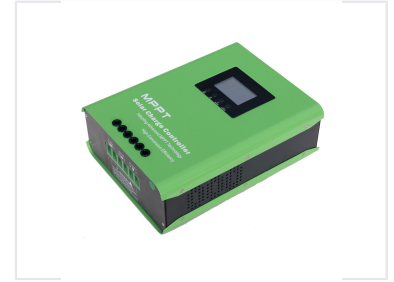


# MPPT Solar Charge Controller for 12V 24V 48V Battery Systems

This MPPT solar charge controller provides an efficient and safe multi-stage recharging process. It extends battery life and ensures optimal performance from a solar array, with customized battery recharging capabilities.



## ADDITIONAL IMAGES



## Product Overview

### Advanced MPPT Solar Charge Management

This MPPT Solar Charge Controller utilizes a high-performance TI DSP chip with 12-bit accuracy to ensure precise maximum power point tracking, achieving up to 99% tracking efficiency and 98% conversion efficiency. Designed for versatility, it supports a wide range of battery types including Lead-acid, Gel, and Lithium, and automatically adapts to various system voltages. The unit features robust protection mechanisms against over-voltage, over-current, and short circuits, ensuring reliable, long-term performance for demanding photovoltaic applications.

## Performance & Technical Specs

MPPT Tracking Efficiency	99 %
Conversion Efficiency	98 %
Supported Current Ratings	20A, 30A, 40A, 50A, 60A, 100A, 120A

## System Compatibility

### Automatic System Voltage Detection

- 12V / 24V Auto
- 12V / 24V / 48V Auto
- 48V / 96V Auto

### Compatible Battery Types

Lead-acid • Gel • Lithium • User-defined

## Safety & Protection



Robust terminal layout for safe and secure installation.

### Safety Protections

- Over charge protection
- Over discharge protection
- Overload protection
- Open circuit protection
- Over temperature protection
- Short circuit protection

## Monitoring & Interface

NO.	LED Symbol	Comments/Description
1	LED	PV input terminal
2	LED	Battery terminal
3	LED	LED
4	LED	DC output terminal
5	LED	LED
6	LED	LED
7	LED	LED
8	LED	LED
9	LED	LED
10	LED	LED
11	LED	LED
12	LED	LED
13	LED	LED

User-friendly LCD interface showing PV input, battery status, and navigation controls.

Real-time monitoring of charging modes and system performance metrics.

### Real-time Monitoring Metrics

<b>1 V</b> PV Voltage	<b>2 W</b> PV Power	<b>3 V</b> Battery Voltage	<b>4 A</b> Charging Current
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