

If you have technical problems, first contact your installer. The following information is required in order to provide you with the necessary assistance:

- Inverter device type
- Inverter serial number
- Type and number of PV modules connected
- Event number or display message of the inverter
- Optional equipment (e.g. communication devices)

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#### Installer contact



#### PV Inverter

### SUNNY BOY 2000HF/2500HF/3000HF

#### User Manual



SB20\_25\_30HF-BEN110320 | IMEN-SB20\_25\_30HF | Version 2.0

EN

## EXPLANATION OF SYMBOLS

### Symbols on the Inverter



Operation Display.



An error has occurred. Please inform your installer **immediately**.



Bluetooth®. Bluetooth communication active.\*

### Symbols on the Type Label



Beware of dangerous electrical voltage.  
The inverter operates at high voltages. All electrical work on the inverter must be carried out by qualified personnel only.



Beware of hot surface.  
The inverter can become hot during operation. Avoid contact during operation.



Observe enclosed documentation.



The inverter must not be disposed of together with the household waste.  
Further disposal information can be found in the enclosed installation guide.



CE mark. The inverter complies with the requirements of the applicable EC guidelines.



RAL quality mark for solar products. The inverter complies with the requirements of the German Institute for Quality Assurance and Labeling.



Device class label. The inverter is equipped with a wireless component that complies with the harmonized standards.



Certified safety. The inverter complies with the requirements of the Equipment and Product Safety Act in Europe.



Australian mark of conformity



Korean mark of conformity



Direct Current (DC)



Alternating Current (AC)



The inverter is protected against penetration by dust particles and water jets from any angle.



The inverter has a transformer.

\* The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of these marks by SMA Solar Technology AG is under license.

## VISUAL INSPECTION, MAINTENANCE AND CLEANING

### Visual inspection

Check the inverter and the cables for visible external damage. Contact your installer if you find any defects. Do not perform any repair work yourself.

### Maintenance and Cleaning

Ask your installer to check for correct inverter operation at regular intervals.

## GLOSSARY

### AC

Abbreviation for "alternating current".

### Bluetooth

Bluetooth is a radio technology that allows the inverter and other communication devices to communicate with each other. Bluetooth communication does not require visual contact between the devices.

### DC

Abbreviation for "direct current".

### Electronic Solar Switch (ESS)

The Electronic Solar Switch is part of the inverter's DC disconnection unit. The Electronic Solar Switch must be securely inserted into the bottom of the inverter and must only be removed by qualified personnel.

### Energy

Energy is measured in Wh (watt hours), kWh (kilowatt hours) or MWh (megawatt hours). The energy is the power calculated over time. If, for example, your inverter operates at a constant output of 3,000 W for half an hour and then at a constant output of 2,000 W for another half hour, it has fed 2,500 Wh of energy into the grid within that hour.

### Power

Power is measured in W (watts), kW (kilowatts) or MW (megawatts). Power is a momentary value. It displays the power your Sunny Boy is currently feeding into the grid.

### PV

Abbreviation for photovoltaics.

## SAFETY PRECAUTIONS



### DANGER!

**Electric shock caused by high voltage at the inverter.**

#### Do not open the inverter!

The following work must be carried out by qualified personnel only:

- Electrical installation
- Repairs
- Modification



### CAUTION!

**Risk of burns through contact with the enclosure during operation.**

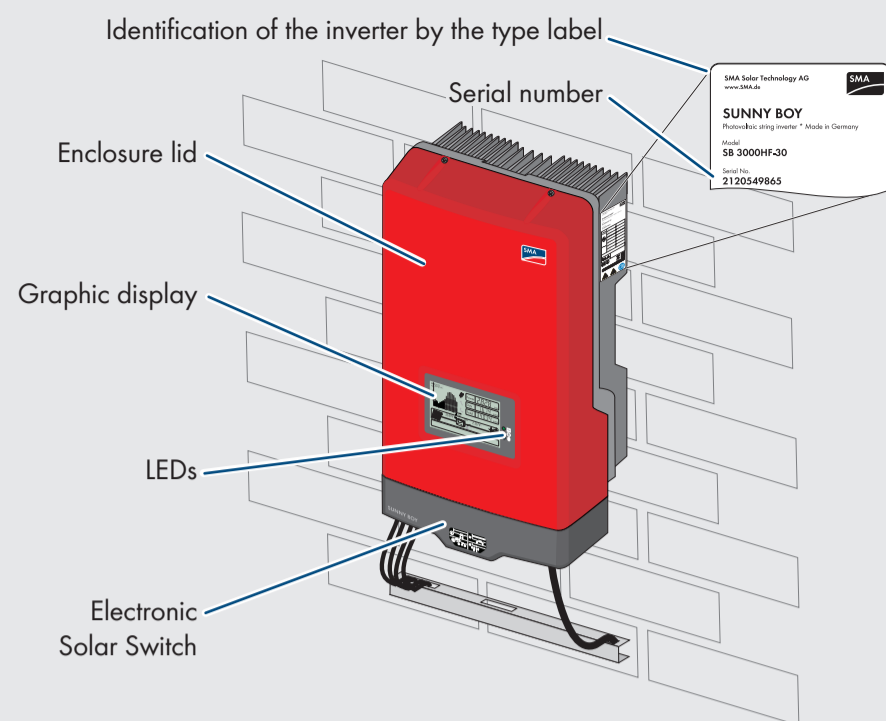
- Only touch the lid and display during operation.



### Yield loss due to poor heat dissipation!

- Do not place any objects on the enclosure.

## PRODUCT OVERVIEW



## GRAPHIC DISPLAY

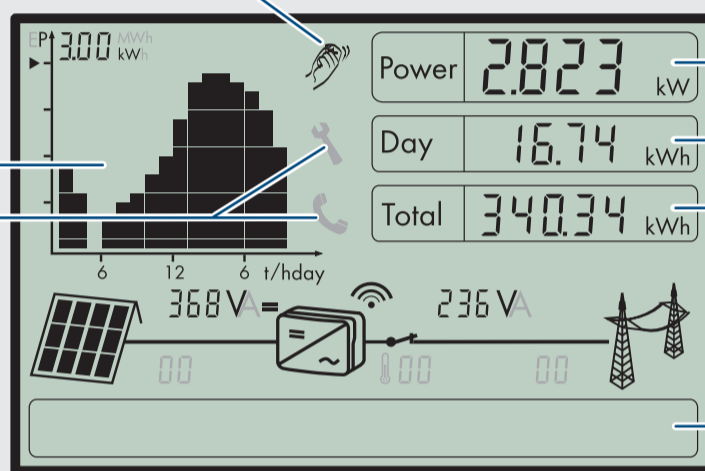
The display updates the values of your PV system every 5 seconds.

Tapping on the enclosure lid:

- Activates the background illumination
- Switches from the energy values of the past 16 feed-in hours to the daily energy values of the past 16 days
- Switches to the next text line

Graphical display of the inverter energy/ power

Disturbance:  
Contact installer



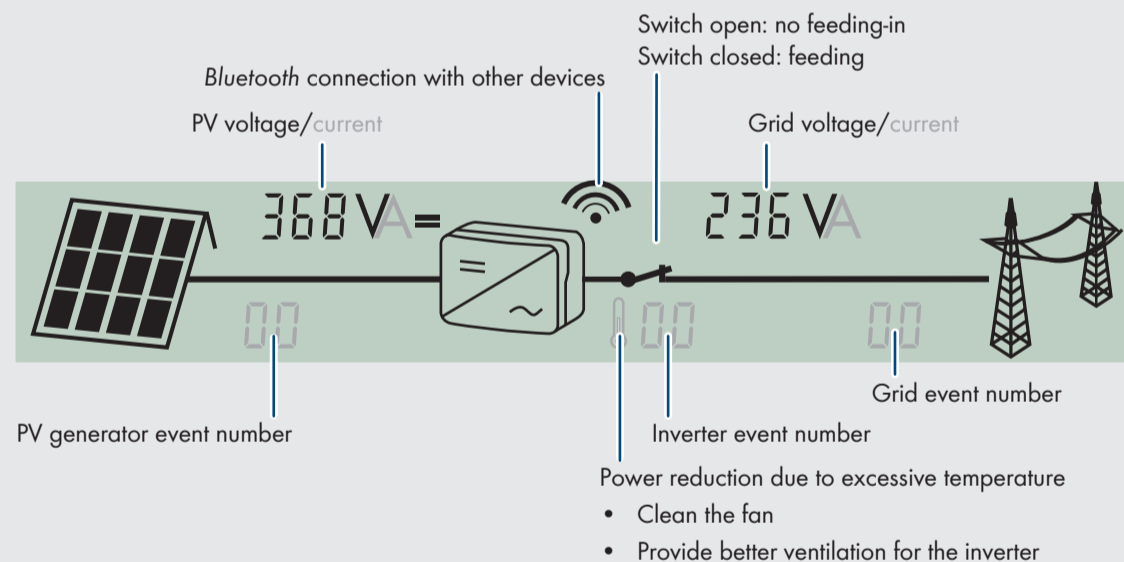
Current output

Daily energy

Total energy generated since the inverter was installed

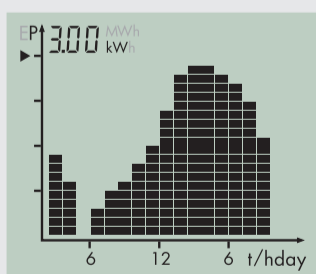
Text line for displaying an event

## SYSTEM OVERVIEW



- Power reduction due to excessive temperature
- Clean the fan
  - Provide better ventilation for the inverter

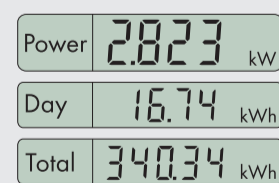
## DIAGRAM



The inverter energy is shown as a diagram on the display. The daily graph is displayed by default. The right-hand flashing bar of the diagram represents the current hour. If the inverter does not feed any power to the grid over a longer period of time (e.g. in darkness or if the PV modules are covered with snow), a gap is inserted into the chart. The bar for the current hour is updated automatically every five seconds. After four seconds, the bar goes off for one second and then displays the current value.

## POWER DISPLAY

The power and energy of the inverter are displayed in three fields: Power, Day and Total. The display is updated every five seconds.



### Power

The power that the inverter is currently feeding into the grid.

### Day

The energy fed into the grid on this particular day. This equals the energy generated between the inverter's start-up in the morning to the current time.

### Total

The total energy which the inverter has fed into the grid during its entire operating time.

## MEASUREMENT ACCURACY

The display values may deviate from the actual values and must not be used as a basis for invoicing. The inverter's measured values are required for the system management and to control the current to be fed to the grid. The inverter does not have a calibrated meter.

## LED

- Green LED is on: Operation
- Green LED is flashing: Waiting for sufficient irradiation.
- Red LED is on: Disturbance: contact installer.
- Blue LED is on: The inverter has been incorporated into a Bluetooth network and can communicate with other devices with identical NetID.
- Blue LED is flashing: The inverter was identified via Sunny Explorer by setting the "Find device" parameter.