



RG-SOLAR-MPPT

Ranger solar controller with LCD display



RANGER
AUTOMATION • REVOLUTION

99.5%

Ranger solar mpp tracking efficiency above up to 99.5%

MAX
98.3%

Maximum charge conversion efficiency as high as 98.3%



Support lead-acid and lithium-ion batteries

IP33

IP33 ingress protection design

*All image and specification is subject to change without prior notice.



Features

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- Multiple load work modes
- Charging power and current limitation function
- High-temperature charging power derating function
- Standard Modbus communication protocol with isolated RS485 interface
- Real-time energy statistic function
- Optional LCD display units and accessories
- CE(LVD IEC62109, EMC EN3/1-6-61000) and ROHS, ETL (UL-1741 : 2010 and Canadian CSA C22.2 No.107.1.01) FCC Class B Part 15 Compliant, IEC62509 : 2010

Overview

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Ranger MPPT is advanced maximum power point tracking charge controllers for off-grid photo voltaic systems, with optional display units. It is designed according to the international standard with higher quality, reliability and safety. The limitation function of the charging power, charging current and automatic power reduction function fully ensure stability when working with oversize PV modules (max 1.5 times of rated power) and operating under a high-temperature environment.

Technical Data	RG-SOLAR-MPPT-10A	RG-SOLAR-MPPT-20A
Nominal system voltage	12/24VDC/Auto	12/24VDC/Auto
Battery type	Lead-acid (Sealed/Gel/Flooded/Lithium) LiFePO ₄ /Li(NiCoMn) ₂ /User	
Battery input voltage range	8-32V	8-32V
Rated charge current	20A	20A
Rated discharge current	20A	20A
Rated charge power	130W/12V, 260W/24V	260W/12V, 520W/24V
Max. conversion efficiency	97.90%	98.30%
Tracking efficiency	≥ 99.5%	
Max.PV open circuit voltage	60V (At minimum operating environment temperature, 46V (At 25°C environment temperature)	
MPP voltage range	Battery voltage+2V~36V	Battery voltage+2V~36V
Equalization voltage	Sealed : 14.6V, Flooded : 14.8V, User-defined 9-17V	
Boost voltage	Gel : 14.2V, Sealed : 14.6V, Flooded : 14.6V, User-defined : 97-17V	
Float voltage	Gel / Sealed / Flooded: 13.8V, User-defined : 9-17V	
Low voltage reconnect voltage	Gel / Sealed / Flooded : 12.6v, User-defined : 9-17V	
Low voltage disconnect voltage	Gel / Sealed / Flooded : 11.1v, User-defined : 9-17V	
Self-consumption	≤ 14mA(12V), ≤ 15mA(24V)	≤ 14mA(12V), ≤ 15mA(24V)
Temperature compensation (For lead-acid battery)	-3mV/°C/2V (Default)	
Relative humidity	≤ 95%, N.C	
Enclosure	IP33	
Communication interface	RS458(RJ45)	
Grounding	Common negative	
Operating temperature range	-25°C~+50°C(LCD);-30°C~+50°C(No LCD)	
Dimension (LxWxH) (mm)	175 x 143 x 48	217 x 158 x 56.5
Net weight	0.57 kg	0.96 kg

Ordering Info

Model

RG-SOLAR-MPPT-10A

RG-SOLAR-MPPT-20A