

## HE Series

The HE battery series is based on a high energy density battery cell. This means more energy in less weight. The integrated battery management system brings the highest standard on safety and gives insight in the status of the battery. Flexibility in system configuration is created by a modular design. On a system level a voltage range of 25.2 V up to 465 V and a capacity range of 2.5 kWh up to 720 kWh can be created with the 25.2 V modules.



25.2 V  
2.5 / 3.7 / 5.0 / 7.5 kWh

- ▶ Superior energy density
- ▶ Integrated battery management system
- ▶ Scalable system design due to 25.2 V modules
- ▶ High safety standard
- ▶ Plug and Play installation
- ▶ Up to 465 V system voltage



## High voltage systems

The HE batteries are available in a high voltage version (HV). This makes it possible to connect these batteries in series up to 16 modules (465 VDC). This configuration can be used in UPS systems, propulsion applications and solar energy storage.

## M12 and RJ45

The communication connections between the batteries and Master unit can be established with either economical RJ45 cables or more robust M12 cables. Up to 96 V both options are available. In the range higher than 96 V only the M12 option is available.



## Safety

Each battery module comes with an integrated battery management system (BMS). This is an intelligent electronic module (slave BMS), that measures all cell voltages and temperatures to control balancing on both battery cell and module level. The battery modules communicate by a galvanic isolated CAN-Bus with the MG Master LV or HV (master BMS), which 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 the connected battery modules.

## Battery management controllers

Protecting, monitoring and controlling a battery system is very important to create a safe, reliable and easy-to-use system. The MG Master LV or HV is the safety and control unit of the battery system. It protects the connected battery modules against over-charging, over-discharging, over-temperature, under-temperature and controls the balancing of the battery cells. Besides a safety function, the MG Master LV or HV monitors and tracks other important parameters to give insight in the battery status and energy consumption. The compact design makes it ideal for use in applications with limited space.

### MG Master LV



12 V to 96 V  
150 A to 1000 A

### MG Master HV



144 V to 800 V  
300 A and 500 A

## Energy storage systems

System flexibility is one of the main key features of all MG products. Combining HE series batteries together with one of the Master units will create a powerful system for a complete range of applications with system voltages of 25.5 V up to 465 V and capacities of 2.5 kWh up to 720 kWh.

## System example: 48 V / 400 Ah / 20 kWh / 115 kg

