SUNSYS HES L[©] SKID

Drop and start energy storage systems from 100 kVA / 186 kWh to 300 kVA / 1116 kWh



SUNSYS HES L SKID is a compact modular system that has been designed to facilitate transportation, installation and maintenance of an energy storage system. Available in a wide range of configurations, up to 300 kVA and 1116 kWh for on-grid and off-grid applications, the system is delivered as a fully assembled and cabled structure.

Fast and easy installation

All cabinets within the energy storage system are shipped assembled, mounted and internally cabled on an adapted SKID. This guarantees the minimum installation time and effort, limits investment in civil works and ensures that the installation is of optimum quality.

Once on site, all that remains to do is to connect the AC power and communication cables.

Flexible and scalable

Multiple system configurations are possible thanks to a range of SKID bricks. The bricks consist of the SUNSYS HES L cabinets – C-Cab, B-Cab and AC-Cab.

This flexibility helps to achieve adjusted system sizing in order to more closely match specific project requirements.

In addition, the SKID bricks are easily scalable, enabling the connection of up to 6 battery cabinets per system.

Easy to redeploy

The complete system is integrated on a SKID, making it transportable and deployable with minimal effort; this means that the system can easily be installed on an alternative site to satisfy future needs. Our modular SKID brick-based architecture is a real advantage in terms of transportation. Based on standard bricks (maximum 5m) it is easy to handle, keeping transportation costs low.

Ready to start

The system will be pre-commissioned in our factory, thus highly reducing the time needed on site for our technical team.

Best of ESS technologies

The SUNSYS HES L SKID brings together the very best of conversion, battery and distribution technologies. Co-designed with CATL, the products are fully compatible. The complete system has been validated and certified in accordance with the most stringent European and American standards.

The solution for

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

Strong points

- > Fast and easy installation
- > Flexible and scalable
- > Easy to redeploy
- > Ready to start
- > Best of ESS technologies

Conformity to standards

- Safety: IEC 62368-1, IEC 62933-5-2; UL 9540A
- > EMC: EN 61000-6-2/4
- Mechanical: EN 60529; EN 62262
- Environment: RoHS; REACH, IEC 61249-2-21; WEEE 2012/19/UE
- Communication Protocol: Modbus TCP
- Grid code: Europe: EN 50549-1 & EN 50549-2; DE: VDE-AR-N 4110 & 4120; IT: CEI 0-16; UK: EREC G99/1; BE: C10/11; ES: UNE 217001 & 217002, NTS 631 SEPE & SENP

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 & integration: training, field inspection, pre-commissioning, commissioning
- Operation: maintenance contracts, spare parts replacement, remote monitoring
- Cloud data storage
- Extended product and performance warranties

For more information, please contact us.



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Particularly suitable for the following applications



3 cabinets combined to design your system



C-Cab L Converter cabinet

- > Bidirectional power converter
- > 100 to 300 kVA
- > 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 extinguishing system

AC-Cab L AC power distribution cabinet

- > AC power distribution cabinet
- > Multi-source paralleling
- > Islanding function
- Synchronisation after mains return
- > Short interruption transition



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SKID Bricks

Energy Storage System SKIDs

Conversion Cabinet (C-Cab) and Battery Cabinet (B-Cab)

SKID Model	1C-1B	1C-2B	1C-3B	
Configuration				
Power capacity	100 kVA	100 to 200 kVA	100 to 300 kVA	
Battery capacity	186 kWh	372 kWh	558 kWh	
Dimensions (L*W*H)	2 725 * 1 400 * 2 530 mm	3 751 * 1 400 * 2 530 mm	5 076 * 1 400 * 2 530 mm	
Weight	3 615 kg	6 025 kg 8 505 kg		

Energy Storage System SKIDs with AC cabinet

Conversion Cabinet (C-Cab), Battery Cabinet (B-Cab) and AC Distribution Cabinet (AC-Cab)

SKID Model	1C-1B-1AC	1C-2B-1AC		
Configuration				
Power capacity	100 kVA	100 to 200 kVA		
Battery capacity	186 kWh	372 kWh		
Dimensions (L*W*H)	3 751 * 1 400 * 2 530 mm	5 076 * 1 400 * 2 530 mm		
Weight	4 635 kg	7 075 kg		

Extended Battery SKID

Battery Cabinet (B-Cab)

SKID Model	28
Configuration	
Power capacity	-
Battery capacity	372 kWh
Dimensions (L*W*H)	2725 * 1400 * 2530 mm
Weight	4890 kg



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Achievable System Configurations

Power Energy (kVA) (kWh)	186	372	558	744	930	1116
100	1C-1B 1C-1B-1AC *					
150		1C-2B 1C-2B-1AC *	1C-3B	1C-2B	1C-3B	1C-2B
200			1C-1B-1AC + 2B *	10-2B-1AC	10-1B-1AC	10-28-1AC
250				+ 28 *	+ 2X2B *	+ 2828 *
300						

* Configurations with AC Distribution Cabinet (AC-Cab) are shown in blue

Technical Data

System information	
Converter power modularity	50 kVA power modules – up to 300 kVA
Symmetrical overload	110% during 30 min – 125% during 10 min – 150% during 30 s
Battery chemistry	LFP – Lithium Iron Phosphate
Battery energy nameplate	186 kWh per rack
AC/AC max round trip efficiency	90%
Maximum C-rate	0.5 C
Maximum current	83 A charging / 87 A discharging per 50 kVA power module
AC connections	3*240 mm ²
Rated voltage (Un)	400 Vac (3ph+N) -20%/+10%
Rated frequency	50 Hz +- 6%
Fire protection	Fire safety system including smoke detectors, heat detectors and aerosol
Transportation	Forklift and lifting rings
Environment	
Environment installation	Native outdoor
Degree of protection	IP 55
Operation temperature	-20 to +45 C° without derating
Storage temperature	-20 to +60 C°
Relative humidity	4 to 100% w/o condensation (internal cabinet heating)
Acoustic level at 1 m	< 70 dB
Maximum altitude	1000 m without derating (please contact us for requirements above this)

