

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11440653

|                       |                           |                             |                        |
|-----------------------|---------------------------|-----------------------------|------------------------|
| Frame                 | : 324/6T                  | Locked rotor time           | : 37s (cold) 21s (hot) |
| Output                | : 30 HP (22 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         | : 29.0 A                  | Protection degree           | : IP55                 |
| L. R. Amperes         | : 180 A                   | Cooling method              | : IC411 - TEFC         |
| LRC                   | : 6.2x(Code G)            | Mounting                    | : F-1                  |
| No load current       | : 13.1 A                  | Rotation <sup>1</sup>       | : Both (CW and CCW)    |
| Rated speed           | : 1180 rpm                | Noise level <sup>2</sup>    | : 62.0 dB(A)           |
| Slip                  | : 1.67 %                  | Starting method             | : Direct On Line       |
| Rated torque          | : 18.5 kgfm               | Approx. weight <sup>3</sup> | : 266 kg               |
| Locked rotor torque   | : 220 %                   |                             |                        |
| Breakdown torque      | : 240 %                   |                             |                        |
| Insulation class      | : F                       |                             |                        |
| Service factor        | : 1.25                    |                             |                        |
| Moment of inertia (J) | : 0.5561 kgm <sup>2</sup> |                             |                        |
| Design                | : B                       |                             |                        |

|                |      |      |      |                  |           |
|----------------|------|------|------|------------------|-----------|
| Output         | 50%  | 75%  | 100% | Foundation loads |           |
| Efficiency (%) | 91.7 | 93.0 | 93.0 | Max. traction    | : 424 kgf |
| Power Factor   | 0.65 | 0.76 | 0.82 | Max. compression | : 690 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) |
|--------------|--------------|---------------|--------------|--------------|---------------|----------------|
| 7.3          | 6.1          | 6.0           | 3.6          | 2.5          | 1.7           | 1.2            |

|                      |   |                  |                      |
|----------------------|---|------------------|----------------------|
|                      |   | <u>Drive end</u> | <u>Non drive end</u> |
| Bearing type         | : | 6312 C3          | 6212 C3              |
| Sealing              | : | V'Ring           | V'Ring               |
| Lubrication interval | : | 20000 h          | 20000 h              |
| Lubricant amount     | : | 21 g             | 13 g                 |
| 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<br>1 / 2<br>Revision |         |      |
| Checked by   |                 |                           |         |      |
| Date         | 21/10/2024      |                           |         |      |

# LOAD PERFORMANCE CURVE

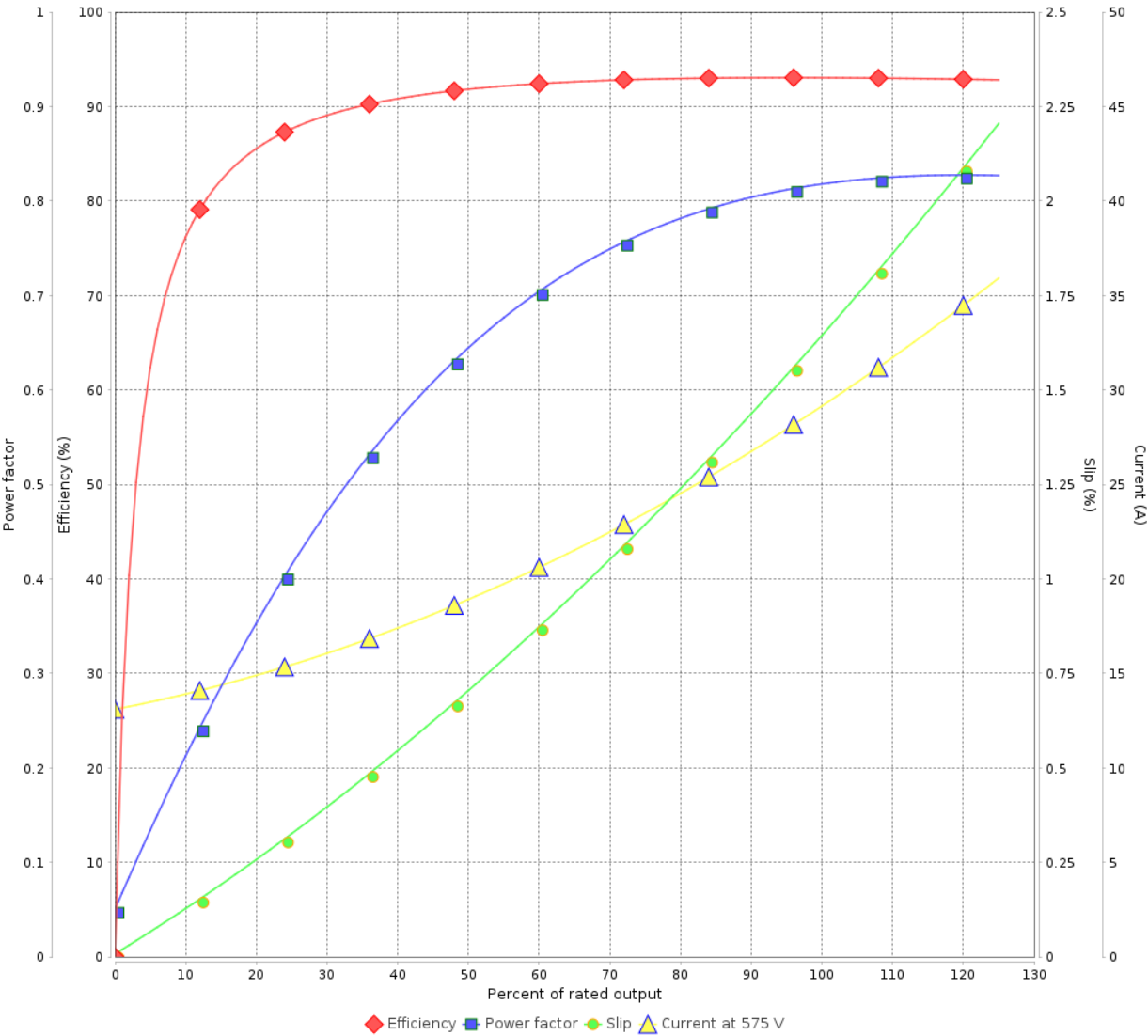
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LOAD PERFORMANCE CURVE



|                              |             |                       |                           |
|------------------------------|-------------|-----------------------|---------------------------|
| Performance : 575 V 60 Hz 6P |             |                       |                           |
| Rated current                | : 29.0 A    | Moment of inertia (J) | : 0.5561 kgm <sup>2</sup> |
| LRC                          | : 6.2       | Duty cycle            | : Cont.(S1)               |
| Rated torque                 | : 18.5 kgfm | Insulation class      | : F                       |
| Locked rotor torque          | : 220 %     | Service factor        | : 1.25                    |
| Breakdown torque             | : 240 %     | Temperature rise      | : 80 K                    |
| Rated speed                  | : 1180 rpm  | Design                | : B                       |

| Rev.         | Changes Summary |  | Performed | Checked       | Date     |
|--------------|-----------------|--|-----------|---------------|----------|
|              |                 |  |           |               |          |
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| Checked by   |                 |  |           |               |          |
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