

SUNNY BOY



String Inverters



Please also refer to the SMA design tool Sunny Design which can be downloaded free-of-charge at www.SMA.de.



	SUNNY BOY 1100 / 1700	SUNNY BOY 2100TL	SUNNY BOY 2500 / 3000	SUNNY BOY 3000TL	SUNNY BOY 3300TL HC	SUNNY BOY 3300 / 3800	SUNNY BOY 4000TL / 5000TL	SUNNY MINI CENTRAL 4600A / 5000A / 6000A	SUNNY MINI CENTRAL 7000HV	SUNNY MINI CENTRAL 6000TL / 7000TL / 8000TL	SUNNY MINI CENTRAL 9000TL / 10000TL / 11000TL
Input (DC)											
Max. DC power	1210 W / 1850 W	2200 W	2700 W / 3200 W	3200W	3440 W	3820 W / 4040 W	4200 W / 5300 W	5250 W / 5750 W / 6300 W	7500 W	6200 W / 7200 W / 8250 W	9300 W / 10350 W / 11400 W
Max. DC voltage	400 V	600 V	600 V	550 V	750 V	500 V	550 V	600 V	800 V	700 V	700 V
PV voltage range, MPPT	139 V - 320 V	125 V - 480 V	224 V - 480 V / 268 V - 480 V	125 V - 440 V	125 V - 600 V	200 V - 400 V	125 V - 440 V	246 V - 480 V	335 V - 560 V	333 V - 500 V	333 V - 500 V
Max. input current	10 A / 12.6 A	11 A	12 A	17 A	11 A	20 A	2 x 15 A	26 A	23 A	19 A / 22 A / 25 A	29 A / 32 A / 35 A
Number of MPP trackers	1	1	1	1	1	1	2	1	1	1	1
Max. number of strings (parallel)	2	2	3	2	2	3	2 x 2	4	4	4	5
Output (AC)											
Nominal AC output	1000 W / 1550 W	1950 W	2300 W / 2750 W	3000 W	3000 W	3300 W / 3800 W	4000 W / 4600 W	4600 W / 5000 W / 6000 W	6650 W	6000 W / 7000 W / 8000 W	9000 W / 10000 W / 11000 W
Max. AC power	1100 W / 1700 W	2100 W	2500 W / 3000 W	3000 W	3300 W	3600 W / 3800 W	4000 W / 5000 W	5000 W / 5500 W / 6000 W	7000 W	6000 W / 7000 W / 8000 W	9000 W / 10000 W / 11000 W
Max. output current	5.6 A / 8.6 A	11 A	12.5 A / 15 A	16 A	16 A	18 A	22 A	26 A	31 A	27 A / 31 A / 35 A	40 A / 44 A / 48 A
Nominal AC voltage	220 V - 240 V	220 V - 240 V	220 V - 240 V	220 V - 240 V	220 V - 240 V	220 V - 240 V	220 V - 240 V	220 V - 240 V	220 V - 240 V	220 V - 240 V	220 V - 240 V
AC grid frequency	50 Hz / 60 Hz	50 Hz	50 Hz / 60 Hz	50 Hz / 60 Hz	50 Hz	50 Hz / 60 Hz	50 Hz / 60 Hz	50 Hz / 60 Hz	50 Hz / 60 Hz	50 Hz / 60 Hz	50 Hz / 60 Hz
Power factor (cos φ)	1	1	1	1	1	1	1	1	1	1	1
AC connection / power balancing	single-phase / -	single-phase / -	single-phase / -	single-phase / -	single-phase / -	single-phase / -	single-phase / -	single-phase / ●	single-phase / ●	single-phase / ●	single-phase / ● (connector system)
Efficiency											
Max. efficiency	93.0 % / 93.5 %	96.0 %	94.1 % / 95.0 %	97.0 %	96.0 %	95.2 % / 95.6 %	97.0 % / 97.0 %	96.1 %	96.1 %	98.0 %	98.0 %
Euro ETA	91.6 % / 91.8 %	95.2 %	93.2 % / 93.6 %	96.0 %	94.6 %	94.4 % / 94.7 %	96.2 % / 96.5 %	95.3 %	95.3 %	97.7 % / 97.7 % / 97.6 %	97.6 % / 97.5 % / 97.5 %
Protective equipment											
DC reverse polarity protection	●	●	●	●	●	●	●	●	●	●	●
DC load-disconnecting switch ESS	●	●	●	●	●	●	●	●	●	●	●
AC short-circuit protection	●	●	●	●	●	●	●	●	●	●	●
Ground fault monitoring	●	●	●	●	●	●	●	●	●	●	●
Grid monitoring (SMA grid guard)	●	●	●	●	●	●	●	●	●	●	●
Galvanically isolated / all-pole sensitive fault current monitoring unit	●/-	-/●	●/-	-/●	-/●	●/-	-/●	●/-	●/-	-/●	-/●
General Data											
Dimensions (W/H/D) in mm	434 / 295 / 214	434 / 295 / 214	434 / 295 / 214	470 / 445 / 180	470 / 490 / 225	450 / 352 / 236	470 / 445 / 180	468 / 613 / 242	468 / 613 / 242	468 / 613 / 242	468 / 613 / 242
Weight	22 kg / 25 kg	16 kg	28 kg / 32 kg	22 kg	28 kg	38 kg	25 kg	62 kg / 62 kg / 63 kg	65 kg	31 kg / 32 kg / 33 kg	35 kg
Operation temperature range	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C
Internal consumption operating (standby)	< 4 W / < 5 W	< 7 W	< 7 W	< 10 W	< 10 W	< 7 W	< 10 W	< 7 W	< 7 W	< 10 W	< 8 W
Internal consumption night	0.1 W	0.1 W	0.25 W	0.5 W	0.25 W	0.1 W	0.5 W	0.25 W	0.25 W	0.25 W	0.15 W
Topology	low frequency transformer	transformerless	low frequency transformer	transformerless	transformerless	low frequency transformer	transformerless	low frequency transformer	low frequency transformer	transformerless	transformerless
Cooling concept	convection	convection	convection	convection	convection	OptiCool	OptiCool	OptiCool	OptiCool	OptiCool	OptiCool
Mounting location: indoor / outdoor (IP65)	●/●	●/●	●/●	●/●	●/●	●/●	●/●	●/●	●/●	●/●	●/●
Features											
DC connection: MC3 / MC4 / Tyco	●/○/○	●/○/○	●/○/○	○/●/○	●/○/○	●/○/○	○/●/○	○/●/○	○/●/○	○/●/○	○/●/○
AC connection: Screw terminal / plug connector / spring balancer	-/●/-	-/●/-	-/●/-	-/-/●	●/-/-	-/●/-	-/-/●	●/-/-	●/-/-	●/-/-	●/-/-
Display: LCD / graphic	●/-	●/-	●/-	-/●	●/-	●/-	-/●	●/-	●/-	●/-	●/-
Interfaces: RS485 / radio / Bluetooth	○/○/-	○/○/-	○/○/-	○/-/●	○/○/-	○/○/-	○/-/●	○/○/-	○/○/-	○/○/-	○/○/-
Warranty: 5 years / 10 years	●/○	●/○	●/○	●/○	●/○	●/○	●/○	●/○	●/○	●/○	●/○
Certificates and approvals	www.SMA.de	www.SMA.de	www.SMA.de	www.SMA.de	www.SMA.de	www.SMA.de	www.SMA.de	www.SMA.de	www.SMA.de	www.SMA.de	www.SMA.de

Caption:
● Series ○ Optional Data under Nominal Conditions

Dated November 2008 Specifications subject to change without notice.

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