Reliable Supply

- Integrated secure power supply function
- Fully automated battery-backup function
- 10-year warranty

Flexible Design

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

Simple Handling

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

- Direct integration into Sunny Portal / Sunny Places via the Webconnect function

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 enables fast and easy commissioning, which is also possible via smartphone or laptop. Energy flows in the household are fully transparent thanks to the direct connection to Sunny Portal and Sunny Places.

SUNNY BOY STORAGE 3.7 /5.0 / 6.0

A RELIABLE SUPPLY AT ALL TIMES

THE FIRST MULTISTRING BATTERY INVERTER

Systems with the Sunny Boy Storage can be flexibly adapted to individual needs at all time. 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, 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

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

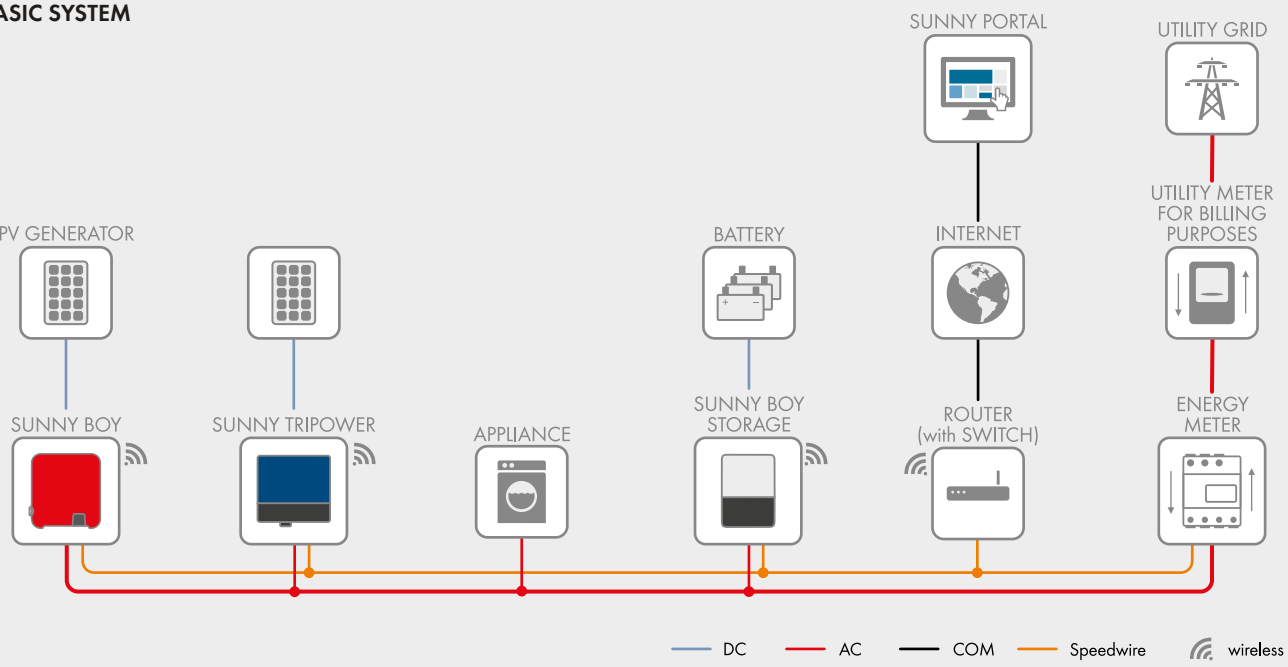
PV system operators always have a reliable supply during power outages. In the event of grid failure, the inverter can be manually switched to the emergency power supply with the integrated Secure Power Supply function. Secure Power Supply supplies a line conductor with nominal device power of up to 3.7 kW from the battery. 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

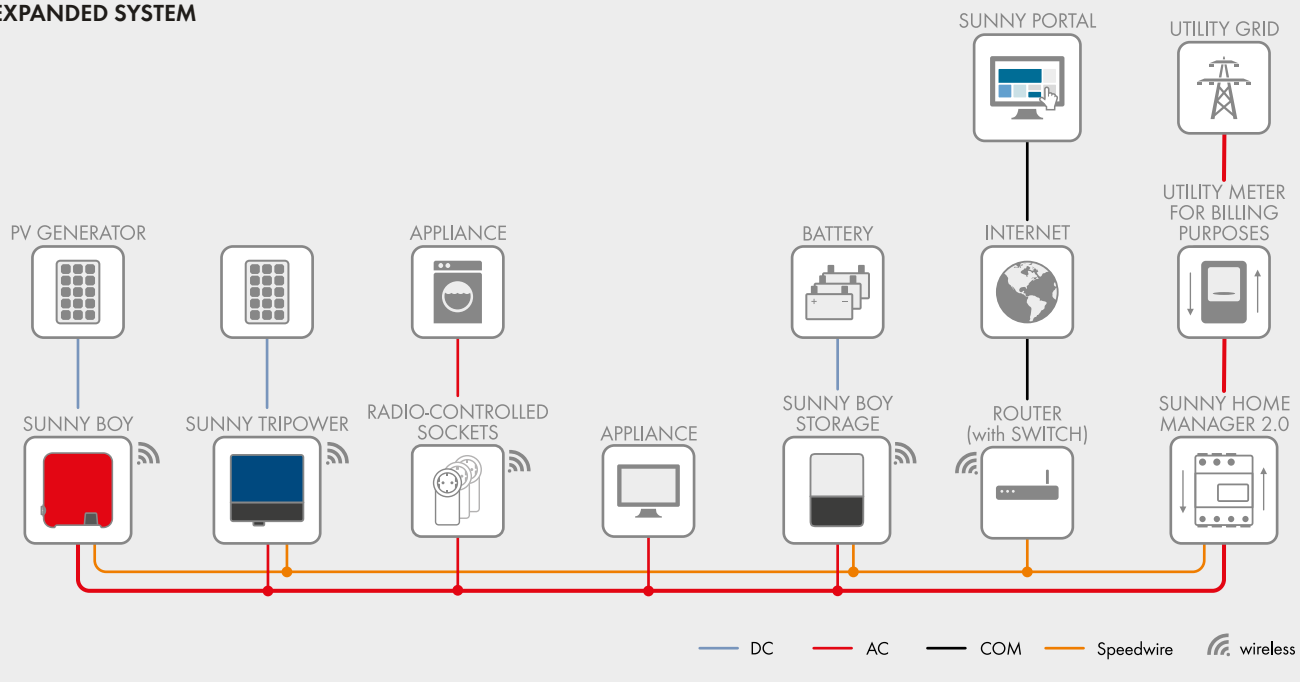
For the first time, the multistring battery inverter offers the option to connect up to three high-voltage batteries made by different manufacturers. The system can therefore be expanded in the future due to rising energy demand without any problems. To connect larger batteries, three separate battery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

Technical data (preliminary)	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 capacity (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		
Adjustable displacement power factor	0.8 overexcited to 0.8 underexcited		
Feed-in phases / connection phases	1/1		
Battery DC input			
Max. DC voltage	600 V	600 V	600 V
DC voltage range / DC rated voltage	100 V to 550 V / 360 V	100 V to 550 V / 360 V	100 V to 550 V / 360 V
Min. DC voltage / start DC voltage	100 V / 100 V	100 V / 100 V	100 V / 100 V
Max. DC current per DC input / number of DC inputs	10 A / 3 x 10 A	10 A / 3 x 10 A	10 A / 3 x 10 A
Max. short-circuit current	40 A	40 A	40 A
Battery types	Li-ion[4)]	Li-ion[4)]	Li-ion[4)]
Efficiency			
Max. efficiency	97.5%	97.5%	97.5%
Protective devices			
DC reverse polarity protection / AC short-circuit current capability	● / ●	● / ●	● / ●
Ground fault monitoring / grid monitoring	● / ●	● / ●	● / ●
All-pole-sensitive residual-current monitoring unit	●	●	●
Protection class / surge category	I/IV	I/IV	I/IV
General data			
Dimensions (W / H / D)	535 mm / 730 mm / 198 mm (21.1 inches / 28.5 inches / 7.8 inches)		
Dimensions incl. packaging (W / H / D)	600 mm / 800 mm / 300 mm (23.6 inches / 31.5 inches / 11.8 inches)		
Weight / weight incl. packaging	26 kg (57 lbs) / 30 kg (66 lbs)		
Operating temperature range in battery operation	-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 with no load	< 5 W / < 10 W (without supply for batteries or grid switching unit)		
Topology	Transformerless		
Cooling method	Convection		
Ingress protection	IP65		
Climatic category	4K4H		
Max. permissible value for relative humidity	100%		
Features / function			
Secure Power Supply emergency electricity supply function	● (max. 16 A, activated by manual switch)		
Interfaces	Ethernet / WLAN / 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		
Remote monitoring	Sunny Portal via Webconnect		
Warranty	5 years / 10 years with registration in Sunny Portal / Sunny Places		
Certificates, approvals and manufacturer declarations	www.SMA-Solar.com		
Accessories			
Automatic transfer switch for battery backup system	Available from external suppliers		
Sunny Home Manager / Home Manager 2.0	Compatible		
SMA Energy Meter	Compatible		
● Standard features ○ Optional – Not available All information is preliminary–last update: December 2017 1) VDE: AR-N 4105; PAC, r 4600 W; Smax 4600 VA 2) only in battery-backup operation with an automatic transfer switch; overload capacity depends on the battery used 3) AS4777: Iac max.: 21.7 A 4)Battery types approved by SMA, e.g., LG Chem, BYD, etc. (see www.SMA-Solar.com)			
Type designation	SBS3.7-10	SBS5.0-10	SBS6.0-10

BASIC SYSTEM



EXPANDED SYSTEM



BASIC SYSTEM functions

- Energy management at grid-connection point
- Maximum system yield thanks to dynamic limit of feed-in to the utility grid between 0% and 100%
- Maximum transparency thanks to visualization in Sunny Portal / Sunny Places
- External Modbus interface
- 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