If you have technical problems, 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 on the inverter
- Optional equipment (e.g. communication products)

SMA Solar Technology AG

Sonnenallee 1 34266 Niestetal, Germany www.SMA.de

SMA Service Line

Inverters: +49 561 9522 1499
Communication: +49 561 9522 2499
Fax: +49 561 9522-4699
E-mail: Serviceline@SMA.de

Installer contact

PV Inverters

SUNNY BOY 3000TL/4000TL/5000TL

User manual



SB30_50TL_21-BA-BEN113410 | IMEN-SBXTL-21 | Version 1.0



EXPLANATION OF SYMBOLS

Symbole am Wechselrichter



Operation display



Bluetooth®. Bluetooth communication active.*



An error has occurred. Inform your installer immediately.



There are special requirements for the grounding.

Symbole auf dem Typenschild



Beware of dangerous electrical voltage.

The inverter operates at high voltages. Any work on the inverter must be carried out by electrically qualified persons 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 manual.



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



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 Europe



Equipment and Product Safety Act.



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



In compliance with Australian mark



Direct current (DC)
Alternating current (AC)



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



The inverter is transformerless.

* 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 cables for any signs of external damage. Contact your installer if you find any damage. Do not perform any repair work yourself.

Maintenance and Cleaning

Ask your installer to check for correct inverter operation at regular intervals. If the display field or the LEDs are dirty and you find it difficult to read the operating data and operating states of the inverter, clean the display and the LEDs with a damp cloth. Do not use any corrosive substances (e.g. solvents, abrasives) for cleaning.

GLOSSARY

AC

Abbreviation for "alternating current"

Bluetootl

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 DC disconnection unit. Electronic Solar Switch must be securely inserted into the bottom of the inverter and must only be removed by electrically qualified persons.

PV

Abbreviation for photovoltaics.

SAFETY INSTRUCTIONS

4

DANGER!

Electric shock caused by high voltage in the inverter.

Even when no external voltage is present, there can still be high voltages in the inverter.

- Electrical installation, repair and retrofitting may only be carried out by a trained electrically qualified person:
- Persons with limited physical or physical abilities may only perform activities on the inverter after tuition and under supervision.
- Children may not play with the inverter. Children may not have access to an inverter in operation.



CAUTION!

Risk of injury from touching the enclosure during operation. Burns to the body.

• Only touch the lower lid of the enclosure during operation.



NOTICE!

Yield loss due to poor heat dissipation!

· Do not place any objects on the enclosure.

GRAPHIC DISPLAY

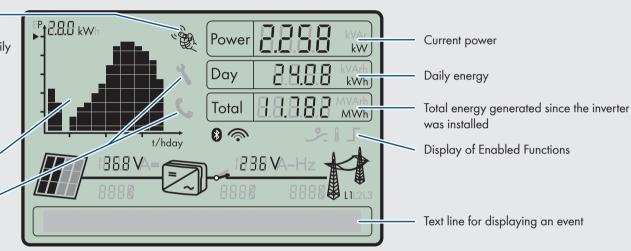
The display updates the values of your PV plant every 5 seconds.

Tapping on the lower lid:

- Activates the background illumination
- Switching through the energy values of the past 16 feeding operations to the daily energy values of the past 16 days
- · Switches to the next text line
- 2 taps in quick succession: the inverter successively shows the firmware version, the serial number of the description of the inverter, the *Bluetooth* NetID, and the specified country standard and display language.

Graphical display of the inverter energy

Disturbance: contact installer



PRODUCT OVERVIEW

Upper enclosure lid

Lower enclosure lid

Graphic display

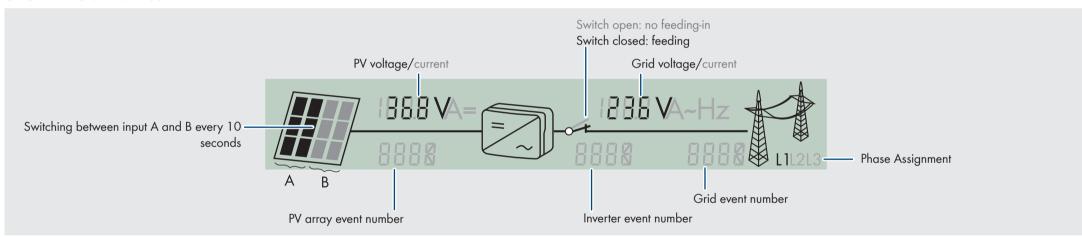
Electronic Solar Switch

Identification of the Sunny Boy by the type label

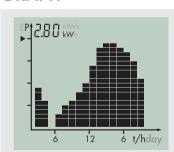
serial number

SUNNY BOY

SYSTEM OVERVIEW



GRAPH



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 column 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.

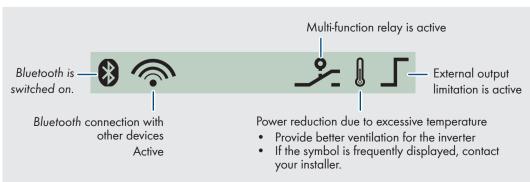
Day

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 that the inverter has fed into the grid during its entire operating time.

DISPLAY OF ENABLED FUNCTIONS



LED

Green LED is on: Operation

Green LED is Waiting for sufficient irradiation.

Hashing:

Red LED is on: Failure: 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"

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.