

# Sunny Boy 6000U



*The leading grid-tied photovoltaic inverters in Europe and America*



Exceptional reliability,  
efficiency and energy  
capture ratio

5-year comprehensive  
warranty

Rugged stainless steel  
outdoor enclosure standard

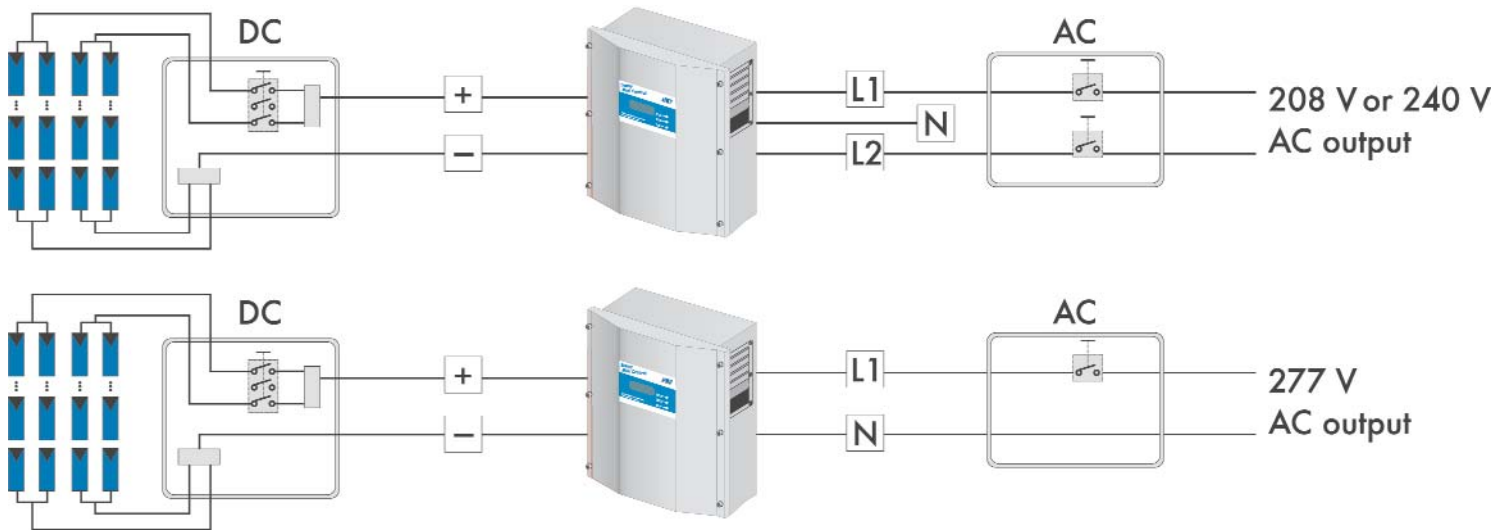
Easy to install wall  
mount bracket system

Comprehensive SMA  
communications and  
data collection options

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

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





The SB6000U is SMA's latest addition to the Sunny Boy family of utility interactive inverters. The SB6000U is designed for use with PV, fuel cell, wind-turbine, hydro-turbine and micro-turbine technologies. The SB6000U follows SMA's modular system design philosophy for utility, commercial and residential PV installations from 6kW and up. Automatic sensing of the site utility voltage makes installation on almost any utility system trouble-free. Just wire the inverter into any 208, 277 or 240 VAC system, make one internal jumper setting and the SB6000U does the rest. The wide DC input voltage range allows connection to almost any type or model of PV module. Our proven peak-power-point tracker results in maximum energy capture. The SB6000U uses the same SMA communication accessories as every other inverter in the Sunny Boy family. Choose the system package that best suits your needs. SMA offers a variety of hardware and software solutions from low cost wireless monitoring, to complex data acquisition systems that integrate large numbers of inverters with external sensors to networked PC's and the internet.

## Specifications

Inverter Technology	PWM true sine-wave, current source	Power Factor	Fixed, unity
AC Input Voltage	Automatic sensing 277 VAC Nominal (244-305 VAC) 240 VAC Nominal (211-264 VAC) 208 VAC Nominal (183-229 VAC)	Peak Inverter Efficiency	> 95%
AC Input Frequency	59.3-60.5 (60Hz)	Cooling	Temperature regulated fan cooling
AC Maximum Output Power	6000W (at 277 or 240 VAC) 5200W (at 208 VAC)	Power Consumption	0.1W nighttime 7W standby
AC Maximum Output Current	25A	Ambient Temperature Rating	-25° to +45° C
DC Input Voltage	234-600 VDC	Enclosure	NEMA 3R
DC Minimum Input Voltage	207-256 VDC (dependent on AC line voltage)	Dimensions	19.7 W x 17.7 H x 9.8 D (in) 500 W x 450 H x 250 D (mm)
DC Voltage Ripple	Less than 5%	Weight	137 lbs 62 kg
DC Maximum Current	25A	Compliance	Meets requirements of IEEE-519, IEEE-929, IEEE-1547 UL 1741
Peak Power Tracking Voltage	250-480 VDC		
PV Start Voltage (adjustable)	300 VDC (277 or 240 VAC) 270 VDC (208 VAC)		
Maximum Recommended PV Power	7500W (STC)		
Current THD	Less than 4%		

Available From:

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**Solar Today...  
Energy Tomorrow**

