Introduction

This is a <u>solar charge controller 20A \sim 30A</u> that have automatic max. power point tracking function with high

efficiency that almost 30%~60% 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 \underline{I} -

P-TPI2 model Inverter/Charger/UPS.

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

Reasons to choose

1. 30%-60% solar panels saved

1) Peak efficiency 99%, take most from solar panels

2) Charge for all kinds of batteries, 3 charge stage to protect battery.

Reduce consumption, cost saved.

2. Data monitor and set. Parameters from solar panels like charge current/voltage and IP gate address, total

generation power, etc can be showed. 4 kinds DC load control, automaticly save ernergy both from human and

solar. Sit beside your PC to monitor your power system.

- 3. Lan commucation and RS232 port.
- 4. <u>Software to monitor 100pcs equipments</u> at the same time on one screen on a computer.

Features

- 1. MPPT charge mode, conversion efficiency upto 99%
- 2. 12V/24V/48V system auto recognize;
- 3. Wide range of PV input with max. is $\mathsf{DC150V}$.
- 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) .lt 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.

Parameter

I di difictei				
MODEL:I-P-SMART2 SERIES	-20A/25A/30A -	20A	25A	30A
Charge Mode		Maximum Power	r Point Tracking	
Discharge Mode		Intelligent contro		
System Type		<u> </u>	omatic recognition	on
Soft Start Time		≤10S		
Dynamic Response Time	Recovery	500us		
Conversion Efficien	су	≥96.5%,≤99%		
PV Modules Utilizati	on Rate	≥99%		
INPUT CHARACTERI	STICS			
MPPT Working	12V system	DC18V~DC150V		
Voltage and Range	24V system	DC34~DC150V		
voltage and hange	48V system	DC65~DC150V		
Low Voltage Input	12V system	DC16V		
Protection Point	24V system	DC30V		
	48V system	DC60V		
Low Voltage Input	12V system	DC22V		
Recovery Point	24V system	DC34V		
	48V system	DC65V		
Max. DC Voltage		DC160V		
Input Overvoltage F				
Input Overvoltage F		DC145V		
	12V system	286W	357W	429W
Max. PV Power	24V system	572W	715W	858W
	48V system	1144W	1430W	1716W
CHARGE CHARACTE	RISTICS			
Selectable Battery	Types	hattory(Dofault t	, vented, Gel, NiC ype is GEL batter	(v
Other types of Batt	erv Setting	Constant charge	User-defined con charge voltage r	unge between
	cry Secting	Floating charge	DC10V~DC15(比 12V battery)	based on 1 pcs

Charge Type 12V/24V/48V Three Stages :Fast charge/Floating charge Rated Output Current 20A 25A 30A Current-limiting Protection 25A 30A 35A Temperature factor ±0.02%/°C 30A 35A Output Voltage Stability Precision ±1.5% 5A 30A Output Voltage Stability Precision ±1.5% 5A 30A DiSCHARGE CHARACTERISTICS Setting Control Controller or LAN Max discharge power 420W 840W 1680W Discharge protection fuse 40A*2 5A 30A Max discharge power 420W 840W 1680W 1680W Discharge protection fuse 40A*2 5A 30A 30A Double-time control night On in morning off in morning / On in night off in night 5A V voltage control PV voltage on,PV voltage off PV voltage for PV voltage off PV voltage for PV voltage for Controller and solar eagle ;Then chose TCP communication Resource / time delay control PV voltage notection Set is 10.5 . (Note : set based on 1 battery) COMMUNICATION PORT Gasta address for controller and solar eagle ;Then	Battery Type Setting	12V/24V/48V SYS	Controller and u	pper monitor
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Temperature Factor ±0.02%/°C Temperature Compensation 14.2V-(The highest temperature-25°C)*0.3 Output Ripples(peak) 200mV Output Ripples(peak) 200mV Charge voltage Peak-Peak Ripple 200mV Charge voltage accuracy ≤±1.5% DISCHARGE CHARACTERISTICS Setting Control Setting Control Controller or LAN Max discharge power 420W Max discharge power 420W Nolscharge protection fuse 40A*2 Double-time control On in morning ,off in morning / On in night ,off in night ON / OFF mode ON / OFF PV voltage control PV voltage on,PV voltage off PV voltage / time delay control PV voltage on,PV voltage off PV voltage / time delay control PV voltage on,PV voltage off RS232 Communication Chose COM communication RS232 Communication Set IP and Gate address for controller and solar eagle ; Then chose TCP communication Recover after eliminating the Short-circuit fault, I problem for long term Short-circuit fault, I Protection Recover after eliminating the Short-circuit fault, I Protection Shove 85°C, decrease the output power, decreased	Rated Output Current	20A	25A	
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Measurement DxWxH (mm) 270*185*90	PHYSICAL			
	Measurement DxWxH (mm)	270*185*90		

N.G(kg)	2.1
G.N(kg)	2.4
Color	Blue/Green (optional)
Safety	CE, RoHS, PSE,FCC
EMC	EN61000
Type of Mechanical Protection	IP21
ENVIRONMENT	
Humidity	0~90%RH (no condense)
Altitude	0~3000m
Operating Temperature	-20°C ~ +40°C
Storage Temperature	-40°C ~ +75°C
Atmospheric Pressure	70~106kPa

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 pc	Charge controller
2	2 pc	Gallow pulley (For install the controller on the wall)
3	4 set	Screw (For install the controller on the wall)
4	1 pc	232 turn to RJ45 communication cable
5	1 pc	User manual
6	1 pc	Temperature sensing wire
7	2 рс	Fuse wire



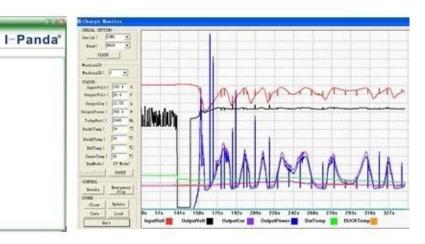
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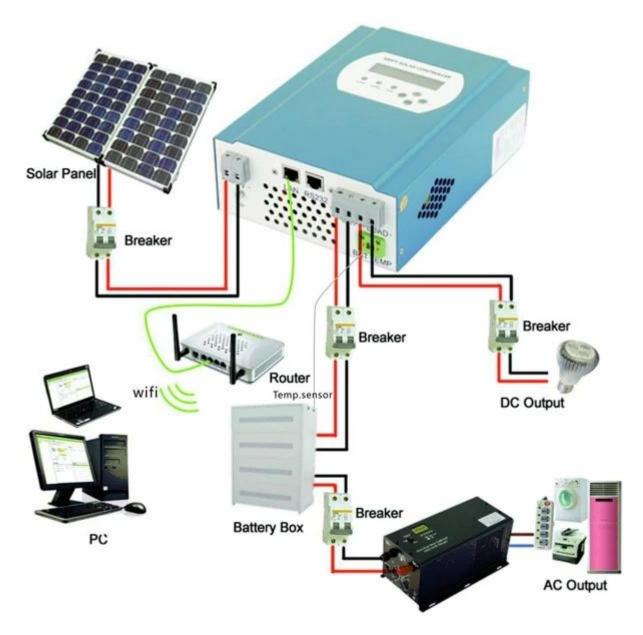
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The interface of test software working state

MPPT Connection

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Certificates

ISO2008 ISO2004 CE FCC ROHS

Service and Contact

- 1. <u>OEM and ODM service</u> are provided.
- 2. Power solution consult available based on technical group.
- $3.\ 24$ months warranty; $3\ to\ 10\ years$ extended
- 4. Free technical study and discussion