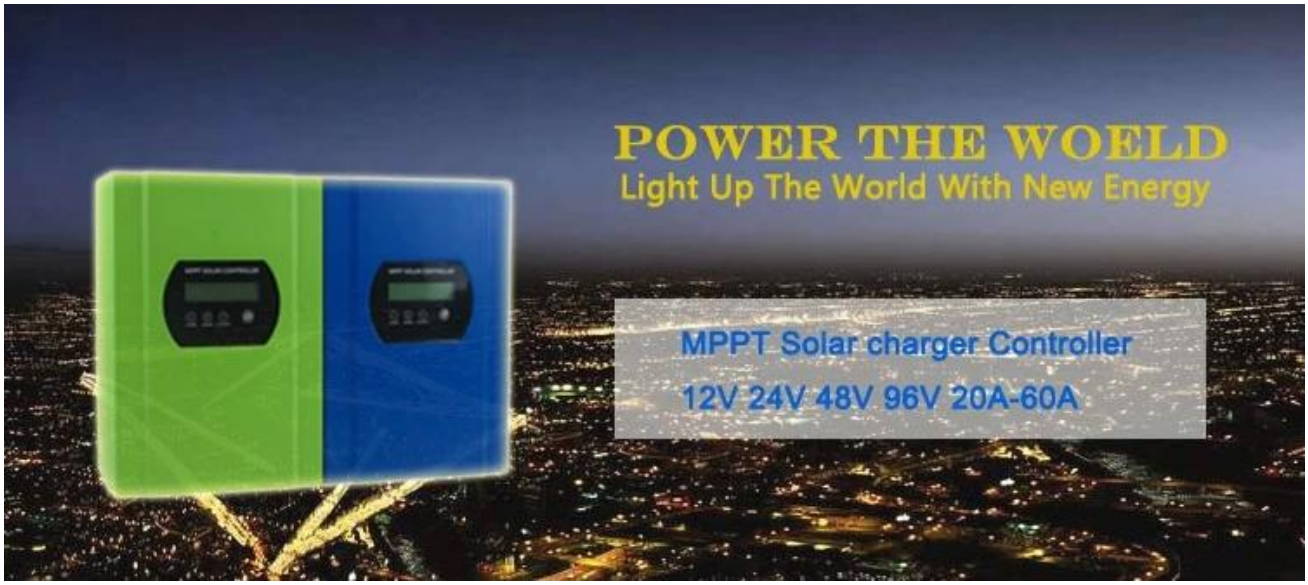
# 40a 12V 24V 48V system mppt solar panel tracker controlador




This is a smart solar charge controller which has advanced MPPT technology .Solar charge controller is one of the important parts in the off-grid solar system. For having the advanced MPPT technology, the controller can trace the peak power with 99% conversion efficiency. MPPT microprocessor, inside the controller making 30% more charge current with significantly less power than tradition. In addition to this, easier installing and supporting to expand volume are other advantages. It can also store energy to different kinds of batteries. We provide battery choice(Vented Sealed Gel NiCd).

**Feature:**

1.MPPT charge mode,conversion efficiency upto 99%,can save 30%~60% of the power than traditional controller.

2.With high efficient MPPT operation scheme and adopting TI28035 chip,make the Solar panels utilization rate upto 99%.

3.Intelligent design,the device can be upgraded online,customers enjoy the lifelong upgrade service.

4.Compliance with the 2002/95/EC environment protecting demand,doesn’t include the Cadmium, hydride and fluoride

5.Adopting the well-known brand components,the devices can suffer the temperature not less than 105℃.The service life is designed to extend to 10 years in theory.

6.Charge mode: three stages (fast charge,constant charge,floating charge)

7.12V/24V/48V system auto recognize for easy control.

8.Nominal maximum solar input is DC 150V

9.Connected Battery Type choosing: Sealed lead acid, vented, Gel, NiCd battery. Other types of the batteries can also be defined.

10. LCD and LEDs show all kinds of parameter like products model, PV input voltage,battery voltage,charge current,charge power,work condition,and also can add customers’company name and website.

11. Communication Port.RS232 communication can provide communication protocol, This make the unified and integrated management more convenient to customers.

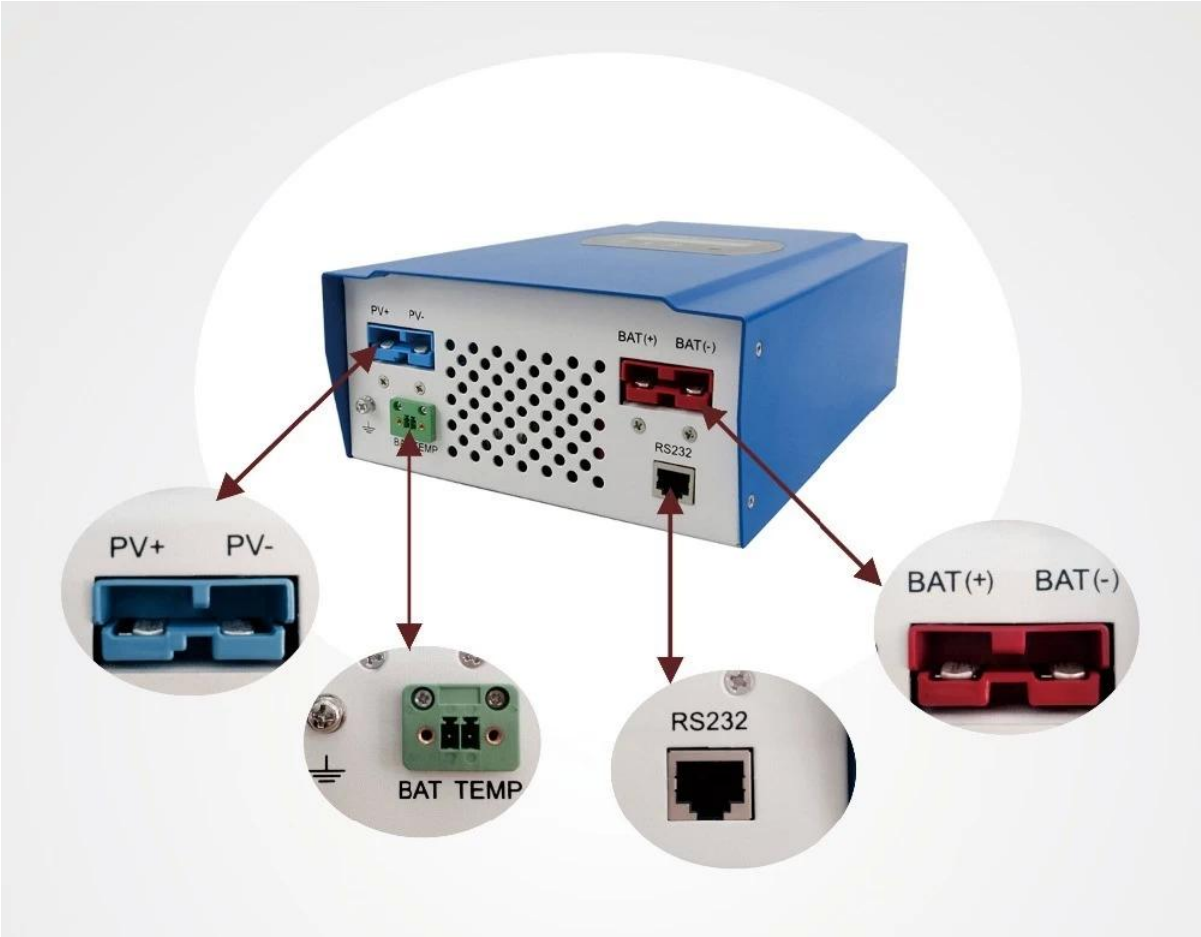
12. With providing a Microsoft by connecting with PC that can show the working state and all parameters in 7 languages.

13. Extensible LAN remote control.

14.Equipment integrity: controller+CD-ROM(microcomputer software) + communication wire+Anderson terminals;

15.CE,ROHS,FCC,PSE certifications approved.The device also can support to pass the other certifications.

16. 2 years warranty. And 3~10 years extended warranty service also can be provided.




**Parameters**

| Model:I-P-SMART1-DC12V/24V/48V-series | 40A | |
|---|---|---|
| Charge Mode | Maximum Power Point Tracking | |
| Method | 3 stages: fast charge(MPPT),constant voltage,floating charge | |
| System Type | DC12V/24V/48V | Automatic recognition |
| System Voltage | 12V system | DC9V~DC15V |
| | 24V system | DC18V~DC30V |
| | 48Vsystem | DC36V~DC60V |
| Soft Start Time | 12V/24V/48Vsystem | ≤10S |
| Dynamic Response Recovery Time | 12V/24V/48Vsystem | 500us |
| Conversion Efficiency | 12V/24V/48Vsystem | ≥96.5%,≤99% |
| PV Modules Utilization Rate | 12V/24V/48Vsystem | ≥99% |
| Input Characteristics | | |
| MPPT Working Voltage and Range | 12V system | DC18V~DC150V |
| | 24V system | DC34~DC150V |
| | 48V system | DC65~DC150V |
| Low Voltage Input Protection Point | 12V system | DC16V |
| | 24V system | DC30V |
| | 48V system | DC60V |
| Low Voltage Input Recovery Point | 12V system | DC22V |
| | 24V system | DC34V |
| | 48V system | DC65V |

| | | |
|---|---|---|
| Max DC Voltage | 12V/24V/48V system | DC160V |
| Input Overvoltage Protection Point | 12V/24V/48V system | DC150V |
| Input Overvoltage Recovery Point | 12V/24V/48V system | DC145V |
| Max. PV Power | 12V system | 570W |
| | 24V system | 1130W |
| | 48V system | 2270W |
| Output Characteristics | | |
| Selectable Battery Types (Default type is GEL battery) | 12V/24V/48Vsystem | Sealed lead acid, vented, Gel, NiCd battery |
| | | (Other types of the batteries also can be defined) |
| Constant Voltage | 12V/24V/48V system | Please check the charge voltage according to the battery type form. |
| Floating Charge Voltage | 12V/24V/48V system | |
| Over Charge Protection Voltage | 12V system | 14.6V |
| | 24V system | 29.2V |
| | 48V system | 58.4V |
| Rated Output Current | 12V/24V/48V system | 40A |
| Current-limiting Protection | 12V/24V/48V system | 44A |
| Temperature Factor | 12V/24V/48V system | ±0.02%/℃ |
| Temperature Compensation | 12V/24V/48V system | 14.2V-(The highest temperature-25℃)*0.3 |
| Output Ripples(peak) | 12V/24V/48V system | 200mV |
| Output Voltage Stability Precision | 12V/24V/48V system | ≤±1.5% |

**Pictures**

## The Figures of the PC Firmware and Testing Software

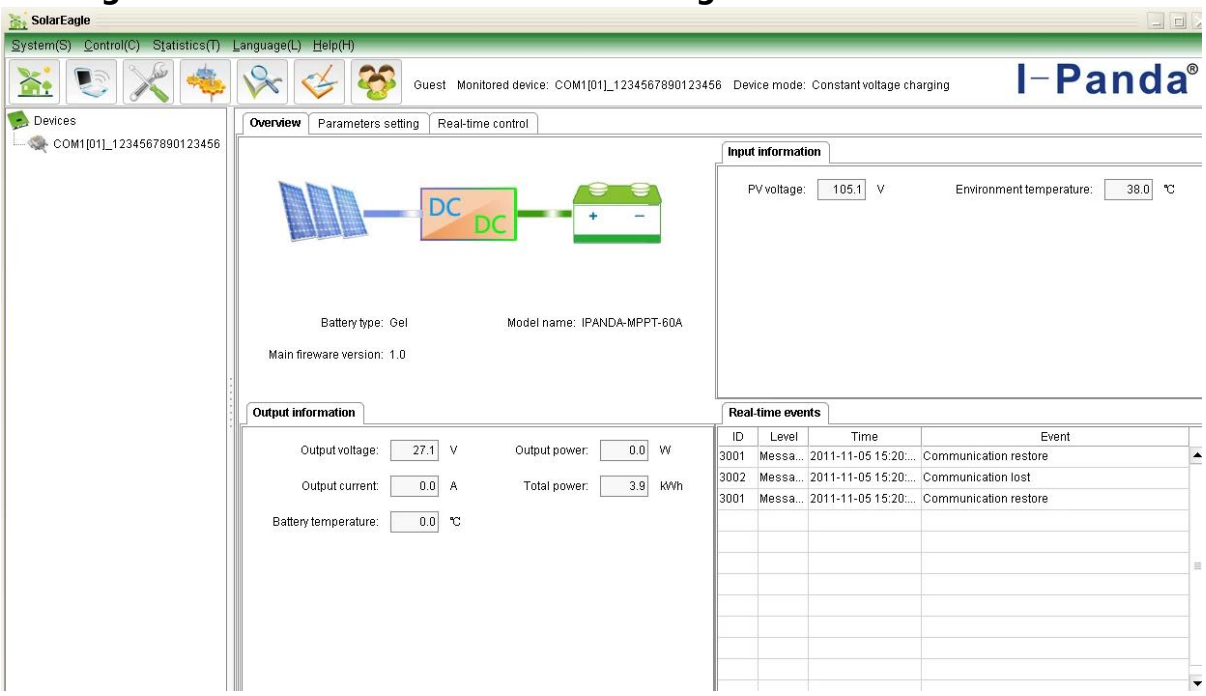



Figure 1: PC Firmware

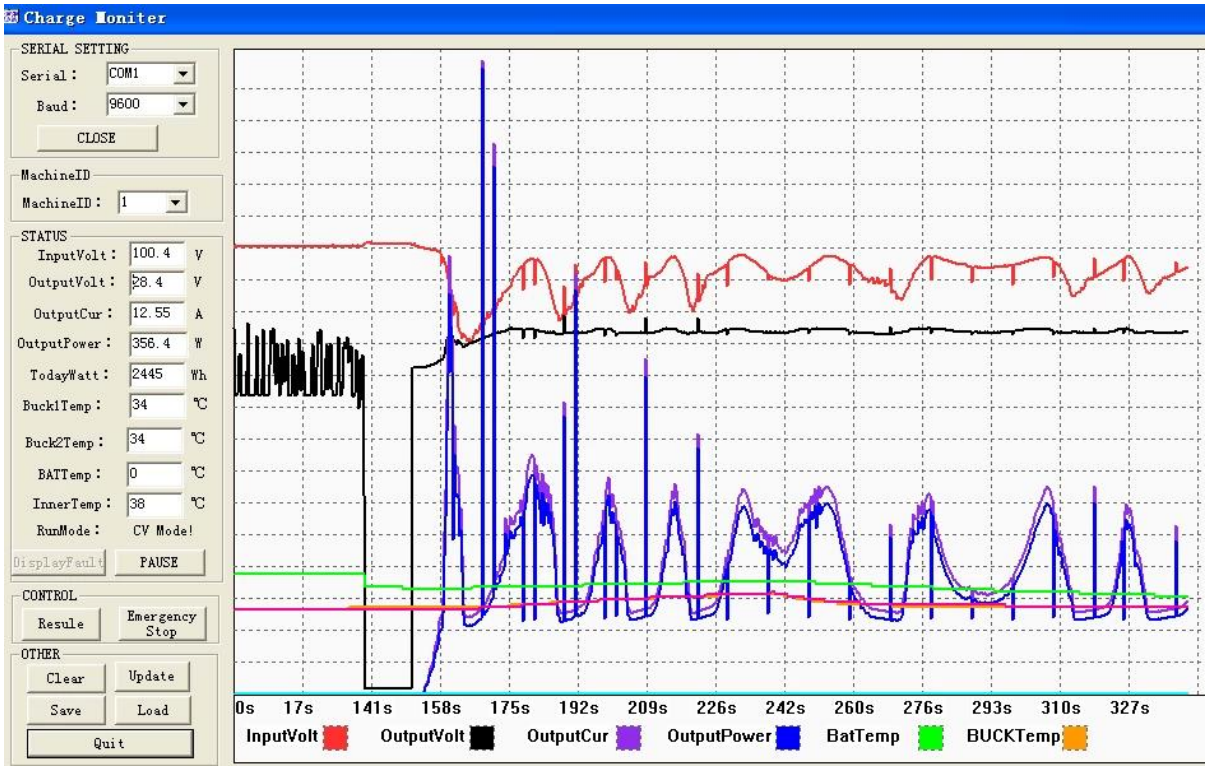


Figure: Testing Software

Welcome to order I-Panda MPPT Solar Charge Controller Smart1 48V 40A~60A

## Certificate

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ISO 14001:2004
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MS CERT
Certificate Of Registration
QUALITY MANAGEMENT SYSTEM
SHENZHEN I-PANDA NEW ENERGY TECHNOLOGY & SCIENCE CO., LTD.
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**Company**

I-Panda爱庶德