

# Eaton xStorage Container

## Containerized energy storage system

### All-in-one container

Eaton xStorage is now available in a containerized version. This all-in-one, ready-to-use solution is the perfect choice for energy storage applications in commercial and industrial environments. The containerized configuration is a single container with a power conversion system, switchgear, racks of batteries, HVAC units and all associated fire and safety equipment inside. It can be deployed quickly to expand existing power capacity or incorporated into greenfield modular facilities.

### Key features

- Multiple sizings available up to 2 MWh per 20 ft container
  - Second-life from 0.55 MW / 0.5 MWh up to 0.84 MWh
  - New batteries from 1.1 MW / 1.2 MWh up to 2 MWh
- Maximum energy density kWh / m<sup>2</sup>
- Scalable in 20 ft modules (interconnected and in parallel)
- Complete offer includes hardware, installation & commissioning and optional service contract
- Site works such as foundation, cabling to container and trenches are executed through Eaton certified installers
- Can be transported as a standard container (sea and road)
- CSC certified



This is a visual representation.  
The final product may differ.

[Eaton.com/xstorage](https://www.eaton.com/xstorage)

### Benefits



Multi-usage system enabling PV self consumption, peak shaving, load shifting, back-up power, electric vehicle charging station integration



One single supplier providing you with one point of contact for certifications, warranty, services and support



Scalable, modular and quick to deploy with a design that allows for flexible placement



Highly efficient with minimum system losses



Safe and reliable from tested system controls to proprietary battery management system with durable industrial design developed for harsh applications



High value, no compromise quality, reduced design and construction costs and chances of downtime during construction

### Technical disclaimer

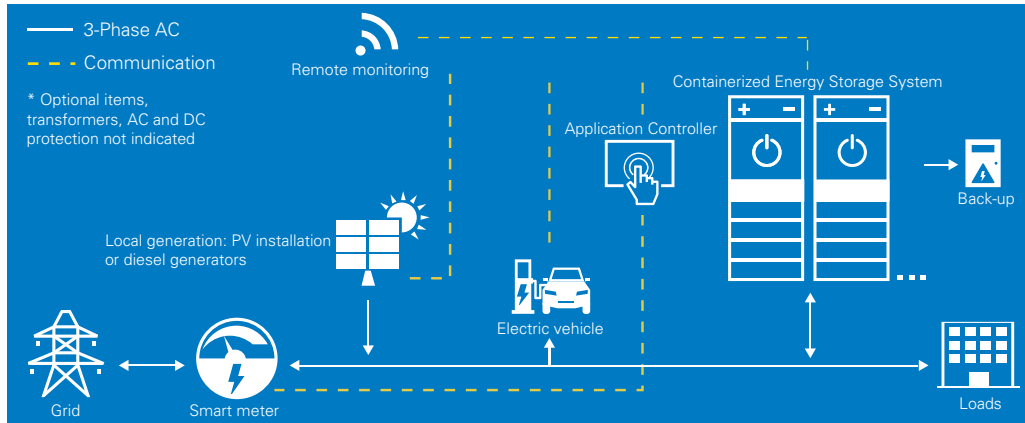
In line with our goal to continuously improve the products and the customer service we provide, all specifications contained in this document are subject to change without notice. All drawings, descriptions or illustrations contained in this document serve to provide a clear overview and/or technical explanation of the present product and its various components and accessories.

# Containerized energy storage system

## A multifunctional system

xStorage Container enables commercial and industrial buildings facility managers and operators to store energy from renewable sources or the grid to improve the building resiliency and reduce its

carbon footprint. The system can also provide use cases such as peak shaving, load shifting or maximize PV self consumption.



## Application examples

A typical use-case might use grid power to serve the loads and use diesel generators as backup generation. The users may have installed solar panels. Adding an energy storage system to this installation enables the users to store solar energy when available and release it to power the load when needed, reducing the use of diesel generators. The battery energy storage system can also be used continuously to provide a number of benefits in a wide range of applications:

- Industrial or manufacturing buildings: Store renewable or off-peak cheap electricity to do peak shaving to avoid expensive energy tariff periods and together with a PV installation, increase solar self-consumption for additional savings (Factory operations)
- Commercial buildings: Meet CO2 targets by increasing local

production and consumption of renewables and smoothly integrating EV chargers while ensuring grid stability (Public spaces like shopping malls)

- Institutions or offices: Provide reliable power for operations during outages and store renewable energy locally produced as protection against raising electricity costs and intermittent supply (Hospitals, hotel or schools)
- Buildings in remote area or with unreliable power: Reduce dependence on fossil fuel supply and diesel generation (Community, campus, services)
- Grid infrastructure: Support infrastructure or defer investments by peak shaving or reducing the impact of loads on the grid

## Technical Specifications

20 ft container configurations		
Battery type	Second-life	New
Power and nominal battery capacity	0.84 MWh 0.55 MW / 0.67 MWh 0.55 MW / 0.5 MWh	2 MWh 0.55 MW / 1.6 MWh 1.1 MW / 1.2 MWh
Battery warranty	5 years	10 years
Container dimensions H x W x D (appr.)	20 ft ISO container. 2590 mm x 6050 mm x 2440 mm, excluding HVAC	
Container weight (appr.)	20-23 tons, depending on power/ energy configuration	
PCS topology	Bi-directional rectifier/ inverter with seamless backup	
System		
Modularity	Expandable by adding 20 ft container	
Nominal AC Grid Voltage	220 V/380 V; 230 V/400 V; 240 V/415 V; 3-phase (TN, TT, IT 4-wire)	
Application controller capability	Back up, peak shaving, load shifting, PV self-consumption and EV integration	
Operating environment	From -20 °C to +40 °C, harsh industrial applications, up to 2000 m above sea level, seafront and other high humidity/ corrosive applications	
Fire alarm	Included as standard. Optional fire protection system (aerosol/ impulse powder)	
PCS and battery round-trip	> 85 %	
Compliance and standards	CE; EN 50549-1; G99; other with external grid protection relay EN 61439-1; EN 61000-6-3; EN 61000-6-4; EN 61000-6-2; IEC 60364	

**Eaton**  
EMEA Headquarters  
Route de la Longeraie 7  
1110 Morges, Switzerland  
eaton.com/xstorage

© 2020 Eaton  
All Rights Reserved  
Publication No. SA701002EN  
April 2020

Eaton is a registered trademark.  
All other trademarks are property of their respective owners.