SUNSYS HES XL©

Outdoor Energy Storage System

from 500 kVA/1116 kWh to 500 kVA/2232 kWh systems

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SUNSYS HES XL is an outdoor system that merges proven individual technologies to create a more efficient all-in-one solution. Partnering with CATL, Socomec has selected the EnerOne liquid cooled LFP battery system as the optimum battery for SUNSYS Hybrid Energy Storage.
SUNSYS HES XL meets the most stringent safety standards.
The system can work both as grid follower and grid-former.

Safety certified

The system combines 2 top quality components to deliver a winning formula.
CATL EnerOne Liquid-Cooled Battery: the SUNSYS B-Cab XL uses stable Lithium Iron Phosphate (LFP) battery chemistry. The battery has passed the large-scale fire test UL9540A.
SUNSYS HES XL is compliant with UL9540-2020:
the latest and most stringent safety standard for Energy Storage Systems, in both Canada and the USA.

Extreme flexibility

The SUNSYS HES XL system is based on 2 standard cabinets – C-Cab, composed of a converter, an isolation transformer and a DC combiner, and B-Cab – that can be combined.
The different systems with 500 kVA and 4 to 8 battery racks can then be installed in parallel to create multi-MegaWatt installations.

Fast and error-free installation

Battery cabinets are shipped completely assembled with internal modules mounted – for maximum quality with the minimum transportation costs and installation time.
Also, for an error-free installation:
- **drilling plates are provided** to prepare the locations of the drillings,
- **the intelligence (PMS & BMS) is integrated** inside the C-Cab to reduce complexity, and **DC connecting kits** are available to simplify the connection between the converters and batteries.

Easy maintenance

Reduced maintenance with HVAC replaced by air filters that can easily be maintained by the customer.
Seamless service during maintenance as one battery rack can be disconnected for module replacement keeping the others operational.

The solution for

- Commercial and industrial buildings
- EV charging infrastructure
- Isolated microgrids
- Resilient microgrids
- Renewable energy integration: Solar and Storage

Strong points

- Safety certified
- Extreme flexibility
- Fast and error-free installation
- Easy maintenance

Conformity to standards

- **Safety**: UL 9540-2020; UL 9540A
- **EMC**: FCC part 15 Level A
- **Environment**: RoHS; REACH
- **Communication protocol**: Modbus TCP; SunSpec 2.0
- **Grid code**: UL 1741 SA; UL 1741 PCS CRD; IEEE 1547; CA Rule 21; HECO Rule 14H

c PS us
CERTIFIED
ELECTRICAL SAFETY

Please consult us for additional ones.

Need a smaller system?

- For smaller power installations, please consider our SUNSYS HES L range

Expert Services

Socomec Expert Services teams in North America provide:
- Extended warranties, for up to 10 Years
- Scheduled preventive maintenance for warranty compliance
- On-site startup and commissioning
- Prompt service response in the unlikely event unscheduled service may be required

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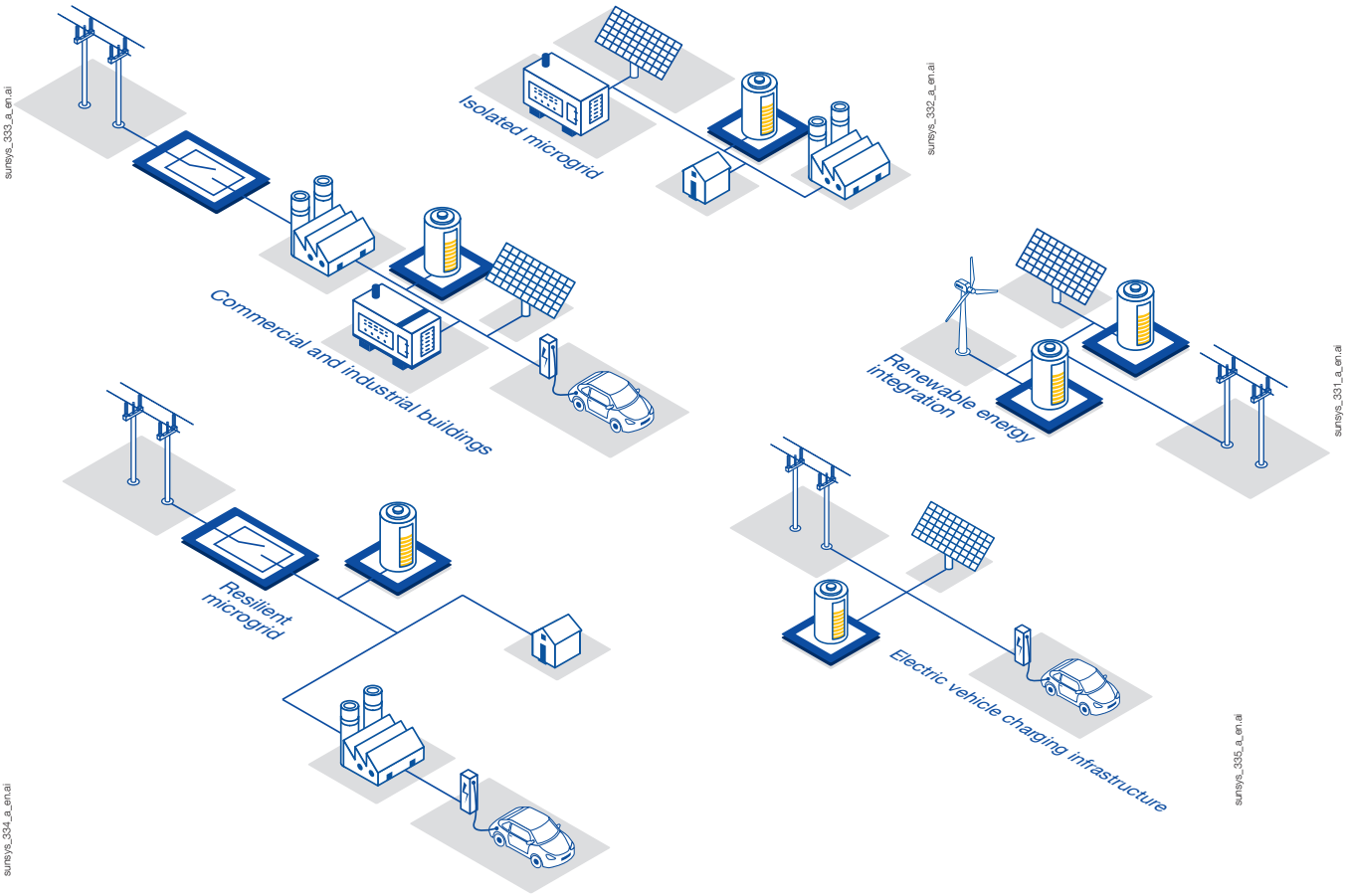
Suitable for all of the following applications



2 modular units for maximum flexibility

4421 kg / 9750 lbs

2640 kg / 5820 lbs

C-Cab, including T-Cab and DC-Cab

- Bidirectional power converter
- 500 kVA / cabinet
- Automation functions
- AC/DC distribution and protection
- Battery management system
- Integrated isolation transformer and DC combiner cabinet
- IoT Ready

B-Cab

- Lithium ion battery
- LFP technology
- 279 kWh / rack
- Liquid cooled thermal management
- Integrated fire safety detection and suppression system

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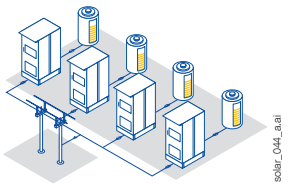
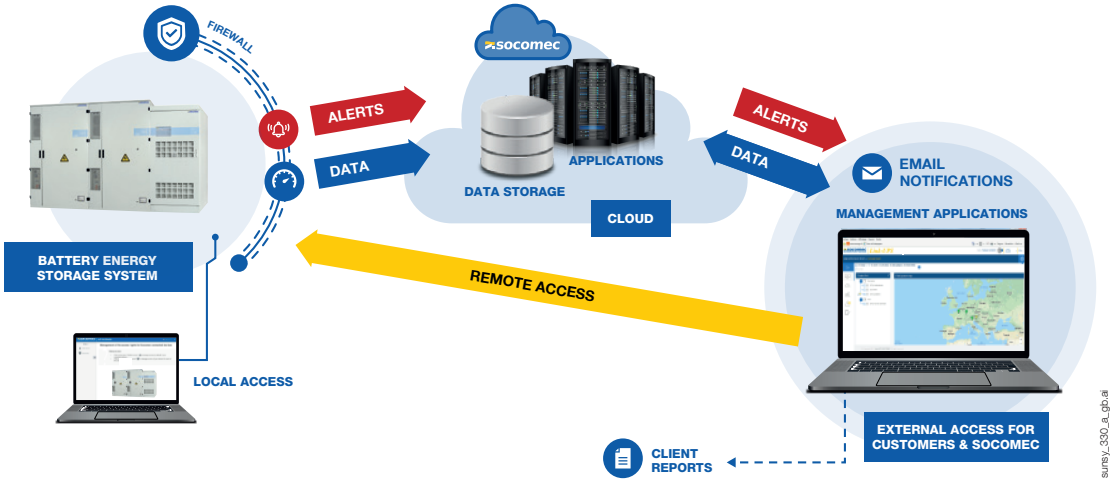
Many system configurations are available to meet customer requirements

	Energy (kWh)				
Power (kVA)	4 B-Cab 1116	5 B-Cab 1395	6 B-Cab 1674	7 B-Cab 1953	8 B-Cab 2232
500					

Higher power / energy configurations can be made available by installing the systems in parallel up to 3 MVA (6 C-Cabs) and 13.4 MWh (48 B-Cabs)



Maximum savings and fast ROI



Local management

We have developed our Power Management System (PMS) to be the brain of the system.

This open platform, integrated in the C-Cab, provides access to:

- transition from on-grid to off-grid mode via the black start function,
- multi-source microgrid autonomous management,
- compatibility with third-party supervision systems (EMS, SCADA) for additional functionality.

Remote management

- firmware update,
- diagnostic
- battery data collection

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Technical Data

System information	
Symmetrical overload	110% during 10 min - 125% during 10 s
Chemistry	LFP - Lithium Iron Phosphate
Energy Nameplate	279 kWh per cabinet
Maximum C-rate	0.5 C (500kVA/1116kWh) / 0.25 C (500kVA/2232kWh)
Maximum AC current (including Aux. supply)	632 A
Rated voltage (Un)	480 Vac (3ph+N) -10%/+6%
Rated frequency	60 Hz
Fire protection	Fire Safety System including smoke detectors, heat detectors and aerosol
Environment	
Degree of protection	IP 54 / NEMA 3R (Outdoor)
Operation temperature	-20 to +44 C° / -4 to +111°F without derating
Storage temperature	-20 to +50 C° / -4 to +122°F
Acoustic level at 1 m	< 70 dB
Maximum altitude	1000 m / 3300 ft. without derating (consult us for requirements above this)

System in-line installation

In-line installation

Up to 8 B-Cabs - dimensions (mm/in)