OUMIFAND SU600

OUMIFAND SU600 Series Variable Frequency Drive (VFD) Instruction Manual

Model: SU600-0R75G1 (0.75KW variant)

1. Introduction

This manual provides essential information for the safe and efficient installation, operation, and maintenance of the OUMIFAND SU600 Series Variable Frequency Drive (VFD). The SU600 VFD is designed to convert single-phase 220V input power to three-phase 380V output, enabling precise speed control for three-phase motors ranging from 0.75KW to 5.5KW. Please read this manual thoroughly before using the product.

2. Safety Information

Always observe the following safety precautions to prevent personal injury or damage to the equipment:

- **Electrical Hazard:** Ensure all power is disconnected before installation, wiring, or maintenance. Only qualified personnel should perform electrical work.
- **Grounding:** The VFD must be properly grounded to prevent electric shock.
- **Overload Protection:** Do not exceed the rated current or power of the VFD and connected motor.
- **Environment:** Install the VFD in a clean, dry, and well-ventilated area, away from direct sunlight, corrosive gases, and excessive vibration.
- **Capacitor Discharge:** Wait at least 5 minutes after disconnecting power before touching internal components, as capacitors may retain a dangerous charge.

3. Product Overview

The OUMIFAND SU600 VFD is a robust frequency converter designed for industrial applications. It features a compact design and a user-friendly interface for controlling motor speed and torque.

Figure 3.1: SU600 VFD Product Parameters. This image displays the OUMIFAND SU600 Variable Frequency Drive, highlighting its model number SU600-0R75G1, adapted motor power of 0.75KW (1HP), input voltage of single-phase 220V, output voltage of three-phase 380V, current of 2.5A, dimensions of 147x72x118.4mm, and a weight of 0.72Kg.

Figure 3.2: Inverter Components Display. This image shows the internal components of the SU600 VFD, emphasizing the main board's characteristics: waterproof, moisture-proof, and mildew-proof design for enhanced durability in various environments.

4. Setup and Installation

Proper installation is crucial for the VFD's performance and safety. Follow the wiring diagram carefully.

4.1 Wiring Diagram

Connect the input power, motor, and optional brake resistor according to the diagram below. Ensure all connections are secure and correctly polarized.

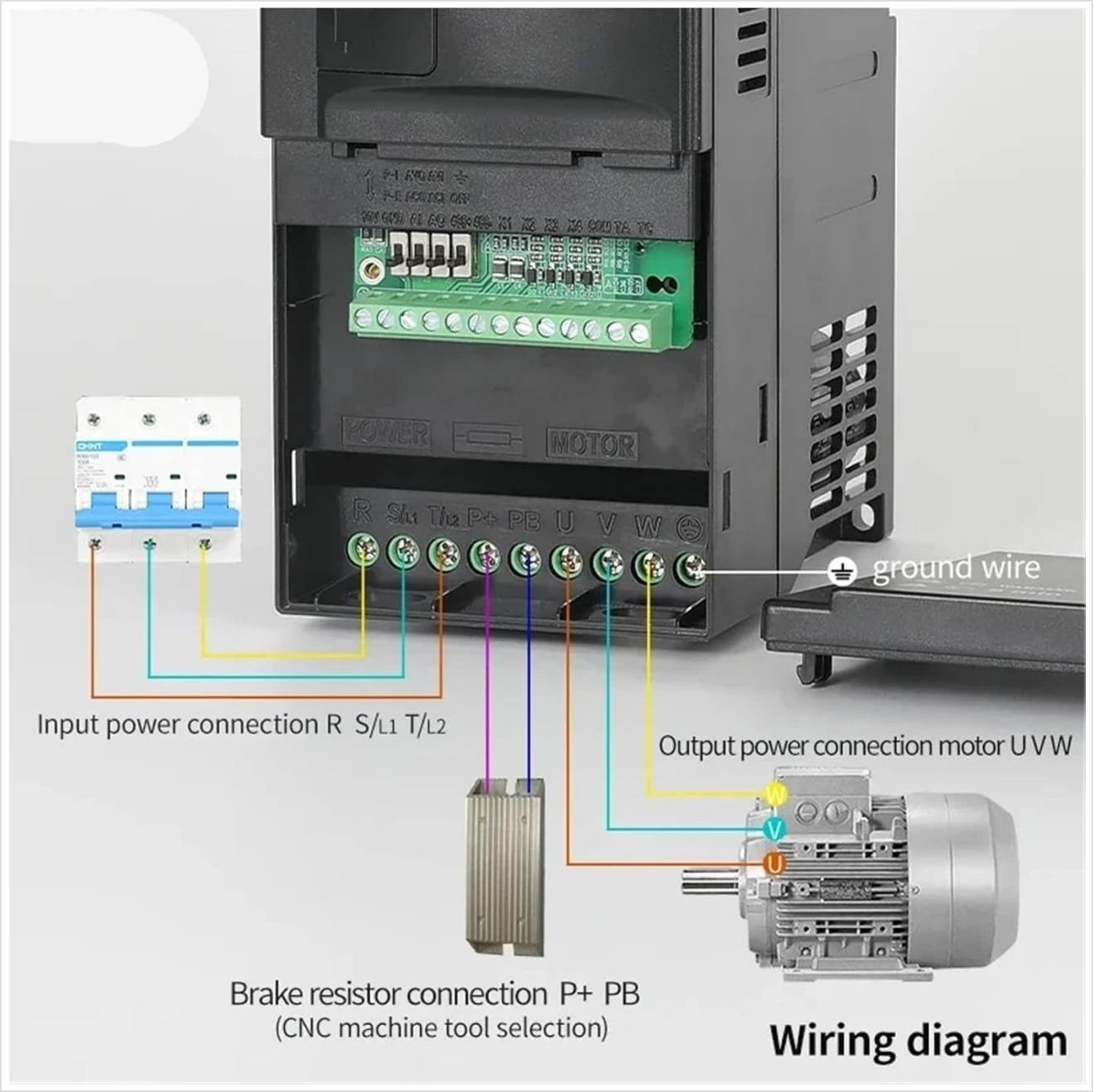

Figure 4.1: SU600 VFD Wiring Diagram. This diagram illustrates the connection points for the OUMIFAND SU600 VFD. It shows the input power connection (R, S/L1, T/L2), output power connection to the motor (U, V, W), brake resistor connection (P+, PB), and the essential ground wire connection.

- **Input Power:** Connect single-phase 220V AC power to terminals R and S/L1.
- **Motor Output:** Connect the three-phase motor to terminals U, V, and W.
- **Grounding:** Connect the ground wire to the designated ground terminal.
- **Brake Resistor (Optional):** For applications requiring rapid deceleration, connect an external brake resistor to terminals P+ and PB.

5. Operating Instructions

The SU600 VFD features a control panel for easy operation and parameter setting.

5.1 Control Panel Overview

Familiarize yourself with the buttons and indicators on the VFD's control panel.

Figure 5.1: Operation and Display Interface. This image details the control panel of the SU600 VFD. It labels the Forward (FWD), Reverse (REV), Frequency (Hz), Current (A), Voltage (V), and Alarm (ALM) indicators. Key buttons include Programming (PRG), Confirm (ENT), Run, Stop, Incremental, and Decrement keys. An external network port and an optional external operation panel are also shown.

5.2 Basic Operation

1. **Power On:** After ensuring all wiring is correct, apply power to the VFD. The display will light up.
2. **Start Motor:** Press the **RUN** button to start the motor.
3. **Adjust Frequency/Speed:** Use the **Incremental** and **Decrement** keys to adjust the output frequency, thereby controlling the motor speed.
4. **Stop Motor:** Press the **STOP** button to stop the motor.
5. **Parameter Setting:** Press the **PRG** (Programming) key to enter the parameter setting mode. Use the Incremental/Decrement keys to navigate and the **ENT** (Confirm) key to select and save parameters.

6. Maintenance

Regular maintenance ensures the longevity and reliable operation of your VFD.

- **Cleaning:** Keep the VFD clean and free from dust. Use a soft, dry cloth for cleaning. Do not use liquid cleaners.
- **Ventilation:** Ensure proper airflow around the VFD. Regularly check and clean cooling fans and vents.
- **Connections:** Periodically check all electrical connections for tightness and signs of corrosion.
- **Environmental Check:** Monitor the operating environment to ensure it remains within the specified temperature and humidity ranges.

7. Troubleshooting

This section provides basic troubleshooting steps for common issues. For complex problems, contact technical support.

Problem	Possible Cause	Solution
VFD does not power on	No input power; Incorrect wiring	Check power supply; Verify wiring connections
Motor does not start	Incorrect parameters; Motor overload; Emergency stop active	Check parameter settings; Reduce load; Reset emergency stop
Overcurrent fault	Motor short circuit; Sudden load change; Acceleration time too short	Check motor and wiring; Adjust acceleration time; Reduce load
Overvoltage fault	Input voltage too high; Deceleration time too short; No brake resistor	Check input voltage; Increase deceleration time; Install brake resistor

8. Specifications

Detailed technical specifications for the OUMIFAND SU600 Series VFD.

Parameter	Value
Brand	OUMIFAND
Model Series	SU600
Input Voltage	Single-phase 220V
Output Voltage	Three-phase 380V
Output Frequency Range	50-400Hz
Output Power Range	0.75KW - 5.5KW
Output Current Range	2.5A - 13A (varies by model power)
Type	DC/AC Inverter
Dimensions (0.75KW model)	147mm (L) x 72mm (W) x 118.4mm (H)
Weight (0.75KW model)	0.72 Kg
General Dimensions Range	147x72x119mm to 185x87x138mm
General Weight Range	1-2 Kg
Country of Origin	China

9. Warranty and Support

For warranty information and technical support, please refer to the documentation provided with your purchase or contact OUMIFAND customer service. Keep your purchase receipt as proof of purchase.