All-in-one Liquid-cooled ESS Container

ECO-E20FT2170LP-2



Brief

Elecnova's innovative 400 V all-in-one container solution integrates PCS, EMS, BMS, cooling and fire suppression systems, AC combiner cabinet, and other essential components. The highly integrated system, combined with high-quality 314 Ah battery cells, delivers higher energy density in a compact footprint. Its efficient hybrid cooling system ensures stable operation, keeping cell temperature differences within 3 ℃. Designed in a standard 20 ft container, the solution allows easy transportation, rapid installation, and flexible deployment, making it suitable for a wide range of commercial, industrial, and utility-scale energy storage applications.

Features

Hybrid Cooling System
The liquid-cooled battery system, paired with air-cooled PCS system, provides dual assurance for optimal efficiency and outstanding performance.

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, enhancing system reliability and 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	LFP / 314 Ah
Pack Configuration	48.2 kWh / 1P48S
System Configuration	2170 kWh / 9P240S
Rated DC Voltage	768 V
DC Voltage Range	672 ~ 864 V
Max. Charge/Discharge Rate	0.5 P
Max. Depth of Discharge	100% (25 ± 2 °C)
AC Side	
Rated Output Power	1000 kW
Rated AC Voltage	400 V
AC Voltage Range	±15%
Grid Type	3W+N+PE
Rated Frequency	50 Hz / 60 Hz
Power Factor	0.99/ -1 ~ +1
THDi	≤3%
DC Ratio	＜0.5% Ipn
General	
Max. Round Trip Efficiency	89%
Cycle Life	≥ 8,000 cycles
Communication	Modbus TCP/IP
Fire Suppression System	Aerosol system+Water spray system
Ingress Rating	IP55
Cooling	Liquid cooling+Forced air cooling
Operating Temperature	-25°C~55°C (Derating after 45°C)
Anticorrosion Rating	C4 (C5 optional)
Humidity	0~95% RH (non-condensing)
Noise	≤ 80 dB
Altitude	3000m (Derating above 2000m)
Dimensions (W*D*H)	6,058*2,438*2,591 mm
Weight	28 t
Safety/EMC	UN3536, IEC62619, IEC63056, IEC62477-1, IEC61000-6-2/4, UL9540A, IEC62933-5-2
Grid code	EN50549-1/-10, EN50549-2/-10, G99, VDE4105, NRS097, C10/11, CEI0-21, CEI0-16