



# SUNNY BOY 8000TL-US / 9000TL-US / 10000TL-US

SB 8000TLUS-10 / SB 9000TLUS-10 / SB 10000TLUS-10



**TRANSFORMERLESS TECHNOLOGY**



### Efficient

- Maximum efficiency of 98.3%
- Transformerless, with H5 topology

### High Yields

- Superior yield with OptiTrac MPP tracking
- OptiCool™ active temperature management

### Safe

- SMA Power Balancer for three-phase grid connection
- Integrated DC load disconnect and combiner box
- UL 1741/IEEE-1547 compliant

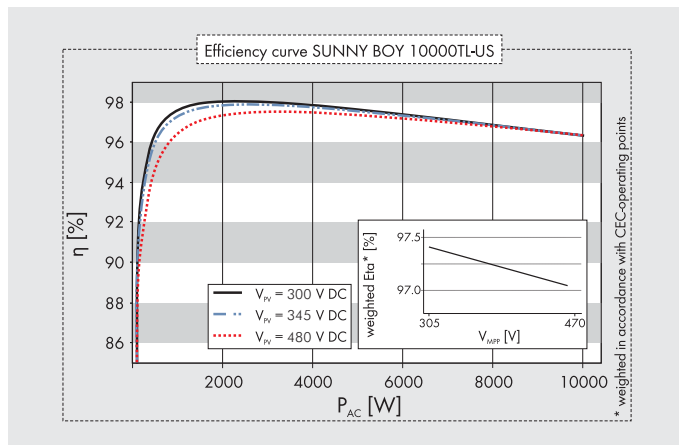
## SUNNY BOY 8000TL-US / 9000TL-US / 10000TL-US

Transformerless design, maximum yields

The new Sunny Boy TL-US series is UL-listed for North America and features SMA's innovative H5 topology, resulting in superior efficiencies of up to 98 percent and unmatched solar yields. The transformerless design reduces weight, increases the speed of payback and provides optimum value for any decentralized, commercial PV system. The Sunny Boy TL-US series for North America is the ideal choice for mid-size and large plants from 24 kWp up to the megawatt range.

| Technical data   | Sunny Boy 8000TL-US   | Sunny Boy 9000TL-US    | Sunny Boy 10000TL-US   |
|--|---|------------------------|------------------------|
|  | 208 V AC  | 208 V AC               | 208 V AC               |
| <b>Input (DC)</b>  |   |                        |                        |
| Max. recommended PV power (@ module STC)                   | 10000 W   | 11250 W                | 12500 W                |
| Max. DC power (@ cos φ = 1)                                | 8400 W  | 9400 W                 | 10500 W                |
| Max. DC voltage  | 600 V   | 600 V                  | 600 V                  |
| DC nominal voltage   | 345 V   | 345 V                  | 345 V                  |
| MPP voltage range  | 300 V - 480 V   | 300 V - 480 V          | 300 V - 480 V          |
| Min. DC voltage / start voltage                            | 300 V / 360 V   | 300V / 360 V           | 300 V / 360 V          |
| Max. input current / per string (at DC combiner box)       | 28 A / 28 A   | 31 A / 31 A            | 35 A / 35 A            |
| Number of MPP trackers / fused strings per MPP tracker     | 1 / 6 (@ Combiner Box)  | 1 / 6 (@ Combiner Box) | 1 / 6 (@ Combiner Box) |
| <b>Output (AC)</b>   |   |                        |                        |
| AC nominal power   | 8000 W  | 9000 W                 | 10000 W                |
| Max. AC apparent power                                     | 8000 VA   | 9000 VA                | 10000 VA               |
| Nominal AC voltage / adjustable                            | 208 V / -   | 208 V / -              | 208 V / -              |
| AC voltage range   | 183 V - 229 V   | 183 V - 229 V          | 183 V - 229 V          |
| AC grid frequency; range                                   | 60 Hz; 59.3 - 60.5 Hz   | 60 Hz; 59.3 - 60.5 Hz  | 60 Hz; 59.3 - 60.5 Hz  |
| Max. output current  | 40 A  | 44 A                   | 48 A                   |
| Power factor (cos φ)                                       | 1   | 1                      | 1                      |
| Phase conductors / connection phases                       | 1 / 2   | 1 / 2                  | 1 / 2                  |
| Harmonics  | < 4%  | < 4%                   | < 4%                   |
| <b>Efficiency</b>  |   |                        |                        |
| Max. efficiency  | 98.3%   | 98.3%                  | 98.3%                  |
| CEC efficiency   | 98%   | 98%                    | 97.5%                  |
| <b>Protection devices</b>                                  |   |                        |                        |
| DC reverse-polarity protection                             | ●   | ●                      | ●                      |
| AC short circuit protection                                | ●   | ●                      | ●                      |
| Galvanically isolated / all-pole sensitive monitoring unit | -/●   | -/●                    | -/●                    |
| Protection class / overvoltage category                    | I / IV  | I / IV                 | I / IV                 |
| <b>General data</b>  |   |                        |                        |
| Dimensions (W / H / D) in mm (in)                          | 470 / 615 / 240 (18.5 / 24 / 9)   |                        |                        |
| DC Disconnect dimensions (W / H / D) in mm (in)            | 187 / 297 / 190 (7 / 12 / 7.5)  |                        |                        |
| Packing dimensions (W / H / D) in mm (in)                  | 390 / 580 / 800 (16 / 23 / 31.5)  |                        |                        |
| DC Disconnect packing dimensions (W / H / D) in mm (in)    | 370 / 240 / 280 (15 / 9 / 11)   |                        |                        |
| Weight / DC Disconnect weight                              | 35 kg (77 lb) / 3.5 kg (8 lb)   |                        |                        |
| Packing weight / DC Disconnect packing weight              | 40 kg (88 lb) / 4 kg (9 lb)   |                        |                        |
| Operating temperature range / full power range             | -25 °C ... +60 °C (-13 °F ... +140 °F) / -25 °C ... +45 °C (-13 °F ... +113 °F) |                        |                        |
| Noise emission (typical)                                   | ≤ 46 dB(A)  | ≤ 46 dB(A)             | ≤ 46 dB(A)             |
| Internal consumption at night                              | ≤ 0.25 W  | ≤ 0.25 W               | ≤ 0.25 W               |
| Topology   | transformerless H5  | transformerless H5     | transformerless H5     |
| Cooling concept  | OptiCool  | OptiCool               | OptiCool               |
| Electronics protection rating / connection area            | NEMA 3R / NEMA 3R   | NEMA 3R / NEMA 3R      | NEMA 3R / NEMA 3R      |
| <b>Features</b>  |   |                        |                        |
| Display: text line / graphic                               | ●/-   | ●/-                    | ●/-                    |
| Interfaces: RS485 / Bluetooth                              | ○/○   | ○/○                    | ○/○                    |
| Warranty: 10 / 15 / 20 years                               | ●/○/○   | ●/○/○                  | ●/○/○                  |
| Certificates and permits (more available on request)       | UL1741, UL1998, IEEE 1547, FCC Part 15 (Class A & B), CSA C22.2 No. 107.1-2001  |                        |                        |
| NOTE: US inverters ship with gray lids.                    |   |                        |                        |
| ● Standard features ○ Optional features - Not available    |   |                        |                        |
| Revised August 2010 Data at nominal conditions             |   |                        |                        |
| Type designation   | SB 8000TLUS-10  | SB 9000TLUS-10         | SB 10000TLUS-10        |

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### Accessories

