

# ESS Container

## 5.015 MWh

Liquid-cooled battery storage system



Preliminary

### Liquid-cooled battery storage system based on HiTHIUM prismatic LFP ESS Cells 314 Ah with highest 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
- Company certifications:  
ISO 9001, ISO 14001, ISO 45001
- Environmental Compliance:  
ROHS, REACH

### 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.
- Very high energy density using dual channel compact module technology (DCCM)
- Supports back to back and side by side installations

# ESS Container

## 5.015 MWh

Liquid-cooled battery storage system based on prismatic LFP cells with very high cyclic lifetime



### GENERAL

<b>Battery Type</b>	HiTHIUM LFP314-2P52S
<b>No. of Battery Modules</b>	48 (6 x 8) with DCCM Technology
<b>Configuration</b>	12P416S
<b>Cooling Method</b>	Liquid Cooling
<b>BMS Communication</b>	CAN, RS485, Ethernet
<b>Gravimetric</b>	> 111 Wh/kg
<b>Volumetric</b>	> 117 Wh/l
<b>Application Altitude</b>	≤ 4,000 m

### ELECTRICAL

<b>Nominal Voltage Container</b>	1,331.2 V
<b>Operating Voltage Container</b>	1,123.2 ... 1,497.6 V
<b>Nominal Energy Container</b>	5,015.96 kWh <sup>1,2</sup>
<b>Nominal SOC at delivery</b>	27 % <sup>2</sup>
<b>Nominal Charge/Discharge Rate</b>	0.5 P / 0.5 P
<b>Round Trip Efficiency</b>	> 94 %

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

<sup>2</sup> 25°C +/- 2.0

<sup>3</sup> ambient temperature

### MECHANICAL

<b>Dimensions (L x W x H)</b>	6,058 x 2,438 x 2,896 mm
<b>Weight Container (20 ft.)</b>	< 45,000 kg
<b>Protection Level</b>	IP 55

### TEMPERATURE RANGE

<b>Operating</b>	-30 °C ... 55 °C <sup>3</sup>
<b>Storing (recommended)</b>	-20 °C ... 35 °C <sup>3</sup>

### PRODUCT CERTIFICATIONS

<b>Certificates and Reports</b>	IEC 62619, IEC 62477, IEC 63056, IEC 61000, UL 1973, UL 9540A, NFPA 855, UN 38.3
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### ENVIRONMENTAL

<b>Compliance</b>	ROHS, REACH
	Cobalt free

### COMPANY CERTIFICATIONS

ISO 9001, ISO 14001, ISO 45001

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