

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

|  |                 |  |                  |  |                         |                      |
|--|-----------------|--|------------------|--|-------------------------|----------------------|
| Customer :   |                 |  |                  |  |                         |                      |
| Product line   |                 | : W22 IEEE 841 NEMA Premium Efficiency Three-Phase |                  |  | Product code : 13987887 |                      |
| Frame  | :               | 444/5T   |                  | Locked rotor time  | :                       | 48s (cold) 27s (hot) |
| Output   | :               | 125 HP   |                  | Temperature rise   | :                       | 80 K                 |
| Poles  | :               | 4  |                  | 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  | :               | 111 A  |                  | Protection degree  | :                       | IP55                 |
| L. R. Amperes  | :               | 723 A  |                  | Cooling method   | :                       | IC411 - TEFC         |
| LRC  | :               | 6.5x(Code G)                                       |                  | Mounting   | :                       | F-1                  |
| No load current  | :               | 32.0 A   |                  | Rotation <sup>1</sup>  | :                       | Both (CW and CCW)    |
| Rated speed  | :               | 1785 rpm   |                  | Noise level <sup>2</sup>   | :                       | 73.0 dB(A)           |
| Slip   | :               | 0.83 %   |                  | Starting method  | :                       | Direct On Line       |
| Rated torque   | :               | 50.8 kgfm  |                  | Approx. weight <sup>3</sup>  | :                       | 708 kg               |
| Locked rotor torque  | :               | 200 %  |                  |  |                         |                      |
| Breakdown torque   | :               | 229 %  |                  |  |                         |                      |
| Insulation class   | :               | F  |                  |  |                         |                      |
| Service factor   | :               | 1.15   |                  |  |                         |                      |
| Moment of inertia (J)  | :               | 2.41 kgm <sup>2</sup>                              |                  |  |                         |                      |
| Design   | :               | B  |                  |  |                         |                      |
| Output   | 50%             | 75%  | 100%             | Foundation loads   |                         |                      |
| Efficiency (%)   | 95.0            | 95.4   | 95.4             | Max. traction : 668 kgf  |                         |                      |
| Power Factor   | 0.74            | 0.82   | 0.85             | Max. compression : 1376 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)       |
| 4.5  | 3.4             | 3.1  | 2.4              | 1.4  | 0.9                     | 0.5                  |
| Bearing type   |                 |  | <u>Drive end</u> | <u>Non drive end</u>   |                         |                      |
| Sealing  |                 |  | NU-319 C3        | 6316 C3  |                         |                      |
| Lubrication interval   |                 |  | Inpro/Seal       | Inpro/Seal   |                         |                      |
| Lubricant amount   |                 |  | 5000 h           | 10000 h  |                         |                      |
| Lubricant type   |                 |  | 45 g             | 34 g   |                         |                      |
|  |                 |  | 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                   |                      |

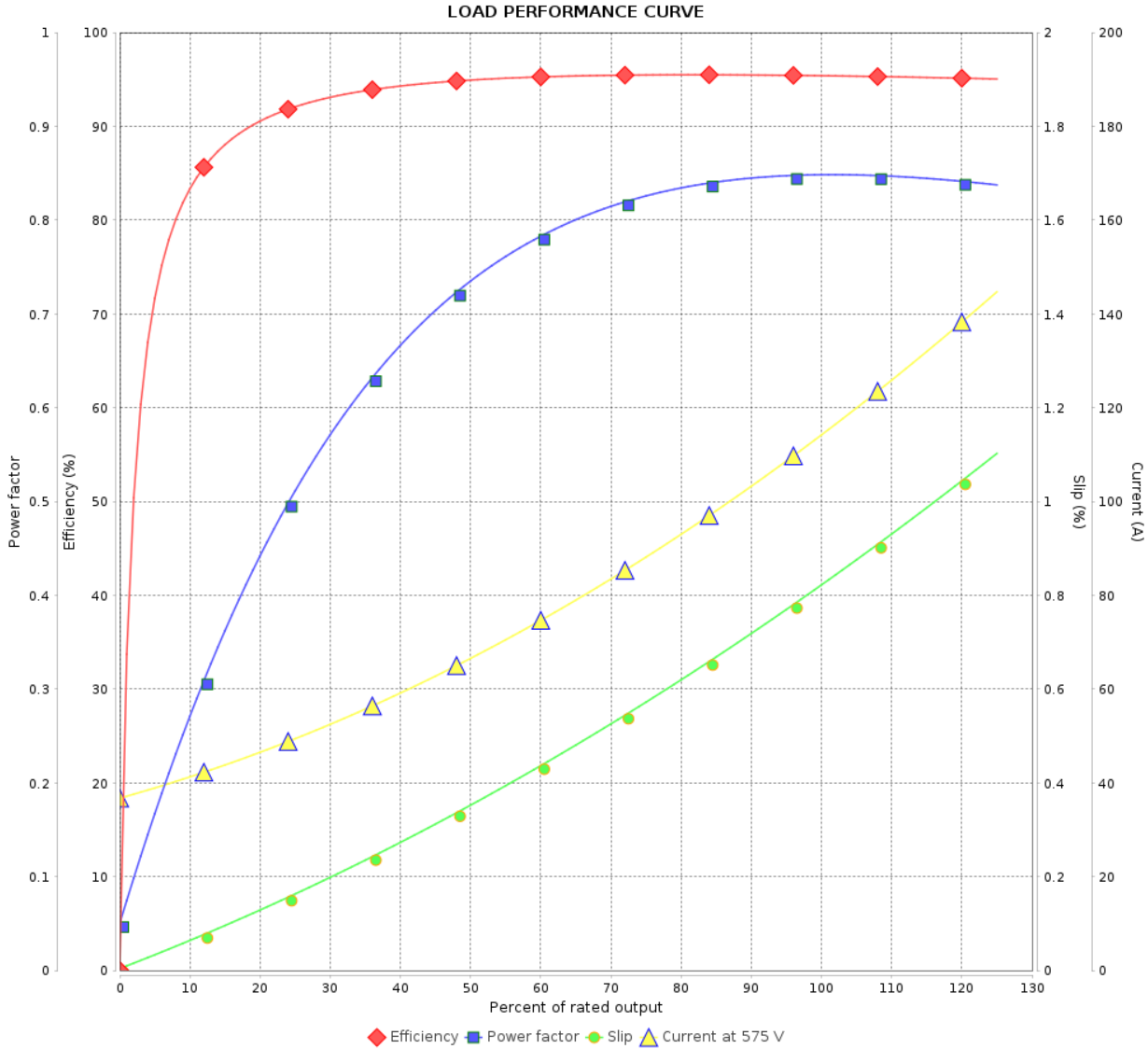
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 13987887



Performance : 575 V 60 Hz 4P

|                             |   |
|-----------------------------|---|
| Rated current : 111 A       | Moment of inertia (J) : 2.41 kgm <sup>2</sup> |
| LRC : 6.5                   | Duty cycle : Cont.(S1)                        |
| Rated torque : 50.8 kgfm    | Insulation class : F                          |
| Locked rotor torque : 200 % | Service factor : 1.15                         |
| Breakdown torque : 229 %    | Temperature rise : 80 K                       |
| Rated speed : 1785 rpm      | Design : B                                    |

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