                 | : 7.0       | Duty cycle            | : Cont.(S1)               |
| Rated torque        | : 1.85 kgfm | Insulation class      | : F                       |
| Locked rotor torque | : 190 %     | Service factor        | : 1.25                    |
| Breakdown torque    | : 270 %     | Temperature rise      | : 80 K                    |
| Rated speed         | : 1175 rpm  | Design                | : B                       |

| Rev.         | Changes Summary |                          | Performed | Checked | Date |
|--------------|-----------------|--------------------------|-----------|---------|------|
|              |                 |                          |           |         |      |
| Performed by |                 | Page 2 / 2      Revision |           |         |      |
| Checked by   |                 |                          |           |         |      |
| Date         | 20/10/2024      |                          |           |         |      |

