manufacturer competitive wholesale price solar panel saved full cherge battery MPPT controller charger 40A

Introduction

This e-SMART MPPT (maximum Power Point Tracking) solar charge controller is a smart solar controller with automatic recognition function, smart charging and discharging function, three stages charging function to protect battery. It can increase 30%~60% efficiency than traditional PWM controller. It supports many kinds of batteries. It also have RS232 Communication function.

Features

- 1. MPPT charging mode, peak efficiency up to 99%, saving 30%~60% solar panel than traditional PWM controller.
- 2. DC12V/24V/48V battery system automatic recognition, users can use it in different system conveniently.
- 3. Maximum PV input voltage up to DC100V.
- 4. Three stages charge: fast charge(MPPT), constant voltage charge, floating charge, It can protect batteries well .
- 5. Three option of discharge: on mode and off mode and PV voltage(solar) control mode.
- 6. Users can choose 4 kinds of commonly standard batteries(Sealed lead acid, Vented, Gel, NiCd). Other kinds of batteries can be defined by users.
- 7. Digital tube can display battery voltage and charging current. The software can display various parameters such as model number, PV input voltage, battery type, battery voltage, charging current, charging power, working condition.
- 8. RS232 communication, we can offer communication protocol also, it's convenient for user's integration management.
- 9. This controller can be paralleled infinitely.
- 10.CE and RoHS Certifications are approved. We can help clients to approve other certifications.
- 11. 2 years warranty; 3~10 years extended technical service.

Parameters

MPPT solar controller modes[] I-P-e-SMART-12V/24V/48V-series		15A	20A	25A	30A	40A	
Charge mode MPPT(maximum power point tracking)							
Charge method	Three stages: constant current(MPPT),constant voltage,floating charge						
System type	DC12V/24V/48V	Automatic recognition					
System voltage	12V system	DC9V~DC15V					
	24V system	DC18V~DC30V					
	48V system	DC36V~DC60V					
Soft start time	12V/24V/48V system	≤3S					
Dynamic response recovery time	12V/24V/48V system	500us					
MPPT efficiency	12V/24V/48V system	≥96.5%,≤99	%				
INPUT CHARACTERISTICS							
MPPT working voltage range	12V system	DC14V~DC100V					
	24V system	DC30~DC100V					
	48V system	DC60~DC100)V				

DAV system DC30V DC60V		12\/ cyctom	DC14V						
All System	nrotection point								
Low input voltage Recovery point 24V system DC18V 24V system DC34V 24V system DC55V DC									
Cav Input Voltage Recovery point									
ABV system DC65V DC110	Low input voltage								
High input voltage protection point 12V/24V/48V system DC110 12V/24V/48V system DC100V DC1	Recovery point								
		48V System	DC03V						
12V/24V/48V system (W) 213 284 355 426 568 420 3136 48V system (W) 426 568 710 852 1136 48V system (W) 426 48V system (W) 426 568 710 852 1136 48V system (W) 426 48V system (W) 420 42V system (W) 42V syst	protection point	12V/24V/48V system	DC110						
Maximum PV power 24V system (W) 426 568 710 852 1136 48V system (W) 852 1136 1420 1704 2272 22	High input voltage recovery point	12V/24V/48V system	DC100V						
ABV system (W) B52	Maximum PV power	12V system (W)	213	284	355	426	568		
Selectable Battery Types (Default Gel battery) (Other types of the batteries also can be defined) Constant Voltage Floating Charge Voltage Rated Input Current 12V/24V/48V system Frotection Temperature Compensation Output Voltage Ripples(peak) Output Voltage Stability Precision Output Discharge Coutput Current 12V/24V/48V system Stability Protection The output Current 130A The output control set mode Display LED digital tube display LED light display LED (light display Charge over protection Low input voltage protection Low input vo		24V system (W)	426	568	710	852	1136		
Selectable Battery Types (Opfault Gel battery) Constant Voltage Clostant V		48V system (W)	852	1136	1420	1704	2272		
Types (Default Gel battery) 12V/24V/48V system Sealed lead acid, Vented, Gel, NiCd battery (Other types of the batteries also can be defined)	CHARGE CHRECTRES	STICS							
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Voltage 12V/24V/48V system 15A 20A 25A 30A 40A	Constant Voltage	12V/24V/48V system	Dloaco chack	the charge	voltago ao	cording to	the battery type		
Rated Input Current 12V/24V/48V system 15A 20A 25A 30A 40A Current-limit protection 12V/24V/48V system 20A 25A 30A 35A 45A 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 12V/24V/48V system 200mV Output Discharge Characteristics 00tput voltage		12V/24V/48V system	form.						
Current-limit Protection 12V/24V/48V system 20A 25A 30A 35A 45A Temperature Factor 12V/24V/48V system ±0.02%/°C Temperature Compensation 12V/24V/48V system ±0.02%/°C Temperature Compensation 12V/24V/48V system ±1.2V-(The highest temperature-25°C)*0.3 Output Ripples(peak) 12V/24V/48V system 200mV Output Voltage Stability 12V/24V/48V system ≤±1.5% Precision 0 Output Discharge Characteristics 0 Output Voltage Base on battery voltage 12V/24V/48V system 52±1.5% Precision 0 Output Voltage Default 10.5V; Recovery 11V; It can be adjustable. Protection point 100 no mode, Off mode, PV voltage control mode 100 no mode, Off mode, PV voltage control mode 100 no mode, Off mode, PV voltage control mode 100 no mode, Off mode, PV voltage control mode 100 no mode, Off mode, PV voltage control mode 100 no mode, Off mode, PV voltage control mode 100 no mode, Off mode, PV voltage control mode 100 no mode, Off mode, PV voltage control mode 100 no mode, Off mode, PV voltage control mode 100 no mode, Off mode, PV voltage control mode 100 no mode, Off mode, PV voltage control mode 100 no mode, Off mode, PV voltage control mode 100 no mode, Off mode, PV voltage control mode 100 no mode, Off mode, PV voltage control mode 100 no mode, Off mode, PV voltage control mode 100 no mode, Off mode, PV voltage control mode 100 no mode, Off mode, PV voltage control mode 100 no mode, Off mode, PV voltage, Charge current 100 no mode, Off mode, PV voltage, Charge current 100 no mode, Off mode, PV voltage, Charge current 100 no mode, Off mode, PV voltage, Charge current 100 no mode, Off mode, PV voltage, Charge current 100 no mode, Off mode, PV voltage, Charge current 100 no mode, Off mode, PV voltage, Charge current 100 no mode, Off mode, PV voltage, Charge in no		12V/24V/48V system	15A	20A	25A	30A	40A		
Tremperature Factor 12V/24V/48V system ±0.02%/°C Temperature Compensation	Current limit	-		254		254	45.4		
Temperature Compensation Output Ripples(peak) Output Voltage Stability 12V/24V/48V system Output Voltage Stability 12V/24V/48V system 200mV 200mV Output Voltage Stability 12V/24V/48V system ≥±1.5% Precision Output Discharge Characteristics Output Voltage Low voltage Low voltage output Protection point Rated output Current 30A The output control On mode, Off mode, PV voltage control mode Output control set mode Controller button or PC software Display LED digital tube display Battery voltage, Charge current Charging indicator light, LOAD indicator light Protection Low input voltage protection Check the input characteristics Charge overpower protection Check the input characteristics Charge low voltage protection Discharge low voltage protection Scharge high current protection Temperature protection Discharge high current protection Ves Temperature protection Other Parameters Noise Imported material With EU standards.	Protection	12V/24V/48V System	20A	25A	30A	35A	45A		
Compensation Output Ripples(peak) Output Voltage Stability Precision Output Discharge Characteristics Output Voltage Low voltage output Protection point Rated output Current Rated output Current Rated output control Output ontrol set mode Display LED digital tube display LED light display PC□communication port□ RS232 Protection Low input voltage protection Low input voltage protection Low input voltage protection Charge overpower protection Discharge low voltage protection Ves Output control Discharge low voltage protection Discharge low voltage protection Discharge low voltage protection Discharge low voltage protection Discharge high current protection Discharge high current protection Ves Other Parameters Noise ≤ 40dB Thermal heat-dissipating method Itself cooling Imported material With EU standards.	Temperature Factor	12V/24V/48V system	±0.02%/°C		•	•	•		
Ripples(peak) Output Voltage Stability Precision Output Discharge Characteristics Output Voltage Low voltage Low voltage output Protection point Rated output Current The output control on mode, Off mode, PV voltage control mode Output control set mode Controller button or PC software Display LED digital tube display LED light display Charging indicator light, LOAD indicator light PC[]communication port[] RS232 Protection Low input voltage protection Check the input characteristics Charge overpower protection Discharge low voltage protection Discharge high current protection Discharge high current protection Discharge high current protection Discharge high current protection Check The input characteristics Cherperature protection Discharge high current protection Discharge	Temperature Compensation	12V/24V/48V system	14.2V-(The highest temperature-25°C)*0.3						
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·	Thermal heat-dissipating method		3						
Certification CE\FCC\RoHS	Components		'						
	•		CE\FCC\RoHS						

Physical	
Measurement D x W x H(mm)	205*168*60
package size D x W x H(mm)	265*196*110
N.G(KG)	1.8kg
G.N(KG)	2kg
Mechanical Protection	IP25
Environment	
Humidity	0~90%RH (no condense)
Altitude	0~3000m
Operating Temperature	-20°C ~ +50°C
Storage Temperature	-40°C ~ +75°C
Atmospheric Pressure	70~106kPa

Products Package



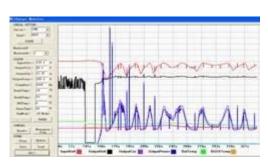




Communication function and PC software

- 1. The first picture show solar controller working status(charge and discharge), PV voltage, charge voltage, charge current etc. Users can choose the type of the batteries, DC-load output control method.
- 2. We provide PC upper software. Testing software is not including. (user's PC has software development platform, if needed, please apply for it)





Information display and parameter setting

- 1. ENTER1 button: press left ENTER1 show 2 digital battery voltage if it is charging, then shows 2 digital charge voltage), for example, the battery voltage or charge voltage is 13.5V, it shows13, please see Figure 2.1; Press ENTER1 a little bit longer, users can set battery types.
- 2. ENTER2 button: press right ENTER2 show 2 digital battery current (if it is not charging, then it display 00, if the charge current is 22.5A, then it shows 22,please see Figure 2.2); press ENTER2 button a little bit longer, DC load control can be set (On mode, Off mode, PV voltage control mode) Please see more details in the user manual.





home use solar system



Solar street lighting system

