

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12452800

|                       |                           |                             |                        |
|-----------------------|---------------------------|-----------------------------|------------------------|
| Frame                 | : 324/6TC                 | 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> | : 254 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    | : 430 kgf |
| Power Factor   | 0.65 | 0.76 | 0.82 | Max. compression | : 684 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            |

|                      | Drive end        | Non drive end |
|----------------------|------------------|---------------|
| 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 |                 |           |               |          |
| Checked by   |                 |           |               |          |
| Date         | 19/10/2024      |           | Page<br>1 / 2 | Revision |

# LOAD PERFORMANCE CURVE

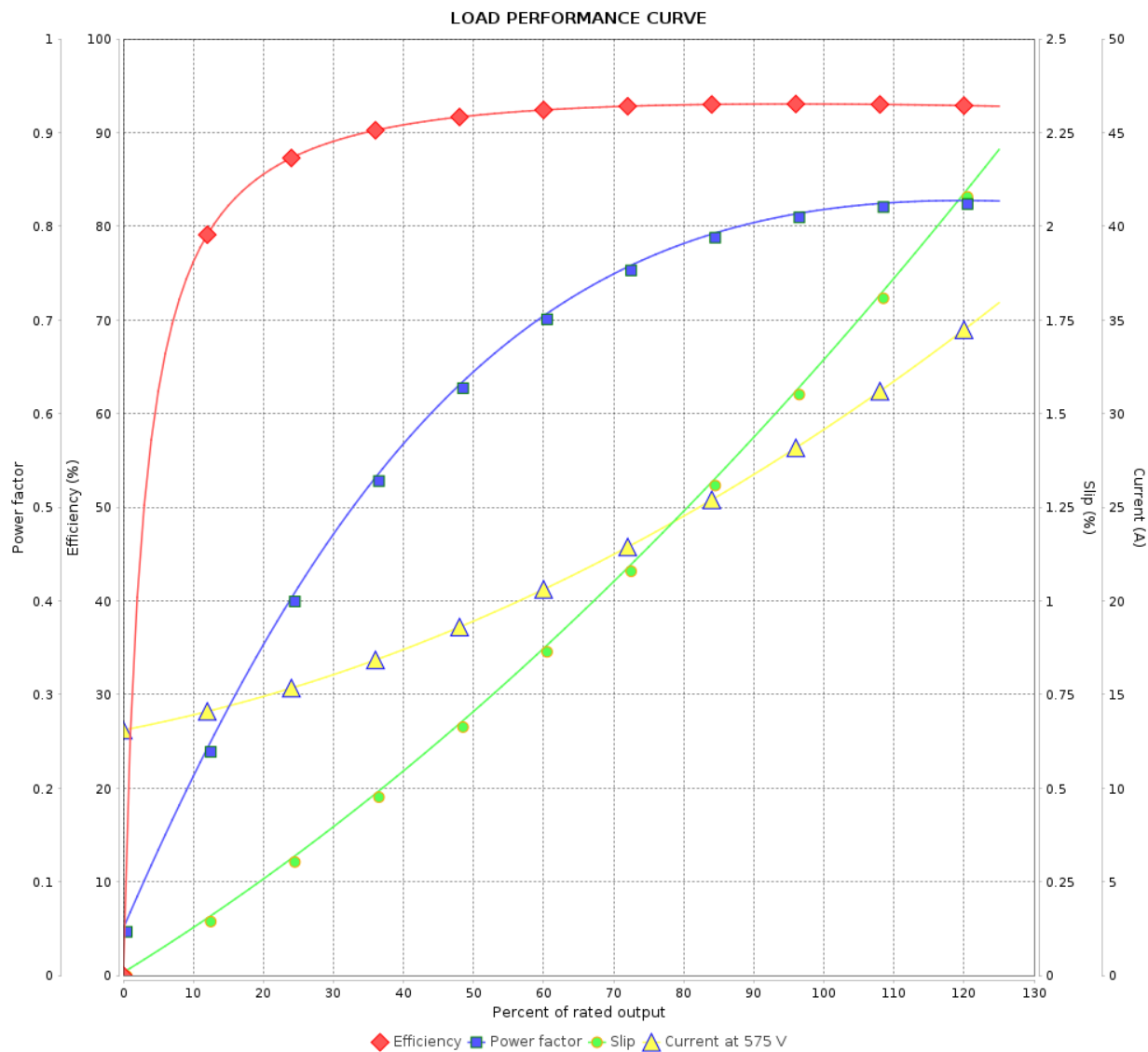
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 12452800



Performance : 575 V 60 Hz 6P

Rated current : 29.0 A  
LRC : 6.2  
Rated torque : 18.5 kgfm  
Locked rotor torque : 220 %  
Breakdown torque : 240 %  
Rated speed : 1180 rpm

Moment of inertia (J) : 0.5561 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

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