

ESS Cabinet 344 kWh

Liquid-cooled battery storage system



Liquid-cooled battery storage system based on HiTHIUM prismatic LFP ESS Cells 280 Ah with 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, NFPA 855, UN 38.3
- Company certifications:
ISO 9001, ISO 14001, ISO 45001, SA 8000
- Environmental Compliance:
RoHS, REACH, Cobalt free

High safety

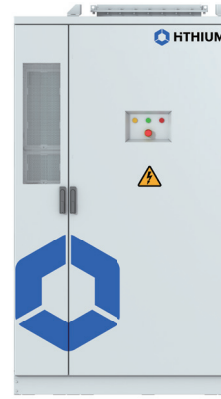
- High thermal stability thanks to liquid cooling
- Multi-stage, active fire protection system, compliance to NFPA 855
- Use of highly safe prismatic HiTHIUM LFP cells
- Ultra-wide operating temperature range

Low LCOS (Levelised Cost of Storage)

- Excellent thermal management improves energy throughput by ensuring optimal operating temperature
- High energy density
- Highly integrated: including thermal management system, fire protection system, BMS, etc.

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GENERAL	
Battery Type	HiTHIUM LFP280-1P48S
No. of Battery Modules	4 ... 8
Configuration	Serial connection of modules
Cooling Method	Liquid cooling
BMS Communication	CAN
Gravimetric	$\geq 98 \text{ Wh/kg}^1$
Volumetric	$\geq 86 \text{ Wh/L}^1$
Application Altitude	$\leq 3,000 \text{ m}$

ELECTRICAL	
Nominal Voltage Cabinet	1,228.8 V ¹
Nominal Voltage Module	153.6 V
Operating Voltage Cabinet	960 ... 1,401.6 V ¹
Operating Voltage Module	$T > 0 \text{ }^\circ\text{C}$ 120 ... 175.2 V ¹ $T \leq 0 \text{ }^\circ\text{C}$ 96 ... 175.2 V ¹
Nominal Energy Cabinet	344.06 kWh ^{1,2,3}
Nominal Energy Module	43.01 kWh ^{2,3}
Nominal SOC at delivery	27 % ³
Nominal Charge/Discharge Rate	0.5 P / 0.5 P
Round Trip Efficiency	$\geq 94 \%$

¹ 8 modules

² 0.5 P / 0.5 P

³ 25°C +/- 2.0

⁴ ambient temperature

MECHANICAL	
Dimensions (L x W x H)	1,300 x 1,300 x 2,350 mm
Weight Cabinet	$< 3,500 \text{ kg}^1$
Weight Battery Module	310 kg
Protection Level	IP 55

TEMPERATURE RANGE	
Operating	-30 °C ... 50 °C ⁴
Storing (recommended)	-20 °C ... 35 °C ⁴

PRODUCT CERTIFICATIONS	
Safety Certificates	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

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