



# **AVR Series**

Tap-Changing Automatic  
Voltage Regulator

**USER MANUAL FOR MODELS:**

**600VA - 3000VA**



# SAVE THESE INSTRUCTIONS

Please read and save this manual!

This automatic electronic voltage regulator (AVR) provides perfect protection for connected equipment. This manual is a guide to install and use the AVR. It includes important safety instructions for operation and correct installation of the AVR. If any problem occurs with the AVR, please refer to this manual before calling customer service.

## 1. Important Safety Instructions

- **WARNING (SAVE THESE INSTRUCTIONS):** This manual contains important instructions that should be followed during installation and maintenance of the AVR and batteries.
- **WARNING (Controlled Environment):** Only intended for installation in a controlled environment.
- **CAUTION:** Risk of electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.
- **CAUTION:** Avoid exposing the AVR to direct sunlight, stoves, or any other heat source.
- **CAUTION:** To prevent overheating, make sure that the ventilation openings of the unit are not covered.
- **CAUTION:** Keep moisture and dust away.

## 2. Presentation

The AVR (Automatic Voltage Regulator) unit provides a microprocessor controlled Automatic Voltage Regulation function. It can supply pure, stable power supply and eliminate the connected loads damaged caused by power issues.

### 2.1 “OFF mode” no indicator:





The situation may be caused due to these following reasons:

1. Power switch is turned off.
2. Circuit breaker is tripped.
3. No utility power.





### 2.2 “Normal mode” indicator (Green):

These indicators will illuminate green when the utility input is normal. Utility normal and power indicator illuminate.

### 2.3 “AVR Buck-down mode” indicator (yellow):

These indicators will illuminate yellow when the power and utility input is HIGH   and   the utility input is over the limited value; the buck-down mode of automatic voltage regulator (AVR) is enabled.

### 2.4 “AVR boost-up mode” indicator (yellow):

These indicators will illuminate yellow when the Power and utility input is LOW   and   the utility input is over the limited-value; the boost-up mode of the automatic voltage regulator (AVR) is enabled.

## 3. Installation

### 3.1 Inspection:

Inspect the AVR upon receipt. The packaging is recyclable. Save it for reuses or disposes of it properly.

### 3.2 Placement

Install the AVR in a controlled area with adequate air flow and free of excessive dust. Do not operate the AVR outdoors.

### 3.3 Utility Power:

Be sure the polarities and types of the receptacles match the unit. Keep the capacity of the unit higher than the protected loads. If the capacity of the AVR unit is not sufficient, the input circuit breaker will open.

## 4. Operation

### 4.1 Switch on:

When utility input is connected to the AVR, press the "ON" button to turn on the AVR. After that, connect the electrical cords of the equipment that will be used (such as computer or monitor) to the rear panel of AVR unit.

### 4.2 Switch off:

Press the "OFF" button to turn off the AVR.

### 4.3 Overload Protection:

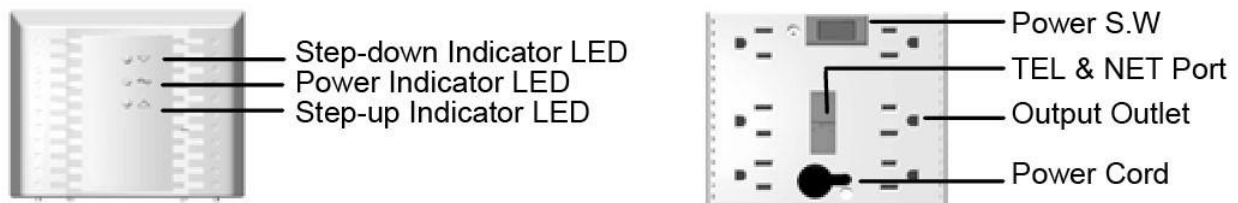
When the unit is working overload, the input power breaker will open to protect the unit itself.

**Warning:** Once the circuit breaker is opened, turn on the unit again after 60 seconds to let the breaker fully cool down. This can extend the life of switch breaker.

### 4.4 Output short Protection:

When the output loads are shorted, the input power breaker will open to protect the unit itself.

**Warning:** Once the circuit breaker is opened, please turn on the unit again after 60 seconds to let the breaker fully cool down. This can extend the life of switch breaker.



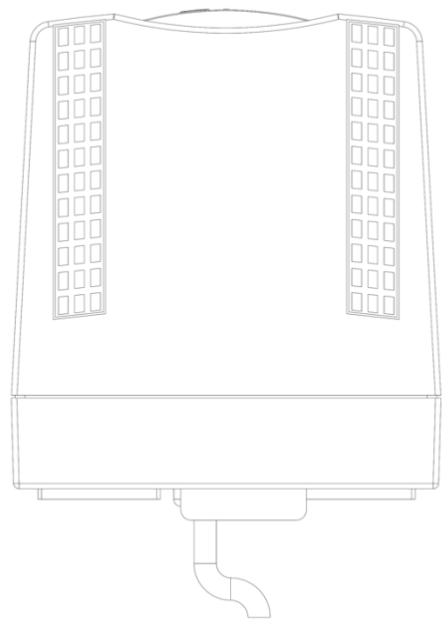
## 5. Troubleshooting

PROBLEM	POSSIBLE CAUSE	ACTION TO TAKE
AVR cannot be turned on	ON/OFF SWITCH is in the OFF position	Press the ON/OFF SWITCH to the ON position
	Circuit breaker is open	Turn on the circuit breaker

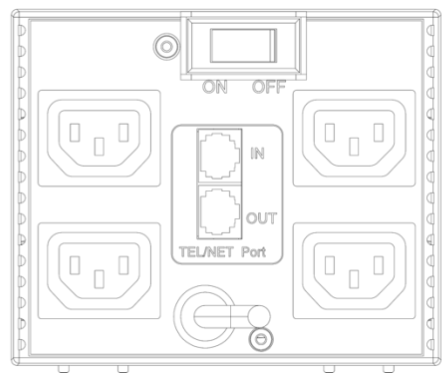
## 6. Technical Specifications

Model	AVRI-1000-02	AVRN-1000-01	AVRS-1000-02	AVRS-1500-02
Capacity	1000VA / 1000W	1000VA / 1000W	1000VA / 1000W	1500VA / 1500W
Phase	Single Phase			
AC Input				
Frequency	50Hz or 60Hz			
Voltage	1ϕ 2W			
Range	110 / 120 VAC ± 15% 220 / 230 / 240 VAC ± 15%			
AC Output				
Voltage	1ϕ 2W			
Voltage Regulation	110 / 120 VAC ± 5% (Typical) 220 / 230 / 240 VAC ± 5% (Typical)			
Frequency	50 Hz / 60 Hz Following Input			
Efficiency	> 95 %			
Protection				
Full Protection	Overload, Short Circuit, Surge			
Tel Communication	RJ11 / RJ45			
Management & Communication				
Indicator	LED Panel			
Physical				
Dimension (WxDxH) (in/mm)	4.84 in x 5.35 in x 4.02 in 123 mm x 136 mm x 102 mm			
Weight (lbs/kgs)	3.2 lbs / 1.4 kg	3.53 lbs / 1.6 kg	3.97 lbs / 1.8 kg	4.63 lbs / 2.1 kg
Shipping Dimension (WxDxH) (ins/mm)	5.71 in x 7.68 in x 4.72 in 145 mm x 195 mm x 120 mm			
Shipping Weight (lbs/kgs)	3.64 lbs / 1.65 kg	3.97 lbs / 1.8 kg	4.41 lbs / 2 kg	5.07 lbs / 2.3 kg
Environment				
Operating Humidity	0-95 % RH at 32-104°F / 0-40°C (Non-condensing)			
Audible Noise	Less than 40 dB			

- Specifications are subject to change without further notice.
- Specifications are for reference, please refer to information based on real product.

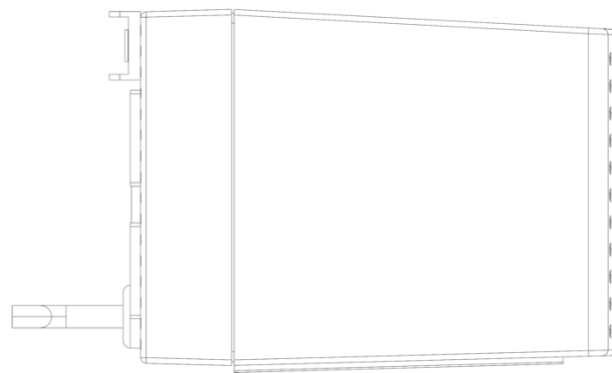


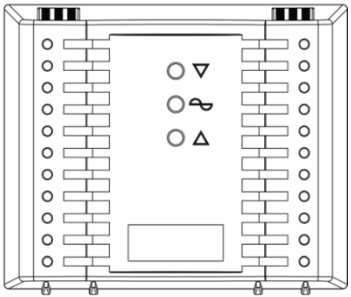
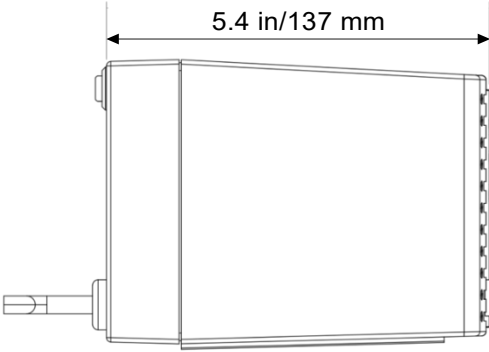
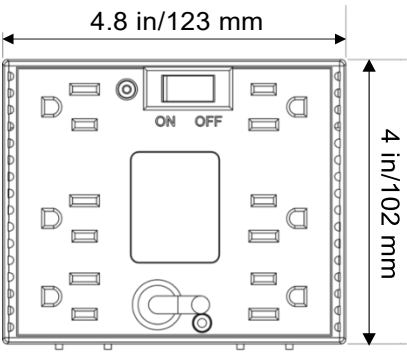
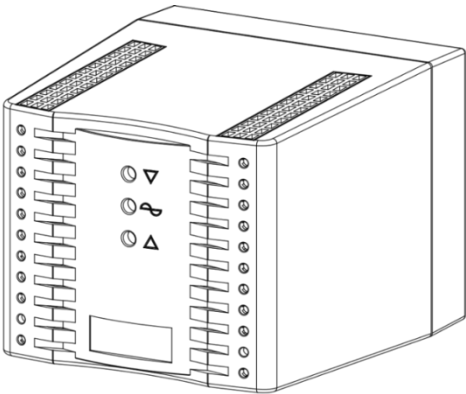
4.8 in/123 mm

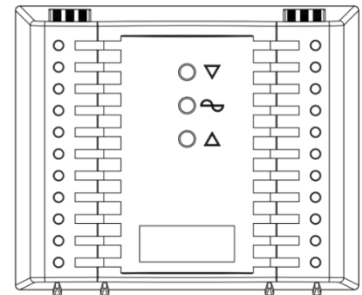
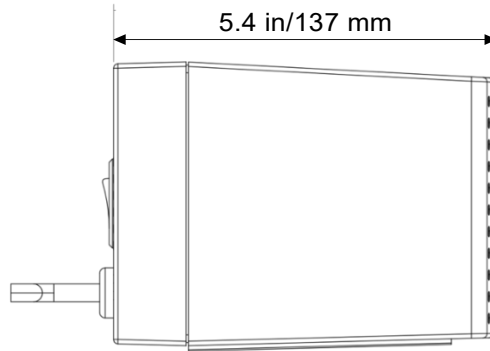
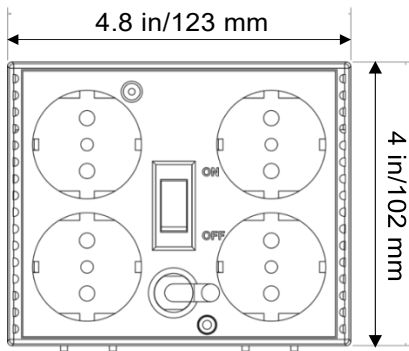
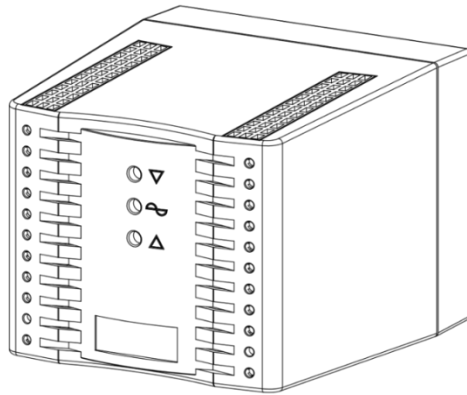


4 in/102mm

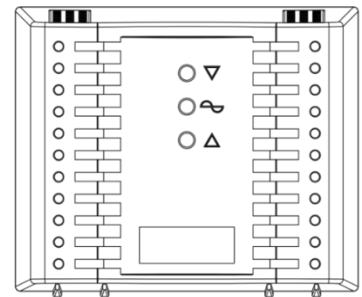
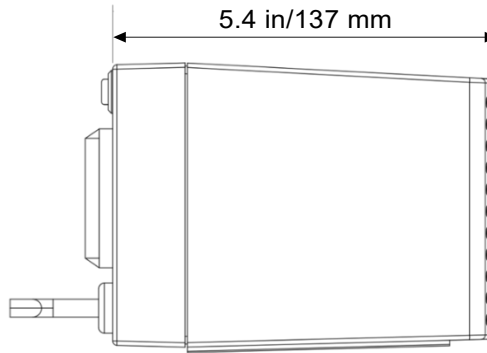
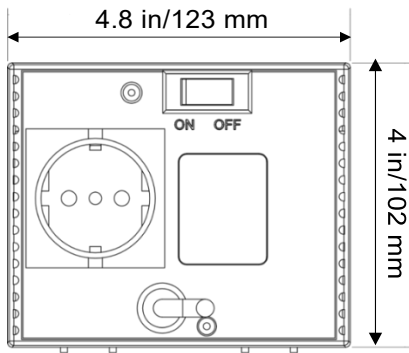
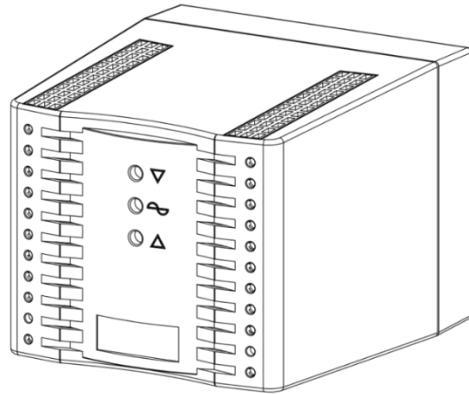
5.4 in/137 mm











## 7. Warranty

### 7.1 Limited Three-Year Warranty and Exclusions

NOTE: For this warranty to be valid, completed registration information must be received within 30 days of original purchase.

Marathon Power warrants to the original purchaser, who must have properly registered the product within 30 days of purchase, and not for the benefit of anyone else that this product at the time of its sale by Marathon Power is free of defects in materials and workmanship for three (3) years (batteries for 2 years within the USA, Canada and Mexico, otherwise 1 year) from the original purchase date. Marathon Power will correct such defects by repair or replacement, at its option, if within such three year period the product is returned prepaid and all warranty claim instructions are followed. This warranty excludes labor for removal or reinstallation of this product. This warranty is void if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner, or is not used under normal operating conditions or not in accordance with all labels or instructions. There are no other or implied warranties of any kind, including merchantability and fitness for a particular purpose, but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warranty, including merchantability and fitness for a particular purpose, is limited to three years. Marathon Power is not liable for incidental, indirect, special or consequential damages, including damage to, or loss of use of, any equipment, lost sales or profits or delay or failure to perform this warranty obligation.

### 7.2 Limitations & Claims

This warranty does not cover any Marathon Power UPS or any properly connected electronic equipment which has been improperly installed, overloaded, abused or altered in any manner, or is not used under normal operating conditions, or in accordance with any labels or instructions, and does not cover any damage to properly connected electronic equipment resulting from a cause other than a “surge”.

Damage caused by failure to provide a suitable installation environment for the product (including, but not limited to, lack of a good ground) will not be covered by this warranty. This warranty does not apply to damage caused by direct lightning strikes, or damage caused by electrical disturbances that exceed published product specifications. These products are intended to limit the maximum amplitude of transient voltage surges on power lines to specified values. They are not intended to function as surge arrestors. The UPS is intended to be installed on the load side of the service entrance and has been tested to verify that transient voltage surges are limited when subject to non-repetitive transient voltage surge events. This warranty excludes any incidental, indirect, special or consequential damages, including without limitation, labor for removal or reinstallation of the Marathon Power UPS or any connected electronic equipment, data loss or alteration loss of equipment use, lost sales or profits and any such damages for delay or failure to perform this warranty obligation. This warranty is in lieu of and excludes all implied warranties of merchantability or fitness for use. In addition, the warranty does not cover restoration of lost data and reinstallation of software. Some states may not allow the exclusion or limitation of incidental or consequential damages or other remedies, so the above exclusions or limitations may not apply to you.

Take the following steps to file a warranty claim: Contact us at Marathon Power, Inc., Attn: Returns, 2538 E. 54th Street, Huntington Park, California 90255 or call (310) 689-2328 within 30 days of the occurrence. Be prepared to provide detailed information about the event, any damage, the UPS model number, purchase date and location. You will then be provided with a Return Authorization Number (RAN), and be instructed to forward your proof of purchase (receipt), an explanation of the event and your UPS. If Marathon Power determines that the damage was due to a “surge”, we may request that all connected equipment be submitted for evaluation. Marathon Power is not responsible for shipping costs. In the event that the equipment has been damaged by a “surge” Marathon Power will reimburse you for repair or replacement at fair market value (on a pro rata basis) as indicated by the respective amounts above. The warranty coverage is above and beyond, only to the extent needed, of that provided by any other source, including but not limited to any connected equipment coverage, any manufacturer’s warranty or insurance policy. To receive payment for repair to damage due to a “surge,” the original purchaser should (upon prior approval from Marathon Power) have such equipment repaired by an authorized service center of such equipment’s manufacturer. The original purchaser will submit a repair bill along with a statement from the repair facility documenting the nature of the damage and how it was sustained to said equipment.



Marathon Power, Inc. 2025

2538 E. 54th Street  
Huntington Park, CA 90255  
Office: 310-689-2328  
Fax: 310-689-2329  
[support@marathon-power.com](mailto:support@marathon-power.com)  
[www.marathon-power.com](http://www.marathon-power.com)