

FBT E580-4T0011

FBT E580 Series Vector Inverter User Manual

Model: E580-4T0011

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your FBT E580-4T0011 Vector Inverter. This device is a high-performance frequency inverter designed for various industrial applications, including machine tools, textile machinery, cable machinery, petrochemical processing, construction, and transmission systems. It offers robust control with strong torque at low frequencies and a user-friendly interface.

2. SAFETY INFORMATION

⚠ WARNING

- Refer to the instruction manual before installation and operation.
- Do not connect AC power to output terminals UVW.
- Do not remove any cover while applying power and at least 10 minutes after disconnecting power.
- Securely ground (earth) the equipment.

Always ensure that all safety precautions are strictly followed to prevent personal injury or damage to the equipment. Only qualified personnel should perform installation and maintenance.

3. PRODUCT OVERVIEW



Figure 3.1: Front view of the FBT E580-4T0011 Vector Inverter. This image displays the grey casing, the digital display panel, and the various control buttons including ESC, Panel/Remote, Mode, Alarm, directional arrows, REV/JOG, STOP/RESET, and FWD. The "Simphoenix" logo and "E580" model designation are visible on the lower part of the unit.

The FBT E580-4T0011 is a robust vector inverter featuring a standard 5-digit two-line LED panel display (LCD keypad optional). It provides intuitive real-time monitoring of nearly a hundred parameters, including electricity usage, running time, input/output voltage and current, and error records. Key features include:

- Strong torque at low frequency: 200% start torque at 0Hz under VC control, 180% start torque at 0Hz under SVC control.
- Built-in system and application macros for simplified parameter setting.
- Hundreds of combinations for torque and revolution settings.
- Programmable 16-segment speed running with independent settings for running time, acceleration/deceleration, and direction.
- Flexible configuration of frequency or rotate speed setting channel priorities.
- Software virtual I/O function for flexible configuration and reduced external interference.
- Abundant warning and protection functions.

4. SETUP AND INSTALLATION

Proper installation is crucial for the inverter's performance and safety. Ensure the installation environment meets the specified conditions (temperature, humidity, ventilation).

4.1. Mounting

Mount the inverter vertically on a stable, non-flammable surface, ensuring adequate clearance for ventilation. Avoid direct sunlight, excessive dust, corrosive gases, or vibrations.

4.2. Wiring

1. **Power Input (R, S, T):** Connect the 380V AC power supply to the input terminals. Ensure correct phase

sequence.

2. **Motor Output (U, V, W):** Connect the motor to these terminals. Do not connect AC power here.
3. **Grounding (PE):** Connect the ground terminal to a reliable earth ground. This is critical for safety.
4. **Control Terminals:** Wire external control signals (e.g., start/stop, speed reference, fault reset) according to your application and the inverter's terminal diagram (refer to the full manual).

Always ensure power is disconnected before performing any wiring or maintenance.

5. OPERATING INSTRUCTIONS

The E580 series inverter features a user-friendly control panel for operation and parameter setting.

5.1. Control Panel Functions

- **Display Screen:** Shows operating status, parameters, and error codes.
- **ESC:** Exits current menu or cancels operation.
- **MODE:** Switches between different display modes or enters parameter setting mode.
- **Panel/Remote:** Toggles between local (panel) and remote control modes.
- **Directional Arrows (▲ ▼ ◀ ▶):** Navigate menus and adjust parameter values.
- **REV/JOG:** Reverse direction / Jog operation.
- **STOP/RESET:** Stops the motor / Resets faults.
- **FWD:** Forward direction.

5.2. Basic Operation

1. **Power On:** Apply power to the inverter. The display will light up.
2. **Parameter Setting:** Use the MODE button to enter parameter setting. Navigate with arrow keys and adjust values. Refer to the full manual for detailed parameter descriptions.
3. **Start Motor:** Press the FWD button for forward rotation or REV/JOG for reverse.
4. **Stop Motor:** Press the STOP/RESET button.
5. **Fault Reset:** If a fault occurs, the display will show an error code. Address the cause, then press STOP/RESET to clear the fault.

6. MAINTENANCE

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

- **Cleaning:** Periodically clean the inverter's exterior and ventilation openings to prevent dust accumulation. Use a soft, dry cloth. Do not use liquid cleaners.
- **Inspection:** Regularly inspect wiring connections for looseness or damage. Check for any signs of overheating or unusual noises.
- **Fan Check:** Ensure cooling fans are operating correctly and are free from obstructions.
- **Environmental Conditions:** Verify that the operating environment remains within specified temperature and humidity ranges.

Always disconnect power before performing any maintenance.

7. TROUBLESHOOTING

This section provides guidance for common issues. For complex problems, consult the full manual or contact

technical support.

Problem	Possible Cause	Solution
Inverter does not power on	No input power; Blown fuse; Wiring error	Check power supply; Inspect fuses; Verify wiring connections.
Motor does not run	Fault condition; Incorrect parameter settings; Motor wiring issue	Check display for error codes and reset; Verify motor parameters; Inspect motor wiring.
Overcurrent fault	Motor overload; Short circuit; Acceleration time too short	Reduce load; Check motor and wiring for shorts; Increase acceleration time.
Overvoltage fault	High input voltage; Deceleration time too short	Check input voltage; Increase deceleration time; Consider braking resistor if necessary.

8. SPECIFICATIONS

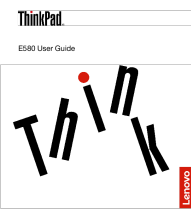


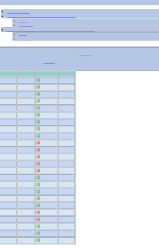


Attribute	Value
Brand	FBT
Model	E580-4T0011
Input Voltage	380 Volts
Output Voltage	380 Volts
Power	1.1 KW
Material	Tile (Note: This might be a misinterpretation from OCR/data, typically inverters are metal/plastic)
Manufacturer	FBT
ASIN	B08QW5VRFH
Date First Available	December 17, 2020

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official FBT documentation provided with your product or visit the FBT brand store on Amazon:

Visit FBT Store on Amazon

For specific inquiries regarding your E580-4T0011 inverter, please have your model number and purchase details ready when contacting support.

	<p>Lenovo ThinkPad E580 User Guide</p> <p>Comprehensive user guide for the Lenovo ThinkPad E580 laptop, covering product overview, operation, safety, maintenance, security, and troubleshooting.</p>
	<p>Lenovo ThinkPad E580 (20KS001J++) Product Specifications</p> <p>Detailed product specifications for the Lenovo ThinkPad E580 laptop, including processor, graphics, memory, storage, display, ports, and operating system. Features Intel Core i5-8250U, 8GB RAM, 256GB SSD, and 15.6-inch FHD display.</p>
	<p>Professional HD IP Camera Quick Start Guide V3.1</p> <p>A comprehensive quick start guide for the Professional HD IP Camera (V 3.1) by Bulwark Technology Limited. This guide covers installation, mobile app (CamHipro) connection and features, computer browsing access, and frequently asked questions to help users set up and operate their IP camera efficiently.</p>
	<p>Sony NW/NWZ Series: Destination and Sound Pressure Tool Guide</p> <p>A guide to using the scsitol to modify destination and sound pressure regulation settings on Sony NW/NWZ series portable audio players, including compatibility lists, download links, and troubleshooting.</p>
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	<p>Lenovo ThinkPad Product Specifications Reference</p> <p>This document provides detailed product specifications for various Lenovo ThinkPad laptop models, including the 11e, E, L, P, T, and X series. It covers processors, graphics, memory, storage, displays, ports, and other features, along with warranty and environmental information.</p>