

Standards

UN ECE R100.03
UN ECE R10.07
UN 38.3

ISO 26262 as SEooC (BMS)
ISO/SAE 21434 as CEooC (BMS)

EMC Directive 2014/30/EU
LVD 2014/35/EU
Regulation (EU) 2023/1542 (Battery Passport)

Environmental condition

	Parameter	Value
Ambient temperature	Charging	-20°C ÷ +55°C
	Discharging	-20°C ÷ +55°C
	Storage	-30°C ÷ +60°C
Conditions	Operating/storage humidity (No Condensation)	Up to 95%RH
	Operating/storage atmospheric pressure	70 ÷ 106.6 kPa Up to 3000m

Battery Pack Parameters:

	Parameter	Value	Comments
	Cell chemistry	LFP /Graphite	–
	Configuration of cells	96S1P	S-serial, P-parallel
Energy	Nominal	45.02 kWh	Beginning of Life, C/3, @25°C
	Usable for SOC 5-100%	42.77 kWh	Beginning of Life, C/3, @25°C
	Energy density	147 Wh/kg	Beginning of Life, C/3, @25°C
Capacity	Rated capacity	147 Ah	Beginning of Life, C/3, @25°C
	Usable capacity (SOC 5-100%)	136.7 Ah	Beginning of Life, C/3, @25°C
Voltage	Minimum operating limit	192 V	Cell-level allowable voltage limit
	Configured operating range – minimum (SoC-5%)	260 V	Operating window, configurable
	Nominal operating	306.24 V	Beginning of Life, C/3, @25°C
	Configured operating range – maximum (SoC-100%)	350.4 V	Operating window, configurable
	Maximal operating limit	350.4 V	Cell-level allowable voltage limit
Current	Discharge continuous	147 A	Depends on temperature and SOC
	Discharge pulse @10 sec.	350 A	Depends on temperature and SOC
	Charge continuous	147 A	Depends on temperature and SOC
	Charge pulse @10 sec.	270 A	Depends on temperature and SOC
Other	Recommended SOC operation range	5-100%	For long-life
	Degrees Of Protection Provided by Enclosure	IP 6K7	Acc. ISO20653:2023
	Insulation withstand	2.5 kVAC RMS (50/60Hz)	60 s; Acc. ISO 6469-3:2021
	Dimensions (L x W x H)	1039,6 x 650 x 275 mm	Without connectors
	Weight	306,8 kg	
Low voltage installation	BMS supply voltage	24 V	–
	BMS supply voltage range	18 ÷ 32 V	–
	Communication interface	CAN 2.0B	In compliance with SAE J1939

HERO 2



System topology

