

# TECHNO SUN

## MPPT Solar Charge Controller

Adopting Advanced MPPT Technology  
High Conversion Efficiency



*12V/24V/48V system auto recognition*

## **Introduction:**

This is a smart solar charge controller which has advanced MPPT technology .Solar charge controller 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%.
3. Compliance with the 2002/95/EC environment protecting demand, doesn't include the Cadmium, hydride and fluoride
4. 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.
5. Charge mode: three stages (fast charge,constant charge,floating charge)
6. 12V/24V/48V system auto recognize for easy control.
7. Nominal maximum solar input is DC 150V
8. Connected Battery Type choosing: Sealed lead acid, vented, Gel, NiCd battery.
9. LCD and LED show all kinds of parameter like products model, PV input voltage,battery voltage,charge current,charge power,work and condition.
10. Equipment integrity: controller + manual + Anderson terminals.
11. CE,ROHS,FCC,PSE certifications approved.The device also can support to pass the certifications.

16. 2 years warranty. And 3~10 years extended warranty service also can be provided.

**Parameter:**

<b>Model:DC12V/24V/48V-series</b>		<b>60A</b>
Charge Mode	Maximum Power Point Tracking	
Method	3 stages: fast charge(MPPT),constant voltage,floating charge	
System Type	DC12V/24V/48V	Automatic recognition
System Voltage	12V system	DC9V~DC15V
	24V system	DC18V~DC30V
	48Vsystem	DC36V~DC60V
Soft Start Time	12V/24V/48Vsystem	≤10S
Dynamic Response Recovery Time	12V/24V/48Vsystem	500us
Conversion Efficiency	12V/24V/48Vsystem	≥96.5%,≤99%
PV Modules Utilization Rate	12V/24V/48Vsystem	≥99%
<b>Input Characteristics</b>		
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	12V/24V/48V system	DC160V
Input Overvoltage Protection Point	12V/24V/48V system	DC150V
Input Overvoltage Recovery Point	12V/24V/48V system	DC145V
Max. PV Power	12V system	900W
	24V system	1700W
	48V system	3400W
<b>Output Characteristics</b>		
Selectable Battery Types (Default type is GEL battery)	12V/24V/48Vsystem	Sealed lead acid, vented, Gel, NiCd battery
Constant Voltage	12V/24V/48V system	Please check the charge voltage according to the battery type form.
Floating Charge Voltage	12V/24V/48V system	

Over Charge Protection Voltage	12V system	14.6V
	24V system	29.2V
	48V system	58.4V
Rated Output Current	12V/24V/48V system	60A
Current-limiting Protection	12V/24V/48V system	66A
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 Precision	12V/24V/48V system	≤±1.5%
<b>Display</b>		
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 instruction)	
<b>Protection</b>		
Input Low Voltage Protection	Check the input characteristics	
Input Overvoltage Protection	Check the input characteristics	
Input Polarity Reversal Protection	yes	
Output Overvoltage Protection	Check the output characteristics	
Output Polarity Reversal Protection	yes	
Short-circuit Protection	Recover after eliminating the Short-circuit fault,no problem for long term Short-circuit	
Temperature Protection	95°C	
Temperature protection	Above 85°C,decrease the output power,decrease 3A per degree.	
<b>Other Parameters</b>		
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.	
Components	World brand raw materials. Compliance with EU standards.All rated temperature of electrolytic capacitors not less than 105°C	
Smell	No peculiar smell and and toxic substances.	
Environment Protection	Meet the 2002/95/EC,no cadmium hydride and fluoride	

Physical	
Measurement D x W x H(mm)	270*185*90
N.G(kg)	3.6
G.N(kg)	4.0
Color	Blue
Safety	CE, RoHS
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°C ~ +75°C
Atmospheric Pressure	70~106kPa

**Pictures:**



Top



Input



Accessories