



Intelligent Energy Integrated by Leclanché



# A Safe Modular Energy Storage System to Reduce Overall Cost



High safety energy storage system

Modular, scalable and plug & play

With simplified logisitics
for a reduced total cost of ownership

# Today, batteries for stationary storage have become a commodity, but...

How to make sure fire doesn't spread out and destroy the complete installation?

How to increase its capacity or relocate a system over time?

How to reduce the duration, complexity and cost of the installation?







### Our approach to safety

#### Fire Resistant Construction

Enclosure walls with high fire rating with lockable doors and door sensors ensure safe operation by personnel.

## Fire Detection & Suppression System

Gas, smoke and heat detection with automatic activation to detect and suppress a fire before it spreads to cells.

#### **Emergency Stop**

Controlled shutdown can be manually activated by first responders or automatically triggered by internal safety features and battery anomalies detected by the Leclanche EMS.

#### **Isolation Monitoring**

To detect faults and safely disconnect the batteries.

#### **Deflagration Panel**

Each Battery Block is equipped with a standard deflagration panel to release internal overpressure in a safe manner, designed per NFPA 68.

#### Certification

The LeBlock is designed according to NFPA 855 (Standard for the Installation of Energy Storage Systems) and NFPA 68 (Standard on Explosion Protection by Deflagration Venting).

#### Additional Features

- ISO shipping corner castings and fork pockets for simplified transport and installation.
- Easy replacement of one 5ft battery block if needed.
- Cabinets designed for seismic zone 4 and hurricane category 5.





## Modular & scalable

Based on more than 110 years of experience in battery manufacturing and integration, Leclanché's new concept is based on practical modularity and rooted in proven military logistics solutions.







#### Battery**Block**

- High density lithium-ion batteries including fire detection and suppression system
- 745 kWh with LFP technology

#### CombiBlock

- Interconnection and protection of the batteries
- High efficiency temperature management for the batteries

#### **Power Conversion**

Selection from tier 1 supplier

#### Energy Management System (EMS)

 Control and monitoring of the entire energy storage system

# Leclanché Has Developed a Solution to These Challenges!

Leclanché provides complete electrical energy storage system (EESS) and energy management systems (EMS) for a wide range of customers and applications, including microgrids, renewables and storage as well as EV fast charging stations.

In the execution of more than 140 MWh of projects in a wide range of environments worldwide, we too have experienced the complexity and high costs of logistics and installations. Based on this experience, Leclanché is proud to introduce a revolutionary and holistic solution for simplifying logistics, installation, relocation and recycling of batteries. Meet LeBlock.



# Reduce TCO and CO<sub>2</sub> emissions over the entire life of your project

From project inception and installation to maintenance and decommissioning, LeBlock provides a smart, responsible and futuristic way for rethinking your next energy storage solution.

#### Capacity Logistics Installation Design End of life augmentation Cost reduction Modular concept Minimizes complexity Spare cables stored • Simplifies upgrade or **Easy** on site for ease of replacement process adapts to each unplugging • Reduces cost of project with minimal maintenance and removal Reduce TCO transportation engineering Reduces cost CO<sub>2</sub> reduction No packaging waste for

# **Easy to transport & install**

- Once combined, a group of 4
   Blocks is transformed into a
   20-foot, CSC-certified container
   which can be easily transported
- Reduces the cost, complexity, duration of logistics and installation headaches
- No waste or packaging to remove since the system arrives fully-populated and only needs to be connected
- Makes it possible to relocate LeBlock segments or an entire system to where energy is needed
- Simplifies the recycling process by sending back a block or entire system without unmounting or need for packaging

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