

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 P Base NEMA Premium Efficiency Three-Phase      Product code : 15203391

|                       |                         |                             |                        |
|-----------------------|-------------------------|-----------------------------|------------------------|
| Frame                 | : 444/5HP               | Locked rotor time           | : 48s (cold) 27s (hot) |
| Output                | : 150 HP (110 kW)       | 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         | : 136 A                 | Protection degree           | : IP55                 |
| L. R. Amperes         | : 898 A                 | Cooling method              | : IC411 - TEFC         |
| LRC                   | : 6.6x(Code G)          | Mounting                    | : W-6                  |
| No load current       | : 46.4 A                | Rotation <sup>1</sup>       | : Both (CW and CCW)    |
| Rated speed           | : 1784 rpm              | Noise level <sup>2</sup>    | : 73.0 dB(A)           |
| Slip                  | : 0.89 %                | Starting method             | : Direct On Line       |
| Rated torque          | : 61.0 kgfm             | Approx. weight <sup>3</sup> | : 853 kg               |
| Locked rotor torque   | : 200 %                 |                             |                        |
| Breakdown torque      | : 250 %                 |                             |                        |
| Insulation class      | : F                     |                             |                        |
| Service factor        | : 1.15                  |                             |                        |
| Moment of inertia (J) | : 2.81 kgm <sup>2</sup> |                             |                        |
| Design                | : B                     |                             |                        |

|                |      |      |      |                  |
|----------------|------|------|------|------------------|
| Output         | 50%  | 75%  | 100% | Foundation loads |
| Efficiency (%) | 95.4 | 95.8 | 95.8 | Max. traction    |
| Power Factor   | 0.74 | 0.82 | 0.85 | 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) |
| 4.5          | 3.5          | 3.1           | 2.4          | 1.5          | 1.1           | 0.6            |

|                      |   |                  |                      |
|----------------------|---|------------------|----------------------|
|                      |   | <u>Drive end</u> | <u>Non drive end</u> |
| Bearing type         | : | 6319 C3          | 6316 C3              |
| Sealing              | : | Viton Lip Seal   | Viton Seal           |
| Lubrication interval | : | 4000 h           | 5000 h               |
| Lubricant amount     | : | 45 g             | 34 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         | 29/10/2024      |           | 1 / 2   |          |

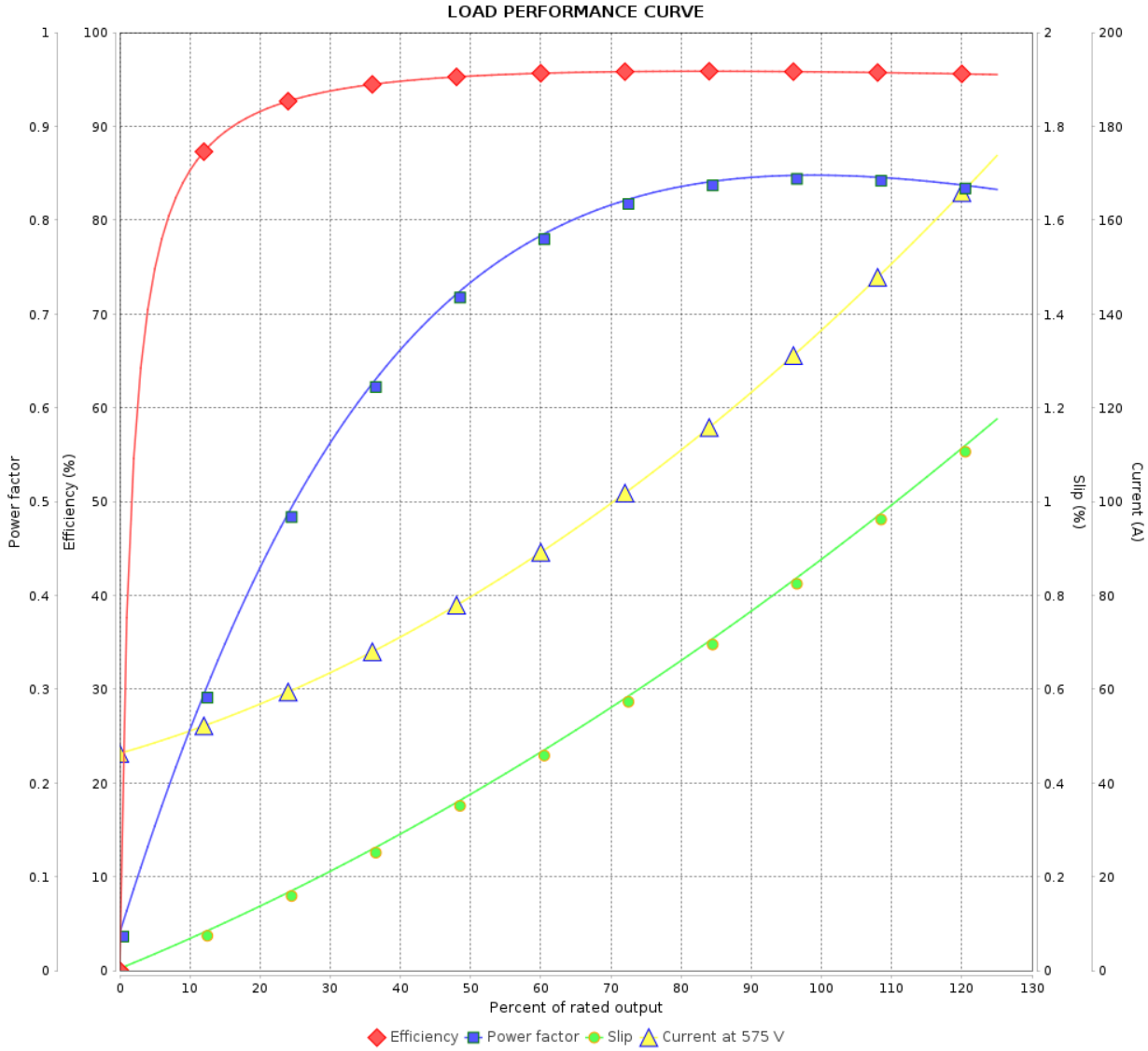
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



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

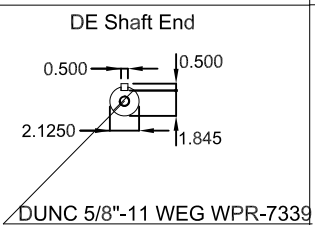
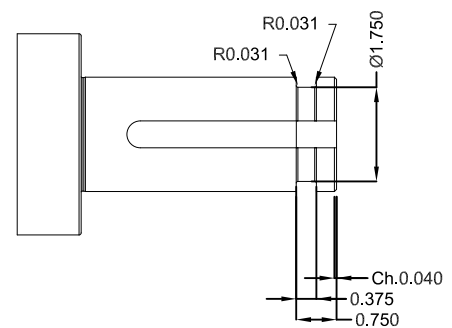
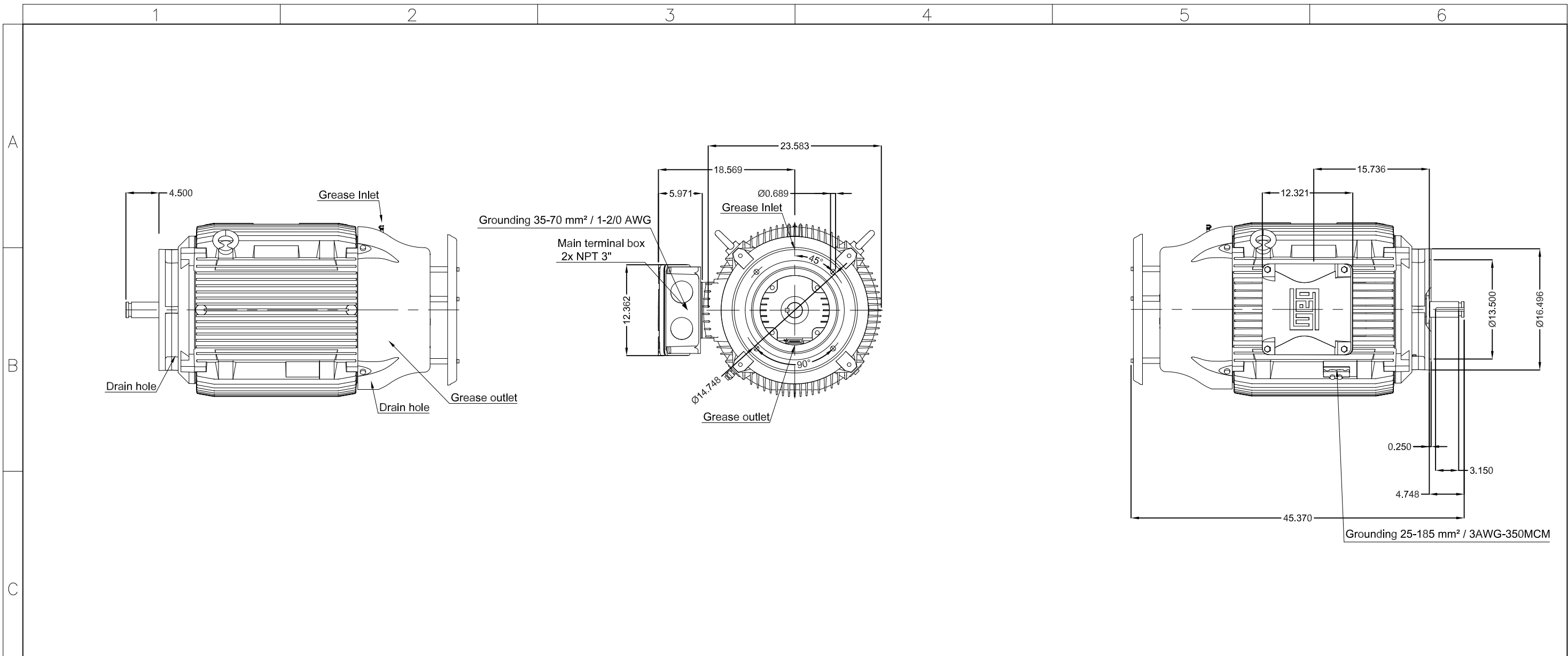
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Performance : 575 V 60 Hz 4P

|                     |             |                       |                         |
|---------------------|-------------|-----------------------|-------------------------|
| Rated current       | : 136 A     | Moment of inertia (J) | : 2.81 kgm <sup>2</sup> |
| LRC                 | : 6.6       | Duty cycle            | : Cont.(S1)             |
| Rated torque        | : 61.0 kgfm | Insulation class      | : F                     |
| Locked rotor torque | : 200 %     | Service factor        | : 1.15                  |
| Breakdown torque    | : 250 %     | Temperature rise      | : 80 K                  |
| Rated speed         | : 1784 rpm  | Design                | : B                     |

| Rev.         | Changes Summary | Performed | Checked       | Date     |
|--------------|-----------------|-----------|---------------|----------|
|              |                 |           |               |          |
| Performed by |                 |           | Page<br>2 / 2 | Revision |
| Checked by   |                 |           |               |          |
| Date         | 29/10/2024      |           |               |          |



Color RAL 5009  
 Painting plan 203A  
 Mounting NEMA W-6  
 Mounting V1

150 HP 04 Poles 60 Hz A

| ECM       | LOC        | SUMMARY OF MODIFICATIONS                    | EXECUTED | CHECKED | RELEASED | DATE | VER |
|-----------|------------|---|----------|---------|----------|------|-----|
| EXECUTED  | HYBRISUSER | THREE PH. MOTOR W22 P. BASE NEMA PREM. EFF. |          |         |          |      |     |
| CHECKED   |            | FRAME 444/5HP IP55 TEFC                     |          |         |          |      |     |
| RELEASED  |            |   |          |         |          |      |     |
| REL. DATE |            |   |          |         |          |      |     |

HYBRISUSER 00

PREVIEW  
 WDD 00  
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