

## VBESTLIFE AT5 1500X

# AT5-1500X Inverter User Manual

Model: AT5 1500X

## 1. INTRODUCTION

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This manual provides comprehensive instructions for the installation, operation, and maintenance of the AT5-1500X Inverter. Please read this manual carefully before using the product to ensure safe and efficient operation.

The VBESTLIFE AT5 1500X is an advanced inverter designed for precise control of 3-phase motors. It features single-phase input and 3-phase output, making it suitable for various industrial and commercial applications requiring speed regulation.

## 2. SAFETY PRECAUTIONS

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**WARNING: Failure to follow these safety instructions may result in serious injury or property damage.**

- Do not operate as required; may cause death, severely injured or serious property damage.
- Before wiring, please make sure to cut off the power.
- Forbidden to connect UVW output end to AC power supply, otherwise cause damage of the inverter.
- Do not connect the product to a flammable or explosive environment.
- The grounding terminal of the inverter must be grounded well.
- Do not install it in the environment with corrosive gas, otherwise have the risk of explosion.
- Only professional people may carry on the wiring, inverter internal has high pressure, and prohibits secretly opening the shell.

Always ensure proper ventilation and keep the device away from moisture and direct sunlight.

## 3. PRODUCT FEATURES

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- High torsion, high accuracy and wide speed regulation.
- Adapts to harsh power grid, temperature, and dust interference.
- Low noise and low electromagnetic interference.

- Equipped with digital panel for clear reading.
- Single-phase input and 3-phase output, suitable for 3-phase motors.





Figure 3.1: Front view of the AT5-1500X Inverter, showing the digital display and control buttons.

## 4. SPECIFICATIONS

Attribute	Value
Model Name	AT5 1500X
Wattage	1500 watts
Power Source	220V
Input Phase	Single-Phase
Output Phase	3-Phase
Manufacturer	Vbestlife
Recommended Uses	CNC router, Centrifuger, Conveyor, Elevator, Grinder, Mixer, Slitter, Spindle motor, Treadmills, Ventilator, Workshop

## 5. SETUP AND INSTALLATION

### 5.1 Unpacking

Carefully remove the inverter from its packaging. Inspect the unit for any signs of damage during transit. Ensure all components listed in the packing list are present. The package should include the AT5-1500X Inverter and this Instruction Manual.

### 5.2 Mounting

Mount the inverter in a well-ventilated area, away from direct sunlight, moisture, and corrosive gases. Ensure there is sufficient space around the unit for heat dissipation. Use appropriate screws and mounting hardware to secure the inverter firmly to a stable surface.



Figure 5.1: Side view of the inverter, highlighting the ventilation grilles for proper airflow.

### 5.3 Wiring Diagram

Refer to the internal wiring diagram provided on the unit or in the detailed technical specifications for precise connection instructions. Ensure all connections are secure and correctly polarized. **Always disconnect power before performing any wiring.**

- **Input Power (L, N):** Connect the 220V single-phase AC power supply to the designated input terminals.
- **Output (U, V, W):** Connect the 3-phase motor to these output terminals.
- **Ground (GND):** Ensure the inverter's grounding terminal is properly connected to an earth ground.



Figure 5.2: Top-down view of the inverter, showing the internal heat sink and connection points.

## 6. OPERATING INSTRUCTIONS

### 6.1 Control Panel Overview

The inverter features a digital display and several control buttons for easy operation.

- **Display:** Shows current frequency, speed, and error codes.
- **DISP:** Toggles display modes.
- **PROG:** Enters/exits programming mode.
- **FUNC/DATA:** Selects function parameters or confirms data entry.
- **FWD/REV:** Changes motor rotation direction.
- **Up/Down Arrows:** Adjusts parameters or frequency.

- **RUN:** Starts the motor.
- **STOP/RESET:** Stops the motor or resets error codes.



# Motor Inverter

High torsion, high accuracy and wide speed regulation  
 Adapt to harsh power grid, temperature, dust interference  
 Low noise and low electromagnetic interference  
 Equipped with digital panel, clear reading  
 Single-phase input and 3-phase output, suitable for 3-phase motors

Figure 6.1: Detailed view of the control panel, showing the digital display and button layout.

## 6.2 Basic Operation

1. **Power On:** Connect the inverter to the 220V single-phase power supply. The digital display will light up.
2. **Set Frequency:** Use the Up/Down arrow buttons to set the desired output frequency (and thus motor speed).
3. **Start Motor:** Press the **RUN** button to start the motor. The display will show the current operating frequency.
4. **Change Direction:** Press the **FWD/REV** button to toggle the motor's rotation direction.
5. **Stop Motor:** Press the **STOP/RESET** button to stop the motor.

## 6.3 Advanced Parameter Setting

For detailed parameter adjustments (e.g., acceleration/deceleration time, maximum frequency, voltage compensation), refer to the comprehensive programming guide in the full technical manual. Access programming mode by pressing the **PROG** button.

## 7. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your inverter.

- **Cleaning:** Periodically clean the exterior of the inverter with a soft, dry cloth. Ensure ventilation grilles are free from dust and debris. **Do not use liquid cleaners or sprays.**
- **Inspection:** Regularly inspect all wiring connections for looseness or signs of wear. Check for any unusual noises or smells during operation.
- **Environment:** Maintain a clean, dry, and well-ventilated operating environment to prevent overheating and component degradation.



Figure 7.1: Rear view of the inverter, illustrating the cooling fins designed for heat dissipation.

## 8. TROUBLESHOOTING

This section provides solutions to common issues you might encounter.

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Inverter does not power on.	No power supply; Loose connection; Internal fault.	Check power source and connections. Ensure power is supplied. If problem persists, contact support.
Motor does not start.	Incorrect wiring; Overload; Parameter settings.	Verify motor wiring (U, V, W). Check motor load. Review operating parameters.
Motor speed is unstable.	Voltage fluctuations; Motor issues; Inverter settings.	Ensure stable power supply. Inspect motor. Adjust inverter control parameters.
Overheat error displayed.	Poor ventilation; Excessive ambient temperature; Overload.	Improve ventilation. Reduce ambient temperature. Check motor load.

For error codes not listed or persistent issues, please contact customer support.

## 9. WARRANTY AND SUPPORT

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This product is covered by a manufacturer's warranty against defects in materials and workmanship. For warranty claims or technical support, please contact VBESTLIFE customer service through their official channels or the retailer where the product was purchased.

Please have your model number (AT5 1500X) and purchase date ready when contacting support.

For more information, visit the [VBESTLIFE Store on Amazon](#).