

Solar Battery Charger

datasheet

# Solar Battery Charger

CD60L



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## Specifications

Model Number	CD60L
Operating Temperature	-40°C~85°C
Supply Voltage	6 - 20V DC
Dissipation Power	2-3A
Dimensions	45x46x17,9 mm
Weight	25g

## Solar Battery Charger

### Charging Mode IN

By setting the upper limit voltage UP and the lower limit voltage dn; when the battery voltage is less than or equal to the lower limit voltage dn, the relay turns on and the charger starts charging the battery; when the battery voltage is more than or equal to the upper limit voltage UP, the relay disconnects to complete an automatic charging; when the relay turns on, IN flickers, indicating that it is charging.

### Charging Mode OUT

By setting the upper limit voltage UP and the lower limit voltage dn; when the battery voltage is greater than or equal to the upper limit voltage UP, the relay turns on and starts discharging; when the battery voltage is less than or equal to the lower limit voltage dn, the relay turns off and completes an automatic discharging function; when the relay turns on, the OUT flickers, indicating that it is discharging.

#### NOTE:

This product is a simple voltage controller. It can turn on and off the output by relay. It only plays the role of switching, and can not change the voltage.

## Functional Description

- 1. Calculation of Voltage Percentage Battery Voltage (Upper Voltage - Lower Voltage)**
- 2. Key Function**

Short press UP button, switch display % and time, long press 5 seconds switch mode, charging mode: IN, discharge mode: OUT

SET key: Short Click to view the parameters currently set;

Long press SET button to enter the parameter setting interface, set UP: voltage upper limit, dn: voltage lower limit, OP: turn-on time, dOP: delay turn-on time ( 0-999 seconds), FOP: forced turn-on time ( 0-10 seconds ) in discharge mode.

Short press DOWN button, turn off / turn on relay enable ( emergency stop function ) turn off, LCD display OFF, relay disconnect

Long press DOWN button to set the status of LCD backlight L-P : OFF backlight constant brightness, ON: backlight automatically extinguishes after 5-10 minutes; after extinguishing, any key wakes up.

### THREE PARAMETER SETTINGS

- A ) Enter the parameter setting interface by pressing the SET key for a long time
- B ) After entering the parameter setting interface, switch the setting parameters by pressing the SET key.
- C ) After choosing parameters, it can be set by UP / DOWN key to support short press and long press
- D ) To set other parameters, repeat steps B and C
- E ) After all parameters are set, press SET key for a long time, exit and save

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### 3. 1. Charging / Discharging Time Control Function

When the time parameter OP is non-zero, start charging / discharging time control.

When the relay turns on a charge / discharge, the countdown begins, when the time is completed, the relay is automatically disconnected to complete a charge / discharge process; if the time is completed, in the charging mode, the detection voltage is less than the lower limit voltage dn or in the discharge mode, the detection voltage is more than the upper limit voltage UP, and the charging time control function is automatically turned off and flashes. Indicate H: ER reminds users that time parameter setting is unreasonable, press any key to stop flickering;

When the charging / discharging time control is not turned on, the product will record a complete time. When entering the time display interface, flashing shows the charging time, then exiting the time display interface or clearing the next time the charging is turned on ( relay is turned on).

### 3.2. Automatic Parameter Detection

When the parameters are set and exit, if the lower voltage limit DN is greater than the upper voltage up, the system will flicker to display " ERR "as a reminder.

### 3.3. Delayed turn-on function (0-999 seconds)

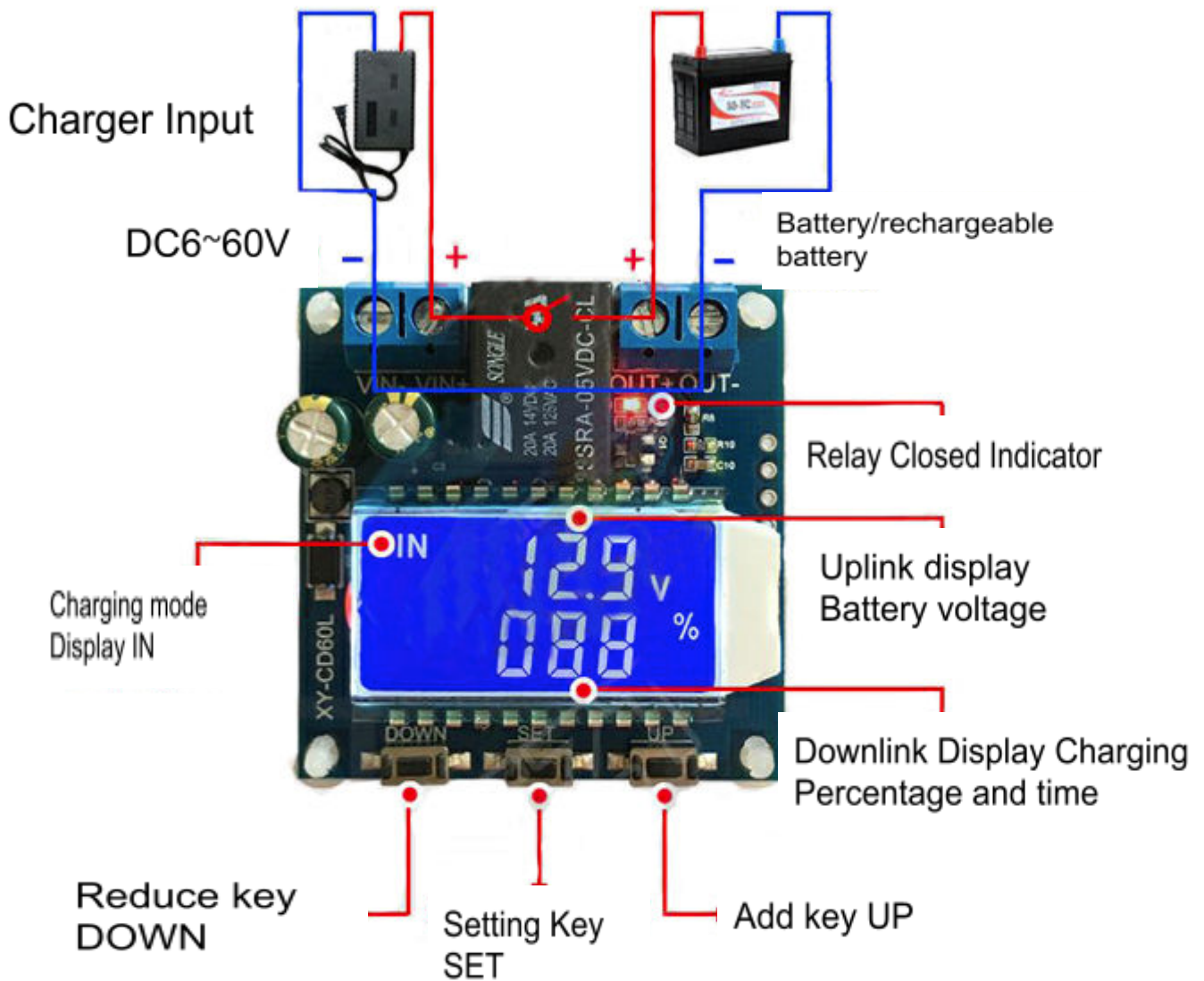
Completion of a charge / discharge, the interval between re-opening.

### 3.4. Discharge Conduction Forced Start Time (0-10s)

After satisfying the relay conduction condition, the relay is forced to turn on ( 0-10s ) to detect the battery voltage again. This function is mainly aimed at discharging functions. Some test loads will pull down the lower limit voltage instantaneously at the moment of conduction, which will lead to the disconnection of the relay and the failure of normal discharge process.~

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## Charging Mode



Charging Time



Battery-free access  
display

# Solar Battery Charger

## Discharge Mode

