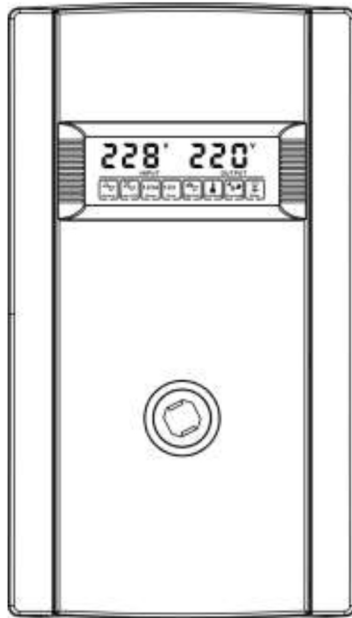


Microprocessor Control AVR

User`s Manual



Automatic Voltage Regulation

AVR-IPTPro-E-02

Note

SYSTEM INSTRUCTION

This AVR is a CPU controlled automatic voltage regulation unit. This product can offer your accurate equipments with reliable and qualified AC power supply accurately and steadily. It can be widely applied to computers, communication systems and industrial automatic controlled equipments. This unit is designed with various advantages to make load equipments and AVR itself run steadily.

☒ Function

Digital Control: Inner design of this unit uses microprocessor control to ensure the safety and protect your equipments.

Output Overload Protection: When output load is over 120%, buzzer will beep continuously and LCD "Overload" icon will light up to tell users stop overload operating to affect AVR's lifetime.

Output Over and Under Voltage Protection: When output voltage is too high or too low, AVR buzzer will beep continuously. Within safe time, AVR will cut off output voltage automatically to protect load equipments from being damaged.

Unique Near Zero-Crossing Design: This AVR will accurately make relay shift upon Zero-crossing point to increase switch's lifetime.

LCD display: The LCD in the front panel of AVR can display the unit's operation status.(Please refer to display instruction of front panel)

Delay timer setting : To avoid input voltage is not stable enough while AC recovery, users can chose 6/180 sec. duration using the delay timer

7-steps AVR regulation: 4 step Boost & 3-step Buck to stabilize output voltage

INSTALLATION & OPERATION

☒ Unpack Package & Inspection

Unpack package to check if there is any damage on AVR outer looking. If any damage is found, please contact supplier right away and also keep the package in good condition.

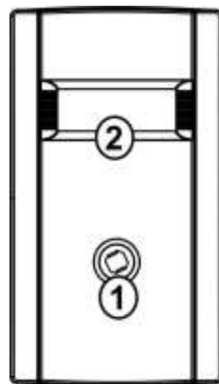
☒ Installation & Operation

1. Checking the voltage specification which is printed on the label in the back panel of AVR to see if it is the same as city voltage or not.
2. Connect input power cable to outlet with Ground.
3. Press on the start switch of AVR front panel to start the unit.
4. Please connect power cable of load equipment to AVR's output socket.

Then,press on start switch of equipment. Does buzzer of AVR beep continuously? If yes, it means the unit is overloaded. Please decrease numbers of load.
5. If any abnormal situation is happened among above mentioned operations, please contact with agent or service representatives.

⊗ Front Panel Instruction

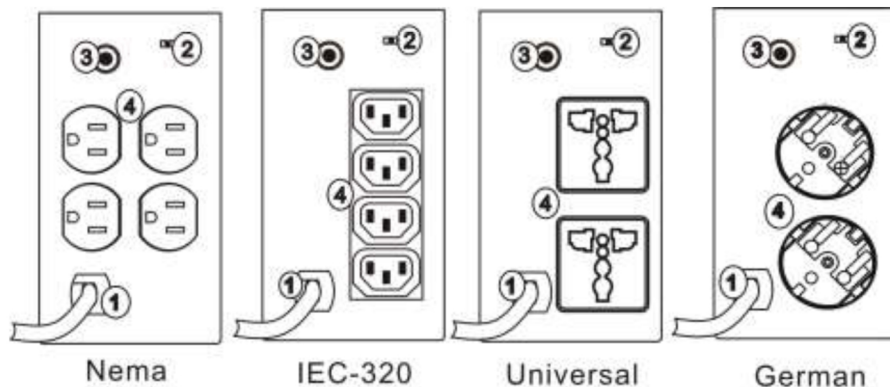
- 1.AVR ON/OFF switch: AVR turn on & turn off
- 2.LCD Screen



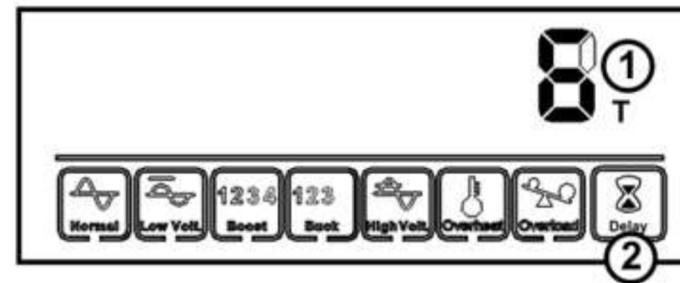
Front Panel

⊗ Rear Panel Instruction

1. Utility Power Input.
2. Soft Start (Delay Timer) Setting Switch:
-To set different delay time with 6 or 180 seconds per your demand.
3. Breaker
4. Output Outlet: AVR output power outlet



⊗ Indication And Control



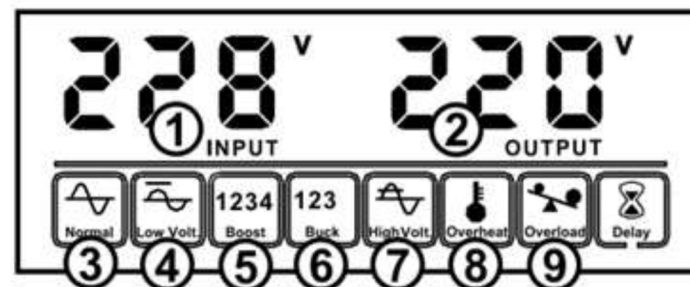
1.Delay Timer Count Down (T)

-Delay time can be set as 6 seconds, or 180 seconds when delay time is set as 6 seconds, the number above “T” icon will count down from 6 to 0 after AVR is turn on. (If delay timer is set as 180 sec., number will count down from 180 to 0...and so on) After delay time is finished, “T” icon is not lighted anymore and “ Normal” icon will be lighted.

2. Delay Icon

-Icon flashes once every second before delay time countdown is finished

⊗ Indication And Control



1. Display of input voltage

-LCD will display input voltage after AVR is turned on.

2. Display of output voltage

-LCD will display rating output voltage.

3. Normal Icon

-Icon is lighted: AVR is under normal status and supplying utility power to

4. Low Volt. Icon

-Icon is lighted: Input voltage is too low and AVR output is cut off.

5.Boost Icon

-“ Boost” is lighted: AVR is correcting a low utility voltage condition.

“1” icon is lighted: AVR is doing 1st step boost.

(If “2” icon is lighted, AVR is doing 2nd step boost...and so on)

6.Buck Icon

-“Buck” is lighted: AVR is correcting a high utility voltage condition.

“1” icon is lighted: AVR is doing 1st step buck.

(If “2” icon is lighted, AVR is doing 2nd step buck ...and so on)

7.High Volt. Icon

-Icon is lighted: Input voltage is too high and AVR output is cut off.

8.Overheat Icon

-Icon is lighted: AVR is overheated, buzzer will beep continuously.

Please reduce load capacity.

9.Overload Icon

-Icon is lighted: AVR is overloaded, buzzer will beep once every 4

seconds. Please reduce load capacity.

CAUTION

Please strictly follow all safety instructions which are stipulated in this Users Manual during installation and maintenance.

- Please do not open AVR's outer case.
- Please avoid to place AVR under over humid environment.
- Please do not pour any liquid or put anything inside AVR.
- Keep away from sun radiation and radiator.
- Please keep exhaust hole cleared.
- Power socket should be installed close to AVR.
- It will be better to use outlet with Ground to connect with AVR, and also have Ground done.

SPECIFICATIONS

Input	Voltage	110/115/120Vac or 220/230/240Vac(-35% +25%)
	Frequency	50Hz / 60Hz
	Power Factor	0.95~1
Output	Voltage Regulation	110/115/120Vac or 220/230/240Vac (±5%)
	Response Time	< 3 Cycle
	THD	No Distortion:Depends on input wave
	Efficiency	> 97%
Protection	Over/Under Voltage	Yes
	Overheat	Yes
	Overload	Buzzer Alarm
	Surge	330 joules
Environment	Operation Humidity	0% ~ 95% (Non-Condensing)
	Operation Temperature	0℃ ~ 40℃

WARRANTY

We do appreciate with your support to choose our company products. We believe your job will be done smoothly in the future. According to our Letter of Warranty, we will offer one year term free service.

- Please make sure to get Letter of Warranty and fill in purchasing date and then have store sales person to stamp on it when purchase in order to enjoy our company after sale service.
- If damage is caused by below-mentioned situation, our company will charge material expense even within Warranty period:
 1. Transportation, Moving improperly or Falling after purchased.
 2. Irresistible natural force or Human disaster.
 3. Using by mistakes or excessively / Breaking on purpose / Environment is not in good condition / Do not follow power voltage specification / Wrong power supply.
 4. Products are taken apart, fixed, converted or equipped with extra parts by others who are not our company service representatives.
- Our company will provide completed and good after sale service even if Warranty Term is expired. However, certain materials expense and cost will be charged.
- Please keep the Letter of Warranty in good condition. If the Letter of Warranty is missing by mistake, purchasing date will be same as unit out of factory date.

Model Number: _____ Capacity: _____

Serial Number: _____ Bill/D.O.No.: _____

Purchaser`s Name & Address: _____

Telephone: _____

Date of Purchase / Delivery: _____

Dealer`s Stamp: _____

Note