

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12686418

|                       |                           |                             |                        |
|-----------------------|---------------------------|-----------------------------|------------------------|
| Frame                 | : 143TC                   | Locked rotor time           | : 32s (cold) 18s (hot) |
| Output                | : 1 HP (0.75 kW)          | Temperature rise            | : 80 K                 |
| Poles                 | : 4                       | Duty cycle                  | : Cont.(S1)            |
| Frequency             | : 60 Hz                   | Ambient temperature         | : -20°C to +40°C       |
| Rated voltage         | : 380 V                   | Altitude                    | : 1000 m.a.s.l.        |
| Rated current         | : 1.83 A                  | Protection degree           | : IP55                 |
| L. R. Amperes         | : 15.7 A                  | Cooling method              | : IC411 - TEFC         |
| LRC                   | : 8.6x(Code M)            | Mounting                    | : F-1                  |
| No load current       | : 1.21 A                  | Rotation <sup>1</sup>       | : Both (CW and CCW)    |
| Rated speed           | : 1760 rpm                | Noise level <sup>2</sup>    | : 51.0 dB(A)           |
| Slip                  | : 2.22 %                  | Starting method             | : Direct On Line       |
| Rated torque          | : 0.412 kgfm              | Approx. weight <sup>3</sup> | : 20.5 kg              |
| Locked rotor torque   | : 280 %                   |                             |                        |
| Breakdown torque      | : 370 %                   |                             |                        |
| Insulation class      | : F                       |                             |                        |
| Service factor        | : 1.15                    |                             |                        |
| Moment of inertia (J) | : 0.0049 kgm <sup>2</sup> |                             |                        |
| Design                | : B                       |                             |                        |

|                |      |      |      |                  |          |
|----------------|------|------|------|------------------|----------|
| Output         | 50%  | 75%  | 100% | Foundation loads |          |
| Efficiency (%) | 80.0 | 84.0 | 85.5 | Max. traction    | : 33 kgf |
| Power Factor   | 0.52 | 0.65 | 0.73 | Max. compression | : 53 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) |
|--------------|--------------|---------------|--------------|--------------|---------------|----------------|
| 18.7         | 15.7         | 17.0          | 12.0         | 8.8          | 7.6           | 5.7            |

|                      |   |                  |                      |
|----------------------|---|------------------|----------------------|
|                      |   | <u>Drive end</u> | <u>Non drive end</u> |
| Bearing type         | : | 6205 ZZ          | 6204 ZZ              |
| Sealing              | : | V'Ring           | V'Ring               |
| Lubrication interval | : | -                | -                    |
| Lubricant amount     | : | -                | -                    |
| 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 |                 | Page Revision<br>1 / 2 |         |      |
| Checked by   |                 |                        |         |      |
| Date         | 15/09/2025      |                        |         |      |

# LOAD PERFORMANCE CURVE

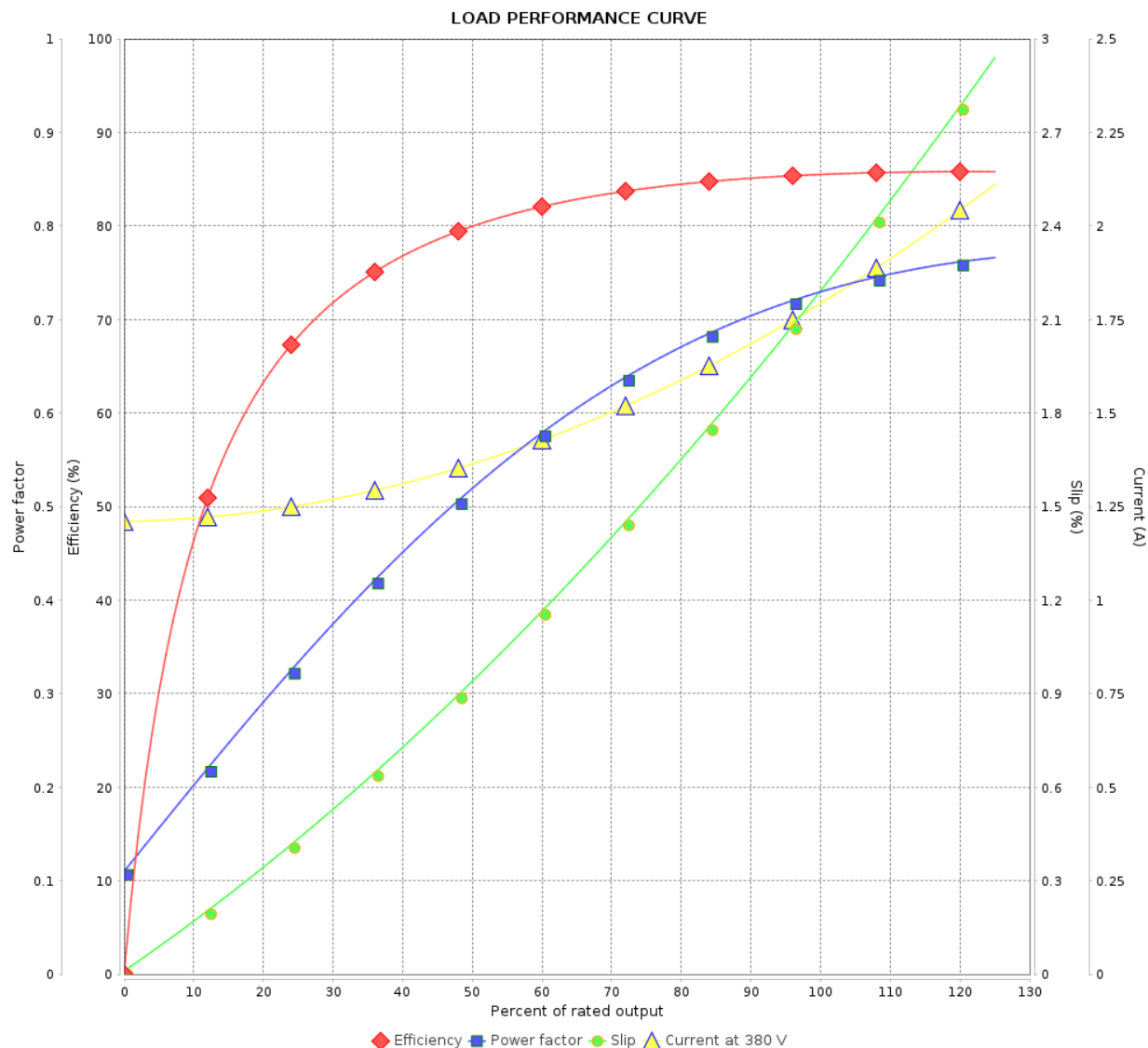
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Three-Phase

Product code : 12686418



Performance : 380 V 60 Hz 4P

Rated current : 1.83 A  
LRC : 8.6  
Rated torque : 0.412 kgfm  
Locked rotor torque : 280 %  
Breakdown torque : 370 %  
Rated speed : 1760 rpm

Moment of inertia (J) : 0.0049 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

| Rev.         | Changes Summary |  | Performed | Checked | Date     |
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| Performed by |                 |  |           | Page    | Revision |
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