

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 MPPT 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 η_{TA}	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

