



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)

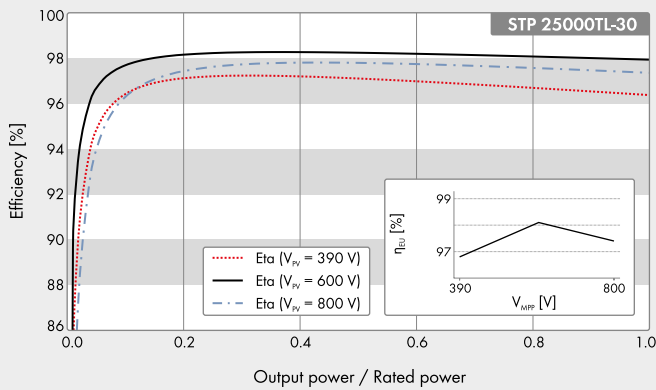
SUNNY TRIPOWER 20000TL / 25000TL

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

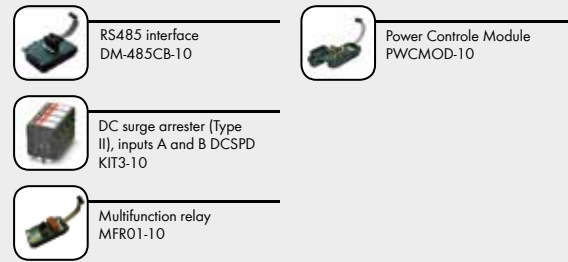
The Sunny Tripower 20000TL/25000TL is the ideal inverter for large-scale commercial and industrial plants. Not only does it deliver extraordinary high yields with an efficiency of 98.4%, but it also offers enormous design flexibility and compatibility with many PV modules thanks to its multistring capabilities and wide input voltage range.

The future is now: the Sunny Tripower 20000TL/25000TL 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).

Efficiency curve



Accessories



● Standard features ○ Optional features – Not available
 Data at nominal conditions
 State: January 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 / 25 years
Certificates and permits (more available on request)

* Does not apply to all national appendices of EN 50438

Sunny Tripower 20000TL

20440 W / 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

25550 W / 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
1 / 0 overexcited to 0 underexcited
≤ 3 %
3 / 3

98.4% / 98.0%

98.3% / 98.1%

●
● / ●
○
● / ● / -
●
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

○
○ / ●
● / ●
○ / ○
● / ● / ●
● / ●
● / ○ / ○ / ○ / ○

ANRE 30, AS 4777, BDEW 2008, C10/11:2012, CE, CEI 0-16, CEI 0-21, EN 50438*, 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, UTE C15-712-1, VDE 0126-1-1, VDE-AR-N 4105, VFR 2014

Type designation

STP 20000TL-30

STP 25000TL-30