



NEW – With Cutting-Edge
Grid Management Functions

Efficient

- Maximum efficiency of 98.2 %
- SMA OptiTrac Global Peak MPP tracking for best MPP tracking efficiency

Reliable

- Triple protection with Optiprotect—electronic string fuse, self-learning string failure detection, integrable DC surge arrester (SPD Type II)

Flexible

- DC input voltage of up to 1,000 V
- Tailor-made system design with Optiflex

Innovative

- Cutting-edge grid management functions
- Reactive power available 24/7 (Q on Demand)*

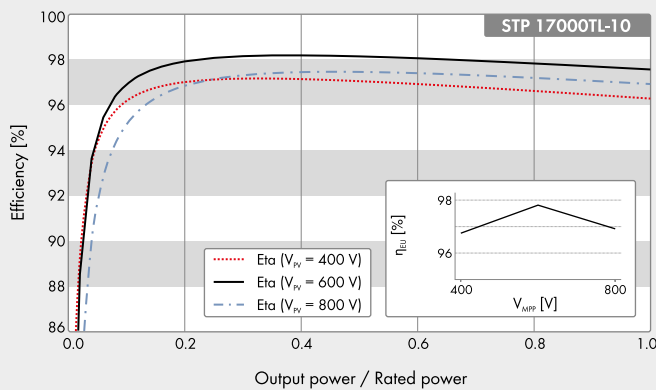
SUNNY TRIPOWER 15000TL / 17000TL

The Three-Phase Inverter for Easy PV System Design

The Sunny Tripower 15000TL/17000TL has new, cutting-edge features: The integration of grid management functions, including Integrated Plant Control, allows the inverter to regulate reactive power at the grid-connection point. This means that upstream regulator units are no longer needed, and system costs are lowered. Another innovation is around-the-clock provision of reactive power (Q on Demand 24/7).

Optiflex technology and the Optiprotect safety concept remain proven standards: Optiflex provides enormous design flexibility with the two MPP inputs in connection with a broad input voltage range - and does it for almost all module configurations. The Optiprotect safety concept, with its self-learning string failure detection, electronic string fuse and integrable DC surge arrester type II, ensures maximum reliability.

Efficiency Curve



Accessory



RS485 interface
DM-485CB-10



SMA Power Control Module
PWCMOD-10



DC surge arrester (Type II),
inputs A and B
DC_SPD_KIT_2-10



Speedwire/Webconnect
interface SWDM-10



Multifunction relay
MFR01-10

● Standard features ○ Optional features – Not available
Data at nominal conditions
Status: March 2015

Technical Data

Input (DC)

Max. DC power (@ cos φ = 1) / DC rated power
Max. input voltage
MPP Voltage range / rated input voltage
Min. input voltage / initial input voltage
Max. input current input A / input B
Max. input current per string input A1 / input B1
Max. DC short-circuit 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
Nominal AC voltage
AC voltage range
AC power 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

Input-side disconnection point
Ground fault monitoring / grid monitoring
DC surge arrester SPD type III / SPD type II
DC reverse polarity protection / AC short-circuit current capability / galvanically isolated
All-pole sensitive residual-current monitoring unit / Electronic string current monitoring
Protection class (as per IEC 62109-1) / overvoltage category (as per 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)
Max. permissible value for relative humidity (non-condensing)

Features / function

DC connection / AC connection
Display
Interface: RS485, Bluetooth®, 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
Warranty: 5/10/15/20/25 years
Certificates and approvals (others available upon request)

¹ To be observed in the event of short-circuit of the string fuse.
² Does not apply to all national appendices of EN 50438
³ Only applies for STP 17000TL-10

Type designation

Sunny Tripower 15000TL

15,340 W / 15,340 W
1,000 V
360 V to 800 V/600 V

Sunny Tripower 17000TL

17,410 W / 17,410 W
1,000 V
400 V to 800 V/600 V

150 V / 188 V

33 A / 11 A

40 A / 12.5 A

50 A / 17 A

2 / A;5; B:1

15,000 W

15,000 VA

3 / N / PE; 220 / 380 V

3 / N / PE; 230 / 400 V

3 / N / PE; 240 / 415 V

160 V - 280 V

50 Hz / 44 Hz ... 55 Hz

60 Hz / 54 Hz ... 65 Hz

50 Hz / 230 V

24 A / 24 A

24.6 A / 24.6 A

1 / 0 lagging to 0 leading

≤ 3 %

3 / 3

≤ 2,6 %

3 / 3

98.2 % / 97.8 %

98.2 % / 97.8 %

●

● / ●

● / ○

● / ● / –

● / ●

I / AC: III; DC: II

665 / 690 / 265 mm (26.2 / 27.2 / 10.4 inches)

59 kg (130.07 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

SUNCLIX / spring-cage terminal

Graphic

Graphic

○ / ● / ○

○ / ○

○ / ○

● / ● / ●

● / ●

● / ○ / ○ / ○ / ○

AS 4777, BDEW 2008, C10/11:2012, CE, CEI 0-16, CEI 0-21, EN 50438², G59/3, IEC 60068-2, IEC 61727, MEA 2013, PEA 2013³, IEC 62109-1/2, NEN EN 50438, PPC, PPDS, RD 1699, RD 661/2007, SI4777, UTE C15-712-1, VDE 0126-1-1, VDE-ARN 4105, VFR 2013, VFR 2014

STP 15000TL-10

STP 17000TL-10