

AIVP912 Series

Acumen Automatic Voltage Protector



Features

- ▶ Comprehensive Protection: Over/Under Voltage and Over-current Protection
- ▶ Real-time Monitoring: Voltage, Current, Fault Status (Over/Under Voltage) and Time Delay Display
- ▶ Adjustable Over-voltage Protection & Recovery Settings
- ▶ Adjustable Under-voltage Protection & Recovery Settings
- ▶ Adjustable Over-current Protection with Action Time Control
- ▶ Configurable Protection Delay & Power-on Delay Time
- ▶ Intelligent Reset Mode Selection & Fault Inquiry Function
- ▶ Factory Default Reset for Easy System Recovery



Product Description

The Acumen AIVP912 Series Automatic Over/Under Voltage Protector is designed for single-phase AC 230V, 50/60Hz electrical systems, supporting rated current up to 63A. It is ideal for residential applications and main distribution boards, providing reliable protection against over-voltage, under-voltage, and over-current conditions in single-phase electrical systems. When abnormal voltage or current conditions occur, the device instantly disconnects the power supply to prevent damage to connected equipment. Once the voltage returns to normal operating levels, the unit will automatically restore power, ensuring continuous and safe operation.

SPECIFICATIONS

Rated voltage	230VAC 50/60Hz
Rated current	1-40A Adjustable (default 40A) 1-63A Adjustable (default 63A) 1-80A Adjustable (default 80A)
Over-voltage protection value range	221V-300V-OFF Adjustable (default 280V)
Over-voltage recovery value range	220V-299V (default 250V)
Over-voltage protection action time	0.1-10 second (default 0.1s)
Under-voltage protection value range	219V-150V-OFF Adjustable (default 160V)
Under-voltage recovery value range	151V-220V (default 180V)
Under-voltage protection action time	0.1-10 second (default 0.1s)
Over-current adjustment range	1-40A (default 40A) / 1-63A (default 63A) / 1-80A (default 80A)
Over-current action range	0.1 -512 second (default 5.0s)
Failure recovery delay time	2-512 second (default 60s)
Delay time after power-on	2-255 second (default 2s)
Power consumption	≤2W
Electrical mechanical life	≥4000 times
Dimensions	81*36*60mm
Installation	DIN rail
Working environment	Temperature: -25°C~ +40°C Humidity: <90% Altitude: ≤2000 m Ingress Protection: IP20

Setting method:

Press "SET" for 3 seconds, please press continuously "SET" to adjust the required parameter value as follows, ▲ or ▼ to adjust the set value. Only "END" appears, press "SET" again, the data will be saved and valid.

Step	Content	Upper LED display	Lower LED display	Description
1	Over-voltage protection value	P01	280	Range:221V-300V-OFF (default 280V)
2	Over-voltage recovery value	P02	250	Range:220V-299V (default 250V)
3	Over-voltage protection action time	P03	0.1	Range:0.1-10 second (default 0.1s) Suggest 0.1s
4	Under-voltage protection value	P04	160	Range:219V-150V-OFF (default 160V)
5	Under-voltage recovery value	P05	180	Range:151V-220V (default 180V)
6	Under-voltage protection action time	P06	0.1	Range:0.1-10 second (default 0.1s) Suggest $\leq 0.3s$ Attention: After the under-voltage action time is set longer than 0.3 s, the relay cannot be driven due to the power fault of the MCU. Therefore, when the setting time is longer than 0.3s, the grid cannot be disconnected when the power is cut off.
7	Over-current protection value	P07	63	1 A-40 A (default 40A) / Range:1 A-63 A (default 63A) / Range:1 A-80 A (default 80A)
8	Over-current protection action time	P08	5.0	Range:0.1~512 second (default 5.0s) Recommend to set depending on usage
9	Fault recovery delay time	P09	60	Range:2~512 second (default 60s)
10	Power on delay time	P10	2	Range:2~255 second (default 2s)
11	Reset mode selection	P11	AU	"AU" means the default fault reset mode is auto reset. Press '▲' to set the fault reset mode to "HA", "HA" means manual reset. When "HA" is set, the protector will not automatically supply power when powered on. So it is necessary to manually press "SET" to turn on the power supply. The protector will not restore the power supply when the line voltage has "faulty opening", even if the fault is removed, Unless manually pressing the "Set" button on the protector.
12	Fault inquiry code	P12	1UL	"1UL" means that the latest fault is an under-voltage fault, "UL" means under-voltage, "UH" means over-voltage, and "IH" means over-current. For example, "1IH" indicates that the last fault is an over-current fault. Press "▲" to query the last 5 faults
13	Ending	P13	END	This setting is complete. Press "SET" again, the protector saves the data, exits the setting state and enters the running state. The above digital LED displays the working voltage value, and the lower d displays the working current value .