

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

|  |                           |   |  |                            |         |          |
|--|---------------------------|---|--|----------------------------|---------|----------|
| Customer :   |                           |   |  |                            |         |          |
| Product line   |                           | : W21 Explosion Proof NEMA Premium Efficiency Three-Phase |  | Product code : 14407584    |         |          |
| Frame  | : 256TC                   | Locked rotor time   | : 63s (cold) 35s (hot)   |                            |         |          |
| Output   | : 10 HP (7.5 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  | : 10.6 A                  | Protection degree   | : IP55   |                            |         |          |
| L. R. Amperes  | : 76.6 A                  | Cooling method  | : IC411 - TEFC   |                            |         |          |
| LRC  | : 7.2x(Code J)            | Mounting  | : F-1  |                            |         |          |
| No load current  | : 5.28 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   | : 6.18 kgfm               | Approx. weight <sup>3</sup>                               | : 166 kg   |                            |         |          |
| Locked rotor torque  | : 270 %                   |   |  |                            |         |          |
| Breakdown torque   | : 310 %                   |   |  |                            |         |          |
| Insulation class   | : F                       |   |  |                            |         |          |
| Service factor   | : 1.15                    |   |  |                            |         |          |
| Moment of inertia (J)  | : 0.1751 kgm <sup>2</sup> |   |  |                            |         |          |
| Design   | : B                       |   |  |                            |         |          |
| Output   | 50%                       | 75%   | 100%   | Foundation loads           |         |          |
| Efficiency (%)   | 89.5                      | 90.2  | 91.0   | Max. traction : 218 kgf    |         |          |
| Power Factor   | 0.60                      | 0.70  | 0.78   | Max. compression : 384 kgf |         |          |
|  |                           | <u>Drive end</u>  |  | <u>Non drive end</u>       |         |          |
| Bearing type   | :                         | 6309 C3   |  | 6209 C3                    |         |          |
| Sealing  | :                         | Oil Seal  |  | Lip Seal                   |         |          |
| Lubrication interval   | :                         | 20000 h   |  | 20000 h                    |         |          |
| Lubricant amount   | :                         | 13 g  |  | 9 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   | 15/01/2024                |   |  |                            | 1 / 3   |          |

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

### Thermal protection

| ID | Application | Type                 | Quantity  | Sensing Temperature |
|----|-------------|----------------------|-----------|---------------------|
| 1  | Winding     | Thermostat - 2 wires | 1 x Phase | 155 °C              |

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|--------------|-----------------|-----------|---------|----------|
| Performed by |                 |           |         |          |
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# LOAD PERFORMANCE CURVE

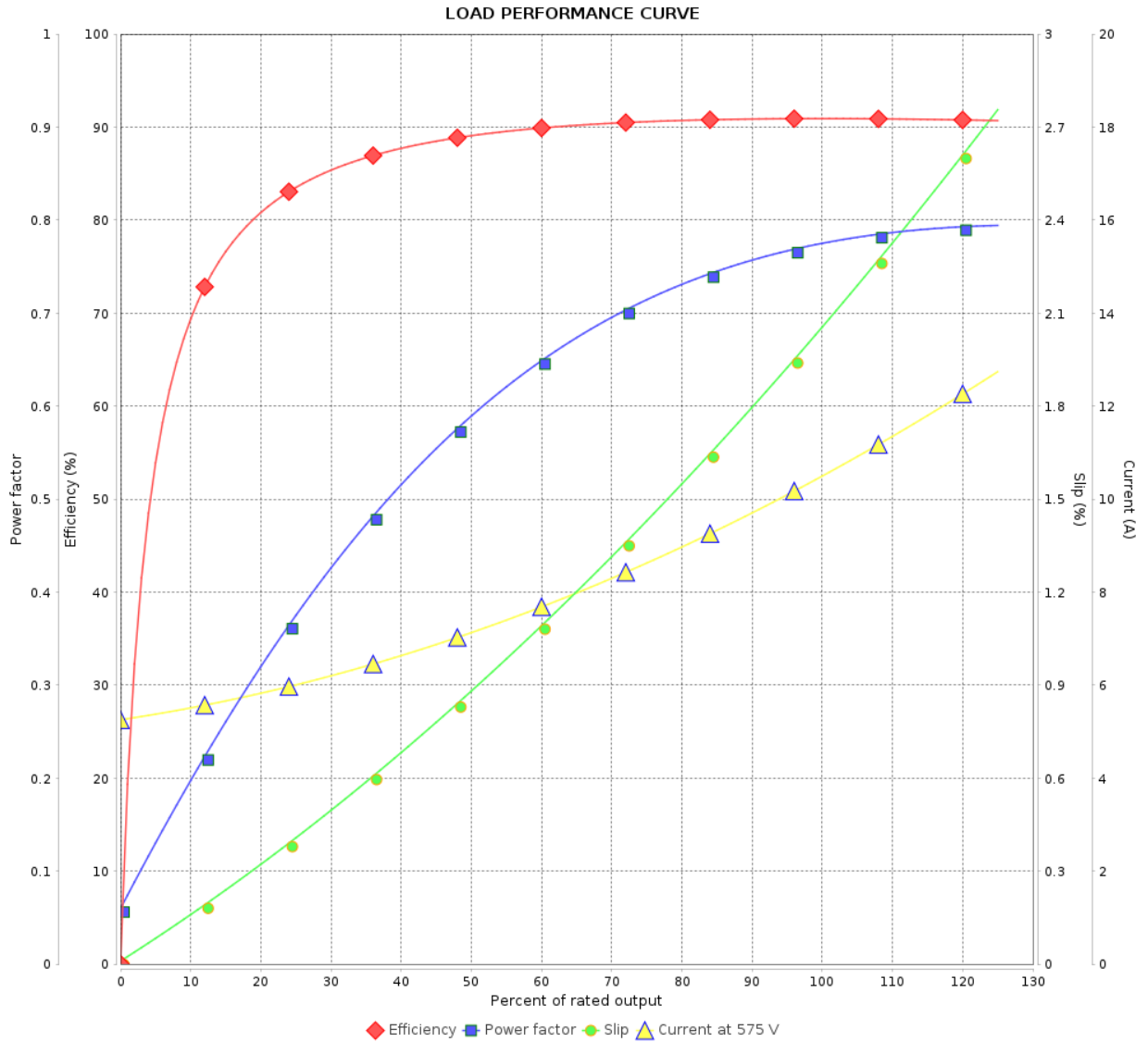
Three Phase Induction Motor - Squirrel Cage



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

Product line : W21 Explosion Proof NEMA Premium  
Efficiency Three-Phase

Product code : 14407584



Performance : 575 V 60 Hz 6P

Rated current : 10.6 A  
 LRC : 7.2  
 Rated torque : 6.18 kgfm  
 Locked rotor torque : 270 %  
 Breakdown torque : 310 %  
 Rated speed : 1175 rpm

Moment of inertia (J) : 0.1751 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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