

## SUNNY TOWER ST6

**Economic**

- > High efficiency of up to 98 %
- > Low specific price
- > Increased yield due to multiple MPP trackers

**Safe**

- > Integrated ESS DC load disconnecting switch
- > Intelligent temperature management with OptiCool

**Flexible**

- > Modular structure
- > Combination of Sunny Mini Central and Sunny Boy inverters possible

**Easy to use**

- > Delivered as a turnkey solution
- > Easy installation
- > Integrated data acquisition with Sunny WebBox (optional)



# SUNNY TOWER

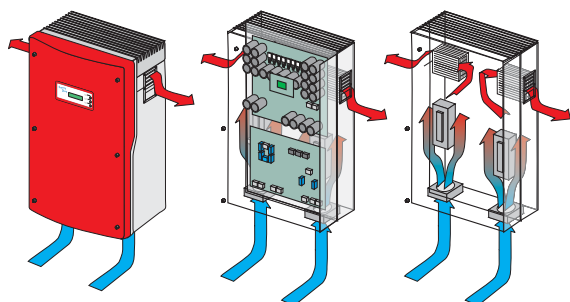
## Easy installation – maximum yields

The Sunny Tower: as easy to install as a central inverter and as profitable as a Sunny Mini Central. Its excellent efficiency of up to 98 % and the easy installation ensure maximum energy yields. The intelligent ventilation system OptiCool makes the Sunny Tower suitable for installation in systems with high ambient temperatures. In addition, the modular structure provides the possibility of combining Sunny Mini Central and Sunny Boy inverters with each other. And thus, it ensures maximum flexibility for system design and later extension.

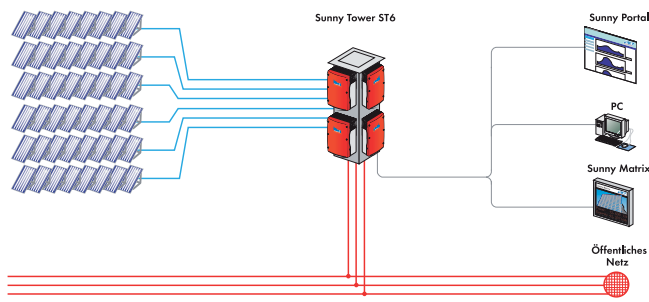
# Technical data

## SUNNY TOWER 6 with 6 x SMC 8000TL

	Sunny Tower ST6	
<b>Input (DC)</b>		
Max. DC power	49.6 kW	
PV voltage range	333 V - 500 V	
Max. DC voltage ( $U_{DC, max}$ )	700 V	
Max. input current ( $I_{PV, max}$ )	6 x 25 A	
DC voltage ripple ( $U_{pp}$ )	< 10 %	
Max. number of strings (parallel)	6 x 4	
Reverse polarity protection	short circuit diode	
<b>Output (AC)</b>		
Continuous AC output ( $P_{AC, max}$ )	48 kW at 40 °C	
Nominal AC output ( $P_{AC, nom}$ )	48 kW	
Max. output current ( $I_{AC, max}$ )	3 x 70 A	
THD of grid current	< 4 %	
Nominal AC voltage ( $U_{AC, nom}$ )	220 V - 240 V	
Nominal AC frequency ( $f_{AC, nom}$ )	50 Hz / 60 Hz	
Power factor ( $\cos \varphi$ )	1	
Grid connection	bolt clamp, max. 5 x 95 mm <sup>2</sup>	
<b>Efficiency</b>		
Maximum efficiency ( $\eta_{Max}$ )	98.0 %	
Euro ETA ( $\eta_{Euro}$ )	97.7 %	
<b>Protection device</b>		
Thermally monitored varistors	●	
Ground fault monitoring	●	
DC load-disconnecting switch ESS	●	
Grid monitoring (SMA grid guard)	●	
Short-circuit protection (current regulation)	●	
Line circuit breakers	6 x B50	
<b>General data</b>		
Inverter / Sunny Tower protection rating according to DIN EN 60529	IP 65 / IP 44	
Cooling concept	OptiCool	
Permissible ambient temperature	-25 °C ... +60 °C	
Topology	transformerless	
Number of supply phases	3	
Weight	320 kg	
Width x Height x Depth (mm)	1100 / 1800 / 990	
<b>Features</b>		
Warranty: 5 years / 10 years	●/○	
System monitoring (pre-wired): RS485 / Sunny WebBox / Power Balancer	○/○/○	
● Standard ○ Optional	Data at nominal conditions	Last modified: November 2008



OptiCool: dual-chamber cooling system for high nominal outputs at high ambient temperatures



Switching example of Sunny Tower ST6 (three-phase grid connection)