

# Sunny Tower ST 6



## The Effective Solution for Large PV Systems



High efficiency of 98 %

Low specific price

Increased yield due to multiple  
MPP trackers

Modular structure

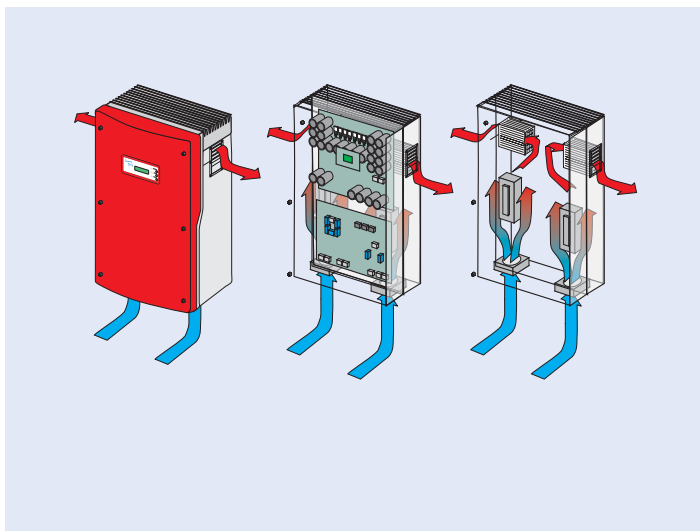
Intelligent temperature  
management via OptiCool

Delivered as a turnkey solution

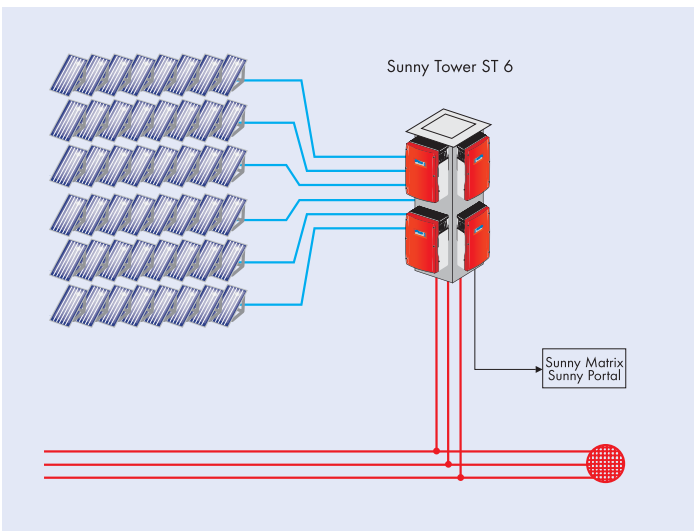
Easy installation

Pre-installed data acquisition  
with Sunny WebBox (optional)

The Sunny Tower: as easy to install as a central inverter, and as profitable as a Sunny Mini Central. Its outstanding efficiency of over 98 %, a low specific price, provide for maximum energy yield, and a significant shortening of the payback time. In addition, the patented cooling system OptiCool means it is predestined for use in situations with high ambient temperatures. Furthermore, the modular structure guarantees flexible extension options. More information can be found at: [www.SMA.de](http://www.SMA.de)



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



Switching example of Sunny Tower ST 6  
(three-phase grid connection)

## Technical Data

### Input data

Max. DC output  
DC voltage range  
Nominal operating voltage ( $U_{PV, nom}$ )  
Max. MPP voltage ( $U_{MPP, max}$ )  
Max. DC voltage ( $U_{DC, max}$ )  
Max. input current ( $I_{PV, max}$ )  
DC voltage ripple ( $U_{pp}$ )  
Max. no. of strings (parallel)  
Thermally monitored varistors  
Ground fault monitoring  
Reverse polarity protection

### Sunny Tower ST 6 with 6 SMC 8000TL

49.6 kW  
335 V – 700 V  
350 V  
500 V  
700 V  
6 x 25 A  
< 10 %  
24  
yes  
yes  
short-circuit diode

### Output data

Continuous AC output ( $P_{AC, max}$ )  
Nominal AC output ( $P_{AC, nom}$ )  
Max. output current ( $I_{AC, max}$ )  
Harmonic distortion of grid current  
Nominal AC voltage ( $U_{AC, nom}$ )  
Nominal AC frequency ( $f_{AC, nom}$ )  
Power factor ( $\cos \varphi$ )  
Short-circuit proof  
Grid connection

48 kW at 40 °C  
48 kW  
3 x 70 A  
< 4 %  
220 V – 240 V  
50 Hz  
1  
yes, current regulation  
AC terminal, max. 5 x 95 mm<sup>2</sup>

### Efficiency

Maximum efficiency ( $\eta_{Max}$ )  
European standard efficiency ( $\eta_{Euro}$ )

98 %  
97.7 %

### Power electronics

Switching concept  
Grid monitoring (DIN VDE 0126-1-1)  
Number of supply phases

6 x H5 bridge (transformerless)  
grid guard  
3

### Enclosure

According to DIN EN 60529  
Cooling concept  
Ambient temperature

IP65 (dustproof and hoseproof)  
OptiCool  
-25 °C to +60 °C

### Mechanical data

Weight  
Width x Height x Depth (mm)

300 kg  
1100 / 1800 / 990

### Features

Warranty  
System monitoring

5 years (optional: 10 years)  
RS485 pre-wired (optional)  
Sunny WebBox pre-wired (optional)  
Power Balancer pre-wired (optional)