

SUNNY BOY STORAGE 3.7 / 5.0 / 6.0

SB3.7-10 / SB5.0-10 / SB6.0-10



Premium Monitoring Service
SMA SMART CONNECTED



Reliable Supply

- Integrated secure power supply function
- Fully automatic battery-backup function (optional)
- Limited factory warranty extension from 5 to 10 years - free of charge

Flexible Design

- Can be extended at any time by connecting up to three batteries
- Various PV system sizes and choice of batteries
- Retrofitting and new installations

Simple Handling

- Easy installation
- Quick commissioning with WebUI via Wi-Fi using a smartphone or tablet

- Direct integration in Sunny Portal via the Webconnect function
- Free online monitoring via SMA Energy App

SUNNY BOY STORAGE 3.7 / 5.0 / 6.0

The first multistring battery inverter - always reliably supplied

With the SUNNY BOY STORAGE multistring battery inverter, for the first time, up to three different high-voltage batteries can be connected to one battery inverter. To connect larger batteries, three DC inputs can also be connected in parallel. The Sunny Boy Storage has integrated emergency power, which can be switched manually. Furthermore, it can even take over the entire electricity supply of the three line conductors via the optional automatic transfer unit. Thanks to proven AC coupling, the Sunny Boy Storage is ideally suited to new and retrofitted systems. The integrated webserver, with a smart inverter screen and installation wizard or via the SMA 360° App, enables fast and easy commissioning. Energy flows in the household are fully transparent thanks to the direct connection to Sunny Portal and SMA Energy App.

SUNNY BOY STORAGE 3.7 / 5.0 / 6.0

ALWAYS A SECURE SUPPLY!

THE FIRST MULTISTRING BATTERY INVERTER EVER



Systems with the Sunny Boy Storage can be flexibly adapted to individual needs at all times. Whether the family situation changes, perhaps with the purchase of an electric car, which needs charging daily, or with a swimming pool in the garden for pleasure – with the Sunny Boy Storage, battery-storage systems and PV systems can always be designed or expanded to suit specific requirements. The **multistring battery inverter** is unique, particularly when choosing and connecting different batteries. For a guaranteed electricity supply at any time, the Sunny Boy Storage offers twice as much security.

SUITABLE FOR ANY INITIAL SITUATION



NEW INSTALLATION OR RETROFIT: PV SYSTEM WITH BATTERY-STORAGE SYSTEM

A PV system with a storage system makes the user independent from conventional power generators and rising electricity costs. With the Sunny Boy Storage, this is particularly easy and quick. Whether a new set-up or an existing system, the Sunny Boy Storage can be retrofitted in any existing PV system.



SAFE: SUPPLY GUARANTEED EVEN DURING POWER OUTAGES

PV system operators always have a reliable supply during power outages. In the event of grid failure, the inverter can be manually switched to the emergency power supply with the integrated Secure Power Supply function. Secure Power Supply supplies a line conductor with nominal device power of up to 3.7 kW from the battery. Thanks to the phase coupler, the optional transfer switch can even take over the household's entire electricity supply of all three line conductors, fully automatically, in the event of grid failure. This means that you will have a reliable energy supply any time of the day and night.



EXPAND: ADAPT AN EXISTING BATTERY STORAGE SYSTEM TO INCREASING DEMAND

For the first time, the multistring battery inverter offers the option to connect up to three high-voltage batteries made by different manufacturers. The system can therefore be expanded in the future due to rising energy demand without any problems. To connect larger batteries, three separate battery inputs can also be connected in parallel.

Technical data	Sunny Boy Storage 3.7	Sunny Boy Storage 5.0	Sunny Boy Storage 6.0
AC connection			
Rated power (at 230 V, 50 Hz)	3680 W	5000 W ¹⁾	6000 W ¹⁾
Overload capability (at 25 °C to max. 60 sec.) ²⁾	4600 W	6300 W	7500 W
AC nominal current output (at 230 V, 50 Hz)	16 A	21.7 A ³⁾	26 A
Nominal AC voltage / AC voltage range	230 V / 172.5 V to 264.5 V		
AC grid frequency / range	50 Hz / 45 Hz to 65 Hz 60 Hz / 55 Hz to 65 Hz		
Adjustable displacement power factor	0.8 overexcited to 0.8 underexcited		
Feed-in line conductors / connection line conductors	1 / 1		
DC input of battery			
Max. DC voltage	600 V		
DC voltage range / DC rated voltage	100 V to 550 V / 360 V		
Min. DC voltage / start DC voltage	100 V / 100 V		
Max. DC current per DC input / number of DC inputs	10 A / 3 x 10 A		
Max. short-circuit current	40 A		
Battery types	Li-Ion ³⁾		
Efficiency			
Max. efficiency	97.5%		
Protective devices			
DC reverse polarity protection / AC short-circuit current capability	● / ●		
Grounding monitoring / grid monitoring	● / ●		
All-current sensitive residual-current monitoring unit	●		
Protection class / overvoltage category	I / III		
General data			
Dimensions (W / H / D)	535 mm / 730 mm / 198 mm (21.1 inch / 28.5 inch / 7.8 inch)		
Dimensions incl. packaging (W / H / D)	600 mm / 800 mm / 300 mm (23.6 inch / 31.5 inch / 11.8 inch)		
Weight / weight incl. packaging	26 kg (57 lbs) / 30 kg (66 lbs)		
Operating temperature range in battery area	-25 °C to +60 °C (-13 °F to +140 °F)		
Max. installation height above MSL	3000 m		
Noise emission, typical (at 1 m distance)	39 dB (A)		
Self-consumption standby / self-consumption without load	< 5 W / < 10 W (without supply for batteries and grid switching device)		
Topology	Without transformer		
Cooling concept	Convection		
Degree of protection	IP65		
Climatic category	4K4H		
Permissible maximum value for the relative humidity	100%		
Equipment / Function			
Emergency power function Secure Power Supply	● (max. 16 A, activated by a manual switch)		
Interfaces	Ethernet / Wi-Fi / CAN / RS485		
Communication / protocols	Modbus (SMA / Sunspec) / Webconnect / Modbus RTU (RS485)		
Battery communication	CAN bus		
Display / web user interface	Integrated webserver / via smartphone, tablet, laptop, SMA 360° App, SMA Energy App		
Remote monitoring	Sunny Portal via Webconnect		
Warranty: 5 / 10 / 15 / 20 years	● / ● ⁴⁾ / ○ / ○		
Certificates and approvals (further ones upon request)	C10/11, CEIO-21, EN 50438, EN 50549-1, G 59-3, G 83-2, G 99-1, IEC 62040-1, IEC 62109-1/2, IEC 62477-1, SI 4777, TOR Generator Type A, UTE C 15-712-1, VDE 0124-100, VDE 0126-1-1, VDE-ARN 4105, VFR 2014		
Accessories			
Automatic grid switching device for battery-backup system	available from external supplier ⁵⁾		
Sunny Home Manager / SMA Energy Meter	○ / ○		
SMA inverter with Webconnect	●		
SMA inverter without Webconnect	○		
Retrofitting with inverters from other suppliers	○		
Type designation	SBS3.7-10	SBS5.0-10	SBS6.0-10

● Standard equipment ○ Optional – Not available Data at nominal conditions As of: 12/2021

1) VDE: AR-N 4105; PAC, r 4600 W; Smax 4600 VA

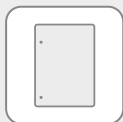
2) only in battery-backup operation with an automatic transfer switching device; max. 60 s after switch; overload capability depends on battery used

3) see "Technical Information - SUNNY BOY STORAGE - Approved Batteries and Information on Battery Communication Connections" at www.SMA-Solar.com

4) when registering the device via the SMA product registration homepage (sma-service.com) The conditions of the SMA limited factory warranty apply. For further information see SMA-Solar.com

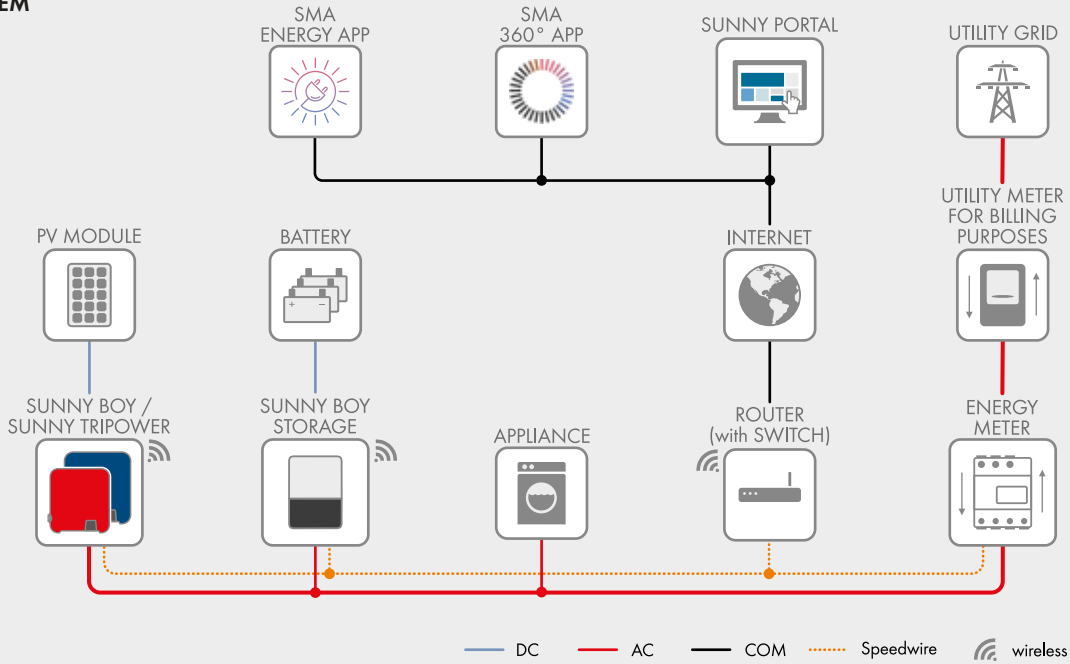
5) see the operating manual at www.SMA-Solar.com

Optional accessories

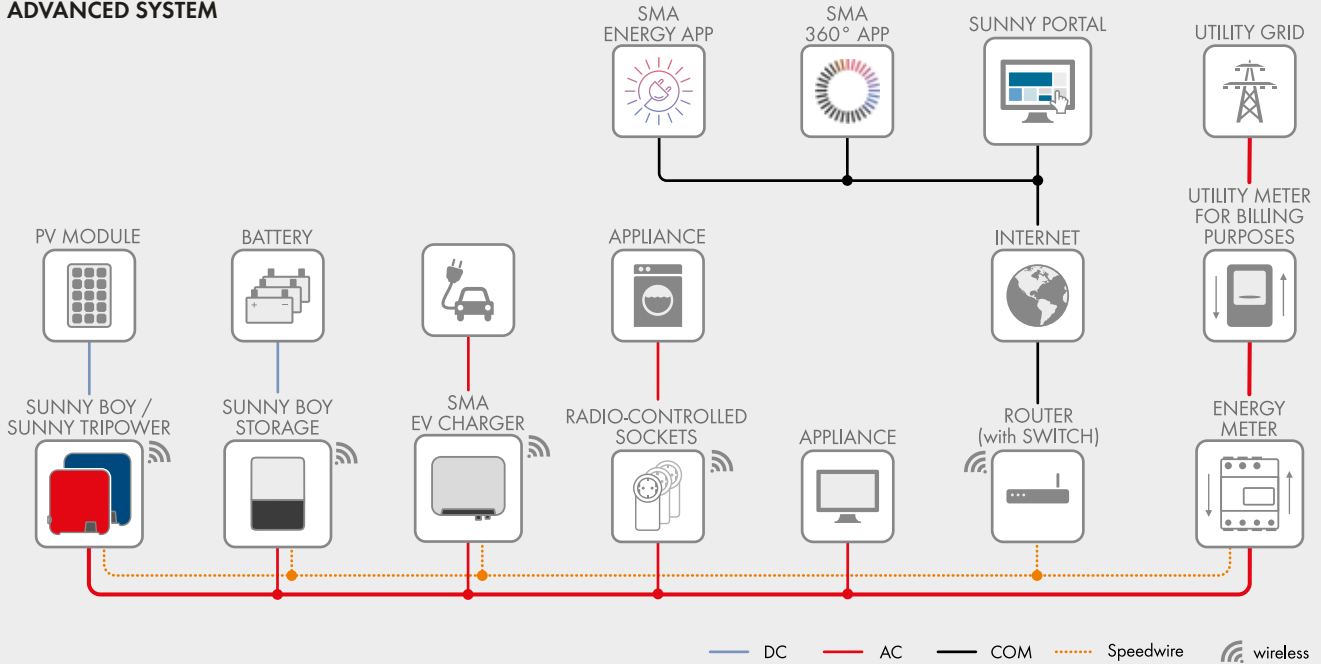


ENWITEC
Automatic transfer switch-
ing device

BASIC SYSTEM



ADVANCED SYSTEM



BASIC SYSTEM functions

- Energy management at the point of interconnection
- Maximum system yield thanks to dynamic limit of feed-in to the utility grid between 0% and 100%
- Integrated Webserver with smart inverter screen and installation wizard
- Maximum transparency thanks to visualization in Sunny Portal / SMA Energy App
- External Modbus interface
- Integrated emergency power function
- Optional: fully automated battery-backup function for a complete household grid

EXPANDED SYSTEM functions

- Basic system functions
- Reduction in energy costs thanks to usage of time-based electricity tariffs
- Maximum energy use thanks to forecast-based charging
- Increased self-consumption thanks to intelligent load control