Haofy SVP-912

Haofy SVP-912 40A Voltage Protector Relay User Manual

Model: SVP-912 (40A)

1. Introduction

The Haofy SVP-912 40A Voltage Protector Relay is an advanced device designed to protect electrical equipment from damage caused by voltage fluctuations. It provides comprehensive overvoltage and undervoltage protection, along with real-time voltage display. This manual provides detailed instructions for the installation, operation, and maintenance of your SVP-912 relay.

Key features include:

- Overvoltage and Undervoltage Protection
- Real-time Voltage Display
- Adjustable Overvoltage and Undervoltage Thresholds and Recovery Values
- Adjustable Action and Recovery Delay Times
- Reset Mode Selection
- Fault Query Function
- Factory Reset Option

2. Safety Information

Please read and understand all safety instructions before installing or operating this device. Failure to follow these instructions may result in electrical shock, fire, or serious injury.

- Installation should only be performed by qualified personnel.
- Ensure power is disconnected before any installation or wiring work.
- Verify correct wiring connections (Input/Output, Neutral/Live) to prevent damage to the device or connected equipment.
- Do not operate the device in wet or damp conditions.
- Do not exceed the specified rated current (40A) or voltage (120VAC).

3. Product Overview

The SVP-912 features a compact design for DIN rail mounting, with a clear digital display and intuitive control buttons for easy configuration.

Figure 3.1: Front view of the Haofy SVP-912 Voltage Protector Relay, showing the digital display, 'SET' button, up/down adjustment buttons, and input/output terminals.

Components:

- **Digital Display:** Shows real-time voltage and setting parameters.
- **SET Button:** Enters and confirms setting modes.
- **Up/Down Buttons:** Adjust parameter values.
- **IN Terminals (N, L):** Power input.
- **OUT Terminals (N, L):** Protected power output.
- **Indicator Lights:** Over (V) for overvoltage, Under (V) for undervoltage.

4. Setup and Installation

The SVP-912 is designed for easy installation on a standard DIN rail.

4.1 Mounting

1. Ensure the main power supply is turned off before mounting.
2. Attach the SVP-912 to a standard 35mm DIN rail by clipping it into place.
3. Ensure the device is securely fastened.

4.2 Wiring Diagram

Connect the input and output wires as shown in the diagram below. Pay close attention to the Neutral (N) and Live (L) connections.

Figure 4.1: Wiring diagram and dimensions of the SVP-912 Voltage Protector Relay, indicating input (IN) and output (OUT) terminals for Neutral (N) and Live (L) connections.

- Connect the incoming power supply (120VAC) to the**IN (N)** and **IN (L)** terminals.
- Connect the load (equipment to be protected) to the**OUT (N)** and **OUT (L)** terminals.
- Double-check all connections for tightness and correctness before restoring power.

5. Operating Instructions

After successful installation and power-on, the device will display the current voltage. You can adjust various protection parameters using the control buttons.

5.1 Power-On Delay

Upon initial power-on or after a power interruption, the device will delay outputting power to the load for a set duration (default 2 seconds) to stabilize the voltage. This delay is adjustable.

5.2 Parameter Settings

To enter the setting mode, press and hold the **SET** button for approximately 3 seconds. Use the **Up** and **Down** buttons to adjust values, and press **SET** briefly to confirm and move to the next parameter.

1. **Overvoltage Value (Uvo):** Adjustable from 130V to 150V or OFF. Default: 140V.
2. **Overvoltage Recovery Value (Uvr):** Adjustable from 129V to 149V. This is the voltage at which the device will restore power after an overvoltage event.
3. **Overvoltage Action Time (Uvt):** Adjustable from 0.1s to 10s. Default: 0.1s. This is the delay before the device cuts power during an overvoltage event.
4. **Undervoltage Value (Uve):** Adjustable from 100V to 80V or OFF. Default: 90V.
5. **Undervoltage Recovery Value (Uer):** Adjustable from 81V to 99V. Default: 95V. This is the voltage at which the device will restore power after an undervoltage event.
6. **Undervoltage Action Time (Uet):** Adjustable from 0.1s to 10s. Default: 0.1s. This is the delay before the device cuts power during an undervoltage event.
7. **Failure Recovery Delay Time (Frt):** Adjustable from 2s to 512s. Default: 60s. This is the delay before the device attempts to restore power after any protection trip.
8. **Power-On Delay Time (Pot):** Adjustable from 2s to 255s. Default: 2s. This is the initial delay before power output after the device is powered on.
9. **Reset Mode Selection (Rst):** Allows selection of automatic or manual reset after a fault.
10. **Fault Query (Flt):** Displays the last fault code or condition.
11. **Factory Reset (Fac):** Resets all parameters to their default values.

After adjusting all desired parameters, press and hold the **SET** button again for 3 seconds to save the settings and exit the setting mode.

6. Maintenance

The Haofy SVP-912 Voltage Protector Relay requires minimal maintenance. Regular inspection and cleaning can help ensure its longevity and reliable operation.

- **Cleaning:** Periodically wipe the device with a dry, soft cloth to remove dust and debris. Do not use liquid cleaners or solvents.
- **Inspection:** Regularly check wiring connections to ensure they are secure and free from corrosion. Inspect the device for any signs of physical damage or overheating.
- **Environment:** Ensure the operating environment remains within the specified temperature and humidity ranges to prevent malfunction.

7. Troubleshooting

If you encounter issues with your SVP-912, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Device not powering on.	No input power; incorrect wiring.	Check main power supply. Verify input wiring (N and L terminals).
Output power is off, but voltage is normal.	Device in protection mode (over/undervoltage); recovery delay active.	Check indicator lights (Over/Under). Wait for recovery delay to complete. Check fault query (Flt) for recent events.
Settings cannot be changed.	Not in setting mode; buttons not pressed correctly.	Press and hold SET button for 3 seconds to enter setting mode. Ensure brief presses for navigation and long press to save/exit.
Frequent tripping.	Voltage fluctuations are common; protection thresholds are too sensitive.	Adjust overvoltage/undervoltage thresholds to be less sensitive, or increase action time delays. Consult an electrician if fluctuations are severe.

8. Specifications

Model:	SVP-912
Rated Voltage:	120VAC 50/60Hz
Rated Current:	40A
Overvoltage Value Range:	130V-150V-OFF (Default: 140V)
Overvoltage Recovery Value:	129V-149V
Overvoltage Action Time:	0.1-10s (Default: 0.1s)
Undervoltage Value Range:	100V-80V-OFF (Default: 90V)
Undervoltage Recovery Value:	81V-99V (Default: 95V)
Undervoltage Action Time:	0.1-10s (Default: 0.1s)
Failure Recovery Delay Time:	2-512s (Default: 60s)
Delay Time after Power-On:	2-255s (Default: 2s)
Power Consumption:	≤2W
Electrical Machinery Life:	≥ 4000 times
Size:	Approx. 81 x 36 x 60mm (3.2 x 1.4 x 2.4in)
Installation:	DIN Rail
Working Environment Temperature:	-25°C to +40°C
Humidity:	<90%
Altitude:	≤2000m (6561.7ft)

9. Warranty and Support

For warranty information and technical support, please contact the seller or manufacturer directly. Keep your purchase receipt as proof of purchase.

You can visit the official Haofy store for more product information and support:Haofy Store on Amazon.