



# VOLTAGE PROTECTOR USER MANUAL



This manual provides safety, installation and operation instructions which will guide you to the best performance of your equipment. Please read and keep this manual.

## 1 OVERVIEW

The Product is a Voltage Protector rated at 30 Amps, prevents damages to electrical and electronic equipment from over fluctuation, especially over and under voltage levels of long duration. The 15 sec / 30 sec / 180 sec delay reconnection provides protection against power-back surge commonly experienced after resumption of power in a power cut situation. Build-in MOV excess electricity for additional protection.

The Product will automatically guard your equipment against brownouts or transient spikes induced by lighting or power line failure.

## 2 FEATURES

- ◆ Microprocessor Controlled Design
- ◆ Absorbs Excess Electricity through MOVs
- ◆ Surge Suppression 990 Joules
- ◆ Delay Reconnection Selector 15 sec / 30 sec / 180 sec
- ◆ LED Indicators Provide Status Information

## 3 OPERATION

1. Make sure that your load does not exceed the rating of 30 Amps.
2. The limits of the Voltage Protector are specified on rating label. Power output will be cut off when input voltage falls below or rises above the specified input limits.
3. Set up the delay timer:
  - a) 15 seconds or 30 seconds is suggested to protect general electronic load.
  - b) 180 seconds is suggested to protect the refrigeration load.
4. Before power in, please turn off the load that you want to protect.
5. Before Voltage Protector installation, please make sure the breaker of input AC power is off.
6. Connect the Voltage Protector to the load and to the AC power using the wire provided for that purposes and attending carefully the indications about input and output Phase(s) Neutral and Ground.

### Note:

- a) Please refer to Terminal Block Connection section.

- b) Please use at least 12AWG wire with ring terminal to connect load and AC input wires and make sure the wires are connected firmly.
7. Once AC power is supplied to Voltage Protector, the LED indicator lights up initially in the stand-by mode. Once the delay timer has elapsed, the Normal LED will remain ON and the load will be energized and protected.
  8. Turn off the Voltage Protector unit by pressing the power switch for 1 second.  
Turn on the Voltage Protector unit by pressing the power switch for 1 second.

## 4 INDICATION TABLE

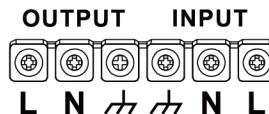
Mode	Status	Low Input LED/ 15 sec LED	Normal LED/ 30 sec LED	High Input LED/ 180 sec LED
AC mode	AC input voltage is low voltage	LED is ON	LED is OFF	LED is OFF
	AC input voltage is normal	LED is OFF	LED is ON	LED is OFF
	AC input voltage is high voltage	LED is OFF	LED is OFF	LED is ON
Stand-by Mode	15 sec start up delay	LED is flashing	LED is OFF	LED is OFF
	30 sec start up delay	LED is OFF	LED is flashing	LED is OFF
	180 sec start up delay	LED is OFF	LED is OFF	LED is flashing
OFF Mode	Voltage Protector is OFF, AC power connected	LED is flashing	LED is flashing	LED is flashing
	Voltage Protector is OFF, AC power disconnected	LED is OFF	LED is OFF	LED is OFF

## 5 SPECIFICATIONS

Max. Current	30 Amps	
Nominal Voltage	110/115/120Vac or 220/230/240Vac	
Frequency	50/60Hz auto-sensing	
Connectors	Terminal block (L-N-G)	
Spike Protection	990 Joules	
Delay Timer	15 sec / 30 sec / 180 sec	
Dimension	125*100*40MM	
LV Model(@110Vac)	Input Line Low Loss	90Vac
	Input Line Low Comeback	95Vac
	Input Line High Loss	140Vac
	Input Line High Comeback	137Vac
HV Model(@220Vac)	Input Line Low Loss	180Vac
	Input Line Low Comeback	190Vac
	Input Line High Loss	265Vac
	Input Line High Comeback	260Vac

## 6 TERMINAL BLOCK CONNECTION

1. Open the terminal block lid of Voltage Protector.
2. Connect the cable of mains supply to the INPUT connector terminals of Voltage Protector  
Connect the cable of loadings to the OUTPUT connector terminals of Voltage Protector.



- Output** L(Live) to L out  
**Output** N(Neutral) to N out  
**Output** G(Ground) to G out (if used)
- Input** L(Live) to L  
**Input** N(Neutral) to N  
**Input** G(Ground) to G

3. Make sure all cables are connected tightly, then close the terminal block lid of Voltage Protector.