



LION ENERGY™

POWERsave™ CABINET SERIES

All-in-one, pre-assembled, scalable, battery energy storage system designed for commercial and industrial applications



<https://lionenergy.com/pages/powersave>



Reduce Energy Cost

- Energy Control and Monitoring:** Reduce utility bills with energy shifting tailored to your facility's specific energy goals
- Faster ROI:** Maximize savings and shortens payback time coupled with renewables
- Lower Operation Costs:** Reduces energy expenses and demand charges
- Long Term Solution:** 15+ year solution against rising utility and operational costs



Renewable Energy Integration

- DC Coupled Solar:** Optional DC solar MPPT's
- Secondary Power Sources:** Integration with CHP, Hydro, AC coupled solar, ect.



Scalable Solutions

- Modular Configurations:** 30kW, 60kW, 90kW Inverter Power paired with 101kWh to 187kWh battery storage
- Parallelable Solutions:** Parallel up to 3 cabinets together per install for custom solutions



No Risk, No Cost Assessment

- Free Energy Analysis:** Includes an upfront evaluation of your facility's needs
- Tailored Recommendations:** Receive customized insights for maximizing savings
- White Glove Service:** Contact Lion Energy for further details and consultation



Turn-Key Solution

- Fully Integrated:** Complete system designed for seamless operation for new or existing systems
- No Third-Party Components:** Ensures compatibility and reliability
- Hassle-Free Installation:** Comes with comprehensive commissioning, including full pre- and post-engineering support, plus contractor assistance



Backup Power/Energy Resiliency

- Reliable Backup Power:** Keeps operations running during outages
- Grid Independence:** Reduces reliance on the grid during peak times



Sustainability Impact

- Offset Carbon Footprint:** Reduces emissions by optimizing energy use and integrate with renewables
- Supports ESG Goals:** Aligns with corporate sustainability initiatives



Commercial

(Logistics, Hospitals, Airports)



Industrial

(Manufacturing, Processing, Municipalities)



Microgrid

(Agriculture, Off-Grid, Energy Resiliency Hubs)



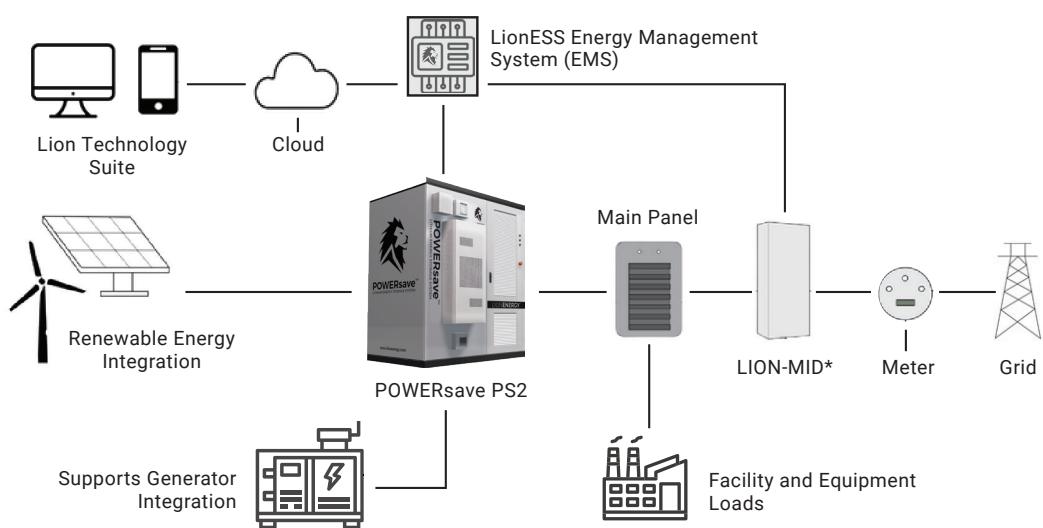
Data Center



EV Charging



Small Business



POWERsave™ CABINET GENERAL SPECIFICATIONS

Power Conversion System (PCS)	Inverter Size	30kW	60kW	90kW
	AC Rated Current	36A	72A	108A
	Rated Grid Voltage	480VAC 3 Phase		
	Grid Voltage Range	±15%		
	Output THDi	≤3%		
	Grid Frequency Range	60Hz ±2.5%		
	Power Factor	0.8 to 1		
	Wiring Configuration	3 Phase 480V AC		
	Battery Voltage Range	300-750VDC		
	DC Max Current	90A	180A	270A
Battery System	Battery Type	Lithium Iron Phosphate (LFP)		
	Module Configuration	14.3kWh/ 51.2VDC		
	Rack Configuration	280Ah/ 358.4VDC- 665.6VDC		
	Rated Charge/ Discharge Current	≤0.5C		
	Max Charge/ Discharge Current	≤1C (90% depth of discharge)		
	Cycle Life	6,000 Round Trip Cycles (based on 90% depth of discharge at 0.5C charge/discharge)		
LION- MID (Microgrid Interconnection Device)	Power Rating (3P Contactor)	Up to 1500A per enclosure		
	Functionality/Features	Monitors grid status and power flow of site. Provides islanding from grid during outages to enable energy resiliency		
	Dimensions/Weight	Dimensions: 48" x 36" x 12* standard up to 1200A Contactor. Weight: 150-250lbs.		
Solar DC-DC Controller	Type	MPPT Bi-Directional Hybrid DC Converter		
	Input (Rating/Voltage/Current/ Configuration)	Each 45kW controller supports (3 each MPPTs and total 6 DC strings). Each MPPT 35A MAX/ 830VDC MAX, 650VDC Optimal, 250DC Start Up. Max per DC string at 20A		
	Scaleability	Each PS2 Cabinet supports from 1 to 3 PCS, 45kW DC Controllers for combined total DC input 135kW		
Main Enclosure	Dimensions	82.68" L x 51.20" W x 96.46" H (6' 10 11/16" L x 4' 3 1/4" W x 8' 1/2" H)		
	Weight	Max 7,500 lbs, variable depending on number of battery modules and components		
	Weather Rating	NEMA 3R		
	Charge Operating Temperature	-4°F to 122°F		
	Discharge Operating Temperature	-4°F to 122°F		
	Corrosion Protection	Yes		
General	EMS Work Modes	Self Consumption, Time of Use, Battery Back-Up, Energy Arbitrage, Demand Response		
	Monitoring Platform	Lion Energy Smart Web Interface for Remote Monitoring		
	Energy Management System (EMS)	LION EMS with LIONess technology		
	Communication	IEEE 2030.5, RS485, CAN, Ethernet, Modbus TCP/IP		
	Fire Safety and Monitoring	Built in 3 level detection: Gas, Smoke, and Heat Detection. Installed dry water sprinkler system Optional 3M Novac or similar pressurized clean agent suppression		
	Warranty	Main System 10 years, Battery System 6,000 round trip cycles or 10 year warranty		
	Compliance/ Certifications	UL1741SB (CRD), UL9540, UL1973, UL9540A, CSIP (E-5000 & E-5036), IEEE 1547, CEC Listed, HECO SRD V2.0, SGIP Approval		