40AMP MPPT

Solar Charge Controller

40A
Rated Charging Current

50A
Max. PV Input Current

9 – 35 VDC
Battery Voltage Range

100 VDC
Max Solar Input Voltage

FEATURES

Automatically detects 12V or 24V DC system voltages.

Compatible with various deep cycle battery options: Sealed, Gel, Flooded, and Lithium.

Innovative MPPT technology with high tracking efficiency up to 99% and peak conversion efficiency of 98%.

Electronic protection against reverse polarity, over-charging, over-discharging, overload, short-circuiting, and reverse current.

LCD screen and multiple LED indicators for displaying system operation information, customizable parameters, and error codes.

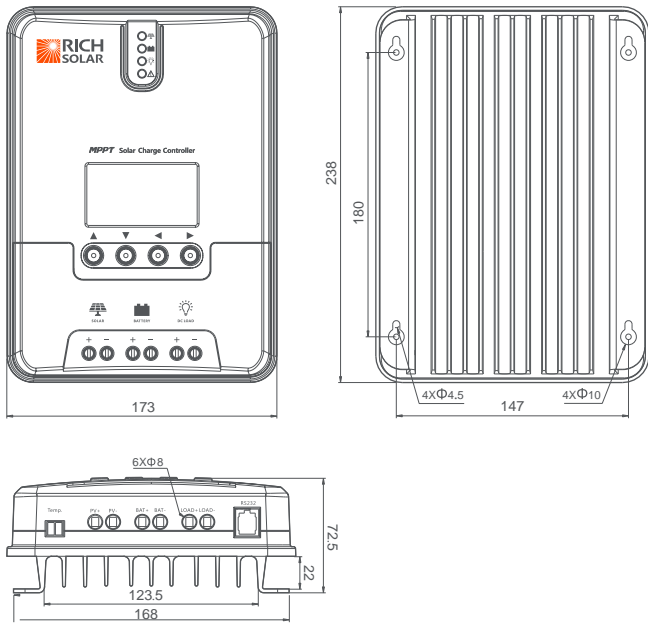Features diverse load control, also capable of charging over-discharged lithium batteries.

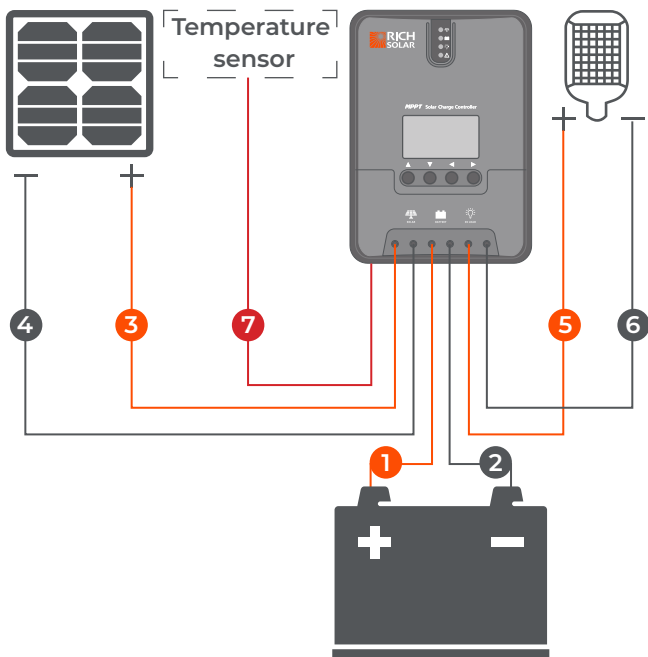Die-cast aluminum design allows for efficient heat dissipation.

RS232 port to communicate with BT-1 Bluetooth module.

Advanced maximum power point tracking algorithm can quickly locate the best working point in the I-V curve to significantly improve the system's energy efficiency.

PRODUCT DIMENSIONS (MM)

PRODUCT CONNECTION DIAGRAM

SPECIFICATIONS

Nominal System Voltage	12V/24V Auto Recognition
Rated Battery Current	40A
Rated Load Current	20A
Max. PV Input Short Current	50A
Max. Battery Voltage	32V
Max Solar Input Voltage	100V(25℃), 90V(–25℃)
Charge Circuit Voltage Drop	≤0.26V
Discharge Circuit Voltage Drop	≤0.15V
Max Terminal Size	8AWG
Rated Load Current	10% to 90% NC
Net Weight	4.41lb
Overall Dimension	9.37 x 6.81 x 2.85in
Battery Wire Diameter	10mm^2
Load Wire Diameter	5mm^2
No–load Loss	0.7W to 1.2W
Battery Voltage	9V to 35V
Max. Power Point Voltage Range	Battery Voltage+2V to 75V
Max. Capacitive Load Capacity	1000uF
Max. Photovoltaic System Input Power	550W/12V, 1100W/24V
Conversion Efficiency	≤98%
MPPT Tracking Efficiency	>99%
Temperature Compensation Factor	–3mv//2V Default
Operating Temperature	–35℃ to +45℃
Protection Degree	IP32
Communication Method	RS232
Altitude	≤3000m

OUTPUT CHARACTERISTIC CURVE

SPECIFICATIONS INCLUDED IN THIS DATASHEET ARE SUBJECT TO CHANGE WITHOUT NOTICE.

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