

SUNNY TRIPOWER

15000TL / 20000TL / 25000TL



STP 15000TL-30 / STP 20000TL-30 / STP 25000TL-30



Efficient

- Maximum efficiency of 98.4%

Safe

- DC surge arrester (SPD type II) can be integrated

Flexible

- DC input voltage of up to 1000 V
- Multistring capability for optimum system design
- Optional display

Innovative

- Cutting-edge grid management functions with Integrated Plant Control
- Reactive power available 24/7 (Q on Demand 24/7)

SUNNY TRIPOWER

15000TL / 20000TL / 25000TL

The versatile specialist for large-scale commercial plants and solar power plants

The Sunny Tripower is the ideal inverter for large-scale commercial and industrial plants. Not only does it deliver extraordinary high yields with an efficiency of 98.4%, but it also offers enormous design flexibility and compatibility with many PV modules thanks to its multistring capabilities and wide input voltage range.

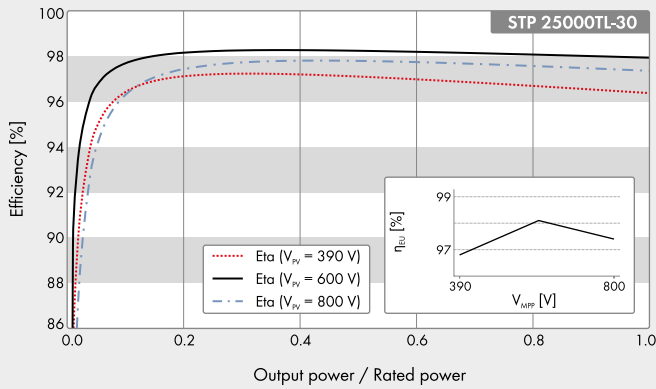
The future is now: the Sunny Tripower comes with cutting-edge grid management functions such as Integrated Plant Control, which allows the inverter to regulate reactive power at the point of common coupling. Separate controllers are no longer needed, lowering system costs. Another new feature—reactive power provision on demand (Q on Demand 24/7).

SUNNY TRIPOWER

15000TL / 20000TL / 25000TL

| Technical Data | Sunny Tripower 15000TL |
|---|---|
| Input (DC) | |
| Max. DC power (at $\cos \varphi = 1$) / DC rated power | 15330 W / 15330 W |
| Max. input voltage | 1000 V |
| MPP voltage range / rated input voltage | 240 V to 800 V / 600 V |
| Min. input voltage / start input voltage | 150 V / 188 V |
| Max. input current input A / input B | 33 A / 33 A |
| Number of independent MPP inputs / strings per MPP input | 2 / A:3; B:3 |
| Output (AC) | |
| Rated power (at 230 V, 50 Hz) | 15000 W |
| Max. AC apparent power | 15000 VA |
| AC nominal voltage | 3 / N / PE; 220 V / 380 V 3 / N / PE; 230 V / 400 V 3 / N / PE; 240 V / 415 V |
| AC voltage range | 180 V to 280 V |
| AC grid frequency / range | 50 Hz / 44 Hz to 55 Hz 60 Hz / 54 Hz to 65 Hz |
| Rated power frequency / rated grid voltage | 50 Hz / 230 V |
| Max. output current / Rated output current | 29 A / 21.7 A |
| Power factor at rated power / Adjustable displacement power factor | 1 / 0 overexcited to 0 underexcited |
| THD | ≤ 3% |
| Feed-in phases / connection phases | 3 / 3 |
| Efficiency | |
| Max. efficiency / European Efficiency | 98.4% / 98.0% |
| Protective devices | |
| DC-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 62109-1) / overvoltage category (according to IEC 62109-1) | I / AC: III; DC: II |
| General data | |
| Dimensions (W / H / D) | 661 / 682 / 264 mm (26.0 / 26.9 / 10.4 inch) |
| Weight | 61 kg (134.48 lb) |
| Operating temperature range | -25 °C to +60 °C (-13 °F to +140 °F) |
| Noise emission (typical) | 51 dB(A) |
| Self-consumption (at night) | 1 W |
| Topology / cooling concept | Transformerless / Opticool |
| Degree of protection (as per IEC 60529) | IP65 |
| Climatic category (according to IEC 60721-3-4) | 4K4H |
| Maximum permissible value for relative humidity (non-condensing) | 100% |
| Features / function / Accessories | |
| DC connection / AC connection | SUNCLIX / spring-cage terminal |
| Display | ○ |
| Interface: RS485, Speedwire/Webconnect | ○ / ● |
| Data interface: SMA Modbus / SunSpec Modbus | ● / ● |
| Multifunction relay / Power Control Module | ○ / ○ |
| OptiTrack Global Peak / Integrated Plant Control / Q on Demand 24/7 | ● / ● / ● |
| Off-Grid capable / SMA Fuel Save Controller compatible | ● / ● |
| Guarantee: 5 / 10 / 15 / 20 years | ● / ○ / ○ / ○ |
| Planned certificates and permits | ANRE 30, AS 4777, BDEW 2008, C10/11:2012, CE, CEI 0-16, CEI 0-21, EN 50438:2013*, G59/3, IEC 60068-2-x, IEC 61727, IEC 62109-1/2, IEC 62116, NBR 16149, NEN EN 50438, NRS 097-2-1, PPC, RD 1699/413, RD 661/2007, Res. n°7:2013, SI4777, TOR D4, TR 3.2.2, UTE C15-712-1, VDE 0126-1-1, VDEAR-N 4105, VFR 2014 |
| * Does not apply to all national appendices of EN 50438 | |
| Type designation | STP 15000TL-30 |

Efficiency Curve



Accessory



RS485 interface
DM-485CB-10



Power Control Module
PWCMOD-10



DC surge arrester Typ II,
inputs A and B
DCSPD KIT3-10



Multifunction relay
MFR01-10

● Standard features ○ Optional features – Not available
 Data at nominal conditions
 Status: May 2016

Technical Data

Input (DC)

| |
|--|
| Max. DC power (at $\cos \varphi = 1$) / DC rated power |
| Max. input voltage |
| MPP voltage range / rated input voltage |
| Min. input voltage / start input voltage |
| Max. input current input A / input B |
| Number of independent MPP inputs / strings per MPP input |

Output (AC)

| |
|--|
| Rated power (at 230 V, 50 Hz) |
| Max. AC apparent power |
| AC nominal voltage |
| AC voltage range |
| AC grid frequency / range |
| Rated power frequency / rated grid voltage |
| Max. output current / Rated output current |
| Power factor at rated power / Adjustable displacement power factor |
| THD |
| Feed-in phases / connection phases |

Efficiency

| |
|---------------------------------------|
| Max. efficiency / European Efficiency |
|---------------------------------------|

Protective devices

| |
|---|
| DC-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 62109-1) / overvoltage category (according to IEC 62109-1) |

General data

| |
|--|
| Dimensions (W / H / D) |
| Weight |
| Operating temperature range |
| Noise emission (typical) |
| Self-consumption (at night) |
| Topology / cooling concept |
| Degree of protection (as per IEC 60529) |
| Climatic category (according to IEC 60721-3-4) |
| Maximum permissible value for relative humidity (non-condensing) |

Features / function / Accessories

| |
|---|
| DC connection / AC connection |
| Display |
| Interface: RS485, Speedwire/Webconnect |
| Data interface: SMA Modbus / SunSpec Modbus |
| Multifunction relay / Power Control Module |
| OptiTrack Global Peak / Integrated Plant Control / Q on Demand 24/7 |
| Off-Grid capable / SMA Fuel Save Controller compatible |
| Guarantee: 5 / 10 / 15 / 20 years |
| Certificates and permits (more available on request) |

* Does not apply to all national appendices of EN 50438

Sunny Tripower 20000TL

Sunny Tripower 25000TL

| | |
|---------------------------|-------------------------------------|
| 20440 W / 20440 W | 25550 W / 25550 W |
| 1000 V | 1000 V |
| 320 V to 800 V / 600 V | 390 V to 800 V / 600 V |
| 150 V / 188 V | 150 V / 188 V |
| 33 A / 33 A | 33 A / 33 A |
| 2 / A:3; B:3 | 2 / A:3; B:3 |
| 20000 W | 25000 W |
| 20000 VA | 25000 VA |
| 3 / N / PE; 220 V / 380 V | 3 / N / PE; 230 V / 400 V |
| 3 / N / PE; 230 V / 400 V | 3 / N / PE; 240 V / 415 V |
| 180 V to 280 V | 50 Hz / 44 Hz to 55 Hz |
| 50 Hz / 44 Hz to 55 Hz | 60 Hz / 54 Hz to 65 Hz |
| 50 Hz / 230 V | 29 A / 29 A |
| 36.2 A / 36.2 A | 1 / 0 overexcited to 0 underexcited |
| ≤ 3% | 3 / 3 |
| 98.4% / 98.0% | 98.3% / 98.1% |

| |
|---------------------|
| ● |
| ● / ● |
| ○ |
| ● / ● / - |
| ● |
| I / AC: III; DC: II |

| |
|--|
| 661 / 682 / 264 mm (26.0 / 26.9 / 10.4 inch) |
| 61 kg (134.48 lb) |
| -25 °C to +60 °C (-13 °F to +140 °F) |
| 51 dB(A) |
| 1 W |
| Transformerless / Opticool |
| IP65 |
| 4K4H |
| 100% |

SUNCLIX / spring-cage terminal

| |
|---------------|
| ○ |
| ○ / ● |
| ● / ● |
| ○ / ○ |
| ● / ● / ● |
| ● / ● |
| ● / ○ / ○ / ○ |

ANRE 30, AS 4777, BDEW 2008, C10/11:2012, CE, CEI 0-16, CEI 0-21, EN 50438:2013*, GS9/3, IEC 60068-2-x, IEC 61727, IEC 62109-1/2, IEC 62116, MEA 2013, NBR 16149, NEN EN 50438, NRS 097-2-1, PEA 2013, PPC, RD 1699/413, RD 661/2007, Res. n°7:2013, SI4777, TOR D4, TR 3.2.2, UTE C15-712-1, VDE 0126-1-1, VDE-AR-N 4105, VFR 2014

Type designation

STP 20000TL-30

STP 25000TL-30