

Sunny Mini Central

SMC 5000A and SMC 6000A



Best efficiency for transformer inverters: 96.1 %

Best price-performance ratio of its class

OptiCool®:
Maximum power up to an ambient temperature of 50 °C due to dual compartment cooling system

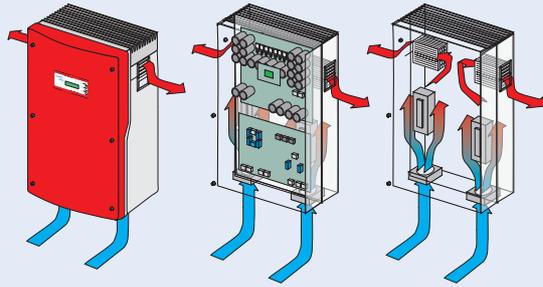
SMA grid guard® 2:
Automatic disconnection

Electronic Solar Switch ESS:
Integrated DC circuit breaker (optional)

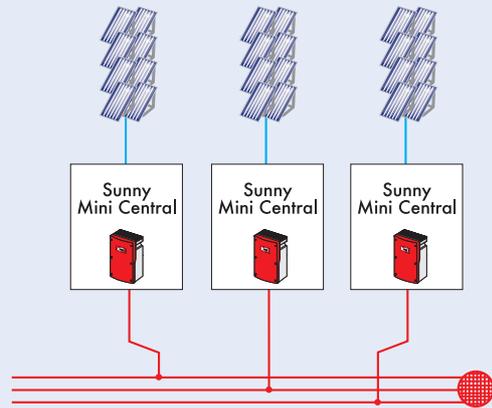
Automatic 50 Hz / 60 Hz detection

5 years SMA Warranty

The Sunny Mini Central shows that large plants do not necessarily need to be installed with large inverters. The OptiCool® cooling system and the new dual chamber enclosure result in an outstanding temperature management as well as a perfect protection of the electronics. The maximum efficiency of 96.1 % is record breaking for transformer based inverters and results in highest yields and minimal investment costs.



OptiCool®: Dual compartment cooling system for full power up to an ambient temperature of 50 °C



Connection example of the Sunny Mini Central (three-phase connection)

Technical Data

Input Values

Max. DC Power		
DC Voltage Range		
Nominal AC Voltage ($U_{PV,nom}$)		
Max. MPP Voltage ($U_{MPP,max}$)		
Max. Input Current ($I_{PV,max}$)		
DC Voltage Ripple (U_{pp})		
Max. Number of Strings (Parallel)		
DC Connection		
Thermally Monitored Varistors		
Ground Fault Current Monitoring		
Pole Confusion Protection		

Output Values

AC Power, Continuous ($P_{AC,max}$)		
AC Power, Nominal ($P_{AC,nom}$)		
Max. Output Current ($I_{AC,max}$)		
THD of AC Current		
Nominal AC voltage ($U_{AC,nom}$)		
Nominal AC frequency ($f_{AC,nom}$)		
Power Factor ($\cos \phi$)		
Short Circuit Proof		
Grid Connection		

Efficiency

Max. Efficiency (η_{max})		
European Weighted Efficiency (η_{euro})		

Power Circuit

Topology		
Utility Monitoring		
Number of Output Phases		

Enclosure

acc. to DIN EN 60529		
Cooling System		
Permissible Ambient Temperature		

Mechanical Data

Weight		
Width / Height / Depth in mm		

Features

Communication		
Display		
Warranty		
DC Disconnect		
Plant Monitoring		

SMC 5000A

Max. DC Power	5750 W
DC Voltage Range	213 V - 600 V
Nominal AC Voltage ($U_{PV,nom}$)	246 V
Max. MPP Voltage ($U_{MPP,max}$)	600 V
Max. Input Current ($I_{PV,max}$)	26 A
DC Voltage Ripple (U_{pp})	< 10 %
Max. Number of Strings (Parallel)	4
DC Connection	Plug connector (MC or Tyco)
Thermally Monitored Varistors	yes
Ground Fault Current Monitoring	yes
Pole Confusion Protection	yes
Short circuit diode	yes
AC Power, Continuous ($P_{AC,max}$)	5500 W at 50 °C
AC Power, Nominal ($P_{AC,nom}$)	5000 W
Max. Output Current ($I_{AC,max}$)	26 A
THD of AC Current	< 4 %
Nominal AC voltage ($U_{AC,nom}$)	220 V - 240 V
Nominal AC frequency ($f_{AC,nom}$)	50 Hz / 60 Hz
Power Factor ($\cos \phi$)	1
Short Circuit Proof	yes, current control
Grid Connection	Screw-Terminal
Max. Efficiency (η_{max})	96.1 %
European Weighted Efficiency (η_{euro})	95.2 %
Topology	Low frequency transformer
Utility Monitoring	SMA grid guard® 2
Number of Output Phases	1
acc. to DIN EN 60529	IP65 (dust- and waterproof)
Cooling System	OptiCool®
Permissible Ambient Temperature	-25 °C to +60 °C
Weight	approx. 62 kg
Width / Height / Depth in mm	468 / 613 / 242
Communication	Optional: RS232/RS485/radio
Display	Standard: 2-line display
Warranty	5 years (optional 10 years)
DC Disconnect	Optional: ESS
Plant Monitoring	Compatible e.g. with Sunny Boy Control, Sunny Beam, Sunny WebBox and Sunny Portal

SMC 6000A

Max. DC Power	6300 W
DC Voltage Range	213 V - 600 V
Nominal AC Voltage ($U_{PV,nom}$)	246 V
Max. MPP Voltage ($U_{MPP,max}$)	600 V
Max. Input Current ($I_{PV,max}$)	26 A
DC Voltage Ripple (U_{pp})	< 10 %
Max. Number of Strings (Parallel)	4
DC Connection	Plug connector (MC or Tyco)
Thermally Monitored Varistors	yes
Ground Fault Current Monitoring	yes
Pole Confusion Protection	yes
Short circuit diode	yes
AC Power, Continuous ($P_{AC,max}$)	6000 W at 50 °C
AC Power, Nominal ($P_{AC,nom}$)	6000 W
Max. Output Current ($I_{AC,max}$)	26 A
THD of AC Current	< 4 %
Nominal AC voltage ($U_{AC,nom}$)	220 V - 240 V
Nominal AC frequency ($f_{AC,nom}$)	50 Hz / 60 Hz
Power Factor ($\cos \phi$)	1
Short Circuit Proof	yes, current control
Grid Connection	Screw-Terminal
Max. Efficiency (η_{max})	96.1 %
European Weighted Efficiency (η_{euro})	95.2 %
Topology	Low frequency transformer
Utility Monitoring	SMA grid guard® 2
Number of Output Phases	1
acc. to DIN EN 60529	IP65 (dust- and waterproof)
Cooling System	OptiCool®
Permissible Ambient Temperature	-25 °C to +60 °C
Weight	approx. 63 kg
Width / Height / Depth in mm	468 / 613 / 242
Communication	Optional: RS232/RS485/radio
Display	Standard: 2-line display
Warranty	5 years (optional 10 years)
DC Disconnect	Optional: ESS
Plant Monitoring	Compatible e.g. with Sunny Boy Control, Sunny Beam, Sunny WebBox and Sunny Portal