

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

|  |                 |  |              |  |               |                      |
|--|-----------------|--|--------------|--|---------------|----------------------|
| Customer :   |                 |  |              |  |               |                      |
| Product line   |                 | : W22 IEEE 841 NEMA Premium Efficiency Three-Phase |              | Product code :   |               | 11594952             |
| Frame  | :               | 284/6TC  |              | Locked rotor time  | :             | 28s (cold) 16s (hot) |
| Output   | :               | 20 HP (15 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  | :               | 19.4 A   |              | Protection degree  | :             | IP55                 |
| L. R. Amperes  | :               | 114 A  |              | Cooling method   | :             | IC411 - TEFC         |
| LRC  | :               | 5.9x(Code G)                                       |              | Mounting   | :             | F-1                  |
| No load current  | :               | 6.64 A   |              | Rotation <sup>1</sup>  | :             | Both (CW and CCW)    |
| Rated speed  | :               | 1175 rpm   |              | Noise level <sup>2</sup>   | :             | 59.0 dB(A)           |
| Slip   | :               | 2.08 %   |              | Starting method  | :             | Direct On Line       |
| Rated torque   | :               | 12.4 kgfm  |              | Approx. weight <sup>3</sup>  | :             | 207 kg               |
| Locked rotor torque  | :               | 220 %  |              |  |               |                      |
| Breakdown torque   | :               | 250 %  |              |  |               |                      |
| Insulation class   | :               | F  |              |  |               |                      |
| Service factor   | :               | 1.25   |              |  |               |                      |
| Moment of inertia (J)  | :               | 0.3861 kgm <sup>2</sup>                            |              |  |               |                      |
| Design   | :               | B  |              |  |               |                      |
| Output   | 50%             | 75%  | 100%         | Foundation loads   |               |                      |
| Efficiency (%)   | 91.0            | 91.7   | 91.7         | Max. traction  | :             | 338 kgf              |
| Power Factor   | 0.70            | 0.80   | 0.85         | Max. compression   | :             | 545 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)       |
| 9.9  | 8.5             | 7.9  | 5.2          | 3.7  | 2.6           | 1.8                  |
|  |                 | <u>Drive end</u>                                   |              | <u>Non drive end</u>   |               |                      |
| Bearing type   | :               | 6311 C3  |              | 6211 C3  |               |                      |
| Sealing  | :               | Inpro/Seal   |              | Inpro/Seal   |               |                      |
| Lubrication interval   | :               | 20000 h  |              | 20000 h  |               |                      |
| Lubricant amount   | :               | 18 g   |              | 11 g   |               |                      |
| Lubricant type   | :               | Mobil Polyrex EM                                   |              |  |               |                      |
| Notes:   |                 |  |              |  |               |                      |
| This revision replaces and cancel the previous one, which must be eliminated.<br>(1) Looking the motor from the shaft end.<br>(2) Measured at 1m and with tolerance of +3dB(A).<br>(3) Approximate weight subject to changes after manufacturing process.<br>(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   |                 |  |              |  | Page          | Revision             |
| Date   | 13/01/2024      |  |              |  | 1 / 2         |                      |

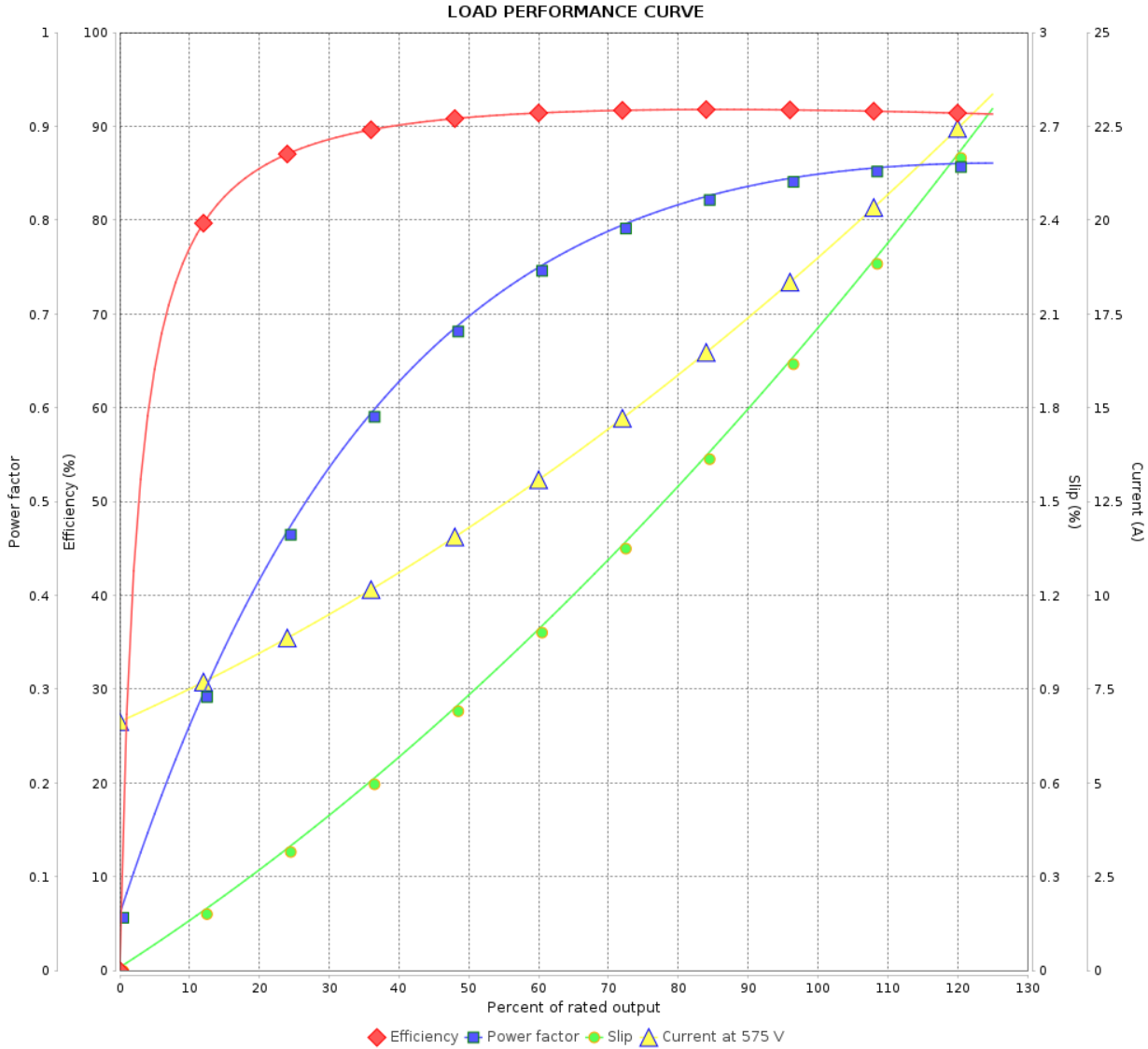
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 11594952



Performance : 575 V 60 Hz 6P

|                     |             |                       |                           |
|---------------------|-------------|-----------------------|---------------------------|
| Rated current       | : 19.4 A    | Moment of inertia (J) | : 0.3861 kgm <sup>2</sup> |
| LRC                 | : 5.9       | Duty cycle            | : Cont.(S1)               |
| Rated torque        | : 12.4 kgfm | Insulation class      | : F                       |
| Locked rotor torque | : 220 %     | Service factor        | : 1.25                    |
| Breakdown torque    | : 250 %     | Temperature rise      | : 80 K                    |
| Rated speed         | : 1175 rpm  | Design                | : B                       |

| Rev.         | Changes Summary | Performed | Checked       | Date     |
|--------------|-----------------|-----------|---------------|----------|
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| Performed by |                 |           | Page<br>2 / 2 | Revision |
| Checked by   |                 |           |               |          |
| Date         | 13/01/2024      |           |               |          |