

## SB 4000TL / SB 5000TL

**Leading-Edge Technology**

- > Maximum efficiency of 97 % and wide input voltage range
- > ESS
- > Transformerless with H5 topology
- > OptiCool
- > OptiTrac MPP control
- > Multi-String

**Easy installation**

- > Easily accessible connection compartment
- > Cabling without tools
- > Ergonomic design

**For global use**

- > Easy country configuration
- > Multi-language display
- > Comprehensive SMA warranty program

**Communication**

- > Bluetooth Technology
- > Graphic display



# SUNNY BOY 4000TL / 5000TL

Perfection Plus. Usability.

The Sunny Boy 4000TL and 5000TL offer more communication options, are easier to use and more efficient than ever – setting new standards in inverter technology. A modern graphic display, indication of the daily values even after sunset, simplified installation concept and wireless communication via Bluetooth: The new Sunny Boys fulfill every wish. The Sunny Boy 4000TL and 5000TL have a peak efficiency of 97 % with a wide input voltage range. They are Multi-String devices that give you an optimal yield, maximum flexibility for the plant design and an outstanding module compatibility – this makes them the first choice for nearly any PV-plant.

# Technical Data

## SUNNY BOY 4000TL / 5000TL



|   | SB 4000TL-20   | SB 5000TL-20                  |
|---|--|-------------------------------|
| <b>Input (DC)</b>   |  |                               |
| Max. DC power   | 4200 W   | 5300 W                        |
| Max. DC voltage   | 550 V  | 550 V                         |
| PV voltage range, MPPT  | 125 V - 440 V  | 125 V - 440 V                 |
| Recommended range at nominal power  | 175 V - 440 V  | 175 V - 440 V                 |
| Max. input current  | 2 x 15 A   | 2 x 15 A                      |
| Number of MPP trackers  | 2  | 2                             |
| Max. number of strings (parallel)   | 2 x 2  | 2 x 2                         |
| <b>Output (AC)</b>  |  |                               |
| Nominal AC output   | 4000 W   | 4600 W                        |
| Max. AC power   | 4000 W   | 5000 W                        |
| Max. output current   | 22 A   | 22 A                          |
| Nominal AC voltage / range  | 220 V - 240 V / 180 V - 280 V                                | 220 V - 240 V / 180 V - 280 V |
| AC grid frequency / range   | 50 Hz, 60 Hz / $\pm 5$ Hz                                    | 50 Hz, 60 Hz / $\pm 5$ Hz     |
| Power factor (cos $\varphi$ )   | 1  | 1                             |
| AC Connection   | single-phase   | single-phase                  |
| <b>Efficiency</b>   |  |                               |
| Max. efficiency   | 97.0 %   | 97.0 %                        |
| Euro ETA  | 96.4 %   | 96.5 %                        |
| <b>Protective equipment</b>   |  |                               |
| DC reverse polarity protection  | ●  | ●                             |
| DC load disconnecting switch ESS  | ●  | ●                             |
| AC short circuit protection   | ●  | ●                             |
| Ground fault monitoring   | ●  | ●                             |
| Grid monitoring (SMA grid guard)  | ●  | ●                             |
| Integrated all pole sensitive residual current monitoring unit                    | ●  | ●                             |
| <b>General Data</b>   |  |                               |
| Dimensions (W / H / D) in mm  | 470 x 445 x 180  | 470 x 445 x 180               |
| Weight  | 25 kg  | 25 kg                         |
| Operating temperature range   | -25 °C ... +60 °C  | -25 °C ... +60 °C             |
| Noise emission (typical)  | $\leq 29$ dB(A)  | $\leq 29$ dB(A)               |
| Consumption: operating (standby) / night  | < 10 W / < 0.5 W   | < 10 W / < 0.5 W              |
| Topology  | transformerless  | transformerless               |
| Cooling concept   | OptiCool   | OptiCool                      |
| Installation: Indoor / Outdoor (electronics IP 65 / connection compartment IP 54) | ●/●  | ●/●                           |
| <b>Features</b>   |  |                               |
| DC connection: MC3 / MC4 / Tyco   | ○/●/○  | ○/●/○                         |
| AC-connection: Terminals  | ●  | ●                             |
| Graphic display   | ●  | ●                             |
| Interfaces: Bluetooth / RS485   | ●/○  | ●/○                           |
| Warranty: 5 years / 10 years  | ●/○  | ●/○                           |
| Certificates and approvals  | www.SMA.de   | www.SMA.de                    |
| ● Standard    ○ Optional  | Values apply for nominal conditions - Version: February 2009 |                               |

### Efficiency curve

