GHHSBO SU700-18.5KW-G1

GHHSBO SU700-18.5KW-G1 Frequency Converter User Manual

Model: SU700-18.5KW-G1 | Brand: GHHSBO

1. Introduction

This manual provides comprehensive instructions for the installation, operation, and maintenance of the GHHSBO SU700-18.5KW-G1 Single-Phase 220V to Three-Phase 380V Frequency Converter. Please read this manual thoroughly before using the device to ensure safe and efficient operation. Retain this manual for future reference.

2. Safety Instructions

WARNING: Improper installation or operation can lead to serious injury or equipment damage. Always follow safety guidelines.

- Ensure all power is disconnected before installation, wiring, or maintenance.
- Only qualified personnel should perform installation and wiring.
- Verify input voltage (Single-Phase 220V) matches the converter's specifications.
- Ensure proper grounding to prevent electrical shock.
- Do not operate the converter in environments with excessive dust, moisture, or corrosive gases.
- Avoid touching internal components when power is applied or recently disconnected, as residual voltage may be present.

Figure 2.1: Front view of the GHHSBO SU700 Frequency Converter, showing the digital display, control buttons (PRG, MFK, RUN, STOP, ENTER, Up/Down arrows), and a rotary knob. A "DANGER 5 min" warning label is visible at the bottom.

3. Product Overview

The GHHSBO SU700 series frequency converter is designed to convert single-phase 220V input power to three-phase 380V output power, enabling precise speed control for compatible motors. This model, SU700-18.5KW-G1, is rated for 18.5KW applications.

3.1 Key Features

- Single-phase 220V input, three-phase 380V output.
- Motor speed control capabilities.
- Digital display for frequency and parameter monitoring.
- Integrated control panel for easy operation.

3.2 Components

The frequency converter typically consists of:

- **Control Panel:** Features a digital display, function buttons (PRG, MFK, RUN, STOP, ENTER), and navigation arrows.
- **Power Terminals:** For input power (L, N) and output power (U, V, W) connections.
- **Cooling System:** Vents and possibly a fan for heat dissipation.

Figure 3.1: Product parameters and dimensions. Note: While the image references FK700B-18R5G1, the specifications for 18.5KW, 220V input, and 380V output are relevant to the SU700-18.5KW-G1 model.

Figure 3.2: Comparison of two SU700 series frequency converters, illustrating potential size variations within the product line.

4. Setup and Installation

4.1 Mounting

Mount the frequency converter vertically on a stable, non-flammable surface. Ensure adequate clearance around the unit for proper ventilation (at least 10 cm on all sides). Avoid direct sunlight or heat sources.

4.2 Wiring

CAUTION: All wiring must be performed by a qualified electrician. Ensure power is OFF before connecting any wires.

1. **Input Power (AC 220V Single-Phase):** Connect the single-phase 220V AC power supply to the designated input terminals (typically labeled L and N).
2. **Output Power (AC 380V Three-Phase):** Connect the three-phase motor to the output terminals (typically labeled U, V, W).
3. **Grounding:** Connect the ground terminal of the converter to a reliable earth ground.

4. **Control Wiring (Optional):** If external control signals (e.g., start/stop, speed reference) are used, connect them to the appropriate control terminals as per the detailed wiring diagram in the full product manual.

Refer to the specific wiring diagram provided with your unit for exact terminal locations and recommended wire gauges.

5. Operating Instructions

5.1 Control Panel Overview

- **Digital Display:** Shows current frequency, output voltage, current, or error codes.
- **PRG (Program) Button:** Enters/exits parameter setting mode.
- **MFK (Multi-Function Key) Button:** Used for specific functions or parameter navigation.
- **Up/Down Arrows:** Adjust parameter values or navigate menus.
- **ENTER Button:** Confirms selections or parameter changes.
- **RUN Button (Green):** Starts motor operation.
- **STOP Button (Red):** Stops motor operation.
- **Rotary Knob:** Typically used for fine-tuning frequency or speed.

5.2 Basic Operation

1. **Power On:** Apply single-phase 220V power to the converter. The digital display should illuminate.
2. **Set Frequency:** Use the rotary knob or the Up/Down arrows to set the desired output frequency. Press ENTER to confirm if required.
3. **Start Motor:** Press the **RUN** button. The motor should start and accelerate to the set frequency.
4. **Stop Motor:** Press the **STOP** button. The motor will decelerate and stop.
5. **Parameter Adjustment:** Press the PRG button to enter parameter setting mode. Use Up/Down arrows to navigate, ENTER to select, and then Up/Down arrows to change values. Press ENTER again to save, and PRG to exit.

For advanced settings and parameter configurations, refer to the detailed programming guide in the complete user manual.

6. Maintenance

WARNING: Disconnect all power before performing any maintenance.

- **Regular Cleaning:** Keep the converter clean and free from dust. Use a soft, dry cloth. Do not use liquid cleaners.
- **Ventilation Check:** Ensure cooling vents are not obstructed. Clean any dust buildup from the vents and cooling fan (if present) using compressed air.
- **Terminal Inspection:** Periodically check all wiring terminals for tightness. Loose connections can cause overheating or intermittent operation.
- **Environmental Conditions:** Ensure the operating environment remains within specified temperature and humidity ranges.

7. Troubleshooting

This section provides solutions for common issues. For problems not listed here, contact technical support.

Problem	Possible Cause	Solution
Converter does not power on.	No input power; faulty wiring; internal fault.	Check power supply and connections. Verify input voltage.
Motor does not start.	Incorrect parameters; wiring error; motor fault; emergency stop active.	Check motor wiring. Verify frequency setting. Ensure no error codes are displayed.
Overcurrent/Overload error.	Motor overloaded; short circuit; incorrect acceleration time.	Reduce motor load. Check motor and output wiring for shorts. Increase acceleration time parameter.
Overvoltage/Undervoltage error.	Input voltage fluctuation; incorrect deceleration time.	Check input power supply stability. Increase deceleration time parameter.

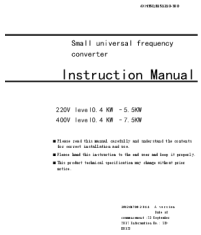
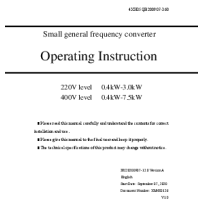
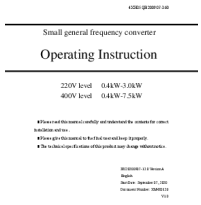
8. Specifications

Parameter	Value
Model	SU700-18.5KW-G1
Input Voltage	Single-Phase 220V
Output Voltage	Three-Phase 380V
Rated Power	18.5KW
Output Frequency	50-60Hz (Adjustable)
Output Current (Approx.)	37A (for 18.5KW model, based on image data)
Dimensions (Approx.)	295 x 165 x 201.5 mm (based on image data)
Weight (Approx.)	5 kg (based on image data)
Manufacturer	GHHSBO

9. Warranty and Support

For warranty information and technical support, please refer to the documentation included with your purchase or contact your vendor. Keep your purchase receipt as proof of purchase.

Related Documents - SU700-18.5KW-G1

	Instruction Manual for Small Universal Frequency Converter Detailed instruction manual for the Small Universal Frequency Converter, covering technical specifications, safety, installation, and operation for models like G1-220V and G3-380V.
	Small General Frequency Converter Operating Instruction - Model XM-H0126 Comprehensive operating instructions for the XM-H0126 small general frequency converter, covering installation, wiring, commissioning, parameters, applications, and troubleshooting. Supports 220V and 400V levels.
	Small General Frequency Converter Operating Instruction XM-H0126 Operating instructions, safety precautions, parameter lists, installation, commissioning, and applications for the XM-H0126 Small General Frequency Converter. Covers 220V and 400V models.
	Schneider Electric ATV320U15N4C Variable Speed Drive - 1.5kW, 380-500V Detailed product data sheet for the Schneider Electric ATV320U15N4C variable speed drive. It covers technical specifications, characteristics, environmental ratings, connection diagrams, and performance curves for industrial applications.
	VEVOR Spindle Motor Instruction Manual - Models JST-JGF Series Comprehensive instruction manual for VEVOR Spindle Motors, including installation, precautions, specifications, and troubleshooting for models like JST-JGF-F80E-2.2KW and others. Learn about wiring, cooling, and common issues.

	VACON NXP Liquid Cooled AC Drives Selection Guide This guide provides comprehensive information on the VACON NXP Liquid Cooled AC drives, covering their features, benefits, technical specifications, and application suitability for various industrial sectors. It details the product portfolio, including inverter units, active front-end units, and brake chopper units, highlighting their compact design, high power density, and quiet operation. The document also outlines options, safety features, and technical data for selecting the appropriate drive for demanding applications.