

MG HE Series

- Technical specifications -

MGHE240100, MGHE241100, MGHE242100 (HE 100Ah)

MGHE240150, MGHE241150, MGHE242150 (HE 150Ah)

MGHE240200, MGHE241200, MGHE242200 (HE 200Ah)

MGHE240300, MGHE241300, MGHE242300 (HE 300Ah)



Technical specifications

Technical specifications	MGHE24x100 25.2 V / 100 Ah	MGHE24x150 25.2 V / 150 Ah	MGHE24x200 25.2 V / 200 Ah	MGHE24x300 25.2 V / 300 Ah
Technology	Lithium-Ion NMC			
Cell configuration	7S32P	7S48P	7S64P	7S96P
Nominal voltage	25.2 V			
Nominal capacity	100 Ah	150 Ah	200 Ah	300 Ah
Nominal energy	2.5 kWh	3.7 kWh	5.0 kWh	7.5 kWh
Specific energy ¹	159 Wh/kg	167 Wh/kg	175 Wh/kg	182 Wh/kg
Weight	15.7 kg	22.4 kg	28.6 kg	41.5 kg
Cycle life ²				
DOD 75 % - Economic mode	3000			
DOD 95 % - Performance mode	2000			
Discharge ⁶				
Discharge cut-off voltage	21.0 V			
Recommended discharge current	30 A (0.3 C)	45 A (0.3 C)	60 A (0.3 C)	60 A (0.2 C)
Maximum discharge current	100 A (1.0 C)	150 A (1.0 C)	200 A (1.0 C)	210 A (0.7 C)
Peak discharge current ³	200 A (2.0 C)	300 A (2.0 C)	400 A (2.0 C)	450 A (1.5 C)
Internal fuses ⁴	150 A	250 A	300 A	
Charge ⁶				
Maximum charge voltage	29.4 V			
Recommended charge current	30 A (0.3 C)	45 A (0.3 C)	60 A (0.3 C)	60 A (0.2 C)
Maximum charge current	100 A (1.0 C)	150 A (1.0 C)	200 A (1.0 C)	210 A (0.7 C)
Peak charge current ³	150 A (1.5 C)	225 A (1.5 C)	300 A (1.5 C)	300 A (1.0 C)
Configuration				
Series configuration	Yes, up to 6. More on request.			
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)	≤ 75 %			
Mechanical				
Power connections	M8 stud, max. 20 Nm			
IP-Protection class	IP20			IP40
Cooling	Air, forced (2x fan inside)			Air, convection (no fans)
Dimensions (l x w x h)	366x214x193 mm	366x284x193 mm	366x355x193 mm	366x497x193 mm
Safety				
Battery Management System	Integrated slave BMS			
Balancing	Passive			
Compatible BMS master	MG Master LV, MG Master HV ⁵			
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-IEC 60335-1:2012/A11:2014			
Approvals	IEC-EN62619, IEC-EN62620 (ES-TRIN)			

Footnotes

¹ Including BMS and enclosure.

² 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 lower number of cycles.

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.

⁵ For systems >144 V, order the M12, HV version.

⁶ Charge and discharge rates depending on battery temperature and State-Of-Charge.