

MPPT Solar Charge Controller



The maximum power point(MPPT) is mainly affected by the ambient temperature and the intensity of sunshine. The MPPT solar charge controller can intelligently detect the voltage of solar panel, and regulate the solar panel output voltage to make it work at the maximum power point of V-A curve. Compared with PWM solar charge controller, the MPPT controller increase the efficiency of PV modules by about 30%. However, due to many factors, such as the different workmanship in producing solar panels, the changing of sun illuminance, the changing of temperature, and the efficiency of the controller etc., the efficiency actually increase by 10%~30%.

Product Features

- Applicable for all kinds of batteries.
- Step up function enable it to charge when PV voltage as low as 10V/20VDC
- Maximum Power Point Tracking makes efficiency up to 99.9%
- Over Load Protection
- Over Charge Protection
- Over Discharge protection
- Lightning Protection
- Reverse Polarity Protection

Specification

Model	SOM12/24-15A	SOM12/24-20A	SOM12/24-30A
Rated Voltage	12/24VDC		
PV Voltage	10-40V/20-65V		
PV Over Voltage Protection	65		
Max. Charge Current	15A	20A	30A
MPPT Efficiency	>99%		
Battery Types	12V or 24V rechargeable Lead-acid Battery/AGM, GEL/Lithium Battery		
Self-consumption Standby	<40mA		
Self-consumption with Load	<130mA		
Regular Charge Voltage	14.6V (14V~15V, Settable)/29.2V (28V~30V, Settable)		
Float Charge Voltage	13.8V/27.6V		
Over Charge Disconnection	17V/34V		
Over discharge Disconnection	11V (10.4V~11.4V Settable), 22V (20.8V~22.8V, Settable)		
Over Discharge Recovery	12.8V (12.2V~13.2V, Settable)/25.6V (24.4V~26.4V, Settable)		
Environment Temperature	-25℃ ~+40℃		
Protection Level	IP22		
Cross Section of Cable	Max 16mm²		

PWM Solar Charge Controller



The solar charge controller is one of key components of PV off-grid solar power system. Our PWM solar charge controller can be adopted to different charge methods based on different types of batteries and environment. With large LCD screen, buttons and USB output ports. Double solar sources inputs making it much more reliable.

Product Features

- 1.Pulse width modulation technology, which offers the good efficiency of your off-grid solar power system.
- 2.Automatically detect 12/24VDC or 24/48VDC input voltage.
- 3.With a large LCD screen display one main window and seven different sub windows: Battery voltage, PV charge current, Load discharge current, Total PV charge Ah, Total PV discharge AH, Sets of constant voltage charging, Sets of low voltage reconnect.
- 4.The constant voltage charge, low voltage disconnected and reconnect data are setttable by users.
- 5.External temperature sensor
- 6.Full electronic protections (Reverse polarity, Over current, short circuit, Over temperature, Current drawback, Lightning etc.)
- 7.High efficiency
- 8.Positive grounded
- 9.Dual terminals for solar panel inputs
- 10.Battery types can be: GEL, AGM and solar batteries etc.

Model	SOP12/24-20A	SOP12/24-30A	SOP12/24-40A	SOP12/24-50A	SOP12/24-60A
Normal Voltage	12V/24V, Recognize Automatically				
Normal Battery Charge Current	20A	30A	40A	50A	60A
Max. PV input power	300W@12V 600W@24V	450W@12V 900W@24V	600W@12V 1200W@24V	750W@12V 1500W@24V	900W@12V 1800W@24V
Max. PV input voltage	<30V/48V				
Min. PV input voltage	>16V/32V				
Power Transfer Efficiency	Max. 90%				
Standby Power Consumption	<15mA	<15mA	<20mA	<20mA	<20mA
Length<1m charge loop drop	<0.25V				
Length<1m discharge loop drop	<0.05V				
LCD Screen Display	Battery voltage, PV charge current, Load discharge current, Total PV charge Ah, Total PV discharge AH, Sets of constant voltage charging, Sets of low voltage reconnect.				
Buttons	Menu, Load(On/Off), Up, Down				
Ambient Temperature Range	-40℃ ~ 50℃				
Case Protection	IP22				
Float Charge	13.8V/27.6V				
Constant Charge	14.6V(14V~15V Settable)/29.2V(28V~30V Settable)				
Low Disconnected Voltage	11V(10.4V~11.4V Settable)/22V(20.8~22.8 Settable)				
Low reconnected Voltage	12.8V(12.2V~13.2V Settable)/25.6V(24.4V~26.4V) Settable				
Grounding	Postive Grounding				
Battery Type	GEL, AGM, Solar Battery etc.				