

CONTACT :

DEALER
CONTACT
INFORMATION

SCAN FOR
MORE
TECHNICAL
SPECIFICATIONS



MG HE SERIES

OTHER MG PRODUCTS

MG Master LV & HV

RS Series

LFP Series

Energy Monitor

HE Series



MG



HE Series

Every HE battery module consists of lithium-ion NMC battery cells. The NMC cell chemistry creates an advanced, high power cell and ensures solid performance characteristics. When replacing lead acid batteries with lithium-ion batteries, more energy storage capacity will be available whilst using the same amount of weight and space.

The HE battery module along with all the other lithium-ion battery modules in MG's product range can be used to set up scalable systems. The modules can be connected in series and parallel to create higher voltage and larger capacity for the need of your application.

- ▶ Weight and space saving
- ▶ Superior energy density
- ▶ Flexible and scalable configuration
- ▶ Plug and play installation
- ▶ Integrated BMS
- ▶ Systems from 24 Vdc up to 470 Vdc
- ▶ Redundant system options

HIGH ENERGY LIGHT WEIGHT

The HE battery series are based on a battery cell with a high energy density. This means that more energy is stored with a lower weight. As a result, more energy is available and more appliances can be powered for longer periods of time.

Because of the superior energy density, the HE-Series battery modules are excellent for lightweight applications. It is weight saving and space saving, because the battery module has compact dimensions. The modular design also creates flexibility in system configuration.

- ▶ Long battery lifetime
- ▶ Maintenance-free
- ▶ Faster charging
- ▶ Deeper discharge rates

SAFETY ++

BATTERY MANAGEMENT

To ensure a high safety standard, each battery module comes with an integrated battery management system. This is an intelligent electronic module called a slave BMS, which measures all cell voltages and temperatures inside the battery module. It controls balancing on both cell and module level, which is unique in the market.

The slave BMS in each battery module communicates with a master BMS, which can be a MG Master LV or HV. Via a galvanically isolated CAN-bus the MG Master collects and monitors the status of all battery modules. If the measured values from a battery module exceed the limit, the MG Master will automatically take action to protect all of the connected battery modules.

PROTECTION AGAINST



OVERVOLTAGE

UNDERVOLTAGE

OVERTEMPERATURE

UNDERTEMPERATURE

IMBALANCE

OVERCURRENT

MG SYSTEM

Each battery system consists out of the following:

One or multiple battery modules

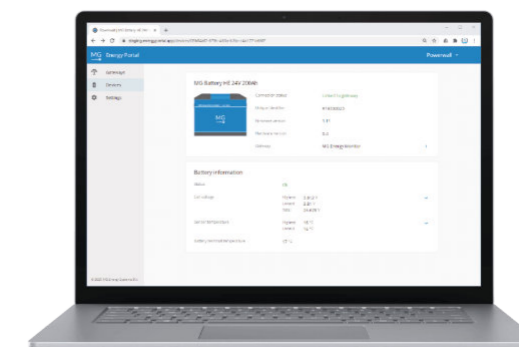


One or multiple Master BMS's (MG Master LV or MG Master HV).



MONITORING AND CONTROL

Combining HE-series batteries with a MG Master creates a safe and reliable system. The MG Master monitors, controls and protects the MG battery system. Important parameters are not only tracked for safety purposes, but also provide insight into the battery status and energy consumption. In addition, the free online MG Energy Portal monitors the historical battery usage and performance of each individual battery. It displays graphs from the daily battery consumption, the charge currents and much more.



MODELS

There are four different models in the HE battery series. This makes the HE-series suitable for a broad range of applications, and perfect for meeting unique system requirements. All four models have the same footprint. Every HE battery module has a nominal voltage of 25.2 Vdc and differs in nominal capacity from 100 Ah to 300 Ah. The HE Series offers the option to have RJ45 or M12 CAN-Bus connectors.



HE 100

- ▶ 2.5 kWh
- ▶ 25.2 Vdc
- ▶ 15.7 kg
- ▶ 361 x 193 x 214 mm



HE 150

- ▶ 3.7 kWh
- ▶ 25.2 Vdc
- ▶ 22.4 kg
- ▶ 361 x 193 x 284 mm

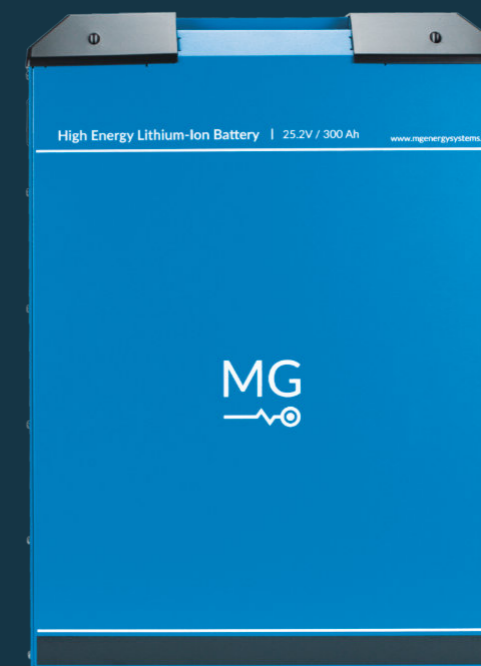
HE 200

- ▶ 5.0 kWh
- ▶ 25.2 Vdc
- ▶ 28.6 kg
- ▶ 361 x 193 x 355 mm



HE 300

- ▶ 7.5 kWh
- ▶ 25.2 Vdc
- ▶ 41.5 kg
- ▶ 361 x 193 x 500 mm



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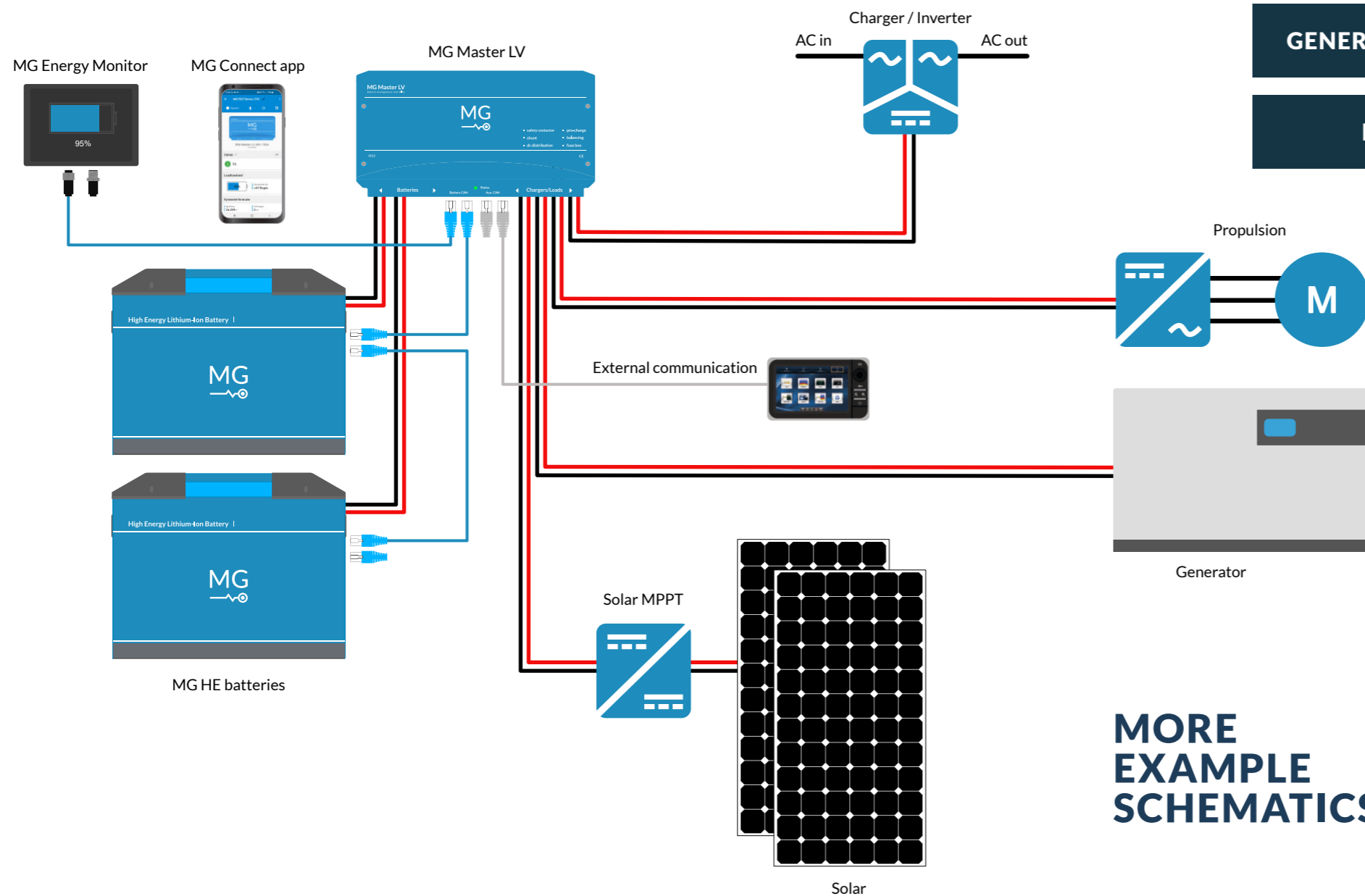
CERTIFICATION

The HE Series battery modules are tested to comply with several standards. The UN38.3 transportation test for lithium-ion batteries is one of these. This test includes Altitude simulation, Thermal tests, Vibration, Shock, External short-circuit and Overcharge. Also the modules comply with the IEC-EN 62619 and IEC-EN 62620. These standards include safety and performance tests on either cell and module level including the Battery Management System.



HE System Integration

System integration and scalability are the key benefits of the MG product range. Easily expand your energy storage system by connecting MG battery modules in parallel or series. This increases the system capacity or creates a high voltage system. Examples of HE batteries in high voltage configurations are UPS systems, electric propulsion applications and solar energy storage systems. Every MG energy storage system must include a MG Master battery management controller for safe operation. Connect multiple MG Masters in parallel to create a redundant system. This increases the reliability of your battery system.



- ELECTRIC PROPULSION**
- SOLAR ENERGY STORAGE**
- MOBILE POWER PACK**
- GENERATOR REPLACEMENT**
- PEAK SHAVING**

CONNECT YOUR HE

PLUG AND PLAY

Easy installation with automatic configuration. The CAN-Bus of the battery modules can be plugged into one of the MG Masters which automatically detects the configuration and updates the firmware of the batteries when available.

CAN-BUS COMMUNICATION

The HE batteries are available with RJ45 or M12 CAN-bus connectors, to establish communication connections between the batteries and MG Master. Both options are available for battery systems up to 96 Vdc. In the range higher than 96 Vdc M12 is the standard.

MG ENERGY MONITOR

A high resolution display with touchscreen which shows all important battery parameters at a glance. It can also be used to configure and diagnose your battery system with the option to use it as a gateway for the MG Energy Portal.

NMEA 2000 COMPATIBLE

MG's battery system CAN-bus protocol can be used to communicate with other equipment like displays, chargers and inverters, alternator controllers and more.

MG ENERGY PORTAL

Remotely monitor and control your battery system with the MG Energy Portal. This is a web-based battery monitoring platform and gives direct insight into all relevant data and essential battery parameters of your installation.

MORE EXAMPLE SCHEMATICS



720 kWh
SYSTEM CAPACITY UP TO

24 Vdc - 96 Vdc
LOW VOLTAGE SOLUTIONS

UP TO 470 Vdc
HIGH VOLTAGE SOLUTIONS