

Skype



## SUNNY ISLAND 3.0M / 4.4M

Perfect solution for small on-grid and off-grid solutions.



SMA Sunny Island



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The **SMA Sunny Island 3.0M/4.4M** is the perfect product solution for **stand-alone and grid-connected systems** with a power output range of 2 to 13 kW.

Furthermore, being a core element in the **SMA Flexible Storage System**, the Sunny Island stores generated solar power and works with the **Sunny Home Manager** to manage home energy consumption intelligently.

With its high protection class, wide temperature range and overload capacity, the Sunny Island provides the kind of reliability needed for off-grid use. The intelligent load and energy management ensures operation even in critical situations, such as in the event of high inrush currents or harsh ambient conditions.

conditions.

### Flexible

The **SMA Sunny Island** offers flexibility in terms of combination with other equipment, which means that the system can be configured precisely to meet the applicable power requirements.

- Choice of battery: The Sunny Island is compatible with many well-known brands of lithium-ion battery and all lead-acid batteries.
- For new and existing PV systems
- Can be retrofitted for single- and three-phase systems

### Intelligent

In the **SMA Smart Home**, the **Sunny Home Manager**, with the **SMA Sunny Island**, takes control of intelligent management between the PV system, appliances and storage systems as well as regulates all energy flows.

- Comprehensive visualization in the Sunny Portal
- Forecast-based charging
- Simple planning by using planning guidelines and Sunny Design

### Robust

The **SMA Sunny Island** is impervious to fine desert sand, high humidity in rainforests and salty mist in coastal regions as well as significant temperature fluctuations. It runs reliably under the most extreme conditions—without compromising its efficiency.

- Outdoor installation possible thanks to IP 54
- Wide temperature range
- Can switch any appliance on

## SPECIFICATIONS

	Sunny Island 3.0M	Sunny Island 4.4M
<b>AC Input (Utility grid or generator)</b>		
Voltage	230 Vac (172,5 to 264,5 Vac)	
Frequency	50 Hz (40 to 70 Hz)	
Maximum current	50 A	
Maximum power	11500 W	
<b>AC Input (Stand-alone or emergency power operation)</b>		
Voltage	230 Vac (202 to 253 Vac)	
Frequency	50 Hz (45 to 65 Hz)	
Rated current / Short-circuit current	10 A / 60 A	14,5 A / 60 A
Rated power (Unom/fnom/25 °C/cos φ=1)	2300 W	3300 W
Power at 25°C (30	3000 /	4400 /

Power at 23 °C (50 min / 5 min / 3 s)	3500 / 5500 W	4400 / 5500 W
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THD output voltage / power factor with rated power	< 4,5% / -1 1
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### DC Input

Voltage	48 V (41 to 63 V)	48 V (41 to 63 V)
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Maximum battery charge / rated / discharge current	51 / 45 / 51 A	73 / 63 / 75 A
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Battery type	Li-Ion*, FLA, VRLA
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Battery capacity	100 Ah to 10000 Ah (Lead) 50 Ah to 10000 Ah (Li-ion)
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Charge Control	IJoU charge procedure with automatic full charge and equalization charge
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### Efficiency / Self-consumption

Maximum efficiency	95,5 %
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Self-consumption without charge / standby	18 W / 6,8 W
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### Protective devices

AC Shortcircuit	Yes	Yes
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AC Overload	Yes	Yes
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DC reverse polarity	No	No
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DC fuse	No	No
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Overtemperature	Yes	Yes
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Battery deep cycle	Yes	Yes
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Overvoltage category as per IEC 60664-1	III	III
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### General Data

Dimensions (w x h x d)	467 x 612 x 242 mm
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Weight	44 Kg
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Operating temperature range	-25° C to 60° C
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Protection class according to IEC 62103	I
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Climatic category according to IEC 60721	3K6
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Degree of protection according to IEC 60529	IP54
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### Features / function

Operation and display / multifunction relay	External via SRC-20 / 2
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Three-phase system	Yes	Yes
Battery back up function	Yes	Yes
State of charge claculation / full charge / equalization charge	Yes	Yes
Integrated soft start	Yes	Yes
Generator support	Yes	Yes
Battery temperature sensor	Yes	Yes
Data cables	Yes	Yes
Warranty	5 years	

### Accesories for off-grid applications

Battery fuse **	Optional
Interface SI-COMSMA (RS485)	Optional
Interface SWDMSI-NR (Speedwire)	Optional
Sunny Island Charger SIC50-MPT**	Optional
Cluster controller	Optional

### Accesories for on-grid applications

Battery fuse **	Optional
Interface SWDMSI-NR (Speedwire)	Optional
Sunny Home Manager	Optional
SMA Energy Meter	Optional
Automatic transfer swith for battery backup **	Optional

\* See list of approved Lithium-Ion batteries.

\*\* Procurement via external supplier.

## ACCESSORIES

### Sunny Remote Control



The SRC 20 external control unit enables quick and easy commissioning of Sunny Island 6.0H / 8.0H and 3.0M / 4.4M. A rotating

push button and illuminated alert button make operation intuitive; the four-line display shows the status of the plant. Data is archived on an SD card.

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### Speedwire data module / Modbus TCP

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For smooth communication: Speedwire can be used to access PV systems via Sunny Explorer. Device configuration and parameter checks are easy and convenient. In addition, with Modbus all parameters can be viewed remotely or set automatically. And setpoints can be entered for direct control of Sunny Island output.

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### Load-shedding protection

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Load-shedding protection for use in AC-coupled off-grid systems: disconnecting loads during power overloads allows the batteries to recharge – e.g. from the PV plant. To ensure that the protection doesn't drop out due to a short circuit, only DC contactors that are supplied by the battery are used.

For all available Sunny Island we offer a 3-pole load-shedding contactor with 100 A nominal current with 48 V DC coil

Compatible versions are available for all Sunny Island

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### RS485 Piggy-Back. Plant monitoring and communication

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The RS485 wiring for plant monitoring and communication allows functional lengths of up to 1200 meters. The Sunny WebBox collects all the data and informs you about the status of the PV plant. With Piggy-Back the data transmission is reliable even in interference-prone areas. Subsequent expansions are possible without problem thanks to the modular design principle.

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### Sunny Island Charger Piggy-Back

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SIC-Piggy-Back for a smooth communication between Sunny Island Charger and Sunny Island via the sync bus of the Sunny Islands.

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### Adapter cable

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Adapter cable for using the RS485-communication between Sunny Island and Sunny WebBox.

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### Battery fuse boxes (BatFuse B.01 and B.03)

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External DC distributor for all-pole battery fuse protection. Both types are suitable for currents from 63 to 250 A and feature an NH fuse-switch disconnecter for simple activation of the Sunny Island. BatFuse B.01 provides one connection for Sunny Island and

three DC connections on the battery side. BatFuse B.03 features three connections for Sunny Island and six DC connections on the battery side. Both types also have an 8A auxiliary supply output from the battery.

Compatible with all Sunny Island models.

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### Battery cable sets

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Cables for the DC connection between the battery, BatFuse and Sunny Island - or the direct connection between the battery and inverter. The double insulation enables ground-fault-proof and short-circuit-proof installation. Approved for cable temperatures up to 90°C.

- 70 mm<sup>2</sup> for Sunny Island 6.0H / 8.0H und 3.0M / 4.4M in 3 and 6 meters long

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### SHUNT

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Measuring shunts for battery current detection. Suitable for use with generators or loads that cannot be measured by the Sunny Island. Battery shunts are available for maximum DC currents of 200 and 600 A.

Compatible with Sunny Island 6.0H / 8.0H and 3.0M / 4.4M.

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### Replacement battery temperature sensor

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Replacement battery temperature sensor

temperature sensor  
type KTY with 10 m  
connection cable for  
Sunny Island.

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## DOWNLOADS

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SMA Sunny Island  
SI30M-44M  
Specifications  
(472.25 KiB)



SMA Sunny Island  
6.0H-8.0H  
Specifications  
(538.31 KiB)



SMA Multiclustert 12  
for Sunny Island  
(287.46 KiB)



Sunny Boy 1.5 - 2.5  
(460.64 KiB)



Sunny Boy Storage  
SB25 (452.79 KiB)



Sunny Boy Smart  
Energy (353.33 KiB)