

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11431931

|                       |                         |                             |                        |
|-----------------------|-------------------------|-----------------------------|------------------------|
| Frame                 | : 364/5T                | Locked rotor time           | : 32s (cold) 18s (hot) |
| Output                | : 50 HP (37 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         | : 45.9 A                | Protection degree           | : IP56                 |
| L. R. Amperes         | : 294 A                 | Cooling method              | : IC411 - TEFC         |
| LRC                   | : 6.4x(Code G)          | Mounting                    | : F-1                  |
| No load current       | : 16.0 A                | Rotation <sup>1</sup>       | : Both (CW and CCW)    |
| Rated speed           | : 1183 rpm              | Noise level <sup>2</sup>    | : 66.0 dB(A)           |
| Slip                  | : 1.42 %                | Starting method             | : Direct On Line       |
| Rated torque          | : 30.7 kgfm             | Approx. weight <sup>3</sup> | : 399 kg               |
| Locked rotor torque   | : 200 %                 |                             |                        |
| Breakdown torque      | : 240 %                 |                             |                        |
| Insulation class      | : F                     |                             |                        |
| Service factor        | : 1.25                  |                             |                        |
| Moment of inertia (J) | : 1.36 kgm <sup>2</sup> |                             |                        |
| Design                | : B                     |                             |                        |

|                |      |      |      |                  |            |
|----------------|------|------|------|------------------|------------|
| Output         | 50%  | 75%  | 100% | Foundation loads |            |
| Efficiency (%) | 93.6 | 94.1 | 94.1 | Max. traction    | : 627 kgf  |
| Power Factor   | 0.74 | 0.83 | 0.86 | Max. compression | : 1026 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) |
|--------------|--------------|---------------|--------------|--------------|---------------|----------------|
| 6.2          | 5.2          | 4.6           | 2.8          | 1.9          | 1.2           | 0.8            |

|                      | Drive end        | Non drive end |
|----------------------|------------------|---------------|
| Bearing type         | : 6314 C3        | 6314 C3       |
| Sealing              | : Inpro/Seal     | Inpro/Seal    |
| Lubrication interval | : 17000 h        | 17000 h       |
| Lubricant amount     | : 27 g           | 27 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         | 22/10/2024      |           | Page<br>1 / 2 | Revision |

# LOAD PERFORMANCE CURVE

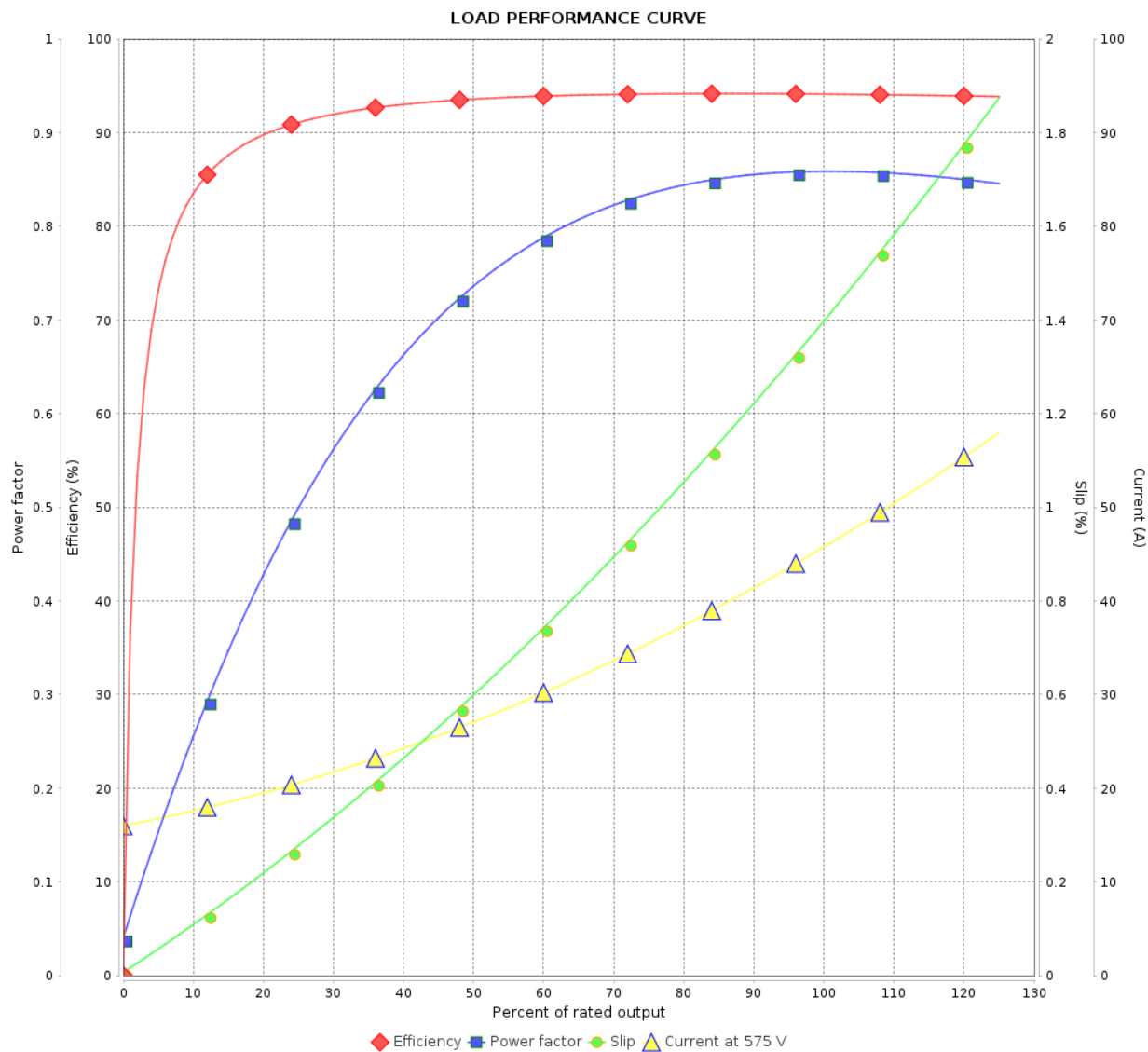
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Efficiency Three-Phase

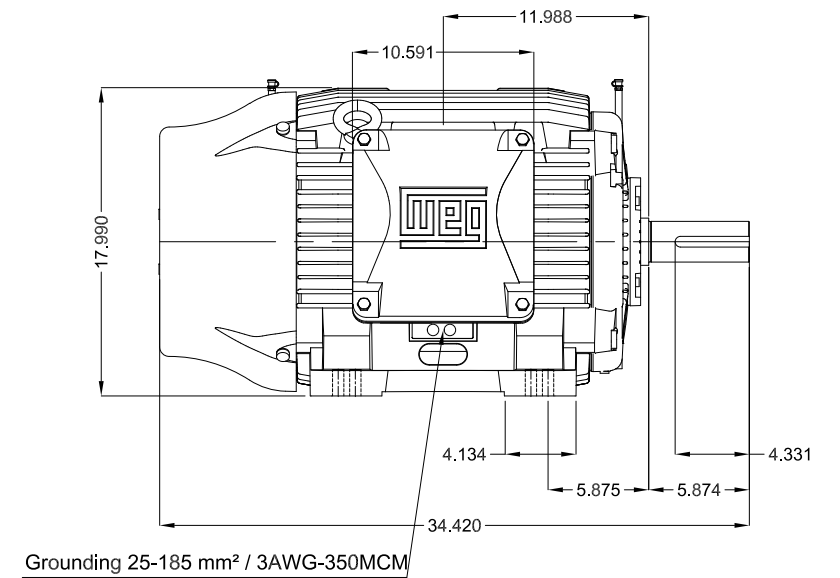
Product code : 11431931



Performance : 575 V 60 Hz 6P

|                     |             |                       |                         |
|---------------------|-------------|-----------------------|-------------------------|
| Rated current       | : 45.9 A    | Moment of inertia (J) | : 1.36 kgm <sup>2</sup> |
| LRC                 | : 6.4       | Duty cycle            | : Cont.(S1)             |
| Rated torque        | : 30.7 kgfm | Insulation class      | : F                     |
| Locked rotor torque | : 200 %     | Service factor        | : 1.25                  |
| Breakdown torque    | : 240 %     | Temperature rise      | : 80 K                  |
| Rated speed         | : 1183 rpm  | Design                | : B                     |

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|                                    |  |
|------------------------------------|--|
| Grease outlet according to IEEE841 |  |
| Color RAL 5009                     |  |
| Painting plan 222E                 |  |
| Mounting B3R(D)                    |  |