SUNNY TRIPOWER 15000TL / 20000TL
HIGH EFFICIENCY

SMA

STP 15000TLHE-10 / STP 20000TLHE-10

99%
MAX. EFFICIENCY

| **Economical**		**Simple**	**Flexible & future-proof**
• Highest efficiency of its class with 99 % • OptiTrac for best MPP tracking efficiency	• Active temperature management with OptiCool • *Bluetooth*® communication	• Three-phase feed-in • Cable connection without tools • SUNCLIX DC plug-in system	• DC input voltage up to 1 000 V • Integrated grid management functions • Reactive power capability

SUNNY TRIPOWER 15000TL /20000TL
HIGH EFFICIENCY

Highly profitable and extremely efficient

Previously unachieved efficiency that guarantees short payback periods: at 99 %, the new Sunny Tripower TL High Efficiency provides 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.

Efficiency curve SUNNY TRIPOWER 20000TLHE
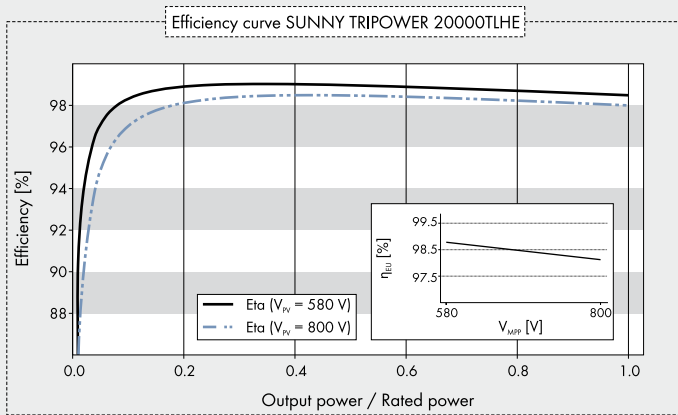
Accessories

RS485 interface
DM-485CB-10

Multi-function relay
MFR01-10

*   Scheduled
**   Does not apply to all national appendices of EN 50438

● Standard features   O Optional features   – Not available
Data at nominal conditions

Provisional Technical Data	Sunny Tripower 20000TL	Sunny Tripower 15000TL
Input (DC)		
Max. DC power (@ cos φ = 1)	20 300 W	15 200 W
Max. input voltage	1 000 V	1 000 V
MPP voltage range with a line voltage of 230 V / rated input voltage	580 V – 800 V / 580 V	580 V – 800 V / 580 V
Min. input voltage / start input voltage	570 V / 620 V	570 V / 620 V
Max. input current	36 A	36 A
Max. input current per string	36 A	36 A
Number of independent MPP inputs / strings per MPP input	1 / 6	1 / 6
Output (AC)		
Rated power (@ 230 V, 50 Hz)	20 000 W	15 000 W
Max. apparent AC power	20 000 VA	15 000 VA
Nominal AC voltage	3 / N / PE, 230 V / 400 V	3 / N / PE, 230 V / 400 V
Nominal AC voltage range	160 V – 280 V	160 V – 280 V
AC power frequency / range	50 Hz, 60 Hz / –6 Hz, +5 Hz	50 Hz, 60 Hz / –6 Hz, +5 Hz
Rated power frequency / rated grid voltage	50 Hz / 230 V, 400 V	50 Hz/230 V
Max. output current	29 A	24 A
Power factor at rated power	1	1
Displacement power factor, adjustable	0.8 overexcited ... 0.8 underexcited	0.8 overexcited ... 0.8 underexcited
Feed-in phases / connection phases	3 / 3	3 / 3
Efficiency		
Max. efficiency / European weighted efficiency	99 % / 98.7 %	99 % / 98.7 %
Protective devices		
DC-side disconnection device	O	O
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 (as per IEC 62103)/overvoltage category (as per IEC 60664-1)	I / III	I / III
General data		
Dimensions (W/H/D) in mm	665 / 680 / 265	665 / 680 / 265
Weight	45 kg / 99.2 lb	45 kg / 99.2 lb
Operating temperature range	-25°C ... +60 °C/–13 °F ... 140 °F	-25°C ... +60 °C/–13 °F ... 140 °F
Noise emission (typical)	51 dB(A)	51 dB(A)
Self-consumption (at night)	1 W	1 W
Topology / cooling concept	Transformerless / OptiCool	Transformerless / OptiCool
Degree of protection: electronics / connection area (per IEC 60529)	IP65 / IP54	IP65 / IP54
Climatic category (as per IEC 60721-3-4)	4K4H	4K4H
Maximum permissible value for relative humidity (non-condensing)	100 %	100 %
Features		
DC terminal	SUNCLIX	SUNCLIX
AC connection	spring clamp terminal	spring clamp terminal
Display	chart	chart
Interfaces: RS485 / Bluetooth®	O/●	O/●
Warranty: 5 / 10 / 15 / 20 / 25 years	●/O/O/O/O	●/O/O/O/O
Multi-function relay	O	O
Certificates and approvals (more available on request)	CE, VDE 0126-1-1, VDE-AR-N 4105, PPC, RD 661/2007, UTE C15-712-1, EN 50438**, PPDS, BDEW 2008, RD 1699, AS 4777*, C10/11*, IEC61727*, CEI 0-21*, G59/2*	
Provisional data, as of February 2012 – Data at nominal conditions		
Type designation	STP 20000TLHE-10	STP 15000TLHE-10

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