

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 |
|---|--|-------------------------------|
| Input (DC) | | |
| 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 |
| Output (AC) | | |
| 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 / ± 5 Hz | 50 Hz, 60 Hz / ± 5 Hz |
| Power factor (cos φ) | 1 | 1 |
| AC Connection | single-phase | single-phase |
| Efficiency | | |
| Max. efficiency | 97.0 % | 97.0 % |
| Euro ETA | 96.4 % | 96.5 % |
| Protective equipment | | |
| 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 | ● | ● |
| General Data | | |
| 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) | ≤ 29 dB(A) | ≤ 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) | ●/● | ●/● |
| Features | | |
| 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

