

12.3 Sunny Boy 10000TL-US

PV generator connection data

Maximum DC power	10,350 W
Maximum array input power (DC@STC)	12,500 W
Maximum DC voltage	600 V
Peak power track voltage	300 V ... 480 V
Maximum DC input current	35 A
Number of MPP-Trackers	1 (OptiTrac)

Grid connection data

Nominal AC power	10,000 W
Maximum AC power	10,000 W
Reduced power output at 140 °F (60 °C)	8,000 W
Maximum AC current	48 A
Nominal AC voltage	208 V
Nominal AC voltage range	183 V ... 229 V
Nominal AC frequency	60 Hz
Nominal AC frequency range	59.3 Hz ... 60.5 Hz
Power factor	1 at Nominal Power
Current THD	< 4 %
AC connection/power balancing	Dual Phase/O
Ground fault monitoring (R-Iso)	yes

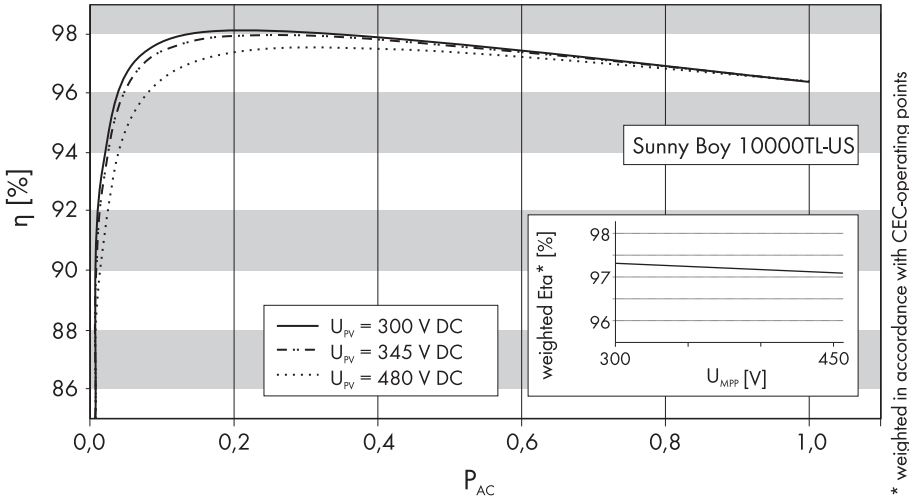
Protection Devices

DC reverse polarity protection	yes, short circuit diode
AC short circuit protection	yes, software controlled
AC overcurrent protection	yes, current controlled
Grid monitoring (SMA Grid Guard [®] 2)	yes

Equipment

DC connection	screw terminals
AC connection	screw terminals
LCD display	yes
Optional communication interfaces	RS485 or wireless (Bluetooth)

Efficiency



Peak inverter efficiency	98.3 %
Weighted efficiency (CEC)	97.5 %

General Data

Maximum dimensions, inverter and disconnect combined (width x height x depth)	18 ³ / ₈ in. x 33 in x 9 ⁷ / ₁₆ in. 467 mm x 838 mm x 241 mm
Weight of the inverter	77 lbs. (35 kg)
Weight of the SMA DC disconnect	8 lbs. (3.5 kg)
Ambient temperature range	- 13 °F ... +140 °F (- 25 °C ... +60 °C)
Ambient temperature range (full power output)	- 13 °F ... +113 °F (- 25 °C ... +45 °C)
Power consumption nighttime	≤ 0.25 W
Noise emission, typical	≤ 46 dB(A)
Topology	transformerless
Cooling concept	OptiCool
Mounting location	indoor/outdoor (NEMA 3R)

12.4 SMA DC Disconnect

PV generator connection data

Maximum DC voltage	600 V
Operating DC voltage range	0 V ... 600 V
Maximum DC operating current	35 A
Maximum DC short circuit current	45 A
Maximum String Fuse Rating	20 A

Grid connection data

Maximum AC current	48 A
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General Data

Dimensions (width x height x depth)	7.87 in. x 12.20 in. x 7.48 in. (200 mm x 310 mm x 190 mm)
Weight	8 lbs. (3.5 kg)
Ambient temperature range	- 13 °F ... +140 °F (- 25 °C ... +60 °C)
Cable requirements (<i>National Electrical Code</i> ® 310.16)	8 ... 2 AWG (10 ... 35 mm ²), 194 °F (90 °C) rated copper wire
Enclosure	NEMA 3R rated, indoor/outdoor



Specifications subject to change without notice.