

# MPPT SOLAR CHARGE CONTROLLER

## By SolarTorrent.com

### 1. FEATURES

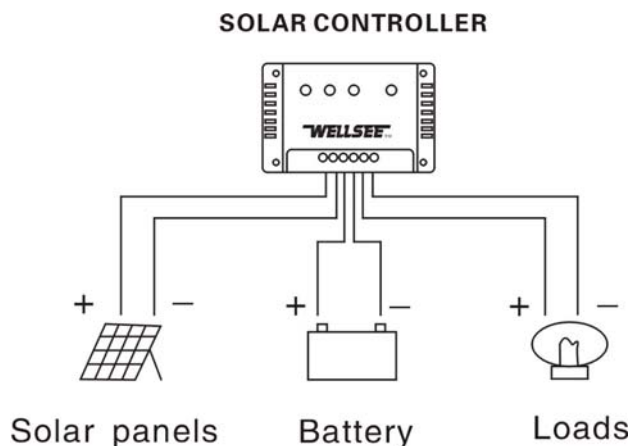
MPPT solar charge controller MPPT 10-60 by Solar Torrent: Compared with normal solar charge controller, this MPPT controller could increase efficiency up to 35%.

#### **Function:**

- Always keep the battery on full-voltage condition.
- Prevent the battery from over-charging.
- Prevent the battery from over-discharging.
- Prevent the battery from reverse charging to solar panels during nights.
- Reverse Polarity Protection for battery
- Reverse Polarity Protection for Solar panels
- When the current of the load exceeds the rated current of the controller, the controller will activate the protection mode and lock up.
- When the load short-circuited, the controller will activate the protection mode and lock up.
- When the battery voltage is low, the controller will automatically cut off the load from the system. If the voltage of battery is back to normal and the load will restart working.
- Lightning protection
- According to the battery voltage grade, the controller can automatically set charge-off voltage, the load-off voltage, the load-restore voltage.(The parameter is default under 25°C condition, locked by the microprocessor.)
- The controller will automatically compensate the temperature of the charging voltage according to the changes of ambient temperature

## 2. CONNECTION

As shown in the following diagram of connection, the controller's six terminals have the polarity connection sign.



### Notice:

Before connecting to the solar panel, please connect the controller to the battery, do not use solar panel directly supply power to the loads because of varying sunlight condition in contrast to steady battery power. Choose the suitable wire which diameter should not be too small), please refer to the specification.

## 3. INDICATOR LIGHT AND BUTTON

1. Red LED(CHARGE) is always on, battery is charged up strongly. Red LED is flickering, battery is charging up in constant voltage; Red LED is off, charging is off.
2. Green LED (LOAD / LIGHT) is on, loads are normally working; Green LED (LOAD / LIGHT) is off, loads have stop.
3. Three Color-changing LED (BATTERY): Red = low battery voltage; Green = full battery; Orange = working normally.

Color-changing LED working voltage indicate area:

Color-changing LED	12V	24V	48V
Red LED	$\leq 10.5$	$\leq 21$	$\leq 42$
Orange LED	11-13.7	22-27.4	43-54.8
Green LED	$\geq 13.7$	$\geq 27.4$	$\geq 54.8$

