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> [GEYA GPS6-VAK Adjustable Over & Under Voltage Protection Device User Manual](#)

GEYA GPS6-VAK

GEYA GPS6-VAK Adjustable Over & Under Voltage Protection Device User Manual

Model: GPS6-VAK (2P-40A-220V)

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the GEYA GPS6-VAK Adjustable Over & Under Voltage Protection Device. This device is designed to protect electrical equipment from damage caused by voltage fluctuations, offering real-time monitoring of voltage, current, and cumulative energy consumption (KWH).

2. PRODUCT FEATURES

- **Smart Digital Display:** Clear LED display shows voltage, current, and fault status for quick and straightforward monitoring.
- **Advanced Over & Under Voltage Protection:** Equipped with factory default settings of 275V overvoltage and 175V undervoltage, ensuring device safety.
- **Adjustable Parameters:** Offers a factory default reset time of 30s, adjustable from 2 to 900s to suit specific needs. Overvoltage and undervoltage thresholds are also adjustable.
- **Current Monitoring:** Displays real-time current values (1-80A).
- **Energy Consumption (KWH) Metering:** Displays the cumulative value of electricity metering.
- **Compact Size & DIN Rail Mounting:** Ultra-small size, easily integrates with 35mm DIN Rail mounting, simplifying installation and providing a secure connection.

3. SPECIFICATIONS

Specification	Value
Model Number	GPS6 Voltage / Current Protector
Rated Supply Voltage	AC220V (L-N)
Rated Frequency	50/60Hz
Rated Voltage	220V
Rated Operational Current	40A, 63A, 80A (This model: 40A)
Reset Time	1-900s (factory default: 30s)
Overvoltage Setting Range	AC130-300V (factory default: 275V)
Undervoltage Setting Range	AC80-210V (factory default: 175V)
Voltage Hysteresis	5V
Voltage Accuracy	<1%
Overvoltage Trip Delay	5s
Mounting Type	DIN Rail Mount (35mm)
Connector Type	Screw Terminals
Contact Material	Silver or Copper
Contact Type	Normally Open
Operation Mode	Automatic
Certification	CE

Product Dimensions

- ⊙ **Rated Frequency:40~70Hz**
- ⊙ >V Setting Range: AC130~300V; DC130~300V
- ⊙ <V Setting Range: Ac80~210V; **DC85~210V**
- ⊙ >A Overcurrent indicator
- ⊙ Max Operating Current: 40A,63A, 80A
- ⊙ Power: Working indicator
Green→Normal, Red->Fault (Voltage/Current)
- ⊙ Voltage Hysteresis: 5V
- ⊙ Voltage Accuracy: <1%
- ⊙ Overvoltage Trip Delay : 5s

- ⊙ **Rated Frequency:50~60Hz**
- ⊙ >V Setting Range: AC130~300V
- ⊙ <V Setting Range: Ac80~210V
- ⊙ >A Overcurrent indicator
- ⊙ Max Operating Current: 40A, 63A, 80A
- ⊙ Voltage Hysteresis: 5V
- ⊙ Voltage Accuracy:<1%
- ⊙ Overvoltage Trip Delay : 5s

Dimensions
(mm)

Image: Dimensions of the GPS6-VAK device, showing a width of 38mm and height of 86mm for the front view, and a depth of

67.5mm and width of 35mm for the side view.

4. HOW TO CHOOSE YOUR DEVICE (GPS6-VA5 vs. GPS6-VAK)

GEYA offers two main models in this series: GPS6-VA5 and GPS6-VAK. The primary difference lies in their functionality. This manual specifically covers the GPS6-VAK model.



Image: A comparison chart detailing features of GPS6-VA5 (Adjustable Voltage/Current Protector) and GPS6-VAK (Adjustable Voltage/Current Protector with KWH Measuring). Key differences include KWH measuring capability (present in VAK, absent in VA5) and rated frequency ranges.

- **GPS6-VA5:** Adjustable Voltage/Current Protector.
- **GPS6-VAK:** Adjustable Voltage/Current Protector with KWH Measuring. This model includes the ability to measure and display cumulative energy consumption (KWH).

5. SETUP AND INSTALLATION

5.1 DIN Rail Mounting

The GPS6-VAK device is designed for easy installation on a standard 35mm DIN rail. Ensure the rail is securely mounted in your electrical panel.



Image: The device is shown securely attached to a 35mm DIN rail, illustrating the ease of installation within an electrical enclosure.

5.2 Wiring Diagram

Connect the device according to the following wiring diagram. Ensure all connections are tight and secure to prevent loose contacts and potential hazards. Always disconnect power before performing any wiring.



Image: A wiring diagram showing the connection of the GPS6-VAK device. The 'L' (Live) and 'N' (Neutral) inputs are connected to the power source, typically through a circuit breaker. The outputs from the device are then connected to the 'Load'.

- Connect the incoming Live (L) and Neutral (N) wires to the respective input terminals of the device.
- Connect the Live and Neutral wires from the device's output terminals to your electrical load.
- It is recommended to install a circuit breaker upstream of the protection device for additional safety and circuit isolation.

6. OPERATING INSTRUCTIONS

6.1 Digital Display Overview

The device features a large-screen color digital display that shows real-time electrical parameters.

Large-Screen Color Digital Display

During late-night troubleshooting, the illuminated color screen in dark environments serves as a visual anchor, significantly reducing location time.



Image: A detailed view of the GPS6-VAK's digital display. It shows the current voltage (e.g., 220V), current (e.g., 00.0A), and cumulative KWH (e.g., 000.0 KWH). The display also indicates the 'SET' button and navigation arrows for adjustments.

- **Voltage Display:** Shows the real-time voltage (e.g., 220V).
- **Current Display:** Shows the real-time current (e.g., 00.0A). Note: The current value may not be displayed when below 1A.
- **KWH Display:** Shows the cumulative energy consumption. Note: This value may not be displayed when below 0.01 KWH.

6.2 Setting Parameters

Use the 'SET' button and arrow keys (Up/Down) to navigate through the menu and adjust parameters such as overvoltage threshold, undervoltage threshold, and reset time. Refer to the on-screen menu for specific navigation and adjustment steps.

- Press the 'SET' button to enter the setting menu.
- Use the Up/Down arrow buttons to select the parameter you wish to adjust.
- Press 'SET' again to confirm your selection and enter the adjustment mode.
- Use the Up/Down arrow buttons to change the value.

- Press 'SET' to save the new value and exit the adjustment mode.
- The device features an automatic reset function after voltage recovery, with a factory default of 30 seconds, adjustable from 2 to 900 seconds.

7. MAINTENANCE

The GEYA GPS6-VAK device requires minimal maintenance. To ensure optimal performance and longevity:

- Regularly inspect the device and its connections for any signs of damage, loose wiring, or overheating.
- Keep the device clean and free from dust and moisture. Use a dry, soft cloth for cleaning.
- Ensure proper ventilation around the device to prevent heat buildup.
- Do not attempt to open or repair the device yourself. Contact qualified personnel for service.

8. TROUBLESHOOTING

If you encounter issues with your GEYA GPS6-VAK device, consider the following basic troubleshooting steps:

- **Device Not Powering On:** Check the main power supply and all wiring connections. Ensure the input voltage is within the device's operating range.
- **No Output Power:** The device may have tripped due to overvoltage, undervoltage, or overcurrent. Check the display for fault indicators. The device should automatically reset after the set delay once the voltage returns to normal.
- **Incorrect Readings:** Verify that the wiring is correct and secure. Ensure the device is properly calibrated (though typically factory calibrated).
- **Frequent Tripping:** Review your set overvoltage and undervoltage thresholds. They might be set too close to your normal operating voltage, causing nuisance tripping. Adjust the reset time if necessary.

If the problem persists after performing these steps, contact GEYA customer support or a qualified electrician.

9. APPLICATION EXAMPLES

The GEYA GPS6-VAK is suitable for a wide range of applications, providing essential voltage and current protection in various environments.



Image: The GPS6-VAK device is depicted in various application settings such as schools, dormitories, rental houses, and apartments, highlighting its versatility for both household and commercial use.

- **Residential Use:** Protecting household appliances and electronics from voltage fluctuations.

- **Commercial Buildings:** Ensuring stable power for office equipment and lighting systems.
- **Educational Institutions:** Safeguarding sensitive laboratory equipment and classroom electronics.
- **Rental Properties:** Providing reliable power protection for tenants.

10. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the official GEYA website or contact your authorized dealer. Keep your purchase receipt as proof of purchase.

GEYA Official Website: [Visit GEYA Store on Amazon](#)