

SUNNY MINI CENTRAL 4600A / 5000A / 6000A

SMC 4600A / SMC 5000A / SMC 6000A



Powerful

- OptiCool active temperature management
- The best tracking efficiency with OptiTrac MPP tracking

Safe

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

Flexible

- Suitable for generator grounding*

Simple

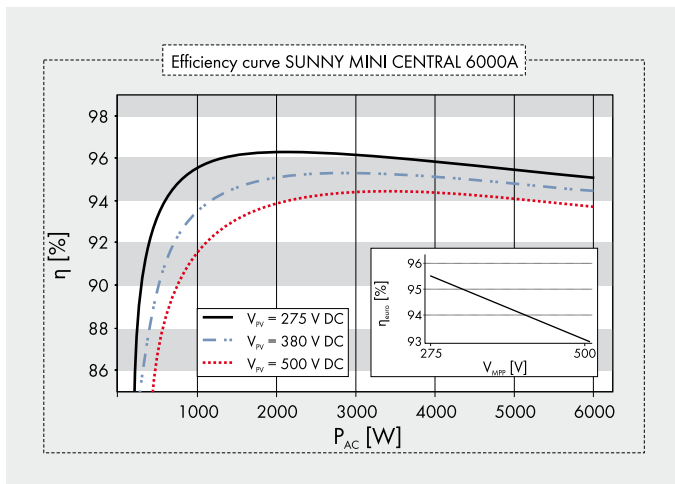
- DC plug system SUNCLIX

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Proven technology for flexible applications

The Sunny Mini Central 4600A, 5000A and 6000A are installed in locations where galvanic isolation is required. This means they can be used around the world for many different types of connections. In this way, the Sunny Mini Centrals can be used with crystalline cells as well as thin-film modules. Thanks to their graduated performance classes, they offer the highest degree of flexibility in plant design. The Sunny Mini Centrals 5000A and 6000A are ideal for three-phase systems, while the Sunny Mini Central 4600A is designed for single-phase PV plants.

Technical data	Sunny Mini Central 4600A	Sunny Mini Central 5000A	Sunny Mini Central 6000A
Input (DC)			
Max. DC power (@ cos φ = 1)	5250 W	5750 W	6300 W
Max. DC voltage	600V	600V	600 V
MPP voltage range	246 V - 480 V	246 V - 480 V	246 V - 480 V
DC nominal voltage	270 V	270 V	270 V
Min. DC voltage / start voltage	211 V / 300 V	211 V / 300 V	211 V / 300 V
Max. input current / per string	26 A / 26 A	26 A / 26 A	26 A / 26 A
Number of MPP trackers / strings per MPP tracker	1 / 4	1 / 4	1 / 4
Output (AC)			
AC nominal power (@ 230 V, 50 Hz)	4600 W	5000 W	6000 W
Max. AC apparent power	5000 VA	5500 VA	6000 VA
Nominal AC voltage; range	220, 230, 240 V; 180 V - 260 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	26 A	26 A	26 A
Power factor (cos φ)	1	1	1
Phase conductors / connection phases / power balancing	1 / 1 / ●	1 / 1 / ●	1 / 1 / ●
Efficiency			
Max. efficiency / Euro-eta	96.1 % / 95.3 %	96.1 % / 95.3 %	96.1 % / 95.3 %
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	62 kg	62 kg	63 kg
Operating temperature range	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C
Noise emission (typical)	≤ 42 dB(A)	≤ 42 dB(A)	≤ 42 dB(A)
Internal consumption (night)	0.25 W	0.25 W	0.25 W
Topology	LF transformer	LF transformer	LF transformer
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, G83/1-1, PPC, EN 50438***, C10/C11, PPDS, IEEE 929	CE, VDE 0126-1-1, DK 5940**, RD 1663, G83/1-1, CER/06/190, PPC, AS4777, EN 50438***, C10/C11, PPDS, IEEE 929	
● Standard features o Optional features – not available			
* Variants for France under preparation **Only applies to IT variants, *** Does not apply to all national deviations of EN 50438			
Data at nominal conditions – Status: August 2010			
Type designation	SMC 4600A	SMC 5000A	SMC 6000A



Accessories

	RS485 interface of type 485PB-NR		Bluetooth® Piggy Back BTPBINV-NR
	SMA Power Balancer Plug connector PBL-SMC-10-NR		Grounding set "Positive" ESHV-P-NR*
	Grounding set "Negative" ESHV-P-NR*		