WanRomJun JLS-E-2S

WanRomJun JLS-E-2S Variable Frequency Drive Inverter User Manual

Models: 0.4KW, 0.75KW, 1.5KW, 2.2KW (220V Single-Phase)

1. Introduction

This manual provides comprehensive instructions for the installation, operation, and maintenance of the WanRomJun JLS-E-2S Variable Frequency Drive (VFD) Inverter. This device is designed to control the speed and direction of AC motors, offering precise control and energy efficiency for various industrial applications, such as assembly line conveyor belts.

Please read this manual thoroughly before operating the device to ensure safe and correct usage. Keep this manual for future reference.

2. Safety Information

WARNING: Risk of electrical shock. Always read the user manual before operation. Wait at least 10 minutes after removing power before servicing the unit to allow capacitors to discharge.

- Ensure the power supply is disconnected before any installation, wiring, or maintenance work.
- Only qualified personnel should perform installation and wiring.
- Verify correct voltage and current ratings before connecting the VFD.
- The VFD is equipped with multiple protection functions including overvoltage, undervoltage, current limit, overcurrent, overload, electronic thermal relay, click overheating, overvoltage blocking, data protection, and low-frequency warning. However, these do not replace proper safety procedures.
- Install the unit in a well-ventilated area to ensure proper heat dissipation.
- Do not operate the VFD with damaged wiring or components.

3. Product Overview

The JLS-E-2S VFD features a high-quality ABS casing, providing wear resistance, anti-fall protection, and heat resistance. Its porous heat dissipation design ensures a longer service life. The unit is built with high-quality electronic components for strong anti-interference capability, improved vector control, and stability.

Figure 3.1: Front-angled view of the JLS-E-2S Variable Frequency Drive, showing the integrated control panel and a prominent safety warning label.

Figure 3.2: Side view of the JLS-E-2S VFD, illustrating the main unit and its detachable control panel, which can be removed for remote operation or maintenance.

Figure 3.3: Top-angled view of the JLS-E-2S VFD with the terminal cover open, revealing the input (L1, L2) and output (U, V, W) wiring connections. The serial number label (S/N:JLS0004E21G21030129) is visible on the side.

Figure 3.4: Rear-angled view of the JLS-E-2S VFD, highlighting the cooling fan for efficient heat dissipation and the output terminals for motor connection.

4. Specifications

Feature	Description
Model	JLS-E-2S
Material	High-quality ABS
Input Voltage	220V Single-Phase
Output Voltage	220V Single-Phase
Control Method	V/F Closed Loop
Output Voltage Regulation	PAM Control
Power Options	0.4KW (2.5A), 0.75KW (5A), 1.5KW (7A), 2.2KW (10A)
Main Application	Industrial assembly line conveyor belts, motor speed control
Manufacturer	WanRomJun
Reference Number	WanRomJun8ekrft0vwx-12

Feature	Description
ASIN	B09D9NSCJL

5. Setup and Installation

The JLS-E-2S VFD is designed for easy installation and wiring. Ensure all connections are secure and follow local electrical codes.

5.1 Mounting

- Mount the VFD vertically on a stable, non-flammable surface.
- Ensure adequate clearance around the unit for proper airflow and heat dissipation.
- Use appropriate screws to secure the unit firmly.

5.2 Wiring

Refer to the wiring diagram provided with the product for specific connection details. General wiring steps include:

1. **Input Power (L1, L2):** Connect the single-phase 220V AC power supply to the designated input terminals.
2. **Motor Output (U, V, W):** Connect the three-phase motor leads to the corresponding output terminals.
3. **Grounding:** Ensure the VFD and the motor are properly grounded to prevent electrical hazards.
4. **Control Terminals:** Connect any external control signals (e.g., start/stop buttons, speed potentiometers) to the control terminals as per the wiring diagram.

After wiring, double-check all connections for tightness and correctness before applying power.

6. Operating Instructions

The JLS-E-2S VFD features an intuitive control panel for easy operation. The detachable control panel allows for flexible placement.

6.1 Control Panel Functions

- **RUN Button:** Initiates motor operation.
- **STOP/RESET Button:** Stops motor operation or clears fault alarms.
- **PRG (Program) Button:** Enters or exits parameter setting mode.
- **MF (Multi-Function) Button:** Used for various functions depending on the mode.
- **ENTER Button:** Confirms parameter settings or menu selections.
- **Directional Buttons (Up/Down/Left/Right):** Navigate menus and adjust parameter values.
- **Potentiometer Knob:** Adjusts output frequency/speed in manual mode.

6.2 Basic Operation

1. **Power On:** Apply power to the VFD. The display will illuminate.
2. **Speed Adjustment:** Use the potentiometer knob to set the desired output frequency (motor speed).
3. **Start Motor:** Press the **RUN** button to start the motor.
4. **Stop Motor:** Press the **STOP/RESET** button to stop the motor.
5. **Parameter Setting:** Press the **PRG** button to enter parameter setting mode. Use directional buttons to navigate and the **ENTER** button to confirm changes. Refer to the detailed parameter list in the full user manual for advanced configurations.

7. Maintenance

Regular maintenance ensures the longevity and reliable operation 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 all wiring connections for tightness and signs of wear or damage. Check for any unusual noises or odors during operation.
- **Environmental Conditions:** Ensure the operating environment remains within specified temperature and humidity ranges.
- **Fan Check:** Verify that the cooling fan operates freely and is not obstructed.

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

8. Troubleshooting

This section outlines common issues and their potential solutions. For complex problems, contact technical support.

Problem	Possible Cause	Solution
VFD does not power on	No input power; faulty wiring	Check power supply; verify input wiring connections.
Motor does not run	Incorrect parameters; motor wiring error; VFD fault	Check motor wiring (U, V, W); verify VFD parameters; check for fault codes on display.
Overcurrent fault	Motor overload; short circuit; acceleration time too short	Reduce motor load; check motor and output wiring; increase acceleration time parameter.
Overvoltage fault	Input voltage too high; deceleration time too short	Check input voltage; increase deceleration time parameter.
Overheat fault	Insufficient cooling; ambient temperature too high; fan malfunction	Ensure proper ventilation; clean cooling fins; check cooling fan operation.

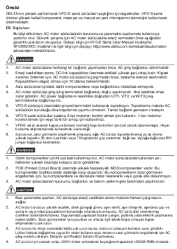
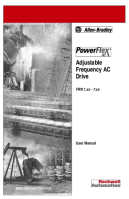
If a fault occurs, note the error code displayed on the VFD and consult the detailed troubleshooting guide in the complete user manual or contact support.

9. Warranty and Support

For warranty information, please refer to the terms and conditions provided at the time of purchase or contact your seller directly. The product typically includes a user manual in both Chinese and English.

If you have any questions or require technical assistance, please contact the seller or manufacturer through the provided contact channels. When contacting support, please have your product model (JLS-E-2S) and serial number (e.g., JLS0004E21G21030129) ready.

Related Documents - JLS-E-2S

	Delta VFD-E Series AC Motor Drive User Manual This document provides information on the installation, parameter settings, and safe operation of Delta's VFD-E series AC motor drives. It covers various models and their specifications, wiring diagrams, control terminal explanations, parameter settings, error codes, and dimensional drawings.
	ATO GK3000 Variable Frequency Drive User Manual: Installation, Operation & Maintenance Guide Comprehensive user manual for the ATO GK3000 Variable Frequency Drive (VFD). Covers installation, operation, parameter settings, fault diagnosis, and maintenance for industrial applications. Features sensorless vector control, RS485 communication, PID control, and multi-speed operation.
	Manuale Utente DELTA VFD-E: Guida Completa per Installazione e Funzionamento Scopri il manuale utente completo per la serie DELTA VFD-E. Questa guida fornisce istruzioni dettagliate su installazione, configurazione dei parametri, risoluzione dei problemi e manutenzione per i convertitori di frequenza DELTA.
	Mitsubishi Electric FR-A806-E Inverter Instruction Manual (Hardware) Comprehensive hardware instruction manual for the Mitsubishi Electric FR-A806-E inverter, covering installation, wiring, safety precautions, operation, and specifications for IP55/UL Type 12 models.
	PowerFlex 40 Adjustable Frequency AC Drive User Manual | Allen-Bradley Comprehensive user manual for the Allen-Bradley PowerFlex 40 Adjustable Frequency AC Drive (FRN 1.xx - 7.xx). Covers installation, setup, programming, troubleshooting, and specifications.
	Mitsubishi Electric FR-A840-02160-E2-60 Inverter Datasheet Comprehensive datasheet for the Mitsubishi Electric FR-A840-02160-E2-60 FA-Inverter, detailing specifications, product components, dimensions, certifications, spare parts, and compatible accessories.