

SUNSYS HES L[©] SKID

All-in-One Plug-and-Play Energy Storage Systems

from 50 kVA / 203 kWh to 300 kVA / 609 kWh



The solution for

- > EV charging infrastructure
- > Commercial and industrial buildings
- > Microgrids

Strong points

- > Quick and easy installation
- > Multiple configurations available
- > Easy to ship and redeploy
- > Commissioning ready
- > Combines the best technologies

Conformity to standards

- > Safety: UL 9540-2023; 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
- > CEC listed

Please consult us for additional standards.

Expert Services

Our experienced and skilled team is at your service to make your projects a success!

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

For more information, please contact us.

Function

The SUNSYS HES L SKID is a compact modular battery energy storage system, ideal for easy installation, transport and maintenance. This system is available in a wide range of configurations, with power from 50 to 300 kVA and energy storage capacity from 203 to 609 kWh. This system has been designed for on-grid and off-grid applications. Delivered fully assembled, the SUNSYS HES L SKID system is factory tested, wired and delivered ready for use.

Advantages

Quick and easy installation

All cabinets within the energy storage system are delivered pre-assembled, mounted and factory wired on a specially designed metal structure (SKID).

This solution considerably reduces installation time, limiting the cost of associated structural works whilst still ensuring optimum quality.

Once the system is delivered on site, the only tasks left are connecting the AC power and communication cables.

Multiple configurations available

The system offers several configurations thanks to a complete range of SKID modules, consisting of the SUNSYS HES L cabinets: C-Cab and B-Cab.

This flexibility enables the size of the system to be adjusted to precisely meet the specific needs of each project.

Thanks to these configurations, we are able to cover a wide range of energy storage projects and applications.

Easy to ship and redeploy

The entire system is integrated onto a metal SKID, making it easy to ship, transport and move. It can easily be moved to a different site to meet future needs. Our one-piece integrated SKID-based systems make transport especially easy. Our standard configurations (up to 5m / 16.5ft) are easy to handle and can be forklifted, minimising transport and handling costs.

Commissioning ready

Systems are pre-commissioned in our factory, significantly reducing the time needed for on-site commissioning by our technical team. Every system is also factory tested with initial battery cycling completed, ensuring successful on-site installation and operation. This reduces the time and cost of installation for our customers, enabling them to achieve faster return on investment.

Combines the best technologies

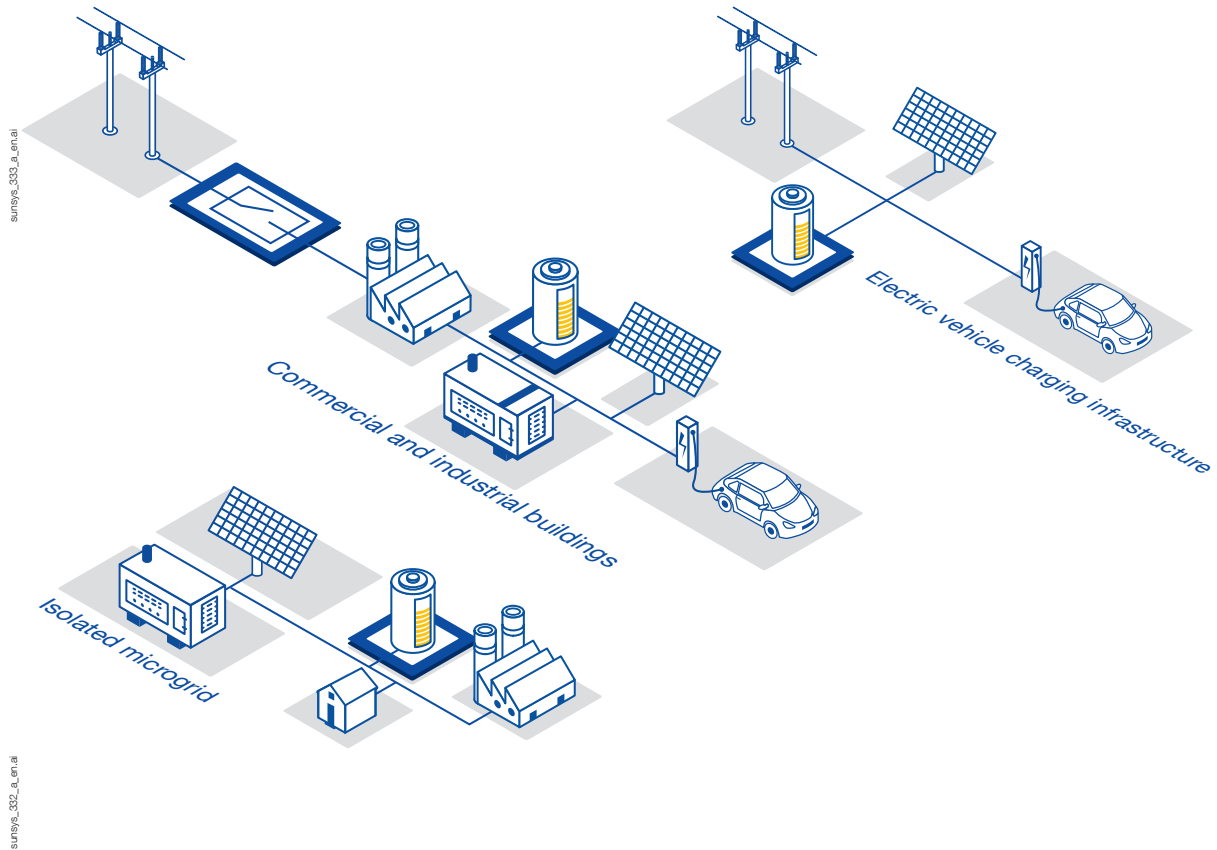
The SUNSYS HES L SKID brings together the very best of conversion, battery and distribution technologies. Jointly designed with CATL, the products are fully compatible. Batteries are available with 0.5C rating, covering a wide range of energy storage applications.

The complete system has been validated and certified in accordance with the most stringent European and American standards. Its fire protection system includes heat and smoke detectors, an aerosol fire extinguishing system, a dry pipe to connect a water inlet and a deflagration panel.

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Suitable for all the following applications



Modular design enables variety without complexity



C-Cab L - Converter cabinet

- > Bidirectional hot swappable power converter
- > 50 to 300 kVA / cabinet
- > Automation functions and EMS connection
- > AC/DC distribution and protection
- > Battery management system
- > IoT ready

B-Cab L - Battery cabinet

- > Lithium Iron Phosphate (LFP) Chemistry
- > 203 kWh / rack
- > Liquid cooling thermal management
- > Integrated fire safety detection and suppression system
- > Life cycle of 8000 cycles at 25°C; 0.5P

SUNSYS HES L SKID

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Many system configurations are available to meet customer requirements

	Energy Power	1B-CAB	2B-CAB	3B-CAB
		203 kWh	406 kWh	609 kWh
1 C-CAB	50 kVA	3.4		
	100 kVA	2.0	3.4	5.2
	150 kVA		2.2	3.4
	200 kVA		2.0	2.5
	250 kVA			2.0
	300 kVA			2.0

Duration shown in AC useable energy at BOL.

Power derating to respect 0.5 CP.

SKID Configurations	Power	Energy	Weight	Width	Depth	Height	Transport
1C-CAB / 1 B-CAB	50 kW	203 kWh	3,546 kg (7,817 lbs)	2,532 mm (99.6 in)	1,600 mm (62.9 in)	2,560 mm (100.8 in)	Forklift or Lifting rings
	100 kW						
1C-CAB / 2 B-CAB	100 kW	406 kWh	5,716 kg (12,601 lbs)	3,925 mm (154.5 in)			
	150 kW						
	200 kW						
1C-CAB / 3B-CAB	100 kW	609 kWh	7,866kg (17,341)	5,318 mm (209.3 in)			
	150 kW						
	200 kW						
	250 kW						
	300 kW						



SUNSYS HES L SKID 1C-CAB 1B-CAB



SUNSYS HES L SKID 1C-CAB 2B-CAB



SUNSYS HES L SKID 1C-CAB 3B-CAB

Technical characteristics

System information						
Power modularity	50 kVA power modules – up to 300 kVA					
Symmetrical overload	110% for 60 min – 125% for 20 min – 150% for 60 sec					
Chemistry	LFP – Lithium Iron Phosphate					
Energy Nameplate	203.7 kWh per rack					
AC/AC Max Round Trip Efficiency	90%					
Maximum P-rate	0.5					
Maximum DC current	82 A charging / 87 A discharging per 50 kVA power module					
Power rating	50 kVA	100 kVA	150 kVA	200 kVA	250 kVA	300 kVA
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/OAWG - 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 and deflagration venting panel					
Environment						
Degree of protection	IP 55 / NEMA 3R (Outdoor)					
Operation temperature	-20 °C to +45 °C / -4 °F to +113 °F without derating - up to +50 °C / 122°F with derating					
Storage temperature	-20 °C to +60 °C / -4 °F 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)					

Also available



SUNSYS HES XXL[®]
High power energy storage system
from 0.5 MVA / 1.6 MWh to 6 MVA / 24 MWh