

SUNNY TRIPOWER

10000TL / 12000TL / 15000TL / 17000TL



STP 10000T-10 / STP 12000TL-10 / STP 15000TL-10 / STP 17000TL-10



Economical

- Maximum efficiency of 98.2%
- SMA OptiTrac Global Peak MPP tracking for best MPP tracking efficiency
- Bluetooth® communication

Reliable

- Triple protection with Optiprotect:
- Electronic string fuse
- Self-learning string failure detection
- DC surge arrester (Type II) can be integrated

Flexible

- DC input voltage up to 1000 V
- Integrated grid management functions
- Custom plant design with Optiflex

Simple

- Three-phase feed-in
- Cable connection without tools
- SUNCLIX DC plug-in system
- Easily accessible connection area

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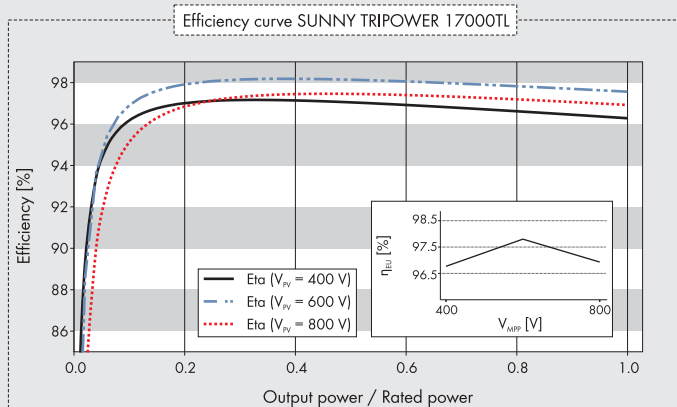
The three-phase inverter for easy plant design

Full of pioneering technology: highly flexible plant design with the three-phase Sunny Tripower inverter. Thanks to Optiflex technology, two MPP inputs and a broad input voltage range, it is suited to almost any module configuration. It meets any requirement such as reactive power supply, grid support thus reliably participating in grid management. The safety concept Optiprotect with its self-learning string-failure detection, electronic string fuse and integrable DC surge arrester type II, ensures maximum availability.

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Technical Data	Sunny Tripower 10000TL	Sunny Tripower 12000TL
Input (DC)		
Max. DC power (@ cos $\phi=1$)	10200 W	12250 W
Max. input voltage	1000 V	1000 V
MPP voltage range / rated input voltage	320 V - 800 V / 600 V	380 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	22 A / 11 A	22 A / 11 A
Max. input current per string input A ² / input B ²	33 A / 12.5 A	33 A / 12.5 A
Number of independent MPP inputs / strings per MPP input	2 / A:4; B:1	2 / A:4; B:1
Output (AC)		
Rated power (@ 230 V, 50 Hz)	10000 W	12000 W
Max. apparent AC power	10000 VA	12000 VA
Nominal AC 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 / -6 Hz ... +5 Hz	50 Hz, 60 Hz / -6 Hz ... +5 Hz
Rated grid frequency / rated grid voltage	50 Hz / 230 V	50 Hz / 230 V
Max. output current	16 A	19.2 A
Power factor at rated power	1	1
Adjustable displacement factor	0.8 overexcited... 0.8 underexcited	0.8 overexcited... 0.8 underexcited
Phase conductors / connection phases	3 / 3	3 / 3
Efficiency		
Max. efficiency / European efficiency	98.1% / 97.7%	98.1% / 97.7%
Protection		
Input-side disconnection device	●	●
Ground-fault monitoring / grid monitoring	● / ●	● / ●
DC surge arrester Type II, can be integrated	○	○
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
General Data		
Dimensions (W / H / D)	665 / 690 / 265 mm (26.2 / 27.2 / 10.4 in)	665 / 690 / 265 mm (26.2 / 27.2 / 10.4 in)
Weight	59 kg (130.07 lb)	59 kg (130.07 lb)
Operating temperature range	-25 °C ... +60 °C (-13 °F ... +140 °F)	-25 °C ... +60 °C (-13 °F ... +140 °F)
Noise emission (typical)	51 dB(A)	51 dB(A)
Self-consumption at night	1 W	1 W
Topology / cooling concept	Transformerless / OptiCool	Transformerless / OptiCool
Degree of protection (according to IEC 60529)	IP65	IP65
Climatic category (according to IEC 60721-3-4)	4K4H	4K4H
Maximum permissible value for relative humidity (non-condensing)	100%	100%
Features		
DC terminal / AC terminal	SUNCLIX / Spring-type terminal	SUNCLIX / Spring-type terminal
Display	Graphic	Graphic
Interface: RS485 / Bluetooth / Speedwire / Webconnect	○ / ● / ○ / ○	○ / ● / ○ / ○
Multi-function relay / Power Control Module	○ / ○	○ / ○
Warranty: 5 / 10 / 15 / 20 / 25 years	● / ○ / ○ / ○ / ○	● / ○ / ○ / ○ / ○
Certificates and approvals (more available on request)	AS 4777, BDEW 2008, C10/11, CE, CEI 0-21, EN 50438 ¹ , G59/2, IEC61727, PPC, PPDS, RD 1699, RD 661/2007, SI4777, UTE C15-712-1, VDE 0126-1-1, VDE-AR-N 4105	
Type designation	STP 10000TL-10	STP 12000TL-10



Accessories



RS485 interface
DM-485CB-10



DC surge arrester (Type II),
input A
DCSPD KIT1-10



DC surge arrester (Type II),
inputs A and B
DCSPD KIT2-10



Power Control Module
PWCMOD-10



Multi-function relay
MFR01-10



Speedwire/Webconnect
interface SWDM-10

¹ Does not apply to all national deviations of EN 50438

² To be observed in case of a short circuit in the electronic string fuse

● Standard features ○ Optional features – Not available

Data at nominal conditions

Provisional data, as of January 2013

Technical Data	Sunny Tripower 15000TL	Sunny Tripower 17000TL
Input (DC)		
Max. DC power (@ cos φ=1)	15340 W	17410 W
Max. input voltage	1000 V	1000 V
MPP voltage range / rated input voltage	360 V – 800 V / 600 V	400 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	33 A / 11 A	33 A / 11 A
Max. input current per string input A ² / input B ²	40 A / 12.5 A	40 A / 12.5 A
Number of independent MPP inputs / strings per MPP input	2 / A:5; B:1	2 / A:5; B:1
Output (AC)		
Rated power (@ 230 V, 50 Hz)	15000 W	17000 W
Max. apparent AC power	15000 VA	17000 VA
Nominal AC 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 / –6 Hz ... +5 Hz	50 Hz, 60 Hz / –6 Hz ... +5 Hz
Rated grid frequency / rated grid voltage	50 Hz / 230 V	50 Hz / 230 V
Max. output current	24 A	24.6 A
Power factor at rated power	1	1
Adjustable displacement factor	0.8 overexcited... 0.8 underexcited	0.8 overexcited... 0.8 underexcited
Phase conductors / connection phases	3 / 3	3 / 3
Efficiency		
Max. efficiency / European efficiency	98.2% / 97.8%	98.2% / 97.8%
Protection		
Input-side disconnection device	●	●
Ground-fault monitoring / grid monitoring	● / ●	● / ●
DC surge arrester Type II, can be integrated	○	○
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
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DC terminal / AC terminal	SUNCLIX / Spring-type terminal	SUNCLIX / Spring-type terminal
Display	Graphic	Graphic
Interface: RS485 / Bluetooth / Speedwire / Webconnect	○ / ● / ○ / ○	○ / ● / ○ / ○
Multi-function relay / Power Control Module	○ / ○	○ / ○
Warranty: 5 / 10 / 15 / 20 / 25 years	● / ○ / ○ / ○ / ○	● / ○ / ○ / ○ / ○
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Type designation	STP 15000TL-10	STP 17000TL-10