

# SUNNY BOY 1300TL / 1600TL / 2100TL

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



## Efficient

- Efficiency of 96%
- Transformerless
- Complete monitoring solution thanks to integrated Speedwire/Webconnect interface

## Safe

- Integrated ESS DC load-break switch (optional)

## Reliable

- Proven technology
- Maintenance free thanks to convection cooling

## Easy to use

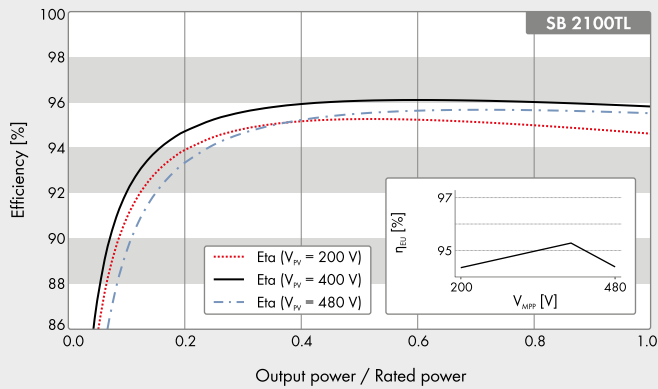
- SUNCLIX DC plug-in system
- Easy commissioning of the integrated Speedwire/Webconnect interface

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

Small inverters for high yields

Combining a wide input voltage and input current range, the transformerless Sunny Boy can be connected to nearly all standard crystalline PV modules. As a proven entry-level model, its efficiency is first-class. Its low weight and robust enclosure make installation easy for both indoors and outdoors. With its three power classes, it is the ideal inverter for smaller PV systems.

## Efficiency Curve



## Accessory



RS485 interface 485PB-NR



Bluetooth interface BTPBINV-NR



Speedwire/Webconnect interface SWPB-10

- <sup>1</sup> Applies to Firmware version 4.50, and higher  
<sup>2</sup> Does not apply to all national appendices of EN 50438

● Standard features ○ Optional – Not available

Last revision: October 2014

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 to 480 V	200 V to 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>
Max. DC short-circuit current	18 A	18 A	18 A
Number of independent MPP inputs / strings per MPP input	1 / 1	1 / 1	1 / 2
<b>Output (AC)</b>			
Rated power (at 230 V, 50 Hz)	1300 W	1600 W	1950 W
Max. apparent AC power	1300 VA	1600 VA	2100 VA
Nominal AC voltage	220 V / 230 V / 240 V	220 V / 230 V / 240 V	220 V / 230 V / 240 V
Nominal AC voltage range	180 V to 260 V	180 V to 260 V	180 V to 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	96.0 % / 94, 3 %	96.0 % / 95.0 %	96.0 % / 95.2 %
<b>Protective Devices</b>			
Input-side disconnection point	○	○	○
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)	440 / 339 / 214 mm (17.3 / 13.3 / 8.4 inch)	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)	-25 °C ... +60 °C (-13 °F ... +140 °F)	-25 °C ... +60 °C (-13 °F ... +140 °F)
Noise emission (typical)	33 dB(A)	33 dB(A)	33 dB(A)
Self-consumption (at night)	0.1 W	0.1 W	0.1 W
Topology	Transformerless	Transformerless	Transformerless
Cooling method	Convection	Convection	Convection
Degree of protection (as per 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>Furnishings</b>			
DC connection / AC connection	SUNCLIX / connector	SUNCLIX / connector	SUNCLIX / connector
Display	Text line	Text line	Text line
Interfaces: RS485, Bluetooth®, Speedwire/Webconnect	○ / ○ / ●	○ / ○ / ●	○ / ○ / ●
Warranty: 5 / 10 / 15 / 20 / 25 years	● / ○ / ○ / ○ / ○	● / ○ / ○ / ○ / ○	● / ○ / ○ / ○ / ○
Certificates and approvals (others available upon 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, PPSDs, 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