

- > Certified to the new UL 1741/IEEE 1547
- > 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
- > 5 year standard warranty with optional 10 year plan
- > Ideal for residential or commercial applications
- > Sunny Tower compatible



## Sunny Boy 5000 / 6000 / 7000

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 the new IEEE 1547 requirements. The SB6000U and SB7000U 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 500,000 fielded units, Sunny Boy has become the benchmark for PV inverter performance and reliability throughout the world.

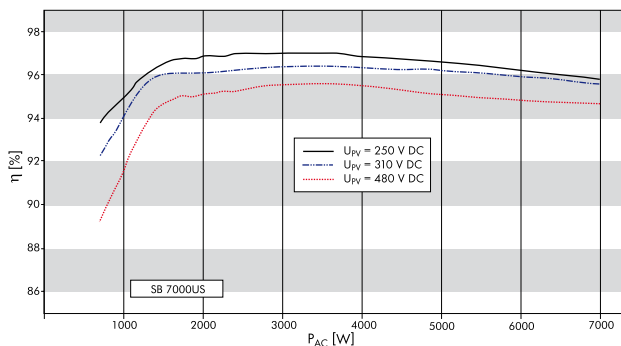


# Technical Data

## Sunny Boy 5000 / 6000 / 7000

|  | SB 5000US   | SB 6000US   | SB 7000US   |
|--|---|---|---|
| <b>Input Data (DC)</b>   |   |   |   |
| Recommended Array Input Power (DC @ STC)                             | 5300 W  | 6400 W  | 7500 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 (adjustable)  | 300 V   | 300 V   | 300 V   |
| <b>Output Data (AC)</b>  |   |   |   |
| AC Nominal Power   | 5000 W  | 6000 W  | 7000 W  |
| AC Maximum Output Power  | 5000 W  | 6000 W  | 7000 W  |
| AC Maximum Output Current  | 24 A  | 29 A  | 34 A  |
| AC Nominal Voltage / Range   | 183 - 229 V @ 208 VAC<br>211 - 264 V @ 240 VAC<br>244 - 305 V @ 277 VAC | 183 - 229 V @ 208 VAC<br>211 - 264 V @ 240 VAC<br>244 - 305 V @ 277 VAC | 183 - 229 V @ 208 VAC<br>211 - 264 V @ 240 VAC<br>244 - 305 V @ 277 VAC |
| AC Frequency / Range   | 60 Hz / 59.3 Hz - 60.5 Hz   | 60 Hz / 59.3 Hz - 60.5 Hz   | 60 Hz / 59.3 Hz - 60.5 Hz   |
| Power Factor   | 1   | 1   | 1   |
| <b>Efficiency</b>  |   |   |   |
| Peak Inverter Efficiency   | 96.8 %  | 97.0 %  | 97.1 %  |
| CEC weighted Efficiency  | 95.5 % @ 208 VAC<br>95.5 % @ 240 VAC<br>95.5 % @ 277 VAC                | 95.5 % @ 208 VAC<br>95.5 % @ 240 VAC<br>96.0 % @ 277 VAC                | 95.5 % @ 208 VAC<br>96.0 % @ 240 VAC<br>96.0 % @ 277 VAC                |
| <b>Mechanical Data</b>   |   |   |   |
| 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)                         | ●/●   | ●/●   | ●/●   |
| <b>Features</b>  |   |   |   |
| LCD Display  | ●   | ●   | ●   |
| Lid Color: aluminium / red / blue / yellow                           | ●/○/○/○   | ●/○/○/○   | ●/○/○/○   |
| Communication: RS485 / Wireless                                      | ○/○   | ○/○   | ○/○   |
| Warranty: 5-year / 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



### Accessories

