

POWIN POD

THE NEXT EVOLUTION IN BESS TECHNOLOGY

Powin Pod is our newest, most powerful platform designed for utility-scale projects that are shaping the future of energy landscapes. The platform delivers advances where it matters; increased energy density, reduced installation times, and enhanced cost-efficiency. With unparalleled long-term system performance, safety, and availability, Powin Pod sets a new standard for energy storage solutions.



The Powin Pod platform offers benefits such as:



Higher Energy Density

With upgraded cell capacity, utilization of cell-to-pack technology, and optimized internal space, Powin Pod maximizes energy density, resulting in significant land savings for your projects.



Top-Tier Safety & Reliability

Liquid cooling provides more stable internal battery system temperatures, ensuring enhanced system safety and longevity. Powin complies with the latest and most stringent fire prevention standards such as UL9540A, NFPA 68 and NFPA 69, while having optional class-leading fire suppression at the module and container level.



Enhanced Cost Savings

Experience lower CAPEX through reduced land costs, faster and lower cost shipping, and simplified installation and commissioning processes. Enjoy minimized upfront costs and maximized financial returns over the project's lifetime.

Domestic content: Starting in 2026, Powin Pod will be manufactured in the US complying with US Domestic Content requirements.

Powin Pod seamlessly integrates with StackOS Software, boosting BESS performance and fortifying cybersecurity

- Cutting-edge Powin firmware and software designed, written, and tested in the US
- Powin-tested battery cells backed by independent evaluation in the Powin Battery Lab in Tualatin, Oregon
- Seamless integration of Powin's US-made StackOS Control System (Battery, Energy, and Thermal Management Systems) with the hardware platform
- Intelligent SOC and SOH estimation, balancing and battery operations enabled by cell-level visibility and cloud analytics
- Our proprietary BMS and controls highlight our commitment to complying with robust cybersecurity standards and regulations, ensuring superior protection for data privacy, intellectual property, and overall security
- Remote diagnosis and rapid response through Powin's Command Center interface and 24/7 Remote Operations Center purpose-built for storage
- Safety, availability, insight and flexibility leading to lower risk, enhanced performance and revenue generation

Unlock Tangible Benefits with Powin DNA

Experience end-to-end solutions with Powin, from system design to long-term service. With a proven track record of over 17 GWh deployed and under construction worldwide and over 6 million battery cells monitored, Powin is a trusted and established US-based integrator. We provide world-class logistics for on-time delivery and rely on our 24/7 Remote Operations Center, over 500 field service technicians and Authorized Service Providers to ensure optimal system performance.

Why Choose Powin?

- Maximized long-term BESS efficiency and performance
- Industry-leading DC availability
- 20-year performance guarantee and long-term service structures
- Top-tier system quality, reliability, and safety
- Enhanced cybersecurity measures for peace of mind
- Seamless integration providing unmatched control, and coordination for your energy projects

POWIN POD TECHNICAL SPECIFICATIONS

General	Dimensions	19'10" L x 8' W x 9'6" H (6.05m x 2.4m x 2.8m)	
	Weight	~97,003lbs (~44,000kg)	
	IP Rating	Container Level - IP55 / Module Level - IP67	
	Ambient Operating Temperature Range	-30°C to 60°C	
	Relative Humidity	10% to 90% non-condensing	
	Auxiliary Power Input	3P5W, 480VAC 60Hz or 3P3W, 400VAC, 50Hz	
	Heating and Cooling	<ul style="list-style-type: none"> • Module: High-efficiency liquid-cooled thermal management system • Control Cabinet: Forced air HVACs 	
	DC Efficiency	≥93.8%@0.5P; ≥95.2%@0.25P	
Battery Cell	Cell Chemistry	LFP	
	Cycle Life ^{1,2}	2-hour: 7,300 cycles 60% SOH at EOL	4-hour: 10,000 cycles 60% SOH at EOL
	Calendar Life ²	20 years	
	Depth of Discharge	100%	
Performance	Maximum Energy Capacity ³	5 MWh	
	Rated Duration of Discharge	2 hours	
	DC Power @Rated Duration ⁴	2.5 MW	
	DC Capacity @ Rated Duration ⁵	5 MWh	
Safety	Explosion Prevention and Mitigation	Off-gas detection with dedicated, fail-safe emergency ventilation system, module level deflagration & container level deflagration	
	Fire Detection	Smoke, heat, and hydrogen detectors	
	Fire Suppression (optional)	Module level & container level aerosol	
	Codes and Compliance	UL 9540A, UL 9540, UL 1973, IEC 62619, IEC 63056, IEC 62477, UN 38.3, NFPA 68, NFPA 69, GB 36276	
Soft-ware	BMS + EMS + Environmental Controls	Stack OS™	
	Communications Interface	Modbus TCP & REST API	

Note: Specifications in the above table are design estimates only and are not guaranteed. Contact Powin for a project-specific estimate as final values depend on system design, location, and use case.

¹ Includes Stack and Container level Thermal Management and controls

² End of life depends both on BESS age and usage; actual lifetime may be less than 20 years for high cycle use cases

³ Assumes 1 full cycle per day and includes calendar aging

⁴ StackOS may automatically derate power at high/low ambient temperatures or after extended operation to maintain proper cell temperatures

⁵ Energy capacity is recorded at the AC side of PCS terminals