

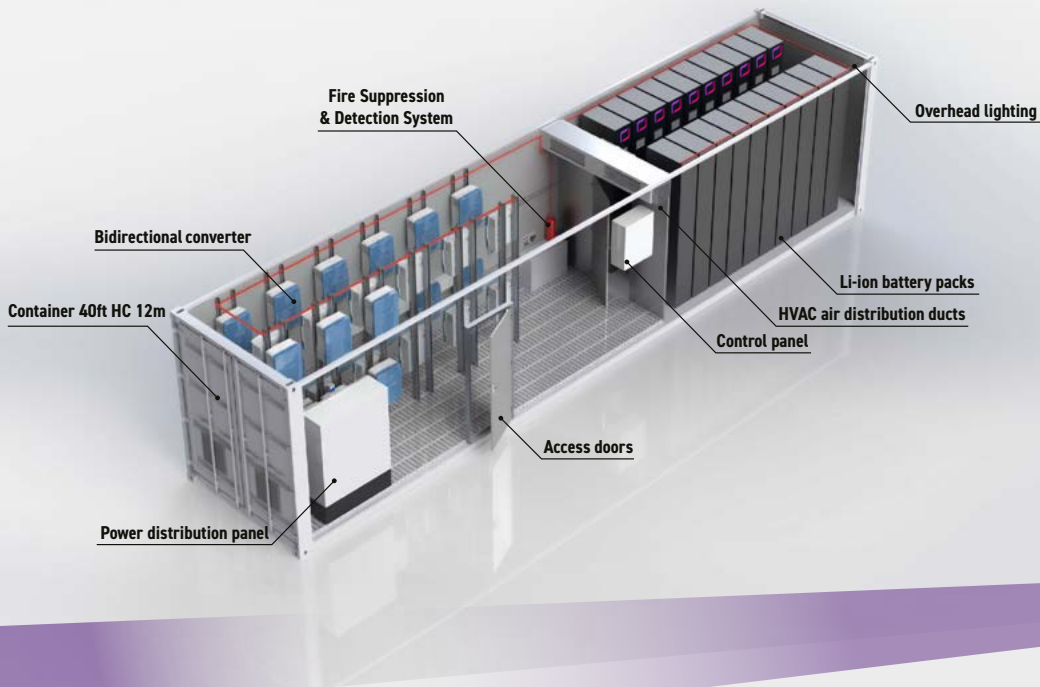
**Energolukss®**

Sure power

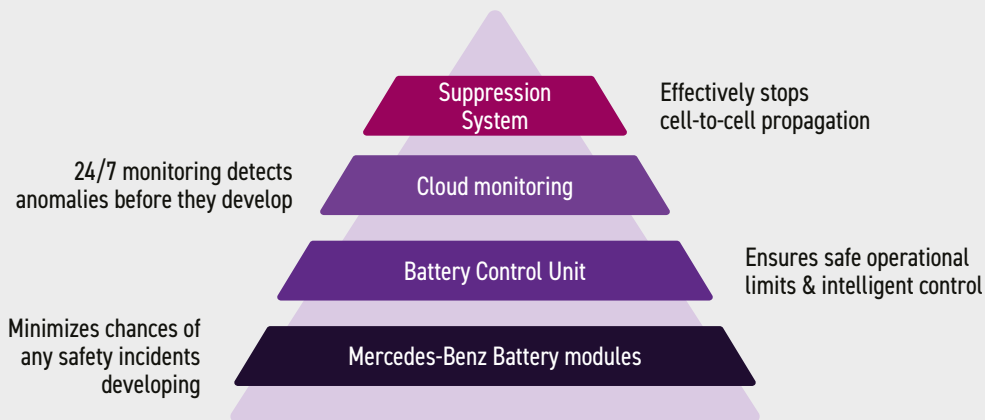
# BATTERY ENERGY STORAGE SYSTEM

COLLABORATION WITH

 **Evyon™**



## Evyon Industrial is built to be one of the safest in the industry with **four layers of safety**



**121-165 kWh**  
per string

**Up to 0.8C**  
continuous

**Up to 10 years or 6000 cycles**  
warranty with digital tracking & notifications



**Evyon Intelligent Battery Control Unit**

- Local monitoring and safety using BMS based on 15 years of experience
- Additional layer of safety through embedded online monitoring leveraging cloud-based analytics
- Over-the-air updates throughout the lifetime of the system

**Automotive Battery modules**

- Battery modules from a leading, German car manufacturer
- Flexible configuration up to 1000 Vdc
- Leading energy density with up to 155 Wh/kg including the rack
- 19 inch rack design for easy mounting & maintenance

**Use-cases**

Peak-shaving

Power booster

Solar surplus storage

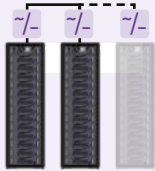
Back-up power

Frequency market participation

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- German automotive batteries
- Norwegian design & support
- Data stored in the EU

**AC-integration of strings adds multiple benefits**



**System design flexibility**  
Smaller building block allows for finer project sizing

**Redundancy & uptime**  
Only affected string is taken out of operation in case of a component failure

**Performance & safety**  
String-based control to maximize performance & safety

**Scalability over time**  
Capacity and power can be easily augmented by adding more strings at any time

Specifications	11 module string	12 module string	13 module string	14 module string	15 module string
Nominal capacity	121 kWh	132 kWh	143 kWh	154 kWh	165 kWh
Module storage capacity	11 kWh/module (Mercedes-Benz Energy battery module)				
Chemistry	Li-ion NMC, 811				
Nominal voltage	651 VDC	710 VDC	770 VDC	829 VDC	888 VDC
Min operating voltage	541 VDC	591 VDC	640 VDC	689 VDC	738 VDC
Max operating voltage	734 VDC	801 VDC	868 VDC	934 VDC	1,000 VDC
Max continuous current	150 A (10 minutes peak up 160 A)				
Standby consumption	30 W - Battery string only				
Communication	Modbus TCP				
Operating temperature	+5°C to +40°C ambient (15 to 25°C recommended for maximum capacity warranty)				
Storage temperature	5°C to 28°C (-20°C to +40°C maximum 1 week)				
Humidity	0-80% - non-condensing				
Cooling	Forced-air				
Mounting	19" rack mounting				
Dimensions (W, D, H)	Battery module (3.5U): 483 x 815 x 155 mm, String controller (3U): 483 x 665 x 130 mm				
Weight	Battery module: 63 kg/module, String controller: 15 kg/module				
IP Rating	IP20				
Altitude	<2000 m above sea level				
Warranty	10 years capacity warranty (85% DoD), 3 years system warranty				
Standards (Q3 2024)	CE marking, IEC 62619, IEC 62477-1, UN38.3, EMC: IEC 61000-6-2, IEC 61000-6-3				

**The dynamics of the energy market are undergoing rapid transformation. The momentum towards sustainable energy is accelerating, indicating a growing demand for innovative solutions such as battery energy storage system**

## **What is battery energy storage system?**

Battery energy storage system serves the purpose of acquiring and retaining energy for subsequent usage. This capability enables the accumulation of surplus energy during periods of low demand, which can then be deployed to meet heightened demand, thus fostering a more resilient and efficient energy infrastructure.

## **What are the benefits of battery energy storage system?**

Enhanced grid stability and flexibility: Energy storage empowers grid operators to harmonize the balance between energy supply and demand, ensuring a steady and dependable provision of energy. This mitigates the volatility associated with renewable energy sources and diminishes reliance on fossil fuel-based energy generation. Moreover, battery energy storage system offer a vital lifeline by furnishing backup electricity during emergencies, ensuring uninterrupted operations for critical facilities such as hospitals, data centers, and emergency services.

## **Battery energy storage system integrated with solar panels:**

In contrast to conventional energy sources, solar energy predominantly originates locally. Furthermore, solar energy output exhibits significant day-to-day variability due to fluctuations in sunlight intensity. These fluctuations introduce instability to the grid, complicating the synchronization of energy supply and demand. Thus, the integration of energy storage systems with solar panels emerges as a strategic solution to address these challenges.

## **Battery energy storage system tailored for wind energy:**

Similar to solar power, wind energy output can vary substantially on a daily basis, impacting grid stability and complicating electricity delivery during peak tariff periods. Consequently, deploying localized energy storage systems in tandem with wind energy installations presents significant advantages in ensuring grid stability and optimizing energy distribution.

This innovative solution is a collaborative effort with Evyon.

For all your questions, please contact us:



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