

	Sunny Boy 8000TL-US	Sunny Boy 9000TL-US	Sunny Boy 10000TL-US
Input (DC)			
Recommended max. PV power (@ module STC)	10000 W	11250 W	12500 W
Max. DC power (@ cos φ=1)	10000 W	11250 W	10350 W
Max. input voltage	600 V	600 V	600 V
MPP voltage range / rated input voltage	300 V – 480 V / 345 V	300 V – 480 V / 345 V	300 V – 480 V / 345 V
Min. input voltage / initial input voltage	300 V / 360 V	300 V / 360 V	300 V / 360 V
Max. input current	28 A	31 A	35 A
Max. input current per string	28 A	31 A	35 A
Number of independent MPP inputs / strings per MPP input @ Combiner Box	1 / 6	1 / 6	1 / 6
Output (AC)			
Rated output power / max. apparent AC power	8000 W / 8000 VA	9000 W / 9000 VA	10000 W / 10000 VA
Nominal AC voltage / Nominal AC voltage range	208 V / 183 V – 229 V	208 V / 183 V – 229 V	208 V / 183 V – 229 V
AC power frequency / range	60 Hz / 59.3 Hz ... 60.5 Hz	60 Hz / 59.3 Hz ... 60.58 Hz	60 Hz / 59.3 Hz ... 60.5 Hz
Max. output current	40 A	44 A	48 A
Rated grid voltage / Rated grid frequency	208 V / 60 Hz	208 V / 60 Hz	208 V / 60 Hz
Power factor at rated output power	1	1	1
Phase conductors / connection phases	1 / 2	1 / 2	1 / 2
Efficiency			
CEC efficiency / max. efficiency	98 % / 98.3 %	98 % / 98.3 %	97.5 % / 98.3 %

Protection			
DC reverse-polarity protection	yes	yes	yes
AC short-circuit current capability	—	—	—
Galvanically isolated	yes	yes	yes
All-pole sensitive residual current monitoring unit	yes	yes	yes
Protection class (according to IEC 62103) / overvoltage category (according to IEC 60664-1)	NEMA 3R / III	NEMA 3R / III	NEMA 3R / III
General Data			
Dimensions (W / H / D)	470 / 615 / 240 mm (18.4 / 24.1 / 9.5 inch)	470 / 615 / 240 mm (18.4 / 24.1 / 9.5 inch)	470 / 615 / 240 mm (18.4 / 24.1 / 9.5 inch)
Dimensions of DC Disconnect (W / H / D)	187 / 297 / 190 mm (7.28 / 11.7 / 7.5 inch)	187 / 297 / 190 mm (7.28 / 11.7 / 7.5 inch)	187 / 297 / 190 mm (7.28 / 11.7 / 7.5 inch)
Weight	35 kg / 78 lb	35 kg / 78 lb	35 kg / 78 lb
Weight of DC Disconnect	3.5 kg / 8 lb	3.5 kg / 8 lb	3.5 kg / 8 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)	36 dB(A)	37 dB(A)	37 dB(A)
Self-consumption at night	0.25 W	0.25 W	0.25 W
Topology	Transformerless H5	Transformerless H5	Transformerless H5
Cooling concept	OptiCool	OptiCool	OptiCool
Degree of protection	NEMA 3R	NEMA 3R	NEMA 3R
Degree of protection of connection area	NEMA 3R	NEMA 3R	NEMA 3R
Climatic category (according to IEC 60721-3-4)	—	—	—
Maximum permissible value for relative humidity (non-condensing)	100 %	100 %	100 %
Features			

DC terminal	Screw terminal	Screw terminal	Screw terminal
AC terminal	Screw terminal	Screw terminal	Screw terminal
Display	Text line	Text line	Text line
Interface: RS485 / <i>Bluetooth</i>	opt. / opt.	opt. / opt.	opt. / opt.
Warranty: 10 / 15 / 20 years	yes / opt. / opt.	yes / opt. / opt.	yes / opt. / opt.
Multi-function relay	—	—	—
Certificates and approvals (more available on request)	UL1741, UL1998, IEEE1547, FCC Part 15 (Class A & B), CAN/CSA C22.2 107.1-1	UL1741, UL1998, IEEE1547, FCC Part 15 (Class A & B), CAN/CSA C22.2 107.1-1	UL1741, UL1998, IEEE1547, FCC Part 15 (Class A & B), CAN/CSA C22.2 107.1-1
Data at nominal conditions			
Type designation	SB 8000TLUS-10	SB 9000TLUS-10	SB 10000TLUS-10