

SUNNY BOY 6000TL-US / 7000TL-US / 8000TL-US / 9000TL-US / 10000TL-US / 11000TL-US



SB 6000TLUS-12 / SB 7000TLUS-12 / SB 8000TLUS-12 /
SB 9000TLUS-12 / SB 10000TLUS-12 / SB 11000TLUS-12



NOW AVAILABLE FOR 240 V



Innovative

- First transformerless SMA inverter to be certified in accordance with UL 1741
- First inverter with arc-fault circuit interrupter listed according to UL 1699B

Economical

- Maximum efficiency of 98.7%
- Class-leading CEC efficiency of 98.5%
- Superior MPP tracking with OptiTrac™
- Transformerless, with H5 topology

Reliable

- OptiCool™ active temperature management

Convenient

- Integrated DC disconnect
- SMA Power Balancer for three-phase grid connection

SUNNY BOY 6000TL-US / 7000TL-US / 8000TL-US / 9000TL-US / 10000TL-US / 11000TL-US

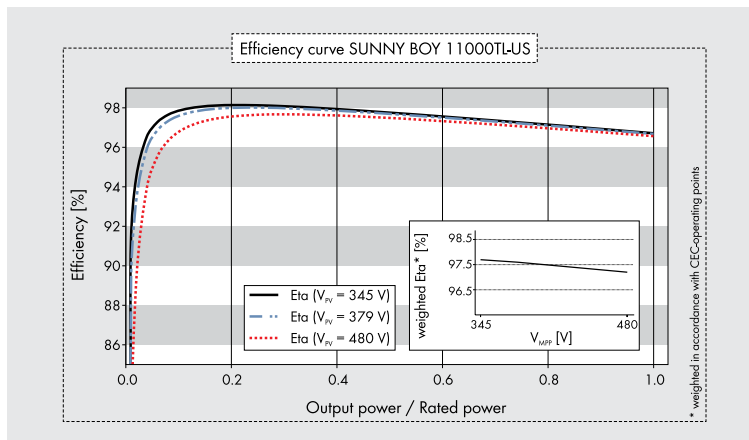
Transformerless design, maximum energy production

The Sunny Boy TL-US series is UL listed for North America and features SMA's innovative H5 topology, resulting in superior efficiencies of more than 98 percent and unmatched solar power production. The transformerless design reduces weight, increases the speed of payback and provides optimum value for any residential or decentralized commercial PV system. The Sunny Boy TL-US series for North America is the ideal choice in transformerless technology.

| Sunny Boy 8000TL-US 208 V | Sunny Boy 8000TL-US 240 V | Sunny Boy 9000TL-US 208 V | Sunny Boy 9000TL-US 240 V |
|--|------------------------------|---|------------------------------|
| 10000 W | 10000 W | 11250 W | 11250 W |
| 8400 W | 8300 W | 9400 W | 9300 W |
| 600 V | 600 V | 600 V | 600 V |
| 300 V - 480 V / 345 V | 345 V - 480 V / 379 V | 300 V - 480 V / 345 V | 345 V - 480 V / 379 V |
| 300 V / 360 V | 345 V / 360 V | 300 V / 360 V | 345 V / 360 V |
| 27.9 A | 24.1 A | 31.4 A | 27.1 A |
| 27.9 A | 24.1 A | 31.4 A | 27.1 A |
| 1 | 1 | 1 | 1 |
| 6 | 6 | 6 | 6 |
| 8000 W / 8000 VA | | 9000 W / 9000 VA | |
| 208 V / 183 V - 229 V | 240 V / 211 V - 264 V | 208 V / 183 V - 229 V | 240 V / 211 V - 264 V |
| 60 Hz / 59.3 Hz ... 60.5 Hz | 60 Hz / 59.3 Hz ... 60.5 Hz | 60 Hz / 59.3 Hz ... 60.5 Hz | 60 Hz / 59.3 Hz ... 60.5 Hz |
| 38.5 A | 33.4 A | 43.3 A | 41.7 A |
| 1 | | 1 | |
| 1 / 2 | | 1 / 2 | |
| 98 % / 98.6 % | 98 % / 98.6 % | 98 % / 98.6 % | 98 % / 98.7 % |
| ● | | ● | |
| ● | | ● | |
| - | | - | |
| ● | | ● | |
| ● | | ● | |
| I | | I | |
| III | | III | |
| 470 / 615 / 240 mm (18.4 / 24.1 / 9.5 inch) | | 470 / 615 / 240 mm (18.4 / 24.1 / 9.5 inch) | |
| 187 / 297 / 190 mm (7.28 / 11.7 / 7.5 inch) | | 187 / 297 / 190 mm (7.28 / 11.7 / 7.5 inch) | |
| 35 kg / 78 lb | | 35 kg / 78 lb | |
| 3.5 kg / 8 lb | | 3.5 kg / 8 lb | |
| -40 °C ... +60 °C / -40 °F ... +140 °F | | -40 °C ... +60 °C / -40 °F ... +140 °F | |
| 46 dB(A) | | 46 dB(A) | |
| 0.15 W | | 0.15 W | |
| Transformerless H5 | | Transformerless H5 | |
| OptiCool | | OptiCool | |
| NEMA 3R | | NEMA 3R | |
| NEMA 3R | | NEMA 3R | |
| 100 % | | 100 % | |
| Screw terminal | | Screw terminal | |
| Screw terminal | | Screw terminal | |
| Text line | | Text line | |
| ○ / ○ | | ○ / ○ | |
| ● / ○ / ○ | | ● / ○ / ○ | |
| UL1741, UL1998, IEEE1547, FCC Part 15 (Class A & B), CAN/CSA C22.2 107.1-1, UL 1699B | | | |
| SB 8000TLUS-12 | | SB 9000TLUS-12 | |

| Technical data | Sunny Boy 10000TL-US 208 V | Sunny Boy 10000TL-US 240 V | Sunny Boy 11000TL-US 240 V |
|---|---|-------------------------------|-------------------------------|
| Input (DC) | | | |
| Max. recommended PV power (@ module STC) | 12500 W | 12500 W | 13750 W |
| Max. DC power (@ cos φ = 1) | 10500 W | 10350 W | 11500 W |
| Max. input voltage | 600 V | 600 V | 600 V |
| MPP voltage range / rated input voltage | 300 V - 480 V / 345 V | 345 V - 480 V / 379 V | 345 V - 480 V / 379 V |
| Min. input voltage / initial input voltage | 300 V / 360 V | 345 V / 360 V | 345 V / 360 V |
| Max. input current | 35 A | 30.2 A | 33.3 A |
| Max. input current per string | 35 A | 30.2 A | 33.3 A |
| Number of independent MPP inputs | 1 | 1 | 1 |
| Strings per MPP input @ Combiner Box | 6 | 6 | 6 |
| Output (AC) | | | |
| Rated power / max. apparent AC power | 10000 W / 10000 VA | | 11000 W / 11000 VA |
| Nominal AC voltage / nominal AC voltage range | 208 V / 183 V - 229 V | 240 V / 211 V - 264 V | 240 V / 211 V - 264 V |
| AC power frequency / range | 60 Hz / 59.3 Hz ... 60.5 Hz | 60 Hz / 59.3 Hz ... 60.5 Hz | 60 Hz / 59.3 Hz ... 60.5 Hz |
| Max. output current | 48.1 A | 41.7 A | 45.8 A |
| Power factor at rated power | 1 | | 1 |
| Feed-in phases / connection phases | 1 / 2 | | 1 / 2 |
| Efficiency | | | |
| CEC efficiency / max. efficiency | 97.5 % / 98.6 % | 98 % / 98.7 % | 98 % / 98.7 % |
| Protective devices | | | |
| DC reverse polarity protection | ● | | ● |
| AC short-circuit current capability | ● | | ● |
| Galvanic isolation | — | | — |
| All-pole-sensitive residual-current monitoring unit | ● | | ● |
| Arc-fault circuit interrupter (according to UL 1699B) | ● | | ● |
| Protection class | I | | I |
| Overtoltage category | III | | III |
| General data | | | |
| Dimensions (W / H / D) | 470 / 615 / 240 mm (18.4 / 24.1 / 9.5 inch) | | |
| Dimensions of DC Disconnect (W / H / D) | 187 / 297 / 190 mm (7.28 / 11.7 / 7.5 inch) | | |
| Weight | 35 kg / 78 lb | | |
| Weight of DC Disconnect | 3.5 kg / 8 lb | | |
| Operating temperature range | -40 °C ... +60 °C / -40 °F ... +140 °F | | |
| Noise emission (typical) | 46 dB(A) | | 46 dB(A) |
| Self-consumption (night) | 0.15 W | | 0.15 W |
| Topology | Transformerless H5 | | Transformerless H5 |
| Cooling concept | OptiCool | | OptiCool |
| Degree of protection | NEMA 3R | | NEMA 3R |
| Degree of protection of connection area | NEMA 3R | | NEMA 3R |
| Max. permissible value for relative humidity (non-condensing) | 100 % | | 100 % |
| Features | | | |
| DC connection | Screw terminal | | Screw terminal |
| AC connection | Screw terminal | | Screw terminal |
| Display | Text line | | Text line |
| Interface: RS485 / Bluetooth | ○ / ○ | | ○ / ○ |
| Warranty: 10 / 15 / 20 years | ● / ○ / ○ | | ● / ○ / ○ |
| Certificates and approvals (more available on request) | UL1741, UL1998, IEE1547, FCC Part 15 (Class A & B), CAN/CSA C22.2 107.1-1, UL 1699B | | |
| Type designation | SB 10000TLUS-12 | | SB 11000TLUS-12 |

SUNNYBOY®/11TLUS122510 Sunny Boy, OptiCool, H5 and SMA are registered trademarks of SMA Solar Technology AG. Text and figures comply with the state of the art applicable when printing. Subject to technical changes. We accept no liability for typographical and other errors. Printed on chlorine-free paper.



Accessories

| | | | |
|--|-------------------------------------|--|---|
| | Sunny Boy Combiner Box SBCBT6-10 | | Bluetooth Piggy-Back BTPBINV-NR with External Antenna BTPB-EXTANT-NR |
| | Interface RS485 485USPB-NR | | SMA Power Balancer Set PBL-SBUS-10-NR |

● Standard feature ○ Optional feature — Not available
Data at nominal conditions