

EARU EARU-1005

EARU Automatic Voltage Protector (Model EARU-1005) User Manual

Comprehensive Guide for Installation, Operation, and Maintenance

1. INTRODUCTION

The EARU Automatic Voltage Protector (Model EARU-1005) is an advanced electrical safety device designed to protect your valuable home and office appliances from damaging power fluctuations. This device offers comprehensive protection against over-voltage, under-voltage, and overcurrent conditions, ensuring the longevity and safe operation of your electrical equipment. It features adjustable thresholds and an auto-reconnect function for convenience and continuous protection.

2. KEY FEATURES

- All-in-One Protection:** Safeguards appliances from power surges, over-voltage (above 275V), under-voltage (below 175V), and adjustable overcurrent (1A-63A).
- Precision Adjustment:** Customizable cut-off thresholds for over-voltage (200V-275V) and under-voltage (175V-200V) to suit specific grid conditions and appliance needs.
- Auto-Reset Function:** Automatically restores power within 60-300 seconds once grid voltage stabilizes within the set safe range, eliminating manual intervention.
- Superior Conductivity:** Constructed with 100% pure copper conductors for minimal resistance, efficient operation, and enhanced long-term reliability under heavy 63A loads.
- DIN Rail Installation:** Designed for easy and secure integration into standard 2-Pole, 36mm width DIN Rail electrical panels.
- Comprehensive Safety:** Provides robust protection for an entire household against unpredictable voltage fluctuations and surges.

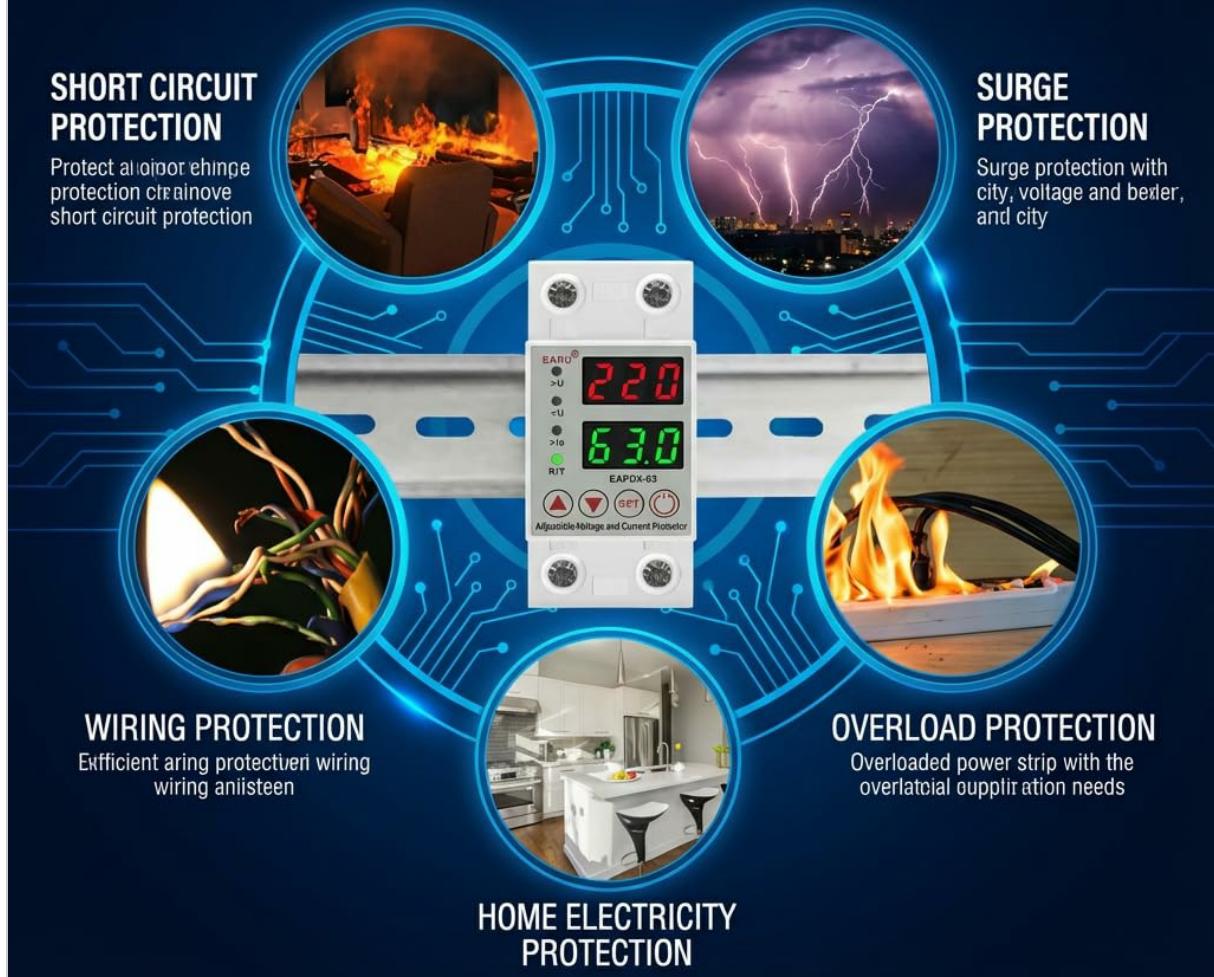


Image 2.1: Overview of the protection capabilities of the EARU Automatic Voltage Protector.

3. SAFETY INFORMATION

Please read and understand all safety instructions before installing or operating the device. Failure to do so may result in electric shock, fire, or serious injury.

- Installation should only be performed by a qualified electrician in accordance with local electrical codes and regulations.
- Ensure the main power supply is disconnected before any installation or maintenance work.
- Do not operate the device if it appears damaged or has been exposed to moisture.
- Verify correct wiring connections (Line and Neutral) to prevent malfunction or damage.
- The device is designed for indoor use only.
- Do not exceed the maximum current rating of 63A.

4. PRODUCT OVERVIEW

4.1. Components and Display

The EARU Automatic Voltage Protector features a clear digital display and intuitive control buttons for easy monitoring and adjustment.

- **Voltage Display:** Shows the current line voltage.
- **Current Display:** Shows the current load in Amperes.
- **Indicator Lights:**

- >U: Over-voltage indicator.
- <U: Under-voltage indicator.
- >Ie: Overcurrent indicator.
- R/T: Reset/Time indicator.

- **Control Buttons:**

- **Up Arrow (▲) / Down Arrow (▼):** Used to adjust parameter values.
- **SET Button:** Press and hold for 3 seconds to enter setting mode.
- **Power On/Off Button:** Toggles power to the protected circuit.



Image 4.1: Front view of the EARU Automatic Voltage Protector, highlighting its digital display and control buttons.

5. SETUP AND INSTALLATION

The EARU Automatic Voltage Protector is designed for DIN Rail mounting. Ensure proper wiring and secure installation.

5.1. Mounting

Mount the device onto a standard 36mm width DIN Rail within your electrical panel. Ensure it is securely clipped into place.

5.2. Wiring Diagram

Connect the incoming power supply (Line and Neutral) to the "IN" terminals and the outgoing load to the "OUT" terminals. Refer to the diagram below for correct wiring.

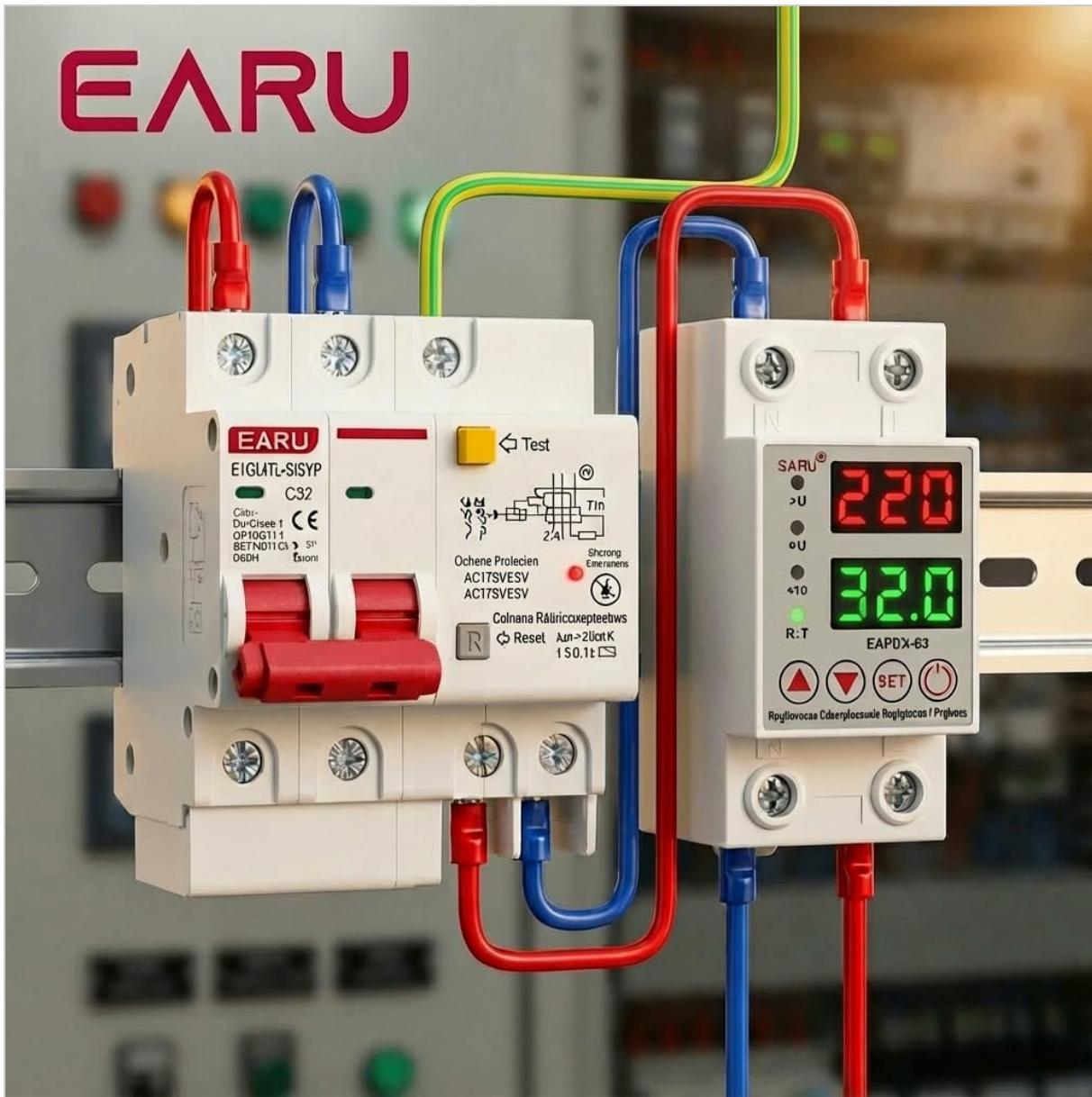


Image 5.1: Example wiring configuration for DIN Rail installation.

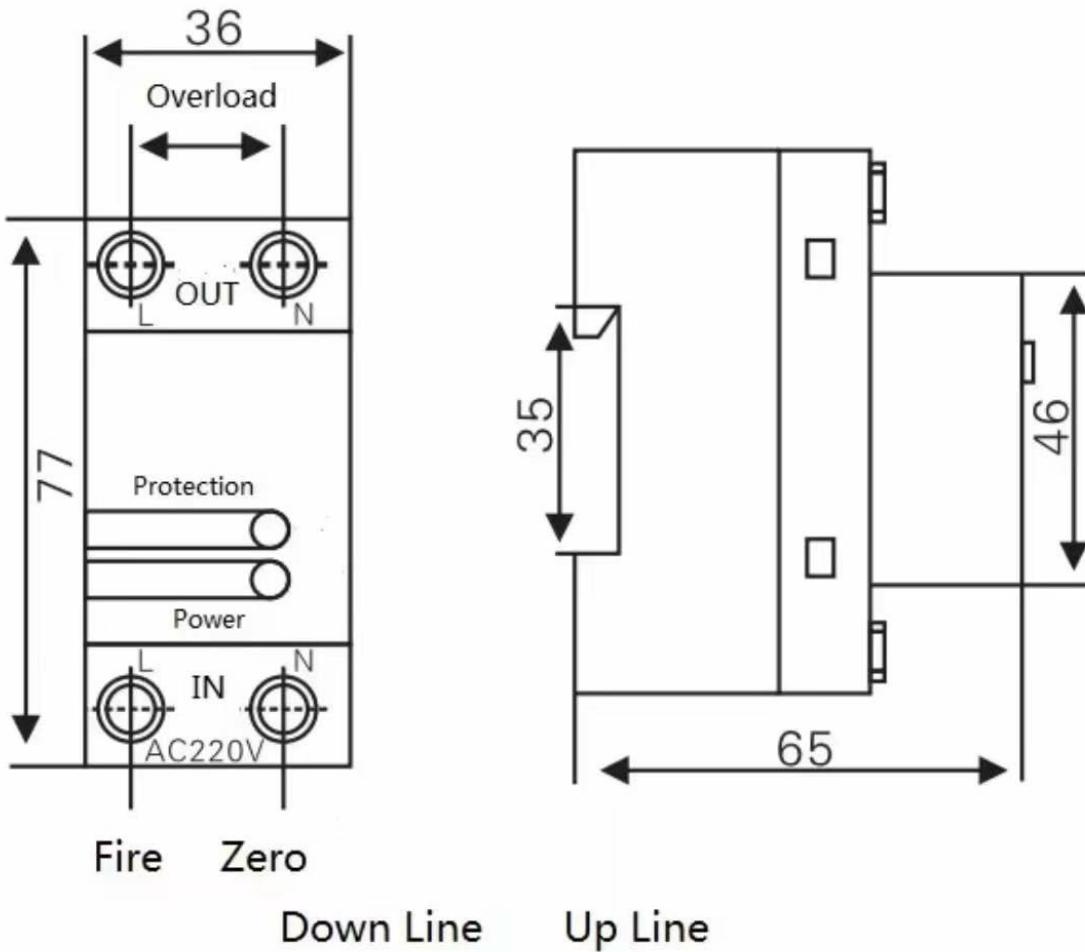


Image 5.2: Device dimensions for installation planning.

6. OPERATING INSTRUCTIONS

The device allows for precise adjustment of protection parameters. Follow these steps to configure your voltage protector.

6.1. Parameter Setting Mode

1. Ensure the device is powered on.
2. Press and hold the **SET** button for approximately 3 seconds until the display changes to show "P-1" or a similar setting indicator. This indicates you are in parameter setting mode.
3. Use the **Up Arrow (▲)** and **Down Arrow (▼)** buttons to navigate through the different parameters (P-1 to P-6).
4. Once you have selected a parameter, press the **SET** button briefly to enter its adjustment mode.
5. Use the **Up Arrow (▲)** and **Down Arrow (▼)** buttons to change the value.
6. Press the **SET** button again to confirm the value and move to the next parameter, or wait a few seconds for the device to automatically save and exit the setting mode.

6.2. Parameter Descriptions

| Parameter | Description | Adjustable Range |
|-----------|-------------|------------------|
|-----------|-------------|------------------|

| Parameter | Description | Adjustable Range |
|-----------|----------------------------|---|
| P-1 | Over-voltage setting | 240V - 300V (or OFF) |
| P-2 | Under-voltage setting | 140V - 200V (or OFF) |
| P-3 | Overcurrent setting | 1A - 40A / 63A / 80A (depending on model) |
| P-4 | Reset/start delay | 1s - 300s |
| P-5 | Relay recovery delay | 1s - 300s |
| P-6 | Overcurrent recovery delay | 1s - 300s |

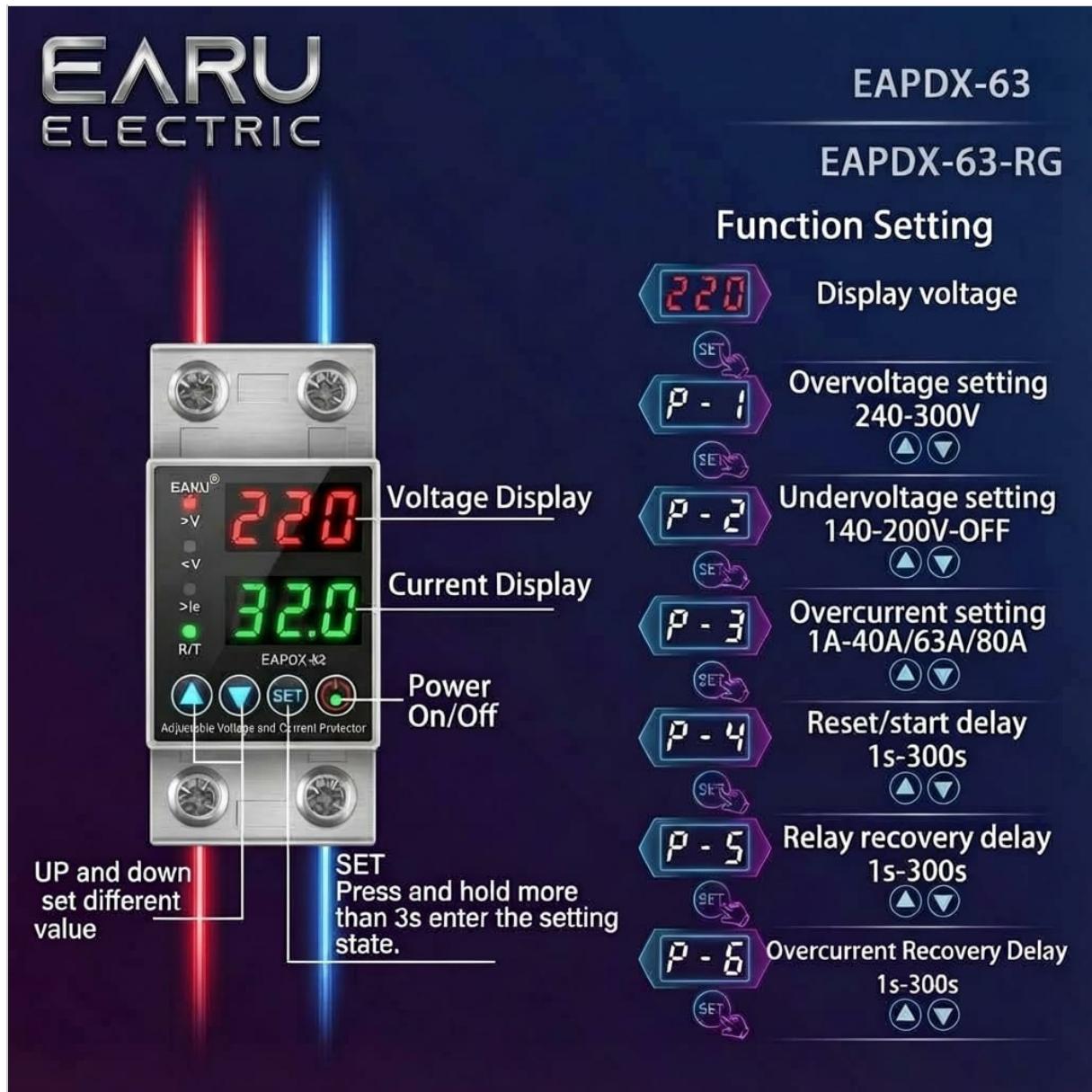


Image 6.1: Function setting guide for the device.

6.3. Video Guide: Setting Parameters

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Video 6.1: This video demonstrates how to adjust the over-voltage, under-voltage, overcurrent, and recovery delay settings on the EARU Automatic Voltage Protector. It shows the step-by-step process of entering the setting mode and modifying each parameter.

7. MAINTENANCE

The EARU Automatic Voltage Protector requires minimal maintenance. Regular checks can ensure optimal performance.

- Periodically inspect the device for any visible damage or loose connections.
- Ensure the ventilation slots are clear of dust and debris to prevent overheating.
- Clean the exterior with a dry, soft cloth. Do not use liquid cleaners or solvents.
- Do not attempt to open or repair the device yourself. Refer to qualified personnel for servicing.

8. TROUBLESHOOTING

If you encounter issues with your EARU Automatic Voltage Protector, refer to the following common troubleshooting steps:

| Problem | Possible Cause | Solution |
|-----------------------------------|--|---|
| Device not powering on | No input power; incorrect wiring; internal fault. | Check main power supply. Verify wiring connections. If problem persists, contact support. |
| Power cuts off frequently | Voltage/current outside set thresholds; unstable grid. | Check current voltage/current readings. Adjust P-1, P-2, P-3 settings if necessary. Monitor grid stability. |
| Device does not auto-reconnect | Recovery delay (P-4, P-5, P-6) set too long; persistent fault. | Verify recovery delay settings. Ensure grid conditions have stabilized. Manually reset if safe to do so. |
| Incorrect voltage/current reading | Calibration issue; faulty sensor. | Contact customer support for assistance. |

9. SPECIFICATIONS

| Feature | Detail |
|--------------------------------|---|
| Brand | EARU |
| Model | EARU-1005 |
| Product Dimensions (LxWxH) | 7.7 x 3.5 x 6.5 cm |
| Item Weight | 450 g |
| Input Voltage | 230 Volts AC |
| Max Wattage | 13800 Watts |
| Max Current | 63 Amperes |
| Over-voltage Protection Range | Adjustable 200V-275V (Cut-off above 275V default) |
| Under-voltage Protection Range | Adjustable 175V-200V (Cut-off below 175V default) |

| Feature | Detail |
|----------------------|-------------------------------|
| Auto-Reconnect Delay | Adjustable 60-300 seconds |
| Mounting Type | DIN Rail (2-Pole, 36mm width) |
| Conductor Material | 100% Pure Copper |
| Country of Origin | India |

10. WARRANTY AND SUPPORT

The EARU Automatic Voltage Protector (Model EARU-1005) is backed by a 1-Year Manufacturer Warranty. This warranty covers defects in materials and workmanship under normal use.

- For warranty claims or technical support, please contact EARU customer service.
- Keep your purchase receipt as proof of purchase for warranty validation.
- Unauthorized repairs or modifications will void the warranty.

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