



/ SHPS 125-US-30 / SHPS 150-US-30 / SHPS 172-US-30 / SHPS 180-US-30

preliminary



Sunny Highpower Storage-US

AC-Coupled Battery Inverter for Small Utility and Community Solar Scale Storage Systems

25 YEAR
DESIGN LIFE



Product Features

- 25-year Design Life for long lasting systems
- SMA Data Manager enables monitoring and controls, remote parameterization, and SMA Smart Connected
- Compact design with a high power density
- Intelligent air cooling system OptiCool™ for efficient cooling

Technical Attributes

- Innovative digital features aligned with the energy management platform ennexOS

Flexible

- For DC input voltages up to 1500 V
- Modular parallel connection of up to 14 inverters per block for AC-coupled battery systems
- Available in a range of AC output voltages and power classes for interconnection flexibility
- Compatible with a wide range of battery chemistries

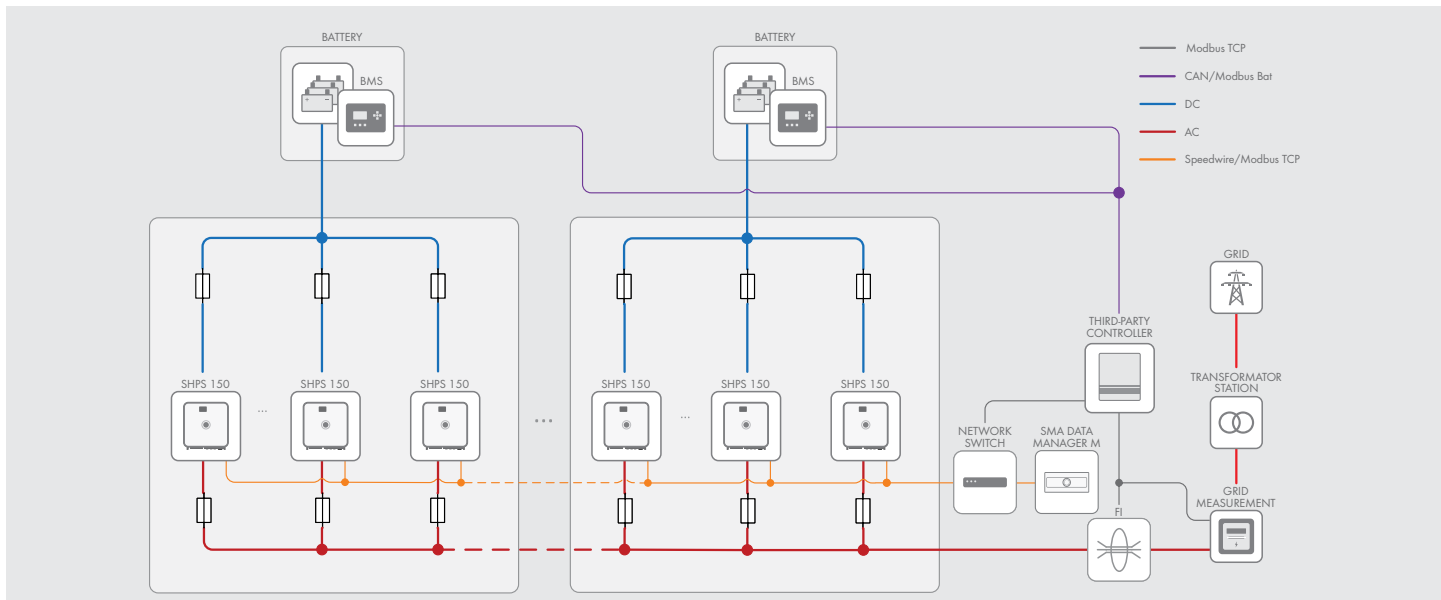
Easy installation

- Ergonomic handling and simple connection for quick installation
- Centralized commissioning and control of the storage power plant via SMA Data Manager

The Sunny Highpower Storage-US supports system voltages of up to 1500 VDC. By connecting up to fourteen inverters in parallel, the Sunny Highpower Storage allows for modular and flexible system planning of storage power plants in 2.5 MW blocks with up to an 8-hour battery system. Sunny Highpower Storage systems can be clustered for scalable power blocks.

With a maximum output of 180 kW, the battery inverter features automatic SMA Smart Connected proactive servicing when paired with the SMA Data Manager, simplifying operations and maintenance while significantly reducing service costs over the project's timeline. The Sunny Highpower Storage is the perfect solution for your next storage power plant project. It combines high performance, flexibility, scalability and cost efficiency in a compact design.

*Pending US and Canada UL certification



Technical Data	Sunny Highpower Storage 125-US	Sunny Highpower Storage 150-US	Sunny Highpower Storage 172-US	Sunny Highpower Storage 180-US
Battery side (DC)				
DC battery voltage range	684 V to 1500 V	880 V to 1500 V	968 V to 1500 V	1012 V to 1500 V
Max. DC current IDC, max	180 A			
Grid side (AC)				
Rated power at nominal voltage	125 kW	150 kW	172 kW	180 kW
Max. apparent AC power	125 kVA	150 kVA	172 kVA	180 kVA
Nominal AC voltage / AC voltage range	480 V / 384 to 552 V	600 V / 480 V to 690 V	660 V / 528 V to 759 V	690 V / 552 V to 793 V
AC grid frequency / range	60 Hz / 54 Hz to 66 Hz			
Rated grid frequency	60 Hz			
Max. output current	151 A			
Power factor at rated power/adjustable displacement	1 / 0 leading to 0 lagging			
Harmonic (THD)	< 0.5%			
Feed-in phases / AC connection	3 / 3-PE			
Efficiency				
CEC Efficiency ¹⁾	98.5%		99%	
Protective devices				
Ground fault monitoring / grid monitoring / DC reverse polarity protection	● / ● / ●			
AC short-circuit current capability / galvanically isolated	● / -			
All-pole-sensitive residual current monitoring unit	●			
Monitored surge arrester (type II) AC / DC	● / ●			
Protection class / overvoltage category (as per UL)	I / DC:II; AC:III			
General data				
Dimensions (W / H / D)	770mm / 830 mm / 462 mm (30.3 in / 32.7 in / 18.2 in)			
Weight	104 kg (229 lb)			
Operating temperature range	-25°C to +60°C (-13°F to +140°F)			
Noise emission, typical	69 dB(A)			
Topology	Transformerless			
Cooling method	OptiCool™, active cooling, speed-controlled fan			
Enclosure protection rating	Type 4X			
Maximum permissible relative humidity (non-condensing)	100%			
Features/functions/accessories				
LED display (status/fault/communication)	●			
Ethernet interface	● (2 ports)			
Data interface: SMA Modbus / SunSpec Modbus / Speedwire	● / ● / ●			
Battery interface: Ethernet (Modbus)	●			
Mounting type	Rack mounting			
OptiTrac / Integrated Plant Control	● / ●			
Warranty: 5 / 10 / 15 / 20 / 25 years	● / ○ / ○ / ○ / ○			
Certificates and approvals (pending)	UL 62109, CAN/CSA-C22.2 No.62109			
FCC compliance	FCC Part 15 B, Part 15 C			
Grid interconnection standards	IEEE 2030.5, UL 1741 SB, IEEET1547:2018, CSA 22.3 No. 9			
Model type number	SHPS 125-US-30	SHPS 150-US-30	SHPS 172-US-30	SHPS 180-US-30

● Standard equipment ○ Optional - Not available Data at nominal conditions 1) Preliminary efficiency *Pending US and Canada UL certification

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