THIS RoHS Approved 12V 24V 48V 20A Voltage MPPT Solar Charge Contoller With Remote Monitoring

This is a solar charge controller 20A ~ 30A that have automatic maximum power point tracking function with high efficiency that almost 30% ~ 60% higher than traditional charge controller. It also features the functions of system auto recognition, wide rank of PV input voltage 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 I-P-TPI2 model Inverter/charge/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) conversion efficiency 95%-99%, take most from solar panels
2) charge for all kinds of batteries, 3 stage to protect battery charge. Reduce consumption, cost saved.
2 data monitor and set. Parameters from solar panels like current/voltage and IP address, total gate charge generation power, etc can be showed. 4 kinds DC load control, automaticly save after both from human and Solar.
3 Lan commucation and RS232 port.
4 software to monitor 100pcs equipments at the same time on one screen there computer.

Features

1.MPPT charge mode, conversion efficiency up to 99%

2.12V/24V/48v system auto recognize;

3. wide range of PV input with maximum is DC150V.

4.memory function, Save setting function: date, time, generating capacity record and so on.

5. charge mode: 3 courses (fast load, constant load, floating charge). It prolongs service life of the batteries.

6.discharge mode: ON / OFF mode, dual time control mode, voltage control mode, PV PV voltage + time delay mode and so on.

7.selected battery type: sealed lead acid, sale, gel, NiCd battery. Other types of the batteries can also be defined.

8.most information could be provide by LCD and LED like: model No., PV input voltage, battery type, battery voltage, charging current, the charging power, working status and so on. Also customer's information like
company name, website and logo can be added into Solar Eagle software.

9.RS232 and LAN communication port. IP and Gate address could be user define it satisfy global area. And communication protocol can be provided to manage all information.

10. upper computer software is displayed in 11 languages, it could show work status and be set parameters of the discharge system.

11. intelligent design, the device can be upgraded online lifelong.

12.compliance with the 2002/95/EC environment protecting demand, doesn't include the Cadmium, fluoride etc and hybrid material

13.equipment integrity: controller + CD-ROM(microcomputer software) + wire communication + temperature sensing wire + Anderson terminals;

14.CE, ROHS certifications approved.

15.2 years warranty. The service life is designed to use for 10 years in theory. Extended 3 ~ 10 years warranty service also can be provided.

16.CE, ROHS certifications approved.

Technical Specification□□

MODEL: I-P-SMART2 - 20A / 25A / 30A - SERIES		20A	25A	30A
Charge Mode		Maximum Power Point Tracking		
Discharge Mode		Smart control		
System Type		027 24V 48V Automatic recognition		
Soft Start Time		≤10S		
Dynamic Response Recovery Time		500us		
Conversion Efficiency		≥96.5%, ≤99%		
PV Modules Utilization Rate		≥99%		
INPUT CHARACTERISTICS				
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		DC160V		
Input Overvoltage Protection Point		DC150		
Input Overvoltage Recovery Point		DC145V		
Maximum PV Power	12V system	286W	357W	429W
	24V system	572W	715W	858W
	48v system	1144W	1430W	1716W
LOAD CHARACTERISTICS				
Selectable Battery Types		Sealed lead acid, sale, Gel, NiCd battery (Default is GEL battery type)		
Other types of Battery Setting		Constant load	User-defined constant/floating charge voltage range between DC10V ~ DC15 (based on 1) PCs 12V battery)	
		Floating charge		
Battery Type Setting		12V/24V/48V SYS	Controller and upper monitor	
Support Type		12V/24V/48V SYS	Three Internships: Fast load/Constant load/Floating charge	
Rated Output Current		20A	25A	30A
Current-limiting Protection		25A	30A	35A
Temperature Factor		±0.02% / ℃		
Temperature Compensation		14.2V-(The highest temperature 25℃) * 0.3		
Output Ripples (peak)		200mV		
Output Voltage Stability Precision		≤±1.5%		
Load Peak-Peak Ripple voltage		200mV		
Load voltage accuracy		≤±1.5%		
DISCHARGE CHARACTERISTICS				
Setting Control		Controller Gold LAN		
Max discharge current		30A		
Max discharge power		420W	840W	1680W
Discharge protection		fuse 40 A * 2		
Double-time control		We in morning, off in morning / we in night, off in night		
ON / OFF mode		WE / OFF		
PV voltage control		PV voltage on, PV off voltage		
PV voltage / time delay control		PV voltage on, off delay time		
Discharge voltage protection		Output off when it under voltage setting; Factory set is 10.5. (Note: set based one) 1 battery)		
COMMUNICATION PORT				
RS232 Communication		Thing COM communication		
LAN Communication		Set IP and Gate address for controller and solar eagle; Thing then TCP communication		
PROTECTIONS				

Input Low Voltage Protection	Check the in / output characteristics
Input Overvoltage Protection	
Input Polarity Reversal Protection	
Output Overvoltage Protection	
Output Polarity Reversal Protection	
Short-circuit Protection	Recover After eliminating the Short-circuit fault, no. problem for long term Short-circuit
Temperature Protection	95℃
Temperature protection	Above 85℃, 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.
Environment Protection	World brand raw materials. Compliance with EU standards. Meet the 2002/95/EC without cadmium hybrid, fluoride, peculiar smell and toxic substances. All rated temperature of electrolytic neck not less than 105℃
PHYSICAL	
Measurement DxWxH (mm)	270 * 185 * 90
Score (kg)	2.1
G.N (kg)	2.4
Color	Blue/Green (optional)
Safety	THIS. RoHS, PSE, FCC
EMC	EN61000
Type of Mechanical Protection	IP21
ENVIRONMENT	
Humidity	0 ~ 90% RH (No. condensed)
Altitude	0 ~ 3000 m
Operating Temperature	-20℃ ~ + 40℃
Storage Temperature	-40℃ ~ + 75℃
Atmospheric Pressure	70 ~ 106kPa