



# SUNNY BOY 5000US / 6000US / 7000US

- > UL 1741/IEEE 1547 compliant
- > 10 yr. standard warranty
- > Highest CEC efficiency in its class
- > Integrated load-break rated AC and DC disconnect switch
- > Integrated fused series string combiner
- > Sealed electronics enclosure & Opticool
- > Comprehensive SMA communications and data collection options
- > Ideal for residential or commercial applications
- > Sunny Tower compatible



## SUNNY BOY 5000US / 6000US / 7000US

The best in their class

SMA is proud to introduce our new line of inverters updated with our latest technology and designed specifically to meet IEEE 1547 requirements. The Sunny Boy 6000US and Sunny Boy 7000US are also compatible with SMA's new Sunny Tower. Increased efficiency means better performance and shorter payback periods. All three models are field-configurable for positive ground systems making them more versatile than ever. With over 750,000 fielded units, Sunny Boy has become the benchmark for PV inverter performance and reliability throughout the world.



# Technical Data

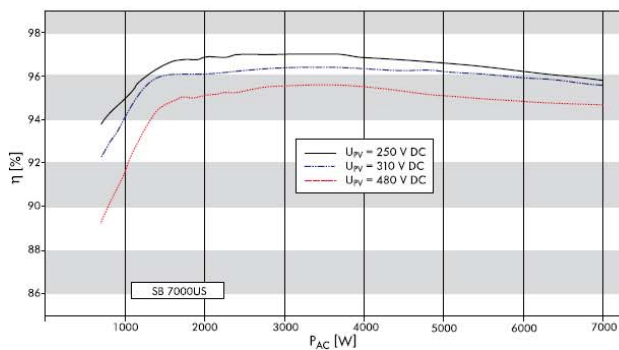
## SUNNY BOY 5000US / 6000US / 7000US

	SB 5000US	SB 6000US	SB 7000US
Max. Recommended Array Input Power (DC @ STC)	6250 W	7500 W	8750 W
Max. DC Voltage	600 V	600 V	600 V
Peak Power Tracking Voltage	250 - 480 V	250 - 480 V	250 - 480 V
DC Max. Input Current	21 A	25 A	30 A
DC Voltage Ripple	< 5%	< 5%	< 5%
Number of Fused String Inputs	4	4	4
PV Start Voltage	300 V	300 V	300 V
AC Nominal Power	5000 W	6000 W	7000 W
AC Maximum Output Power	5000 W	6000 W	7000 W
AC Maximum Output Current (@ 208, 240, 277 V)	24 A, 20.8 A, 18 A	29 A, 25 A, 21.6 A	34 A, 29 A, 25.3 A
AC Nominal Voltage / Range	183 - 229V@208 V 211 - 264V@240 V 244 - 305V@277 V	183 - 229V@208 V 211 - 264V@240 V 244 - 305V@277 V	183 - 229V@208 V 211 - 264V@240 V 244 - 305V@277 V
AC Frequency / Range	60Hz / 59.3 Hz - 60.5 Hz	60Hz / 59.3 Hz - 60.5 Hz	60Hz / 59.3 Hz - 60.5 Hz
Power Factor	1	1	1
Peak Inverter Efficiency	96.8 %	97.0 %	97.1 %
CEC weighted Efficiency	95.5 % @ 208 V 95.5 % @ 240 V 95.5 % @ 277 V	95.5 % @ 208 V 95.5 % @ 240 V 96.0 % @ 277 V	95.5 % @ 208 V 96.0 % @ 240 V 96.0 % @ 277 V
Dimensions W x H x D in inches	18.4 x 24.1 x 9.5	18.4 x 24.1 x 9.5	18.4 x 24.1 x 9.5
Weight / Shipping Weight	143 lbs / 154 lbs	143 lbs / 154 lbs	143 lbs / 154 lbs
Ambient temperature range	-13 to +113 °F	-13 to +113 °F	-13 to +113 °F
Power Consumption: standby / nighttime	< 7 W / 0.25 W	< 7 W / 0.25 W	< 7 W / 0.25 W
Topology	PWM, true sinewave, current source	PWM, true sinewave, current source	PWM, true sinewave, current source
Cooling Concept	Convection with regulated fan cooling	Convection with regulated fan cooling	Convection with regulated fan cooling
Mounting Location Indoor / Outdoor (NEMA 3R)	●/●	●/●	●/●
LCD Display	●	●	●
Lid Color: aluminum / red / blue / yellow	●/○/○/○	●/○/○/○	●/○/○/○
Communication: RS485 / Wireless	○/○	○/○	○/○
Warranty: 10-year	●	●	●
Compliance: IEEE-929, IEEE-1547, UL 1741, UL 1998, FCC Part 15 A & B	●	●	●

Specifications for nominal conditions

● Included ○ Option – Not available

### Efficiency Curves



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