**PC1600F Series**  
**MPPT Solar Charge Controller**

**Feature:**
- 45A/60A/80A MPPT solar charge controller (Fan cooling)
- 12V/24V/48V auto work
- MPPT efficiency >99%, Peak conversion efficiency >98%
- DSP processors technology ensure high speed and performance
- Multi-stage charging mode
- Protection: PV array short circuit, PV reverse polarity, Battery reverse polarity, Over charging, Output short circuit

**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.

**LCD Display Information**

- **LED Display:**
  - MENU: Enter or exit setting mode.
  - INC: Increase the setting data.
  - DEC: Decrease the setting data.
  - ENTER: Confirm the selection in setting mode.
  - MENU: Enter or exit setting mode.

- **System Status:**
  - PV Panel: PV voltage normal
  - Charging: PV fault is recovering
  - Off: PV array short circuit
  - Battery charging normal
  - Battery fault is recovering
  - Battery fault can’t recover

- **Control Panel Markings:**
  - Red: Fault, Fault
  - Yellow: Flashing, Charging

**Solar System Connection**

- **PV Panel:**
  - PV Open Circuit Voltage
  - PV Array MPPT Voltage Range
  - Max PV Input Power (12V, 24V, 48V)
  - Battery Voltage
  - Peak Conversion Efficiency

**Specification**

<table>
<thead>
<tr>
<th>Model</th>
<th>PC16-4015F</th>
<th>PC16-6015F</th>
<th>PC16-8015F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Battery System Voltage</td>
<td>12V/24V/36V/48VDC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PV Open Circuit Voltage</td>
<td>12V/30V/45V/60VDC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PV Array MPPT Voltage Range</td>
<td>48VDC/130VDC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max PV Input Power (12V)</td>
<td>600W</td>
<td></td>
<td></td>
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<tr>
<td>Max PV Input Power (24V)</td>
<td>1200W</td>
<td></td>
<td></td>
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<tr>
<td>Max PV Input Power (36V)</td>
<td>1800W</td>
<td></td>
<td></td>
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<tr>
<td>Max PV Input Power (48V)</td>
<td>2400W</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery Voltage</td>
<td>12V/30V/45V/60VDC</td>
<td></td>
<td></td>
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<tr>
<td>Peak Conversion Efficiency</td>
<td>98% (MPPT Efficiency 99%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alarm Protections</td>
<td>PV short circuit, PV reverse polarity, Battery reverse polarity, Over charging protection, Short circuit protection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LCD Display</td>
<td>Charge voltage, charge current, voltage of storage battery, capacity of storage battery, output current</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Systematic Operation</td>
<td>LV indication, LV protection, Over charge protection, Short circuit protection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Rating</td>
<td>Indoor</td>
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<td></td>
</tr>
<tr>
<td>Operation Temperature Range</td>
<td>-25~55°C</td>
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<td></td>
</tr>
<tr>
<td>Ambient humidity</td>
<td>0~90% relative humidity (non-condensing)</td>
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</tr>
<tr>
<td>Altitude</td>
<td>≤3000m</td>
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<tr>
<td>Loading (200W/400W/600W)</td>
<td>3000W</td>
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</tbody>
</table>

**Back Panel**

- **Wiring Compartment Marks:**
  - LO+: The load positive terminal
  - LO-: The load negative terminal
  - BA+: The battery positive terminal
  - BA-: The battery negative terminal
  - REM: RS485 Communication network terminal (Use for computer)

- **Back Panel Markings:**
  - 5. PV+: PV array positive terminal
  - 6. PV-: PV array negative terminal
  - 7. REM: RS485 Communication network terminal (Use for computer)

- **Battery Remote Temperature Sensor Terminal:**
  - BTS: Battery Remote Temperature sensor terminal

- **RS485 Communication Network Terminal:**
  - REM: RS485 Communication network terminal (Use for computer)