

SUNNY TRIPOWER

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



STP 5000TL-20 / STP 6000TL-20 / STP 7000TL-20 / STP 8000TL-20 / STP 9000TL-20



Economical

- Maximum efficiency of 98 %
- Shade management with OptiTrac Global Peak
- Active temperature management with OptiCool

Flexible

- DC input voltage of up to 1,000 V
- Integrated grid management functions
- Reactive power supply
- Module-tailored plant design with Optiflex

Communicative

- SMA Webconnect Portal communication
- *Bluetooth*[®] communication
- Simple country configuration
- Multi-function relay as standard

Simple

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

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The three-phase inverter for your home

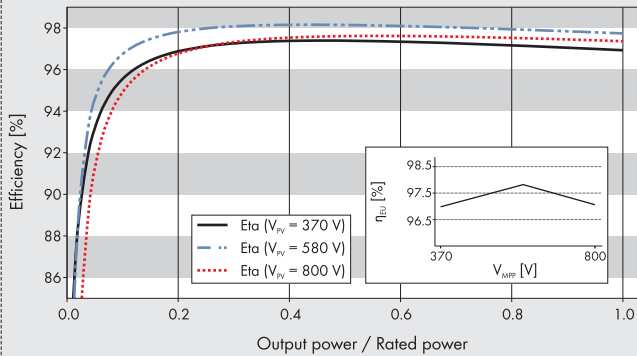
At home with leading-edge technology and top yields: The Sunny Tripower PV plant with 5 to 9 kW of power is setting new standards for home systems. It features an asymmetric multi-string and Optiflex technology to ensure the highest in flexibility while combining peak efficiency with the OptiTrac Global Peak system 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.

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| Provisionally technical data | Sunny Tripower 5000TL | Sunny Tripower 6000TL |
|--|--|---|
| Input (DC) | | |
| 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 / 580 V | 295 V ... 800 V / 580 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 |
| Output (AC) | | |
| Rated 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 |
| Efficiency | | |
| Max. efficiency / European Efficiency | 98 % / 97.1 % | 98.1 % / 97.4 % |
| Protective devices | | |
| 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 |
| General data | | |
| Dimensions (W/H/D) | 470 / 730 / 240 mm (18.5 / 28.7 / 9.5 inches) | 470 / 730 / 240 mm (18.5 / 28.7 / 9.5 inches) |
| Weight | 37 kg / 81.6 lb | 37 kg / 81.6 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 (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 connection / AC connection | SUNCLIX / Spring clamp terminal | SUNCLIX / Spring clamp terminal |
| Display | Graphic | Graphic |
| Interface: RS485 / Bluetooth / Webconnect | - / ● / ● | - / ● / ● |
| Multi-function relay / Power Control Module | ● / ○ | ● / ○ |
| Warranty: 5 / 10 / 15 / 20 / 25 years | ● / ○ / ○ / ○ / ○ | ● / ○ / ○ / ○ / ○ |
| Certificates and approvals (additional 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*, C10/11, PPDS, IEC 61727, SI4777, G83/1-1, CEI 0-21, RD1699 | |
| Type designation | STP 5000TL-20 | STP 6000TL-20 |

Efficiency curve SUNNY TRIPOWER 9000TL



Accessories



Power Control Module
PWCBRD-10

* Does not apply to all national appendices of EN 50438

● Standard features ○ Optional features – Not available
Preliminary information – last updated: August 2012
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 / 580 V | 330 V ... 800 V / 580 V | 370 V ... 800 V / 580 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 % / 97.5 % | 98 % / 97.6 % | 98 % / 97.6 % | |
| ● | ● | ● | |
| ● / ● | ● / ● | ● / ● | |
| ● / ● / - | ● / ● / - | ● / ● / - | |
| ● | ● | ● | |
| I / III | I / III | I / III | |
| 470 / 730 / 240 mm (18.5 / 28.7 / 9.5 inches) | 470 / 730 / 240 mm (18.5 / 28.7 / 9.5 inches) | 470 / 730 / 240 mm (18.5 / 28.7 / 9.5 inches) | |
| 37 kg / 81.6 lb | 37 kg / 81.6 lb | 37 kg / 81.6 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 | |
| 4K4H | 4K4H | 4K4H | |
| 100 % | 100 % | 100 % | |
| SUNCLIX / Spring clamp terminal | SUNCLIX / Spring clamp terminal | SUNCLIX / Spring clamp terminal | |
| Graphic | Graphic | Graphic | |
| - / ● / ● | - / ● / ● | - / ● / ● | |
| ● / ○ | ● / ○ | ● / ○ | |
| ● / ○ / ○ / ○ / ○ | ● / ○ / ○ / ○ / ○ | ● / ○ / ○ / ○ / ○ | |
| VDE0126-1-1, UTE C15-712-1, VDE-AR-N 4105 | | | |
| RD 661/2007, PPC, AS 4777, EN 50438*, C10/11, PPDS, IEC 61727, SI4777, G83/1-1, CEI 0-21, RD1699 | | | |
| STP 7000TL-20 | STP 8000TL-20 | STP 9000TL-20 | |

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