



SUNNY BOY STORAGE 3.8-US / 5.0-US / 6.0-US

SBS3.8-US-10 / SBS5.0-US-10 / SBS6.0-US-10



**WORLD'S FIRST
SECURE POWER SUPPLY**

Versatile

- AC coupled for new PV systems or retrofitting existing systems
- Compatible with many leading high-voltage batteries

Simple & Flexible

- Quick and easy installation
- Multiple configuration options with the ability to expand

Innovative

- High level of system integration provides unmatched monitoring and control
- Three separate DC inputs allow for maximum power and energy capacity

Cost-Effective

- Includes energy management functions for many different applications

SUNNY BOY STORAGE 3.8-US / 5.0-US / 6.0-US

The intelligent energy management solution

The Sunny Boy Storage battery inverter has been precisely engineered to serve as the intelligent interface between PV, the electrical grid and industry-leading high-voltage batteries. Its AC coupled architecture enables installation at any point in time, providing greater flexibility and giving installers the opportunity to generate new business with existing customers. Along with its ability to address the large retrofit market of existing PV systems, it also delivers the most cost-effective, versatile and innovative residential storage solution available. Additionally, up to 2000 W of convenience power can now be achieved in the event of a grid outage during both day and night thanks to its Secure Power Supply feature. Full backup functionality will also be available with a backup unit from 3rd party vendors.

Technical data	Sunny Boy Storage 3.8-US	Sunny Boy Storage 5.0-US	Sunny Boy Storage 6.0-US
AC connection			
AC nominal power	3800 W	5000 W	6000 W
Backup overload @ 25° C for 1 minute	4800 W	6250 W	7680 W
Nominal AC voltage / range	240 V / 211 - 264 V		
AC grid frequency / range	60 Hz / 50 Hz		
Rated power frequency / rated grid voltage	60 Hz / 240 V		
Adjustable displacement power factor	0.8 overexcited - 0.8 underexcited		
Feed-in phases / line connections	1 / 2		
Harmonics	< 4 %		
Secure Power Supply			
Maximum output power	2000 W		
Maximum output current	16 A		
Nominal AC voltage	120 V		
Battery DC Input			
Max. DC voltage	600 V		
DC voltage range/ DC rated voltage	100 V - 550 V / 360 V		
Min. DC voltage / start DC voltage	100 V / 100 V		
Max. DC current power input / # of inputs	10 A / 3		
Max. short-circuit current per input	40 A		
Compatible battery type	Li-Ion ¹⁾		
Efficiency			
Max. efficiency	97.50%		
Protective devices			
DC reverse polarity protection	●		
Ground fault monitoring / Grid monitoring	●		
AC short circuit protection	●		
All-pole sensitive residual current monitoring unit (RCMU)	●		
Protection class / overvoltage category	I / IV		
General data			
Dimensions (W / H / D) in mm (in)	535 x 730 x 198 (21.1 x 28.5 x 7.8)		
Packing dimensions (W / H / D) in mm (in)	600 x 800 x 300 (23.6 x 31.5 x 11.8)		
Weight	26 kg (57 lb.)		
Packaging weight	30 kg (66 lb.)		
Operating temperature range	-25 °C to 60 °C (-13 °F to 140 °F)		
Maximum operating altitude above mean sea level (MSL)	3000 m		
Noise emission (typical)	< 36 dB(A)		
Internal power consumption at night	< 5 W		
Topology	Transformerless		
Cooling concept	Convection		
Enclosure type rating in accordance with UL50	NEMA 3R		
Features			
Secure Power Supply	●		
Full backup functionality	Available via 3rd party vendor		
Interfaces	Ethernet / WLAN		
Communication protocols	Modbus (SMA/Sunspec) / Webconnect		
Battery communication	CAN Bus		
Approved energy meters	Continental Control System, LLC - WNC-3Y-208-MB, etc. (See www.SMA-America.com for more info)		
Warranty: 10 / 15 / 20 years	● / ○ / ○		
Certificates and approvals	UL 1741, UL 1998, UL 9540, UL 1699B, IEEE 1547, FCC Part 15 (Class A & B), NEC 2014		

* Battery types approved by SMA e.g. LG Chem, BYD, etc. (See www.SMA-America.com)

Type designation	SBS3.8-US-10	SBS5.0-US-10	SBS6.0-US-10
● Standard features ○ Optional features – Not available Data at nominal conditions			

● Standard features ○ Optional features – Not available Data at nominal conditions

