



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

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



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

Multiple Use Cases

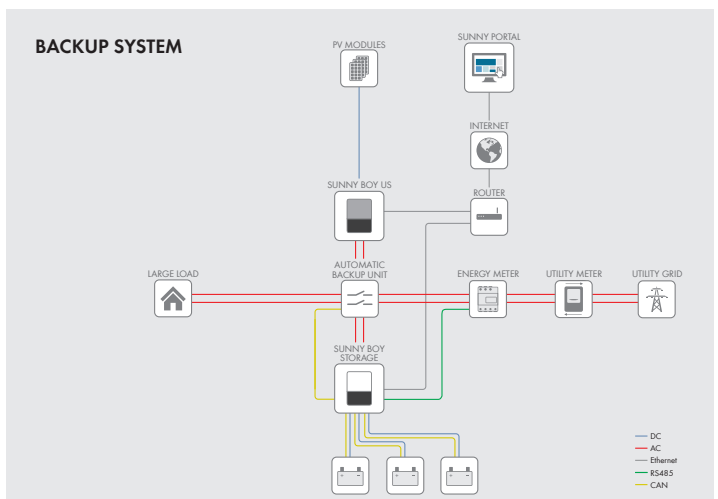
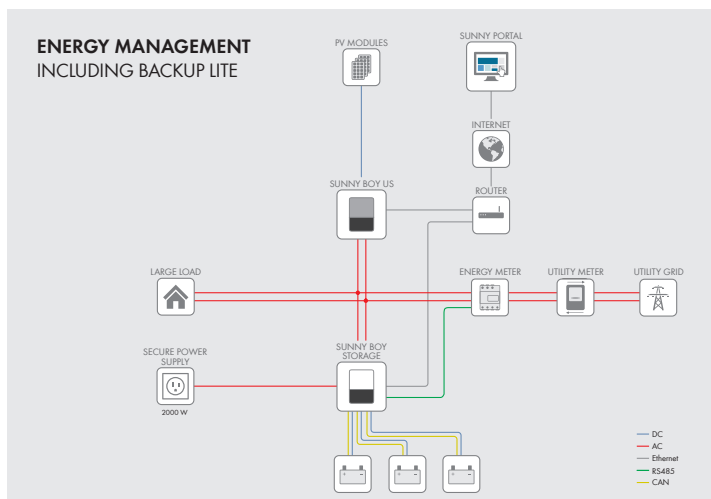
- Backup power options for whole home or protected loads
- Solutions for energy management, zero export, and demand charge avoidance

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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 SMA's proprietary Backup Lite feature. Whole home backup is also available with the SMA Automatic Backup Unit.

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
Maximum instantaneous backup power (100 ms)**	5800 VA	7500 VA	9300 VA
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 – Backup Lite			
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*		
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 idle	< 5 W		
Topology	Transformerless		
Cooling concept	Convection		
Enclosure type rating	NEMA 3R		
Features			
Secure Power Supply – Backup Lite	●		
Full backup functionality**	○		
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 SA, UL 9540, CSA C22.2 No. 107.1-1, UL 1998, IEEE 1547, PCC Part 15 (Class A & B) CA Rule 21, HECO Rule 14H SRD v1.1		
*Battery types approved by SMA e.g. LG Chem, BYD, etc. (See www.SMA-America.com) **Requires SMA Automatic Backup Unit (SBS-ABU-200-US-10)			
Type designation	SBS3.8-US-10	SBS5.0-US-10	SBS6.0-US-10
● Standard features ○ Optional features – Not available Data at nominal conditions			



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