## Introduction

This is a <u>solar charge controller</u> 40A ~60A that have automatic max. power point tracking function with high

efficiency that almost  $30\%\sim60\%$  higher than traditional charge controller. It also features the functions of system

voltage auto recognition, wide rang of PV input ,charge for all kinds of battery,automatic discharge control,RS

232 / LAN communication function and so on. It is very high-end product for solar market with its best partner <u>I-P-TPI2 model Inverter/Charger/UPS.</u>

# **Application**

- 1. Industrial, commercial, household off grid solar energy generation system
- 2. Movable off grid solar energy generation system
- 3. Communication base stations
- 4. New energy education business
- 5. Solar Monitoring System
- 6. Solar Street Lighting System







## Feature:

- 1.MPPT charge mode, conversion efficiency upto 99%
- 2.12V/24V/48V system auto recognize;
- 3. Wide range of PV input with max. is DC150V.
- 4. Unlimited parallel connection
- 5. Journal function, Save function set, Date, time, Generating capacity and so on.
- 6.Charge mode: three stages (fast charge ,constant charge ,floating charge) .It prolongs service life of the batteries .
- 7.Discharge mode: ON/OFF mode, double time control mode,PV voltage control mode ,PV voltage+time delay mode and so on .
- 8.Recommended battery types: sealed lead acid, vented, gel, NiCd battery. Other types of the batteries can also be defined.
- 9.Most information could be provide by LCD and LED like: model no.,PV input voltage,battery type,battery voltage,charging current,charging power,working status and so on. Also customer's information like

company name, website and logo can be added into Solar Eagle software.

- 10.RS232 and LAN communication port. IP and Gate address could be user define it satisfy global area. And communication protocol can be provided to help customer manage all information .
- 11. The upper computer software is displayed in 11 languages, it could show work status and set parameters of the discharge system.
- 12. With intelligent design, the device can be upgraded online lifelong.
- 13.Adopting the well-known brand components, the devices can suffer the temperature not less than 105°C. The service life is designed to use for 10 years in theory.
- 14.Compliance with the 2002/95/EC environment protecting demand, doesn't include the Cadmium, hydride and fluoride etc material
- 15.Equipment integrity: controller + CD-ROM(microcomputer software) + communication wire + temperature sensing wire+Anderson terminals;
- 16.CE,ROHS certifications approved.
- 17.2 years warranty. And 3~10 years extended warranty service also can be provided.

#### **Parameter:**

Model:I-P-SMART2-40A/50A/60A -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%			
Input Characteristics					
	12V system	DC18V~DC150V			
MPPT Working Voltage and Range	24V system	DC34~DC150V			
	48V system	DC65~DC150V			
Low Voltage Input Protection Point	12V system	DC16V			
	24V system	DC30V			
	48V system	DC60V			
	12V system	DC22V			
Low Voltage Input Recovery Point	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	
0.1.1.01	48V system	2270W	2800W	3400W	
Output Characteristics					
Selectable Battery Types (Default type is GEL battery)	12V/24V/48V system	Sealed lead acid, vented, Gel, NiCd battery (Other types of the batteries also can be defined)			
Constant Voltage Floating Charge Voltage	12V/24V/48V system 12V/24V/48V system	Please check the charge voltage according to the battery type form.			
	12V system	14.6V			
Over Charge Protection Voltage	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	
Rate charge current	12V/24V/48V System	40A	50A	60A	
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%			
Charge voltage Peak-Peak Ripple	12V/24V/48V System	200mV			
	12V/24V/48V System				

Note: OEM and ODM service are provided. The 36V/72V/96V model also can be custom made for you.

#### **Product Parts**

NO.	Quantity	Description		
1	1 unit	Charge controller		
2	2 pc	Terminals		
3	2 pc	Gallow pulley (For install the controller on the wall )		
4	4 set	Screw (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		



**Upper Computer Software and Test Software** 

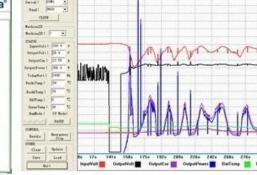




The interface of upper computer software working

The interface of upper computer software parameter setting state

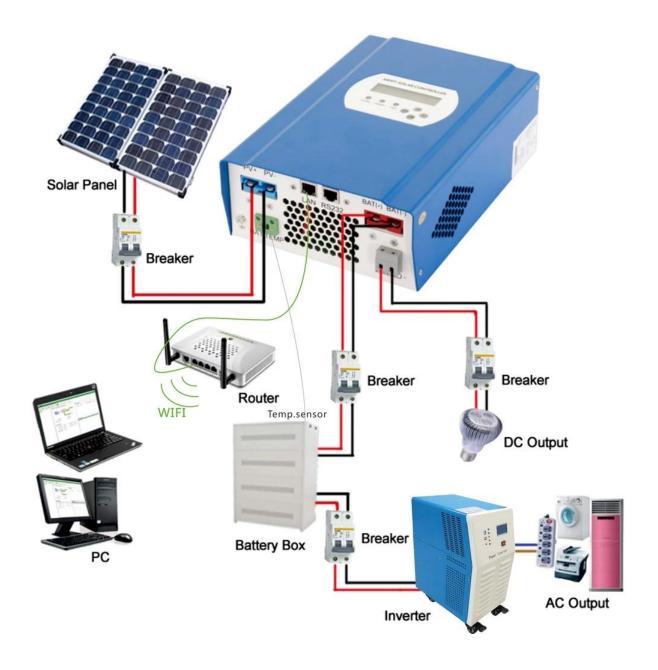


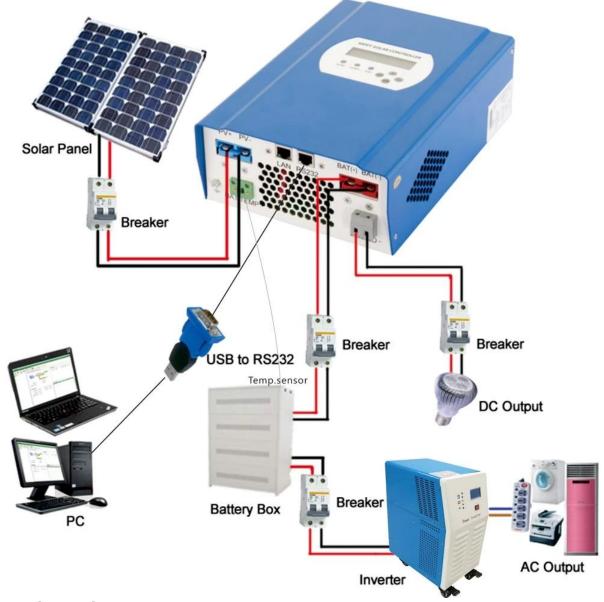


Upper computer software on/off interface and generating capacity record clean interface

The interface of test software working state

#### **MPPT Connection**





#### **Service and Contact**

## 1. Warranty

1.2 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 will be delivered from our factory within 5-7 working days.
- 3.2 General orders will be delivered from our factory within 7-15 working days.
- 3.3 Big orders will be delivered from our factory within 25 working days at most.

## 4. Shipment

- 4.1 Samples By EMS, DHL, FedEx or other express.
- 4.2 Wholesale orders by our forwarding agent(by air or by sea).
- 4.3 Wholesale orders by your own forwarding agent.

## 5. OEM and ODM

5.1 This page shows basic data, we can provide OEM, ODM service for you.