

Table 1 - Technical specifications

Technical specifications	MGRS12S4P176 44 V / 192 Ah	MGRS14S3P132 51 V / 144 Ah	MGRS16S3P132 58 V / 144 Ah	MGRS24S2P088 88 V / 96 Ah
Technology	Lithium-Ion NMC			
Cell configuration	12S4P	14S3P	16S3P	24S2P
Nominal voltage	43.8 V	51.1 V	58.4 V	87.6
Nominal capacity	192 Ah	144 Ah	144 Ah	96 Ah
Nominal energy	8.4 kWh	7.4 kWh	8.4 kWh	8.4 kWh
Weight	75 kg	69 Kg	75 kg	75 kg
Discharge				
Discharge cut-off voltage	36.0 V	42.0 V	48.0 V	72.0 V
Recommended discharge current (2C) ¹	384 A	288 A	288 A	192 A
Maximum continuous discharge current (3C) ¹	500 A ²	432 A	432 A	288 A
Charge				
Maximum charge voltage (4.20V per cell)	50.4 V	58.8 V	67.2 V	100.8 V
Recommended charge voltage (4.05V per cell)	48.6 V	56.7 V	64.8 V	97.2 V
Recommended charge current (1C) ¹	192 A	144 A	144 A	96 A
Maximum continuous charge current (2C) ¹	384 A	288 A	288 A	192 A
Configuration				
Series configuration	Yes, up to 900 V			
Parallel configuration	Yes, unlimited			
Redundant mode	Yes Using multiple Master BMS's			
Cycle Life ³				
80% depth of discharge	> 8000 cycles			
Environmental				
Recommended operating temperature	+15 to +30 °C			
Operating temperature charge	0 to +40 °C			
Operating temperature discharge	-30 to +50 °C			
Storage temperature (< 50% SoC)	-40 to +60 °C			
IP-Protection class	IP65			
Thermal management	Liquid cooling/heating			
Humidity (non-condensing)	≤ 95 %			
Connections				
Communication	CAN-bus (M12 connection)			
Power connections	Amphenol PowerLok™ 300 ⁴ / 500 series			
Safety				
Batteries are always used in combination with a MG Master.	Integrated Slave BMS Passive cell balancing Redundant BMS			
Compatible BMS master	MG Master LV. MG Master HV			
Safety features	Interlock circuit in HV and CAN-Bus connectors Cell level thermal runaway propagation protection Automatic thermal runaway suppression valve input			
Type approval	DNV-GL ⁵ / Lloyds Register			
In accordance with	IEC 62619:2017 IEC 62620:2014			

¹ Only valid when a proper designed liquid cooling circuit is running.

² Limited by the maximum continuous current rating of the Amphenol PowerLok™ 500 series with 150 mm² cable.

³ End-of-Life is 70% of initial capacity at 25 °C. Charge up to max. 4.05V per cell.

⁴ Continuous current ratings must be de-rated to ≥ 300 A.

⁵ Type approval pending.

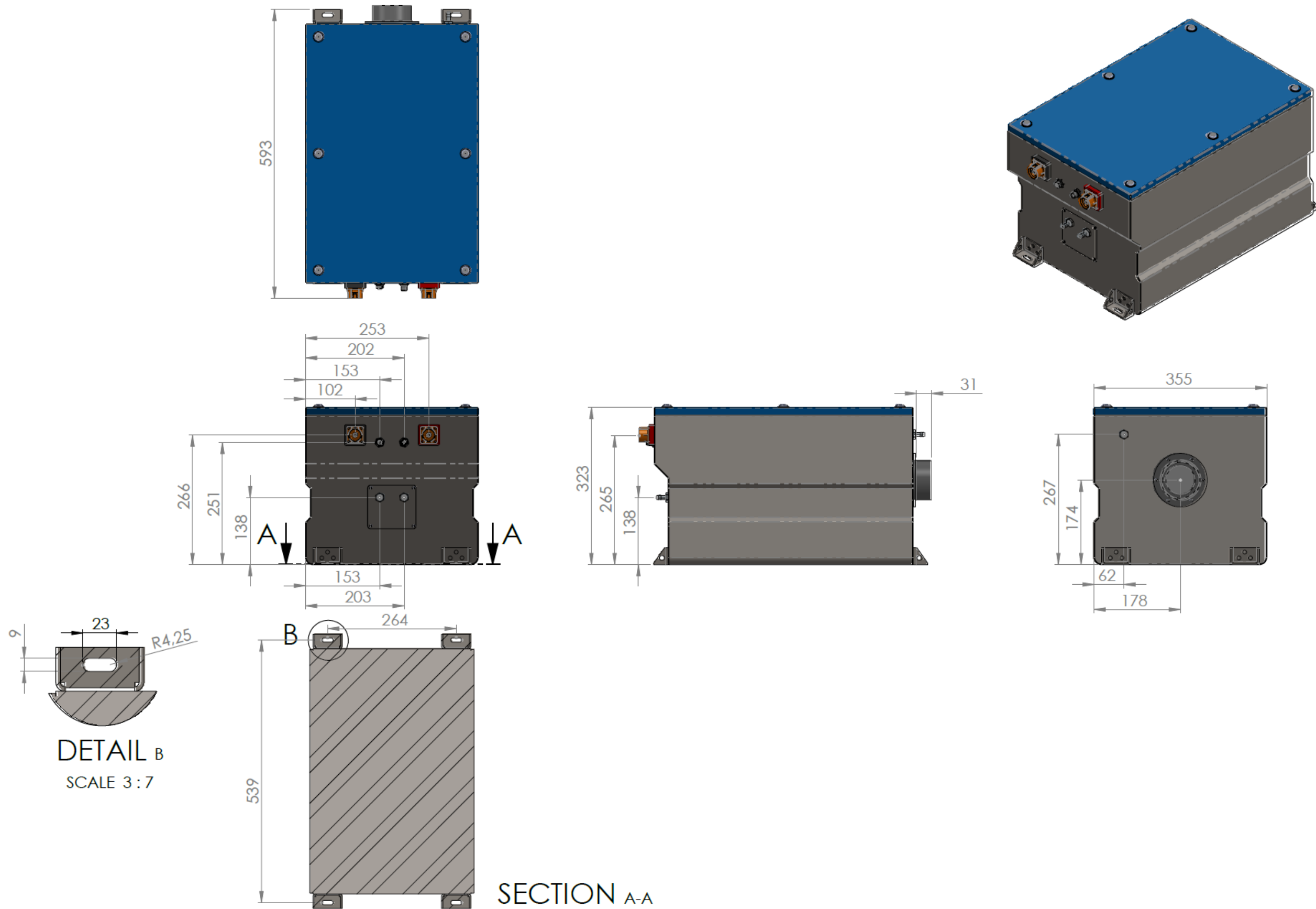


Figure 1 - Dimensions