

ESPV-50/61 (EU)

50 kW 61 kWh Solar-Ready BESS



Solar-Ready Battery Energy Storage.
Integrated Storage. Smarter Energy Control

System Features

Optimized for Solar

- Built-in MPPT and high-efficiency inverter simplify solar integration, improving energy capture, reducing operating costs, and supporting grid independence and sustainability goals.

Integrated EMS

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

Adaptive Site Flexibility

- Supports centralized or distributed configurations, with or without inverter integration, enabling seamless adaptation to diverse site layouts and technical requirements.

Compact Footprint

- High-density storage and integrated design minimize space requirements, enabling deployment in constrained sites, retrofits, and locations where footprint efficiency matters.

Built-in Safety

- Advanced fire prevention, continuous diagnostics, and multi-layer protection systems ensure safe operation, operational assurance, and long-term system reliability.

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

- Modular system design enables capacity expansion as energy needs increase, minimizing disruption and avoiding replacement of existing infrastructure.





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System Specifications

Model numbers shown as X/Y indicate rated power (X) and energy capacity (Y).
e.g. 50/61 = 50 kW, 61 kWh.

Battery Specifications	
Model Number	ESPV-50/61 (EU)
Battery Chemistry	Lithium Iron Phosphate
Cell Type	3.2 V / 100 Ah
Capacity	61 kWh
Nominal Voltage	614.4 Vdc
Operating Voltage Range	562.5 - 681.6 Vdc
Charge/Discharge Current	95 A
Cycle Life	> 8000 cycles
AC Output (On-Grid) Specifications	
Rated AC Power	50 kW
Max. Output Power	50 kVa
Rated Grid Voltage	230/400 Vac
Rated Grid Frequency	50 / 60 Hz
Rated Output Current	76 A
Max. Input Power From Grid	50 kW
Max. Input Current From Grid	76 A
Max. Grid Pass-Through Current	152 A
Power Factor	+/- 0.8
THDi	≤3%
AC Output (Backup) Specifications	
Rated Output Power	50 kW
Max. Apparent Output Power	1.6 times / 2s
Rated Output Current	76 A
Switch Time	<10ms
Rated Voltage	230/400 Vac
Rated Frequency	50 / 60 Hz
THDv	≤2%



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System Specifications Continued

PV Input Specifications	
Max. Input Power	96 kW
Max. Input Voltage	1000 V
Startup Voltage	180 V
Rated Voltage	600 V
MPPT Voltage Range	150 - 850 V
Number of MPPTs	4
Number of Strings per MPPT	8
Max. Current per MPPT	40 A
Max. Short Circuit Current per MPPT	60 A
General Specifications	
Thermal Control Method	Air-cooling
Fire Safety Configuration	Aerosol Extinguishing
Communication	CAN, RS485, Wi-Fi, LTE
Standards/Certification	IEC/EN62619:2022, IEC/EN62477-1:2012+A11+A1+A12, IEC/EN61000-4-2:2019, IEC/EN61000-4-2:2019 EN301908-1 V15.2.1:2013, EN301908-13 V13.2.1:2022, EN301489-1:2019 V2.2.3:2019, EN301489-52 V1.2.1:2021
IP Rating	IP55
Operating Temperature	-4°F (-20°C) to 131°F (55°C)
Operating Humidity	0 - 85%
Dimensions L x W x H	750 x 950 x 2280 mm 29.5 x 37.4 x 89.7 in
Weight	~ 1050 kg ~ 2315 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.

