

All-in-one Liquid-cooled ESS Container

ECO-E20FT2170LP



Brief

Elecnova's innovative 400V all-in-one container solution integrates PCS, EMS, BMS, cooling system, fire suppression system, and AC combiner cabinet and other components. The highly integrated system and high-quality 314Ah battery cells provide higher energy density with smaller dimensions. And the efficient hybrid cooling system ensures stable operation, maintaining a cell temperature difference within 3°C. The standard 20ft container design enables easy transportation and installation, allowing for rapid deployment, which provides a wide application possibility for commercial, industrial, and grid-side energy storage scenarios.

Features



Hybrid Cooling System

The liquid-cooled battery cooling system combined with an air-cooled PCS cooling system provides dual assurance for system efficiency.



All-in-One Design

Highly integrated 3S system, cooling system, and fire protection system, delivering greater capacity within a smaller footprint.



String-Based Solution

Each battery cluster is independently managed, ensuring higher efficiency and system stability.



Standard 20ft Container

Pre-tested and pre-installed before delivery, enabling easy transportation, simple commissioning, and shorter lead times.

Specifications

DC Side	
Cell Type	LFP314Ah
PACK	48.23kWh/1P48S
Battery System	2170.3kWh/9P240S
Voltage Range	672-864Vdc
AC Side	
Rated Power	1000kW
Max. Power	1100kW
THDi	≤3%
DC Ratio	< 0.5%lpn
Nominal Voltage	400Vac/3P+N+PE
Power Factor	-1 lagging ~ 1 leading
Nominal Frequency	50Hz/60Hz
General	
System Efficiency	≥88%
Charge/Discharge Rate	0.5P
DoD	95% (25±2°C)
Cycle Life	8000cycles@±25°C, 95%DOD 0.5P
Communication	Ethernet /RS485
Ingress Rating	IP55
Cooling System	Liquid Cooled + Forced Air Cooled
Operating Temperature	-25°C ~ 55°C *
Humidity	5~95%RH, non-condensing
Noise	≤80dB
Altitude	≤2,000m (derating above 2,000m)
Fire Suppression System	Aerosol system (pack level and container level), water spray system
Dimensions (W*D*H)	6058*2438*2591 (mm)
Weight	25t
Compliance	UN38.3, IEC62477-1, CE/EMC, IEC62619, IEC63056, UL9540A, IEC62933, EN50549

*. Power decreased after 45°C