

Product Data Sheet

2024-12-23



MG RS230 Battery 51.2V/230Ah/11.8 kWh Marine

MGRS480230M

Description

The RS 230 lithium-ion battery offers high performance together with the highest safety standards. This LiFePO₄ based battery module contains a professional liquid thermal management system and a unique patented cell level propagation protection system. The combination of these safety and performance features make the RS battery suitable for large energy storage applications as well as smaller peak power packs. This makes the RS Series an extraordinary high performance battery module for hybrid or electric vehicles, vessels, industrial machinery and solar off-grid applications. Thanks to the modular design, easily create 48 up to 900 Vdc systems to power all sorts of applications.

Product downloads

<https://downloads.mgenergysystems.eu/rslfp>

Specifications

Charge

Charge Voltage ¹	56.4 V
Continuous Charge Current ²	230 A (1.0 C)
Maximum Charge Current	230 A (1.0 C)
Recommended Charge Current ²	< 115 A (0.5 C)
Recommended Charge Current (air cooled)	< 96 A (< 0.3C)

Configuration

Parallel Configuration	Up to 32 modules
Series Configuration	Up to 16 modules

Discharge

Continuous Discharge Current ²	230 A (1.0 C)
Discharge Cut-Off Voltage ¹	48.0 V
Maximum Discharge Current ³	345 A (1.5 C)
Recommended Discharge Current ²	< 115 A (0.5 C)
Recommended Discharge Current (air cooled)	< 96 A (< 0.3C)

Environmental

Humidity (Non-Condensing)	≤ 95 %
Operating Temperature Charge	0 to +55 °C
Operating Temperature Discharge	-20 to +55 °C
Recommended Operating Temperature	+20 to +30 °C
Recommended Storage Temperature	+10 to +35 °C

Mechanical

Cooling	Air Convection or Liquid Cooling
Data Connection	CAN-Bus M12
Height	288 mm
IP-Protection Class	IP65
Length	653 mm
Power Connection	PowerLok 300
Weight	95 kg
Width	389 mm

Safety

Balancing	Passive
Battery Management System (BMS)	Integrated Slave BMS
Compatible BMS Master Controller	MG Master HV 300 MG Master LV 24-48 V MG Master LV 72-96 V

Standards

Approvals	IEC-EN62619 (ES-TRIN) in progress IEC-EN62620 (ES-TRIN)
EMC: Emission	NEN-EN-IEC 61000-6-3:2021
EMC: Immunity	NEN-EN-IEC 61000-6-1:2019
Low Voltage Directive	NEN-EN-IEC 60335-1:2024

Technical Specifications

Cell Configuration	16S1P
Cycle Life DOD 80% ⁴	> 4000
Nominal Capacity	230 Ah
Nominal Energy	11.8 kWh
Nominal Voltage	51.2 V
Specific Energy ⁵	123 Wh/kg
System Voltage	48 V 96 V ≥ 120 V
Technology	LiFePO ₄

Footnotes

- ¹ Voltage is depending on battery temperature and state of charge.
- ² Current is depending on battery temperature and state of charge.
Current is depending on battery temperature and state of charge. Duration is depending on battery temperature.
- ³ End-of-Life is 70% of initial capacity at 25 °C. Cycle life is depending on the battery temperature.
- ⁴ Higher battery temperature will result in lower number of cycles.
- ⁵ Including BMS and enclosure.

The specifications provided are for informational purposes only and are subject to change without notice. While every effort has been made to ensure the accuracy and completeness of the specifications, MG Energy Systems assumes no responsibility for any errors or omissions.



Logistics

HS code	8507600090
Country of origin	Netherlands
Shipping weight	95 kg
Classified as dangerous goods	Yes