

# SUNNY TRIPOWER

## 8000TL / 10000TL / 12000TL / 15000TL / 17000TL



STP 8000TL-10 / 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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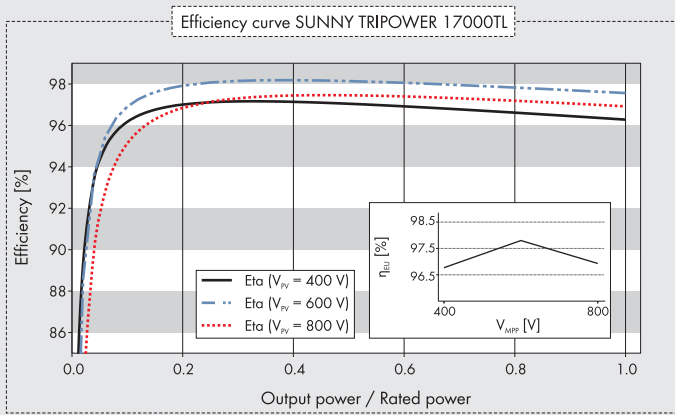
The three-phase inverter for easy plant design

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<br>8000TL   |
|--|--|
| <b>Input (DC)</b>  |  |
| Max. DC power (@ cos φ=1)  | 8200 W   |
| Max. input voltage   | 1000 V   |
| MPP voltage range / rated input voltage  | 320 V – 800 V / 600 V  |
| Min. input voltage / initial input voltage   | 150 V / 188 V  |
| Max. input current input A / input B   | 22 A / 11 A  |
| Max. input current per string input A* / input B*  | 33 A / 12.5 A  |
| Number of independent MPP inputs / strings per MPP input   | 2 / A:4; B:1   |
| <b>Output (AC)</b>   |  |
| Rated power (@ 230 V, 50 Hz)   | 8000 W   |
| Max. apparent AC power   | 8000 VA  |
| Nominal AC voltage   | 3 / N / PE; 220 / 380 V<br>3 / N / PE; 230 / 400 V<br>3 / N / PE; 240 / 415 V  |
| Nominal AC voltage range   | 160 V – 280 V  |
| AC power frequency / range   | 50 Hz, 60 Hz / –6 Hz ... +5 Hz   |
| Rated grid frequency / rated grid voltage  | 50 Hz / 230 V  |
| Max. output current  | 16 A   |
| Power factor at rated power  | 1  |
| Adjustable displacement factor   | 0.8 overexcited... 0.8 underexcited  |
| Phase conductors / connection phases   | 3 / 3  |
| <b>Efficiency</b>  |  |
| Max. efficiency / European efficiency  | 98.1 % / 97.5 %  |
| <b>Protection</b>  |  |
| 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  |
| <b>General Data</b>  |  |
| Dimensions (W / H / D)   | 665 / 690 / 265 mm<br>(26.2 / 27.2 / 10.4 in)  |
| Weight   | 59 kg / 130.07 lb  |
| Operating temperature range  | –25 °C...+60 °C / –13 °F...+140 °F   |
| Noise emission (typical)   | 51 dB(A)   |
| Self-consumption at night  | 1 W  |
| Topology / cooling concept   | Transformerless / OptiCool   |
| Degree of protection (according to IEC 60529)  | IP65   |
| Climatic category (according to IEC 60721-3-4)   | 4K4H   |
| Maximum permissible value for relative humidity (non-condensing)                                   | 100 %  |
| <b>Features</b>  |  |
| DC terminal  | SUNCLIX  |
| AC terminal  | Spring-type terminal   |
| Display  | Graphic  |
| Interface: RS485 / Bluetooth / Webconnect / Speedwire <sup>3</sup>                                 | ○ / ● / ○ / ○  |
| Multi-function relay / Power Control Module  | ○ / ○  |
| Warranty: 5 / 10 / 15 / 20 / 25 years  | ● / ○ / ○ / ○ / ○  |
| Certificates and approvals (more available on request)   | CE, VDE0126-1-1, RD 661/2007, G59/2, PPC, AS4777, SI4777, EN 50438 <sup>1</sup> , C10/11, PPDS, IEC 61727, UTEC 15-712-1, VDE-AR-N 4105, RD 1699, CEI 0-21 |
| <p>● Standard features   ○ Optional features   – Not available      Data at nominal conditions</p> |  |
| Type designation   | STP 8000TL-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
-  Webconnect interface with WEBCONDM-10 Speedwire function
-  Interface to Speedwire fieldbus SPWDM-10

<sup>1</sup> Does not apply to all national deviations of EN 50438  
<sup>2</sup> To be observed in case of a short circuit in the electronic string fuse  
<sup>3</sup> Planned (certificates, approvals, accessories)

Provisional data, as of July 2012

| Sunny Tripower 10000TL                        | Sunny Tripower 12000TL                        | Sunny Tripower 15000TL                        | Sunny Tripower 17000TL                        |
|---|---|---|---|
| 10200 W                                       | 12250 W                                       | 15340 W                                       | 17410 W                                       |
| 1000 V  | 1000 V  | 1000 V  | 1000 V  |
| 320 V - 800 V / 600 V                         | 380 V - 800 V / 600 V                         | 360 V - 800 V / 600 V                         | 400 V - 800 V / 600 V                         |
| 150 V / 188 V                                 | 150 V / 188 V                                 | 150 V / 188 V                                 | 150 V / 188 V                                 |
| 22 A / 11 A                                   | 22 A / 11 A                                   | 33 A / 11 A                                   | 33 A / 11 A                                   |
| 33 A / 12.5 A                                 | 33 A / 12.5 A                                 | 40 A / 12.5 A                                 | 40 A / 12.5 A                                 |
| 2 / A:4; B:1                                  | 2 / A:4; B:1                                  | 2 / A:5; B:1                                  | 2 / A:5; B:1                                  |
| 10000 W                                       | 12000 W                                       | 15000 W                                       | 17000 W                                       |
| 10000 VA                                      | 12000 VA                                      | 15000 VA                                      | 17000 VA                                      |
| 3 / N / PE; 220 / 380 V                       | 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; 230 / 400 V                       |
| 3 / N / PE; 240 / 415 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                                 | 160 V - 280 V                                 |
| 50 Hz, 60 Hz / -6 Hz ... +5 Hz                | 50 Hz, 60 Hz / -6 Hz ... +5 Hz                | 50 Hz, 60 Hz / -6 Hz ... +5 Hz                | 50 Hz, 60 Hz / -6 Hz ... +5 Hz                |
| 50 Hz / 230 V                                 | 50 Hz / 230 V                                 | 50 Hz / 230 V                                 | 50 Hz / 230 V                                 |
| 16 A  | 19.2 A  | 24 A  | 24.6 A  |
| 1   | 1   | 1   | 1   |
| 0.8 overexcited... 0.8 underexcited           | 0.8 overexcited... 0.8 underexcited           | 0.8 overexcited... 0.8 underexcited           | 0.8 overexcited... 0.8 underexcited           |
| 3 / 3   | 3 / 3   | 3 / 3   | 3 / 3   |
| 98.1 % / 97.7 %                               | 98.1 % / 97.7 %                               | 98.2 % / 97.8 %                               | 98.2 % / 97.8 %                               |
| ●   | ●   | ●   | ●   |
| ● / ●   | ● / ●   | ● / ●   | ● / ●   |
| ○   | ○   | ○   | ○   |
| ● / ● / -                                     | ● / ● / -                                     | ● / ● / -                                     | ● / ● / -                                     |
| ●   | ●   | ●   | ●   |
| I / III                                       | I / III                                       | I / III                                       | I / III                                       |
| 665 / 690 / 265 mm<br>(26.2 / 27.2 / 10.4 in) | 665 / 690 / 265 mm<br>(26.2 / 27.2 / 10.4 in) | 665 / 690 / 265 mm<br>(26.2 / 27.2 / 10.4 in) | 665 / 690 / 265 mm<br>(26.2 / 27.2 / 10.4 in) |
| 59 kg / 130.07 lb                             | 59 kg / 130.07 lb                             | 59 kg / 130.07 lb                             | 59 kg / 130.07 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            | -25 °C...+60 °C / -13 °F...+140 °F            |
| 51 dB(A)                                      | 51 dB(A)                                      | 51 dB(A)                                      | 51 dB(A)                                      |
| 1 W   | 1 W   | 1 W   | 1 W   |
| Transformerless / OptiCool                    | Transformerless / OptiCool                    | Transformerless / OptiCool                    | Transformerless / OptiCool                    |
| IP65  | IP65  | IP65  | IP65  |
| 4K4H  | 4K4H  | 4K4H  | 4K4H  |
| 100 %   | 100 %   | 100 %   | 100 %   |
| SUNCLIX                                       | SUNCLIX                                       | SUNCLIX                                       | SUNCLIX                                       |
| Spring-type terminal                          | Spring-type terminal                          | Spring-type terminal                          | Spring-type terminal                          |
| Graphic                                       | Graphic                                       | Graphic                                       | Graphic                                       |
| ○ / ● / ○ / ○                                 | ○ / ● / ○ / ○                                 | ○ / ● / ○ / ○                                 | ○ / ● / ○ / ○                                 |
| ○ / ○   | ○ / ○   | ○ / ○   | ○ / ○   |
| ● / ○ / ○ / ○ / ○                             | ● / ○ / ○ / ○ / ○                             | ● / ○ / ○ / ○ / ○                             | ● / ○ / ○ / ○ / ○                             |

CE, VDE0126-1-1, RD 661/2007, G59/2, PPC, AS4777, SI4777, EN 50438<sup>1</sup>, C10/11, PPDS, IEC 61727, UTE C15-712-1, VDEAR-N 4105, BDEW 2008, RD 1699, CEI 0-21

STP 10000TL-10

STP 12000TL-10

STP 15000TL-10

STP 17000TL-10

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