



MPPT solar charge controller

The product adopts DC/DC converting technology and MCU technology. It can adjust the working point of the solar panels array intelligently to make the solar panels array realize the maximum power output. When the external condition changes, MPPT controller bases on the MCU theory to track the maximum working point of the solar panels, this can improve the using efficiency of the solar panels and decrease the solar generating cost. Compared with average solar charge controllers, MPPT can improve the output efficiency of the solar panels by 5% to 30 % (the output increasing proportion affected by the factors such as the attribute of the solar panels, environmental temperature and lighting conditions).

CMPPT series



Model: CMPPT10

Rated Voltage:
12V/24V Auto identification
Rated Current:20A
USB port:1A/5V×2

Packing:40pcs/carton
Carton size:535mm×425mm×200mm
Gross weight:15Kg



Model: CMPPT20

Rated Voltage:
12V/24V Auto identification
Rated Current:30A
USB port:1A/5V×2

Packing:40pcs/carton
Carton size:535mm×425mm×200mm
Gross weight:15Kg

SMPPT series



Model:SMPPT10D

Rated Current:10A
Rated Voltage:12/24V Auto



Model:SMPPT20D

Rated Current:20A
Rated Voltage:12/24V Auto



Model:SMPPT30D

Rated Current:30A
Rated Voltage:12/24/48V Auto



Model:SMPPT40D

Rated Current:40A
Rated Voltage:12/24/48V Auto

eMPPT series



Model:eMPPT40D

Rated Current:40A
Rated Voltage:
12/24V Auto



Model:eMPPT60D

Rated Current:60A
Rated Voltage:
12/24V Auto



Model:eMPPT90D

Rated Current:90A
Rated Voltage:
12/24/48V Auto

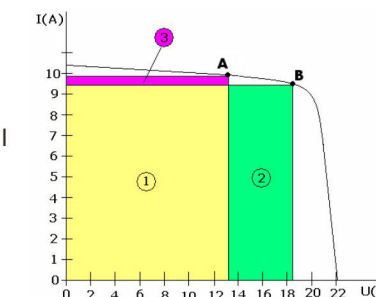
MPPT solar charge controller



MPPT introduction

MPPT means maximum power point tracking. MPPT technology is the technology to track the maximum power point of the solar panels.

Under certain condition of temperature and light, the I-V curve of the solar panels shows in the right chart. The output power of solar panel is product of I and V, which means rectangular area of the points on I-V curve for solar panels. See the right chart, when the solar panels work at point A, the output power is $P_a=1+3$; when solar panels work at point B, the output power is $P_b=2+3$. Obviously, we can see $P_b>P_a$. The purpose of MPPT technology is to keep the solar panels always working at point B when the outer conditions change.



CMPPT Features

- DSP processors architecture ensures high speed and performance
- MPPT efficiency>99%, Peak conversion efficiency>98%
- 12V/24V auto work
- PV input:75V max
- Four-stages charging mode
- Protection:
 - PV array short circuit,PV reverse polarity,Battery reverse, polarity, Over charging,Output short circuit
- USB output
- LED indicator

SMPPT Features

- DSP processors architecture ensures high speed and performance
- MPPT efficiency>99%, Peak conversion efficiency>98%
- 12V/24V/36V/48V auto work
- PV input:75V or 125Vmax
- Four-stages charging mode
- Protection:
 - PV array short circuit,PV reverse polarity,Battery reverse, polarity, Over charging,Output short circuit
- USB output(only 10A)
- LCD display

eMPPT Features

- DSP processors architecture ensures high speed and performance
- MPPT efficiency>99%, Peak conversion efficiency>98%
- 12V/24V/36V/48V auto work
- PV input:75V or 125Vmax
- Four-stages charging mode
- Protection:
 - PV array short circuit,PV reverse polarity,Battery reverse, polarity, Over charging,Output short circuit
- USB output(only 10A)
- LCD display

Functions:

NEW



Color screen with backlit
Optional

NEW



Battery capacity percentage



LCD display



12/24V Auto



MPPT



Simple button operation

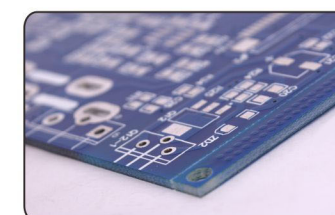


Protections



USB Output

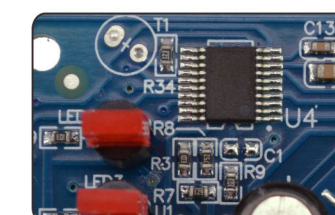
Crafts



Optimized circuit design



Selection of quality materials



SCM accurate control



www.hanf solar.com
hanf solar.en.alibaba.com