



#### Economical

- Maximum efficiency of 98.1 %
- Shade management with OptiTrac Global Peak
- Active temperature management with OptiCool

#### Flexible

- DC input voltage up to 1.000 V
- Integrated grid management functions
- Reactive power supply
- Module-tailored plant design with Optiflex

#### Communicative

- SMA Webconnect communication to Sunny Portal
- *Bluetooth* communication
- Simple country configuration
- Multi-function relay included

#### Simple

- Three-phase grid feed-in
- Cable connection without tools
- SUNCLIX DC plug-in system
- Integrated ESS DC switch-disconnector
- Easy wall mounting

## SUNNY TRIPOWER 5000TL / 6000TL / 7000TL / 8000TL / 9000TL

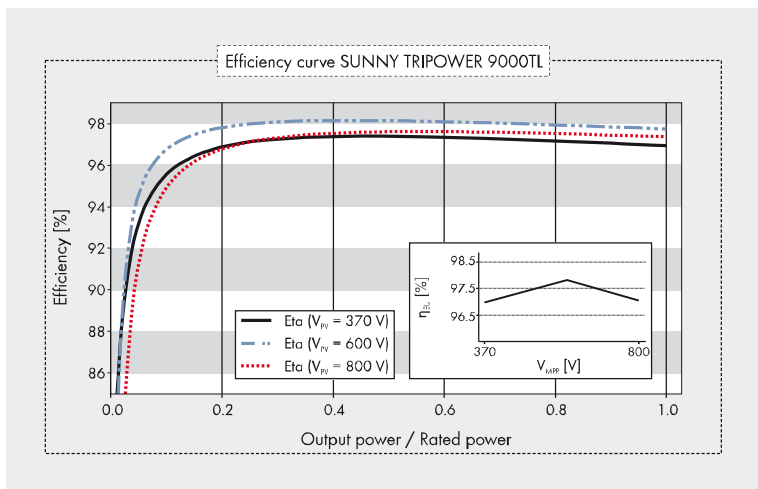
The three-phase inverter for your home

At home with cutting-edge technology and top yields: The Sunny Tripower PV plant with 5 to 9 kW of power is setting new standards for private PV plants. It features an asymmetric multi-string and Optiflex technology to ensure the highest in flexibility while combining peak efficiency with OptiTrac Global Peak to generate the highest in yields. In addition to communication via the external *Bluetooth* antenna, the PV plant comes with a direct Sunny Portal connection via SMA Webconnect as standard – and now for the first time without data loggers. The “small” Sunny Tripower also comes with integrated grid management functions and reactive power supply.

# SUNNY TRIPOWER

## 5000TL / 6000TL / 7000TL / 8000TL / 9000TL

Technical data	Sunny Tripower 5000TL	Sunny Tripower 6000TL
<b>Input (DC)</b>		
Max. DC power (@ $\cos \varphi = 1$ )	5100 W	6125 W
Max. input voltage	1000 V	1000 V
MPP voltage range / rated input voltage	245 V ... 800 V / 600 V	295 V ... 800 V / 600 V
Min. input voltage / initial input voltage	150 V / 188 V	150 V / 188 V
Max. input current input A / input B	11 A / 10 A	11 A / 10 A
Max. input current per string input A / input B	11 A / 10 A	11 A / 10 A
Number of independent MPP inputs / strings per MPP input	2 / A:2; B:2	2 / A:2; B:2
<b>Output (AC)</b>		
Rated output power (@ 230 V, 50 Hz)	5000 W	6000 W
Max. apparent AC power	5000 VA	6000 VA
AC nominal voltage	3 / N / PE; 220 / 380 V, 3 / N / PE; 230 / 400 V, 3 / N / PE; 240 / 415 V	3 / N / PE; 220 / 380 V, 3 / N / PE; 230 / 400 V, 3 / N / PE; 240 / 415 V
Nominal AC voltage range	160 V - 280 V	160 V - 280 V
AC power frequency / range	50 Hz, 60 Hz / -5 Hz ... +5 Hz	50 Hz, 60 Hz / -5 Hz ... +5 Hz
Rated power frequency / rated grid voltage	50 Hz/230 V	50 Hz/230 V
Max. output current	7.3 A	8.7 A
Power factor at rated power	1	1
Adjustable displacement power factor	0.8 overexcited ... 0.8 underexcited	0.8 overexcited ... 0.8 underexcited
Feed-in phases / connection phases	3 / 3	3 / 3
<b>Efficiency</b>		
Max. efficiency / European weighted efficiency	98.1 % / 97.5 %	98.1 % / 97.5 %
<b>Protective devices</b>		
DC disconnect device	●	●
Ground fault monitoring / grid monitoring	● / ●	● / ●
DC reverse polarity protection / AC short-circuit current capability / galvanically isolated	● / ● / -	● / ● / -
All-pole-sensitive residual-current monitoring unit	●	●
Protection class (according to IEC 62103) / overvoltage category (according to IEC 60664-1)	I / III	I / III
<b>General data</b>		
Dimensions (W / H / D)	470 / 730 / 240 mm (18.5 / 28.7 / 9.4 inch)	470 / 730 / 240 mm (18.5 / 28.7 / 9.4 inch)
Weight	37 kg / 81.4 lb	37 kg / 81.4 lb
Operating temperature range	-25 °C ... +60 °C / -13 °F ... +140 °F	-25 °C ... +60 °C / -13 °F ... +140 °F
Noise emission (typical)	40 dB(A)	40 dB(A)
Self-consumption (night)	1 W	1 W
Topology / cooling concept	Transformerless / OptiCool	Transformerless / OptiCool
Degree of protection / connection area degree of protection (according to IEC 60529)	IP65 / IP65	IP65 / IP65
Climatic category (according to IEC 60721-3-4)	4K4H	4K4H
Max. permissible value for relative humidity (non-condensing)	100 %	100 %
<b>Features</b>		
DC connection	SUNCLIX	SUNCLIX
AC connection	Spring clamp terminal	Spring clamp terminal
Display	Graphic	Graphic
Interface: RS485 / Bluetooth / Webconnect	- / ● / ●	- / ● / ●
Multi-function relay	●	●
Warranty: 5 / 10 / 15 / 20 / 25 years	● / ○ / ○ / ○ / ○ / ○	● / ○ / ○ / ○ / ○ / ○
Certificates and approvals (more available on request)	CE, VDE0126-1-1, UTE C15-712-1, VDE-AR-N 4105	
Certificates and approvals (planned)	RD 661/2007, PPC, AS 4777, EN 50438 <sup>1</sup> , C10/11, PPDS, IEC 61727, S14777, G59/2, CEI 0-21, RD1699	
Type designation	STP 5000TL-20	STP 6000TL-20



1 Does not apply to all national appendices of EN 50438  
 Note: Technical data is preliminary and subject to change  
 ● Standard feature ○ Optional feature – Not available  
 Data at nominal conditions

Sunny Tripower 7000TL	Sunny Tripower 8000TL	Sunny Tripower 9000TL	
7175 W	8200 W	9225 W	
1000 V	1000 V	1000 V	
290 V ... 800 V / 600 V	330 V ... 800 V / 600 V	370 V ... 800 V / 600 V	
150 V / 188 V	150 V / 188 V	150 V / 188 V	
15 A / 10 A	15 A / 10 A	15 A / 10 A	
15 A / 10 A	15 A / 10 A	15 A / 10 A	
2 / A:2; B:2	2 / A:2; B:2	2 / A:2; B:2	
7000 W	8000 W	9000 W	
7000 VA	8000 VA	9000 VA	
3 / N / PE; 220 / 380 V,	3 / N / PE; 220 / 380 V,	3 / N / PE; 220 / 380 V,	
3 / N / PE; 230 / 400 V,	3 / N / PE; 230 / 400 V,	3 / N / PE; 230 / 400 V,	
3 / N / PE; 240 / 415 V	3 / N / PE; 240 / 415 V	3 / N / PE; 240 / 415 V	
160 V - 280 V	160 V - 280 V	160 V - 280 V	
50 Hz, 60 Hz / -5 Hz ... +5 Hz	50 Hz, 60 Hz / -5 Hz ... +5 Hz	50 Hz, 60 Hz / -5 Hz ... +5 Hz	
50 Hz/230 V	50 Hz/230 V	50 Hz/230 V	
10.2 A	11.6 A	13.1 A	
1	1	1	
0.8 overexcited ... 0.8 underexcited	0.8 overexcited ... 0.8 underexcited	0.8 overexcited ... 0.8 underexcited	
3 / 3	3 / 3	3 / 3	
98.1 % / 97.6 %	98.1 % / 97.6 %	98.1 % / 97.7 %	
● ● / ● ● / ● / - ● I / III	● ● / ● ● / ● / - ● I / III	● ● / ● ● / ● / - ● I / III	
470 / 730 / 240 mm (18.5 / 28.7 / 9.4 inch)	470 / 730 / 240 mm (18.5 / 28.7 / 9.4 inch)	470 / 730 / 240 mm (18.5 / 28.7 / 9.4 inch)	
37 kg / 81.4 lb	37 kg / 81.4 lb	37 kg / 81.4 lb	
-25 °C ... +60 °C / -13 °F ... +140 °F	-25 °C ... +60 °C / -13 °F ... +140 °F	-25 °C ... +60 °C / -13 °F ... +140 °F	
40 dB(A)	40 dB(A)	40 dB(A)	
1 W	1 W	1 W	
Transformerless / OptiCool	Transformerless / OptiCool	Transformerless / OptiCool	
IP65 / IP65	IP65 / IP65	IP65 / IP65	
4K4H	4K4H	4K4H	
100 %	100 %	100 %	
SUNCLIX	SUNCLIX	SUNCLIX	
Spring clamp terminal	Spring clamp terminal	Spring clamp terminal	
Graphic	Graphic	Graphic	
- / ● / ●	- / ● / ●	- / ● / ●	
●	●	●	
● / ○ / ○ / ○ / ○	● / ○ / ○ / ○ / ○	● / ○ / ○ / ○ / ○	
CE, VDE0126-1-1, UTE C15-712-1, VDE-AR-N 4105			
RD 661/2007, PPC, AS 4777, EN 50438 <sup>1</sup> , C10/11, PPDS, IEC 61727, SI4777, G59/2, CEI 0-21, RD1699			
STP 7000TL-20	STP 8000TL-20	STP 9000TL-20	