



# PRELIMINARY SUNNY BOY 240-US

SB 240-US-10



## Durable

- -40 to +149 °F operating range
- Superior thermal design concept
- Extensive lab and field testing

## Flexible

- Ideal for Sunny Boy hybrid string/micro installations
- AC connector: turnkey cables, including plugs
- DC connector: MC4, MC3, Tyco, SUNCLIX™

## Secure

- Simplified design enhances long-term reliability
- SMA stability ensures full warranty security
- Private band powerline for highly reliable communications

## Informative

- Module-level, real-time monitoring through Sunny Portal, the world's largest PV monitoring platform
- Remote monitoring via the Internet or iPhone and Android apps

## SUNNY BOY 240-US

Dream big. Start small.

SMA's Sunny Boy micro inverter system enhances design flexibility for installers in the U.S. and across the globe. It features simple installation, an innovative communications platform and superior reliability, and is especially applicable for residential systems and systems with complex shadowing situations. Among the Sunny Boy micro inverter system's ground-breaking innovations is its ability to monitor via the Sunny Portal with the existing Sunny Boy inverter line, making string/micro hybrid installations a reality. Hybrid installations have the potential to minimize installation costs while maximizing energy harvest.



## SUNNY MULTIGATE-US

THE INTELLIGENT LINK BETWEEN MICRO INVERTER  
AND POWER DISTRIBUTION GRID

The SMA Sunny Multigate-US is an integral component to the Sunny Boy micro inverter system, providing a clear, distortion-free communication solution for micro and micro/string hybrid PV installations. It provides an electrical interface to the main service panel, networking support for panel-level monitoring and diagnostics, country settings and overvoltage protection. The Sunny Multigate supports DIN rail or wall mounting, and is designed for maximum AC ratings of 16 A/3.68 kW.



# EASY, FLEXIBLE, RELIABLE

## THE NEW MICRO INVERTER SYSTEM FROM SMA

SMA's new micro inverter system is the perfect solution for many residential systems. Large-scale PV plant design experience is not required to install the Sunny Boy 240-US micro inverter and Sunny Multigate. Other advantages include increased energy production due to module-specific MPP tracking and the ability to add on to a system incrementally.

### The perfect complement to the string concept

In addition to these advantages, installers and plant operators profit from the following bonus: At SMA, the micro inverter and the well-known string concept can be seamlessly combined and monitored all under one platform: Sunny Portal. By utilizing this approach, existing PV plants can be expanded by the addition of a single module or several strings. This applies not only for modules in "inconvenient" places around chimneys or partially-shaded areas, but also for maximizing total roof space including roofs with multiple orientations or balconies, for example.

In short, the micro inverter concept is deployable as an individual solution, or in combination with the common string approach, providing installers with optimum choice.

### Safe, easy installation

Large-scale PV system design knowledge is not required to install the new Sunny Boy 240-US micro inverter. Micro inverters utilize AC electricity and only low-voltage DC electricity, making this technology a great learning tool for electricians expanding their skill set into photovoltaics. For those who want a more refined approach, SMA's free Sunny Design software makes system design simple and allows installers to outline complex systems in minutes.

### High reliability due to simplified design

The simplified design of the Sunny Boy 240-US enhances long-term reliability which reduces service calls and inverter replacements, both of which have challenged currently available micro inverters. High efficiency and a unique thermal design concept keep the system running smoothly even under the harsh conditions found on a roof top. And, while superior engineering results in enhanced durability, so too does highly proficient manufacturing process, both factors SMA has relied on to develop its reputation for quality.

### Module-level monitoring via Sunny Portal

The Sunny Boy 240-US micro inverter system, whether utilized as a stand-alone solution or in conjunction with a string inverter, can be analyzed via the world's largest PV monitoring database. From anywhere in the world with an Internet connection, owners will have real-time data at their fingertips, which enables pinpoint control and fast error detection. Module-level monitoring also provides a granular look at systems performance and swift correction should there be an issue with an individual panel.



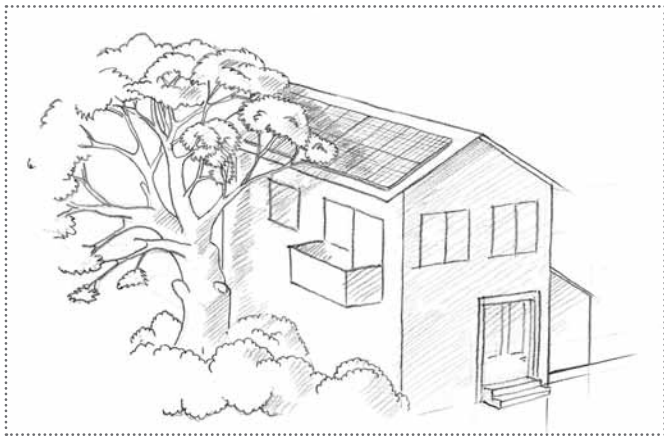
## Maximum flexibility and simplicity

The Sunny Boy 240-US offers a new dimension in flexibility. While other micro inverters require use of their proprietary cabling system, the Sunny Boy 240-US will feature a variety of DC plug-in options including MC3, MC4, Tyco and SUNCLIX. Additionally, AC wiring is a snap thanks to pre-assembled plugs and connection cables. This turnkey approach to micro inverter installation is designed to support installers with maximum flexibility, simplicity and superior SMA technology.

## Perfect for complex roofs

The Sunny Boy 240-US is the inverter of choice for complex roofing situations including shaded roofs and roofs with multiple orientations. The inverter also minimizes losses due to shaded or soiled modules. By utilizing the Sunny Boy 240-US micro inverter system, installers can more easily and effectively use all available roof space for electricity production. Places that receive partial shading or were not large enough for multiple modules can now be seamlessly incorporated into the overall system.

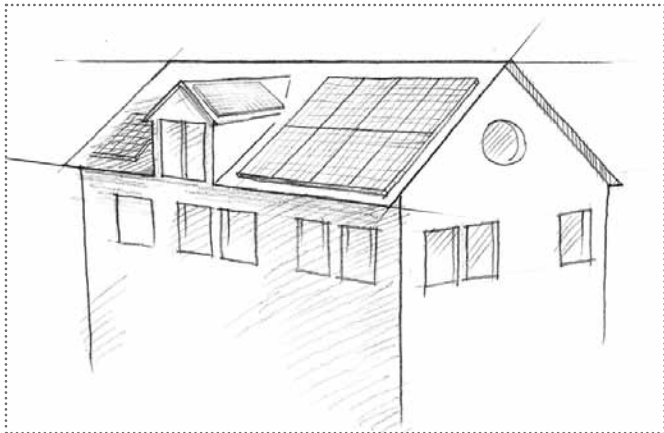
## Common applications with real advantages



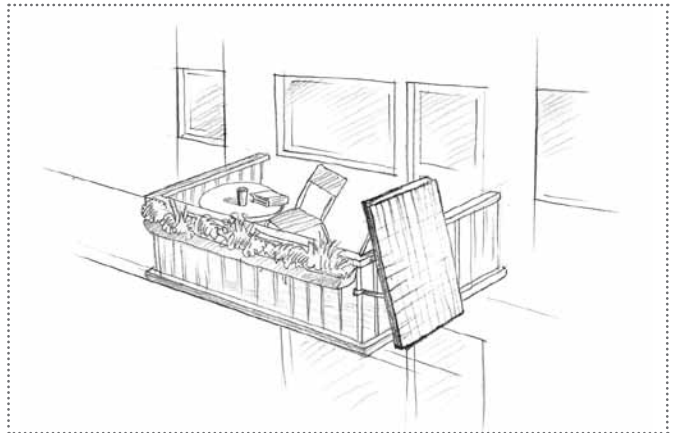
*Partial shading: One MPP tracker per module ensures optimal energy production, even with dynamic shading.*



*Multiple orientations, no problem: Installers can now use roof space on multiple sides of a home (for example, south/west or east/west) to generate power.*



*Optimal use of roof surface: Complex roof configurations can be used to generate electric current with micro inverters without impacting the rest of the system.*



*Small systems: Whether on the balcony or in the garden, even the smallest PV system can use the Sunny Boy 240-US and still retain the ability to add on later.*



