mppt charge controller solar mobile phone charger 12v/24v/48v Auto Works 20A



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, <u>peak efficiency up to 99%</u>, 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.<u>CE and RoHS Certifications</u> are approved.We can help clients to approve other certifications.
- 11. 2 years warranty; 3~10 years extended technical service.

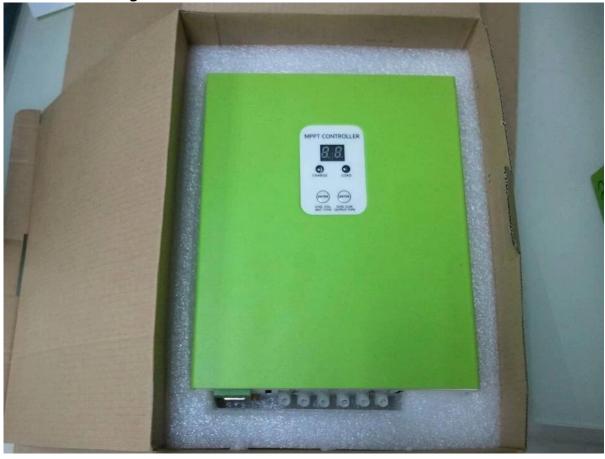
Parameters

MPPT solar controller modes[] I-P-e-SMART-12V/24V/48V-series		15A	20A	25A	30A	40A	
Charge mode MPPT(maximum power point tracking)		1)					

Charge method	Three stages: constant	current(MPPT)	constant volta	ge.floating cha	rae		
System type	DC12V/24V/48V	current(MPPT),constant voltage,floating charge Automatic recognition					
- , 5	12V system	DC9V~DC15V					
System voltage	24V system	DC18V~DC30V					
_,	48V system	DC36V~DC60V					
Soft start time	12V/24V/48V system						
Dynamic response	12V/24V/48V system	500us					
recovery time MPPT efficiency	12V/24V/48V system	≥96.5%,≤99%					
INPUT CHARACTERISTIC		≥30.5%,≤95	o /0				
	12V system	DC14V~DC1	001/				
MPPT working voltage	24V system	DC30~DC100V					
range	48V system	DC60~DC100V					
	12V system	DC14V					
Low input voltage	24V system	DC30V					
protection point	48V system	DC60V					
	12V system	DC18V					
Low input voltage	24V system	DC34V					
Recovery point	48V system	DC65V					
High input voltage protection point	12V/24V/48V system	DC110					
High input voltage	12\//24\//40\/ c::chans	DC100V					
recovery point	12V/24V/48V system	DC100V					
	12V system (W)	213	284	355	426	568	
Maximum PV power	24V system (W)	426	568	710	852	1136	
	48V system (W)	852	1136	1420	1704	2272	
CHARGE CHRECTRESTIC	:S	:					
Selectable Battery Types	12V/24V/48V system	Sealed lead acid, Vented, Gel, NiCd battery (Other types of the batteries also can be defined)					
(Default Gel battery)	12 v/2 4 v/40 v System						
Constant Voltage	12V/24V/48V system						
Floating Charge Voltage	12V/24V/48V system	Please checl	k the charge v	oltage accordin	g to the batte	ry type form.	
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 Factor			aigh act terrare	rature 25°C*0	o		
Temperature Factor Temperature	12V/24V/48V system 12V/24V/48V system		nighest tempe	rature-25°C)*0.	3		
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Noise	≤40dB	
Thermal heat-dissipating method	Itself cooling	Fan cooling
Components	Imported material With EU sta	ındards.
Certification	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	$0\sim90$ %RH (no condense)	
Altitude	0~3000m	
Operating Temperature	-20℃ ~ +50℃	
Storage Temperature	-40℃ ~ +75℃	
Atmospheric Pressure	70~106kPa	

Products Package





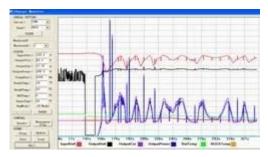
Communication function and PC software

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.





Applications home use solar system



Solar street lighting system

