

# 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 certifications:  
IEC 62619, IEC 62477, IEC 63056, IEC 61000, UL 1973, UL 9540A, UN 38.3, NFPA 855
- Company certifications:  
ISO 9001, ISO 14001, ISO 45001
- Environmental Compliance:  
RoHS, REACH, Cobalt free

### 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 (≥54.0 Wh/lbs)
Volumetric ED	≥ 97 Wh/L (≥367.2 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	4180 kWh <sup>1,2</sup>
Nominal SOC at delivery	27 % <sup>2</sup>
Nominal Charge/Discharge Rate	0.5 P / 0.5 P
Round Trip Efficiency	≥ 94 %

<sup>1</sup> 0.5 P / 0.5 P

<sup>2</sup> 25 °C +/- 2 °C  
(73.4°F ... 80.6°F)

<sup>3</sup> ambient temperature

### MECHANICAL

Dimensions (L x W x H)	6,058 x 2,438 x 2,896 mm (238.5 x 96.0 x 114.0 in)
Maximum Weight	35,000 kg (77161.8 lbs)
Protection Level	IP 55

### TEMPERATURE RANGE

Operating	-30 °C ... 55 °C <sup>3</sup> (-22 °F ... 131 °F)
Storing (recommended)	-20 °C ... 35 °C <sup>3</sup> (-4 °F ... 95 °F)

### PRODUCT CERTIFICATIONS

Certificates and Reports	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

**HiTHIUM Energy Storage Technology Deutschland GmbH**  
Website: <https://hithium.com> | Email: [Contact@hithium.de](mailto:Contact@hithium.de)  
Address: Landsberger Str. 155, 80687 Munich, Germany

**Xiamen HiTHIUM Energy Storage Technology Co., Ltd.**  
Address: HiTHIUM Industrial Park, Tongxiang High Tech Zone,  
Xiamen, Fujian, China | Email: [hithium@hithium.com](mailto:hithium@hithium.com)

