Introduction:

This is a smart solar charge controller which has advanced MPPT technology .<u>Solar charge controller</u> 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 up to 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 up to 99%.

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°C. 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/96V system auto recognize for easy control.

8. 12V/24V/48V system maximum solar input is DC 150V ,96V system maximum solar input is DC 300V ; 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.



Parameter:

Model: I-P-MSC-DC12V/2	24V/48V/96V-series	20A	30A			
Charge Mode	Maximum Power Point Tracking					
Method	3 stages: fast charge(MPPT),constant voltage,floating charge					
System Type	DC12V/24V/48V/96V	Automatic recognition				
System Voltage	12V system	DC9V~DC15V	,			
	24V system	DC18V~DC30	DC18V~DC30V			
	48Vsystem	DC36V~DC60	DC36V~DC60V			
	96Vsystem	DC72V~DC12	DC72V~DC120V			
Soft Start Time	12V/24V/48V/96V	≤10S				
Dynamic Response Recovery Time	12V/24V/48V/96V	500us				
Conversion Efficiency	12V/24V/48V/96V	≥96.5%,≤99%				
PV Modules Utilization Rate	12V/24V/48V/96V	≥99%				
Input Characteristics						
	12V system	DC18V~DC15	0V			
MPPT Working Voltage and Range	24V system	DC34~DC150	DC34~DC150V			
	48V system	DC65~DC150	V			
	96Vsystem	DC125~DC30	0V			
Low Voltage Input Protection Point	12V system	DC16V	DC16V			
	24V system	DC30V	DC30V			
	48V system	DC60V	DC60V			
	96Vsystem	DC120V				

	12V system	DC22V			
Low Voltage Input	24V system	DC34V			
Recovery Point	48V system	DC65V			
	96Vsystem	DC125V			
	12V/24V/48V system	DC160V			
Max DC Voltage	96Vsystem	DC300V			
Input Overvoltage	12V/24V/48V system	DC150			
Protection Point	96Vsystem	DC300V			
Input Overvoltage	12V/24V/48V system	DC145V			
Recovery Point	96Vsystem	DC295V			
	12V system	280W 450W			
Max. PV Power	24V system	560W 850W			
	48V system	1120W 1700W			
	96Vsystem	2240W 3400W			
Output Characteristics					
Selectable Battery Types (Default type is GEL battery)	12V/24V/48V/96Vsystem	Sealed lead acid, vented, Gel, NiCd battery (Other types of the batteries also can be defined)			
Constant Voltage	12V/24V/48V/96Vsystem	Please check the charge voltage according to the			
Floating Charge Voltage		battery type form.			
	12V system	14.6V			
Over Charge Protection	24V system	29.2V			
Voltage	48V system	58.4V			
	96V system	116.8V			
Rated Output Current	12V/24V/48V/96Vsystem	20A 30A			
Current-limiting Protection	12V/24V/48V/96Vsystem	25A 35A			
Temperature Factor	12V/24V/48V/96Vsystem	±0.02%/°C			
Temperature Compensation	12V/24V/48V/96Vsystem	14.2V-(The highest temperature-25°C)*0.3			
Output Ripples(peak)	12V/24V/48V/96Vsystem	200mV			
Output Voltage Stability Precision	12V/24V/48V/96Vsystem	≤±1.5%			
Display					
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			
Software Control through	n PC(communication port)	instruction) RS232 (matching) or LAN(optional)			
Protection	The (communication port)	N3232 (matching) of LAN(optional)			
Input Low Voltage Protec	tion	Check the input characteristics			
Input Overvoltage Protec		Check the input characteristics			
Input Polarity Reversal P		yes			
Output Overvoltage Prot		Check the output characteristics			
Output Polarity Reversal		yes			
Short-circuit Protection		Recover after eliminating the Short-circuit fault,no problem for			
Temperature Protection		long term Short-circuit 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			
Thermal methods		temperature,when inner temperature is too low,fan ran slowly or stop;			
Thermal methods		ran slowly or stop; when controller stop working,fan also stop ran.			
Thermal methods		ran slowly or stop; when controller stop working,fan also stop ran. World brand raw materials. Compliance with EU			
Thermal methods Components		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 capacitors not			
Components		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 capacitors not less than 105°C			
		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 capacitors not			

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%RH (no condense)		
Altitude	0~3000m		
Operating Temperature	-20°C ~ +40°C		
Storage Temperature	-40℃ ~ +75℃		
Atmospheric Pressure	70~106kPa		

The specification is only for reference. Subject to change without prior notice.

We provide OEM and ODM service. The 36V/72V/96V model also can be custom made for you.

Pictures:





The Figures of the PC Firmware and Testing Software

SolarEagle						
System(S) Control(C) Statistics(T)	anguage(L) Help(H)				L De	
📤 🗳 🔏 🤏	Guest Monitored dev	ice: COM1[01]_1234567890123456	Device mode: C	Constant voltage ch	arging I-Pa	nda
Devices	Overview Parameters setting Real-time control]				
	Input information					
	DC DC	+ -	PV voltage:	105.1 V	Environment temperature:	38.0 °C
:	Battery type: Gel Mod Main fireware version: 1.0	el name: IPANDA-MPPT-60A				
	Output information	IL.	Real-time events	s		
		tput power: 0.0 W	ID Level	Time	Event	
	Output voltage: 27.1 V Output pov				Communication restore	^
	Output current: 0.0 A Total power: 3.9 KWh	otal power: 3.9 kWh			Communication lost	
	Battery temperature: 0.0 °C		3001 Messa 2	011-11-05 15:20	Communication restore	
		-				
		-				
		-				•



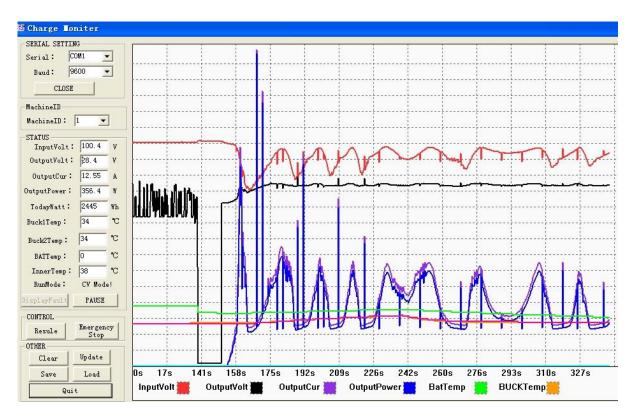


Figure: Testing Software

Applications

- 1. Industrial, commercial, household off-grid solar power system
- 2. moveable off-grid solar power system
- 3. Communication base stations
- 4. Energy knowledge popularization

Welcome to order I-Panda MPPT Solar Charge Controller Smart1 48V 50A

Company









