

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 °C. 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% I _{pn} |
| 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 |