SUNSYS HES L©

Scalable outdoor energy storage system

from 50 kVA / 186 kWh to 300 kVA / 1116 kWh

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SUNSYS HES L is outdoor energy storage system designed for both on-grid and off-grid applications. It is available in a variety of configurations, to provide the ideal system size for a range of project requirements.

It supports dedicated applications such as optimization of photovoltaics with self consumption, peak shaving, backup power, and EV charging infrastructure.

Thanks to this, SUNSYS HES L combines the economic returns of on-grid operation with the security of a microgrid when the grid may fail.

High safety standards

SUNSYS HES L integrates advanced power conversion and LFP battery technologies to create a winning formula.

The B-Cab (battery storage cabinet) uses liquid-cooled, lithium iron phosphate chemistry, with an integrated fire protection system, and meets the requirements of the latest international fire code.

The complete system is certified to UL 9540-2020, the safety standard for energy storage systems in both the Canada and the USA.

Extreme scalability

Based on 2 standard cabinets, SUNSYS HES L is a modular energy storage system that uses 2 standard cabinets to enable 22 UL certified configurations, providing ideal system sizing for a variety of projects. Based on standard equipment and pre-tested configurations, the design, quotation, installation and commissioning process is much faster as a result.

Fast and safe installation

SUNSYS HES L is supplied with all internal energy modules pre-assembled and plug and play power modules to guarantee maximum quality, the rapid installation and ease of transport.

It includes all cables and hardware to connect the B-Cabs and C-Cabs. The battery cabinets are delivered fully assembled, and include made-to measure cable kits for DC, communication and auxiliary power connections.

Combines the best technologies

Thanks to a co-design between CATL and Socomec, you can be assured of compatibility between products, and that the complete system has been validated and certified.

The C-Cab (power conversion cabinet) has been designed to include everything required for battery operation, including the management system as well as the power supply.

The solution for

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

Strong points

- High safety standards
- Extreme scalability
- Fast and safe installation
- Combines the best technologies

Conformity to standards

- **Safety**: UL 9540-2020; UL 9540A; UL 1973; NFPA 855; NFPA 68
- **EMC**: FCC part 15 Level A
- **Environment**: RoHS; REACH, IEC 61249
- **Communication protocol**: Modbus TCP; SunSpec 2.0
- **Grid code**: UL 1741 SB; UL 1741 PCS CRD; IEEE 1547-2018; IEEE 1547.1-2020; CA Rule 21; HECO Rule 14H
- CEC listed; HECO listed

Please consult us for additional ones.

Expert Services

An experienced and skilled team is at your service to make your project a success!

- **Project development**: pre-sales support, project design
- **Deployment**: training, field inspection, pre-commissioning, commissioning
- **Operation**: maintenance contracts, spare parts replacement, remote monitoring
- Cloud data storage
- Extended warranty on both product and performance

For more information, please contact us.

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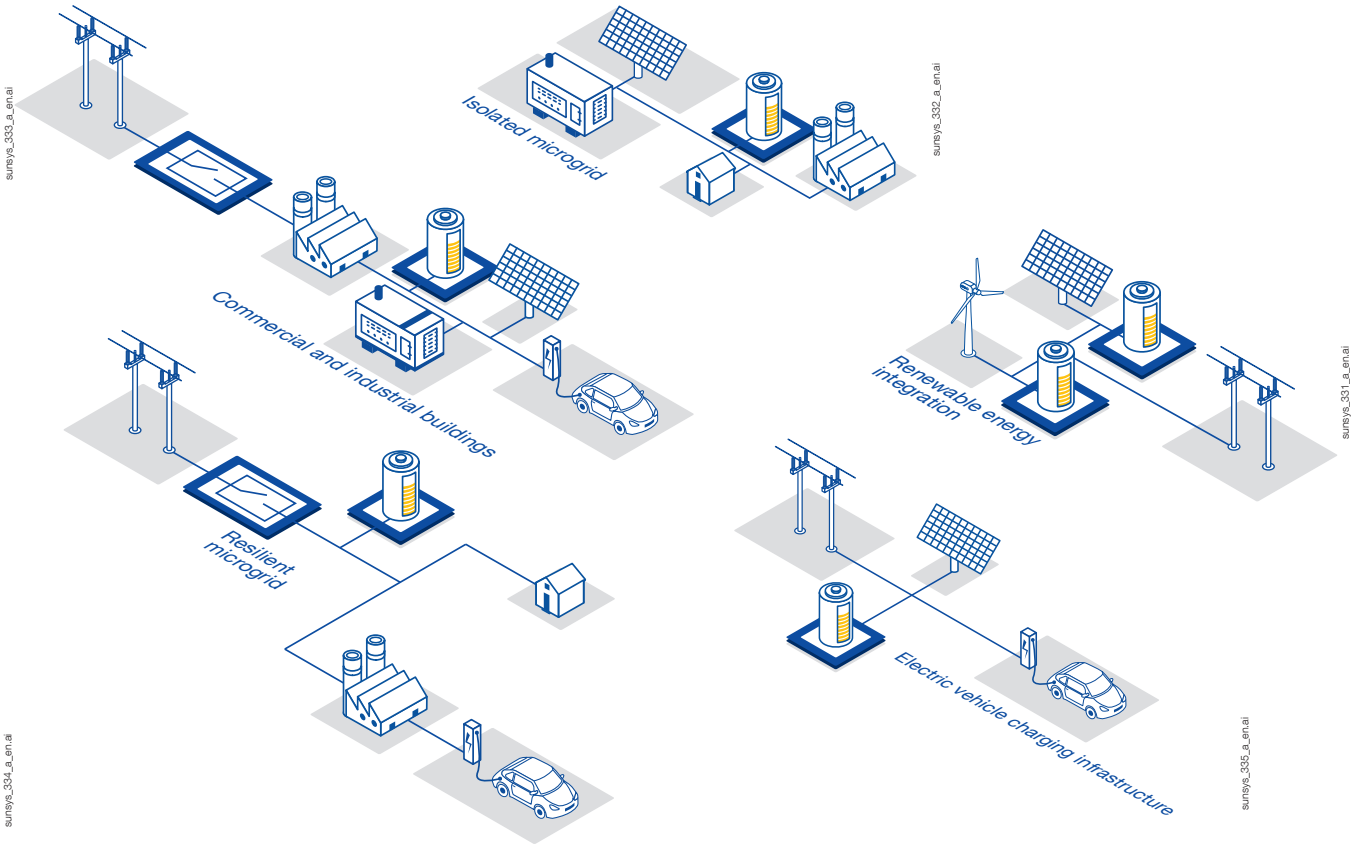
Suitable for all of the following applications



2 modular units for maximum flexibility

Up to 1005 kg / 2215 lbs

2280 kg / 5026 lbs

C-Cab L - Converter Cabinet

- Bidirectional power converter
- 50 to 300 kVA / cabinet
- Automation functions
- AC/DC distribution and protection
- Battery management system
- IoT Ready

B-Cab L - Battery Cabinet

- Lithium ion battery
- LFP technology
- 186 kWh / rack
- Liquid cooling thermal management
- Integrated fire safety detection and suppression system
- Life cycle of up to 8000 cycles at 25°C; 0.5C

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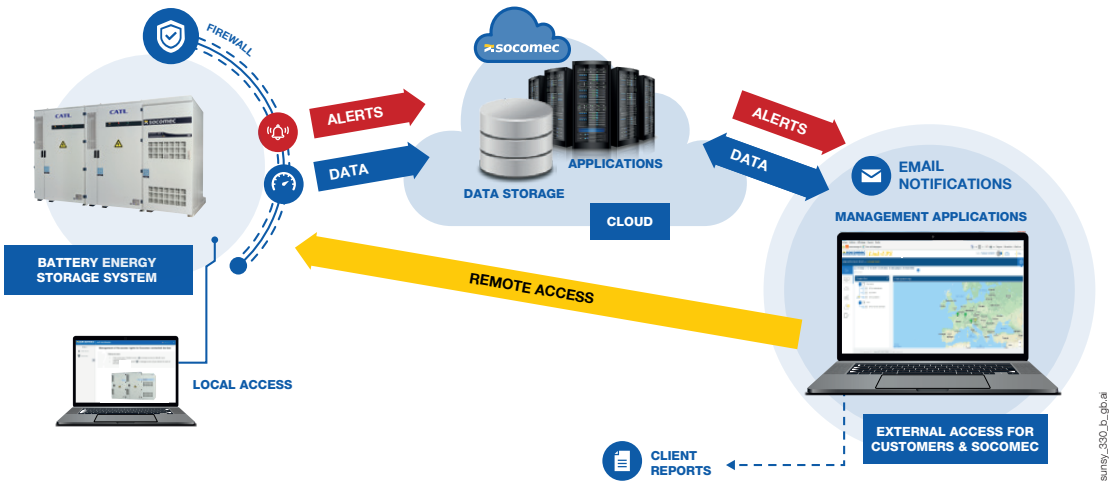
Many system configurations are available to meet customer requirements

Power (kVA) \ Energy (kWh)	186	372	558	744	930	1116
50	3.4 h	7.0 h				
100	2.0 h*	3.4 h	5.2 h			
150		2.3 h	3.4 h	4.7 h	5.8 h	
200		2.0 h*	2.6 h	3.4 h	4.4 h	5.2 h
250			2.1 h	2.7 h	3.4 h	4.2 h
300			2.0 h*	2.3 h	2.9 h	3.4 h

*Maximum power is reduced by 9%, to respect the C-rate of the batteries.

Maximum savings and fast ROI



Local management

The Socomec Power Management System, coordinating the operation of all converter and battery components. It's capabilities include:

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

- peak shaving, energy shifting, self-consumption and fuel saving to maximise valuable savings,
- transitions between on-grid and microgrid operation,
- autonomous microgrid management,
- compatibility with 3rd party energy management software suites, through a Sunspec 2.0 or Modbus interface,
- SCADA integration through Modbus/TCP.

Remote monitoring

In addition, the C-Cab also integrates IoT devices that make it possible to continuously monitor the system remotely.

These devices enable the following, through 2 offers SoLive and SoLive Pro:

- web dashboard for on-line monitoring,
- web access to the system KPIs,
- smartphone app,
- remote firmware upgrade.

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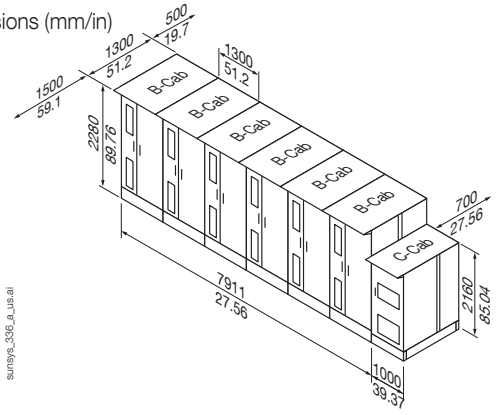
Technical Data

System information						
Power modularity	50 kVA power modules - up to 300 kVA					
Symmetrical overload	110% during 60 min - 125% during 20 min - 150% during 60 s					
Chemistry	LFP - Lithium Iron Phosphate					
Energy Nameplate	186 kWh per rack					
AC/AC Max Round Trip Efficiency	90%					
Maximum C-rate	0.5 C					
Maximum DC current	82 A charging / 87 A discharging per 50 kVA power module					
Power rating	50 kW	100 kW	150 kW	200 kW	250 kW	300 kW
AC rated current	60 A	120 A	180 A	241 A	301 A	361 A
AC max. temporary current (overload)	90 A	180 A	271 A	361 A	451 A	541 A
AC connections	Up to 4x95mm²/3/0AWG - 3x150mm²/300MCM - 2x185mm²/350MCM					
Rated voltage (Un)	480 Vac (3ph+N) ±20%					
Rated frequency	60 Hz ±5%					
Fire protection	Fire Safety System including smoke detectors, heat detectors and aerosol					
Environment						
Degree of protection	IP 55 / NEMA 3R (Outdoor)					
Operation temperature	-20 to +45 C° / -4 to +113°F without derating - up to +50°C / 122°F with derating					
Storage temperature	-20 to +60 C° / -4 to +140°F					
Acoustic level at 1 m	< 64.8 dB					
Maximum altitude	1000 m / 3280 ft. without derating (consult us for requirements above this)					

Two system installation options according to the space available on your site

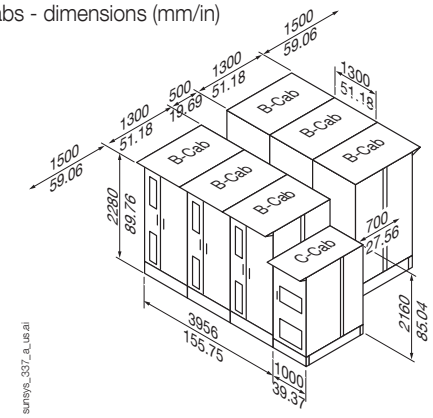
In-line installation

Up to 6 B-Cabs - dimensions (mm/in)



Back-to-back installation

Up to 6 B-Cabs - dimensions (mm/in)



Also available

SUNSYS HES XL

Outdoor energy storage system
from 500 kVA / 1116 kWh to 500 kVA / 2232 kWh systems

SUNSYS HES XXL

High power energy storage system
from 1 MVA / 2 MWh to 6 MVA / 24 MWh systems