PC1800A SERIES (60A / 80A)
MPPT Solar Charge Controller

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INTRODUCTION

MPPT (Maximum Power Point Tracking) Solar Charge Controller offer an efficient, safe, multi-stage recharging process that prolongs battery life and assures peak performance from a solar array. Each Charge Controller allows customized battery recharging.

FEATURES

- LCD display, easy to operate on LCD screen
- Multi stage charging (3-stage charging, parallel charging and equalized charging function)
- BTS - Battery remote temperature sensor terminal
- Enable to charge Li-thium, Gel, lead-acid battery
- With RS485 & USB communication port
- Protection: PV array short circuit, PV reverse polarity, Battery reverse polarity, Over charging, Output short circuit

Max charging current
60A to 80A

Air cooling

Multi protection

Battery smart charge design

Battery DC voltage
12V/24V/48V (Auto detection) 36V (Setting)

Advanced maximum power point tracking (MPPT) technology

High tracking efficiency >99.5%
EQUALIZE STAGE CHARGING FUNCTION
Equalization function reverses the buildup of negative chemical effects like stratification, a condition where acid concentration is greater at the bottom of the battery than at the top. Equalization also helps to remove sulfate crystals that might have built up on the plates.

BATTERY REVERSE PROTECTION
There’s a battery reverse protection function in the board, then the controller will be perfectly protected even installer or user connect the battery in reverse pole accidentally.

APPLICABLE PLACE
The solar charge controller is an automatic control device, it can be used in all solar power systems to control solar panel array to charge batteries.

Solar Inverter System Connection:
Power Inverter + Solar Charge Controller + Battery + Solar Panels + Grid + Application Loads
**PC1800A Series (60A/80A)**

**MPPT Solar Charge Controller**

<image description>

1. LCD display
2. Power ON/Charging indicator
3. Fault and warning indicator
4. Wiring fault indicator
5. Operation button
6. PV connectors
7. Battery connectors
8. Battery temperature sensor terminal
9. Wiring box cover
10. RS485 communication port
11. USB

### ELECTRICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>PC18-6015A</th>
<th>PC18-8015A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Battery System Voltage</td>
<td>12V/24V/48VDC (Auto detection); 36V (Setting)</td>
<td></td>
</tr>
</tbody>
</table>

#### Battery Voltage

<table>
<thead>
<tr>
<th>Battery Voltage</th>
<th>12V</th>
<th>24V</th>
<th>36V</th>
<th>48V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>12V</td>
<td>24V</td>
<td>36V</td>
<td>48V</td>
</tr>
<tr>
<td>PV Array MPPT Voltage Range</td>
<td>15~95V</td>
<td>30~130V</td>
<td>45~130V</td>
<td>60~130V</td>
</tr>
</tbody>
</table>

#### Protections

- Solar high voltage disconnect
- Solar high voltage reconnect
- Battery high voltage disconnect
- Battery high voltage reconnect
- High temperature disconnect
- High temperature reconnect

### BATTERY CHARGING

<table>
<thead>
<tr>
<th>Charging Algorithm</th>
<th>3-Step or 4-Step (Li)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charging Stages</td>
<td>Bulk, Absorption, Float</td>
</tr>
<tr>
<td>Temperature Compenssation Coefficient</td>
<td>-5mV / °C / cell (25°C ref.)</td>
</tr>
<tr>
<td>Temperature Compenssation Range</td>
<td>0°C to +50°C</td>
</tr>
<tr>
<td>Temperature Compenssation Set Points</td>
<td>Absorption, Float</td>
</tr>
</tbody>
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#### Charging Set Points

| Flooded Battery | 14.2V/28.4V/42.6V/56.8V | 13.7V/27.4V/41.1V/54.8V |
| AGM / GEL / LEAD Battery (Default) | 14.4V/28.8V/43.2V/57.6V | 13.7V/27.4V/41.1V/54.8V |

#### Over-charging Voltage

- 15.5V/30.0V/45.0V/60.0V
- 14.5V/29.5V/44.5V/59.0V
- 10.0V/17.0V/25.0V/34.0V

### MECHANICAL AND ENVIRONMENT

| Product Size (W*H*D)(mm) | 315*160*135 |
| Product Weight (kg) | 4.7kg |
| Ambient Temperature Range | -10°C to 75°C |
| Storage Temperature | -40°C to 75°C |
| Humidity | 0%~90% RH (No condensing) |
| Enclosure | IP20 |