

# 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.

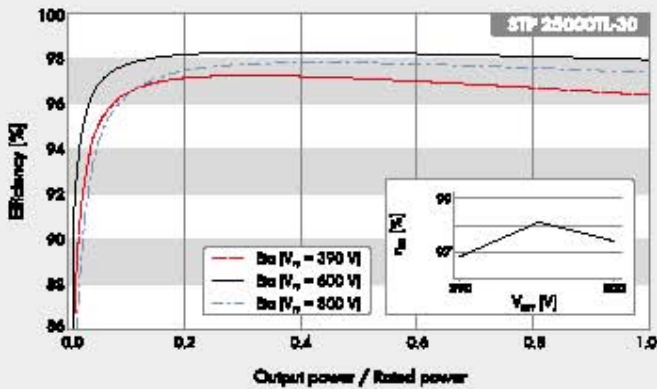
The future is now: the Sunny Tripower comes with cutting-edge grid management functions such as Integrated Plant Control, which allows the inverter to regulate reactive power at the point of common coupling. Separate controllers are no longer needed, lowering system costs. Another new feature—reactive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

# SUNNY TRIPOWER

## 15000TL / 20000TL / 25000TL

Technical Data	Sunny Tripower 15000TL
<b>Input (DC)</b>	
Max. 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
<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; 230 V / 400 V
AC grid frequency / range	50 Hz / 44 Hz to 55 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	$\leq 3\%$
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	●
Protection class (according to IEC 62109-1) / overvoltage category (according to IEC 62109-1)	1 / 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	○ / ○
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	● / ○ / ○ / ○
<b>Planned certificates and permits</b>	ANRE 30, AS 4777, BDEW 2008, C10/11:2012, CE, CEI 0-16, CEI 0-21, EN 50438:2013*, G59/3, IEC 60068-2-28, 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, 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  
DA-485 CB-10



Power Control Module  
PWC/MCD-10



DC surge arrester Type II,  
input A and B  
DCSHD KIT3-10



Life cycle relay  
MR 01-10

• 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

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)

<sup>^</sup> Does not apply to all national appendices of EN 50438

## Type designation

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; 230 V / 400 V

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%

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1 / 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

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ANIE 30, AS 4777, BDEW 2008, C10/11:2012, CE, CEI 0-16, CEI 0-21, EN 50438:2013<sup>^</sup>,  
 G59/3, IEC 60068-2-6, IEC 61727, IEC 62109-1/2, IEC 62116, IEC 62118, IEC 62133, IEC 62134,  
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