

Sunny Boy 1800U



The leading grid-tied photovoltaic inverters in Europe and America

UL 1741 Listed for grid interactive inverters

5-year comprehensive warranty standard

Rugged NEMA 4X stainless steel enclosure standard

Exceptional reliability and energy capture ratio

Easy to install three-point mounting system

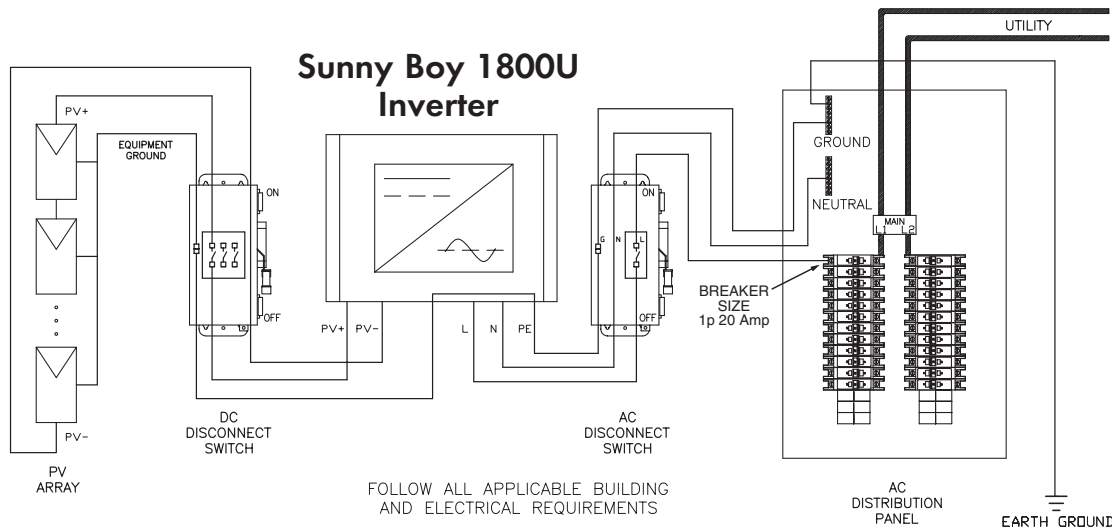
Comprehensive communications and data collection options

SMA's modular string inverter design is expandable to virtually any size system



The SMA Sunny Boy inverter, the most popular grid-tied photovoltaic inverter in Europe, is now UL 1741 Listed and available in North America. Sunny Boy's extensive track record in some of the world's most demanding markets has made it a favorite among PV professionals everywhere. Over 250,000 Sunny Boy inverters have been installed worldwide. Superior design, rock-solid German engineering and exceptional real-world efficiency have made Sunny Boy the top choice for American solar designers.





Sunny Boy's unsurpassed reliability and efficiency are the result of SMA's manufacturing philosophy that combines simple design with robust execution. SMA's state-of-the-art maximum power point tracking performance results in greater real-world energy capture than any other grid-tied inverter. Sunny Boy's safety and reliability record is also exceptional due, in part, to the inverter's redundant grid monitoring and built-in ground fault detection and interruption protection. The inverter's IGBT power stage generates a nearly perfect sine wave with the lowest harmonic distortion in the industry and meets ultra-strict FCC EMC standards. SMA's unique String Inverter technology makes future system expansion simple. SMA advanced communication options are available to satisfy almost any application.

Specifications

| | | | |
|-----------------------------|--|------------|---|
| Inverter Technology | Real sine-wave, current source, high frequency PWM | Enclosure | NEMA 4X (IP65) Stainless Steel |
| AC Input Voltage | 106 - 132 (120V AC) | Dimensions | 17.10W x 11.60H x 8.40D in 434W x 295H x 214D mm |
| AC Input Frequency | 59.3 - 60.5 (60Hz) (50Hz also available) | Weight | 59.4 lbs (27 kg) |
| DC Input Voltage | 156 - 400V DC | Compliance | United States UL 1741, E210376, UL 1998, IEEE 519, IEEE 929, ANSI C62.41 C1 & C3, FCC part 15 A & B International DIN EN50082 Part 1, 61000-32, 50081, 50014, 600055 Part 2 55011 Group 1 Class B, 50178, 60146 Part 1-1 |
| Peak Power Tracking Voltage | 156 - 350V DC | | |
| Minimum DC Input Voltage | 139 - 170V DC | | |
| Maximum Array Input Power | 2200W (DC @ STC) | | |
| Maximum AC Power Output | 1800W | | |
| Current THD | < 4% | | |
| Power Factor | Unity | | |
| Peak Inverter Efficiency | 93.6% | | |
| Cooling | * Convection cooling (no fan) | | |
| PV Start Voltage | 180V DC | | |
| Maximum AC Output Current | 15.0A | | |
| Maximum DC Input Current | 12.0A | | |
| DC Voltage Ripple | < 5% | | |
| Power Consumption | 0.25W nighttime, < 7W standby | | |
| Ambient Temperature Rating | 45°C | | |

Distributed by:

* Optional external fan (Sunny Breeze) available

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Energy Tomorrow

