

EARU EARU-1012

EARU Electric 3-Phase Auto Transfer Switch (ATS) - 440V 63A User Manual

Brand: EARU | Model: EARU-1012

1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your EARU Electric 3-Phase Auto Transfer Switch (ATS) - 440V 63A. Please read this manual thoroughly before installation and operation to ensure proper functionality and to prevent damage or injury.

The ATS is designed to provide uninterrupted power by automatically transferring loads between phases in a three-phase supply system. It features intelligent monitoring and protection against phase failure, over/under voltage, and overcurrent conditions, ensuring the stability and safety of connected equipment.

2. SAFETY INFORMATION

WARNING: Electrical shock hazard. Installation and servicing should only be performed by qualified personnel.

- Always disconnect power before installing or servicing the ATS.
- Ensure all wiring complies with local and national electrical codes.
- Verify correct voltage and current ratings before connecting the device.
- Do not operate the device if it appears damaged.
- Keep children away from electrical equipment.

3. PRODUCT OVERVIEW

The EARU Electric 3-Phase ATS is an intelligent device that continuously monitors your three-phase power supply. It automatically switches single-phase loads to a healthy phase in case of a phase failure or imbalance, ensuring continuous operation of critical equipment.

3.1. Package Contents

- 1 x EARU Electric 3-Phase Auto Transfer Switch (ATS)

3.2. Front Panel and Indicators

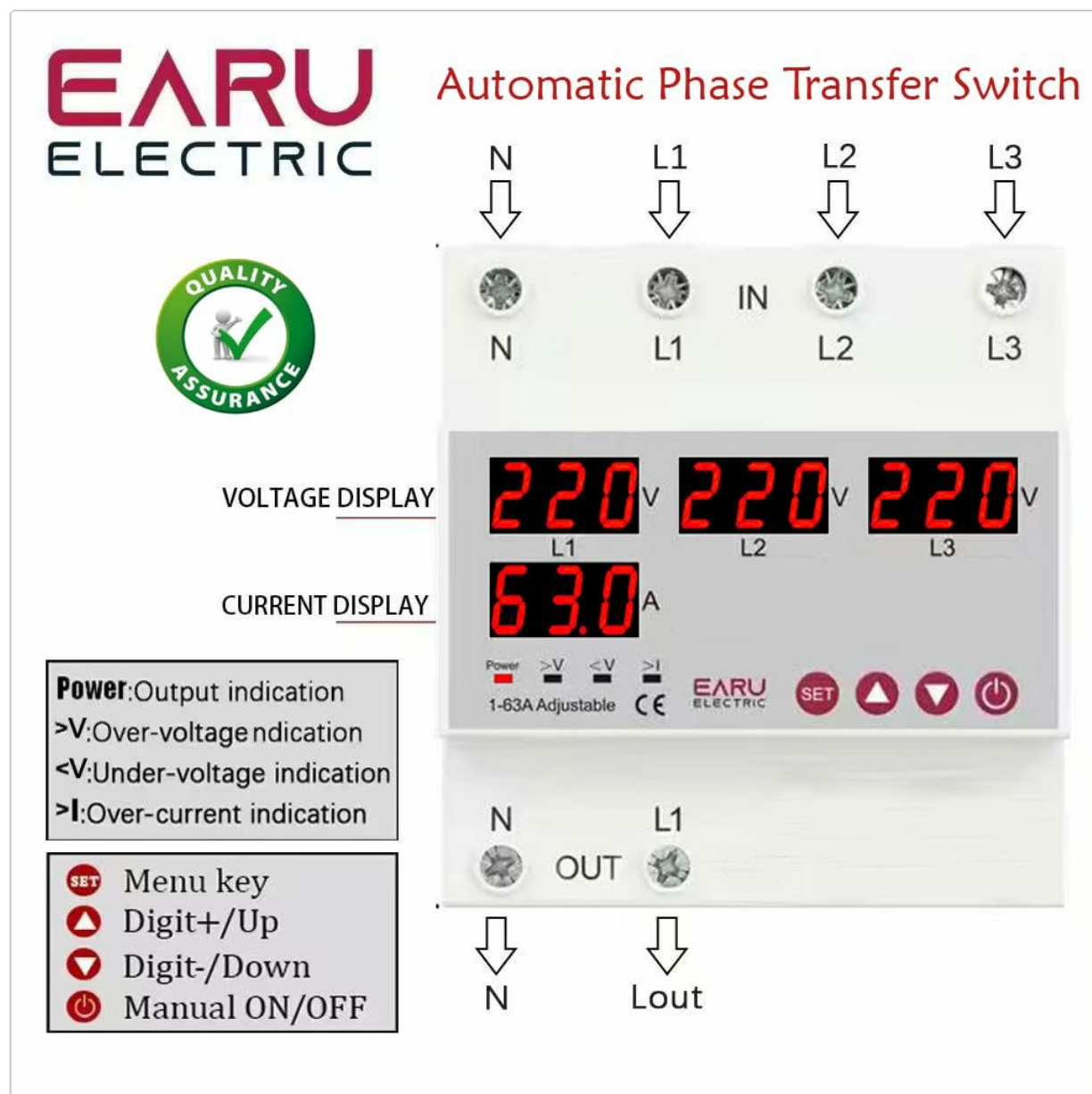


Image Description: The front panel of the ATS features a digital display showing voltage for L1, L2, L3 phases and current for L1. Below the display are indicators for Power, Over-voltage (>V), Under-voltage (<V), and Over-current (>I). Control buttons include 'SET' (Menu key), 'Digit+/Up', 'Digit-/Down', and 'Manual ON/OFF' (Power button).

The digital display provides real-time voltage readings for each phase (L1, L2, L3) and the current for L1. Status indicators alert you to the operational state and any detected faults:

- **Power:** Output indication.
- **>V:** Over-voltage indication.
- **<V:** Under-voltage indication.
- **>I:** Over-current indication.

Control buttons allow for parameter settings and manual operation:

- **SET:** Menu key for accessing settings.
- **Digit+/Up:** Increases value or navigates up in menus.

- **Digit-/Down:** Decreases value or navigates down in menus.
- **Manual ON/OFF:** Power button for manual control.

4. SETUP AND INSTALLATION

The ATS is designed for standard DIN rail mounting. Ensure sufficient space for ventilation and wiring connections.

4.1. Wiring Diagram

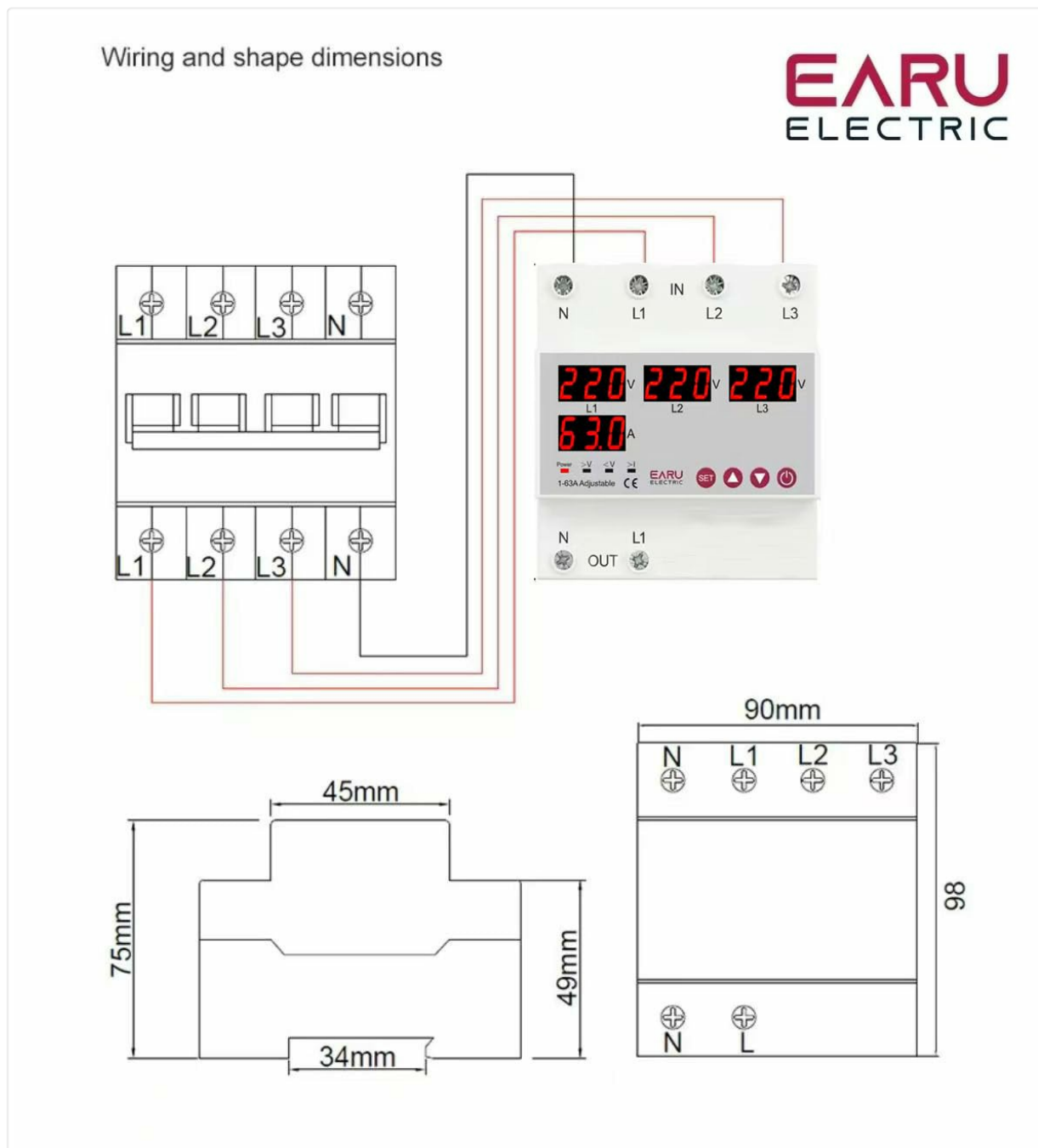


Image Description: A detailed wiring diagram illustrates the connection points for the ATS. The top terminals are labeled 'IN' with connections for N, L1, L2, L3. The bottom terminals are labeled 'OUT' with connections for N and L1. The diagram shows how to connect the three-phase input to the ATS and how a single-phase load (L1 and N) is connected to the output, with internal connections for phase monitoring and switching.

Follow the wiring diagram carefully. Incorrect wiring can lead to device malfunction or electrical hazards.

- Connect the incoming three-phase power supply (N, L1, L2, L3) to the 'IN' terminals.

- Connect the single-phase load (N, L1) to the 'OUT' terminals. The ATS will manage the phase transfer for the L1 output.
- Ensure all connections are secure and tightened to prevent loose contacts and overheating.

4.2. Initial Power-Up

After completing the wiring, restore power to the system. The ATS will power on and begin monitoring the phases. The digital display will show the current voltage readings for each phase. If all phases are stable and within acceptable limits, the ATS will provide power to the output.

5. OPERATING INSTRUCTIONS

The ATS operates automatically, but you can adjust its protection parameters to suit your specific requirements.

5.1. Understanding the Display and Indicators

The digital display continuously shows the real-time voltage of each phase (L1, L2, L3) and the current on L1. The indicator lights provide quick visual feedback on the device's status and any detected anomalies.



Image Description: A close-up view of the ATS digital display. It shows '220V' for L1, L2, and L3, and '63.0A' for L1 current. Below these readings are small indicator icons for Power, >V (Over-voltage), <V (Under-voltage), and >I (Over-current).

5.2. Adjusting Protection Parameters

Use the 'SET' button to enter the parameter setting mode. Use the 'Digit+/Up' and 'Digit-/Down' buttons to navigate through settings and adjust values. Press 'SET' again to confirm and save changes.

Adjustable Protection Parameters

Parameter	Setting Range	Default Setting
Over Current Protection Setting Range	1-63A/100A	30A
Continuous Over Current Protection Times	0-20 Times	OFF
Over Voltage Protection Setting Range	230-300V	270V
Over Voltage Protection Recover Setting Range	225-295V	265V
Under Voltage Protection Setting Range	140-210V	170V
Under Voltage Protection Recover Setting Range	145-215V	175V
Voltage & Current Protection Recover Delay	1-500s	30s

5.3. Automatic Phase Transfer

The ATS automatically monitors the three input phases (L1, L2, L3). If a phase failure or significant voltage imbalance (over/under voltage) is detected on the currently supplying phase, the device will automatically transfer the single-phase output load to a healthy, stable phase within the same supply. This process is designed to be seamless and rapid, minimizing power interruption to connected equipment.

5.4. Automatic Recovery

Once the primary phase recovers and stabilizes, the ATS will intelligently switch the load back to the primary source, ensuring optimal power distribution and preventing equipment damage from unstable power. The recovery delay can be configured as per your operational needs.

6. MAINTENANCE

The EARU Electric ATS is designed for minimal maintenance. However, periodic checks are recommended to ensure optimal performance and longevity.

- **Cleaning:** Keep the device clean and free from dust and debris. Use a dry, soft cloth for cleaning. Do not use liquid cleaners.
- **Connection Checks:** Periodically inspect all wiring connections to ensure they remain tight and free from corrosion.
- **Environmental Conditions:** Ensure the operating environment remains within the specified temperature and humidity ranges.

7. TROUBLESHOOTING

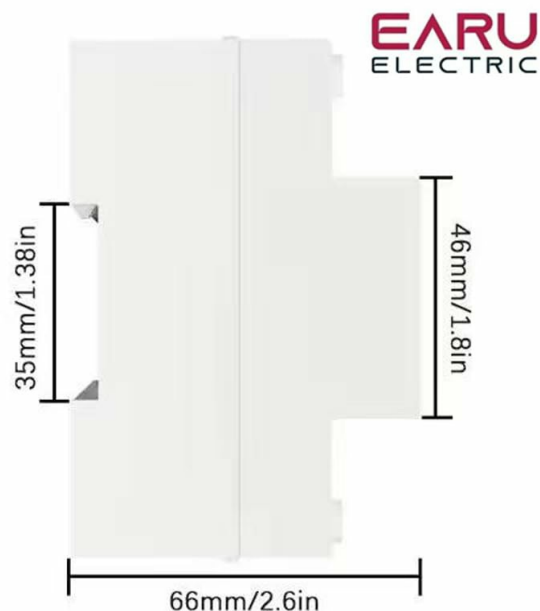
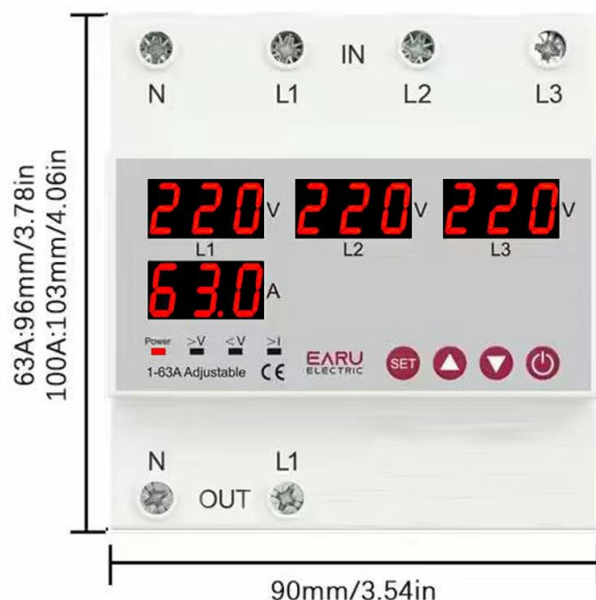
If you encounter issues with your ATS, refer to the following common problems and solutions:

Troubleshooting Guide

Problem	Possible Cause	Solution
No power output	No input power; all phases unstable; device in fault state.	Check incoming power supply. Verify all phases are stable. Check fault indicators.
">V" or "<V" indicator lit	Over-voltage or under-voltage detected on a phase.	Check input voltage stability. The ATS will automatically transfer if another phase is healthy.
">I" indicator lit	Over-current detected on the output.	Reduce load on the output. Check for short circuits in the connected equipment.
Device not transferring phases	No healthy alternative phase available; transfer delay setting too long.	Ensure at least one healthy phase is present. Check and adjust the transfer delay settings.
Digital display not working	No power to the device; internal fault.	Check power supply. If power is present and display is off, contact support.

For issues not covered here, please contact EARU customer support.

8. SPECIFICATIONS



Over Current Protection Setting Range	1-63A/100A(Default 30A)
Continuous Over Current Protection Times	0-20 Times(Default OFF)
Rated Supply Voltage	AC 3*220V (N-L1/L2/L3)
Rated Frequency	50/60Hz
Over Voltage Protection Setting Range	230-300V (Default 270V)
Over Voltage Protection Recover Setting Range	225-295V (Default 265V)
Under Voltage Protection Setting Range	140-210V (Default 170V)
Under Voltage Protection Recover Setting Range	145-215V (Default 175V)
Voltage&Current Protection Recover Delay	1-500s(Default 30s)

Image Description: This image displays the physical dimensions of the ATS (90mm width, 96mm height, 66mm depth) and a table of detailed technical specifications, including current rating, voltage, frequency, and various protection setting ranges.

Feature	Detail
Brand	EARU
Model Number	EARU-1012
Operation Mode	ON-OFF
Current Rating	63 Amps
Operating Voltage	440 Volts (AC 3*220V (N-L1/L2/L3))
Rated Frequency	50/60Hz
Contact Type	Normally Open
Connector Type	Standard DIN rail 63A
Circuit Type	4-way

Feature	Detail
Contact Material	Copper
Over Current Protection Setting Range	1-63A/100A (Default 30A)
Continuous Over Current Protection Times	0-20 Times (Default OFF)
Over Voltage Protection Setting Range	230-300V (Default 270V)
Over Voltage Protection Recover Setting Range	225-295V (Default 265V)
Under Voltage Protection Setting Range	140-210V (Default 170V)
Under Voltage Protection Recover Setting Range	145-215V (Default 175V)
Voltage & Current Protection Recover Delay	1-500s (Default 30s)
Item Weight	450 g
Package Dimensions	15 x 15 x 15 cm
Country of Origin	India

9. WARRANTY AND SUPPORT

9.1. Warranty Information


The EARU Electric 3-Phase Auto Transfer Switch (ATS) comes with a **1-Year Manufacturer's Warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. It does not cover damage caused by improper installation, misuse, accidents, or unauthorized modifications.

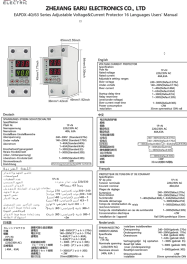
9.2. Customer Support

For technical assistance, warranty claims, or any questions regarding your EARU Electric ATS, please contact your retailer or the manufacturer directly. Ensure you have your product model number (EARU-1012) and proof of purchase available when contacting support.

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Related Documents - EARU-1012

	<p>EARU EAMPDW-TY-63 Series WiFi Smart Energy Protector User Manual Voltage, Current, Leakage Protection</p> <p>Comprehensive user manual for the EARU EAMPDW-TY-63 Series WiFi Smart Energy Protector. Learn about installation, features, technical specifications, app control, and troubleshooting for voltage, current, and leakage protection.</p>
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	<p>Earu EAMPDW-TY-63 Series WiFi Smart Energy Protector User Manual</p> <p>User manual and technical specifications for the Earu EAMPDW-TY-63 Series WiFi Smart Energy Protector, detailing installation, app connection, parameter settings, and safety features.</p>
	<p>Zhejiang Earu Electronics Circuit Breaker Product Similarity Declaration</p> <p>Declaration by Zhejiang Earu Electronics Co., Ltd. confirming product similarity across various circuit breaker models, including EAWCBT, EAKCB, RDCBC, EAEMP, and EAMPDW series, based on identical electrical, software, and hardware design.</p>
	<p>EAWCB Series Smart Circuit Breaker User Manual by Zhejiang Earu Electronics</p> <p>User manual for the EAWCB Series Smart Circuit Breaker by Zhejiang Earu Electronics, detailing product parameters, functions, wiring, dimensions, and app connection steps for Tuya, Smart Life, and eWeLink platforms.</p>
	<p>EAPDX-40/63 Series Earu Electric Voltage & Current Protector User Manual</p> <p>Detailed specifications and operation guide for the Earu Electric EAPDX-40/63 series adjustable voltage and current protector. Learn how to set over-voltage, under-voltage, and over-current protection parameters.</p>