

# 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.

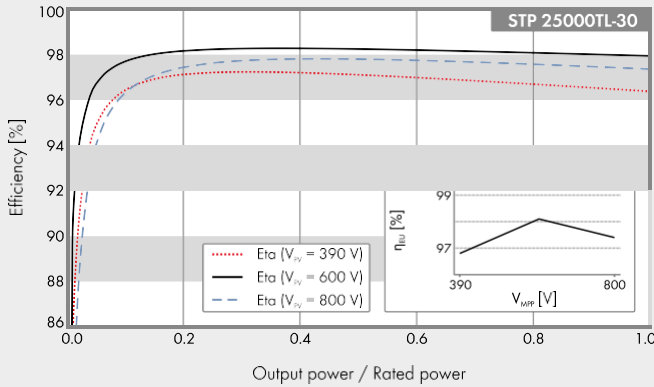
The future is now: the Sunny Tripower comes with cutting-edge grid management functions such as Integrated Plant Control, which allows the inverter to regulate reactive power at the point of common coupling. Separate controllers are no longer needed, lowering system costs. Another new feature—reactive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

# Sunny Tripower

## 15000TL / 20000TL / 25000TL

Technical Data	Sunny Tripower 15000TL
<b>input (DC)</b>	
Max. generator power	27000 Wp
DC rated power	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
<b>output (AC)</b>	
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
<b>Efficiency</b>	
Max. efficiency / European Efficiency	98.4% / 98.0%
<b>protective devices</b>	
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	•
Protectionclass (according to IEC 62109-1) / overvoltage category (according to IEC 62109-1)	I / AC: III; DC: II
<b>General data</b>	
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%
<b>features / function / Accessories</b>	
DC connection / AC connection	SUNCLIX / spring-cage terminal
Display	○
Interface: RS485, Speedwire / Webconnect	○ / •
Data interface: SMA Modbus / SunSpec Modbus	• / •
Multifunction relay / Power Control Module	○ / ○
OptiTrac 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, DEWA 2.0, EN 50438:2013*, G59/3, 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
* 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 TypII,  
inputs A and B  
DCSPD KIT3-10



Multifunction relay  
MFR01-10

● Standard features ○ Optional features — Not available  
Data at nominal conditions  
Status: October 2017

## Technical Data

### input (DC)

Max. generator power
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
OptiTrac 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

Type designation

## Sunny Tripower 20000TL

36000 Wp
20440 W
1000 V
320 V to 800 V / 600 V
150 V / 188 V
33 A / 33 A
2 / A:3; B:3

## Sunny Tripower 25000TL

45000 Wp
25550 W
1000 V
390 V to 800 V / 600 V
150 V / 188 V
33 A / 33 A
2 / A:3; B:3

20000 W
20000 VA
3 / N / PE; 220 V / 380 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 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, DEWA 2.0, EN 50438:2013\*, G59/3, 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, S14777, TOR D4, TR 3.2.2, UTE C15-712-1, VDE 0126-1-1, VDE-AR-N 4105, VFR 2014

STP 20000TL-30

STP 25000TL-30

[www.Sunnyportal.com](http://www.Sunnyportal.com)

Professional PV system monitoring, management and data display



[www.SMA-Solar.com](http://www.SMA-Solar.com)

SMA Solar Technology