

SUNNY MINI CENTRAL 6000TL / 7000TL / 8000TL

SMC 6000TL / SMC 7000TL / SMC 8000TL



High Yields

- Maximum efficiency of 98 %
- The best tracking efficiency with OptiTrac MPP tracking
- Transformerless, with H5 topology

- OptiCool active temperature management

Safe

- SMA Power Balancer for three-phase grid connection
- Integrated ESS DC switch-disconnector

Simple

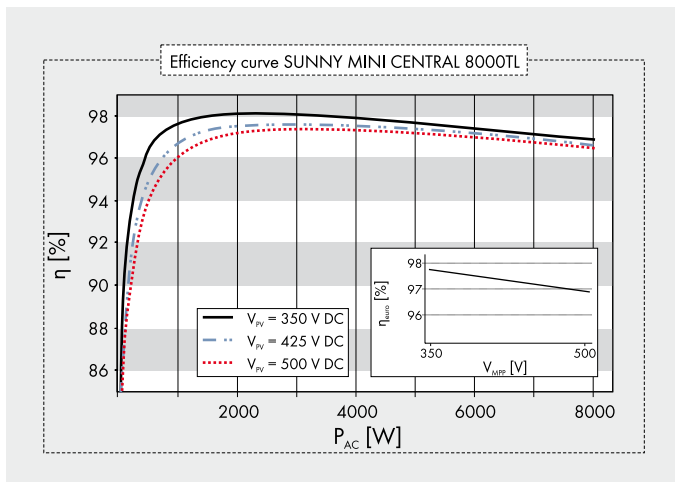
- DC plug system SUNCLIX

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High yield providers for multiple possible combinations

The transformerless Sunny Mini Central 6000TL, 7000TL and 8000TL provide their owners with high yields. With the Sunny Mini Central family of transformerless inverters, it will be even easier to realize PV plants from 1.8 kWp to the megawatt range. The finely graduated performance classes are ideal for precise configuration of PV plants. The flexibility it provides for the layout of plants and a favorable price-performance ratio make the Sunny Mini Central the ideal inverter for mid-sized to large solar power plants.

Technical data	Sunny Mini Central 6000TL	Sunny Mini Central 7000TL	Sunny Mini Central 8000TL
Input (DC)			
Max. DC power (@ $\cos \varphi = 1$)	6200 W	7200 W	8250 W
Max. DC voltage	700 V	700 V	700 V
MPP voltage range	333 V - 500 V	333 V - 500 V	333 V - 500 V
DC nominal voltage	350 V	350 V	350 V
Min. DC voltage / start voltage	330 V / 400 V	330 V / 400 V	330 V / 400 V
Max. input current / per string	19 A / 19 A	22 A / 22 A	25 A / 25 A
Number of MPP trackers / strings per MPP tracker	1 / 4	1 / 4	1 / 4
Output (AC)			
AC nominal power (@ 230 V, 50 Hz)	6000 W	7000 W	8000 W
Max. AC apparent power	6000 VA	7000 VA	8000 VA
Nominal AC voltage; range	220, 230, 240 V; 180 V - 260 V (262 V*)	220, 230, 240 V; 180 V - 260 V (262 V*)	220, 230, 240 V; 180 V - 260 V (262 V*)
AC grid frequency; range	50, 60 Hz; ± 4.5 Hz	50, 60 Hz; ± 4.5 Hz	50, 60 Hz; ± 4.5 Hz
Max. output current	27 A	31 A	35 A
Power factor ($\cos \varphi$)	1	1	1
Phase conductors / connection phases / power balancing	1 / 1 / ●	1 / 1 / ●	1 / 1 / ●
Efficiency			
Max. efficiency / Euro-eta	98.0 % / 97.7 %	98.0 % / 97.7 %	98.0 % / 97.7 %
Protection devices			
DC reverse-polarity protection / reverse current protection	●/–	●/–	●/–
ESS switch-disconnector	●	●	●
AC short circuit protection	●	●	●
Ground fault monitoring	●	●	●
Grid monitoring (SMA Grid Guard)	●	●	●
Galvanically isolated / all-pole sensitive fault current monitoring unit	–/●	–/●	–/●
DC overvoltage protector (type II), can be integrated	–	–	–
String failure detection	–	–	–
Protection class / overvoltage category	I / III	I / III	I / III
General data			
Dimensions (W / H / D) in mm	468 / 613 / 242	468 / 613 / 242	468 / 613 / 242
Weight	31 kg	32 kg	33 kg
Operating temperature range	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C
Noise emission (typical)	≤ 31 dB(A)	≤ 33 dB(A)	≤ 40 dB(A)
Internal consumption (night)	0.25 W	0.25 W	0.25 W
Topology	transformerless	transformerless	transformerless
Cooling concept	OptiCool	OptiCool	OptiCool
Electronics protection rating / connection area (as per IEC 60529)	IP65 / IP65	IP65 / IP65	IP65 / IP65
Climatic category (per IEC 60721-3-4)	4K4H	4K4H	4K4H
Features			
DC connection: SUNCLIX	●	●	●
AC connection: screw terminal / spring-type terminal	●/–	●/–	●/–
Display: text line / graphic	●/–	●/–	●/–
Interfaces: RS485 / Bluetooth®	o/o	o/o	o/o
Warranty: 5 / 10 / 15 / 20 / 25 years	●/o/o/o/o	●/o/o/o/o	●/o/o/o/o
Certificates and permits (more available on request)	CE, VDE 0126-1-1, DK 5940*, RD 1663, PPC, AS4777, EN 50438**, C10/C11, PPDS		
* Only applies to IT variants, ** Does not apply to all national deviations of EN 50438			
● Standard features o Optional features – not available			
Data at nominal conditions			
Type designation	SMC 6000TL	SMC 7000TL	SMC 8000TL



Accessories



RS485 interface of type 485PB-NR



Bluetooth® Piggy Back BTBINV-NR



SMA Power Balancer Plug connector PBL-SMC-10-NR

We ourselves could not have said it better than the PHOTON editorial office: "The test results for the Sunny Mini Central 8000TL are not only the best, by far, since the beginning of the PHOTON tests [...], they are also so exceptionally good that it is hard to imagine it possible to find a better device on the market." (PHOTON 10/2007)