

| | SB 1300TL-10 | SB 1600TL-10 | SB 2100TL |
|--|----------------|----------------|----------------|
| Total harmonic distortion of the output current with total harmonic distortion of the AC voltage < 2%, and AC power > 50% of the rated power | ≤3% | ≤3% | ≤3% |
| Rated power frequency | 50 Hz | 50 Hz | 50 Hz |
| AC power frequency | 50 Hz / 60 Hz | 50 Hz / 60 Hz | 50 Hz / 60 Hz |
| Operating range at AC power frequency 50 Hz | 44 Hz to 55 Hz | 44 Hz to 55 Hz | 44 Hz to 55 Hz |
| Operating range at AC power frequency 60 Hz | 54 Hz to 65 Hz | 54 Hz to 65 Hz | 54 Hz to 65 Hz |
| Power factor at rated power | 1 | 1 | 1 |
| Feed-in phases | 1 | 1 | 1 |
| Connection phases | 1 | 1 | 1 |
| Overvoltage category in accordance with IEC 60664-1 | III | III | III |

Efficiency

| | SB 1300TL-10 | SB 1600TL-10 | SB 2100TL |
|---|--------------|--------------|-----------|
| Maximum efficiency, η_{\max} | 96.0% | 96.0% | 96.0% |
| European efficiency, η_{EU} | 94.3% | 95.0% | 95.2% |

General Data

| | |
|---|--------------------------|
| Width x height x depth | 440 mm x 299 mm x 214 mm |
| Width x height x depth, with ESS | 440 mm x 339 mm x 214 mm |
| Weight | 16 kg |
| Length x width x height of the packaging | 532 mm x 392 mm x 318 mm |
| Weight including packaging | 21.5 kg |
| Climatic category in accordance with IEC 60721-3-4 | 4K4H |
| Operating temperature range | -25 °C to +60 °C |
| Maximum permissible value for relative humidity, non-condensing | 100% |
| Maximum operating altitude above mean sea level (MSL) | 2,000 m |
| Noise emission, typical | ≤33 dB(A) |

| | |
|---|---|
| Power loss in night mode | 0.1 W |
| Topology | transformerless |
| Cooling method | Convection |
| Degree of protection in accordance with IEC 60529 | IP65 |
| Protection class in accordance with IEC 62103 | I |
| Grid configurations | TN-C, TN-S, TN-CS, TT (if $V_{N,PE} > 30$ V), IT, Delta IT, split phase |
| National standards and approvals, as per 10/2014* | AS 4777, C10/11, CE, CEI 0-21, EN 50438:2007, G83/2, IEC 60068-2, IEC 61727, IEC 62109-1, IEC 62109-2, NRS 097-2-1, PPC, PPDS, RD1699, RD 661/2007, UTE C15-712-1, VDE-AR-N 4105, VDE0126-1-1, VFR 2014 |

* **RD1699:** Contact the SMA Service Line for restrictions in specific regions.

NRS 097-2-1: This standard requires a separate label attached to the AC distribution board which indicates the AC-side disconnection of the inverter in case of a grid failure (for further details, see NRS 097-2-1, Sect. 4.2.7.1 and 4.2.7.2)

IEC 62109-2: In order to meet the requirements of this standard, use of the fault indication relay must be activated in the inverter or there must be a link to Sunny Portal with the fault alert via e-mail activated.

Protective Devices

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|---|---|
| DC reverse polarity protection | Short-circuit diode |
| Input-side disconnection point* | Electronic Solar Switch |
| DC overvoltage protection | Thermally monitored varistors |
| AC short-circuit current capability | Current control |
| Grid monitoring | SMA Grid Guard 2.1 |
| Maximum permissible fuse protection | 16 A |
| Ground fault monitoring | Insulation monitoring: $R_{iso} > 1$ M Ω |
| All-pole sensitive residual-current monitoring unit | Available |

* Optional

Climatic Conditions

Installation in accordance with IEC 60721-3-3, Class 4K4H

| | |
|-----------------------------|---------------------|
| Extended temperature range | -25 °C to +60 °C |
| Extended humidity range | 0% to 100% |
| Extended air pressure range | 79.5 kPa to 106 kPa |

Transport in accordance with IEC 60721-3-2, Class 2K3

| | |
|----------------------------|------------------|
| Extended temperature range | -25 °C to +70 °C |
|----------------------------|------------------|

Features

| | |
|------------------------------------|----------------------|
| DC Connection | SUNCLIX DC connector |
| AC connection | AC connector |
| Display | LC text display |
| Speedwire with Webconnect function | As standard |
| BLUETOOTH | Optional |
| RS485, galvanically isolated | Optional |

Fault Indicator Relay

| | |
|--|----------------------------|
| Maximum AC switching voltage | 240 V |
| Maximum DC switching voltage | 30 V |
| Maximum AC switching current | 1.0 A |
| Maximum DC switching current | 1.0 A |
| Minimum electrical endurance when the maximum switching voltage and maximum switching current are complied with* | 1,000,000 switching cycles |

* Corresponds to 20 years at 12 switching operations per day

Electronic Solar Switch

| | |
|--|--|
| Electrical endurance in the event of short circuit, at nominal current of 35 A | At least 50 switching operations |
| Maximum switching current | 35 A |
| Maximum switching voltage | 800 V |
| Maximum PV power | 11 kW |
| Degree of protection when plugged in | IP65 |
| Degree of protection when unplugged | IP21 |
| Fuse for the Electronic Solar Switch | F200, 600 V / 4 A, fast acting (soldered, not replaceable) |

Torques

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|--------------------------------|--------|
| Enclosure lid screws | 2.0 Nm |
| Screw for additional grounding | 6.0 Nm |

| | |
|--|--------|
| Cylindrical screw for attaching the enclosure to the wall mounting bracket | 6.0 Nm |
| SUNCLIX swivel nut | 2.0 Nm |
| Communication interface connection | 1.5 Nm |