Noteflora JLS-E-2S-2.2GB-4T

Noteflora VFD Variable Frequency Drive User Manual

Model: JLS-E-2S-2.2GB-4T

1. Introduction

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Noteflora VFD Variable Frequency Drive. This device is designed to convert single-phase 220V AC input to three-phase 380V AC output, providing precise speed control for 2.2KW industrial motors in various applications such as fans, pumps, and CNC machines. Please read this manual thoroughly before using the product.



Figure 1: Noteflora VFD Variable Frequency Drive (Angled View)

2. Safety Information

WARNING: Risk of Electrical Shock

- Always read this user manual completely before attempting any operation or servicing.
- Ensure all power is disconnected before installation, wiring, or maintenance.
- Wait at least 10 minutes after removing power before servicing to allow internal capacitors to discharge.
- Only qualified personnel should perform installation and maintenance.
- Do not operate the VFD with damaged wiring or if the casing is open.

The VFD is equipped with nine protection technologies, including overvoltage, undervoltage, over-current, overload, over-temperature, power module protection, grounding, short circuit, and speed loss protection. However, proper handling and

adherence to safety guidelines are crucial for preventing accidents and ensuring reliable operation.





Figure 2: Front Panel with Safety Warning

3. Product Features

- **Advanced Motor Speed Control:** Provides precise regulation from 0–999Hz, converting single-phase 220V input to three-phase 380V output at 2.2KW for stable torque and smooth performance.
- **Comprehensive Protection System:** Integrates nine safety measures including overvoltage, undervoltage, overload, short circuit, grounding, and over-temperature safeguards to prevent faults and ensure reliable operation.
- **Efficient Cooling Mechanism:** Equipped with intelligent air cooling and dual fans to minimize heat build-up, support quiet operation, and maintain high output stability under continuous heavy load.
- **High-Performance Architecture:** Features a built-in Automatic Voltage Regulator (AVR) for clean sine wave power output. Advanced IPM and IGBT module design enhances conversion efficiency, reduces heat generation, and extends product lifespan.
- **Versatile Application Range:** Offers strong anti-tripping performance against dust, humidity, and temperature fluctuations, making it suitable for fans, pumps, CNC systems, conveyors, and other general automation setups.

4. Specifications

Parameter	Value
Model	JLS-E-2S-2.2GB-4T
Rated Input Voltage	Single-phase 220V
Rated Output Voltage	Three-phase 380V
Power	2.2KW
Output Current	5A
Factory Frequency	50Hz
Output Frequency Range	0~999Hz
Protection Level	IP20
Cooling Method	Air cooling, with fan control
Material	Process flame retardant ABS plastic
Dimensions (L x W x H)	143mm x 85mm x 116mm (126mm including terminals)
Item Weight	1293 Grams (approx. 2.85 pounds)
Installation Type	Wall-mounted, cabinet type

5. Setup and Installation

Proper installation is critical for the safe and reliable operation of the VFD. Ensure all power is disconnected before beginning installation.

5.1 Mounting

- The VFD can be wall-mounted or installed within a cabinet.
- Choose a location that is well-ventilated, free from excessive dust, moisture, and direct sunlight.
- Ensure sufficient clearance around the unit for proper air circulation and cooling, especially around the cooling fan and vents.
- Use appropriate fasteners to secure the VFD firmly to a stable surface.





Figure 3: Top View with Cooling Fan and Terminals

5.2 Wiring

Refer to the terminal markings on the unit for correct wiring connections. Incorrect wiring can cause damage to the VFD or connected equipment.

- **Input Power (R, S, T):** Connect the single-phase 220V AC power supply to the input terminals labeled R and S. The T terminal may not be used for single-phase input.
- **Output Power (U, V, W):** Connect the three-phase 380V AC motor to the output terminals labeled U, V, and W.
- **Grounding (PE):** Connect the ground wire from your power supply and motor to the grounding terminal (PE) on the VFD. Proper grounding is essential for safety.
- **Control Terminals (P+, PB):** These terminals are typically for braking resistors or other control signals. Refer to the full product manual for detailed control wiring diagrams if needed.

Ensure all connections are secure and insulated. Double-check all wiring before applying power.

6. Operating Instructions

The VFD features a user-friendly control panel for easy parameter debugging and data monitoring.

6.1 Control Panel Overview


RUN
DIR
TRIP
HZ
A
V
50.0
PRG
MF
ENTER
RUN
STOP
RESET
2.2KW
220V/1PHASE
WARNING
•Read the user manual before operation.
•Risk of electrical shock. Wait 10 minutes after removing power before servicing.

Figure 4: Control Panel with Digital Display

- **Digital Display:** Shows current frequency, parameters, and error codes.
- **RUN Button (Green):** Starts the motor.
- **STOP/RESET Button (Red):** Stops the motor or clears error messages.
- **PRG (Program) Button:** Enters or exits parameter setting mode.
- **MF (Multi-Function) Button:** Used for various functions depending on the mode.
- **Up/Down Arrows:** Navigate through parameters or adjust values.
- **Left/Right Arrows:** Shift cursor during parameter editing.
- **ENTER Button:** Confirms parameter settings.
- **Rotary Knob:** Provides quick adjustment of frequency or parameter values.

6.2 Basic Operation

1. **Power On:** After ensuring all wiring is correct and secure, apply power to the VFD. The display will light up.
2. **Set Frequency:** Use the rotary knob or the Up/Down arrow buttons to set the desired output frequency. The display will show the current frequency (e.g., 50.0 Hz).
3. **Start Motor:** Press the **RUN** button to start the motor. The motor will accelerate to the set frequency.
4. **Stop Motor:** Press the **STOP/RESET** button to stop the motor. The motor will decelerate and stop.
5. **Parameter Adjustment:** To access advanced settings, press the **PRG** button. Use the arrow keys and ENTER button to navigate and modify parameters. Refer to the detailed parameter list in the complete user manual for specific settings.

7. Maintenance

Regular maintenance helps ensure the longevity and optimal performance of your VFD. Always disconnect power and wait 10 minutes before performing any maintenance.

- **Cleaning:** Periodically clean the exterior of the VFD, especially the cooling vents and fan, to prevent dust accumulation. 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.
- **Environmental Conditions:** Ensure the operating environment remains within specified temperature and humidity ranges to prevent damage.
- **Fan Check:** Verify that the cooling fan is operating correctly and not obstructed.

8. Troubleshooting

This section provides basic troubleshooting steps for common issues. For complex problems or error codes not listed, consult the full product manual or contact technical support.

Problem	Possible Cause	Solution
VFD does not power on	No input power; incorrect wiring	Check power supply; verify input wiring (R, S)
Motor does not run	Incorrect output wiring; VFD in stop mode; parameter error	Check motor wiring (U, V, W); press RUN; verify frequency setting

Problem	Possible Cause	Solution
Overcurrent fault	Motor overload; short circuit in motor or wiring; acceleration time too short	Reduce load; check motor/wiring; increase acceleration time parameter
Overvoltage fault	Input voltage too high; deceleration time too short	Check input voltage; increase deceleration time parameter
Over-temperature fault	Insufficient cooling; blocked fan/vents; ambient temperature too high	Clean vents/fan; ensure proper ventilation; reduce ambient temperature

9. Warranty and Support

Specific warranty terms and conditions for the Noteflora VFD Variable Frequency Drive are typically provided with the product packaging or on the manufacturer's official website. Please refer to those resources for detailed information regarding warranty coverage, duration, and claims procedures.

For technical support, service, or inquiries not covered in this manual, please contact your retailer or the Noteflora customer service department. Ensure you have your product model number (JLS-E-2S-2.2GB-4T) and purchase details available when seeking assistance.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question