

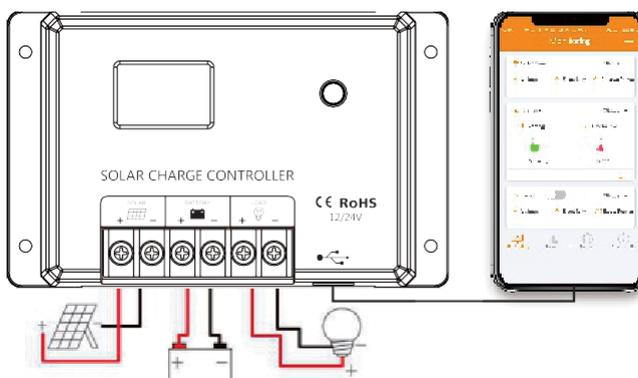
PWM 12v/24v ,30A, double USB , can charge Lead acid & Lithium battery, function more intelligent



Main Features

- ◆ 32-bit high-speed master control chip.
- ◆ Large-screen LCD for display, charge and discharge parameters adjustable , Allow selection of multiple battery types, with a flexibility to set the load to work during the day or night..
- ◆ Complete multi-stage PWM charge management.
- ◆ Built-in reverse connection protection, open-circuit protection, high temperature protection, over-current/short-circuit protection (optional), which are all self-recovery type, with no damage to the controller.
- ◆ Double MOS anti-backflow circuit, ultra-low heat generation.
- ◆ Lithium battery activation available.
- ◆ Dual USB output, maximum current up to 2A, supporting high current charging of Iphone, Ipad and Android mobile phones and other devices

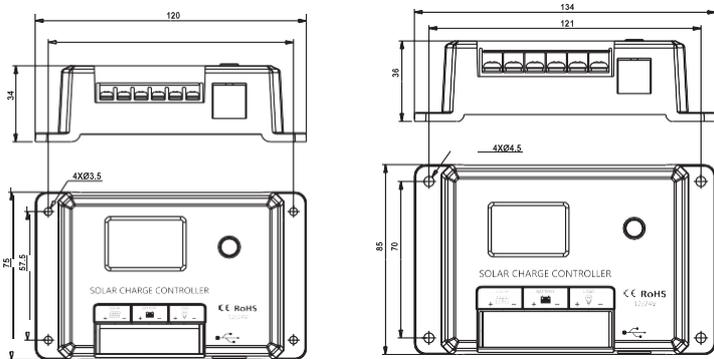
Electrical wiring diagrams



1. Connect the anode and cathode of the battery to the controller according to the diagram, and take care to avoid reverse connection.
2. Connect the anode and cathode of the load to the controller according to the diagram, and take care to avoid reverse connection.
3. Connect the solar panel to the controller according to the diagram, and take care to avoid reverse connection.

Note : Please strictly follow the above sequence for connection, otherwise the controller may be damaged. Disassembly sequence is opposite to the wiring one.

Installation method



1. The controller should be installed firmly, with the following dimensions:

HC2410 outline dimension: 120x75x34(mm)

Mounting dimensions: 108.5x57.5 (mm)

HC2420 outline dimension: 134x85x36(mm)

Mounting dimensions: 121x70(mm)

2. Mounting hole diameter: 3.5(mm)

Product parameter

| Specifications | | | |
|---------------------------------|--------|---|--------------|
| | | HC2410 | HC2430 |
| System voltage | | 12V/24V | |
| Battery operating voltage range | | 8-32V | |
| Rated current | Charge | 10A | 30A |
| | Load | 10A | 30A |
| Maximum PV input voltage | | 50V, enable protection and stop charging. Below 45V, charge resumes. | |
| Charging mode | | The default is PWM charging, b04/b07 can be set to intermittent charging. | |
| USB output | | 5V/2A | |
| Static power consumption | | ≤10mA | |
| Operating temperature | | -35~+60°C | |
| Altitude | | ≤3000m | |
| IP rating | | IP32 | |
| Product size | | 120*75*34mm | 159*100*39mm |
| Installation size | | 108.5*57.5mm | 147*80mm |
| Weight | | 130g | 290g |

Charge and Discharge Parameters

| Battery type | b01(SLD) | b02(GEL) | b03(FLD) | b04 (Ternary lithium) | b07 (Lithium iron phosphate) |
|---------------------------------|----------|----------|----------|--------------------------|---------------------------------|
| High voltage protection HVD | 16V | 16V | 16V | 16V | 16V |
| High voltage recovery HVR | 15V | 15V | 15V | 15V | 15V |
| Boost charge voltage | 14.4V | 14.2V | 14.6V | (12.5V) | (14.4V) |
| Equalizing charge voltage | 14.6V | - | 14.8V | - | - |
| Floating charge voltage | 13.8V | 13.8V | 13.8V | 12.5V | 14.4V |
| Boost charge return voltage | 13.2V | 13.2V | 13.2V | 12.0V | 13.2V |
| Over discharge recovery voltage | (12.6V) | (12.6V) | (12.6V) | (10.5V) | (12.6V) |
| Over discharge voltage | (11.1V) | (11.1V) | (11.1V) | (9.5V) | (11.1V) |
| Boost charge time | 2hrs | | | | |
| Equalizing charge time | 2hrs | - | 2hrs | - | - |

1. The above voltage corresponds to 12V system only. If a 24V system is used, please*2.
2. b01-b03 will go into equalizing charge when and only when LVD occurs.
After equalizing charge, it goes directly into floating charge.
3. The corresponding parameters with "bracket identification" in the parameter table can be modified by pressing the button, but the other parameters cannot be modified.