

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 P Base NEMA Premium Efficiency Three-Phase      Product code : 13442123

|                       |                           |                             |                        |
|-----------------------|---------------------------|-----------------------------|------------------------|
| Frame                 | : 326HP                   | Locked rotor time           | : 36s (cold) 20s (hot) |
| Output                | : 50 HP (37 kW)           | Temperature rise            | : 80 K                 |
| Poles                 | : 2                       | 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         | : 44.9 A                  | Protection degree           | : IP55                 |
| L. R. Amperes         | : 283 A                   | Cooling method              | : IC411 - TEFC         |
| LRC                   | : 6.3x(Code G)            | Mounting                    | : W-6                  |
| No load current       | : 11.2 A                  | Rotation <sup>1</sup>       | : Both (CW and CCW)    |
| Rated speed           | : 3560 rpm                | Noise level <sup>2</sup>    | : 76.0 dB(A)           |
| Slip                  | : 1.11 %                  | Starting method             | : Direct On Line       |
| Rated torque          | : 10.2 kgfm               | Approx. weight <sup>3</sup> | : 272 kg               |
| Locked rotor torque   | : 240 %                   |                             |                        |
| Breakdown torque      | : 229 %                   |                             |                        |
| Insulation class      | : F                       |                             |                        |
| Service factor        | : 1.25                    |                             |                        |
| Moment of inertia (J) | : 0.2422 kgm <sup>2</sup> |                             |                        |
| Design                | : B                       |                             |                        |

|                |      |      |      |                  |
|----------------|------|------|------|------------------|
| Output         | 50%  | 75%  | 100% | Foundation loads |
| Efficiency (%) | 93.0 | 93.0 | 93.0 | Max. traction    |
| Power Factor   | 0.81 | 0.87 | 0.89 | Max. compression |

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) |
| 7.2          | 5.6          | 4.8           | 3.6          | 2.1          | 1.3           | 0.7            |

|                      |   |                  |                      |
|----------------------|---|------------------|----------------------|
|                      |   | <u>Drive end</u> | <u>Non drive end</u> |
| Bearing type         | : | 6314 C3          | 6212 C3              |
| Sealing              | : | V'Ring           | V'Ring               |
| Lubrication interval | : | 4000 h           | 7000 h               |
| Lubricant amount     | : | 27 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   |                 |           | Page    | Revision |
| Date         | 14/01/2024      |           | 1 / 2   |          |

# LOAD PERFORMANCE CURVE

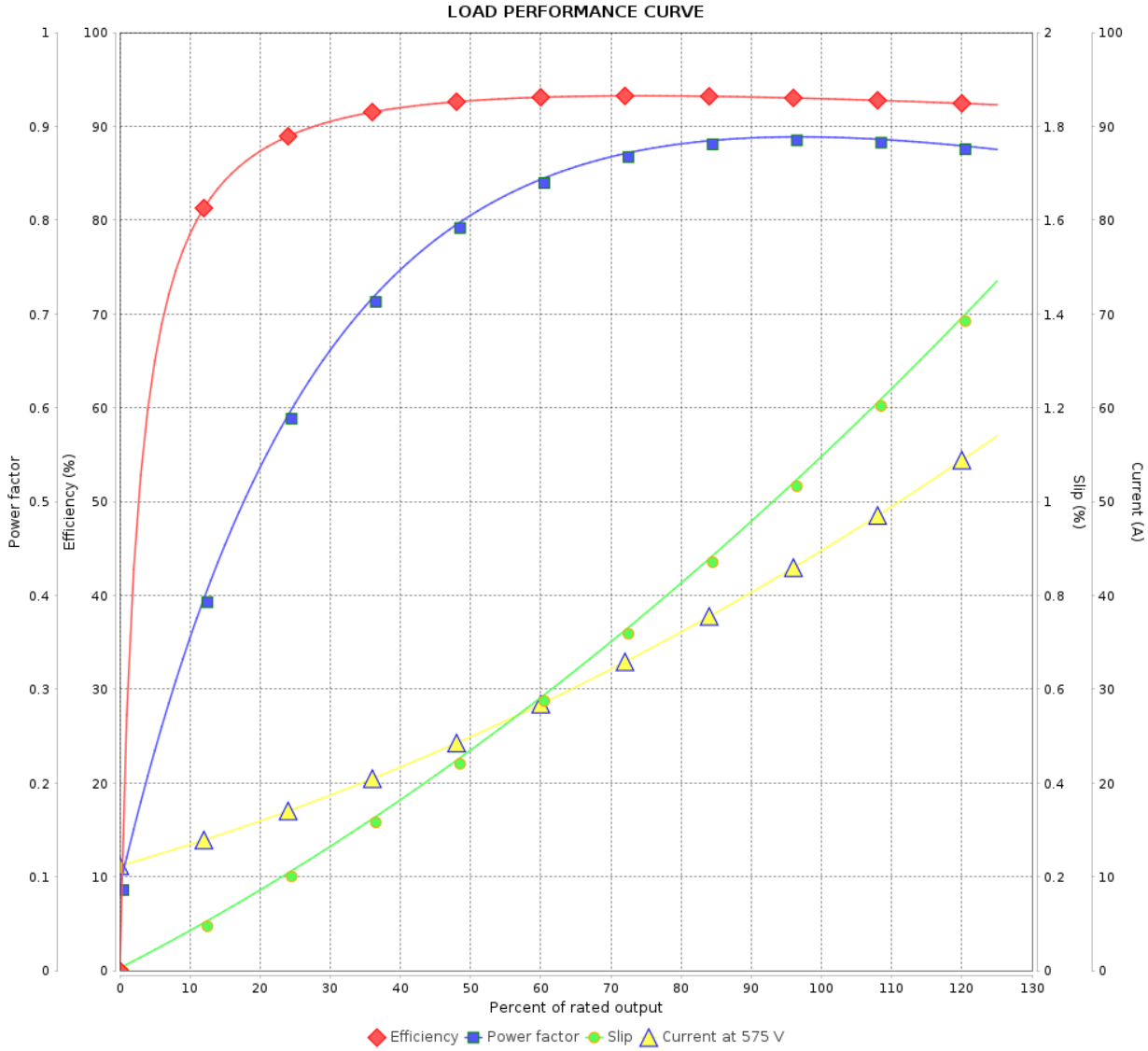
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Product line : W22 P Base NEMA Premium Efficiency  
Three-Phase

Product code : 13442123



Performance : 575 V 60 Hz 2P

Rated current : 44.9 A  
 LRC : 6.3  
 Rated torque : 10.2 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 229 %  
 Rated speed : 3560 rpm

Moment of inertia (J) : 0.2422 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

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