

INTRODUCING

Fluence Smartstack™

FLUENCE®

A Siemens and AES Company

Fluence Smartstack™ revolutionizes utility-scale energy storage by delivering embedded intelligence and unprecedented energy density in a revolutionary split architecture design. Our innovative approach makes intelligence, not hardware, the heart of innovation, creating the industry's first future-proof storage solution.



Delivers approximately 30% higher energy density compared to traditional AC systems



Embedded with AI-enabled system intelligence that lengthens life, increases uptime, and market participation



Drives greater overall Internal Rate of Return (IRR) for project developers



Simplified logistics and installation

Smart Benefits on Top of Smart Storage

Smartstack's split architecture separates critical control systems from battery packs, enabling unprecedented flexibility and maintenance efficiency.

- Eliminates the need for the giant cranes typically used for large 50-ton block storage, simplifying shipping and logistics.
- Installs faster than competing AC storage systems.
- Maximizes density, initially shipping 7.5 MWh of energy using proven, 3XX battery cells.
- Combines a comprehensive network of sensors paired with edge computing to deliver real-time insights about all aspects of operation, security and performance.

A Legacy of Industry-Leading Safety

- Advanced safety features in all Fluence storage solutions work together to prevent, detect, and contain thermal events, minimizing damage and downtime.
- As a pioneer in deflagration and large-scale fire tests that have helped define safety standards, Fluence completes fire testing at the cell, module, unit, and installation levels for all systems. Fire testing incorporates the UL9540A standard and goes well beyond industry standards with the purposeful inception of a full-scale fire to measure propagation, safe distances, gas emissions, incident times, and safety practices.
- Fluence also engages proactively with permitting authorities and first responders through comprehensive training programs on battery storage safety and operations, covering system design, failure modes, and incident response to ensure effective hazard management.



Smart Skid
Centralized electrical
and control
command center



Battery Pod
Battery cell housing
with integrated
sensors

Specifications

BATTERY PACK OPTIONS		BATTERY
Cell Capacity		3XX Ah
Energy Capacity		7,308 - 7,523 kWh
Smart Skid Dimensions (L x D x H)		7,376 x 2,200 x 1,586mm 24 X 7.2 x 5.2 ft.
Pod Dimensions (L x D x H)		1,762 x 2,618 x 2,550 mm 5.8 X 8.7 x 8.4 ft.
Weight	Smart Skid:	~11,500 kg (24,353 lbs)
	Pod:	~15,600 kg (33,392 lbs)
PERFORMANCE & SAFETY SPECS		
Discharge Duration		2hr; 4hr; 6hr; 8hr
DC Voltage		1500V
AC Voltage		690V 3AC IT
Maximum AC Output Current (A) (4hr/2hr)		2,092/3,765
Cell Rating (CP-Rate)		0.125 - 0.5
Availability		Up to 99%
Grid Frequency		50/60 Hz
Seismic Rating		Compliant with IEEE 693 “moderate”, “high” with a reinforcement kit, Confirms with International Building Code (IBC), California Building Code (CBC) requirements per Seismic Design Category (SDC) D, Conforms to ASCE 7-16 standard
Operating Temp. Range (ambient)		-30°C to +55°C (-22°F to +131°F) derating after 50°C
Certifications		UL/IEC
Battery Enclosure IP Rating		IP55
Noise Level		Sound Pressure Level of 70db(A) at 1m at 25 °C (77 °F)
Elevation		Up to 4,000 meters (derating after 1000m)
Thermal Management		Liquid cooled
Chemical and Corrosion Resistance (ISO 12944-6)		C3 Standard; C5 Optional
Certifications and Codes		NFPA68 and 69, UL9540A, UL9540, IEC62933, IEC 62477-1, UL-1741, CSA C22.2 No. 107.1, FCC Part 15, IEC 61000-6-2, IEC 61000-6-4
SOFTWARE		
BMS, System Control, and Market Applications		Fluence OS7
Communication Protocol		Modbus, DNP3, and OPC UA
Analytics and Optimization platform		Fluence Nispera™
Bidding Optimization Software		Fluence Mosaic™*

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

*Mosaic is an add-on currently available for assets in the NEM, CAISO, and ERCOT



Fluence (Nasdaq: FLNC) is a global market leader in energy storage products and services, and optimization software for renewables and storage. With industry-leading safety and cutting-edge technology, Fluence's ecosystem of scalable storage products, comprehensive services, and AI-enabled software help customers drive the clean energy transition.

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