

# PV INVERTER COMMERCIAL

ENERGY  
THAT  
CHANGES



Sunny Tripower 10000TL



Sunny Tripower 12000TL



Sunny Tripower 15000TL



Sunny Tripower 17000TL



Sunny Tripower 15000TL  
Economic Excellence



Sunny Tripower 20000TL  
Economic Excellence

Technical data	STP 10000TL-10	STP 12000TL-10	STP 15000TL-10	STP 17000TL-10	STP 15000TLEE-10	STP 20000TLEE-10
<b>Input (DC)</b>						
Max. DC power (@ cos φ = 1)	10200 W	12250 W	15340 W	17410 W	15260 W	20450 W
Max. input voltage	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V
MPP voltage range / rated input voltage	320 V - 800 V / 600 V	380 V - 800 V / 600 V	360 V - 800 V / 600 V	400 V - 800 V / 600 V	580 V - 800 V / 580 V	580 V - 800 V / 580 V
Min. input voltage / initial input voltage	150 V / 188 V	150 V / 188 V	150 V / 188 V	150 V / 188 V	570 V / 620 V	570 V / 620 V
Max. input current					36 A	36 A
Max. input current input A / input B	22 A / 11 A	22 A / 11 A	33 A / 11 A	33 A / 11 A		
Max. input current per string					36 A	36 A
Max. input current per string input A <sup>2</sup> / input B <sup>2</sup>	33 A / 12.5 A	33 A / 12.5 A	40 A / 12.5 A	40 A / 12.5 A		
Number of independent MPP inputs / strings per MPP input	2 / A:4; B:1	2 / A:4; B:1	2 / A:5; B:1	2 / A:5; B:1	1 / 6	1 / 6
<b>Output (AC)</b>						
Rated power (@ 230 V, 50 Hz)	10000 W	12000 W	15000 W	17000 W	15000 W	20000 W
Max. apparent AC power	10000 VA	12000 VA	15000 VA	17000 VA	15000 VA	20000 VA
Nominal AC voltage	3 / N / PE; 220 V / 380 V 3 / N / PE; 230 V / 400 V 3 / N / PE; 240 V / 415 V	3 / N / PE; 220 V / 380 V 3 / N / PE; 230 V / 400 V 3 / N / PE; 240 V / 415 V	3 / N / PE; 220 V / 380 V 3 / N / PE; 230 V / 400 V 3 / N / PE; 240 V / 415 V	3 / N / PE; 220 V / 380 V 3 / N / PE; 230 V / 400 V 3 / N / PE; 240 V / 415 V	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	160 V - 280 V	160 V - 280 V	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	50 Hz, 60 Hz / -6 Hz ... +5 Hz	50 Hz, 60 Hz / -6 Hz ... +5 Hz	50 Hz, 60 Hz / -6 Hz ... +5 Hz	50 Hz, 60 Hz / -6 Hz ... +5 Hz
Rated grid frequency / rated grid voltage	50 Hz / 230 V	50 Hz / 230 V	50 Hz / 230 V	50 Hz / 230 V	50 Hz / 230 V	50 Hz / 230 V
Max. output current	16 A	19.2 A	24 A	24.6 A	24 A	29 A
Power factor at rated power	1	1	1	1	1	1
Adjustable displacement factor	0.8 overexcited ... 0.8 underexcited	0.8 overexcited ... 0.8 underexcited	0.8 overexcited ... 0.8 underexcited	0.8 overexcited ... 0.8 underexcited	0.8 overexcited ... 0.8 underexcited	0.8 overexcited ... 0.8 underexcited
Feed-in phases / connection phases / Power Balancing	3 / 3 / -	3 / 3 / -	3 / 3 / -	3 / 3 / -	3 / 3 / -	3 / 3 / -
<b>Efficiency</b>						
Max. efficiency / European efficiency	98.1% / 97.7%	98.1% / 97.7%	98.2% / 97.8%	98.2% / 97.8%	98.5% / 98.3%	98.5% / 98.2%
<b>Protective devices</b>						
DC-side disconnection device		●			○	
Ground fault monitoring / grid monitoring		● / ●			● / ●	
DC surge arrester (type II), can be integrated		○			-	
DC reverse polarity protection / reverse current 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	
<b>General data</b>						
Dimensions (W / H / D)		665 / 690 / 265 mm (26.2 / 27.2 / 10.4 inch)			665 / 680 / 265 mm (26.2 / 26.8 / 10.4 inch)	
Weight		59 kg (130,07 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 (as per IEC 60529)		IP65			IP65	
Climatic category (as per IEC 60721-3-4)		4K4H			4K4H	
Maximum permissible value for relative humidity (non-condensing)		100%			100%	
<b>Features</b>						
DC terminal / AC terminal		SUNCLIX / Spring-cage terminal			SUNCLIX / Spring-cage terminal	
Display		Graphic			Graphic	
Interfaces: RS485, Bluetooth®, Speedwire/Webconnect		○ / ● / ○			○ / ● / ○	
Multi-function relay / Power Control Module		○ / ○			○ / ○	
Warranty: 5 / 10 / 15 / 20 / 25 years		● / ○ / ○ / ○ / ○			● / ○ / ○ / ○ / ○	
Certificates and approvals on request		www.SMA-Solar.com			www.SMA-Solar.com	
Type designation	STP 10000TL-10	STP 12000TL-10	STP 15000TL-10	STP 17000TL-10	STP 15000TLEE-10	STP 20000TLEE-10

\* To be observed in case of a short circuit in the electronic string fuse

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Legend: ● Standard features ○ Optional features - Not available · Data at nominal conditions · As of July 2013 Bluetooth® is a registered trademark owned by Bluetooth SIG, Inc. SUNCLIX is a registered trademark owned by PHOENIX CONTACT GmbH & Co.