

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 12936434

|                       |                           |                             |                         |
|-----------------------|---------------------------|-----------------------------|-------------------------|
| Frame                 | : 213/5T                  | Locked rotor time           | : 102s (cold) 57s (hot) |
| Output                | : 5 HP (3.7 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         | : 5.46 A                  | Protection degree           | : IP55                  |
| L. R. Amperes         | : 37.2 A                  | Cooling method              | : IC411 - TEFC          |
| LRC                   | : 6.8x(Code J)            | Mounting                    | : F-1                   |
| No load current       | : 2.76 A                  | Rotation <sup>1</sup>       | : Both (CW and CCW)     |
| Rated speed           | : 1170 rpm                | Noise level <sup>2</sup>    | : 55.0 dB(A)            |
| Slip                  | : 2.50 %                  | Starting method             | : Direct On Line        |
| Rated torque          | : 3.10 kgfm               | Approx. weight <sup>3</sup> | : 82.2 kg               |
| Locked rotor torque   | : 170 %                   |                             |                         |
| Breakdown torque      | : 260 %                   |                             |                         |
| Insulation class      | : F                       |                             |                         |
| Service factor        | : 1.25                    |                             |                         |
| Moment of inertia (J) | : 0.0620 kgm <sup>2</sup> |                             |                         |
| Design                | : B                       |                             |                         |

|                |      |      |      |                  |           |
|----------------|------|------|------|------------------|-----------|
| Output         | 50%  | 75%  | 100% | Foundation loads |           |
| Efficiency (%) | 88.5 | 89.5 | 89.5 | Max. traction    | : 108 kgf |
| Power Factor   | 0.58 | 0.70 | 0.76 | 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) |
|--------------|--------------|---------------|--------------|--------------|---------------|----------------|
| 11.1         | 9.1          | 8.8           | 5.8          | 4.0          | 2.9           | 2.1            |

|                      |   |                    |                      |
|----------------------|---|--------------------|----------------------|
|                      |   | <u>Drive end</u>   | <u>Non drive end</u> |
| Bearing type         | : | 6308 C3            | 6207 C3              |
| Sealing              | : | Taconite Labyrinth | Taconite Labyrinth   |
| Lubrication interval | : | 20000 h            | 20000 h              |
| Lubricant amount     | : | 11 g               | 7 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 |
|--------------|-----------------|---------------------------|---------|------|
|              |                 |                           |         |      |
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| Checked by   |                 |                           |         |      |
| Date         | 22/10/2024      |                           |         |      |

# LOAD PERFORMANCE CURVE

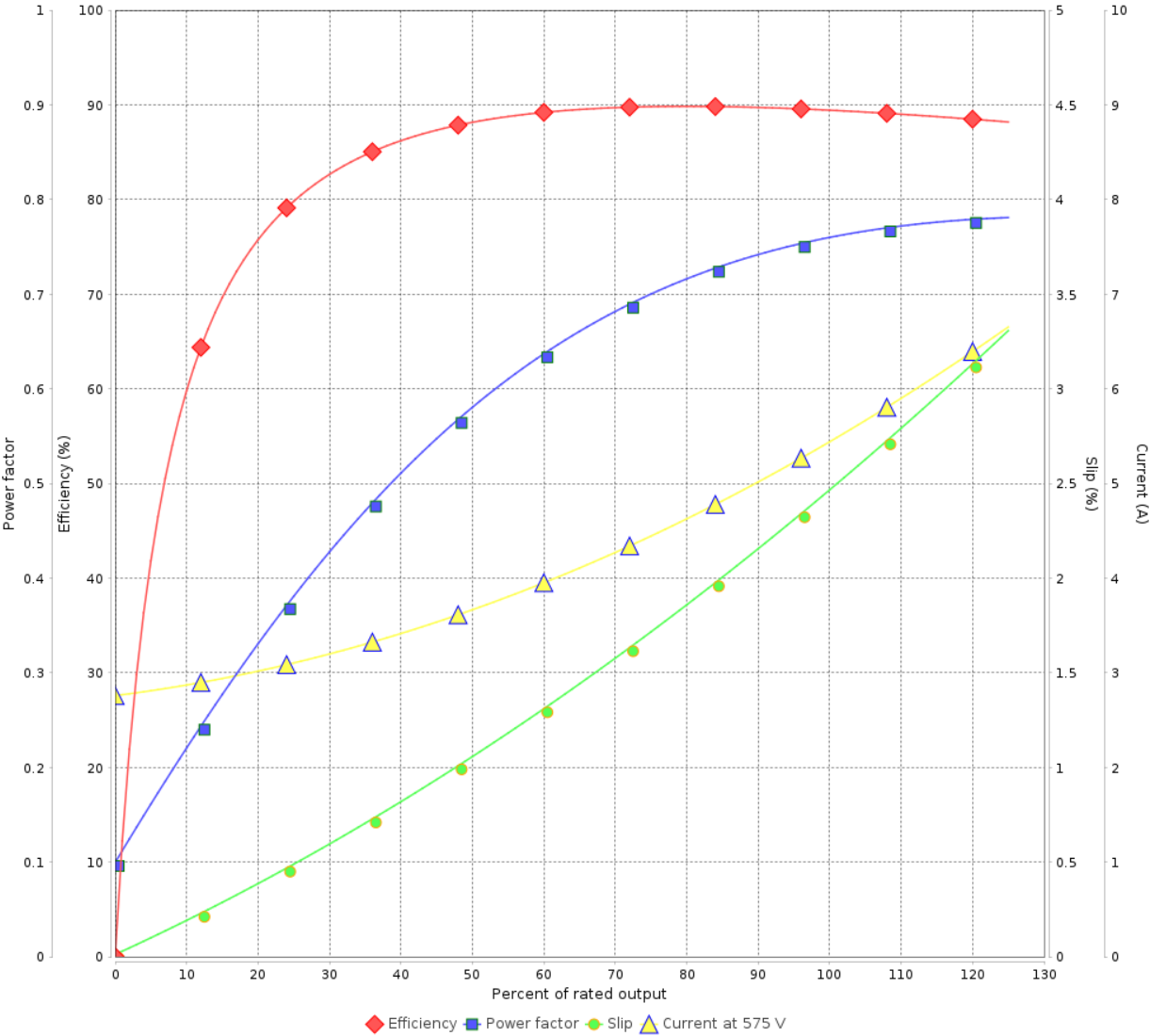
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LOAD PERFORMANCE CURVE



|                              |             |                       |               |
|------------------------------|-------------|-----------------------|---------------|
| Performance : 575 V 60 Hz 6P |             |                       |               |
| Rated current                | : 5.46 A    | Moment of inertia (J) | : 0.0620 kgm² |
| LRC                          | : 6.8       | Duty cycle            | : Cont.(S1)   |
| Rated torque                 | : 3.10 kgfm | Insulation class      | : F           |
| Locked rotor torque          | : 170 %     | Service factor        | : 1.25        |
| Breakdown torque             | : 260 %     | Temperature rise      | : 80 K        |
| Rated speed                  | : 1170 rpm  | Design                | : B           |

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|--------------|-----------------|--|-----------|---------------|----------|
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