Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

ETURBEV GD20-7R5G-4

ETURBEV GD20 Series VFD Inverter User Manual

Model: GD20-7R5G-4

1. Introduction

The ETURBEV GD20 Series Variable Frequency Drive (VFD) is an advanced open-loop vector control inverter designed for precise motor speed and torque control in various industrial applications. This manual provides essential information for the safe and efficient installation, operation, maintenance, and troubleshooting of your GD20 Series VFD.

Please read this manual thoroughly before installing or operating the device to ensure proper usage and to prevent potential hazards or damage.



Figure 1: Overview of ETURBEV GD20 Series VFD Inverters.

2. Safety Information

WARNING: Improper installation or operation can lead to serious injury or death. Only qualified personnel should install, operate, or maintain this equipment.

- Always disconnect power before performing any installation, wiring, or maintenance.
- Ensure proper grounding of the VFD and motor.
- Do not touch electrical components immediately after power-off, as residual voltage may be present. Wait at least 5 minutes for capacitors to discharge.
- Install the VFD in a clean, dry, and well-ventilated environment, away from direct sunlight, corrosive gases, and flammable materials.
- Use appropriate personal protective equipment (PPE).

3. Setup and Installation

3.1 Mechanical Installation

Mount the VFD vertically on a sturdy, non-flammable surface. Ensure adequate clearance around the unit for proper ventilation and heat dissipation. Refer to the dimensions provided in the specifications section for mounting hole locations.

3.2 Electrical Wiring

All wiring must comply with local and national electrical codes. Use appropriate wire gauges for power input, motor output, and control signals.

1. **Power Input (R, S, T):** Connect the main power supply to the R, S, T terminals. Ensure the voltage matches the VFD's rated input voltage (e.g., 3-phase 380-480V).
2. **Motor Output (U, V, W):** Connect the motor leads to the U, V, W terminals.
3. **Grounding (PE):** Connect the ground wire to the PE terminal. This is critical for safety.
4. **Control Terminals:** Connect external control signals (e.g., start/stop, speed reference, fault indicators) to the designated control terminals as per your application requirements. Refer to the detailed wiring diagram in the full product manual for specific terminal functions.



Figure 2: GD20 Series VFD side view, indicating areas for wiring and ventilation.

4. Operating Instructions

4.1 Control Panel Overview

The VFD features a user-friendly control panel for monitoring and parameter adjustment.



Figure 3: GD20 Series VFD Control Panel.

- **Display:** Shows operating status, frequency, current, voltage, and parameter values.
- **RUN Button:** Starts the motor.
- **STOP/RST Button:** Stops the motor or resets faults.
- **PRG/ESC Button:** Enters/exits parameter programming mode.

- **DATA ENT Button:** Confirms parameter settings.
- **UP/DOWN Arrows:** Navigate menus and adjust parameter values.
- **SHIFT Button:** Shifts cursor position during parameter entry.
- **QUICK JOG Button:** For quick, temporary motor operation.

4.2 Basic Operation

1. **Power On:** After ensuring all wiring is correct and safe, apply power to the VFD. The display will illuminate.
2. **Start Motor:** Press the **RUN** button. The motor will accelerate to the set frequency.
3. **Stop Motor:** Press the **STOP/RST** button. The motor will decelerate and stop.
4. **Adjust Frequency:** In operating mode, use the **UP** and **DOWN** arrow buttons to adjust the output frequency (motor speed).

4.3 Parameter Settings

The GD20 Series VFD has numerous parameters for fine-tuning performance. Refer to the comprehensive parameter list in the full product manual for detailed descriptions and adjustment procedures.

- To enter parameter programming mode, press the **PRG/ESC** button.
- Use the **UP** and **DOWN** arrows to navigate through parameter groups and individual parameters.
- Press **DATA ENT** to view or modify a parameter's value.
- Use **UP** and **DOWN** to change the value, and **SHIFT** to move the cursor.
- Press **DATA ENT** again to save the new value.
- Press **PRG/ESC** to exit programming mode.

5. Maintenance

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

- **Daily Checks:** Monitor the VFD's display for any error codes or unusual operating conditions (e.g., excessive noise, vibration).
- **Weekly/Monthly Checks (Power Off):**
    - Inspect the VFD for dust accumulation, especially on cooling fins and fans. Clean with compressed air if necessary.
    - Check all wiring connections for tightness. Loose connections can cause overheating or intermittent operation.
    - Verify that the cooling fan is operating correctly and not obstructed.
- **Annual Checks (Power Off):**
    - Inspect capacitors for swelling or leakage.
    - Check for any signs of discoloration or burning on circuit boards.
    - Measure insulation resistance of the motor and wiring.

Always ensure power is disconnected and residual voltage has discharged before performing any internal inspection or cleaning.

6. Troubleshooting

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

Problem	Possible Cause	Solution
VFD does not power on	No input power; Blown fuse; Internal fault	Check power supply; Replace fuse; Contact support
Motor does not run	Incorrect wiring; Parameter settings; External stop command	Verify wiring; Check parameters (e.g., F0.01 for run command source); Ensure no external stop signal is active
Overcurrent fault (OC)	Motor overload; Short circuit in motor/cables; Rapid acceleration	Reduce load; Check motor and cables; Increase acceleration time (parameter P0.08)
Overvoltage fault (OV)	Rapid deceleration; High input voltage	Increase deceleration time (parameter P0.09); Check input voltage; Consider braking resistor if needed
Overheat fault (OH)	Poor ventilation; High ambient temperature; Clogged fan	Improve ventilation; Clean cooling fins and fan; Reduce ambient temperature

Note: Specific fault codes and their meanings are detailed in the complete GD20 Series VFD manual.

7. Specifications

The following specifications apply to the ETURBEV GD20 Series VFD Inverter, model GD20-7R5G-4. Specifications for other models (GD20-011G-4, GD20-015G-4) may vary.

- **Model:** GD20-7R5G-4
- **Input Voltage:** 3-phase, 380-480V AC (typical for G-4 models)
- **Output Voltage:** 3-phase, 0 to input voltage AC
- **Control Method:** Open Loop Vector Control
- **Product Dimensions:** 1.18 x 0.79 x 0.79 inches
- **Item Weight:** 1.76 ounces
- **Manufacturer:** ETURBEV
- **ASIN:** B0DC3YBBW1

Note on Dimensions and Weight: *The provided dimensions (1.18 x 0.79 x 0.79 inches) and weight (1.76 ounces) appear to be for a small component rather than a full VFD inverter. Please refer to the product packaging or official ETURBEV documentation for accurate physical specifications of the GD20-7R5G-4 model.*

8. Warranty and Support

For warranty information, please refer to the documentation included with your purchase or contact your point of sale. For technical support, inquiries, or service, please contact ETURBEV customer service or your authorized distributor. Keep your purchase receipt and product serial number readily available when contacting support.

© 2024 ETURBEV. All rights reserved. Information in this manual is subject to change without notice.

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.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

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

Open the live page

https://manuals.plus/asin/B0DC3YBBW1

More documents and user manuals: **https://manuals.plus/**