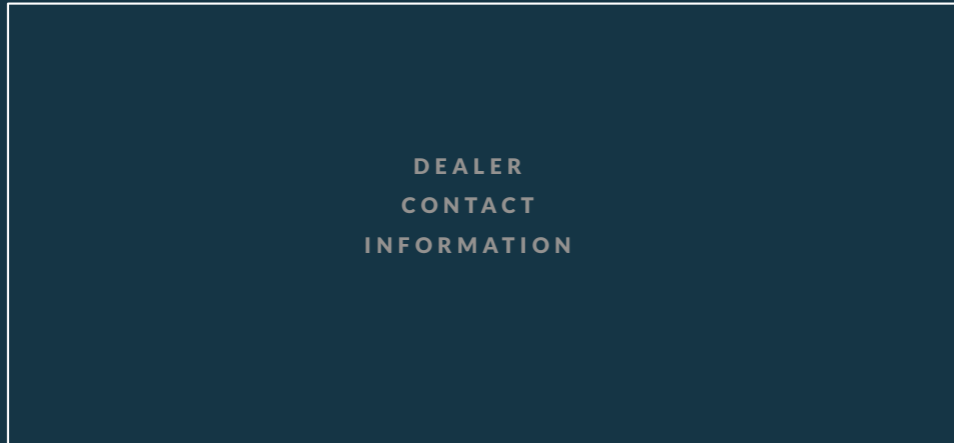


CONTACT :



SCAN FOR  
TECHNICAL  
SPECIFICATIONS



24 Vdc



12 Vdc

## RELATED MG PRODUCTS

MG Master LV & HV

HE Series

RS Series

Energy Monitor

# LFP Series



MG





## APPLICATION EXAMPLES

The LFP Series offers 12 Vdc and 24 Vdc battery modules for a broad range of applications.

The 12 Vdc LFP battery module can be used for smaller applications in several markets. For example the energy supply for campers, trucks, motor homes, boats and racing catamarans where weight and dimensions are important factors.

The 24 Vdc LFP battery modules are designed for use in larger applications in mobile, marine and off-grid markets. For example to power electric motors for hydraulic power packs or electric-hybrid propulsion systems. In addition, the 24 Vdc LFP battery module is suitable for generator replacement.

- ▶ Low voltage solutions: 12 Vdc up to 96 Vdc
- ▶ High voltage solutions: Up to 460 Vdc

## LFP Series

The LFP battery series is based on prismatic cells with next generation LiFePO4 chemistry. Using battery cells with this robust chemistry provides a battery module with a high energy density and extended cycle life. Battery safety is improved, thanks to the thermal and chemical stability of this particular chemistry. The high charge and discharge capability makes this battery suitable for high power applications.

- ▶ Next generation LiFePO4
- ▶ Robust and reliable
- ▶ Modular design
- ▶ High peak power
- ▶ Extended cycle life
- ▶ High energy density
- ▶ RJ45 and M12 CAN-Bus connector options

## 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

## MONITORING AND CONTROL

Combining LFP-Series batteries with an 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. The MG Energy Monitor is a display that makes local monitoring possible. In addition, the free online MG Energy Portal allows you to remotely monitor and control your battery system from any location.



## MG BATTERY SYSTEM

Each battery system consists of the following

One or multiple battery modules



One or multiple Master BMSs (MG Master LV or MG Master HV)



# MODELS 24 V

The various models make the LFP-series suitable for a broad range of applications, and perfect for meeting unique system requirements. All battery modules provide the benefits of LiFePO4 chemistry, like extended cycle life and high charge and discharge capabilities. There are two different models in the LFP 24V battery series. Both models offer the option to have RJ45 or M12 CAN-Bus connectors.



## LFP 230

- ▶ 5.8 kWh
- ▶ 25.6 Vdc
- ▶ 41 kg
- ▶ 517 x 294 x 193 mm



## LFP 280

- ▶ 7.2 kWh
- ▶ 25.6 Vdc
- ▶ 53 kg
- ▶ 652 x 294 x 193 mm



## CERTIFICATION

The LFP Series battery modules are tested to comply with several standards. The UN38.3 is the transportation test for lithium-ion batteries. It includes thermal tests, altitude simulation, vibration, shock, overcharge and external short-circuit. The LFP batteries also comply with the IEC-EN 62619 and IEC-EN 62620. These standards cover safety and performance tests on both cell and module level, including the battery management system.

SCAN FOR MORE TECHNICAL SPECIFICATIONS



# MODELS 12 V

The LFP 12 V battery module is a small and compact battery module, specifically designed for 12 V applications. Larger energy capacities can be created by paralleling multiple battery modules. The LFP 12 V comes only with RJ45 CAN-Bus connectors.



## LFP 210

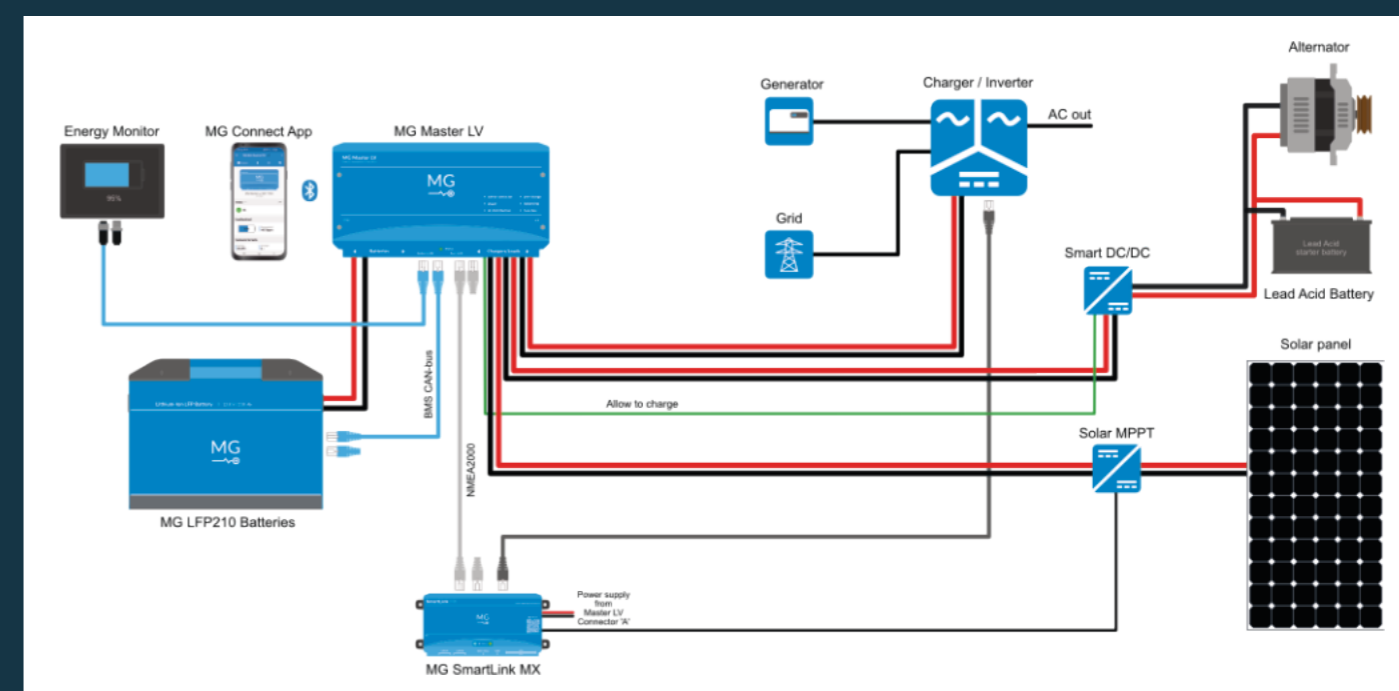
- ▶ 2.7 kWh
- ▶ 12.8 Vdc
- ▶ 22 kg
- ▶ 395 x 276 x 154 mm



SCAN FOR MORE TECHNICAL SPECIFICATIONS

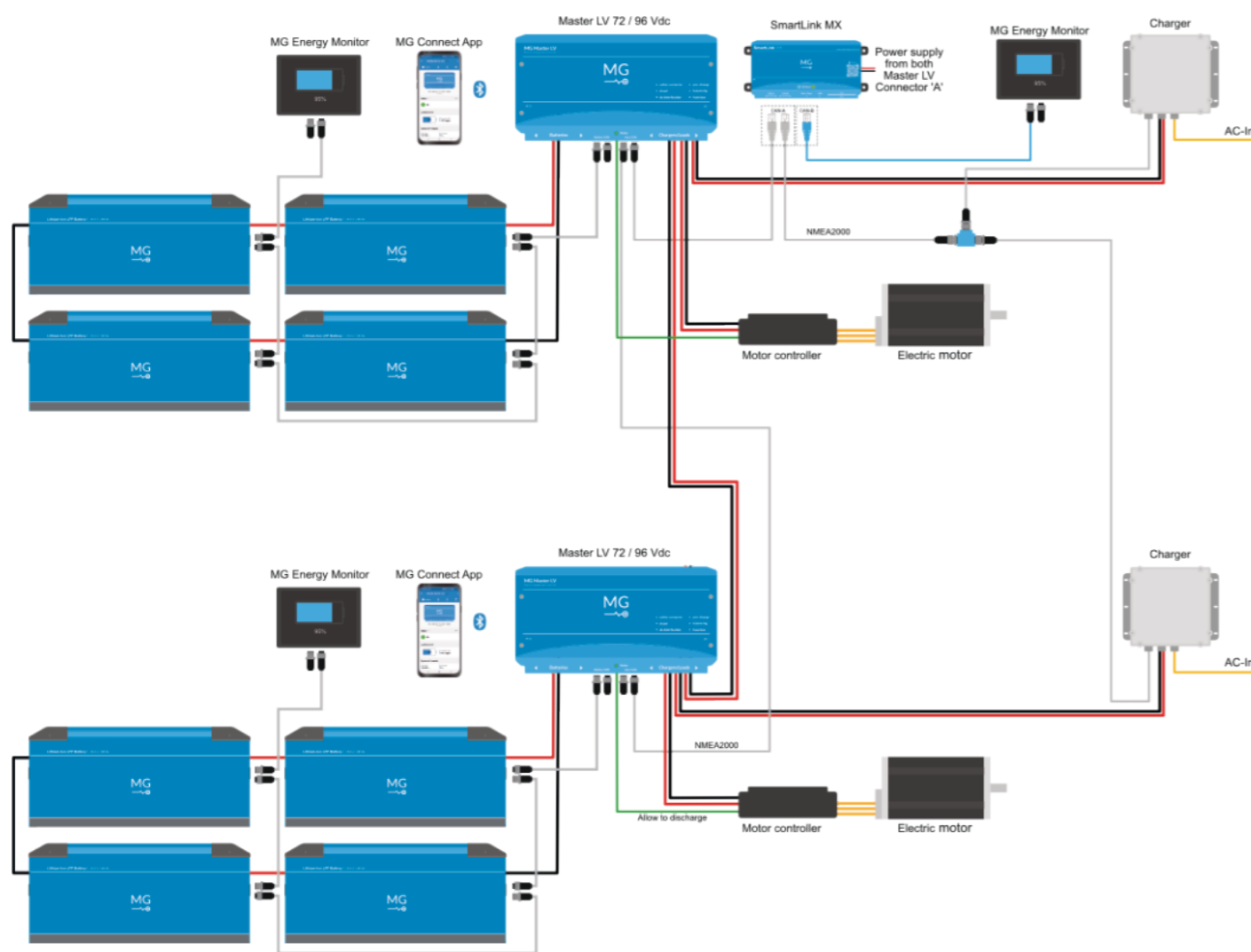


## 12 V EXAMPLE APPLICATION



# LFP 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 higher voltage system. The LFP Series batteries are good for a variety of system configurations. For example, for electric propulsion, as a mobile power pack or for generator replacement. In addition, they are suitable for solar energy storage and peak shaving purposes. 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**
- PEAK SHAVING**
- MOBILE POWER PACK**
- GENERATOR REPLACEMENT**
- SOLAR ENERGY STORAGE**
- REDUNDANT SYSTEMS**

## CONNECT YOUR LFP

### 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 LFP batteries are available with RJ45 or M12 CAN-Bus connectors, to establish communication 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 web-based platform gives direct insight into all relevant data and essential battery parameters of your installation. It shows historical battery usage and the performance of each individual battery.

## MORE EXAMPLE SCHEMATICS

12 V



24 V



**720 kWh**  
SYSTEM CAPACITY UP TO

**12 Vdc - 96 Vdc**  
LOW VOLTAGE SOLUTIONS

**UP TO 470 Vdc**  
HIGH VOLTAGE SOLUTIONS