Fluence Smartstack™



Fluence Smartstack™ revolutionises 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 unparalleled energy site density, maximising MWh capacity in existing footprints

Engineered for low noise operation

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 giant cranes through a modular design that enables phased installation—maximising MWhs installed per day and accelerating project timelines.
- Delivers superior IRR through comprehensive real-time data monitoring.
- Maximises density, scaling up to 10 MWh of energy while relying on the same proven 3XX battery cells.
- Extends battery life and increases uptime with AI-enabled intelligence.
- Engineered for low noise operation <72 dB(A).

A Legacy of Industry–Leading Safety

Advanced safety features in all Fluence storage solutions work together to prevent, detect, and contain thermal events, minimising damage and downtime. With Smartstack, safety is further enhanced by an isolated design that makes the unit safer. The system has already completed all required safety certifications, including UL9540A.

This builds on Fluence's standard practice of testing at the cell, module, unit, and installation levels, which includes full-scale fire testing to measure propagation, safe distances, and gas emissions. Additionally, Fluence supports local authorities and first responders with training programmes on system design and incident response to ensure effective hazard management.

FLUENCE
A Siemens and AES Company



Specifications

Battery Pack Options	7.5 MWh	10 MWh
Cell Capacity	3XX Ah	3XX Ah
Energy Capacity	7,308 - 7,524 kWh	~10,000 kWh
Smart Skid Dimensions (L x D x H)	7,371 x 2,202 x 1,616mm | 24.1 X 7.2 x 5.3 ft.	7,371 x 2,202 x 1,616mm | 24.1 X 7.2 x 5.3 ft.
Pod Dimensions (L x D x H)	1,764 x 2,656 x 2,524 mm | 5.79 X 8.7 x 8.3 ft.	1,764 x 2,656 x 3,330 mm | 5.79 X 8.7 x 10.92 ft.
Weight	**Smart Skid:** ~10,000 kg (22,046 lbs) **Pod:** ~15,000 kg (33,850 lbs)	**Smart Skid:** ~10,000 kg (22,381 lbs) **Pod:** ~20,000 kg (44,890 lbs)
Performance & Safety Specs		
Maximum AC Output Current (A)	Up to 3762 A	2508 A
Cell Rating (CP-Rate)	≤0.5	0.25
Discharge Duration	2hr; 4hr; 6hr; 8hr	4hr; 6hr; 8hr
DC Voltage	up to 1500V	
AC Voltage	690V 3AC IT	
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 (122°F)	
Certifications	UL/IEC	
Battery Enclosure IP Rating	IP55	
Noise Level	Sound Pressure Level of 70dB(A) at 1m at 25 °C (77 °F)	
Elevation	2,000 meters (6,562 ft), derating up to a max. of 4000m (13,123 ft)	
Thermal Management	Liquid cooled	
Chemical and Corrosion Resistance(ISO 12944-6)	C3 - C5	
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 Optimisation platform	Fluence Nispera™	
Bidding Optimisation 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
A Siemens and AES Company

Fluence Energy, Inc. (Nasdaq: FLNC) is a global market leader delivering intelligent energy storage and optimization software for renewables and storage. The Company's solutions and operational services are helping to create a more resilient grid, from powering the next generation of AI-driven data centres to unlocking the full potential of renewable portfolios. With gigawatts of projects successfully contracted, deployed, and under management across nearly 50 markets, the Company is transforming the way we power our world for a more sustainable future.

Follow us:

fluenceenergy.com

© 2026 Fluence. All rights reserved