

SUNNY BOY STORAGE

The Sunny Boy Storage is the interface to work with high-voltage batteries from important reputable manufacturers. With a charge and discharge power between 2.5 to 6.0 kW, it is ideally suited to handle electricity demand of a private household.



SMA Sunny Boy Storage



Sunny Boy Storage



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More sun for the home Storing solar energy simply and cost-effectively

The **Sunny Boy Storage** is the right solution for people who want to make their **home independent from conventional electric utility companies** and rising electricity costs by using intermediate storage for their solar energy. This gives you maximum flexibility both now and in the future.

A smart combination Flexible and cost-effective system design around the clock

With the Sunny Boy Storage, customers benefit from markedly reduced system and installation costs and flexible applications. Thanks to AC coupling, the battery inverter can be installed or expanded in any location, at any time, regardless of whether or not there is already a PV system installed. The Sunny Boy Storage is a true jack-of-all-trades, one that uses high-voltage technology to make it cost-efficient and light weight. It also uses just a few components, because the most important functions for intelligent battery management are already integrated. This makes the Sunny Boy Storage the ideal choice for putting more sun in your electricity supply.

Flexible

- For new and existing systems: reduced installation costs, can be retrofitted and expanded at any time, as needed
- For almost all PV system types: string inverters, module inverters and power optimizers
- Can be combined with numerous types of energy: PV, wind energy, combined heat and power plants
- Choice of lithium-ion battery (currently Tesla Powerwall, additional batteries to follow shortly)

Efficient

- Most cost-effective AC-connected battery inverter on the market
- 97% efficiency allows for optimal use of cached energy
- Maximum PV yields while meeting all applicable regulations for feed-in limits (e.g., EEG, KfW 275, Zero Export)

Easy to use

- Quick and straightforward one-person installation.
- Simple installation using a smartphone or tablet via WLAN and an intuitive web interface
- Everything at your fingertips thanks to its direct connection to Sunny Portal / Sunny Places

Keep up with everything The right solution, now and in the future

Systems with the Sunny Boy Storage can be flexibly adapted to individual needs at any 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 battery inverter is also versatile when it comes to the method of generating energy. From the photovoltaic system and the wind turbine system to the combined heat and power plant, anything is possible. For a secure electricity supply at any time.

Suitable for any initial situation

New installation: PV system with battery storage

Would you like to be independent from conventional power generators and rising energy costs? The Sunny Boy Storage is a great, cost-effective solution. You can install a storage system with the lowest-possible costs and just a few components. You can start storing the energy from the sun—quickly and simply.

Modernize: PV system with battery storage

Are you still feeding valuable energy into the grid with your PV system, even after the feed-in-tariff has expired? Then simply use a storage system to be able to use the energy you produce yourself. You'll benefit from reduced energy purchases and enjoy greater independence from your electric utility company. You only need three additional components:

With the Sunny Boy Storage, the battery and the Energy Meter, you can turn your existing PV system into a full-fledged storage system.*

Expand: Align an existing PV storage system with increasing demand

Would you like to expand your existing system to handle additional loads with solar energy? Not a problem for systems with the Sunny Boy Storage. You can expand your PV system retroactively at any time to meet your energy needs, independent from the storage system.*

* For PV inverters without Speedwire / Webconnect, it makes sense to integrate the Sunny Home Manager into the system.

SPECIFICATIONS SBS2.5

Sunny Boy Storage 2.5	
Conexión CA	
Potencia nominal	2500 W
Potencia máx. aparente	2500 VA
Tensión nominal	220 / 230 / 240 V (180 a 280 Vac)
Frecuencia	50 / 60 Hz (- 5 a + 5 Hz)
Tensión de red	230 V
Frecuencia de Red	50 Hz.
Corriente CA máx.	11 A
Factor de potencia a potencia nominal	1
Factor a desfase ajustable	de 0,8 inductivo hasta 0,8 capacitativo
Fases de inyección / conexión	1 / 1
Conexión CC Batería	
Potencia máxima (con $\cos \phi = 1$)	2650 W
Tensión máxima	500 V
Rango tensión	100 a 500 V
Tensión nominal	360 V
Tensión mínima / arranque	100 V
Intensidad máxima	10 A
Corriente de cortocircuito máx.	18 A
Tipo de batería	iones de Litio *
Rendimiento	
Rendimiento máximo	~97,0%
Rendimiento europeo	~96,5%
Consumo sin carga / en reposo	≤10 W / ≤2 W
Dispositivos de protección	
Punto de desconexión en la entrada	No

Monitorización de toma a tierra	Si
Monitorización de toma de red	Si
Protección contra inversión de polaridad	No
Resistencia al cortocircuito de CA	Si
Resistencia al cortocircuito de CA con separación galvánica	No
Unidad de seguimiento de la corriente residual sensible a la corriente universal	Si
Clase de protección según IEC 62103	I
Categoría de sobretensión según IEC 60664-1	III

Datos Generales

Dimensiones (an x al x prof)	450 x 357 x 122 mm
Peso	9,2 Kg
Rango de temperatura	- 40°C a 60°C
Emisión sonora	< 25 dB
Topología	Sin transformador
Sistema de refrigeración	Convección
Grado de protección según IEC 60529	IP65
Clase climática según IEC 60721-3-4	4K4H
Humedad máxima (sin condensación)	1

Equipamiento / Función / Accesorios

Conexión CC / CA	Conector / Conector
Servidor Web Integrado	Si
Interfaces	Ehternet/ WLAN
Protocolos de comunicación	ModBus (SMA, Sunspec), Webconnect
Comunicación con la batería	CAN Bus
Limitación de la potencia activa dinámica integrada	Si
Garantía	10 Años
Sunny Home Manager	Opcional
SMA Energy Meter	Opcional

SBS3.7 - SBS6.0 SPECIFICATIONS

	Sunny Boy Storage 3.7	Sunny Boy Storage 5.0	Sunny Boy Storage 6.0
AC Connection			
Rated Power	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	16 A	21,7 A 3)	26 A
Nominal voltage	230 (172 to 264,50 V)		
Frequency	50 / 60 Hz (45 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	100 to 500 V	100 to 500 V	100 to 500 V
DC rated voltage	360 V	360 V	360 V
Start DC voltage	100 V	100 V	100 V
Max. DC Current/ Number of DC inputs	10 A / 3 x 10 A	10 A / 3 x 10 A	10 A / 3 x 10 A
Max. DC short-circuit current	40 A	40 A	50 A
Battery type	Li-ion 4)	Li-ion 4)	Li-ion 4)
Efficiency			
Max. Efficiency	97,5 %	97,5 %	97,5 %
Protective devices			
Ground fault monitoring	Yes	Yes	Yes
Grid monitoring	Yes	Yes	Yes
DC reverse polarity protection	Yes	Yes	Yes
AC short-circuit current capability	Yes	Yes	Yes
All-pole-sensitive residual-current monitoring unit	Yes	Yes	Yes
Protection class according to IEC 62103	I	I	I
Overvoltage category according to IEC 60664-1	IV	IV	IV
General data			
Dimensions (W x H x D)	535 x 730 x 198 mm		
Weight	26 Kg		
Temperature range	- 25°C to 60°C		
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		
Degree of protection according to IEC 60529	IP65		
Climatic category according to IEC 60721-3-4	4K4H		
Max. permissible value for relative humidity (non-condensing)	100 %		
Features / function / accessories			
Interfaces	Ethernet/ WLAN/ CAN/ RS485		
Battery communication	CAN Bus		
Display / Web User interface	Integrated webserver / via Smartphone, tablet or laptop		
Remote monitoring	Sunny Portal via Webconnect		
Warranty	5 / 10 Years with registration in Sunny Portal		
Accessories			
Sunny Home Manager / Home Manager	Optional		
SMA Energy Meter	Optional		

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

2) Solo en el funcionamiento de la corriente de repuesto con un equipo de conmutación; la capacidad de sobrecarga depende de la batería empleada

3) AS4777: Iac máx.: 21,7 A

4) Baterías aprobadas por SMA, como LG Chem, BYD, etc. (consulte www.SMA-Solar.com)

DOWNLOADS

CATÁLOGO GENERAL BORNAY 14-15

 [Catalogo-Bornay-1415.pdf](#) (10.41 MiB)
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