



# ROVER 100A MPPT SOLAR CHARGE CONTROLLER



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Introducing the Renogy Rover 100A 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 DC Home app using the Renogy BT-1/BT-2 Bluetooth Module. By pairing the Rover with the BT-1/BT-2 and the Renogy DC Home app through Bluetooth, users can easily monitor and adjust their solar system straight from their phones.

### FEATURES

- Automatically detects 12V, 24V, 36V and 48V DC system voltages (for non-lithium batteries). Compatible with various Deep Cycle battery options: AGM, 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, overcharging, over-discharging, overload, short-circuiting, and reverse current. LCD screen and multiple LED indicators for displaying system operation information, customizable parameters, and error codes.
- RS232 and RS485 ports. RS232 allows the Rover to communicate with the BT-1 Bluetooth module, which can pair with the DC Home smartphone app. RS485 allows the Rover to communicate with the BT-2 Bluetooth module, which can pair with the DC Home smartphone app.

# PRODUCT SPECIFICATION

## GENERAL DATA

Model	RNG-CTRL-RVR100
Terminal Range	8AWG - 6AWG
Grounding	Common Negative
Communication	RS232;RS485
Operating Temperature	-31°F- 113°F /-35°C - 45°C
Storage Temperature	-13°F -167°F /-35°C - 75°C
Humidity	0%~95% RH
Dimensions (LxWxH)	12.07 x 17.44 x 4.33 inch / 305 x 443 x 110 mm
Weight	22.0 lbs/ 9.9kg
Regulatory and Safety Specifications	FCC Part 15 Class B; CE; RoHS

## CHARGER DATA

Rated Battery Input Voltage	12VDC
Battery Input Voltage Range	10VDC~60VDC
Rated Charge Current	100A
Rated Solar Input Power	1300W (12V Battery);2600W (24V Battery);3900W (36V Battery);5200W (48V Battery)
Maximum Solar Input Power	1300W (12V Battery);2600W (24V Battery);3900W (36V Battery);5200W (48V Battery)
Maximum Solar Input Voltage (Voc)	150VDC (25 C);140VDC(-25 C)
Solar Input Voltage Range (Voc)	17VDC~150VDC
Power Consumption	2.7-2.9W
MPPT Tracking Efficiency	>99%
Conversion Efficiency	≤98%
Charger Efficiency	>95%
MPPT Operating Voltage Range	17VDC~150VDC
Temperature Compensation	-3mV / C / 2V (Non-Lithium) 0mV / C / 2V; no compensation (Lithium)
Charger Algorithm	3-stage Lead Acid, Bulk, Boost, Float, Equalize* 2-Stage Lithium, Bulk, Boost
Charger Preset	AGM, Gel, Flooded, Lithium-iron Phosphate, User Custom

## BATTERY CHARGING DATA

Battery TYPE	AGM/SLD	GEL	FLD	LI	USER(Default)
OverVolts Shutdown	16.0V	16.0V	16.0V	16.0V	16.0V
Equalization Voltage	14.6V	--	14.8V	--	14.6V
Boost Voltage	14.4V	14.2V	14.6V	14.4V	14.4V
Float Voltage	13.8V	13.8V	13.8V	--	13.8V
Boost Return Voltage	13.2V	13.2V	13.2V	13.2V	13.2V
Low Voltage Reconnect	12.6V	12.6V	12.6V	12.6V	12.6V
Under Voltage Warning	12.0V	12.0V	12.0V	12.0V	12.0V
Low Voltage Warning	11.1V	11.1V	11.1V	11.1V	11.1V
Low Voltage Disconnect	10.6V	10.6V	10.6V	10.6V	10.6V
Boost Duration	120min	120min	120min	--	120min
Equalization Duration	120min	--	120min	--	120min