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 1000 V
- Tailor-made system design with Optiflex

Innovative

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

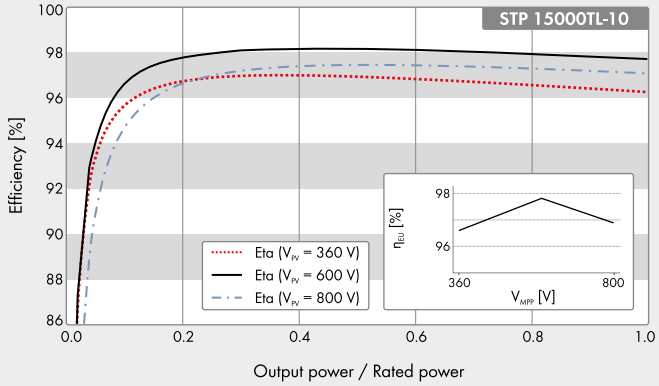
SUNNY TRIPOWER 15000TL

The Three-Phase Inverter for Easy PV System Design

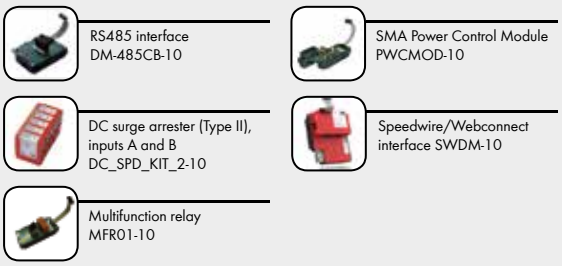
The Sunny Tripower 15000TL has new, cutting-edge features: The integration of grid management functions, including Integrated Plant Control, allows the inverter to regulate reactive power at the grid-connection point. This means that upstream regulator units are no longer needed, and system costs are 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



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

Technical Data	Sunny Tripower 15000TL
Input (DC)	
Max. DC power (at cos φ = 1) / DC rated power	15340 W / 15340 W
Max. input voltage	1000 V
MPP Voltage range / rated input voltage	360 V to 800 V / 600 V
Min. input voltage / initial input voltage	150 V / 188 V
Max. input current input A / input B	33 A / 11 A
Max. input current per string input A1 / input B1	40 A / 12.5 A
Max. DC short-circuit current input A / input B	50 A / 17 A
Number of independent MPP inputs/strings per MPP input	2 / A:5; B:1
Output (AC)	
Rated power (at 230 V, 50 Hz)	15000 W
Max. AC apparent power	15000 VA
Nominal AC voltage	3 / N / PE; 220 / 380 V 3 / N / PE; 230 / 400 V 3 / N / PE; 240 / 415 V
AC voltage range	160 V to 280 V
AC power 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	24 A / 24 A
Power factor at rated power / Adjustable displacement power factor	1 / 0 lagging to 0 leading
THD	≤ 3 %
Feed-in phases/connection phases	3 / 3
Efficiency	
Max. efficiency / European efficiency	98.2 % / 97.8 %
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)	I / AC: III; DC: II
General Data	
Dimensions (W / H / D)	665 / 690 / 265 mm (26.2 / 27.2 / 10.4 inches)
Weight	59 kg (130.07 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
Max. permissible value for relative humidity (non-condensing)	100 %
Features / function	
DC connection / AC connection	SUNCLIX / spring-cage terminal
Display	Graphic
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)	AS 4777, BDEW 2008, C10/11:2012, CE, CEI 0-16, CEI 0-21, EN 50438[2], G59/3, IEC 60068-2, IEC 61727, MEA 2013, IEC 62109-1/2, NEN EN 50438, PPC, PPDS, RD 1699, RD 661/2007, SI4777, UTE C15-712-1, VDE 0126-1-1, VDE-AR-N 4105, VFR 2013, VFR 2014
Type designation	STP 15000TL-10

[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