

# SUNNY BOY 1300TL / 1600TL / 2100TL

SB 1300TL-10 / SB 1600TL-10 / SB 2100TL



### Efficient

- Efficiency of up to 96 %
- Transformerless

### Reliable

- Integrated ESS DC switch-disconnector (optional)

### Reliable

- Proven technology
- Maintenance free, thanks to convection cooling

### Simple

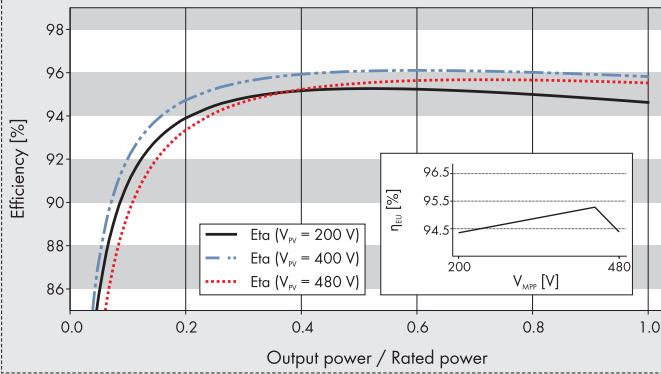
- SUNCLIX DC plug-in system

## SUNNY BOY 1300TL / 1600TL / 2100TL

Small inverters with big results

Combining broad input voltage and current ranges, this transformerless Sunny Boy can be connected to nearly all standard crystalline PV modules. As a proven starter model among the transformerless inverters, its efficiency is top-class. Its low weight and robust enclosure allow simple installation, both indoors and outdoors. With its two performance classes, it is the ideal inverter for smaller PV plants.

Efficiency curve SUNNY BOY 2100TL



## Accessories



RS485 interface  
485PB-NR



Bluetooth Piggy-Back  
BTPBINV-NR

\* Does not apply to all national annexes to EN 50438

● Standard features ○ Optional features – Not available

For SUNNY BOY 1600TL:

Provisional data, as of July 2011

Data at nominal conditions

| Technical Data   | Sunny Boy<br>1300TL  | Sunny Boy<br>1600TL   | Sunny Boy<br>2100TL   |
|--|--|-----------------------|-----------------------|
| <b>Input (DC)</b>  |  |                       |                       |
| Max. DC power (@ $\cos \phi = 1$ )   | 1400 W   | 1700 W                | 2200 W                |
| Max. input voltage   | 600 V  | 600 V                 | 600 V                 |
| MPP voltage range / rated input voltage  | 125 V ... 480 V / 400 V  | 155 V - 480 V / 400 V | 200 V - 480 V / 400 V |
| Min. input voltage / initial input voltage   | 125 V / 150 V  | 125 V / 150 V         | 125 V / 150 V         |
| Max. input current   | 11 A   | 11 A                  | 11 A                  |
| Max. input current per string  | 11 A   | 11 A                  | 11 A                  |
| Number of independent MPP inputs / strings per MPP input                                     | 1 / 1  | 1 / 1                 | 1 / 2                 |
| <b>Output (AC)</b>   |  |                       |                       |
| Rated power (@ 230 V, 50 Hz)   | 1300 W   | 1600 W                | 1950 W                |
| Max. apparent AC power   | 1300 VA  | 1600 VA               | 2100 VA               |
| Nominal AC voltage / range   | 220 V, 230 V, 240 V / 180 V - 260 V  |                       |                       |
| AC power frequency / range   | 50 Hz / -4.5 Hz ... +2.5 Hz  |                       |                       |
| Rated power frequency / rated grid voltage   | 50 Hz / 230 V  | 50 Hz / 230 V         | 50 Hz / 230 V         |
| Max. output current  | 7.2 A  | 8.9 A                 | 11 A                  |
| Power factor at rated power  | 1  | 1                     | 1                     |
| Feed-in phases / connection phases   | 1 / 1  | 1 / 1                 | 1 / 1                 |
| <b>Efficiency</b>  |  |                       |                       |
| Max. efficiency / European weighted efficiency   | 96 % / 94.3 %  | 96 % / 95 %           | 96 % / 95.2 %         |
| <b>Protective devices</b>  |  |                       |                       |
| DC disconnect device   | ○  | ○                     | ○                     |
| Ground fault monitoring / grid monitoring  | ● / ●  | ● / ●                 | ● / ●                 |
| DC reverse polarity protection / AC short-circuit current capability / galvanically isolated | ● / ● / -  | ● / ● / -             | ● / ● / -             |
| All-pole-sensitive residual-current monitoring unit  | ●  | ●                     | ●                     |
| Protection class (according to IEC 62103) / overvoltage category (according to IEC 60664-1)  | I / III  | I / III               | I / III               |
| <b>General data</b>  |  |                       |                       |
| Dimensions (W / H / D)   | 440 / 339 / 214 mm (17.3 / 13.4 / 8.4 inch)  |                       |                       |
| Weight   | 16 kg / 35.3 lb  | 16 kg / 35.3 lb       | 16 kg / 35.3 lb       |
| Operating temperature range  | -25 °C ... +60 °C / -13 °F ... +140 °F   |                       |                       |
| Noise emission (typical)   | 33 dB(A)   | 33 dB(A)              | 33 dB(A)              |
| Self-consumption (night)   | 0.1 W  | 0.1 W                 | 0.1 W                 |
| Topology   | Transformerless  | Transformerless       | Transformerless       |
| Cooling concept  | Convection   | Convection            | Convection            |
| Degree of protection (according to IEC 60529)  | IP65   | IP65                  | IP65                  |
| Degree of protection of connection area (according to IEC 60529)                             | IP65   | IP65                  | IP65                  |
| Climatic category (according to IEC 60721-3-4)   | 4K4H   | 4K4H                  | 4K4H                  |
| Max. permissible value for relative humidity (non-condensing)                                | 100 %  | 100 %                 | 100 %                 |
| <b>Features</b>  |  |                       |                       |
| DC connection / AC connection  | SUNCLIX / Connector  | SUNCLIX / Connector   | SUNCLIX / Connector   |
| Display  | Text line  | Text line             | Text line             |
| Interface: RS485 / Bluetooth®  | ○ / ○  | ○ / ○                 | ○ / ○                 |
| Warranty: 5 / 10 / 15 / 20 / 25 years  | ● / ○ / ○ / ○ / ○  | ● / ○ / ○ / ○ / ○     | ● / ○ / ○ / ○ / ○     |
| Certificates and approvals (more available on request)                                       | G83/1-1, PPC, AS 4777, EN 50438*, C10/11, PPDS, UTE C15-712-1, VDE-AR-N 4105, RD1699 |                       |                       |
| Certificates and approvals (planned)   | CEI 0-21   |                       |                       |
| Type designation   | SB 1300TL-10   | SB 1600TL-10          | SB 2100TL             |