

# X-Series

## DC Container

### 5+ MWh

Liquid-cooled battery energy storage system for utility-scale applications

#### Improved Safety Characteristics

- Built-in prevention: premium-grade cells, sophisticated battery management system, and comprehensive system-level safeguards
- AI-based fault detection; gas, smoke and heat detection
- Dynamic ventilation, auxiliary water sprinkler setup, and integrated fire suppression system
- Aerogel insulation, heat-resistant enclosures, and deflagration mitigation features
- Ultra-wide operating temperature range

#### Optimized Solution

- Flexible multi-system topology options, delivering the ideal solution for various application scenarios starting from power generation
- Optimal energy capacity solutions for power plants, enabled by our advanced system sizing tool
- Space saving configuration: compact design with side-by-side and back-to-back layout
- Engineered for durability in extreme and demanding environments
- Grid-forming scenarios

BATTERY CONFIGURATION		6R	12R
Cell Capacity	LFP ESS 314 Ah		
Pack Configuration	2P52S	1P104S	
Rack Configuration	2P416S	1P416S	
Rack No.	6	12	
Battery Pack No.	48		
Cooling Method	Liquid Cooling		
BMS Communication	CAN, RS485, Ethernet		

ELECTRICAL	
Nominal Voltage	1,331 V
Operating Voltage	1,040 ... 1,498 V
Nominal Energy	5,016 kWh <sup>1,2</sup>
Nominal Charge/Discharge Rate	0.5 P / 0.5 P
Round Trip Efficiency	> 94 %

MECHANICAL	
Dimensions (W × D × H)	6,058 × 2,438 × 2,896 mm
Weight	< 40,000 kg
Protection Level	IP 55

AMBIENT	
Application Altitude	≤ 4,000 m
Application Temperature	-30 °C ... 55 °C
Storage Temperature	-20 °C ... 35 °C

PRODUCT CERTIFICATIONS	
IEC 62619, IEC 62477, IEC 63056, IEC 61000, UL 1973, IEC 62933-5-2, UL 9540A, NFPA 855, NFPA 68, NFPA 69, NFPA 70E, NFPA 72, UN 38.3	

ENVIRONMENTAL	
Compliance	ROHS, REACH, Cobalt Free
Battery Regulation (EU)	2023/1542

<sup>1</sup> 0.5 P / 0.5 P  
<sup>2</sup> 25°C (+/- 2.0)

# The X Factor of Energy

