

# 50A MPPT Solar Charge Controller

**MODEL: RS-MPPT50P**

## Features

### Advanced MPPT Technology

True MPPT with the latest algorithm (tracking efficiency >99.5%)  
Multi-peak detection for optimal tracking in shaded conditions  
High charge conversion efficiency (up to 98%)

### Intelligent System Compatibility

Auto 12V/24V detection

**Supports 8+1 battery types:** Lead-acid: GEL, AGM, WET, CRYSTAL, CALCIUM; Lithium: LiFePO<sub>4</sub>, LTO, LCO

Optional external battery temp sensor

### Comprehensive Protection & Reliability

**Advanced electronic protections:** Over-voltage protection  
Reverse discharge protection; Common negative ground design  
IP43-rated internals (IP22 at connection area)  
Conformal coated circuit board  
Rugged rubber-masked connector protection  
Built-in safety and circuit protection  
Unique deep-discharge battery recovery/restart function

### Customization & Data Management

Custom charge parameter settings  
Charging data storage  
Unique charge management technology

## Specifications

System Nominal Voltage	12V/24V Auto
Max. PV Open Circuit Voltage	100V DC
Charging Technology	MPPT
Max. PV Charging Current	50A
Recommended PV Input Power	700W (12V) / 1400W (24V)
Charge Conversion Efficiency	≤98%
MPPT Tracking Efficiency	>99.5%



### Smart Monitoring & Control

**Large, informative LCD display for:** Real-time solar input  
Battery status; System configuration; Clear LED bar and transparent window indicators  
Built-in Bluetooth module

### Proprietary Technologies

Patented housing and enclosure design  
Exclusive battery recovery and charge optimization algorithms  
In-house design and manufacturing

Battery Compatibility	GEL/AGM/WET/CRYSTAL/CALCIUM /LFP/LTO/LCO
Housing Color	Black+Grey
Protection Rating	IP43 (PCBA), IP22 (Connectors)
Dimensions (L×W×H)	195×140×74mm (7.7×5.5×2.9in)
Net Weight	1.40kg (3.09lb)