ANODOX ENERGY SYSTEMS

LARGE SCALE

MODULAR, LARGE SCALE ENERGY STORAGE



Available In:

HIGH POWER ENERGY STORAGE

Extreme Performance with Adaptive Immersion Technology

ANODOX ENERGY SYSTEMS RESISTANT | ANODOX ENERGY SYSTEMS IMMERSION | ANODOX ENERGY SYSTEMS RUGGED

AVAILABLE VERSIONS:

- ALSES 50kWh-25kW
- ALSES 50kWh-50kW
- ALSES 50kWh-75kW

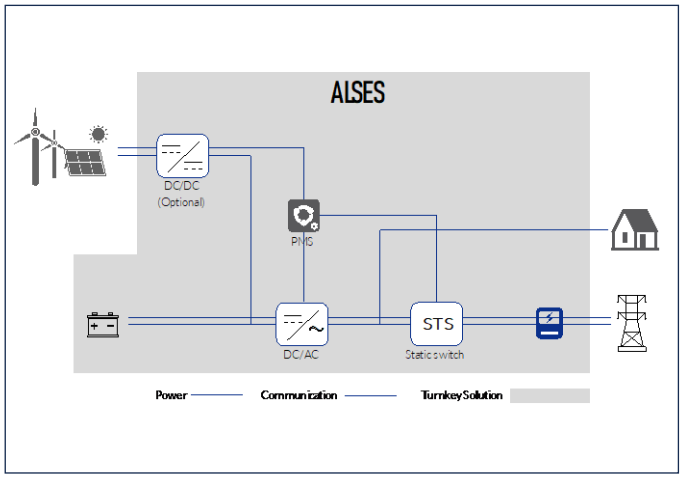
PRODUCT DESCRIPTION

The ALSES 50kWh Cabinet is a versatile, high-performance power solution designed to bridge the gap between residential luxury and heavy-duty commercial demand. Whether you are looking to lower utility costs through peak shaving , provide critical grid support , or secure a reliable backup for a business, this 50-kWh powerhouse delivers. By utilizing our proprietary adaptive immersion technology , the ALSES cabinet ensures cells operate at the perfect temperature, maximizing life expectancy and safety in a way traditional air-cooled systems simply cannot match.

SYSTEM FUNCTIONS

Functions	
Voltage Support	✓
Peak Shaving	✓
Grid Support	✓
Arbitrage	✓
PV Self-Consumption	✓
Flexibility Markets	✓
FCAS (Frequency Control Ancillary Services	✓

SYSTEM TOPOLOGY



We've engineered this system with the realities of the field in mind. Installation and logistics are effortless thanks to a dual-purpose chassis that can be crane-hoisted for high-reach placement or lifted via forklift for rapid site positioning. Its rugged, compact footprint makes it equally effective as a permanent fixture for a modern commercial facility or as a mobile energy source for temporary job sites and off-grid construction projects.

With ALSES, you get a "plug-and-play" energy reservoir that is as mobile as it is powerful. It's the perfect choice for users who demand professional-grade reliability and the flexibility to deploy energy wherever—and whenever—it's needed most.

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PRODUCT SPECIFICATIONS

	Model	ALSES 50kWh-25kW	ALSES 50kWh-50kW	ALSES 50kWh-75kW
PV Parameter	MPPT Voltage Range		DC200V~DC700V	
	MPPT Full Power Voltage Range		DC370V~DC700V	
	Number of MPPT Channels		0-2 (optional)	
	Maximum Single Channel Current		135A	
AC Parameter (On-Grid)	Rated Output Power	25kW	50kW	75kW
	Maximum Output Power	27.5kW	55kW	82.5kW
	Rated Grid Voltage		AC380/400V	
	Grid		3W+N+PE	
	Grid Voltage Range		-15%~+10%	
	Rated Grid Frequency		50Hz/60Hz	
	Grid Frequency Range		±2Hz	
	Output Current Harmonics		≤3% (rated power)	
	Power Factor Range		-0.9 - +0.9	
AC Parameter (Off-Grid)	Rated Output Power	25kW	50kW	75kW
	Maximum Output Power	27.5kW	55kW	82.5kW
	Rated Output Voltage		3W+N+PE, 380V/400V	
	Output Voltage Harmonics		3% (Linear Full Load)	
	Rated Frequency		50Hz/60Hz	
	Overload Capacity		105%]; continuous operation; (105%-120%]: 10min; 120%): 1min	
Battery Parameter	Cell Type		Lithium Iron Phosphate	
	Battery Capacity kWh		50 KWh (49.9 KWh)	
	Running Time	2	1	0.6
	Cycle Life	6000	6000	6000
Protection	DC Switch		Equipped	
	AC Switch		Equipped	
	Grid Monitoring		Equipped	
	Insulation Monitoring		Equipped	
	DC Reverse Connection Protection		Equipped	
	Ground Fault Protection		Equipped	
	Surge Protection		DC level 2/AC level2	
Basic Parameters	Size (W*D*H) (mm)		860*840*2127mm	
	Weight (kg)		~ 950 kg	
	Isolation Mode		Non-Isolated	
	Protection Grade		IP54 For Outdoor Use	
	Working Temperature		-20℃-55℃ (derating above 45℃)	
	Relative Humidity (without condensing)		0~95%	
	Maximum Working Altitude		4000m	
	Display		Touch Screen	
	Communication Interface		RS485, CAN, LAN	
	Communication Protocol		Modbus-RTU, Modbus-TCP, CAN 2.0B	

SAFETY STANDARDS

Safety	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 62040-1, IEC/EN 62477, (Batteries) IEC 62619, IEC 62368, UN38.3, RPEQ Mechanically certified for lifting, Load Restraint Guide 2018 for Transportation
Grid	AS/NZS 4777-2, VDE-AR-N 4105, 50549-1,TF 3.3.3 B1, EREC G99 (others pending)
EMC	IEC/EN 61000-6-1, IEC/EN 61000-6-2, IEC/EN 61000-6-3, IEC/EN 61000-6-4
Environment	ETSI EN 300 019:2-1 (Class 1.2), ETSI EN 300 019:2-2 (Class 2.3), ETSI EN 300 019:2-3 (Class 3.2)

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