Innovation in energy storage

Version 1.1 – 28-9-2022

MG LFP 24V Series

- Technical specifications -

MGLFP24x280 (LFP 280Ah)
MGLFP24x230 (LFP 230Ah)

Technical specifications

Technical specifications	MGLFP24x230 25.6 V / 230 Ah	MGLFP24x280 25.6 V / 280 Ah
Technology	Lithium-Ion next generation LiFePo4	
Cell configuration	8S1P	
Nominal voltage	25.6 V	
Nominal capacity	230 Ah	280 Ah
Nominal energy	5.8 kWh	7.2 kWh
Cycle Life DOD 80% [1]	> 3500	
Specific energy [2]	143 Wh/kg	136 Wh/kg
Weight	41 kg	53 kg
Discharge [5]		
Discharge cut-off voltage	24.0 V	
Recommended discharge current	< 115 A (< 0.5C)	< 140 A (< 0.5C)
Continuous discharge current	230 A (1.0 C)	280 A (1.0 C)
Maximum discharge current [3]	345 A (1.5 C)	420 A (1.5 C)
Fuses [4]	300A, fuse inside	
Charge [5]		
Charge voltage	28.2 V	
Recommended charge current	< 115 A (< 0.5C)	< 140 A (< 0.5C)
Continuous charge current	230 A (1.0 C)	280 A (1.0 C)
Maximum charge current (10 s) [3]	345 A (1.5 C)	420 A (1.5 C)
Configuration		
Series configuration[7]	Up to 6 modules	Up to 6 modules
Parallel configuration	Up to 96 modules.	
Environmental		
Operating temperature charge	0 to +45°C	
Operating temperature discharge	-20 to +55°C	
Recommended operating temperature	20 to +30°C	
Recommended storage temperature	10 to +35°C	
Humidity (non-condensing)	≤ 95 %	
Mechanical		
Power connections	M8 stud, 20 Nm	
IP-Protection class	IP40	
Cooling	Air, convection	
Dimensions (l x h x w)	517 x 294 x 193 mm	652 x 294 x 193 mm
Safety		
Battery Management System (BMS)	Integrated slave BMS	
Balancing	Passive	
Compatible BMS master controller	MG Master LV, MG Master HV	
Communication	CAN-Bus, RJ45 or M12 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	
Approvals	IEC-EN62619, IEC-EN62620 (ES-TRIN[6])	

Footnotes

[1] End-of-Life is 70% of initial capacity at 25 °C. Cycle life is depending on the battery temperature. Higher battery temperature will result in a lower number of cycles.

[2] Including BMS and enclosure.

[3] Duration is depending on battery temperature.

[4] Fuses can be replaced with non-fused battery poles for high power and high voltage applications. In this case each battery string needs to be fused elsewhere in the circuit.

[5] Charge and discharge rates are depending on battery temperature and State-Of-Charge.

[6] In progress for 230 Ah module.

[7] More than six in series on request.