



WIND POWER INVERTERS





Technical Data

- Certified to the new UL 1741 / IEEE 1547
- 5-year limited warranty standard
- CEC efficiency of up to 96 %
- Sealed electronics enclosure and OptiCool
- Comprehensive SMA communications and data collection options
- Rugged cast aluminum outdoor rated enclosure

| | Windy Boy 5000US | Windy Boy 6000US | Windy Boy 7000US |
|--|---|---|---|
| Input Data (DC) | | | |
| Max. Recommended DC Input Power | 5300 W | 6350 W | 7450 W |
| Max. DC Voltage | 600 V | 600 V | 600 V |
| Peak Power Tracking Voltage | 250 - 600 V | 250 - 600 V | 250 - 600 V |
| DC Max. Input Current | 21 A | 25 A | 30 A |
| DC Voltage Ripple | < 10% | < 10% | < 10% |
| Number of Fused String Inputs | 4 | 4 | 4 |
| DC Start Voltage (adjustable) | 300 V | 300 V | 300 V |
| Output Data (AC) | | | |
| AC Nominal Power | 5000 W | 6000 W | 7000 W |
| AC Maximum Output Power | 5100 W | 6100 W | 7100 W |
| AC Maximum Output Current (@ 208, 240, 277 V) | 33.3 A, 28.5 A, 25.0 A | 33.3 A, 28.5 A, 25.0 A | 34.0 A, 34.0 A, 32.0 A |
| AC Nominal Voltage / Range | 183 - 229 V @ 208 V 211 - 264 V @ 240 V 244 - 305 V @ 277 V | 183 - 229 V @ 208 V 211 - 264 V @ 240 V 244 - 305 V @ 277 V | 183 - 229 V @ 208 V 211 - 264 V @ 240 V 244 - 305 V @ 277 V |
| AC Frequency / Range | 60 Hz / 59.3 - 60.5 Hz | 60 Hz / 59.3 - 60.5 Hz | 60 Hz / 59.3 - 60.5 Hz |
| Power Factor | 1 | 1 | 1 |
| Efficiency | | | |
| Peak Inverter Efficiency | 96.8 % | 97 % | 97.1 % |
| CEC Weighted Efficiency (208/240/277 V) | 95.5 %/96.0 %/96.0 % | 95.5 %/96.0 %/96.0 % | 95.5 %/96.0 %/96.0 % |
| Mechanical Data | | | |
| 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 | 141 lbs / 148 lbs | 141 lbs / 148 lbs | 141 lbs / 148 lbs |
| Ambient Temperature Range | -13 to +113 °F | -13 to +113 °F | -13 to +113 °F |
| Power Consumption (standby) | < 7 W (0.1 W) | < 7 W (0.1 W) | < 7 W (0.1 W) |
| Topology | PWM, true sine wave, current source | PWM, true sine wave, current source | PWM, true sine wave, current source |
| Cooling Concept | Convection, regulated fan cooling | Convection, regulated fan cooling | Convection, regulated fan cooling |
| Mounting Location In-/Outdoor (NEMA 3R) | ●/● | ●/● | ●/● |
| Features | | | |
| LCD Display | ● | ● | ● |
| Lid Color: red / aluminum | ●/○ | ●/○ | ●/○ |
| 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

○ Optional

WINDY BOY 5000US / 6000US / 7000US

SMA's larger Windy Boy inverters combine the advanced technology present in our new US series of Sunny Boy inverters with special firmware that permits direct grid-tied operation with a broad range of wind turbines – without batteries. This greatly reduces the overall system cost because components such as the charge controller, batteries and associated switch gear can be eliminated. Increased total energy capture combined with a reduction of balance of system components greatly reduces the installation and operating costs of a grid-tied wind system. We recommend contacting

your local wind turbine supplier for information on compatible wind turbine models and system design considerations.

