

ESAI-125/233 (EU)

125 kW 233 kWh All-in-One BESS



All-in-One Battery Energy Storage.
Fast Deployment. Proven Reliability.

System Features

All-in-One Design

- Integrates the PCS, batteries, and control systems into a single pre-assembled unit, reducing installation time, lowering costs, and simplifying on-site deployment.

Integrated EMS

- An integrated energy management system enables centralized monitoring, control, and optimization, simplifying operations while supporting predictive maintenance and system insights.

Flexible Applications

- Supports a wide range of operating modes and load profiles, enabling seamless deployment across grid-connected, off-grid, and hybrid energy storage applications.

Liquid Cooling

- Advanced liquid-cooling improves system efficiency, enhances thermal stability, and extends battery life under demanding operating conditions.

Built-in Safety

- Multiple layers of DC protection and intelligent battery management enhance system safety, reduce operational risk, and support reliable long-term performance.

Long-Term Reliability

- Designed for continuous operation with durable components and intelligent system controls, ensuring consistent performance and reduced maintenance over the system lifespan.

Scalable System Architecture

- A modular architecture supports parallel system expansion, enabling capacity to scale efficiently as energy demands grow without replacing core infrastructure.





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System Specifications

Model numbers shown as X/Y indicate rated power (X) and energy capacity (Y).
e.g. 125/233 = 125 kW, 233 kWh.

Battery Specifications	
Model Number	ESAI-125/233 (EU)
Battery Chemistry	Lithium Iron Phosphate
Cell Type	3.2 V / 314 Ah
Capacity	233 kWh
Nominal Voltage	832 Vdc
Operating Voltage Range	702 - 936 Vdc
Cycle Life	> 8000 cycles
PCS Specifications	
Rated AC Power	125 kW
Max AC Power	150 kW
Rated Output Voltage	400 Vac
Output Voltage Range	340 - 440 Vac
Rated Grid Frequency	50 / 60 Hz
Rated Current	182 A
Power Factor	>0.99
THDi	≤3%
General Specifications	
Thermal Control Method	Liquid cooling
Fire Safety Configuration	Aerosol Extinguishing
Communication	CAN, RS485, Wi-Fi, LTE
Standards/Certification	UN38.3, IEC/EN62619:2022, IEC/EN62477-1:2012+A11+A1+A12, IEC/EN61000-6-2:2019, IEC/EN61000-6-4:2019, EN, 50549-1:2019, EN 50549-10:2022
IP Rating	IP54
Operating Temperature	-4°F (-20°C) to 131°F (55°C)
Operating Humidity	0 - 95%
Dimensions L x W x H	1100 x 1455 x 2303 mm 43.0 x 57.0 x 93.0 in
Weight	~ 2630 kg ~ 5798 lbs
Warranty	10 year battery performance 5 year parts



Integrated Energy Management System (EMS)

Smarter Control. Greater Uptime. Total Visibility. EVESCO's advanced EMS is engineered for real-time energy intelligence, empowering operators with control, insight, and automation at every level of the system. Whether on-site or in the cloud, you get precision management, proactive alerts, and unmatched flexibility.

Real-Time Monitoring & Alerts

- Continuously tracks battery health, cooling, PCS, fire suppression, and system performance. Enables instant alerts and data-driven decision-making.

Enterprise-Grade Security

- Multi-layered cybersecurity architecture with encryption, user access control, and audit trails to protect critical infrastructure and data integrity.

Scalable, Modular Architecture

- Supports cabinet-level to station-level EMS deployment. Easily add new systems or expand capacity without reconfiguring your control strategy.

Proactive Maintenance & Diagnostics

- Delivers predictive insights and fault detection to reduce downtime, streamline service cycles, and maximize asset life.

With EVESCO's EMS, you don't just store energy, you manage it with confidence, precision, and real-time visibility.



Ready to take control of your energy strategy?

Contact us at
evesco@power-sonic.com
to explore how EVESCO can accelerate your storage goals.

