RENOGY

CHARGE CONTROLLER

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ROVER MPPT 100A SOLAR CHARGE CONTROLLER

Introducing the new 100A Rover MPPT Charge Controller, the largest Rover controller that Renogy has to offer. Capable of supporting up to 1300 watts on 12 volts, 2600 watts on 24 volts, 3900 watts on 36V and 5200 watts on 48V. This off-grid controller was designed for large-scale projects, both mobile and stationary. For even more power, users can utilize a unique feature limited to this Rover and connect two 100A Rover controllers in parallel for a total of 200 amps! This smart charge controller can also conveniently self-diagnose itself in the event of an error and can be remotely controlled through the Renogy BT app using the Renogy BT-1 Bluetooth Module. By pairing the Rover with the BT-1 and the Renogy BT app through Bluetooth, users can easily monitor and adjust their solar system straight from their phones.

- Automatically detect 12V/24V/36V/48V DC system voltages
- Smart 4 Stage MPPT charging (Bulk, Boost, Float and Equalization) and temperature compensation increases battery life and improves system performance
- Deep cycle Sealed, Gel, Flooded and Lithium battery options
- Electronic Protections: Overcharging, Over-Discharging, Overload and short circuit
- Customizable charging voltages, RS232 port to communicate with BT-1 Bluetooth module

Included Components

Remote Temperature Sensor
Measures the temperature at the battery and uses this data for very accurate temperature compensation

Controller Paralleling Cable
This communication cable is needed to parallel two or more Rover 100A charge controller. Paralleling 100A Rovers allows for higher wattage systems



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SPECIFICATION

Parameters	
Nominal System Voltage	12V/24V/36V/48V Auto Recognition
Rated Charge Current	100A
Battery Voltage	9V-60V
Max. PV Input Voltage	150 VDC (25°C), 140 VDC (-25°C)
Battery Type	Sealed (AGM), Gel, Flooded and Lithium
Max. Solar Input Power	1300W/12V; 2600W/24V; 3900W/36V; 5200W/48V
Self-Consumption	2.7W – 2.9W
Temperature Compensation	-3mV/°C /2V
Dimensions	305 x 443 x 110mm; 12.00 x 17.44 x 4.35in
Mounting Holes	4 x Ø10mm
Max Terminal Size	4 AWG; 25mm^2
Net Weight	9.98 kg; 22 lbs
Working Temperature	-35°C to +45°C; -31 ˚F to 113 ˚F
Storage Temperature	-35°C to +75°C; -31 ˚F to 167 ˚F
Humidity Range	≤ 95% (NC)
Enclosure	IP32
Altitude	<3000m
Communication	RS232, RS485
Certification	FCC Part 15 Class B; CE; RoHS

Battery Charging Parameters (Temp:25°C)						
Battery Type	SEALED	GEL	FLOODED	LI (LFP)	USER	RANGE
High Voltage Disconnect	16V	16V	16V	16V	16V	9-17V
Equalization Voltage	14.6V	----	14.8V	----	14.6V	9-17V
Boost Voltage	14.4V	14.2V	14.6V	14.4V	14.4V	9-17V
Float Voltage	13.8V	13.8V	13.8V	----	13.8V	9-17V
Boost Return Voltage	13.2V	13.2V	13.2V	13.2V	13.2V	9-17V
Low Voltage Reconnect	12.6V	12.6V	12.6V	12.6V	12.6V	9-17V
Under Voltage Warning	12.0V	12.0V	12.0V	12.0V	12.0V	9-17V
Low Voltage Warning	11.1V	11.1V	11.1V	11.1V	----	9-17V
Discharging Limit Voltage	10.6V	10.6V	10.6V	10.6V	----	9-17V
Over-Discharge Delay Time	5s	5s	5s	5s	----	1-30s
Equalization Duration	2 hours	----	2 hours	----	----	0-10 Hrs.
Equalization Interval	30 Days	----	30 Days	----	----	0-250 Days
Boost Duration	2 hours	2 hours	2 hours	----	----	1-10 Hrs.