

ESS Container

4.180 MWh

Liquid-cooled energy storage system



Liquid-cooled energy storage system based on HiTHIUM prismatic LFP ESS Cells 314 Ah with very high cyclic lifetime.

Improved safety characteristics and specially optimised for the highest requirements on safety, reliability and performance. Suitable e.g. for industrial, utility, and grid serving applications.

- Product certification and compliance:
IEC 62619, IEC 62477, IEC 63056, IEC 61000, UL 1973, UL 9540A, NFPA 855, UN 38.3
- Company certifications:
ISO 9001, ISO 14001, ISO 45001
- Environmental Compliance:
RoHS, REACH, Cobalt free
- Flexible solution:
String or central PCS compliance.

High safety

- High thermal stability thanks to liquid cooling
- Multi-stage, active fire protection system, compliance to NFPA 855
- Use of highly safe prismatic HiTHIUM LFP cells
- Dedicated cell monitoring and protection system

Low LCOS (Levelised Cost of Storage)

- Excellent thermal management improves energy throughput by ensuring optimal operating temperature
- Highly integrated: including thermal management system, fire protection system, BMS, etc.
- Supports back to back and side by side installations

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GENERAL	
Configuration	5*2P416S
Cooling Method	Liquid Cooling
BMS Communication	CAN, RS485, Ethernet
Gravimetric ED	≥ 119 Wh/kg (≥54 Wh/lb)
Volumetric ED	≥ 97 Wh/L (≥367 Wh/gal)
Application Altitude	≤ 4,000 m (≤13123 ft)

ELECTRICAL	
Nominal Voltage	1,331.2 V
Operating Voltage	1,040 V ... 1,500 V
Nominal Energy	4,180 kWh ^{1,2}
Nominal SOC at Delivery	27 % ²
Nominal Charge/Discharge Rate	0.5 P / 0.5 P
Round Trip Efficiency	≥ 94 % ^{1,2}

¹ 0.5 P / 0.5 P
² 25 °C +/- 2 °C
(73.4°F ... 80.6°F)
³ ambient temperature

MECHANICAL	
Dimensions (L x W x H)	6,058 x 2,438 x 2,896 mm (238 ½ x 96 x 114 in)
Maximum Weight	35,000 kg (77,162 lb)
Protection Level	IP 55

TEMPERATURE RANGE	
Operating	-30 °C ... 55 °C ³ (-22 °F ... 131 °F)
Storing (Recommended)	-20 °C ... 35 °C ³ (-4 °F ... 95 °F)

PRODUCT CERTIFICATIONS AND COMPLIANCE	
Certificates, Report and Compliance	IEC 62619, IEC 62477, IEC 63056, IEC 61000, UL 1973, UL 9540A, NFPA 855
Safe Transportation	UN 38.3

ENVIRONMENTAL	
Compliance	RoHS, REACH, Cobalt free
Battery Regulation (EU)	2023/1542

COMPANY CERTIFICATIONS	
ISO 9001, ISO 14001, ISO 45001, SA 8000	