



# 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

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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
<b>AC connection</b>			
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 %		
<b>Secure Power Supply</b>			
Maximum output power	2000 W		
Maximum output current	16 A		
Nominal AC voltage	120 V		
<b>Battery DC Input</b>			
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*		
<b>Efficiency</b>			
Max. efficiency	97.50%		
<b>Protective devices</b>			
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		
<b>General data</b>			
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	NEMA 3R		
<b>Features</b>			
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 <a href="http://www.SMA-America.com">www.SMA-America.com</a> for more info)		
Warranty: 10 / 15 / 20 years	● / ○ / ○		
Certificates and approvals	UL 1741 SA, CSA C22.2 No. 107.1-1, UL 1998, IEEE 1547, PCC Part 15 (Class A & B) CA Rule 21, HECO SRD v1.1		
* Battery types approved by SMA e.g. LG Chem, BYD, etc. (See <a href="http://www.SMA-America.com">www.SMA-America.com</a> )			
Type designation	SBS3.8-US-10	SBS5.0-US-10	SBS6.0-US-10

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

