# **Master** HV







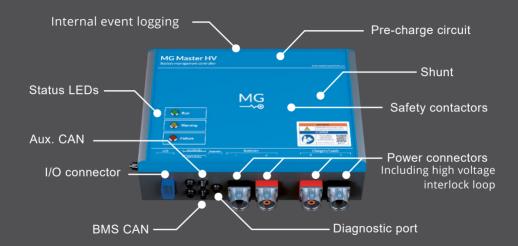
The MG Master HV is a high voltage battery management controller. It is the safety and control unit of the battery system in the range of 48 Vdc up to 900 Vdc and protects the connected battery modules against over-charging, over-discharging, high temperature, and it controls the balancing of the battery cells.

The Master HV communicates with the battery modules to measure and control all relevant battery parameters. This information is monitored, tracked and saved to internal memory as daily reports and events. The NMEA2000 interface provides the battery information to the EMS or PMS. Dynamic control parameters for charging and discharging are implemented to safely control chargers and loads in the system. In this way a fully integrated battery system can be created for a safe and reliable operation.

- ▶ Double Safety Contactor
- ► High Voltage Interlock Loop

- ► Integrated Pre-Charge Circuit
- Cell balancing

#### **PRODUCT FEATURES**



#### SAFE BY DESIGN

The main function of the MG Master HV is to protect all connected battery modules. The MG Master HV contains several safety systems in hardware and also in software. The device contains a main safety contactor in the positive and negative power path, a pre-charging circuit and a High-Voltage Interlock Loop (HVIL). The software is designed to fullfil the Lloyds and DNV class register type approval and quality assessment requirements. The operational system is tested to comply with an extensive list of environmental, EMC and functional tests.



Downloads

## **CERTIFICATION**

The MG Master HV complies with several type approvals and standards: Lloyd's, DNV-GL for marine applications. And the IEC-EN 62619 for industrial and stationary applications.

### SYSTEM REDUNDANCY

Use the SmartLink MX or PLC when installing two or more MG Masters. The SmartLink collects and combines data and controls the MG Masters to create a redundant battery system. This unique feature makes it also possible to easily create larger battery banks with only one interface to the EMS or PMS.

In other words, the individual battery banks are presented as one big battery bank with a high operational uptime.

