

Yunir Yunirok5ghe4axs7609

Yunir 2.2kW 3-Phase 380V Variable Frequency Drive Instruction Manual

Model: Yunirok5ghe4axs7609

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation, installation, and maintenance of your Yunir 2.2kW 3-Phase 380V Variable Frequency Drive (VFD). A VFD is an electronic device designed to control the speed of an AC induction motor by varying the frequency and voltage of its power supply. This control allows for precise motor speed adjustment, energy savings, and improved process control in various applications such as machinery, fans, and pumps.

Please read this manual thoroughly before attempting any installation, operation, or maintenance procedures. Keep this manual for future reference.

2. SAFETY INFORMATION

WARNING: Risk of electrical shock. Improper installation or operation can lead to serious injury or death.

- **Read the user manual before operation.** Ensure you understand all instructions and warnings.
- **Disconnect all power before servicing.** Wait at least 10 minutes after removing power before touching any internal components to allow capacitors to discharge.
- Only qualified personnel should install, operate, and maintain this equipment.
- Ensure proper grounding of the VFD and the motor.
- Do not operate the VFD with damaged wiring or components.
- Protect the VFD from moisture, dust, and corrosive environments.



Figure 2.1: Front view of the VFD, showing the control panel and a prominent warning label regarding electrical safety and the need to read the manual.

3. PRODUCT OVERVIEW AND FEATURES

The Yunir 2.2kW VFD is designed for robust performance and adaptability in industrial applications. Key features include:

- **High Performance:** Utilizes a unique control method to achieve high torque, high accuracy, and a wide speed regulating range.
- **Adaptability and Stability:** Features good anti-trip performance and resilience to variations in power supply, temperature, humidity, and dust interference.
- **Low Noise and EMI:** Optimized PWM control technology and electromagnetic compatibility minimize operational noise and electromagnetic interference.
- **Comprehensive Protection:** Integrated circuit protection against overcurrent, overvoltage, overheat, overload, and undervoltage conditions.



Figure 3.1: The VFD shown in an industrial setting, illustrating its robust design and highlighting features such as good anti-trip performance, low noise, and comprehensive protection circuits.

4. SPECIFICATIONS

Refer to the following table for the technical specifications of the Yunir 2.2kW 3-Phase 380V VFD:

Parameter	Value
Motor Power	2.2 kW
Input Voltage	3-phase 380V
Output Voltage	3-phase 380V
Input Current	5.8A
Output Current	5.0A
Product Dimensions	9.06 x 7.09 x 6.3 inches
Item Weight	3.06 pounds
Model Number	Yunirok5ghe4axs7609

5. INSTALLATION

Proper installation is critical for the safe and reliable operation of the VFD. It is recommended that installation be performed by a qualified electrician.

5.1 Mounting

- Mount the VFD vertically on a flat, non-flammable surface in a well-ventilated area.
- Ensure adequate clearance around the unit for cooling airflow.
- Avoid locations exposed to direct sunlight, excessive vibration, or corrosive gases.

5.2 Wiring

All wiring must comply with local and national electrical codes. Use appropriate wire gauges for the VFD's current ratings.

- **Input Power (R, S, T):** Connect the 3-phase 380V AC power supply to the R, S, and T terminals.
- **Motor Output (U, V, W):** Connect the 3-phase motor to the U, V, and W terminals.
- **Braking Resistor (P+, PB):** If a braking resistor is required for dynamic braking, connect it to the P+ and PB terminals.
- **Grounding:** Ensure the VFD chassis is properly grounded using the designated ground terminal.
- **Control Terminals:** Connect external control signals (e.g., start/stop, speed reference, fault reset) to the appropriate control terminals as per the detailed wiring diagram in the full product manual (not provided here).



Figure 5.1: Top view of the VFD with the terminal cover open, revealing the input (R, S, T), output (U, V, W), braking (P+, PB), and control terminals for wiring connections.



Figure 5.2: Detailed views showing the product's identification label, the internal wiring terminals with the cover open, and the external grounding screw for safety.

6. OPERATION

The VFD features an intuitive control panel for local operation and monitoring. The main components of the control panel are:



Figure 6.1: Labeled diagram of the VFD's control panel, indicating the Status Indicator, Electric Current/Tension display, Multifunction Keys, Menu Button, Motion Button, Home Button, Speed Control Button, Selection Buttons (Up/Down), and Stop/Reset Button.

6.1 Control Panel Functions

- **RUN Button:** Initiates motor operation.
- **STOP/RESET Button:** Stops the motor and resets any active fault conditions.
- **PRG (Program) Button:** Enters or exits the parameter programming menu.
- **MF (Multifunction) Button:** Used for various functions depending on the VFD's mode or menu.
- **ENTER Button:** Confirms selections or parameter changes.

- **Directional Buttons (Up/Down/Left/Right):** Navigate through menus and adjust parameter values.
- **Speed Control Knob:** Adjusts the motor's operating frequency/speed.
- **Status Indicators (RUN, DIR, TRIP, HZ):** Provide visual feedback on the VFD's operational status, direction, fault conditions, and output frequency.

6.2 Basic Operation Steps

1. **Power On:** Apply 3-phase 380V power to the VFD. The display should illuminate.
2. **Set Frequency/Speed:** Use the Speed Control Knob or directional buttons to set the desired output frequency (motor speed).
3. **Start Motor:** Press the **RUN** button. The motor should begin to accelerate to the set speed.
4. **Stop Motor:** Press the **STOP/RESET** button. The motor will decelerate and stop.
5. **Parameter Adjustment:** To change advanced settings, press the **PRG** button to enter the parameter menu. Refer to the full product manual for detailed parameter descriptions and adjustment procedures.

7. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your VFD.

- **Cleaning:** Periodically clean the VFD's exterior and cooling fins to prevent dust accumulation, which can hinder heat dissipation. Use a soft, dry cloth. Do not use liquid cleaners.
- **Inspection:** Regularly inspect wiring connections for tightness and signs of wear or damage. Check for any unusual noises or odors during operation.
- **Fan Check:** Ensure the cooling fan operates freely and is not obstructed.
- **Environmental Conditions:** Verify that the operating environment remains within the specified temperature and humidity ranges.

Always disconnect power and wait 10 minutes before performing any maintenance.

8. TROUBLESHOOTING

This section provides general guidance for common issues. For detailed fault codes and advanced troubleshooting, refer to the comprehensive product manual.

Problem	Possible Cause	Solution
VFD does not power on	No input power; Blown fuse; Internal fault	Check power supply; Inspect fuses; Contact support if internal fault suspected.
Motor does not run	VFD not in RUN mode; Incorrect wiring; Motor fault; Parameter settings	Press RUN button; Verify motor and VFD wiring; Check motor for issues; Review VFD parameters.

Problem	Possible Cause	Solution
VFD trips frequently	Overload; Overvoltage/Undervoltage; Overheat; Ground fault	Reduce load; Check input voltage; Ensure proper ventilation; Inspect motor/cables for ground fault; Reset VFD.
Motor speed unstable	Poor speed reference signal; Incorrect PID settings; Load fluctuations	Check control wiring; Adjust PID parameters; Ensure stable load conditions.

9. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please contact your vendor or the manufacturer directly. Ensure you have your product model number (Yunirok5ghe4axs7609) and purchase details available when contacting support.