

# 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

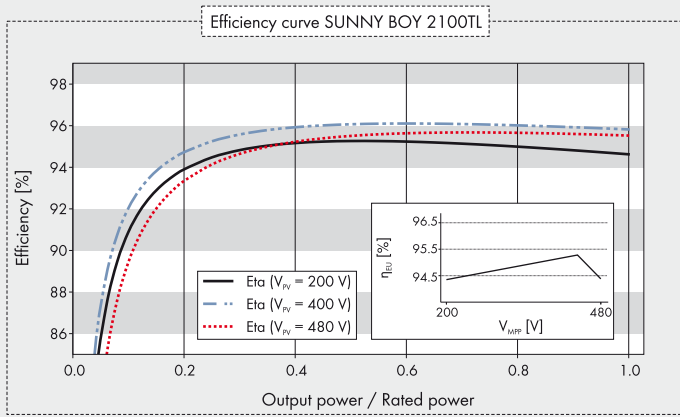
### Simple

- SUNCLIX DC plug-in system

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

Small inverters with big results

Combining a broad input voltage range and a broad input current range, the transformerless Sunny Boy can be connected to nearly all standard crystalline PV modules. As a proven entry-level device in the field of transformerless inverters, it offers top-class efficiency. Its low weight and robust enclosure allow simple installation, both indoors and outdoors. With its three power classes, it is the ideal inverter for smaller PV plants.



## Accessoires



RS485 interface  
485PB-NR



Bluetooth  
Piggy-Back BTPBINV-NR



Speedwire/Webconnect  
interface SWPB-10

<sup>1</sup> Valid from firmware 4.50

<sup>2</sup> Does not apply to all national appendices of EN 50438

● Standard feature ○ Optional feature – Not available

As of may 2013

Data at nominal conditions

Technical data	Sunny Boy 1300TL	Sunny Boy 1600TL	Sunny Boy 2100TL
<b>Input (DC)</b>			
Max. DC power (@ cos φ = 1)	1400 W	1700 W	2200 W
Max. input voltage	600 V	600 V	600 V
MPP voltage range	115 V <sup>1</sup> – 480 V	155 V – 480 V	200 V – 480 V
Rated input voltage	400 V	400 V	400 V
Min. input voltage / initial input voltage	100 V <sup>1</sup> / 120 V <sup>1</sup>	125 V / 150 V	125 V / 150 V
Max. input current / max. input current per string	12 A <sup>1</sup> / 12 A <sup>1</sup>	12 A <sup>1</sup> / 12 A <sup>1</sup>	12 A <sup>1</sup> / 12 A <sup>1</sup>
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, 60 Hz <sup>1</sup> / –6 Hz ... +5 Hz	50 Hz, 60 Hz <sup>1</sup> / –6 Hz ... +5 Hz	50 Hz, 60 Hz <sup>1</sup> / –6 Hz ... +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 / 13.3 / 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
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®, Speedwire/Webconnect	○ / ○ / ○	○ / ○ / ○	○ / ○ / ○
Warranty: 5 / 10 / 15 / 20 / 25 years	● / ○ / ○ / ○ / ○	● / ○ / ○ / ○ / ○	● / ○ / ○ / ○ / ○
Certificates and approvals (more available on request)	AS 4777, C10/11, CE, CEI 0-21, EN 50438 <sup>2</sup> , G83/1-1, IEC 62109-1/-2, NRS 097-2-1, PPC, PPDS, RD1699, RD 661/2007, UTE C15-712-1, VDE-AR-N 4105, VDE0126-1-1		
Type designation	SB 1300TL-10	SB 1600TL-10	SB 2100TL