STP 10000TL / 12000TL / 15000TL / 17000TL

Efficient
- Maximum efficiency of 98 %
- Highest yields through OptiTrac and OptiCool

Safe
- Compatible with the BDEW guidelines
- Integrated ESS DC load-disconnecting unit
- Electronic String Fuse and String Failure Detection
- String Current Monitoring

Flexible
- DC Surge Protection Device (type II) can be integrated
- DC input voltage of up to 1000 V
- Flexible system design using two separate step-up converters

Simple
- Three-phase feed-in
- Cable connection without tools
- Innovative DC plug system
- Convenient wiring compartment
- *Bluetooth*® Communication

SUNNY TRIPOWER

With three phases for simple system planning

In a class of its own: packed with state-of-the-art technology, the Sunny Tripower makes for easy installation, high yield, and secure grid support. Thanks to its multi-string technology and the widest input voltage range, the three-phase inverter is suitable for every imaginable module configuration. In addition, it is highly flexible in terms of the plant design – from 10 kW up to the megawatt range. The Sunny Tripower presently fulfills the BDEW guideline requirements (medium voltage guideline), and in so doing, it participates in reliable grid management. A comprehensive security concept encompassing, among other things, string failure detection, electronic string fuses, and a surge protection function, providing the highest level of availability and reducing plant costs.

Technical Data
SUNNY TRIPOWER 10000TL / 12000TL / 15000TL / 17000TL

	STP 10000TL-10	STP 12000TL-10	STP 15000TL-10	STP 17000TL-10
Input (DC)				
Max. DC power (at cos φ = 1)	10.4 kW	12.5 kW	15.6 kW	17.6 kW
Max. DC voltage	1000 V	1000 V	1000 V	1000 V
PV-voltage range, MPPT	150 – 800 V	150 – 800 V	150 – 800 V	150 – 800 V
Max. input current (input A / input B)	22 A / 11 A	22 A / 11 A	33 A / 11 A	33 A / 11 A
Number of MPP trackers	2	2	2	2
Max. number of parallel strings (input A / input B)	4 / 1	4 / 1	5 / 1	5 / 1
Output (AC)				
Nominal AC output	10 kVA	12 kVA	15 kVA	17 kVA
Max. AC power	10 kVA	12 kVA	15 kVA	17 kVA
Max. output current	16 A	19.2 A	24 A	24.6 A
Nominal AC voltage	3 / N / PE, 230 / 400V	3 / N / PE, 230 / 400V	3 / N / PE, 230 / 400V	3 / N / PE, 230 / 400V
AC grid frequency (self-adjusting) / range	50 Hz / 60 Hz / ± 4.5 Hz	50 Hz / 60 Hz / ± 4.5 Hz	50 Hz / 60 Hz / ± 4.5 Hz	50 Hz / 60 Hz / ± 4.5 Hz
Phase shift (cos φ), adjustable	0.8 leading ... 0.8 lagging	0.8 leading ... 0.8 lagging	0.8 leading ... 0.8 lagging	0.8 leading ... 0.8 lagging
AC connection	Three-phase	Three-phase	Three-phase	Three-phase
Efficiency				
Max. efficiency / Euro-Eta	98 % / 97.5 %	98 % / 97.5 %	98 % / 97.5 %	98 % / 97.5 %
Protection devices				
DC reverse polarity protection	●	●	●	●
ESS DC load-disconnecting switch	●	●	●	●
AC short-circuit protection	●	●	●	●
Ground fault monitoring	●	●	●	●
Grid monitoring (SMA Grid Guard)	●	●	●	●
All-pole sensitive residual-current monitoring unit	●	●	●	●
DC surge protection device (type II) can be integrated	●	●	●	●
Electronic string fuse	●	●	●	●
String failure detection	●	●	●	●
General Data				
Dimensions (W / H / D) in mm	665 / 690 / 265	665 / 690 / 265	665 / 690 / 265	665 / 690 / 265
Weight	approx. 65 kg	approx. 65 kg	approx. 65 kg	approx. 65 kg
Operating temperature range	–25 °C ... +60 °C	–25 °C ... +60 °C	–25 °C ... +60 °C	–25 °C ... +60 °C
Consumption: operating (standby) / night	< 12.5 W / < 1 W	< 12.5 W / < 1 W	< 12.5 W / < 1 W	< 12.5 W / < 1 W
Topology	transformerless	transformerless	transformerless	transformerless
Cooling concept	OptiCool	OptiCool	OptiCool	OptiCool
Installation: Indoors / Outdoors (IP65 electronics)	●/●	●/●	●/●	●/●
Features				
DC connection: Phoenix Contact	●	●	●	●
AC connection: spring-type terminal (without tools)	●	●	●	●
Graphic display	●	●	●	●
Interfaces: *Bluetooth*® / RS485	●/❍	●/❍	●/❍	●/❍
Warranty: 5 years / 10 years / 15 years / 20 years / 25 years	●/❍/❍/❍/❍	●/❍/❍/❍/❍	●/❍/❍/❍/❍	●/❍/❍/❍/❍
Certificates and approvals	www.SMA.de	www.SMA.de	www.SMA.de	www.SMA.de
● Standard ❍ Optional	Data at nominal conditions – provisional data, as of October 2009			

Accessories

RS 485 interface

DC surge protection device (type II), input A

DC surge protection device (type II), inputs A and B