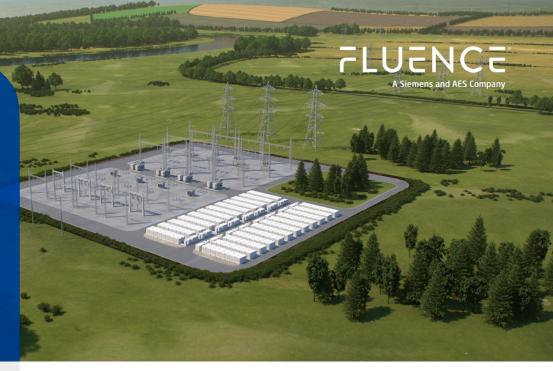
# Fluence Gridstack™

Grid-scale, industrialstrength energy storage product designed for the most demanding market applications with industry-leading reliability, scalability, and safety.



## **About Gridstack**

Gridstack's industrial-strength design is built for the most demanding applications including Flexible Peaking Capacity, Frequency Regulation, Renewable Integration, T&D Enhancement, and more. The system is highly configurable to meet your specific operational requirements and can be cost-effectively augmented over time to maximize asset value.

Gridstack is built using our 6<sup>th</sup> generation technology stack, which incorporates more than 3 years of design and deployment experience.

## **Features**



**Easily Configurable:** Gridstack's flexible architecture lets you configure key components from pre-qualified Tier 1 suppliers to best meet your deployment requirements. Enhance your system for specific market applications with a range of optimized dispatch algorithms.



**Highly Scalable:** Gridstack brings repeatability to large energy storage deployments. The scale-out design drives efficiencies in project permitting and delivery to reduce your implementation risk, while consistency across project locations simplifies training, operations, and maintenance.



**Total System Safety:** Gridstack comes equipped with comprehensive safety features throughout the integrated technology stack. The factory-built design brings consistent quality control to your storage system for the highest level of safety.

Fluence Cube is your building block for better energy storage.

The Fluence Cube is a factory built, modular storage building block for safe, cost-effective systems configurable with the latest component technologies, delivering:

- Cost-effective systems with maximum quality control
- Fast procurement and contracting process
- Simple system design, engineering, and permitting
- Rapid delivery, construction, and commissioning
- Latest safety features and storage components



## Gridstack<sup>™</sup> Specifications

## Gridstack System

Rated AC Power (50°C)	2 MW – 500+ MW	Availability
Discharge Duration	1 – 6+ hours	Altitude
Grid Frequency	50Hz and 60Hz	Seismic Rating
Reactive Power	Four-quadrant control, 0.9 leading to 0.9 lagging at rated power (reactive capability available over full real power range)*	System Response Time
		Standard Temperature

Availability	>97.0%		
Altitude	De-rated over 1,000 meters		
Seismic Rating	Seismic options available		
System Response Time	Max capacity change in 1,000 ms		
Standard Temperature Range -30°C to 45°C **			

## Fluence Cube

#### Cube Dimensions (H x W x D)

Long Duration:  $2,549 \times 2,578 \times 2,160$  mm Short Duration:  $2,549 \times 2,578 \times 2,257$  mm

#### Cube Weight (total) lb/kg

Long Duration: 18,078 / 8,200 Short Duration: 18,850 / 8,550

#### **Enclosure Rating**

NEMA Type 3R

#### **IP Rating**

IP55

#### Cooling

Liquid Cooled

#### Battery Supplier / Module

CATL / LFP-280LC

#### **Safety Features**

Fast stop, fire detection and suppression system (solid aerosol), gas detection (carbon monoxide), deflagration panels, lockable disconnect switch, open door sensor, gas spring damper, sliding door lock

#### Installation

Forkliftable from all 4 sides. Crane compatible and includes vertical stabilization.

## Fluence OS

Fully-integrated operating system for comprehensive control, asset management, and system visibility.

#### **Operation Modes**

Automatic Resource Control, Manual Dispatch, Idle, Disconnect, Reset

#### System KPIs

Real and reactive power dispatch, state of charge, cell voltage and temperature, auxiliary system details, core and node status, fire system and F-Stop status, and more

#### **External Control Interface**

SCADA and EMS integration available via common protocols including DNP3 and Native Modbus TCP/IP

#### **Market Dispatch Applications**

Primary and secondary frequency control, peak shaving, power factor regulation, AGC, SOC management, and more

## Fluence IQ

The Fluence IQ Bidding Application automates wholesale market participation to maximize asset value in the NEM and CAISO markets.

#### **Forecasting**

Analyze thousands of variables to predict future market prices

#### Optimization

Automatically generate optimal bids for wind, solar, and storage assets

### Bidding

Incorporate organizational risk tolerance levels into bidding strategy



<sup>\*</sup> Additional reactive capability upon request \*\*Can vary depending on cooling system, low temperature kits required below -10 degrees



## About Fluence<sup>™</sup>

Fluence, a Siemens and AES company, is the leading global energy storage technology solutions and services company that combines the agility of a technology company with the expertise, vision, and financial backing of two industry powerhouses. Building on the pioneering work of AES Energy Storage and Siemens energy storage, Fluence's goal is to create a more sustainable future by transforming the way we power our world. Fluence offers proven energy storage technology solutions designed to address the diverse needs and challenges of customers in a rapidly transforming energy landscape, providing design, delivery, and integration in over 24 countries.