Technical specifications	MGLFP120210 12.8 V / 210 Ah
Technology	Lithium-Ion next generation LiFePo4
Cell configuration	4S2P
Nominal voltage	12.8 V
Nominal capacity	210 Ah
Nominal energy	2.7 kWh
Cycle Life DOD 80% [1]	> 3500
Specific energy [2]	123 Wh/kg
Weight	22 kg
Discharge	
Discharge cut-off voltage	10.8 V
Recommended discharge current	105 A (0.5 C)
Continuous discharge current	210 A (1.0 C)
Maximum discharge current [3]	420 A (2.0 C)
Fuses [4]	300A, fuse inside
Charge	
Max. charge voltage	14.6 V
Recommended charge voltage	14.2 V
Recommended charge current	105 A (0.5 C)
Continuous charge current	210 A (1.0 C)
Maximum charge current (10 s) [3]	420 A (2.0 C)
Configuration	
Series configuration	No
Parallel configuration	Yes, unlimited
Redundant mode	Yes Using multiple Master BMSs
Environmental	
Operating temperature charge	0 to +45°C
Operating temperature discharge	-20 to +55°C
Storage temperature	-20 to +45°C
Humidity (non-condensing)	≤ 95 %
Mechanical	
Power connections	M8 stud, Max. 15 Nm
IP-Protection class	IP40
Cooling	Air, convection
Dimensions (l x h x w)	395 x 276 x 154 mm
Safety	
Battery Management System (BMS)	Integrated slave BMS
Balancing	Passive
Compatible BMS master controller	MG Master LV 12V
Communication	CAN-Bus (RJ45 connection)
Standards	
EMC: Emission	EN-IEC 61000-6-3:2007/A1:2011/C11:2012
EMC: Immunity	EN-IEC 61000-6-1:2007
Low voltage directive	EN 60335-1:2012/AC:2014

[1] End-of-Life is 70% of initial capacity at 25 °C.
[2] Including BMS and enclosure.
[3] Duration is depending on battery temperature.
[4] Fuses can be replaced with dummy fuses for high power and high voltage applications. In this case the batteries need to be fuse elsewhere in the circuit.

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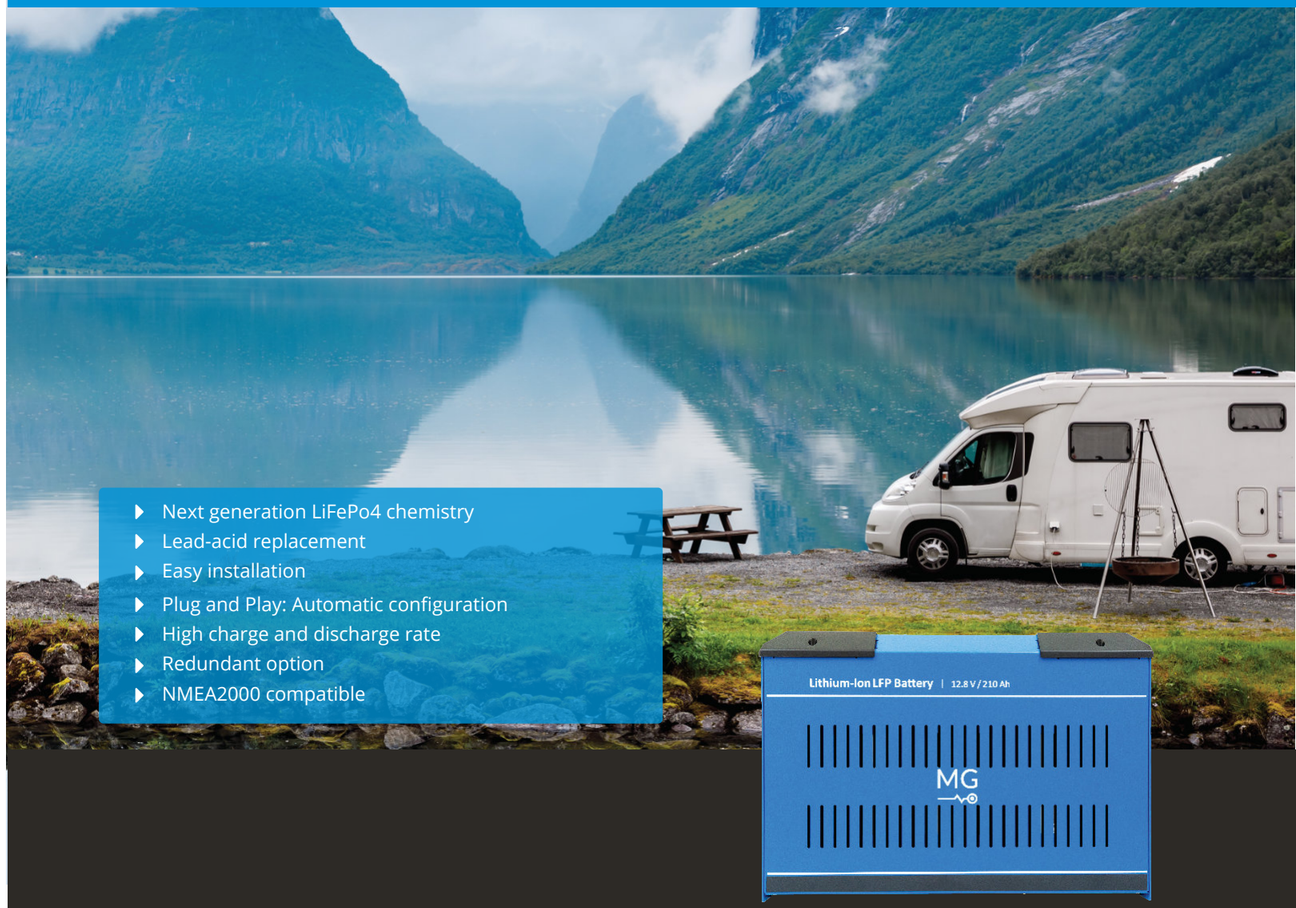
MG ENERGY SYSTEMS innovation in energy storage

Innovation in energy storage

LFP Series

12.8 V Lithium-Ion battery modules



Marine
Electric propulsion
Aux. battery bank

Industrial
Peak shaving
UPS systems

Off-grid/Solar
Self-consumption
Off-grid solutions

Automotive
Mobile power sources
Electric mobility

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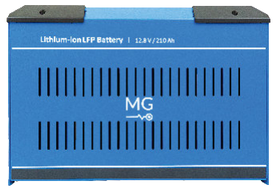
LFP Series

This robust battery is based on the next generation LiFePo4 chemistry. The advantage of this next generation chemistry is the higher energy density. The modules are very compact and light weight with high charge and discharge capability. The 12.8 V LFP series can be used for applications in various markets such as mobile and marine. Scalable and reliable battery banks can be created while keeping the ease of installation and the minimum use of external components.



LFP battery modules 12.8 V - 2.7 kWh

- Next generation LiFePo4 chemistry
- Lead-acid replacement
- Easy installation
- Plug and Play: Automatic configuration
- Extended cycle life
- High charge and discharge rate

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 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 funtion, the MG Master LV monitors and tracks other important parameters to give insight in the battery status and energy consumption. MG's battery system CAN-bus protocol can be used to communicate with other equipment and multi functional display's (MFD's) by NMEA2000 and web interface. The MG Master LV ensure an easy and proper installation. Thanks to the built-in safety components a reliable installation is guaranteed.

MG Master LV

12 V to 96 V
150 A to 1000 A

Applications

The 12.8 V LFP series can be used for various applications in several markets. For example the energy supply for campers, trucks, motor homes, boats and racing catamarans where weight is important.

Energy storage systems

System flexibility is one of the main key features of all MG products. Combining LFP series batteries together with one of the Master BMSs creates a powerful system for a complete range of applications. Redundant systems can be made by connecting multiple Master BMSs in parallel to increase system reliability and capacity.

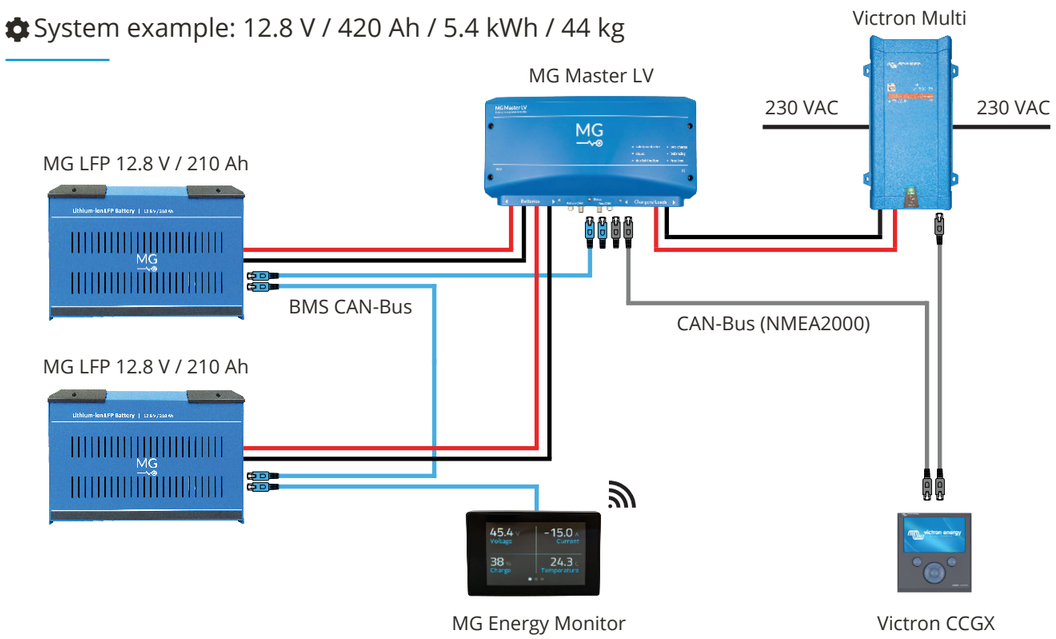
Easy installation

Combining the LFP series batteries with the MG Master LV creates a compact system with reduced wiring and external components. The MG Master LV combines battery monitoring and control, DC distribution, fuse box and shunt in one device which saves installation time and space.

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 (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.

System example: 12.8 V / 420 Ah / 5.4 kWh / 44 kg



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