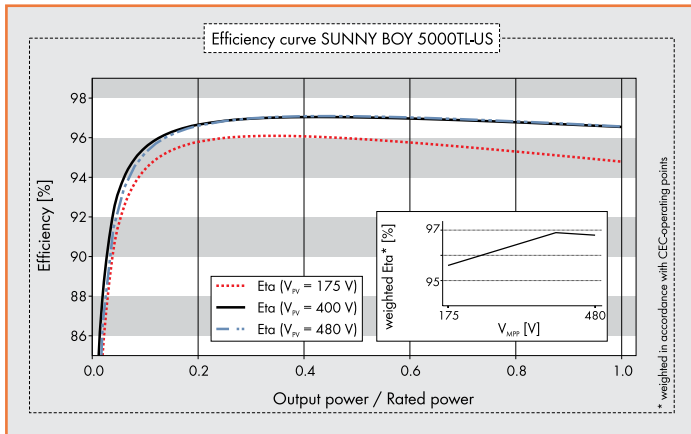




Setting new heights in residential inverter performance

The Sunny Boy 3000TL-US/4000TL-US/5000TL-US represents the next step in performance for UL® certified inverters. Its transformerless design means high efficiency and reduced weight. Maximum power production is derived from wide input voltage and operating temperature ranges. Multiple MPP trackers and OptiTrac™ Global Peak mitigate the effect of shade and allow for installation at challenging sites. The unique Secure Power Supply feature provides daytime power in the event of a grid outage. High performance, flexible design and innovative features make the Sunny Boy TL-US series the first choice among solar professionals.



CERTIFIED

- UL 1741 and 1699B compliant
- Integrated AFCI meets the requirements of NEC 2011 690.11

INNOVATIVE

- Secure Power Supply provides daytime power in case of grid outage

POWERFUL

- 97.2% maximum efficiency
- Wide input voltage range
- Shade management with OptiTracGlobal Peak MPP tracking

FLEXIBLE

- Two MPP trackers provide numerous design options
- Extended operating temperature range

SUNNY BOY 3000TL-US / 4000TL-US / 5000TL-US TECHNICAL DATA

	Sunny Boy 3000TL-US		Sunny Boy 4000TL-US		Sunny Boy 5000TL-US	
	208 V AC	240 V AC	208 V AC	240 V AC	208 V AC	240 V AC
Input (DC)						
Max. DC power (@ cos = 1)	3200 W		4200 W		5300 W	
Max. DC voltage	600 V		600 V		600 V	
MPP voltage range	175 – 480 V		175 – 480 V		175 – 480 V	
Min. DC voltage / start voltage	125 / 150 V		125 / 150 V		125 / 150 V	
Max. input current / per MPP tracker	18 A / 15 A		24 A / 15 A		30 A / 15 A	
Number of MPP trackers / strings per MPP tracker	2 / 2		2 / 2		2 / 2	
Output (AC)						
AC nominal power	3000 W		4000 W		4550 W 5000 W	
Max. AC apparent power	3000 VA		4000 VA		4550 VA 5000 VA	
Nominal AC voltage / adjustable	208 V / • 240 V / •		208 V / • 240 V / •		208 V / • 240 V / •	
AC voltage range	183 – 229 V 211 – 264 V		183 – 229 V 211 – 264 V		183 – 229 V 211 – 264 V	
AC grid frequency; range	60 Hz / 59.3 – 60.5 Hz		60 Hz / 59.3 – 60.5 Hz		60 Hz / 59.3 – 60.5 Hz	
Max. output current	15 A		20 A		22 A	
Power factor (cos)	1		1		1	
Output phases / line connections	1 / 2		1 / 2		1 / 2	
Harmonics	< 4%		< 4%		< 4%	
Efficiency						
Max. efficiency	96.8%	97.1%	96.8%	97.2%	96.8%	97.1%
CEC efficiency	96%	96.5%	96%	96.5%	96%	96.5%
Protection devices						
DC disconnection device	•		•		•	
DC reverse-polarity protection	•		•		•	
Ground fault monitoring / Grid monitoring	•/•		•/•		•/•	
AC short circuit protection	•		•		•	
All-pole sensitive residual current monitoring unit	•		•		•	
Arc fault circuit interrupter (AFCI) compliant to UL 1699B	•		•		•	
Protection class / Overvoltage category	I / IV		I / IV		I / IV	
General data						
Dimensions (W / H / D) in mm (in)	490 / 519 / 185 (19.3 / 20.5 / 7.3)		490 / 519 / 185 (19.3 / 20.5 / 7.3)		490 / 519 / 185 (19.3 / 20.5 / 7.3)	
DC Disconnect dimensions (W / H / D) in mm (in)	187 / 297 / 190 (7.4 / 11.7 / 7.5)		187 / 297 / 190 (7.4 / 11.7 / 7.5)		187 / 297 / 190 (7.4 / 11.7 / 7.5)	
Packing dimensions (W / H / D) in mm (in)	617 / 597 / 266 (24.3 / 23.5 / 10.5)		617 / 597 / 266 (24.3 / 23.5 / 10.5)		617 / 597 / 266 (24.3 / 23.5 / 10.5)	
DC Disconnect packing dimensions (W / H / D) in mm (in)	370 / 240 / 280 (14.6 / 9.4 / 11.0)		370 / 240 / 280 (14.6 / 9.4 / 11.0)		370 / 240 / 280 (14.6 / 9.4 / 11.0)	
Weight / DC Disconnect weight	24 kg (53 lb) / 3.5 kg (8 lb)		24 kg (53 lb) / 3.5 kg (8 lb)		24 kg (53 lb) / 3.5 kg (8 lb)	
Packing weight / DC Disconnect packing weight	27 kg (60 lb) / 3.5 kg (8 lb)		27 kg (60 lb) / 3.5 kg (8 lb)		27 kg (60 lb) / 3.5 kg (8 lb)	
Operating temperature range	-40 °C to +60 °C (-40 °F to +140 °F)		-40 °C to +60 °C (-40 °F to +140 °F)		-40 °C to +60 °C (-40 °F to +140 °F)	
Noise emission (typical)	≤ 25 dB(A)		< 25 dB(A)		< 29 dB(A)	
Internal consumption at night	< 1 W		< 1 W		< 1 W	
Topology	Transformerless		Transformerless		Transformerless	
Cooling concept	Convection		Convection		Convection	
Electronics protection rating	NEMA 3R		NEMA 3R		NEMA 3R	
Features						
Secure Power Supply	•		•		•	
Display: graphic	•		•		•	
Interfaces: RS485 / Webconnect	o/o		o/o		o/o	
Interface: ZigBee	o		o		o	
Warranty: 10 / 15 / 20 years	•/o/o		•/o/o		•/o/o	
Certificates and permits (more available on request)	UL 1741, UL 1998, UL 1699B, IEEE1547, FCC Part 15 (Class A & B), CAN/CSA C22.2 107.1-1		UL 1741, UL 1998, UL 1699B, IEEE1547, FCC Part 15 (Class A & B), CAN/CSA C22.2 107.1-1		UL 1741, UL 1998, UL 1699B, IEEE1547, FCC Part 15 (Class A & B), CAN/CSA C22.2 107.1-1	
Type designation	SB 3000TL-US-22		SB 4000TL-US-22		SB 5000TL-US-22	
NOTE: US inverters ship with gray lids						

Key To Symbols: • Standard Feature o Optional Feature – Not Available

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