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## Jectse AT904-7.5KW

# Jectse AT904-7.5KW Variable Frequency Drive User Manual

Model: AT904-7.5KW

## 1. INTRODUCTION

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This manual provides essential information for the safe and efficient operation of the Jectse AT904-7.5KW Variable Frequency Drive (VFD). This device is designed to control the speed of three-phase AC motors by varying the frequency and voltage of the power supplied to the motor. Please read this manual thoroughly before installation, operation, or maintenance to ensure proper use and prevent potential hazards.

## 2. SAFETY INFORMATION

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

- Always disconnect power before performing any wiring, maintenance, or inspection.
- Ensure proper grounding of the VFD and the motor.
- Do not touch electrical components immediately after power-off; wait at least 10 minutes for capacitors to discharge.
- Protect the VFD from moisture, dust, and corrosive gases.
- Verify that the input voltage matches the VFD's specifications.
- Do not connect the VFD output directly to a single-phase motor or a power grid.

## 3. PRODUCT OVERVIEW

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The Jectse AT904-7.5KW VFD is a robust and reliable frequency converter designed for various industrial applications requiring precise motor speed control. It features a durable ABS plastic shell and a user-friendly control panel.



### **PWM control regulation**

7.5KW Universal Inverter  
Motor Speed Controller  
Single phase 220V input  
3 phase 380V output



Image: The Jectse AT904-7.5KW Variable Frequency Drive shown in an industrial setting, connected to two large blue motors and pumps, demonstrating its application in controlling machinery.



Image: The Jectse AT904-7.5KW VFD unit displayed alongside smaller images of a motor, a chiller unit, and a large fan, illustrating the diverse range of industrial equipment it is designed to control.

### **Key Features:**

- **Input/Output:** Single-phase 220V AC input, three-phase 0-380V AC output.
- **Motor Compatibility:** Suitable for 7.5KW (10HP) three-phase motors.
- **Stability:** Integrated filter and V/F open-loop control for stable performance.
- **Safety:** Anti-trigger design for resilience against power grid interference, temperature fluctuations, and dust.
- **Performance:** Delivers high torque, high accuracy, and wide speed regulation range.
- **Applications:** Ideal for fans, pumps, air compressors, and other motor-driven equipment.

## 4. SPECIFICATIONS

Specification	Value
Product Type	Frequency Converter
Model	AT904-7.5KW
Input Voltage	Single Phase 220V AC 50/60Hz
Output Voltage	Three Phase 0-380V AC 0-400Hz
Maximum Output Current	40A
Suitable Motor Power	7.5KW (10HP)
Filter	Built-in Filter
Control Mode	V/F Open Loop
Output Voltage Regulation Mode	PWM Control
Appearance Material	ABS Plastic Shell
Product Size (Approx.)	25 × 18 × 16.5 cm / 9.8 × 7.1 × 6.5 inches
Item Weight	4.13 kg
Efficiency	High Efficiency
Output Waveform	Pure Sine Wave
Frequency	60 Hz
Part Number	Jectsepsctoya7hk5178

## 5. SETUP

Careful installation is crucial for the performance and safety of the VFD. Ensure all safety precautions are followed.

### 5.1 Unpacking and Inspection

- Unpack the VFD and inspect it for any physical damage during transit.
- Verify that all components listed in the package contents are present.

### 5.2 Mounting

- Mount the VFD vertically on a stable, non-flammable surface.
- Ensure adequate ventilation space around the unit (minimum 10 cm on all sides) to prevent overheating.
- Avoid mounting in direct sunlight, high humidity, or dusty environments.

### 5.3 Wiring

Refer to the detailed wiring diagrams provided in the included user manual for specific connection points. The following are general guidelines:

- **Power Input:** Connect the single-phase 220V AC power supply to the designated input terminals (typically L1, L2).
- **Motor Output:** Connect the three-phase 380V motor to the output terminals (typically U, V, W). Ensure the motor is rated for 380V and has a power rating less than or equal to 7.5KW.
- **Grounding:** Connect the ground terminal of the VFD to a reliable earth ground.
- **Control Wiring:** If external control (e.g., potentiometer, external switches) is used, connect according to the manual's control terminal diagrams.



Image: The Jectse AT904-7.5KW VFD from an elevated perspective, highlighting its compact size and dimensions, which are approximately 25 x 18 x 16.5 cm.



Image: A close-up view of the side vents on the Jectse AT904-7.5KW VFD, indicating the cooling design for heat dissipation during operation.

## 6. OPERATING INSTRUCTIONS

The VFD allows for precise control over motor speed and direction. Familiarize yourself with the control panel before operation.

Control the start, stop, speed regulation, CW and CCW of the motor



Image: The Jectse AT904-7.5KW VFD positioned in the foreground, with two individuals in the background working on an air compressor, illustrating the VFD's role in controlling industrial equipment.



High torsion and accuracy,  
wide speed drive  
Low noise and low  
electromagnetic interference

Image: The Jectse AT904-7.5KW VFD unit, highlighting its capabilities for high torsion, accuracy, wide speed drive, low noise, and low electromagnetic interference, crucial for industrial applications.

## 6.1 Control Panel Functions



Image: A close-up of the Jectse AT904-7.5KW VFD's control panel, showing the digital display, rotary knob, and various control buttons for operation, programming, and status indication.

- **RUN Button:** Initiates motor operation.
- **STOP Button:** Halts motor operation.
- **JOG Button:** For momentary or step-by-step operation.
- **PRG Button:** Enters programming mode to adjust parameters.
- **ENT Button:** Confirms selections or parameter changes.
- **Up/Down Arrows:** Adjust frequency, speed, or navigate menu options.
- **Rotary Knob:** Provides fine adjustment for frequency or other parameters.

## 6.2 Basic Operation

1. **Power On:** Ensure all wiring is correct and secure, then apply power to the VFD.
2. **Parameter Setup:** If necessary, enter programming mode (PRG) to set motor parameters (e.g., rated frequency, maximum frequency, acceleration/deceleration times) according to your motor and application requirements. Refer to the detailed parameter list in the full user manual.
3. **Start Motor:** Press the **RUN** button to start the motor.
4. **Adjust Speed:** Use the Up/Down arrows or the rotary knob to adjust the motor speed (frequency).
5. **Stop Motor:** Press the **STOP** button to stop the motor.
6. **Reverse Rotation:** The VFD supports forward and reverse rotation. Specific instructions for changing direction are typically found in the parameter settings or via dedicated control terminals, as detailed in the comprehensive manual.

## 7. MAINTENANCE

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

- **Cleaning:** Periodically clean the VFD's exterior and cooling fins to prevent dust accumulation, which can hinder heat dissipation. Use a soft, dry cloth. Do not use liquid cleaners.
- **Fan Inspection:** Check the cooling fan for proper operation and ensure it is free from obstructions.
- **Terminal Tightness:** Periodically check all wiring terminals for tightness. Loose connections can cause

overheating and malfunction.

- **Environmental Check:** Ensure the operating environment remains within specified temperature and humidity ranges.

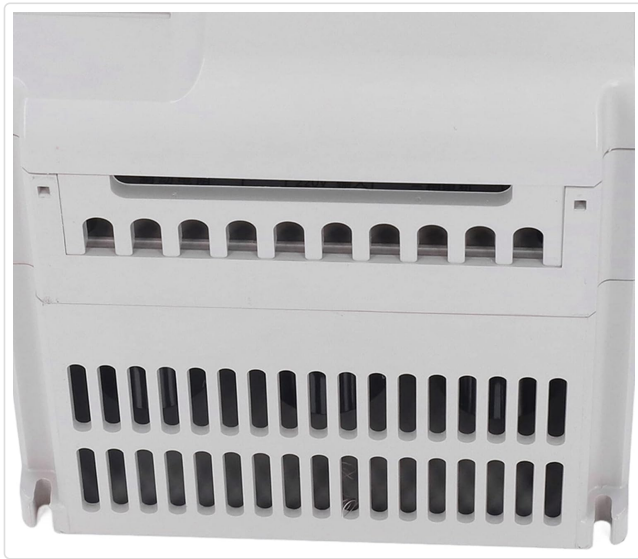


Image: A detailed view of the top cooling fan on the Jectse AT904-7.5KW VFD, emphasizing its role in maintaining optimal operating temperature.

## 8. TROUBLESHOOTING

This section provides basic troubleshooting steps for common issues. For complex problems, consult a qualified technician or contact customer support.

Problem	Possible Cause	Solution
VFD does not power on	No input power; incorrect wiring	Check power supply and input wiring. Ensure circuit breaker is on.
Motor does not start	Incorrect motor wiring; VFD fault; parameter settings incorrect	Verify motor wiring (U, V, W). Check VFD display for error codes. Review motor parameters.
Motor speed is unstable	Load fluctuations; incorrect V/F curve setting	Check motor load. Adjust V/F curve or other speed control parameters.
Overcurrent/Overload fault	Motor overload; short circuit in motor wiring	Reduce motor load. Inspect motor and wiring for short circuits. Check motor parameters.
Overvoltage/Undervoltage fault	Input voltage outside range; regenerative braking issue	Check input power supply voltage. Consider adding a braking resistor if applicable.

## 9. WARRANTY AND SUPPORT

Jectse products are manufactured to high-quality standards. For warranty information, please refer to the warranty card included with your product or contact your local distributor.

### Customer Support:

If you encounter any issues or have questions not covered in this manual, please contact Jectse customer support or your authorized dealer. When contacting support, please have your product model (AT904-7.5KW) and purchase details ready.