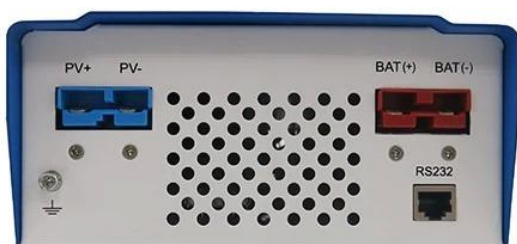


China factory 12V/24V/48V Automatic [MPPT solar chargecontroller](#) 40a





## Core properties of [mppt charger controller](#)

1. Conversion efficiency 95%-99%, take most from solar panels
2. Charge for all kinds of batteries, 3 charge stage to protect battery.
3. All kinds of battery are available .
4. commucation port :RS232.
5. Software to monitor 100pcs equipments at the same time on one screen on acomputer.

## Software to monitor 100pcs controller pictures show:

## Parameter of mppt charger controller

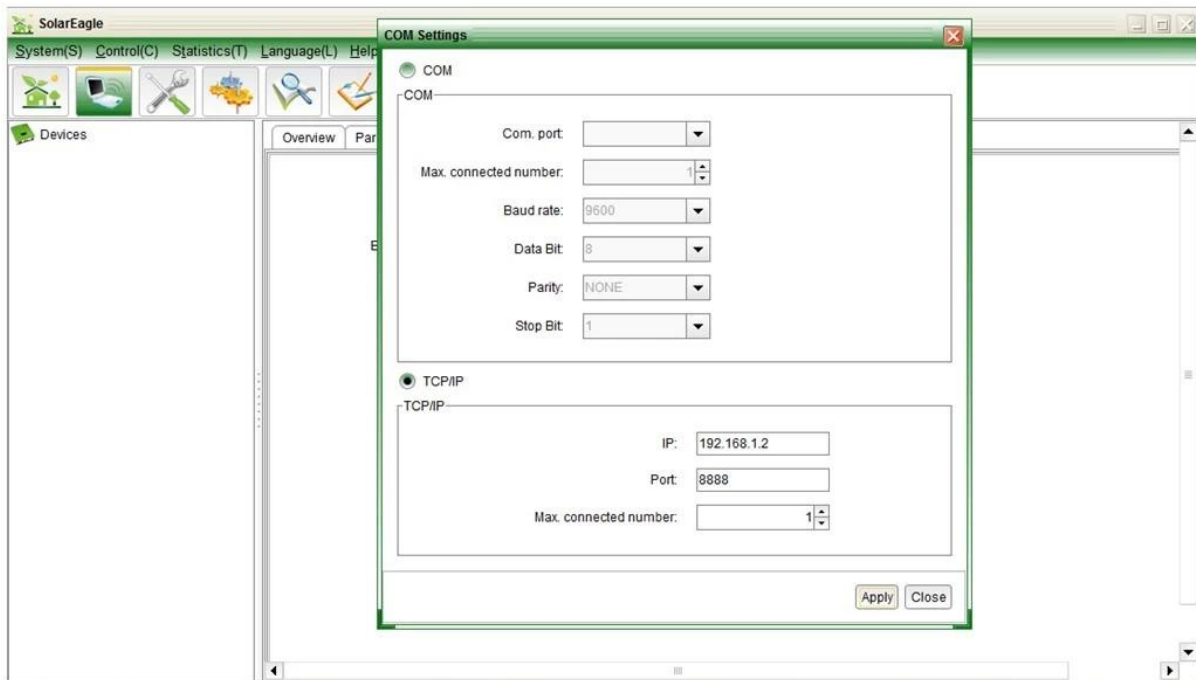
|  |   |  |       |       |
|--|---|--|-------|-------|
| Model: I-P-SMART1 -DC12V/24V/48V-series                |   | 40A  | 50A   | 60A   |
| Charge Mode  | Maximum Power Point Tracking  |  |       |       |
| Method   | 3 stages: fast charge(MPPT),constant voltage,floating charge  |  |       |       |
| 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%   |       |       |
| <b>Input Characteristics</b>                           |   |  |       |       |
| 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  | DC150  |       |       |
| Input Overvoltage Recovery Point                       | 12V/24V/48V system  | DC145V   |       |       |
| Max. PV Power  | 12V system  | 570W   | 700W  | 900W  |
|  | 24V system  | 1130W  | 1400W | 1700W |
|  | 48V system  | 2270W  | 2800W | 3400W |
| <b>Output Characteristics</b>                          |   |  |       |       |
| 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  | 50A   | 60A   |
| Current-limiting Protection                            | 12V/24V/48V system  | 44A  | 55A   | 66A   |
| Temperature Factor                                     | 12V/24V/48V system  | ±0.02%/°C  |       |       |
| Temperature Compensation                               | 12V/24V/48V system  | 14.2V-(The highest temperature-25°C)*0.3   |       |       |
| Output Ripples(peak)                                   | 12V/24V/48V system  | 200mV  |       |       |
| Output Voltage Stability Precision                     | 12V/24V/48V system  | ≤±1.5%   |       |       |
| <b>Display</b>   |   |  |       |       |
| LCD display  | Input,output parameter and output power etc (check the LCD display instruction)                                     |  |       |       |
| LED display  | 3 LEDs indicates:Fault indicate light,charge indicate light, power source indicate light(check the LED instruction) |  |       |       |
| Software Control through PC(communication port)        | RS232 (matching) or LAN(optional)   |  |       |       |
| <b>Protection</b>                                      |   |  |       |       |
| Input Low Voltage Protection                           | Check the input characteristics   |  |       |       |
| Input Overvoltage Protection                           | Check the input characteristics   |  |       |       |
| Input Polarity Reversal Protection                     | yes   |  |       |       |
| Output Overvoltage Protection                          | Check the output characteristics  |  |       |       |
| Output Polarity Reversal Protection                    | yes   |  |       |       |

|                               |   |
|-------------------------------|---|
| Short-circuit Protection      | Recover after eliminating the Short-circuit fault,no problem for long term Short-circuit  |
| Temperature Protection        | 95°C  |
| Temperature protection        | Above 85°C,decrease the output power,decrease 3A per degree.  |
| <b>Other Parameters</b>       |   |
| Noise                         | ≤40dB   |
| Thermal methods               | Forced air cooling,fan speed rate regulated by temperature,when inner temperature is too low,fan ran slowly or stop;<br>when controller stop working,fan also stop ran. |
| Components                    | World brand raw materials. Compliance with EU standards.<br>All rated temperature of electrolytic capacitors not less than 105°C  |
| Smell                         | No peculiar smell and and toxic substances.   |
| Environment Protection        | Meet the 2002/95/EC,no cadmium hydride and fluoride   |
| <b>Physical</b>               |   |
| Measurement DxWxH(mm)         | 270*185*90  |
| N.G(kg)                       | 3   |
| G.N(kg)                       | 3.6   |
| Color                         | Blue/Green (optional)   |
| Safety                        | CE,RoHS, PSE,FCC  |
| EMC                           | EN61000   |
| Type of Mechanical Protection | IP21  |

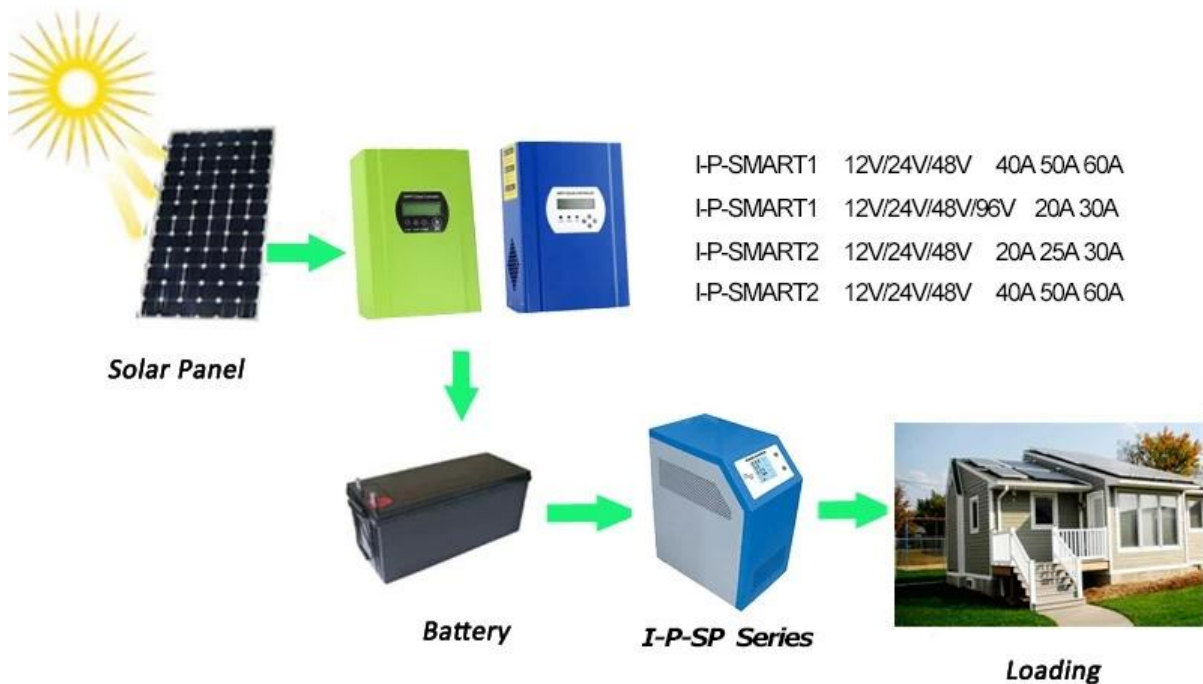
## Product Parts

| NO. | Quantity | Description  |
|-----|----------|--|
| 1   | 1 unit   | Charge controller  |
| 2   | 2 pc     | Terminals  |
| 3   | 2 pc     | Gallow pulley<br>(For install the controller on the wall ) |
| 4   | 4 set    | Screw<br>(For install the controller on the wall )         |
| 5   | 1 pc     | 232 turn to RJ45 communication cable                       |
| 6   | 1 pc     | User manual  |
| 7   | 1 pc     | Temperature sensing wire                                   |
| 8   | 2 pc     | Fuse wire  |

## UpperComputer Software and Test Software



## MPPT Connection



## Service and Contact

### 1. Warranty

1.1 Two years warranty, lifelong technical assistance.

### 2. Conditions and Terms

2.1 The warranty starts from the delivery date from our factory.

2.2 During the warranty, any defective product will get repaired or replaced for free.

2.3 The warranty is unavailable for those products which are broken by the violence or the carelessness or repaired or altered without the authorization.

### 3. Lead Time

3.1 Sample orders: 1~5 working days.

3.2 Mass orders: Depend on Quantity

### 4. Shipment

4.1 Samples By EMS, DHL, FedEx TNT or other express.

4.2 Mass orders by our forwarding agent (by air or by sea).

4.3 Mass orders by your own forwarding agent.

