

## A. Features:

1. Advanced high frequency switching mode power supply technology.
2. DC output isolated from AC input.
3. Universal Input 110/230Vac, 50Hz~60Hz.
4. Charging parameters are insensitive to the AC input line voltage variations.
5. Completely automatic battery charging: CC, CV and Floating.
6. 2 LEDs: LED1 Red (power on), LED2 Red/green (charging/full).
7. Protections include short circuit, over voltage, over-temperature, reverse polarity protections and over-heat protection (when charger's inside temperature  $> 75^{\circ}\text{C}$ , it stops charging for about 10 seconds and then recovers automatically).
8. Forced ventilation with fan, controlled by temperature (the fan runs when charger's inside temperature is  $>40^{\circ}\text{C}$ ).
9. Efficiency  $> 85\%$ .
10. 100% full load burn-in test.

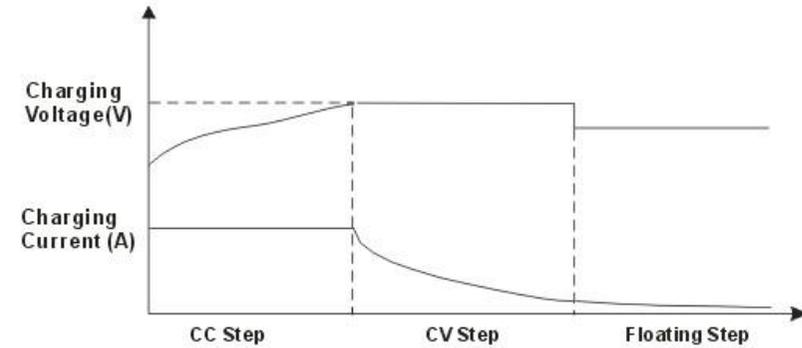
## B. Operation:

1. Check if your local mains supply conforms to charger's input voltage 110 or 230V. Switch the charger AC input selector switch to the proper AC Voltage, then connect the charger system to a wall socket.
2. LED1 RED confirms that AC power is on.
3. Connect the DC Output cord to 48VDC battery terminals or to the MPPT Solar Controller Solar (PV) Input.  
LED2 RED confirms charger is charging, LED2 GREEN confirms battery fully charged

Note: The charger has a Fuse for Reverse Polarity Protection, it will have an output a few seconds after AC power is applied.

## C. Charging Mode(3-stage):

Step 1: CC (Constant Current)    Step 2: CV (Constant Voltage)    Step 3: Floating



## D. Precautions:

1. The phenomenon of sparking is normal when connecting to a battery because of high current.
1. This charger is designed for charging Lead Acid batteries only.
2. Avoid charging the wrong type of battery.
3. The battery may be damaged if LED<sub>2</sub> does not change to green after a long time of charging.  
Green indicates float charge.
4. Always place the charger in well-ventilated and dry environments.
5. The charger is designed with aluminum case as its heat sink. Do not cover it to avoid the case from becoming over heated while charging.
6. Please attention to DC terminal:  
Brown→(+) Positive Terminal, Blue→(-) Negative Terminal
7. DO NOT disassemble charger. Take it to a qualified service person when service or repair is required. High voltage could be present inside the charger, you can be killed.

## E. Packing List:

1. Charger 1pcs
2. User manual 1pcs
3. Direct wired DC wires
4. AC power cord

# OWNER'S MANUAL

## TP-BC48-600 LEAD ACID BATTERY CHARGER



**Please read this manual carefully before use!**

Subject to change without prior notice, please feel free to contact us for latest information