

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

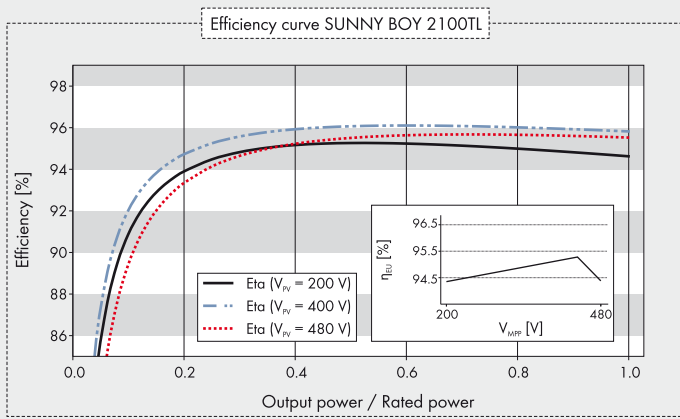
Simple

- SUNCLIX DC plug-in system

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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

¹ Valid from firmware 4.50

² 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
Input (DC)			
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 ¹ - 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 ¹ / 120 V ¹	125 V / 150 V	125 V / 150 V
Max. input current / max. input current per string	12 A ¹ / 12 A ¹	12 A ¹ / 12 A ¹	12 A ¹ / 12 A ¹
Number of independent MPP inputs / strings per MPP input	1 / 1	1 / 1	1 / 2
Output (AC)			
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 ¹ / -6 Hz ... +5 Hz	50 Hz, 60 Hz ¹ / -6 Hz ... +5 Hz	50 Hz, 60 Hz ¹ / -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
Efficiency			
Max. efficiency / European weighted efficiency	96 % / 94.3 %	96 % / 95 %	96 % / 95.2 %
Protective devices			
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
General data			
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 %
Features			
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 ² , 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