

# MPPT-5MC

## MPPT Solar Charge Controller



### KEY FEATURES

- Fast Maximum Power Point Tracking (MPPT)
- Suitable for solar panels
- Allows charging under partial shading conditions
- High charging efficiency
- Autonomous, smart charging under CPU control
- Extensive electronic protection
- High power density, high integration
- Supports Li-Ion batteries. Faster charging. More charging cycles
- Low power consumption
- Stable, regulated output. Narrow voltage DC power path
- Integrated USB port
- Intuitive Windows, Android and IOS applications for monitoring
- Status monitoring via LEDs

The MPPT-5MC is an ultra-fast solar charge controller with an intelligent tracking algorithm that maximizes energy harvesting from solar panel by quickly finding the peak power of the solar array with rapid sweep of the entire I-V curve.

It monitors the state of the charge of the battery cells, controls the charging process and connection/disconnection of the loads. This feature not only improves the battery use but also extends its service life.

### Supports Li-Ion Batteries

Lithium-ion batteries are smaller and lighter than lead-acid batteries. They can store more energy, hold that energy longer and have a greater depth of discharge. In addition, Li-Ion batteries offer higher number of charge cycles, good charge capacity and superior efficiency.

### Smart Charging

The charger automatically terminates the charging cycle when the charge voltage is above recharge threshold and starts a new charging cycle as a fully charged battery voltage is discharged below recharge threshold.

The CPU has a short detection and response time that allows the system to instantly adjust the output power when an immediate change occurs on the input side. Therefore, the efficiency of the energy produced by the system increases significantly.

Properties	MPPT-5MC
System voltage	12-24 V
Output voltage	3.2-19 V
Maximum output voltage	5 V
Self-consumption	16 mA
Peak discharge current (up to 1 sec)	10 A
Maximum efficiency	%96.5
Maximum solar panel power, 12 V	50 W
Maximum solar panel power, 24 V	100 W
Operating temperature	-30 to 60 °C
Solar panel disconnect voltage	11.3 V
Solar panel reconnect voltage	12.3 V
Battery disconnect voltage	3.55 V
Dimensions	90Hx90Wx25D mm
Data communication port	Micro-USB