

SUNNY TRIPOWER 20000TL HIGH EFFICIENCY



STP 20000TLHE-10

99%
MAX. EFFICIENCY



Economical

- Highest efficiency of its class with 99 %
- OptiTrac MPP tracking for best tracking efficiency

- Active temperature management with OptiCool
- Bluetooth® communication

Simple

- Three-phase feed-in
- Cable connection without tools
- SUNCLIX DC plug-in system

Flexible and future-proof

- DC input voltage up to 1,000 V
- Integrated grid management functions
- Reactive power capability

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Highly profitable due to losses reduced by half

Previously unachieved efficiency for short amortization periods: at 99 %, the new Sunny Tripower TL High Efficiency offers the best efficiency level in its class. The reduction in conversion losses by half and the further improved specific price make it the ideal decentralized inverter solution for highly efficient medium- to large-sized PV plants. This particular product version is tailored toward attaining the highest possible levels of efficiency: the Sunny Tripower TL High Efficiency focuses on the essentials and meets all requirements, including reactive power provision, network support, and grid management integration.

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Provisional Technical Data	Sunny Tripower 20000TL High Efficiency
Input (DC)	
Max. DC power (@ $\cos \varphi = 1$)	20500 W
Max. input voltage	1000 V
MPP voltage range @ 230 V grid voltage	580 V – 800 V
Max. input current	36 A
Max. input current per string	36 A
Number of independent MPP inputs / strings per MPP input	1 / 6
Output (AC)	
Rated power (@ 230 V, 50 Hz)	20000 W
Max. apparent AC power	20000 VA
Nominal AC voltage	3 / N / PE, 230 V / 400 V
Nominal AC voltage range	160 V – 280 V
AC power frequency / range	50 Hz, 60 Hz / -6 Hz, +5 Hz
Rated power frequency / rated grid voltage	50 Hz / 230 V, 400 V
Max. output current	29 A
Power factor at rated power	1
Displacement power factor, configurable	0.8 overexcited ... 0.8 underexcited
Feed-in phases / connection phases	3 / 3
Efficiency	
Max. efficiency / European weighted efficiency	99 % / 98,6 %
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 protection / galvanically isolated	● / ● / –
All-pole sensitive residual-current monitoring unit	●
Protection class (as per IEC 62103) / overvoltage category (as per IEC 60664-1)	I / III
General Data	
Dimensions (W / H / D) in mm	665 / 690 / 265
Weight	52 kg / 114.6 lb
Operating temperature range	-25 °C ... +60 °C / -13 °F ... 140 °F
Noise emission (typical)	51 dB(A)
Self-consumption (at night)	1 W
Topology / cooling concept	Transformerless / OptiCool
Electronics degree of protection / connection area (per IEC 60529)	IP65 / IP54
Climatic category (per IEC 60721-3-4)	4K4H
Maximum permissible value for relative humidity, non-condensing	100%
Features	
DC terminal	SUNCLIX
AC terminal	Spring terminal
Display	Chart
Interfaces: RS485 / Bluetooth®	○/●
Warranty: 5 / 10 / 15 / 20 / 25 years	●/○/○/○/○
Multi-function relay	○
Certificates and licenses (more available on request)	CE, VDE 0126-1-1, BDEW, VDE-AR-N 4105
● Standard features ○ Optional features – not available	
Provisional data, as of August 2011 – Data at nominal conditions	
Type designation	STP 20000TLHE-10