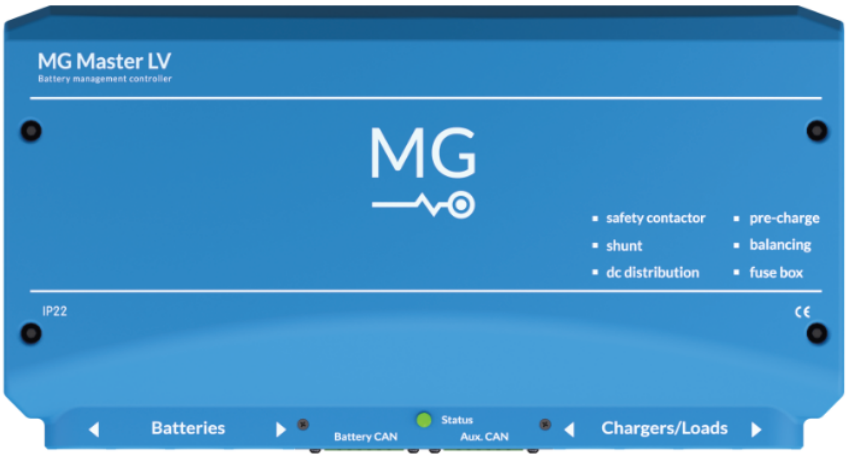
Product Data Sheet

2026-11-09



MG Master LV 12V/400A

MGMLV120400

Description

The Master LV is the BMS for low voltage systems. The main function is protecting the connected batteries. The internal BMS collects the data and monitors all essential battery parameters. This way, the Battery Management System preserves the health of your system. The BMS will always make sure that the parameters will stay within a safe operating window. When exceeding the safe operating window, the internal safety contactor opens automatically. This will disconnect all chargers and loads. As a result, the Master LV guarantees a safe and reliable operation.

In addition, the Battery Management System balances the cells of the entire battery installation. This maximizes the capacity and increases the battery cell lifetime. Each MG battery has a built-in slave BMS. This monitors all individual cells in the battery module. The Master LV collects all this data, and intervenes when needed. This way it protects all batteries.

Product downloads

https://downloads.mgenergysystems.eu/masterlv

Specifications

Environmental

Humidity (Non-Condensing)	≤ 95 %
Operating Temperature Range	-20 to +50 °C

IO

Allow-to-Charge (Relay Output)	0.8 A at 60 Vdc, potential free
Allow-to-Charge (Switched Voltage)	13.5 V / 1 A Overcurrent protection Short circuit protection
Allow-to-Discharge (Relay Output)	0.8 A at 60 Vdc, potential free
Allow-to-Discharge (Switched Voltage)	13.5 V / 1 A Overcurrent protection Short circuit protection
Aux. Output	13.5 V / 1 A Overcurrent protection Short circuit protection
External Status Signal	13.5 V / 140 mA Overcurrent protection Short circuit protection
Programmable Contact (Relay Output)	0.8 A at 60 Vdc, potential free

Mechanical

Data Connection	CAN Bus RJ45
Enclosure Material	ABS
Height	117 mm
IP-Protection Class	IP22
Length	426 mm
Weight	4.9 kg
Width	225 mm

Standards

Approvals	IEC-EN62619 (ES-TRIN)
EMC: Emission	EN-IEC 61000-6-3:2007/A1:2011/C11:2012
EMC: Immunity	EN-IEC 61000-6-2:2019
Low Voltage Directive	EN 60335-1:2012/AC:2014
RoHs	EN 50581:2012

Technical Specifications

Communication	NMEA 2000 SMA Victron VE.CAN
Main Safety Contactor Current	400 A
Maximum Number of Batteries Connected	96 battery modules of type MGLFP120210
Power Usage Active	10.3 W
Power Usage Standby	63 mW
Supply Voltage Range	8 - 15 Vdc
System Voltage	12 V

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	8537109199
Country of origin	Netherlands
Shipping weight	5.5 kg
Classified as dangerous goods	No