

Yaskawa CIMR-VU4A0004FAA

Yaskawa V1000 SERVO Drive User Manual

Model: CIMR-VU4A0004FAA

Brand: Yaskawa

1. INTRODUCTION

This manual provides essential information for the safe and effective operation of the Yaskawa V1000 Series CIMR-VU4A0004FAA SERVO Drive. This industrial drive is designed for precise motor control applications, featuring a 3-phase input voltage range of 380-480V AC and an output voltage range of 0-480V AC, delivering 2 HP of power. Please read this manual thoroughly before installation, operation, or maintenance.



Figure 1.1: The Yaskawa V1000 SERVO Drive as packaged, including the drive unit, documentation, and a software CD.

2. SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to equipment. This device operates with high voltages and currents that can be lethal.

- **Risk of Electric Shock:** Ensure all power is disconnected and verified before performing any installation, wiring, or maintenance. Wait at least 5 minutes for capacitor discharge after disconnecting power.
- **Hot Surface Warning:** The heatsink and other components can become extremely hot during operation. Avoid direct contact to prevent burns.
- **Qualified Personnel:** Installation, wiring, and maintenance should only be performed by qualified and trained personnel.
- **Grounding:** To conform to CE requirements, ensure the supply neutral is properly grounded for 400V class systems.
- **Environmental Conditions:** Install the drive in an environment free from excessive dust, moisture, corrosive gases, or direct sunlight.



Figure 2.1: Side view of the drive, highlighting the heatsink and warning labels regarding hot surfaces and electric shock.

3. SETUP AND INSTALLATION

Proper installation is critical for the performance and longevity of the SERVO drive.

3.1 Physical Installation

Mount the drive vertically on a flat, stable surface, ensuring adequate clearance for ventilation. The drive dimensions are approximately 8.25 x 7.5 x 7 inches and it weighs 4.8 pounds.



Figure 3.1: Top view of the drive, illustrating the heatsink fins designed for heat dissipation.

3.2 Wiring

Connect the input power, motor, and control signals according to the wiring diagrams provided in the full product manual. Ensure correct phase sequence and proper grounding.

- **Input Power:** 380-480V AC, 3-Phase.
- **Output Power:** 0-480V AC, 3-Phase.
- **Grounding:** Connect the protective earth (PE) terminal to a reliable ground point.



Figure 3.2: Bottom view of the drive, showing the main power and motor connection terminals.

4. OPERATING INSTRUCTIONS

The V1000 drive features an intuitive control panel for monitoring and basic operation.

4.1 Control Panel Overview

The front panel includes a digital display, navigation buttons (ESC, UP, DOWN, LEFT, RIGHT, ENTER), and dedicated RUN/STOP buttons.



Figure 4.1: Front view of the drive, detailing the control panel with its display and operational buttons.

4.2 Basic Operation

- Power On:** After ensuring all wiring is correct and safe, apply input power. The display will illuminate.
- Parameter Setting:** Use the navigation buttons to access and adjust operational parameters as required for your application. Refer to the comprehensive programming manual for detailed parameter descriptions.
- Start/Stop:** Press the **RUN** button to start the motor. Press the **STOP** button to halt operation.
- Monitoring:** The display can show various operational data such as output frequency, current, and voltage.

5. MAINTENANCE

Regular maintenance ensures optimal performance and extends the lifespan of your V1000 SERVO drive.

- Cleaning:** Periodically clean the heatsink fins and ventilation openings to prevent dust accumulation, which can impede cooling. Ensure power is off and capacitors are discharged before cleaning.
- Inspection:** Regularly inspect wiring connections for tightness and signs of wear or damage. Check for any unusual noises or odors during operation.
- Environmental Check:** Verify that the operating environment remains within specified temperature and humidity ranges.

6. TROUBLESHOOTING

This section provides general guidance for common issues. For detailed troubleshooting, refer to the full Yaskawa V1000 technical manual.

| Problem | Possible Cause | Solution |
|---------|----------------|----------|
| | | |

| Problem | Possible Cause | Solution |
|-------------------------|---|--|
| Drive does not power on | No input power; Blown fuse; Incorrect wiring | Check power supply; Inspect fuses; Verify wiring connections. |
| Motor does not run | Incorrect parameters; Motor wiring error; Drive fault | Verify parameter settings; Check motor connections; Check drive display for fault codes. |
| Overheat warning | Insufficient ventilation; Clogged heatsink; Overload | Ensure proper airflow; Clean heatsink; Reduce load or check motor sizing. |

7. SPECIFICATIONS

Key technical specifications for the Yaskawa V1000 CIMR-VU4A0004FAA SERVO Drive:

| Parameter | Value |
|---------------------|-----------------------------|
| Model Number | CIMR-VU4A0004FAA |
| Input Voltage (AC) | 380 - 480 V-AC |
| Output Voltage (AC) | 0 - 480 V-AC |
| Phase | 3PH |
| Power | 2 HP |
| Product Dimensions | 8.25 x 7.5 x 7 inches |
| Weight | 4.8 Pounds (approx. 1.9 kg) |
| Manufacturer | YASKAWA |
| ASIN | B07NVYHM29 |

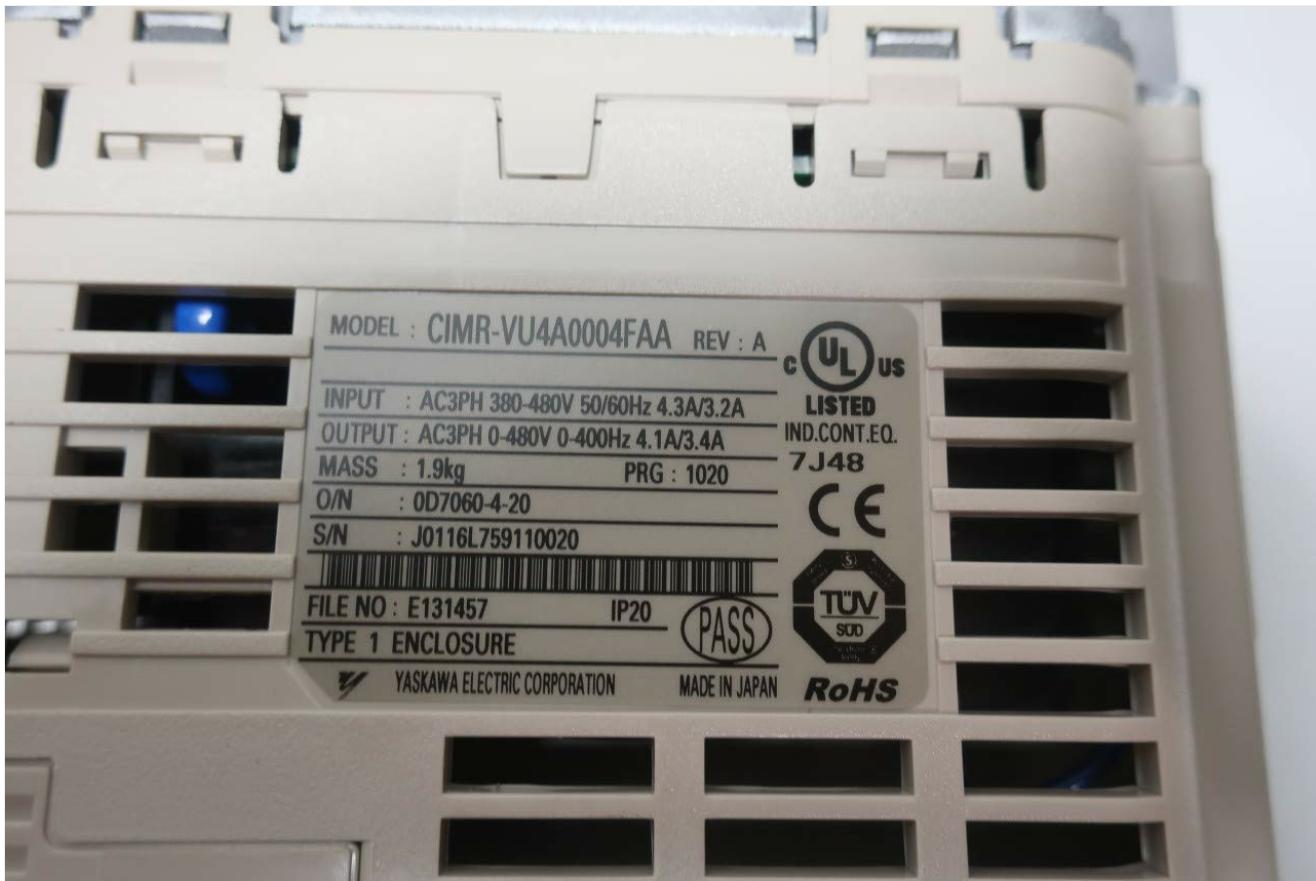


Figure 7.1: Product rating label showing model number, input/output specifications, and certifications.



Figure 7.2: View of the drive unit displaying the model number CIMR-VU4A0004FAA.

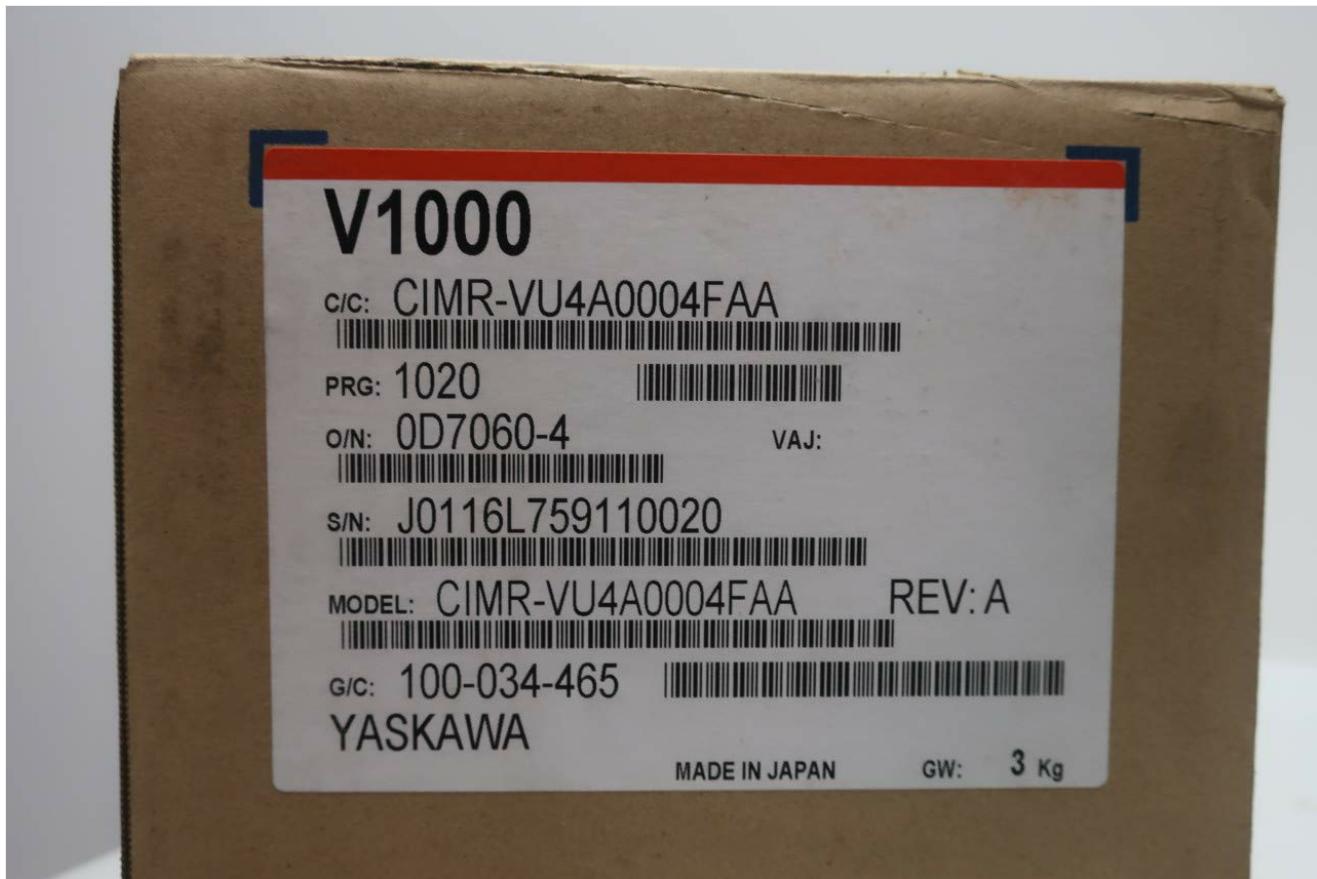


Figure 7.3: Product box label confirming the model CIMR-VU4A0004FAA and other identifiers.

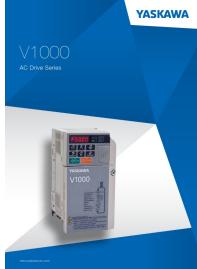
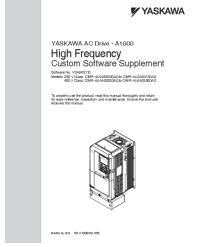
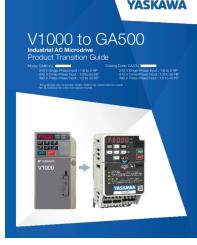
8. WARRANTY AND SUPPORT

For specific warranty terms and conditions, please refer to the official documentation provided by Yaskawa or contact Yaskawa customer support directly. Warranty coverage typically varies by region and purchase agreement.

For technical support, service, or to obtain detailed manuals, please visit the official Yaskawa website or contact their authorized service centers.

Related Documents

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| | <p><u>YASKAWA AC Drive L1000A: Quick Start Guide for Elevator Applications</u></p> <p>This Yaskawa AC Drive L1000A Quick Start Guide provides essential information for the safe and effective installation, wiring, and initial setup of AC drives for elevator applications. It covers critical safety precautions, mechanical and electrical installation, keypad operation, and startup procedures.</p> |
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|  | <p><u>Yaskawa V1000 AC Drive Series: Features, Specifications, and Applications</u></p> <p>Comprehensive guide to the Yaskawa V1000 AC Drive Series, detailing its compact design, functional safety, software features, technical specifications, dimensions, connection diagrams, options, and application notes for industrial use.</p> |
|  | <p><u>Yaskawa AC Drive - A1000 High Frequency Custom Software Supplement</u></p> <p>This document supplements the Yaskawa A1000 Quick Start Guide and Technical Manual, detailing modifications and new functions for the High Frequency Custom Software. It covers changes to parameters, functions, and application notes for high-speed motor applications.</p> |
|  | <p><u>Yaskawa V1000 to GA500 AC Drive Transition Guide</u></p> <p>A comprehensive guide for OEMs, integrators, and end-users transitioning from Yaskawa V1000 series AC drives to the Yaskawa GA500 AC drives. This document covers model identification, drive selection, dimensions, wiring, and branch circuit protection.</p> |