Introduction

This is a <u>solar charge controller 40A ~60A</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 higher 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

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.
- 3. Lan commucation and RS232 port.
- 4. Software to monitor 100pcs equipments 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 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.

Parameter

Charge Mode	Model:I-P-SMART2-40A/50A/60A -series		40A	50A	60A		
Membod Saleges load charged/PRF1 (constant vollage, floating charge system Type DC129V249V8 Patronalis recognition DC129V249V8 DC129V249V8 Patronalis recognition DC129V249V8 Patronalis recognitio		Maximum Power P		Por	Juun		
System Spice Spi		5					
12					:		
System	System Type	, , , ,		.1011			
Service	Contain Maltain						
100 100	System voltage						
Substitute			DC36V~DC60V				
2000	Soft Start Time	12V/24V/48Vsyste	≤10S				
20/24/48/bysee 20/24/48/b		m					
20/24/48/bysee 20/24/48/b		12V/24V/48Vsyste	500us				
Weduclase Ublization Rate 127/2474488V 296.539.5995	Recovery Time	1111	50005				
PV Modules Utilization Rate	Conversion Efficiency	12V/24V/48Vsyste	>96 5% <99%				
May 1999 1	conversion Emerciney						
Input Characterists S	PV Modules Utilization Rate	12V/24V/48Vsyste	>99%				
21			= 3370				
MPP Working voltage and Range APV system DC34 - DC150V STEEP	Input Characteris						
ABV system DCG5 - DCISOV		12V system	DC18V~DC150V				
12V system	MPPT Working Voltage and Range	24V system					
Low Voltage Input Protection Point 24V system DC50V		48V system	DC65~DC150V				
Selection Core Co		12V system	DC16V				
Several Seve	Low Voltage Input Protection Point	24V system	DC30V				
12			DC60V				
ZAV system SCAW							
ABV system 20/24/498V 20/	Low Voltage Input Recovery Point						
Abay DC Voltage 22V/24V/48V System 12V/24V/48V System Sys							
May Lo Voltage System May Lo Voltage System May Lo Voltage Protection Point Provided Protection Point Protection Point Poin							
Input Overvoltage Protection Point 12V/Z4V/48V 12V/Z4V/48V 12V/Z4V/48V 12V/Z4V/48V 12V/Z4V/48V 130W 1400W 1700W 17	Max DC Voltage		DC160V				
	Input Overvoltage Protection Point		DC150				
System S							
12V system 13VW 1300W 1700W	Input Overvoltage Recovery Point		DC145V				
Max. PV Power			E70W	7001	looow		
May System 270W 2800W 3400W 3400W	May DV Dawar						
Output Current System System System Output Current System	Max. PV Power						
227/24V/88V Sealed lead acid, vented, Gel, NiCd battery Sealed lead acid, vented, Gel, Acid, A		48V system	2270W	2800W	3400W		
System Cother types of the batteries also can be defined		I	l <u> </u>				
12V/24V/48V 5ystem 12V/24V/48V 5ystem 12V/24V/48V 5ystem 12V/24V/48V 5ystem 12V/24V/48V 59.2V 50.0mV 50.							
12V/24V/48V 5V5tem 14.6V 5V5tem 14.6V 5V5tem 14.6V 5V5tem 14.6V 5V5tem 14.6V 5V5tem 14.6V 5V5tem 5V	battery)		Other types of the	batteries also can be o	lefined)		
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12V/24V/48V 50A 50A 60A 60	Constant Conage		Please check the charge voltage according to the battery type form.				
12V system 14.6V	Floating Charge Voltage		rease check the charge relaced and settle pattern type forms				
24 24 52 58 40 40 50 40 50 40 50 40 50 40 50 40 50 40 50 40 50 40 50 40 50 5							
ABV system S8.4V							
\$\frac{1}{2}\text{V/24}\text{V/88V} \$\frac{1}{2}\text{V/24}\text{V/88V} \$\frac{1}{2}\text{V/24}\text{V/48V} \$\frac{1}{2}\text{V/24}V	Over Charge Protection Voltage	24V system	29.2V				
August A		48V system	58.4V				
System S	Batad Output Current	12V/24V/48V	404	EOA	604		
Rate charge current 12V/24V/48V 50A 50A 50A	Rated Output Current	system	40A	BUA	OUA		
System 12V/24V/48V 50A 50A 60A	Current limiting Protection	12V/24V/48V	444	EEA	C C A		
System S	Current-limiting Protection	system	44A	DOA	00A		
System 12V/24V/48V system 14.2V-(The highest temperature-25°C)*0.3 12V/24V/48V system	D-t	12V/24V/48V	40.4	F0.4	COA		
System 12V/24V/48V 14.2V-(The highest temperature-25°C)*0.3 12V/24V/48V 14.2V-(The highest temperature-25°C)*0.3 12V/24V/48V 14.2V-(The highest temperature-25°C)*0.3 12V/24V/48V 12	Rate charge current	System	40A	DUA	60A		
System 12V/24V/48V 14.2V-(The highest temperature-25°C)*0.3 12V/24V/48V 14.2V-(The highest temperature-25°C)*0.3 12V/24V/48V 14.2V-(The highest temperature-25°C)*0.3 12V/24V/48V 12		12V/24V/48V	. 0 000/ /00		'		
Temperature Compensation 12V/24V/48V system 12V/24V/48V system 200mV Output Ripples(peak) 12V/24V/48V system 200mV System 200mV System 200mV System 200mV System 200mV System 12V/24V/48V System 200mV Charge voltage Peak-Peak Ripple 12V/24V/48V System 12V/24V/48V System 200mV Setting Control Controller or LAN 12V/24V/48V System 12V/24V/48V System Discharge current 12V/24V/48V System Discharge protection 12V/24V/48V System Double-time control 12V/24V/48V System Double-time delay control 12V/24V/48V System Discharge voltage protection 12V/24V/48V System Discharge voltage protection 12V/24V/48V System Discharge voltage protection 12V/24V/48V System Dupto off when it under setting voltage; Factory set is 10.5. (Note : set based on 1 battery) Communication Features 12V/24V/48V System Chose COM communication 12V/24V/48V Chose COM communication	lemperature Factor	system	±0.02%/℃				
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System Setting Control Controller or LAN Max discharge current 12V/24V/48V System 40A Discharge protection 12V/24V/48V System							
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Discharge characteristic Setting Control Max discharge current Discharge protection Discharge protection Discharge protection Double-time control ON / OFF mode PV voltage control Discharge voltage protection Discharge protection Discharge protection Double-time control Discharge protection Discharge protection Discharge protection Discharge protection Discharge voltage protect	Charger voltage accuracy		≤±1.5%				
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PV voltage control 12V/24V/48V System PV voltage / time delay control 12V/24V/48V System 12V/24V/48V Chose COM communication 12V/24V/48V Chose COM communication	ON / OFF mode		ON / OFF				
PV voltage control System 12V/24V/48V System PV voltage on pv voltage on 12V/24V/48V System PV voltage on time delay off 12V/24V/48V System Output off when it under setting voltage; Factory set is 10.5. (Note: set based on 1 battery) Communication Features 12V/24V/48V Chose COM communication			,				
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Communication Features 12V/24V/48V	Discharge voltage protection	12V/24V/48V	Output off when it	under setting voltage: [Factory set is 10.5 (Note : set based on 1 batton)		
RS232 Communication 12V/24V/48V Chose COM communication		System	Output on When It		decory sec is 10.5. (Note . sec based oil 1 battery)		
	Communication Features			<u> </u>			
	PS232 Communication	12V/24V/48V	Chose COM server	ınication			
pysion	M3232 COMMUNICACION	System	CHOSE COM COMMI	unication			

LAN Communication	12V/24V/48V System	Set IP and Gate address for controller and solar eagle ;Then chose TCP communication	
Protection			
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℃	
Temperature protection		Above 85°C,decrease the output power, decrease 3A per degree.	
Other Parameters			
Noise		≤40dB	
Thermal methods		Forced air cooling, fan speed rate regulated by temperature, when inner temperature is too low,	
		fan ran slowly or stop; when controller stop working, fan also stop ran. World brand raw materials. Compliance with EU standards. All rated temperature of electrolytic	
Components		capacitors not less than 105°C	
Smell		No peculiar smell and toxic substances.	
Environment Protection		Meet the 2002/95/EC,no cadmium hydride and fluoride	
Physical		, , . , . , . , . , . , . , . , .	
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	
Environment			
Humidity	0~90%	6RH (no condense)	
Altitude	0~300	~3000m	
Operating Temperature	-20°C	~ +40°C	
Storage Temperature	-40°C	~ +75℃	
Atmospheric Pressure	70~10	16kPa	

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	





Blue

Green







Upper Computer Software

Parts

Package

Upper Computer Software and Test Software



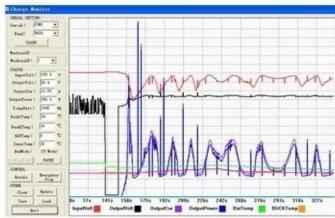


The interface of upper computer software working state

The interface of upper computer software parameter setting state

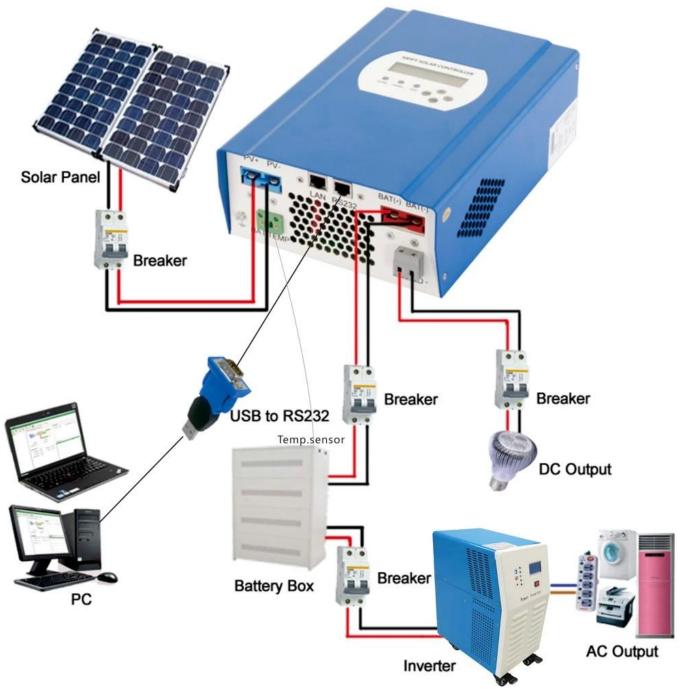


Upper computer software on/off interface and generating capacity record clean interface



The interface of test software working state

MPPT Connection Solar Panel Breaker Breaker Breaker Router WIFI Temp.sensor DC Output Breaker Battery Box PC AC Output Inverter



Certificates

ISO2008

ISO2004

CE

FCC

ROHS

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

5. OEM and ODM

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