

## General

AVR Current & voltage protection relay is designed to protect devices with sensitive operating voltage & current values from errors that may arise from mains voltage and Overload.

## Device Usage and Principle of Operation

Make the connections of the device according to the connection type. Otherwise, the device may be damaged. Adjust the overload and high & low voltage and settings of the device according to the operating current and voltage values of the load you will use.

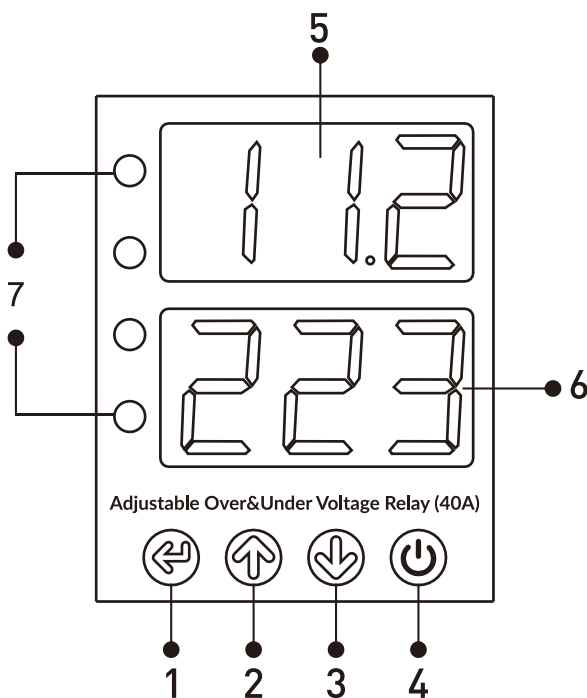
**Overload Error state:** If the current value is under the current set values (when the device is not in error), the current value rises above the current set value, the device waits for the set error waiting time, then the device de-energizes the relay, the error led lurn on, the overload value displayed on the current display flashes throughout the error period

**Voltage Error state:** If the mains (input) voltage value is between the high and Low voltage set values (when the device is not in error), the mains (input) voltage value rises above the high voltage set value or falls below the low voltage set value; the device waits for the set error waiting time, then the device de-energizes the relay, the error led lurn on, the mains (input) voltage value displayed on the voltage display flashes throughout the error period.

**Exit the overload fault:** After eliminating the load overload fault, press the up and down keys at the same time to reset manually

**Exit voltage error state:** When the mains (input) voltage value is not between the high and low voltage set values (when the device is in high or low voltage error), when the mains (input) voltage value returns to normal (when the reaches a value between the high and Low voltage set values; the device waits for the set reset waiting time, then the device energizes the relay. the error led turns off, the mains (input) voltage value on the display lights steadily.

## Display and Buttons



**1 - SET Button:** This button is used to save after setting/changing Overload values & high/low voltage setting values and error wait time.

**2- UP Button:** Increase the required value. The set value is saved by pressing the SET button.

**3- Down Button:** Reduce the required value. The set value is saved by pressing the SET button.

**4- Manual Close Button:** Forcefully close the device output. In this state, the screen will display "off" and the device cannot be reset automatically. Press this button again to Switch on the device into use again.

Note1: When the device is shut down due to an over load fault, can be reset by pressing the UP and Down keys at the same time, or reset by power off

### 5- Current Display

2 St Display Group: During normal operation, the input (mains) voltage value is displayed here, the screen lights up steadily when not in error state, the display flashes in case of error (high or low voltage). During the programming process, the value of the relevant program is shown on the display (Overload and high/low voltage, error wait, reset wait setting values).

### 6-Voltage Display

1 St Display Group: During normal operation, current value is displayed here, the screen lights up steadily when not in error state, the display flashes in case of error (overload). During the programming process, the code of the relevant program is displayed here.

### 7- LEDs:

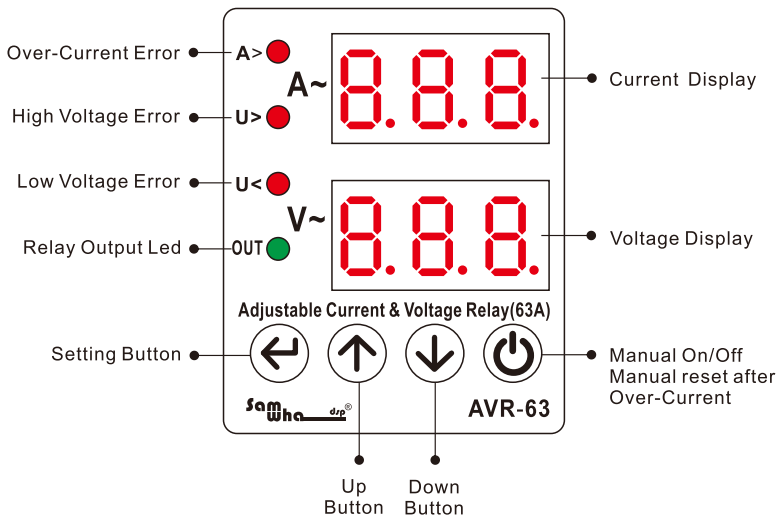
**A>:** Light up when an overload fault occurs.

**V>:** Light up when an high voltage fault occurs.

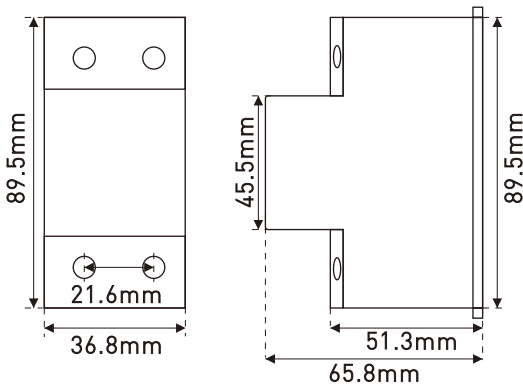
**V<:** Light up when an low voltage fault occurs.

**Out:** Lights up when the device starts to output.

## Setting Up the Device

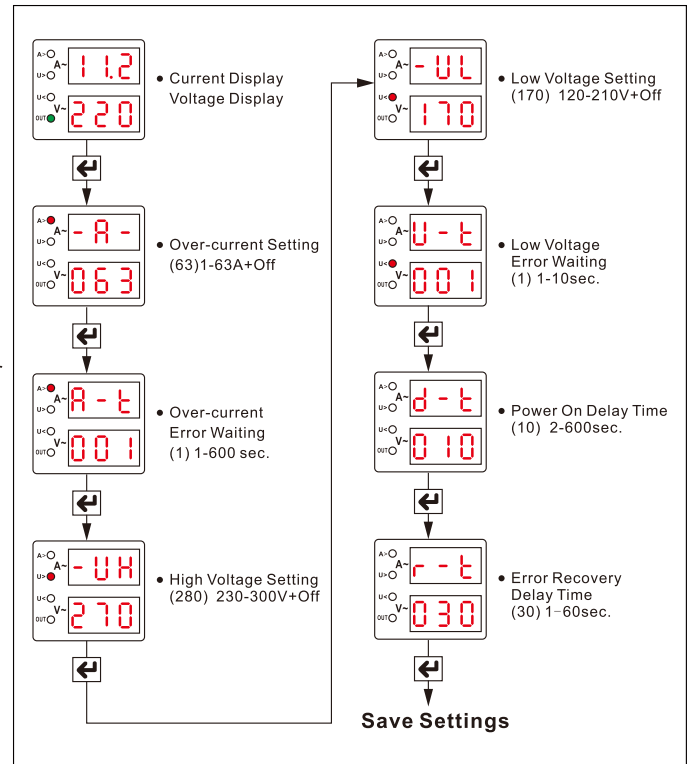
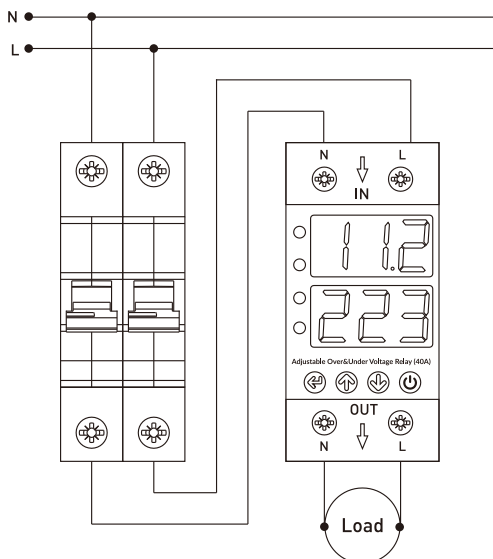


### Dimensions



### Connection Diagram

The neutral and phase connection comes from the mains must be connected to the "N" and "L" terminals at the IN part of the device. Neutral and Phase connection of the devices that are desired to be protected from over and under voltage should be taken from the "N" and "L" terminals in the OUT part of the device.



### Technical Informations

<b>Technical Specifications</b>	Rated Current	40A Or 63A
	Rated Voltage	220V AC
	Frequency	50Hz. - 60Hz.
	Protection Range	0V - 450V AC
	Operating Temp.	-20°C - +55°C
	Operating Power	<4VA
	Operating Altitude	<2000m
	Display	2x3 Digit LED Display 4 LEDs
<b>Setting Ranges</b>	Weight	63A) <170gr.
	Over-Current	63(1 - 63A); 40(1 - 40A)
	High Voltage	230 - 300+Off
	Low Voltage	120 - 210+Off
	Low Voltage Fuse	115V(Fixed)
	Over-Current Time	2 - 600sec.
	High Voltage Time	0.1sec.(Fixed)
	Low Voltage Time	0 - 10sec.
<b>Setting Ranges</b>	Power on Delay Time	2 - 600sec.
	Reset Time	1 - 60sec.

※Manual Button: Can only be operated when there is no fault