

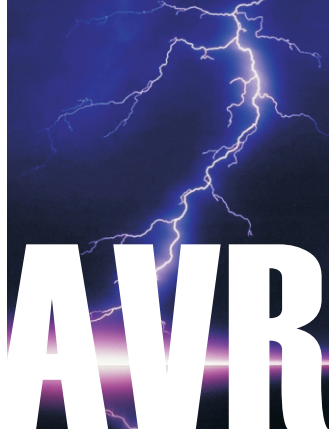


AVR

500VA-5000VA

USER MANUAL

Automatic Voltage Regulator



AUTOMATIC VOLTAGE REGULATOR



Thanks for using our products.
Please strictly obey all the instructions in this manual and pay attention to all the warning and operation information. It is not advisable to install or operate the machine before reading this manual.

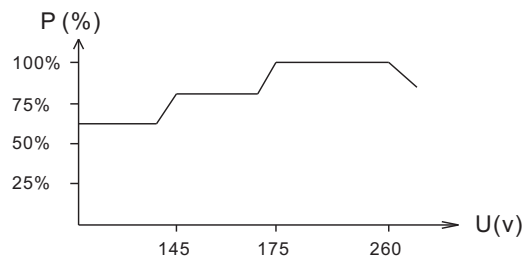
Table of contents

1. Safety Cautions.....	01
2. Features.....	01
2.1 Time-delay output function	
2.2 Automatic protection function	
2.3 Overload/Overheat protection	
2.4 Frequency Adaptive	
3. Specifications	02
4. Product Introduction.....	03
4.1 LED display	
4.2 Meter display	
4.3 LCD display	
4.4 Socket-type rear panel	
4.5 Terminals-type rear panel	
5. Installation and Application.....	07
6. Maintenance.....	08
6.1 Preventive maintenance	
6.2 Abnormal states handling	
7. Packing list.....	08

1 Safety Cautions

Please comply with the following instructions to make sure safety using

- Keep the equipment in adequate ventilation and clean environment (minimum 100mm away from the wall). During using the equipment, it is normal that the case surface temperature reach around 50℃.
- There is voltage output for AVR when switch on; There is no voltage output when switch off.
- Do not open the cover in case getting an electric shock.
- Do not place any liquid container on the top of the equipment in case of equipment damaged or danger of electric shock.
- Do not use under overload in case of any danger.
- Do not store or use the equipment in the following environment:
 - ① The place which has flammable gas, corrosive things or a lot of dust;
 - ② The place where temperature is abnormally high or low(above 40℃ or below -10℃), or humidity is high (above 90%);
 - ③ The palce under sunshine or the place close to the heater instrument;
 - ④ The palce which has strenuous vibration;
 - ⑤ The place where the children can reach easily.
- If there is fire, please use powder fire extinguisher. It is dangerous to use fluid extinguisher.
- Place receptacles near by the equipment, in case of emergent states needed to unplug and cut off the power.
- Within range of rated voltage $\pm 25\%$ 50/60Hz, the equipment provide 100% power output; if beyond the range, the output power should be in accordance with the following diagram:



Input voltage and output power curve



Warning!

The equipment must properly grounded.

2 Features

2.1 Time-delay output function

All stabilizers have time-delay output function, press the time-delay button on the front panel (choose 180sec/6sec), meanwhile the time-delay indicator light will illuminate, here the AVR is in protection states without output, it can prevent electromotor, refrigeratory and compressor etc. from being damaged due to frequent on and off.

2.2 Automatic protection function

The equipment inside has Integrated automatic protector, it make real-time monitoring of the output voltage and completely protect the load. When the output voltage $< 180V$ or $> 255V$, the stabilizer will cut off the output automatically, meanwhile the "high/low" indicator light on the front panel will illuminate, it protects the load from electrical safety. When the mains recovers to be normal, the equipment will automatically output according to user's time-delay setting.

2.3 Overload/overheat protection

When an equipment works for a long term under overload, high voltage/ low voltage, it will cause damage. Therefore this product has a special circuit design for overheat, overcurrent protection. When the product inner temperature is higher than the settled standard value, it will automatically cut off the power and turn off, it will prolong using life of the stabilizer.

2.4 Frequency adaptive

The equipment adopts advanced micro-computer controled system, it will automatically track the mains frequency 50HZ or 60HZ, automatically adjust datas collection system, adapt the system frequency requirement and fulfill the voltage regulation to meet the output requirement.

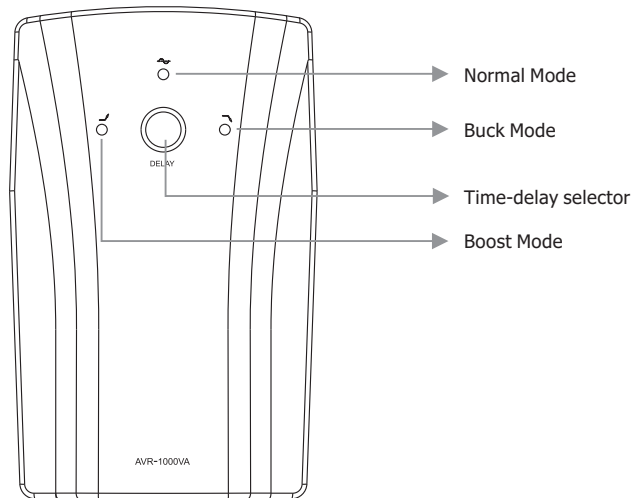
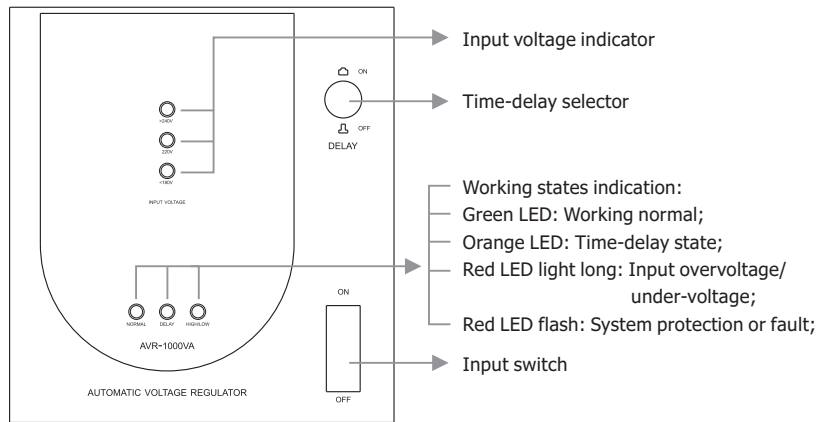
3 Specifications

Model	500VA	800VA	1000VA	1500VA	2000VA	3000VA	5000VA
Input voltage	100/110/120/220/230/240 -35%, +20% (-45%, +20% option)						
Output voltage	100/110/120/220/230/240 $\pm 8\%$						
P.F.	PF=0.6						
Short circuit protection	fuse breaker / breaker						
Efficiency	>98%						
Temperature	0℃ ~ 40℃						
Humidity	10% ~ 90%						
Panel display	LED/LED+Meter/LCD						
Communication	RS232/USB (option)						
Dimension (W*H*D)	Metal case	125*155*265			140*200*285	210*210*300	220*220*350
	Plastic case	100*160*225					

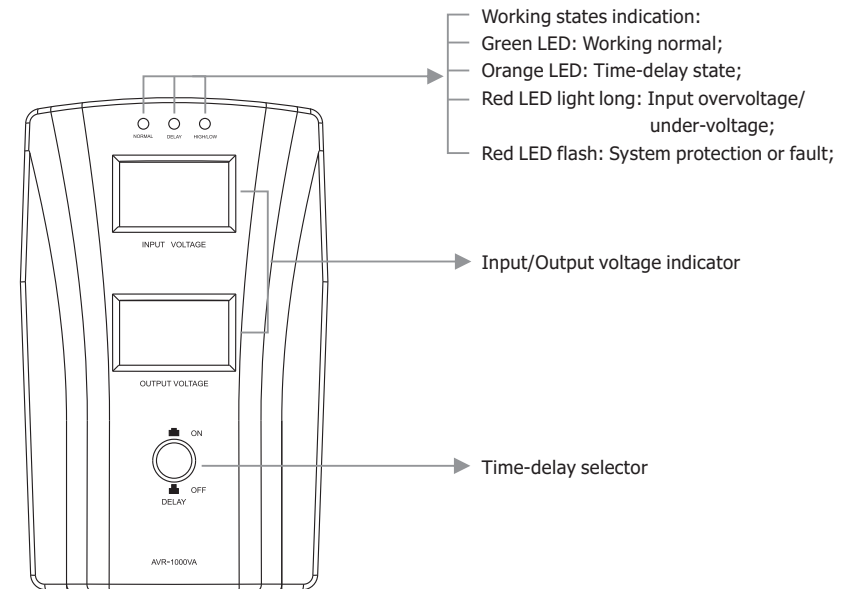
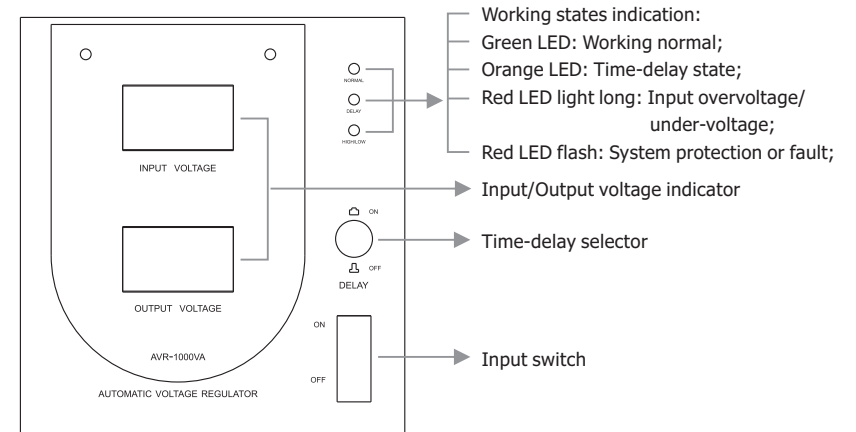
Note: Input/output voltage/frequency can be customer-designed according to customers' need.

4 Product Introduction

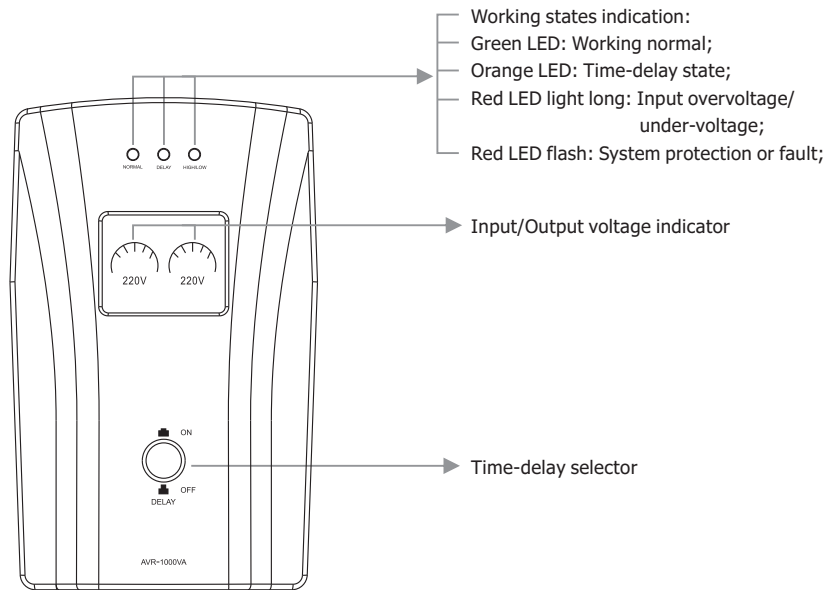
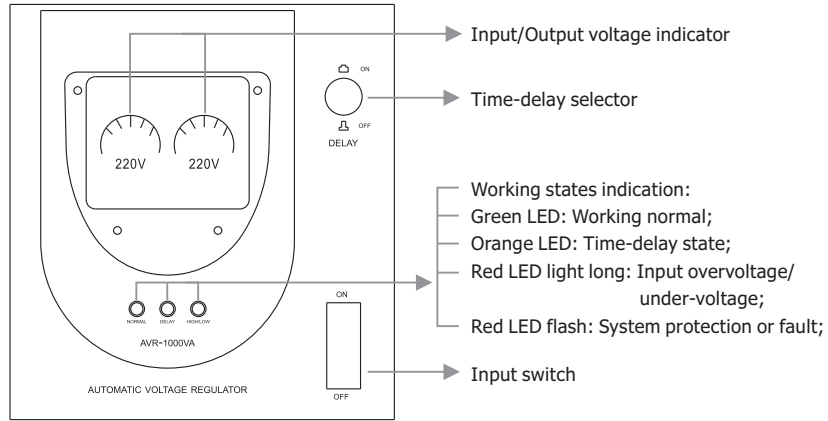
4.1 LED display:



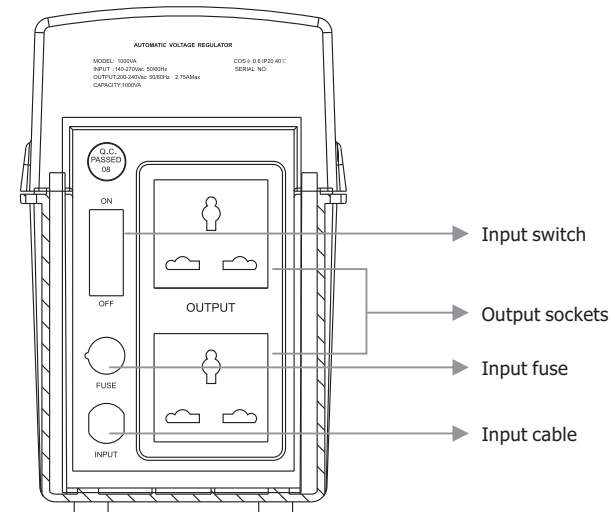
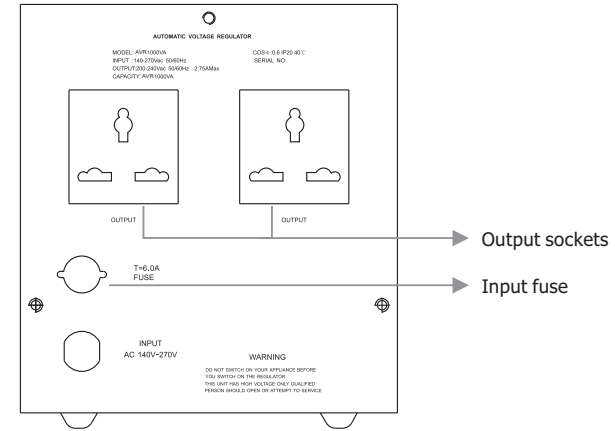
4.2 Meter display



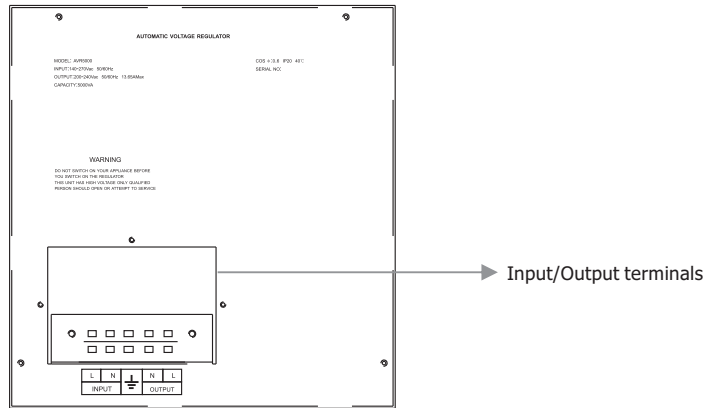
4.3 LCD display



4.4 Socket-type rear panel

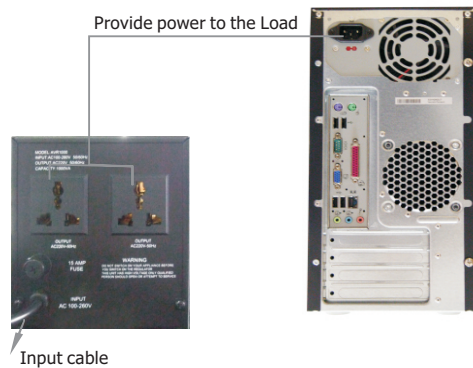


4.5 Terminals-type rear panel



5 Installation and Application

- Shut down the load (such as host computer, fans etc.), and remove their cables from the mains outlet;
- Place the equipment properly (refer to Safety Cautions);
- Connect the cable of the load with the O/P sockets or terminals block of the AVR;
- Connect the I/P cable(or terminals block) of the AVR with The Mains outlet(or electrical source junction box). (Make sure the N / L / G connected properly);



- Plugged into the Mains, Select the time-delay output time (3 seconds/ 180 seconds), and make switch "ON", then AVR start up .The time-delay indicator (Orange LED) will illuminate, the output will count down (3 seconds/ 180 seconds), and users can turn on the load after the green indicator illuminate;

- Daily start-up: make panel switch "ON", AVR will provide with an normal output;
- Daily off: make panel switch "Off", AVR will be turned off;

6 Maintenance

6.1 Preventive maintenance

which can guarantee the equipment reliability and performance in a long term. Please make the following inspections monthly:

- Make sure the blowhole not be blocked.
- Check whether there is too much dust on the surface.
- Check whether the input or output cable is fixed and still insulated.
- Make sure the product not be damped.

6.2 Abnormal states handling

If there is a failure, please ask the engineer for help to avoid any further damage or unnecessary cost.

If the equipment works abnormally, please do self-test as following solutions. If still can not fix the problem, please ask the distribute or manufacturer for help.

State	Solution
LED/LCD meters show nothing after start-up	Whether start-up normally? Whether the input power or fuse works normally?
No output, Time-delay indicator illuminate	The equipment is under time-delay state, please wait 6secs/180secs.
There is Mains, but the Equipment don't have output; high/low voltage indicator illuminate	Input voltage is beyond of AVR's standard range (higher or lower), please check the input voltage and use the equipment till the input voltage is normal.
The Mains is normal; high/low voltage indicator illuminate	The equipment output voltage is overhigh/overlow; please shut down the equipment first and restart. If problem still exist, please send it to the professionals for maintenance

7 Packing list

- Equipment: 1PC
- User manual: 1pc
- Fuse: 1pc
- Others: according to customer's requirement.