

Future-proof

- > Reactive power supply

High Yields

- > Maximum efficiency of 97.7 %
- > Transformerless, with H5 topology
- > The best tracking efficiency with OptiTrac MPP tracking
- > OptiCool active temperature management

Reliable

- > SMA Power Balancer for three-phase grid connection
- > Integrated ESS DC-load disconnecting unit



SUNNY MINI CENTRAL with Reactive Power Control

Optimum grid integration with reactive power supply

Future-proof grids at a glance: the Sunny Mini Central 9000TL / 10000TL / 11000TL with Reactive Power Control are the ideal solutions if the energy supply company requires the provision of reactive power at the feed-in point. With these inverters, it is also now possible to realize system concepts where the phase shift, $\cos \varphi$, and with it the reactive power component, is prescribed. In this way, large solar power systems, especially those in the megawatt range, can make optimal use of the distribution grid capacities provided. In so doing, they can significantly contribute to the success of renewable energy sources.

Technical Data

SUNNY MINI CENTRAL 9000TL / 10000TL / 11000TL

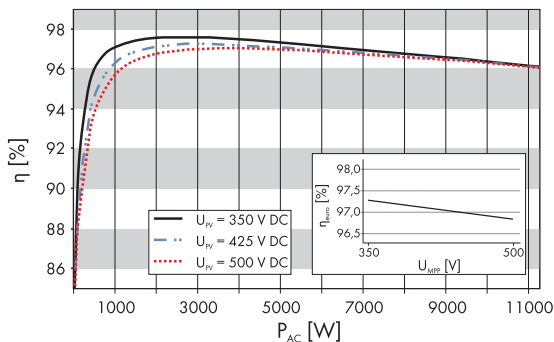
with Reactive Power Control

	SMC 9000TLRP-10	SMC 10000TLRP-10	SMC 11000TLRP-10
Input (DC)			
Max. DC power (at $\cos \phi = 1$)	9300 W	10350 W	11400 W
Max. DC voltage	700 V	700 V	700 V
PV-voltage range, MPPT	333 V - 500 V	333 V - 500 V	333 V - 500 V
Max. input current	28 A	31 A	34 A
Number of MPP trackers	1	1	1
Max. number of strings (parallel)	5	5	5
Output (AC)			
Nominal AC power / max. AC power	9000 VA / 9000 VA	10000 VA / 10000 VA	11000 VA / 11000 VA
Max. output current	40 A	44 A	48 A
Nominal AC voltage / range	220 V - 240 V / 180 V - 260 V	220 V - 240 V / 180 V - 260 V	220 V - 240 V / 180 V - 260 V
AC grid frequency (self-adjusting) / range	50 Hz / 60 Hz / ± 4.5 Hz	50 Hz / 60 Hz / ± 4.5 Hz	50 Hz / 60 Hz / ± 4.5 Hz
Phase shift ($\cos \phi$), adjustable	0.8 leading ... 0.8 lagging	0.8 leading ... 0.8 lagging	0.8 leading ... 0.8 lagging
AC connection / power balancing	single-phase / ●	single-phase / ●	single-phase / ●
Efficiency			
Max. efficiency	97.7 %	97.7 %	97.7 %
Protection devices			
DC reverse polarity protection	●	●	●
ESS DC load-disconnecting switch	●	●	●
AC short-circuit protection	●	●	●
Ground fault monitoring	●	●	●
Monitored string fuses	○	○	○
Grid monitoring (SMA Grid Guard)	●	●	●
All-pole sensitive residual-current monitoring unit	●	●	●
General Data			
Dimensions (W / H / D) in mm	468 / 613 / 242	468 / 613 / 242	468 / 613 / 242
Weight	approx. 35 kg	approx. 35 kg	approx. 35 kg
Operating temperature range	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C
Noise emission (typical)	≤ 42 dB(A)	≤ 45 dB(A)	≤ 46 dB(A)
Consumption: operating (standby) / night	<10 W / 0.25 W	<10 W / 0.25 W	<10 W / 0.25 W
Topology	transformerless	transformerless	transformerless
Cooling concept	OptiCool	OptiCool	OptiCool
Installation: Indoors / Outdoors (IP65 electronics)	●/●	●/●	●/●
Features			
DC connection: MC3 / MC4 / Tyco	○/●/○	○/●/○	○/●/○
AC connection: screw terminal	●	●	●
LCD-Display	●	●	●
Interfaces: Bluetooth® / RS485	○/○	○/○	○/○
Warranty: 5 years / 10 years	●/○	●/○	●/○
Certificates and approvals	www.SMA.de	www.SMA.de	www.SMA.de

● Standard ○ Optional

Data at nominal conditions - provisional data, last updated March 2009

Efficiency curve



Accessories



RS485 interface of type 485PB-NR



Bluetooth® Piggy-Back



SMA Power Balancer Y cable PBL-YCABLE-10