

DAVITU XC3-32RT-E

User Manual

XINJE PLC Programmable Controller XC3-32RT-E

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of the XINJE XC3-32RT-E Programmable Logic Controller (PLC). Please read this manual thoroughly before using the device to ensure proper and safe operation. This PLC is designed for industrial control applications, particularly in electricity generation systems.

2. PRODUCT OVERVIEW

The XINJE XC3-32RT-E is a robust programmable controller manufactured by XINJE, distributed by DAVITU. It features 32 input/output points (RT indicates Relay Output, Transistor Input). This device is crucial for automating various processes and ensuring precise control in industrial environments.



Figure 2.1: Front view of the XINJE XC3-32RT-E PLC, showing input/output terminals, power indicators (PWR, RUN, ERR), and the XINJE brand logo.



Figure 2.2: Back view of the XINJE XC3-32RT-E PLC, displaying the model number (XC3-32RT-E), power specifications (AC100~240V), CE marking, and manufacturer details (WUXI XINJE ELECTRIC CO., LTD.). A product identification number 1408336707941166 is also visible.

3. SPECIFICATIONS

Feature	Detail
Model Number	XC3-32RT-E
Manufacturer	XINJE (Distributed by DAVITU)
Part Number	DVT-12B0EA5C10D04DC686490F8535B2DB4A
Input/Output Points	32 (Relay Output, Transistor Input)
Power Supply	AC100~240V
Material	Stainless Steel (for certain components/casing)
Date First Available	October 19, 2022
Product Identification Number	1408336707941166

4. SETUP AND INSTALLATION

4.1 Safety Precautions

- Ensure power is disconnected before installation or wiring.
- Only qualified personnel should perform installation and wiring.
- Verify correct voltage and current ratings before connecting power.
- Ground the PLC properly to prevent electrical shock and ensure stable operation.

4.2 Mounting

The XC3-32RT-E PLC is designed for DIN rail mounting. Ensure a stable and vibration-free environment. Allow adequate space around the unit for ventilation and wiring access (at least 50mm clearance on all sides).

4.3 Wiring

Refer to the terminal labels on the front of the PLC for correct wiring. The device supports AC100~240V power input. Connect input signals to the 'X' terminals and output devices to the 'Y' terminals. Use appropriate wire gauges for all connections.

- **Power Supply:** Connect AC power to the designated power terminals.
- **Inputs (X0-X15):** Connect sensors, switches, and other input devices.
- **Outputs (Y0-Y15):** Connect actuators, relays, and other output devices.
- **Communication Ports:** Use the designated ports for programming and communication with other devices.

5. OPERATING INSTRUCTIONS

5.1 Powering On

After completing all wiring and ensuring safety, apply power to the PLC. The 'PWR' indicator light should illuminate, indicating successful power-up.

5.2 Programming

The XINJE XC3-32RT-E is programmed using XINJE's proprietary programming software (e.g., XINJE PLC Programming

Software). Connect the PLC to a computer via the programming port. Develop your ladder logic or other supported programming language, then download the program to the PLC.

- **Software Installation:** Install the XINJE programming software on your PC.
- **Connection:** Establish communication between the PC and PLC.
- **Program Download:** Transfer the compiled program to the PLC's memory.
- **Run Mode:** Switch the PLC to RUN mode to execute the program. The 'RUN' indicator light will be on.

5.3 Indicator Lights

- **PWR (Power):** Green light indicates power is supplied.
- **RUN (Run):** Green light indicates the PLC is in run mode and executing the program.
- **ERR (Error):** Red light indicates a system error or program error. Refer to troubleshooting section.

6. MAINTENANCE

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

- **Cleaning:** Periodically clean the exterior of the PLC with a soft, dry cloth. Do not use harsh chemicals or abrasive materials. Ensure ventilation openings are free from dust and debris.
- **Connection Check:** Routinely inspect all wiring connections for looseness or corrosion. Tighten any loose terminals.
- **Environmental Conditions:** Ensure the operating environment remains within specified temperature and humidity ranges to prevent damage.
- **Firmware Updates:** Check the XINJE official website for any available firmware updates for improved performance or bug fixes.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
PLC does not power on (PWR light off)	No power supply; Incorrect wiring; Faulty power supply unit.	Check power connections and voltage. Verify wiring. Test power supply.
ERR light is on	Program error; Hardware fault; Communication error.	Check program logic for errors. Restart PLC. Consult XINJE documentation for error codes.
PLC not responding to inputs	Input device faulty; Incorrect input wiring; Program logic error.	Test input devices. Verify input wiring. Debug program logic.
Outputs not activating	Output device faulty; Incorrect output wiring; Program logic error; Overload.	Test output devices. Verify output wiring. Debug program logic. Check for overcurrent.
Cannot connect to PLC for programming	Incorrect cable; Driver issue; Wrong communication settings; PLC in RUN mode.	Ensure correct programming cable. Install/update drivers. Verify communication parameters (COM port, baud rate). Switch PLC to STOP mode if necessary.

8. WARRANTY AND SUPPORT

Specific warranty information for the XINJE XC3-32RT-E PLC is typically provided at the point of purchase or with the product packaging. Please refer to your purchase documentation for details regarding warranty period and terms. For technical support, programming assistance, or service inquiries, please contact your authorized DAVITU distributor or XINJE technical support. Keep your product model number (XC3-32RT-E) and product identification number (1408336707941166) ready when seeking support.

Note: No specific warranty or support contact details were available in the provided product information.

